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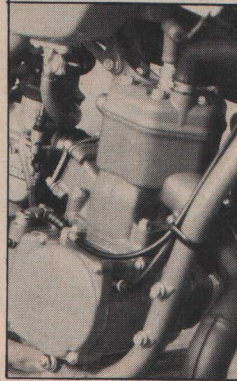
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# DIRT BIKE

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HONDA CR250R



YAMAHA YZ465H



KAWASAKI KX80



GARY BAILEY

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## FIRST TEST!

# KTM 125 LC

## Riding the preproduction KTM water-pumper



Most everyone would agree that we at Dirt Bike have a pretty exciting job, especially this time of year. We get to ride all the new bikes, spending three or four days a week out on the trail or at various tracks, and we're the first people to know what is going to be hot in the coming year.

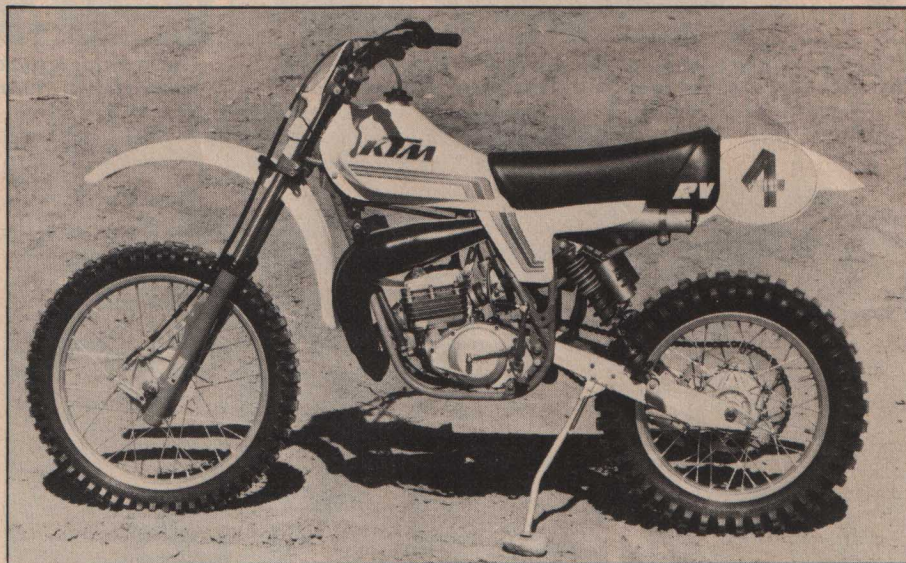
Most of the bikes we test are production models—the same thing you'll be able to find on your dealer's floor; but every now and then, we get a chance to ride a one-off machine, a prototype, if you will. This is where the job gets really hot. Some of these prototype machines have been the most radical mounts you could imagine as manufacturers try out anything and everything in an effort to pull a few points ahead of the competition. But in every case, it's been exciting to be one of the first aboard a potential new machine.

Such was the case with the KTM 125LC. We were looking for something different to feature on the cover of our March issue, and when KTM America offered us a ride on the LC, we jumped at the chance!

The bike we tested was about 90% production. Our prototype was equipped with 35mm Marzocchi forks which will be changed to 38mm forks by the time they start rolling off the line. Also, the production bike will have a plastic fuel tank rather than fiberglass; the handlebars should have a lower rise. Aside from these and a few other minor changes, the 125LC we tested should be exactly what the dealers will have by the time this story hits the newsstands.

### Powerplant and such

If you guessed that LC stands for "Liquid-cooled," you're right. The LC uses a water-cooled head and cylinder and a very compact circulation system. The radiator is located under the fuel tank, mounted to a pair of backbone tubes not more than six inches from the top of the cylinder head. As a result, the plumbing is



much simpler than the rest of the water-cooled 125s we've seen to date.

Coolant is circulated by a pump mounted to the front of the left side case cover and is driven off of the crankshaft. Absent on our test bike but present on the production bike will be an inline thermostat and a drain plug on the cylinder to make top-end servicing easier. The thermostat will be a welcome addition to a water-cooled bike, as we've noticed from our past tests that it takes *forever* to get a WC engine up to temperature on a cool day.

