Drive Axle for Forklifts

Forklift Drive Axles - The piece of machinery that is elastically fastened to the framework of the vehicle with a lift mast is the forklift drive axle. The lift mast affixes to the drive axle and could be inclined, by at least one tilting cylinder, around the drive axle's axial centerline. Forward bearing elements along with back bearing parts of a torque bearing system are responsible for fastening the vehicle and the drive axle frame. The drive axle can be pivoted round a swiveling axis oriented horizontally and transversely in the vicinity of the back bearing elements. The lift mast is also capable of being inclined relative to the drive axle. The tilting cylinder is connected to the vehicle framework and the lift mast in an articulated fashion. This allows the tilting cylinder to be oriented nearly parallel to a plane extending from the axial centerline and to the swiveling axis.

Forklift units such as H40, H45 and H35 which are produced in Aschaffenburg, Germany by Linde AG, have the lift mast tilt ably attached on the vehicle framework. The drive axle is elastically connected to the lift truck framework utilizing numerous bearing tools. The drive axle comprise tubular axle body along with extension arms connected to it and extend backwards. This particular kind of drive axle is elastically connected to the vehicle framework by back bearing parts on the extension arms together with forward bearing tools located on the axle body. There are two rear and two front bearing tools. Each one is separated in the transverse direction of the lift truck from the other bearing tool in its respective pair.

The drive and braking torques of the drive axle are maintained through the back bearing elements on the framework by the extension arms. The lift mast and the load create the forces which are transmitted into the roadway or floor by the frame of the vehicle through the drive axle's front bearing components. It is vital to ensure the components of the drive axle are configured in a rigid enough manner to be able to maintain stability of the forklift truck. The bearing parts could minimize slight bumps or road surface irregularities all through travel to a limited extent and provide a bit smoother operation.