

ALLISON TRANSMISSION

Model	Torque Converter Ratios	1st	2nd	3rd	4th	5th	6th	7th	Rev	Total Ratio w/ Max Conv. 1st	Total Ratio w/ Max Conv. Rev
1000 HS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
1000 HS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2100 HS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2100 HS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2200 HS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2200 HS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2500 HS	2.05, 1.91, 1.73, 1.58	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1	N/A	-5.09:1	7.20	10.43
2500 HS xFE	2.05, 1.91, 1.73, 1.58	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1	N/A	-5.09:1	7.20	10.43
3000 HS	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	9.46	13.63
4000 HS	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	N/A	-4.80:1	8.49	11.62
4500 HS	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	4.70:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	N/A	-5.55:1	11.37	13.43
3414 RHS	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	2.03:1	1.47:1	1.00:1	0.69:1	0.59:1	N/A	-3.80:1	9.46	10.30
1000 RDS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
1000 RDS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2100 RDS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2100 RDS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2200 RDS	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2200 RDS xFE	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
2500 RDS	2.05, 1.91, 1.73, 1.58	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1	N/A	-5.09:1	7.20	10.43
2500 RDS xFE	2.05, 1.91, 1.73, 1.58	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1	N/A	-5.09:1	7.20	10.43
3000 RDS	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	9.46	13.63
3500 RDS	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	4.59:1	2.25:1	1.54:1	1.00:1	0.75:1	0.65:1	N/A	-5.00:1	12.44	13.55
4000 RDS	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	N/A	-4.80:1	8.49	11.62
4500 RDS	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	4.70:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	N/A	-5.55:1	11.37	12.34
4700 RDS	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	7.63:1	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	N/A	-4.80:1	18.46	11.62
B 210	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
B 220	2.05, 1.91, 1.73, 1.58	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1	N/A	-4.49:1	6.36	9.20
B 295	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	9.46	13.63
B 300	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	9.46	13.63
B 3400xEF	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	2.03:1	1.47:1	1.00:1	0.69:1	0.59:1	N/A	-3.80:1	9.46	10.30
B 400	2.71, 2.44, 2.35, 2.20, 1.98, 2.02, 1.77	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	N/A	-5.03:1	9.46	13.63
B 500	2.42, 2.34, 1.90, 1.79, 1.58, 1.62	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	N/A	-4.80:1	8.49	11.62

EATON FULLER TRANSMISSIONS

Model	Endurant HD DD	Endurant HD OD	Endurant HD N Natural Gas	Endurant XD	Endurant XD Pro
Type	Automated	Automated	Automated	Automated	Automated
Description	11 Forward Speeds 2 Reverse First Gear Ratio: 14.43 Overall Ratio: 14.43	12 Forward Speeds 2 Reverse First Gear Ratio: 14.43 Overall Ratio: 18.85	12 Forward Speeds 2 Reverse First Gear Ratio: 14.43 Overall Ratio: 18.85	18 Forward Speeds 2 Reverse First Gear Ratio: 14.32 Overall Ratio: 20.46	18 Forward Speeds 6 Reverse First Gear Ratio: 14.32 Overall Ratio: 20.46
Max GCW/ GCVV	Up to 80,000 lbs.	Up to 110,000 lbs.	Up to 80,000 lbs.	Up to 166,000 lbs.	Unlimited
Typical Truck Types	Linehaul, Regional Haul, Pickup & Delivery	Linehaul, Regional Haul, Pickup & Delivery	Linehaul, Regional Haul, Pickup & Delivery	Doubles, Triples, Linehaul, Construction, Towing	High power on-highway, Construction, Towing, Logging, Specialty
Transmission Nomenclature	EE-17F111B	EEO-14F112C	EHD-14F112C-N	EXD-16F118D	EXDP-16F118D
		EEO-15F112C		EXD-18F118D	EXDP-18F118D
		EEO-16F112C			EXDP-20F118D
		EEO-17F112C			
		EEO-18F112C			

