

Torque Converter for Forklift

Torque Converters for Forklift - A torque converter is a fluid coupling that is utilized so as 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 like 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 whenever there is a substantial difference between output and input rotational speed.

The fluid coupling model is the most common kind of torque converter utilized in automobile transmissions. During the 1920's there were pendulum-based torque or Constantinesco converter. There are other mechanical designs utilized for always variable transmissions which could multiply torque. Like for instance, the Variomatic is a type which has a belt drive and expanding pulleys.

A fluid coupling is a 2 element drive that cannot multiply torque. A torque converter has an extra part which is the stator. This alters the drive's characteristics through times of high slippage and generates an increase in torque output.

Within a torque converter, there are a minimum of three rotating elements: 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 alter 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 term stator starts from. In point of fact, 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.

Alterations to the basic three element design have been integrated at times. These alterations have proven worthy particularly in application where higher than normal torque multiplication is considered necessary. More often than not, these adjustments have taken the form of many stators and turbines. Each and every set has been meant to produce differing amounts of torque multiplication. Various instances comprise the Dynaflo which utilizes a five element converter to be able to produce the wide range of torque multiplication needed to propel a heavy vehicle.

Different auto converters consist of a lock-up clutch so as to reduce heat and to be able 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 which eliminates losses related with fluid drive.