

Transmission Splitter



Article Overview

A transmission splitter is a valve mechanism in multi-speed truck transmissions that allows smooth engagement of high and low gears, effectively doubling the number of available gears.

Function and Purpose

A transmission splitter, also known as a splitter valve or range valve, is primarily used in heavy-duty truck transmissions, such as Eaton Fuller 18-speed systems, to control the engagement of high and low gears. It works by directing pressurized air or hydraulic fluid to engage or disengage specific gears, ensuring smooth transitions between gear ratios and preventing damage to the transmission during shifts . In an 18-speed transmission, the gears are divided into two ranges: low (gears 1-9) and high (gears 10-18), each controlled by its own splitter valve .

How It Works

When the driver shifts gears, the splitter valve receives a signal from the gearshift lever. It then directs oil or air pressure to the synchronizer mechanism of the selected gear, matching the speed of the gears before engagement. This ensures smooth operation and reduces wear on the transmission components . The splitter valve is critical for maintaining proper torque and speed ratios, especially in vehicles carrying heavy loads or operating on steep inclines .

Replacement and Maintenance...

Article Content

Operation, Eaton Fuller Splitter and Range-Shift Transmissions

Dependent on the transmission model, some ratios can be split using the splitter-control button (located on the side of the gear shift

World American 21931 Gear (Splitter)

World American is the heavy duty and Export division of Midwest truck & auto parts, Inc. We supply drivetrain, brake,

RT-18 manual transmission | 18-speed transmission| Eaton

The Eaton Fuller RT-18 manual transmission is the iconic industry standard for heavy haul semi truck

PTO Splitter Gearboxes | Dual-Output Power Divider | Flowfit

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Power dividers and directional couplers

Power dividers (also power splitters and, when used in reverse, power combiners) and directional couplers are passive devices used

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Splitter Gearboxes

Home > Power Transmission > Gearboxes manufactured for Bondioli & Pavesi > Splitter Gearboxes

What Does Splitting Gears Mean in a Transmission?

Splitting gears refers to a process that uses an auxiliary mechanical section within a transmission to generate a

Splitter boxes

With two to thirteen outputs and an drive power of up to 1,120kW, Liebherr manufactures splitter boxes that

What Does Splitting Gears Mean in a Transmission?

This auxiliary section, often called a splitter or splitter box, functions as a multiplier, generating an intermediate ratio

Eaton Twin Splitter Transmission Manual | PDF | Transmission

The document is a service manual for Eaton Twin Splitter transmissions, providing instructions for maintenance, repair, and

Eaton 10spd splitter procedure

Eaton 10spd splitter procedure Discussion in " Trucks [Eighteen Wheelers] " started by mitmaks, Sep 19, 2023.

Shift Knobs | Raney's Truck Parts

First: What speed is my transmission? 18 and 13 Speed Transmissions have a Shifter Knob with 2 switches: Range Selector Splitter

Industrial Pump Drives / Splitter Gearboxes / Multiple

Not just splitting power but apply mechanical power from different sources to the

Freightliner Cascadia Eaton Fuller 13 Speed Transmission Splitter ...

In this video I speak on the issue of the hi/low splitter of the Eaton Fuller 13 speed

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Splitter from Liebherr

Splitter from Liebherr Strong and quiet-running Long operating life Liebherr multi-output pump transmissions are designed and built

General Information, Eaton Fuller Splitter and Range-Shift ...

Combination splitter and range-shift transmissions allow the choice of two splitter ratios in each shift knob position, as well as the

Operating Principles of an Aux Transmission Shifting Splitter Cylinder

This video was made for training of technicians using cutaway photos, training aids or

EATON K-3331 Fuller Transmission Splitter Valve Kit

The Eaton K-3331 Fuller Transmission Splitter Valve Kit is a crucial component in the hydraulic system of heavy-duty vehicles, such

Which transmission is this? Saw it on Facebook and

It's an old style transmission not listed in the catalog I included with the first edit and the shifter head would

Pump Distribution Gearbox GFC

ZF pump distribution gearboxes for driving different hydraulic pumps simultaneously are ideally suited for installation in large

How To Setup A 18 Speed Transmission Splitter-Shifter On ...

How To Setup A 18 Speed Transmission Splitter-Shifter On American Truck Simulator

Industrial Pump Drives / Splitter Gearboxes / Multiple Power Take-off ...

Splitter Gearboxes / Multiple power take-off units jbj Techniques "AM" splitter gearboxes (or multiple PTOs) are available in a number

How does a range/splitter work : r/DieselTechs

Range and split are two different components of a transmission. A splitter is a small gearing ratio change, the range is a high gearing

Eaton Twin Splitter Transmission Manual

The document is a service manual for Eaton Twin Splitter transmissions, providing instructions for maintenance, repair, and

how splitter gearbox works

A splitter transmission is a customized sort of hand-operated transmission typically

Contact Us

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