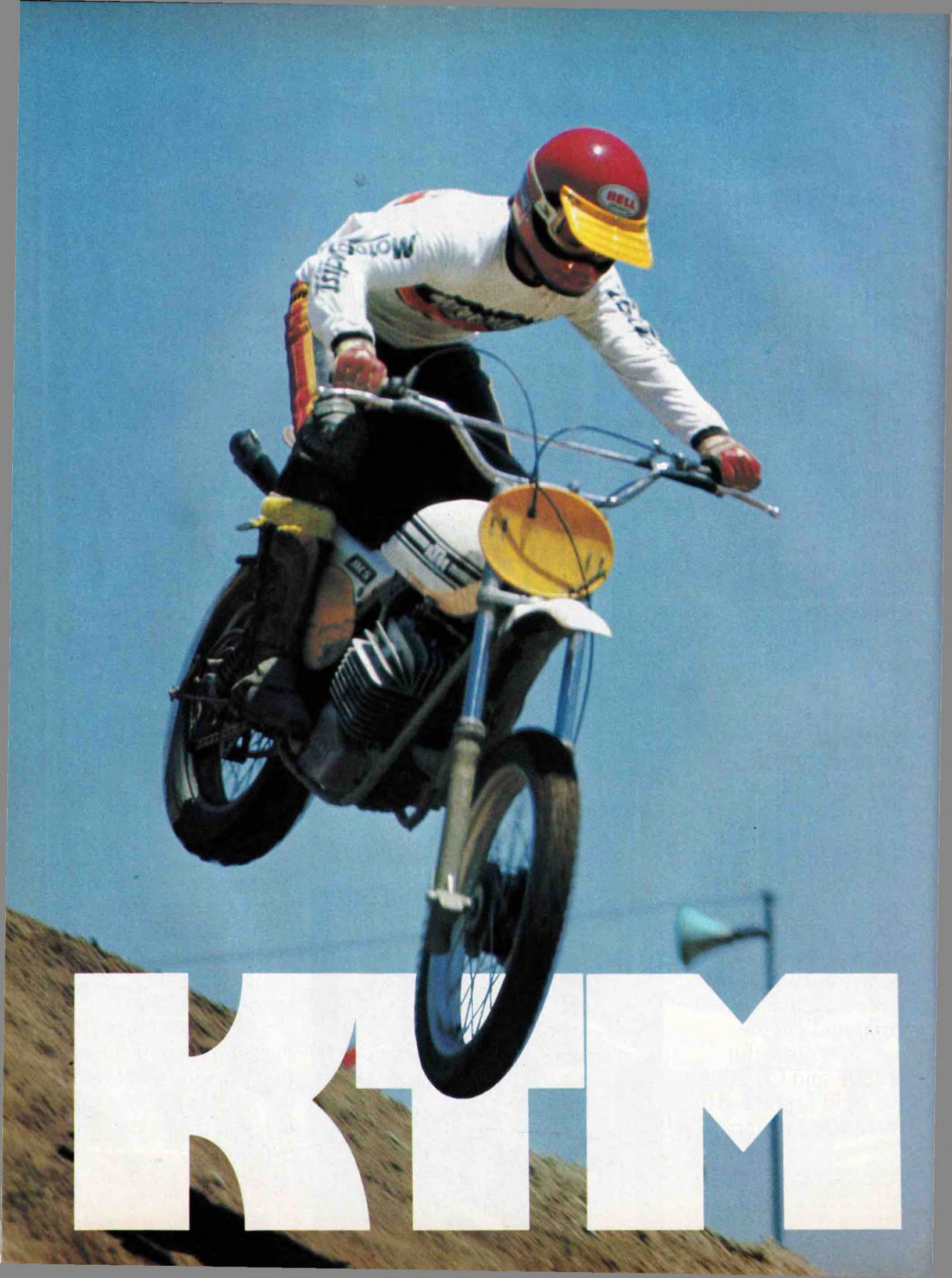
BELL
KTM

White Lightnin'

KTM's New 400 Racer Has More Power Over A Longer Curve And Gets It To The Ground Better! Text And Photos By Dave Ekins

There is a lot of difference between available motocrossers, most of which is reflected in a $1,000 to $2,000 asking price. So the big question is: Is it worth that much? Or, how about getting the less expensive make and buying all that trick stuff later on. The answers are simple and not too far fetched; all you have to do is look around.

