

Race Engineering review 4/28/2006

The dB Snorkel was fitted to a full power **KTM SX125** moto-cross bike and this time ridden for the test by a 17 year old Junior Expert rider with a very good mechanical understanding.

The results are as follows:

KTM SX125 2005 model with approx. 33hours running time on the engine.

Noise reduction 12 feet from rear of bike with engine at idle: 2.1dB

Noise reduction 12 feet from rear of bike with engine at 4000rpm: 2.8dB

Noise reduction 100 feet from bike whilst it was lapping practise track (reading taken whilst bike was at full throttle in 4th gear): 3.9dB

Noise reduction over a 5 minute period (8 readings taken and averaged) whilst bike lapped the track three times(note bike stays visible all the time ie. does not drop down into dips or becomes hidden by trees or other natural relief: 3.7dB

Power effect - comment by rider: "The bike feels fine, throttle response is maybe a bit dull but then again I may have put a little too much race oil in the can so the bike maybe running very slightly rich, saying that, the plug (spark) is spotless, I checked it about 10 minutes ago, not sure how cool this thing looks but if it means the difference between riding here and not then who cares what it looks like"

Effect of dB Snorkel on lap times compared to open exhaust without dB Snorkel (conditions dry, track firm with some soft patches and one corner still very muddy) - 0.12 sec per lap slower with dB Snorkel fitted.

Overall Comment - the dB Snorkel had a useful and clear effect on this bike, like the SX85 mini-bike, the high frequency "crackle" was reduced significantly and the overall impression was of a quieter and (surprisingly) smoother bike.

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The dB Snorkel was fitted to two full power moto-cross mini-bikes:

1) a **Yamaha YZ85** 2006 model and

2) a 2005 **KTM SX85**

- both were big wheel models and ridden for the test by Junior expert riders (both class D and outright winners in a number of moto-cross and enduro events.

The results look like this:

Yamaha YZ85

Noise reduction 12 feet from rear of bike with engine at idle: No difference

Noise reduction 12 feet from rear of bike with engine at 4000rpm: 1dB

Noise reduction 100 feet from bike whilst it was lapping practise track (reading taken whilst bike was at full throttle in 4th gear): 2dB

Noise reduction over a 5 minute period (8 readings taken and averaged) whilst bike lapped the track three times(note bike stays visible all the time ie. does not drop down into dips or becomes hidden by trees or other natural relief: 2dB

Power effect - comment by rider: Complained of slight feeling of power reduction - "power wheelies in 4th are harder to do now"

Effect of dB Snorkel on lap times compared to open exhaust without dB Snorkel (conditions wet, track muddy) - 0.83 sec per lap slower with dB Snorkel

Overall Comment - the dB Snorkel didn't really make much difference to this bike.

KTM SX 85

Noise reduction 12 feet from rear of bike with engine at idle: 2.5dB

Noise reduction 12 feet from rear of bike with engine at 4000rpm: 2.9dB

Noise reduction 100 feet from bike whilst it was lapping practise track (reading taken whilst bike was at full throttle in 4th gear): 4.2dB

Noise reduction over a 5 minute period (8 readings taken and averaged) whilst bike lapped the track three times(note bike stays visible all the time ie. does not drop down into dips or becomes hidden by trees or other natural relief: 3.9dB

Power effect - comment by rider: "The bike feels a little stronger in the mid range - as though it has a tiny bit more torque - the throttle is a bit fluffy though, like it's running rich"

Effect of dB Snorkel on lap times (conditions wet, track muddy) – No effect - lap times consistent with or without the dB Snorkel

Overall Comment - the dB Snorkel definetely had a significant effect on the **KTM**, it took the high frequency "crackle" out of the sound emitted from the bike and made it a lot more easy on the ears, with no discernable power loss it seems this was a good mod that made a big difference to the useability of the bike in noise sensitive areas. The results with the **Yamaha** were less useful, 2dB average reduction in noise over a 5 minute period is good but the actual "impression of noise" was not measurably different, the bike still sounded noisy and the noise seemed to travel just as far as it does without the dB Snorkel.

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