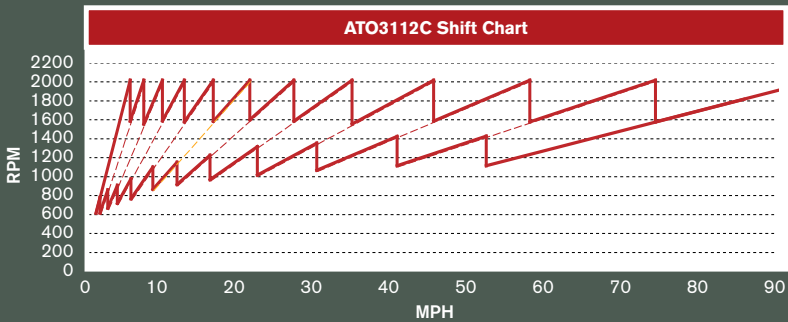


VOLVO I-SHIFT

ATO3112C
Overdrive, for Volvo D16



shown with 11R22.5 tires; 3.21:1 rear axle



SPECIFICATIONS

ATO3112C	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
Ratios, Reverse Gears	
R1	13.73:1
R2	10.78:1
R3	3.16:1
R4	2.48:1
Maximum input Torque, Lb-Ft (N-m)	2300 (3100)
Maximum Gross Combination Weight, Lbs. (Tonnes)	110,000 (50)
Dry weight, Lbs. (kg)	611 (277)
Clutch	Volvo 17" Single Plate Organic with Dual Mass Flywheel
Oil Capacity, Qts (L)	16 (15)
Oil Drain Interval, miles (km)	250,000 (400,000)
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 / VOAC)
Clutch Independent	Engine Mounted Shaft (SAE 13-1400), Pump (Parker / VOAC)



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FEATURE



BENEFIT

High Level of Intelligence - (Continuously monitors numerous parameters to predict most optimum operation over next seconds and chooses ratios appropriately)	▶▶▶	Saves fuel and improves performance
Eco-Roll lets the engine drop out on slight downhill grades unless Eco-Roll disabled by driver	▶▶▶	Lowers parasitic consumption by up to 30 HP when enabled to save fuel
Integrated with I-VEB through Engine Brake Control Stalk	▶▶▶	Outstanding, predictable performance ("Downhill Cruise")
Idle Governor Driving Mode allows driving slowly (for example, stalled traffic or backing) without cycling clutch	▶▶▶	Provides driving comfort while prolonging clutch life
Programmable Kick-Down Switch selects lower gear	▶▶▶	Maximizes driver input into truck performance
Programmable Economy and Performance modes available	▶▶▶	Custom-tailors performance to customer specifications
Informative Driver Display gives driver extra information	▶▶▶	More satisfying driving experience yields better driver retention
Direct Drive Available	▶▶▶	Lowers parasitic consumption by up to 3 HP at all times to save fuel
Pumped lubrication rather than splash lubrication	▶▶▶	Provides lubrication to where it's needed, even at low speeds for longer life
Two shifters and five software feature packages available	▶▶▶	Allows custom-tailoring to the customer's wants and needs
Upgradeability throughout engine's ratings	▶▶▶	Allows re-programming to any engine rating for maximum resale value
Ultra smooth clutch and launch control	▶▶▶	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

VOLVO I-SHIFT FEATURE PACKAGES

Features	I-Shift Feature Packages				
	Family 1			Family 2	
	Basic	Enhanced Basic	Fuel Economy	Performance	Comprehensive
Ergonomic seat mounted shifter	X	X	X	X	X
Basic shifter type without manual control options	X	X	X		
Premium shifter type allowing full manual control				X	X
Manual gear shifting in Drive mode				X	X
Manual gear shifting in Manual mode	Hold only	Hold only	Hold only	X	X
Manual selection of start gear				X	X
Idle governor driving mode for low speed control		X	X	X	X
Manual selection of idle driving gears				X	X
Economy mode for best fuel economy	X	X	X	X	X
Performance mode for best gradeability and off-road driving				X ^a	X ^a
Kick-Down for instant power and acceleration		X ^b	X ^b	X ^b	X ^b
Eco-Roll for improved fuel economy in top gear			X ^c		X ^c
Engine Brake Performance mode for maximum retardation	Limited functionality	X	X	X	X
Auto neutral if left in gear idling with parking brake applied	X	X	X	X	X
Auto neutral before engine shut-down if left in gear when key-off	X	X	X	X	X
Support for STD PTO features	X	X	X	X	X
Support for enhanced PTO features such as split boxes etc	Optional	Optional	Optional	Optional	Optional
Feature upgradeability	Unlimited within shifter family and between families with gear shifter change				
Engine Torque upgradeability	Unlimited				

Functionality of features programmable per customer preference: ^a Performance Mode: 1. Auto return to Economy 2. Strictly follow switch position 3. Enabled with Performance Bonus Reward 4. Disabled
^b Kick-Down: 1. Enabled 2. Enabled in Economy mode only 3. Enabled with Performance Bonus Reward 4. Disabled
^c Eco-Roll: 1. Enabled 2. Disabled

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