

# Voith Retarder VR 123+





# Facts and advantages in favor of the Voith Retarder:

## Efficiency

- · Higher average speed
- Fewer visits to workshops
- · Reduction of vehicle operating cost
- · Less spare parts for brake system and tires
- · Fuel saving
- Total cost of ownership fast amortization
- · Advantages for a vehicle resale

## Safety

- · High braking performance at any speed
- · Safety reserves due to cold service brake
- An essential contribution to meet the ECE R 13 regulations

#### Comfort

• Smooth braking and stress-free driving for guests and driver

## Environment

- Reduction of brake dust, brake noise and  $CO_2$ 

The Voith Retarder is a high-performance endurance braking system, which brakes commercial vehicles safely, economically and comfortably.

## **Function**

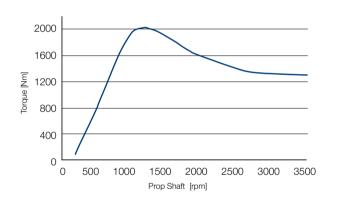
Two blade wheels in the hydrodynamic retarder face each other: the rotor and the stator. The rotor is connected to the propshaft of the vehicle via the retarder hollow shaft, the stator to the stationary housing of the retarder. In braking mode, oil is between the blade wheels. Kinetic energy gets converted into heat. The oil is accelerated by the rotor and decelerated in the stator thus braking the vehicle.

The heat generated by braking is quickly and effectively dissipated via the vehicle cooling system.

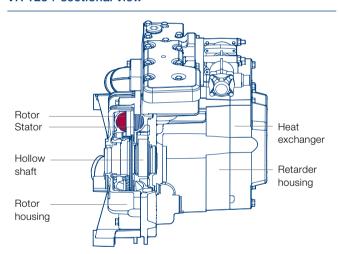
### Technical data

Max. nominal braking torque	2 000 Nm
Max. braking power	430 kW
Max. speed at the prop shaft	3 600 rpm
Operation	Hand brake switch with function v-constant (downhill cruise control) option: foot control
Operating medium	Oil (see fuel specification)
Control medium	Compressed air
Unit weight, without operating medium	59 kg
Electronic control system	VERA

# Nominal braking torque at the propshaft



#### VR 123 + sectional view



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