

KTM 520SX vs. YZ426F vs. VOR 503 vs. FC501

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SUPERTHUMPERS



Warning: Lining up behind the current crop of 500cc four-stroke motocrossers can be hazardous to your health! Combined, the Husaberg FC501, KTM 520SX, Yamaha YZ426F and VOR 503MX put out 152 horsepower! Who needs a bulldozer?



Can Europe hang with the YZ426F?

By the gate-jumping DIRT BIKE staff

Anyone with more dirt bike knowledge than Al Gore knows that Yamaha rewrote the book on four-stroke motocross bikes with its YZ400F and, now, world-champion YZ426F. The blue beast is so effective, right out of the crate, that the other Japanese companies have been shocked into complete silence. Picture an ostrich with its Shoei'd head sticking into a big berm. A shivering ostrich. Well, Europe isn't afraid to meet this challenge head-on— after all, motocross started in the Old World on four-stroke machinery, and thumpers have all but ruled the 500 MXGPs in the '90s.

Sweden and Italy, in particular, have fueled the four-stroke revolution. When Cagiva bought Husqvarna and offered the Swedish thumper engineers landscaping jobs, Husaberg was formed out of spite, and the Italian/Swedish rivalry was on. The Vertemati Brothers developed Husabergs in the GPs then had a falling out with the Swedes and formed their own marque (which later was renamed VOR). Though it's a long and twisted tale, the result of this corporate and nationalistic battle is not one, but three new-generation 500cc thumpers capable of hanging with the YZ426F. Those would be the lightened and refined Husaberg FC501, the all-new KTM 520SX and the VOR 503MX. These puppies can hang, but can they beat the YZF? Drop the gate!



FOUR-STROKE 500CC MOTOCROSS SHOOTOUT

SUPERTH



Although handling is Euro-neutral, the Husaberg FC501 likes lots of throttle in corners, because the light flywheel makes it prone to stalling at low revs. Hunt for berms and explode them with class-leading power.

With more power and better ergos than the Yamaha, the new KTM 520SX shreds corners and leaves nothing but shrapnel in its wake. You have to move around a lot, though, as it headshakes.



UMPERS

Crisp throttle response, an excellent suspension package and 250-like jumping prowess make the YZ426F the best choice for high-flying motocross tracks. This bike will make you faster, if that's possible. If not, we hear putt-putt golf is making a comeback.



VOR's long-stroke motor makes awesome power, and it has the stiffest suspension of the bunch. Its biggest appeal is that it's different—very different. What's most wierd is that the VOR shares many features with the unreleased Cannondale 400MX.

SUPERTHUMPERS

HUSABERG FC501

The original lightweight thumper

• When KTM decided to embark on its thumper project, it bought Husaberg to see how the original lightweight superthumper was designed and built. Husaberg benefitted with an influx of cash and parts further refining the Swedish steed. The result is the lightest open four-stroke you can buy. The FC501 tips the official *Dirt Bike* scales (accurate to .0001 flognarts per White House scandal) at an incredible 236 pounds. That's only three pounds more than an RM250!

PERFORMANCE

• **Engine:** There's not much low-end power (even on "low" ignition setting), but the FC501 screams in the mid and upper revs. Its six-speed transmission gives it more versatility than the four-speed KTM, but the power is not as friendly. Vibration is annoying.

• **Starting:** Automatic decompression system is sweet, but the kick-start lever is located very high on the left side of the motor, making it very awkward to light. Lean carburetion and lack of flywheel lead to pops and stalls, too.

• **Fork:** Typically European, the WP fork is soft to the point of harshness on the smaller, faster hits, but it feels decent in rolling sand whoops. It has a very loose feel, and stretched ergonomics make it feel like the fork is in different time zone.



