Snell Certification and Motorcycle Helmets

By Ed Becker

JERRY SEINFELD ONCE ASKED WHY anyone would do anything for which he needed a helmet. Most of you have already answered that question, if not to Seinfeld's satisfaction, at least to your own. But it's enough for Snell that there are people who choose to do things which require helmets and that many of these people will actually wear helmets while doing them.

Snell believes in crash helmets, the kind worn by riders who can be trusted to use all their skill and judgment to avoid a crash but who want to be ready when skill, judgment and good luck aren't enough. Sports helmets, like those worn for football and hockey, are too often taken as an invitation to run out and start bumping heads. Most motorcyclists can be trusted to exercise more caution.

There are many ways to exercise caution. There's ridership training to develop the foresight to anticipate hazards and the skills to avoid them. There's maintenance of equipment and person to assure that bike and rider will always be operating at peak condition. But these may not be enough.

Wisdom has it that every rider has at least one crash in his future. So, in addition to all the other precautions, reasonable riders will wear boots, suits and helmets. Snell claims no special knowledge of boots and suits, but we may be able to help with helmets.

The Snell Foundation was incorporated in California a year after William "Pete" Snell lost his life. Pete died of head injuries sustained in a roll-over crash in an amateur auto racing event in Arcata, California, in August of 1956. His then state-of-the-art helmet failed to protect him in what was considered a very survivable accident. A year later, Pete's friends, including Dr. George Snively, formed the Snell Memorial Foundation to memorialize Pete and to encourage the development, production and use of superior crash headgear.

The first Snell helmet standard was published in 1959 and was adopted by the Sports Car Club of America as mandatory for their events. But many motorcyclists needed no prompting. Years before DOT requirements and mandatory street helmet laws, riders were buying and wearing Snell-certified helmets. It made sense; the hazards were similar and the heads which went into those helmets were very much the same. Auto racing brought the high profile and money to stimulate interest and research, but the much greater numbers of motorcyclists enabled helmets as business.

Dr. Snively revised that original standard repeatedly over the next 15 years as improving technology and increased public acceptance enabled better protection. However, by 1975, helmets were approaching the limits of what a rider might reasonably be expected to wear. From then on, the standards have been reviewed and revised regularly every five years to maintain a gentle upward gradient toward better and better headgear.

The same Snell standards served for both applications until 1985, when the standards were split into Snell M and Snell SA.
varieties. Snell M demands a broader visual field, a necessity for riders maneuvering on streets filled with four-wheeled behemoths. Snell SA demands exotic and expensive flame resistance; not much use to riders but potentially life and death for a well belted driver escaping a crashed and burning vehicle. Even after the split, though, Snell M and SA have continued to demand much the same levels of head impact protection right through to the current Snell M2010 and SA2010 standards.

Snell-certified helmets are all about head impact. Humans seem built to avoid head impact rather than tolerate it. Adults are especially adept at ducking, dodging and even sacrificing other body parts to protect the old melon. However, in traffic and on the track, events can outrun even the quickest reflexes. If a shot to the head cannot be avoided, the most reasonable alternative is a good crash helmet.

Unfortunately, crash protection is the one feature of helmets that riders and drivers cannot easily determine for themselves. They can tell about fit, ventilation, comfort and good looks, but it takes a crash to reveal a helmet’s protective capability. Short of crashing helmets themselves, riders almost always have to take someone else’s word for this most important helmet function. At Snell, we crash helmets, lots of helmets, in controlled tests to measure whether they can provide the high levels of head impact protection we demand. Then we certify those that can.
Snell looks for all the head impact management a rider, or a driver, could reasonably be expected to wear on his head; quite a bit more than DOT or ECE 22-05, the mandatory US and European requirements for street legal helmets. DOT and ECE 22-05 qualified helmets are still much better than riding bareheaded, but these standards still leave considerable room for improvement. Street motorcycle helmets in the US must meet DOT and in Europe must meet ECE, but those marked Snell and DOT or Snell and ECE will provide a premium of protective capability well beyond government minimums and approaching the limits of what's feasible with current technology.

