

# SKF Tyre Pressure Monitoring System

Boost safety, efficiency and reliability with wireless, continuous tyre monitoring





# SKF Tyre Pressure Monitoring System

## The risks of under-inflated tyres

Tyre under-inflation causes several costly problems, from dangerous blowouts to loss of tyre service life. Over-inflating or under-inflating a tyre by just 15%, for example, can reduce tyre life by as much as 10%.

Under-inflated tyres are also the main cause of tyre failure, and tyre defects are the main cause of commercial vehicle downtime (→ **diagram 1**). Tyre under-inflation drives up fuel costs and CO<sub>2</sub> emissions too – a 10% under-inflation on each tyre on a vehicle results in a 1% increase in fuel consumption.

## Be aware of tyre pressure problems before they cost you

With the SKF Tyre Pressure Monitoring System, drivers can monitor tyre pressure accurately and continuously to improve fleet safety and efficiency.

Tyre pressure data, sent wirelessly from external wheel modules, is integrated into the vehicle's internal communication network and displayed on the vehicle's dashboard. The system gives drivers a look at real-time tyre pressure levels that can help eliminate the risk of accidents and unplanned vehicle downtime, while also cutting fuel consumption and operating costs.

### Causes of commercial vehicle downtime

As research from the ADAC indicates, tyre-related problems are the main cause of commercial vehicle downtime.

## A road-tested solution

Reflecting decades of close cooperation with leading vehicle manufacturers, the SKF Tyre Pressure Monitoring System combines road-tested hardware and software.

External wheel modules transmit tyre pressure and temperature data to electronic control units that apply an algorithm to compute tyre pressure condition. Robust electrical wiring and component materials support high signal strength as well as continuous and accurate data transfer.

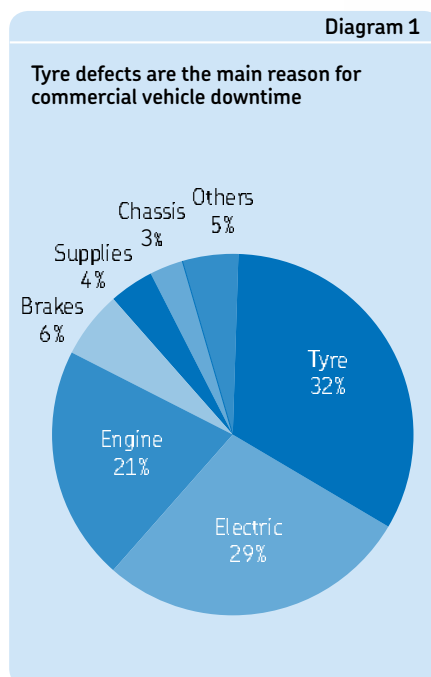
Approved by a leading European truck manufacturer, the SKF Tyre Pressure Monitoring System offers highly reliable operation, as validated by this top OEM.

### Product benefits

- External mounting for easy installation and retrofit
- Robust electrical wiring between sensor valve and antenna eliminates the air leakage that can occur when the sensor is pressurized through an external air-tube
- Accurate data transfer due to high signal strength of 2,4 GHz
- Highly reliable data due to an SKF algorithm that uses pressure and temperature data for calculations

### Typical applications

- Trucks
- Trailers



## Tractor system

### 3 Tyre pressure display

Tyre pressure data is integrated into the vehicle's dashboard and the driver will be able to see any tyre pressure changes immediately.



