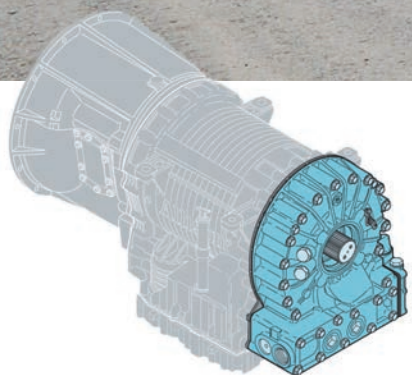




Slow Down Smoothly
With Less Brake Wear

"In 2002 Gray and Son Inc./Maryland Paving Inc. started purchasing retarders for our Class 8 dump trucks. Fourteen years later, over 80 percent of our dump truck fleet is equipped with a retarder based on the significant increase in brake life we've experienced. Our return on investment is about two years."

Ed Gestido

CEM Equipment Manager, Gray & Son, Inc.



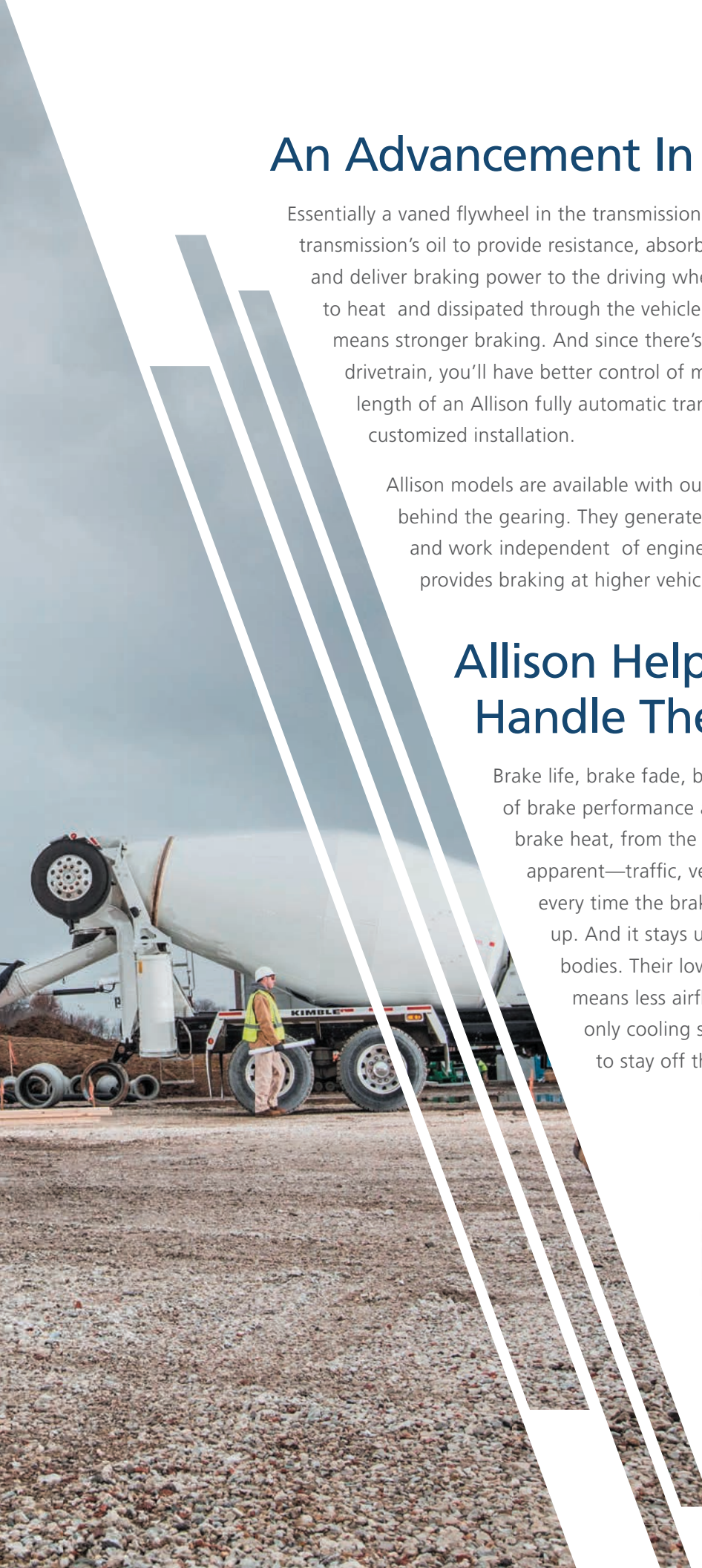
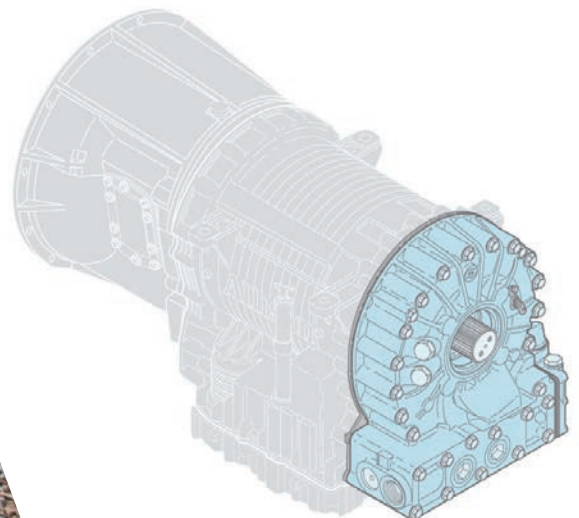
An Advancement In Braking Resistance

