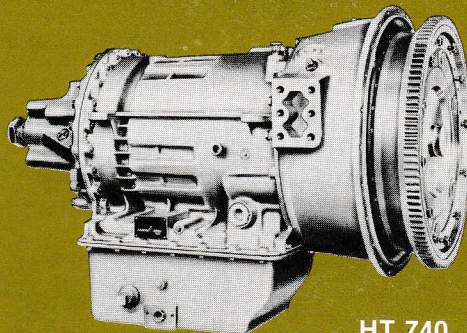


# Allison Transmissions **automatic models**

HT 740, HT 747  
up to 445 nhp  
(332 kW)



HT 740, HT 747

## specifications

		HT 740	HT 747 †
<b>general rating +</b>	Net input power	445 nhp (332 kW) (max)	365 nhp (272 kW) (max)
	Input speed, full-load governed	2400 rpm (max) 1900 rpm (min)	2400 rpm (max) 1900 rpm (min)
	Net input torque	1300 lb ft (1763 N•m) (max)	1100 lb ft (1491 N•m) (max)
	Vehicle weight	Up to 80,000 lbs (36280 kg) GVW and 130,000 lbs (58960 kg) GCW (max)	60,000 lb (27216 kg) (max)***
<b>mounting</b>	Direct	SAE 1 flywheel housing with flex plate drive	
	Remote	Converter housing side pads, and rear housing top pad	
<b>torque converter</b>	Type	Single-stage, 3-element, polyphase	
	Stall torque ratios	TC 470—3.04 TC 495—2.21 TC 496—1.83 TC 499—2.09	
	Automatic lockup clutch	Effective in all forward ranges or effective in 2nd through 4th ranges—depending on model used	
<b>optional input retarder</b>	Type	Coupling type rotor between fixed stators	
	Capacity (power absorption)	365 hp (272 kW) @ 2100 rpm (rotor speed)	
<b>gearing</b>	Type:	Constant mesh, spur type, planetary	
	Range:	Ratios*: standard & second gear start	
	First	3.692	
	Second	2.021	
	Third	1.383	
	Fourth	1.000	
Reverse	6.035		
*Gear ratio does not include torque converter ratio			
<b>power takeoff**</b>	Converter driven (one)	10 o'clock position (as viewed from rear)	
	Location	SAE 6-bolt	
	Size of opening	1.00 × turbine speed	
	Ratio	Intermittent—400 lb ft (543 N•m) Continuous—300 lb ft (407 N•m)	
	Drive gear rating		
	Engine driven (two) (optional)	Converter housing: one at 1 o'clock position and one at 8 o'clock position (as viewed from rear)	
	Location	SAE 8-bolt	
	Size of opening	1 o'clock—1.35 × engine speed 8 o'clock—0.84 × engine speed	
Ratio	Intermittent—260 hp (194 kW) Continuous—200 hp (149 kW)		
Rating			
<b>oil system</b>	Oil type	Dexron®, Dexron II®, or C-3	
	Capacity (approx.)	7.5 US gal (28.4 L) 6" or 7" pans; 8.5 US gal (33.2L) w/optional 4.5" pan	
	Sump	Integral	
	Filter**	External, remote mounted	
<b>size</b>	Length	37.4 in. (950 mm)	
	Width	22.7 in. (576 mm)	
	Height (7" pan)	26.6 in. (675 mm)	
	Weight (dry)	830 lbs (377 kg)	

