A HANDBOOK OF PRACTICAL SHIPBUILDING: WITH A GLOSSARY OF TERMS

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649041145

A Handbook of Practical Shipbuilding: With a Glossary of Terms by J. D. MacBride

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd. Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or 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.

www.triestepublishing.com

J. D. MACBRIDE

A HANDBOOK OF PRACTICAL SHIPBUILDING: WITH A GLOSSARY OF TERMS



A HANDBOOK

OF

PRACTICAL SHIPBUILDING

WITH

A GLOSSARY OF TERMS

BY

J. D. MacBRIDE

SUPERINTENDENT IN HULL CONSTRUCTION HOG ISLAND SHIPYARDS (American International Shipbuilding Corporation)

156 ILLUSTRATIONS, 2 FOLDING PLATES



NEW YORK

D. VAN NOSTRAND COMPANY

25 PARK PLACE

1918



COPYRIGHT, 1918 BY D. VAN NOSTRAND COMPANY

PRESS OF BRAZIMORTH & CO. BOOK MANUFACTURERS BROOKLING, N. Y.

PREFACE

This handbook on the practical construction of a modern standard cargo steamer has been written in answer to some of the many questions which from time to time have been asked by men who have been working under the supervision of the writer, and is intended to fill the need for a guide to the new men starting in shipyard work.

During many years' experience in shipyards on all types of marine construction from the smallest of torpedo boats of years ago to the mighty war vessels and merchant ships of to-day the writer has been associated with the men who are to-day supervising the wonderful shipbuilding program on which this country is engaged, and he has endeavored to embody the results of this more than twenty years' experience in the book.

In the present struggle on land and sea, when everyone must use all his might, this manual of the necessary steps in fabricating and assembling of vessels has been prepared with the hope that it will prove a help to some of the many thousand men who must come into this industry from other trades.

Team work is necessary in all lines, sports and commercial enterprises alike, but in none is it more essential than in an enterprise where so many different trades are all working together, and the results of their labor must be co-ordinated to effect a satisfactory conclusion.

The riveters must follow the reamers and the reamers must follow the bolters-up, etc., therefore, it is necessary that all the men working on the ship should have an intelligent understanding of the general plan.

J. D. MACBRIDE.

November, 1918.

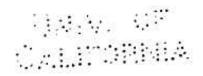
TABLE OF CONTENTS

CHAPTER	PAGE
I. SHIPYARD ORGANIZATION	. т
II. Division of Work	. 11
Duties of the Erector or Plate Hanger	
Duties of the Bolter	
Duties of the Driller and Reamer	
Duties of the Riveter	
Duties of the Holder-on or Bucker-up	
Procedure in Riveting	
Notes on Riveting	
Duties of the Caulkers and Chippers	
Chipping Stop Waters	
Duties of the Shipfitter	
Duties of the Ship Carpenters	
III. SHIFYARD TOOLS	. 58
IV. Shipways	-
V. Keels	(65)
VI. SHELL PLATING	. 93
VII. Frances	. 100
VIII. FLOORS AND LONGITUDINALS	. 110
IX. TANK TOP, INNER BOTTOM AND PEAK TANKS	. 116
X. STEM, STERN POST AND RUDDER	. 122
XI. BULKHEADS AND HATCHES	. 128
XII. Hold Stanchions and Foundations	. 135
XIII. DECK BRAMS AND PLATING	. 139
XIV. Ship Fittings	. 143
XV. JOINER WORK	. 146
XVI. LAUNCHING	. 148
XVII. ENGINE ROOM AND ENGINES	. 163

viii

TABLE OF CONTENTS

CHAPTER		PAGE
XVIII.	BOILER ROOM AND BOILERS	168
XIX.	PROPELLERS	173
XX.	AUXILIARY MACHINERY	176
XXI.	PIPING SYSTEMS	181
XXII.	HULL ENGINEERING	191
	Steering Gear Ventilation Electric Lighting	80
XXIII.	ENGINE DOCK TRIAL	196
	SHIP NOMENCLATURE	203
	A Glossary of Terms and Phrases.	



PRACTICAL SHIPBUILDING

CHAPTER I

Shipyard Organization

The shipbuilding business is like any other in that its executive and financial departments are separate from the manufacturing or fabricating branches of the organization. As this volume is not concerned with the Economics of Shipbuilding, but with ship construction, we need not burden ourselves with descriptions of the duties of officials like the President, Treasurer, etc., whose functions do not bring them directly in touch with the actual work of putting a ship together.

In a modern shipyard the General Manager has charge of both Hull and Engine Departments, but he is the only connecting link, the two branches working quite independently of one another.

The Engine Department has a drafting room in which the designs and all detail drawings for use in the yard are made. Much of the work is made up of castings which are shipped in from outside firms according to plans furnished them and the shipyard is interested in making the rough casting over into a finished product ready for in-