



Torque Converter



Do More With the Power
of a Torque Converter



Inside Every Allison

Continuous Power Technology™ delivers smoother, seamless, full-power shifts and superior acceleration and startability. Each shift is made automatically when appropriate, allowing drivers to precisely manage performance and exercise superior vehicle control.

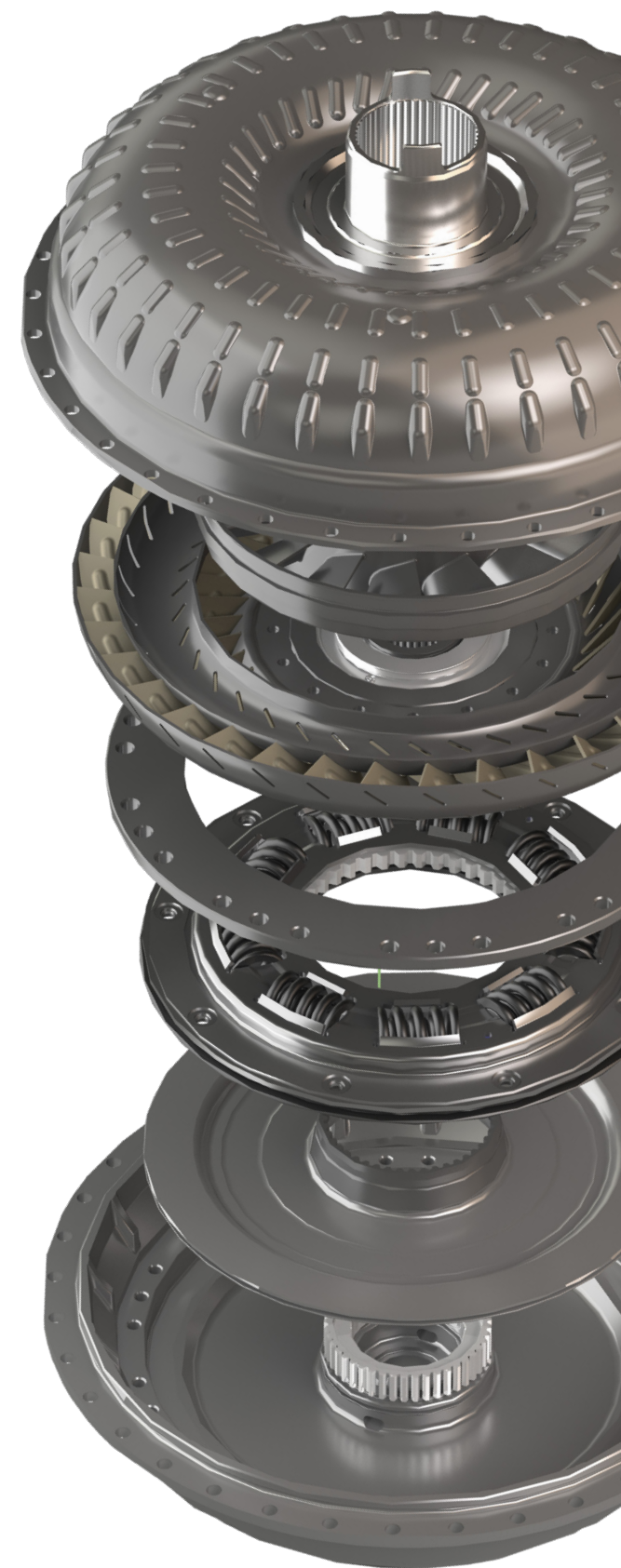
The Power of the Torque Converter

Allison's torque converter 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.

While the manual clutch pedal is gone in an automated manual transmission (AMT), a mechanical clutch still facilitates the vehicle's launch. This mechanical clutch will wear and eventually burn out and need traditional maintenance and replacement, which means a vehicle spends more time being repaired and less time on the road.

