



The Newsletter of the Snell Memorial Foundation, Inc.

This is the fifty eighth of the Foundation's newsletters to the helmet manufacturing industry. The fifty seventh was sent out in September, 2011. Comments and items for inclusion in subsequent issues are invited.

Manufacturers' Meeting

The Foundation's annual manufacturers meeting was held February 16, 2012, in conjunction with the Indianapolis PowerSports Expo. The meeting was well attended and featured some lively discussion on a range of topics. One topic of particular interest, the general inadequacy of ECE 22-05, the European mandatory motorcycle helmet standard, is rehashed later in this newsletter. A copy of Ed Becker's presentation and a brief synopsis of the meeting was emailed to interested parties afterwards.

Snell Certification and Enforcement

We've gotten some questions on the thinking behind the different impact severities and criteria set for Snell certification and enforcement testing. The intent is to assure that uncertainties in test measurements do not interfere with the orderly administration of Snell programs. Once a model is certified, helmet units identical to those passing certification testing ought always to pass enforcement testing. A technical brief explaining the procedures has been posted on the Snell website.

Helmet Swap Program

The Snell Safety Education Center, the Livermore Police Department and the California Highway Patrol will cooperate in a program to trade Snell/DOT compliant motorcycle helmets for non-compliant headgear. The California Office of Traffic Safety is funding the purchase of a limited number of helmets to be swapped for riders' bogus helmets at various public rallies and events.

Manufacturers and Distributors interested in providing helmets for this program are encouraged to contact Ms. Hong Zhang at the Snell offices for further information.

ECE 22-05

The current European motorcycle helmet standard, ECE 22-05, dates from a 1957 United Nations effort to harmonize traffic regulations throughout

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Europe. The motorcycle helmet portion of this effort was known as Regulation 22 but it was not particularly important until after the formation of the European Economic Community. At that time it was decided that local national standards were essentially trade barriers and should be scrapped in favor of new sets of requirements which would apply to all member countries.

Regulation 22 was revamped and became a little weaker in the process to approach the least demanding of the previous local national standards. And, of course, a few excellent national programs blinked out of existence.

The complaint against ECE 22-05 is that it demands even less impact protection than the US requirement, FMVSS 218 better known as DOT. There is a good comparison of impact protection available at www.snellm2010.org demonstrating DOT's ten to twenty per cent advantage. The difference is more than just theoretical. Many manufacturers looking to bring ECE 22-05 qualified helmet configurations into the US have had to beef up the shells and thicken the liners to get DOT compliance. But there are other problems as well.

ECCE 22-05, unlike Snell and DOT, requires test impacts only at certain specific locations on the helmet. Unless a rider can guarantee that he'll suffer head strikes only at these precise locations, he's liable not to get even the lower levels of protective capability ECE test impacts imply. More than a few manufacturers game ECE 22-05 by reinforcing helmets only at these specific sites. The result is light weight, ECE compliance with no real assurance of protective capability in the field.

Submissions for Certification

All the helmet samples in any single submission for Snell certification must be structurally identical. In particular, the shells, retention systems and liners must be exactly alike. In the case of Snell 2010 standards in which additional samples may be required for testing on the smallest appropriate head form, manufacturers are

encouraged to configure these additional samples with thicker fit pads but the helmet shells, liners and retention systems must be identical to those of the other samples in the set. This includes liner density. For example, if the helmets incorporate EPS impact liners, the same EPS density must be used for all the samples in the set.

When submitting helmets for certification testing, please make sure that all the helmets are complete and in ready-for-use condition. All the samples should have all the necessary face shields, peaks (eye shades) and other accessories included with them. Lab managers may grant one-time exceptions to this policy but exceptions will be rare. If an exception is necessary, ask in advance, before sending samples.

Comments and Suggestions

Please direct any comments, suggestions or complaints about any aspect of the Snell programs or services to Ed Becker.

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