Forklift Torque Converter

Torque Converter for Forklifts - A torque converter is a fluid coupling which is utilized to transfer rotating power from a prime mover, that is an internal combustion engine or as electrical motor, to a rotating driven load. The torque converter is same as 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 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 fluid coupling kind is actually the most common type of torque converter used in car transmissions. During the 1920's there were pendulum-based torque or likewise called Constantinesco converter. There are various mechanical designs utilized for constantly changeable transmissions which can multiply torque. Like for example, the Variomatic is one type that has a belt drive and expanding pulleys.

The 2 element drive fluid coupling cannot multiply torque. Torque converters have an part called a stator. This changes the drive's characteristics through times of high slippage and generates an increase in torque output.

There are a minimum of three rotating parts inside a torque converter: the turbine, which drives the load, the impeller, which is mechanically driven by the prime mover and the stator, which is between the turbine and the impeller so that it could alter oil flow returning from the turbine to the impeller. Usually, the design of the torque converter dictates that the stator be stopped from rotating under whichever situation and this is where the word 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.

Adjustments to the basic three element design have been incorporated periodically. These changes have proven worthy specially in application where higher than normal torque multiplication is needed. Most commonly, these alterations have taken the form of several stators and turbines. Every set has been designed to generate differing amounts of torque multiplication. Some examples consist of the Dynaflow which utilizes a five element converter to be able to produce the wide range of torque multiplication required to propel a heavy vehicle.

Different car converters consist of a lock-up clutch in order to reduce heat and so as to improve the cruising power and transmission effectiveness, 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 which eliminates losses connected with fluid drive.