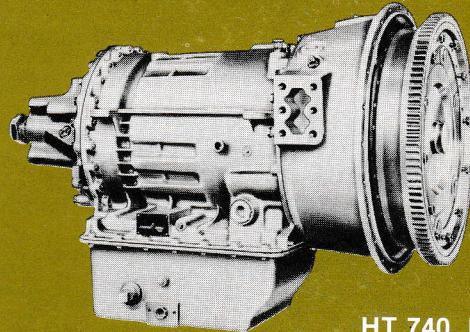


Allison Transmissions

automatic models

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



HT 740, HT 747

specifications

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

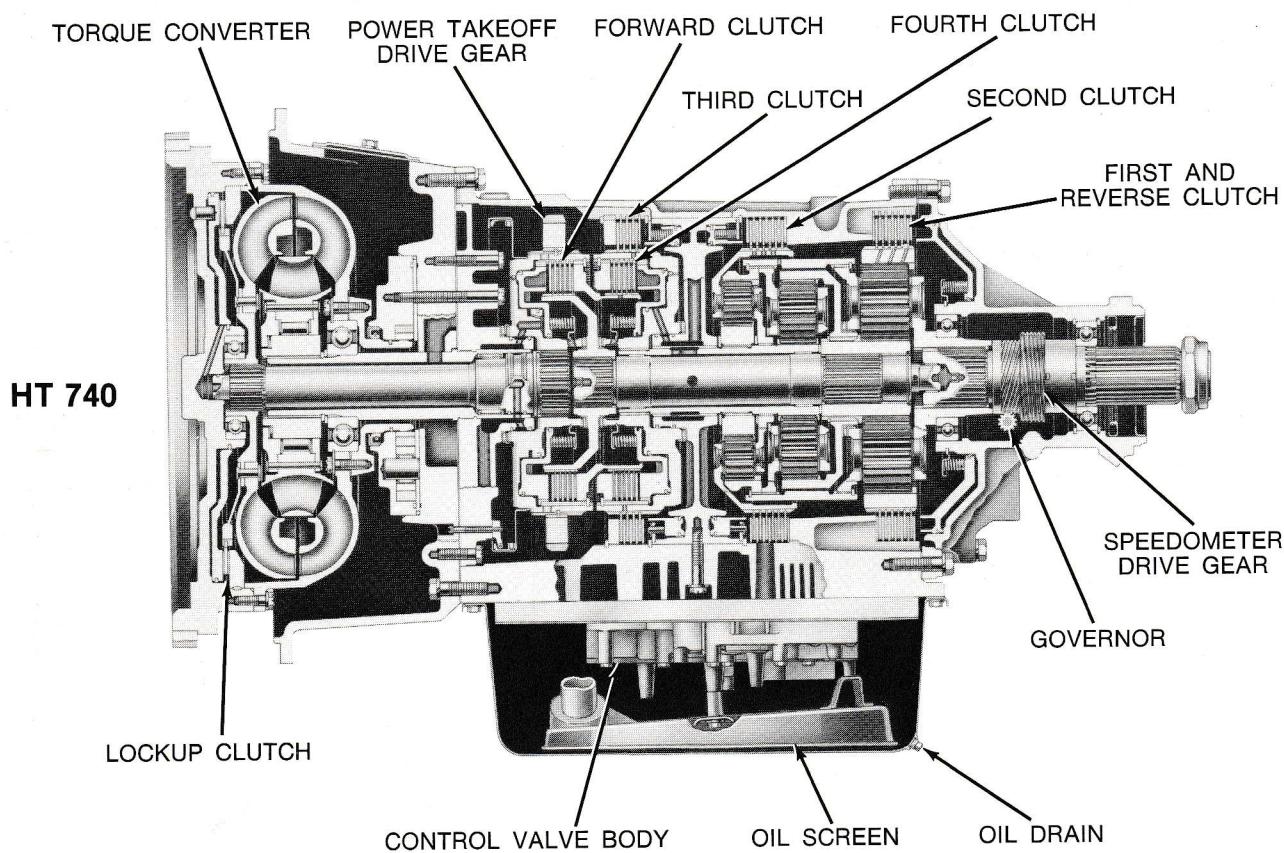
*** Including standing passengers

** 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



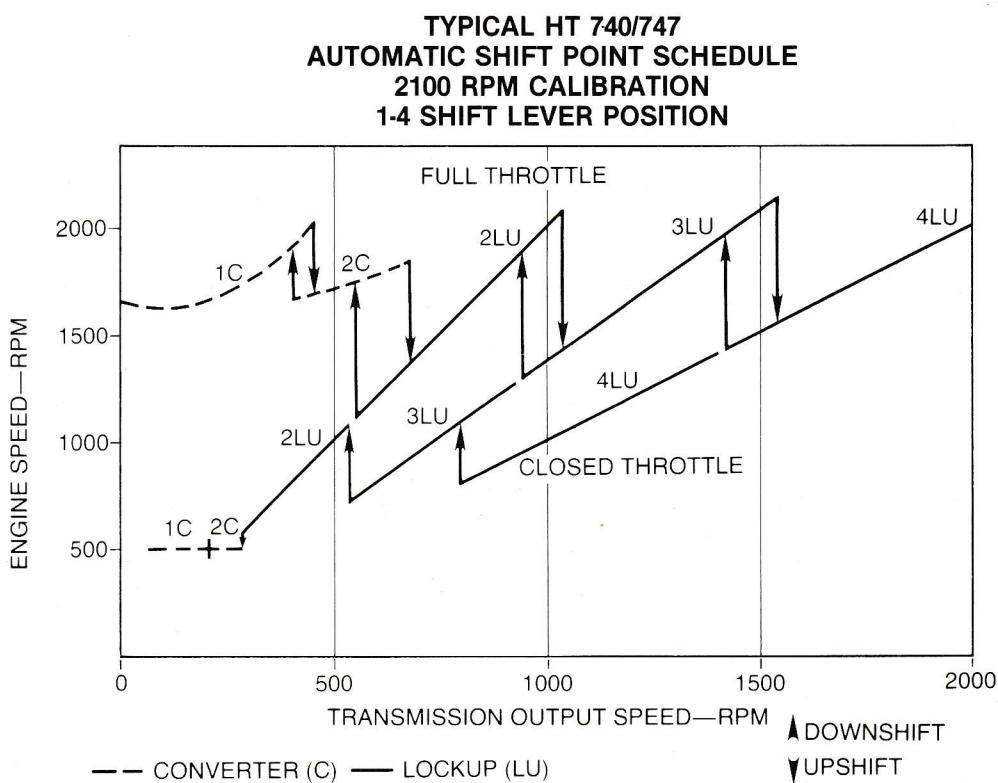
design features & benefits

- 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.)

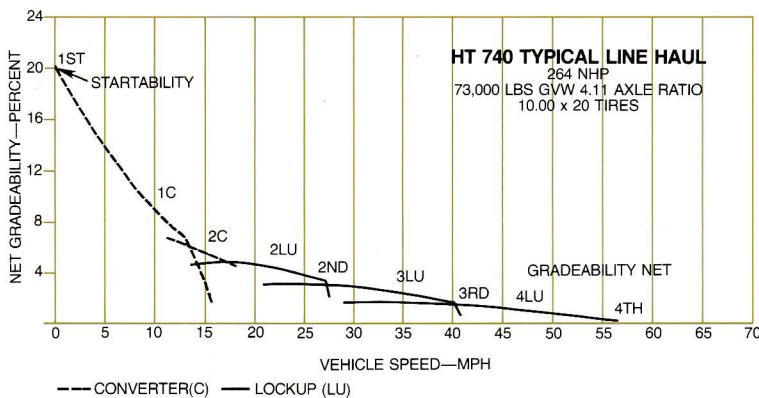
- Inhibitors to prevent harmful downshifts or reverse shifts.
- Engine-driven power takeoff drive gear (optional).
- Converter-driven power takeoff drive gear.
- Choice of converters to match wide range of diesel engines.
- Provision for neutral start switch, reverse signal switch, SAE heavy-duty speedometer 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



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

SCAAN Specification Assistance. To be sure that you get the most efficient engine/transmission package for your operation, in your territory, with your preferred vehicle, your local Detroit Diesel Allison distributor offers SCAAN.

SCAAN stands for System for Computerized Application Nalysis and helps take the guesswork out of vehicle-buying decisions. What's more, it does it quickly and accurately through computer terminals located at all distributor outlets. This means rapid

analysis of your vehicle needs on the spot. SCAAN can compute a wide variety of vehicle performance parameters: including gradeability, acceleration and retardation. SCAAN will also check your powertrain specifications against DDA vocational experience to insure satisfactory vehicle performance.

SCAAN's user friendly, interactive operation allows alternate vehicle configurations to be quickly evaluated to insure optimized powertrain selection.

Allison Transmissions

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