



## **ZF launches industry benchmark lightweight seat belt retractor pretensioner on Jeep Wrangler**

- **SPR8 is the industry's lightest weight belt retractor pretensioner family and will debut on the 2018 Jeep Wrangler**
- **Offers multiple load limiting options to help manage occupant energy in a crash**
- **Base technology for reversible electric active control retractor (ACR) combining active and passive safety**

**Detroit, MI. ZF is now delivering its next generation SPR8 (Snake Pretensioner Retractor) seat belt system to the Jeep Wrangler. The innovative system uses a plastic piston instead of conventional metal components to transfer tensioning torque through the torsion bar to the spool, resulting in a simpler design, more compact packaging and industry leading system weight.**

The SPR8 design represents a modular retractor family satisfying everything from base technology through to the next generation ACR8 reversible motorized seat belt pretensioner that combines active and passive safety to pretension the seatbelt before a crash. ZF pioneered this system with Daimler in 2002 on the Mercedes S-Class and will introduce new enhancements to the system soon.

Peter Lake, member of the board of management at ZF, responsible for Corporate Market, said: "We are very pleased to launch this next generation product on the iconic Jeep Wrangler. This will be closely followed by a launch with a European manufacturer in combination with ACR technology as we roll out this exciting new product generation globally."

The functionality of the SPR8 is such that when vehicle sensors trigger the seat belt system, a pyrotechnical gas generator is ignited releasing a gas that expands and builds up pressure in the guiding tube. This pressure acts on the snake-like plastic piston which is forcefully propelled into a pinion instead of the commonly used steel elements.



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The pinion then transmits a significant torque to the belt retractor spool to pre-tension the seat belt. The complete pyrotechnical system is sealed meaning no gas will be emitted during the pretensioning process, which altogether takes just ten milliseconds.

“This unique technology utilizes lighter weight with plastic material allowing the overall system weight to be reduced by up to more than 20%” said Norbert Kagerer, Senior Vice President, ZF Occupant Safety Systems. “The system architecture allows great flexibility for packaging and delivering various load limiting options such as switchable, degressive and load limiting with stop to help manage occupant energy.”

Caption

Debuts in the Jeep Ranger at the beginning of 2018: With the brand new pretensioner SPR8, ZF sets a benchmark in system weight.

Image: ZF

Press contact:

**John Wilkerson**, Technology and Product Communications,  
phone: +1 734 582-1312, email: [john.wilkerson@zf.com](mailto:john.wilkerson@zf.com)

**Bryan Johnson**, North America Corporate Communications,  
phone: +1 734-272-8798, email: [Bryan.Johnson@zf.com](mailto:Bryan.Johnson@zf.com)

**ZF Friedrichshafen AG**

ZF is a global leader in driveline and chassis technology as well as active and passive safety technology. The company has a global workforce of around 137,000 with approximately 230 locations in some 40 countries. In 2016, ZF achieved sales of €35.2 billion. ZF annually invests about six percent of its sales in research & development – ensuring continued success through the design and engineering of innovative technologies. ZF is one of the largest automotive suppliers worldwide.

ZF allows vehicles to see, think and act. With its technologies, the company is striving for Vision Zero – a world of mobility without accidents and emissions. With its broad portfolio, ZF is advancing mobility and services in the automobile, truck and industrial technology sectors.



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