YAMAHA'S '04 YZ250F FIGHTS BACK

250cc SHOOTOUT

GIANT 8-BIKE TEST

WE ANSWER ALL YOUR QUESTIONS

- Dyno charts
- Setup tips
- Parts price comparisons
- Sound tests & more

Kawasaki KX250  Suzuki RM250

Yamaha YZ250  Yamaha YZ450F

KTM 250 SX  KTM 450 SX

Honda CRF450R  Honda CR250R

PLUS HOW TO:

- Rebuild your 2-stroke top end
- Make your 4-stroke last longer
- Repack your silencer
- Pro Riding Secrets with Ryan Hughes and Randy Hawkins

DEC. 2003
We expected this comparison to become a showdown between two-strokes and four-strokes, but it remains a contest requiring a complete performance resume. The best bikes do it all.

250cc-Class MX SHOOTOUT

Sound Testing

Some riders argue that a closed-course racing machine should not be subject to strict sound limitations. And no doubt there are tracks so remote that noise is not an issue at the moment, but many tracks do have neighbors and trust us, sound matters. The popularity of high-performance four-strokes has brought the issue of sound output to the forefront of land use discussions, even for private property. The fact that four motorcycles could drastically limit where and when we can ride should cause us all concern.

We personally sound-tested the two-strokes since none of those are big offenders for sound output. Four-strokes are being scrutinized very closely, though, so we had those three machines tested by sound expert Chris Real.

Recreation officials use to measure off-road motorcycles.

The test requires that the meter be held in a position that is 45 degrees off the direction of the exhaust outlet, back and away. The meter sensor must be at 90 degrees to that, pointing to the back, and the meter must be 20 inches away from the tailpipe with a wind sock over the sensor. Also, there must be no objects within 16 feet of the test bike and the tester. All these criteria are specified in the SAE Test Procedure. It’s also outlined in depth in the Motorcycle Industry Council (MIC) book.

Chris Real allows each bike to warm up for only two minutes. A hot motor would result in testing error on the loud side. He uses a vibrating wire-type tachometer because it is more accurate than electronic tachometers. The rpm specified by the MIC manual is a calculation of the strokes of the engine, resulting in half of the engine’s redline.

For more info on Chris Real’s company, sound technology or other environmental issues, see www.chemhelp.com.

Results

Honda CRF450R: 96 decibels
KTM 450 SX: 97 decibels
Yamaha YZ450F: 98 decibels