



Fig. 1:Rubber-to-metal components

In the vehicle, many vibrations occur on

- axle
- body
- engine
- gearbox

It is the task of the rubber-to-metal components to dampen these vibrations.

The use of rubber-to-metal components and molded rubber parts ensures that vibration and noise transmission is safely avoided.

The vibration dampers are engineered in close cooperation with the automotive industry and their outstanding features are top quality tensile strength, elasticity and ultimate strain.

The following major designs of rubber-to-metal parts are developed and produced :

- hydraulically damping engine mountings
- silent blocs
- rubber mountings
- rubber sleeves and puffers



In the **chassis** rubber-to-metal components improve steering behavior, driving stability on bumpy roads, when braking and voiding obstacles and ensure damping of

- body and axle vibration
- steering wheel shake
- noise from the road

In the **driveline** rubber-to-metal components have vibration-damping functions at the connection engine / transmission with the chassis.

Damping of:

- longitudinal shake
- engine shake
- load-reversal reactions
- body drumming
- gearbox noise

Wear of a rubber-to-metal component



Fig. 2: Wear of a rubber-to-metal component

Rubber-to-metal components are subject to wear and tear as are shock absorbers and tires as a result of:

- continuous, mechanical strain
- environmental impacts e.g. aggressive fluids
- permanent excessive strain e.g. overload
- high temperatures
- material fatigue



Non-original parts



Fig. 3: Original hydraulic part



Fig. 4: Full rubber rebuilt

As original rubber-to-metal components have a variety of tasks to accomplish it is important to check them frequently in order to make sure that they are replaced in good time to avoid any costly consequential damage on other vehicle parts.

Non-original parts (imitation parts) from rebuilders (pirates) do not meet:

- the high technical level and do not meet
- the functions they have nor
- the high quality requirements of the vehicle maker

Typical signs of rebuilding are:

- Original company logos and Ref.-No. are copied i.e. forged.
- the parts correspond to the original parts only optically, thus hydraulic engine mountings from the rebuilders are made as full rubber mountings, without hydraulic fluid, channels, diaphragm and valves.
- Rubber mountings, bushes and silent blocs have an excessive rubber hardness
- The dimensions are not the dimensions of the original part.
- Rubber and metal are not vulcanized, instead they are just glued.

Consequences are:

- severe transmission of vibrations no comfort, noise
- safety risk in the limit area
- dramatically reduced life span
- customer dissatisfaction / complaints



Installation of rubber-to-metal components



Fig. 5: Press out silent bloc



Fig. 6: Insert silent bloc

NOTICE

It is indispensable to use special tools to ensure a time-saving and appropriate installation! When fitting and removing such high-quality components never use welding torch, hammer and chisel, or similar 'auxiliary tools' because their use would cause major defects!



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