Aggregates

Sand, gravel and crushed rock aggregates for construction purposes

(third edition)
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Sand, gravel and crushed rock aggregates
for construction purposes
(third edition)

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THIRD EDITION REVISED BY

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THE GEOLOGICAL SOCIETY

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## Contents

Foreword to the 3rd edition ........................................... xv
Preface ........................................................................... xvi
Working Party Members .................................................... xvii
Acknowledgements ........................................................... xviii

### 1. Introduction

1.1. Background .................................................................. 1
1.2. Objectives .................................................................. 2
   1.2.1. First edition 1985 ............................................. 2
   1.2.3. Third edition 2001 .......................................... 4
1.3. Geographical factors .................................................. 4

### Reference ..................................................................... 4

### 2. Occurrences and associations of sources

2.1. Introduction .................................................................. 5
2.1.1. Rock and rock categories ...................................... 5
2.1.2. Geological time scale and the rock sequence ............ 5
2.2. Aggregates from the igneous and metamorphic rocks
   2.2.1. Igneous rock ...................................................... 7
   2.2.2. Metamorphic rock .............................................. 10
2.3. Aggregates from the sedimentary rocks
   2.3.1. Limestone ......................................................... 11
   2.3.2. Sandstone ......................................................... 12
   2.3.3. Other sedimentary rocks and natural waste materials . 14
2.4. Occurrence of sand and gravel, and of conglomerates
   2.4.1. Factors influencing the distribution of sand and gravel in Britain ... 15
   2.4.2. Fluvial deposits ................................................... 16
   2.4.2.1. River channel or alluvial deposits ..................... 16
   2.4.2.2. River terrace deposits .................................... 17
   2.4.2.3. Alluvial fans .................................................. 19
   2.4.3. Glacial deposits .................................................. 19
   2.4.3.1. Moundy glaciofluvial deposits: eskers, kames and kame-terraces . 20
   2.4.3.2. Terraced glaciofluvial deposits: outwash (sandar) and fans ....... 21
   2.4.3.3. Periglacial phenomena and deposits ................. 23
   2.4.3.4. Screes, block-fields and head deposits .............. 24
   2.4.4. Coastal deposits ................................................. 24
   2.4.5. Marine deposits ................................................. 26
   2.4.6. Gravels in the solid formations ............................ 26
2.5. Aggregate materials in desert regions ............................. 27
2.6. Aggregate materials in tropical regions ............................ 29
2.7. The effects of alteration and weathering ............................ 30
   2.7.1. Alteration ........................................................ 31
   2.7.2. Weathering ...................................................... 31
2.8. The influence of geological structure ............................... 33
   2.8.1. Rock structures and geological structures (primary and secondary structures) 33
   2.8.1.1. Depositional structures and rock textures (primary structures) in sedimentary rocks 33
   2.8.1.2. Primary structures in igneous rocks .................. 34
3. Field investigation of deposits

3.1. Introduction
3.2. Desk study
  3.2.1. Topographic maps
  3.2.2. Geological maps
  3.2.3. Aggregate resource maps
  3.2.4. Derivative resource maps
  3.2.5. Reports and small-scale maps
  3.2.6. Geological, geophysical and aggregates maps covering UK offshore areas
    3.2.6.1. Sand and gravel resource appraisals
  3.2.7. Geoscience libraries in Britain
3.3. Field investigation
  3.3.1. Satellite imagery
  3.3.2. Aircraft remote sensing
  3.3.3. Geophysics: airborne and ground geophysics
    3.3.3.1. Airborne methods
    3.3.3.2. Ground methods
    3.3.3.3. Marine geophysical methods
3.4. Geological appraisal for aggregate assessment
  3.4.1. Geological classification and stratigraphical position
  3.4.2. Field relations
  3.4.3. Thickness of the deposit
  3.4.4. Structure of the deposit
  3.4.5. Bulk composition
  3.4.6. State of weathering and alteration of the rock mass
3.5. Sample collection
  3.5.1. Drilling for sampling, hard rock
  3.5.2. Shallow pits and trenches
  3.5.3. Drilling for sampling, sand and gravel
    3.5.3.1. Hand auger boring
    3.5.3.2. Power auger machines
    3.5.3.3. Hollow-stem augers
    3.5.3.4. Light cable percussion boring
    3.5.3.5. Reversed circulation drills
3.6. Marine exploration
  3.6.1. Echo sounder
  3.6.2. Side-scan sonar
  3.6.3. Sampling
  3.6.4. Seismic and acoustic prospecting techniques
3.7. Presentation of field and test results
  3.7.1. Cross sections and maps
  3.7.2. Estimation of aggregate reserves and resources; definitions of terms
  3.7.3. Basic resource categories
  3.7.4. Methods for estimating amounts
  3.7.5. Reliability of the estimates
CONTENTS

