SHOCK ABSORBER ADVICE

DISCOVER THE TYPICAL INSTANCES OF DAMAGE AND THEIR FREQUENTLY HIDDEN CAUSES

MEYLE

CONTENTS

/ **Chapter 1:** The consequences of defective shock absorbers 03
/ **Chapter 2:** Oily shock absorbers 04
/ **Chapter 3:** Damaged piston rod 05
/ **Chapter 4:** Scuffed piston rod 06
/ **Chapter 5:** Screw thread broken off 07
/ **Chapter 6:** Rubber bushings torn or worn down 08
/ **Chapter 7:** Play and noises during bounce/rebound 09
/ **Chapter 8:** Worn rubber buffers or dust caps 10
/ **Chapter 9:** Strut mount worn down 11
/ **Chapter 10:** Spring fracture 12
/ **Chapter 11:** Tyre tread erosion 13
/ **Chapter 12:** Learn more 14

SHOCK ABSORBERS ARE SAFETY-RELEVANT

DEFECTIVE SHOCK ABSORBERS ARE LIFE-ENDANGERING!

Shock absorbers are subject to ongoing and increasing wear. Their deterioration is further increased by stress such as potholes, rough terrain, heavy loads and trailer usage as well as by environmental influences like dirt, moisture and gritting salt. The suspension becomes 'softer' as the shock absorbers' performance decreases with increasing mileage.

THE CONSEQUENCES ARE DRAMATIC:

- Vehicle handling becomes imprecise and the braking distance critically becomes longer.
- Tyre wear increases sharply, axle suspension parts are subjected to increasing strain and the entire suspension set-up is permanently changed for the worse.
- Tyre traction increasingly diminishes.
- Electronic assistance systems such as ABS and ESP become less effective.
- Steering and braking forces can no longer be adequately transferred.
- There is a sharp increase in the risk of aquaplaning.

DEFECTIVE SHOCK ABSORBERS MEAN THERE IS THE RISK OF ACCIDENTS, SO A VEHICLE'S SUSPENSION SHOULD

01.
OILY SHOCK ABSORBERS

PROBLEM

Piston rod seal leakage results in the shock absorbers losing oil.

CAUSES

- Wear
- Defective dust boot
- Damaged piston rod

POTENTIAL CONSEQUENCES

- Environmental pollution due to oil leakage
- Total failure

MEYLE TIP:
Minor sweating (oil mist) is normal and serves to lubricate the piston rods.

02.
DAMAGED PISTON ROD

PROBLEM

Scratches and corrosion appear on the sensitive piston rod surface (sliding surface).

CAUSES

- Installation problems (holding in place with unsuitable tools)
- Defective dust boot
- Missing dust boot

POTENTIAL CONSEQUENCES

- Leakage/loss of oil (the scratched piston rod wears away at the piston rod seal)
- Environmental pollution due to oil leakage
- Total failure

MEYLE TIP:

Be sure to observe the stipulated installation instructions. Ensure that the dust boot is positioned correctly. Do not use pliers for holding in place and only use suitable tools.

03.
SCUFFED PISTON ROD

PROBLEM

Significant run marks appear on one side of the piston rod.

CAUSES

- Installation problems (tightened while vehicle axle load-free, overly tight installation)
- Incorrect installation materials

POTENTIAL CONSEQUENCES

- High shock absorber wear
- Noises during bounce/rebound
- Piston rod blockage
- Reduced comfort and noises
- Risk of piston rod breaking
- Loss of oil
- Risk of total failure

MEYLE TIP:
Be sure to observe the stipulated installation instructions and do not tighten the shock absorbers when load-free (avoid overly tight installation).

04.
SCREW THREAD BROKEN OFF

PROBLEM

Shock absorber fixation is missing.

CAUSES

- Use of an impact driver
- Torque specification not observed

POTENTIAL CONSEQUENCES

- Total failure
- Noises during bounce/rebound
- Limited driving and braking safety
- Loud clanging sound

MEYLE TIP:
An impact driver should never be used to install the piston rod. The tightening torque is to be observed.

05.
RUBBER BUSHINGS TORN OR WORN DOWN

PROBLEM

Noises can be heard during bounce/rebound (e.g. clattering, squeaking).

CAUSES

- Overly tight installation
- Wear (material fatigue)
- Frequent overloading, e.g. due to excessive loads, trailer usage, use off-road

POTENTIAL CONSEQUENCES

- Limited driving and braking safety
- Clanging sounds
- Total shock absorber failure

MEYLE TIP:

Check suspension parts regularly. This is especially important in the case of towing and transport vehicles (recommendation: every 20,000 km*).

* Please observe the manufacturer's specifications

06.
PLAY AND NOISES DURING BOUNCE/REBOUND

PROBLEM

Worn or defective suspension parts lead to reduced comfort and uncertain vehicle handling.

