

Identification Guide to **BorgWarner Transfer Cases**

By Mike Weinberg
Contributing Editor

One of the most time-consuming and annoying problems associated with manual-transmission and transfer-case repair is unit identification. It is difficult to diagnose, buy parts or remanufactured units, and create a correct estimate for the customer when you cannot identify which unit you are working on. All units leave the factory well marked with decals, metal ID tags or both, but through use, weather and previous repairs, many of these ID devices become illegible or non-existent.

This article reviews all the BorgWarner TorqTransfer System transfer cases currently in production, pairing them with the vehicle models in which they are used and providing descriptive details to help you make sure of what you have in the shop. This is only a guide, and you always must be cautious of mixed and matched units and parts, and "gifts" from junkyards and various shoemakers who have worked on the vehicle previously. One of the most-important questions to ask your customer before getting into a repair is, "Has anyone worked on this transfer case before?" This is really good information to have before you jump into the deep end of the pool.

The units are arranged in numerical order, and you will find many that you are familiar with, some new numbers and some units that are probably export only. Nevertheless, you can't tell the players without a scorecard.

Put an End to Transfer Case Failures For Good!

Extreme HD • AWD-To-Part-Time Conversions
Slip-Yoke Eliminator Kits • AWD Low-Range Lockups
AWD Viscous Eliminators



**Rockland
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Gear Inc.**

JEEP Transfer Cases

All Jeep Transfer Cases are Remanufactured with the Latest O.E. Components
**Includes New Morse Chain*

231J Command Trac
w/ Slip-Yoke Eliminator

247J & 249J AWD
Non-Viscous - more MPG, less wear
Perfect for warmer climates
Retains safety of AWD




Rockland Standard Gear can custom fit all of these transfer cases to any TJ, YJ, ZJ, WJ, XJ & KJ model!

Ford Transfer Cases

All Ford Transfer Cases are Remanufactured with the Latest O.E. Components
**Includes New Morse Chain*

EXPLORER, MOUNTAINEER - 98-04
EXPEDITION, NAVIGATOR - 04-07
AVIATOR - 04-07
BRONCO - 03-07
BRONCO 2 - 03-07
RANGER - 03-07
PICKUP - 03-07
EXCURSION - 03-07

Dodge Transfer Cases

All Dodge Transfer Cases are Remanufactured with O.E. Components
**Includes New Morse Chain*

DURANGO - 03-07
DAXIA - 03-07
RAM PICKUP - 03-07
RAM QUAD CAB - 03-07
RAMCHARGER - 03-07

GM Transfer Cases

All GM Transfer Cases are Remanufactured with the Latest O.E. Components with Updated Clutch Packs to Eliminate Chatter Problems

ALL PICKUPS - 03-07
BLAZER, JIMMY - 03-07
TRAILBLAZER, ENVY - 03-07
COLORADO - 03-07
HUMMER - 03-07
ASTRO, SAVANA - 03-07
EXPRESS, SAVANNAH - 03-07

**Includes New Morse Chain*

Chatter-Free Transfer Case Lubricant

Prevent Costly T-Case Repairs

- Eliminates driveline chatter and shudder in clutch-type transfer cases*
- Prevents clutch failure from lubricant breakdown
- This is a lubricant not an additive

**Chatter-Free will not repair transfer cases that are already damaged!*



Please keep this application guide for future reference.

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1354 Transfer Case

Application: Ford Ranger, Explorer Sport Trac, Mazda B series

Configuration: part time

Low Range ratio: 2.48-1

Lube system: internal gerotor pump

Fluid type: ATF

Dry weight: 67 lbs.

Fluid capacity: 1.2 liters

GVW rating: 5,500 lbs.

Shift pattern: 2H, 4H, N, 4L

Shift control: electrical or mechanical

4WH: shift on the fly

44-02 Transfer Case

Application: Hyundai Starex

Configuration: part time

Low Range ratio: 2.48-1

Lube system: internal gerotor pump

Fluid type: ATF

Dry weight: 63 lbs.

Fluid capacity: 1.2 liters

GVW rating: 5,500 lbs.

Shift pattern: 2H, 4H, N, 4L

Shift control: electrical

4WH: shift on the fly

44-06 Transfer Case

Application: Ford F-series

Configuration: part time

Low Range ratio: 2.64-1

Lube system: internal gerotor pump

Fluid type: ATF

Filled Weight: 98.5 lbs.

Fluid capacity: 1.9 liters

GVW rating: 7,200 lbs.

Shift pattern: 2H, 4H, N,

4L (mechanical part time)

2H, 4H, 4L (electric part time)

Shift control: mechanical or electrical

44-08 Transfer Case

Application:

Ssangyong-Korando,

Musso, Rexton

Configuration: part time

Low Range ratio: 2.48-1

Lube system: internal gerotor pump

Fluid type: ATF

Fluid capacity: 1.2 liters

Dry weight: 68 lbs.

