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Middle Ground In Mid-Displacement

Story By Jimmy Lewis • Photos By Jimmy Lewis And Jesse Ziegler

The latest hot spot, and for good reason, is the mid-displacement, midsize four-stroke. You can trace this size way back, back before most of us were even riding. But this time around it is still trying to accomplish the exact same thing: Have the ideal power-to-weight ratio to get the most out of a lighter-feeling, less powerful dirt bike. And Beta, Husqvarna and KTM have three ways of accomplishing this.



Beta 350 RR



Husqvarna TXC310



KTM 350 EXC

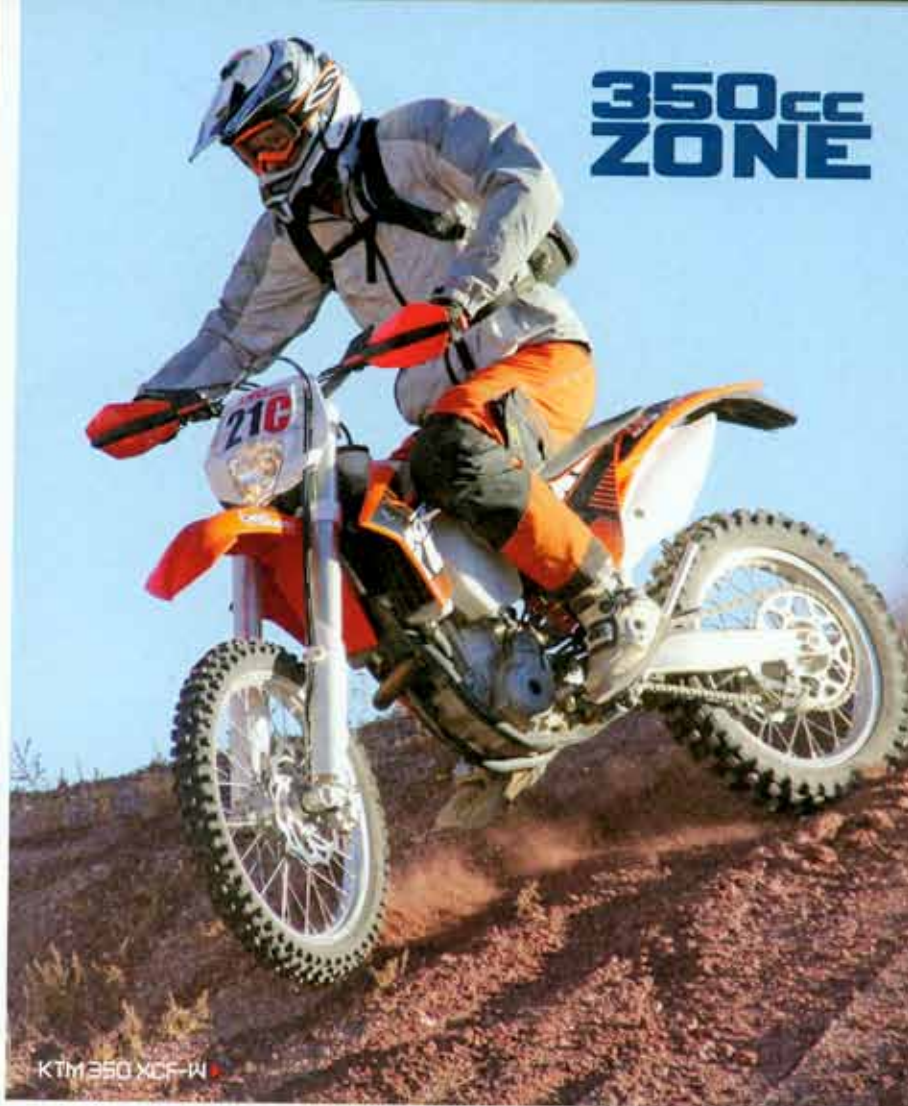


“Realize the hyped 350cc class is alive and well, but the bikes are not magic.”



Designed as a 350 with a race or motocross heritage, the KTM favors revs over torque.

