

# TERRY LOGAN

## and the creation of his Dual Tool

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“See a need, fill a need!”  
 – Bigweld (Robots, 2005)

**THERE ARE AS MANY DIFFERENT** kinds of BMW riders as there are BMWs in the world. Some are satisfied to sit there and twist that. Others are always thinking, always tinkering, always coming up with ideas to make things faster, easier or more efficient. This latter group of riders includes Terry Logan.

Being a machinist in Somers, Montana – which is snuggled into the northern shore of Flathead Lake about 400 miles northwest of Billings, (site of the 2015 MOA Rally) and 100 miles from anywhere – has its advantages and disadvantages. “We have five seasons here in our beautiful valley – the one right after spring is tourist season, and it blends spring and summer together. In the spring and fall, the riding season is the best. Fall is my favorite, but it’s usually when I have the least amount of riding time,” Terry says. “I’ll suit

up in the winter if it gets into the high 30s or 40s, as long as the roads are dry.”

“Montana is a big state,” Terry continues, “with very few people for its size. Since I’m a western history nut – I can’t get enough of the 1800s – Montana’s history makes my rides more than ‘just a ride.’ The downside is living 50 miles from Glacier National Park – it’s incredible, but it draws two to three million tourists a year, and the traffic chaos can be a bit overwhelming.”

Motorcycling came to Terry in 1972, when he got a Honda CB350 with extended forks, short pipes, Z bars and a rectangular headlight. “I was 19 and couldn’t have been cooler if I was sitting on ice,” Terry explains. “My brother-in-law showed up one day with a 2004 K 1200 GT, and I had to get a BMW. I got my first BMW, a brand-new F 650 GS, in 2007. In 2009, I went to Alaska with two friends. They’d been there before and rode R 1200 GSes; they had all the bells and whistles.

Terry replaced his 650 with a 2005 R 1200 GS after one of his friends hit a deer with it. That deer-striking GS – what Terry calls “the pickup truck of motorcycles” – carried him to Alaska and back in 2011, a

trip he took with his brother-in-law. “Nothing is better than the big GS for long distance travel, on or off road. It pulls like a tractor and handles like a sport bike!” The 2005 GS wouldn’t be Terry’s last GS. He explains, “After that ’11 Alaska trip, my friend Wayne Hagdahl – who went with me on the first trip – decided to sell his ’08 GS. I sold the ’05 and got it.”

In Ketchikan, Alaska, Terry learned an important lesson. “I found out that if you go downtown, eat a nice meal, buy your wife a present, and stop at a bookstore and a really cool museum, it will cost you \$650 for a plane ticket to catch up to your bike, because you missed the ferry. It wouldn’t have been a problem, except I’d already loaded my bike, gear, clothes and a Jack London book I was looking forward to finishing onto the ferry.”

As much as we would love it to be so, life isn’t all about riding. Terry is a machinist, a profession he says he stumbled into after a stint in the U.S. Navy. As a young man in 1977, he discovered that few were willing to give a young man with no experience a good paying job. “I went into the personnel department at Gardner Denver in Quincy,





Terry (right) and his brother-in-law on one of their trips to Alaska.

Ill.,” he says. “When I got done filling out the application the guy looked at me and asked, ‘Would you rather run a machine or push a broom?’ I already had experience pushing a broom, so I took the machine. I couldn’t even spell ‘machinist’, and I didn’t have a clue what one did.”

After 15 years of machining for other people, Terry and his wife, Janelle, started their own machining business in 1992 – Promach Manufacturing. “Our main source of income is in manufacturing research equipment used in medical fields and for studying water and aquatic plant life,” he says. “The best thing about being a machinist is that I don’t need a smartphone or games to play on a computer. I can write programs for my CNC machines and make really cool stuff – the machines are my toys. It doesn’t get much better than that.”

In early 2010, with both he and his brother-in-law both on R 1200 GSes, Terry discovered it was kind of a pain to get the front wheel off for tire changes. Being a handy guy with access to materials and machines, he made a double-ended tool out of some scrap metal to aid in quick removal of the front axle. Being a nice guy, he made one for his brother-in-law as well. After deciding to make the 600-mile trip to that year’s MOA rally in Redmond, Ore., his wife had an idea.

“Why don’t you make some more of those tools and take them to the rally.

Maybe you could sell them,” she said. It turned out to be sage advice. “Sometimes business slows down a little,” he continues, “and the Dual Tool has bailed us out several times.”

Terry had a couple of days before he left for the rally, so he made up a few dozen of them and packed them on his bike. “Those

## BEING FORCE-FED FRESH AIR ON A BMW MOTORCYCLE IS A VERY FINE OUTLET AFTER MANY HOURS OF MACHINING.

things paid for my whole trip,” Terry said. “And one of the guys I sold one to – he’s now my friend – he kind of gave me the idea for the Dual Tool. While riding home, I was designing it in my head, and a week later I had 100 of them made up and ready for sale!”

The Dual Tool is a small, lightweight tool that does two things. First is the original tool Terry designed that is a 19mm hex on one side and a 22mm hex on the other side, with a channel through the middle that fits any 3/8” drive ratchet. The 22mm side works perfectly on R 1200 front axles and K 1200 R/S/GT front axles as well. The 19mm side works for F 800 axles. If you don’t have a 3/8” drive ratchet handy, you can use a wrench that fits the other side to provide the rotational force needed to extract or install the axle. It’s simple and elegant.

The second function of the Dual Tool is

to unseat the pencil coils from the spark plugs. “I saw this other tool for doing that, the thing was huge,” Terry explained. “It worked fine, but when I tried to store my axle tool in it, it would just rattle around. That’s when I got the idea for the other half of the Dual Tool.” Terry machined a channel around the axle tool for a rubber O-ring that keeps the axle tool secured inside the pencil coil puller, and started selling the Dual Tool on his website, [www.promachdual-tool.com](http://www.promachdual-tool.com).

“About a year later, I was thinking about that 19mm end on the tool and how else I could use it on an R 1200. That’s when I came up with my tamper-resistant oil filler cap. BMW’s stock cap uses some plastic tool, and I’d seen some other caps like that. With mine, you’ve already got it in your tool kit to take off your front wheel, so it’s harder to lose, and using it makes the Dual Tool even more useful. You can get rid of one more cheap item from the factory tool kit,” Terry said.

“This has all been a very cool experience for me,” Terry said. “I have met many people through the sale of these and have never had any negative feedback. And if it wasn’t for Janelle, the Dual Tool never would have happened. She retired from being an RN 19 years ago to take care of her parents, and watching her be a caregiver has shown me what a great person she is.”