



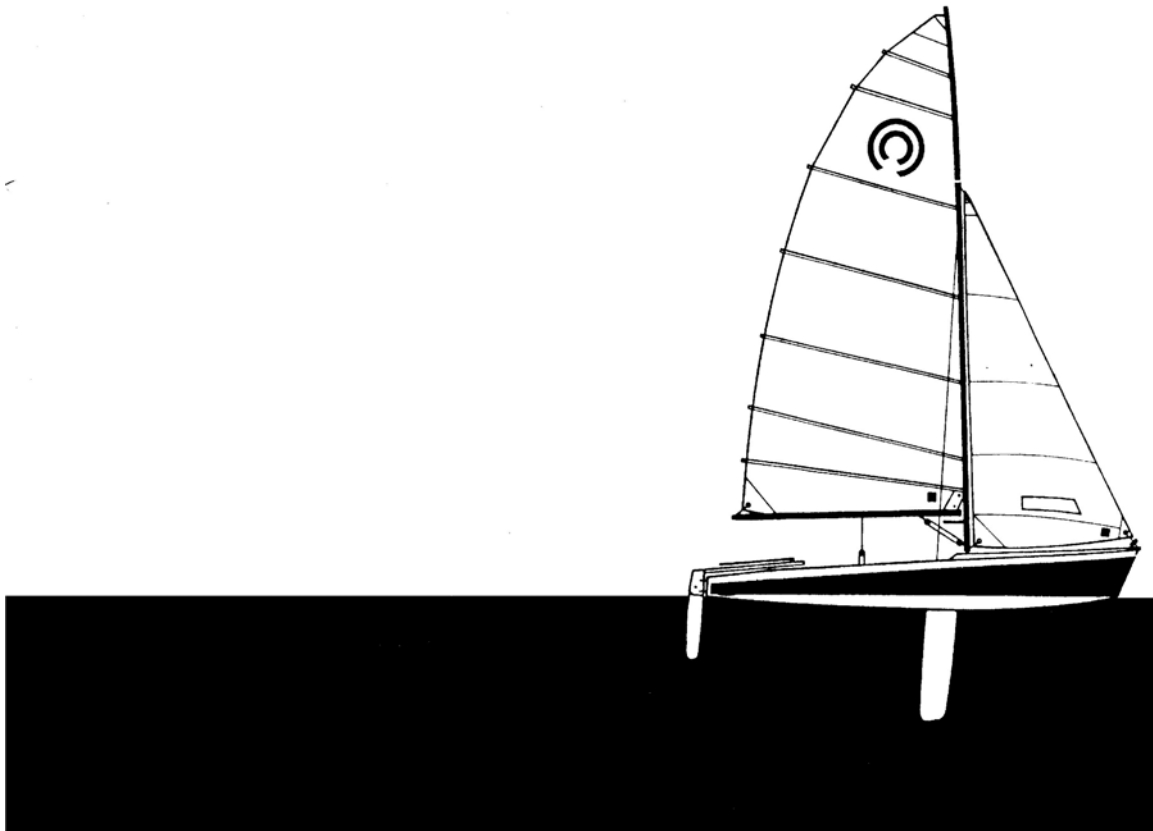
# Tasar

Designer: F.D.Bethwaite, assisted by I.B.Bruce

Dimensions

Length, Overall	14'10"	4.52m
Length, Waterline	14'00"	4.27m
Beam	5'9"	1.75m
Hull Depth	2'½"	0.62m

Sail Area: Main	90sq.ft.	8.36sq.m.
Jib	33sq.ft.	3.07sq.m.



# Sailing the Tasar

By Frank Bethwaite  
And Ian Bruce

# Introduction

This manual has been written for the sole purpose of helping you to enjoy your Tasar to the fullest, regardless of your previous skills and experience.

Section I shows you how to assemble and rig your Tasar.

