



巻頭言

技術の「本質」と「変化」

The Essence and Change of Technology

三輪 邦彦

Now is a time when we need to think about where in the world and how Yamaha products are actually being used, and how these two elements are changing.

The range of locations and uses is tremendous. In the marine sector, it varies from luxury cruising in the wealthier nations, to fishermen in places like Africa who are using old 2-stroke outboards for their livelihood.


In the generator sector, uses range from powering lighting at festivals and outdoor food stands in the countryside, to heavy use in medical facilities in emerging nations. And, I believe there are probably places where these products are being used in ways that we wouldn't even imagine.

In the case of motorcycles, the worldwide annual demand is about 55 million units, and I believe that when you total all the motorcycles that are actually being used around the world today, it is probably about 200 million. The uses range from utility use in some parts of the world where they ride with unbelievably large loads or with "many" passengers, to commuter use in the cities where people appreciate their convenience and also their uniqueness as a means of self-expression. There are also places in the world where people enjoy cruising one-up on large bikes weighing more than 300 kg, and the world of racing where motorcycles reach speeds of more than 300 km/h.

The variety of technologies required to meet all of these needs is huge but we engineers have to be prepared to select between them skillfully. If the required quality or performance is different, then the types of technology used will be different as well...or at least you might think so. However, if you think about it deeply, you might realize that the "most essential part" of each technology is the same. Does it break down or not? Does it leak or not? Are the levels of NVH* acceptable or not? Although there are some differences in the standards of acceptability depending on the type of technology or the needs of the times, I believe that there is no difference in the most essential elements of each piece of technology we use.

As engineers and technicians, we must look directly at the most essential objective that each piece of technology must achieve, and then apply the right procedures and take on any challenges necessary to realize what we want to achieve. There are neither shortcuts nor space-warps. All we have to do is to stay humble and faithful to basic principles and work diligently with the techniques and technologies we have gained throughout our careers.

Our company is now making drastic changes in cost-effectiveness in development and our development process as well. I think that this "change" does not mean to convert the most essential parts of the technologies we use, but to optimize their use. And I believe that this process of "change"



should be a great experience and opportunity that helps us refine the most essential part of our technologies.

I am hoping that all of you as engineers will focus on the most essential part of the technologies you use, and make efforts to realize what we should achieve by being humble, faithful and true to basic principles and working diligently.

This process will surely lead us to the true essence of our technology, and I am sure that we can all look forward to that result.

(*) NVH means Noise, Vibration (vibration resulting from imbalance in the machine) and Harshness (vibration resulting from road conditions). It is one of the standards for evaluating the passenger comfort of a motor vehicle.

ヤマハの製品がまさに今、世界のどこで、どんな使われ方をしているのか？そしてそれぞれがどのように変化していくのか・・・と言うことに思いを馳せてみてください。

マリンの世界ではゴージャスなクルージングの世界から、アフリカの漁民が古い2ストローク船外機で漁をしている世界まで千差万別。

発電機の世界では、地域のお祭り屋台の照明から、新興国の医療機関でシビアに使われている世界、さらにはもっと我々の想像を超える使われ方がなされているのでは・・・そんな気がします。


モータサイクルで言えば、世界中で年に5500万台の需要があり、実際使われている車両を含めれば約二億台が世界のあちこちを走っていると思います。その使われ方は、働く車両として信じられないような荷物や人を積載する世界から、都会の通勤の足として利便性と個性を兼ね備えた世界、さらには車重300kg以上もある車両に人一人乗ってクルージングする世界、そしてオーバー300km/hで駆け抜ける世界などまさに千差万別です。

それぞれの世界に求められる技術も千差万別ですが、我々技術者はそれを平然と使い分けなくては いけません。求められる品質、性能が違えば、そこに使う技術も異なってくる・・・

普通はそう思うでしょう。しかしよく考えてみると、そこに存在する技術の「本質」はなんら変わらないことに気付くのではないのでしょうか？

壊れる壊れない、漏れる漏れない、NVH^{注1}が許せる許せない・・・そこには受け入れる水準の時間軸の差が存在するだけで、求められる技術の「本質」は変わらないと思います。

我々技術者は、その求められる技術の「本質」を正面から見て、自分の思いの実現に挑まねばなりません。そこには近道やワープする世界は存在せず、地道に基本的に忠実に自分のキャリアの中で培った技術を使っていくしかありません。



今、当社ではコスト開発や開発プロセスそのものを変えていく動きをドラスティックに仕掛けていますが、これは技術の「本質」を変えるのではなく、その使い方の最適化を図っている「変化」だと考えています。このような「変化」の中で、自分の持つ技術の「本質」はより研ぎ澄まされていくはずで

す。技術者の皆さんは自分達の持つ技術の本質に思いを馳せ、基本に忠実に、かつ素直に、自分の思うものの実現に向けて努力を続けて欲しいものです。

その先に我々の技術力の真価が表れてくる・・・楽しみじゃないですか。

注)1… Noise(騒音), Vibration(本体のアンバランスから生じる振動), Harshness(路面の状況による振動)を指す。
自動車の快適性を推し量るうえでの一つの基準

■ 著者



三輪 邦彦
Kunihiko Miwa
上席執行役員