

Submitted for recognition as an American National Standard

VOLTAGES FOR DIESEL ELECTRICAL SYSTEMS

Foreword—This Document has not changed other than to put it into the new SAE Technical Standards Board Format.

1. **Scope**—This SAE Recommended Practice is intended to apply to lamps, batteries, heaters, radios, and similar equipment for operation with mobile or automotive diesel engines. Twenty-four V systems have long been used for heavy-duty services because 24 V permit operating 12 V systems in series-parallel. Thirty-two V systems have been used for marine, railroad-car lighting, and other uses.

Generators, storage batteries, starting motors, lighting, and auxiliary electrical equipment shall be for nominal system ratings of 12, 24, or 32 V as determined by the power requirements of the application. It is recommended that no intermediate voltages be considered.

The combination of a 24 V starting motor and two 12 V batteries connected in series for cranking is considered practical where it can be adapted to the installation. The batteries are reconnected in parallel for charging from a 12 V generator/alternator and for operating lights and other auxiliary equipment, or charged separately and used individually for lights and other electrical equipment.

2. **References**—There are no referenced publications specified herein.

3. **Notes**

- 3.1 **Marginal Indicia**—The change bar (I) located in the left margin is for the convenience of the user in locating areas where technical revisions have been made to the previous issue of the report. An (R) symbol to the left of the document title indicates a complete revision of the report.

PREPARED BY THE SAE CRANKING MOTOR STANDARDS COMMITTEE

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