DETROIT

Detroit DT12 Vocational Specifications

	DT12-V	DT12-VX
Speeds	12 forward / 4 reverse	12 forward / 4 reverse
Shift actuation	Pneumatic	
Clutch actuation	Pneumatic	
Max. input torque (lb-ft)	2,250	2,500
Max. GCWR (lb)	160,000	330,000
Overall ratio	19	16
Weight (dry / clutch)	650lbs / 112lbs*	650lbs / 112lbs*
Installation length	1199	1199
PTO capability	Rear / SAE 8-Bolt Bottom	Rear / SAE 8-Bolt Bottom
Truck Model Availability	Western Star 47X & 49X Freightliner 114SD Plus	Western Star 49X
Engine Compatibility	DD13 Gen 5 DD15 Gen 5, DD16	DD15 Gen 5, DD16

*DD16 or GVV over 160k requires a dual plate clutch which weighs 181.7lbs. Any vocational transmission can be opted up to a dual plate clutch.

Detroit® DT12 On-Highway Specifications

	DT12-HE	DT12-H	DT12-HL
Speeds	12 forward / 4 reverse		
Shift actuation	Pneumatic		
Clutch actuation	Pneumatic		
Max. Input Torque (lb-ft)	2,250	2,050	1,650
Max GCWR (lb)	160,000	140,000	80,000
Overall Ratio	18.8	15	15
Lifetime (B10, miles)	1.2 million		
Oil change interval (miles)	80k lb or more: 400,000 80k lb or less: Up to 600,000* (maintenance system)	80k lb or less: 400,000 80k lb or more: 300,000	80k lb or less: 400,000 80k lb or more: 300,000
Weight (dry / clutch)	650lb / 112lb	646lb / 112lb	534lb / 112lb
Installation length	1199	1201	1087
PTO capability	Rear / SAE bolt bottom	Rear	Rear
Truck Model Availability	Freightliner Cascadia & 114SD Plus Western Star 57X & 49X	Freightliner Cascadia	Freightliner Cascadia & 114SD Plus Western Star 57X & 49X
Engine Compatibility	DD13 Gen 5, DD15 Gen 5, DD16	DD13 Gen 5, DD15 Gen 5	DD13 Gen 5

*Certain application restrictions apply, see DemandDetroit.com for more details.

Model	FR Series 10C	FR Series 10B	RT-8LL	RT- 9ALL	RT-13	RT-18
Type	Manual	Manual	Manual	Manual	Manual	Manual
Description	10 Forward Speeds 2 Reverse First Gear Ratio: 12.69 Overall Ratio: 17.17	10 Forward Speeds 2 Reverse First Gear Ratio: 14.80 Overall Ratio: 14.80	10 Forward Speeds 3 Reverse First Gear Ratio: 14.56 Overall Ratio: 19.68	11 Forward Speeds 3 Reverse First Gear Ratio: 26.08 Overall Ratio: 35.73	13 Forward Speeds 3 Reverse First Gear Ratio: 12.29 Overall Ratio: 16.84	18 Forward Speeds 4 Reverse 1st Gear Ratio: 14.4 Overall Ratio: 19.73
Max GCW/ GCVV	Up to 140,000 lbs.	Up to 80,000 lbs.	Up to 140,000 lbs.	Up to 140,000 lbs.	Unlimited	Unlimited
Typical Truck Types	Linehaul, Regional Haul, Pickup & Delivery	Linehaul, Regional Haul, Pickup & Delivery	Highway Construction Dump, Block Truck, Pumper	Mixers, Asphalt, Spreading, Pumper, Crane	Doubles, Triples, Linehaul, Pick up and Delivery, Construction	Doubles, Triples, Linehaul, Pick up and Delivery, Construction
Transmission Nomenclature	FRO-14210C	FR-9210B	RTO-14908LL	RTO-14909ALL	RTL0-16913A	RTL0-16918B
	FRO-16210C	FRM-15210B	RTO-16908LL	RTO-16909ALL	RTL0-18913A	RTL0-18918B
	FRO-18210C	FRW-15210B			RTL0-20913A	RTL0-20918B
						RTL0-22918B

