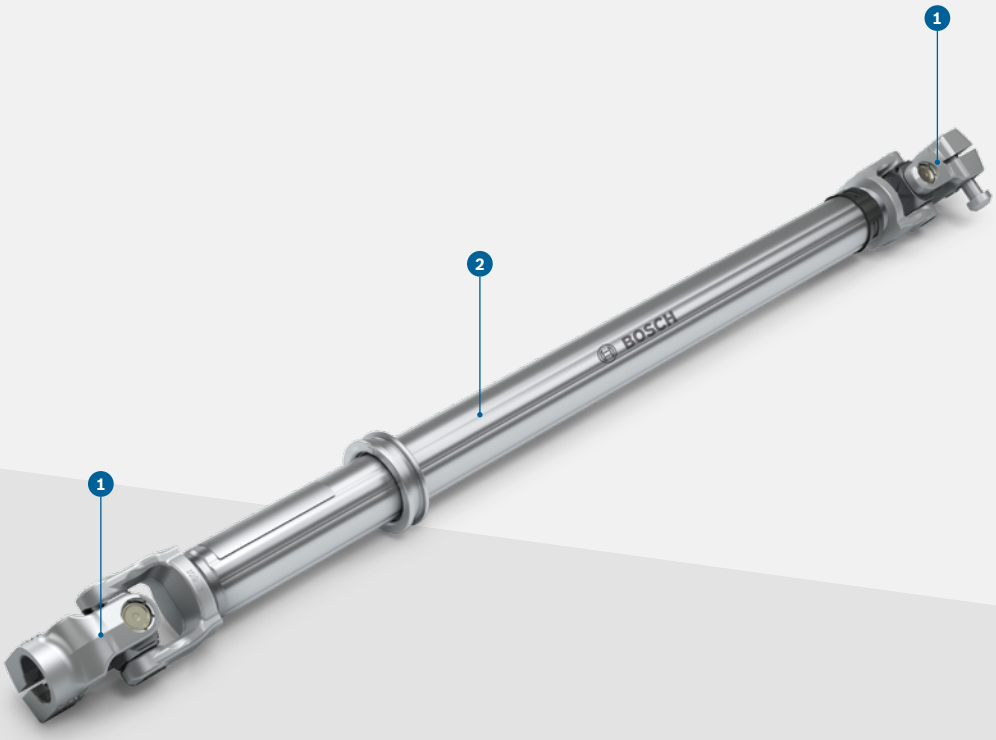
# Steering systems

## Steering shaft

BOSCH
Invented for life




PRODUCT BENEFITS

- Precision ball guide
- High torsional stiffness
- Compact universal joints
- Low displacement forces
- Galvanic corrosion protection, Cr VI-free
- Modular system

1 Universal joint
2 Outer tube

# 35°

**maximum bending angle for comfortable and safe steering**

up to

# 1.2 kg

**lower weight than conventional steering shafts**

## TASK

Steering shafts are the connection between the steering gear and steering column, and are used on medium and heavy commercial vehicles and buses. The ball-guide principle used is continuously undergoing further development to meet the requirements of our customers for minimal play and maximum service life.

## FUNCTION

The major components of the Bosch steering shaft are an outer tube with ball-guide grooves inside and a profiled shaft with outer ball-guide grooves. Two axially positioned rows of balls provide a noise-free connection. This design guarantees zero-play radially, but easy axial repositioning with a usable travel of +/–28 mm. The overall length of the low-wear and maintenance-free component can be matched to vehicle requirements. Incorporation of a cylindrical compression spring further provides a comfortable weight compensation in conjunction with an adjustable steering column.

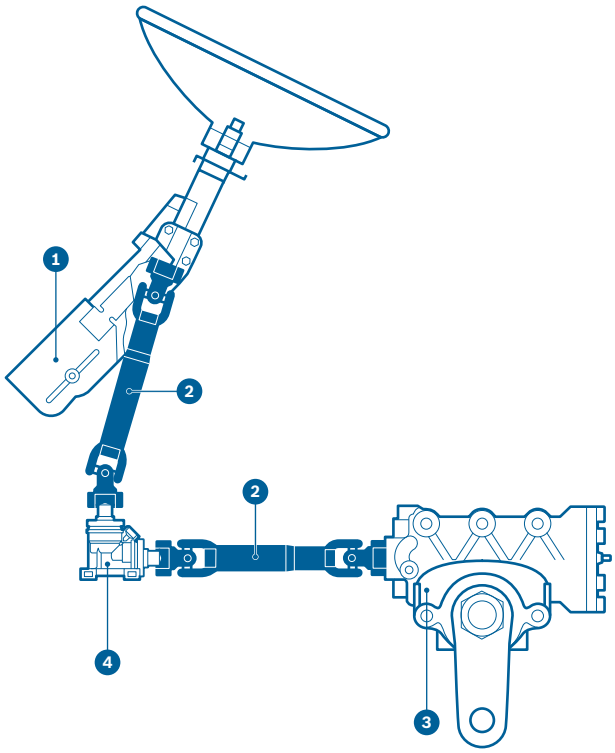
## VARIANTS

The steering shaft is available in different tube lengths and angular joint positions.

## TECHNICAL CHARACTERISTICS

| | |
|---|---|
| Installed length | min. 281 mm (retracted)<br>max. 3,915 mm (extended) |
| Bending angle | max. 35° |
| Enveloping circle diameter | tube 38.6 mm<br>joint 66 mm |
| Displacement force | max. rolling friction 20 N<br>max. sliding friction 60 N |

1. Adjustable steering column
2. Steering shaft
3. RB-Servocom® steering gear
4. Bevel box

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