HUSABERG TECH INSPECTION

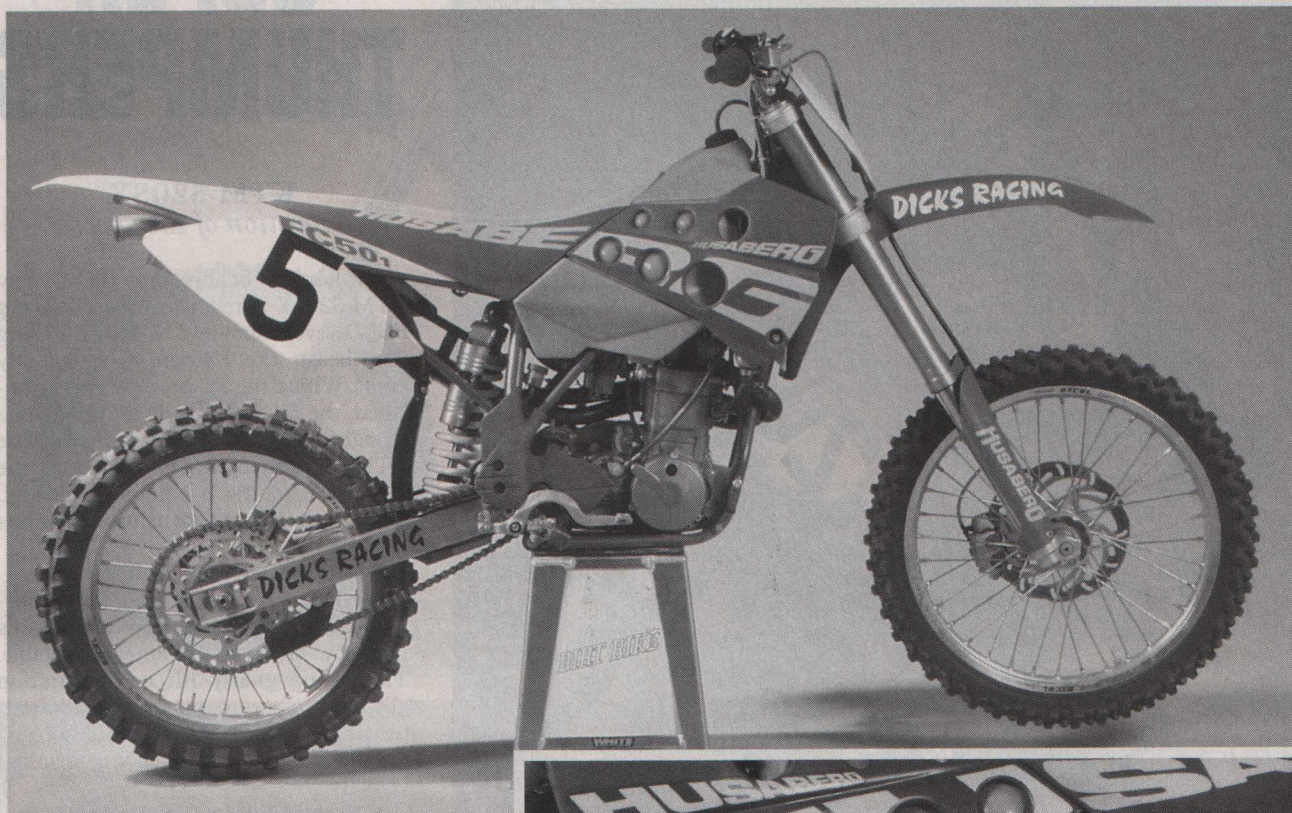
- Ti pipe, new fork and frame shave ten pounds.
- Hydraulic clutch, six-speed tranny
- Lighter crank for quicker revs
- New bearing and shift fork
- Excel rims and KTM "tulip" discs
- One-filter frame and new plastic
- Works-style ignition w/high-low switch

• **Shock:** A bit stiffer than the fork, the Progressive Damping System WP shock handles stutters decently but bottoms pretty easily. We went to an 8.4 Kg/mm straight-rate spring and liked it better than stock.

• **Handling:** Although it shares the longest wheelbase with the YZF (58.7 inches), the Husaberg handles totally different than the Yamaha. The FC corners decently but could be better with a less-obtrusive gastank and less compression braking. •

Big sand whoops bring out the best in the Husaberg FC501's suspension. The original superthumper is a throttle-on machine that penalizes those with a weak right wrist.

SUPERTHUMPERS



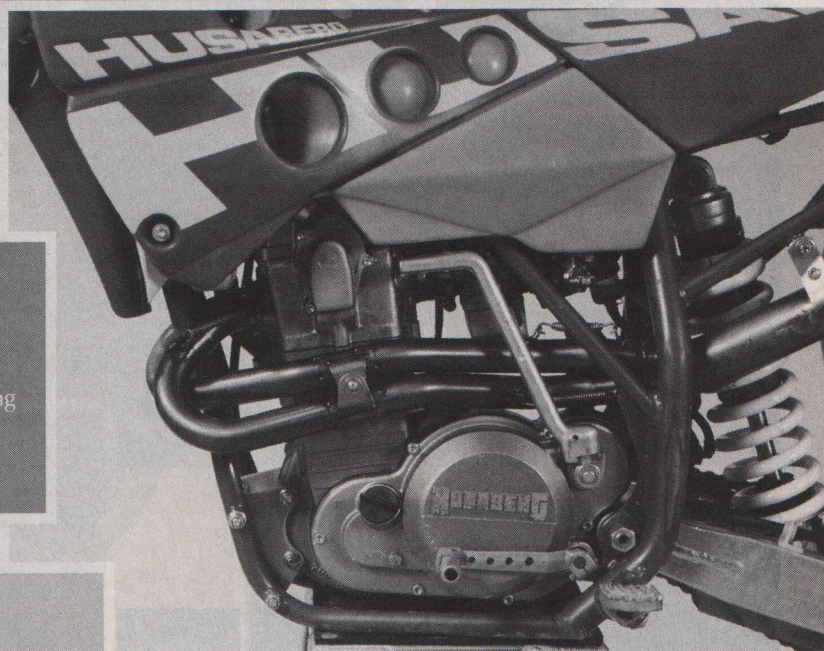
'Berg lightened the '00 frame with thinner tubes and a welded-on subframe. The new WP fork offers preload adjustment, and the new swingarm features a real chain guide (as opposed to the '60s-era floating roller).