Section II deals with the basics of handling, sailing and maintaining your boat and is intended primarily for those who have had limited experience with a light, planing sailboat. If you already have dinghy experience you will find Section II pretty simple stuff but we still recommend that you breeze through it as one or two points are peculiar to the Tasar. Once you and your crew are comfortable with the boat and confident in your ability to handle it afloat and ashore, it follows, inevitably, that you will seek to increase your knowledge because with it will come increased pleasure.

In Section III we let you delve into the principles behind the evolution and design of the Tasar and, in particular, help you to more fully understand the importance of the over-rotating mast by reintroducing you to the basic aerodynamic principles of sails and sail shapes.

Section IV is a detailed look at the upwind performance of the Tasar and the infinite control which can be exercised over the full spectrum of wind conditions. It is this capability that sets the Tasar completely apart from other boats and we have detailed what we believe to be the optimum settings for any given condition, together with the principles behind these settings. (In this section we deal only with sailing to wind ward.)

Section V is similar to Section IV but is a detailed look at the same principles as they apply to sailing off the wind.

# Contents

---

Section I	Assembly and rigging instructions	vii
Section II	Basics of handling, sailing and maintenance	1
	<u>1 Sails, controls and the datum mark system</u>	<u>2</u>
	a) Downhauls – main and jib	
	b) Outhaul – main only	
	c) Sheets – main and jib	
	d) Rotation lever	
	e) Boom vang	
	f) Battens	
	g) Stay slides	
	<u>2 Setting up for sailing</u>	<u>5</u>
	a) Hiking straps	
	b) Hull trim	
	c) Crew positions	
	d) Centreboard	
	e) Rudder	
	f) Departing and returning	
	<u>3 Learning to steer a planing hull</u>	<u>8</u>
	a) <u>Steering for balance</u>	
	b) <u>The balance position</u>	
	<u>4) Safety</u>	<u>9</u>
	a) <u>Heaving to</u>	
	b) <u>Shortening sail</u>	
	c) <u>Righting after capsize</u>	
	d) <u>Buoyancy</u>	
	<u>5) Maintenance and repairs</u>	<u>10</u>
	a) <u>General care of hull and deck</u>	
	b) <u>Fiberglass maintenance</u>	
	c) <u>Centreboard and rudder</u>	
	d) <u>Maintenance of mechanical parts</u>	
	e) <u>Sails</u>	
	f) <u>Storage</u>	

<u>Section III</u>	<u>Principles of design and aerodynamics</u>	<u>17</u>
	<u>1 Principles of the Tasar rig</u>	<u>18</u>
	a) Evolution	
	b) Role of the boom vang	
	c) An introduction to “twist”	
	d) The role of the traveler	
	e) Summary of controls	
	<u>2 Introduction to tufts and leech ribbons</u>	<u>21</u>
	a) Tufts	
	b) Leech ribbons	
	c) Location on Tasar	
<u>Section IV</u>	<u>Sailing upwind</u>	<u>23</u>
	<u>1 Sail shapes and flow patterns – to windward</u>	<u>24</u>
	a) Moderate airs	
	b) Light airs	
	c) Lift versus drag – the effect of waves	
	d) Tuning - LIGHT AIRS (0-4 kts)	
	e) Tuning - MODERATE AIRS (5-11 kts)	
	f) Tuning - HEAVY AIRS (12 kts plus)	
	<u>2 Sailing faster – to windward</u>	<u>27</u>
	a) In light airs	
	b) In moderate airs	
	c) In heavy airs – windward planing	
	d) When to plane to windward	
	e) In really heavy airs	
<u>Section V</u>	<u>Sailing off the wind</u>	<u>33</u>
	<u>1 Sail shapes and flow patterns – off the wind</u>	<u>34</u>
	a) Principles	
	b) Tuning – CLOSE REACH	
	c) Tuning – BROAD REACH	
	d) Tuning – RUNNING SQUARE	
	<u>2) Sailing faster – off the wind</u>	<u>35</u>
	a) Boom vang and leech tension	
	b) Booming the jib	
	c) Running square or tacking downwind	
	d) Tuning – TACKING DOWNWIND	
	e) Gybing in the lifts	
	f) Wave riding	

---