The KTM engine is the first water-cooler we've seen with any amount of finning on the cylinder and head. This may come in handy if the bike loses its coolant in a hose failure, but we're told by the powers that be at KTM America that it shouldn't be trusted much longer than it takes to ride back to the truck. Sounds fair to us.

Aside from the wet jug, the LC shares the same engine as the air-cooled RV version. This motor features a six-speed transmission, Motoplat internal rotor electronic ignition and primary kick starting. That's right, it is a KTM, and you *can* kick start it in gear! We've been waiting for

it for years, and now it's like a dream come true!

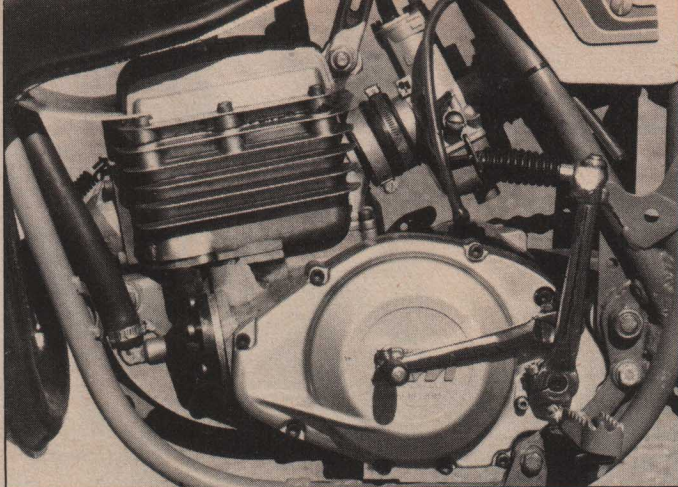
Carburetion is by a 32mm Bing, and the intake tract features both piston port *and* case-reed induction. The stock jetting was very close for mid-December in our normal riding spots, except for a slight richness on top. We swapped the stock 155 main jet for a 152 and cured the problem for good. Even though the carb is a Bing, we experienced no problems with the usual loading-up and slobbering that Bings are famous for. Obviously, KTM has their carb tuning worked out to a fine science.

The air box breathes from under the seat, and the filter is a huge oiled foam affair held in by a wingnut. Once the seat is removed, the filter is a snap to service. Waterproofing is reasonably good for a motocross bike—the only real entry point for water being down the top of the rear fender.

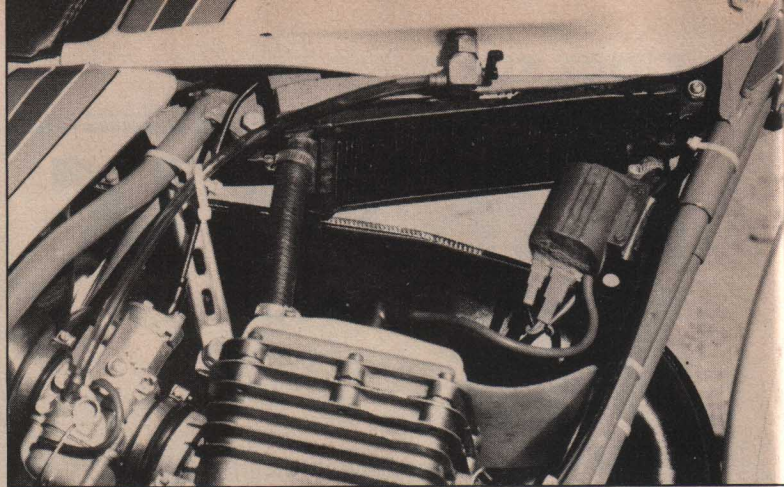
### Chassis and suspension

The LC's frame is essentially the same as last year's 125, with slight minor detail changes. It is plenty strong—there's enough tubing under that plastic to support a small bridge.