HUSABERG WHEELIES

- High ignition setting is way fast
- Low setting good for waning laps
- Good high- and low-speed cornering
- Quality chain, rims, handlebars
- Good stability in whoops, ruts

HUSABERG FLAME-OUTS

- No low-end power, stalls easily
- Although an easy starter, lever is awkward
- Tank is wide in front, hampers cornering
- Throttle is hard to twist, controls heavy
- Too much compression braking



Husaberg lightened the crank for 2000, but we feel it's too light, as it wants to stall when approaching slow corners. The new hydraulic clutch malfunctioned on our unit and aggravated the stalling. Our Ti pipe broke, too.

SUPER THUMPERS

KTM 520SX *Evolution of the species*

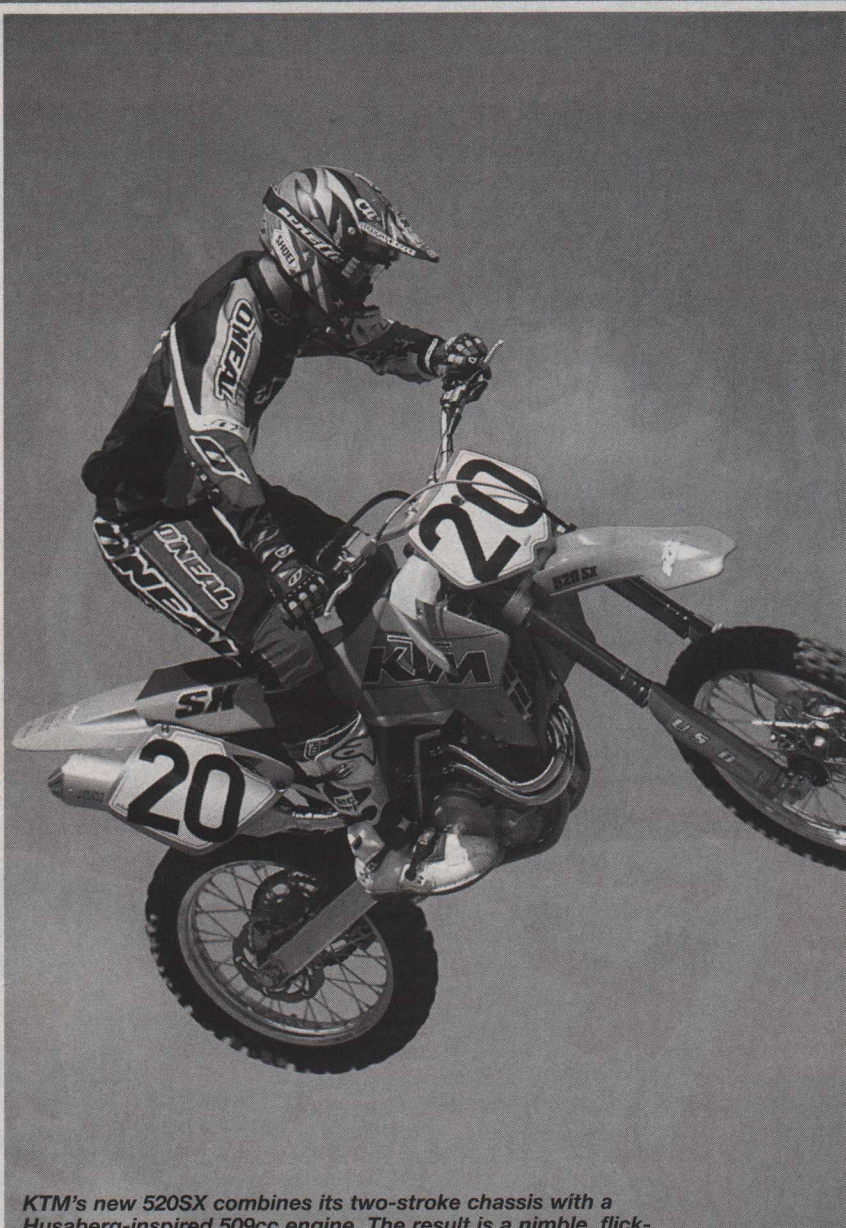
• It's hard to believe that the all-new KTM 520SX is related to the Husaberg FC501, even remotely. Where the 'Berg is a beast, the Katoom is a friendly giant. Where the FC is crude and unfinished, the SX feels like it could've come straight out of Hamamatsu, Japan. The KTM is even easier to ride than the YZ426F, and it's a hillclimbing fiend, but the four-speed transmission limits its versatility.

