

AS 2193—1978

Australian Standard<sup>®</sup>

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**Methods for the calibration and  
grading of force-measuring  
systems of testing machines**

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The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Aluminium Development Council  
Associated Chambers of Manufactures of Australia  
Australian Institute of Metals  
Bureau of Steel Manufacturers of Australia  
Department of Productivity  
Materials Research Laboratories—Department of Defence  
Metal Trades Industry Association of Australia  
National Association of Testing Authorities  
National Measurement Laboratory  
Railways of Australia Committee  
Society of Automotive Engineers—Australasia  
Universities

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## PREFACE

This standard was prepared by the Association's Committee on Mechanical Testing of Metals as the metrication and revision of AS B128—1963, which it accordingly supersedes.

During the preparation of the standard the committee considered the following documents:

- |                      |                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------|
| ASTM E 4             | Verification of Testing Machines                                                                                     |
| ASTM E 74            | Standard Methods of Calibration of Force Measuring Instruments for verifying the Load Indication of Testing Machines |
| ISO R/147            | Load Calibration of Testing Machines for Tensile Testing of Steel                                                    |
| ISO R/376            | Calibration of Elastic Proving Devices                                                                               |
| BS Draft 74/42152 DC | Methods for the Verification of Forces Applied by Materials Testing Machines.                                        |

This standard covers the static calibration of force-measuring systems of testing machines. It is realized that for machines employing high rates of force application, dynamic calibration methods may be more appropriate, but these are outside the scope of this standard. However, some notes on the response of materials testing equipment have been included in Appendix C.

This standard requires reference to the following Australian standards:

AS 1376 Conversion Factors

AS 1545 Methods for the Calibration and Grading of Extensometers.

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