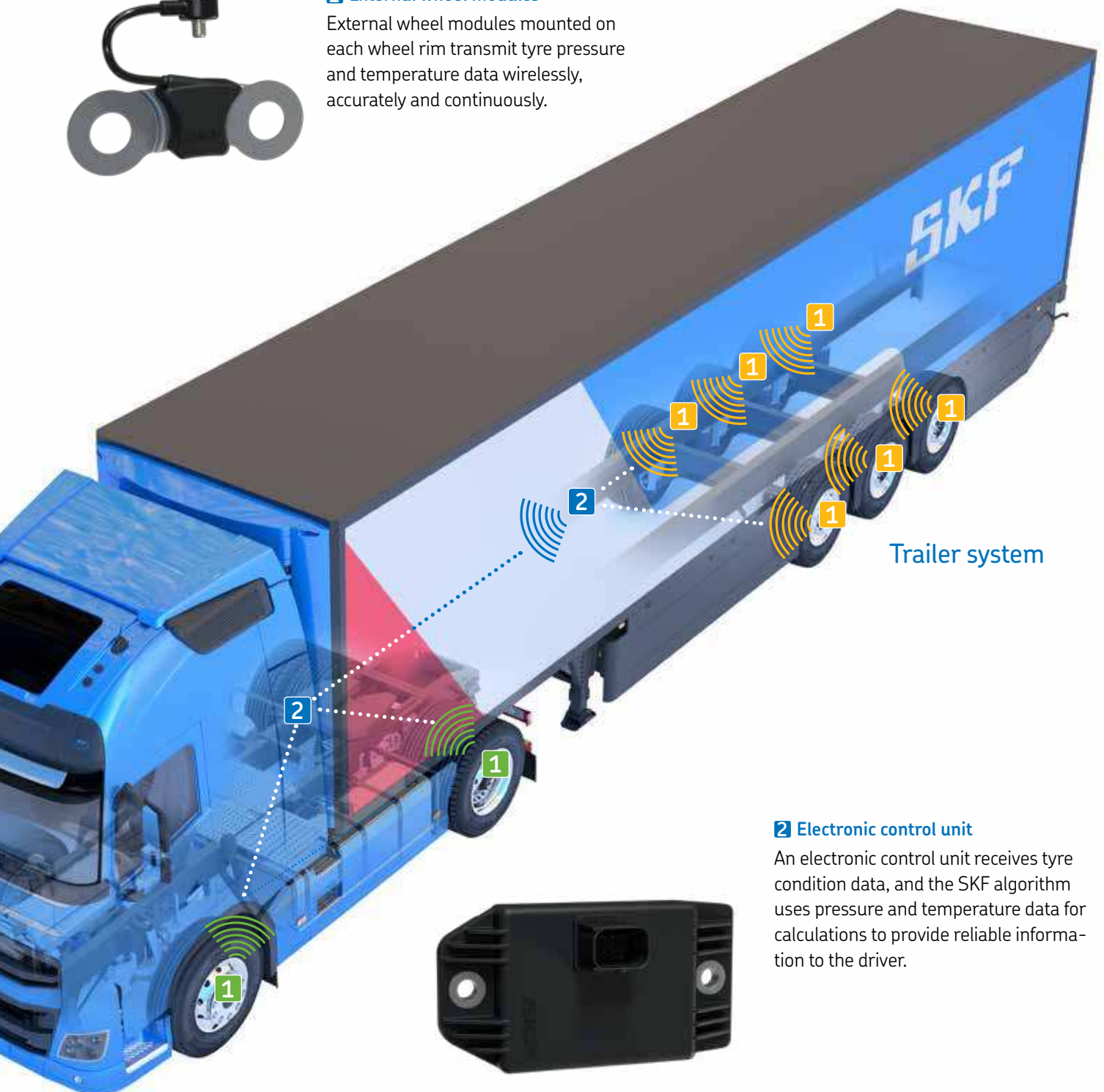


# Wireless, continuous monitoring



## 1 External wheel modules

External wheel modules mounted on each wheel rim transmit tyre pressure and temperature data wirelessly, accurately and continuously.



Trailer system

## 2 Electronic control unit

An electronic control unit receives tyre condition data, and the SKF algorithm uses pressure and temperature data for calculations to provide reliable information to the driver.





## Cut fuel consumption and CO<sub>2</sub> emissions

Along with reducing the risk of blowouts and unplanned downtime, the SKF Tyre Pressure Monitoring System can reduce fuel consumption and costs. SKF calculations show that, based on an annual mileage of 160 000 km, the SKF Tyre Pressure Monitoring System would help a 3-axle semi-trailer long haul truck cut its fuel consumption and CO<sub>2</sub> emissions significantly:

- CO<sub>2</sub> emission savings: 7,58 g/km
- Diesel fuel savings: about 500 litres per year

### Customer benefits

- Reduces risk of blowouts and unplanned downtime
- Improves tyre life and lowers total cost of ownership
- Improves fuel economy and safety
- Reduces CO<sub>2</sub> emissions



The SKF Tyre Pressure Monitoring System is part of the SKF Beyond Zero portfolio, a range of products and solutions with quantified environmental benefits.

Today's commercial vehicle industry is turning to cost- and energy-efficient vehicles – a trend quite likely to continue. By improving fuel economy and thereby reducing CO<sub>2</sub> and other emissions, the SKF Tyre Pressure Monitoring System and other SKF BeyondZero solutions can help cut operating costs and environmental impact.



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