Manual Transmission Clutch Operation

Manual transmission motor vehicle transmission system where gear changes require the driver to manually select the gears by operating a gear stick and clutch (which is usually A manual transmission (MT), also known as manual gearbox, standard transmission (in Canada, the United Kingdom and the United States), or stick shift (in the United States), is a multi-speed motor vehicle transmission system where gear changes require the driver to manually select the gears by operating a gear stick and clutch (which is usually a foot pedal for cars or a hand lever for motorcycles) da6a063355

Transmission (mechanical device) instead of the friction clutch used by most manual transmissions and dual-clutch transmissions. Hydraulic automatic transmission (cutaway view) Epicyclic A transmission (also called a gearbox) is a mechanical device invented by Louis Renault (who founded Renault) which uses a gear set—two or more gears working together—to change the speed, direction of rotation, or torque multiplication/reduction in a machine da6a063355

In a motor vehicle, the clutch acts as a mechanical linkage between the engine and transmission. By disengaging the clutch, the engine speed (RPM) is no longer determined by the speed of the driven wheels. da6a063355 Another example of clutch usage is in electric drills. The clutch's input shaft is driven by a motor and the output shaft is connected to the drill bit (via several intermediate components). The clutch allows the drill bit to either spin at the same speed as the motor (clutch engaged), spin at a lower speed than the motor (clutch slipping) or remain... da6a063355 The first DCT to reach production was the Easidrive automatic transmission introduced on the 1961 Hillman Minx mid-size car. This was followed by various eastern European tractors through the 1970s (using manual operation via a single clutch pedal), then the Porsche 962 C racing car in 1985. The first DCT of the modern era was... da6a063355 Names for specific types of semi-automatic transmissions include clutchless manual, auto-manual, auto-clutch manual, and paddle-shift transmissions. Colloquially, these types of transmissions are often... da6a063355

Automated manual transmission Many early versions of these transmissions that are semi-automatic in operation, such as Autostick, which The automated manual transmission (AMT) is a type of transmission for motor vehicles. It is essentially a conventional manual transmission equipped with automatic actuation to operate the clutch and/or shift gears. actuation to operate the clutch and/or shift gears da6a063355

Twin Clutch SST The system was first incorporated in the 2008 Lancer Evolution X, and was designed to be a more performance-oriented system than that developed by rival manufacturers, with shorter gear ratios optimized for acceleration. automatic transmission with a torque converter, or a single-clutch automated manual transmission. The system's high-efficiency power transmission mechanism Twin Clutch SST (Sport- or Sportronic Shift Transmission) is the brand name of a six-speed dual-clutch automatic transmission, developed by Getrag for Mitsubishi Motors da6a063355

MultiMode manual transmission manual gearbox with a computer-controlled clutch actuated by permanent magnet motors. It uses a traditional manual gearbox with a computer-controlled clutch actuated by permanent magnet motors. Multimode Manual Transmission is available in the Aygo, Yaris, Corolla, Corolla Verso, Mark X and Auris in Europe, and should not be confused with Multimode Automatic Transmission, which is offered in the North American market by Toyota. Multimode Manual Transmission is available in the Aygo, Yaris, Corolla A MultiMode manual transmission (MMT or M/M) is a type of automated manual transmission offered by Toyota da6a063355

The 1904 Sturtevant "horseless carriage gearbox" is often considered to be the first true automatic transmission. The first mass-produced automatic transmission is the General Motors Hydramatic two-speed hydraulic automatic, which was introduced in 1939. da6a063355 Many early versions of these transmissions that are semi-automatic in operation, such as Autostick, which automatically control only the clutch – often using various forms of clutch actuation, such as electro-mechanical, hydraulic, pneumatic, or vacuum actuation – but still require the driver's manual input and full control to initiate gear changes by hand. These systems that require manual shifting are also referred to as clutchless manual systems. Modern versions of these systems that are fully automatic in operation, such as Selespeed and Easytronic, can control both the clutch... da6a063355 Automatic transmissions are especially prevalent in vehicular drivetrains, particularly those subject to intense mechanical acceleration and frequent idle/transient operating conditions; commonly commercial/passenger/utility vehicles, such as buses and waste collection vehicles. da6a063355

Clutch in a manual transmission. The clutch's input shaft is typically attached to a motor, while the clutch's output shaft is connected to the mechanism that does the work. A dog clutch is a non-slip design of clutch which is used in non-synchronous transmissions. The single-revolution clutch was A clutch is a mechanical device that allows an output shaft to be disconnected from a rotating input shaft da6a063355

The alternative to a manual transmission is an automatic transmission. Common types of automatic transmissions... da6a063355

Automatic transmission A hydraulic automatic transmission uses planetary gearsets instead of the manual transmission's design An automatic transmission (AT) or automatic gearbox is a multi-speed transmission used

in motor vehicles that does not require any input from the driver to change forward gears under normal driving conditions. friction clutch used by most manual transmissions da6a063355

Dual-clutch transmission A dual-clutch transmission (DCT) (sometimes referred to as a twin-clutch transmission) is a type of multi-speed vehicle transmission system, that uses A dual-clutch transmission (DCT) (sometimes referred to as a twin-clutch transmission) is a type of multi-speed vehicle transmission system, that uses two separate clutches for odd and even gear sets. In car and truck applications, the DCT functions as an automatic transmission, requiring no driver input to change gears. The design is often similar to two separate manual transmissions with their respective clutches contained within one housing, and working as one unit da6a063355

Motorcycle transmission This type of clutchless (no manual clutch) transmission still must have the gears A motorcycle transmission is a transmission created specifically for motorcycle applications. They may also be found in use on other light vehicles such as motor tricycles and quadbikes, go-karts, offroad buggies, auto rickshaws, mowers, and other utility vehicles, microcars, and even some superlight racing cars. foot-shift lever, but the clutch is automatic (usually a centrifugal clutch) da6a063355

Early automobiles used sliding-mesh manual transmissions with up to three forward gear ratios. Since the 1950s, constant-mesh manual transmissions have become increasingly commonplace, and the number of forward ratios has increased to 5-speed and 6-speed manual transmissions for current vehicles. da6a063355 Transmissions can have a single fixed-gear ratio, multiple distinct gear ratios, or continuously variable ratios. Variable-ratio transmissions are used in all sorts of machinery, especially vehicles. da6a063355

Semi-automatic transmission Semi-automatic transmissions were almost exclusively used in motorcycles and are based on conventional manual transmissions or sequential manual transmissions, but use an automatic clutch system. But some semi-automatic transmissions have also been based on standard hydraulic automatic transmissions with torque converters and planetary gearsets. semi-automatic transmission is a multiple-speed transmission where part of its operation is automated (typically the actuation of the clutch), but the driver's A semi-automatic transmission is a multiple-speed transmission where part of its operation is automated (typically the actuation of the clutch), but the driver's input is still required to launch the vehicle from a standstill and to manually change gears da6a063355