Essentially a vaned flywheel in the transmission housing, the Allison retarder uses the transmission's oil to provide resistance, absorb the vehicle's energy through the drive shaft and deliver braking power to the driving wheels. The absorbed energy is converted to heat and dissipated through the vehicle's cooling system. More oil in the housing means stronger braking. And since there's no mechanical friction or wear to shock the drivetrain, you'll have better control of maintenance costs, too. In addition, the standard length of an Allison fully automatic transmission is maintained, avoiding costly customized installation.

Allison models are available with output retarders mounted on the output shaft, behind the gearing. They generate the greatest braking at high drive shaft RPM and work independent of engine speed or gear ratio. Simply put, the retarder provides braking at higher vehicle speed when it's needed most.

Allison Helps Brakes Handle The Heat

Brake life, brake fade, brake wear—it's all about heat, the enemy of brake performance and lifespan. Several factors contribute to brake heat, from the obvious—weight, speed, grade—to the less apparent—traffic, vehicle aerodynamics. It's a simple equation: every time the brake pedal goes down, brake temperature goes up. And it stays up, thanks to modern, wind-cheating vehicle bodies. Their lower stance means less resistance, but it also means less airflow over the brakes, depriving them of their only cooling source. The only sure way to keep brakes cool is to stay off them. An Allison retarder can help you do that.





CAUTION
VEHICLE STOPS AND BACKS FREQUENTLY

CAUTION
WIDE
RIGHT
TURNS
DO NOT PASS
WHEN RED



Automatically Better

The most advanced technology makes Allison transmissions the automatic choice for efficiency, productivity and longevity. Over the years we've received more than 900 patents for our products. As a result, we build the fully automatic transmissions that set the standard for performance in medium- and heavy-duty vehicles.

The same ingenuity and durability have gone into Allison's integral hydraulic retarder. A retarder is not a replacement for service brakes, but it can eliminate a great deal of brake use, extend brake life, make costly brake replacements less frequent and help make vehicles safer.

Silent Stopping Power

Part of the transmission, cooled by the vehicle's cooling system and Anti-Lock or Electronic Braking System compatible, in many cases, the retarder can virtually handle the entire braking demand.

- **In the mountains** – Use it to maintain a safe speed without riding the brakes
- **In traffic** – Use it to slow the vehicle from the moment the accelerator is released. Then use the service brakes to come to a complete stop—or as a safety back-up.