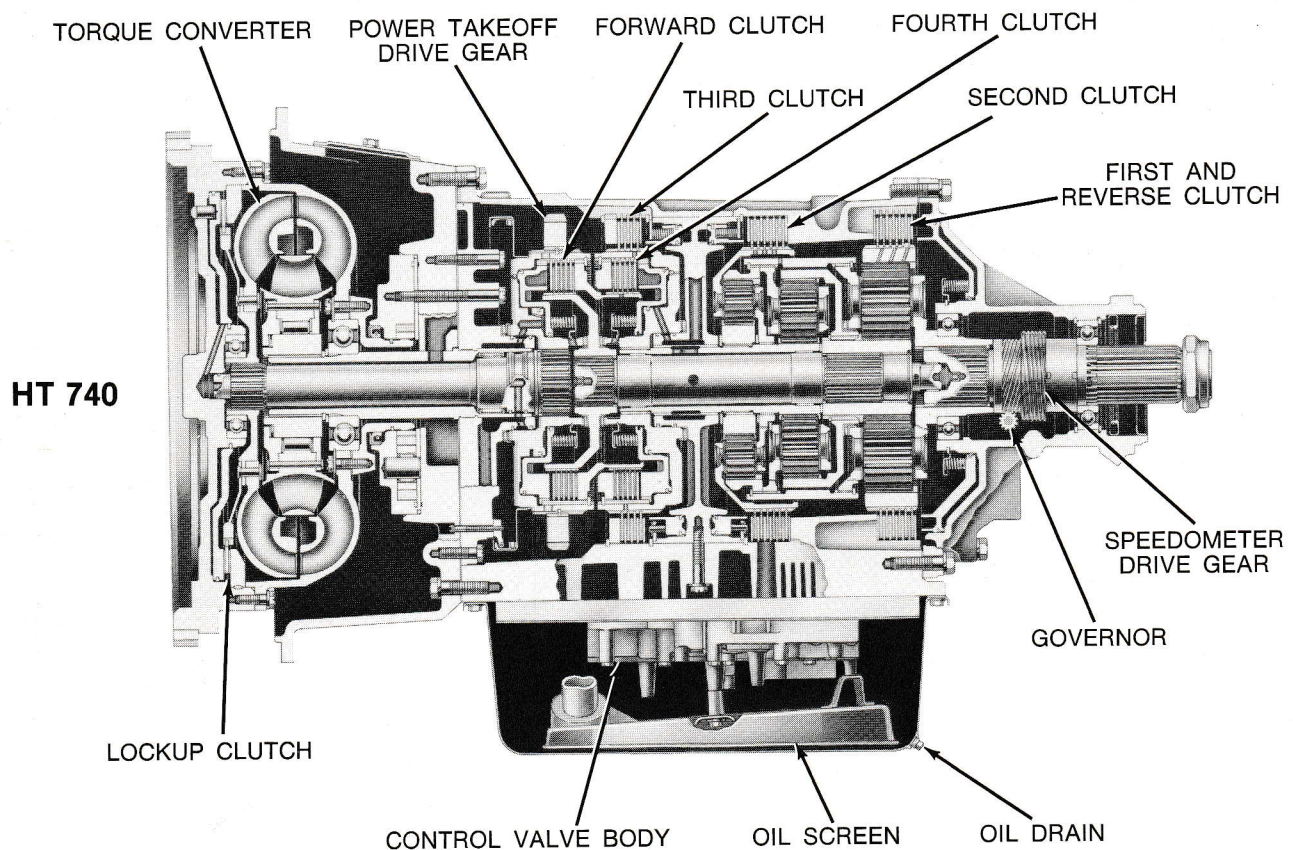
\*\*\* Including standing passengers

\*\* Not furnished on transmission assembly but is supplied by vehicle manufacturer.

+ Vocational ratings vary significantly from general ratings. Consult DDA sales for specific vocational ratings.

