TRANSMISSION

AGS: AUTOMATED GEAR SHIFT

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OUR CUSTOMER SUPPORT IS USER-FRIENDLY AS WELL.

At Detroit Diesel, our goal is to do everything we can to help all of our customers succeed. That's why, in partnership with Freightliner and Sterling Trucks, every transmission is backed by our industry-leading customer support commitment. You'll find an unparalleled level of services at your disposal, including 24-hour parts and service networks, teams of expertly trained technicians, as well as our 24-hour Customer Service Center, all to make sure your truck is always back on the road quickly. From routine maintenance to emergency assistance, with more than 550 dealer locations, you're covered day and night.

Every Mercedes-Benz transmission is warranteed for two years, unlimited miles. A first-rate transmission backed by a first-rate warranty. No matter what business you're in, that's a comforting thought.

Find Out How You Can Switch Gears.

Call 1-800-FTL-HELP (1-800-385-4357) to locate the Freightliner Trucks Dealer nearest you, or log on to www.freightlinertrucks.com.

Call 1-800-STL-HELP (1-800-785-4357) to locate the Sterling Trucks Dealer nearest you, or log on to www.sterlingtrucks.com.





For more information, call 1-800-445-1980. www.DetroitDiesel.com

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AGS: AUTOMATED MANUAL TRANSMISSIONS.

Two-Pedal System Means Easy Operation

Everyone is in business to make a profit. So it makes sense to use the tools designed and built to increase your profit as much as possible. Presenting the Automated Gear Shift (AGS), a transmission that was made to do exactly that. The AGS is an automated manual transmission created to make driving easier and more efficient. Now even the most inexperienced driver will be at ease and can drive safely and confidently.

Manual or Automatic Operation

With the AGS, there is no clutch pedal yet, with the SmartShift® lever, drivers can choose to shift manually or let the transmission do it all. The result is the ultimate in control and safety, allowing drivers to fully concentrate on the road while providing the opportunity to shift manually when conditions require it.

The Transmission Control Unit (TCU): a Model of Efficiency

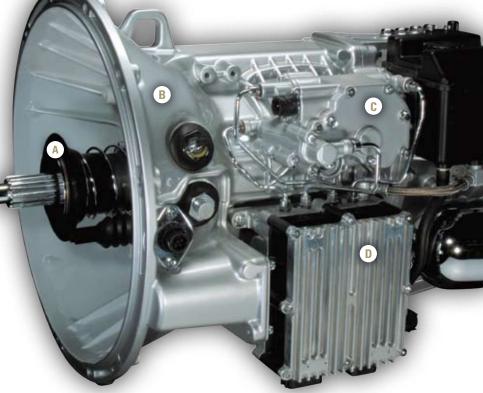
Meet the TCU, the brain that makes the AGS so efficient. It lets the AGS smoothly change gears at optimal times by sensing truck weight, uphill or downhill grades, curves and even slippery road conditions. The TCU precisely determines shift points for optimum performance and fuel economy. Also, no matter how hard you try, you can't make a gear selection that will damage the transmission. This eliminates driveline abuse and extends the life of your transmission.

Smooth Shifts, Every Time

The TCU controls the automated clutch actuator, which provides a smoother engagement than a traditional clutch pedal. Through its optimized shifting, the TCU always selects the perfect engine RPM for the best shift possible.

Performance and Reliability

The AGS is based on the long-proven Mercedes-Benz
6-speed manual transmission, built with components like
heat-treated steel alloy gears, sealed bearings for long
life, and parts that require virtually no maintenance. And,
every single transmission is checked for optimal
performance before it leaves the factory.



(A) Automated Clutch Actuation

Completely eliminates the clutch pedal, reducing driver fatigue and driveline abuse.

(B) Lightweight Aluminum Housing

The aluminum alloy housing with integrated bell housing means less weight.

C Shift Actuator

The hydraulic shift actuator is compact and virtually maintenance-free.

(D) Transmission Control Unit

This is the brain of the AGS. In automatic mode, it guarantees the transmission is always in the right gear, even skip-shifting if needed. In manual mode, the TCU will prevent the driver from choosing the wrong gear, eliminating driveline abuse.

ADVANTAGES OF SPEC'ING THE AGS

Automated Two-Pedal Shifting

With automated clutch actuation, the clutch pedal is completely eliminated. The transmission takes care of all shifts for smoother, more efficient operation and less driver fatigue.

Manual or Automatic Mode Selection

Drivers can choose to shift manually or let the transmission do the shifting, depending on road conditions or preference.

Smart, Efficient Shifting

The transmission control unit senses and evaluates road conditions, load conditions and grades to precisely determine shift points for optimum performance and fuel economy.

This allows the driver to fully concentrate on the road.

Entire Powertrain Protection

Through component communication, the transmission adjusts the RPM of the engine to match that of the transmission, extending the life of the integral clutch, as well as preventing the driver from manually down-shifting if the RPM is too high. It also optimizes all start/stop cycles, upshifts and downshifts for increased fuel efficiency.

Increased Driver Efficiency

Since the AGS constantly monitors driving conditions, the truck will always be in the right gear, every shift will be perfect and the driver's concentration will be right where it should be — on the road. That means all your drivers will perform at their optimum levels, and so will your trucks.

Lightweight and Tough

Every AGS transmission is built with a lightweight aluminum alloy housing with an integrated bell housing. With the addition of the AGS componentry, you have an automated transmission that's small and light and gives you increased payload and durability.

The Perfect Transmission for Nearly Any Vocation



SMARTSHIFT®

With the SmartShift lever, drivers can choose to shift manually or let the transmission do it all.



TWO-PEDAL SYSTEM

No clutch pedal means easy operation and reduced driver fatigue. This increases safety and decreases driver training and turnover.



PTO POWER

The high-output, right-side PTO port allows multiple power and torque levels, and is mounted in a five o'clock position to avoid exhaust system interference.

Transmission

Specification	MBT520-6DA	MBT660-60A
Data Code	342-1KN	342-1H6
Overall Ratio	9.20	9.20
Gear Ratio	9.20 - 1.00	6.70 - 0.73
Max GCW/GVW	40,000 lb.	60,000 lb.
Max Input Torque	520 lb-ft	660 lb-ft
Weight Without Oil	344 lb.	346 lb.
Oil Capacity	9 quarts	9 quarts

Power Take-off (PTO)

Specification	MBT520-6DA	MBT660-60A
Provision	RH 6-bolt opening	RH 6-bolt opening
Drive Gear	45 teeth	53 teeth
Gear Type	RH helix	RH helix
Horsepower	37 - 42 HP	37 - 42 HP
Torque	195-225 lb-ft	195-225 lb-ft

Gear Ratios

Specification	MBT520-6DA	MBT660-60A
1st Gear	9.20	6.70
2nd Gear	5.23	3.81
3rd Gear	3.14	2.29
4th Gear	2.03	1.48
5th Gear	1.37	1.00
6th Gear	1.00	0.73
Reverse Gear	8.65	6.29

