



DIRT TRUCK.

'79 DATSUN STRRRETCH BED. How does the guy who rides the Baja get to the Baja? In a Datsun—toughest rig either side of Ensenada. The Strrretch bed has a rugged all-steel bed, nearly 7 1/2 feet long, a double-walled tailgate with hidden support chains and 13 tie down hooks. You can haul two dirt bikes and gear with room to spare. In fact, the powerful 2-liter overhead cam engine can haul more than some larger rigs—1400 lbs. of passengers and cargo. Since you take enough lumps on your bike, we took some of the lumps out of the truck, with road-leveling ball joints, torsion bars and rear leaf springs. And you don't pay a penny extra for 4-speed stick, power-assist front disc brakes and white sidewall tires. You're tough on a truck, but we're even tougher. We test every Datsun ten ways. We make sure the quality is built in. That's because these trucks are built by the world-wide Nissan Motor Company, Ltd.—whose name stands for quality. See the new Datsun trucks at your Datsun dealer now. Every one is built to work hard and play hard. But their main job is to last.



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ON REGULAR GAS*

NOBODY DEMANDS MORE DATSUN WE ARE DRIVEN

IND 34355
HONG KONG LIVES!
 Page 24

SUZUKI RM125: "WORKS" RACER

DIRT BIKE

JUNE 1979 • \$1.25 UK60p

PHANTOM DUCK UPDATE
IT400: BIG BLUE

ICE RACING
FROZEN BUNS & WICKED SPIKES



CAN-AM'S QUICK 250 QUALIFIER



THERE'S MORE TO DUNLOP THAN MEETS THE EYE.

There's Dunlop K190, K88, and K88HT... three championship knobbies... each engineered with a tread design and compound to conquer specific types of terrain.

For fast getaways and control on straightaways, turns and jumps, you need tires with deep biting edges and sure grip... no matter what the riding conditions or terrain.

Dunlop - whose tires powered motorcycles to more firsts, seconds, and thirds than any other tire brand in the 1978 Nationals (125, 250 and 500CC), CMC Golden State Series, Supercross Series, Trans-A.M.A. and U.S. Grand Prix Events - has designed not one, but three Motocross and Enduro tires.

K190: The all-purpose tire

The key to the K190's all-around performance is a unique tread design that features small, rectangular "dimples" molded into each tread block. This gives you eight biting edges on every knob instead of four, providing traction in sand, mud or "blue groove."

the knobs have been offset. This alignment, pioneered by Dunlop, allows each knob to dig into the terrain following a slightly different line than the one preceding it. This, combined with a harder compound, puts more traction edges in contact with the earth per tire revolution. And, the knobs are spaced to clear mud and loose ground from the tread.

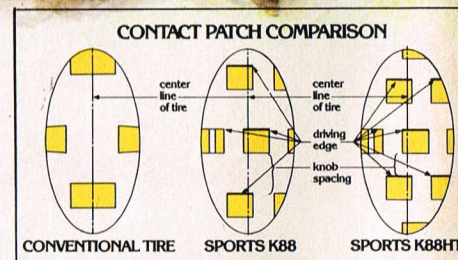
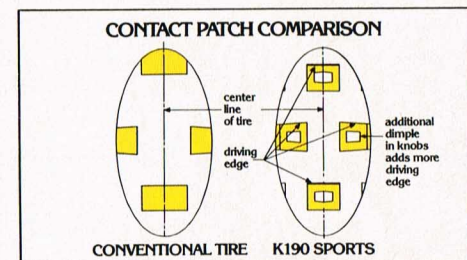
K88HT: Specially designed for hard terrain. For "blue groove" surfaces, you need even more rubber in contact with the ground than for medium-to-soft conditions. The Dunlop K88HT is your tire.

Featuring a wider profile, the K88HT also uses an offset knob arrangement. However, the knobs are placed much closer together than those in the K88, to give even more contact needed for hard terrain. And the compound is softer than the K88. This combination results in more driving edges and rubber-to-ground contact necessary for the unyielding conditions of hard terrain.

K88: The ultimate soft terrain tire.

As with other Dunlop motorcycle tires, the success of K88, particularly in competitions where soft conditions prevail, can be attributed to its design.

While there are five knobs in each row, as in a traditional tread pattern,



The shoulder knobs were strengthened by adding more rubber, to help prevent knob rollover when cornering on "blue groove".

The Dunlop K190, K88 and K88HT - three first-class knobbies - proven winners in Motocross and Enduro events around the world. One of them is your ticket to winning.

DUNLOP

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Jim O'Neal approaches exit velocity on the IT400.
Sieman photo.

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Typography
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PUBLISHER'S LAB
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PUBLISHING CO., INC.

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ADVERTISING OFFICES

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Advertising Coordinator
16200 Ventura Blvd.
Encino, CA 91436
(213) 981-2317
SAM MESSITER
Eastern Advertising Manager
1270 Avenue of the Americas
Suite 605
New York, NY 10020
(212) 265-0617
(212) 265-0300
(203) 322-2310

Midwest
307 North Michigan Avenue
Suite 1008
Chicago, IL 60601
(312) 236-0791
(312) 236-0792

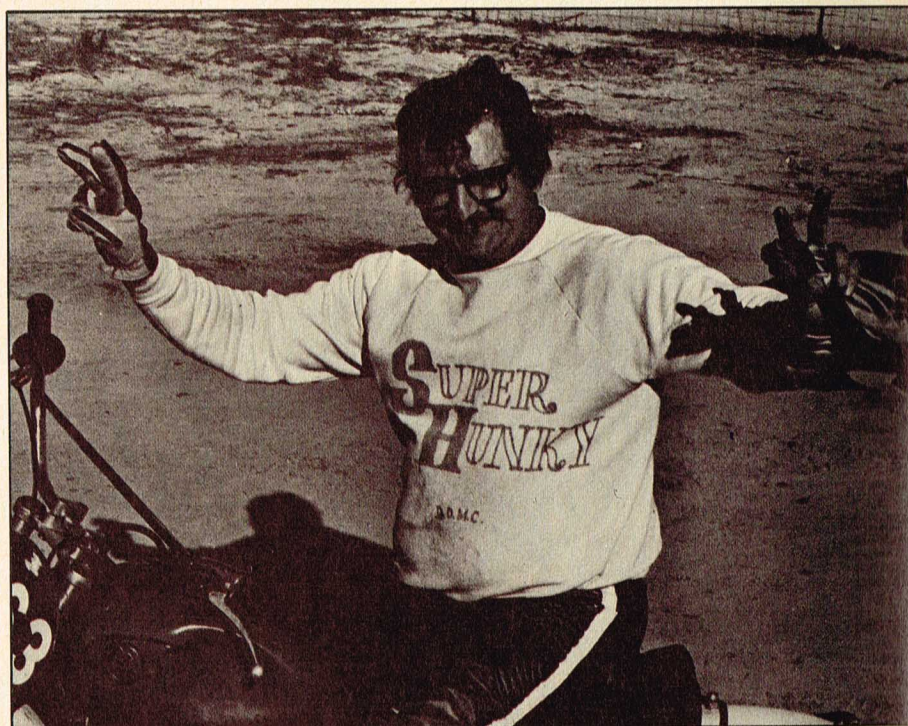
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From The Saddle

Super lawyer rides again!

By Rick Sieman



Now that I've been spending so much time in the courtroom with all the land use hassle, it's beginning to work on my mind. I'm starting to think like a lawyer. . . and even talk like one. Why, just the other night, I dreamed that I was in Federal Court with the BLM and I was the lawyer. It went like this:

"Mr. Sieman, please call your first witness," said the honorable judge.

"Thank you, your honor. For my first witness, I'd like to call the BLM Ranger, Brian Booring. Mr. Booring, will you please take the stand?"

The bailiff intoned, "Will you please raise your right hand and swear to tell the truth, the whole truth and nothing but the truth?"

"Of course not," snapped the steely-eyed Ranger. "Do you think I want to get fired or something?"

"Sorry," mumbled the bailiff, "guess I lost my head for a moment."

I got up from the massive mahogany table, shuffled a stack of papers expertly, coughed a few times for effect, cleared my throat and began: "Mr. Booring. You claimed in your affidavit that the bikers were destroying the desert. Is that not

correct? A simple yes or no will suffice."

"Yes."

"Well, then, it's obvious that you, sir, are not much smarter than a puckerbush. I'm going to give you a basic quiz on desert savvy and know-how, just to see if you are even remotely competent to make a judgment about anything relating to the desert. Ready?"

"Fire away, Mr. Super Hunky. I've been to several universities and schools and I know a whole lot about our fragile desert." He leaned back smugly and folded his arms over his alleged chest. A nervous smile creased his acne-riddled face. He knew he was up against a DIRT BIKE staffer.

"Mr. Booring, do you know what a whoop-de-doo is?"

"Say what?"

"A whoop-de-doo, sir. Sometimes known as whoopees. Come, come, sir. The bench is waiting for your answer."

"I . . . I . . . uh, that is, well. . . I don't know," stammered the Ranger.

"You don't know. You *actually* don't know. Well, well, well. And you

(Continued on page 7)

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HONDA
GOING STRONG!

Owensmouth

Swat tactics
By Ned Owens

Oh, it was horrible!

There they were, right there on the screen, clubbing the poor defenseless little creatures. They'd just haul off and smash them. It was really gruesome.

First the "hunters" would stalk them, line up a shot, and then with a swift smack, end their pitiful little lives. The poor little devils would cry out, but it was almost impossible to hear them. Their big eyes would just look up with helplessness. At the last second they would try to flee, but their predators were too large and would overtake them easily. Occasionally, one would escape — but it was rare.

Usually, the killers would holler, "Got 'em!" or, "There's another!" and go after it with a vengeance. Some would even catch them with their bare hands, and crush them with a clap.

I'd seen this sort of wholesale slaughter for years, but it really never did sink in. Not until I saw this grisly demonstration. Sure, hundreds of thousands are killed each year — millions perhaps. Many are done in with chemicals. A wide array of sprays are awesome killers, but there is even a solidified chemical that draws them close and snuffs their little lights.

Traps are not as common as the chemicals, but they do exist, and they are deadly. All of us are responsible for the slaughter of these tiny creatures. Everyone takes the blame.

That's why I can't just stand by and watch the carnage anymore. I mean, they don't use the pelts, or kill them for food, or anything. They're just killed. Enough of this!

I feel that I must point out this injustice, and bring it up before the populace. We must take action!

SAVE THE BABY FLIES!

I don't really know why anyone hasn't already started a crusade to save these little babies. Obviously the unwarranted massacre is there. They do have little furry-like bodies and big eyes — lots of them. They should be perfect to evoke sympathy and massive amounts of contributions — tax-deductible, of course.

Why isn't there already a crusade? I can't answer that, but I feel that I must spearhead the operation. My plan is multi-faceted.

First, we'll organize a non-profit organization, to help bring in all those bucks. And we'll think of a name.



Perhaps "FLYPEACE," or "GREENSPECK." Maybe "WINGED VICTORY."

Secondly, we must bring this to the attention of all of the people. We must get some TV and FM radio air time, and go on speaking tours. We'll hire a crack photographer to take cuddly, sympathetic photos for big posters, a mail-order campaign and ads in all of the "aware" publications. Bumper stickers on all cars and trucks. T-shirts. The works.

The next phase is to start a massive boycott of the fly killers and their products. Boycott Black Flag! Boycott Shell No-Pest Strips! Don't buy fly swatters or screen doors. Feed your turtle fly-free pet food! Use rolled-up newspapers for good, not evil!

Demonstrations always bring out the TV cameras. We'll march in front of each of the state capitols. We'll carry placards and take 100-mile treks. Whenever we can't get attention, we'll take a hike.

Phase Five will mean lobbying in Washington and leaning on the Forest Service and the BLM. We'll push to have fly preserves set aside. Cattle feed lots will be havens where those who

want to enjoy flies in their natural, protected environment can go and spend a day. . . have a picnic. Of course, this will mean that most farms and ranches will have to be shut down. We can't have humans mucking about.

No car traffic on these preserves, either. Especially no motorcycles. Damage to the fly species caused by noise and by being run over (cowtrailing is a favorite pastime of dirt bikers) has not yet been determined, but we feel that they could very easily become endangered — unless we put a stop to motorcycle riding. Sorry, but it has to be.

We'll have to make it a crime to run over a cow pie, or any other natural environment or home of the fly. Nesting areas and breeding grounds will have to be carefully monitored to see that no bikes are allowed to ride through these sensitive impact areas.

A full-scale, government-funded study of motorcycle noise and its no-doubt harmful effects on the species will be begun in earnest. We can also point up the ways that flies benefit mankind. For instance, how they swarm around dog doo on the sidewalks, alerting pedestrians to the hazard.

The national speed limit will have to be lowered — too many flies are dying on the grilles and goggles of America's drivers and riders.

But if we can't get these killers to stop slaughtering the defenseless flies, we'll initiate another bold plan. We'll spray the baby flies with a dye to keep the killers from using them for coats or stoles. Some of the flies will die from the spray, and it'll be easier to spot them, but more will live in the long run.

The fly only has a lifespan of about 20 days. After a week they're teenagers. Live and let live, I've always said. It's a short enough life without the unwarranted murder.

So it looks like I'm going to have to hang up my boots and leathers — this crusade is going to take up all my free time. I'm pleading with you to join me in saving the baby flies.

Please send your contributions — dig deep — to "SAVE THE BABY FLIES AND DIRT BIKE EDITORS BEER FUND" c/o this magazine. We're sure that we can put the money to the best use.

SAVE THE BABY FLIES! ☐

FROM THE SADDLE

(Continued from page 4)

call yourself a Ranger, sir. You bill yourself as a self-styled expert on the desert and you don't even know what a whoop-de-doo is? Your honor, pardon me while I throw up. There. I feel much better now. I thank the bench for its indulgence.

"Now, back to you, Ranger Booring. When kickstarting a Husky, should you light it off in neutral, or is it a primary kickstarting machine?"

"Why, uh. . . that is, I mean. . . uhhh, er. . ."

"Just as I thought. You don't know that a Husky must be started in neutral! Astounding!!! Amazing! Alarming! And you call yourself an expert on the desert? Hah! Sir, you test the patience of this court.

"One more question, Mr. Booring, then I'll let you slink back to your chair. What is the difference between an enduro and a Hare and Hound? Quickly now?"

"Er, uh, I mean. . . that is, duh, I, I, but. . ."

"Hah! Just as we thought! Mr. Booring, please leave the witness stand. Quite frankly, you nauseate me, sir.

"Your honor, may I call the next witness, puh-leeze?"

"Certainly, counsel. By the way, everybody knows the difference between an enduro and a Hare and Hound. Jeez, that Ranger is a real dip. Proceed."

"For my next witness, yr' honor, I'd like to call the Propaganda Minister of the BLM, Mr. Ben Dover. Mr. Dover, would you please take the stand?"

"Why should I? I couldn't get over ten bucks for the thing at a swap meet. It's hardly worth the effort."

"Yr' honor," I pleaded, "can we get this bozo up to the stand?"

"All right, jerkwater. Get your buns up to the stand," ordered the judge.

"Mr. Dover, in your capacity as head of the Propaganda Department of the BLM, what exactly are your duties?"

"Basically, I take facts and figures and distort them to put off-road vehicle users in a bad light. Lemme tell you, this job is no picnic."

"Mr. Dover, is it true that you include bulldozers, tanks and earthmovers in the off-road vehicle category?"

"Sure. Those suckers can't roll down the San Diego Freeway, now can they?"

"True, but in your affidavit, you claim that off-road vehicles caused the upheaval of 2.6 billion tons of desert land. Just how much of this was caused by bikers?"

"Nearly 40 square yards. And all of it in very sensitive areas."

(Continued on page 13)

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Last Over

Wet weather friend
By Paul Clipper

"All right, ready? NOW!"

We both pushed up on the Cooper's handlebars and managed to move the front wheel about six inches before my foot slipped in the mud. My chin hit the grip just before I fell sideways in the slime. Naturally, without me on the other side, Supe pushed the bike over on me and then fell across it, completing what is referred to fondly as a New Jersey Sandwich — a combination of two guys, one bike, and plenty of NJ swamp. Not to mention a generous helping of frayed nerves.

"Dammit Supe, if you'd clean that mag out now and then, we'd spend a lot more time riding instead of wallowing!"

"Yeah, well, you know, I can't stand the smell."

"Is this any better?" I asked, in the most patronizing voice I could muster, indicating the reeking swamp with a flourish. "This ain't necessarily a rose garden!" My grammar was suffering along with my humor.

"Yeah, a lot of thorns, just thorns."

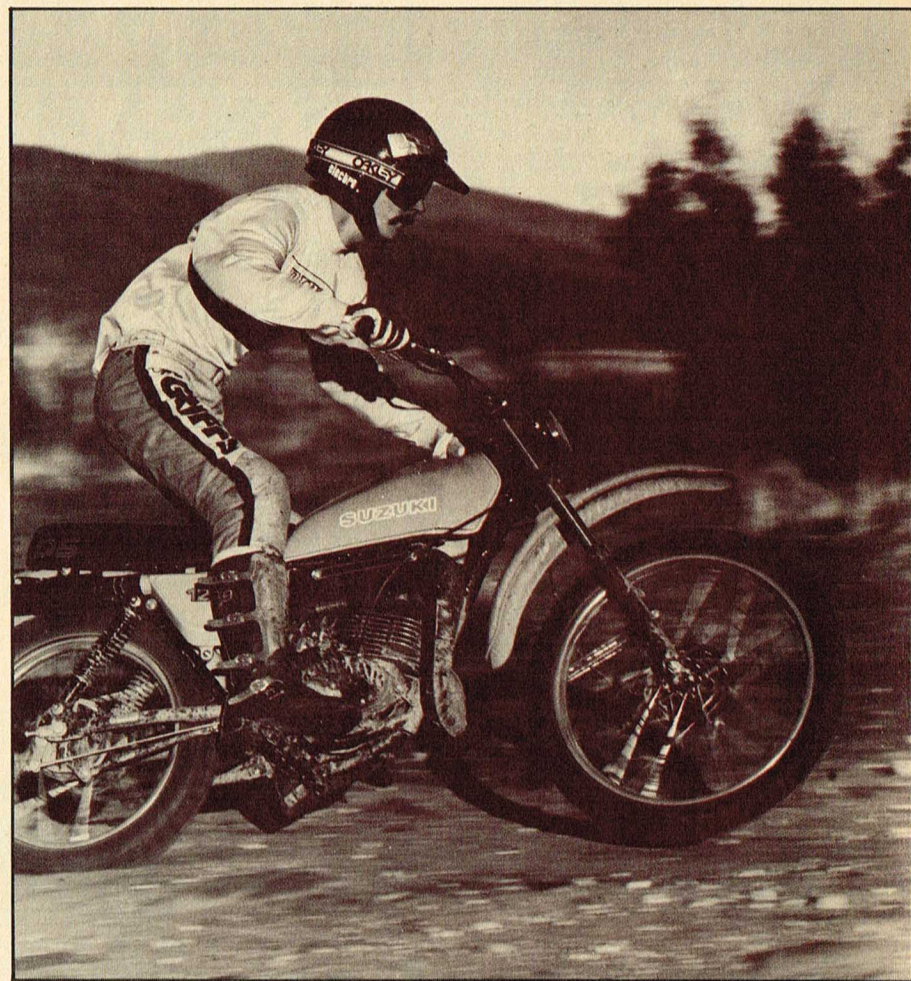
"And I get stuck more ways than one, every time I go riding with you." Caustic wit, simply caustic.

"Sorry about this." Supe was genuinely sincere.

"Well, don't make any plans for next Saturday, 'cause we're going to waterproof this pile of scrap metal. Jeez, I can't stand it! This is the last time we go riding with you at the end of a tow rope!"

The rest of that day, although it may be exciting to the uninitiated, causes me great pain to recall, so it's better left unsaid. Suffice it to say we escaped, I towed him back to the truck, and we took the bikes back home, his to the kennel, where it belonged. It only takes about three and a half bucks at the two-bit car wash to clean off a generous portion of pine slime, and that's riding gear included. Money well spent.

Next Saturday morning, I gathered up my tools and headed over to the garage. I was riding a Puch at the time, one of the most totally waterproof bikes in existence, so it didn't need very much shaping. It had a shroud that covered the carb, air box and electrics, and to this day, I still can't figure out where it breathed from. I don't think it used any air at all. Which was the exact opposite of Supe's Cooper.



That Cooper had an insatiable appetite for air. It sucked it past the mag cover, the carb boot, the clutch cover, brakes, and even the wheel bearings. Just a little bit of water splashed on the bars would short out the kill button and produce the Mexican version of electroshock therapy. That is, if it was still running by that time. But, that was all due to change, by God, even if we had to encase the whole bike in plastic.

Supe came stomping in shortly, spilling his ever-present cup of coffee over everything — a sort of caffeine blessing — offered a few words of encouragement — "Grab a root and dig!" — and we got down to work.

The first things to come off were the seat and tank, naturally. It just isn't possible to waterproof a bike without taking these two off, and besides, it gave us a chance to scrape the mud out of the high spots. We drained the oil, put the bike up on a crate, then pulled

off the mag and clutch covers. Gack, what a smell. Pure essence of swamp gas had been distilling inside the mag for about a month. I could see why Supe didn't like to open it up. He dragged the drain pan out from under the bike, and it looked like it was full of chocolate milk.

"You spill your coffee in that?"

"No, it's all oil."

"Yeech."

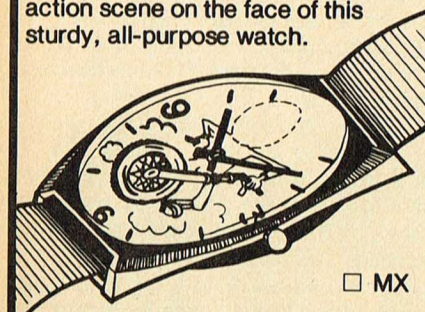
Water had been sucked into the cases. This isn't the best mixture for transmission longevity, so we flushed the gearbox out with Stoddard solvent as well as we could, and then glued on the clutch cover with Permatex. Supe scraped out the mag while I tightened up the cover (E-uu, I don't want to touch *that* stuff!), and proceeded to time the bike. I believe the points rubbing blocks for the Cooper were originally made out of goat cheese, because this bike needed timing at

(Continued on page 72)

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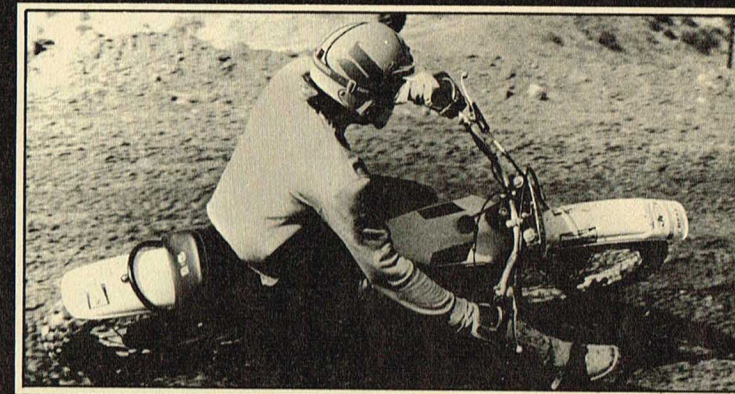
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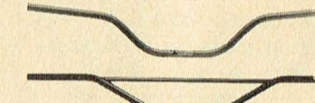
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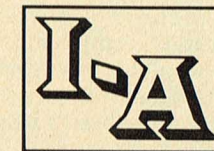


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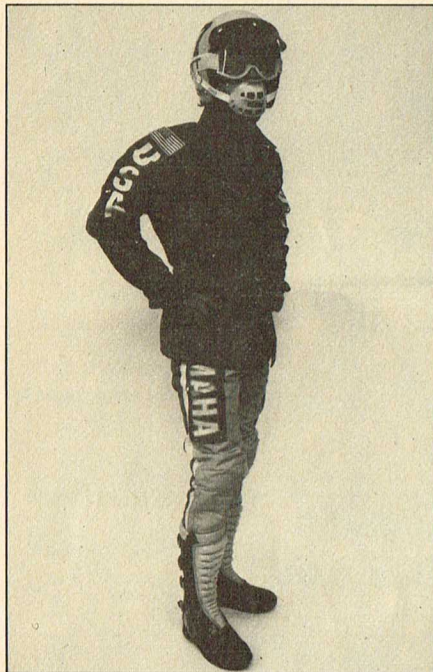
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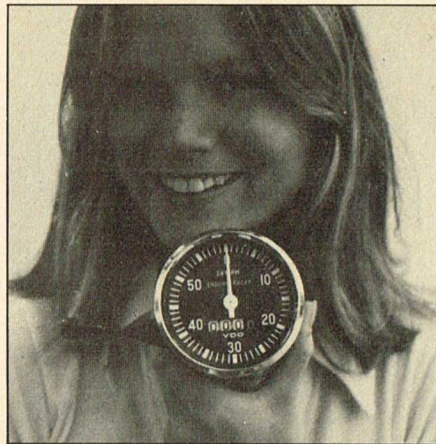
Also available are the new-style Griffis nylon MX pants along with a full line of riding apparel.

For more information: Answer Products, Inc., 7831 Alabama Ave. #8, Canoga Park, California 91303, or send \$2 for a complete 1979 catalog.



BREAK THE WIND

New from Can-Am is this Oxford woven nylon windbreaker, stylishly crafted in white with orange and red stripes. It is said to have a mandarin collar and a contrasting red zipper, but we won't hold that against it. It also has two pockets just right for you, or even someone else's, hands. What you do is up to you. For more information contact your local Can-Am dealer or: Bombardier Corp., P.O. Box 6106, Duluth, Minnesota 55806.



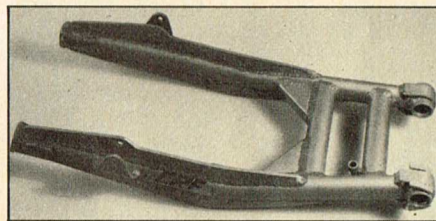
NEW ENDURO RACER INTRODUCED BY VDO-ARGO

A new, more rugged Enduro Racer has been introduced by VDO-ARGO Instruments, Inc., the world's largest independent manufacturer of motorcycle and automotive instruments.

This time/distance gauge is used in combination with an accurate watch to help the enduro rider maintain a steady average speed (usually 24 mph) over a set distance, and shows how far he's gone since the last checkpoint.

The VDO Enduro Racer includes an odometer and convenient side reset knob that can be run in tenths, both forward and backward. The instrument is housed in a matte black case with night-lighted 3-1/8-inch face.

