



# *Installation instructions*



Adjustable strut bearings (Uniball): **54454**

Errors and changes excepted. Current installation instructions for the respective product can also be found at [www.burkhart-engineering.com](http://www.burkhart-engineering.com).

**Please note before installation:**

- The certificate must match the technical data of the vehicle (axle load, vehicle type, &).
- The product must comply with the certificate and these installation instructions (check marking on strut bearing 54454).
- The scope of delivery must be checked for completeness:
  1. 2x strut bearing (left C right different)
  2. 2x adapter sleeve at the bottom (lower)
  3. 2x adapter sleeve top (upper)
- The table below is intended as an indication of the vehicles for which the strut mounts are intended. However, this is not binding for the parts certificate, as identification is only legally permissible via the type approval number of the corresponding vehicle!

| Manufacturer | Model  | Designation |
|--------------|--------|-------------|
| BMW          | M3     | E46         |
| BMW          | M3 CSL | E46         |

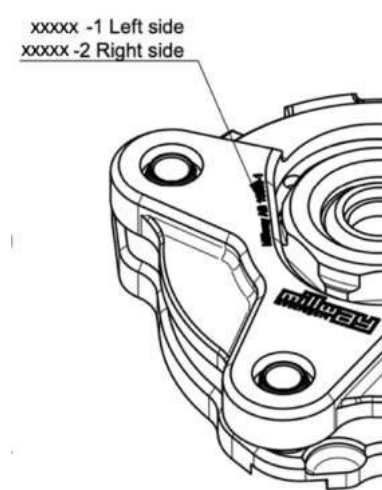
- Depending on the spring diameter and the variant purchased, there may be minimal deviations from the process described below, but the basic procedure remains the same.
- Should any difficulties arise during installation, our support team is available during normal opening hours. See footer for contact details!

**Note during installation:**

- The conversion may only be carried out by trained personnel using suitable tools.
- The following installation instructions and the associated parts certificate must be observed.
- Under no circumstances should the piston rod lock nut be moved with an impact wrench.
- The bearing of the dome bearing for holding the piston rod must not be lubricated under any circumstances, as this can drastically reduce the service life of the bearing.

## The installation

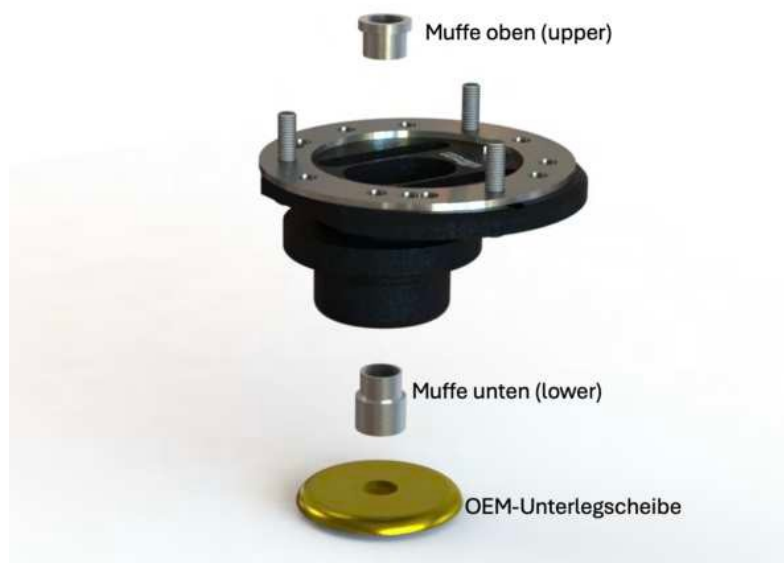
1. Remove the suspension struts incl. support bearing of the front axle from the vehicle on both sides according to the manufacturer's instructions.
2. Secure the spring with a spring compressor and remove the existing support bearing from the damper.
3. The spring plates (are reused) can remain on the spring
4. The adjustable strut bearings are not identical for both sides and must therefore be assigned to the correct side of the vehicle:



### Compare Millway product number:

- The strut bearing with marking 1 goes on the left-hand side (driver's side for left-hand drive vehicles)!
- The strut bearing with marking 2 goes on the right-hand side (passenger side on left-hand drive vehicles)!

5. Check that the original washer is on the spring plate and fit the adjustable strut mount to the strut, ensuring that the enclosed sleeves are correctly positioned (different at the top and bottom). The tightening torque of the original lock nut can be found in the vehicle manufacturer's specifications. The following illustration is intended to explain the diagram:



6. In the final step, the strut with strut mount can be reinstalled in the vehicle, taking the tightening torque into account, whereby the camber should initially be set to a minimum, as it is mechanically easier to increase the camber than to reduce it again during the subsequent wheel alignment.
7. The overrun should also initially be set to a minimum.



The nuts marked in red are used to screw the bearing to the vehicle dome (tightening torque: 25 Nm) and must be loosened to adjust the camber in order to be able to move the bearing transversely.

The screws marked in yellow fix the bearing in the longitudinal direction and must be loosened in order to adjust the caster (tightening torque: 6 Nm)

#### **Note after installation:**

- The axle geometry must be measured after installing the strut mounts and adjusted if necessary, as a change in the camber can also affect other parameters.  
**Caution:** Camber values above 2° on the front axle are not permitted in road traffic
- Make sure that the strut bearing is moved with a suitable tool and without force so that it is not damaged during the camber adjustment. It may be necessary to take the weight off the front axle.
- All screw connections that had to be loosened to adjust the axle geometry must now be retightened to the tightening torque specified above.
- After installation, the vehicle must be presented to a technical service (such as TÜV, Dekra, etc.) with the enclosed parts certificate so that the correct installation can be approved.