

**32 00 ... Notes on replacement of steering gear/steering column/steering shaft following accident damage****Steering gear facts:**

In the event of accidents or driving conditions similar to accidents, shock-like loads can cause different types of damage to steering boxes. When a steering box is externally undamaged, it is sometimes only possible to identify damage with great difficulty and with great effort. However, damage of this nature poses an unacceptable risk to the vehicle because it can result in failure of the steering system.

Because of the disproportionate amount of effort involved, it is generally not sensible to check thoroughly all the individual components of the steering box and as an alternative it is necessary to take into account other components which can be checked more easily.

**Steering gear procedure:**

The steering box must be replaced if one or more of the following points apply:

- A. Visible or noticeable damage to the steering box
  - Version with electric steering box (EPS): Examine in particular the control unit with all plug connections for damage and hairline cracks.
- B. Unacceptable torque increase and jamming when the steering box is turned from lock to lock (without hydraulic/electrical assistance)
- C. Fire damage
- D. Damage, permanent deformation or fractures to:
  - Wheel rims in the event of a negative result from the wheel alignment check
  - Spring struts, steering stubs, wheel carriers
  - Wishbones
  - Struts or trailing links or anti-roll bar with this function
  - Body-side screwing/attachment points for wheel guide/control components
  - Front axle support
  - Pitman arms
  - Track rods
  - Steering box fixtures
  - Steering column

A lopsided steering wheel, significant deviations of camber/track values and noises when cranking the steering can be additional indications for the damage/deformations listed here.

**Note:**

If the steering box replacement work which is required for safety reasons is refused by the customer or an insurance company for cost reasons, a memorandum to that effect must be drawn up and countersigned by the party bearing the costs of the accident repair.

For corresponding specimen of memorandum, [refer to Service Information \(bulletin\) 320188\(828\) Appendix 1](#)

**Actual situation of the steering column and steering shaft:**

In the event of accidents or driving conditions similar to accidents, shock-like loads can cause different types of damage to the steering shaft and steering column. In case no external damaged of the steering column and the steering shaft can be noticed, it is sometimes only possible to identify damage with great difficulty and with great effort.

**Procedure for steering column and steering shaft:**

The steering column and steering shaft must be replaced if one or more of the following points apply:

- Visible or noticeable damage, deformation or breakage of the steering column or steering shaft
- Damage, permanent deformation or breakage of the track rod
- Unacceptable torque increase and jamming when the steering column is cranked from limit position to limit position (without hydraulic/electrical assistance)
- If the wheel alignment nominal data cannot be reached after all the damaged wheel components are changed (exceedance of the permissible wheel alignment tolerances). If required, enclose the measurement protocol of the invoice/certificate.
- Positive check for activated crash system of the steering column:
- If no damage is visible on the steering column, the mechanical steering column must be checked for an activated crash system:
  1. Open steering column lock
  2. Pull steering wheel out towards the driver (towards the body) until the physical limit position is reached, but do not use excessive force
  3. Push steering wheel towards engine compartment (approx. 20-30 mm away from body) into the comfort position and lock

If no end stop is present when pulling out the steering column or the gaiter of the steering column shroud has tension, the crash system has activated and the steering column is to be renewed.

**Note:**

If the steering column/steering shaft replacement work which is required for safety reasons is rejected by the customer or an insurance company for cost reasons, a memorandum to that effect must be drawn up and countersigned by the party bearing the costs of the accident repair.

For corresponding specimen of the memorandum, [refer to Service Information 320188\(828\) Appendix 1](#)

**Attention!**

The vehicle's operating licence will be invalidated whenever the function of any of its safety components is compromised!

This guideline is binding for all accident repairs to BMW, MINI and Rolls Royce vehicles!