Further information about the entire line of VDO enduro, biker and touring instruments including specific applications of each, is provided in a new, full-color brochure available free from VDO-ARGO Instruments, Inc., 980 Brooke Rd., Winchester, Virginia 22601.



MAICO MAGNUM/ENDURO SWINGARM FROM CRF

Crotch Rocket Factory introduces its trick aluminum swingarm for the Maico Magnum and Enduro. This arm was used by Darrell Shultz in his '78 Sears Point victory and for '79 by 250 factory rider Danny "Magoo" Chandler. Each arm is 6061 T6 aluminum, heat-treated, available in forward or 17.5 mounts, and color-matched to a high-gloss Maico red. Retail for \$159 and is warranted for one year. The complete 1979 catalog of CRF engine and suspension components is available for \$2. For more info contact: Crotch Rocket Factory, Box 2084, Goleta, California 93018; (805) 968-1786.



PEEKING DUCK

Another neat product from the people who brought you the DeHandler levers, available in aluminum or plastic from aware dealers everywhere, is the Peeker. The Peeker is a non-visor that is as clear as a bell, but shielded in the necessary spots for sun protection. This means you can still duck mud balls, and look right through the visor. Peekers are available through the same fine dealers, or: Sun Line Inc., 7045 Darby Ave., Reseda, California 91335.



CARRERA SHADES

Carrera sport sunglasses are the hot new rage in the two-wheeled set, and are available in two lens styles, the CR-39 gradient, and polarized. The Top style, shown above, part #07-5512, is one of the most popular models, and has the classic Carrera logo on the front. They are all totally unbreakable, and the lenses are scratch-resistant. The Top is available for \$25.50 from your local Carrera dealer or the western distributor of Carrera products — Jim O'Neal Distributing Co., 18340 Gualt St., Department DB, Reseda, California 91335.



NEW KTM TANK FROM CLARKE

Looking for a replacement tank for your old Penton or KTM fiberglass unit? Clarke Manufacturing has long been famous for high-quality plastic tanks, made with a special O-ring cap that is one of the most leakproof in the business. This is a motocross-style tank, and will even work on the 1978-79 units. It is made from Phillips cross-linkable polyethylene and is available in a variety of colors, including red, white, blue, orange, yellow, silver or green, and also features a one-year guarantee. For more information, descriptive literature or prices, contact: Clarke Mfg. Co., Rt. 1, Box 576, Mulino, Oregon 97042.

FROM THE SADDLE

(Continued from page 7)

"Such as where and what?"

"Well, those crazed bikers absolutely destroyed the possibility of vegetation on El Mirage Dry Lake. There's nothing growing there at all and bike tracks are all over the place."

"Mr. Dover, according to our figures, nothing has grown there for the last two million years."

"Probably the result of early cave man bikers. I'm sure that unruly sort of element existed even back then. If they didn't have off-road vehicles in the past, they must have at least wanted them. And, as the Bible says, if you commit the sin in your mind, that's as bad as actually having done it."

"Isn't that prejudging a bit, Mr. Dover?"

"That's my job, Mr. Sieman. Fair play has nothing to do with this. It's our job to preserve all of this desert land. If this generation is allowed to use the land, it might be unfair to those yet unborn."

"I see, Mr. Dover. In other words, you want to keep this generation of people from using the land, so the next generation of people cannot use the land, so they can save it for the next generation, who will also be forbidden to use and enjoy the land, too."

"Precisely, Mr. Sieman. I think you've captured the essence of our policy. We protect and save the land so no one can ever use it. That way, we can appreciate it even more."

"Mr. Dover, about this protecting the species stuff. Can you fill us in on the BLM's policy about that?"

"Certainly. We have all taken an oath that commits us to protecting the cute, little furry creatures of nature. Without the shield of the BLM, who knows what would happen to the Blunt-nosed lizard and the Snail-darter fish. However, with their well-being and safety in mind, we have successfully closed down areas to recreation and energy. God, but it's a great feeling to save a lizard and shut down a dam!"

"But what about the people, Mr. Dover? Aren't they as important?"

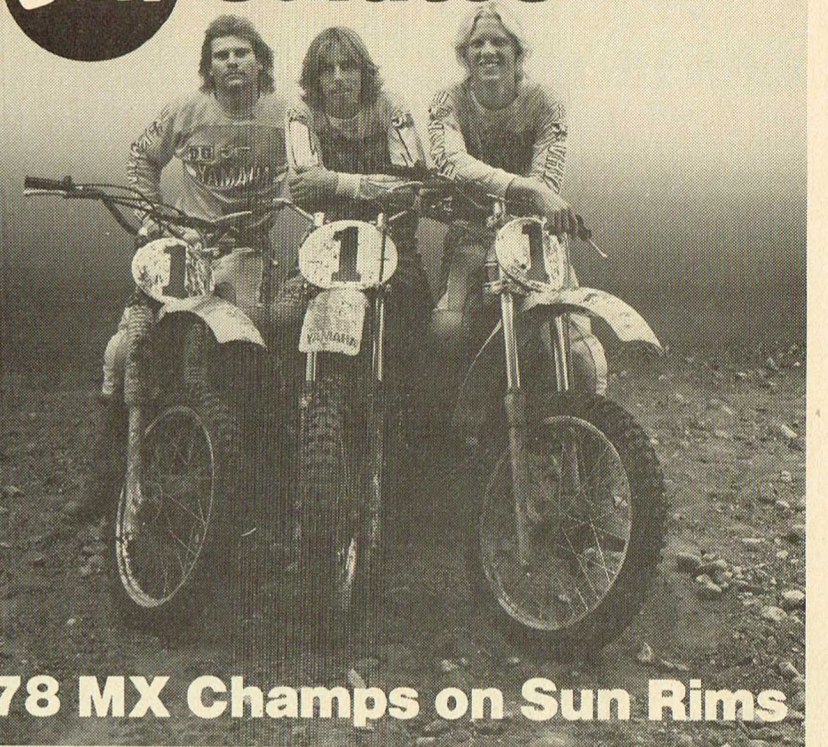
"Hey, there are lots of people, but how many Blunt-nosed lizards are there? People are all over the place. In fact, there are probably too many of them around anyway."

"Mr. Dover, do you realize that you're placing the worth of lizards and such above that of human life? Above the right of human beings to enjoy the earth they've been placed on? How do you answer that?"

"Picky, picky, picky. All you people do is bitch, snivel and whine. Don't you understand that the BLM had determined that the snakes, lizards and

(Continued on page 64)

Sun Salutes



1978 MX Champs on Sun Rims

Congratulations Bob Hannah

Congratulations to triple-champ Hurricane Bob Hannah and to Rick Burgett and Broc Glover of Team Yamaha, this year's first place finishers for national motocross competition.

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Riders Write

Geeks and such

Glad to see DB back to normal again. It's been a while since I've seen a magazine with as much backbone. It really reflects in the whole issue.

Your best article was about the Phantom Duck (March '79 DB). It felt good seeing the BLM get screwed by the Duck. I'm not surprised to see the "new" DB (or should I say the old, original DB) in there raisin' hell. If you intend to call the BLM a bunch of slack-jawed pinheads and trained circus geeks, well then, I'll just keep on buying DB.

It's about time someone had the balls to call a geek a geek. Maybe you can get some real people in the BLM, instead of the imitations we have now.

Rusty Hopper
Peterson A.F.B., Colorado

JT Racing data

(Sent to Dick Miller, MXA)

Hi Dick,

Thanks for ruining my amateur photography standing by paying me for the photos you used in the MX des Nations story. Until I learn to focus a little better and feel I truly earn this \$155, I'm sending back the money and asking if you will forward it to the Phantom Duck Legal Fund. Every duck should have his day!

John Gregory
JT Racing

(Ed. note: This is the third contribution we've received for the Phantom Duck of the Desert from John Gregory. He's been one of the first to get behind the movement and definitely one of the staunchest supporters.)

Sticking throttles

Dear DB,

I just finished the February '79 issue, which contained the interview in which Kent Howerton mentioned the sticky throttles which are plaguing the works Suzukis. I had a problem similar to that on my RM250A a few years ago. In my case, the throttle cable was routed too near the pipe, and after a few laps the heat would cause the nylon liner to swell up or become tacky, thus binding the inner cable. Since it functioned fine when cool, it was a bit tough to diagnose, and as you can

imagine, it was a real pain until I fixed it by rerouting the cable. I hope this is the cure for Roger and Kent as well.

Power Pickle
Blacksburg, Virginia

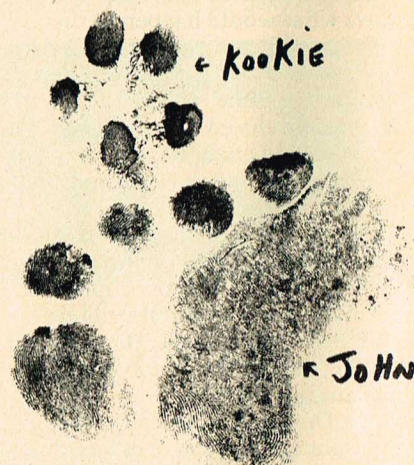
Thanks for the tip. Anyone else out there with a trick to share? Send 'em in to us and we'll print the good ones.

From Kookie, The Wonder Dog

Dear Rick, and Duck,
I'd like to give a wag of the tail and a hearty "WOOF" to the Phantom Duck and Rick Sieman. With their efforts I may someday get to ride on the same gas tank my Daddy did, on the Barstow to Vegas race. I wish I could bite the legs of all the people who turn their tails between their legs and ignore the fact that the BLM is raping us of our land. Getting back Barstow to Vegas is just one paw toward retrieving our right to ride. This dog fight applies to all of us, anywhere Big Brother government has restricted us from riding. The battle for Barstow must be won, so that a precedent can be made.

Please, dig a few bones out of your wallets and fetch it to the Duck.

"Fang" k you,
Kookie, the Desert Racing Dog,
and John McCown



We welcome correspondence, thoughts and ideas. Address all letters, bomb threats, bribes and generalities to:
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Bits and Pieces

What happened to From The Saddle in the May Dirt Bike?

Good question. When the art work left here for the printers, the full "From The Saddle" was pasted down properly. However, due to an error in the stripping department at the printers, a worker cut in the first page from the April DB. Thus, we ended up with the lead to the April DB and the balance of the column was correct. Grim. For all those folks who got confused, here's the lead to that column, titled appropriately enough, "Life in the Fried Lane."

The warning I am about to give to you will make The Omen look like a recipe for marshmallow fudge. Heed my words, and you *might* stand a chance. Ignore these words and... well, I don't want to get into *that* part of it.

What I am about to relate is not pretty, not fun. Nope. It's grim, dirty stuff. Like mopping up after the main troops have cleared the enemy village. But, seeing as I am a big-time moto-journalist, it is my sacred duty to warn and inform you about the deadly phenomenon we commonly refer to as Working Late.

Working Late usually happens when you absolutely have to get a bike ready for the big race tomorrow, and you've put all the work off until the last possible evening. This often translates into an All-Nighter. All-Nighters are the most advanced form of Working Late. Strictly Expert-level activity.

To give you an idea of how genuinely miserable an All-Nighter can be, I must relate the following tale. Sadly, I must also report that this tale is true. And that's the worst part.

Friday night. It was cold. I was working in a cold garage beat in Granada Hills, California. My partner,

□ □ □

Los Angeles, California — Bell Helmets Inc. has posted \$34,600 in contingency money to become a major sponsor of the 1979 Winston Pro Series, the National Championship motocross series in all three classes (125, 250 and Open) and the stadium motocross series.

The total posting includes \$15,800 for the AMA Grand National Championship/Winston Pro Series for Class-C riders, consisting of road races, dirt track, short-track, TT, mile and half-mile events. The remaining \$18,800 has been posted by Bell for the AMA National motocross series and the AMA/Toyota Supercross Series.

Super Bowl Duck deal

Here's a chance to get tickets to the Super Bowl and help support the Phantom Duck of the Desert. Mike Goodwin is making a special offer that's good until June 1, 1979.

When you send in for a \$15.00 VIP ticket (the best in the house), Mike will contribute \$3.00 off the price of the ticket and send it in to the Phantom Duck Attack Fund.

Here's how it works: For each \$15.00 ticket, just send in two checks. One made out to Stadium Motorsports for \$12.00 and another made out to the Phantom Duck of the Desert for \$3.00. This offer is only good until the first of June, though. Those VIP seats, by the way, are right next to the Peristyle

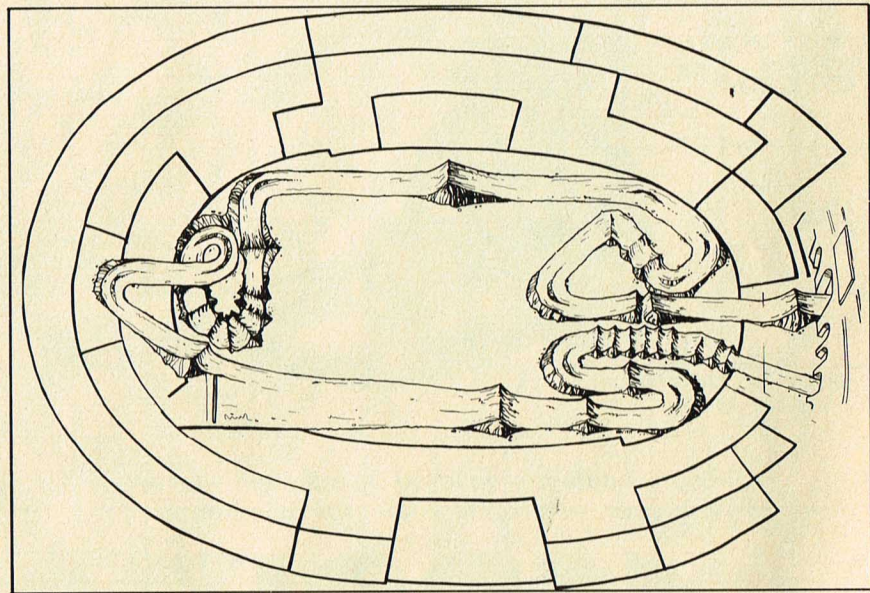
jump... the favorite spot on the track for watching the racers fly.

The Phantom Duck will be at the Super Bowl, too. We think that Mike Goodwin should be congratulated for his support. With more folks like Mike taking the lead, we can help open up more land for riding across the whole country.

A new feature of the Super Bowl track this year, will be a corkscrew downhill, wall-of-death-type turn off a 12-foot wall. Whew!

For tickets or info, here's the address:

STADIUM MOTORSPORTS
P.O. Box 1523
Laguna Beach, California 92651



In all events, first-place finishers who wear Bell Helmets will be awarded \$250. Riders who wear Bell to second- and third-place finishes will win \$100 and \$50, respectively.

□ □ □

We read a little piece in the paper the other day, about the National Park Service wanting further control over the use of snowmobiles in national parks. Their only problem, as they see it, was to adopt a system that would make the vehicle users happy, while still protecting the park environment. It is terrible, what those snowmobiles do to a virgin snowfield. Sometimes it takes a whole season for enough snow to fall to cover the tracks.

□ □ □



Is this the infamous Under-the-Hill gang that we all know and fear? The group of crazed geeks that wreak havoc on department store dressing rooms the nation over? Nah. It's just a shot of all the national riders who will be wearing JT riding gear this year. Also on the list, but not pictured, are Danny LaPorte, Broc Glover, Heikki Mikkola and Chuck Sun. Quite a lineup.

The AMA is at it again! After Jimmy Weinert burned the Oakland Superdome with a paddle tire, and the Florida Series started with some of the riders "paddling" their way through the sand, the AMA saw the potential hazard of such a tire and subsequently banned their use. We at DIRT BIKE feel

that riders should be proud to have such an organization looking out for their interests. Complete rule change reproduced below. Now, if we could only get them to limit suspension travel to six inches, front and rear, we could *really* make this sport safe!

TO: ALL MOTOCROSS RIDERS AND MOTOCROSS REFEREES
FROM: Michael A. DiPrete, Commissioner of Professional Racing
SUBJECT: Interim Rule
TAB: V-Equipment

RE: Chapter IX, Section 9 (TIRES) of the Motocross Rule Book:

PRESENT RULE:

a. Studded tires other than rubber are prohibited.

NEW RULE:

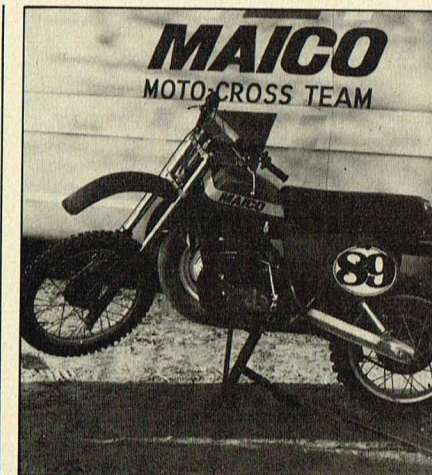
 (Effective February 14, 1979)

- a. Studded tires other than rubber are prohibited.
- b. Retreaded and/or recapped tires are prohibited.
- c. "Paddle tires" and/or any other tire tread design of this nature that tend to throw sand, dirt, stones, etc., farther and higher than a normal knobby tire are considered a safety hazard and are prohibited.

How would you like to ride a steamboat on the Mississippi River? And spend your time drinking, eating, and basically partying to the rhythm of Dixieland jazz with all the factory riders, mechanics and other celebrities? Well, if you happen to be in town for the New Orleans Superdome on June 2nd, and need something to do on Friday night, give Turnstile Productions a call at (504) 866-4563 for all the info. Looks like it promises to be one heckuva party.

□ □ □

There is a sequel to *On Any Sunday* in the works. That's right, the filming started in January, under the production of Four Way Motorsports. Among other notables, Larry Huffman's narration will be featured, and Don Shoemaker, the cameraman for the original film, will be behind the lens for this one, too. It is supposed to center on the European racing scene and the Americans involved therein. We hope this one will be just as fine as *OAS#1*, and we promise to get a copy of the soundtrack as soon as it comes out, thank you.



Do you ride a Maico? If so, you may be interested in their support/sponsorship program. It details their complete contingency program for motocross, both national and regional, enduro, and ISDT Qualifier series. If you're a better than average rider, this may be your big chance to gain a little support, maybe even a factory ride. For a copy of the program send 50 cents to: Maico USA Sponsorship Program, 1256 Progress Road, Suffolk, Virginia 23434.

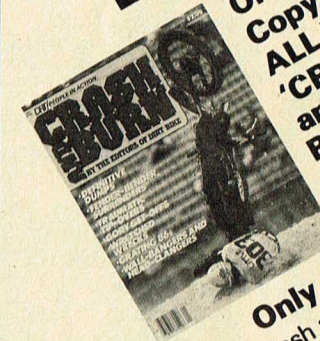
IT/YZ WRETCHED EXCESS DEPARTMENT

For all you owners of the YZ and IT400F, and we specify the "F" only, you can now build your motor to monumental power levels. Yamaha is offering their OW kit which increases the displacement from 396 to 426cc.

This OW package includes a 3mm-larger piston, ring, pin, clips and gaskets to be added to a bored stock barrel. Bore is increased from 82 to 85mm. The OW kit (part #2X5-W1160-00-00) will run about \$50 and be available by the time you read this.

Even if you don't want that extra gob of beans right now, it's nice to know that you have a wealth of overbores on the stock barrel. It should provide even more longevity to the usually bulletproof Yamahas.

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A LETTER FROM THE HORNEY TOADS

Phantom Duck Feedback

By
**The Phantom Duck,
Rick Sieman and Al Fols**

Duck, they often include a letter. Some of them are magnificent:

Dear Mr. Duck:

It's freezing cold out here with almost no land to ride on anywhere. It's not a bit like California. I came from Colorado a year or two ago and I already miss the land. I don't have much out here, but there isn't any reason why good biking citizens like you can't ride where you want.

I wish you much great luck in our battle. I wish more bikers were like you. Keep up the good work. I've enclosed my dollar to save the Duck. It's my last bill in my billfold, but it's going for a good cause.

Sincerely,

Claude Alan Cutshaw

At age 15, a motocrosser and Duck supporter.

Dear Louis:

There are a dozen things we wanted to say, but let's just say that maybe this will fade a few people who can't send a buck.

My \$25 was going to buy a new first gear for my bike. But if we don't start standing up on our political hind legs and doing *something*, we won't need first gear. Give 'em hell.

Sincerely,

Jack Fahey and Walt Lister
Gardena, California

Hello Duck:

I really admire what you and your organization are doing in your crusade against the BLM. Here in Utah, we are beginning to have our own problems with the BLM, probably like California was four or five years ago. This is the second check I've sent and I hope to help out more. Thanks for giving me the chance to participate. Maybe a

branch of the D.M.A. can be started in Salt Lake City.

John Bell
Salt Lake City, Utah

Quach* (That's German for Quack!) Here's two bucks to save the Duck. Hell, I wish I could afford more, but it's all I can spare right now.

It's about time someone stood up to the Giant and sent a rock to his head (or up his butt, as the case may be).

Needless to say, I'm a dirt bike rider, too. Down here in Southern Louisiana, we ride mostly on a chunk of property belonging to Crown-Zellerback, Inc. Of course, it's private property, but no telling when they might shut us off and leave us with *no* place to ride.

So, here's some help for the Duck. After all, us birds have to stick together.

Ray P. "Big Bird" Lambert
Chalmette, Louisiana

Phantom Duck:

I wish you lots of luck in your battle. We face the same thing up here in the near future. We get tickets for riding off the trail, but the big logging companies punch in roads that destroy ten miles of trails and meadows.

There is no justice.

B.E. Marsh
Yakima, Washington

P.S. Give 'em hell!

Give 'em hell!

Fred Hempel
Edina, Minnesota

Dear Duck:

At least you guys in California have public land, even if they do take some of it away. In North Texas, there is no public land, but I still support your fight.

R. Barton
Fort Worth, Texas

To the Duck:

Although I don't live in California, we have the same problems here even in the backwoods of Idaho. Will be watching with great interest to see what happens. Hang in there and fight.

Leon Hendrickson
Weiser, Idaho

You've got my support. The article in DIRT BIKE should be sent to every legislator in Congress *and* the President.

Doug Reifh
Raleigh, North Carolina

Dear Duck:

I have followed your adventures in the bike mags and am sending, as you suggested in DIRT BIKE (March '79), one dollar for myself and one dollar for

(Continued on page 69)

What made Dave 'Four-Stroke' Reiner say, "What rocks?"

The KLX250.

Dave liked things smooth. The Kawasaki KLX250 seems to take the rocks out of any trail. In fact, for serious off-road riding, it's hard to beat. Kawasaki wanted it that way.

They took the race-proven KX chassis with its strong, lightweight, I-section aluminum swing arm, and added the best engine they could create. A tough 246cc four-stroke single. Then they made it as maneuverable as possible. 9.8

inches of travel front and rear with adjustable air-spring forks. (Try finding that on the competition!) And the KLX250 clears the ground with 12.8 inches to spare.

Nothing was too good for this bike. CDI ignition. A 2.5 gallon gas tank. A resettable tripmeter. And the whole bike weighs in at 233 lbs. The KLX250. Everything you need for off-road riding.

Kawasaki

Don't let the good times pass you by.



Check local requirements before riding. Use your motorcycle legally, respect the environment and the rights of other people. Member of AMA, MIC, and MSF.

Fast Food

Want to keep your RM Motocrosser, PE Enduro and all other Suzuki 2-strokes fast and healthy? Sure you do. That's why you should feed 'em Suzuki's Super 2 Lubricant.

You see, Super 2 contains a super-high film strength. So it'll not only withstand severe heat and friction generated by

competition engines, it'll burn cleanly too. Which means less carbon deposits, gum formation, plug fouling and sticky rings. And more protection against bearing failure, piston scuffing and seizure.

So keep your Suzuki 2-stroker going with the best lubricant going: Super 2.

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2-CYCLE MOTOR LUBRICANT

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DANGER: HARMFUL OR FATAL IF SWALLOWED.
READ BACK PANEL.
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Suzuki. The performer.



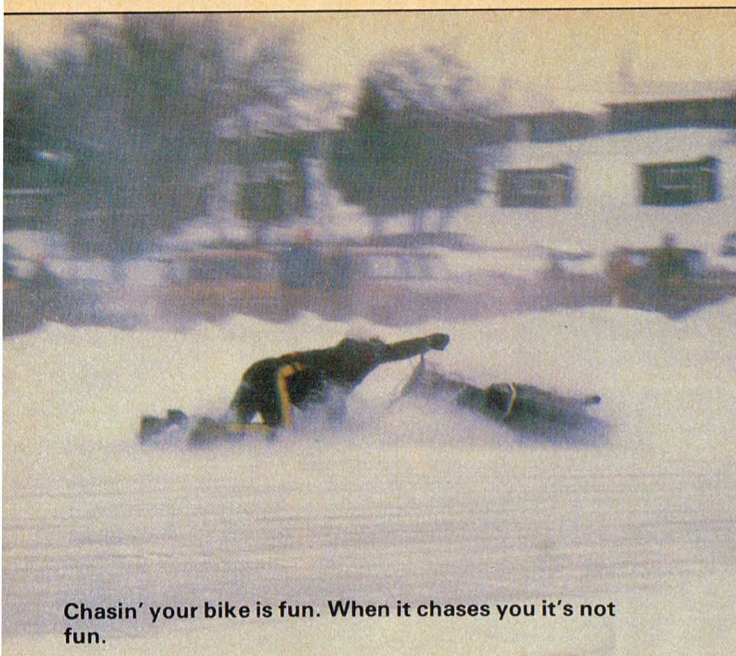
How To Race On Your Favorite Lake

ICE RACING!

