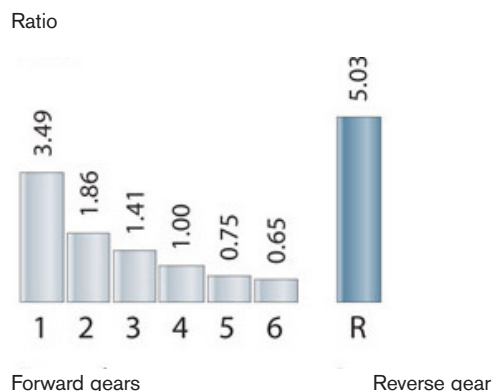
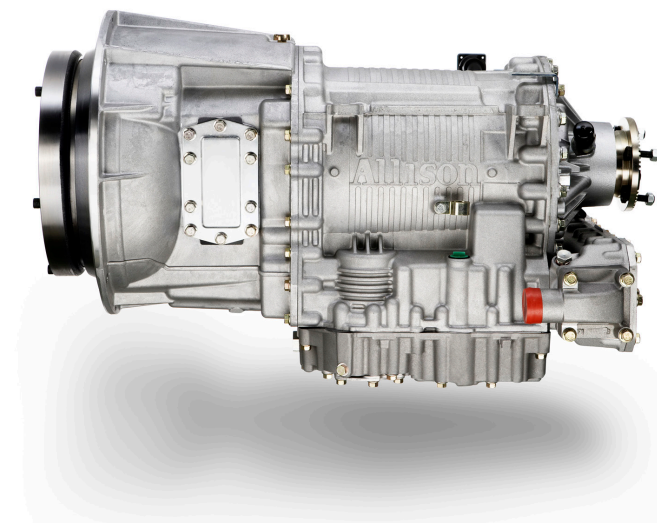


FACT SHEET

Gearbox AL306



AL306 is a 6-speed automatic gearbox dimensioned for gross combination weights of up to 36 tonnes.

The gearbox has a ratio span that makes it suitable for vehicles in distribution, fire, municipal service operations, garbage and also light construction.

It is very gentle on the truck since it automatically lets the engine operate within its best rev range, and because the hydraulic power transmission absorbs all snatch and unevenness in the driveline.

In the gearbox's torque converter, engine torque is multiplied to provide high starting traction. The software that controls the gearbox provides optimal fuel economy and driving comfort and has all the functions from the Allison FuelSense® Max package.

Oil change intervals vary, up to 480000 km depending on oil type and driving conditions. For more information. See the Repair & Maintenance Instructions or contact your local Allison dealer for further information.

Torque converter boosts power when starting from standstill

Power from the engine is transferred to the gearbox via a torque converter. Here the engine's torque is multiplied hydraulically, giving considerable starting traction. Gear changes are faster and the lock-up is activated earlier. The converter optimises transmission efficiency and reduces heat rejection. Its stiffness, lower gear and absorption curve reduce fuel consumption.

Kick-down function for maximum acceleration

The kick-down function selects a gear for maximum acceleration. When the kickdown switch on the accelerator pedal is engaged, the system changes the gearshift strategy to maximise vehicle acceleration. When suitable (e.g. depending on engine speed), this leads to a downshift.

FEATURES AND BENEFITS

- High vehicle productivity thanks to excellent starting properties and smooth gear changes that cover the entire speed range.
- Torque converter with automatic lock-up function gives high efficiency rating and improved fuel economy.
- Ergonomic, convenient operation using push-buttons.
- Optional, integrated retarder that supplements the vehicle's own braking system, contributing to lower operating costs.
- Power take-off can be engaged while driving.
- Engine water cooling of gearbox oil.
- The transmission controller is provided with Allison FuelSense® Max package.

FACT SHEET

Gearbox AL306

Automatic lock-up function promotes high efficiency rating and improved fuel economy

To avoid power loss, the torque converter features an automatic direct coupling (lock-up), locking the pump wheel to the turbine wheel in 2nd to 6th gears. Thanks to this early lock-up at low ratios a high efficiency is achieved.

