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Types of Shock Absorber by Krishna

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A shock absorber is a mechanical device designed to smooth out or damp shock impulse, and dissipate kinetic energy. Shock absorbers are basically oil pumps. A piston is attached to the end of the piston rod and works against hydraulic fluid in the pressure tube. As the suspension travels up and down, the hydraulic fluid is forced through tiny holes, called orifices, inside the piston. However, these orifices let only a small amount of fluid through the piston. This slows down the piston, which in turn slows down spring and suspension movement.

Types of Shock absorber:

1. Twin Tube â€“ PSD Design

2. Twin Tube -ASD Design (Reflex)

3. Mono-tube design

The shock absorberâ€™s function is to absorb or dissipate energy. One design consideration, when designing or choosing a shock absorber, is where that energy will go. In most dashpots, energy is converted to heat inside the viscous fluid. In hydraulic cylinders, the hydraulic fluid heats up, while in air cylinders, the hot air is usually exhausted to the atmosphere. In other types of dashpots, such as electromagnetic types, the dissipated energy can be stored and used later. In general terms, shock absorbers help cushion vehicles on uneven roads.

Vehicle suspension

Lever-action hydraulic shock absorber in a classic car suspension (combined with front suspension's upper arm).

In a vehicle, shock absorbers reduce the effect of traveling over rough ground, leading to improved ride quality and increase in comfort. While shock absorbers serve the purpose of limiting excessive suspension movement, their intended sole purpose is to dampen spring oscillations. Shock absorbers use valving of oil and gasses to absorb excess energy from the springs. Spring rates are chosen by the manufacturer based on the weight of the vehicle, loaded and unloaded. Some people use shocks to modify spring rates but this is not the correct use. Along with hysteresis in the tire itself, they dampen the energy stored in the motion of the unsparing weight up and down. Effective wheel bounce damping may require tuning shocks to an optimal resistance.

Spring-based shock absorbers commonly use coil springs or leaf springs, though torsion bars are used in torsional shocks as well. Ideal springs alone, however, are not shock absorbers, as springs only store and do not dissipate or absorb energy. Vehicles typically employ both hydraulic shock absorbers and springs or torsion bars. In this combination, "shock absorber" refers specifically to the hydraulic piston that absorbs and dissipates vibration.

Endurance is not known to be the top shock absorbers manufacturers only due to their vast range of products but also for the features their specially designed products offer. Like for example, some of the features of shock absorbers manufactured at Endurance are high quality valves with imported raw material, dust seal (patented) that performs even under severe muddy conditions, hard chromed/nickel chromed mirror finish, 100% computerized damping force testing, piston rod, well designed end cushions in various materials for improved comfort and more.

This, in a nutshell, is all about shock absorbers manufactured by Endurance. You can purchase your automobiles parts from any manufacturer, but very few of them can provide the service and quality that Endurance provides. Besides, Endurance is not only one of the top die casting manufacturer also a leading strut spring manufacturer and fork manufacturer. The main focus of the company is on productivity, cost, delivery, safety, morale and most importantly, on quality. In short, Endurance is the name that comes forward when one looks for trust-worthy Aluminium Casting (including Alloy Wheels), Suspension, Transmission and Braking products. All products are minutely scrutinized at Endurance, so customer satisfaction is guaranteed.

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Krishna - About Author:
Krishna kshirsagar is associated with Endurance Group a leading a Aluminum Die Casting Manufacturer Company. He is expert in the area of a Shock Absorbers Manufacturers.

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