

## Advantage Series Clutches

# New Advantage Self-Adjust™ and Easy Pedal Advantage® Clutches

Built on more than one hundred years of driveline design experience and millions of miles of proven durability, Eaton's Advantage clutches are the smoothest and most durable clutches we've developed. No other manufacturer's clutch compares to Eaton's Advantage series clutches for performance and durability, because Advantage's patented design is like no other product on the market.

### New strap drive



Eliminates lug rattle and fatigue for **quieter operation and extended clutch life**

### Patent-pending spring separator



Quick clutch disengagement for **fast shifting** and ultra-low drag for **clean release**

### Easy-to-see wear indicators



Two locations for improved visibility for **better serviceability**

### Soft-rate damper



Absorbs engine vibrations **to protect drivetrain components** and enables engine **downspeeding** at torque ratings up to 1850 lb.ft.

**EATON**  
*Powering Business Worldwide*

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# Eaton's New Advantage Series Clutches Proven Superior Performance

Testing Results (Pass / Fail) based on OEM Performance Requirements.

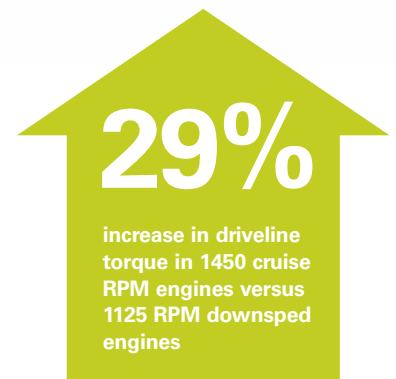
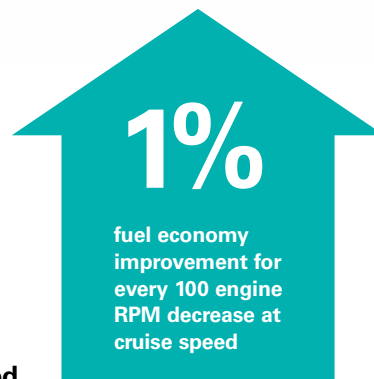
We tested the new Eaton Advantage Series clutches against the top four manufacturers who sell and distribute clutches as:

- ACE
- Alliance Truck Parts
- Fleetpride OTR
- IATCO
- Meritor AllFit
- Road Choice
- Sachs

Test	New Eaton Advantage Series	Manufacturer #1	Manufacturer #2	Manufacturer #3	Manufacturer #4
Torque Transfer	Pass	Pass	Pass	Fail	Fail
Damper Performance	Pass	Fail	Fail	Pass	Fail
Drag	Pass	Pass	Pass	Fail	Fail
Damper Durability	Pass	Fail	Fail	Fail	Fail
Intermediate Plate Durability	Pass	Fail	Fail	Fail	Fail

## The Lowdown on **Downspeeding**

- A common strategy for achieving **increased fuel economy**
- But downspeeding **increases drivetrain torque** and causes the clutch damper to do more work **absorbing vibrations**
- An **optimal clutch** delivers superior torque transfer, exceptional damper performance and tested durability allowing for ideal downspeeding strategies
- **Eaton's new Advantage Series Clutches are designed to manage today's downsped engines**



ACE, Alliance Truck Parts, Fleetpride OTR, IATCO, Meritor AllFit, Road Choice and Sachs are registered trademarks of ACE Manufacturing, ZF, and Illinois Auto Truck.

Source: Trucking Efficiency Confidence Report on Downspeeding, 10/2015

## Advantage Self-Adjust

- Eliminates manual clutch adjustments
- Eaton recommends always using a self-adjusting clutch on systems with hydraulic linkage

## Easy Pedal Advantage

- Manually adjusted clutch with Eaton Kwik-Adjust and Powerthread technology

Test	What It Measures	Why It Matters To You
Torque Transfer	Clutch plateload	Does the clutch effectively transfer engine torque to the transmission, or does it allow slip and wear prematurely?
Damper Performance	Ability to absorb engine vibrations	Does the clutch absorb harmful vibrations, even when used in a downsped configuration? If it doesn't, the vibrations will pass through to the transmission, causing damage.
Drag	Torque with clutch disengaged	Does the clutch release cleanly, or will excess drag remain, causing premature wear and poor shifting?
Damper Durability	Life of the damper under load	Will the clutch damper last while used with today's difficult engine vibrations? If not, the damper springs, stampings, and rivets crack and break.
Intermediate Plate Durability	Life of the intermediate plate under load	Is the intermediate plate tough enough to withstand the harsh conditions of today's engines? If not, the intermediate plate may fail prematurely, leading to an expensive repair bill.

