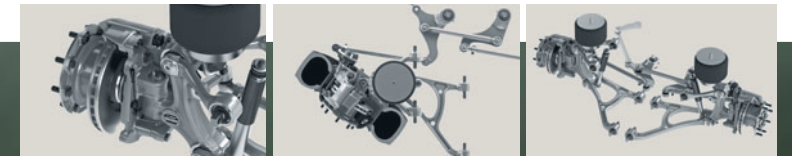


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The evolution in the Midibus



ZF-Independent Front Suspension
RL 55 EC

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TA / RL 55 EC / E / 2011

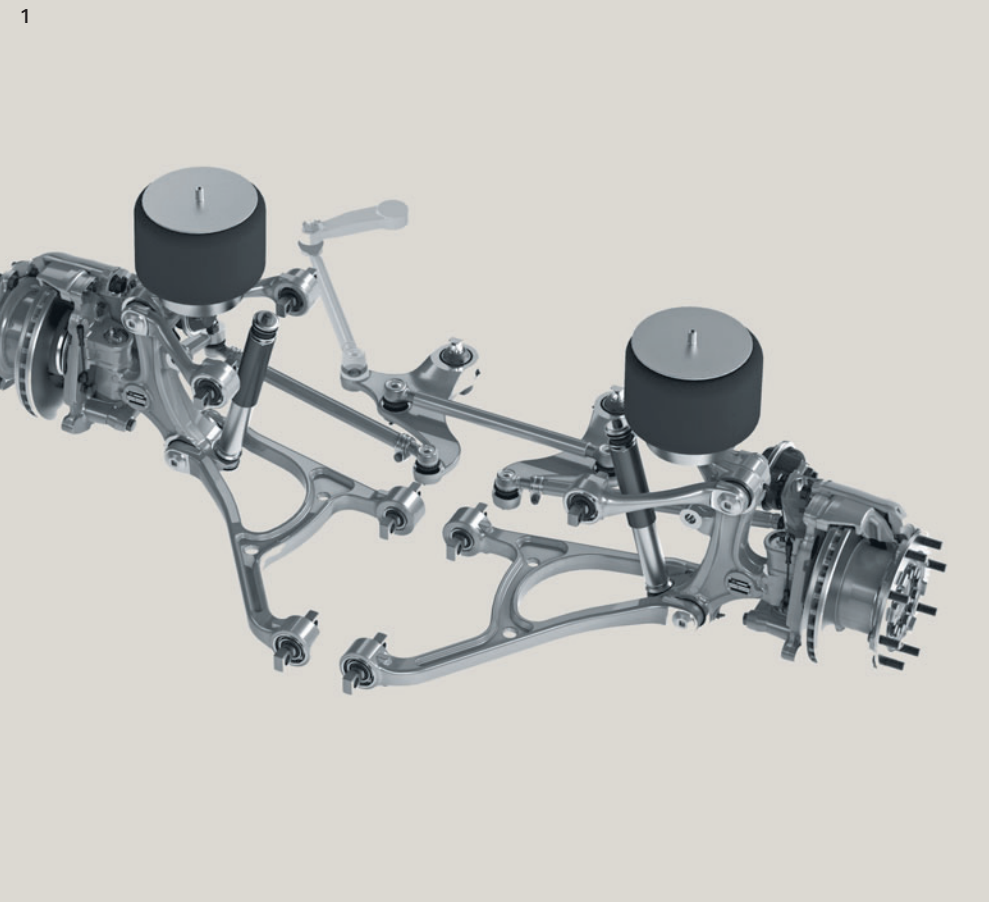
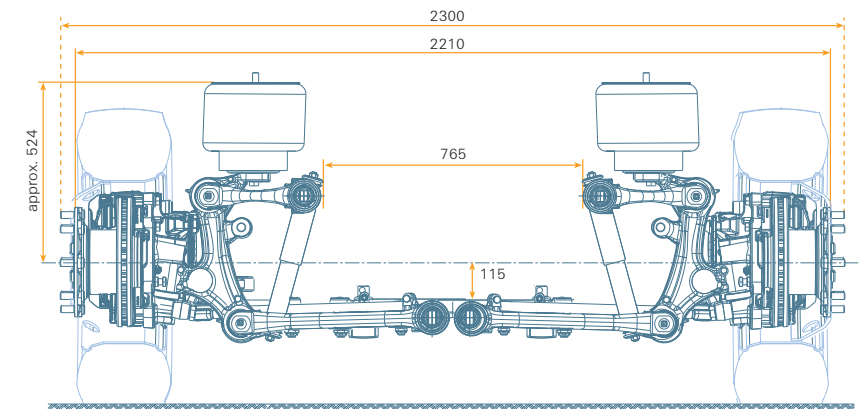


