

# KNOCKOUT PUNCH

More juice & nicer legs

By the Staff of DIRT BIKE

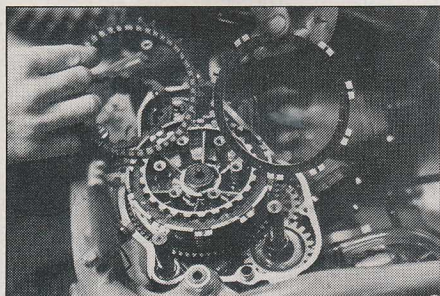
There's no doubt that the KTM 250 had the potential for being the fastest, best-handling 250 of the year. It came equipped with a mind-blowing engine that attacked off the bottom like a shark, whipped like a nuclear-powered dragster in the middle, then leveled off like a normal 250 motocrosser upper hit. Problems with the engine's performance were few, but a terrible clutch and poor shifting proved to be glitches that definitely hurt its rating.

In the chassis department, state-of-the-art forks suffered from bogus setup, and the multi-adjustable rear shock was fit with damping rates suitable for gorillas. Little problems, such as brake pads wearing out quicker than sandpaper, also hurt the running gear side of the machine.

We got together with the folks at Z Racing and had them perform a little magic on our 250 KTM. They race KTMs and know how to properly set them up. They started with the suspension and chassis and ended with clutch mods, porting, pipe and a muffler. Here's what they did and why, what to look out for and why, and how everything worked.

## THE ENGINE

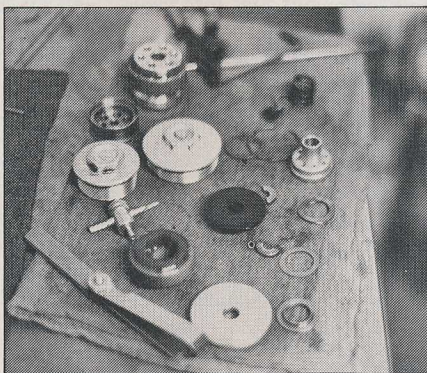
We said that the KTM has a kick-butt motor, but Z Racing adds more fire power



One of the stock machine's biggest problems is the massive pull required at the clutch lever. The solution is a set of Z Racing's replacement springs. (Note: These are NOT the 1984 KTM items which are too light and cause excessive slippage and wear.) Mark also offers a fiber clutch kit to replace the stock copper-sintered unit. The kit reduces the grabbiness of the stock item.



SoCal KTM ace Todd Campbell regularly runs his Z Racer into the winner's circle at highly-competitive local events. Except for stiffer spring and damping rates, his bike is identical to our modified flier.



Revalving the White Power forks allows for a plusher, more controlled ride, while heavier fork springs take the killer hits with ease. The new valving also improves cornering by reducing the Katoom's front-end ride height.



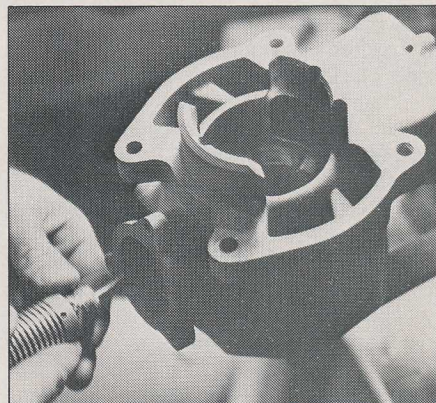
Looking for a good word to describe the Z Racing KTM250? Try "intense." There's enough power output to run with anything in the 250 class—stock or modified—and the improved handling lets the rider use every bit of it. Now, if we could only get the shifting up to the same level.

to the arsenal by porting the Katoom. Their main goal was the search for more revvability without sacrificing any bottom end. They accomplished this by exchanging the low-hanging, easily damaged pipe for a Z Racing pipe, and a blueprinted port job. The pipe actually punches up the bottom end, and, once the cylinder gets hogged out, the upper hit shines. It will now pull past the old shifting point and takes a skilled hand to control the onslaught of power.

Z Racing's clutch kit is a must for the KTM owner. Besides improving the life of the clutch basket and transmission oil (because of the new plate composition), it reduces the awful grabby feel of the stock unit. You can actually slip the clutch on a start and not lose the handle completely. New clutch springs make the pull easier and more in the realm of normal.

## SUSPENSION

They took the softly sprung and harshly damped White Power forks and installed



Z porting allows the motor to hit harder in the mid-range, then rev a shade higher than the stocker. It's effective.

## Z RACING'S KTM 250 MONGO MODS



KTM's 1986 250MX has more than its share of potential, and the Z Racing mods bring out the best in the beast. Mark performed the same work on our '86 250MXC (see page 64) with similarly impressive results.