One of the consequences of Snell's demand for a premium of protective capability is that some DOT-only and ECE-only helmets may appear a little lighter and sleeker. Light and sleek may look appealing in the shop, but many riders will trade them away for an assurance of better protection. Snell exists to provide that assurance. By doing so, we help better helmets to compete for space on store shelves and riders' heads. Without Snell, helmet companies would either undercut each other on weight and silhouette in a stampede down to the minimum, or be trampled. A sort of helmet Gresham's Law would drive out the best head gear and lower the protective capability of every motorcycle helmet to the least governments will allow.

Snell certification is voluntary; no one has to build Snell helmets and no one has to wear them. But since there are riders who demand Snell-certified helmets, the helmet industry comes to Snell seeking certification. To get it, manufacturers must submit samples of each model and each configuration they wish considered. Once samples of a model meet test requirements in the Snell lab, it is accepted into the Snell program; but to remain Snell-certified, it must continue to meet requirements. Snell goes out to dealers and distributors and buys units of the same Snell-certified helmets available to the riding public. These go straight to the Snell lab for enforcement testing. The initial tests may show manufacturer capability, but the enforcement testing demonstrates sincerity. It's the surest way to know that riders who choose Snell are getting the premium protective capability Snell certification promises.

Snell programs are enforced by contract. Each manufacturer in Snell programs signs a standard licensing agreement which obliges it to make regular reports on its Snell production and to cooperate with the Snell standards enforcement programs. Manufacturers are also obliged to pay for Snell testing services, to reimburse Snell for the costs of the enforcement samples, and to purchase Snell certification labels for use in each unit of the Snell-certified helmets they produce and distribute for sale.

As a 501 c3 organization performing testing for public safety, Snell is a not-for-profit enterprise, but does not qualify for tax-deductible donations. Instead, all Snell revenues come from the manufacturers in the form of charges for testing, for reimbursements and for Snell certification labels. Snell test fees are, at best, break even and the reimbursements just cover our own outlays. It's the fees for the certification labels, the Snell stickers, which pay the salaries and rents and keep our doors open and our lights on. Snell's charges, including test fees and reimbursements, usually come out to less than a dollar per certified helmet.

Snell itself consists of a salaried staff governed by a board of directors. The salaried staff exists to turn the crank on the Snell programs. We do the testing, keep track of what's certified, issue the invoices and, in short, fulfill all the routine day-to-day functions necessary to keep Snell moving. But we do not collect the revenue; manufacturers send payments directly to our accountant several states away.

Snell's directors are all medical and engineering experts. They set Snell policy and Snell standards and they maintain an active oversight and control on everything the salaried staff does. Among their most important policies are those having to do with conflicts of interest. No Snell employee or board member is allowed any outside financial, consulting or employment relationship with the helmet industry. It's absolutely critical that no manufacturer ever be able to buy its way
into Snell programs or to tilt the Snell process to its own special benefit or even to appear to have done so.

Snell’s role, ultimately, is to watch the manufacturers who make Snell-certified helmets. Our certification programs verify their technical capabilities and our enforcement verifies their commitment. The manufacturers watch Snell as well as each other. A well equipped test lab and a staff of capable helmet testers are essential for a manufacturer’s success in the Snell program. But once they’re available, manufacturers can test each other’s helmets to keep abreast of technology and also to assure that every Snell certification is deserved.

Snell has been certifying helmets for more than 50 years. The industry comes to us not because we’re nice guys, but because a significant portion of the riding public looks for Snell certification when they look for helmets. Snell owes its first 50 years as well as its whole future to the faith of these riders. We are determined to maintain our ideals and our competence so that we will always justify that faith and continue to deserve it. In a sense, the past 50 years have been a sort of public referendum in which riders choosing Snell helmets have been, in effect, voting for Snell. So far, the vote has been running in our favor; we intend to keep it that way.

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