

Forklift Torque Converters

Torque Converter for Forklifts - A torque converter in modern usage, is usually a fluid coupling that is utilized to be able to transfer rotating power from a prime mover, like for example an internal combustion engine or an electrical motor, to a rotating driven load. Similar to a basic fluid coupling, the torque converter takes 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 if there is a significant difference between output and input rotational speed.

The most common type of torque converter used in automobile transmissions is the fluid coupling model. During the 1920s there was even the Constantinesco or pendulum-based torque converter. There are different mechanical designs for always changeable transmissions which have the ability to multiply torque. For example, the Variomatic is a version which has a belt drive and expanding pulleys.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an component referred to as a stator. This changes the drive's characteristics throughout occasions of high slippage and generates an increase in torque output.

There are at least three rotating elements in a torque converter: the turbine, which drives the load, the impeller, that is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller so that it could alter oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under any condition and this is where the word stator begins from. In reality, 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 permitting forward rotation.

In the three element design there have been adjustments that have been integrated at times. Where there is higher than normal torque manipulation is considered necessary, modifications to the modifications have proven to be worthy. More often than not, these alterations have taken the form of various turbines and stators. Each and every set has been intended to generate differing amounts of torque multiplication. Several examples include the Dynaflo which uses a five element converter to be able to produce the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Different automobile converters include a lock-up clutch to be able to lessen heat and to enhance the cruising power and transmission effectiveness, even though it is not strictly component of the torque converter design. The application of the clutch locks the turbine to the impeller. This causes all power transmission to be mechanical that eliminates losses related with fluid drive.