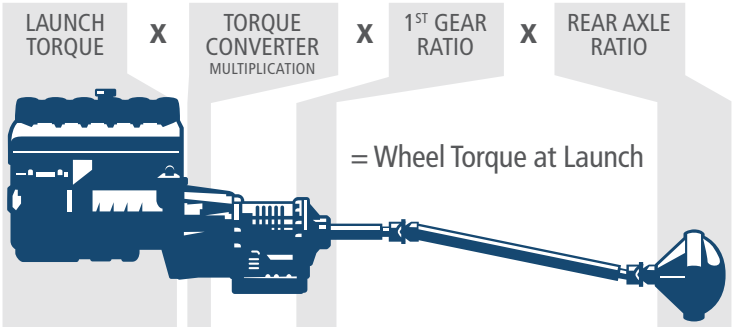
Manual and automated manual transmissions do not benefit from engine torque multiplication because engine torque must be controlled or limited to extend the life of the starting clutch, which limits vehicle performance.

Allison Automatics are unique because the torque converter experiences very little wear, and our transmissions require only periodic fluid and filter changes to maintain peak performance. When maintenance is required, the Allison is easy to service, which gets your vehicle back on the road as soon as possible.



Powerful Performance in Any Setting

Allison Automatics perform better than manual or automated manual transmissions (AMTs) that lose power and torque every time they shift, resulting in inefficient operation and less ground traveled. Faster acceleration means more work accomplished, which means more to your bottom line.



	Dump Truck		Tri-Axle Haul Tractor		Beverage Tractor	
Transmission	10 Speed Manual	Allison 4500 RDS	18 Speed Manual	Allison 4700 RDS	10 Speed AMT	Allison 3000 HS
Engine Rating (hp/lb-ft)	445/1650	445/1650	560/1850	560/1850	350/1250	350/1250
Launch Torque (lb-ft)	720	1,550	1,050	1,650	550	800
Torque Converter Multiplication	1	1.58	1	1.58	1	2.02
1st Gear Ratio	14.56	4.7	14.4	7.63	10.96	3.49
Rear Axle Ratio	3.73	4.11	4.56	4.88	4.5	5.25
Wheel Torque (lb-ft)	39,102	47,307	68,947	97,070	27,126	29,609
Allison Advantage	21.0%		40.8%		9.2%	

Equation is a representation. Engine torque, first gear ratio and rear axle ratio vary by application.

Better Traction

On-road or off-road, Allison Automatics provide smooth, effortless shifting and precise traction control. Whether it’s mud or snow, the Allison torque converter can keep your drivers on schedule and your projects on track.

Manuels and automated manuals can cause drive wheels to spin, hop, dig in and get stuck — as well as inflict damage to the drivetrain.

Minimal Rollback

Instant and precisely controlled power to the wheels — even on a grade — minimizes rollback.

Low Speed Maneuverability

Trailer hook-up, backing into loading docks or maneuvering in any confined space is easier.

Increased Fuel Economy

Allison fully automatic transmissions offer the best combination of economy and productivity. To get the most benefit out of every drop of fuel, FuelSense® 2.0 with DynActive® shifting increases fuel economy for a specific vehicle’s needs. Allison is also the preferred transmission for alternative fuel applications, such as natural gas (CNG/LNG).

The Maintenance Advantage

Except for routine fluid and filter changes, an Allison Automatic is virtually maintenance free.

No Clutch Adjustments or Replacements

Clutch replacements can be costly. Add in the loss of productivity for downtime during these repairs, and you quickly realize the true value of an Allison Automatic.

Greater Driveline Protection

Since the Allison torque converter reduces shock and strain on all driveline components, u-joint failures are practically a thing of the past. So are twisted drive shafts and blown rear-ends.