The first variance to point out is that the KTM is a specific 350cc engine built solely to that size to run in that configuration. This shows the significant investment KTM has made into this engine size, and other recent offerings reveal orange has additional plans for a motor that was originally shown in a 100 percent motocross trim. Beta, on the other hand, is taking a considerably more conservative approach, one that has led the company to much success in getting back into the full-size dirt



KTM 350 XCF-W



Ready to race does not mean giving up on green sticker compliance with a spark arrestor/muffler that is easy on the ears.

bike market. It has taken its 520/450/400 engine and altered the bore and stroke to make it into a 350cc machine. This requires less investment in developing a whole new engine and allows refinement of an already proven motorcycle, although at a higher weight on the scale. Conversely Husky is boosting the displacement of the 250cc engine family into only a 310cc so it can compete with the additional power most rider's feel a 250cc four-stroke lacks, especially in lower-rpm off-road riding. This

approach highlights the light weight angle, the danger being a sacrifice in durability.

Let's start with the raciest of the bunch, the Husky. Although it is a 310 (302cc, really), the TXC is not lacking one bit in power and may have the hardest hit on the bottom and the spiciest delivery in the lower and middle rpm ranges. The FI is improved so much from previous 310cc TEs with a new injector and competition-only mapping. It no longer gets confused in on-off throttle at low rpm but now responds very much like a richly set-up pumper carb. It isn't seamless FI just yet, that is the KTM, but unlike a carb-equipped bike the TXC310 produces a significant amount of torque and will take some big throttle openings at lower rpm and not stall if the throttle is opened up quickly. Up on top the TXC will rev out just fine, but the most usable power is accomplished with a quicker shift. The transmission feels like a closer ratio and with six speeds has plenty of range and minimal gaps between gears.

On the other side of the power delivery is the Beta. The 350 RR lives on rpm with

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Beta 350 RR



The Beta has some sweet and racy Italian style, but we wouldn't mind if the engineers found a half-gallon more fuel capacity.

an impressive top-end pull that seems like it never ends. Not to say that this bike doesn't have decent bottom and midrange, it does. It is just that in comparison to the top-end, it isn't as impressive. Add to that the fact that the bike is carbureted and when in company of FI bikes you can feel a slight delay in response. With the ever-present tinkering or tuning it can take at elevation or with temperature to get the maximum from the carb, we suggest an adjustable leak jet and a T-handle or knob-equipped fuel screw. Yet the Beta also has the most traditional thump-thump-thump four-stroke feel and can feel at times like it has the most torque when it comes to the flywheel effect preventing a stall.

The KTM 350 XCF-W rides right in the middle of the power delivery comparison with a simple description of a seamless



The Beta is a green sticker bike, and that includes a spark arrestor-equipped muffler.

powerband. It has decent power everywhere, great power really, that is smooth and so precisely responsive without any hesitation or faults anywhere. It doesn't have the strongest feeling power anywhere, but this spread is effective. It can be revved out or torqued down and will pick up and pull the best if you just turn the throttle and skip on the clutch. The KTM is the last of the three to need a downshift since the power is so efficient and it has a perfectly spaced wide-ratio six-speed and, of course, an FI that doesn't get confused—it is very efficient and really gets the most out of each gallon of fuel; it's the last to run out of petroleum on a long trail ride.

In the chassis and suspension departments the bikes' character scheme differs as well. The Husky has, as expected, a light and racy stance. It feels the lightest on its

Jimmy Lewis

5'10"/190 lb/Trail Pro



This comparison highlights three ways of getting to the same result—a powerful yet light feeling four-

stroke. And each bike sure has a sweet spot where it rules. For me the Beta and Husky both appeal to the racer or the guy who rides at a more aggressive level. The Beta's engine is impressive on top, and the Husky likes to have the throttle twisted at any rpm. Riders off of a 250F will appreciate either, but those moving down off a bigger bike might be more picky. If you really want to lose the weight feeling, go with the Husky. If you don't want to lose that much four-stroke chug, go for the Beta. But no matter what you're looking for the KTM has a very vanilla feeling in this comparison. It is a trait the Hondas had attained in the past when they were so good because they have so few flaws (some called it lack of character). Judge it by the seat, then the KTM is crap! Judge it by its overall high level of performance that doesn't stand out and overshadow any of the one or two flawed points, then frankly it is awesome. The KTM does nothing wrong and has no bad side to it.