PERFORMANCE

• **Engine:** This is the best four-stroke motor to ever see production. It's insanely fast yet extremely tractable. There's no gnarly hit or carburetion glitches to overcome, no headplant-causing compression braking, nothing to distract you from achieving terminal velocity.

• **Starting:** Its automatic decompression system and two-stroke-like kick-start lever make the 520SX the easiest to start of the bunch. We never felt the need to use the manual decompressor or to rejet for easier starting. Good stuff.

• **Fork:** Although not as plush as the YZF fork, the SX WP fork does a good job of soaking up most hits. Set-up is fairly stiff with no harsh spots in the stroke. Some testers complain that the front rides too high, though.



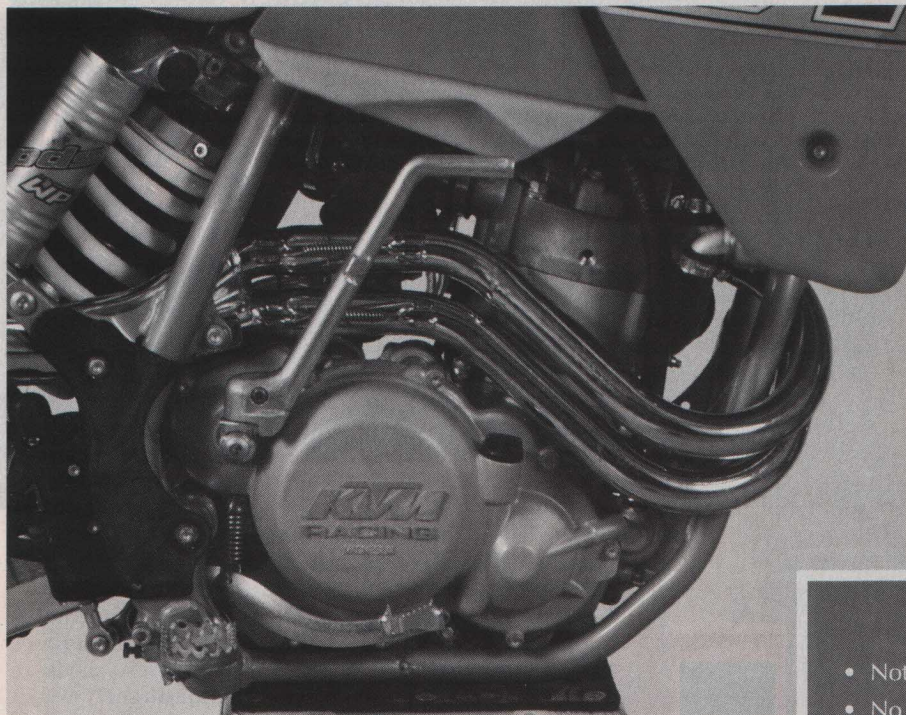
KTM's new 520SX combines its two-stroke chassis with a Husaberg-inspired 509cc engine. The result is a nimble, flickable racing four-stroke that makes us zeroes feel like heroes.

520SX WHEELIES

- Mountain-leveling power and torque
- Light weight with very neutral handling
- Ridiculously easy to start, even in gear
- Thin ergonomics and light controls
- Linkageless shock provides great hook-up
- Perfect amount of compression braking

520SX TECH INSPECTION

- Automatic (and manual) decompression
- YZ-esque pumper FCR Keihin carburetor
- Four-speed, moto-only transmission
- Undamped clutch hydraulically controlled
- More narrow ergonomics than KTM 250SX
- WP inverted fork and PDS shock



The SOHC motor has—count 'em—four oil filters (two paper and two screen) to make it as reliable as possible. It starts easily, makes big power and is user-friendly. If it only were a five-speed...

Not only is the 520SX fast and fleet on its feet, it has plush, well-balanced suspension. It's an excellent bike on all fronts, but the Yamaha package is slightly more effective in the full-moto mode.

- **Shock:** The WP PDS shock does an excellent job of putting all that power to the ground. It handles stutter bumps well but feels loose, compared to the YZ426, on bigger hits. This detracts from high-speed stability somewhat.
- **Handling:** Aided by its light weight and sweet power delivery, the 520SX carves tight turns well and is stable in fast sweepers. You simply have to move around more (fore-aft) to keep the chassis balanced, compared to riding the YZF. ●

520SX FLAME-OUTS

- Not as responsive down low as YZF
- No hot-start system for falls/stalls
- We got it to headshake occasionally
- Suspension is soft for full-moto
- Demand greatly overpowers supply
- Needs a fifth gear for GPs/desert

SUPER THUMPERS

YAMAHA YZ426F *New, blue and World Champion*

• Refinements to the frame and suspension make the YZF even more effective, and that extra 27cc gives the 426 all kinds of bark. An aluminum subframe and fork internals shave a pound off the F, and the extra torque allowed Yamaha to make the gearbox ratios tighter. All the better for Andrea Bartolini to defend his 500cc World Motocross Championship!

