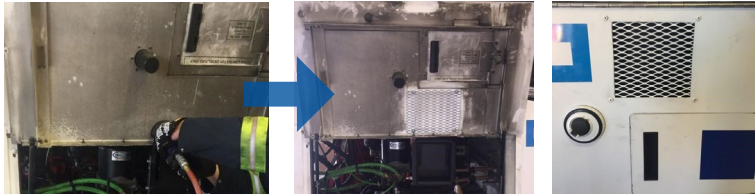


**Please complete the questions on the next page and return to [AdvRequirementForms@emp-corp.com](mailto:AdvRequirementForms@emp-corp.com).**



EMP Power 450™ Alternators are an excellent replacement for Delco 50DN alternators. EMP alternators are compatible with the pulleys and voltage regulators used with the Delco 50DN, have the same belt to mounting bolt orientation as the Delco 50DN, and are cradle mounted, like the Delco 50DN. The first page of this document discusses changes that may be required when retrofitting an EMP alternator in place of a Delco 50DN. The second page requests information EMP will use to develop a replacement kit.

EMP alternators are air cooled. The P450 alternator must have a 4” duct installed and routed to a cool, clean, dry air source for best alternator bearing life. EMP has developed hardware for various installations, including hardware needed to modify doors to admit clean air and can assist installers in developing a specific application.



**Example Door Modification**

The engine oil ports used by the Delco alternator must be plugged. EMP offers block off kits for various engines and oil paths. On Cummins engines, the front cover oil return is located below the alternator pulley. The side return is located on the side of the engine, below the alternator.

The high power output of EMP alternators requires 4/0 cabling, with strain relief within 12 inches of the alternator power and ground studs. There are attachment points for P-clips on the alternator, and EMP offers a bracket kit to simplify securing the cables to the alternator (other methods that prevent strain on the power and ground studs are also acceptable).



**P-Clip Strain Relief**



**EMP Bracket 7500028224**

The power and ground cables should be supported every 12–18 inches. EMP offers a range of bracket and clamping hardware and can assist installers in developing a complete hardware list.

Alternator fuses that are not rated for 450 amps require replacement.

Pulleys and voltage regulators that are in good condition can be reused with the replacement alternator. Replacements are available from EMP.

Full installation requirements for EMP alternators are detailed in *Installation Manual Power 450™ and Power 535™ 28 Volt Alternators*, EMP document 9970028076.



## Delco 50DN to EMP Power 450 Retrofit™ Requirements

**Please complete the following questions and return to [AdvRequirementForms@emp-corp.com](mailto:AdvRequirementForms@emp-corp.com).**

Today's Date		
Information Completed By		
Primary EMP or Distributor Contact		
Property, Company, or Fleet name		
Location (City or County/State)		
Material Shipping Address (City, Province/State and Country)		
Technical Contact	Name	
	Phone	
	E-mail	
Administrative Contact	Name	
	Phone	
	E-mail	

Vehicle Information	
Fleet or Unit #'s (range)	
Manufacturer	
Model	
Model Year	
Curbside Engine Compartment Door	Solid          Vented

Engine Information	
Manufacturer	
Model/Rating (HP)	
Model Year	
Fuel	Diesel          Natural Gas

*EMP belt tensioner bracket 1470022171 will be included when Cummins natural gas engines are specified.*

Replacement Options	
<i>Please select the hardware you would like EMP to provide with the replacement alternator.</i>	
Pulley	EMP Pulley          Grooves: _____
Voltage Regulator	Voltage Regulator
Oil Block Off Kit	Cummins Front Cover Oil Return Cummins Side Engine Oil Return Detroit Diesel Series 50/60
Fuse	500 amp ANL Fuse
Power Cables Ground terminal on EMP alternator must be connected to vehicle chassis with 4/0 cable.	SGX 4/0 power cable Length: _____ Vehicle end ring terminal size: _____
	SGX 4/0 ground cable Length: _____ Vehicle end ring terminal size: _____
Strain Relief Bracket	Bracket 7500028224

Additional Comments