

# INNOVATION AND EFFICIENCY



**TWO-STAGE SPUR GEAR HOLLOW SHAFT DRIVE  
ZF APPLICATION FOR METRO MIAMI**



**MOTION AND MOBILITY**

# HIGH LEVEL OF RELIABILITY



Lower life cycle costs thanks to advanced technology: ZF's heavy metro rail gearboxes offer high reliability, improved efficiency and a weight-optimized design.

An advanced gearbox for light rail vehicles, which is very light (approx. 393 kg / 867 lb) and has been optimized for quiet operation. Every kilogram that is saved in the vehicle results in more payload or reduced energy consumption. This rail gearbox therefore allows for even more economic passenger transport.

The gearbox features a curved-tooth coupling for torque gearboxes, which serves to compensate for the displacement between the traction motor that is fastened in the truck and the gearbox that is supported on the axle. It also includes rubber elements to support the motor at the drive end of the gearbox housing. The spur gear hollow shaft drive also has torque support and the housing is made from spheroidal graphite cast iron (GJS-400-15).

## TECHNICAL DATA

Input power	152 kW
Ratio	$i= 5.53$
Weight	393 kg / 867 lb
Input torque	1,100 Nm
Max. speed	up to 112 km/h

## HIGHLIGHTS

- High reliability
- Efficient operation
- Weight-optimized design
- Housing made from spheroidal graphite cast iron
- Lower life cycle costs



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