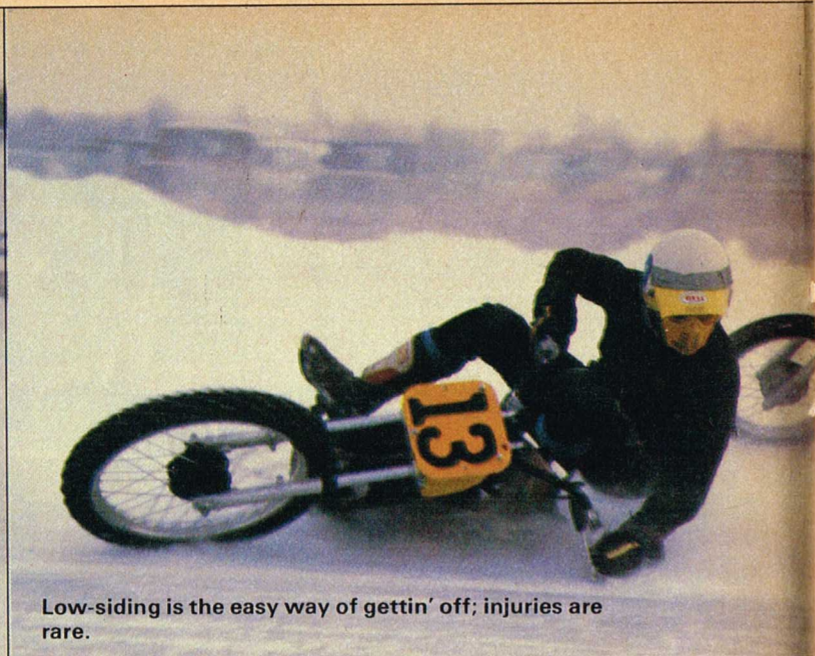
Here's how they do it where it *really* gets cold

By Ron Godridge

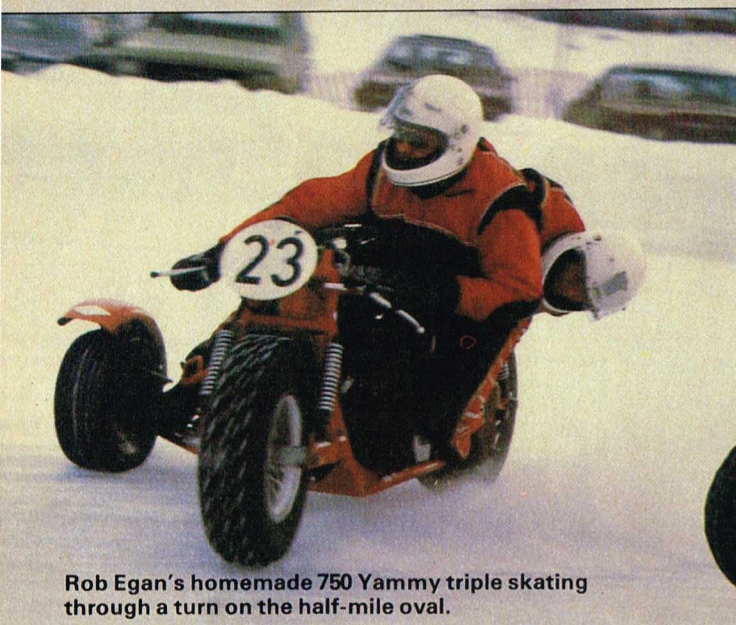




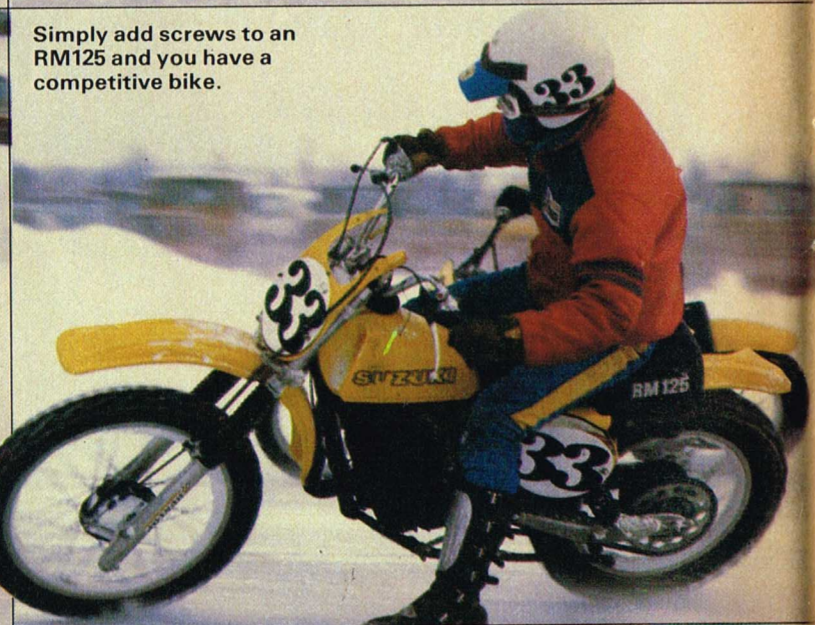
Chasin' your bike is fun. When it chases you it's not fun.



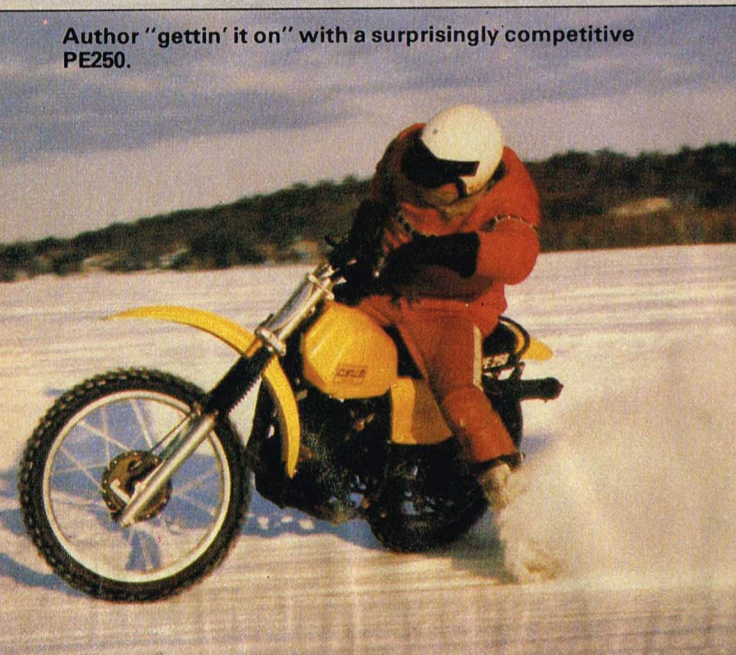
Low-siding is the easy way of gettin' off; injuries are rare.



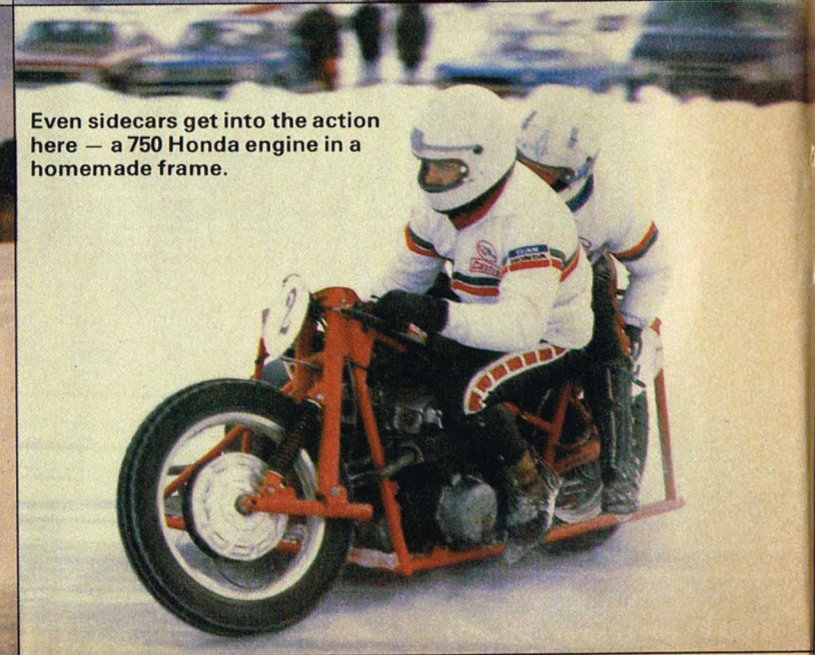
Rob Egan's homemade 750 Yammy triple skating through a turn on the half-mile oval.



Simply add screws to an RM125 and you have a competitive bike.

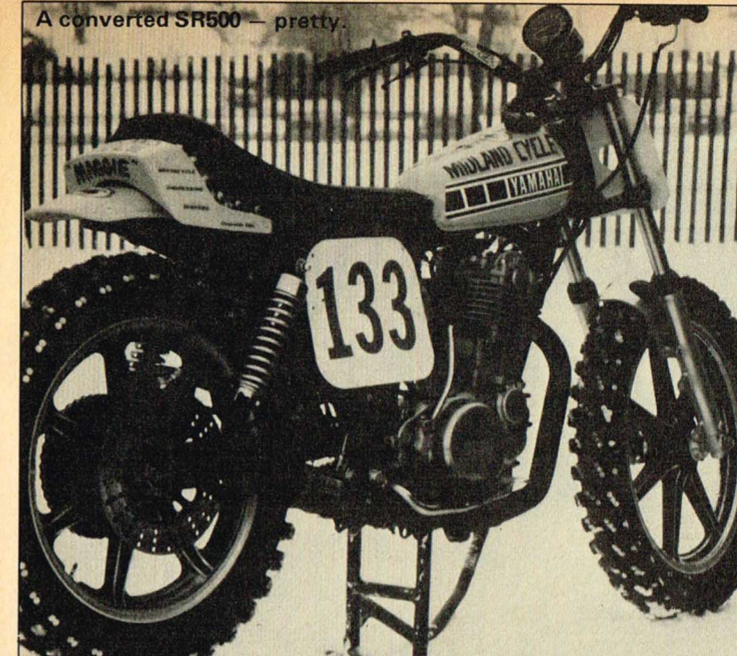


Author "gettin' it on" with a surprisingly competitive PE250.



Even sidecars get into the action here — a 750 Honda engine in a homemade frame.

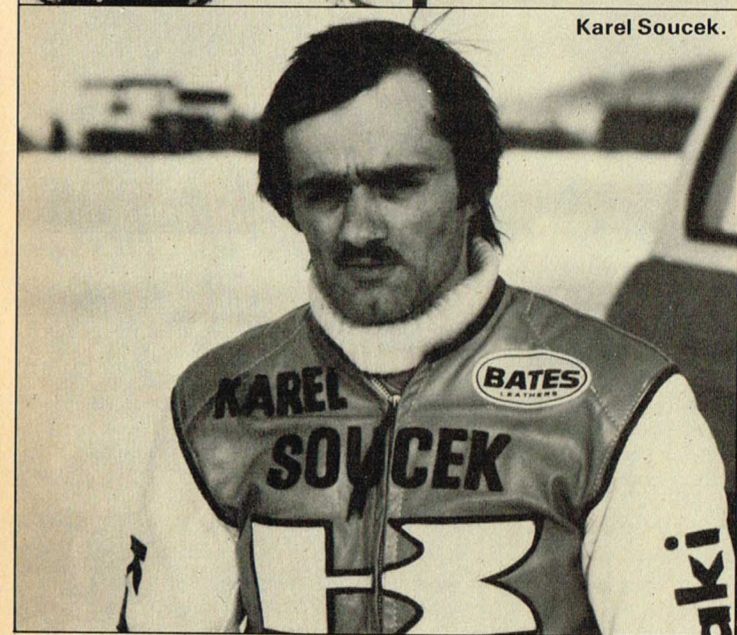
Photos by Ron and Barb Godridge



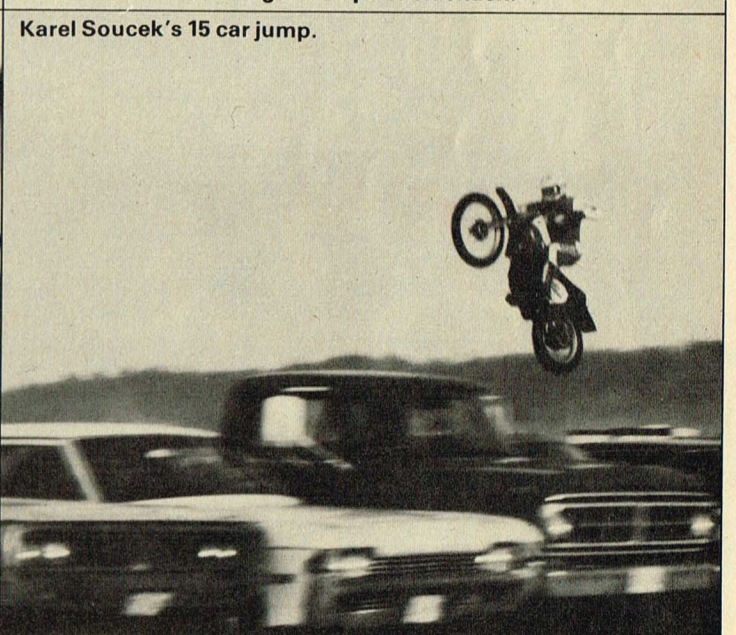
A converted SR500 — pretty.



Another shot of Rob Egan's #1 plate sidehack.



Karel Soucek.



Karel Soucek's 15 car jump.

Cold weather sneaks up on us in the north. Cool days slide into cold nights and the next thing you know, there's snow on the ground. Cold makes us do funny things: feverishly devour the latest motorcycle mags, actually read performance tests on Harleys, and yes, even dig up old DIRT BIKE magazines and check out their road test of the CX500 Honda. In winter we daydream a lot, picturing ourselves on the latest of high-zoot root-rippin' bikes, surrounded by scantily clad beauties in the mecca for bike riders — California. However, there is one way, we have

discovered, to put in the winter other than cursing snowflakes individually. We have found a way of converting our beloved dirt bikes into winter wondermachines. Thirty bucks' worth of sheetmetal screws (about 1000 self-threading screws), put into the tires, will do it. Traction on the ice, the result of the sharp lip on the head, is nothing short of fantastic. Wheelies and full-lock broadslides are as easy to do as falling off your bike.

Many types of studs are used, but the most common are 1/4-inch head about 1/2-inch long. These can be put painlessly into most knobby, trials or flat-track tires using a socket in a vari-speed drill. This does little harm to a tire, you don't even have to remove it from the bike. To avoid sparks on stones and pavement,

remove the screws before riding in the spring.

Many racers use 3/4-inch and one-inch long studs, but to avoid tube punctures they put an old street tire carcass inside the tire. These same racers have been known to spend countless hours and dollars getting the right combination for the ultimate performance.

Just about anything goes for the bikes used on the ice. Motocross, enduro, trail, flat-track and even converted street bikes are seen on the ice every weekend. Bikes of all ages and nationalities provide tremendous excitement at the frequent winter carnivals.

It might not be California and temperatures in the 70s, but, dammit, it gets us through the long cold winter. □

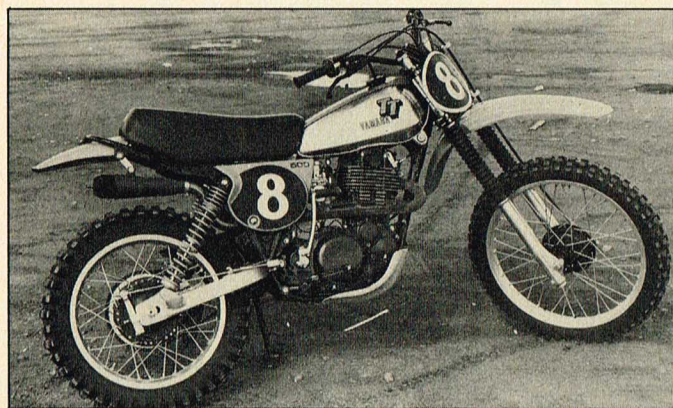
(Editor's note: Ron hails from Penetang, Ontario, Canada. Cold? Don't ask.)

Building Next Year's TT?

PROJECT: KING KONG

A better Yamaha thumper

By Ned Owens



Project King Kong begins to take shape with longer legs and a modest weight reduction.

It used to be that almost any off-road bike was a good candidate for a lot of modifications. Shocks, forks, carb, air box, fenders, spokes, rims, tires, engine, ignition, tank and even seats all got some kind of treatment. Many times, the owner of an old CZ, Bultaco, Husky, Honda or Suzuki — just to name a few — had nothing left stock on the machine but the frame.

But as bikes get progressively better each subsequent year, less and less has to be done to the racers, until now where some of them are as close to perfect as is possible on a production machine. The Suzuki RM125N is a very good example.

Despite this, there are always a couple of bikes that, for various reasons, are extremely popular as off-road machines, but have not been put through the evolutionary changes, massive engineering and design thought — and budget — to which the motocrossers are subjected.

Most of the machines in this category are usually warmed-over dual-purpose machines that have

picked up a large off-road following. One of these machines is the Yamaha TT500. Obviously, the main attraction of the TT500, over other large-displacement dual-purpose bikes, is its massively powerful four-stroke heart.

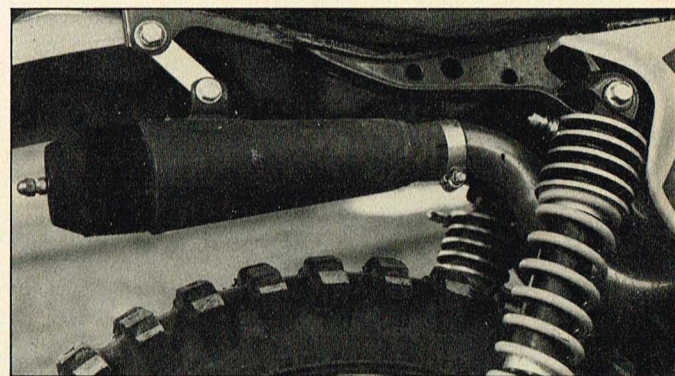
Although the TT500 has gone through a series of evolutionary changes, most of them are quite modest compared to the MXers. Still, the TT remains just a dual-purpose machine turned into a play-bike. For many riders these shortcomings are of no consequence. But for the guy who wants all the torque and grunt of the big thumper, but needs a little more refined package, he must "roll his own."

As is evident by our test of the TT500F in the April '79 DB, we feel that there is a lot of room for improvement in many areas — with the notable exception of perhaps the engine. Can the TT500F be turned into a potent off-roader compared to the likes of the IT Yamahas, for instance? We decided to build up the TT and see.

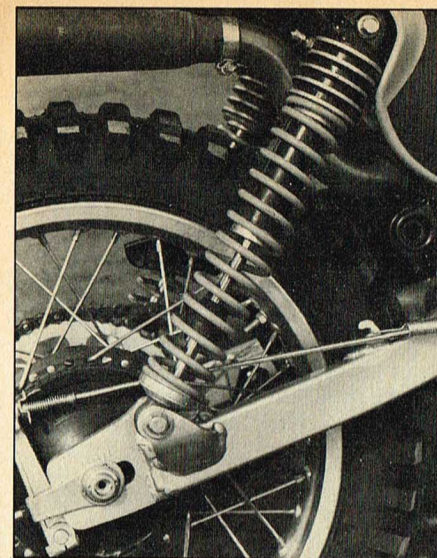
With many project bikes, the first

step is to build more power to match the suspension. But in the case of the TT, it's the other way around. We will try to bring the suspension up to a par with the powerful thumper. Besides the suspension, the other obvious areas of improvement are in weight reduction, improvements in braking and traction, ease of maintenance, and lastly — for you gonzo power freaks — more beans.

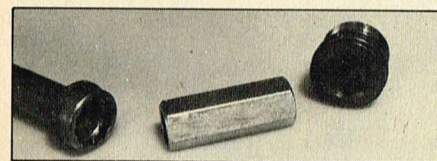
In each area, though, we're going to try several approaches, from the absolute low-buck end, to moderately expensive, to a third "wallets to the wind" expenditure that will humble even the Defense Department spenders. Our intent here is to build a good, legal off-road machine that will be as at home on the trails and whoop-de-dos as it already is on the fireroads. While we're not building a motocrosser (as the Hunk did with the DR370), we are confident that the machine will be fairly competent on a track with a horde of other thumpers. Versatility is the key here.



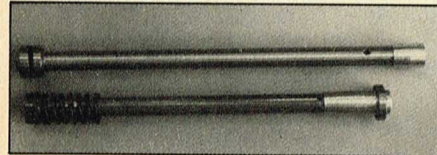
White Brothers' bolt-on rear pipe section comes complete with brackets, bolts, clamps and extra Super Trapp discs to fit stock head pipe. Gained are an increase in performance and a decrease in weight.



Works Performance Gassers are the choice at the rear, with S&W Stokers as the option for those on a budget. Fifteen-inch units seem to be optimum.



Threaded coupler, found in almost any hardware store, fits not only the fork cap (right) but also the top of the damper rod and is necessary for removal of either.

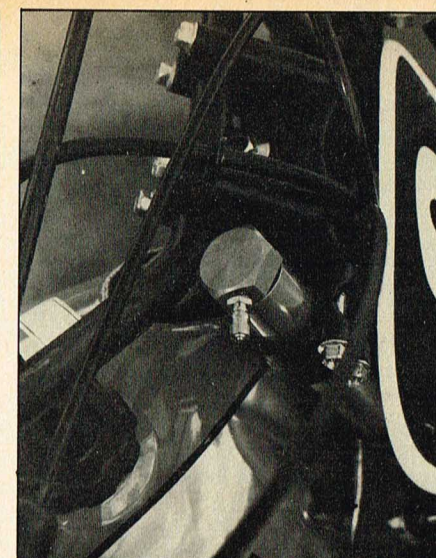


Terrykit damper rod is one inch longer than stocker, and provides much smoother, more progressive fork action.

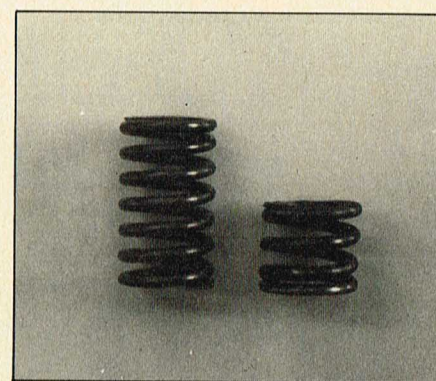
Forks

Yamaha's new leading axle forks on the TT500F are quite similar to those on the IT models, with a couple of exceptions. The damper rod/piston assembly is a one-piece steel affair with a fiber piston ring. Also, the fork cap has a 19mm hex socket in it. Fortunately, a simple 7/16-inch coupler (with a 3/4-inch hex), that is readily available at hardware stores, will effectively remove the fork cap. It is also precisely the same tool that is needed to hold the damper rod in position when the assembly Allen bolt is removed.

To achieve more travel and a higher ride height, without spending much money, we opted for shortening the topping spring. The stock topping spring length is 60mm (2.4 inches). This spring can either be replaced or shortened (cut and ground smooth) to end up with a spring that is 35mm (1.4



O'Neal fork caps provide a wider range of fork spring tuning. Valves are positioned to outside to avoid cable snagging.



Stock topping spring can be cut and ground smooth, or replaced with a shorter version from another bike. One-inch shorter spring nets the same distance in front end ride height and travel. (Note: Don't use this travel mod if the fork kit is used.)

inches) long. Usually when this method is used, an extra preload spacer is added to take up the difference, but in this case the stock preload spacer is too long to begin with and is pretty close with the short topping spring in place. (Shortening the topping spring is not recommended if a replacement fork kit with longer damper rods is to be installed, since it will require the stock length springs.)

To change the damping characteristics, we merely went from the recommended ten-weight down to Bel-Ray five-weight for smooth terrain, low-speed operation. This takes some of the harshness out of the forks, but it isn't a cure-all. (The stock rods are fitted with a long topping cone and a floating ring valve that appears to be more complicated than might be necessary. Hence, we ran into a few problems trying to modify the rods for

performance.) Approximately one inch of travel is gained by this method.

To provide a wider spring tuning range, we also added a pair of Jim O'Neal air fork caps. Pressure ranged from 4 to 8 psi with the stock springs and slightly reduced preload (as a result of the topping spring mod).

A slightly higher dollar approach, with much more dramatic results to boot, is the installation of a Terry fork kit. This simple drop-in kit provides one full inch of travel with much smoother, more progressive damping. We used 240cc (eight ounces) of Bel-Ray 20-weight fork oil per leg. Since the Terry rods utilize the stock topping spring, we cut the stock preload spacer in half. With the O'Neal fork caps we added 2 to 6 psi depending on conditions.

Shocks

Keeping in mind the budget nature of phase one, we went after some reasonably inexpensive S&W Freon Stokers (FE-10) with dual-rate springs from Al Baker Distributing. They were equipped with 80-175-pound springs (coded red/brown/red). Equipped with these springs, the TT is ready for flat-out hauling over rough terrain, but with a loss of low-speed sensitivity. As a kind of trade-off, we went for 75-155-pound springs (red/orange/red). This is recommended for woods-type riding. These springs are calculated for 160-200-pound riders.

The longest shock that can be successfully used with the stock swingarm is 375mm (15 inches). The S&Ws net 194mm (7.75 inches) of rear wheel travel. With the use of any longer shocks, the chain just eats through the swingarm. Ride height at the rear is increased by approximately 25mm (one inch), which corresponds to our increase in the front.

(If the rider chooses only shock replacement at this stage, the stock forks must be dropped in the triple clamps to within 6mm (1/4-inch) of the top clamp. This brings the geometry back around to 30 degrees fork rake. If, on the other hand, the long shocks are used in conjunction with the Terry kit or the one-inch topping spring modification, then the tube-to-clamp measurement is approximately 32mm (1 1/4 inches). This allows adjustment in either direction for tight woods [tubes up farther] or straight line/whoops stability [tubes down].)

For a higher-bucks approach to the rear suspension, we went for Works Performance shocks — the Gassers. These 375mm (15-inch) nitrogen/oil shocks are equipped with either straight-wound or dual-rate springs. We decided on the straight springs,

computed to the weight of a 180-pound rider, on fast trails. Works shocks are custom-built to the specifications of each rider and machine. Not only are the damping characteristics variable, but the "cross-over" points in the springing are also variable with spacers. Travel is a full 202mm (eight inches).

The improvement over the harsh, stock shocks is immediately noticeable. The shocks are supple on the washboard stuff, yet soak up the really bad, square-edged holes. The back is improved enough that we have reached the limits of the swingarm — but that is a future problem.

Pipe

Although Yamaha went to a lot of trouble making some of the parts on the TT as light as possible (i.e. plastic air box, aluminum tank and skid plate, plastic seat base), it seems that their quiet exhaust system didn't receive the same consideration. The rear silencer portion of the pipe alone weighs 12.5 pounds. To help improve the gas exhaust flow and reduce some of the weight, but still stay reasonably quiet and USFS-legal, we installed the rear portion pipe and Super Trapp muffler from White Brothers Cycle Specialties.

The complete unit, including connector pipe, Super Trapp with additional discs, bracket, clamps and bolts weighs only 3.5 pounds, a reduction of nine pounds over stock. No cutting or fiddling is necessary, but we suggest drilling an 1/8-inch hole through the silencer body and connector pipe where they mate, and securing the two with a short sheetmetal screw. Wrap the hose clamp over the screw and the unit will stay together nearly indefinitely. It's just a precaution.

Power is up some already with just the addition of the pipe. It is noticed most in the upper range with an increase in top rpm. By reducing the number of discs (18 seems to be the maximum number for optimum power) more torque and mid-range can be obtained. Also, the fewer discs, the quieter the exhaust note is if you ride in an overly sensitive area.

