



Sound Testing Challenges

Starting with the 2014 FIM/AMA SX season all SX riders who wish to compete will need to comply with the FIM 112dB sound test standard. Yoshimura will continue to supply compliant product and support its racers at these events. Below is Yoshimura's position on this issue including current plans and a list of frequently asked questions regarding muffler maintenance.

Testing differences:

- **AMA Amateur racing requires a test result of 94dB from 20" away at a fixed RPM while the FIM requires a test result of 112dB from 2 meters away at wide open throttle to the rev-limiter**
- **A bike tested at 94dB for AMA can test at 118dB or higher when tested by the FIM standard**
- **2014 FIM 112dB sound-test rules will present more challenges than current AMA Amateur 94dB and 2013 FIM 115dB standards**

Challenges:

Factors not directly related to Yoshimura's muffler (modifications such as engine tune, side-panel modifications, even fuels) significantly alter the sound levels of a machine. Motorcycles are imported into the United States designed to be compliant for the mass of its customers which are AMA amateur racers. International production vehicles are manufactured to align with requirements for FIM racing. This presents a challenge to 112dB in the U.S. market. Since U.S. models are imported 94dB compliant, many stock bikes do not meet the FIM standard of 112dB.

Challenge Summary

- **U.S. spec bikes are not 112dB compliant as delivered from the factory**
- **Vehicle modifications are essential to remaining competitive**
- **The mass market in the US does not require a 112dB-compliant machine**
- **FIM rules are not consistent in parallel to AMA rules, making a common race machine impossible**

Future Goals:

Yoshimura is and will continue to be the leader in the industry. It is with this philosophy we are drafting and executing a plan that is focused on remaining the premier brand while working with sanctioning bodies and governmental agencies in developing new quieter machines which will no doubt serve to protect the future of the sports on which we depend. Rather than bear the burden of our competition, “taking one on the chin” to be the first to sacrifice our edge in order to facilitate change, we look to the sanctioning bodies to clarify and enforce reasonable rules and changes to the competition platforms in which we participate, guiding a fair and reasonable evolution into a quieter future. Most likely of solutions will include a standard Yoshimura system, accessory insert available through any Yoshimura dealer, and list of international model components that reduce sound emissions (side panels, airbox, sound deadening foam kit, etc.). Below are only a few details of future plans in which Yoshimura is engaged in effort to achieve our goal.

Plan Detail Summary

- **Continued testing of domestic and international standard machines to determine sound-performance differences**
- **Collection of data and resources will be shared with our customers and sponsored racers to help with 112dB transition**
- **Supply affected customers and racers with support for 112dB including but not limited to care and maintenance procedures, alternate components, outside resources to obtain international -spec components, and engine-calibration advice**
- **Develop 112dB specs for all current and new competition models**
- **Continue to support amateur and non-FIM racers with the product they need to remain competitive within the current rules of AMA amateur racing**
- **Advise, communicate, and collaborate with all regulatory agencies that affect our industry including but not limited to the FIM, AMA, USFS, and the EPA.**

Frequently asked questions:

- **Does my Yoshimura muffler need to be repacked?**

Yes, Yoshimura mufflers do require periodic maintenance which includes the replacement of the sound absorbing packing material. When exhaust packing degrades performance levels are reduced and damage to the muffler and/or the vehicle may occur.

- **How often should I repack my Yoshimura muffler?**

Depending on your riding style and vehicle tune intervals for muffler maintenance requirements will vary. Refer to the instruction sheet provided with your exhaust system for our base recommendations.

- **How can I tell when it is time to repack my Yoshimura muffler?**

Here are a few tips on how to tell if it is time to repack your muffler: discoloration on the muffler body or endcap, burned stickers/badges on the muffler, increased sound output, hollow sound or rattling sound when the muffler body is lightly tapped, and decreased engine performance.

- **How do I repack my Yoshimura muffler?**

Follow the instructions provided in your Yoshimura repack kit. For more details go to:

http://www.yoshimura-rd.com/t-engine_services_mufflerRepack.aspx

- **Can I use any muffler packing on my Yoshimura muffler?**

No, Yoshimura mufflers are manufactured with the highest quality packing available and installed with application specific measured volumes.

Installation of generic/universal packing materials may decrease the life and performance of Yoshimura exhaust systems and cause damage to the muffler or vehicle on which it is used. For genuine Yoshimura repack kits contact sales@yoshimura-rd.com

Or visit our website:

http://www.yoshimura-rd.com/t-replacement_muffler_index.aspx

- **Does Yoshimura offer a muffler-repack service?**

Yes, Yoshimura does offer a repack service out of our Chino, CA facility.

Please contact: sales@yoshimura-rd.com

Or visit our website:

http://www.yoshimura-rd.com/t-engine_services_mufflerRepack.aspx

Yoshimura Research and Development of America designs, tests, and manufactures the best exhaust systems in the world at our Chino, CA facility. While we build the best systems in the world we constantly strive to improve. Our R&D department is actively engaged in testing and developing new and better materials from which to build your next Yoshimura exhaust system. For the latest information please visit our website: <http://www.yoshimura-rd.com>