

New Products, Not From Lemmings

New Product Development

BAKER Drivetrain manufactures transmissions, clutches, and primary drives for the American motorcycle aftermarket. The design criteria for any new product we develop requires it be unique and offer a level of function and performance way beyond the OEM status quo. We are the aftermarket dammit and that makes us the fun kids in the schoolyard. We're the ones that tie a string of firecrackers to the backpacks of the OEM status quo kids. Aftermarket = fun. To cultivate new/fresh ideas, Lisa and I have created a Haight-Ashbury company, with a daily cap on the lysergic acid intake. Within the collective abnormal mindset of our company is fertile soil ready to spawn unconventional product ideas. The freethinking mindset at BAKER was spawned out of walking the straight line of the lemmings on the GM corporate treadmill for 14 long years. Now the pendulum swings the other way, baby. Look at me now, Mom.

Baker Product Development Strategy

1) *Concept creation.* Our new product ideas usually come from within the company. Occasionally a killer new idea is found on a bar napkin in pants pockets worn the night before.

2) *New idea marketing check.* Will this new product occupy an exclusive niche in the aftermarket? If so, then strong sales are usually assured. If it doesn't occupy an exclusive niche then ask yourself why would someone purchase this new product over comparable products.

3) *Cost relative to market.* Estimate the BOM (bill of materials) cost and tooling required to get the new widget up and running. From the estimated start up costs work backwards to calculate the retail cost. Then you look into the crystal ball. What kind of sales can be expected based on the estimated retail?

4) *Prototype design.* Construct the new product model in Solid Works (3D) or AutoCAD (2D). This can take many months. It can also take just a few weeks but the model may be chock full of dimensional errors, design oversights, and structural question marks. It's always cheaper and easier to pick the boogers out of the design on the CAD tube.

5) *Order prototype parts.* Expensive stuff but very rewarding. Expensive because making a prototype run of 5 to 10 units is very costly due to low volume. Rewarding because holding those virgin parts in your hand is nothing short of biblical.

6) *Test prototype assemblies.* Carefully assemble all the parts into an assembly and install it onto a test mule. Conduct the complete battery of in-vehicle abuse testing. If there are fitment or dimensional issues, then rework or re-do may be required. Take the picture of me testing the reverse pattern ignition kill shift drum on James Simonelli's 145"/190hp/9.90 ¼ mile beer store express. Yep, that's me in the picture, the idiot with short pants and exhaust pipe burns on the right leg. Winding that sucker up to 6500 in first and tapping down to do a 1-2 shift without touching the clutch is big fun on that monster. I like to test my own stuff.



photo by Stephen Berner

7) *Production phase.* Incorporate the things learned with the prototype assemblies into the final production design. Kick off manufacturing. Use only American vendors. Get the marketing campaign going.

Chinese Product Development Strategy

1) *Sharks.* Sleazy American guy sends a popular American product to China for duplication.

2) *Reverse engineering.* Chinese engineers—with no riding experience on anything larger than 50cc machines—reverse engineer said product. Critical fillets and dimensions are missed because the interface components and their function as part of a system are not understood.

3) *Marketing study.* None required. The real American deal sells like hot cakes so a half-priced half-quality copy should sell just fine. There are always a few shortsighted individuals who purchase stuff solely based on initial cash outlay. When their communist stuff breaks, they buy another.

3) *Prototype batch.* A short run of prototypes are made. Minimal testing is performed.

4) *Production phase.* Sleazy American guy imports knock-offs of the real deal and gets paid for selling out the red, white, and blue.

Original aftermarket product designs for V-Twin motorcycles do not come from communist China because they don't ride American motorcycles and they certainly don't understand the Harley culture. On the other side of the coin, Americans do not understand rickshaws and how they are integrated into the communist transportation system. I don't think anybody in America cares about the damn things; but they should. The more crap we as a nation (not including Lisa and I) purchase from them, the weaker we become. The day could come when they are riding around on Harleys and in Cadillacs and we get to pull the rickshaws around town. Support the red, white, and blue, baby, now more than ever. **■**