

Forklift Torque Converter

Torque Converter for Forklifts - A torque converter is actually a fluid coupling which is used to transfer rotating power from a prime mover, that is an electric motor or an internal combustion engine, to a rotating driven load. The torque converter is same as a basic fluid coupling to take the place of a mechanical 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 input and output rotational speed.

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

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

In a torque converter, there are at least of three rotating components: the turbine, in order to drive the load, the impeller that is driven mechanically driven by the prime mover and the stator. The stator is between the impeller and the turbine so that it could change oil flow returning from the turbine to the impeller. Usually, the design of the torque converter dictates that the stator be prevented from rotating under whichever situation and this is where the word stator originates 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 allowing forward rotation.

Modifications to the basic three element design have been incorporated periodically. These modifications have proven worthy particularly in application where higher than normal torque multiplication is needed. Most commonly, these adjustments have taken the form of several turbines and stators. Each and every set has been designed to generate differing amounts of torque multiplication. Some instances comprise the Dynaflo which makes use of a five element converter in order to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various car converters consist of a lock-up clutch so as to reduce heat and so as to enhance the cruising power and transmission efficiency, even though it is not strictly part of the torque converter design. The application of the clutch locks the impeller to the turbine. This causes all power transmission to be mechanical that eliminates losses connected with fluid drive.