

Torque Converter for Forklift

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling that is used to transfer rotating power from a prime mover, like for example an electric motor or an internal combustion engine, to a rotating driven load. Similar to 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 can offer the equivalent of a reduction gear by being able to multiply torque when there is a significant difference between output and input rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling type. During the 1920s there was even the Constantinesco or likewise known as pendulum-based torque converter. There are different mechanical designs for continuously variable transmissions which can multiply torque. Like for example, the Variomatic is a type which has a belt drive and expanding pulleys.

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

There are at least three rotating components inside a torque converter: the turbine, that drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the impeller and the turbine 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 stopped from rotating under whichever situation and this is where the term stator begins from. In point of fact, the stator is mounted on an overrunning clutch. This design prevents the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

Modifications to the basic three element design have been integrated periodically. These modifications have proven worthy especially in application where higher than normal torque multiplication is needed. More often than not, these alterations have taken the form of many turbines and stators. Each set has been intended to generate differing amounts of torque multiplication. Various instances include the Dynaflo which makes use of a five element converter so as to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Various auto converters comprise a lock-up clutch in order to reduce heat and to be able to enhance the cruising power and transmission effectiveness, even if 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 connected with fluid drive.