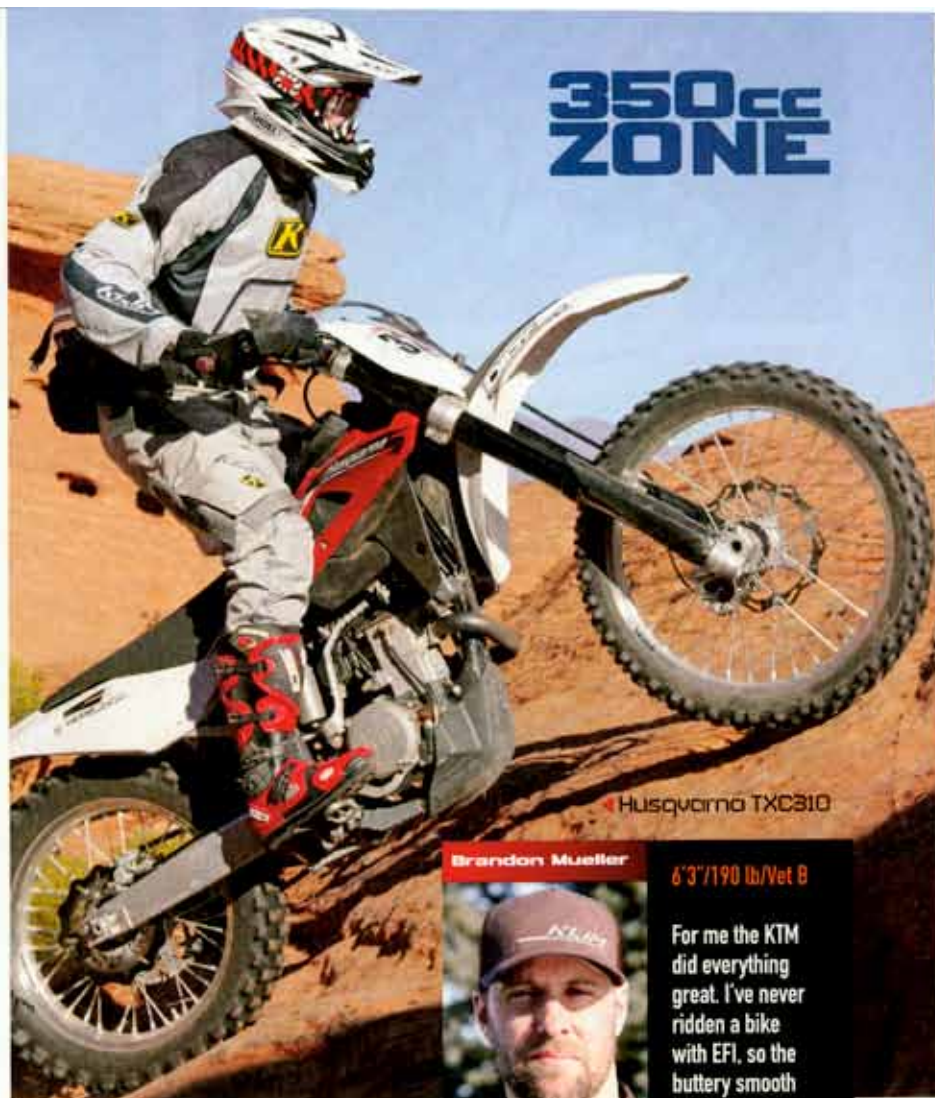
This is the best muffler Husqvarna has produced as it is quiet to the ears.



This "little" Husky rips, but at what price? We oddly had an oil pump gear break in ours.

wheels, and the new KYB suspension does a pretty good job of being stiff without being too harsh. Of the three it does feel the most rigid—a lot of that coming from the light feel as well. The bike is just stiff enough to avoid any bottoming issues and will use the stroke of the suspension just like an off-road bike should when it is pushed. In other words it isn't a motocross bike by any means and would likely feel a bit soft on the jumps. The clickers do make a difference, especially the rebound settings, on controlling the harshness (open them up as the first option), and the bike is very sensitive to ride height. Let the rear end ride low and the fork gets harsh, plus turning suffers. But when on point, the Husky has a very light-feeling front end and really turns quickly without any instability. The bike prefers to be ridden fast, and the aggressive nature of the motor completely complements this. It is most at home on GP-style courses but would have no difficulties in an enduro either. For trail riding, in this bunch it isn't the first choice, but it isn't off-putting at all.

