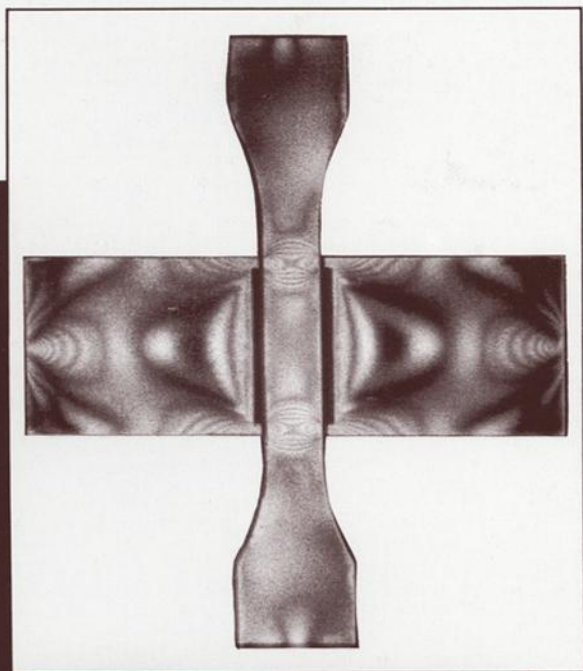
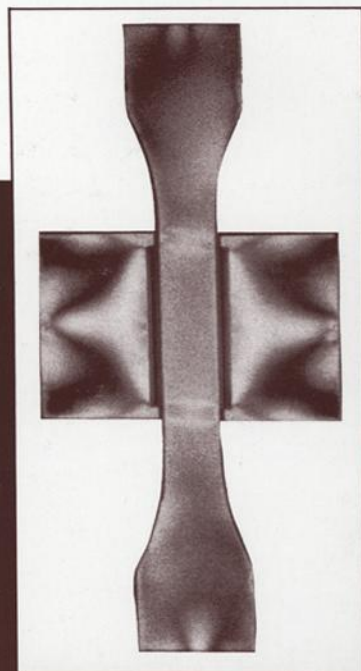


STANDARDIZATION OF FRETTING FATIGUE TEST METHODS AND EQUIPMENT



Attia/Waterhouse
editors

ASTM

STP 1159

STP 1159

Standardization of Fretting Fatigue Test Methods and Equipment

M. Helmi Attia and R. B. Waterhouse, editors

ASTM Publication Code Number (PCN)
04-011590-30



ASTM
1916 Race Street
Philadelphia, PA 19103

Library of Congress Cataloging-in-Publication Data

Standardization of fretting fatigue test methods and equipment / M.

Helmi Attia and R. B. Waterhouse, editors.

(STP ; 1159)

Proceedings from a symposium held in San Antonio, Tex., Nov. 12-13, 1990.

“ASTM publication code number (PCN) 04-011590-30.”

Includes bibliographical references and index.

ISBN 0-8031-1448-6

I. Materials—Fatigue—Testing—Standards—Congresses. 2. Fatigue testing machines—Standards—Congresses. I. Attia, M. Helmi

(Mahmoud Helmi) II. Waterhouse, R. B. (Robert Barry), 1922-

III. Title: Fretting fatigue test methods and equipment.

IV. Series: ASTM special technical publication ; 1159.

TA418.38.S68 1992

620.1'126'0287—dc20

92-17270

CIP

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Peer Review Policy

Each paper published in this volume was evaluated by three peer reviewers. The authors addressed all of the reviewers' comments to the satisfaction of both the technical editor(s) and the ASTM Committee on Publications.

The quality of the papers in this publication reflects not only the obvious efforts of the authors and the technical editor(s), but also the work of these peer reviewers. The ASTM Committee on Publications acknowledges with appreciation their dedication and contribution to time and effort on behalf of ASTM.

Foreword

In 1988, the ASTM Committee E-9 on Fatigue approved the formation of a Task Group on Fretting Fatigue Testing to develop standards for the fretting fatigue test methods and equipment. This task group, chaired by one of the editors of this special publication (M. H. Attia) has recognized the gravity of its responsibility and realized the need for an international cooperative effort to achieve its objective. As a first step towards this goal, the idea of organizing a symposium on this subject matter was born.

This publication, *Standardization of Fretting Fatigue Methods and Equipment*, contains papers presented at the Symposium of the same name in San Antonio, TX on 12–13 November 1990. The symposium was sponsored by ASTM Committee E-9 on Fatigue. Dr. M. Helmi Attia, of Ontario Hydro Research Division, Toronto, Ontario, Canada and Dr. R. B. Waterhouse, of the University of Nottingham, Nottingham, UK, presided as symposium chairmen and are the editors of the resulting publication.

The Cover

The photoelastic picture on the cover depicts the change in the stress field and the contact pressure distribution at the fatigue specimen/fretting pad interface as a result of the change in the height of the pad. The latter is usually chosen arbitrarily and as such, the variability in the test results is not unexpected. It is hoped that the picture will capture the attention of those involved with fretting fatigue testing to the necessity of standardizing the test specimens configuration, methods, and equipment.

The picture was obtained from the Fretting Laboratory, Mechanical Research Department, Ontario Hydro Research Division.

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ISBN 0-8031-1448-6