

Ford Calls Assist Its 'Happy Seat' for Good Reason

COLOGNE, Germany – When Henry Ford pioneered the moving assembly line, he could not have imagined that more than 100 years later, Ford Motor Company would still be refining and improving this seminal innovation.

Seeking to address issues such as an ageing workforce and the physical tolls of working for many years on the assembly line, Ford convened a team of occupational physicians, production specialists, labour groups and representatives for disabled employees to improve the ergonomics, safety and productivity on the assembly line.

This led to the creation of the Happy Seat – an ingenious swivel chair attached to a rod-shaped suspension. It allows workers to sit in comfort on the production line while assembling cars.

The seat allows workers to sit and glide into the car while fitting pedal boxes, for example, instead of bending over. The first Happy Seat was installed at the workstation to install wiring roof antennae at Genk, Belgium, in 1998 with Cologne's Happy Seat follow-

ing in 2002. Today, Happy Seats are also in use at Valencia, Spain, and Saarlouis, Germany.

"It's called the Happy Seat for a good reason – it makes a tough job easier for workers in our plants," says Ellis Carey, a senior ergonomist for Ford of Europe. "Operations which previously required awkward postures to be maintained for prolonged periods can now be performed in a seated position with adequate lumbar support."

The Happy Seat allows employees with more experience to stay integrated in existing work groups while health and productivity levels are retained. "The ergonomics of the workstation are improved and operators' discomfort and fatigue are reduced, leading to reduced injuries and illnesses, less absenteeism, and improved quality of the operations," Carey said.

José Lorenzo, a C-MAX production line worker at Ford's Valencia plant, says the Happy Seat has been a big help: "Now, we access the C-MAX's engine compartment from below and through the chassis.

With the previous Focus model, we worked from above and had less space, which restricted our movements and increased the risk of injuries when working inside the engine compartment.

"The new Happy Seat has been designed to be deployed on the C-MAX. It has improved ergonomics, so that our job is now safer and more comfortable. Despite the small space, you can adopt a healthier and, above all, safer posture.

"In my opinion, Happy Seat has definitely improved safety and ergonomics. Now, it is much easier to access the engine compartment and to leave it after finishing your job. Our job demands less physical effort and entails fewer risks. As a result, operators work more effectively and the operation itself has become more efficient."

Martin Chapman, operations plant manager in Cologne factory, where Ford produces the Fiesta, adds: "Employees' work at the assembly plant has become considerably easier and less physically demanding at this part of production line. Before

the Happy Seat, employees had to bend over to install the pedal box inside the car. It literally was a pain in the back.

"Employees just push themselves back and forth and the chair swings in and out of the cabin – very simply and not requiring much physical effort. And the back feels fine, allowing employees to remain in employment longer to the benefit of Ford – ideally until they reach the age of retirement, the age of which many European governments have raised only recently."

Further measures employed by Ford to ensure production line workers' health include movable platforms to raise vehicle chassis to different heights at various workstations, preventing excessive stretching and bending by employees; virtual software programs to design the most ergonomic production processes possible; and Santos, a computerised avatar that performs actions in the virtual world to help Ford improve quality, safety and ergonomics for its assembly line employees.

No word yet on Happy Seats coming to U.S. factories.



Ford's new "happy seat" allows assembly line workers to sit and swivel into tight workspaces as the chassis moves down the line.

Ford Marketing Manager Takes Safety Personally

DEARBORN – With three teenage drivers, Ford Car, Crossover and SUV Group Marketing Manager Amy Marentic has a personal interest in making sure today's drivers are as safe as they can be.

That's why Marentic said she is pleased nearly all Ford vehicles have a standard feature called MyKey, which parents can program to help encourage their teens to drive safer with top speed and audio volume limits.

Marentic said she is proud of Ford's recently expanded Driving Skills for Life (DSFL) program for today's young drivers.

Ford is taking the DSFL program – free driving exercises, web-based training and materials on driving safety – to 30 high schools nationwide to augment its community driving clinics and web-based training.

"With three teenage drivers, I am truly a fan of MyKey and Driving Skills for Life because they give parents other options to help their kids learn how to drive safer," Marentic said.

"Ford is complementing graduated licensing by helping parents give their young drivers more experience with reasonable parameters so they can develop safe driving

habits for life."

Trained as an aerospace engineer, Marentic aimed to be an astronaut.

During her senior year at the University of Michigan, she realized an automotive career could provide years of exhilaration, compared with a brief ride in space she might never achieve.

She holds both a bachelor's degree in aerospace engineering and a master's degree in industrial and manufacturing engineering.

Before joining Ford in 1992, Marentic worked as a product design engineer for Prince Corporation, a top-tier automotive supplier.

Marentic's wide-ranging automotive industry portfolio has encompassed engineering, product planning, business strategy development and regional field sales management roles.