The rear swingarm is a heat treated aluminum extrusion, and the pivot



*The LC's cylinder uses small fins along with the water jacket; this may help to save the engine in the event of coolant loss.*



*The radiator is tucked up under the tank keeping the extra weight down low and minimizing damage in a crash.*



point is shared with the engine cases as a rear motor mount. This allows for a closer countershaft/swingarm pivot relationship, which in turn minimizes chain hassles. On the left side of the swingarm is a very well tucked-in side-stand which you may not even want to remove. Face it. Anyone who could manage to catch his foot on a KTM side-stand has no business riding.

Holding up the rear end is a pair of Ohlins piggyback shocks delivering just under 12 inches of travel. These new Ohlins are just about the state of the art in motocross suspension these days; they are rebuildable and adjustable. With a little bit of luck, there will be an article appearing in these hallowed pages this month (next month?) on how to rebuild these shocks.

The production LC will be using 38mm Marzocchi forks with 300mm of travel (that's 11.81 inches if you don't want to think metric). Our prototype was using a set of shorter 35mm Marzochis. These are the new style forks identified by a sticker of what looks like a clarinet on the bottom of the fork leg, implying that the damper rod has nearly as many holes in it as this popular musical instrument. The goal is progressive damping, and one way or the other, the forks have a good feel to them. There are no air caps on the forks; they're designed to work without air.

The 35mm forks on our test bike flexed quite a bit. According to the old school of fork design, this is desirable because it makes the bike turn faster. As a matter of fact, a lot of the top enduro riders prefer smaller forks for tight woods runs for that very reason—aside from a small savings in weight. To each his own. We'll wait for the larger forks.

Both wheels use Sun alloy rims, heavy-duty spokes and strong conical hubs. We were very impressed with the

brakes. They both give plenty of chatter-free stopping power and seem to be unaffected by water. Four-ply Metzeler tires are the stock rubber.

### Riding impression

Like all watercoolers, the KTM takes a few minutes of running before it comes up to temperature. At the first look, the radiator seems to be completely out of the air flow, being mounted under the tank. Not to worry—the gas tank is formed like an air scoop in the front and funnels the wind right down through it. The LC uses a brass radiator rather than the aluminum that the Japanese manufacturers are using. This makes for a heavier radiator on the LC, but the mounting point is low enough that we didn't notice the extra weight.

Actually, when we sat down and studied the KTM for a while, we started liking the radiator location more and more. Where else can you put a radiator and have it completely protected in a fall, out of the way of roosted mud and not adding weight to the steering head? You'd have to rip the tank clean off this bike in order to damage the radiator, and that kind of protection is a real plus.

Once operating temperature was reached, we took a couple of laps. Right off, it's obvious that the KTM has a lot of low end for a 125. It doesn't take any gear slipping to get off the line, and then the best way to keep things buzzing along is by short shifting. The bike will rev out to nearly 10,000 rpm and make power all the way up, but best results are in the mid-range—let it work coming out of the corners and it's much happier.

Once we got used to the powerband, we started turning some respectable lap times on the LC. We had no other 125 out with us to compare it to, but by the seat of the pants, we'd have to rate it just a little faster than a YZ125, although it's slower revving. On a tacky track, the YZ probably could beat it from turn to turn, but on a hard-baked surface, the KTM rider will have an easier time keeping things hooked up and roosting.

