



ESDU 70002

Issued January 1970

With Amendment A

September 1973

Buckling stress ratios for flat plates under shear and non-uniform compression

ESDU Copyright material. For current status contact ESDU.

Endorsed by
The Royal Aeronautical Society

AVA Documents
Document Sharing Hub

ESDU DATA ITEMS

Data Items provide validated information in engineering design and analysis for use by, or under the supervision of, professionally qualified engineers. The data are founded on an evaluation of all the relevant information, both published and unpublished, and are invariably supported by original work of ESDU staff engineers or consultants. The whole process is subject to independent review for which crucial support is provided by industrial companies, government research laboratories, universities and others from around the world through the participation of some of their leading experts on ESDU Technical Committees. This process ensures that the results of much valuable work (theoretical, experimental and operational), which may not be widely available or in a readily usable form, can be communicated concisely and accurately to the engineering community.

We are constantly striving to develop new work and review data already issued. Any comments arising out of your use of our data, or any suggestions for new topics or information that might lead to improvements, will help us to provide a better service.

THE PREPARATION OF THIS DATA ITEM

The work on this particular Data Item was monitored and guided by the Aerospace Structures Committee. This Committee first met in 1940 and now has the following membership:

Chairman	
Prof. W.S. Hemp	— University of Oxford
Vice-Chairman	
Mr F. Tyson	— Handley Page Aircraft Ltd
Members	
Mr H.L. Cox	— National Physical Laboratory
Mr K.H. Griffin	— Cranfield Institute of Technology
Mr N.F. Harpur	— British Aircraft Corporation (Filton) Ltd
Mr P.J. McKenzie	— Hawker Siddeley Aviation Ltd, Kingston
Dr G.G. Pope	— Royal Aircraft Establishment
Mr I.C. Taig	— British Aircraft Corporation (Preston) Ltd
Mr A.W. Torry	— Hawker Siddeley Aviation Ltd, Hatfield

The construction and subsequent development of the Data Item was undertaken by

Mr A.G.R. Thomson	— Head of Mechanics of Solids Group
Mr M.B. Benoy	— Mechanics of Solids Group.

BUCKLING STRESS RATIOS FOR FLAT PLATES UNDER SHEAR AND NON-UNIFORM COMPRESSION

CONTENTS

	Page
1. NOTATION	1
2. NOTES	1
3. DERIVATION	1
4. EXAMPLE	2

ESDU Copyright material. For current status contact ESDU.