3.7.6. Some factors affecting the yield of a prospect ................................ 64
3.8. Exploration and development of aggregate prospects .......................... 64
References ...................................................................................... 64
Appendices A3.1 to A3.3. Availability of UK geological maps ................. 69

4. Extraction ................................................................................. 73
4.1. Introduction ........................................................................... 73
4.2. Hard rock quarries .................................................................. 74
  4.2.1. Introduction ..................................................................... 74
  4.2.2. Overburden removal and disposal .................................... 74
  4.2.3. Primary fragmentation ..................................................... 79
    4.2.3.1. Introduction ......................................................... 79
    4.2.3.2. Drilling .................................................................. 79
    4.2.3.3. Blasting .................................................................. 81
    4.2.3.4. Explosives ........................................................... 82
    4.2.3.5. Detonators ............................................................. 82
    4.2.3.6. Regulations ........................................................... 82
    4.2.3.7. Blast specification .................................................. 83
    4.2.3.8. Ripping .................................................................. 84
  4.2.4. Secondary breaking ........................................................... 85
  4.2.5. Loading ............................................................................ 85
    4.2.5.1. Rope operated face shovels ..................................... 85
    4.2.5.2. Hydraulic excavators .............................................. 86
    4.2.5.3. Hydraulic backhoes ............................................... 86
    4.2.5.4. Wheeled loaders ..................................................... 86
  4.2.6. Hauling ............................................................................ 88
4.3. Sand and gravel operations ....................................................... 89
  4.3.1. Introduction ................................................................... 89
  4.3.2. Overburden removal ........................................................ 89
  4.3.3. Excavating techniques and equipment ............................... 89
    4.3.3.1. Wet working ......................................................... 90
    4.3.3.2. Dry pit working ...................................................... 90
  4.3.4. Loading and conveying ...................................................... 91
4.4. Marine aggregates ................................................................... 91
  4.4.1. Introduction ................................................................... 91
  4.4.2. Recovery of marine aggregates ......................................... 91
4.5. Extraction, planning and scheduling ........................................... 92
  4.5.1. Introduction .................................................................... 92
  4.5.2. Quarry plans .................................................................... 93
  4.5.3. Overburden payrock ratios ............................................. 93
  4.5.4. Overburden removal ....................................................... 93
  4.5.5. Haul roads and conveyor routes ...................................... 93
  4.5.6. Equipment selection ....................................................... 94
    4.5.6.1. Introduction ......................................................... 94
    4.5.6.2. Drilling equipment ............................................... 94
    4.5.6.3. Loading equipment .............................................. 94
    4.5.6.4. Hauling equipment ............................................... 94
4.6. Environmental issues ............................................................. 95
  4.6.1. Introduction .................................................................... 95
  4.6.2. Noise ............................................................................. 95
  4.6.3. Dust ............................................................................... 95
## Contents

4.6.4. Blasting .................................. 96  
4.6.4.1. Ground vibration .......................... 96  
4.6.4.2. Air blast .................................. 96  
4.6.5. Nuisance ................................. 96  
4.6.5.1. Noise nuisance .......................... 96  
4.6.5.2. Dust nuisance ........................... 97  
4.6.6. Visual impact .............................. 97  
4.6.7. Restoration ................................ 97  
4.7. Future trends ................................... 98  
4.7.1. Super quarries ............................... 98  
4.7.2. In-pit crushers ............................... 98  
4.7.3. Underground quarrying ..................... 98  
References ....................................... 100  
Appendix A4.1. Diagrams of extraction equipment .... 101