CAUSES

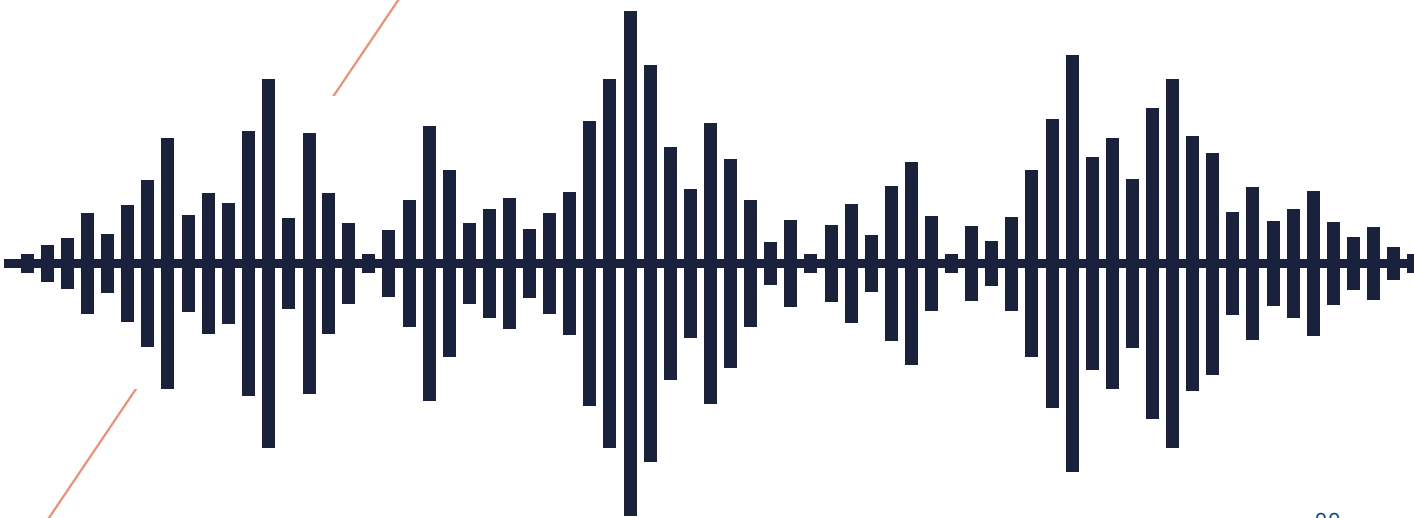
- Worn suspension and damping elements
- Defective complementary products (stabiliser, stabiliser links, rubber bearings)
- Worn steering and suspension parts

POTENTIAL CONSEQUENCES

- Unstable steering/steering play
- Limited driving and braking safety
- Noises
- Increased tyre wear

MEYLE TIP:

To professionally pinpoint and check worn parts, the MEYLE experts recommend you use the MEYLE joint play tester (MEYLE no.: 999 990 0000).
> Find out more here



07.
WORN RUBBER BUFFERS OR DUST CAPS

PROBLEM

Bottoming out or leaking shock absorbers.

CAUSES

- Defective springs (frequent bottoming out)
- Unsuitable spring/shock absorber combination, e.g. when ride height is lowered
- Age-related plastic parts wear

POTENTIAL CONSEQUENCES

- Oil leakage through scratched piston rod surface (stone impacts)
- Total failure due to destruction of the inner valves (puncture)
- Reduced comfort due to noises
- Limited driving and braking safety

MEYLE TIP:

When replacing shock absorbers, always replace the rubber buffers and dust boots too.

08.
STRUT MOUNT
WORN DOWN

PROBLEM

/ Noise development (e.g. squeaking, clanging)
/ Tight steering
/ Poor directional stability

CAUSES

/ Stiff strut mount
/ Missing or incorrectly installed installation materials
/ Defective rolling bearing

POTENTIAL CONSEQUENCES

/ Limited driving and braking safety
/ Impaired noise quality

MEYLE TIP:

Be sure to observe the installation instructions, the order in which the parts are installed and the specified tightening torques. Use MEYLE HD products with a four-year guarantee.* They have been technically enhanced in comparison to OE parts.

* The terms and conditions of our guarantee can be found at www.meyle.com/guarantee

09. SPRING FRACTURE

PROBLEM

The vehicle is hanging on one side and there are noises during bounce/rebound.

CAUSES

- Spring fracture due to corrosion
- Component damage due to stone impact
- Pre-existing damage to the protective coating due to the use of an unsuitable special tool (spring compressor)

POTENTIAL CONSEQUENCES

- Limited driving and braking safety
- Destruction of a vehicle tyre due to penetration by the end of the spring – life-endangerin!

MEYLE TIP:

Only use suitable special spring compressors. MEYLE coil springs consist of extra strong, unchanging spring wire diameters and are additionally optimally protected against corrosion by zinc phosphating and powder coating.

10.
TYRE TREAD EROSION

PROBLEM

Premature tyre wear.

CAUSES

/ Defective or worn shock absorbers

POTENTIAL CONSEQUENCES

/ Limited driving and braking safety

MEYLE TIP:
Check the suspension every 20,000 km.*

* Please observe the manufacturer's specifications

LEARN MORE ABOUT SHOCK ABSORBERS

Do you have questions regarding shock absorbers? The MEYLE experts are there for you at ***www.meyle.com/en/passenger-cars/suspension-and-damping/shock-absorbers/***, where you can also learn all about MEYLE's range of shock absorbers – developed and tested in Germany and produced in line with the highest quality standards.

TO THE MEYLE CATALOGUE

Shock absorbers for approximately 214 million vehicles in Europe: find the right part directly in the MEYLE online catalogue!
www.meyle.com/en/service-centre/online-catalogue/

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MEYLE AG
Merkurring 111, 22143 Hamburg, Germany
Tel. +49 40 67506 510, Fax +49 40 67506 506
contact@meyle.com

www.meyle.com

MEYLE