Production Milestone: One Million Units of the AS Tronic Automatic Transmission

- Global success of the first automatic transmission for commercial vehicles
- AS Tronic production at the ZF location in Friedrichshafen since 1997

The result of stable production processes and exacting quality requirements: The "coupling legend", ZF's AS Tronic, the automatic transmission system for heavy commercial vehicles, has achieved a landmark figure over the past few days. One million units of the world's most successful automatic transmission have come off the production line at the ZF location in Friedrichshafen since production got underway in 1997. Whether it is delivery traffic or long-distance traffic, coach, construction equipment or rail vehicle – ZF can now provide the right AS Tronic configuration for every conceivable commercial vehicle variant.

"For almost two decades, commercial vehicle manufacturers around the globe have been relying on ZF’s AS Tronic transmission range when it comes to automatic gear shifting," explains Fredrik Staedtler, Head of ZF’s Commercial Vehicle Technology division based in Friedrichshafen. "It is considered a milestone in drive development and has meanwhile become indispensable in modern-day commercial transport." ZF developed the first fully automated commercial vehicle transmission with the AS Tronic in 1997. Apart from the then development partner Iveco, today numerous other major international truck manufacturers put their trust in the automatic transmission system by ZF. However, the low-wear AS Tronic is also used in coaches, construction equipment, and in rail vehicles.

Cost-effectiveness ensures success
While the driver had to preselect gears manually on the early semiautomatic AS Tronic transmission, the second generation of
the transmission launched in 2000 relieved the driver of the need to change gear: Automatic gear selection and electronically controlled gear changes reduce the strain on the driveline, thus increasing the service life of the driveline components. By networking transmission electronics and engine management via the CAN bus, the gearshift strategy used by the ZF-AS Tronic always ensures the engine operates in the optimum speed range. In this way, the power is transmitted very efficiently – thereby saving fuel – to the drive axles.

**Gradual extension of the transmission range**

An entire AS Tronic transmission range is now available, covering a torque range between 500 and 3 100 Newton meters. The AS Tronic lite (500 to 1 100 Nm) and the AS Tronic mid (800 to 1 600 Nm) are mainly used in light delivery trucks, buses, and medium-duty commercial vehicles, while the larger members of this transmission family are suitable for heavy trucks and construction vehicles. With its 12 speeds, the AS Tronic covers the torque range from 1 600 to 3 100 Nm while the 16-speed version offers a particularly fine spread of gear ratios for engines with up to 2 600 Nm. The entire AS Tronic family can be combined with the Intarder, ZF’s transmission brake. This can be integrated fully into the transmission thanks to its compact design. Inside the transmission, the Intarder not only boosts the engine braking power, but also reduces the workload of the service brake by up to 90 percent – particularly on long downhill stretches. All of which enhances safety as well as reducing the impact on the environment and lowering maintenance costs.

**Successor ready and waiting**

Coinciding with the production milestone of the AS Tronic, ZF is writing a new chapter in the history of this transmission type: TraXon, the modular automatic transmission system, which will be produced at the ZF location in Friedrichshafen and will gradually replace the AS Tronic over the next few years.

The all-new basic transmission is suitable for torque requirements of up to 3 500 Nm and can be linked to five modules. The new
system features an anticipatory shifting strategy courtesy of PreVision GPS. ZF thus gives truck manufacturers the opportunity to link up the transmission with GPS data and digital map material. In this way, unnecessary gearshifts can be avoided – for example when a conventional transmission control unit shifts up a gear before an uphill gradient or a narrow bend, just to shift down to a lower gear shortly after.

Caption:
1. Reason to celebrate: AS Tronic, the automatic commercial vehicle transmission, has been produced at the ZF location in Friedrichshafen since 1997; the millionth unit of the internationally successful transmission has just come off the production line.
2. With millions of satisfied customers to its name, ZF’s automatic transmission system AS Tronic has been delivering cost-effectiveness, comfort, and safety in the commercial vehicle driveline for almost 20 years.

Photos: ZF
ZF is a global leader in driveline and chassis technology with 122 production companies in 26 countries. In 2014, the Group will presumably achieve a sales figure of more than EUR 18 billion with approximately 72,000 employees. In order to continue to be successful with innovative products, ZF annually invests about five percent of its sales (2014: around EUR 890 million) in research and development. ZF is one of the ten largest automotive suppliers worldwide.

In 2015, the company is celebrating its centennial. Originally named Zahnradfabrik GmbH, ZF was founded in Friedrichshafen in 1915 by Luftschiffbau Zeppelin GmbH among others. In its early years, the company developed, tested, and manufactured aircraft transmissions. After 1919, the company focus shifted under Alfred Graf von Soden-Fraunhofen, the first Managing Director and later member of the Board of Management and CEO, to the automotive and commercial vehicle industry. In this sector, the company established itself once and for all as a major technology supplier, registering numerous patents for innovative transmission technology. The first location outside Europe was founded in Brazil in 1958, launching a globalization drive that still continues today. In addition, ZF constantly expanded its range of expertise – also through acquisitions. For instance, in 1984 ZF acquired the majority share in Lemförder Metallwaren & Co. KG, a move which extended the product portfolio to include chassis technology. In 2001, ZF took over the former Mannesmann Sachs AG to strengthen its value added chain with driveline and chassis components. It adopted the current name of ZF Friedrichshafen AG in 1992. Today’s product range includes driveline and chassis technology such as transmissions, driveline and chassis components, as well as complete axle systems and modules. ZF products are used in passenger cars, commercial vehicles, construction and agricultural machinery, rail vehicles, and marine applications. The company also focuses on the wind power and electronic components business. In addition, ZF Services represents the Group on the international aftermarket. In 2014, ZF announced its intention to acquire US automotive supplier TRW. The shareholders of ZF Friedrichshafen AG are the Zeppelin Foundation, administered by the City of Friedrichshafen, holding a share of 93.8 percent, and the Dr. Jürgen and Irmgard Ulderup Foundation, Lemförde, with 6.2 percent. The “Motion and Mobility” slogan clearly states the company’s core mission: Right from its foundation, ZF has developed and manufactured innovative products for all people around the globe who want to move things reliably, comfortably, and safely, and experience the ultimate in...
Efficient mobility. Quality, technological leadership, and innovative power have always defined the Group’s identity – today as much as ever.

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