

Title:

Torque Converter Operation

Word Count:

1053

Summary:

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The torque converter has a few different functions.

We first need to understand that there is no direct link between the crankshaft and the transm

Keywords:

transmission, transmissions, performance, torque converter, high stall

Article Body:

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The torque converter also replaces the clutch that is required in a manual transmission; this

The torque converter also acts as a torque multiplier, or extra gear ratio, to help the car ge

Torque converters consist of 4 major components that we need to concern ourselves with for the

The first component, which is the driving member, is called the impeller or "pump". It is conn

The next component, which is the output or driven member, is called the turbine. The transmiss

The third component is the stator assembly; its function is to redirect the flow of fluid betw

The final component is the lock up clutch. At highway speeds this clutch can be applied and wi

Here's how it all works. For the sake of simplicity, I will use the common analogy of two fans

The first fan, which is powered, can be thought of as the impeller that is connected to the co

Now imagine a third component placed in between the two, which would serve to alter the airflo

At a certain point (usually around 30-40 mph), the same speed can be reached between impeller

The remaining 10% slippage between the engine and transmission can be eliminated by connectin

Another term that may be unfamiliar is that of a "high stall" torque converter. A high stall o

The idea behind a higher stall torque converter is to allow the engine to rev more freely up t

This becomes increasingly important when an engine is modified. Engine modifications such as p

In simple terms, for best performance, the stall speed should be raised at least to the point

As you can imagine, a vehicle that can accelerate from a stop with 80% of its peak torque will

For a performance or "high stall" torque converter to produce maximum gains, it needs to be co

Factors such as engine torque and the rpm at which it is greatest, differential gear ratio, ve

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