

- 12 Retro Scrambler Challenge Ducati's 803cc L-twin Icon vs. Triumph's 865cc vertical twin
- 20 Kawasaki's Vulcan S Cruiser—An out-ofthe-Harley-box solution for new riders
- 24 Changes in California RiderTraining— The MSF is out, Total Control is in
- 26 Yamaha's New Bolt C-Spec First Impression
- 27 Adjusting Suspension Part Two—Adjusting fork oil levels, stiction reduction, damping changes and the tuning process
- 32 Riding Gear Crash Tested Our intrepid Managing Editor goes asphalt surfing to test customer service at Shoei and Aerostich

- **34 Gerbings Coreheat 7V**—Battery powered heated gear tested
- 36 Legends of Motorcycling Max Bubeck
- 38 Mental Motorcycling—Addicted?
- 39 Medical Motorcycling Uppers & Downers
- 40 Motorcycle Design All Design Is A Compromise
- **42 Proficient Motorcycling**—Matching Speed To Conditions
- 48 Innovation Collision Center Network's Hot Stapler

DEPARTMENTS

- 2 Open Road
- 3 Letters
- 6 MC Bulletins
- **8** Downtime Files
- 10 World Motorcycling
- 44 What's Happening
- 46 Motorcycle Justice
- 46 Street Strategy
- 47 Contact Patch

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Crash-Tested—and Repaired

E NEVER SAID WE WERE perfect... proven when I crashed our 2015 Yamaha FZ-09 in the rain. Luckily, I was wearing a full set of protective gear, so I walked away with nothing more than a bruised ego and a few bruised ribs. Not only did this incident test the protective gear under fire, it provided an opportunity to see how various companies support their products when the worst happens.

Throwing It All Away

As you are likely aware, it doesn't rain very often in Southern California, especially during the last few years. With a moderate storm rolling through the area, I rode out on the FZ-09 aiming to practice braking in the rain, as I was out of practice (clearly!). With each successive straightline stop, I built up pressure and deceleration, but I obviously ramped up braking effort too quickly—the fateful stop locked up the front tire immediately at approximately 35-40 mph, and as rusty as my wet weather skills were, I was unable to detect and correct the locked tire before the front end shot out from under me, slamming me into the ground on my left side.

I slid briefly, while the innocent Yamaha continued on for another 30' or so. The bike survived rather well, scratching the water pump hose, alternator cover,

Aerostitch R-3 textile suit. My head slammed into the pavement during the initial fall and bounced at least once, striking the left temple region of the shell and carving a chunk out of the faceshield. With my left side taking the brunt of the impact. the Aerostitch suit made strong asphalt contact along the left shoulder, upper arm and elbow, the left hip area, left knee and the reinforced posterior. Apart from the stitching coming slightly undone where the bottom panel reinforcement meets the main shell, there were zero tears or rips. Finally, as is the case in nearly any crash, both of my palms came into contact with the ground, tearing into the external palm-heel armor and outer layer of leather. My \$199.95 Alpinestars CR-4 Gore-Tex boots kept my feet dry, but were otherwise untouched during the crash.

Despite the heavy hit, I was pleasantly surprised to find myself essentially unhurt after the fall. My head was a bit rattled, more from the shock of my stupidity than the impact itself, but I had zero abrasions on my body and no visible bruising or impact trauma. In the weeks afterward, my left ribs definitely didn't feel happy about my rusty rain skills, but that was a minor price to pay.



left-side controls, and dinging the metal fuel tank. Despite a pinprick oil leak in the engine cover, it was still fit to ride. The crash resulted in somewhere between \$300 and \$800 worth of damaged parts.

Thankfully, I was wearing a full set of gear, including a \$670.99 Shoei GT-Air helmet, Rev'It's \$199.99 Phantom GTX gloves, and my nearly-new \$1627.00

The Aftermath: Inspection and Repair

I was alive, and the gear worked, so this became a great opportunity to see how each piece survived its short ballistic journey—especially the Aerostitch suit, which touts an impressive repair service as one of its main selling features.

We started with the helmet. I've always



believed that a helmet is a one-use item, like an automotive airbag-no exceptions. But Shoei North America offers a full safety inspection process, conveniently located nearby in Tustin, California (more likely, you'd be sending your helmet in via the mail). To our eyes, the shield was toast, but the outer shell wasn't severely damaged. Internally, the critical Expanded Polystyrene (EPS) impact liner looked unblemished, but damage is often impossible to see, as an impact can result in damage between the outer shell and the EPS, hidden from view.

