



Maximize Uptime. Drive Cleaner.

Maximize Uptime Minimize Maintenance

The refuse collection requires the ability to handle heavy loads and withstand heavy start-stop duty cycles, every day. You can't afford to lose any trucks or time. Allison's torque converter reliably and smoothly multiplies engine torque, delivering more power to the wheels. By multiplying the engine power, drivers get increased performance, faster acceleration and greater operational flexibility.

Whether driving up and down hills, maneuvering in narrow city streets or picking up household waste bin-by-bin, house-by-house, the proven reliability gives you increased uptime and minimized maintenance. Combine this with the fuel efficiency of xFE technology and you are significantly lowering your Total Cost of Ownership.

Bin pick-ups
can run from
800 up to

1,500

bins per day

Our Strengths, Your Benefits

Ease Of Operation

PTO Provides Integrated
One-Touch Power For Accessories

Increased Uptime + Reliability

Faster Acceleration

Extra Comfort, Easier to Drive

Allison transmissions provide a more comfortable and smoother drive. This is particularly important for refuse collectors at the back of the truck who are prone to arm and spinal cord injuries from being shaken around. As the driving experience is more enjoyable and less fatiguing, it is easier to attract and retain quality drivers while driver performance improves as well.

More Precise and Easy Maneuverability

Our Continuous Power Technology™ delivers more power to the wheels than other transmission technologies. This allows for superior launch with up to a 14% higher average speed. An Allison fully automatic transmission eliminates power interrupts while a manual or AMT loses power with every shift.

The Most Powerful Take-Off

Allison's Power Take-Off (PTO) can be driven at engine speed. Our Transmission Control Module commands how and when the PTO engages and monitors operating conditions, minimizing potential damage and hazards, making operation easier for drivers.

Increased Control

Allison Automatics improve driver awareness and control, from combating vehicle rollback - a major concern with manual transmissions - to providing superior vehicle control and maneuverability at low speeds thanks to the torque converter.

Drive Cleaner And Quieter

Allison + Natural Gas = A Perfect Fit

Allison Automatics get the most out of medium- and heavy-duty vehicles equipped with natural gas engines, both compressed (CNG) and liquefied natural gas (LNG), allowing those vehicles to maximize performance with the cleaner and quieter natural gas engine.

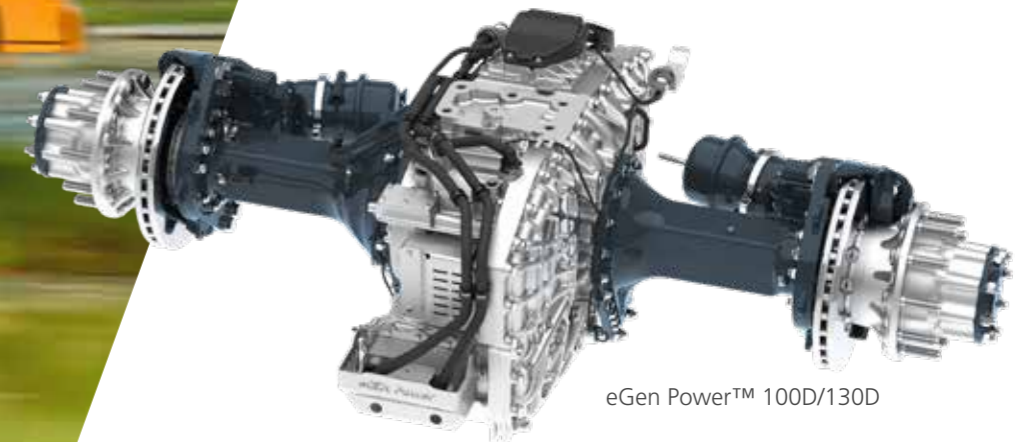
Our torque converter's superior control at low speed and multiplication of engine torque give natural gas engines superior launch, while our electronic controls and gearbox designs allow for full-power shifting.



Relentless Innovation

Allison Transmission is leading the charge in innovative propulsion solutions.

Our eGen Power™ fully integrated zero emission electric axles are a powerful option with unprecedented capabilities, perfect for fleets headed down the path to full electrification.



eGen Power™ 100D/130D

Electrifying The Future

Allison eGen Power™ e-Axles are well suited to heavy-duty applications such as refuse. They stand out due to their compact, lightweight design, their ability to work both at high speeds and on steep gradients, and, most notably, their high efficiency - helping to minimize battery pack size and maximize payload.

xFE

The Route To Extra Fuel Economy

xFE enables early lockup to reduce and improve emissions. Gear ratios and ratio spread are optimized and will allow the vehicle to spend more time in higher ranges at lower engine speeds reducing CO₂ and increasing fuel savings.



Scan the code to view the latest on our xFE technology.



