TECH TIPS

Dixie Part Numbers: Various

Applications: Any application when considering using a higher amperage alternator than originally installed or when designing an application.

Condition: In any application that the user of the vehicle has changed the amount of current draw required and requests a high out put unit, such as the –HO series of automotive alternators or the 104, 200 or 300 series of alternators consideration must be given to the application capacity. If the wiring, fuses, fusible links and/or batteries are not evaluated the upgrade may be ineffective and/or become a fire hazard.

Under no circumstances install an automotive alternator in a marine application or application where the product must be spark arrested.

Cause: When applications are designed by the original manufacturer the wiring and associated components are designed to work together as a complete unit. The designer will select the wire sizes based on the system requirements along with a safety factor so that the system will be capable carry the loads applied to it. Copper is expensive, so when designing the wiring for the system they will not use sizes that are larger then required.

Correction: Wiring, fuses, fusible links and/or batteries must be matched to the amperage capacity of the alternator. An additional consideration when modifying the system is the distance that the battery is from the alternator.

Contact your wire supplier or refer to the *National Electrical Code, American Wire Gauge* or *International Electrotechnical Commission's International Standard* to obtain the resistance per length of wire and the current carrying capacity of the wire.