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December 05, 2017

Wheelhouse protector

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Recommended Citation

Hoppe, Daniel, "Wheelhouse protector", Technical Disclosure Commons, (December 05, 2017)
http://www.tdcommons.org/dpubs_series/858



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WHEELHOUSE PROTECTOR

Technical task:

The object of the technical innovation is to protect chassis components such as the spring from rocking.

Ausgangssituation:

In the case of vehicles with McPherson front axle construction, when the steering angle is varied, steering blocks (straight-ahead travel) are projected in the direction of the supporting spring by the front axle tires. A possible protective measure in the form of a lengthened spring support on the spring plate below has not been constructively implemented for reasons of cost. In corresponding vehicle series (front-wheel drive, transverse motor, McPherson front axle) this leads to an increase in conspicuousness on the suspension springs of the front axle. The pebbled stones hit the base material of the supporting springs and damaged the coating. Corrosion endangers the basic stability of the spring in the long term.

Solution:

The technical innovation consists in introducing a soft insert into the rear lower region of the front wheel housing shells, for the first time impacting the splinter rocks, which are spun up from the front wheels. This reflection plate has a surface geometry, which no longer deflects the stones in the direction of the spring.

The novel solution approach has the advantage that fewer reflections occur because the stones release their kinetic energy on the first „local“ soft absorbing surface „and then fall / fall downwards in the direction of the roadway.

The technical innovation thus protects the support spring primarily from splits, which are reflected once on the wheel housing, and whose flight path points towards the support spring.

Advantages:

- Higher durability of the support springs.
- Reduction of duplex coatings / double coatings on the support springs possible.
- Saving weight by optimizing design / safety reserves wg. Rockfall.
- Sound damping when driving on bad road passages / chipping / stone crackling.

Possible application:

- All vehicles with McPherson front axle construction.

Technische Neuerung

Mögliche Ausführungsvarianten der Patentidee / weiche Reflexionsplatte in der Radhausschale