▼ 3.7%

reduces CO₂ emissions



12
extra tours
around the globe



3,728
barrels
of oil



63,960
bags
of waste



191,704,906
smart phone
charges

Note

Example simulation based on Vehicle Energy Consumption Tool (VECTO) calculations for refuse duty cycles. Comparison to tours, oil, waste and smart phones based on EPA online calculator found at EPA.gov.

FuelSense® 2.0

Allison Transmission is proud to package xFE with our latest FuelSense® 2.0 technology including Neutral at Stop, Acceleration Rate Management and DynActive® shifting, the technology that chooses the optimal shift point, based on your vehicle, specifications and environmental parameters.

DynActive® Shifting

This innovative shift scheduling uses an algorithm to choose the optimal shift point, based on your vehicle, specifications and environmental parameters, continuously delivering the ideal balance of fuel economy and performance. DynActive® Shifting enables your vehicle to operate at peak efficiency, no matter the driving conditions.

Neutral at Stop

This feature trims fuel consumption and emissions by reducing or eliminating the load on the engine when the vehicle is stopped.

Acceleration Rate Management

This feature mitigates aggressive driving by automatically controlling engine torque to one of five available levels of engagement, precisely managing vehicle acceleration to a calibrated rate.



3000 Series™

Refuse

Ratings (International Series)

Model	Ratio	Park Pawl	With Torque Management			Without Torque Management			Max GVW	Max GCW
			Gross Input Power	Gross Input Torque	Net Turbine Torque	Gross Input Power	Gross Input Torque	Net Turbine Torque		
			kW (hp)	N·m (lb-ft)	N·m (lb-ft)	kW (hp)	N·m (lb-ft)	N·m (lb-ft)		
1000 ¹	Close	Yes	300 (224)	565 (766)	950 (1288)	300 (224)	550 (746)	850 (1152)	16,540 (7500)	16,540 (7500)
1350 ¹	Close	Yes	300 (224)	565 (766)	950 (1288)	300 (224)	550 (746)	850 (1152)	16,540 (7500)	16,540 (7500)
2100 ¹	Close	No	300 (224)	565 (766)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,500 (12,000)	26,500 (12,000)
2500 ¹	Wide	No	300 (224)	565 (766)	950 (1288)	300 (224)	550 (746)	850 (1152)	26,500 (12,000)	26,500 (12,000)
3000	Close	No				320 (239)	875 (1186)	1600 (2169)	62,832 (28,500)	—
3200	Close	No	370 (276)	1250 ² (1695 ²)	1600 (2169)	370 (276)	1100 (1491)	1600 (2169)	62,832 (28,500)	—
3500	Wide	No				330 (246)	860 (1166)	1420 (1925)	60,000 (27,216)	—
4000	Close	No				500 (373)	1550 (2102)	2450 (3322)	—	—
4430	Wide	No				380 (283)	1150 (1560)	2450 (3322)	—	—
4440	Wide	No				425 (317)	1310 (1776)	2450 (3322)	—	—
4440	Wide	No				500 (373)	1550 (2102)	2450 (3322)	—	—
4700	Deep	No				500 (373)	1550 (2102)	2450 (3322)	—	—

¹ Available with xFE. ² Available in gears three through six

Gear Ratios Torque Converter Multiplication Not Included

Model	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Reverse	2nd Reverse
1000/1350/2100 2200/2300/2350 ¹	3.10:1	1.81:1	1.41:1	1.00:1	0.71:1	0.61:1 ²	—	-4.49:1	—
2500/2550 ¹	3.51:1	1.90:1	1.44:1	1.00:1	0.74:1	0.64:1 ²	—	-5.09:1	—
3000	3.49:1	1.86:1	1.41:1	1.00:1	0.75:1	0.65:1	—	-5.03:1	—
3500	4.59:1	2.25:1	1.54:1	1.00:1	0.75:1	0.65:1	—	-5.00:1	—
4000	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	—	-4.80:1	—
4500	4.70:1	2.21:1	1.53:1	1.00:1	0.76:1	0.67:1	—	-5.55:1	—
4700	7.63:1 ⁵	3.51:1	1.91:1	1.43:1	1.00:1	0.74:1	0.64:1	-4.80:1	-17.12:1 ⁶

¹ Available with xFE ² Check with your OEM to ensure offerings. ³ Manually selected first gear. ⁴ SEM/LRTP or LRTP only is required.