PERFORMANCE

• **Engine:** Extra displacement and a new FCR pumper carb give the YZF the most low-end snap and the best throttle response. It doesn't put out the most peak power, but the YZF revs furthest, making for less shifts per lap.

• **Starting:** It's the only 500 to require a starting drill and use of a manual compression release, but the YZF lights easily...just not as easily as the VOR or KTM. The relocated hot-start button is still hard to find, though.

• **Fork:** Action is so plush that we had to go to stiffer (0.47 Kg/mm) fork springs to get a handle on bottoming. Then our lighter riders started complaining about stiff initial travel. Balance with shock is excellent.

Its new frame, suspension and power make the YZ426F way better than the YZ400F. Although several of our test riders complained of cramped ergonomics, most went fastest on the Yamaha.



YZ426F TECH INSPECTION

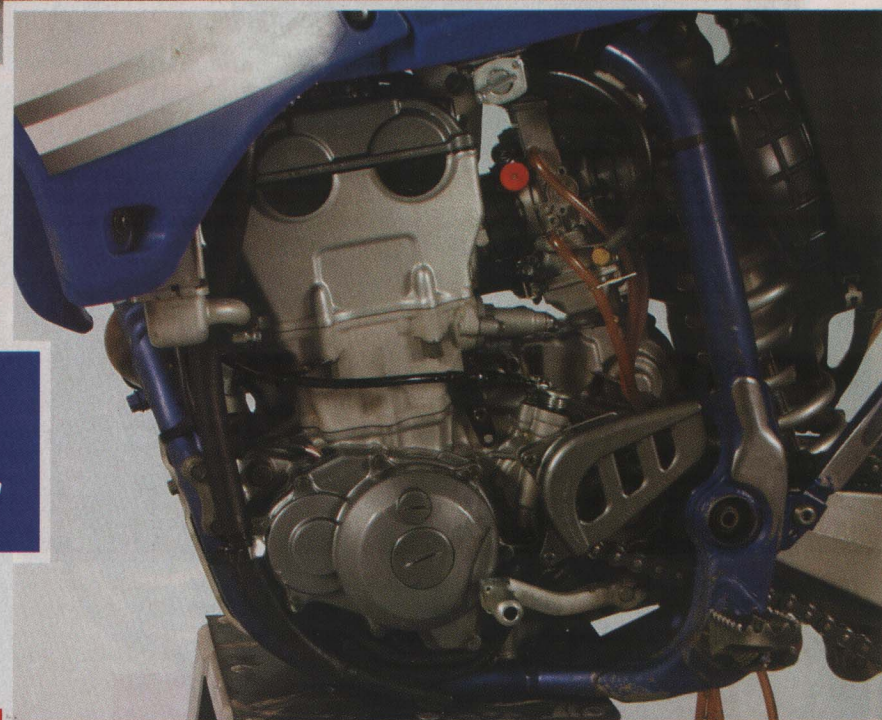
- Five-valve, DOHC engine short-stroke
- Highly-adjustable Kayaba suspension
- Aluminum D-tube subframe saves a pound
- Larger clutch and stronger rod/crank
- Hot-start integral with FCR2 pumper carb
- Stronger frame, stretched ergonomics

YZ426F WHEELIES

- Snappy throttle response, great jetting
- Clutch feel, action and quick-adjust perch
- Handling and power dare you to go faster
- Strong brakes with excellent feel at the levers
- Nothing lacking in total package, stock
- Plethora of GYT-R hop-ups and accessories



With new suspension settings for 2000, the 426 has the best package, but it's still too soft for fast guys. We went stiffer on the fork springs and moved the handlebars forward with a TAG Metals top clamp to improve turning and ergos.



