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AUTOMOTIVE TRANSMISSION TERMINOLOGY

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. (In all definitions using the word "Transmission," the word "Transaxle" can also be substituted.)

3.2 **Transaxle—**A transmission which provides differential output.

3.3 **Transmission Types**

3.3.1 AUTOMATIC TRANSMISSION—A transmission in which ratio changes are effected automatically without manual assist.

3.3.2 FRICTION DRIVE TRANSMISSION—A transmission in which ratio change is effected through friction drive members.

3.3.3 HYDRODYNAMIC TRANSMISSION—A transmission using a fluid coupling or torque converter.

3.3.4 HYDROSTATIC TRANSMISSION—A transmission using a positive displacement pump to drive a positive displacement motor.

3.3.5 SEMIAUTOMATIC TRANSMISSION—A transmission in which some of the functions of normal ratio changes are effected automatically.

3.3.6 MECHANICAL TRANSMISSION—A transmission in which the speed and torque ratios are obtained by gears or other mechanical elements.

3.3.7 COUNTERSHAFT TRANSMISSION—A mechanical transmission in which gears are mounted on parallel shafts.

Common types of countershaft transmissions are:

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3.3.7.1 *Sliding Gear Transmission*—A mechanical transmission in which ratios are obtained by axial relocation of gears to mesh with other gears.

3.3.7.2 *Constant Mesh Countershaft Transmission*—A countershaft transmission in which gears are constantly in mesh. Ratios are obtained by engagement of positive or friction means.

3.3.7.3 *Synchronized Countershaft Transmission*—A constant mesh countershaft transmission in which means are provided for synchronizing the speeds of engaging elements.

3.3.8 MANUALLY SHIFTED TRANSMISSION—A transmission in which ratio changes are effected manually.

3.3.9 PLANETARY TRANSMISSION—A mechanical transmission using epicyclic gears.

3.3.10 POWER ASSISTED SHIFT TRANSMISSION—A transmission in which the effort of manual ratio change or selection is accomplished or assisted through the application of hydraulic, pneumatic, or electric power.

3.3.11 OVERDRIVE TRANSMISSION—A transmission which provides a speed ratio wherein the output speed is greater than the input speed. In the case of an overdrive transaxle, output speed is modified by the final drive.

3.3.12 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, hydrostatic, or electrical.

3.3.13 CONTINUOUSLY VARIABLE TRANSMISSION—A transmission with infinitely variable ratios within a finite range.

3.3.14 HYDROMECHANICAL TRANSMISSION—A transmission having both hydrostatic pump and motor and mechanical elements in the power path.

3.3.15 AUXILIARY TRANSMISSION—A transmission used to supplement the gearing in main transmission. Commonly 2, 3, or 4 speeds. May be manually shifted or power assisted.

3.3.16 TRANSFER CASE—A device for transmitting power from one driveline to another driveline.

3.3.17 VISCOUS TRANSMISSION—A unit which utilizes a dedicated high-viscosity fluid for power transfer.

3.3.18 BEVEL GEAR TRANSMISSION—A unit that uses a bevel gear set to change direction of power flow.

4. Notes

4.1 Marginal Indicia—The (R) is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. If the symbol is next to the report title, it indicates a complete revision of the report.

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