## Standard Features

- Upgraded 9-spring clutch with 1850 lb-ft torque rating
- 50,000 mile release bearing lube interval
- New 1850 lb-ft 4-paddle clutch for linehaul applications

## Warranty

### Advantage Self-Adjust:

3-year/350,000 miles - Production  
 3-year/unlimited miles - Aftermarket

### Easy Pedal Advantage (manual adjust):

2-year/200,000 miles - Production  
 3-year/unlimited miles - Aftermarket



# Advantage Series Clutch Selector

Self-adjusting clutches are recommended for trucks with hydraulic linkage to reduce the risk of drivetrain damage.

						Best		
						Original Equipment Specifications (Pre-damper suffix in parentheses)		
15.5 inch	Spline Dia. – No. of Splines	Flywheel Bore Opening	No. of Springs / Damper Type	Clutch Torque lb-ft (must equal or exceed engine torque)	Facing	Advantage Self-Adjust™	Easy Pedal Advantage® Manual Adjust	
	15.5 inch	2" – 10	10"	9 (Mack and Volvo 11L & 13L)	1650	4	309701-51	308925-51
1850					4	309701-68	308925-68	
1650					6	309701-91	308925-91	
1850					6	309701-98	308925-98	
7				1700	4	309701-82	308925-82	
				7 / VCT Plus®	1750	4	309701-24 (-34)	308925-24 (-34)
					1860	4	309701-23	308925-23
7 / VCT Plus				1860	6	309701-20 (-30)	308925-20 (-30)	
				2050	6	309701-25 (-35)	308925-25 (-35)	
2" – 14				10"	7 / VCT Plus	2250	6	309708-32 (-42)

## Part Number Cross Reference

### 15.5" Advantage Self-Adjust Clutch

Old Part #	New Part #	Comment
209701-88	309701-20	
209701-85		
209701-20		
N/A	309701-23	New 1850 lbs-ft 4-paddle, approved with FA and FR 10-speed transmission models only
209701-24	309701-24	
209701-25	309701-25	
209701-30	309701-30	
209701-29		
209701-34		
209701-14	309701-34	
209701-35	309701-35	
209701-51	309701-51	
209701-61	309701-68	Torque ratings increased to 1850 lbs-ft.
209701-87	309701-82	New softer rate damper (250 lbs-ft/deg torsional spring rate)
209701-82		
209701-80		
209701-91	309701-91	
209701-92	309701-98	Torque ratings increased to 1850 lbs-ft.
209701-32	309708-32	
209701-42	309708-42	

### 15.5" Easy Pedal Advantage Clutch (manual adjust)

Old Part #	New Part #	Comment
208925-88	308925-20	
208925-85		
208925-70		
208925-20		
208925-19		
N/A	308925-23	New 1850 lbs-ft 4-paddle, approved with FA and FR 10-speed transmission models only
208925-24	308925-24	
208925-25	308925-25	
208925-30	308925-30	
208925-29		
208925-34		
208925-14	308925-34	
208925-35	308925-35	
208925-51	308925-51	
208925-61	308925-68	Torque ratings increased to 1850 lbs-ft.
208925-87	308925-82	New softer rate damper (250 lbs-ft/deg torsional spring rate)
208925-82		
208925-80		
208925-91	308925-91	
208925-92	308925-98	Torque ratings increased to 1850 lbs-ft.
208925-94		
208937-32	308937-32	
208937-42	308937-42	

The new Advantage series clutches offer a simplified portfolio and cover the same full range of applications.

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**Roadranger**  
SUPPORT

For spec'ing or service assistance,  
call 1-800-826-HELP (4357) or visit  
[www.eaton.com/roadranger](http://www.eaton.com/roadranger).  
In Mexico, call 001-800-826-4357.

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**Eaton**  
Vehicle Group  
13100 E. Michigan Ave.  
Kalamazoo, MI 49053 USA  
800-826-HELP (4357)  
[www.eaton.com/roadranger](http://www.eaton.com/roadranger)

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