



# 31MT™ Commercial Vehicle Starter

## FEATURES & BENEFITS

- Developed from the 29MT design – of which there are more than 1.25 million OE units installed – the 31MT provides **virtually full coverage for the Class 6 & 7** commercial vehicle aftermarket.
- This model features **positive shift engagement**. In the case of tooth abutment, the armature rotation in full power clears the abutment to allow pinion engagement. The benefit is zero click-no-cranks (CNC). This is well suited for high start/stop vehicle applications.
- The 31MT is highly **corrosion resistant** due to improved brush holder plating and stainless steel springs.
- A number of design changes to the hardware, including the commutator, O-rings and bearings, as well as the lamination have resulted in the 31MT being one very **robust** starter.

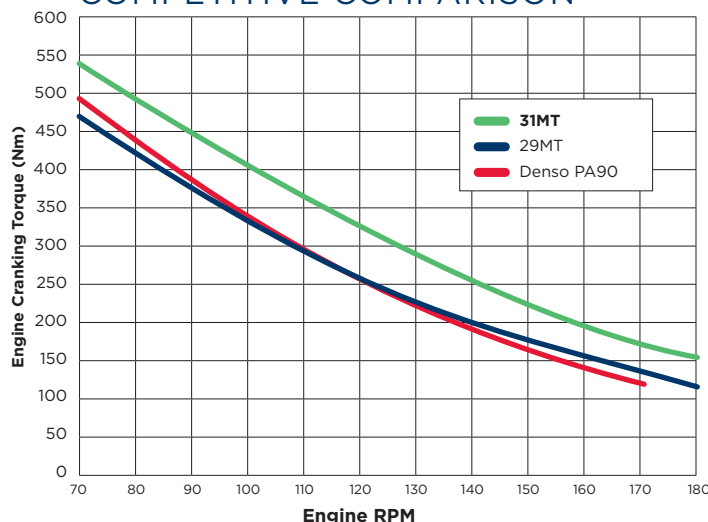
## IDEAL APPLICATIONS

- Delivery vehicles
- Waste disposal vehicles
- Emergency vehicles
- School busses
- Tow & haulers
- Recreational vehicles
- Shuttle busses
- Generation sets & compressor units



10% more peak power than the competition

## COMPETITIVE COMPARISON



## SPECIFICATIONS

<b>Engine Size</b>	12V up to 8 Liters
<b>Rotation</b>	Clockwise
<b>Mounting</b>	12V: SAE #1
<b>Pinion Data</b>	10 Tooth, 10-12 Pitch 10 Tooth, 8-10 Pitch 9 Tooth, Mod 3-metric
<b>Output</b>	12V peak at 4.1kW
<b>Weight</b>	8.4 kg / 18.5 lbs
<b>Diameter</b>	90 mm / 3.5 inches
<b>Engagement System</b>	Positive shift engagement

