

Torque Converter for Forklift

Torque Converter for Forklift - A torque converter in modern usage, is usually a fluid coupling which is used 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. Similar to a basic fluid coupling, the torque converter takes 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 whenever there is a substantial difference between output and input rotational speed.

The most popular kind of torque converter used in automobile transmissions is the fluid coupling type. In the 1920s there was even the Constantinesco or otherwise known as pendulum-based torque converter. There are various mechanical designs used for always variable transmissions that can multiply torque. Like for instance, the Variomatic is a kind that has expanding pulleys and a belt drive.

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

In a torque converter, there are at least of three rotating parts: the turbine, so as to drive the load, the impeller which is driven mechanically driven by the prime mover and the stator. The stator is between the turbine and the impeller so that it could alter 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 any situation and this is where the term stator begins from. Actually, the stator is mounted on an overrunning clutch. This design stops the stator from counter rotating with respect to the prime mover while still enabling forward rotation.

Changes to the basic three element design have been incorporated sometimes. These changes have proven worthy specially in application where higher than normal torque multiplication is considered necessary. Usually, these modifications have taken the form of various turbines and stators. Each and every set has been intended to generate differing amounts of torque multiplication. Several instances consist of the Dynaflo that uses a five element converter to be able to generate the wide range of torque multiplication considered necessary to propel a heavy vehicle.

Various auto converters include a lock-up clutch to be able to lessen heat and so as to improve the cruising power and transmission efficiency, although 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 that eliminates losses related with fluid drive.