At Motorcyclist, we get next to the genuine works racers at places like the USGP at Carlsbad. We know there are works bikes and production bikes, with the works models way out of reach for anyone *and* not available anyway. (When they are through with them, the bikes fall victim to a giant sledge hammer, never again to be recognized.) This procedure of destroying perfectly good but obsolete racers is nothing new, it's been going on since the beginning of racing. Hand assembly and exotic materials are too precious to be mass-produced.

Those Suzukis and Hondas that the big names ride are a long way from the production jobs at your local supermarkets. On the other hand, European bikes are much closer to the real ones campaigning world titles. Now, many people have the opinion that these bikes are so special you have to be a super rider of grand prix caliber to ride one. The fact of the matter is, it takes such a rider to get the utmost from the machine, but they are so superior they will make any rider a more competitive racer. Typical of many of Europe's MX contenders, Maico's Maico and Adolph Weil's racer differ only in personal touches. Brad Lackey's Husky is a prototype '78 model for the '76 season, his '75 bike was virtually stock except for suspension modifications that changed at nearly each outing. Currently the most popular fork among professional motocrossers is the nine-inch travel Marzocchi with magnesium sliders. They are also bolting on some obscure shock absorbers made one at a time in a garage in Holland. Engine mods are surprisingly few, the emphasis is on smooth and controllable power instead of the 2x4 that swats you in the seat of the pants.

Currently there are two KTMs contesting the 500cc GP rounds. Jaak Van Velthoven and Willie Bauer are the two seasoned veterans riding these nearly stock bikes. Both have those trick rear shocks made by that little shock maker in Holland. Jaak stands 6'3" so he has raised his seat a few inches by adding padding and also lowered the footrests to be level with the bottom frame tube. Willie's bike is quite the opposite in personal touches because he is eye to navel with Jaak's belly button. The 5'7" West German has raised his footrests and cut some padding from the seat. He also opted to add several head gaskets in order to have less violent power.

KTM got into serious motocross competition in '73. The Russian Cunady Moissev won the 250 world title in '74 on one of them. So the choice by top caliber riders to campaign the bike seems a good one. But KTMs are not the single purpose motocross bikes they seem. We know them in this country as Pentons. And if you live anywhere east of the Mississippi that's the only name you're likely to see. Pentons dominate mid-western scrambles, cross-county, and enduro competitions. They also virtually own the U.S. ISDT efforts. For good reason, too, the '75 ISDT overall winner was a West German named Heno Buse and his mount was a KTM 400 with enduro gas tank and lights.

So it's from a background spawned by race wins that has brought the KTMs to the forefront of racing. Out on the Pacific Coast, long-time bike enthusiast Ted Lapadakis has taken over Western states distribution of the marque. He had done some incredible things with Puch and Hercules and is now into it with these new racers from Austria. Bob Ballantine, Ted's current standard barrer, has thus far campaigned over 24 desert races and two long-distance (200 and 400-mile) cross-country races. Other than the replacement of cables, chains, sprockets and tires, they have had to rebore it only twice. There haven't been any mechanical problems except in an early race when the gas tank came loose and he won the race holding it with his knees. Seems the front mounting tab is a bit thin and the rear of the tank relies on only two rubber O'rings to hold it in place. They strengthened the front tab and ran a bolt through the rear of the tank discarding the O'rings. This mod may still be necessary if you are running as quick as Ballentine.

The picture broadens; here is a machine that has won the World Championship, the ISDT, and countless other off-road events and reliability trials. All with the same bike. Modifications to go from one extreme to the other are simple bolt-ons and off. Other machines built for double duty include wide ratio and close ratio gearboxes as part of the package to make yourself a perfect racer for a single purpose. KTM's 400 gearbox and power characteristics work in either extreme.