Shoei's technical experts pull your helmet apart and examine it in detail, looking for any reason its safety may be compromised. A cynic would say this system is designed to reject helmets in order to drive new sales, but according to the staff at Shoei, they actually approve approximately 50% of the helmets they run through their inspection process. They also noted that most helmets that fail are quite obvious, with massive shell damage or deformation (these severely damaged Shoeis are often sent back to Shoei Japan for analysis and research). In any case, my GT-Air passed with flying colors—despite the good knock it received, the shell was barely scratched, and the EPS was in perfect shape. The GT-Air is a DOT-only helmet, which some riders believe is not as protective or durable as a SNELL helmet: in this case, at least, it proved more than adequate for the task of saving my life, as that double temple hit would've likely been the end of me sans helmet.

To authenticate that the helmet passes

inspection and is safe to return into service, Shoei returns each helmet to the customer with a confirmation letter. Turnaround for this service is typically 3–5 days from initial receipt of the helmet, and the only cost to the consumer is the initial shipping to Shoei's office. My GT-Air is back in service, and will likely remain so for several more

When we first reviewed the new Aerostitch R-3 suit in December 2014, we were pleased with its features, including the durable outer shell, top-notch waterproofing, thick armor and customized fitting. But we were unable to evaluate how many years of service the suit might get compared to the others, or how Aerostitch's repair service adds to the suit's value. Combined with the R-3's hefty price tag, we scored the suit's value relatively low compared to the others, which led to plenty of folks writing in to defend the Aerostitch's long-term value. Well, those voices should rest happy now, as I created a need to run the suit through the repair system and we're quite impressed with the results.

The suit not only did its job perfectly in the crash, it held up remarkably well, too. But enough of the suit hit the ground that we felt repairs were in order. We packed up the R-3 and sent it back to Aerostitch in Duluth, Minnesota. There it went through an inspection, complete with high-resolution photographs, and several estimates





were drawn up and sent back via email. Each estimate offered a different level of repair, from the very basic replacement of the seat panel, the only seam failure from the incident, to a complete rebuild of every scuffed part and panel, which seemed like overkill. We went with Aerostitch's rec-

ommendation for the middle ground, which replaced the knee ballistic panel (\$60), the left-side entry flap (\$40), the left sleeve (\$100) and the seat panel (\$65). This replaced all the hardest-hit areas for a total of \$265, and a couple of weeks later, the repaired suit showed up at the MCN offices. Apart from a slight scuff that remains on the left upper arm, the suit literally looks as good as new, and we couldn't find evidence of repair in any of the stitching or replaced panels.

Aerostitch prides itself on both the initial quality and repairability of its riding suits, and after our experience with both aspects, we have to agree. To all the folks, including Aerostitch, who felt slighted by the lowly 1.5 star value rating in our initial review—a correction is in order. The Aerostitch suit is not cheap, by any means, but it is clearly a piece of gear designed to go the distance for years to come.

Finally, while there's little in the way of repairs available for gloves, it is worth noting lessons from the damage we found on the Rev'It Phantom GTXs. For one thing, this crash proved that you should never skimp on gloves, and that lightweight, MX-style gloves are next to useless. Despite being a waterproof touring glove, the Phantoms use racing-style rigid TPU armor inserts across the top of the knuckles, many of which took a decent hit from both impact and sliding during

the FZ-09 crash. More importantly, the Phantoms use a dual-density hard slider on the palm-heel, sitting atop additional layers of leather and foam armor. In normal use, you never feel this beefy palm protection, but the crash proved its worth, as both hands showed severe damage to both the reinforced leather as well as the hard palm-heel sliders. Had they not been there, a single layer of leather would've not only failed, letting my skin contact the asphalt, the additional impact force might have resulted in a broken wrist bone or two. Go look at the gloves you wear on a day-to-day basis—if they don't have some sort of hard palm protection, multiple leather layers, and some sort of sliding surface built-in, throw them out and get your hands into something safer.



Learning Lessons

The lessons from one simple mistake are pretty obvious:

One, practice never makes perfect, because, like a doctor, everything a rider does is part of the "practice." Your skills are never complete, and confidence, especially in seldom-used skills, can sometimes be misplaced. Two, ATGATT really does mean exactly that. Since I live so close to the office, I sometimes ride to and from in street clothes with a jacket. gloves, short boots and a full-face helmet. If I had crashed on a dry day, I wouldn't have been wearing the Aerostitch R-3, and this crash would've likely put me in the hospital. Finally, three, lots of folks purchase and wear riding gear based upon how it meshes with their personal sense of style. This stuff always needs to be functional first. While an Aerostitch suit might not "woo the ladies," it was unquestionably up to the job when I swept myself off my feet, and that's the whole point.