PACCAR

	Specifications
Designation	PACCAR TX-12 automated transmission
Engine compatibility	PACCAR MX engines
Vehicle compatibility	Kenworth, Peterbilt
Gears	12 forward / 2 reverse
Lower cruise speed limit	1,100 rpm
Torque capacity	1,850 lbs.
Max operating weight	110,000 lbs.
System weight (transmission, clutch and oil)	657 lbs.
Maintenance intervals	Transmission – 750,000-mile oil change Clutch – maintenance free
Oil capacity	16 pints
PTO maximum capacity	8 bolt, bottom mount, 95 hp.
Fluid pressure sensor	Protection from gear burn-up
Warranty coverage	Transmission – 5 years / 750,000 miles Clutch – 3 years / 350,000 miles
Gear selector positions	R – Reverse, N – Neutral, D – Drive, M – Manual
ratios, forward gears	1 14.43 2 11.05 3 8.44 4 6.46 5 4.95 6 3.79 7 2.91 8 2.23 9 1.70 10 1.30 11 1.00 12 0.77
ratios, reverse gears	1 16.92 2 12.95
Overall	18.85

	Specifications
Designation	PACCAR TX-18 or TX-18 Pro automated transmission
Engine compatibility	PACCAR MX engines
Vehicle compatibility	Kenworth, Peterbilt
Gears	18 forward / 3 reverse (TX-18) or 6 (TX-18 Pro)
Torque capacity	1,850 lbs.
Max operating weight	140,000 lbs.
System weight (transmission, clutch and oil)	808 lbs. (TX-18) 813 lbs. (TX-18 Pro)
Maintenance intervals	On-Highway – 500,000 miles or 5 years Vocational – 250,000 miles or 3 years Clutch – maintenance free
Oil capacity	25.4 pints
PTO maximum capacity	160 hp Standard dual PTO 8-bolt bottom mount, 4-bolt rear mount
Warranty coverage	Line haul – 5 years / 750,000 miles Standard – 3 years / 300,000 miles Severe Duty – 2 years / Unlimited miles
Gear selector positions	R – Reverse, N – Neutral, D – Drive, M – Manual
ratios, forward gears	1 14.32 2 11.96 3 10.02 4 8.43 5 7.04 6 5.9 7 4.95 8 4.13 9 3.46 10 2.89 11 2.41 12 2.02 13 1.7 14 1.42 15 1.19 16 1 17 0.83 18 0.7
ratios, reverse gears	1 15.25 2 12.73 3 10.67 *4 3.08 *5 2.57 *6 2.15
Overall *TX-18 Pro	20.46

MACK TRUCKS

Transmission	Mack mDRIVE™ AMT				Mack mDRIVE™ HD AMT		
	TmD12AO	TmD12AD	TmD12AO-HD/ TmD12AO-HDX	TmD12AD-HD/ TmD12AD-HDX			
Speeds	12 OD	12 direct	12 OD	12 direct	13 OD	13 direct	14 OD
hp rating	505	505	505	505	505	505	505
Torque Rating (lb/ft)	1850	1850	1850	1850	1850	1850	1850
GEAR RATIOS							
Creep 1					17.54	19.38	32.04
Creep 2							19.38
1st	11.73	14.94	11.73	14.94	11.73	14.94	11.73
2nd	9.21	11.73	9.21	11.73	9.21	11.73	9.21
3rd	7.09	9.04	7.09	9.04	7.09	9.04	7.09
4th	5.57	7.09	5.57	7.09	5.57	7.09	5.57
5th	4.35	5.54	4.35	5.54	4.35	5.54	4.35
6th	3.41	4.35	3.41	4.35	3.41	4.35	3.41
7th	2.70	3.44	2.70	3.44	2.70	3.44	2.70
8th	2.12	2.70	2.12	2.70	2.12	2.70	2.12
9th	1.63	2.08	1.63	2.08	1.63	2.08	1.63
10th	1.28	1.63	1.28	1.63	1.28	1.63	1.28
11th	1.00	1.27	1.00	1.27	1.00	1.27	1.00
12th	0.78	1.00	0.78	1.00	0.78	1.00	0.78
REVERSE CREEPER					20.53	37.49	37.49
REVERSE 1	13.73	17.48	13.73	17.48	13.73	17.49	13.73
REVERSE 2	10.78	13.73	10.78	13.73	10.78	13.73	10.78
REVERSE 3					8.62		8.62