Year models aren't as such because they improve them each time the assembly line is fired up. But you could call our test bike a '77 model because it has many major improvements, a new frame, air filter configurations, and more power through improved porting. Also changed is the adaptation of the Motoplat ignition

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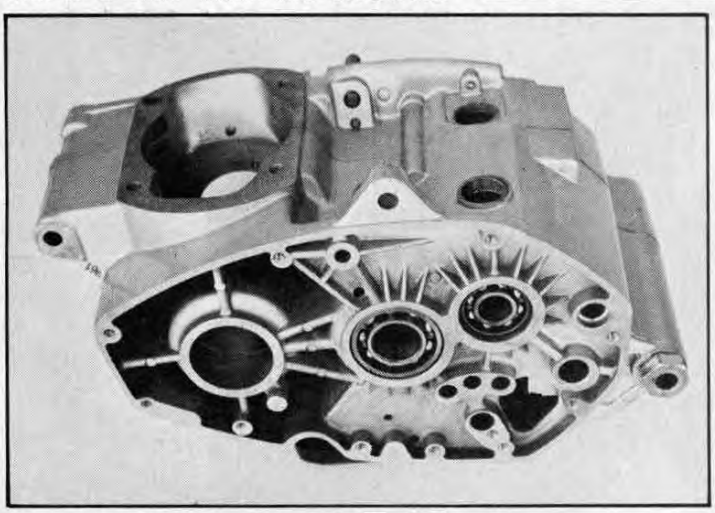
KTM 400

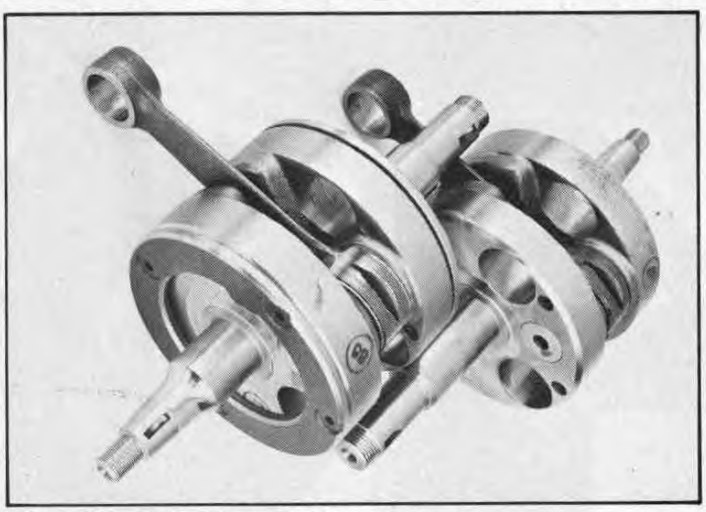
from smaller displacement KTMs. It now has the small rotor type that has proven out so well on other higher revving bikes. This results in a loss of flywheel weight so steel discs have been added to the 'wheels and this in turn has stuffed the bottom end a bit. The frame, naturally, is chrome-moly steel tubing beautifully welded together. Unlike most bikes, needle bearings are used to float the swing arm in; these are lubricated simply with 30w oil. Fork bearings are cup and ball, triple clamps, aluminum forgings, and the famous Marzocchi forks with magnesium sliders. Marzocchi also builds the rear shocks, these are gas filled and adequate for most riders. Ballantine's bike was using these shocks with 20% more gas pressure and a better quality fluid.

The expense that shows on the asking price narrows down to things like Sun rims made in USA, and currently what most world class GP riders are fitting to their personal racers. Engine and brake stays are aluminum forgings with slots machined in for lightness; an expensive process that only shaves off ounces. Magnesium is used in the wheel hubs, backing plates, and engine cases. Fenders and side covers are plastic, the gas tank and seat base are hand-laid-up fiberglass; it comes with a side stand.

These are the ingredients that make the bike expensive and competitive. The engine has compression and a not too favorable kick starting ratio that requires the rider to slap the starter rather than try to force it through. It does start easily once you have been able to get it spinning. There is a handlebar operated choke that is a slide within the carburetor

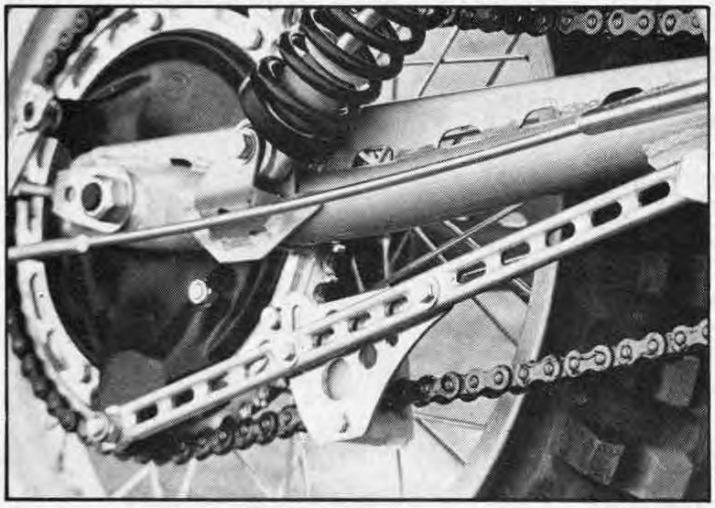


Magnesium engine cases come with transmission shaft bearings.

