## Our number one selling axial rod: RE-AX-2091

This part is fitted to over 2 million vehicles in Europe, most commonly the **Renault Megane MK II 03** and **Renault Scénic II**.

#### About the axial rod

The axial rod is also known as the tie rod end. This is an integral part of a vehicle's steering. It literally ties the steering rack to the steering arm.

The tie rod connects the steering gear to the outer tie rod, either directly or via acentre link. It transmits axial forces to the steering arm when the driver turns the wheel. So in short: the driver cannot steer a car without this part.

### MOOG RE-AX-2091 Product benefits

- Better housing strength
- Better stud strength

- Better stud swing
- Extended durability
- Key grooves make the MOOG inner tie rod end easier to install than the OEM part

### Possible symptoms of wear or failure

- The vehicle may pull to one side
- Uneven tyre wear
- Steering wheel off centre
- Noise / play
- Loose feel in the steering wheel

#### **Related tie rod ends and bellows**

- Tie rod ends are best replaced in pairs (both inner or both outer)
- Replacing the tie rod ends will change the alignment settings. Four-wheel alignment is advisable if the tie rod ends have been replaced.

#### Check the results on the back >>>



# How good is the MOOG axial rod?

**Extensive testing** proved that MOOG meets or exceeds the manufacturer's original equipment (OEM) part in categories that are essential for inner tie rod ends. The complete results are listed in the comparative table.

| Feature                           | OE       | MOOG              | COMPETITOR 1 | COMPETITOR 2   | COMPETITOR 3 |
|-----------------------------------|----------|-------------------|--------------|----------------|--------------|
| Point of Sale Value<br>Comparison | 100% OEM | 102% OEM          | 88% OEM      | 100% OEM       | 92% OEM      |
| Stud Strength                     | 100% OEM | 114% OEM          | 114% OEM     | 100% OEM       | 100% OEM     |
| Housing Strength                  | 100% OEM | 172% OEM          | 60% OEM      | 100% OEM       | 100% OEM     |
| Stud Swing (Total)                | 60°      | 62°               | 60°          | 60°            | 56°          |
| Stud Pull-out Strength            | 4,500 Kg | 4,500 Kg          | 4,500 Kg     | 4,500 Kg       | 4,500 Kg     |
| Fastener Grade                    | 100% OEM | 100% OEM          | 100% OEM     | 100% OEM       | 150% OEM     |
|                                   |          |                   |              |                |              |
| Better than OEM                   |          | Equivalent to OEM |              | Worse than OEM |              |

The tests were performed in the Saint Louis Federal-Mogul Motorparts facilities.

## **Test results: summary**

Several mechanical characteristics are critical for the safety of the car's driver and passengers.

- Long service life and safety. The stud and housing strength need to be high enough to ensure long service life and safety of a part. MOOG uses materials that are equal or even stronger than the OEM part.
- **Best stud swing value.** If the stud swing value is too low, the rod or other parts in the steering system may break. The MOOG Chassis product <u>meets the required values better than the OEM part</u>, with no compromise to the pullout strength.
- **Pullout strength.** If the pullout strength is too low, the ball pin might be pulled out of the housing, resulting in the driver losing control of the vehicle. The MOOG inner tie rod end <u>matches the OEM part's pull out strength</u>.
- Key grooves. MOOG inner tie rod ends also have key grooves, an <u>added advantage over the OEM part</u>, as it makes the tie rod end very easy to install.