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Letter
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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
WASHINGTON

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BIBLIOGRAPHY ON SPARK PLUGS

This letter circular is in two parts. Part I gives references relating to work done on spark plugs and their components at the National Bureau of Standards. Part II gives references to other work under the following headings: (a) Spark Plug Material, (b) Manufacture of Spark Plugs, (c) Spark Plug Testing and Analysis.

Two of the publications listed in Part I, (20) and (23), can be obtained at the prices indicated from the Superintendent of Documents, Government Printing Office, Washington, D.C. The remaining Government publications are out of print but can usually be found at leading libraries. Papers in technical journals must be consulted at libraries or obtained from the publishers as the Bureau can not supply copies of these journals or reprints from them.

For convenience, the publications cited frequently are designated by the following abbreviations:

(AE) Automobile Engineer. Dorset House, Stamford Street, London, S.E. 1, England.

(AI) Automotive Industries. Chilton Co., 56th & Chestnut Streets, Philadelphia, Pa.

(J) Journal American Ceramic Society. Am. Ceramic Soc., 2525 North High Street, Columbus, Ohio.

(NACA) Technical Report, National Advisory Committee for Aeronautics.

(T) Technologic Paper, National Bureau of Standards.

PART I. REFERENCES RELATING TO NBS WORK ON SPARK PLUGS

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3. Wright, J.W. and Sewell, S.I. Some physical properties of American porcelain bodies. (J) Vol. 2, No. 4, p. 282 (1919).

4. Bleininger, A.V. and Riddle, F.H. Special spark plug porcelains. (J) Vol. 2, No. 7, p. 564 (1919).

5. Riddle, F.H. Relation between the composition and the thermal expansivity of porcelain. (J) Vol. 2, No. 10, p. 804 (1919).

6. Heldt, P.M. Tests of Ignition Apparatus. (AI) Vol. 40, No. 11, p. 578 (1919).

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9. Loeb, L.B., Sawyer, L.G. and Fonseca, E.L. Gas leakage in spark plugs. (NACA) No. 51, part II (1919).

10. Dickinson, H.C., Silsbee, F.B. and Agnew, P.G. Methods for testing spark plugs. (NACA) No. 51, part III (1919).

11. Cragoe, C.S. Temperatures in spark plugs having steel and brass shells. (NACA) No. 52 (1919).

12. Silsbee, F.B. and Honaman, R.K. Methods of measuring resistance of insulators at high temperatures. (NACA) No. 53, part I (1919).

13. Honaman, R.K. and Fonseca, E.L. Electrical resistance of various insulating materials at high temperatures. (NACA) No. 53, part II (1919).

14. Bleininger, A.V. Preparation and composition of ceramic bodies for spark plug insulators. (NACA) No. 53, part III (1919).

15. Staley, H.F. Cements for spark plug electrodes. (NACA) No. 53, part IV (1919). Also (T) No. 155 (1920).

16. Loeb, L.B. and Silsbee, F.B. Effect of temperature and pressure on sparking voltage. (NACA) No. 54 (1919).

17. Gorton, W.S. The subsidiary gap as a means for improving ignition. (NACA) No. 57 (1919).

18. Sparrow, S.W. Preignition and spark plugs. Journal Soc. Automotive Engrs. (Society of Automotive Engineers, Inc., 29 West 39th Street, New York, N. Y.), Vol. 6, No. 2, p. 129 (1920).

19. Riddle, F.H. Further studies on porcelain. (J) Vol. 2, No. 10, p. 812 (1920).

20. Rawdon, H.S. and Krynitsky, A.I. A study of the deterioration of nickel spark plug electrodes in service. (T) No. 143 (1920). (Price 10 cents).

21. Silsbee, F.B. The effect of electrode temperature on the sparking voltage of short spark gaps. (NACA) No. 179 (1923).

22. Silsbee, F.B. The sparking voltage of spark plugs. (NACA) No. 202 (1924). Also (AI) Vol. 52, No. 12, p. 539 (1925).

23. Federal Specification for Plugs; Spark. W-P-506, February 9, 1936. (Price 5 cents).

PART II. REFERENCES TO OTHER WORK ON SPARK PLUGS

(a) SPARK PLUG MATERIAL

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3. Peck, A.B. Note on andulusite from California. The American Mineralogist (Lancester, Pa.), Vol. 9, p. 123 (1924).

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6. Greig, J.W. Formation of mullite from cyanite, andulusite and sillimanite. (J) Vol. 8, No. 8, p. 465 (1925).

7. Watts, A.S. Spark plug insulation. Industrial and Engineering Chemistry (American Chemical Society, Easton, Pa.), Vol. 19, No. 10, p. 1123 (1927).

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(b) MANUFACTURE OF SPARK PLUGS

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6. Anonymous. Life spark of motordom. Scientific American (Munn & Co., Inc., 24 West 40th Street, New York, N.Y.), Vol. 133, p. 182, Sept. (1925).

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11. Anonymous. Sparking plug manufacture. (AE) Vol. 23, No. 304, p. 89 (1933).

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(c) SPARK PLUG TESTING AND ANALYSIS

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