The Beta also is set up with a more race-like setting, but it seems Beta decided it would be a lighter rider racing its bike. The RR holds itself up with valving and seems to ride on slightly softer spring rates, so



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Husqvarna TXC310

Brandon Mueller 6'3"/190 lb/Vet 8



For me the KTM did everything great. I've never ridden a bike with EFI, so the buttery smooth throttle was really amazing

and effortless, and my only wish would be for just a bit more flywheel weight. In comparison the Beta had a strong motor, and the Husky was a racer. Some may not like the engine-braking of the Beta compared to the others since the KTM and Husky were free-wheeling and had less engine drag. But I did find the engine drag/braking to be advantageous in steep downhill situations. I used to think the present Husky aesthetics were very modern looking and nice, but with the updates to the KTM and Beta, the Husky now looks less modern. For my height the Husky felt a little compact and cramped, but nothing that couldn't be fixed with raising the bar or a higher bend of bar. Since I'm not really sensitive to suspension, all felt pretty good to me at the speeds and terrain we were riding. What I did like about the Beta RR was the back end felt planted, like an old-school four-stroke. Plus, for my height the Beta actually felt pretty comfortable, definitely not too compact.

by nature it acts plush. We are sure the 20 additional pounds the bike carries compounds this, but the RR is also the most planted feeling bike on the trail. You do feel the weight compared to the other bikes, but like the 400cc Beta we tested a year ago it really doesn't feel as heavy as the scale indicates. It is the most stable of the group, and the steering is precise yet not too heavy feeling through the bar. It is the kind of bike that you can plow into bumps and obstructions and not worry or wonder how it will come out. It is consistent and confidence inspiring. Plus, it turns on a dime and could well be the best in the extremely tight trails if the weight feel isn't off-putting.

For sure the XCF-W is the most suited to the trail rider and the single-track crowd. Its simple PDS rear suspension is the plushiest, yet it has improved so much in the last few years it has lost the wallowy feel as if it was set up soft. Now it stays precise in the turning without transmitting the bumps to the rider. Of this group the KTM even manages to not bottom out any



Bike	MSRP	Weight (tank full)	Seat Ht.	Peg Ht.	Grd. Clr.	Contact
Beta 350 RR	\$8,899	275	36.9	16.2	11.8	www.americanbeta.com
Husqvarna TXC310	\$7,899	256	37.0	16.2	11.5	www.husqvarna-motorcycles.com
KTM 350 XCF-W	\$8,999	254	37.7	17.0	13.8	www.ktmusa.com

more than the other bikes even when the suspension is tuned to be this comfortable. Of course, if you desire a more race-oriented bike, KTM has the XC-F, which would be a step up on stiffness compared to all of the bikes in this comparison, if that is more of what you're searching out. Weight feel on the trail is just a tick off the Husky and overall the KTM is easy for any rider to get comfortable on. One of the biggest things we noticed was the Dunlop tires were much stiffer than the Pirelli tires on the other bikes, and the suspension still handled the chore. It was clearly the favorite of riders who liked to sit down most of the time when riding, though the seat foam had turned to mush 15 hours into testing. The comfort level makes

it our first choice for single-track trials riding, but no one would hesitate to race it anywhere. Which one is for you? First realize the hyped 350cc class is alive and well, but the bikes are not magic. They do lack in some areas. Without the chug of the bigger engines, a lot of riders miss the torque. These bikes also feel a little heavier than 250Fs and 250 two-strokes. But for the compromise they strike, there is a market, and a lot of riders are finding the fit just right. And when you consider everything into the mix, including the price, there wasn't a rider in our test group who couldn't be happy with any of these machines. But overall the KTM, as predicted, is the most polished and fits the needs of the most riders the best.



350cc ZONE

Jesse Ziegler 5'10"/175 lb/Trail Intermediate



I've been amused by the 350-fever among local trail riders, friends and the all-powerful media. Since my only stint on a 350 was the KTM SX-F intro during my last days at *Dirt Rider*, I was excited to jump on these three new hogs to see if there was anything buzz-worthy. Right off the bat the KTM impressed the most in my book. Its comfort and refinement are spot-on, and the tractability of the motor kept me wanting to test it in the most technical stuff we could find. I compare everything to my 250 XC, and I feel this bike would be the closest in weight feel and gnarly trail ability to my two-stroke. But really, they're all too four-stroke-y. Next up was definitely the Husky. This is the best-running version of it (in 250 or 310 bore) there has ever been. It is snappy with the power (almost too much for the tires) and could be a sweet race bike for GNCC, enduro, etc. The power is bottom-centric, and when opened up you hear more noise (mostly air sucking in) and get a moderate pull. Not as comfortable overall, but the peppy motor made it really fun to ride. Third for me was the Beta, and only because it seems conflicted. It's a tight-terrain chassis with quick steering, and it comes with a motor that wants to go 100 mph. Not the perfect match, but it does work. It's so much fun to go wide open that you almost forget the front end is glued to the ground and feels a bit untrustworthy at speeds. Lean back and she's a ripper, though!