

# Second Pacific Area Meeting Papers

*Symposiums on*

RAILROAD MATERIALS

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LUBRICATING OILS



Published by the  
AMERICAN SOCIETY FOR TESTING MATERIALS  
1916 Race St., Philadelphia 3, Pa.

*ASTM Special Technical Publication No. 214*

# SYMPOSIUMS ON RAILROAD MATERIALS

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## LUBRICATING OILS

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Presented at the  
SECOND PACIFIC AREA NATIONAL MEETING  
Los Angeles, Calif., September 18-19, 1956  
AMERICAN SOCIETY FOR TESTING MATERIALS



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## FOREWORD

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This volume comprises two symposia—the Symposium on Railroad Materials and the Symposium on Lubricating Oils which are published together since they were interrelated both in subject and in presentation at the Second Pacific Area National Meeting of the American Society for Testing Materials, held in Los Angeles, Calif., September 16 to 21, 1956. The papers comprising the Symposium on Railroad Materials were devoted to current practices in the use of diesel fuels and lubricants in the operation of diesel locomotives, and to railroad cleaning materials. Also a paper by A. S. Pedrick on, "Nondestructive Testing Applied to Railroad Materials and Equipment," which was presented at the Symposium on Nondestructive Testing is being included with the railroad papers because of its related interest.

Credit for the success of this Symposium is due to Paul V. Garin, Engineer of Research and Mechanical Standards, Southern Pacific Co., who organized the Symposium. At the two Symposium sessions at which the papers were presented the following served as cochairmen: W. F. Collins, Assistant Chief, Engineering Services, New York Central System; M. A. Pinney, Engineer of Tests, The Pennsylvania Railroad Co.; L. S. Crane, Engineer of Tests, Southern Railway System; and E. B. Fields, Engineering and Research, Atchison, Topeka & Santa Fe Railway.

The Symposium on Lubricating Oils was sponsored by Research Division III on Elemental Analysis, and Technical Committee B on Lubricating Oils, of ASTM Committee D-2 on Petroleum Products and Lubricants. Much of the credit for the success of this Symposium is due to the Symposium Chairman R. L. LeTourneau, California Research Corp., and also to C. M. Gambrill, Chairman, Research Division III and W. S. James, Chairman, Technical Committee B, and J. B. Gregory, Chairman, Subcommittee on Elements in Lubricants. The Symposium was presented in two parts at the first part on Spectrographic Analysis of Lubricating Oils; Messrs. Gambrill and Le Tourneau served as cochairmen. The remaining papers were presented in the second part with Messrs. James and Gregory as cochairmen.

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NOTE.—The Society is not responsible, as a body, for the statements  
and opinions advanced in this publication.

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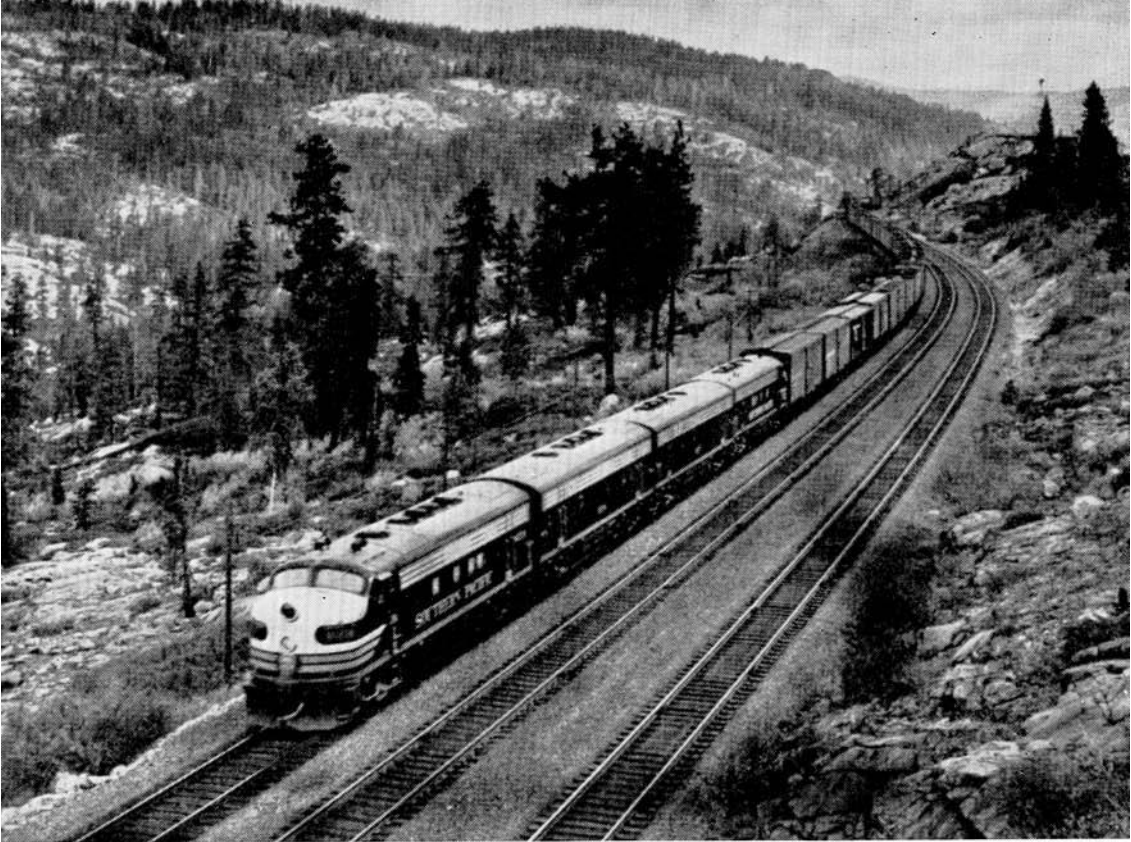
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**THIS PUBLICATION** is one of many issued by the American Society for Testing Materials in connection with its work of promoting knowledge of the properties of materials and developing standard specifications and tests for materials. Much of the data result from the voluntary contributions of many of the country's leading technical authorities from industry, scientific agencies, and government.

Over the years the Society has published many technical symposiums, reports, and special books. These may consist of a series of technical papers, reports by the ASTM technical committees, or compilations of data developed in special Society groups with many organizations cooperating. A list of ASTM publications and information on the work of the Society will be furnished on request.



