Torque Converter for Forklift

Torque Converters for Forklift - A torque converter is a fluid coupling that is used 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 like 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 can 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 type of torque converter used in car transmissions is the fluid coupling type. In the 1920s there was likewise the Constantinesco or also known as pendulum-based torque converter. There are various mechanical designs for constantly changeable transmissions that could multiply torque. For instance, the Variomatic is a kind which has a belt drive and expanding pulleys.

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

In a torque converter, there are a minimum of three rotating components: the turbine, to be able 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 could change 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 condition and this is where the term stator starts 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 enabling forward rotation.

In the three element design there have been adjustments that have been integrated sometimes. Where there is higher than normal torque manipulation is needed, changes to the modifications have proven to be worthy. More often than not, these alterations have taken the form of various turbines and stators. Each set has been intended to produce differing amounts of torque multiplication. Some examples comprise the Dynaflow 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 auto converters comprise a lock-up clutch to be able to reduce heat and so as to improve the cruising power and transmission efficiency, 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 that eliminates losses associated with fluid drive.