



# Long Haul<sup>®</sup> Starters



**BOSCH**  
Invented for life

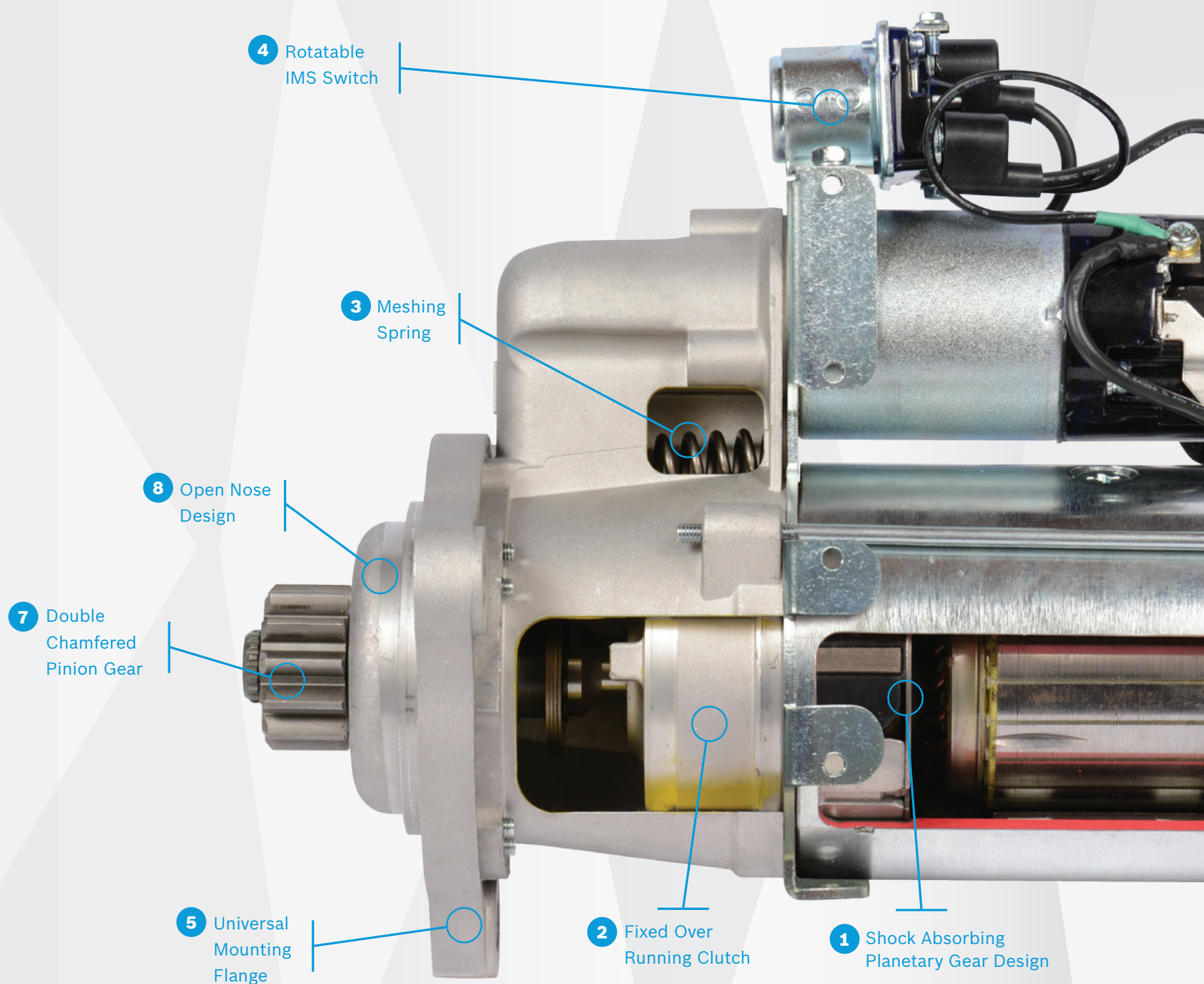
### Bosch Long Haul® Series 12 Volt Starters

Bosch Long Haul Series 12V Starters are engineered with many technical features specifically designed to ensure that these starters will outlast and outperform most original equipment starters installed in heavy duty, on-road commercial vehicles in use today. You can trust Bosch Long Haul Starters to keep commercial vehicles up and running for the long haul!

#### Advanced Performance Technology

The Bosch Long Haul Series of starters represents the latest technology available in commercial vehicle starting systems. These starters are engineered with all the features required to accommodate the widest range of large displacement commercial vehicle diesel engines with the least amount of SKUs.

