УДК 629.331

Kazak A., Slesaryonok E.

What Is the Sacred Meaning of the Numbers: 3,043,625 for Every Motorist?

Belarusian National Technical University
Minsk, Republic of Belarus

It’s hard to imagine now but production vehicles didn't have any seat belts. And it wasn't just the fact that they didn't exist. Technically, the first seat belt was invented in 1885 by Edward Claghorn. It had to fixate the carriage driver. In 1903, a certain Gustave-Désiré Leveau patented his first automotive clamps. Later, some prototypes were used in aviation. For example, in 1913, Adolphe Pégoud fastened himself doing his loop-the-loop. But it didn't have any sense. No one wanted to use them because it was quite uncomfortable. Car makers didn't include those things into their cars. Of course, if you wanted to, you could bolt something inside your car. And some singular car makers made seat belts available as an option. But statistics said, less than 1% customers bought that option [1].

The first production vehicle that had seat belts in his basic, standard package - and it was mandatory - appeared only in 1959. And exactly at that moment, holding its pension certificate close to heart, Volvo entered the stage. Nils Bohlin helped Volvo create the most significant element of safety. In 1942, when he was 22, Nils came to Saab. They were in aviation back then, no cars were involved yet. In 1958, Nils came to Volvo. His main task became designing of seat belts so that they could be comfortable and efficient while using them. In 1959, that car appeared - Volvo PV444. And the patent US 3,043,625 which described the construction of a 3-point seat

belt. That patent is one of the most significant inventions of XX century [2].

The seat belt helped save 1 million lives. Volvo made the install of seat belts into all of their cars mandatory, starting with 1959, and it set a standard in the field. And after that, they made that patent generally available for all other car makers so that everyone could set that construction into their cars easy and for free [3].

But the main problem of seat belts that were created only to save human lives, were humans themselves. They didn't understand why they needed those awkward things. It's not enough to invent some technology that could benefit people. Explaining the profit of that invention is necessary as well.

Statistics show that about 70% of people who survived critical accidents stayed alive thanks to the seat belt. For safety bags, that number amounts only to 19%. That's because the seat belt is primary. If it isn't being used, each and every mechanism of passive safety is practically useless. Actually, Volvo has always been concentrating on safety. In the former generation of PV444, before any seat belts, the special laminated wind shield was implemented that didn't burst in pieces and had no chance to cut people. One of the first in the industry, Volvo invented bumpers as a safety element. But yet again, the main Volvo's merit was the invention of a 3-point seat belt. And ever since that time, Volvo's focus on safety had been increasing. The whole world knew all along that Volvo was about safety [4].

Today, if an accident happens in Sweden involving a Volvo car, not only emergency services go to the scene of the accident but specialists from Volvo too. They take all the data from the car, analyze the scene and the terms that made it possible, and they think how to prevent that from happening here again. That's a royal approach. In addition, Volvo limited the maximum runway speed of all their cars till 180 km/h, and

it was mandatory. Meanwhile, all the car makers are chasing the highest possible speed and the highest possible acceleration rates. I don't doubt that Volvo would be the first brand in which people would stop getting killed on public roads.

References:

1. Seat belt history [Electronic resource]. – Mode of access: https://clck.ru/QYmAt. – Date of access: 20.04.2022.
2. Why Volvo gave away the patent for their most important invention [Electronic resource]. – Mode of access: https://clck.ru/QYoM5. – Date of access: 20.04.2022.
3. Volvo PV444 [Electronic resource]. – Mode of access: https://youtu.be/jlJZ1YqqfUk. – Date of access: 20.04.2022.
4. Road deaths [Electronic resource]. – Mode of access: https://youtu.be/yTikc8T7iDE. – Date of access: 20.04.2022.