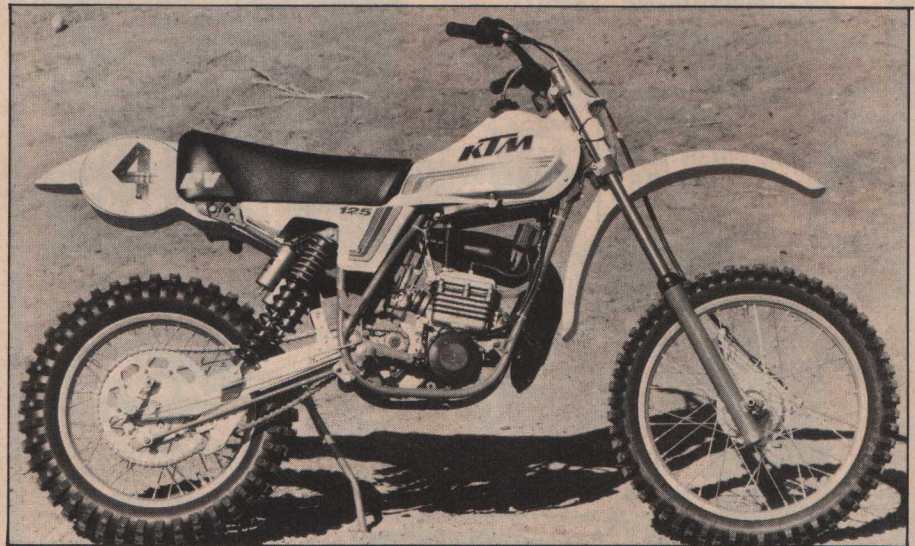
On the first couple of laps, the LC didn't want to steer easily around the tight turns, and it had a tendency to wash out. We took it back to the pits and raised the forks up a notch. Back out on the track and the LC was steering perfectly, but we could feel the

front tire bottoming in the fender on hard jumps. Into the pits one more time, and we dropped the forks back down and raised the rear preload one notch. The rest of the day the bike was handling great. No fender scuffing, washing or tucking—everything nice and neutral.

There's no magic in this kind of tuning, nor is it cheating. Anymore, we find it's a rare bike that comes across the DB threshold without going through a variety of fork oil and position changes, preload adjustments and the like. Every bike needs to be set up right to achieve its best potential. The name of the game is *handling changes*,

and if you didn't read about it in the October 1980 D.B. we strongly suggest you hunt up a back issue.

Once the KTM is dialed into the track and the rider aboard, it is a near-perfect turner. It's no problem to carve a long, flat line through a turn, square it off or broadside it. We say near-perfect because the LC prototype had a slight problem with the front end squirming around when stuffed hard into a turn. This is what's known as fork flexing, and in this case, we point the guilty finger at the 35mm forks. The production bike with the larger forks should prove to be a bit more solid in the squirmies.



### KTM 125

NAME AND MODEL	KTM 125LC
ENGINE TYPE	Water-cooled, two-stroke
BORE AND STROKE	54mm x 54mm
DISPLACEMENT	124cc
HORSEPOWER (CLAIMED)	28.5 DIN at 9,000 rpm
CARBURETION	.32mm Bing
FACTORY RECOMMENDED JETTING:	
MAIN JET	155
NEEDLE JET	274
JET NEEDLE	8E1
PILOT JET	40
SLIDE NUMBER	5943
RECOMMENDED GAS	Leaded premium
FUEL TANK CAPACITY	7.1 liters (1.9 gal.)
FUEL TANK MATERIAL	Plastic
LUBRICATION	Pre-mix
RECOMMENDED OIL	Duralube 50:1
AIR FILTRATION	Oiled foam
CLUTCH TYPE	Wet, multi-plate
TRANSMISSION	Six-speed
GEAR BOX RATIOS:	
1	18:32
2	16:32
3	23:26
4	25:24
5	27:22
6	28:21
GEARING, FRONT/REAR	12/57
IGNITION	Motoplatt C.D.I.
PRIMARY KICK SYSTEM?	Yes
RECOMMENDED SPARK PLUG	Bosch 340 S2S
EXHAUST SYSTEM	High-pipe, left side
FRAME, TYPE	Double down-tube
WHEELBASE	58 inches
GROUND CLEARANCE	13.75 inches