Enhanced comfort and maneuverability on all roads: ZF Independent Front Suspension for Midibuses

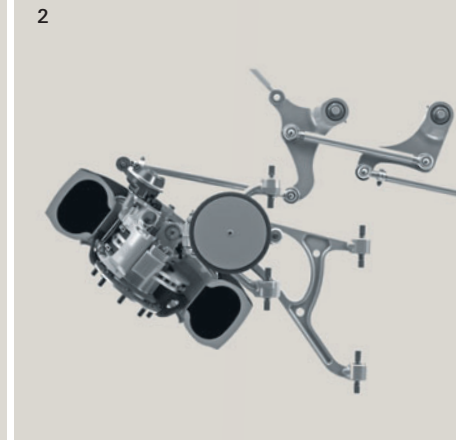
With the new RL 55 EC ZF expands its product portfolio and offers an independent front suspension for maximum in comfort and maneuverability for midibuses. State of the art in coaches for years and increasingly integrated in city buses the ZF independent front suspension has become a feature of the Midibus.

Compact system

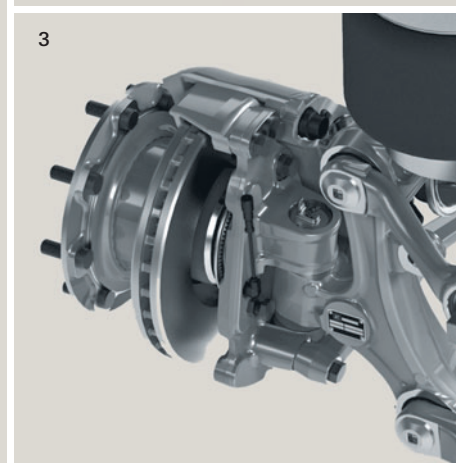
The RL 55 EC is designed with double-wishbones and suspension upright. This thousandfold proven design principle guarantees ideal kinematics and load application into the chassis. Moreover design flexibility for the vehicle engineers is enhanced, thanks to most compact design.



1 ZF Independent Front Suspension RL 55 EC for Midibuses
The standard for "big" buses – now also midibuses can benefit from the advantages of independent front suspensions (IFS): more comfort, increased roll stability and reduced turning circle. Vehicle widths of 2.30 meters and higher are possible.



2 Optimal maneuverability due to high steering angle
A high wheel cut of 55 degrees back-lock and 45 degrees front-lock ensures a high steering angle. Thus, compared to the front beam axle, the turning circle can be reduced by up to one meter with the IFS RL 55 EC.



3 New wheel heads
With wheel heads featuring unitized bearings the RL 55 EC enables an axle load of up to 5.8 tons.

ZF independent front suspensions have become well established in full low floor, low entry buses and coaches. Consequently ZF has developed the independent front suspension RL 55 EC aligned to the demands of midibuses. The precise axle kinematics is the result of detailed kinematics calculations as well as road testing. For this reason RL 55 EC contributes substantially to active driving safety and offers excellent roll stiffness without compromising on driving comfort even without a front axle anti roll bar.

Features:

- Outstanding active safety
- Enhanced comfort
- Considerably improved spring sensitivity, steering and driving comfort
- Optimal maneuverability due to high steering angle
- Improved vehicle handling
- Excellent roll stiffness

The suspension upright is the central component of the RL 55 EC. It transmits the vertical forces, via air spring and shock absorber into the chassis. As a consequence, no vertical forces are acting on the wishbones. The knuckle swivels around a designated kinpin with low friction roller bearings, whereby the wheel travel is separated from the steering motion. This provides optimal suspension response and perfect steering precision, centering and steering return. All components have been optimized for weight and proven for durability on the basis of extensive calculations and testing routines. Combined with tailored air springs and shock absorbers this independent front suspension features outstanding driving safety and comfort.

ZF supplies the RL 55 EC as a complete package provided for 19.5" wheels directly to the bus builder's assembly line.

ZF-Independent Front Suspension	RL 55 EC
Vehicle width mm min.	2300
Axle load max. kg	5800
Wheel travel mm	+/- 90
Wheel cut (back-lock/front-lock)	55°/45°
Tire size max.	285/70 R19.5
Wheel size	19.5"x7.5", bolt circle 275 mm
Disc brake	Knorr SN6
Axle system weight kg	425