



# CONNECT

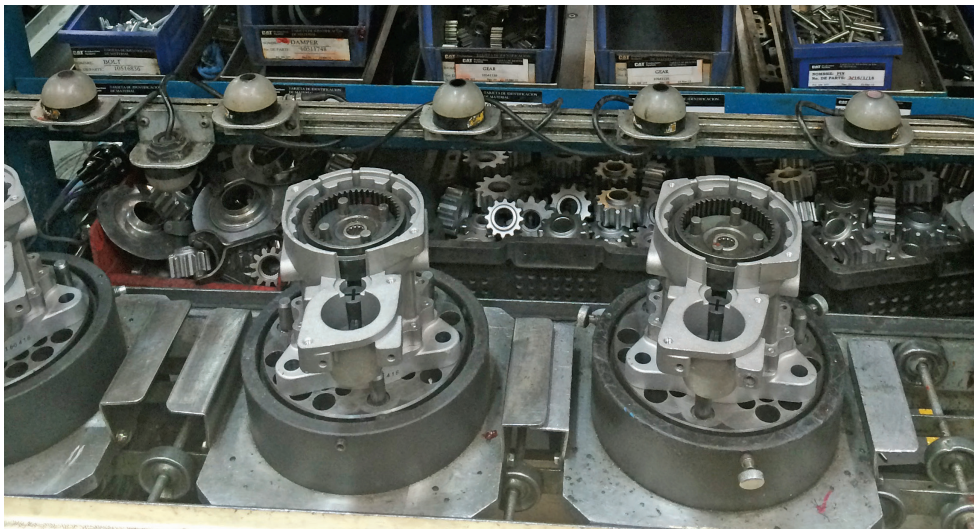
MARCH 2020

## Rethink Reman

Sometimes fleets try to find cost-savings through rebuilt starters and alternators that are less expensive and touted as a better “deal.” While they may be lower priced, these aftermarket options are often prone to problems and failure. You may get a better deal upfront, but chances are you’ll pay for it when your truck is stranded on the side of the road or back in the shop again for repairs.

### The solution?

**Delco Remy reman starters and alternators offer you affordability with original equipment (OE) performance and quality.** As one of the first and largest rotating electric companies to enter the remanufacturing business over 50 years ago, you can trust these products to deliver what you need at a price that works for you.



### Support You Can Count On

Just like with our new starters and alternators, all reman products are fully supported by our customer service, technical support and training teams.

- Order status and tracking
- Part number applications and troubleshooting
- Onsite sales and technician training programs

### Contact Us

800.372.0222

Technical Support:  
[drts@borgwarner.com](mailto:drts@borgwarner.com)

Customer Service:  
[customerservice@borgwarner.com](mailto:customerservice@borgwarner.com)

Reman Brochure:  
<https://bit.ly/2Qb071d>

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## Tech Tip: Diagnosing Starter Cranking Problems

When there are starter issues, you may think about doing a current draw test to pinpoint the issue. Yet, on a class 8 truck, a current draw test may not reveal what you need to know to fix your cranking problem. Plus, on these vehicles, a current draw test is more involved and time-intensive. And perhaps most frustrating—you often don't get an accurate reading. **That's why the BorgWarner technical team recommends another diagnostic route to identify the issue and fix the cranking problem.**

### STEP 1: Identify the symptoms.

With a cranking system, symptoms are divided into one of three possible troubleshooting categories:

- **Click — No-Crank** (solenoid clicks but starter doesn't crank)
- **No-Click — No-Crank** (solenoid doesn't click/starter doesn't crank)
- **Slow Crank** (starter cranks, but engine RPM slow to start vehicle)

Once you've identified which problem you're dealing with, then you can start to remedy it.

### STEP 2: Charge the batteries and perform a battery load test on the battery bank.

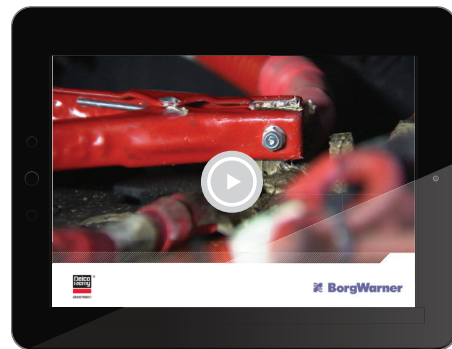
If the load test fails, then individually test each battery and replace any faulty ones.