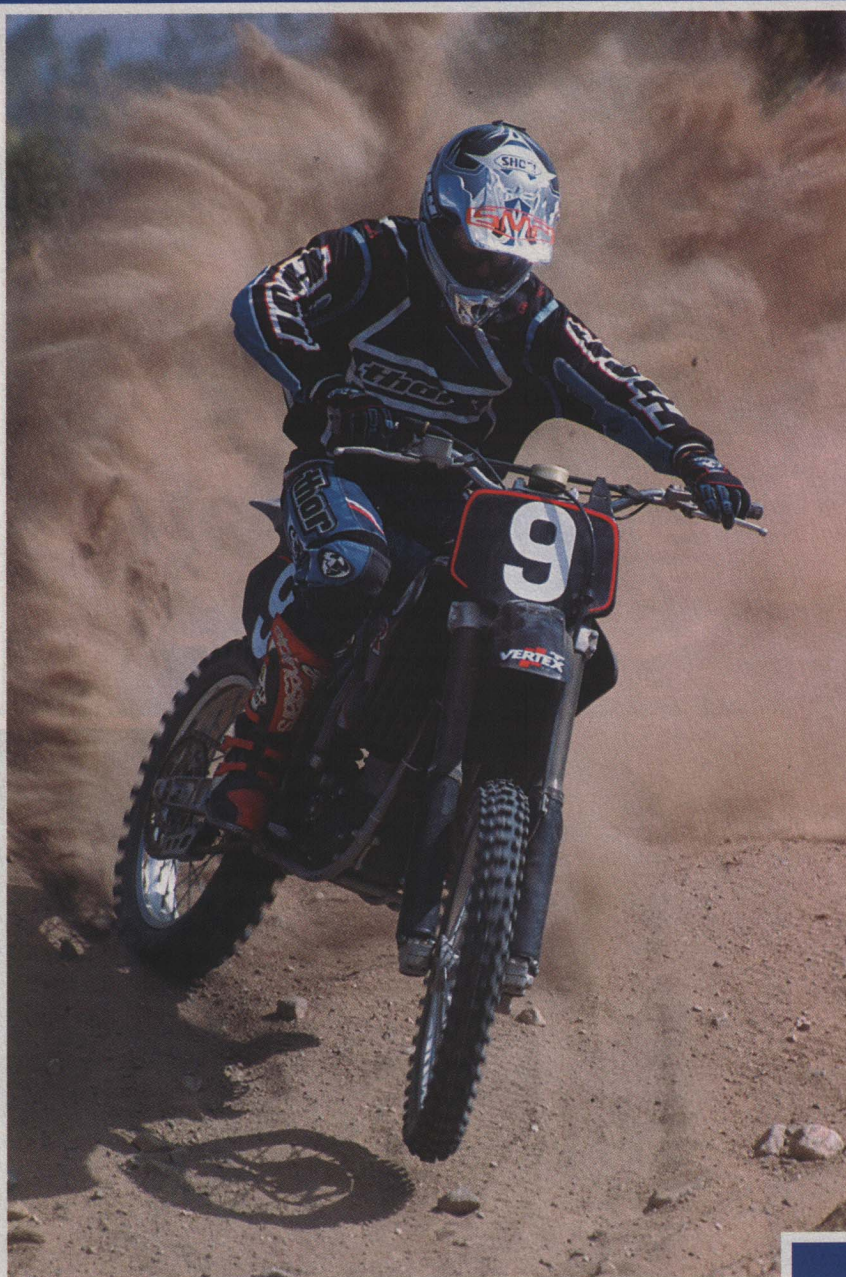
Stuffing another 27cc under the five-valve head led to massive changes in the crank, a larger clutch and taller first and second gear ratios. A bog surfaced in the new FCR2's jetting this winter; we swapped the 42 pilot for a 45 to fight it.

• **Shock:** As the only thumper to have separate high- and low-speed compression damping adjusters, the YZF has the best tuning capabilities for track conditions. When it bottoms, the rear tire hits the fender, but the Kayaba shock provides excellent hook-up.

• **Handling:** It doesn't carve tight turns as effortlessly as the KTM, but the YZF426F has the best handling package, overall. It's the most stable and doesn't headshake, and you don't have to move around a lot to get it around the track. ●

YZF FLAME-OUTS

- Clutch perch "hidden" by protruding decompressor
- Chain and handlebars could be higher-grade pieces
- Although a revver, doesn't pull on top like 500s
- Taller seat foam would improve ergonomics
- Heavy damping and overall weight noticeable



Big berms are big fun on the VOR 503MX. An unhinged feel and unbalanced suspension make it a handful on flat or off-camber corners, as the motor overpowers the chassis.

VOR WHEELIES

- Hydraulic clutch is excellent
- Unusual, but easy to start
- Big power is controllable
- High quality chain, bars & parts
- Optional height seats

SUPER THUMPERS

VOR 503MX

Yet another Italian Stallion

• The Brothers Vertemati sold off their Husaberg-inspired 503MX, which has been renamed "VOR," and are now working on a new superthumper. Being rebels without a factory, the Vertematis were free to wildly depart from the norm, so they went with a long-rod motor featuring a gear-driven cam. This made for a tall, wide engine and, thus, a tall and wide bike.

PERFORMANCE

• **Engine:** Power is impressive, but not in the lower revs. Somewhat like the Husaberg, the VOR wants to be revved, but it rewards you with hand-numbing vibration when you do. The flywheel feels very heavy, so it doesn't stall.

• **Starting:** The forward-rotating kickstarter is very funky, but the VOR usually roars to life with one half-hearted boot. The catch is that it has to be in neutral, so time is lost in the race mode, and forget about races with dead-engine starts.

• **Fork:** Spring rates are very stiff, and there is very little damping, so the Paioli fork feels more like a pogo stick than a moto-utensil. It resists bottoming fairly well but isn't in balance with shock.