Air filter

Another aid to engine breathing that works well in conjunction with the pipe is the addition of a K&N cloth filter element to the stock air box. It not only breathes better, but works longer in dusty conditions and will usually stay together much longer than the short hair foam element. Be sure that you use K&N air filter oil, or another oil made especially for the K&N cloth-type filter. We have seen

some filters that were treated with regular foam filter oil and were literally ruined. The heavy foam filter oil will effectively close off the breathing spaces in the cloth, and under high-velocity situations will suck a hole or tear in the cloth.

Chain guard

To help protect the cases if the chain should get tossed off in muddy situations, we installed a White Brothers case protector. This aluminum unit ensures that the chain will stay on the front sprocket. It also protects the shift shaft by keeping a tossed chain from bunching up in front of it. The guard can be used with or without the sprocket cover. An added advantage, especially if the sprocket cover is left on, is that it makes installing the chain easier after washing the bike or servicing the chain. (Of course, you remove the chain before you wash it at the car wash! Doesn't everyone?)

Oil line

Something that is inexpensive, but can save you some bucks in the future is the Pro-Tec high-volume oil line. Tuners find that under high-rev, racing conditions — especially when a high-lift cam and high-performance springs are installed — the camshaft and rocker arms can gall. The reason for this is apparently an oil passage in the head that is too small. The high-volume oil line feeds directly into the end of the cam at the exhaust valve side.

Installation is easy. Simply remove the metal line from the case to the upper right side of the head, plug that top hole with the supplied bolt and attach the new hose to the case outlet with the stock banjo bolt and washers. By running the hose up over the top of the engine the line can be hooked into the end of the cam tower through a special adapter. Simple and not even messy. The oil volume is increased by approximately 25 percent. This is a worthwhile mod, even if you don't plan to do any other engine mods.

Part II

In the upcoming part two, we'll get into carburetion and a high volume air filtration system (air box), do some brake tuning, and sorry to say for you F-model buyers a considerably stronger, longer and lighter swingarm. Thought that you had the swingarm problem licked with the Yamaha version? Not so.

We'll have some control changes and speculate on the possibilities of enduro lighting, and what's needed to wire this baby. The points ignition is going

to have to take a hike, as well as the push-pull throttle and carb — a tuning/maintenance nightmare.

Plug cap

Part of the reason, we understand, that the TT is such a balky starter is a result of the resistor-type spark plug cap. One way to handle it is to disassemble the cap and replace the resistor element with a piece of solid copper wire. We decided to just replace it completely with a Malcolm Smith waterproof plug cap. With just this simple mod, a much fatter, blue spark is evident at the plug tip. Starting is already more consistent — but it's no CDI.

Box scores

Fork kit	\$39.00
S&W Stokers, w/springs	\$115.00
Works Gassers, w/springs	\$149.95
Pipe w/Super Trapp	\$47.50
Air filter	\$8.20
Chain guard	\$8.95
Oil line	\$9.95
Plug cap	\$1.95
Air fork caps (pair)	\$9.75

Where to get the goods

AL BAKER R&D
6878 Santa Fe Ave E.
Hesperia, California 92345
(714) 244-5425

For: S&W Stokers with dual-rate springs. Catalog \$2.00.

BEL-RAY

From your local dealer for: fork oils, lubricants.

MOTOCESSORIES

P.O. Box 824
Northridge, California 91328

For: O'Neal air fork caps, Works Performance shocks. Detailed price brochure: 50 cents, catalog: \$2.00.

MALCOLM SMITH MOTORCYCLES

7563 Indiana
Riverside, California 92507
(714) 687-1300

For: spark plug cap, K&N air filter.

WHITE BROTHERS CYCLE SPECIALTIES

11611 Salinaz Dr. "M"
Garden Grove, California 92643
(714) 638-1653

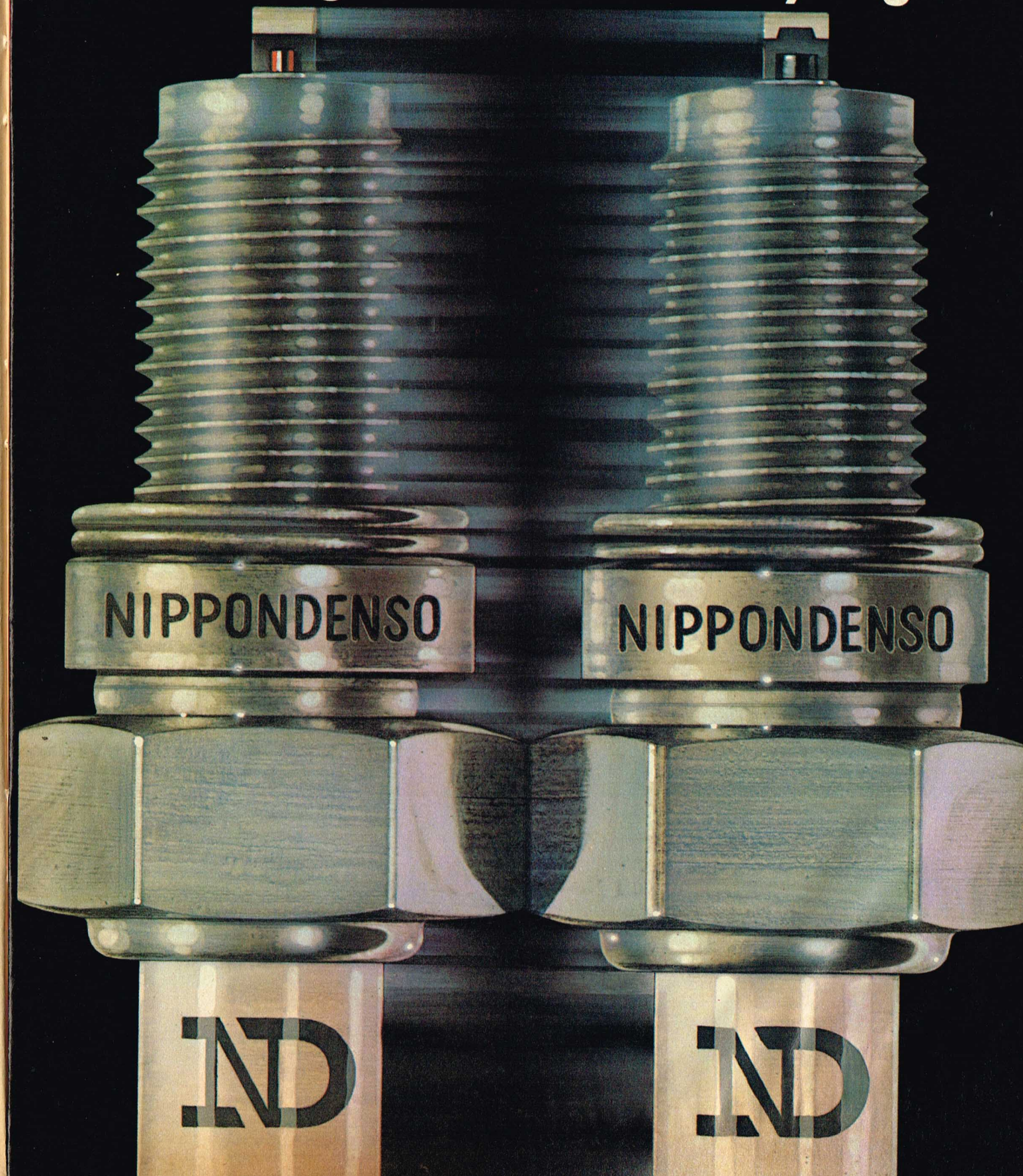
For: pipe with Super Trapp, case protector, Terry fork kit, Pro-Tec high-volume oil line. Catalog: \$1.50.

WORKS PERFORMANCE SHOCKS

20970 Napa St.
Chatsworth, California 91311
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For: original oil shocks, Gassers, and springs. □

The gold/palladium tip "G" plug. The U-groove Hot "U". Put 'em together and what do you get?



When ND designed the "GU" plug, we had one thing in mind: Remarkable performance.

To get it, we combined two of the most revolutionary ideas in spark plug history: Our Hot "U" plug's U-groove ground electrode, and our "G" plug's thin (1.0 mm vs. the normal 2.5 mm) fine wire center electrode.

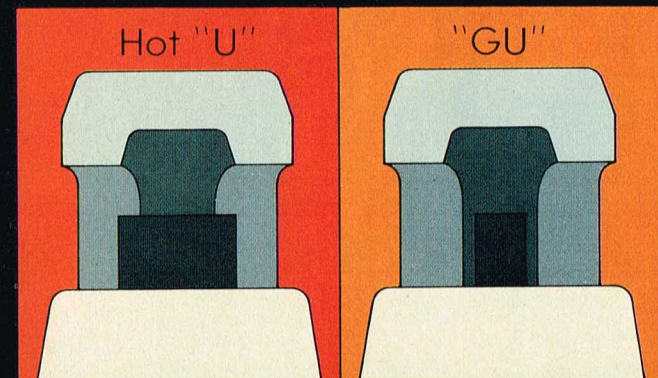
What we ended up with is a plug that delivers such great performance, even we can hardly believe it.

The "GU" gives you superior ignition.

And for that, you can mostly thank the special gold/palladium alloy we use to make the center electrode tip. It allows us to make the electrode tip thinner and still make it durable. (Note the difference between our Hot "U" tip and our "GU" tip in the illustration.)

That thin electrode attracts electricity better —just as a thin lightning rod attracts lightning better. So you get superior ignitability. And a marked reduction in misfiring.

Of course the U-groove does its part, too. It delivers a larger and hotter flash front. So the plug fires better, whether the mixture is lean or not.

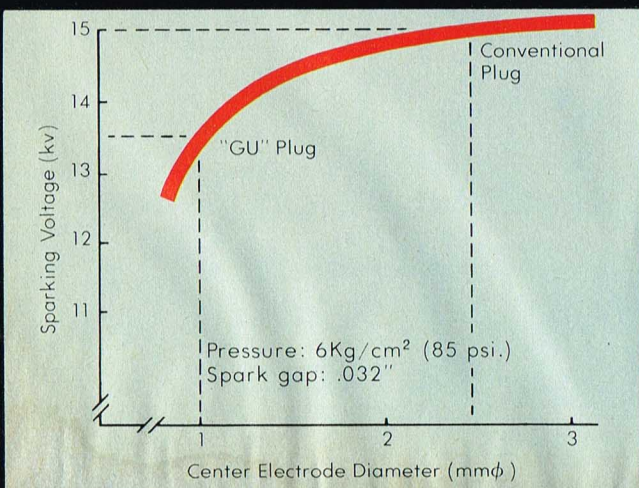


The "GU" gives you faster starting. And quicker acceleration.

Just check the chart below.

You'll find that during starting and idling, the "GU" helps your bike start easier and idle smoother, because it requires less voltage.

And at higher RPM's, it provides quicker spark for faster acceleration.



The "GU" gives you better fuel economy.

With the improved ignitability, it's possible to tune your engine for a leaner mixture.

So you'll save gas. And you won't sacrifice performance.

The "GU" gives you the ultimate in high performance. Whether you ride a bike or a snowmobile.

Check into the "GU" today.

Be prepared for great performance. And be prepared to watch the competition get out of the way.

GU PLUG CONVERSION CHART				
THREAD SIZE	HEAT RANGE	ND	CHAMPION	NGK
14mm reach 3/4"	HOT ↕ COLD	W20ES-GU	N-4G N-3G N2G, N86G N59G, N84G N57G, N82G	B6EV
		W22ES-GU		B7EV
		W24ES-GU		B8EV
		W27ES-GU		B9EV
		W29ES-GU		B10EV
14mm reach 3/4" project type	HOT ↕ COLD	W16EP-GU		BP5EV
		W20EP-GU		BP6EV
14mm reach 1/2"	HOT ↕ COLD	W22EP-GU		BP7EV
		W20FS-GU	L-9G	B6HV
		W22FS-GU	L-6G, L-4G	B7HV
		W24FS-GU	L-3G	B8HV
		W27FS-GU	L-2G	B9HV
12mm reach 1/2"	HOT ↕ COLD	W31FS-GU	L-55G	B10HV
		X20FS-GU	P-8G	D6HV
12mm reach 3/4"	HOT ↕ COLD	X24FS-GU	P-7G	D8HV
		X22ES-GU	R-6G	D7EV
10mm reach 1/2"	HOT ↕ COLD	X24ES-GU		
		U20FS-GU	Z-10G, Z-7G	C7HV
		U22FS-GU		



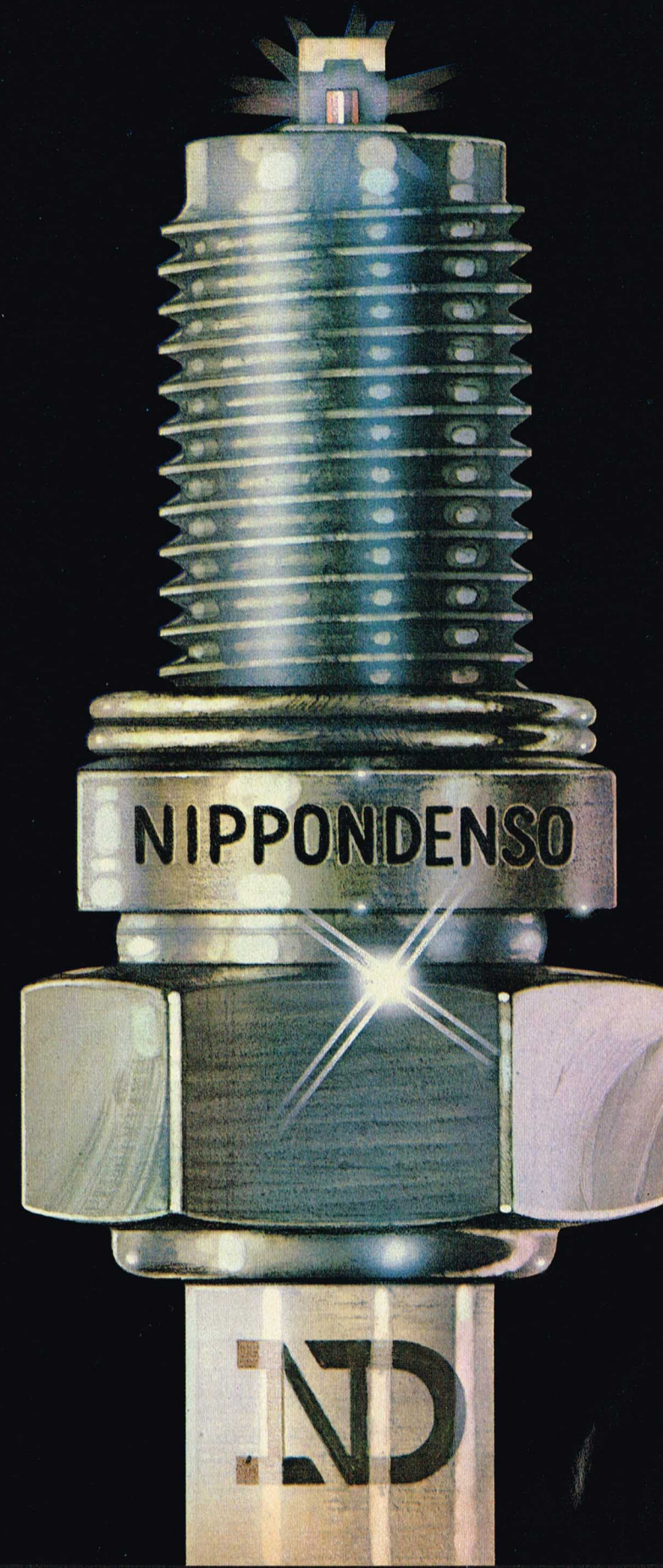
Nippondenso

Nippondenso of Los Angeles, Inc.

857 East 230th Street
Carson, California 90745



**The "GU" plug.
Get out of the way.**





Can-Am Qualifier 250

...THE STRONG, SILENT TYPE

DB meets the Canadian connection

By the Staff of Dirt Bike

Think of the most important features necessary on a good enduro bike. First off, it must be reliable. A bike that throws chains, eats rings, burns bearings or leaks oil, is definitely out. You can't finish a run on a bike that breaks down constantly, no matter how good a rider you are. Second, it has to be comfortable. The pegs-seat-bars relationship has to be spot-on, or a long run is an agonizing experience. The suspension should be cushy, but not too long, or you'll never be able to turn the bike, and the handling should be as nuts-on as possible. The front end should never hunt around or crab under, unless you do something outrageously wrong.

The power should be smooth and controllable, with a lot of low-end torque, a healthy amount of mid-range, and a dose of top-end to keep you out of trouble. Another comfort item that most people don't think about is noise. A good mud-runner should have an exhaust note that's as subdued as possible, not just for the acceptance of local ordinances. It is very difficult to concentrate on the trail while your ears are ringing. Engine noise, too, should be damped as much as possible — it can become just as annoying as an unmuffled exhaust.

The last category on the list, for anyone who is serious about enduros or qualifiers, is price. Four or five years ago, a competitive rider went out and bought something like a Penton or a Husky, which usually cost \$400-\$500 more than the competition, but had a well-deserved reputation for excellence, which meant a lot more than the savings of a few bucks.

Things have changed a little since then. Penton became KTM; they and Husky are still among the acknowledged best. Can-Am came on the scene, Maico and a few others got into the act, and, most importantly, the Japanese manufacturers started



taking an interest in pure enduro bikes. All of a sudden, bikes were available like the PE and IT enduros, costing less than the European mounts and rivaling them for effectiveness. Never before had enduro riding been as popular as it now became.

But lately, things have begun to change. The price of the Japanese machines, creeping up slowly over the years, has suddenly, in 1979, come almost on a par with the more exotic mounts. The narrowing of price margins has produced a renewed interest in the (previously) high-priced spread, and the non-Japanese manufacturers are enjoying a well-deserved revival in sales. The market is actually starting to look good again.

Enter the Can-Am 250 Qualifier.

Can-Am has been working on improvements to their line ever since the first bike rolled out of the factory, and they have come a long way from the evil handling and ferocious motors we came to know in the past. Their motocrossers are at least equal competitors to anything else on the track, and the Qualifier line is rapidly nearing state-of-the-art status. Oh,

they still have a few flaws and we'll get into them later, but any motorcycle is judged by its good points, and the final verdict is only determined after weighing them against the bad.

Powerful medicine

Now that we've subjected you to a lengthy discourse on the DIRT BIKE testing procedure, let's get right down to the meat of this thing. We really liked the Can-Am, in no uncertain terms. Everybody liked to ride the bike. As a matter of fact, it was quite difficult to pry some of our testers loose. If you had ever witnessed the cold, cruel, objective testing of our staff of certified crazies and wrench molesters, you would know what high praise that last statement is.

The Qualifier motor is a two-stroke, rotary-valved, oil-injected six-speed, not at all unlike the same engine we had last year. Can-Am prefers to improve the breed, rather than change it every year. The only changes would be the porting, and the fact that they *all* come with six-speed transmissions this year. The power is there — throughout the range, with a good low-end and mid-range spread that's smoothed out with the help of their medium-weight flywheel. The bike will grunt down low going up a killer hill, but we would have preferred one tooth less on the countershaft sprocket. The dropping of a tooth would result in a little more low-speed pulling power, without losing much usefulness of the top end. As geared, we had the Qualifier winding out to a little over 80 mph on a flat dirt road, which is normally a little more than adequate. After all, we don't want to break the national speed limit, do we?

We had a little difficulty shifting the bike at first, but this was later attributed to a lack of break-in time, and after a hundred miles or so, things began to smooth out. It did cause a few

tense moments, though, when we'd hit a neutral on a full-power downshift, going uphill. The usual result was a rapid end of forward motion, followed by a backwards trip down. Very sobering, but also our fault.

Bouncing back

This year's Qualifier is built around the MX-4 chassis, a good-handling frame that's also quite rigid. We experienced no flex at all, and the bike was stable all the way up to the top-end limit. A little vibration was noticed after the first 50 miles, which disappeared after we snugged up the motor mounts and swingarm pivot. These should be checked on *all* new bikes, of any brand. The steering head is no longer adjustable on the Can-Ams — it is set at 30 degrees, which seems to be a good compromise. The bike responded well at low-speed trailing, and remained quite stable on fast fireroads. Truly a good chassis.

We had no complaints from our testers on the suspension, the travel being just cushy enough at low speeds to be comfortable, but stiffening up on the square-edged holes, so that only the worst bumps bottomed the front or rear. The forks are the 9.4-inch travel, 35mm Marzocchi units. There is no provision for air adjustment, although the owner could install air caps, if he so desired. We liked the forks just fine, thank you, and see no need to modify them.

Girling gas shocks hold up the rear, and if you expect us to roast them, don't hold your breath — they are decent units. The rear end seemed a little stiff at first, but as we put the miles on, everything softened up nicely. The only valid complaint against Girling shocks has always been that they don't last very long, or at least this has been the case in the past. We have had no trouble with them in our test so far, but we intend to keep riding and see if any problems come up. We also expect to use them on a project bike or two — keep an eye out in future issues. If nothing else, at \$59.95 a pair, you just can't beat the price.

Whattle she do?

The first ride on the Can-Am was all uphill, followed closely by downhill, half of them approaching near-vertical status. On said uphill is where we noticed the downshifting problem, which ironed itself out later on. It's a good idea to use the clutch under such situations — a little slower, but quite a bit more positive. All of the hills in this area are studded with runoff ditches cut from the uphill side to prevent erosion, and they turn a trip in either direction into a wild ride, with the bike spending more time up in the air than



Our test Qualifier waits patiently as Australian editor-type plows a fresh trail.

not. This is where the suspension shone, with the rear end never pitching the rider off the seat, unless he was in the process of doing something really stupid. It was possible to take some long, gnarly hills in third gear. We were limited only by the famous Cajones Factor — the law equating bravery with relative size of various anatomical parts.

We ran into a little problem with jetting, specifically richness just off idle, and helped the matter somewhat by removing the foam sock that lives over the K&N air filter. We needed to drop one size on the pilot jet, and vowed to do it the next time we went out. Oil richness was also suspected, as the machine was smoking considerably (remember, the rings weren't even seated yet), so the oil injector was

readjusted according to the manual.

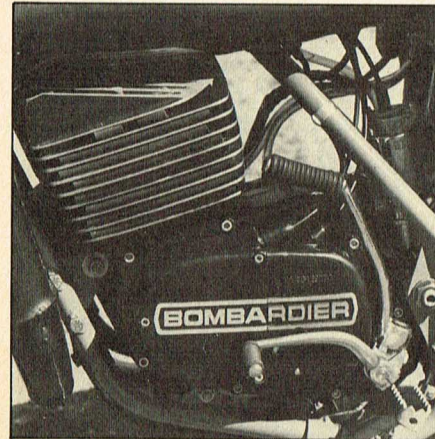
One of the annoying things about this year's bike is a change in the mounting of the centerstand. It doesn't have the lock that last year's model had (you had to kick the locking tab to drop the centerstand down), and instead is held up by a spring. It also cuts down on ground clearance, so every bump sent the stand down to bump off the dirt, and then bounce back up to the frame with a resounding clank. For a while there, it was the noisiest bike we had with us. Then it quieted down. The stand fell off. Two suggestions: Loctite the stand on while the bike is brand-new, and use a rubber band to hold it up. Otherwise it'll drive you crazy.

Next time out, we took it up to the mountains. We popped in a #35 pilot

(Continued on page 67)



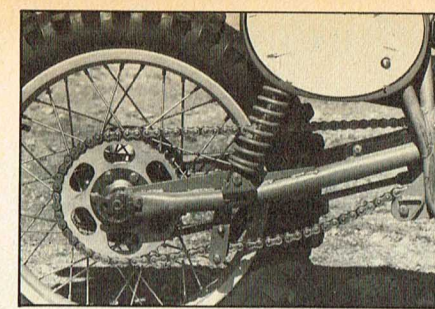
Forks are 35mm Marzocchi, orange flavor. They gave us a little over nine inches of travel, and performed flawlessly.



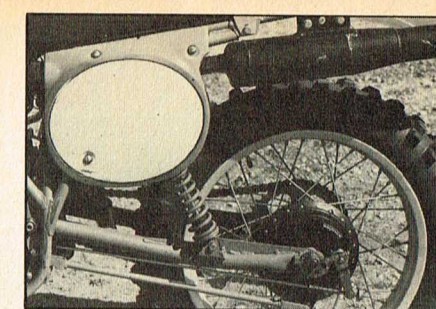
The Rotax engine is one of the best in the class. Yes, that is a Bing carb you see, and yes, we did change the jetting.



Case saver in front of the chain is to protect the ignition cover — some folks remove it to save the cases. Pegs gave a lot of support, brake pedal is super-strong.



Chain is an excellent Regina number, and held up well for us. Don't run it this loose.



Brake is a full-floating unit that works well until you get it really hot, then it simply fades. Exhaust note must be the quietest in the business.



Can-Am Qualifier 250

ENGINE TYPE	Rotary-valve two-stroke
BORE AND STROKE	74 x 57.5
DISPLACEMENT	247cc
HORSEPOWER (CLAIMED BY FACTORY)	29.5
CARBURETION	Bing 32 V-84
FACTORY RECOMMENDED JETTING:	
Main jet	150
Needle jet	2.70
Pilot jet	40
Slide number	#1
RECOMMENDED GASOLINE	Premium
RECOMMENDED OIL (MFR.)	Can-Am (injector)
FUEL TANK CAPACITY	9.95 liters (2.62 gallons)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Injection
OIL CAPACITY	2.16 liters (2.3 quarts)
AIR FILTRATION	K&N
CLUTCH TYPE	Multi-plate, wet
TRANSMISSION	Constant mesh, six-speed
GEARBOX RATIOS	
1	3.40
2	2.31
3	1.68
4	1.31
5	1.095
6	0.96
GEARING, FRONT/REAR	15/42
IGNITION	Bosch CDI
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Bosch W280 M22
SILENCER/SPARK ARRESTOR/QUALITY:	
Yes, very quiet	
FRAME, TYPE	Tubular space frame
WHEELBASE	145.1 cm (57.125 inches)
GROUND CLEARANCE	25.4cm

SEAT HEIGHT AT TANK	(10.0 inches) 92.7cm
STEERING HEAD ANGLE	(36.5 inches) 30 degrees
WEIGHT WITH ONE GALLON GAS	238 pounds
RIM MATERIAL	Sun alloy
TIRE SIZES	
Front	3.00x21
Rear	5.00x18
SUSPENSION	
Front, type and travel	Marzocchi 35mm/240mm (9.4 inches)
Rear, type and travel	Girling gas/206mm (8.1 inches)
INTENDED USE, MFR	Off-road, enduro
COUNTRY OF ORIGIN	Canada
PRICE, APPROX	\$1799
PARTS PRICES, HIGH-WEAR ITEMS	
Piston assembly, complete	\$49.52
Rings only	\$15.28
Cylinder	\$268.26
Shift lever	\$14.10
Brake pedal	\$7.71
Front sprocket	\$12.46
DISTRIBUTOR	
Bombardier Corporation	
4505 West Superior St.	
Duluth, Minnesota 55806	
(218) 628-2881	
OVERALL RATING, FROM 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
Handling	95
Suspension	90
Power	95
Cost	95
Attention to detail	88
Effectiveness, stone stock	97

Product Evaluation

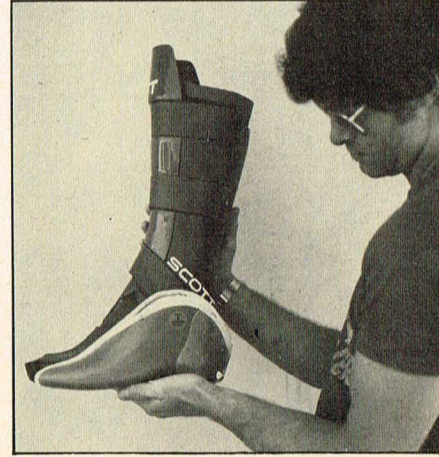
SCOTT PLASTIC BOOTS

Sole food, at \$180 a serving

By the Editors of Dirt Bike



We leaned on the Scott boots to find the limit of movement available, front and rear. It'll go farther than your ankle will.



