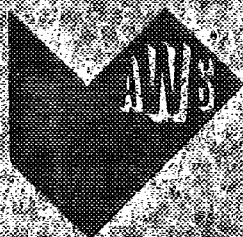


WELDING INSPECTION



AMERICAN WELDING SOCIETY

WELDING INSPECTION

**Second Edition
1980**

**Prepared by
AWS Committee on Methods of Inspection**

**Under the Direction of
AWS Technical Activities Committee**

**Approved by
AWS Board of Directors
April 3, 1979**

**AMERICAN WELDING SOCIETY
2501 N.W. 7th Street, Miami, FL 33125**

Library of Congress Number: 79-51872

International Standard Book Number: 0-87171-177-X

American Welding Society, 2501 N.W. 7th Street, Miami, FL 33125

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Printed in the United States of America

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Acknowledgments

The following people who were not members of the Committee made important contributions to the revision of this book.

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 G. E. Linnert, The Welding Institute
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Selected portions of the text and figures of Chapter 16, "Inspection by Radiographic Testing," are from "Radiography in Modern Industry," published by Eastman Kodak Company.

Foreword

Inspection of welds and welded assemblies involves knowledge of many factors including dimensional inspection, non-destructive examination methods, welding processes, welding metallurgy, destructive testing, welding procedure and welder and welding operator performance qualification requirements, and the examination and test requirements of codes, standards, and specifications, and the acceptance standards to be employed. A knowledge of drawings, welding and non-destructive testing symbols, the types of discontinuities that may be associated with different welding processes, and the ability to interpret and judge the difference between minor discontinuities and rejectable defects are also important elements of welding inspection.

This second edition of "Welding Inspection" has been prepared by the Committee on Methods of Inspection of the American Welding Society. The objective was to provide a reliable source of useful reference information, particularly for the technically trained individual who may not be directly involved with inspection but whose position requires that he know what an inspector should know. The book also is intended for the inspector who needs a general refresher in the basic requirements of weld inspection.

For those who need more detailed information than this book provides, bibliographies of complete books on the subjects covered in each chapter may be found in good technical libraries. The many specifications and codes that have been used as illustrative examples may also be consulted for more detailed information (see Chapter 18).

This book is intended as an instructive reference. The codes or specifications applicable to any particular weldment always take precedence over the generalized material contained herein, should any conflict arise between the two. The text has, of necessity, been written in general terms and cannot include all the conditions applicable to a specific instance. Thus, examples given are general and are used only for the purpose of illustration.

Every effort has been made to present this material in convenient form so that the book can be used as a training text for inspectors. Although the information generally relates to the arc welding processes, most of it applies to any weldment, fabricated by any joining process, for which the inspection methods described herein may be required.

For the inspection of brazed assemblies, refer to "Brazing Manual" published by the American Welding Society.

For the inspection of resistance welded assemblies, refer to "Specification for Automotive Weld Quality—Resistance Spot Welding," also published by the American Welding Society.

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