VOR TECH INSPECTION

- Long-rod, SOHC engine
- Gear-driven cam
- Bolt-together frame
- Magnesium cases
- Cassette gearbox
- Backward kickstarter
- Forged 3-piece swingarm



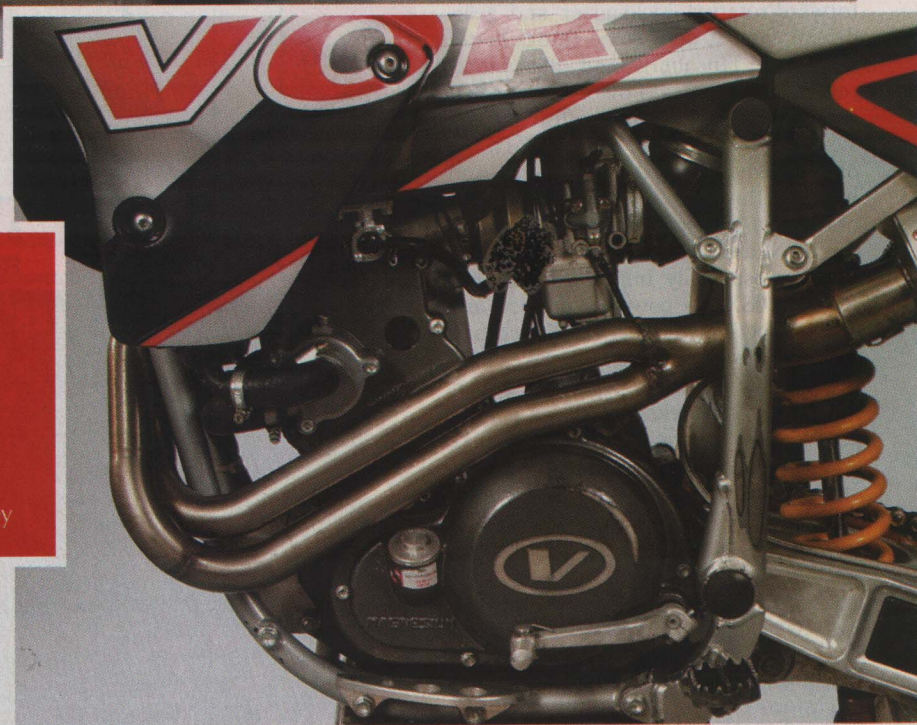
A long rod calls for a massive crank and a tall engine, which makes for a wide gas-tank and a heavy feel. The VOR weighs 250 pounds with an empty tank, and it feels even heavier than that on the track.

VOR FLAME-OUTS

- Too much engine braking
- Harsh fork has lots of stiction
- No in-gear starting or hot-start
- Old-world ergos and handling
- Wide, boxy ergonomics package
- Leaks more oil than a Panhead Harley

• **Shock:** We feel the shock spring is intended for a Harley Fat Boy. It's extremely stiff, yet the shock has very little damping. The resultant pogo action makes the VOR truly scary at speed. "Unpredictable" is an understatement.

• **Handling:** Whether it's the imbalanced suspension or the bolt-together frame, the VOR has an unhinged feel. Both ends dance around too much, and the fork pushes in tight turns.



It doesn't get any weirder than this—cartridge transmission, forward-falling kickstarter, gear-driven cam and the inability to start in gear (or retain its gearbox oil). To its credit, the VOR 503MX has a great clutch and monstrous power.

SUPER THUMPERS

RATINGS & CONCLUSIONS

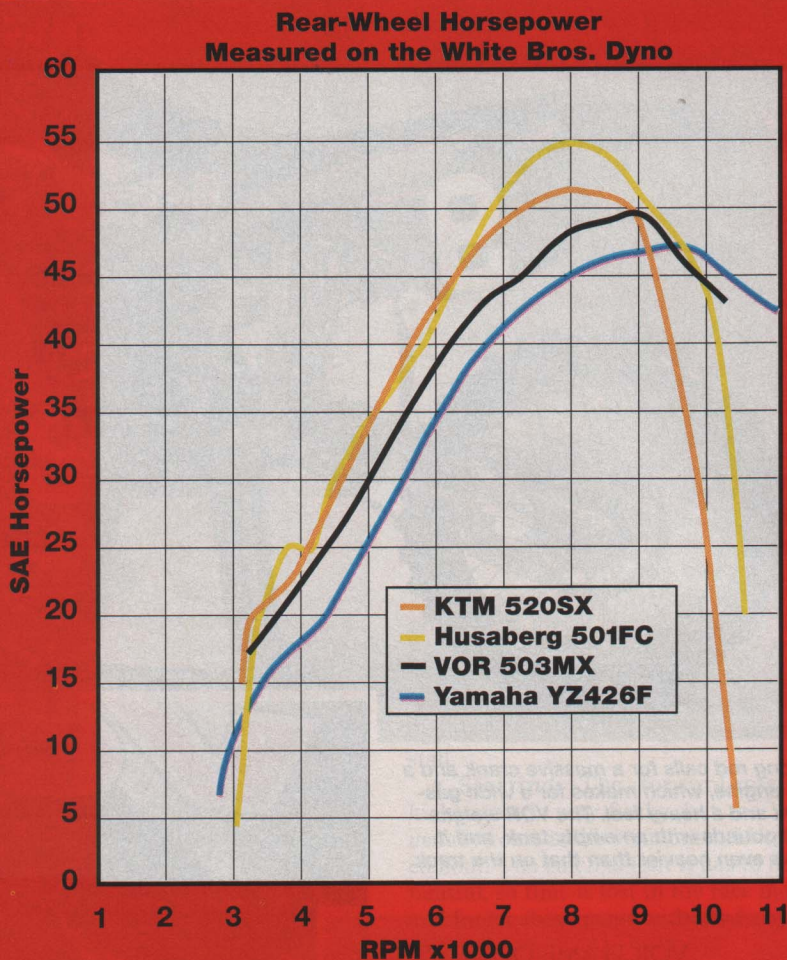
• What we have here is the convergence of two worlds—the old and the new. Husaberg has made refinements to the FC501 to make it appeal to the young at heart, and it has that lightness thing going for it. The high and low power curves give you a choice between scary-fast and merely fast, but the bike still has that old-world feel (long and low). It's a great thumper and a good motocross bike, but there are newer, more-refined choices now.

