

Steer Axles for Forklifts

Forklift Steer Axle - The definition of an axle is a central shaft for turning a gear or a wheel. Where wheeled vehicles are concerned, the axle itself may be connected to the wheels and revolve together with them. In this 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 can in turn turn all-around the axle. In this instance, a bushing or bearing is located in the hole inside the wheel so as to allow the gear or wheel to rotate around the axle.

When referring to cars and trucks, some references to the word axle co-occur in casual usage. Normally, the term refers to the shaft itself, a transverse pair of wheels or its housing. The shaft itself turns along with the wheel. It is usually bolted in fixed relation to it and known as an 'axle' or an 'axle shaft'. It is also true that the housing around it that is usually known as a casting is also referred to as an 'axle' or at times an 'axle housing.' An even broader sense of the term refers to every transverse pair of wheels, whether they are connected to one another or they are not. Hence, even transverse pairs of wheels in an independent suspension are generally called 'an axle.'

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

There are other kinds of suspension systems wherein the axles work only to transmit driving torque to the wheels. The position and angle of the wheel hubs is a function of the suspension system. This is often found in the independent suspension seen in nearly all new sports utility vehicles, on the front of various light trucks and on most new cars. These systems still consist of a differential but it does not have attached 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.

The vehicle axle has a more vague definition, meaning that the parallel wheels on opposing sides of the vehicle, regardless of their kind of mechanical connection to one another.