T14 Transmission Competitive Comparisons



Specifications/Features	International® T14	Detroit DT12 (OHE-OV)	Volvo iShift / Mack mDrive
# of Speeds/Gears	14	12	12
Reverse Speeds/Gears	6	4	4
Overall Ratio	26.7	18.767	15.04
Gear Ratio Range	20.81 - 0.78	14.563 - 0.776	11.73 - 0.78
Gear Steps	29%	29-38%	26-30%
Torque (lb-ft)/HP	1,850	1,850	2,600
Case Material	Aluminum	Aluminum	Aluminum
Gear Train Design	Single Countershaft	Single Countershaft	Single Countershaft
Total Wet Weight w/Clutch (lbs.)	678	781.2	789
Overall Length (mm)	785	1199	891
Shift Actuation	Pneumatic	Pneumatic	Pneumatic
Clutch Actuation	Electric	Pneumatic	Pneumatic
Clutch Type	430 mm Single Plate Organic Pull	Single Plate Organic	Single Plate Organic
Oil Quantity in Quarts (Pints)	9.6 (19.2)	10.9	17.9
Oil Cooler	Integrated Cooler, Standard	DHE OAC Opt <= 80k Required OAC	External
Oil Lubrication System	Variable Fluid Management System	Variable Fluid Management System	Standard Wet Sump
Oil Service Interval	600K Miles	600K Miles	500K Miles
Transmission PTO Offerings	Rear PTO, Air (Single/Dual)	2 PTO Provisions - Bottom 8-bolt & Rear	Rear PTO (single, double or triple)

T14 Transmission Competitive Comparisons



Specifications/Features	iShift HD / Mack mDrive HD	Eaton Endurant HD	Eaton Endurant XD
# of Speeds/Gears	13 or 14	12 DD	18
Reverse Speeds/Gears	6	2	6
Overall Ratio	41.025	19.73	20.5
Gear Ratio Range	32 - 0.78	14.43 – 0.77	14.32 - 0.70
Gear Steps	26-50%	31%	20%
Torque (lb-ft)/HP	2,300	1,850 / 510	2,050
Case Material	Aluminum	Aluminum	Aluminum
Gear Train Design	Single Countershaft	Twin Countershaft	Twin Countershaft
Total Wet Weight w/Clutch (lbs.)	840.5	705	825
Overall Length (mm)	1,016	964	1048
Shift Actuation	Pneumatic	Pneumatic	Pneumatic
Clutch Actuation	Pneumatic	Pneumatic	Pneumatic
Clutch Type	Single Plate Organic	430 mm Single Plate Organic Push	430 mm Single Plate Organic Push, High Temp
Oil Quantity in Quarts (Pints)	17.9	8	12.7 (25.4)
Oil Cooler	External	No	Cooler Optional
Oil Lubrication System	Standard Wet Sump	Dry Sump	Dry Sump
Oil Service Interval	500K Miles	750K Miles	750K Miles
Transmission PTO Offerings	Rear PTO (single, double or triple)	2 PTO Provisions - Bottom 8-bolt & Rear (optional)	2 PTO Provisions - Bottom 8-bolt & Rear

T14 Transmission Competitive Comparisons



AUTOMATED (F	International® T14	Allison 4500	Allison 4700	
Specifications/Features # of Speeds/Gears	14	6	7	
Reverse Speeds/Gears	6	1	2	
Overall Ratio		·		
	26.7	41.09	69.79	
Gear Ratio Range	20.81 - 0.78	27.63* - 0.76	44.67* - 0.64	
Gear Steps	29%	13-113%	16-117%	
Torque (lb-ft)/HP	1,850	1,550 / 1,650	1,550 / 1,850	
Case Material	Aluminum	Aluminum	Aluminum	
Gear Train Design	Single Countershaft	Planetaries	Planetaries	
Total Wet Weight w/Clutch (lbs.)	678	920.76	1182.04	
Overall Length (mm)	785	848.8	1,104.60	
Shift Actuation	Pneumatic	Hydraulic	Hydraulic	
Clutch Actuation	Electric	-	-	
Clutch Type	430 mm Single Plate Organic Pull	Torque Converter	Torque Converter	
Oil Quantity in Quarts (Pints)	9.6 (19.2)	51	54	
Oil Cooler	Integrated Cooler, Standard	Required	Required	
Oil Lubrication System	Variable Fluid Management System	Yes	Yes	
Oil Service Interval	600K Miles	Varies by Application	Varies by Application	
Transmission PTO Offerings	Rear PTO, Air (Single/Dual)	2 PTO Provisions - 10-bolt at 1 & 8 o'clock	2 PTO Provisions - 10-bolt at 1 & 8 o'clock	
		*Using a multiplier of 2.42 for the torque converter (Allison**)		