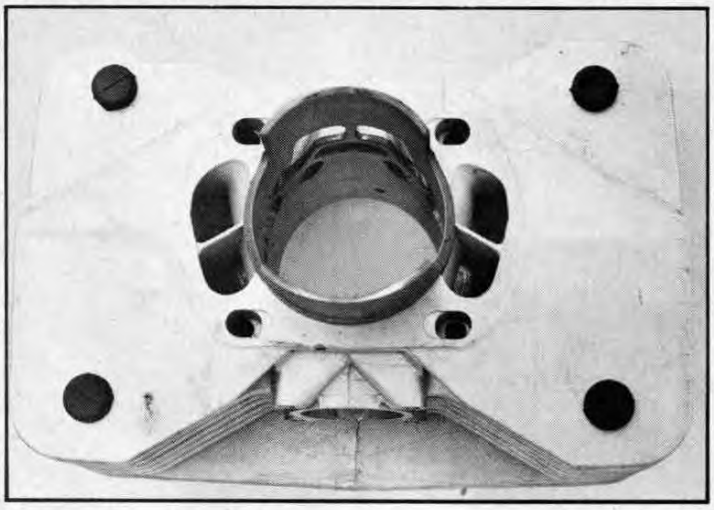


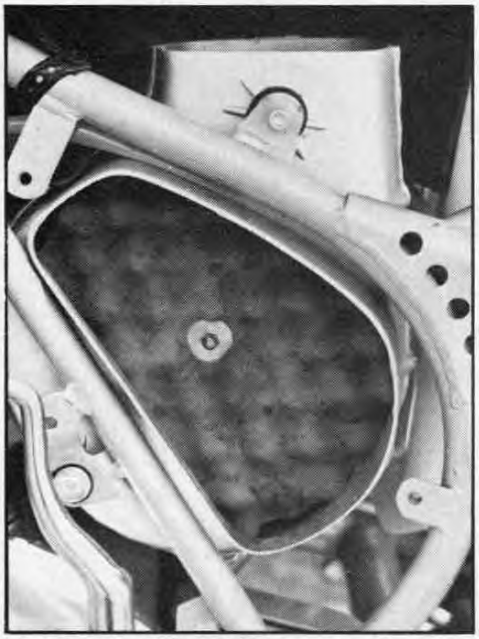
The old (right) and the new, steel plates added to the flywheels.

Nylon block fastened to the brake stay serves as chain guide, loose setting is necessary for long travel.



Cylinder has press-in steel liner, note winged inlet port.