Here's the foam inner liner that goes inside the plastic boots. These are replaceable when they get worn.

Shades of Star Wars! The future apparently is here already. Plastic boots, yet. Sure, we've all seen pictures of Hannah and a few other factory riders with the Scott boots on, but their availability to the general public has been non-existent.

The reason is simple: Scott spent these last few years developing, testing, proving and changing the original design. What you see on these pages, is the end result of all that time and money spent.

Two things are different about the Scott boots, other than the obvious fact that they're made of plastic. First, the price. They're meant to retail for \$180. Right. The most expensive boot offered. Secondly, you get an owner's manual with the Scott plastic boots. Not a brochure, but an actual manual.

This detailed and informative manual tells you how to put the boots on (not easy the first time you try it), how to maintain them and how to get them rebuilt, when needed.

You read that right. According to Scott, all components are available from their facility to totally rebuild any part of the boot, from re-soleing to putting new buckles on. One of the strongest selling points, says Scott, is

that you should never have to buy another pair of riding boots.

Since the soles always wear out first on any boot, the bottoms of the Scott boots are made of rubber. An eye should be kept on the part of the sole making contact with the peg. The soles should be replaced before the rubber is worn away and the plastic gets chewed up. For this reason, Scott recommends that "overly aggressive" pegs be dulled down a bit with a file or some sandpaper.

When the boots are ready to be re-soled, the rider has to ship them to Scott at the following address:

SCOTT USA
Freeport Center
Building D-11, Section 3
Clearfield, Utah 84016
Attention:
Motorcycle Service Department

Now that all the technical stuff is out of the way, you're probably wondering how they *feel* on the foot. Once you get past the hassle of putting them on and buckling up, they feel great. No actual break-in time is needed, as there is a removable foam liner inside the boot. Your feet never touch the plastic.

To get the boots on, one has to

spread the boot well open and grasp the liner top with both hands. Then, the foot must be arched with the toe pointed down. While this ballerina-type position is maintained, you must then pull up firmly on the liner top as you insert the foot into the foam inner liner.

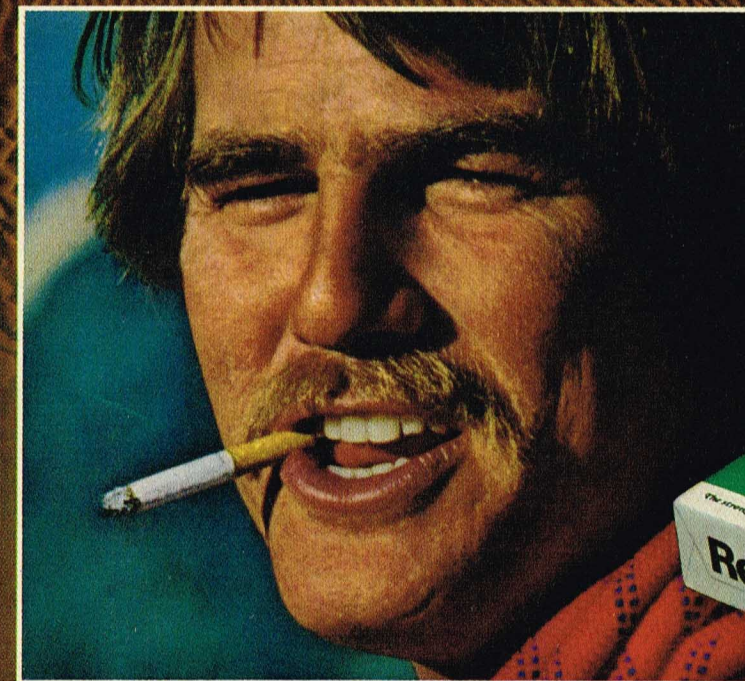
Once the foot is inside, you can then start interleaving the two sides together. The first few times you try this, it's frustrating and awkward. After a while, it becomes easier. Then, the boots must be buckled. This is one area that should be re-thought. Even after wearing the boots a half-dozen times, we had problems with the bale-type buckles. Not only is it difficult to lock the buckles firmly into place, it's hard to get the right tension. Too tight, and your calf will go to sleep. Not tight enough and the boot will move around excessively. It takes practice to get the right feel for snugging up the boots.

Now that you have the boots on and buckled, you'll find they are genuinely comfortable. Surprisingly so. And, they are very light. Walking around presents no problem and the ankle flexing hardware functions smoothly. You feel

(Continued on page 58)

MENTHOL: 8 mg. "tar", 0.6 mg. nicotine, FILTER: 9 mg. "tar", 0.7 mg. nicotine, av. per cigarette, FTC Report MAY '78.

Warning: The Surgeon General Has Determined That Cigarette Smoking Is Dangerous to Your Health.



Only
9 mg tar.

**"Real's got dynamite taste!
Strong...more like a high tar."**

The strong tasting low tar.

DIRT. CHEAP.

Introducing the newest members of the Yamaha off-road family. The MX100 and MX175.

Two tough, powerful, reliable off-road playbikes that just about anyone can ride.

And afford.

They're priced very low, yet come loaded with all the proven features they need to make them Yamahas.

The MX175, our full-size machine, has Yamaha's exclusive Monoshock rear suspension. The same type used on our champion YZ motocrossers.

Its extremely long travel soaks up the worst bumps and jolts. And the rigid triangulated swing arm keeps

your rear wheel right on track.

Leading-axle front forks allow more front wheel travel as well as quick, precise steering.

The MX100 is a unique, intermediate-size bike (right in between mini and full-size) that's not only ideal for youngsters but for anyone just getting started in off-road riding.

The seat height is extra-low for stable, confident handling. Full-sized, oil-dampened rear shocks and long-travel front forks assure comfortable cruising around the campground and responsive control on all kinds of ground.

Both bikes are powered by rugged, race-proven Yamaha two-stroke singles. Reed Valve

Torque Induction insures plenty of pulling power at the low end and throughout the broad powerband. The easy-shifting transmissions are geared for efficiency and versatility.

The center mount exhaust pipes are routed up and through the lightweight motocross-type frames for maximum ground clearance.

And our patented Autolube System automatically mixes your gas and oil so you can concentrate on having fun.

The new MX100 and MX175.

It's not often you find motorcycles that are worth so much more.

And cost so much less.

YAMAHA

When you know how they're built.

Exclusive Monoshock rear suspension.

Versatile 6-speed transmission.

Responsive, long-travel, leading-axle front forks.

Five-way-adjustable rear shocks.

Easy-shifting 5-speed transmission.

Motocross-tuned front forks.

Knobby tires for all-terrain traction.



Part Three

WHEN BROKE 250S

Snagged cables, broken levers, and bashed pipes — welcome to the parts counter

By Paul Clipper



This is how the story goes: You're out on your PE250, riding the Bone Crusher 100 National Enduro, and everything is going great. All the trees in this run seem to have been planted 26 inches apart, but there isn't a mark on them that came from your bars. Polite smile, and a nod to the Sierra Club. Also, you've gone the whole distance, and if it weren't for the few people whose roost you caught, you'd be just as clean as you started. Yep, a pretty fine day.

Coasting up to the finish line, you're bone weary, but you don't let any of the checkers guess as you joke and laugh for a couple of minutes. Even though the run is over, there's no sense in stopping the psych yet; after all, it'll be the same people next week, and it's always best to leave a cool impression. Rumble 'up to the truck and shut'er off. "Damn bike ran pretty good today," you think as you key open the door and slide the ramp out the back. "... Yep, pretty fine. . ."

And as you call on your shoulders and arms to give that last mighty push of the day, as the front wheel is just about to enter the back of your van,

you trip over a gas can, fall into the bike, and the pair of you go head first into the door, and then neatly drop to the ground. Much swearing ensues. A few stray oil cans get kicked into oblivion.

After you calm down, you kick away the emrites and assess the situation. Broken front brake lever, snapped cable, and a bent shifter. If you've got a copy of this magazine with you, in one short glance you'll be able to see that this little fall is going to cost you, uh. . . lessee, carry the four, umm. . . \$26.61. Wouldn't that make you happy?

This is the third and final installment for the 250 machines, and is pretty much self-explanatory. In some cases it may even explain to you how accessory manufacturers stay in business, especially if you own one of the scooters that call for a \$15.95 clutch cable.

We'd like to thank all of the folks who helped to put this list together for you, their names are all down below. And remember, all prices are subject to change. □

	Brake Cable	Clutch Cable	Front Brake, Lever	Clutch Lever	Rear Brake Pedal	Shift Lever	Expansion Chamber	Brake Shoes Front	Brake Shoes Rear	Spoke	Fork Seals	Steering Head Bearings	Axle Bearings Front	Axle Bearings Rear	Shock (1)
Bultaco Alpina	6.96	8.28	8.98	9.00	14.33	18.50	63.88	17.50	17.50	.66	6.36	7.50	3.94	7.60	36.26
(*1) Bultaco Frontera	7.48	8.28	8.98	9.00	18.02	18.50	113.88	17.50	17.15	1.10	12.08	11.25	3.94	7.60	N/A
Carabella 250 MX	8.00	3.95	5.95	5.95	6.95	12.50	49.50	6.00 pr.	8.00 pr.	.59	7.00	6.00	4.95	4.95	39.50
Can-Am 250	8.48	5.17	8.72	9.17	7.71	14.10	105.07	12.53	12.53	.27	3.28	3.25	3.25	4.02	69.82
Harley MX250	4.00	4.00	6.15	6.15	4.75	10.65	55.80	11.85	11.85	.50	1.60	11.85	N/A	N/A	79.30
Hercules 250 GS	6.30	15.94	8.64	8.64	11.24	15.69	147.23	13.54	13.54	.52	4.62	13.26	5.63	8.32	88.70
Honda CR250	5.60	6.00	3.40	3.40	22.26	20.56	81.83	4.80	4.70	.44	3.50	6.57	3.29	4.66	78.81
Honda XR250	7.10	6.00	3.40	3.40	17.91	14.31	N/A	3.40	4.13	.64	2.61	3.96	3.92	3.29	58.16
Honda XL250	7.10	6.00	3.40	3.40	12.30	7.84	N/A	3.40	4.13	.64	2.59	3.96	3.92	3.29	55.23
Husqvarna 250 (*2)	7.27	7.27	7.11	7.11	8.52	12.10	97.16 CR 169.71 OR N/A WR	18.03	18.03	.86	2.80	7.82	5.80	5.80	125.00 CR & WR 67.05 OR
Kawasaki KX250 A-5	5.40	4.80	4.74	4.74	16.94	12.42	50.85	5.80	5.85	.66	2.26	11.30	3.50	4.18	96.67
Kawasaki KL250 A-2	5.08	5.00	4.15	4.15	10.16	7.90	71.50	5.80	5.85	.54	2.92	11.30	3.50	4.18	42.00
Kawasaki KE250 B-3	5.08	5.00	4.15	4.15	10.16	7.90	58.66	5.80	5.85	.66	2.92	11.30	3.50	4.18	42.00
KTM 250 (pre-'79)	3.66	4.12	16.75	16.75	14.03	12.46	105.62	5.18	9.20	.39	4.60	.12 ea	4.46	5.57	75.46
Maico Magnum enduro & MX	6.53	6.53	9.50	9.50	19.60	16.87	179.09	15.44	19.80	.90	14.20	18.41	11.74	22.57	N/A
Montesa Cappra 250 VB	9.59	9.36	16.62	16.40	25.48	20.68	121.88	8.82	9.27	.40	3.97	16.07	6.83	6.83	50.70
Montesa Enduro 250 H6	6.19	6.19	16.62	16.40	18.74	21.97	121.88	8.82	9.27	1.10	3.97	16.07	6.83	6.83	53.18
Suzuki RM250C2	4.44	6.22	10.79	11.82	14.39	8.88	72.20	4.11	4.11	12.08	3.08	.15 ea	3.60	5.14	73.92
Suzuki PE250C	4.88	6.66	12.85	4.44	13.36	8.88	76.00	5.14	5.14	12.88	3.08	.15 ea	3.60	5.14	49.40
Suzuki TS250N	4.44	5.33	4.44	11.31	13.32	9.25	66.60	5.14	5.14	12.43	3.80	.15 ea	3.60	4.11	50.62
Yamaha YZ250F	3.66	5.74	6.16	6.16	7.72	5.90	68.48	4.30	6.60	12.90 set 13.20	1.82	12.52 U 10.08 L	3.38	3.88	147.75
Yamaha IT250F	3.66	5.74	6.16	6.16	N/A	9.04	65.00	4.30	7.90	12.90 set 13.20	2.90	12.52 U 10.08 L	3.38	4.00	145.96
Yamaha DT250F	6.16	6.08	4.98	4.98	7.62	4.68	N/A	5.02	4.26	11.24 R 12.14 F	2.90	.66 .57	3.38	3.88	128.73

*1. Pursang parts are the same as the Frontera

*2. Most parts are the same for the CR, OR and WR. Exceptions as noted.

What made Tom Keeton feed his friends a steady diet of dirt, rocks and second place? The Kawasaki KDX400.



Tom "Malcolm" Keeton likes to win. That means two things. One, anything goes. And two, he goes with the best bike.

So when Tom saw the new KDX400, he said, "That's one for my friends."

The KDX400 is a winner. For a start, look at the chassis. An I-section aluminum swing arm, chrome-moly steel frame, cast magnesium components. It all adds up to light. Real light. Lighter than the closest competitor. Then there's the special 2-stroke reed-valve engine that gives you useable horsepower. The KDX400 is a torquey mother. It'll suck your eyeballs down your throat. And it comes with a wide ratio 5-speed transmission and CDI ignition.

Even the suspension has more travel than

the closest competitor. 10.2" in the front air-oil forks with large diameter tubes (38mm) for minimum flex and maximum strength. In the rear, 9.1" with Kayaba gas-oil lay-down shocks with remote reservoirs.

There's a 21" front wheel and 11.7" of ground clearance. What else do you need to win enduros? Off-road lighting? Narrow, but big fuel tank? Wide plastic fenders? Quick detach wheels? Engine and chain protection? A high level air intake for the water? It's all there in the KDX400.

This bike is designed for big bore endurance riders who want to win and not be beaten to death in the process. The KDX400 may not win you friends, but it can win races.

Kawasaki

Don't let the good times pass you by.



For off-road use in certain areas the optional silencing kit must be installed. Check local requirements before riding. Use your motorcycle legally, respect the environment and the rights of other people. Member of AMA, MIC and MSF.



Suzuki RM125N

EVOLUTION OF THE SCREAMING YELLOW ZONKER

Some things always change

By the Staff of Dirt Bike

This is the third in our series of 125 motocrosser tests: the RM125N Suzuki. The first was the Elsinore, the second, a KX125. Finishing out the Big Four, will be the YZ next month. Then, as previously stated, we'll stand back and take a hard look at how they stack up to each other.

Our RM is emerging as the missile of the group, and a sophisticated one, at that. It's no surprise that the "N" version of Suzuki's 125 bristles with every goodie to be found. Other than a few odds and ends, this latest version is as up to date as anything, in any class.

If you'll think back and count on your fingers for a while, you'll find that Suzuki has come out with five different versions of the 125 MXer in the last three years. They haven't bothered to wait for the traditional end of the year new models like the other Big Four manufacturers.

This has both delighted and teed-off the 125 class buyer. On the one hand, the bikes have been excellent state-of-the-art efforts for a fair price. On the other hand, it's frustrating to go out and buy a brand-new racer, only to have a totally new and updated model appear a few months later.

Still, this paid off for Suzuki in a big way. They absolutely dominate racing in the 125 class. While this may not be true at the National level, it's most assuredly a fact of life at your average track on any Sunday. The reason is simple. The RMs are the rocketships of the class. When you can get to the first turn ahead of the other bikes, your job is a lot simpler.

The first RM125s weighed in at right around 190 pounds, very light for the time. As the models gained travel and speed, they increased in weight with each and every model change. It's hard to go from 35mm fork tubes to 36mm tubes and *not* pick up poundage.

However, with the new "N" model, they've somehow managed to make a



maximum-travel 125 and shed kilos of lard in the process. Our test 125 weighs 187 pounds dry. Take off the removable kickstand assembly, and you save almost two more pounds. Pour some mix in the tank, add oil to the gearbox and forks, and you can straddle the RM125N at the starting gate at right around the 195-pound mark.

How'd they get it so light?

By careful thought and trimming, mostly. No radical weight-saving steps were taken. For being a class leader, Suzuki is a conservative company that does not like to take chances with unproven techniques.

Most of the fat was trimmed by rethinking the sizes of fasteners, tabs, brackets, mounts and supplementary hardware. More weight was lost with relocation of components and trimming cases and covers. Mostly, the total weight savings was the result of paring a fraction here and a tad there, rather than going for any major surgery in any one area. This is actually the safest way to go about a weight loss, but, no doubt, hundreds of man-hours were spent by the engineers in the process.

A quick glance shows a smaller, lighter tank. The aluminum arm is trimmer. The clutch has been relocated. Even the actual frame is lighter. Less tubing is used and economical thought shows in gusseting and tubing junctures.

Getting familiar

When slinging a leg over the "N" model, it's apparent that you're on a new generation bike. At well over 36 inches, the Suzuki is a tall bike, requiring that riders under 5'10" wear a non-binding set of leathers. We've watched more than one short rider catch a toe on the back edge of the saddle and topple over like a stunned cow in a meat factory.

Still, once astride the machine, the area where the saddle meets the tank is very narrow and dips a bit when seated, allowing the rider a chance of at least touching the ground with the tips of his toes.

If you're under 5'9", it's best to rest your left foot on something when kickstarting the bike. A toolbox or a milk crate usually serves nicely. The reason for this is obvious. Not only is the bike tall, but for some odd reason, every once in a while, the Suzuki takes a large number of kicks to get lit off.

There was no pattern to this. Hot, cold or medium temperatures would produce a three-kick start one time, then demand a 12-kick start the next time. We tried throttle settings, a string of curses and several prayers, but it didn't seem to make any difference. The bike would start easily when it wanted to and get grumpy when it didn't feel like it.

Compounding this, was the close placement of the footpeg to the kickstarter at the bottom of the stroke. More than once, we saw tears come to the eyes of a fully grown man, as he nailed his instep on the back of the peg.

But, once the bike was running, all of this was forgotten. Even when sitting on the bike, warming the engine up, you can tell there's a good, strong motor underneath you, just waiting to rev its brains out.

Easing the RM into gear, the rider will feel no lurch or clunk. You can't really tell you're in gear until the

clutch is eased out. Engagement proved smooth and over a fairly wide area. It didn't take the hands of a magician to get the right combination of clutch and throttle to initiate forward motion. This could prove a very valuable feature for a rider on a slippery, freshly watered track that calls for easing out of a snotty corner.

The first time you run through the gears good and hard, the solid rush of power almost fools the rider into thinking the bike pulls like a 250. While the surge is nearly as strong as a crisp 250, it doesn't last as long. There's a quick spurt of power to the rear wheel, then the rider had better shift right away.

Over-revving the 125, unlike the RMs of the past, will actually slaughter the delivery of the power. While the "N" model puts out a wild 26-plus horsepower at slightly over 10,000 rpm, it also drops off like a falling brick past that figure. Test riders who tried to ride the new bike like last year's machine were disappointed. When they were asked to short-shift the bike, they found out it worked a lot better.

Now, the RM could not be short-shifted like a 250, but you had to get into the next higher gear much earlier than you *thought* would work. The RM seemed to pull well from about 6500 to 10,000 rpm. This means that the left foot of the rider will be doing a steady tap dance on the shift lever.

Luckily, this is the best-shifting Suzuki 125 we've ever ridden. The only shift that demanded attention was from first to second. Here, unless the rider made a fairly deliberate stab, a random neutral would surface. Once in second, the RM could be upshifted under power, without backing off the throttle. We raced the Suzuki a number of times, and more often than not, it was Holeshot City.

We wished the RM would have had a bit more grunt down low, but then, some of the top end would have no doubt gone far, far south.

Suspension, front and rear

Naturally, the RM is running long legs. Right around 11 inches at both ends. And, the quality of the travel has improved dramatically over previous efforts. Older RMs (all sizes) had an excess of compression damping, that would cause the forks to react harshly to sharp-edged bumps or square holes. The oil simply couldn't get through the holes in the damping assembly quickly enough. This meant that any sudden, violent impact would make the forks momentarily rigid. On rolling bumps, even deep ones, this was no problem. We're pleased to report that the new forks are genuinely improved. They



Our test RM125 won twice at Saddleback, once at Indian Dunes and picked up a second at Racing World.

followed the ground well and were supple enough to yield reasonably well over those square-edged bumps. On a scale of 1 to 10, we'd give them about an 8.7. Not perfect, but very good.

At the rear you'll find what looks like the same old shock Suzuki has been giving you for a few years. But, it appears that more has been changed than the springs. We found the action decent and fade-free. The average RM125 Suzuki owner will *not* have to run out and pop for a pair of accessory shocks. At least, that is, until these give up the ghost. They are not rebuildable, which is a shame, because these KYBs are not bad at all.

A rubber bumper rides on the shock shaft, and even though this bumper is only an inch and a half or so in length, it appears to have magical properties that keep the rear end of the bike from bottoming out severely, no matter how much impact is dialed in. You can expect to see these bumpers being used more and more as their worth gets proven. The race car people have used this concept for years.

Following the bouncing berm

As delivered, most riders will find that the Suzuki is not too happy when stuffed into a corner. While the front end doesn't push or drift out when the bike is leaned over, it still does not snap sharply through a directional change.

The answer, of course, is to raise the forks up in the triple clamps about a half-inch. In addition to this, the pressure in the air forks should be run at about 11 or 12 pounds for the average rider. Once this is done, the RM will then turn quite happily. You'll find a very slight trade-off when the forks are raised, and that is a minor tendency for the rear end to swing out under acceleration when heeled over. However, that tendency is so slight, that simply slipping a Metzeler on the rear would bring that condition back

into line.

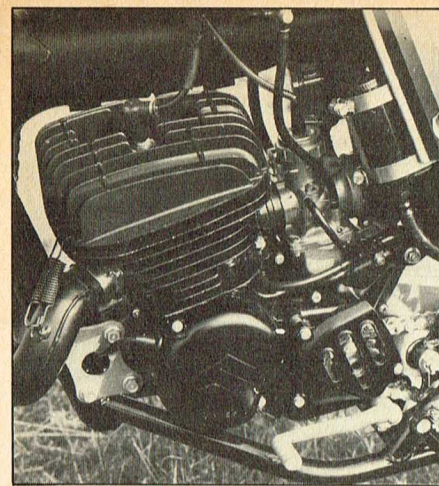
While mentioning Metzeler, serious riders should consider wrapping one around the front rim. While the stock rubber works OK under most conditions, when the course dries out, the stock rubber begins to slip.

One interesting side note of sorts: We've seen tests in other rags mentioning that the RMs don't turn sharply enough. Don't be taken in by their lack of smarts. Experiment with the positioning of the forks, try different oil levels in the forks and find an air pressure that fits your riding style. All of these factors determine how a bike will turn. Even something as simple as bumping up the preload on the shocks will make a bike turn a bit sharper. So, don't take anything for granted until you have explored the tuning capabilities of this or any other machine.

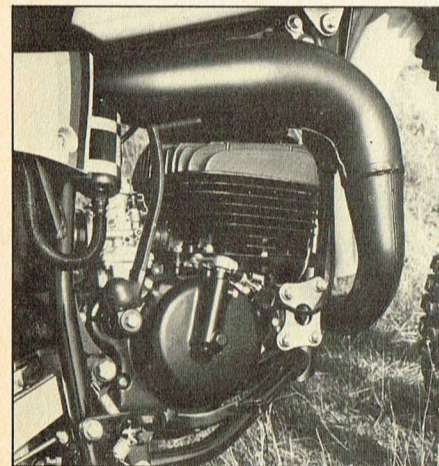
However, there's more to an MX track than just corners. On long, bumpy straights, the RM shines. It's really possible to get tapped out on deep whoopers. You've just got to trust the rear end to take all the punishment in stride. For a long-travel bike, there is very little wallowing through truly deep whoops. Some of the long-travel machines tend to pitch and bury the front under deceleration. This can literally pitch a rider right over the bars. You'll find that the first part of the travel on the Suzuki is on the firm side, which is as it should be. Riders should resist the temptation to soften up the suspension action to "mushy" specs.

Bits and pieces

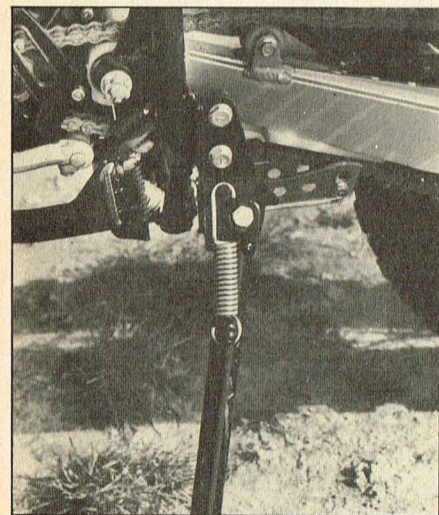
Overall feel and layout of the newest RM is a bit different than past efforts. The bars are much flatter than last year's model and the pegs are fairly far back on the bike in relationship to those bars. This makes the RM125 very easy to ride in a standing position. An average-sized rider will find that — in



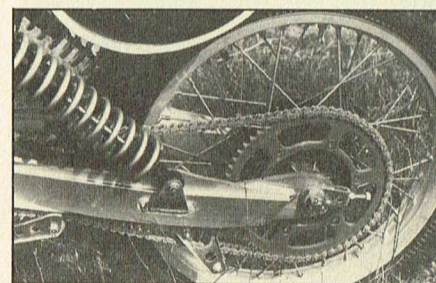
The RM125 has the look and feel of a much larger bike. Even the engine appears large for a 125.