## 5. Processing ....................................... 107  
5.1. Introduction ................................... 107  
5.2. Comminution ................................... 108  
5.2.1. Introduction ................................ 108  
5.2.2. Primary crusher selection ................. 109  
5.2.3. Jaw crushers ................................ 110  
5.2.4. Gyratory crushers ............................. 111  
5.2.5. Impactors .................................. 112  
5.2.6. Vertical shaft impactors ................. 113  
5.2.7. Cone crushers ................................ 113  
5.2.8. Gyratory disc crushers .................... 114  
5.2.9. Rolls crushers ................................ 114  
5.2.10. Grinding ................................... 115  
5.3. Sizing ........................................ 116  
5.3.1. Introduction ................................ 116  
5.3.2. Objectives of sizing ........................ 116  
5.3.3. Screening ................................... 117  
5.3.3.1. Principles ............................... 117  
5.3.3.2. Inclined vibrating screens ............... 118  
5.3.3.3. Horizontal vibrating screens .......... 119  
5.3.3.4. Arrangement of vibrating screens ...... 120  
5.3.3.5. Trommel screens ........................ 120  
5.3.3.6. Grizzly screens .......................... 120  
5.3.3.7. Miscellaneous screening devices ....... 121  
5.3.4. Classification ................................ 122  
5.3.4.1. Principles of classification ............ 122  
5.3.4.2. Gravitational hydraulic classifiers ... 122  
5.3.4.3. Centrifugal (cyclonic) hydraulic classifiers 123  
5.3.4.4. Air cyclones ............................ 124  
5.4. Beneficiation ................................... 124  
5.4.1. Introduction ................................ 124  
5.4.2. Scouring and sizing ....................... 124  
5.4.3. Washing and scrubbing ..................... 124  
5.4.3.1. Marine dredged aggregates ............ 125  
5.4.3.2. Rinsing .................................. 126  
5.4.4. Density separation ........................... 126  
5.4.5. Shape sorting ................................ 128
## CONTENTS

5.4.6. Magnetic separation ................................................... 129  
5.4.7. Sorting ................................................................. 129  
5.4.8. Other separation processes ........................................... 129  

5.5. Solid–liquid separation; dewatering ................................. 129  
5.5.1. Drainage ................................................................. 130  
5.5.2. Use of screens ......................................................... 130  
5.5.3. Use of classifiers ....................................................... 130  
5.5.4. Thickener ................................................................. 131  
5.5.5. Filtration ................................................................. 132  

5.6. Storage and distribution ............................................... 133  
5.6.1. Storage ................................................................. 133  
5.6.2. Outloading ............................................................... 134  

5.7. Environmental considerations ........................................ 135  
5.7.1. Noise ................................................................. 135  
5.7.2. Dust ................................................................. 136  
5.7.3. Nuisance ............................................................... 136  

5.8. Process and quality control ........................................... 136  

5.9. Plant flowsheets ......................................................... 137  
5.9.1. Sand and gravel process plant .................................... 137  
5.9.2. Hard rock (roadstone) process plant ............................. 138  

5.10. Future trends ............................................................ 140  

References ................................................................. 142  

6. Description and classification of aggregates .......................... 145  

6.1. Introduction ............................................................. 145  

6.2. Descriptive and classification schemes in general ................. 145  
6.2.1. Classical geological schemes .................................... 145  
6.2.2. Descriptive and classification schemes for engineering purposes 145  
6.2.3. The description and classification of rock weathering .......... 148  
6.2.4. Classification schemes based on specific properties ........... 149  
6.2.5. The use of local and traditional terms ............................ 149  

6.3. Basic considerations on the description and classification of aggregates ......................................................... 150  
6.3.1. The purpose and requirements of a classification scheme for aggregates ................................................. 150  
6.3.2. Aggregate type .......................................................... 150  
6.3.3. Description of physical characteristics ............................ 150  
6.3.4. Petrological classification .......................................... 150  
6.3.5. Test data ................................................................. 151  

6.4. Classification schemes for aggregates ................................ 151  
6.4.1. Historical developments within the United Kingdom ........... 151  
6.4.2. Current British Standards .......................................... 153  
6.4.3. American Standards .................................................. 155  
6.4.4. Europe ................................................................. 155  
6.4.5. Southern Africa ....................................................... 156  
6.4.6. Recommended approach ............................................. 156  

6.5. The petrographic description of aggregates .......................... 159  
6.5.1. General ................................................................. 159  
6.5.2. ASTM C295 ............................................................ 159  
6.5.3. BS 812: Part 104 ........................................................ 159  
6.5.4. Rock samples ........................................................... 161  
6.5.5. Precision of quantitative methods .................................. 161  
6.5.6. Site inspection of aggregate sources ............................... 162  

