

Torque Converters for Forklift

Torque Converters for Forklift - A torque converter is actually a fluid coupling which is utilized so as to transfer rotating power from a prime mover, which 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 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 considerable difference between input and output rotational speed.

The most common type of torque converter utilized in car transmissions is the fluid coupling type. During the 1920s there was likewise the Constantinesco or also known as pendulum-based torque converter. There are various mechanical designs used for constantly changeable transmissions which can multiply torque. Like for instance, 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 part known as a stator. This alters the drive's characteristics through times of high slippage and produces an increase in torque output.

In a torque converter, there are at least of three rotating elements: the turbine, so as to drive the load, the impeller that is driven mechanically driven by the prime mover and the stator. The stator is between the turbine and the impeller so that it can change oil flow returning from the turbine to the impeller. Traditionally, the design of the torque converter dictates that the stator be prevented from rotating under whatever condition and this is where the word stator begins from. In truth, 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.

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. Most commonly, these modifications have taken the form of multiple turbines and stators. Every set has been designed to generate differing amounts of torque multiplication. Various examples consist of the Dynaflo that uses a five element converter in order to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Even though it is not strictly a part of classic torque converter design, different automotive converters include a lock-up clutch to be able to lessen heat and to be able to enhance cruising power transmission efficiency. 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.