

Forklift Torque Converters

Torque Converter for Forklifts - A torque converter in modern usage, is usually a fluid coupling which is used in order to transfer rotating power from a prime mover, like for instance an electric motor or an internal combustion engine, to a rotating driven load. Same as a basic fluid coupling, the torque converter takes the place of a mechanical clutch. This allows the load to be separated from the main power source. A torque converter could offer the equivalent of a reduction gear by being able to multiply torque whenever there is a considerable difference between output and input rotational speed.

The most popular kind of torque converter used in car transmissions is the fluid coupling model. In the 1920s there was likewise the Constantinesco or pendulum-based torque converter. There are different mechanical designs used for constantly variable transmissions that can multiply torque. For example, the Variomatic is one version that has expanding pulleys and a belt drive.

The 2 element drive fluid coupling is incapable of multiplying torque. Torque converters have an part referred to as a stator. This alters the drive's characteristics throughout occasions of high slippage and produces an increase in torque output.

Within a torque converter, there are a minimum of three rotating components: the turbine, 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 change oil flow returning from the turbine to the impeller. Normally, the design of the torque converter dictates that the stator be stopped from rotating under whatever situation and this is where the word stator starts from. Actually, 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 permitting forward rotation.

Changes to the basic three element design have been integrated periodically. These alterations have proven worthy particularly in application where higher than normal torque multiplication is considered necessary. Usually, these modifications have taken the form of many turbines and stators. Each and every set has been designed to produce differing amounts of torque multiplication. Several instances include the Dynaflo which utilizes a five element converter in order to produce the wide range of torque multiplication needed to propel a heavy vehicle.

While it is not strictly a part of classic torque converter design, different automotive converters consist of a lock-up clutch so as 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.