## 31MT STARTER APPLICATIONS

OEM	Engine	OEM Part #	28MT	29MT	38MT	All-Makes 31MT	Mitsubishi Part #	Leece Neville Part #	Denso Part # *
Paccar, Kenworth, Peterbilt	Cummins ISB, 5.9L & Cummins 4BT, 3.9L	1113276, 90024059	LH MOUNT: 10465151, 10479615, 10479638 RH MOUNT: 10465150, 1113276, 10465043, 10461481	LH MOUNT: 19011402 10461771 RH MOUNT: 19011400 19011409 10461770	N/A	LH MOUNT: 61005264 RH MOUNT: 61005265	N/A	N/A	428000-1600 228000-1953 228000-7301 428000-8400 228000-3811
	Paccar PX-7 & Cummins ISB, 6.7L	D61-6002-006 D61-6005-004 4996706, 8200235, 8201039, 8300024	N/A	8200571 8300064 8200796	8200077	61006210	M009T71779 PC1779	M105610	428000-7090 438000-3110
Freightliner, Sterling, Western Star	Cummins ISB, 5.9L & Cummins 4BT, 3.9L	1113276 90024059	LH MOUNT: 10465151, 10479615, 10479638 RH MOUNT: 10465150, 1113276, 10465043, 10461481	LH MOUNT: 19011402 10461771 RH MOUNT: 19011400 19011409 10461770	N/A	LH MOUNT: 61005264 RH MOUNT: 61005265	N/A	N/A	428000-1600 228000-1953 228000-7301 428000-8400 228000-3811
	Cummins ISB, 6.7L	8200077	N/A	8200571 8300064 8200796	8200077	61006211	M009T71779 PC1779	M105610	428000-5230 428000-7090 438000-3110 428000-9340
	Detroit Diesel DD5 & DD8	8200739, 61005252, 8201105, 61016540, 61025808	N/A	N/A	N/A	61015899	N/A	N/A	N/A
	MBE 900, 7.2L, MBE 904, 4.3L & MBE 906, 6.4L	10461772, 19011403, 8200570, 8200565, 61231341	10461454, 10479648, 10479645, 10479637, 10479651	8200103	N/A	61006208	N/A	N/A	428000-8470 428000-1881
Thomas Built Bus	Cummins ISB, 5.9L	1113276 90024059	LH MOUNT: 10465151, 10479615, 10479638 RH MOUNT: 10465150, 1113276, 10465043, 10461481	LH MOUNT: 19011402 10461771 RH MOUNT: 19011400 19011409 10461770	N/A	LH MOUNT: 61005264 RH MOUNT: 61005265	N/A	N/A	428000-1600 228000-1953 228000-7301 428000-8400 228000-3811
	Cummins ISB, 6.7L	8200077	N/A	8200571 8300064 8200796	8200077	61006211	M009T71779 PC1779	M105610	428000-5310 428000-7090 438000-3110
	Cummins ISB, 6.7L NO GROUND STUD (Low Profile Turbo)	8200796 8200989	N/A	8200796 8200989	N/A	61006209	N/A	N/A	N/A
	Detroit Diesel DD5 & DD8	8200739, 61005252, 8201105, 61016540, 61025808	N/A	N/A	N/A	61015899	N/A	N/A	N/A
	MBE 900, 7.2L, MBE 904, 4.3L & MBE 906, 6.4L	10461772, 19011403, 8200570, 8200565, 61231341 A0061515001	10461454, 10479648, 10479645, 10479637, 10479651	8200103	N/A	61006208	N/A	N/A	428000-8470 428000-1881
	Cummins ISB, 6.7L	8200077, 8201039, 4041862C91	N/A	8200571 8300064 8200796	8200077	61006210	M009T71779 PC1779	M105610	428000-7090 438000-3110
Navistar	MaxxForce 7, 6.4L & VT365, 6.0L	8200271, 19011407, 10461764, 3591688C91 3804470C92	1113285, 10461450	8200972	N/A	61005266	N/A	M105603	428000-0071
	MaxxForce 7, 6.4L & VT365, 6.0L	8200271, 19011407, 10461764 3591688C91 3804470C92	1113285, 10461450	8200972	N/A	61005266	N/A	M105603	428000-0071
IC Bus	Cummins ISB, 6.7L	8200077, 8201039, 4041862C91	N/A	8200571 8300064 8200796	8200077	61006210	M009T71779 PC1779	M105610	428000-7090 438000-3110
	Cummins ISB, 5.9L	1113276, 90024059, 90022947 2585095C91	LH MOUNT: 10465151, 10479615, 10479638 RH MOUNT: 10465150, 1113276, 10465043, 10461481	LH MOUNT: 19011402 10461771 RH MOUNT: 19011400 19011409 10461770	N/A	LH MOUNT: 61005264 RH MOUNT: 61005265	N/A	N/A	428000-1600 228000-1953 228000-7301 428000-8400 228000-3811
Blue Bird Bus	Cummins ISB, 6.7L	8200077, 90032414	N/A	8200571 8300064 8200796	8200077	61006211	M009T71779 PC1779	M105610	428000-5120 428000-7090 438000-3110

\* The Delco Remy All-Makes 31MT part number may have a different number of pinion teeth due to off-set gear reduction design of the Denso starter.



© BorgWarner Inc.  
13975 BorgWarner Drive  
Noblesville, IN 46060 USA

For Customer Service or Technical Assistance call 1-800-372-3555

[delcoremy.com](http://delcoremy.com)

Delco Remy is a registered trademark of General Motors Corporation  
licensed to BorgWarner PDS (Anderson) L.L.C. | 31MT | 4-23