No one burned their legs on the pipe. Layout in the engine compartment was well thought out. Not much space was left over, but everything could be reached for normal maintenance.



Removable sidestand will save the rider about two pounds when left off. Neat roller on top of swingarm keeps aluminum from getting chewed up by the chain.



(ABOVE) Everywhere you look, thoughtful weight-saving techniques are apparent.



(RIGHT) The forks on our '79 RM were the best Suzuki effort to date.

1979 Suzuki RM125N

ENGINE TYPE . . . Two-stroke, single-cylinder, power reed
BORE AND STROKE . . . 54.0mm x 54.0mm
DISPLACEMENT . . . 123cc
HORSEPOWER (CLAIMED BY FACTORY):
 . . . 26.5 at 10,750 rpm
CARBURETION . . . Mikuni, VM32SS, 32mm
FACTORY RECOMMENDED JETTING:
 Main jet . . . 250
 Needle jet . . . R-8
 Jet needle . . . 6DP5-2
 Pilot jet . . . 30
 Slide number . . . 3.0
RECOMMENDED GASOLINE . . . Premium
RECOMMENDED OIL (MFR.): Suzuki C.C.I.
FUEL TANK CAPACITY . . . 6.5 liters
 (1.7 gallons)
FUEL TANK MATERIAL . . . Plastic
GAS/OIL RATIO . . . 20:1
LUBRICATION . . . Pre-mix
OIL CAPACITY . . . N/A
AIR FILTRATION . . . Oiled polyurethane foam
CLUTCH TYPE . . . Wet, multi-plate
TRANSMISSION: Six-speed, constant mesh
GEARBOX RATIOS
 1 . . . 2.333 (28/12)
 2 . . . 1.750 (24/17)
 3 . . . 1.411 (25/21)
 4 . . . 1.190 (25/21)
 5 . . . 1.045 (23/22)
 6 . . . 0.956 (22/23)
IGNITION . . . Suzuki P.E.I. (Pointless
 Electronic Ignition)
PRIMARY KICK SYSTEM? . . . Yes
RECOMMENDED SPARK PLUG . . . NGK
 B9EV or Nippondenso W27ES-G
SILENCER/SPARK ARRESTOR/QUALITY:
 . . . Silencer only, average for racer
EXHAUST SYSTEM . . . High-pipe, right side
FRAME, TYPE . . . Single downtube,
 . . . split cradle, chrome moly

WHEELBASE . . . 1440mm (56.7 inches)
GROUND CLEARANCE: 320mm (12.6 inches)
SEAT HEIGHT AT TANK . . . 920mm
 (36.2 inches)
STEERING HEAD ANGLE . . . 30 degrees
TRAIL . . . 133mm (5.24 inches)
WEIGHT WITH ONE GALLON GAS
 . . . 89.5 kg. (197 pounds) — 85 kg dry
 (187 pounds)
RIM MATERIAL . . . Aluminum alloy
TIRE SIZES
 Front . . . 3.00 x 21 Bridgestone knobby
 Rear . . . 4.10 x 18 Bridgestone knobby
SUSPENSION
 Front, type and travel . . . Telescopic,
 . . . 38mm tubes, air/oil, 11.2 inches
 Rear, type and travel . . . Aluminum swingarm,
 . . . gas/oil KYB shocks, 11.0 inches
INTENDED USE, MFR . . . Motocross,
 . . . off-road racing
COUNTRY OF ORIGIN . . . Japan
PRICE, APPROX . . . \$1279.00
PARTS PRICES, HIGH-WEAR ITEMS
 Piston assembly, complete . . . \$25.17
 Rings only . . . \$10.30
 Cylinder . . . \$83.33
 Shift lever . . . \$7.86
 Brake pedal . . . \$9.27
DISTRIBUTOR
 U.S. Suzuki Motor Corp.
 13767 Freeway Dr.
 Santa Fe Springs, California 90670
OVERALL RATING, FROM 0 TO 100,
VARIOUS CATEGORIES, KEEPING
INTENDED USE OF MACHINE IN MIND:
 Handling . . . 93
 Suspension . . . 96
 Power . . . 95
 Cost . . . 85
 Attention to detail . . . 98
 Effectiveness, stone stock . . . 97



his normal stance — a slight amount of his weight will be automatically placed on the bars.

With this stance, the rider will find that when he drops to the saddle for a corner, he's already positioned right over the forward area of the saddle near the tank, which is the right place to have the weight when loading the front end for a corner. Going from a seated to a standing position on the RM is a very natural movement, except for tall riders. For some reason, a few of our taller riders have reported that they've felt "hunched over the bars" when standing and that they hit their knees too easily on the bars when turning.

As with all Suzuki dirt bikes, this one comes with a too-short throttle assembly. Even for average-sized hands, the length is wrong. Riders with big hands actually have their hands

hang over the edge of the grip on the throttle side. One of the very first investments most riders will make, is a straight-pull something-or-other.

While sniveling about the throttle, we might just as well moan about the throttle cable. It's decidedly sub-average, with a lot of housing flex apparent when the throttle is cranked on.

We liked the shape of the bars, but bent them easily. They appear to be shaped like the very early Husky bars and are flat and straight.

New plastic abounds this year. The tank is a welcome change, but emotions were mixed about the new space-age shape of the rear fender. In fact, the front fender was also slated to have that shape, but this design was dropped after the first shipment of RMs hit the shores. Suzuki has also

managed to retain a pleasing shape to the rear section of the RM, even though they have the FIM-required rear-mounted number plates to contend with.

One odd thing: We just couldn't find any reasonable way to keep those side plate mounting bolts in. They constantly fell out. We didn't want to safety-wire the things and somebody stepped on our tube of Loctite. No matter how much you tighten those wimpy little bolts, they somehow disappear by the end of the day of riding. Suzukis all over the world are being ridden around at this very minute, with little nylon ties holding the side panels on. 'Tis a shame.

Brakes were decent, with a new hub riding up front. The rear brake is a floating setup, which some people think is the greatest thing since jockey shorts. We've never been able to see the advantage explained to us in a rational manner. However, the rear brake isn't bad at all.

Air filter servicing seems to improve each year on the RMs, and this "N" version of the 125 is no exception.

As with most new bikes, our spokes loosened quickly and often during the first few riding sessions, then bedded down for a nap.

One funny thing: We kept having our master link clip fall off. MXA had a similar problem with one of their Suzooks and they found out that it was caused by rolling the bike backwards and catching the clip on a sharp edge on the chain tensioner. By bending the offending edge slightly out with a pair of pliers, this trouble spot can be cured easily.

Also, keep an eye on the frame end of the brake stay arm. There's a cotter pin that can be pushed out when the bike is put up on a stand.

Oh yes. There are also zillions of neat little rollers and brackets and doodads all over the bike. You just sort of have to squat down there and look around to appreciate the details in that department.

In a nutshell

When you consider all of the facts and figures we've presented to you, the Suzuki is undeniably a brilliant package. It's probably the most technically advanced dirt bike on the market today. Each year, Suzuki keeps whittling away at the RM125, and with each effort, they get better and better.

If this trend keeps up, we just might be forced to write a test someday in the very near future wherein we can't complain about anything! Gad. That would be awful. Maybe *that's* why they don't change that wimpy little throttle. □

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John Savitski

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(indicate size and logo)
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WITH EVERY DT YOU GET A FREE STREET BIKE.

There are few things in life better than getting your money's worth.

And few ways to do it that are as much fun as this — a '79 Yamaha DT.

Because it's not just two bikes for the price of one. It's two good bikes for the price of one.

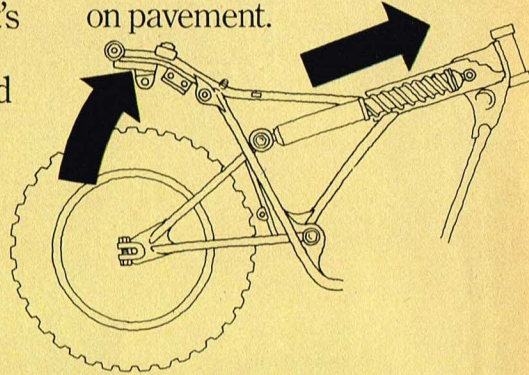
All our DT's were designed from scratch for someone who not only wants to ride on both sides of the city limits, but who also wants to do it on

something that's more than an overweight street bike with knobby tires. Or a tempermental dirt racer with lights.

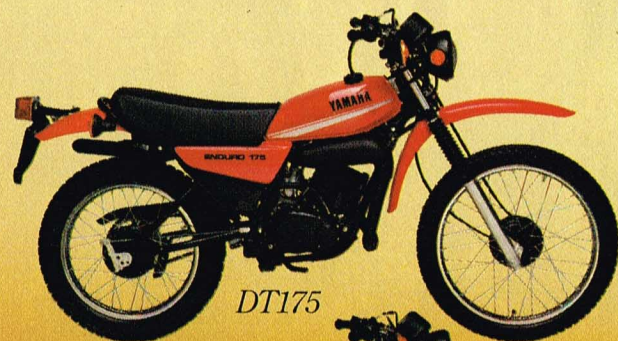
It's a pure-bred motorcycle, as easy to pick through a stream bed as through a traffic jam.

To illustrate our point, let's take a look at how the DT is made. We start with a rugged motocross-type frame, and motocross-type suspension. On our bigger models (all but the DT100), that means Monoshock.

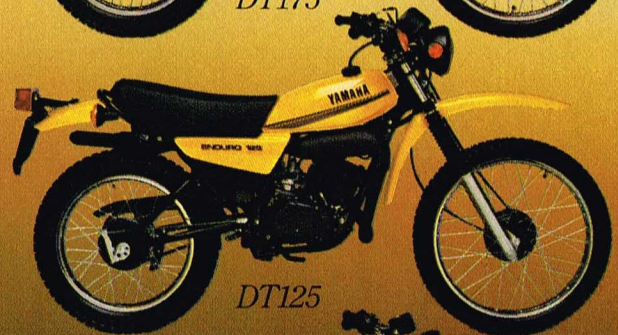
The Monoshock rear suspension we use is the same system you'll find on our World Champion YZ motocrossers, and TZ road racers. It gives you the flexibility you need in the rough, and the control you need on pavement.



Our exclusive Monoshock rear suspension keeps the rear wheel on the ground for outstanding traction. Spring preload is adjustable to both rider and riding conditions. And the rigid triangulated swing arm keeps the rear wheel stable for truer running.



DT175



DT125



DT100

In fact, it's so good it's patented. That's why you won't find it on anything but a Yamaha.

Our bigger models also have new leading-axle front forks, so there's plenty of travel (up to 7.6" to be exact) and steering that's fast without being heavy.

Power (and we do mean power) comes from a quick, reliable two-stroke single. Quick, because it has Yamaha's exclusive Reed Valve Torque Induction for plenty of low end punch. Reliable, because it's the sim-

plest type of powerplant in the world. (With only seven moving parts, there just isn't a whole lot that can go wrong.)

And to top it off, our two-stroke engines weigh less than a four-stroke, with a much lower center of gravity, for that light, crisp feel.

Add little niceties like flexible turn signals, an exhaust system mounted where it won't scrape, automatic chain tensioner, and of course Autolube — which automatically, precisely,

and economically mixes your gas and oil — and you have a bike that can take you a long way. Wherever you take it.

So whether you decide to take your bike camping, or fishing, or just touring through the boonies on a Sunday morning, you're going to find that our DT's have everything you need to handle even the worst terrain.

Including a way to get there.

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When you know how they're built.

Power is up on our three bigger models. And even with all that performance, fuel economy is better than ever.



Full street-legal lighting and instrumentation. Includes head and tail lights, flexible turn signals, speedometer, tach, resettable trip meter, neutral and oil level indicators.

New motocross-type leading-axle front forks on our larger bikes mean even better handling and steering.

Yamaha IT400F

A BIG SHAGGY DOG

You can't help but like it

By the Editors of Dirt Bike



Yamaha's new IT400F is quite deceptive. As with the other IT models unveiled this year, only a discerning eye can pick out the differences from last year's highly successful models. Everything that we've become accustomed to on the ITs — electric blue plastic and gobs of enduro-type goodies — is still there. It looks much like the last couple of years' worth of 400s.

But, if you really start comparing, then some glaring differences pop up immediately.

What we feel is probably one of the most important improvements — and there are many — is the reduction of weight of this package. With a newly designed engine, changes in frame material and some close attention to

details, Yamaha has pulled the weight of this open classer down to a very tasty 250 dry. This represents a 23-pound trimming in just one model year. Full of gas and oil, our 400 weighed 271. Porky by some standards for sure, but compared to last year's 294 (whew), it's nearly svelte.

When we tested the IT250F earlier this year, it was immediately apparent that the weight had changed by a bunch. It's also quite noticeable on the 400, but with an extra seven pounds it doesn't seem to be as dramatic as on the 250.

Where the weight reduction is noticed the most is on the trail. The new 400 doesn't feel nearly as top-heavy as the older one. Part of this is due to a change in front end

geometry, too, but a good deal of it comes from the weight reducing efforts.

Speaking of the geometry change, Yamaha (finally) pulled the steering head back two full degrees from 31.5 to 29.5. And (finally), the IT will turn with success. Compared to the E-model, it's like a trials bike — an exaggeration, of course, but there is a major difference. While we didn't detect any loss of straight-line stability through the whoops, at least the rider this year has enough fork tube length to be able to drop them in the clamps for a flatter rake for whoops. Maneuverability and tracking are both improved.

This year the forks got the treatment, too. Travel is up 15mm (1.6-inch) over the 'E' model to 230mm (9.06 inches). Revised damping rates are enhanced by an increase in

fork oil volume by 46cc (1.55 ounces). This extra oil helps combat temperature changes in the forks.

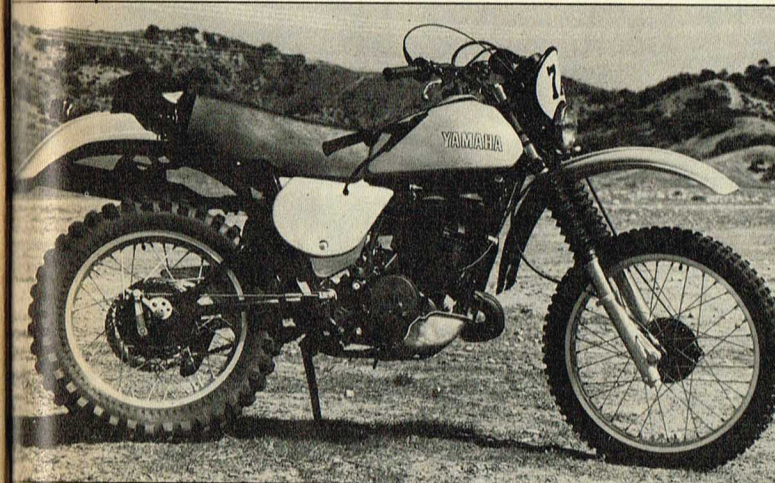
Travel at the rear is increased 20mm (.8-inch) to 205mm (8.07 inches). Both spring rates and damping rates of the monoshock are revised. Actually, the spring rates are softer than last year, which initially gave us some concern, since the E-model was too soft. But, as it turns out, damping changes are combined with higher nitrogen pressure to net a much better feel. Excellent low-speed reaction, without severe bottoming, is the net result. It's a matter of fine tuning.

Not content with just chassis and suspension changes, Yamaha also went about redesigning the 396cc powerplant. A bore and stroke change, new leaner cases and jetting changes in the 38mm carb are the majors here.

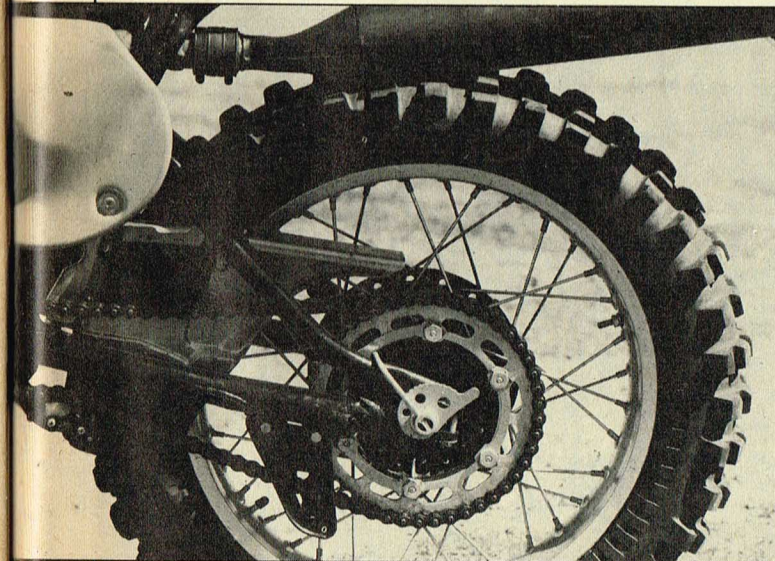
This year, the bore is decreased 3mm

to 82 while the stroke is increased from 70 to 75mm. This new longer-stroke motor develops more torque and a little less rpm than the older engine. The IT shares the same configuration with the YZ models. All-new cases this year are the result of a major amount of trimming, cutting and fitting. These new aluminum sculptures don't appear to have an ounce of unnecessary fat anywhere and torsional strength has also been improved. Smaller, narrower and lighter, the cases help position the engine weight lower in the frame. Additionally, the gear ratios are revised, providing closer ratios with overall lower gearing.

Everything in the carb, with the exception of the slide cutaway (3.0mm), is changed on the 'F' model. The main jet has gone up from 350 to 370, the pilot from 50 to 60 and the needle jet has been fattened up. The



Attention to detail is the Yamaha's strong point. It is the best-equipped out-of-the-box enduro available.



Quick-change rear wheel and a 100 mph final drive sprocket ratio are a few of the things that make the IT so versatile.



Jim Connolly slogs through the snow at timber line aboard the Yamaha IT400F.

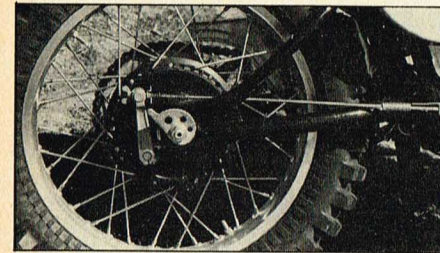


A QUICK-CHANGE MUST

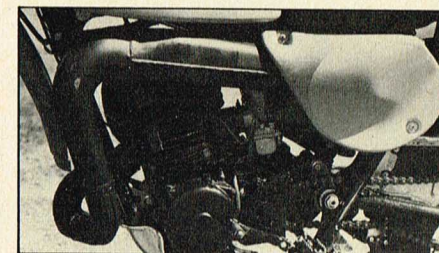
To help get those tire changes down to three minutes as well as just make chain care and maintenance a lot easier, a centerstand kit is available from Yamaha dealers.

This stand bolts up to existing mounts on the underside of the IT250 and 400 F-models, without welding. The stand fits all models with stock-length suspension. Price on the centerstand kit (part # 2X7-27000-00-00) is approximately \$43.50. (It will not fit the D or E-models, but there is one available for those earlier ITs.)

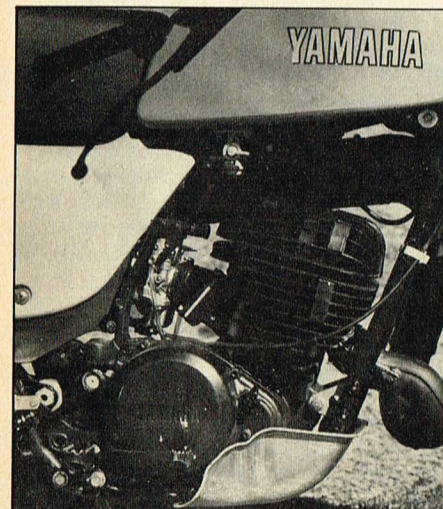
Not only does it make changing tires, pulling wheels for brake maintenance and lubing the chain easier, but it helps steady the machine when working on various other parts while in the workshop. Another advantage is that it means you can pull off the stock sidestand, which sometimes has a tendency to snag your heel while paddling or dabbing through rocks and mud. A worthwhile item, for sure. □



Yamaha offers good rear brakes and Barum-type rim-saver IRC Volcanduro tires.



Magneto cover is constructed of composite-materials plastic. Folding shifter and chain tensioner are standard.



Leaner cases and revised internals account for most of the 23-pound weight reduction on the IT400F. Motor is one of the strongest open classers available.



Fork travel is increased moderately to match longer rear end. Damping is good. Plastic-covered headlight, still standard, is quite durable.

needle is dropped one notch from #2 to #3 position.

The end result of the motor changes is absolutely gratifying. We consider this probably the best open class engine available on enduro/qualifier mounts. It is extremely tractable and can be called on to perform tractor-like functions in any gear. At the same time it will pull easy, full-power wheelies in fourth and fifth gears. It's incredibly strong! There is a definite surge just above mid-range, but for the most part, it just pulls strongly and evenly right from the bottom.

We had a chance to run the IT

alongside one of the very quick Can-Am 370 Qualifiers, and they ran heads-up — run after run. Despite the awesome amounts of torque, the IT doesn't want to loop on the rider that easily. It will, of course, like any open class machine, but the rider really has to dial it on in the wrong circumstances.

Another eye-opening power experience happened on a several-mile paved stretch in one of the off-road riding areas where we test. Shifting from fourth to fifth — at well over 60 mph — one tester crested a shallow rise and the front end lifted gracefully. The

Yamaha IT400F

ENGINE TYPE	Air-cooled, reed valve single
BORE AND STROKE	82mm x 75mm
DISPLACEMENT	396cc
CARBURETION	Mikuni VM38SS
FACTORY RECOMMENDED JETTING:	
Main jet	370
Needle jet	Q-0
Jet needle	6F-16-2
Pilot jet	60
Slide number	3.0
RECOMMENDED GASOLINE	Premium
RECOMMENDED OIL (MFR.)	Yamalube
FUEL TANK CAPACITY	12 liters (3.2 gallons)
FUEL TANK MATERIAL	Plastic
GAS/OIL RATIO	20:1
LUBRICATION	Pre-mix
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	Five-speed, constant mesh
GEARBOX RATIOS	
1	2.666 to 1
2	1.750 to 1
3	1.315 to 1
4	1.000 to 1
5	0.785 to 1
GEARING, FRONT/REAR	14/46
IGNITION	Capacitive Discharge
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Champ N-36
SILENCER/SPARK ARRESTOR/QUALITY:	Yes/yes/good
EXHAUST SYSTEM	High
FRAME TYPE	Double cradle
WHEELBASE	1420mm (55.9 inches)
GROUND CLEARANCE	275mm (10.8 inches)
STEERING HEAD ANGLE	29.5 degrees
TRAIL	122mm (4.8 inches)
WEIGHT WITH ONE GALLON GAS	258 pounds
RIM MATERIAL	Aluminum
TIRE SIZES	
Front	3.00 x 21 4PR
Rear	4.50 x 18 4PR
SUSPENSION	
Front, type and travel	Telescopic fork, 230mm (9.06 inches)
Rear, type and travel	Monocross, 205mm (8.07 inches)
INTENDED USE, MFR	Off-road
COUNTRY OF ORIGIN	Japan
PRICE, APPROX	\$1798
PARTS PRICES, HIGH-WEAR ITEMS:	
Piston assembly, complete	\$41.90
Ring only	\$12.48
Cylinder	\$145.48
Shift lever	\$9.04
Brake pedal	\$12.86
Front sprocket	\$8.28
DISTRIBUTOR	
Yamaha Motor Corp. USA	
6620 Orangethorpe	
Buena Park, California 90620	
OVERALL RATING, FROM 0 TO 100, VARIOUS CATEGORIES, KEEPING INTENDED USE OF MACHINE IN MIND:	
Handling	82
Suspension	88
Power	99
Cost	98
Attention to detail	99
Effectiveness, stone stock	92

lift-off was smooth and controlled and might have been scary on something pipier. We managed to get an actual eye-fluttering 90-plus out of the IT on a fireroad. Whew!

A couple of the testers felt that it would make an excellent motocross motor, since it was so smooth and predictable. The problem with most big-bore MXers is just getting the rear wheel to hook up. The more predictable the power is, the easier it is to maintain forward momentum.

If it sounds like we're stoked on the engine, you certainly pegged it. It

(Continued on page 68)

Swingarm Maintenance

IT'S PIVOTAL!

Up and down, not back and forth

Well, Bunky, it just doesn't seem to want to go where you point it anymore, eh? Does it feel like every jump is going to launch you toward Waukegan, when you were headed toward Nashville? Are you tired of going through the whoop-de-dos backwards? Does it seem that every time you pick a line, your front end picks a different one?

Is that what's bothering you, Bunky? Then, what you have here is probably dead swingarm bushings.

It's easy enough to find out if these little units have gone south, just by removing the rear wheel and shocks, and checking for side-to-side play. If the swingarm moves more than about one millimeter (.04-inch) at the axle, then it's time to replace these bushings. If they are really bad, then you'll be able to detect movement without removing the wheel or shocks. At that point they are really grim.

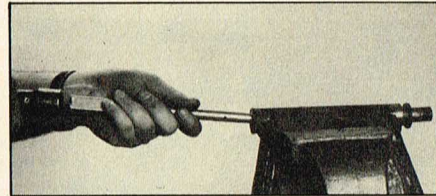
How did they get that way, you may ask? Usually from age, always from lack of lubrication.

Actually, there are three main types of swingarm bushings. The first, one that is fairly common on many older bikes, is the rubber bushing. This looks like a very large shock eye bushing. It is a steel sleeve with a steel insert bonded together with very stiff rubber. There is no real maintenance on these units, they just get old, or the rubber breaks down from use and they get sloppy. Replacement is the only cure.

The second type is a bushing (bronze or nylon) that either floats between inner and outer spacers or is pressed into the swingarm and rides on a smooth spacer. These should be occasionally cleaned and lubricated. Once they are worn out, though, it is time for replacement.