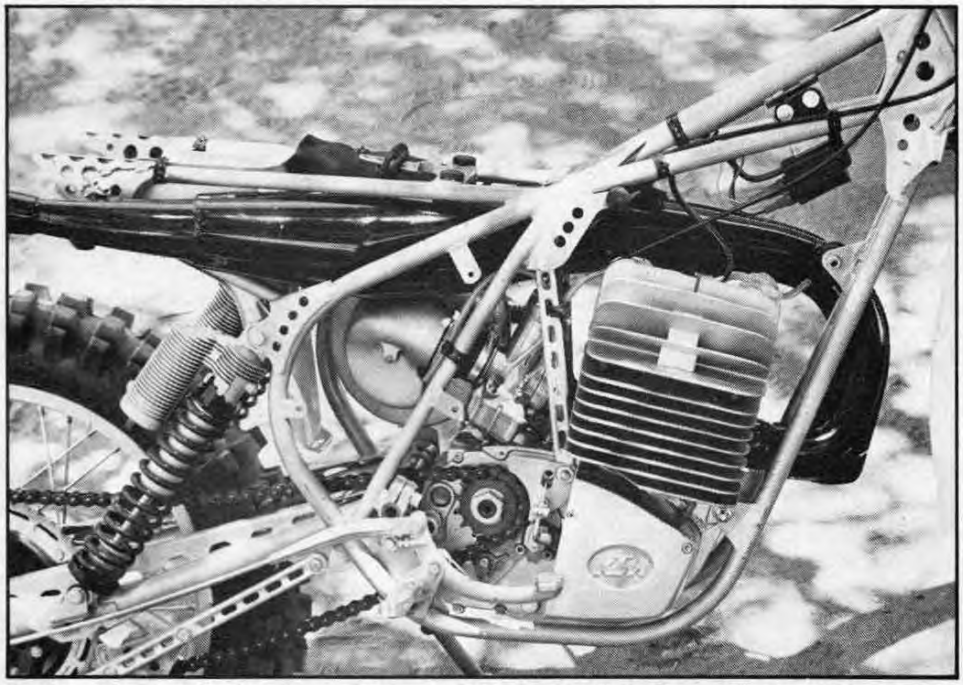




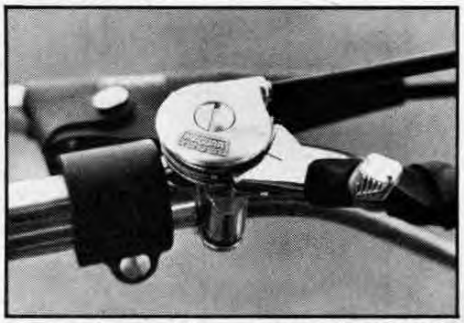
Egg crate urethane foam air filter is housed in brand new magnesium casting, note inlet under seat.

Shipping tag gives date of manufacture and serial number.

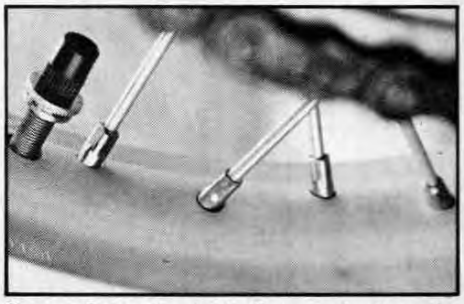
Forged piston carries one Dykes pattern and one rail type ring. Instructions illustrate drilling prior to installation.



Tank and seat/fender have been removed revealing lines of the chassis and the many-holed gussets.



Choke lever is best rubber banded in open position on handlebar.



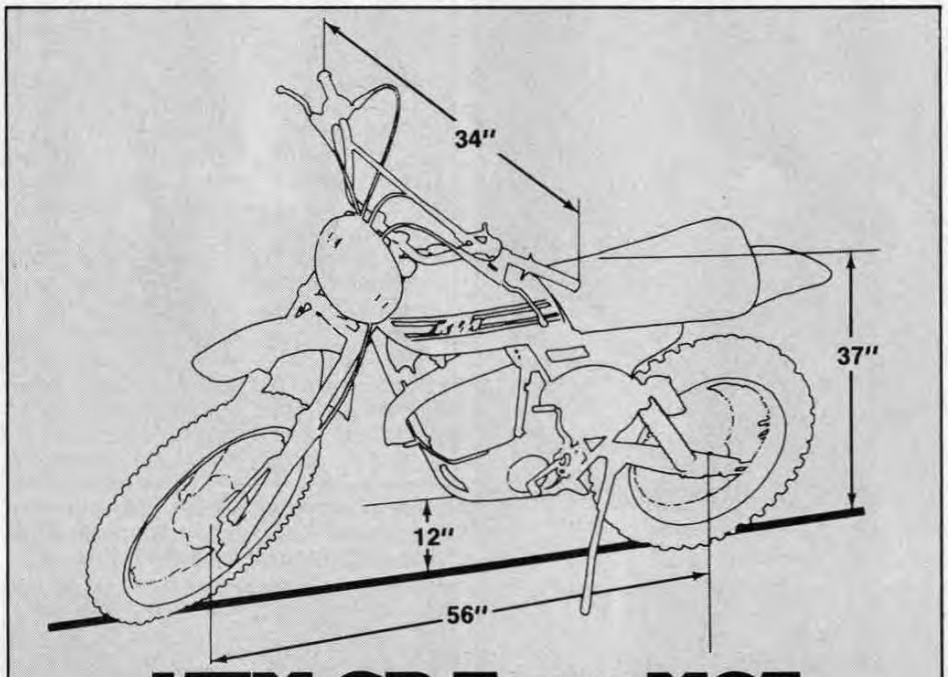
Super Sun rim is bulletproof, doesn't even need welts around spoke nipples.

