ATO3112D

2-pedal Automated Manual Transmission with Overdrive

Designed to be Mated to
Volvo D16

Number of Forward Speeds
Twelve

Ratios, Forward Gears

| 1 | 11.73:1 |
| 2 | 9.21:1 |
| 3 | 7.09:1 |
| 4 | 5.57:1 |
| 5 | 4.35:1 |
| 6 | 3.41:1 |
| 7 | 2.70:1 |
| 8 | 2.12:1 |
| 9 | 1.63:1 |
| 10 | 1.28:1 |
| 11 | 1.00:1 |
| 12 | 0.78:1 |
| Overall Ratio | 15.04:1 |

Overall Ratio
15.04:1

Maximum Gross Combination Weight, Lbs. (Tonnes)
143,000 (65) - Higher with application approval

Dry weight, Lbs. (kg)
597 (271)

Clutch
Volvo 17" Single Plate Organic with Single Mass Flywheel

Oil Capacity, Qts (L)
16 (15)

Oil Drain Interval, miles (km)
500,000 (800,000) On-Highway, <=80k GCW

Gear Selector Positions
R - Reverse, N - Neutral, D - Drive, M - Manual

Driving Modes
E - Economy, P - Performance, B - Maximum Braking, L - Limp Home

Power Take-Offs Available
Clutch Dependent
Transmission Mounted Shaft (SAE 13-1400), Pump (Parker / DIN 5462)

Clutch Independent
Engine Mounted Shaft (SAE 13-1400), Pump (Parker / DIN 5462)

Having the right ratio for the right speed at the right time is what transmission technology is all about. And it’s what makes Volvo I-Shift the most advanced — and most fuel efficient — automated manual transmission on the road today.
**FEATURE**

- High Level of Intelligence -
  (Continuously monitors numerous parameters to predict most optimum operation over next seconds and chooses ratios appropriately)

- Eco-Roll™ lets the engine drop to idle speed on slight downhill grades unless Eco-Roll™ disabled by driver

- Integrated with I-VEB through Engine Brake Control Stalk

- Idle Governor Driving Mode allows driving slowly (for example, stalled traffic or backing) without cycling clutch

- Programmable Kick-Down switch provides optimum acceleration

- Programmable Economy and Performance modes available

**BENEFIT**

- Saves fuel and improves performance

- Lowers parasitic consumption by up to 30 HP when enabled to save fuel

- Outstanding, predictable performance (“Downhill Cruise”)

- Provides driver comfort and excellent low speed operation while prolonging clutch life

- Maximizes driver input into truck performance

- Offers a “Dual Personality” transmission with optimized shift points for fuel economy or performance

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**FEATURE**

- Informative Driver Display gives driver extra information

- Adaptable for vocational and heavy haul applications

- Pumped lubrication rather than splash lubrication

- Two shifters and multiple software feature packages available

- upgradeability throughout engine’s displacement ratings

- Ultra smooth clutch and launch control

**BENEFIT**

- More satisfying driving experience yields better driver retention

- Optional Performance Plus (P+) mode includes functions that adapt gearshifts to off-road conditions and offer extra torque when starting from a standstill

- Provides lubrication to where it’s needed, even at low speeds for longer life

- Allows custom-tailoring to the customer’s wants and needs

- Allows re-programming to any engine rating for maximum resale value

- Easy for driver to fully master the vehicle speed in any low speed situation, for example when backing up to a trailer or a loading dock

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### I-Shift Feature Packages

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<th>Performance</th>
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<td>X (C)</td>
<td>X (C)</td>
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<td>X (C)</td>
<td>X (C)</td>
<td>X (C)</td>
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<tr>
<td>Hill Start Assist</td>
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<td>Optional</td>
<td>Optional</td>
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<tr>
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<tr>
<td>Enhanced PTO features</td>
<td>Optional</td>
<td>Optional</td>
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</tbody>
</table>

**Functionality of features programmable per customer preference:**

- **A** 1. Available
  2. Available with auto return to Economy
  3. Available with Performance Bonus Reward
  4. Not available

- **B** 1. Available
  2. Available in Economy mode only
  3. Available with Performance Bonus Reward
  4. Not available

- **C** 1. Available
  2. Not available

- **D** 1. The P+ mode includes various functions that adapt gearshifts and gear selection to poor or hilly driving conditions

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Feature upgradeability: Unlimited within family and between families with gear shifter change

Engine Torque upgradeability: Unlimited by clutch, transmission and prop shaft

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