Proven Reliability and Durability

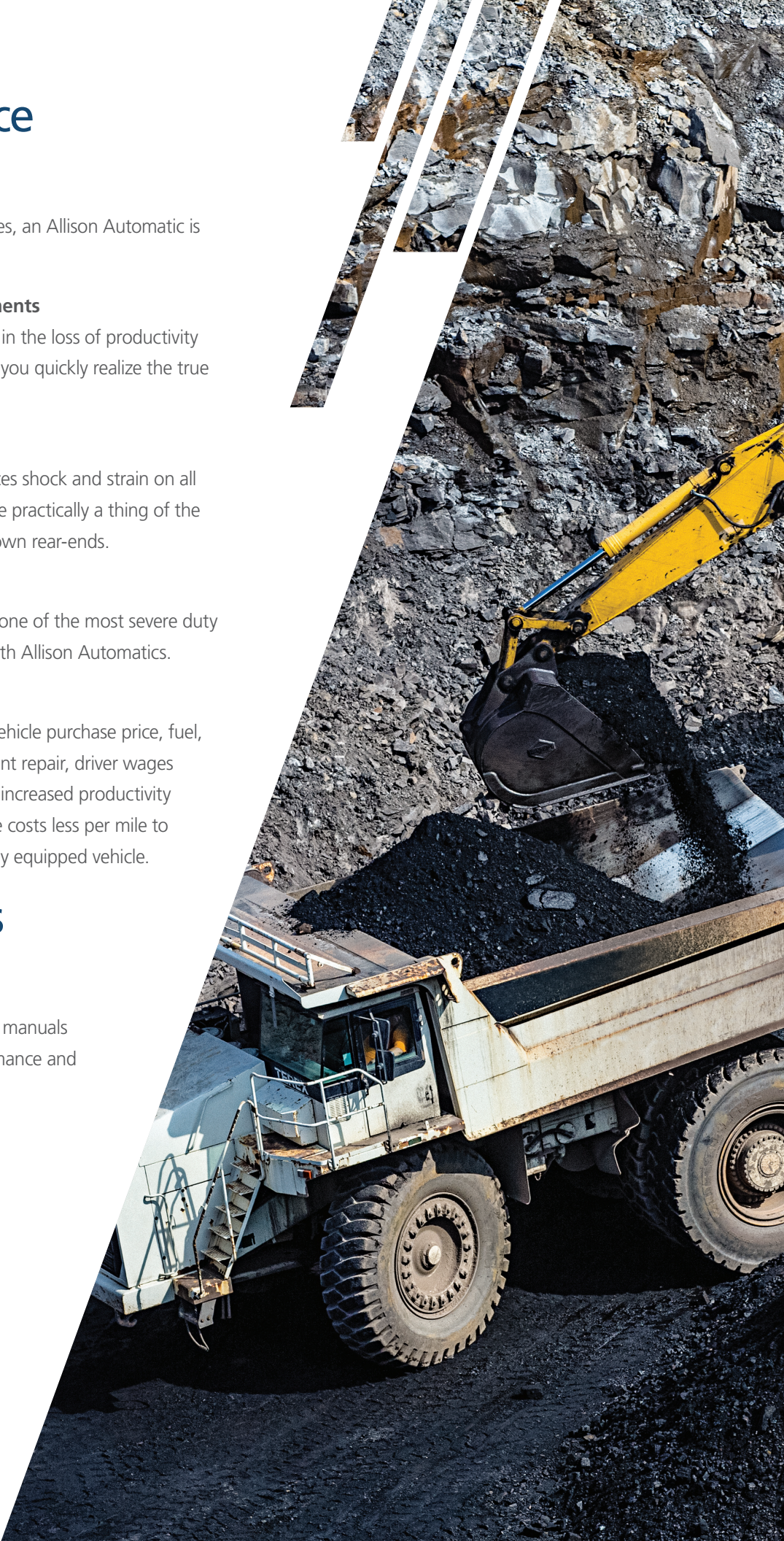
Nearly all heavy-duty refuse packers — one of the most severe duty cycles on the planet — are equipped with Allison Automatics.

Lower Cost of Operation

When you factor in all life-cycle costs (vehicle purchase price, fuel, tires, preventive maintenance, component repair, driver wages and retail resale value) – along with the increased productivity – an Allison Automatic-equipped vehicle costs less per mile to operate than a comparable competitively equipped vehicle.

Why the Others Fall Short

Without a torque converter, automated manuals simply cannot match the overall performance and benefits of an Allison Automatic.



A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing plants in Hungary and India, to approximately 1,600 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™.



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allisontransmission.com

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