Forklift Torque Converter

Forklift Torque Converter - A torque converter is a fluid coupling that is utilized so as to transfer rotating power from a prime mover, which is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is similar to a basic fluid coupling to take 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 when there is a significant difference between input and output rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling model. During the 1920s there was likewise the Constantinesco or otherwise known as pendulum-based torque converter. There are different mechanical designs used for always variable transmissions that have the ability to multiply torque. For example, the Variomatic is one kind 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 additional element which is the stator. This changes the drive's characteristics throughout 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, to be able 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 prevented from rotating under whichever situation and this is where the term stator originates from. In point of fact, 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.

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

Different auto converters comprise a lock-up clutch in order to reduce heat and to be able to improve the cruising power and transmission efficiency, even if 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 which eliminates losses connected with fluid drive.