Introduction to the Series

The eight books comprising the 'Macmillan Handbooks in Industrial Management' series were from the outset planned as an entity, and together they cover comprehensively yet concisely the varied aspects of knowledge required by those who manage a modern factory or plant. At the same time, care has been taken to ensure that each volume shall be complete in itself, and carry sufficient basic management theory for a proper understanding of its specific subject.

By this means, it has been possible to avoid a common pitfall in the path of many writers on management subjects, namely an attempt to cover all possible ground in one major volume, with varying degrees of success.

By contrast, each author in this series is experienced in the subject of his contribution. A similar pattern has been followed in each book, but each bears the stamp of the personality of its author. Well-established principles and tested techniques are explained, but equally new and up-to-date concepts are explored.

It is expected that many practising works managers and mature students will wish to have the whole set on their shelves, but that others will welcome the opportunity of buying single volumes to meet their particular needs.

Thanks are due to the authors for the enthusiasm with which they have joined in the enterprise, and to members of the staff of the Institution of Works Managers for practical support on many occasions.

J. EKINS

MACMILLAN HANDBOOKS IN INDUSTRIAL MANAGEMENT

Series Editor: J. EKINS, *Cranfield Institute of Technology*

Executive Editor: A. R. PIRIE, *Institution of Works Managers*

FINANCIAL CONTROL IN MANUFACTURING

C. N. Aydon

INDUSTRIAL LAW AND ITS APPLICATION IN THE FACTORY

Roderick L. Denyer

WORKS ORGANISATION

Alan Lawlor

EMPLOYEE RELATIONS WITHIN THE FACTORY

W. Mitchell with Alan R. Corbett

THE NUMERATE WORKS MANAGER

H. R. Noon

THE CONTROL OF QUALITY

V. G. Parry

PLANT LAYOUT AND MATERIALS HANDLING

A. W. Pemberton

TECHNIQUES FOR PRODUCTION EFFICIENCY

Ken Swann

Works Organisation

ALAN LAWLOR

M.Sc., C.Eng., M.I.Prod.E., A.M.B.I.M., F.I.W.S.P., F.I.S.M.

Macmillan Handbooks in Industrial Management
published in association with Macmillan Education

ISBN 978-0-333-14539-5

ISBN 978-1-349-01782-9 (eBook)

DOI 10.1007/978-1-349-01782-9

© Alan Lawlor 1973

Reprint of the original edition 1973

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without permission.

First published 1973 by
THE MACMILLAN PRESS LTD
London and Basingstoke
Associated companies in New York Dublin
Melbourne Johannesburg and Madras

SBN 333 14539 9

The paperback edition of this book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, resold, hired out, or otherwise circulated without the publisher's prior consent, in any form of binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

Contents

<i>Introduction to the Series</i>	1
<i>Foreword by Richard Marsh</i>	11
<i>Acknowledgements</i>	13
1. Introduction	15
Why study works organisations?	15
Defining the works organisation	15
The environment	17
Kinds of organisation	17
Problem areas	19
People	19
Quality	19
Maintenance	19
Production	19
The works organisation	20
Works management systems	22
Service, planning and control	23
How effective are we?	24
Education, training and organisational development	25
Summary	26
References and other reading	26
Check the characteristics of your company	27
2. The Works Organisation	28
The nature of works organisations	28
Economic	28
Technical	28
Social	29
Organisational size	29
Organisation charts	31
Job relationships	34
Job and task relationships	34

Objectives	37
Job descriptions	37
Study work	39
Summary	39
References and other reading	41
3. Manufacturing Systems	42
Historical development	42
System characteristics	42
Variables in system design	44
Production layouts	44
Plant size and factory siting	48
Decision points	49
Summary	52
References and other reading	52
4. Basic Works Functions	54
General manufacturing characteristics	54
Work flow	55
Service functions	56
Control functions	57
Summary	59
References and other reading	59
5. Production Planning and Control	60
The significant services	60
Objectives of production planning and control	60
Divisions of production planning and control	61
Interpretation	62
Authorisation and order acknowledgement	63
Programming	64
Technical information	64
Inventory planning	65
Purchasing	69
Production capacity	71
Scheduling	72
Controls	73
Macro level	76
Micro level	76
Clerical aids	76

Summary	78
References and other reading	79
6. Maintenance and Inspection	81
Objectives of maintenance	81
Maintenance terminology	82
Maintenance economics	83
Reducing down-time	84
The maintenance service problem	84
Materials and spares	85
Maintenance information	87
Plant analysis	90
Plant characteristics	93
Maintenance problems	93
Inspection	93
Technical objectives	96
Economic objectives	96
The cost of quality	96
The factors affecting quality	97
Sales and design	97
Suitability of throughput materials	98
Pre-production planning	98
Manufacturing skill	98
Work specifications	98
Quality standards	99
Summary	100
References and other reading	101
7. Productivity Evaluation	102
Organisational performance	102
Objective setting	103
Efficiency, effectiveness and objectives	104
Overall productivity measurement	105
Basic production indices	107
Work-flow performance	109
Inventory performance	109
Facilities maintenance	110
Quality performance	110
Personnel performance	110

Managerial performance	111
Summary	113
References	113
8. Problem-Solving	115
The nature of organisational problems	115
Problem analysis	117
Problem- and decision-making definitions	117
Problem-solving methods	120
Problem areas	121
Summary	124
References and other reading	125
9. Improving the Organisation	126
Responding to change	126
Information about change	127
Technico-economic	128
Social	129
Socio-technical systems	130
Clarifying objectives	131
Managerial effectiveness	132
Introducing change	134
Developing understanding	136
Organisation development	138
Conclusions	139
References	139
<i>Index</i>	141

Foreword

In the world of modern industry, it becomes increasingly necessary for managers to be aware not only of the fundamental principles of good management, but also of the latest techniques necessary for putting those principles into practice.

Works managers in particular, because of the salient position which they hold in the management structure of modern industry and their responsibility for translating policy into execution, must be both educated in sound theory and trained in modern methods.

This series of eight books has been designed to provide the basis of that education and to supplement essential experience.

I welcome the opportunity the Institution of Works Managers has been given to sponsor this venture and commend the books to all present and future managers in industry.

RICHARD MARSH

Chairman, British Rail

President, Institution of Works Managers

Acknowledgements

The writing of any book must inevitably involve self-discipline and organisation, but above all else it is a task that relies on the support and assistance of many people.

My thanks, therefore, go to Jim Ekins, who was instrumental in getting me started, to Tony Pirie for his gentle prodding, and to both of them for their skilful editing. My appreciation also goes to my publisher, without whose efforts this series would not have appeared.

I am indebted to the companies who co-operated in my works organisation investigation and to the many companies who have unknowingly helped me. In addition, my appreciation goes to the writers of the many works quoted as references.

Finally, my thanks go to Jill Sealey for her patience in translating my scribble into the typed draft and to my wife, Nancy, also for her typing assistance and especially for her patience.

A. L.