KTM 400

slide. It is not for starting, the tickler does the priming. The choke is better described as a restrictor and is primarily used during long-distance racing. You can drop the restrictor partially into the venturi making the fuel mixture on the rich side. This prolongs engine life tremendously. Withdraw the slide to lean it out when needed as in an ISDT special test.

We had a bike fresh out of the crate, and experienced things that might happen to you under similar circumstances. The throttle stop screw hammered a burr on the slide causing it to stick in the closed position. This was quickly taken care of with a pocket knife. We also felt it changed gears stiffly. But towards the end of the first fuel tank, gear changing freed up nicely, it shifts as easily as the Oriental jobs.

Power is not pipey, unlike previous KTMs. You've got to get back going over jumps to load the back end. Spring tension is adjustable and we ran it stiff because we were landing the thing pretty hard off jumps. It's not a bike with which you need to change gears often, the strong power curve breaks traction easily in any gear. Takes about a half hour to get used to sitting on a 35-inch tall saddle and you'll notice the bike is more sensitive to falling over while airborne because of this. You can usually gas it through the rough stuff floating the front wheel. You can follow another rider into a berm and actually steer under him zapping by on the inside. Metzler tires help you turn with confidence while the front brake takes a heavy hand, the back one feels almost like a hydraulic unit. Lever and pedal placement is excellent as is all the attention paid to small details. Didn't like the handlegrips though, the rubber's too hard. Didn't care for the kick starter lever digging into ankles either, but this can be remedied simply by rotating it forward one or two splines. Noise level that reaches the rider's ears is surprisingly little, far less than other MXers, believe it or not, this is a benefit to the serious racer. So you can buy a racer for less money, but if you took the difference and poured it into the lesser racer, it still would never come up to the real thing. And the KTM 400 is the real thing, not a replica. *M*



KTM GP Type MC5

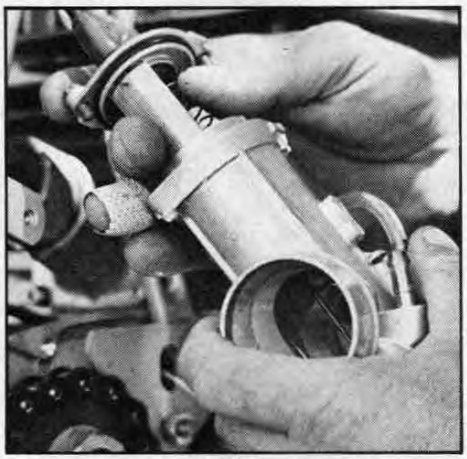
TEST BIKE: KTM GP TYPE MC5
Engine serial.....*6-552-3252*
Base price.....*$1898*

ENGINE
Type.....*2-stroke single cylinder*
Displacement.....*356cc*
Bore x stroke.....*81mmx69mm*
Claimed hp.....*44*
Lubrication system.....*Oil mist*
Carburetion...*38mm Bing model 54*
Air filter.....*Open pore foam*
Ignition system.....*Motoplat CDI*
Starting.....*Folding kick*

DRIVETRAIN
Gear ratios.....*(reduction) 1st 0.29; 2nd 0.42; 3rd 0.56; 4th 0.72; 5th 0.85; 6th 1.00*
Clutch.....*Multi-plate in oil*
Final drive/ratio.....*(15/48) 3.2*

CHASSIS & SUSPENSION
Frame.....*Chrome-moly dual loops*
Trail.....*4.5 inches*
Suspension, front....*Marzocchi fork 9-inch*
Suspension, rear.....*Marzocchi gas shock 9-inch*
Brakes, front....*7-inch dia. x 1-inch width*
Brakes, rear.....*7-inch dia. x 1-inch width*
Tires, front.....*3.00 x 21 Metzler*
Tires, rear.....*4.50 x 18 Metzler*
Rim locks,
Front/rear.....*Pins in rims*

WEIGHTS & CAPACITIES
Weight, unladen.....*219 lbs dry*
Fuel capacity.....*1.6 gal.*



Finger next to the Band-Aided one is touching the choke slide, carburetor comes off in a jiffy.

Swing arm has needle bearings shown here with axle and bolt.

Fork sliders and front brake hub are cast magnesium, steel spokes.