## Bosch...Best for the Long Haul



### More Torque / More Power

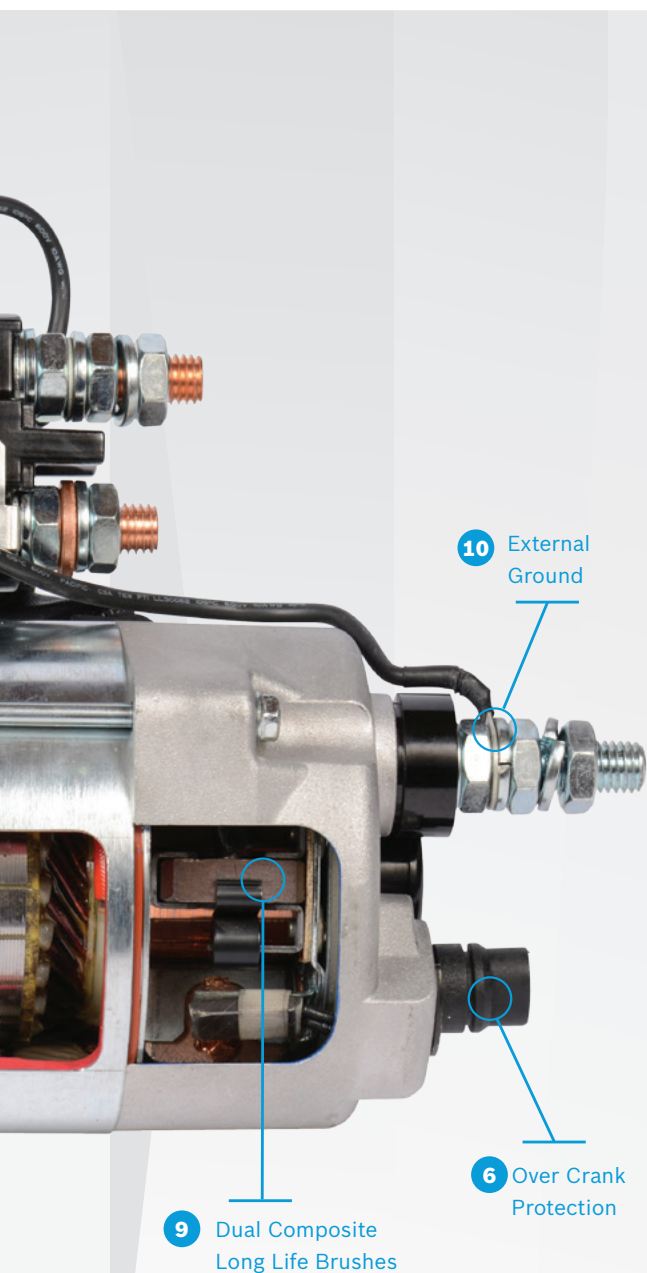
Diesel engines by nature are high compression engines requiring greater amounts of torque and power to turn over in all temperature ranges. Bosch Long Haul Starters utilize a unique Bosch-designed shock absorbing planetary gear system to create more torque for faster starts. The planetary gear carrier is specially designed to resist “kick back” and eliminate drive end breakage common in competitive designs.

### Simplify Your Inventory

Just three Bosch Long Haul Starters replace over 186 competitive part numbers!

### Built for the Long Haul

Bosch Long Haul Starters are designed specifically for commercial vehicle applications where durability, longevity and high power are critical to keeping commercial trucks on the road and making profits!

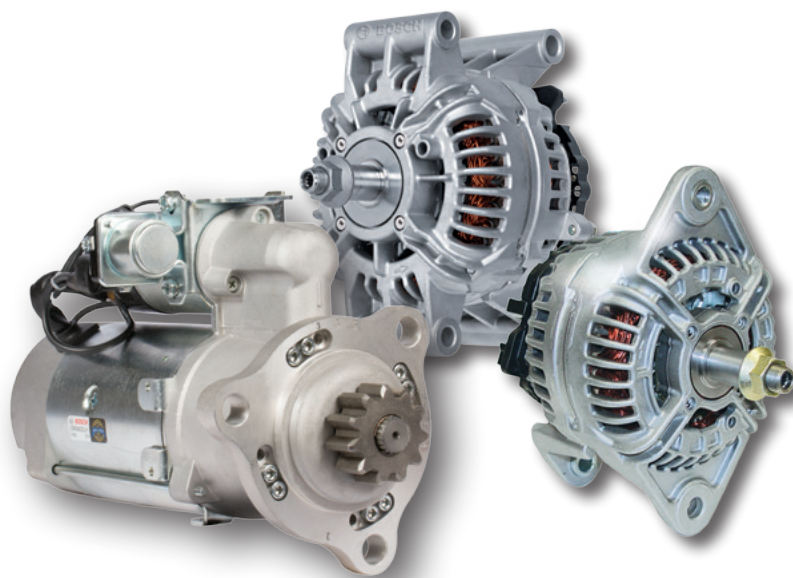


- 1 **Bosch Planetary Gear** is mounted on rubber shock absorbers and located in a steel drive end housing. This eliminates breakage of the aluminum drive end housings common in large displacement engines.
- 2 **Fixed Over Running Clutch** has 50% less moving mass which protects internal components in case of blind start or “click no crank.”
- 3 **Meshing Spring** provides positive gear engagement during cranking, eliminating “click no crank” and preventing costly damage to the engine ring gear.
- 4 **Integral Magnetic Switch (IMS)** ensures optimal voltage for starting in all weather conditions.
- 5 **Universal Mounting Flange** installs easily and reduces inventory SKU count.
- 6 **Over Crank Protection** protects the starter from damage, and ensures longer life.
- 7 **Double Chamfered Pinion Gear** reduces “click no crank” and increases first-time engagement and positive starts.
- 8 **Open Nose Design** greatly increases resistance to moisture, dust and dirt, preventing damage to internal electrical and mechanical components.
- 9 **Dual Composite Long Life Brushes** create better surface contact, less heat, and lower current draw resulting in longer life and quicker starts.
- 10 **Isolated External Ground Circuit** promotes optimal grounding, and maximum starting power.

### Now You Can Get it All from Bosch

Bosch now offers a complete line of Long Haul® Alternators and Starters to get trucks going and keep them rolling for miles and miles of worry-free operation. With Bosch Long Haul you're assured of the most innovative technical features that deliver industry-leading performance, long and reliable service life, and comprehensive SKU coverage.

For complete information about Bosch Long Haul Alternators and Starters, contact your Bosch Sales Representative or Distributor, or visit [heavyduty.boschautoparts.com](http://heavyduty.boschautoparts.com).



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