



## **ZF MT-L 3135: For highest loads in wheel loaders**

- **For empty vehicle weights up to 40.5 tons - 2600 mm flange to flange dimension of the axle**
- **Torque capacity increased by 33 % - 263,000 Nm axle output torque**

**ZF has extended its well proven axle series MT-L3000 by the three new axle types MT-L3115, MT-L3125 and MT-L3135. These new axle types offer highest possible reliability and efficiency for highly demanding applications.**

**Thanks to identical installation dimensions the integration into the vehicle within these three axle types has been highly simplified. (fig. 5)**

In comparison with the previous model nominal torque capacity could be increased by 33 %. Due to the fact that axle weight and oil volume increases have been more moderate, the power to weight ratio has been improved. In spite of this the lifetime of axles with expected 15,000 operating hours for heavy duty application could be considerably increased.

The increased power to weight ratio and further design features of the new axle provide an active contribution towards preservation of the environment! In this context the reduction of power dissipation, i.e. efficiency increase has also been a significant objective when originally determining the design concept. In addition to the low speed operating brake and the open differential, which can be locked by a powershiftable clutch, a high quantity of individual measures is contributing to the fuel savings target.

**Advantages of ZF axle technology:**

- Operating brake „low speed“ (=wheel speed)
- Low power dissipation
  - Thanks to lower differential speeds in the brake
  - Cylindrical roller bearings in the planetary drive
- Low fuel consumption
- Low oil aging due to low temperature level in the axle
- More optimized oil flow between axle structure and wheel head leads to a homogenous temperature level within the axle between wheel head and differential

**The advantages in comparison with other axle concepts are visible in the following numerical values:**

- Drag power is more than 20 % below high speed brake concepts
- The sump temperature in the axle is 30 % below high speed brake concepts

**For the OEM and the user these advantages pay off twice:**

- For standard loader application no external oil cooling of the axle is required
- Lower life cycle costs

**The integration of ZF ERGOTRACTION involves another optimization step towards lower driveline losses:**

- ZF Ergotraction combines the advantages of low tension torques and power dissipations of an open differential with high traction forces, if needed in case of a shiftable differential
- Thereby ZF offers an intelligent and automatic connection / disconnection of differential locks
- 100 % traction force in every driving situation
- Reduced fuel consumption and tire wear

With the conversion to the axle generation MT-L 3000 II shiftable differentials are offered for the whole range.



Presseinformation  
Press Information

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Picture caption:

5.) ZF MT-L 3135 wheel loader axle

Picture: ZF

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The ZF Division Off-Road Driveline Technology and Axle Systems specializes in the development and production of transmissions and axles for agricultural and construction machines as well as axle systems for buses and trucks. With 7,000 employees the division generated a preliminary turnover of 1.1 billion euros in 2009.

ZF is one of the world's leading automotive industry suppliers specializing in driveline and chassis technologies. With a workforce of 59,900 employees, the company operates 125 plants in 26 countries. ZF Group revenues in 2009 a preliminary turnover of €9.3 billion. ZF ranks as one of the top-10 automotive industry suppliers worldwide.

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