

Hyster Forklift Steer Axles

The description of an axle is a central shaft used for rotating a wheel or a gear. Where wheeled vehicles are concerned, the axle itself may be connected to the wheels and revolve together with them. In this particular case, bearings or bushings are provided at the mounting points where the axle is supported. Conversely, the axle could be fixed to its surroundings and the wheels could in turn rotate around the axle. In this case, a bearing or bushing is positioned in the hole within the wheel to enable the gear or wheel to turn around the axle.

When referring to cars and trucks, several references to the word axle co-occur in casual usage. Generally, the word means the shaft itself, a transverse pair of wheels or its housing. The shaft itself turns together with the wheel. It is usually bolted in fixed relation to it and referred to as an 'axle' or an 'axle shaft'. It is equally true that the housing surrounding it which is usually called a casting is otherwise called an 'axle' or sometimes an 'axle housing.' An even broader sense of the word refers to every transverse pair of wheels, whether they are connected to one another or they are not. Therefore, even transverse pairs of wheels within an independent suspension are frequently referred to as 'an axle.'

In a wheeled motor vehicle, axles are an integral component. With a live-axle suspension system, the axles function to transmit driving torque to the wheel. The axles also maintain the position of the wheels relative to one another and to the vehicle body. In this system the axles should also be able to support the weight of the motor vehicle along with any load. In a non-driving axle, like the front beam axle in several two-wheel drive light trucks and vans and in heavy-duty trucks, there would be no shaft. The axle in this particular situation works just as a steering part and as suspension. Many front wheel drive cars have a solid rear beam axle.

There are different kinds of suspension systems wherein the axles work just to transmit driving torque to the wheels. The angle and position of the wheel hubs is a function of the suspension system. This is normally seen in the independent suspension seen in the majority of new sports utility vehicles, on the front of various light trucks and on most brand new cars. These systems still consist of a differential but it does not have fixed axle housing tubes. It can be fixed to the vehicle frame or body or even could be integral in a transaxle. The axle shafts then transmit driving torque to the wheels. The shafts in an independent suspension system are similar to a full floating axle system as in they do not support the motor vehicle weight.

To finish, in reference to a vehicle, 'axle,' has a more vague description. It means parallel wheels on opposing sides of the vehicle, regardless of their mechanical connection type to one another and the vehicle frame or body.