At the center of each of her career experiences, you'll find the cumulative voice of Ford customers as a key influence.

"Each of the roles in which I've served at Ford has provided me with an even deeper understanding of what our customers want and value in a vehicle," Marentic said.

Of course, when your own kids' safety is at stake on the road, you pay attention.

Inflatable Seat Belts Earn Ford Big Safety Award

NEW YORK –Ford's industry-exclusive rear inflatable seat belts – one of the 2011 Explorer's breakthrough safety innovations that helped nearly triple the vehicle's March sales – earned the 2011 Traffic Safety Achievement Award from the New York International Auto Show's World Traffic Safety Symposium.

This advanced restraint system is designed to help reduce head, neck and chest injuries for rear seat occupants. Over time, Ford plans to offer this technology in other nameplates globally.

"Ford's rear inflatable seat belt technology will enhance safety for rear seat passengers of all ages, especially young children who might be more vulnerable in crashes," said Sue Cischke, Ford group vice president, Sustainability, Environment and Safety Engineering. "Rear inflatable seat belts – a Ford exclusive – help build on our safety leadership."

In everyday use, rear inflatable belts operate like conventional seat belts, including compatibility with infant and child safety and booster seats. The additional comfort and padding of rear inflatable seat belts encourages increased use.

In the event of a frontal or side crash, the increased diameter of the inflated belt more effectively holds the occupant in the proper seating

position, helping to reduce the risk of injury.

The inflated belts help to distribute crash force energy across up to five times more of the occupant's torso than a traditional belt. This expands its range of protection and reduces risk of injury by diffusing crash pressure over a larger area, while helping provide additional head and neck support.

Following deployment, the belt remains inflated for several seconds before dispersing its air through pores in the material.

Rear inflatable seat belts debuted as an affordable option for the 2011 Ford Explorer, named in January as the 2011 North American Truck of the Year.

Ford has the most top U.S. safety ratings of any automotive manufacturer ever. This includes more Top Safety Picks from the Insurance Institute for Highway Safety (IIHS) and more National Highway Traffic Safety Administration (NHTSA) five-star ratings.

Ford was the first automaker to introduce seat belts in all seating positions in 1955 and was a leader in making driver and front passenger airbags standard in most vehicles by 1993.

The New York International Auto Show's 2009 World Traffic Safety Symposium honored Ford's MyKey® owner control feature, enabling parents or fleet administrators to

set limits on vehicle speed and audio volume while muting the audio system if front occupants don't buckle up.

In 2007 Ford was recognized with the Traffic Safety Achievement Award for Community Service, honoring the Driving Skills for Life initiative to improve driver skill sets among teens. Two years earlier,

SAE Debuts New Library

WARRENDALE, Pa. – SAE International is pleased to announce a complete redesign of its Digital Library, the comprehensive technical paper and standards solution relied upon by automobile and aerospace engineers for more than 10 years.

The newly redesigned Digital Library uses a sophisticated server with an integrated taxonomy of industry-specific terms to give SAE customers and members unprecedented access to the more than 150,000 papers, standards, and related publications in the Digital Library – as well as the ability to quick search, find and share information they need.

Visit digitallibrary.sae.org to see the revamped Web site.

"One of the most important things about the Digital Library redesign is that it was done with direct input from our customers," said Michael Thompson, SAE Manager of Electronic Publishing.

er, Ford was feted for its exclusive VIRTTEX driving simulator and its use in researching potential driver distractions.

Ford's rear inflatable seat belts also stood out at the 2011 Edison Best New Product Award ceremony by receiving the gold medal in applied technology.

Ford Expands Its Education Program To Improve Safe Driving for Teenagers

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safely and what their kids observe," said Sue Cischke, Ford group vice president, Sustainability, Environment and Safety Engineering. "Eating, reading and hand-held texting are bad habits that teens and tweens pick up. Ford continues to be part of the solution by expanding our teen safe driving education program and in-vehicle technologies that help improve safe driving behavior."

Other key findings from the new survey:

- 82 percent of parents expressed interest in enrolling their child in a safe driver training program, yet less than 20 percent currently do.
- With many schools outsourcing driver education programs nationwide, 83 percent of parents who have seen such cuts express concern.
- Parents rank more comprehensive driver education programs as the top way to improve safety, while teens prioritize new technologies such as voice-controlled, hands-free connectivity systems.

Ford continues to invest heavily in new safety technology and is ramping up its Driving Skills for Life program by extending its cost-free training to 30 additional markets in 2011, providing parents and new drivers with enhanced tools and driving skills.

To date, 400,000 students have participated in the program, which includes hands-on driving along with web-based learning and tutorials built into school curricula.

"Open communication with your child is vital as they are reaching the driving age," said family communications expert Dr. Charles Sophy.