GVW rating: 6,800 lbs.

Shift pattern: 2H, 4H, N, 4L

Shift control: electrical

4WH: shift on the fly

44-09 Transfer Case

Application:

Mercedes Benz M class

Configuration: full time

Low Range ratio: 2.64-1

Lube system: internal gerotor pump

Fluid type: ATF

Dry weight: 89 lbs.

Fluid capacity 1.5 liters

GVW rating: 5,800 lbs.

Differential controls: open

Torque split: front 48%, rear 52%

44-10 Transfer Case

Application: Lincoln Aviator,

Mercury Mountaineer

Configuration: full time

Lube system: induction

Fluid type: ATF

Dry weight: 64 lbs.

Fluid capacity: 1.3 liters

GVW rating: 5,500 lbs.

Center differential: Planetary

Differential control:

Viscous coupling unit

Torque split: Front 35%,

rear 65%

44-11 Transfer Case - 1 speed, Torque on demand

Application: Lincoln Aviator

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Chatter-Free Transfer Case Lubricant

Prevent Costly T-Case Repairs

- **Eliminates driveline chatter and shudder in clutch-type transfer cases***
- **Prevents clutch failure from lubricant breakdown**
- **This is a lubricant not an additive**

* **Chatter-Free will not repair transfer cases that are already damaged!**



Up To Standards

Configuration: Torque on demand
Lube system: internal gear rotor pump
Fluid type: ATF
Dry weight: 62 lbs.
Fluid capacity: 1.42 liters
GVW rating: 5,500 lbs.
Shift pattern: A4WDH-4H
Shift control: electrical

44-11 Transfer Case – 2 speed, Torque on demand

Application: Ford Explorer
Configuration: Torque on demand
Low Range ratio: 2.48-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 74 lbs.
Fluid capacity: 1.42 liters

GVW rating: 5,500 lbs.
Shift pattern: A4WD-4H-4L
Shift control: electrical

44-16 Transfer Case

Application: Ford Expedition, Lincoln Navigator
Configuration: Torque on demand
Low Range ratio: 2.64-1
Lube system: gerotor pump
Fluid type: ATF
Filled weight: 93 lbs.
Fluid capacity: 1.9 liters
GVW rating: 7,200 lbs.
Shift pattern: 2H, 4WD, 4H, 4L, Torque on demand
Shift control: electrical

44-22 TOD Transfer Case

Application: Isuzu Axiom

Configuration: Torque on demand
Low Range ratio: 2.48-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 78 lbs.
Fluid capacity: 1.9 liters
GVW rating: 6,000 lbs.
Shift control: electric
Shift pattern: 2H, 4H, N, 4L

44-23 TOD Transfer Case

Application: Ssangyong-Korando, Musso, Rexton
Configuration: Torque on demand
Low Range ratio: 2.48-1
Lube system: gerotor
Fluid type: ATF
Dry weight: 82.2 lbs.

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**"The Exedy Hyper & Twin Plate clutch is the professional's answer to clutch needs."
-Mike Weinberg**

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Fluid capacity: 1.42 liters
GVW rating: 5,553 lbs.
Shift pattern: 4H, 4L
Shift control: electrical

44-24 Transfer Case

Application: Hyundai Terracan, Kia Sorento
Configuration: part time and Torque on demand
Low Range ratio: 2.48-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 79.3 lbs.
Fluid capacity: 1.42 liters
GVW rating: 5,553 lbs.
Shift pattern: 4H, 4L
Shift controls: electrical

44-26 ESOF Transfer Case

Application:
Ssangyong-Korando,

Musso, Rexton
Low Range ratio: 2.48-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 79.6 lbs.
Fluid capacity: 1.6 liters
GVW rating: 5,500 lbs.
Shift pattern: 2H, 4H, N, 4L
Shift control: electrical
4WH: shift on the fly

44-26 TOD Transfer Case

Application:
Ssangyong-Korando,
Musso, Rexton
Configuration: Torque on demand
Low Range ratio: 2.48-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 73.6 lbs.
Fluid capacity: 1.6 liters
GVW rating: 5,553 lbs.