Brakes At Work

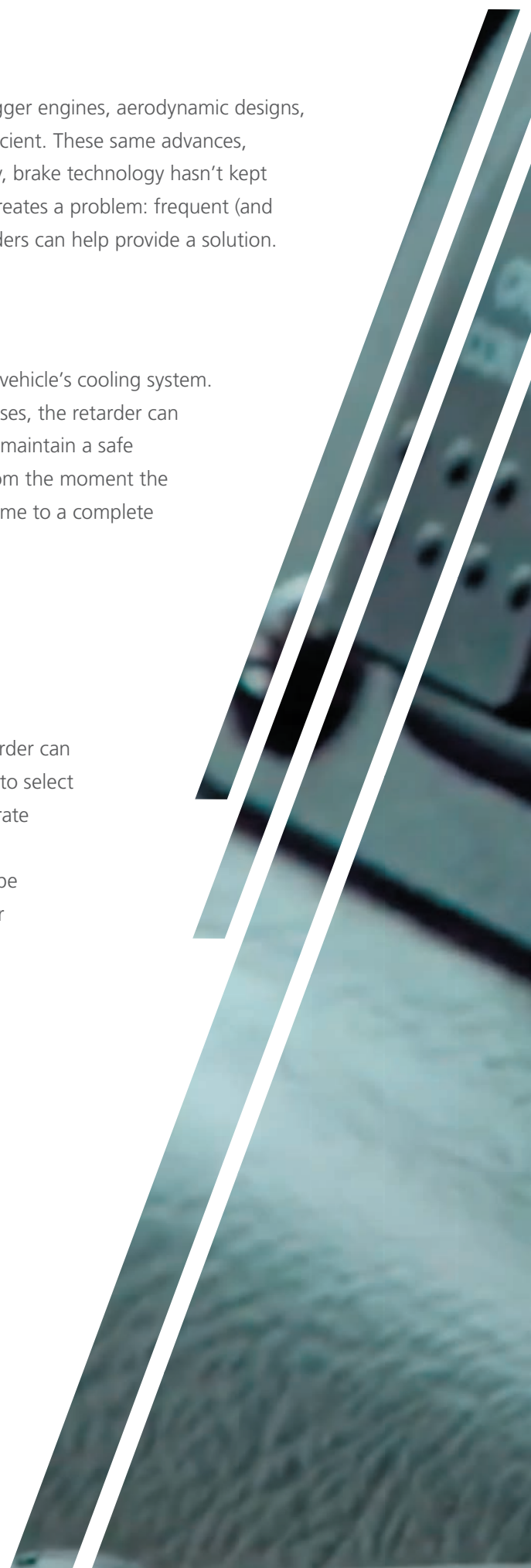
The commercial vehicle industry is constantly improving its vehicles. Bigger engines, aerodynamic designs, smaller wheels—all make commercial vehicles faster and more fuel efficient. These same advances, however, have made commercial vehicles harder to stop. Unfortunately, brake technology hasn't kept up, so drivers are using the same brakes to slow bigger vehicles. This creates a problem: frequent (and costly) brake pad replacement. Allison Automatics with hydraulic retarders can help provide a solution.

Stopping Power To Spare

Allison's integral retarder is part of the transmission and cooled by the vehicle's cooling system. It's also Anti-Lock or Electronic Braking System-compatible. In many cases, the retarder can virtually handle the entire braking demand. In the mountains, use it to maintain a safe speed without riding the brakes. In traffic, use it to slow the vehicle from the moment the accelerator is released. Operators can then use the service brakes to come to a complete stop—or as a safety backup.

The Smart Choice For Auxiliary Braking

How do you activate the retarder? However you want. The Allison retarder can be configured with a switch on the dash or a hand lever, allowing you to select how much braking power you need. It can also be activated by a separate foot pedal (usually located where the clutch pedal would be found), so you can regulate braking power in that manner. The retarder can also be set up to engage automatically, whenever you lift off the accelerator or when you press the brake pedal. Drivers can even choose the level of retardation that works best for the vehicle and work-cycle. No matter where the job takes you, a retarder will help slow your vehicle, seamlessly and silently.





"We exclusively specify Allison transmissions equipped with the hydraulic retarder, because they not only save on brake wear, but also act as a secondary brake—an important safety feature."

Rodd Hood

*Director of BLK's Australian Importer,
Bus and Coach Sales Australia*

A World of Support

From our headquarters in Indianapolis, Indiana, USA, to our manufacturing 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™.



One Allison Way
Indianapolis, Indiana USA 46222-3271

*Information or specifications subject to
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