Ergonomic, convenient operation using push-buttons

The gearbox is conveniently operated via push-buttons in the instrument panel (FL) or on the engine tunnel (FE). Push-buttons allow the driver to preselect gear and/or to maintain current gear. The ergonomically and logically laid out control panel has a clear display. Information is also shown in the vehicle's information display unit. Also able to read out fault codes and gearbox oil level by pressing plus and minus buttons at the same time when gearbox in neutral gear.

Hydraulic retarder gives effective braking function

The gearbox can be equipped with an integrated hydraulic retarder (RET-TPT). It is an effective supplement to the vehicle's own brakes and reduces wheel brake wear. The ABS compatible retarder is compact and lightweight; adding just 37 kg to the vehicle's weight. Maximum braking torque is 1760 Nm.

Prepared for fitting of power take-offs

AL306 is prepared for fitting of a range of different side mounted power take-offs with pump or flange connection or top mounted power take-offs with pump connection.

PTO's mounted on AL306 are engine driven PTO's. Two PTO's simultaneously driven are possible.

Auto Neutral function

The Auto Neutral function is available in two versions. One of them is working on the service brake via a dashboard switch, and the other on the parking brake.

Allison FuelSense® Max package

Operating mode

The software is by default set from factory in "performance mode". The driver can press the button "mode" on the selector to switch over to "economy mode" when driving circumstances allows.

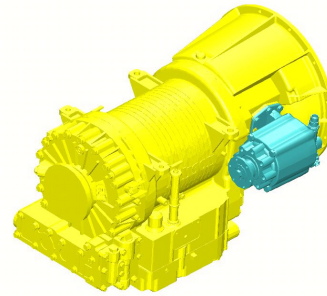
When conditions permit, a "Super Economy mode" with approx. 300 rpm lower shift points will become automatically active, without any driver's action.

Neutral at stop

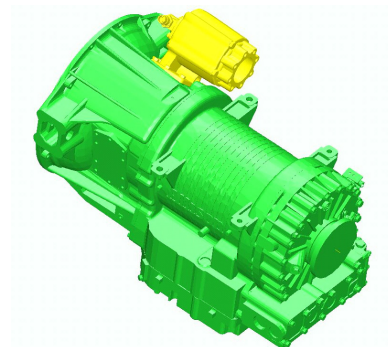
This function makes the gearbox simulate neutral position when stopping in order to avoid energy loss in the converter, reducing fuel usage and emissions. The Neutral at stop function provides full neutral at stop with locked output.

Dynamic Shift Sensing

The system automatically selects an appropriate calibration mode, based on topography and vehicle load conditions, keeping the engine speed at its optimum point and maintaining necessary performance without shift cycling. Input is given via a precision



Side mounted power take-off.



Top mounted power take-off.

Note! If a truck is specified without power take-off, the gearbox is always prepared for a side mounted power take-off. If a superstructure will be mounted later on and demands a power take-off, it is important that the power take-off is specified from factory.

inclinometer inside the gearbox. Dynamic Shift Sensing allows for superior performance while maximizing fuel-savings.

Acceleration Rate Management

Feature that takes preventative measures against aggressive driving practices by automatically controlling engine torque. The intensity of control is determined by the vehicle load weight and topography, providing the best balance of fuel economy and performance.

FACT SHEET

Gearbox AL306



Push-buttons shift selector – Volvo FE.



Push-buttons shift selector – Volvo FL.

SPECIFICATION

Type designation.....	AL306
Type	Fully automatic planetary gearbox
Max input torque, depending on application.....	Up to 1695 Nm
Max gross combination weight.....	36 tonnes
Weight, dry.....	261 kg
Oil volume, 1st filling	28 l
Retarder weight	37 kg
Max braking torque retarder at:	
1000-2000 r/min	1760 Nm
Max stall ratio in the torque converter:	
TC421	1.77:1

VOLVO

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