SEAT HEIGHT	36.5 inches
STEERING HEAD ANGLE	28 degrees
TRAIL	N/A
WEIGHT WITH ONE GALLON GAS	208 lbs
RIM MATERIAL	Sun alloy
TIRE SIZE AND TYPE:	
FRONT	3.00x21 Metzeler
REAR	4.00x18 Metzeler
SUSPENSION, TYPE AND TRAVEL:	
FRONT	38mm Marzocchi forks 300 mm (11.8 in.)
REAR	Ohlins gas shocks, 300mm (11.8 in.)
INTENDED USE	Motocross
COUNTRY OF ORIGIN	Austria
RETAIL PRICE, APPROX.	\$2300
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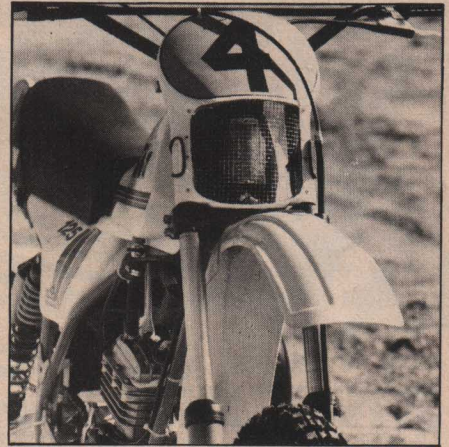
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# KTM 125 LC



35mm Marzocchi forks were used on our test prototype—the production bike will be using 38s. Number plate also will be changed—this one's nothing more than an enduro plate with the headlight cut out.

We had no complaints about the rear shocks. It's worthy to note here, though, that when we compare the KTM to the rest of it's competition, in all but a couple of instances we're comparing it to bikes with a single-shock rear suspension. From what we've noticed so far, all of the single-shock systems feature a much plusher ride than a two-shocker, no matter whether they work better or not. In the small, choppy bumps, the KTM will deliver a slightly harsher ride than the singles, which will make it feel like the rear end is too stiff. It isn't. When slamming through the whoopers, the LC is just as easy to control as the rest of them. It's only a difference in feel.

## Bits and pieces

As we said before, both brakes on the LC worked excellent. We got them plenty hot and then plenty wet and had no problems with fading. They're very fine units

The handlebars on our test bike were standard KTM items made for the 250 and 390. If they look a little high in the photos, it's because they were—high and uncomfortable. We rocked them back as far as we could and they felt fair, but the production bike will be coming with a lower set.

Shifting throw on the LC can best be described as typical KTM—smooth and long. It's difficult to get used to if you're accustomed to a Japanese bike. On the KTM you almost have to lift your foot off the peg to change gears. Some people like it, some don't. Two of our staffers feel uncomfortable on anything with a shorter throw—one of them actually gets cramps in his ankle.



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The other staffer goes for the quarter inch stab and misses gears on the KTM. It all depends on what you're used to.

The front number plate on our test bike was also a non-stock item made out of an enduro headlight and a piece of steel mesh. As of this writing, nobody knows what the front number plate will look like. One thing's for sure: It won't be made of fiberglass.

An interesting note: The bike we tested was ridden in at least two World Championship Grand Prixes, tested for hours for durability, and then brought into the States and ridden by half the dealers in the country. The engine is hand-made and has somewhere in the neighborhood of umpteen jillion miles on it and still pulls like a banshee. Hopefully the production bike will be just as durable.

If you look real close behind the front number plate, you'll see a small aluminum cylinder bolted in there. This is the radiator reservoir and filler, and we're told that it will be made out of clear plastic on the production bike.

The LC will also have a different kick starter by the time it comes out. We had a problem with ours: We were always catching it on the boot and pushing it back until it made rattlesnake noises at us. Not a serious problem, just slightly annoying.

Speaking of noises, one of the LC's more noticeable traits is the lack of them. Anyone familiar with KTMs is also familiar with the ringing noises their finned cylinders make. The water jacket of the LC does an effective job of deadening the fin noise, and there's not a rattle or ding that gets through. Very quiet for a motorcross bike. Even the muffler does a decent job.

#### Wrapping it up

All in all, if the production bike turns out like the prototype we tested, KTM has a good 125 to sell this year. If the production bike turns out better than the proto, which we strongly suspect, KTM will have a *great* bike on their hands. Is the price as steep as it looks when compared to something green, yellow or red? Not when you consider that you're getting good shocks, tires, rims, levers and controls, along with a healthy amount of reliability and a rock-hard chassis thrown in on the deal. It may even be worth it just to show up on a horse of a different color, for a change. □

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