Torque Converter for Forklift

Forklift Torque Converter - A torque converter in modern usage, is commonly a fluid coupling which is utilized so as to transfer rotating power from a prime mover, for instance an internal combustion engine or an electrical motor, to a rotating driven load. Like a basic fluid coupling, the torque converter takes the place of a mechanical 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 input and output rotational speed.

The most popular kind of torque converter utilized in automobile transmissions is the fluid coupling kind. During the 1920s there was likewise the Constantinesco or pendulum-based torque converter. There are various mechanical designs for always changeable transmissions which could multiply torque. For instance, the Variomatic is one version that has expanding pulleys and a belt drive.

A fluid coupling is a 2 element drive that is incapable of multiplying torque. A torque converter has an extra component that is the stator. This changes the drive's characteristics all through occasions of high slippage and generates an increase in torque output.

Within 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. 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 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 permitting forward rotation.

In the three element design there have been changes which have been integrated periodically. Where there is higher than normal torque manipulation is required, changes to the modifications have proven to be worthy. More often than not, these alterations have taken the form of several stators and turbines. Each set has been meant to generate differing amounts of torque multiplication. Several examples include the Dynaflow that makes use of a five element converter in order to generate the wide range of torque multiplication needed to propel a heavy vehicle.

Different automobile converters consist of a lock-up clutch so as to lessen heat and to be able 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.