A third type, one that is increasingly popular on more and more machines, is the needle bearing. These are usually caged (contained in a cup with or without a spacer skeleton), and are fitted into the swingarm. A spacer rides directly on the bearings. They require lubrication also, and if left without care for extreme periods of time, or subjected to high wear, they can be the hardest to replace.

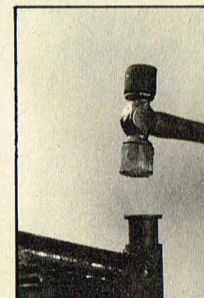
Lubrication of the bronze bushings



By tapping on a long drift, or a solid rod, the bushing/bearing can be knocked out of the swingarm. Tap all the way around the circumference of the bushing a little at a time.



When replacing the bushing/bearing it's usually a good idea to replace the inner spacer/race. The spacer on the left is rusted from lack of lubrication. At the right, the spacer shows no signs of rust, but it does have a groove, or step wear, at the top. Replace both of them.



RIGHT



WRONG

It's essential when installing the bearing/bushing that it is tapped in carefully, square with the pivot tube. A plastic mallet is very handy in preventing damage to the new part.

and the needle bearings is normally by hand-packing, or oiling. Usually, the oil-type arms will have a small fill bolt that can be removed. If your arm has one of these, the bolt can be replaced with a zirc fitting and the system can be switched to grease gun lubrication. Some of the needle bearing cages are such that external lubrication is almost

impossible. These bearings must be packed directly by hand. Whichever system you have, be sure to lubricate it often.

Bushing removal can be difficult at times, so if you become stymied, take it to your local shop. I've seen bearings that had to be literally ground out of swingarms. If you don't let them get too far out of hand, though, they usually aren't too difficult to remove.

Removal of most swingarms will include removing the rear wheel, chain and shocks. Some models will also require removing the rear brake pedal, if it pulls across the swingarm pivot bolt.

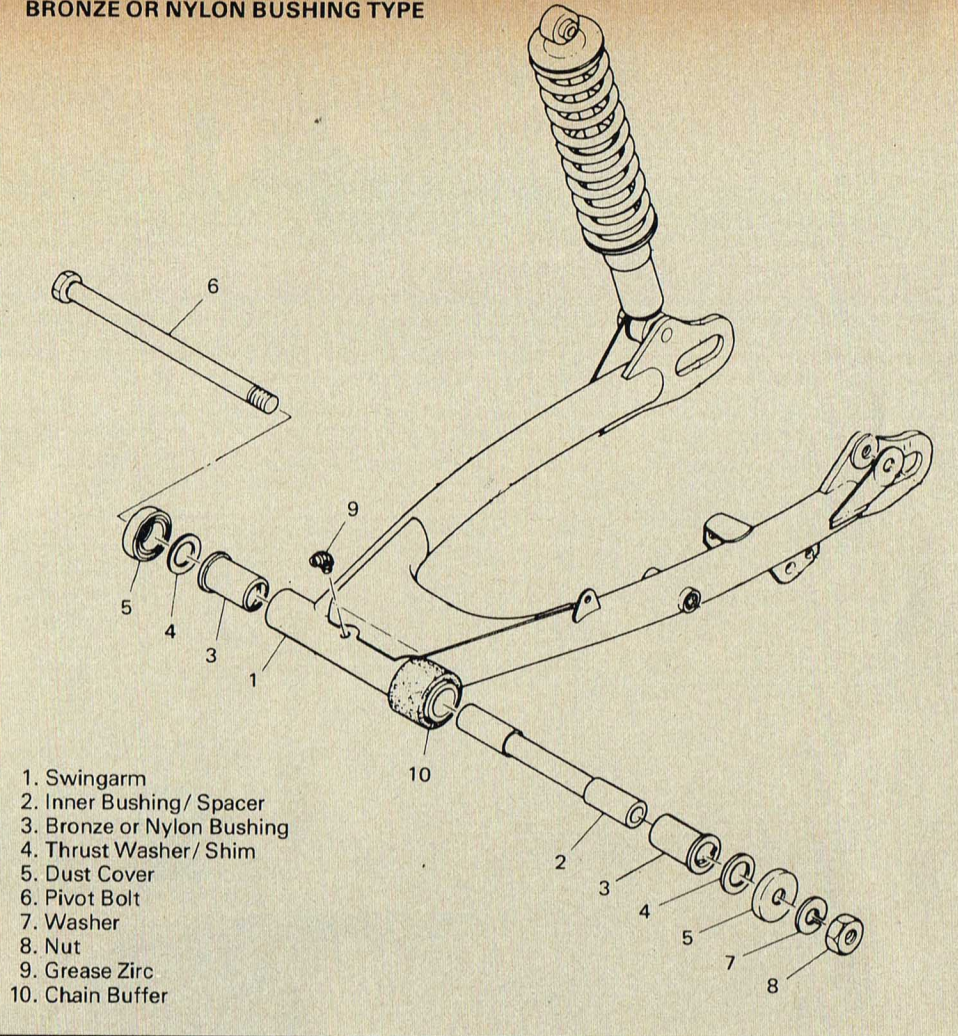
After that, remove the nut from the end of the pivot bolt and carefully tap the bolt out while supporting the swingarm. Either obtain another pair of hands, place something under the arm to hold it up, or leave one shock loosely attached. Some bikes have no nut on the pivot bolt, but are threaded into the frame. They usually have a pinch bolt at either or both ends, so be sure to loosen them first.

A couple of other machines, including CZs, have (instead of a pivot bolt) a threaded spacer with attachment bolts in each end. Removal of either of the bolts will do fine.

If at this point the pivot bolt/pin will not move, then a hammer and drift will be necessary. If this area hasn't seen any lubrication since you bought the bike (was it two years ago?), then the mess could very well be rusted up. Sometimes a ratchet socket extension can be used as a long drift. If it takes a good deal of force, damage will probably occur to the bolt and the bushings. Prepare to buy a replacement pin.

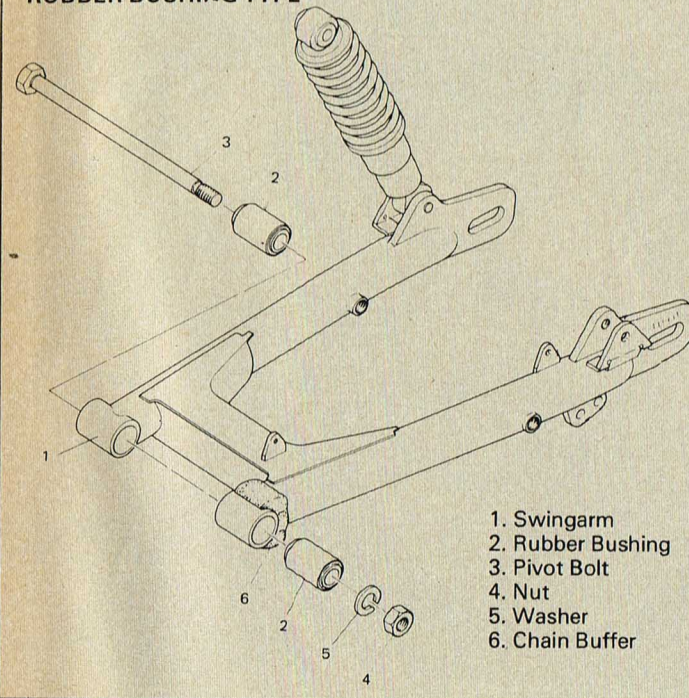
Once the swingarm is removed, keep track of the spacers, grease caps, O-rings, chain guards and thrust washers that may be on each end — and in the center on some bikes — of the swingarm. Lay the pieces out on a clean rag in the same order that they were removed. Some arms, the bronze bushing and needle bearing types, will sometimes have one long spacer or two short ones that the bearings ride on, with a third spacer in the center to

BRONZE OR NYLON BUSHING TYPE



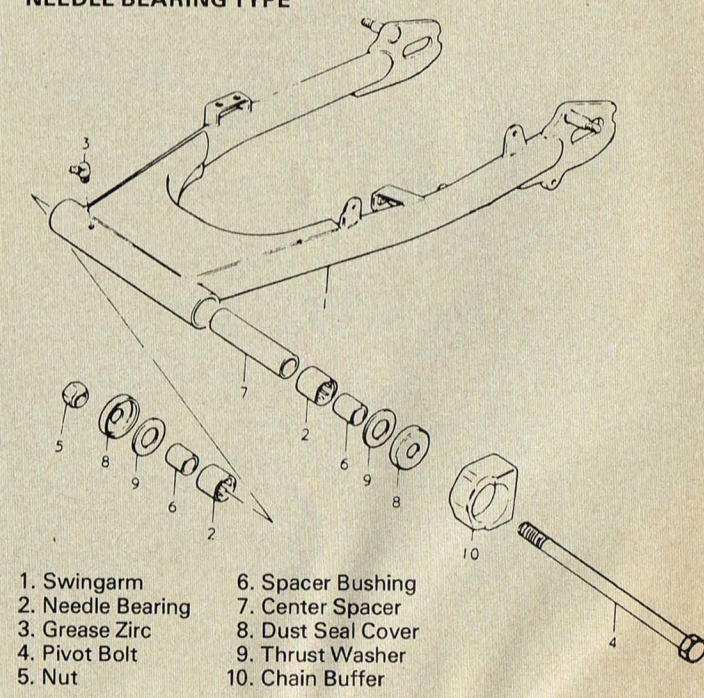
1. Swingarm
2. Inner Bushing/ Spacer
3. Bronze or Nylon Bushing
4. Thrust Washer/ Shim
5. Dust Cover
6. Pivot Bolt
7. Washer
8. Nut
9. Grease Zirc
10. Chain Buffer

RUBBER BUSHING TYPE



1. Swingarm
2. Rubber Bushing
3. Pivot Bolt
4. Nut
5. Washer
6. Chain Buffer

NEEDLE BEARING TYPE



1. Swingarm
2. Needle Bearing
3. Grease Zirc
4. Pivot Bolt
5. Nut
6. Spacer Bushing
7. Center Spacer
8. Dust Seal Cover
9. Thrust Washer
10. Chain Buffer

maintain proper distance.

Some that either use a floating engine mount, or have the pivot bolt

going through the cases, may have O-rings and thrust washers on each side of each end. These swingarms,

because of their "H" configuration, sometimes have more small pieces, so
(Continued on page 66)

High and Mighty.

When it comes to all-around performance, nobody outperforms Suzuki.

Case in point:
The RM-125, 250 and 400.

Completely Re-worked.

If you thought the RMs were hot before, wait 'til you ride these new screamers. From conical front hub to the full floating rear brake, these bikes have been entirely re-designed. They're taller, lighter and quicker than ever. In fact, except for the exotic metals used in G.P. machines, the new RMs are almost identical to the works bikes.

Team Suzuki Look.

First thing you notice about these machines is the G.P. styling. For instance, note the new works-styled tank which allows the rider to shift his weight farther forward for better control.

More Travel. All three bikes boast more than 11 inches of travel—front and rear! And each of these long-legged power-houses can be dialed in for any track. Front air forks are infinitely adjustable. In back, the improved box-type aluminum swing arm uses forward mounted gas/oil reservoir shocks which offer 2-position adjustable damping and 3-way adjustable spring load settings.

Wider Power Band. This year's Power Reed™ mill delivers more 'oomph' throughout the

total speed range. RM-125 uses a 6-speed gearbox while the 250 and 400 come with a 5-speed.

The Works. Everywhere you look on these machines, you'll find works equipment. Witness: Heavy duty chain tensioner. Magnesium brake panels and engine side covers. Aluminum alloy rims. G.P. number plate and cable guide. And so it goes.

If all this sounds like Suzuki is out to dominate the MX wars with these weapons, well, you're hearing right.

Now you know why the RMs are the leading performers on the world's MX stages.



Ride with care, wear protective apparel and help protect the environment. Member, Motorcycle Safety Foundation.



Suzuki. The performer.



SUPERLUBES



Superman LaPorte, Suzuki factory racer, has joined forces with PJI Super Lubes to protect dirt bikers everywhere. Teaming with PJI's secret Chain Lube, a blending of molybdenum disulfide and synthetic sperm oil, they fight against chain wear, and your dreaded foe... Flung Chain. And for superior fork action there's PJI's Fork Oil with anti-foaming organosiloxane. Leaving nothing to chance, PJI Foam Filter Oil keeps dirt in its place throughout the universe.



Send \$14.95 for chain lube sampler, hat, 1 shirt (indicate size), 2 patches, 6 decals. Check or money order to: PJI Corporation, 5955 De Soto Ave., Woodland Hills, CA, 91367, (819) 799.

Thanks to you,
It works.
For all of us.

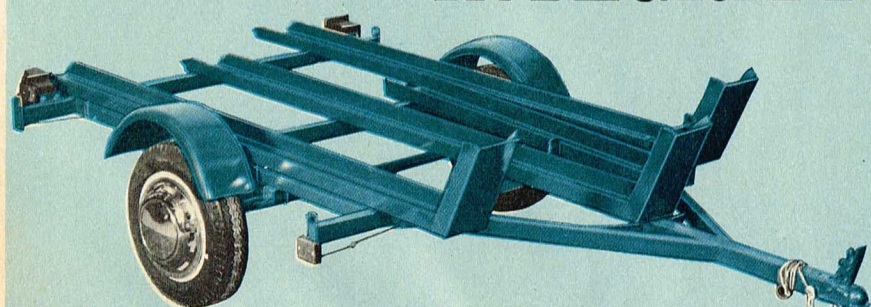


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SCOTT BOOTS

(Continued from page 34)

a bit silly at first and tend to clomp around like a robot in one of those wretched Japanese monster movies.

When riding, it's wise to check your particular bike for possible hazards before you wheelie off into the sunset. On the Honda Elsinore, for example, there's a thin metal rod near the brake pedal that fits exactly under the lip of the ankle area. This could snag your foot and prevent you from getting free of the peg. So, check closely before you ride.

Also, it's a good idea to check the sides of your bike where they might come in contact with the inner side of the boots. A sharp edge, or a stray hose clamp, could carve right through the plastic as you ride.

Naturally, because the Scott boots are so strong, feel is reduced. It takes a while before shifting and braking become natural. But, that's normal, even for a pair of new conventional leather boots. By the third riding session with the Scotts, we had compensated and adjusted for the difference.

The feeling of being bulletproof with the Scott boots on, is a real one. You just don't worry about nailing your foot on a rock when sliding. And, when kickstarting a bike, the occasional slip and whack on the instep is ignored, rather than bringing tears to your eyes.

Because the boots are light, it's easier to move your foot around. No hindrance or binding has been noted while moving around on the bike.

The only thing that did bother us, was, pardon the expression...sweaty feet. Even with a pair of heavy absorbent socks, your feet get very wet while riding. Scott recommends that you have an extra pair of socks with you and to change between motos.

However, everything is a trade-off. And, with the ability to seal the interior of the Scott boot off, no water or dirt can enter. On a muddy, wet track, the riders with Scott boots should have no effluvia get inside. Too, because the boot is plastic, water will not soak in (as with leather) and add to the weight of the boot.

This means that the owner of a pair of Scotts will be able to clean his boots by squirting them off with a hose, inside and out, then let them air dry.

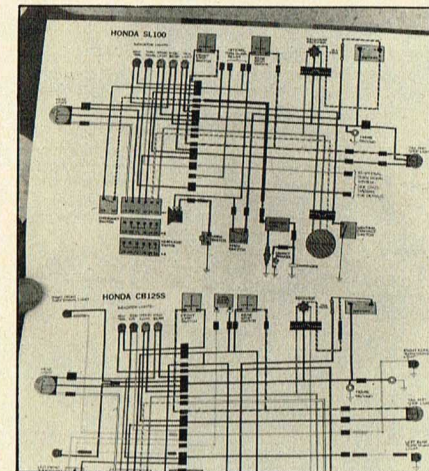
Should you use Scott boots? If you're a working pro, you'd be foolish to use anything that offers less protection. We've seen more than one budding racing career come to a screeching halt from foot and ankle injuries.

Yes, the Scott boots are a hassle to put on. But, yes, if you value your lower extremities, you should consider them. They're not perfect, but they are the absolute maximum in protection. □

CLYMER HOW-TO MANUALS

As the ratchet turns

By Rick Sieman



Here's a black and white shot of the full-color wiring diagram. Take our word for it.

Any shop around would charge him a small fortune to make a running bike out of a basket case. That would take the purchase of the bike right out of the bargain category in a hurry.

We talked about borrowing a shop manual from some CZ dealer, but getting someone to let go of one of those, is like asking to borrow a testicle for a few days. It just isn't done. Writing to the Jawa/CZ distributors and attempting to get a manual would be like requesting an end to world famine and war.

My friend ended up buying the Yamaha, simply because he had to. The CZ, once running, would have been a far superior machine for his needs.

This rather long and windy story is nothing more than an introduction to the Clymer motorcycle publications. If these excellent how-to manuals had been readily available way back then, my friend would have been able to get that bargain bike and put it back together all by himself.

We recently examined the entire line of Clymer bike manuals and added the ones for all dirt bikes to our official DIRT BIKE sagging-shelf-in-the-shop. In just about every respect, they are superior to the "official" workshop manuals you can (or can't) get.

Illustrations are, in general, clearer, and the photos are head and shoulders above the average manual. Even the copy is written in a looser, easier-to-follow fashion.

The writers have patiently avoided the prime mistake most manuals

make; that is, they don't assume that you already know this or that. They explain each and every necessary function.

Adding to the usual step-by-step procedures, all the racing bike manuals have a high-performance and racing set-up section. This includes little tricks that the racers do to their bikes to make them more competitive or reliable. This section in the European bike manuals is often worth the price of the book by itself.

CZ freaks learn about double-nutting the air cleaner parts to keep them from being ingested into the engine. Maico guys learn about troublesome motor mount spots and primary chain checking. Husky riders learn how to make the earlier air boxes liveable. Bultaco riders learn they probably should have bought a Yamaha in the first place.

One feature that is being incorporated into the newer books, is color-coding on wiring systems. As you know, all wiring schematics are done in black lines on white paper, with teeny-weeny little print telling you the color combinations of the wiring. Have you ever tried to follow a fairly complex schematic? Right. The lines start to cross each other and you give up.

This feature should be especially useful to riders who own Honda four-stroke singles. These bikes have a rather complex wiring system and many times, riders strip these machines down to make them more dirt-able. When it comes time to put the street stuff back on the bike again and sell it, the guano hits the fan.

Not so with the new full-color charts in the Clymer books. They're very easy to follow and even the kid who has gone crazy with a sharp pair of dykes, should be able to get all of the electrics hooked back up when he has to.

If this sounds like a rave review of the Clymer books, you're right. Every rider *should* have one in his toolbox for his particular dirt bike. But don't come around asking to borrow ours.

Get your own, buddy.

Where to get it and what it costs

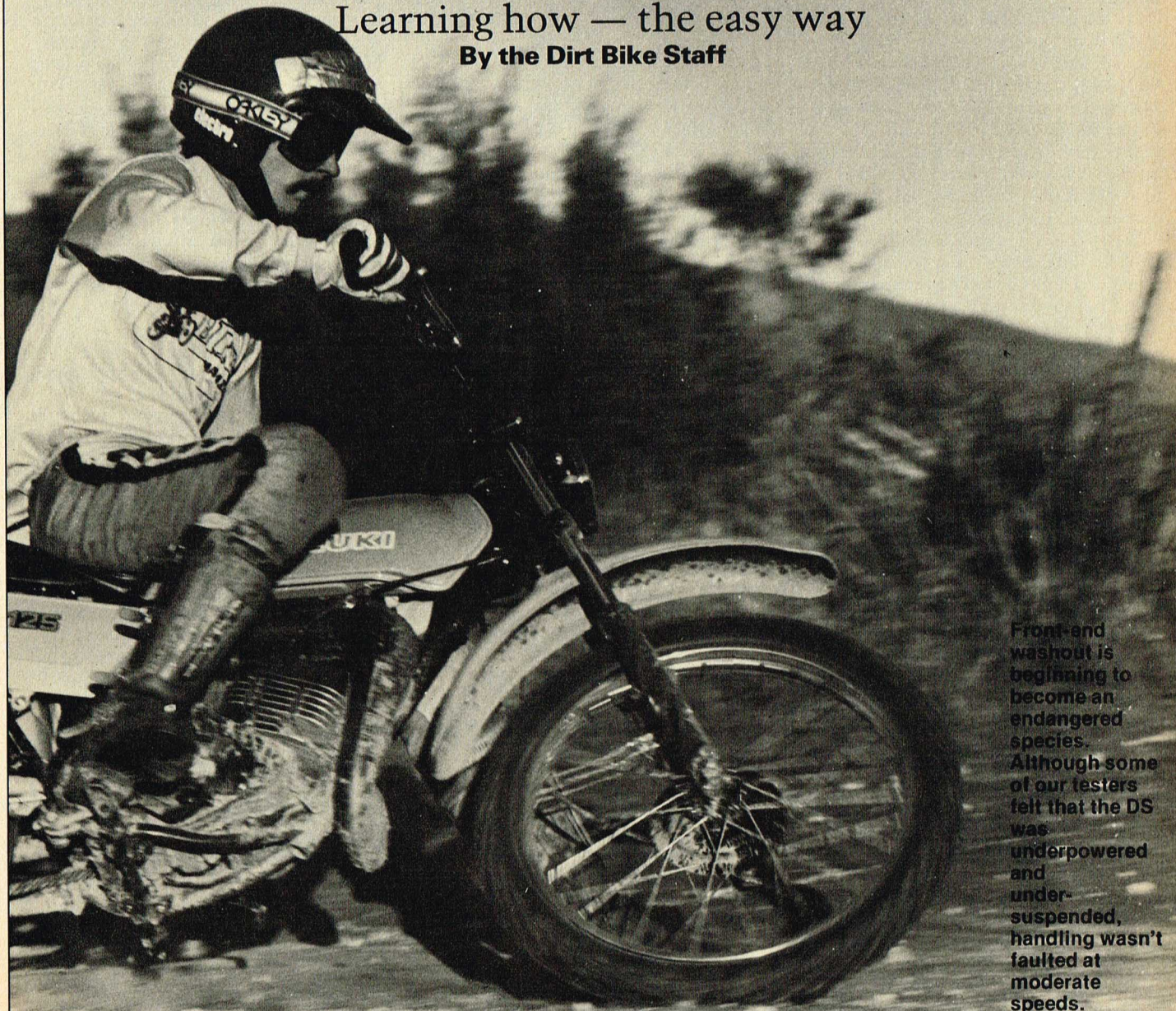
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P.O. Box 20
Arleta, California 91331
Cost per manual \$7.50
**MOTORCYCLE REPAIR
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(A general book covering about 200 different models). \$10.00. □

Suzuki DS125N

PLAYBIKE FOR THE MASSES

Learning how — the easy way

By the Dirt Bike Staff



Front-end washout is beginning to become an endangered species. Although some of our testers felt that the DS was underpowered and under-suspended, handling wasn't faulted at moderate speeds.

In a land and time of 11-inch travel and killer motors, the DS125 could be considered somewhat of an anachronism. A prehistoric holdover from days gone by, when riding was more fun than fight, and every day was spent tooling around on short, easy trails, and trying to make it up that "killer" hill that loomed over every riding area. Suspension travel wasn't

really needed — rough ground merely called for a reduction of speed, and power was only an extension of personal bravery or peer pressure, whichever came first.

But what kind of bike did most of us learn on? Usually a stripped-down Japanese enduro bike of some sort, only graduating to the more ferocious models after we had taken our licks

and learned how to crash without sustaining a major injury every time. And for every glorious new motocrosser or exotic enduro bike purchased, there was an old beater of a bike sitting in the back of the garage needing only a plug change before going out to do battle with the hills again.

A bike like the DS125. This is the

battery-less, stripped-down version of the TS125, non-street-legal, and ready to go. It's a perfect choice for the beginner, kids, and visiting relatives, because it's easy to ride, and doesn't demand a whole lot of attention to do its job.

We, of course, forced it to go everywhere our normal testing takes us, and in the process had occasion to slip the clutch mercilessly, tear chunks out of the tires, and pound the suspension senseless, and it never failed to fire on the first few kicks, or roll smoothly off toward any punishment we chose to give it.

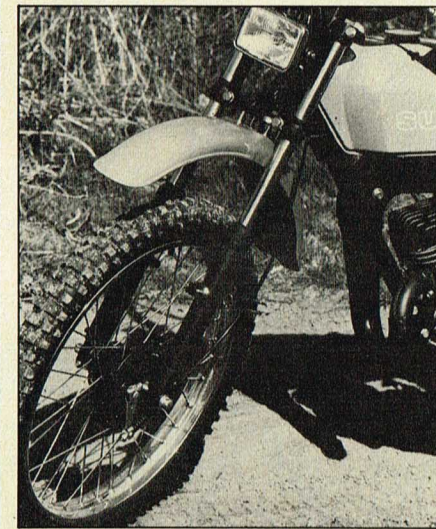
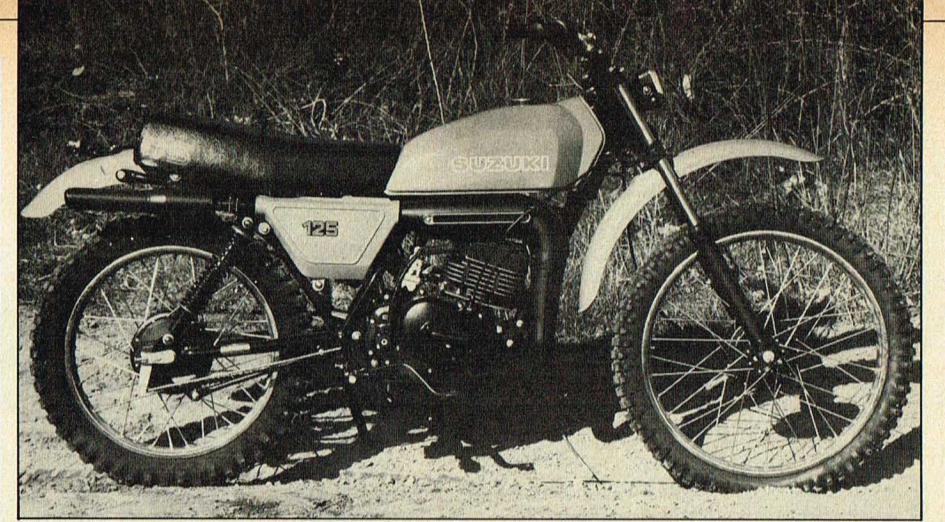
Mechanicals

The motor is the basic TS125 powerplant using the Suzuki "Power Reed" system. What this amounts to, in layman's terms, is gobs of low-end torque for a mild 125 motor, and the ability to rev up to a respectable limit without gagging. Our test bike would pull from idle in second gear on level ground without breathing too heavily, but third was a no-no. On steep hills we often found ourselves in first gear, slipping the clutch, but only in the nastiest sections. Still, the best technique for hillclimbing a mild 125 would be to keep it buzzing, at any cost, with rider weight making the biggest difference in a pinch.

