

Torque Converters for Forklift

Torque Converters for Forklifts - A torque converter is actually a fluid coupling which is utilized so as to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is same as a basic fluid coupling to take the place of a mechanized clutch. This enables the load to be separated from the main power source. A torque converter can provide the equivalent of a reduction gear by being able to multiply torque if there is a substantial difference between input and output rotational speed.

The fluid coupling kind is actually the most common type of torque converter utilized in automobile transmissions. In the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are various mechanical designs utilized for always variable transmissions which have the ability to multiply torque. Like for instance, the Variomatic is one type which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling could not multiply torque. Torque converters have an part known as a stator. This alters the drive's characteristics all through times of high slippage and generates an increase in torque output.

There are a at least three rotating parts inside a torque converter: the turbine, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, that is between the impeller and the turbine so that it could alter oil flow returning from the turbine to the impeller. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whatever situation and this is where the word stator originates from. In point of fact, the stator is mounted on an overrunning clutch. This particular design prevents the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

In the three element design there have been modifications that have been integrated at times. Where there is higher than normal torque manipulation is considered necessary, alterations to the modifications have proven to be worthy. Usually, these adjustments have taken the form of various stators and turbines. Every set has been designed to produce differing amounts of torque multiplication. Various instances include the Dynaflo that utilizes a five element converter to be able to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, different automotive converters include a lock-up clutch to reduce heat and to be able to enhance cruising power transmission efficiency. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical which eliminates losses connected with fluid drive.