Simple Things Are Often Complicated

I recall a Tom Petty interview where he was asked to comment on rock music and what he thought of it. Tom flashed his patented wake-n-bake stoner smile and said something to the effect, "Rock music isn't really that good," meaning as a music form it's crude and basic. He's right but he's also very humble. Because simple things—whether music or motorcycles—are *deceptively* simple and that makes them complicated.

Classic symphonies are rich, cacophonous, and outright complicated. Compare Tchaikovsky's *Symphony No. 6 in B Minor* to Jimi Hendrix's *Are You Experienced*. Compare Beethoven's *9th Symphony* to Johnny Cash's *At Folsom Prison*. The classic symphonies just blow away any rock or country music in complexity and sophistication but who cares? I'll take Jimi's guitar riffs and Johnny's 2-string rhythm any day over haute symphonies that make me want to empty a whole can of expanding foam in my ears and up my nasal cavity.

Rock and country music are simple to hum along to, simple to sing along to, and simple to identify with. Being so simple makes them appeal to people from all walks of life. But creating a catchy song with a strong hook is far from simple and I respect that. Methadone clinics and rehab centers are populated with those who thought that the road to the Rock and Roll Hall of Fame was easy; it's not. If creating simple music with simple lyrics that appeal to a broad audience was easy everyone would be doing it and everyone would be a big rock star millionaire.

Harley motorcycles are deceptively simple by design and that is a complicated task in this day and age. Sure, a 2012 Harley is much harder to work on than a 1976 Shovelhead but have you looked under the hood of a car these days? Late model Harleys are a breeze to work on compared to late model cars.

With a simple design, people are not intimidated to modify, customize, and work on them. When they get their hands dirty they become closer to the machine. The more they work on their machine the more they fall in love with it. Say you had a perfect girlfriend/wife, like a Megan Fox/Denise Richards/Pamela Anderson combo unit. You gallivant around town with Suzy goo-goo pants on your arm and you are the king. But when you get home with your trophy chick you are afraid to check her oil because gaining access to her howdy box is complicated and requires metric wrenches and other special tools you don't have in your tool box. Before long you're going to put her out on the curb and get one you can work on with your Craftsmen wrenches.

Harley flirted with switching horses in the late '70s. They developed a V-4 overhead cam liquid cooled motorcycle code named the Nova project. Check it out on the web or visit the museum in Milwaukee to see a real specimen. This was Harley's countermeasure to the onslaught of multi-cylinder overseas bikes that were seemingly threatening Harley's domination of the motorcycle industry. With strained financial resources in the early '80s the decision was made to replace the Shovelhead with the Evolution engine, shelve the Nova project, and move forward with an improved traditional V-Twin design. They bet on the right horse. Ten years ago the factory made another run at switching horses by introducing the V-Rod. The V-Rod features a hot rod work-of-art liquid cooled 60-degree powertrain that deviates big time from the traditional 45-degree V-Twin. But sales of the V-Rod have never met projected goals and that's because people never get tired of listening to *In-A-Gadda-Da-Vida* (45-degree V-Twin). Cocaine infused disco music (V-Rod) has a limited appeal.

Transmissions are deceptively simple in concept but inherently complicated when details upon details are considered. Gears, bearings, thrust washers, retaining rings, housings, shift system parts, and fasteners are assembled together to give the end user the ability to go faster; pretty simple stuff as viewed from the shift lever on the left side of the bike. But dig into the manufacturing tolerances and mathematics of tooth profiles and your hair will stand straight up like Buckwheat when he saw that ghost on *Little Rascals*. Dimensional criteria of the gear teeth like center distance, diametral pitch, nominal pressure angle, backlash, root diameter, start of active profile, contact ratio, operating pitch point, protuberance, and about 50 other criteria all need to be controlled in the production environment for maximum and minimum material condition scenarios to ensure that gear teeth are durable, quiet, and strong.

People will always relate to simple things. But if you do some digging, simple things can become quite complicated. So I suggest that you enjoy seemingly simple things and not do any digging. IW

BAKER DRIVETRAIN