References ................................................................. 162

7. Sampling and testing ............................................. 167
   7.1. Introduction ............................................. 167
   7.2. Sampling .................................................. 167
      7.2.1. General considerations .............................. 167
      7.2.2. Sampling procedures .................................. 168
         7.2.2.1. Quarry face rock .............................. 168
         7.2.2.2. Sand and gravel deposits ....................... 168
         7.2.2.3. Aggregate products, sand and gravel .......... 168
         7.2.2.4. Aggregate products, crushed-rock quarries .... 169
      7.2.3. Sample size ......................................... 169
   7.3. Statistical considerations .................................. 169
   7.4. Repeatability and reproducibility ......................... 170
      7.4.1. Repeatability (r) .................................. 170
      7.4.2. Reproducibility (R) ................................ 171
      7.4.3. Sampling considerations ............................. 171
   7.5. Testing .................................................. 171
      7.5.1. Physical tests ...................................... 172
         7.5.1.1. Aggregate grading ............................. 172
         7.5.1.2. Sand equivalent value (ASTM 2419) .......... 173
      7.5.1.3. Aggregate shape ................................. 173
         7.5.1.2. Flakiness index, $I_F$ (BS 812: 1989) .... 173
         7.5.1.3. Elongation Index, $I_E$ (BS 812: 1990) .... 174
         7.5.1.4. Discussion ..................................... 174
         7.5.1.5. Angularity ..................................... 175
         7.5.1.6. Sphericity and roundness ....................... 176
         7.5.1.7. Surface texture ................................ 176
      7.5.1.3. Relative density, bulk density and water absorption . 176
      7.5.1.4. Bulk density (unit weight) ....................... 176
      7.5.1.5. Aggregate shrinkage .............................. 176
   7.5.2. Petrographic examination of aggregates .................. 177
   7.5.3. Mechanical tests ...................................... 177
      7.5.3.1. Strength ......................................... 177
      7.5.3.2. Aggregate impact value (AIV) .................... 177
      7.5.3.3. Aggregate crushing value (ACV) ................. 178
      7.5.3.4. Discussion ....................................... 178
      7.5.3.5. Ten per cent fines value ......................... 180
      7.5.3.6. Modified aggregate impact test .................. 181
      7.5.3.7. Other non-standard values ....................... 181
      7.5.3.8. Tests on ledge or lump rock ..................... 181
   7.5.4. Durability and frost susceptibility ..................... 183
      7.5.4.1. Mechanical tests ................................ 183
      7.5.4.2. Physico-chemical tests .......................... 186
   7.5.5. Chemical tests ....................................... 189
      7.5.5.1. Organic content ................................ 189
      7.5.5.2. Chloride content ................................ 189
      7.5.5.3. Sulphate content ................................ 190
      7.5.5.4. Potential alkali reactivity ...................... 190
      7.5.5.5. Draft British Standard procedures .................. 192
9.3.2. Sampling and testing of fine aggregates .............................................. 229
9.3.3. Grading of sands .............................................................................. 229
9.3.4. Impurities .......................................................................................... 231
9.3.5. Testing for fines ................................................................................ 233

9.4. Influence of sand and fines characteristics on mortar properties .......... 234
9.4.1. Workability ........................................................................................ 234
9.4.2. Water retentivity .............................................................................. 235
9.4.3. Strength .............................................................................................. 235
9.4.4. Durability ............................................................................................ 235

9.5. UK specifications and practice ................................................................. 235
9.5.1. Masonry mortars ................................................................................ 235
9.5.2. External renderings ........................................................................... 237
9.5.3. Internal plastering .............................................................................. 237
9.5.4. Floor screeds ...................................................................................... 238

9.6. Specifications and practice outside the UK ............................................. 239

9.7. Occurrence of mortar sands in the UK ..................................................... 241

9.8. Engineering performance and problems of mortars with particular reference to UK case histories ................................................................. 243
9.8.1. Effect of grading ................................................................................ 243
9.8.2. Current experience ............................................................................ 245
9.8.3. Future trends in the use of sands ......................................................... 246
9.8.4. Artificial aggregates used in mortars .................................................. 246

9.9. Discussion ............................................................................................... 246

References ................................................................................................... 247

