

Spark Plug Heat Rating Classifications

Foreword—This Document has not changed other than to put it into the new SAE Technical Standards Board Format. Definitions have been changed to Section 3.

This SAE Standard is based on U. S. Federal Standard 143, dated August 10, 1962, entitled "Spark Plug, Heat Rating of, Method of Classifying".

1. **Scope**—This SAE Standard details a uniform method for classifying heat ratings of unshielded spark plugs.

2. References

2.1 **Applicable Publications**—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest issue of SAE publications shall apply.

2.1.1 SAE PUBLICATION—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J549—Preignition Rating of Spark Plugs

2.1.2 U. S. FEDERAL STANDARDS—Available from the Superintendent of Documents, U. S. Government Printing Office, Mail Stop: SSOP, Washington, DC 20402-9320.

Federal Standard 143—Spark Plug, Heat Rating of, Method of Classifying

3. **Definition**—The following term is defined as follows for use in reference to this document.

3.1 **IMEP**—Indicated Mean Effective Pressure (refer to SAE J549 for formula to calculate IMEP).

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4. **Classifications**—Table 1 shall constitute the complete list of heat rating descriptions:

TABLE 1—CLASSIFICATIONS

Heat Rating	IMEP (kPa)	IMEP (psi)
Hot	621–827	90–120
Medium Hot	834–1379	121–200
Medium	1386–2069	201–300
Medium Cold	2076–2413	301–350
Cold	2421–2758+	351–400+

5. **Notes**

- 5.1 **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 SPARK PLUG TASK FORCE
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