### STEP 3: Perform a voltage drop test on the starter main cables.

The starter voltage drop should be less than .5 volts drop total on the cranking circuit. This is an important step and often the cause of a slow crank complaint. Yet, voltage drop also is a leading cause of click or no-click complaints because almost every vehicle manufacturer uses the heavy positive post located on the starter solenoid as a place to pick up the current used to supply the control circuit.

### STEP 4: Address the specific issue.

- If the battery and cable checks are within specification and the vehicle still cranks slowly, then it's a slow cranking problem and it's time to replace the starter.
- For click-no crank issues, check the control circuit. If the starter does not contain an Integrated Magnetic Switch, or IMS, then a voltage drop test needs to be performed on the vehicle control circuit. If the starter does have an IMS switch function, then the technician will have to verify that the vehicle's control circuit is providing voltage to the starter's IMS.
- Just like the slow cranking complaint, if all systems have been checked, and the starter is found to be the cause, the ring gear also should be inspected for damage that could cause future harm to the starter.



**Our latest tech tip video explains how to diagnose starter cranking problems. Watch it on the BorgWarner YouTube channel at <https://bit.ly/2WhQpt0>.**

## Warranty on Leading BorgWarner Thermal Products

BorgWarner offers both a direct file and a new service warranty on key thermal products.

- The direct file warranty may be applied after the expiration of the OEM base chassis warranty. It starts when the OE installed product is placed into service. Time and miles follow the chassis.
- Our new service warranty starts when a product is purchased and applies for the time or distance specified.

Product	Direct File Months	Direct File Miles	New Service Months	New Service Miles
K Series On/Off Fan Drive	36	Unlimited	36	Unlimited
DuroSpeed Fan Speed	36	Unlimited	36	Unlimited
K Series Hubs	36	Unlimited	36	Unlimited
Bi-Metal Viscous Commercial Vehicle (750, 795 and 805 Series)	36	Unlimited	36	Unlimited

BorgWarner's entire product liability and the exclusive remedy under this warranty is reimbursement of the cost of the BorgWarner product according to the then-current BorgWarner price. This warranty is limited to BorgWarner products purchased in the United States and Canada.

All failed BorgWarner products must be presented to BorgWarner at one of its facilities within the United States. BorgWarner reserves the right to make final determination of the responsibility for all warranty claims. BorgWarner shall not be liable for any incidental, special, consequential or exemplary damages, including but not limited to rental cars, towing fees or for any service costs not directly related to the BorgWarner products.





## Rethink Reman

(continued from page 1)

In BorgWarner's dedicated remanufacturing facility, we remanufacture a high volume of alternators and starters each year in a process that's as methodical as our OE plants, all the way down to the modelling of the production line. You can count on our starters and alternators always being 100% tested to OE specifications and backed with an industry-leading warranty. Additionally, all product updates are applied in the same manner as they would be to OE and new service units. This means all wear components are replaced, such as bearings, bushings, seals and hardware.

### Coreless Options Available

We have coreless options available for many of our popular products.

- No core charge, handling or tracking
- Same Delco Remy Genuine Products quality and design
- Perfect as a low-cost replacement alternative

Visit [delcoremy.com](http://delcoremy.com) to search for applications and part number cross references.

### Additional Reman Processes

#### As part of the BorgWarner remanufacturing process:

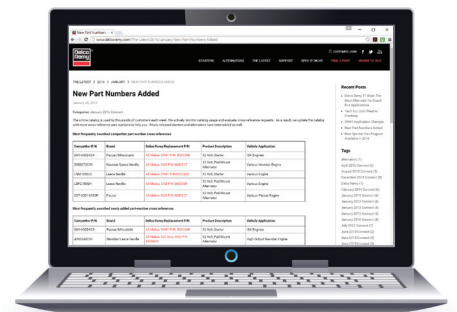
- Components are thoroughly cleaned, and some are painted or treated for corrosion resistance.
- Every component is inspected to ensure it meets OE specifications.
- Starters and alternators are tested after final assembly to ensure quality standards have been met.
- All work instructions and control plans are documented to ensure consistent quality.
- Validation testing is performed on changes made to the product.



## New Part Numbers

Go to The Latest at [delcoremy.com](http://delcoremy.com) to find the following:

- New part-number cross references
- Most frequently searched competitor part-number cross references
- Newly released Delco Remy Heavy Duty Starter



## Follow Us Online

Stay connected to what's happening with Delco Remy genuine starters and alternators on the BorgWarner social media pages.



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BorgWarner Inc.



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@BorgWarner