† For transit coach applications only

## design features



## design features & benefits

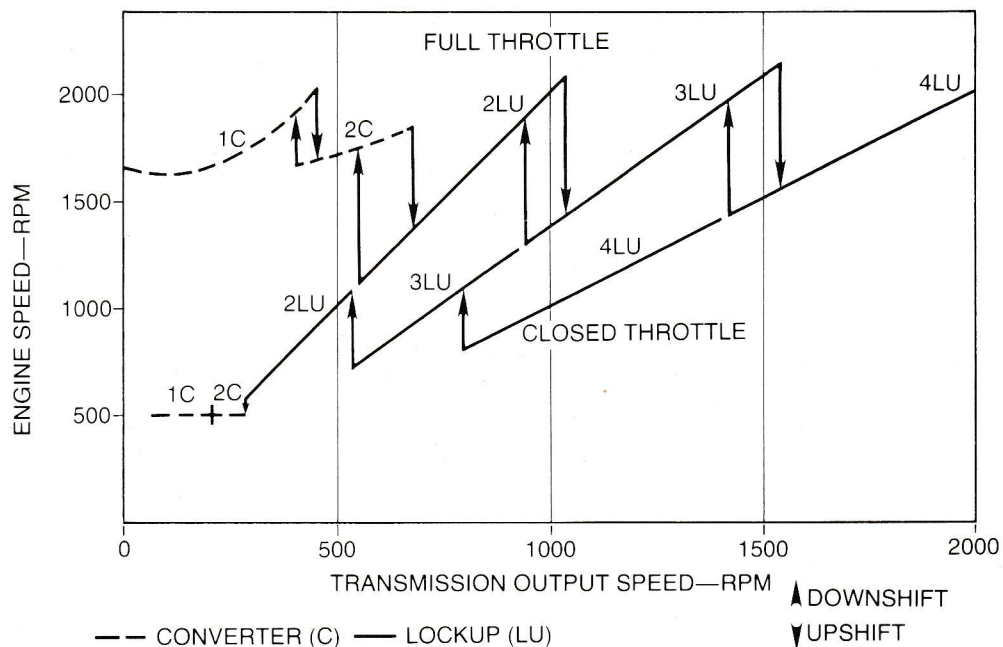
- The HT 740 Series has four forward gear ranges and one reverse, and will accommodate diesel engines up to 445 net hp (332 kW). It is designed for use in medium- and heavy-duty trucks up to 80,000 lbs (36280 kg) GVW and 130,000 lbs (58960 kg) GCW and 60,000 lbs (27216 kg) in buses.
- Fully automatic governor controlled upshifting and downshifting in each drive range.
- Optional input retarder with modulation.
- Shift modulation with throttle.
- 7" (std.), 4.5", 6" and 8.5" oil pans available as options.

## design features & benefits (cont.)

- Inhibitors to prevent harmful downshifts or reverse shifts.
- Engine-driven power takeoff drive gear (optional).
- Converter-driven power takeoff drive gear.
- Choice of converters to match wide range of diesel engines.
- Provision for neutral start switch, reverse signal switch, SAE heavy-duty speedometer drive, and drum-type parking brake.
- Multidisk, self-adjusting hydraulic clutches.
- Optional second gear start availability.
- The HT 747 incorporates a forged lockup piston for added durability and a three-gear oil pump to increase cooler and lubrication flow; it has been introduced for use in the transit coach industry.

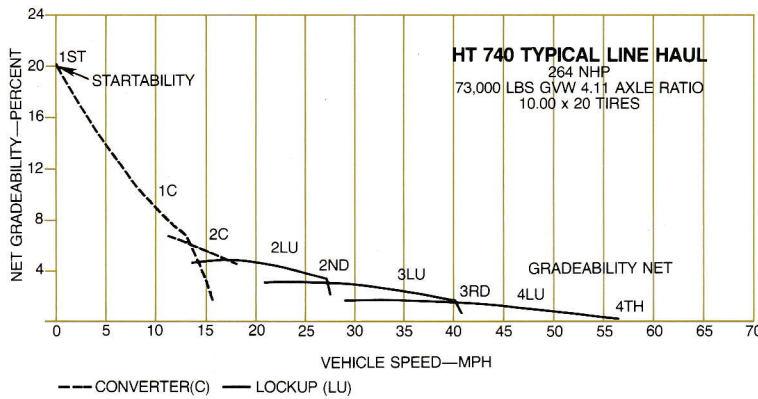
## shifting flexibility and economy

TYPICAL HT 740/747  
AUTOMATIC SHIFT POINT SCHEDULE  
2100 RPM CALIBRATION  
1-4 SHIFT LEVER POSITION



- Lockup clutch effective in all forward ranges or effective in 2nd through 4th ranges—depending on model used

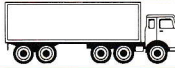









# typical performance



## Performance and Gradeability

- The torque converter provides "better than stick" stability for faster acceleration and easier pull out from ramps or ruts.
- Torque converter combined with constant mesh planetary gearing provides full power shifts and uninterrupted power flow for faster acceleration and shorter trip times.
- Automatic modulated lock-up clutch operation after start provides maximum performance and fuel economy.

# typical applications

HT 740		HT 740	
	■ SHORT HAUL TRACTOR		■ DUMP TRUCK (w/auxiliary)
	■ INTERCITY COACH		■ TRANSIT MIXER (w/auxiliary)
	■ FIRE TRUCK		■ LOGGING TRUCK (w/auxiliary)
	■ LINE-HAUL		■ AG SPREADER/HAULER (w/auxiliary)
	■ BULK HAULING	<b>HT 747</b>	
			■ CITY/TRANSIT BUS

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## Allison Transmissions

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