VOLVO TRUCKS

Designation	I-Shift 12 Speed		I-Shift 13 Speed		I-Shift 14 Speed
	AT2612F	ATO2612F	AT2612F	ATO2612F	ATO2612F
Type	AMT (Direct Drive)	AMT (Overdrive)	AMT (Direct Drive)	AMT (Overdrive)	AMT (Overdrive)
Engine Compatibility	D11, D13, D13TC				
Vehicle Compatibility	VNL,VNR,VHD	VNL,VNR,VHD,VNX,VAH	VNL,VNR,VHD	VNL,VNR,VHD,VNX	VNL,VHD,VNX
Max Input Torque [lbs.- ft. (Nm)]	1,900 (2600)				
Max GCW [lbs. (tons)]	110,000 (50)		220,000 (100)		220,000 (100)
Dry Weight with oil cooler, clutch, and housing [lbs. (kg.)]	720 (327)		809 (367)		809 (367)
Oil drain intervals [miles (km)]	500,000 (800,000)		500,000 (800,000) - 250,000 (400,000)		500,000 (800,000) - 250,000 (400,000)
Oil Capacity (quarts (liters))	Approx. 16.2 (15.3)		Approx. 17.9 (16.9)		Approx. 17.9 (16.9)
Gear selection positions	D-Drive, N-Neutral, R-Reverse, M-Manual				
Driving Modes	EE-Extra Economy, E-Economy, P-Performance, P+-Performance +				
Number of Gears	12		13		14
Overall Ratio	14.94:1	14.94:1	19.38:1	22.34:1	32.04
Ratios, forward gears	1 14.94:1 2 11.73:1 3 9.04:1 4 7.09:1 5 5.54:1 6 4.35:1 7 3.44:1 8 2.7:1 9 2.08:1 10 1.63:1 11 1.27:1 12 1:01	11.73:1 9.21:1 7.09:1 5.57:1 4.35:1 3.41:1 2.7:1 2.12:1 1.63:1 1.01	19.38:1 14.94:1 11.73:1 9.04:1 7.09:1 5.54:1 4.35:1 3.44:1 2.7:1 2.08:1 1.63:1 1.27:1	17.54:1 11.73:1 9.21:1 7.09:1 5.57:1 4.35:1 3.41:1 2.7:1 2.12:1 1.63:1 1.28:1 1.00:1	22.34:1 17.54:1 11.73:1 9.21:1 7.09:1 5.57:1 4.35:1 3.41:1 2.7:1 2.12:1 1.63:1 1.28:1
Number of reverse gears	Two Standard (Up to four available)				
Ratios, reverse gears	1 17.49:1 2 13.73:1 3 4.02:1 4 3.16:1 5 6	13.73:1 10.78:1 3.16:1 2.48:1	17.49:1 13.73:1 8.62:1 4.02:1 3.16:1	13.73:1 10.78:1 8.62:1 3.16:1 2.48:1	37.49 13.73:1 10.78:1 8.62:1 3.16:1 2.48:1