10. Aggregates in unbound pavement construction ......................................... 249
10.1. Introduction ............................................................................................ 249
10.2. Primary aggregates .............................................................................. 250
10.2.1. Igneous rocks ............................................................................... 250
10.2.2. Sedimentary rocks and unconsolidated sediments ....................... 251
10.2.3. Metamorphic rocks ......................................................................... 251
10.3. Secondary aggregates ......................................................................... 251
10.3.1. Overview .......................................................................................... 251
10.3.2. Colliery spoil ................................................................................... 251
10.3.3. Spent oil shale ................................................................................ 251
10.3.4. Power station ashes ........................................................................ 251
10.3.5. Wastes from quarries ...................................................................... 252
10.3.6. Incinerated refuse ........................................................................... 252
10.3.7. Demolition wastes .......................................................................... 252
10.3.8. Metallurgical slags ......................................................................... 252
10.4. Resistance to wear ............................................................................... 252
10.4.1. The degradation process .................................................................. 252
10.4.2. Types of degradation ....................................................................... 252
10.4.3. Influence of particle shape and size ................................................. 253
10.4.4. Influence of moisture content ......................................................... 253
10.4.5. Influence of grading on aggregate degradation .............................. 253
10.4.6. Engineering effects of degradation ................................................... 254
10.4.7. Correlation between tests and service behaviour ............................ 255
10.5. Resistance to decay .............................................................................. 255
10.5.1. Mechanisms and assessment ............................................................ 255
10.5.2. Discussion ........................................................................................ 257
10.6. Effects of water migration ..................................................................... 257
11. Aggregates in bituminous bound construction materials
11.1. Introduction
11.2. Petrological types of aggregate used in bituminous compositions
11.3. Desirable properties of aggregates for bituminous mixes
11.4. Influence of aggregate petrography on engineering properties
  11.4.1. Crushing strength
    11.4.1.1. Igneous rocks
    11.4.1.2. Sedimentary rocks
    11.4.1.3. Metamorphic rocks
    11.4.1.4. Artificial aggregates
  11.4.2. Resistance to abrasion
    11.4.2.1. Igneous rocks
    11.4.2.2. Sedimentary rocks
    11.4.2.3. Metamorphic rocks
    11.4.2.4. Artificial aggregates
  11.4.3. Resistance to polishing
    11.4.3.1. Igneous and metamorphic rocks
    11.4.3.2. Sedimentary rocks
    11.4.3.3. Artificial aggregates
  11.4.4. Resistance to stripping
    11.4.4.1. Influence of aggregate petrography
    11.4.4.2. Influence of binder and adhesion agents
  11.4.5. Resistance to weathering effects in service
  11.4.6. Ability to contribute to strength and stiffness of the total mix
11.5. Detailed requirements and conflicting requirements for aggregates for bituminous pavement materials
  11.5.1. Detailed requirements: strength
  11.5.2. Detailed requirements—polishing resistance and abrasion resistance:
    Department of Transport (UK)
  11.5.3. General comments
  11.5.4. Detailed requirements—Property Services Agency UK (Airfields Branch)
  11.5.5. Relationship between mix composition and desirable aggregate properties
11.6. Conclusions
References
Appendix A11.1. Adhesion tests

12. Railway track ballast
12.1. Introduction
12.2. Rock types suitable for track ballast in Great Britain
12.3. British practice
12.4. European practice ........................................ 287
  12.4.1. Germany ........................................ 287
  12.4.2. France ........................................ 287
  12.4.3. Italy .......................................... 288
  12.4.4. Spain .......................................... 288
12.5. US practice ........................................... 288
References .................................................. 289

  13.1. Introduction ....................................... 291
  13.2. Key properties of filter aggregates ...................... 292
    13.2.1. General ...................................... 292
    13.2.2. Grading ...................................... 292
    13.2.3. Aggregate strength ............................ 292
    13.2.4. Particle durability ............................ 292
    13.2.5. Particle shape ................................ 292
    13.2.6. Particle texture .............................. 292
    13.2.7. Surface coatings .............................. 292
    13.2.8. Particle porosity ............................. 293
    13.2.9. Chemical reactivity ........................... 293
  13.3. Testing of aggregates ................................ 293
  13.4. Water treatment: filtration through sand ................. 293
    13.4.1. General ...................................... 293
    13.4.2. Filter bed sand ............................... 294
    13.4.3. Filter gravel ................................ 295
  13.5. Aggregates for biological percolating filters .......... 295
  13.6. Filters for civil engineering structures .............. 295
    13.6.1. General ...................................... 295
    13.6.2. Specification of aggregates .................... 297
  13.7. Concluding remarks ................................ 297
References .................................................. 298

Appendix: Aggregates properties ................................ 299

Glossary .................................................. 307

Index .................................................... 331
An adequate supply of aggregates of the right quality is essential to construct and maintain serviceable, safe, durable and cost effective building and civil engineering works including our homes, hospitals, schools, work places and transport systems. All are vital to our well being, our social development and economic growth. Aggregates are, therefore, vital to the maintenance and development of what is literally the physical framework of our society.

