12 Speeds
FROM 1550-1750 lb-ft Torque Input
TOP GEAR DIRECT or OVER Drive
THE BEST OF DETROIT™ AUTOMATED MANUAL TRANSMISSION

DETROIT IS PROUD TO OFFER THE DT12™ AUTOMATED MANUAL TRANSMISSION. ENGINEERED AND BUILT WITH PRECISION. OPTIMIZED FOR PERFORMANCE AND EFFICIENCY.

WHAT’S AN AUTOMATED MANUAL TRANSMISSION?

An automated manual transmission (AMT) combines a traditional clutch-actuated manual gearbox with a computer-controlled shift actuator and clutch. The best shift patterns are selected electronically to provide optimal power or fuel efficiency. An AMT is a proven technology used around the world. At Detroit, we believe it represents the next generation. With computer-controlled shifting and clutch engagement, only two pedals are needed to operate the truck, brake and accelerator.

WHY CONSIDER AN AMT?

An automated manual transmission is more fuel-efficient, especially when you average fuel consumption over an entire fleet traveling a variety of routes. Automated control of the clutch improves shift quality and leads to longer clutch life. And it’s easier to operate, making it ideal for drivers of all experience levels.

DT12 FUEL ECONOMY IMPROVEMENT

The DT12 will narrow the bell curve of your drivers’ fuel economy. Fleets should see fuel economy improvements for new and lead-footed drivers.

Note: Numbers are for demonstration purposes only. Not based on actual testing.
EASE AND ECONOMY GO INTO HIGH GEAR.

At Detroit, we are focused on providing our customers with the most efficient powertrain components possible. The Detroit DT12 provides efficiency in three ways: fuel economy, durability and ease of operation.

We understand how fleets work and how they succeed. Any incremental increase in fuel economy can make a huge impact on profitability. Our engineers have made significant strides to reduce fuel consumption with this new transmission.

A fleet’s bottom line also is affected by the durability and longevity of their vehicles. The operation of our DT12 was designed to limit unnecessary wear and tear. The smoother the action, the more efficient the results.

Driver recruitment, training and performance play crucial roles in fleet efficiency. That’s why we chose to offer an AMT. It’s easy to master, so drivers can reach their optimal performance sooner.

The Detroit DT12 is part of our complete line of powertrain components that also includes our famous engines and our full line of axles. When you spec your truck with the entire package, you can expect an even greater level of efficiency, from operational performance to maintenance and warranty service.

Ultimate efficiency goes beyond managing fuel consumption. It’s the result of knowledge and ingenuity. That’s what makes this transmission different.
THE DETROIT DT12 IS A 12-SPEED, AUTOMATED MANUAL TRANSMISSION WITH SHORTER GEAR STEPS. THE DETROIT DT12 WAS DESIGNED WITH A NUMBER OF INNOVATIVE EFFICIENCY FEATURES TO ACHIEVE OPTIMAL FUEL ECONOMY.

**Optional Direct Drive.** In top gear, the transmission operates as a direct drive, sending engine input directly through the main shaft, eliminating parasitic gear mesh losses of power and increasing fuel efficiency.

**eCoast.** Helps maximize fuel efficiency by allowing the vehicle to coast down grades. The engine operates at idle speeds while maintaining momentum. Sophisticated transmission electronics ensure safe operations in all driving conditions.

**Skip Shift.** To increase shifting efficiency, the electronic powertrain controls automatically skip unnecessary gears. This helps increase acceleration to achieve cruising speed quickly and smoothly. This also lets the driver begin the acceleration in the appropriate start gear based on load and grade.

**Active Driveline Protection.** The Transmission Control Module (TCM) calculates the torque wind-up in the driveline and regulates with engine torque control for enhanced driving comfort and less driveline wear. The TCM even limits torque in severe surface conditions, protecting the driveline.
**Oil Pump.** An oil pump, powered by the countershaft, delivers oil directly to the gears. This is more precise and efficient than bathing all of the gears in oil.

**Powertrain Communication.** The transmission communicates in real-time with the proprietary powertrain network and motor control module to optimize efficiency throughout the entire powertrain.

**Total Weight.** The Detroit DT12 provides a weight advantage over traditional designs. The aluminum housing and single countershaft help save weight, allowing for even more payload efficiency.

**VARIABLE SPEED CRUISE CONTROL**

The DT12 incorporates variable speed cruise control, which allows the engine brake to regulate speed to achieve optimal driving efficiency. With the engine brake set to off, drivers can choose from the three settings on the cruise control limit switch located on the dash.

- **LOW** is ideal for steep grades. The engine brake slows the truck at a low threshold, e.g., +3 mph
- **MEDIUM** is ideal for rolling hills. The engine brake slows the truck at a higher threshold, e.g., +6 mph
- **OFF** is ideal for flat terrain or areas with noise restrictions. The engine brake is disabled while in cruise.

