

Understanding Global Harmonization of Motorcycle Manufacturing Standards

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Over the last several years, global harmonization of motorcycle manufacturing standards has become a hot topic in motorcyclists' rights circles. In a nutshell, harmonization means manufacturers will likely be required to comply with set standards on, among other things, allowable noise and exhaust (gas) emissions, horsepower limits and anti-tampering devices such as shear bolts, which are designed to break off if the consumer attempts to remove them. Just in case you're wondering, the concept behind shear bolts and other anti-tampering devices is to ensure that the consumer is unable to modify parts of the motorcycle such as the exhaust system.

While many activists in the U.S. have heard about harmonization of standards, there still seems to be quite a bit of confusion as to what it really means. For instance, some people are asking if it means we'll all be riding homogenized motorcycles in the future, wherein one manufacturer's product will look, sound and perform very much like the others. Or, does harmonization mean that riders will have to pay substantially more for a new bike regardless of who they buy it from? Where do the original equipment manufacturers (OEMs) stand, and how does standardization of motorcycle manufacturing fit into overall global economics?

Impact on the Industry

Perhaps the best place to start when trying to understand all of this is with the manufacturers themselves. In April of 1997, the first international motorcyclists' rights convention was held in Luxembourg. One of the featured speakers at the convention was Mr. Tim Hoelter, a Harley-Davidson vice president who also serves as the president of the International Motorcycle Manufacturers Association. During his presentation, Mr. Hoelter made it clear that Harley-Davidson feels harmonization of standards is coming whether motor-

cyclists want it or not, and that Harley-Davidson is preparing for that eventuality. Other major OEMs including Honda, BMW, Yamaha, Suzuki and Kawasaki apparently share this sentiment. While it can be argued that harmonization of standards offers both pros and cons for large manufacturers, the OEMs feel that - if given enough time - they can comply with global standards while substantially improving their bottom line. In order to see why, we need to look at what standardization means in terms of actually building and selling motorcycles.

Currently, all of the OEMs have multiple assembly lines. Those different lines build bikes for the American market (meeting American standards), for the European market (meeting European standards), and so on. Through standardization, the OEMs would realize major savings in manufacturing costs by utilizing one assembly line setup versus two, three or more. Every bike rolling off an assembly line could then be sold anywhere in the world as opposed to only being acceptable in a limited marketplace. Even more importantly, because all models coming off the line would be built to global standards, manufacturers would only have to go through the 'type approval procedure' once, as opposed to the multiple approvals currently required for each model a manufacturer builds. By building to a global standard manufacturers would significantly reduce the amount of testing they'd have to go through to gain approvals, and the amount of red tape they'd have to deal with in order to sell their product in a particular market. This would represent a vast saving for the large-scale manufacturer.

Those increased profit margins wouldn't necessarily apply in equal measure to medium sized manufacturers such as Triumph and Ducati. These OEMs would benefit in the same way as their larger competitors, although not at the same

monetary levels. Remarking on this point, Simon Milward, General Secretary of the Federation of European Motorcyclists Associations (FEMA) stated, "The cost benefits of a single, worldwide standard means more to the large manufacturer than the small simply because the big guys control the majority of the market. But generally speaking, all manufacturers want global harmonization."

There is a potential downside for manufacturers. Initially, the OEMs may have to go through some retooling of manufacturing assembly lines and training of employees in new manufacturing processes. Additionally, an OEM's lack of expertise in meeting noise and exhaust emission regulations may require some companies to invest significant resources into redesign of fuel, engine and exhaust components. However, those factors may be fairly easy for some OEMs to deal with. According to Erwin Renette, President of FEMA, "If the worldwide standard is an existing standard, such as the one currently endorsed by the European Union, then those changes will be easier to execute. One standard does not mean by default that all production needs to be altered, and obviously, all motorcycle manufacturers will lobby hard to get a favorable standard."

Still, it is likely that OEMs would have to meet at least some requirements that are difficult to achieve given their present method of manufacture. This means that as a group, manufacturers would want a grace period, wherein they would be required to meet certain portions of the standard by a fixed date - say in two years time - and be in complete compliance by a date further down the road. Allowing such graduated compliance is commonplace in most standards.

In many cases the most stringent requirement being employed at the time a global standard is under consideration is the one eventually adopted into the standard. In other words, if the European Union has adopted the most stringent noise emission level in the world, it is likely that those levels would be imposed on motorcycles sold in the United States, Asia and Australia. Likewise, California has much stricter exhaust emission requirements on motorcycles sold in that state than does any other state in America. The proponents of

those requirements (the California Air Resources Board, or CARB) are now pushing for further restriction of allowable exhaust emissions which could make the California regulation one of the most stringent in the world. Does this mean that under standardization everyone in the world wanting to purchase a new motorcycle would have to buy a bike that meets the California exhaust requirements? Quite possibly, it does.

If many of the arguments in favor of global harmonization of motorcycle manufacturing standards sound familiar, keep in mind that these are the same points being made regarding the manufacture of everything from automobiles to appliances. Manufacturers of all sorts of products, as well as governmental entities, see harmonization of manufacturing standards as a wonderful thing. A recent press release from the American Motorcyclist Association (AMA) explains, "The driving force behind the harmonization of vehicle standards is to eliminate regulatory barriers to free trade. Government and industry leaders are positively giddy over the idea of building products to one standard and selling those products worldwide."