There is nowadays more appreciation that the exploitation of aggregates comes at an environmental cost. The present Government has championed the principles of Sustainable Construction. The implication for aggregates is that they must be produced and utilised in a sustainable, prudent and efficient manner in order that we minimise the impact on our environment whilst maximising the beneficial use of natural resources. Central to Sustainable Construction is the delivery of effective environmental management, efficient and cost effective production and robust end-use specification, taken forward by a committed, well trained and informed workforce. Availability of comprehensive, authoritative and easily assimilated guidance is key to delivering Sustainable Construction. Building on the previous editions, this updated text brings together practitioners with expert knowledge from all aspects of aggregate exploration, extraction, production and end-use to provide a unique reference work that will do much to secure a workforce and client-base that are committed and fully prepared to meet those challenges.

Sustainable Construction also demands that, where it is practicable and technically possible, we should seek to maximise the opportunities of producing aggregates from recycled and secondary sources. I am particularly pleased to see that in the latest edition of the text reference is made to the increasing use of construction and demolition waste as aggregate.

‘Aggregates’ is now the most successful and well established reference work from a long line of distinguished publications from the Geological Society’s Special Publication Series. Its success is thoroughly deserved. Since its first edition it has established a reputation as the ‘standard’ work on the subject. I congratulate all those who have contributed to it.

Rt. Hon. Nick Raynsford MP
Minister of Planning, Housing and Construction
Department of the Environment, Transport and the Regions
Preface to the 3rd edition

The growth in demand for this book in Great Britain seems unending—I parody the comment I started with in the Preface for the 2nd Edition of this book in 1993. The book continues to be a best seller in the Geological Society’s Publications and it has been decided that a further printing is necessary. Opportunity was therefore taken to make essential revision of the 2nd Edition, including updates of the references and in particular those concerned with the European Standards which have proliferated since the 1993 edition.

This work has been undertaken by Dr Ian Sims, a director of STATS Limited (Specialist Engineering Materials and Environmental Consultants), Dr M. R. Smith, Institute of Quarrying in Nottingham, Dr Graham West, formerly TRL Crowthorne, all officers of the 2nd Working Party together with myself and in addition, Mr John Lay of RMC Aggregates (UK) Limited, Bromsgrove. Each member of this revision group was responsible for two or three chapters and/or appendices of the book and the work was carried out during 2000.

This Preface gives me the opportunity to say now that the Aggregates book spawned two further Working Party reports to make a trilogy on Geological Materials in Construction. The second book was also published as a Geological Society Engineering Geology Special Publication (No. 16), in 1999 entitled Stone: Building Stone, Rock Fill and Armourstone in Construction; and currently still in the preparation stage is Clay Materials in Construction (provisional title) due for publication about 2003.

This Preface also gives me the opportunity to reiterate what I have said before, but which I do not think I have made clear enough, is that the Aggregates book (as well as its Stone and Clay counterparts) is the combined work of the whole Working Party membership. Each chapter of the book was initially drafted by one, two or three members of the Working Party and subsequently through many day-long meetings edited and cross-checked by all the members and commented upon by the corresponding members. In this way, every aspect of the book carries the collective authority of the whole Working Party. Appendices were handled in a similar way and a particular effort was made to make the book as comprehensive as possible and despite being drafted by a committee, to achieve as far as possible continuity of style and to ensure a uniformity in the technical level and mode of presentation. The brunt of the early work was borne by the Secretary to the Committee, Dr Ian Sims, and the latter work by the Editor, Dr Mike Smith. However I must emphasize that each member of the Working Party worked hard and long to achieve the success of the previous edition and any credit should be distributed to each member of the Working Party equally.

It remains to say thank you to the Revision Team, who like all the members of the Working Party, gave freely of their time.

P. G. Fookes F.R.Eng.
Chairman of the Working Party
Winchester
January 2001
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* Member of first working party 1978–1984.
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