VOR might have spun off of the Husaberg design, but it went in a new direction with its bolt-together frame, forward-rotating kickstarter and gear-driven cam. It does some things better than the Husaberg and has more-refined controls. Power is simply incredible, and it has the stiffest suspension of the bunch. The VOR 503MX has old-world handling, though, and doesn't have the throttle response at lower revs of the new-generation superthumpers—the KTM and Yamaha.

We're especially impressed with the KTM 520SX. Its power is perfect, and it's wrapped in an effective, slim chassis with excellent suspension. It takes a bit more effort on really technical, supercross-infested tracks than the YZF, but its awesome engine makes it a playbike that pegs the fun meter. Only the four-speed transmission holds the 520SX back for GP and desert work. Also, availability is scarce, so you might not be able to find a 520SX until the 2001 production run. Unless we were full-on supercross guys, we'd take the KTM over the YZF, even with a \$700 larger pricetag.

Hardcore moto-heads don't want to wait, though. They want to win right now. Unless you've got an inside line to a KTM dealer or regional rep like Guy Cooper, you'll probably end up on a YZ426F. That's fine. You'll be on a level playing field with the one or two 520SX pilots in your area...and the hordes of 426 riders. •

THUMPERS VS. THE WHITE BROS DYNO



OVERALL POWER

1. KTM 520SX
2. Yamaha YZ426F
3. VOR 503MX
4. Husaberg FC501

SHOCK RATINGS

1. Yamaha YZ426F
2. KTM 520SX
3. Husaberg FC501
4. VOR 503MX

STARTING EASE

1. KTM 520SX
2. VOR 503MX
3. Yamaha YZ426F
4. Husaberg FC501

OVERALL HANDLING

1. Yamaha YZ426F
2. KTM 520SX
3. Husaberg FC501
4. VOR 503MX

OVERALL ENGINE

1. KTM 520SX
2. Yamaha YZ426F
3. VOR 503MX
4. Husaberg FC501

ERGONOMICS

1. Yamaha YZ426F
2. KTM 520SX
3. Husaberg FC501
4. VOR 503MX

FORK RATINGS

1. Yamaha YZ426F
2. KTM 520SX
3. VOR 503MX
4. Husaberg FC501

CONTROL PACKAGE

1. KTM 520SX
2. Yamaha YZ426F
3. VOR 503MX
4. Husaberg FC501

SPECS AT A GLANCE



While the Husaberg FC501 and VOR 503MX are powerful, exotic dirt bikes, you'll get more performance and better results on the less-expensive Yamaha YZ426F and KTM 520SX. Just don't tell the trophy girl.

	FC501	520SX	YZ426F	503MX
Bore x stroke	95mm x 70.7mm	95mm x 72mm	95mm x 60.1mm	95mm x 71mm
Carburetion	40mm Dell'Orto	39mm FCR Keihin	39mm FCR2 Keihin	38mm Dell'Orto
Transmission	6-speed	4-speed	5-speed	5-speed
Wheelbase	58.7"	57.3"	58.7"	58.5"
Rake angle	28.5°	27°	27.2°	26.5°
Seat height*	32.25"	37.5"	37.25"	38"
Seat -to-pegs	20.25"	21"	21.5"	21"
Weight**	236 lb.	240 lb.	248 lb.	250 lb.
Retail price	\$7098	\$6548	\$5899	\$7750

*Suspension fully extended. ** All fluids except gas.



WHERE TO GET IT:

Husaberg Motorcycles USA
1119 Milan Ave
Amherst OH 44001
(216) 244-6301

KTM Sportmotorcycle, USA
1119 Milan Ave
Amherst OH 44001
(216) 244-6301

Yamaha Motor Corp.
6555 Katella Ave.
Cypress, CA 90630
(714)761-7300

VOR Motori USA
8468 Loma Place
Upland, CA 91789
(909) 608-0082