This all sounds very nice and cozy for some, but where does it leave the consumer?

Impact on Motorcycle Design

Let's start by answering some questions about the bikes themselves. Will they all look, sound and perform pretty much the same? The answer to this question is, not necessarily. Robert Rasor, Vice President of Government Relations for the AMA says, "I don't think this will mean that we will all be buying basically the same machine. I think it will place greater demands on OEM engineers and perhaps the technology will evolve along similar lines, but that doesn't necessarily translate into 'look alike' motorcycles that perform the same. A global standard will challenge both cosmetic and engine designers to establish individual corporate identities. I believe there will be clear distinctions among OEMs as well as products. You only have to look at recent changes in the BMW product line to see this."

Speaking strictly of noise emissions, however, if all manufacturers are required to adhere to a

certain decibel level then all motorcycles rolling off the line will sound very much alike, which is to say they'll make almost no noise when idling and very little when running. More importantly, reducing noise - not only at the tailpipe but also coming from the engine itself - could mean a reduction in engine power for some models. Technological advances may overcome those power losses, but at what cost?

Simon Milward took this view of things, saying, "I think it is actually the 'type' of machine that will be limited. The death of air-cooled motorcycles remains possible depending on how far manufacturers have to go to achieve certain noise levels. From an exhaust emissions standpoint, all future motorcycles could well be fuel-injected with three way catalytic converters and anti-tampering measures."

Impact on Prices

Now let's look at potential price increases for consumers. Remember that in order to maintain engine power while manufacturing to tight noise and exhaust emission regulations, OEMs will need to go through research and development. For OEMs to meet the requirements of the standard, varying degrees of redesign of engine components, retooling of assembly lines and training of employees must take place. In some cases, redesign will also result in a higher overall cost of the components required to manufacture the motorcycle. All of these increased expenses on the part of the OEM will be passed along to the consumer. In an ideal world, we as consumers would like to think that as an OEM's production costs went down those savings would be passed along to us. Realistically, OEMs tend to think of this in terms of future price increases being less severe than they have been in the past. The bottom line is motorcycles manufactured under a global standard will almost certainly carry a higher sticker price.

Impact on Customizing & Repair

Now let's assume for a moment that you've just bought a brand new 2008 model. Because of harmonization of standards, your bike comes fitted with catalytic converters and emits no more

than eighty decibels of noise. To what extent can you customize it? Can you change over to a different exhaust system? Can you make mechanical changes to the fuel system, or to the engine itself?

The answer to these questions will ultimately depend on the type of anti-tampering measures required by the standard and on local regulations. At present this is a gray area, meaning no one knows exactly what to expect. It is possible that the amount of customizing a consumer could do would fall under the control of local authorities, meaning riders may be able to customize certain portions of their bikes. Under this scenario, Americans may be able to make some modifications that Europeans could not, and vice versa. Robert Rasor stated, "Maintaining consumer mechanics by influencing anti-tampering proposals should be of concern to all riders. So far these measures have not grossly affected the design of medium and large displacement motorcycles, but we should watch for proposals that will effect exhaust gas and noise emissions. These are coming."

Depending on the amount of anti-tampering measures included in the standard, the cost of replacement parts and maintenance could go up substantially. If riders are required to have a motorcycle shop perform maintenance because anti-tampering measures keep them from doing the job themselves, they would then be stuck paying shop rates and may be forced to buy OEM parts. That is not to say that the OEMs favor anti-tampering devices in general. In fact, manufacturers are hoping the United States government will not buy into some of the more restrictive measures being considered in Europe.

How anti-tampering measures are implemented into a global standard and how individual governments enforce those measures could have an adverse affect on after-market suppliers. Many Europeans already face the prospect of not being able to modify their bikes, or to use any component (tires, carburetor, exhaust, etc.) other than those which came as original manufacturer's equipment. It is possible that local regulations could be placed on consumers to ensure that the motorcycles operating on the road remain as manufactured.

Can we make a difference?

Through organizations such as the MRF, the AMA and FEMA, motorcyclists can and do have a voice in all of this. Keep in mind, however, that other groups are working to influence the process as well, including safety agencies and environmental organizations not supportive of motorcyclists' issues. Those who believe government should do more to protect people from themselves through mandated safety laws - and those who believe stringent environmental regulations for motorcycles must be enacted - are looking at harmonization as a way to bring more restrictive laws to the United States. They are looking at issues such as leg protectors and airbags for motorcycles, and ridiculously low noise emission levels. Dr. Ricardo Martinez of the National Highway Traffic Safety Administration (NHTSA) has stated, "The opportunity here is to improve safety by finding the best practices (among nations) and speeding them to the American public."

Global harmonization of motorcycle manufacturing standards is coming. Our job is to make sure the interests of motorcyclists are taken into consideration, and to protect motorcycling from overly restrictive regulations.

Additional reading

Good papers to read on this subject: "From Europe to the United States" by Simon Milward, FEMA; "Local to Global: Our Government Relations Future" by Ed Youngblood, AMA (both of these papers appear in the "MRF White Papers, Volume 5"). I'd also like to thank Steve Zimmer (MRF), Rob Rasor (AMA) and Erwin Renette (FEMA) for their input and assistance.

- Mark Buckner