



Volvo Car Corporation

Press Information

Forty-year jubilee for Volvo's three-point safety belt

FOR THE BENEFIT OF MANKIND

"Sometimes I get a call from some grateful person who has survived thanks to the belt. It warms my heart and shows that I really have been able to do something for mankind."

Nils Bohlin is an unknown name to many people, but many others know who he is and sometimes people express their gratitude over having survived a serious accident, wanting to discuss and share their experiences.

One of the best evidences of the importance of the three-point belt was when the Patent Office of Germany celebrated its centenary in 1985 by selecting eight inventions which had been of greatest significance to mankind and recognising them with a special award.

The safety belt: one of the eight most important innovations

In these hundred years, technology has developed from quite primitive to extremely sophisticated, and no other period has offered so many possible patents to choose from. In the light of this, Nils Bohlin and his safety belt are in very distinguished company. It is also striking to note that the three-point belt is the only one of these eight invention to be directly linked with safety and personal protection:

1873-76 - Karl Linde: The thermodynamic cooling machine, the predecessor of the refrigerator

1878 - Thomas A. Edison: The phonograph, i.e. the first apparatus for recording sound, and the common ancestor of all tape and disc players

1 886 - Carl Benz: A gas-driven vehicle, i.e. the first real car

1 892 - Rudolf Diesel: A type of combustion engine, i.e. the compression engine which, unlike the Benz engine from 1 886 works without an electric charge. Today we know it as the diesel engine.

1892 - William Painter: The bottle cap - which has been sealing bottles the world over ever since

1893 - Otto Lilienthal: The aeroplane, i.e. the gliding ancestor of what still carries mankind through the air over both short and long distances.

1920 - Arthur Henschel: A bicycle and engine frame, i.e. the forerunner of the two-wheel frame that is based on the same principle today.

1959 - Nils Bohlin: Safety harness in vehicle, i.e. the three-point safety belt!

One thing that is remarkable in this context is the time span - most of the patents were from the last century, with Bohlin as the only representative of modern times.

The elbows - the best protection in a crash

The years before the Bohlin patent application for the three-point belt was also considered modern. However, you could still find things like this description under the heading of "The art of crashing" in a book about traffic and engineering from 1955. This provided the following well-meant advice about how best to protect oneself in a collision:

"In the front seat, one should slide down in front of the seat, place the shoulder and upper arm horizontally against the dashboard and press the head hard against the arm. One is then positioned firmly against the dashboard and there is very little risk of being thrown upwards and out through the windscreen."

Nothing is said about intrusion of wheels or engine, nor of the fact that the sequence of a frontal collision lasts just a few hundredths of a second! The recommendation for the rear seat is along the same lines:

"If there is space, slide down between the seats and use the support of the front-seat backrest. Children should sit in the rear seat, but if the child is travelling alone with its mother or father, it is safest for it to travel standing in the front seat. Then it is pressed against the dashboard and windscreen in a crash rather than being thrown from the seat to the windscreen."

There was tremendous lack of knowledge about the forces involved in an impact. Even at walking speed, an accident without a belt can involve serious injury. Bohlin's pioneering efforts brought some light into the darkness, but there was still far to go before there was any widespread insight and understanding.

Joke target

Not least in the automobile's promised land, the USA, proponents of the safety belt met with much opposition for many reasons. Already in 1953, a car manufacturer offered optional front-seat safety belts - but without any success whatsoever. A few years later the same thing happened again. Nobody was interested. The safety belt disturbed both the industry and the customers, and the market was clearly not ready for it.

Much was said about the bothersome belts that were always in the way and uncomfortable to sit on (!). Dave Berg, cartoonist for the satirical magazine MAD joked about people's attitude to this completely unnecessary item that, at best, could be used to keep shopping bags in place on the seat.

In the world of music, rock singer Chuck Berry's amorous intentions for his female front-seat passenger were frustrated by the belt in "No particular place to go" from 1964: "Can you imagine the way I felt, I couldn't unfasten her safety belt!"

The problem was that Berry's car had lap belts. If it had been fitted with three-point belts instead, the outcome of the song might have been quite different.

However, Volvo was completely convinced of the benefits of the safety belt and was working in a long-term perspective. Time has shown who was right.

Saved by a Volvo

In the USA there is an association called The Volvo Saved My Life Club. It consists of Volvo owners whose lives have been saved thanks to their choice of car, with the belt often playing a crucial part.

When Nils Bohlin celebrated his 75th birthday in 1995 he received a video from the club conveying their unanimous congratulations and best wishes and thanking him for their lives.

The safety belt saves lives. That has been proved beyond any doubt.