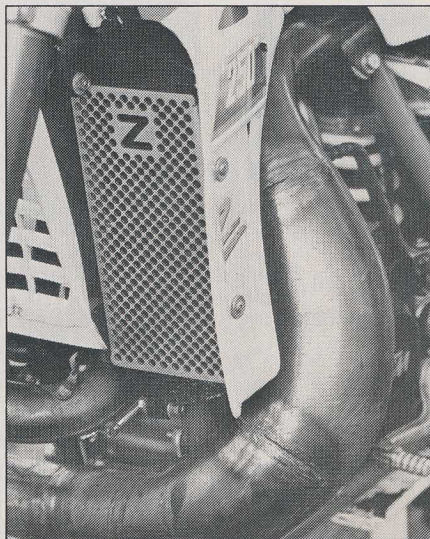
Dialing the suspension improves the KTM's mid-air stability and softens landings. With the correct spring and damping rates the bike will lose its tendency to twitch nervously over rough ground at high speeds.

heavier springs, then revalved the forks for less mid-stroke compression damping, and increased the low- and mid-speed rebound damping. Light-viscosity Spectro oil was used, and it seems to last longer, besides offering a plusher feel. This fork mod greatly improves the front-end action, lets you attack when you're used to backing off, and the revised damping gives the KTM a plush ride. The forks won't ride as high in the corners, and turning is actually improved.

The White Power shock comes with the correct spring rate, but Z Racing revalved the shock to give it a plush ride. Low- and mid-speed compression damping is reduced, and the rebound damping is increased. The result is no more hammering through choppy terrain, better turning (because the machine will ride a little lower in the corners) and smoother exits.

### LITTLE STUFF

The stock KTM brake pads are junk, and Z Racing sells pads that offer both increased life and improved rear braking action. There has been feedback that the stock torque arm



Z Racing's chamber serves two purposes: The higher headpipe allows greater ground clearance, and the altered cone specs give the bike a gruntier low-end hit. Aluminum radiator guards protect the coolers from projectiles.

breaks the bearing, which results in the rear caliper bracket spinning around, breaking the disc line and sometimes the caliper. Z Racing makes a torque arm that's stronger than stock and has a bearing that lasts longer and is beefier.

People have been bending the stock chain guide and derailing the chain. Z Racing's chain guide bracket bolts onto the existing lower rear chain guide and increases the overall strength of the unit. Their master cylinder guard protects the unit and some of the brake line. It's especially damage-prone where the line meets the master cylinder, and the guard protects it. To shield the radiators from rock and roost abuse, Z Racing's radiator guards deflect damaging trackside bullets. They also gusset the L brackets on the radiators because they bend so easily.

### MAKIN' A LIST 'N' CHECKIN' IT TWICE

Check your rear disc caliper and make sure it's centered on the disc. Some bikes are coming misaligned and the caliper bushing needs to be machined for correct alignment. The result is longer pad life, less heat and improved braking.

Use KTM 500 front engine brackets. The stock units crack too easily, and the beefy 500 hangers seem to hold up better. If you're using a grease gun on the swingarm zerks, be careful! Sometimes they push too much grease inside and cause the O-rings to swell and pop out.

Use no more than 500ccs of transmission oil, or the clutch will slip. A Terry clutch cable lasts longer than the stocker and offers an easier pull.

Check and make sure the spark plug cap is all the way down on the plug! This is critical on the digital control ignition. Also,



Be sure to throw away the stock fuel line and replace it with a high-quality hose (available from Malcolm Smith Products). The stock tube hardens quickly and then falls off. Also, be sure to carefully seal the ignition cover—it tends to leak and can cause corrosion. Open the cover anytime the bike is washed or run through a lot of water; this helps things dry out quickly.

the gap is important because the bikes will cut out on the top end if there is too much gap. Carefully crack open the d.c.i. cover after each washing. Water always gets in and causes a lot of corrosion.

Bleed the White Power forks between each moto. Put the bike on a stand and crack open the bleed vents. If there's a tremendous amount of pressure, you need new fork seals. Check the reeds frequently! The corners start to fray after six to eight races.

Important! Make sure the shifter is level with the footpeg. Usually, stock comes one notch higher and you'll miss shifts. The bike refuses to shift under power, so back off and make positive gear changes. You can wreck the tranny by missing a shift when the bike's under full power, and the dogs on the gears get shredded. Use a good grade of tranny oil. Z Racing suggests Duralube because of its high-shear strength. □

### WHAT, WHERE & HOW MUCH 250 MOTOR

Pipe	\$147.00
Muffler	59.95
Porting	150.00
Clutch kit	64.00

### SUSPENSION

Forks:	
Labor	\$40.00
Springs	49.95
Fluid (Spectro)	(takes 3 bottles) ea. 6.00
Valving	10.00
Shock:	
Valving	approx. 15.00
Shock oil	10.00
Labor	40.00

### CHASSIS

Z torque arm w/bearings	\$47.50
Z front disk pads	22.05
Z rear disk pads	18.95
Chain guide bracket	13.95
Master cylinder guard	9.95
Radiator guards	26.95
54T rear sprocket	35.00
Radiator repair (KTM only)	starting at 15.00
Uni air filter	14.50
Z Racing, 330 "K" E. Orangethorpe, Placentia, CA 92670; (714)524-5441	