Variation level can be changed as a parameter in the TCM. Using these settings helps control downhill speed and takes advantage of uphill momentum. The TCM will determine the right amount of engine braking required, or may be overridden using the engine brake selection on the shift lever.
The DT12 is engineered for enhanced flexibility and drivability.

The term “automated” means a pneumatic clutch and shift actuator actually shift the transmission for you. This allows faster and smoother gear shifts than electronic actuation.

Drivers can choose between several driving modes depending on terrain and specific applications:

- **AUTOMATED OR MANUAL MODE** allows total control of the shift points by either the computer or the driver.
- **PERFORMANCE MODE** helps you get the most power out of the engine
- **ECO MODE** keeps the engine running in the sweet spot and enhances efficiency

Other performance features include:

- **CREEP MODE** modulates the clutch to improve low-speed maneuverability, ideal for backing up to a loading dock or maneuvering through tight city traffic. All the driver has to do is let off the brake pedal.
- **PEDAL KICKDOWN** gives drivers full throttle control to increase acceleration when passing or driving on uphill grades

### Detroit DT12 Specifications

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<tbody>
<tr>
<td><strong>Speeds</strong></td>
<td>12</td>
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<tr>
<td><strong>Maximum Input Torque</strong></td>
<td>1550-1750 lb-ft</td>
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</table>
| **Gear Ratios / Overall Ratio** | Direct Drive: 14.93 - 1 / 14.93
                                      Over Drive: 11.67 - 0.78 / 14.96 |
| **GCW Limits**         | Direct Drive: 80,000 lb.  
                                      Over Drive: 97,000 lb. and up* |
| **Dry Weight**         | 646 lb. (293 kg) |
| **Oil Capacity**       | 15.4 qt. (14.6 L) |

*GCW limits subject to approval from Detroit engineering.

Creep Mode makes backing up to a loading dock safe and easy.

### Warranty Coverage

Detroit is known for designing and manufacturing products that set industry standards. We are proud of that, and believe that quality is the surest way to maintain long-lasting relationships with our customers. And it lets Detroit offer excellent warranty coverage. Our transmissions come with a 5-year/750,000 mile standard warranty. The clutch comes with a 3-year/350,000 mile warranty.
INNOVATIONS IN SAFETY

KEEP DRIVERS SAFE AND FLEETS MOVING.

The DT12 includes a variety of innovative safety features that help protect the driver and entire vehicle, as well as enhance the driving experience. Because the transmission is automated, new drivers experience a shorter learning curve. Various driver interfaces have been designed to reduce driver fatigue, including a true two-pedal system along with convenience features like the shift lever and cruise control. Other advanced features include:

HILL START AID
When stopped on grades of 6% or more, the vehicle is prevented from rolling backward on uphill grades or forward on a downhill grade.

AUTO NEUTRAL
When the parking brake is engaged or the vehicle is shut down, the transmission electronically commands neutral gear.

VIRTUAL TECHNICIAN™ ONBOARD DIAGNOSTIC SYSTEM
Prevents unsafe driving situations from occurring by alerting the driver to engine or transmission faults that could cause damage.

VIRTUAL TECHNICIAN
Our factory-installed Virtual Technician™ onboard diagnostic system takes the guesswork out of transmission repair. When a truck’s transmission check light illuminates, information is sent to you and the Detroit Customer Support Center (CSC), where a trained representative can diagnose the issue, recommend service and even contact the nearest authorized locations with parts in stock. The CSC can tell you if you need to pull over so you don’t cause further damage or if you can stay on the road. Put simply, it’s like having a technician in every truck.

Virtual Technician’s optional Visibility Package is a fleet management system that offers access to the Ground Traffic Control website. This groundbreaking system captures latitude, longitude, time and odometer readings for your trucks. With pinpoint accuracy, the system records vehicle stops, speeds, routes traveled, mileage by state, excessive idling, fuel consumption and other onboard events. The Visibility Package helps you manage your business more efficiently.
Here at Detroit, we’ve built our reputation by building high-quality products that perform beyond expectations. Today, you’ll find our engines in Freightliner and Western Star trucks on roads and at job sites around the globe.

The secret to our success goes beyond the engines we build. Our people and our continuous pursuit of innovation are powerful driving forces. Our engineering and manufacturing expertise are world class. Our service network is expansive and responsive. That’s why we continue to grow and evolve. That’s also why we now offer a full line of products: engines, axles, transmissions and advanced technologies. That’s right. The company that makes the heart of the truck now gives you the arms, legs and backbone to go with it. So, if you demand it all, demand Detroit.

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