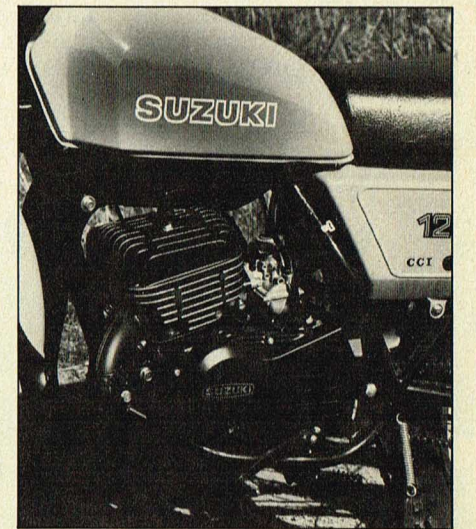
While charging down the trail, or up a nasty hill, the short suspension made itself most noticeable with an occasional heavy bottoming of both ends, although never with a total loss of control. Many times, over abrupt bumps, the suspension teamed up with the short ground clearance and gave us a few surprises. The usual result was having both feet cleaned neatly off the pegs. As in the old days, obstacles should be met with a little more than just heavy application of the right hand.

The suspension travel may be a little short (approximately five inches) by today's standards, but the frame geometry is right in the correct ballpark. Unlike the stripped-down beaters of yesterday, the DS actually steers correctly. Even in baked, hard-packed turns, no amount of front-end washout was noticed, only a vague skittishness that is most likely traced to the stock rubber. The bike comes stock with a set of flimsy knobs that flex all over the place, making it necessary to run a higher-than-normal air pressure in order to keep the rims happy.

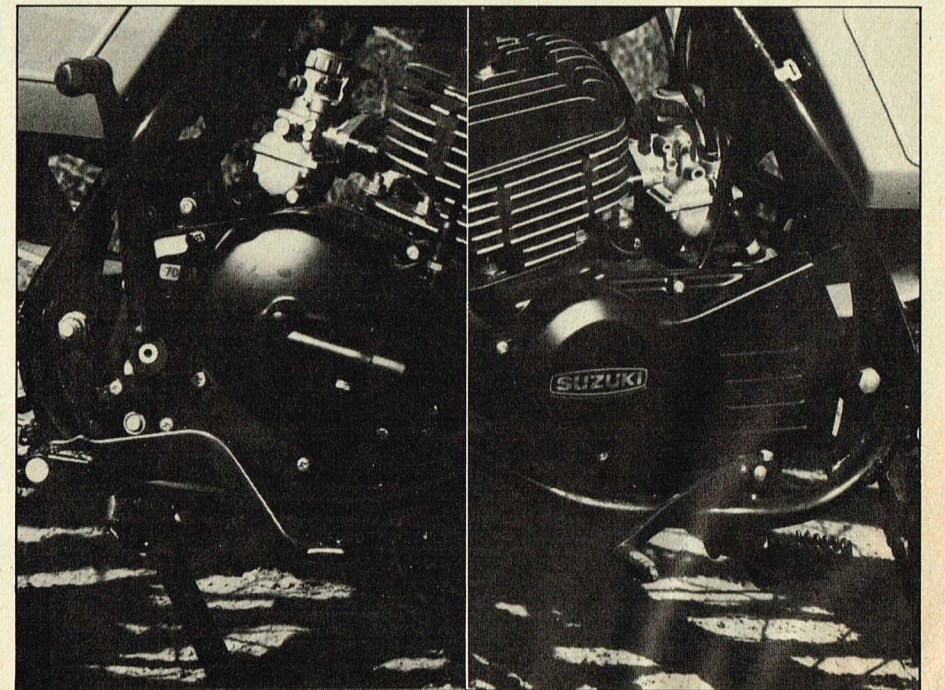
Controls are laid out well, and the rider will find the rear brake and shifter quite hard to miss. As a matter of fact, they may find their share of rocks, hanging out in the breeze like that. But, for the beginner, there can be no



Front forks deliver about five inches of travel — sufficient for the beginner. Front brake is good, tires marginal.



Motor has plenty of grunt, should last a long time with minimal maintenance.

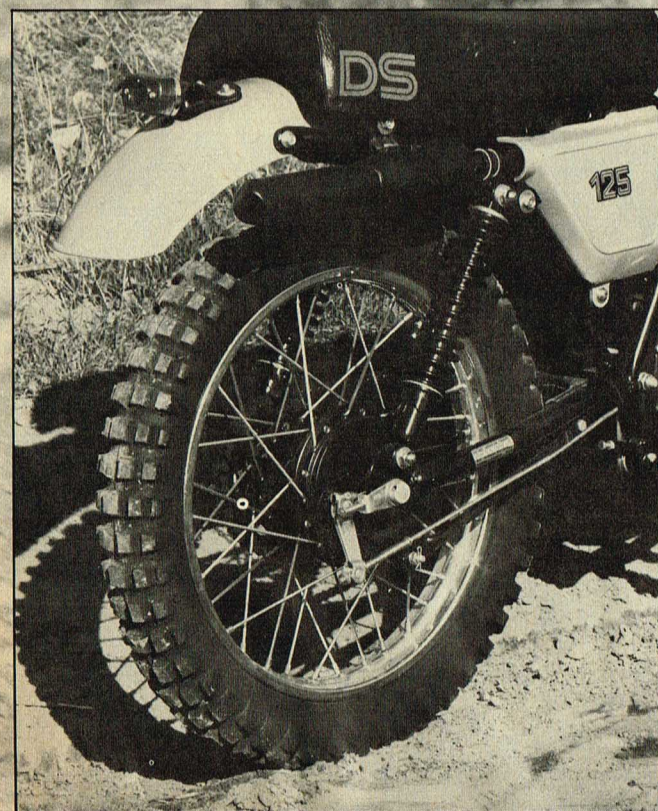


Brake pedal and shifter stick way out in the breeze. Very easy to find, easier to bend.

better placement of them. It is a short bike, anyone up to five feet tall will be able to put both feet on the ground — another plus — and the seat-peg-bars relationship is excellent for the shorter rider.

It all adds up to being one of our choices for a good beginning machine. Not too demanding, not too tall, or fast, and good control placement. A few of our testers complained about the DS being dangerous when pushed to its limit, but we feel that the average user of a bike like this is not going to be pushing its limit every time they ride it. And, if they do, they've made the wrong choice of bike. In our opinion, with the right rider aboard, the DS would be able to finish any enduro a "C" class rider could enter it in, but it would be a lot happier in the hands of a learning novice. □

Our test bike took all the punishment we gave it; nothing bent, blew up or broke.



Rear brake chatters under severe braking. Shocks are OK, silencer is very quiet.

Suzuki DS125

ENGINE TYPE . . . Air-cooled, two-stroke single
 BORE AND STROKE 56mm x 50mm
 DISPLACEMENT 123cc
 CARBURETION VM24SH Mikuni
 FUEL TANK CAPACITY 8.0 liters
 (2.1 gallons)
 GAS/OIL RATIO Injector type
 TRANSMISSION: Constant-mesh five-speed
 GEARING, FRONT/REAR 15/44
 IGNITION Magneto, points
 WHEELBASE 1335mm (52.6 inches)
 GROUND CLEARANCE 230mm
 (9.1 inches)
 STEERING HEAD ANGLE 29 degrees
 WEIGHT (CLAIMED): 87 kg (192 pounds) dry
 INTENDED USE, MFR. Play-bike
 COUNTRY OF ORIGIN Japan
 DISTRIBUTOR U.S. Suzuki Motor Co.

PIRELLI RIDE



Bob Hannah, America's winningest motocross rider, takes his racing **very** seriously. He demands the best of everything. All the suspension, handling and power in the world doesn't help if he can't get the traction he needs. "The Hurricane" plans on keeping his #1 plate; that's why he uses what he feels are the #1 tires—Pirelli.

Up front he breaks trail and leads the pack with the 3.00x21 GaraCross to prevent slide-outs and to be sure that his tire goes exactly where he points it, regardless of terrain or dirt hardness. His works Yamaha is powered in the rear by the 4.00 x 18 GaraCross (have you noticed all the "unusual" hole-shots he's been getting since switching tire brands?).

Hannah takes pride in his racing achievements and wins — that's why he, along with other Champions like Heikki Mikkola, picks Pirelli as the tire to do the job. When you're #1 you don't take second best.

GARACROSS MT-16 (Choice of Bob Hannah)
 Track surface application: semi-hard, muddy, rocky, washboard, and sandy.
 5.00x17/4-ply . \$79.50 3.00x21/4-ply .. \$53.95
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 (Choice of Heikki Mikkola)
 Track surface application:
 super hard, hard/tight,
 dry/slippery.

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West of Rockies \$2.00
 Mid West \$2.95
 East \$3.50
 Front \$2.55
 Rear \$4.65
 Tubes \$1.00 \$1.34 \$1.65

QTY	TIRE DESCRIPTION	UNIT PRICE	SHIPPING FEE	TOTAL
	(FRONT)			
	(REAR)			
	(TUBE)			

*All tire/tube prices include FET. Refer to chart for added shipping fees. CALIF. SALES TAX AMOUNT ENCLOSED

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FROM THE SADDLE

(Continued from page 13)

odd creatures of the world are more important than ordinary humans?"

"Your honor, I've had it with this witness. Can we please have this geek removed from the stand and have the next witness?"

"Surely, counselor. Can someone get that pinhead off the stand and get the next witness up there?"

The bailiff stood up and monotoned: "The next witness will be the head of the Bureau of Land Management, the Son of Sam of Land Usage, Myron T. Fornescue."

Mr. Fornescue clambered up to the stand, took a grip on the podium, sneered, and said, "Fire away, chump."

"Mr. Fornescue. Is it true, that in your capacity as head of the BLM, you can pretty much do what you want to?"

"Well, Mr. Sieman, we have a saying in the department. We do whatever we want to until a judge says 'no.'"

"Don't you think that's unfair?"

"Unfair, unshmair. What does that have to do with the whole big deal? What it boils down to is this: You people are making us mad. And we don't like that. You wanna be our pals, then don't make any static."

"But, what if we have legitimate gripes? What if we feel the government is ripping us off? After all, doesn't the public still own the land?"

"Listen, buster. The only part you own is the taxes. Where do you get off thinking you have the right to actually enjoy and use the land? C'mon. Grow up."

"But, why are you after the bikers?"

"Are you kidding? What about all those smoke bombs all over the desert? I mean, those things can be lethal."

"Mr. Fornescue. A smoke bomb is nothing more than a stack of used tires that race organizers set on fire to show the racers where the path of the race is. It doesn't actually explode."

"Hah! Do you think I want a 6.70x15 radial going off in my face? This is no laughing matter. You know, Mr. Sieman, I think you have been evading the basic issue of the way bikers destroy the plant life and vegetation in the desert. Our studies show that bikers have actually destroyed over 1200 samples of the rare Salvia plant in the high desert."

"Mr. Fornescue, are you aware that the Latin word 'salvia' means sage?"

"So what? You people are destroying the stuff, no matter what you call it."

"Are you aware that sage, or sagebrush, literally grows all over the desert? In fact, desert farmers pay to have the stuff removed from their land."

"That's OK when the farmers do it.

Ya see, they're paying taxes and you bike riders don't pay taxes to have fun. And we don't think that's fair. If you people get away with having fun and not paying the government for the privilege, then everyone will want to have fun for free. Can't you see that?"

"Mr. Fornescue, not only can we see that, but it's one of our goals."

At this, Forescue blanched, turned pure white and passed out. His head hit the floor with a hollow thwack. Two deputies grabbed him by his wing-tipped, suede shoes and dragged him out of the room, with his tongue lolling out of the corner of his mouth. I smiled inwardly. A minor, but satisfying, victory.

"Yr' honor. For my last witness, I'd like to call the Reverend Dr. Lucius T. Thumbwhacker."

A murmur went through the crowded courtroom. Heads turned as Reverend Thumbwhacker made his dramatic entrance, black robes trailing behind. The good Doctor swore in on a stack of bibles and stated his credentials:

"I am, of course, the spiritual leader of the First Amalgamated Church of the Liberated Sand Wash. On the Seventh Day of the week, Sunday, the faithful followers make a confirmation of their faith by traveling a vast distance in the great Mojave desert. The fact that we do it on dirt bikes, is incidental.

"Therefore, we demand that the BLM get off our backs, because we are merely exercising our religious freedom. In actual fact, I feel closest to Our Creator when I'm in fifth gear on a fast fireroad. The more orthodox among our following tend to find peace on off-camber slopes, though. Even though I ride a tired old CZ, I feel that..."

The judge interrupted, "You ride a CZ?"

"Certainly," replied the good Reverend, "it has the virtues I demand in a bike. Reliability, an honest machine for the dollar and reasonable manners in the rocks. I find the machine very fulfilling."

"Well," went the judge, "I've got a CZ too. Mine's a 250 Falta. One of the last ones sold in '77. Of course, I've got it all tricked out to the max."

"Naturally," said the Reverend, "you just can't do it right on a stocker. I've got Fox Shox and Marzocchis on mine, plus everything's plastic. And I mean everything!"

"Say, whattaya using for a carb?"

"Well, I bolted a Mikuni on it and..."

I smiled, put all of my papers back in the official DB briefcase, and quietly slipped out of the courtroom. After all, I didn't want to interrupt the Bench Racing, now did I? □

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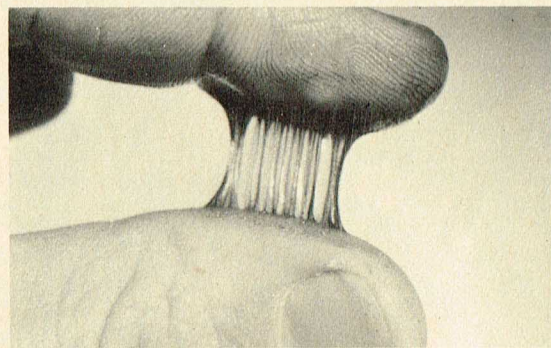
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SWINGARM TECH

(Continued from page 55)

keep an eye out.

Removal of the bushings is most easily accomplished with the swingarm in a vise, or clamped solidly to a work bench. The bushings will normally have to be tapped out with a hammer and long drift, preferably a brass one. The bushings will have to be knocked out from the opposite end of the swingarm pivot tube. By moving around the lip of the bearing/bushing, they can usually be tapped out without much difficulty. (Be sure that you are not tapping on a stepped lip or built-up

area on the inside of the arm. This can be deceiving.)

If you don't have the proper tools, or are having a difficult time, your local shop should have a special tool for pulling them out. Many times it is worth the money to avoid the hassle.

Before installing the new bushings, be sure to clean the inside of the swingarm and the other spacers, etc. Inspect the spacers and pivot bolt for rough spots, galling, pits, grooves or rust. If they are worn much, then new bushings alone aren't going to cure it. New spacers or a pivot bolt/pin may be necessary. Check all the rubber O-rings and seals for deterioration.

Bushing installation is usually best performed with a press. It can, however, be done with a little patience and normal hand tools. By tapping them in with a plastic mallet, soft brass drift or hammer, or with a soft aluminum slug, they can be reset. The critical factor here is that the bushings — the bronze and needle types especially — be installed straight. If they are forced in at an angle, then they can easily deform and develop high spots. At that point they are as worthless as the ones you just removed. Go back to square one.

Once the bushing is "squared" with the tube, a large socket of slightly smaller outside dimensions can be used to set the bushing to the stops. A light touch and patience are necessary.

Oil the bronze bushings and their assorted spacers, and grease the needle bearings and their appropriate parts before putting them back in order. Be sure to install the chain buffers, rubbing blocks, guide rings, or anything else on the outside before sliding the swingarm back in place. Also, ensure that the mating surfaces on the swingarm are clean.

Lubricate the swingarm pivot bolt and slide it back in through the frame. You may have to rock the arm gently to line everything back up. It should go back together easily.

On some of the machines with a floating rear engine mount, it is sometimes easier to remove the mount from the engine and line it up with the arm. It just depends on the spacer/thrust washer situation. Older CZs are more easily done this way.

Be sure that the pivot bolt is installed from the same side as it was removed, since some of the bikes have tab lock washers or welded stops for the bolt head. Tighten the pivot bolt.

Now, check for free play. Also, on the bronze and needle types, check for smooth up-and-down movement. If the swingarm is stiff, binds, or is locked up solid, then it is possible you have left something out, or in some cases, the center spacer has either been worn down, or mashed, so that it's too short, causing improper alignment. Checking the length against a new spacer will let you know what the problem is.

On the rubber bushing type, don't tighten the swingarm bolt until you install at least one of the shocks. This type of bushing has a torsional stiffness that can be felt when the arm is moved up or down. Tightening it in the proper shock angle position means that there is no undue stress on the rubber when the bike is at rest.

Bolt up the shocks, rear wheel brake arms, etc., and adjust the chain. The new bushings should make a big difference. □

CAN-AM250

(Continued from page 33)

jet, dropped the needle down a notch, and had a ball. The Qualifier handled predictably on the narrow, twisting trails, and hauled a-- on the fireroads. Some of the trails were baked dry, zero traction, and pointed out the only problem with the tires — they are a lot happier with something to grab. If it only came stock with Metzellers. . . .

Bits and pieces

One other thing we did that may have improved the power somewhat: The bike comes equipped with a tank full of Can-Am injector oil, and we had some Duralube injector we wanted to try out. We were fooling with the jetting at the time, so we can't be completely objective, but the smoking stopped and the feeling of richness went away. We'll keep using it, and let you know how it turns out.

This must be the quietest dirt bike in existence. We could watch the Qualifier squirting dirt up the hill, and could hardly hear it *at all*. Why can't everyone make bikes like this?

The air filter threads onto the top of the air box. Keep it greased, and screw it on tightly — it can come loose.

Throttle control is provided by the old dual Magura assembly, something on the order of a half-turn to wide open. It could genuinely use a quicker throttle.

We came smoking down a fireroad the first day out, and by the time we got back to the trucks the brakes had faded almost entirely. There may be a problem here, or we may have been riding them a little too much.

Lever are dog-leg Maguras — really nice, and unbreakable.

The plastic fuel tank comes with one of the neatest filler caps in existence. Very easy to operate, very fast. Don't screw it on too tight.

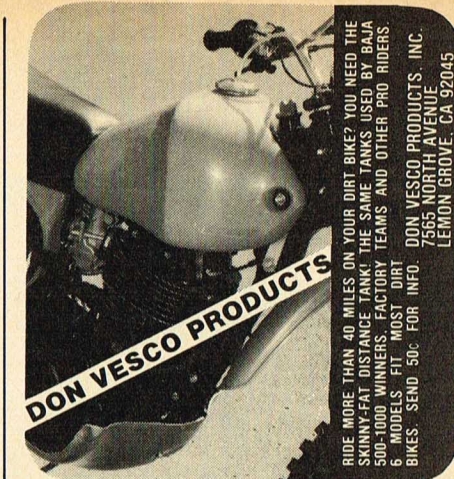
Summing up. . .

The Can-Am is an impressive motorcycle. It does everything well, and should live a long time. The attention to detail is fantastic, with the possible exception of the centerstand.

"But, I can go down to my local dealer and pick up a PE or IT that'll do all that too, and spend a lot less money," you may think. But, if you're serious about your riding, you'd do well to consider the Can-Am. Why? Three reasons: The price is within \$100 of the two competitors, and in some parts of the country the Can-Am may even be cheaper. Two: The Qualifier has a 90-day warranty, which is 90 days more than the other two have. Think about it. Three: The Can-Am is the most ready, best-working qualifier mount we've ridden to date, bar none. □

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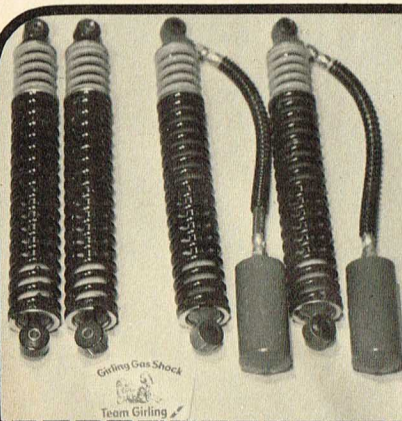


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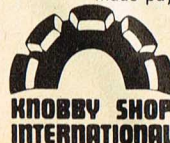
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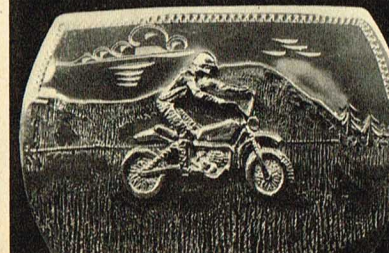
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offensive, even before we thought of it. We got the following letter from the Horney Toads Motorcycle Club, and we'd like to share it with you:

Attention: Mr. Rick Sieman
Dear Rick,

At our recent meeting, the Horney Toads unanimously voted to forward the enclosed donation to the "Legal Attack Fund." We are a small family-oriented enduro club which recently had our first anniversary. This donation is a significant share of our treasury. We feel it is entirely justified and commend the work you and your associates have done in regard to the Barstow to Vegas race.

In order to continue donating to our mutual cause, the Horney Toads also unanimously decided that any member of our club who enters a race during 1979, must contribute an additional dollar per rider to the Horney Toads. All additional money contributed for each race will then be immediately forwarded in the name of that race to the "Legal Attack Fund."

Since our club officially participates in anywhere from 10 to 15 races per year, you can look forward to receiving a number of donations from the Horney Toads during 1979.

Very truly yours,
Dennis P. Arnold
President

The Horney Toads
Burbank, California

"I could have been a handsome prince, but it's more fun being a horney toad"

Our thanks to not only the Horney Toads, but to everyone else who has helped make the Phantom Duck of the Desert a very real power that can effectively fight the system.

If you'd like to send a buck and arm the Duck, here's the address:

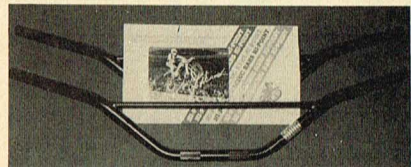
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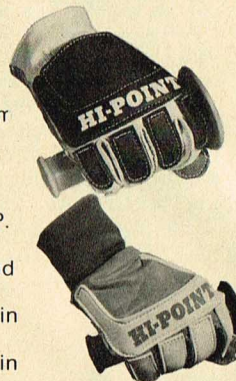
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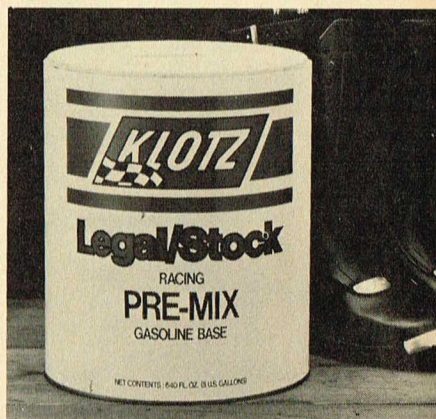


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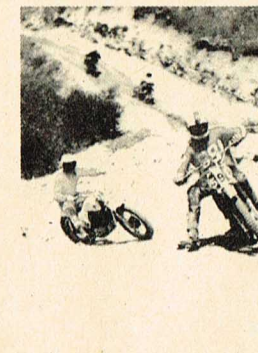


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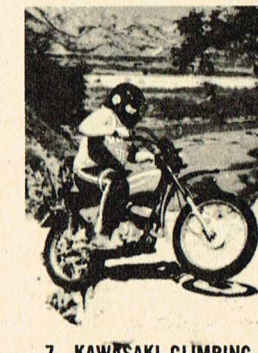


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LAST OVER
(Continued from page 8)
least once a week. I drilled a hole in the mag cover and installed a vent — every mag should have one — and made sure the lower end vent was still clear. A quick look at the crank end revealed that we didn't have a bad mag seal, small miracle, so we proceeded to glue it up tight.
Finished with the motor, we turned our attention to the coil, not at all surprised to find it rusted to the downtube.
"Well, Supe, this is the moment of truth. If we clean off all that rust, the

coil might just drop off the next time you start it. 'Course, it just might run a little better. Whatta ya think?"
"Throw caution to the wind. What have we got to lose?" Sound judgment, that's what I like about the boy. We sanded the area clean, and then Loctited the coil back on. Supe broke open the ceremonial tube of silicone seal, and we gooped up everything that even looked like a wire, and then did a generous job on the air boot between the air box and the carb. We built a masterful maze of duct tape around the top of the air box and the frame tubes, after greasing the filter down, and then

continued the taping process after reinstalling the tank and seat. It was a work of silver art. There just wasn't any way water was going to get in, at all.
One more thing remained to be done. We removed the kill button and replaced it with a two-wire affair, insulating it from the bars with electrical tape. Presto, no more impromptu electrocutions.
I packed up my kit, and left Supe to the rest of the labor. Nothing really left to be done, actually. Just pull the wheels and clean them out, check the bearings and repack them, tighten everything up, and go for it.

Sunday morning, bright and early. Sucking down coffee under the railroad bridge on 72, right outside Chatsworth. A beautiful day, a good hundred-mile day, at least. I planned to start out on the roughest loop I knew, and leave the easy stuff for the afternoon. There was plenty of wet stuff on this loop, with one 50-yard, two-foot-deep, sand bottom cedar swamp right in the middle. I knew the Cooper could make it through the major part of the loop, but that water hole made me a little nervous. "Oh what the heck, I've been through it a dozen times" I thought. "The rest of the day will be dry after that."

So off we went, both bikes running strong. It was a nice day — not too hot, the sun shining, we even had a couple of land owners wave to us. Now *that's* unusual. Supe's bike charged through everything we threw at it, and never popped, spit, or even backfired. What a treat!

I knew I was getting close to the deep one, so I started pulling up ahead, so he wouldn't have to wait for me to get through. Supe knew what was coming up, so he hung back and let me move up. I rode up over a slight rise, came down on a bit of two-track, took a sandy right, and dove right in, picking a line that would straighten out the right turn somewhat. I slipped for a second in the middle, got a little more of my leg wet than I would have liked, but chugged right out without any more trouble. I could hear Supe hitting the water at the other end, so I kept going, to dry the brakes out some. I pulled over a quarter-mile ahead, and waited. And waited. Uh oh.

I got back there, and there was Supe, sitting on a dead bike.
"What happened? A totally brainless geek couldn't have drowned out that bike!"

With a sopping right hand, he held up the stub of what used to be a throttle cable. It hadn't been routed correctly, and frayed until it broke, right before the bank of the water hole. I drowned him on the spot, and had him buried at my own expense. □

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