Shift pattern: 4H, 4L
Shift control: electrical

44-73 Transfer Case

Application: Chevrolet Express, GMC Savana
Configuration: full time
Lube system: splash
Fluid type: ATF
Dry weight: 70.8 lbs.
Fluid capacity: 1.4 liters
GVW rating: 7,300 lbs.
Center differential: Planetary
Differential control: Viscous clutch
Torque split: front 35%, rear 65%

44-76 Transfer Case

Application: Cadillac SRX
Configuration: full time

continues on page 58

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• Extreme HD • AWD-To-Part-Time Conversions • Slip-Yoke Eliminator Kits • AWD Low-Range Lockups • AWD Viscous Eliminators



Jeep Transfer Cases



- 231J Command Trac
- 242J Select Trac
- 247J Pump Coupler AWD
- 249 J AWD

Rockland Standard Gear can custom fit all of these transfer cases to any TJ, YJ, ZJ, WJ, XJ & KJ model

Ford Transfer Cases



All Ford Transfer Cases are Remanufactured with the Latest O.E. Borg Warner Components

*Includes New Morse Chain
Models Available: 1350, 1354, 1356, 4404, 4405, 4406, 4407, 4410, 4411, 4416

GM Transfer Cases



All GM Transfer Cases are Remanufactured with the Latest O.E. Components with Updated Clutch Packs to Eliminate Chatter Problems

* Includes New Morse Chain
Models Available: 136GM, 226GM, 246GM, non-clutch style 231C-263GMXHD

Dodge Transfer Cases



All Dodge Transfer Cases are Remanufactured with O.E. Components

• Durango RT – Converts Full Time AWD to Select Trac or Command Trac
* Includes New Morse Chain
Models Available: 231D, 231DHD, 241DLD, 241DHD, 242 Select Trac

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continued from page 53

Lube system: splash
Fluid type: ATF
Dry weight: 48.1 lbs.
Fluid capacity: 0.5 liter
GVW rating: 6,100 lbs.
Center differential: planetary
Differential control: open
Torque split: front 50%, rear 50%

44-79 Transfer Case

Application: Cadillac STS
Configuration: full time
Lube system: splash
Fluid type: ATF
Dry weight: 48.1 lbs.
Fluid capacity: 0.5 liter
GVW rating: 6,100 lbs.
Center differential: planetary
Differential controls: open
Torque split: front 40%, rear 60%

44-81 Transfer Case

Application: Cadillac Escalade, GMC Yukon Denali
Configuration: full time
Fluid type: ATF
Dry weight: 61.1 lbs.
Fluid capacity: 1.4 liters
GVW rating: 7,200 lbs.
Center differential: Planetary
Differential control: open
Torque split: front 40%, rear 60%

44-82 Transfer Case

Application: Chevrolet Tahoe, Suburban, GMC Yukon, Yukon XL
Configuration: full time
Low Range ratio: 2.64-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 82.7 lbs.
Fluid capacity: 1.4 liters
GVW rating: 7,200 lbs.
Shift pattern: 4H, N, 4L lock
Shift control: electrical
Center differential: planetary

Differential control: open
Torque split: front 40%, rear 60%

44-84 Transfer Case

Application: Hummer H2
Configuration: full time
Low Range ratio: 2.64-1
Lube system: gerotor pump
Fluid type: ATF
Dry weight: 90 lbs.
Fluid capacity: 1.4 liters
GVW rating: 8,600 lbs.
Shift pattern: 4H, 4H lock, N, 4L lock
Shift controls: electrical
4WH-Lock-shift on the fly
Center differential: planetary
Differential control: open
Torque split: front 40%, rear 60%

ITM 1

Application: Hyundai Santa Fe
Configuration: self-contained, lightweight torque-transfer device for on-demand 4WD
Torque capacity: 2,000 N·m
Weight: 19.6 lbs.
Lubricant type: ATF, fill for life

ITM 2

Application: Acura MDX, Honda Pilot
Configuration: electronically controlled secondary-axle assembly
Torque capacity: 1,500 N·m
Weight: 90.3 lbs.
Lubricant: Mobil 424

As you can see from the listing, there are many new transfer cases now in production, and more will surely follow. The trend toward all-wheel-drive and four-wheel-drive vehicles is increasing, and it is not too great

a stretch to believe that in the next decade about 80% of all vehicles will have some form of four-wheel drive. This is an area of growth that you must become familiar with to take advantage of the business available.

"Torque on demand" is a registered trademark of BorgWarner TorqTransfer Systems. This is a torque-distribution system that automatically and smoothly delivers four-wheel-drive operation as required by computer controls and patented modulating clutch. The information is interpreted by the computer system, which adjusts the amount of power delivered to the front wheels up to 50 times a second. This system is designed to be fully compatible with the ABS, traction control, stability control, and automatic- and manual-transmission systems that are part of the overall vehicle design. This means that all diagnostic routines must take into account the various integrated vehicle systems, and tire sizes and pressures.

This is an obvious area of growth for our industry and will be a big part of your business future. **TD**

THE BOTTOM LINE:

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- 96 Useful information.
- 97 Not useful information.
- 98 We need more information.