"First, set a positive example or they won't take you seriously. Then, take time to talk with them about expectations like curfews, driving destinations and speed limits, and do so on a regular basis. Encourage them to attend local driving clinics or volunteer with community police departments to see firsthand what happens on

the road. This can help empower your youngsters to make good decisions."

Last week, Ford hosted an interactive panel discussion led by Dr. Sophy and company safety experts to interpret the research results and discuss ways to enhance teen driving safety.

The panel includes Jim Graham, manager, Ford Driving Skills for Life; and Andy Sarkisian, Ford safety planning and strategy manager and one of the creators of Ford's MyKey teen driving safety technology, and his daughter Lauren, who inspired the innovation after two crashes. Nicole Blades, contributor to *Cosmopolitan* magazine, is moderating the panel.

According to NHTSA, in 2009 there were more than 2,300 young (age 15 to 20 years) driver fatalities and nearly 200,000 young drivers injured in crashes. While inattention or distraction – such as daydreaming, talking with passengers, eating or hand-held texting – is a factor for 11 percent of all drivers in fatal crashes, it is reported that 16 percent of all drivers younger than 20 involved in fatal crashes were distracted while driving.

The most compelling research shows distractions that take drivers' eyes away from the road for an extended period of time are a factor in nearly 80 percent of accidents. Ford's findings show teens most commonly report their parents are distracted by eating or drinking (57 percent), talking or texting on a hand-held phone (42 percent), and other distractions such as grooming (32 percent).

Ford emphasizes through its Driving Skills for Life program and new technologies how to combat these risks after its research showed that teens can be particularly distracted with new electronics.

For example, Ford's research showed teens generally look away from the road longer to perform tasks such as dialing a phone number. (Reaching teens about the seriousness of cell

phone use and driving is one of the biggest challenges the traffic safety industry faces today, officials have said).

Ford is also making advancements in auto safety technologies to shape teens' current and future driving experiences, such as:

- MyKey – Programmable teen safety feature can limit the vehicle's top speed (at 65, 70, 75 or 80 mph) and audio volume to 44 percent of total volume. MyKey also encourages seat belt use by muting the audio system if front occupants aren't buckled up, and can be programmed to block inappropriate radio content.
- SYNC – Hands-free communication technology links with a user's cellular phone and music player so they can more safely make calls and listen to their favorite songs.
- The 911 Assist feature helps quickly connect drivers directly to a local emergency operator in the event of an accident.
- Intelligent vehicles – Ford is the first automaker to tour the country with prototypes of "talking vehicles" with advanced Wi-Fi technology that one day could alert drivers of potential collisions they don't see and reduce traffic congestion and wasted fuel.

Intelligent vehicles could potentially help in 81 percent of all police-reported light-vehicle crashes involving unimpaired drivers, according to a NHTSA report.

For more information about Ford Driving Skills for Life, visit www.drivingskillsforlife.com to get details about this year's tour, including modules, quizzes, car care and driving tip videos and games. Free educator packets are available for students, parents, educators and community organizations.

The survey, conducted by Kelton Research, offers a cross-generational look at thoughts and behaviors related to driving safety.

The respondent sample included 908 people (305 parents of 9- to 19-year-olds, 302 teens ages 13 to 19, and 301 tweens ages 9 to 12).

Roush CleanTech Modifies Ford Vans With Liquid Propane System for Fleet

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by utilizing propane autogas to power them."

The ribbon-cutting to launch the new fleet was done at the big Wright & Fillippis warehouse in Auburn Hills, near Crooks Road and Auburn, where officials from Oakland County, the Clean Energy Coalition and other partners celebrated this significant conversion to alternative fuels by a large fleet customer.

Joe Thompson, president of Roush CleanTech, said, "At Roush, we've had the oppor-

tunity to look at the different alternative fuels. We chose propane for some very telling and very simple reasons.

"Number one, it's the third most commonly used engine fuel in the world, only behind gasoline and diesel. In fact, there are countries in Eastern Europe that have more propane-powered vehicles than they do gasoline.

"It's affordable – the savings per gallon is in the \$1.50 range. You want to talk about who the smartest people in the room are?"

"How many of you were able

to fill up for less than \$2.50 (per gallon) last week? The guys at Wright & Fillippis were. If you want to talk about forward thinking and doing what's right for themselves and the country, we applaud them for that decision."

Also attending the event was Matt Sandstrom, Division Manager, Clean Energy Mobility for the Ypsilanti-based Clean Energy Coalition. A former Ford executive, Sandstrom now runs this busy nonprofit that promotes alternative and clean energy use across the state.



PHOTO: GERALD SCOTT

One of 12 new Ford utility vans that run on liquid propane that is now part of the Wright & Fillippis delivery fleet. W&P has 40 vehicles that put on 1 million miles per year.