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(R) Automotive Transmission Terminology

RATIONALE

Committee added several new definitions for current industry state of the art technologies. Also revised definitions of existing technologies for improved clarity to readers.

1. SCOPE

The following listed definitions are intended to establish terminology and criteria for describing the various kinds of automotive transmissions. A specific arrangement may be described by a combination of several of these definitions.

2. REFERENCES

There are no referenced publications specified herein.

3. DEFINITIONS

3.1 Transmission

A device for transmitting power at a multiplicity of speed and torque ratios.

3.2 Transaxle

A device which combines a transmission with a final drive unit. In all definitions using the word “transaxle”, the word “transmission” can also be substituted.

3.3 Transmission Types

3.3.1 Automatic Transmission

A transmission in which ratio changes are effected automatically without requiring manual assist.

3.3.2 Traction Drive Transmission

A transmission or subsystem in which power transfer and ratio change is effected through shear drive members without a direct mechanical connection.

3.3.3 Hydrodynamic Transmission

An automatic transmission or subsystem using either a fluid coupling or torque converter, typically as a launch device.

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3.3.4 Hydrostatic Transmission

A transmission or subsystem using a positive displacement pump to drive a positive displacement motor.

3.3.5 Countershaft or Layshaft Transmission

A mechanical transmission or subsystem in which selectable gears are located on parallel shafts.

3.3.6 Manual Transmission

A transmission in which ratio changes can only be obtained by direct operator input.

3.3.7 Planetary Transmission

A transmission or subsystem using epicyclic gears.

3.3.8 Overdrive Transmission

A transmission which provides a speed ratio wherein the transmission output speed is greater than the input speed.

3.3.9 Split Torque Drive Transmission

A transmission which comprises two or more parallel torque paths. The individual paths may be any of several types such as mechanical, hydrodynamic, hydrostatic, or electromechanical.

3.3.10 Continuously Variable Transmission

A transmission or subsystem with infinitely variable speed ratios within a finite range, not including neutral.

3.3.11 Hydromechanical Transmission

A transmission or subsystem having both hydrostatic pump and motor and mechanical elements in the power path.

3.3.12 Auxiliary Transmission

A transmission or subsystem used to supplement the gearing in a main transmission. Two, three, or more speeds are typically included in the auxiliary unit. It may be manually or automatically shifted.

3.3.13 Transfer Case

A device for transmitting power from one drive unit to one or more outputs. It may include additional ratios.

3.3.14 Dual Clutch Transmission

A single automatic unit which incorporates two transmissions in parallel with a single output, where each has a friction clutch as its input device.

3.3.15 Infinitely Variable Transmission

A transmission with infinitely variable speed ratios within a defined range which covers from a given forward ratio, through neutral, to a given reverse ratio.