

Forklift Torque Converter

Torque Converters for Forklift - A torque converter is a fluid coupling which is utilized so as to transfer rotating power from a prime mover, which is an electric motor or an internal combustion engine, to a rotating driven load. The torque converter is similar to 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 could provide the equivalent of a reduction gear by being able to multiply torque whenever there is a substantial difference between output and input rotational speed.

The most common type of torque converter utilized in automobile transmissions is the fluid coupling model. In the 1920s there was even the Constantinesco or pendulum-based torque converter. There are various mechanical designs used for constantly changeable transmissions that can multiply torque. Like for instance, the Variomatic is one kind that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an part known as a stator. This changes the drive's characteristics throughout times of high slippage and generates an increase in torque output.

Inside a torque converter, there are a minimum of three rotating elements: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine so that it can 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 any situation and this is where the word stator starts from. In point of fact, the stator is mounted on an overrunning clutch. This particular design stops the stator from counter rotating with respect to the prime mover while still allowing forward rotation.

In the three element design there have been changes which have been integrated at times. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. Usually, these modifications have taken the form of multiple stators and turbines. Each and every set has been designed to produce differing amounts of torque multiplication. Several instances include the Dynaflo that makes use of a five element converter to be able to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Though it is not strictly a component of classic torque converter design, various automotive converters consist of a lock-up clutch to be able to lessen heat and so as to improve cruising power transmission effectiveness. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical which eliminates losses connected with fluid drive.