Physical Description

Base Model	Length ¹	Depth ² w/Deep Oil Pan/Sump	Depth ² w/Shallow Oil Pan/Sump	Dry Weight
	mm (in)	mm (in)	mm (in)	kg (lbs)
1000/2000 ³				
SAE No. 3 mounting	711.7 (28.02)	285.1 (11.22)	272.0 (10.71)	146.5 (323)
SAE No. 2 mounting	721.2 (28.40)	285.1 (11.22)	272.0 (10.71)	146.5 (323)
3000				
Basic model	718.7 (28.30)	327.7 (12.90)	283.0 (11.14)	243 (535)
With PTO only	825.4 (32.50)	327.7 (12.90)	283.0 (11.14)	261 (575)
With retarder only	718.5 (28.29)	327.7 (12.90)	283.0 (11.14)	279 (615)
With PTO + retarder	825.4 (32.49)	327.7 (12.90)	283.0 (11.14)	298 (655)
4000/4500				
Basic model	775.8 (30.54)	374.7 (14.75)	337.6 (13.29)	377 (831)
With PTO only	848.8 (33.41)	374.7 (14.75)	337.6 (13.29)	405 (893)
With retarder only	775.8 (30.54)	374.7 (14.75)	337.6 (13.29)	411 (906)
With PTO + retarder	848.8 (33.41)	374.7 (14.75)	337.6 (13.29)	439 (968)
4700				
Basic model	1031.5 (40.61)	378.2 (14.89)	—	493 (1087)
With PTO only	1104.5 (43.49)	378.2 (14.89)	—	521 (1149)
With retarder only	1031.5 (40.61)	378.2 (14.89)	—	527 (1162)
With PTO + retarder	1104.5 (43.49)	378.2 (14.89)	—	555 (1224)

¹ Length measured from flywheel housing to end of output shaft. ² Depth measured below transmission centerline. ³ 2000 SP - only 2000 model available with shallow oil pan.

Standard Power Take-Off Continuous Operation

Base Model	Mounting Pad Positions Viewed from Rear	Drive Gear Rating with one PTO	Drive Gear Rating with two PTOs	Drive
		N·m (lb-ft)	N·m (lb-ft)	
Side/Side - 2000	3 and 9 o'clock	339 (250)	271 ² (200) ²	Turbine
Side/Side - 3000 ¹	4 and 8 o'clock	660 (485)	930 ^{3,4} (685) ^{3,4}	Engine
Top/Side - 3000	1 and 8 o'clock	660 (485)	930 ^{3,4} (685) ^{3,4}	Engine
4000 ¹	8 o'clock	930 (685)	1595 ^{3,4} (1175) ^{3,4}	Engine

¹ PTO-delete option available. ² Rating per PTO. ³ Total on the drive gear. ⁴ Minimum 600 rpm idle speed required when dual PTOs are used simultaneously.

Notes

Features + Advantages

Transmission Mounted PTOs used with an Allison transmission can:

- Always be connected to the engine due to the torque converter and power shift technology. Split-Shaft PTOs also provide this benefit.
- Use hydraulic pressure to engage a hot-shift clutch.
- Allow for constant PTO speed at varying low vehicle speed operation due to the torque converter.
- Be used in all gears for mobile operation.

PTO Delete Option
Available on 3000, 3500, 4000 and 4500 RDS.

Oil Level Sensor
At the push of a button, oil levels are displayed on shift selectors for easy identification. Standard 3000, 3500, 4000, 4500 and 4700 RDS.*

Deep Oil Pan/Sump
Standard for all Rugged Duty Series™ models.

Prognostics
Eliminates unnecessary oil and filter changes by monitoring various operating parameters to determine and alert you when a specific maintenance function is required.

2nd Reverse
Allison 2nd Reverse in the 4700 RDS offers a second "deep reverse" in addition to the standard reverse to provide greater control and engine braking during operation on steep grades. It also enables more maneuverability when operating in confined spaces.

DynActive® Shifting
New innovative shift scheduling uses an algorithm to choose the most efficient shift point, based on specs, vehicle and environmental parameters.

Neutral at Stop
Automatically eliminates the load on the engine when the vehicle is at a full stop to save fuel and reduce overall vehicle emissions.

Acceleration Rate Management
Mitigates aggressive driving by controlling engine torque based on the vehicle's grade and load.

*OLS is not available for 4700 RDS with retarder



“An Allison transmission greatly enhances the daily work of a professional driver.”

Ignacio Sánchez Pino,
former Managing Director,
Urbaser, Spain

A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our plants in Hungary and India, to more than 1,400 Allison Authorized Distributors and Dealers around the globe, you are never far from the products, training, service and support you demand.

Our support starts from the moment an Allison transmission is specified. We work with you to ensure that the model and ratings fit your engine to create a tailored package of powerful performance and reliable efficiency. When you need parts or service, you can count on global access to factory-trained specialists and Allison Genuine Parts™.

Our Promise

Provide the most reliable and valued propulsion solutions in the world to enable our customers to work more efficiently.

- Trusted by more than 350 OEMs worldwide
- A strong history of innovation with more than 1,100 patents
- 100+ years of engineering advanced propulsion solutions
- Over seven million fully automatic transmissions delivered



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