

KEELBOAT 1 INTRODUCTION TO SAILING

Minimum 14 hours,
recommended 2 days

The aim of this course to provide a short introduction to sailing in a keelboat for those who have never sailed before. By the end of the course participants will have experienced steering a yacht, sail handling, ropework and be aware of safety on board. The emphasis of this course will be largely practical.

It is recommended that all participants consolidate this short introduction with the Keelboat 2 Competent Crew Course as soon as possible after completion of Level 1.

1. Personal Preparation

- Appropriate clothing & footwear
- Personal buoyancy including choosing and adjusting a correctly fitting life jacket
- Sun protection (sun tan lotion, sunglasses, headwear),
- Water / water bottle (dehydration)

2. Introduction

- Wind awareness
- Basic parts of boat
- Sailing terms

3. Rigging

- Standing rigging & running rigging,
- Sail controls
- Rudder

4. Ropework

- Figure of eight knot
- Round turn & two half hitches
- Bowline
- Securing to a cleat. Safe use of winches & jamming cleats

5. Leaving & Returning To The Pontoon

- Correct preparation
 - Use of fenders & mooring lines
 - Consideration of wind direction & tide
 - Use of engine
- (Techniques appropriate to the location should be taught practically)

- 6. Sailing Techniques & Manoeuvres**
- Wind awareness afloat
 - Use of engine while hoisting mainsail / hoisting mainsail while moored
 - Has experienced sailing a yacht on all points of sail
 - Controlling speed & stopping
 - Turning the boat through the wind - Tacking
 - Getting out of irons
 - Turning the back of the boat through the wind - Gybing.
 - Importance of effective Communication
- 7. Safety**
- Rules concerning Lifejackets
 - Is aware of hazards on a yacht & actions to be taken in the event of an emergency
 - Understands the actions to be taken for crew overboard recovery (MOB)
 - The importance of always keeping a lookout
- 8. Sailing Theory**
- Awareness of other water users.
 - Basic rule to always avoid collision
 - Visual methods of attracting attention
- 9. Meteorology**
- Sources of weather information and their relevance
- 10. Boating & The Environment**
- Disposal of rubbish.
 - Re-usable drinking bottles
 - "Reduce, reuse, recycle"

龍骨帆船第一級 帆船入門

訓練時數最少 14 小時

建議 2 天

本課程的目的，是給從未接觸龍骨帆船的初學者嘗試駕駛帆船的滋味。在完成本課程後，參加者將會有掌舵，操控帆，帆繩等駕駛帆船的初步經驗，對船上的安全亦有簡單的認識，本課程着重實習。

本會建議參加者在完成本課程後儘快參與龍骨帆船第2級船員訓練 (Competent Crew) 課程，以鞏固所學駕駛風帆之技術及知識。

1. 個人裝備

- 穿著適當的衣物及鞋
- 挑選、穿上及調整稱身的救生衣
- 防曬保護: 防曬霜、太陽眼鏡及遮陽帽等
- 補充足夠水份及帶備水瓶 (以防脫水)

2. 帆船船行簡介

- 留意風向及風力
- 認識船隻的各部份
- 航行術語

3. 裝置船隻

- 認識船隻的索具: 固定索具和活動索具
- 帆的操控
- 舵

4. 繩藝

- 八字結
- 稱人結
- 繫木結 (一個圈兩個半結)
- 安全使用絞盤和夾繩器

5. 船隻駛離及返回 浮橋

- 準備工作
- 碰墊和繫泡纜繩的使用
- 風向及潮汐考慮
- 使用引擎

(以上技術應配合個別中心的地理環境而教授和實踐)

- 6. 基本航行技巧及操控**
 - 留意水上的風向及風力
 - 船繫浮泡時昇主帆或使用動力推進時昇主帆
 - 各種航向的航行
 - 如何停船及控制速度(減速)
 - 迎風轉向(船頭轉過風吹來的方向)
 - 駛離不能航行的角度
 - 順風轉向(船尾轉過風吹來的方向)
 - 在船上船員之間溝通的重要性

- 7. 安全**
 - 救生衣的安全使用手則
 - 認識船上各種潛在危險, 出現緊急情況時應採取的的行動
 - 拯救墜海人員的方法
 - 時刻保持瞭望的重要性

- 8. 航行理論**
 - 留意在同一水域的其他使用者
 - 基本「避碰」規則
 - 吸引人注意的視覺方法

- 9. 氣象知識**
 - 天氣資料的來源, 及其對航行的影響

- 10. 船藝及海洋保護**
 - 垃圾棄置
 - 循環及可再用物料的水瓶
 - 減少、重用及循環再造

KEELBOAT 2 COMPETENT CREW

Minimum 21 hours,
recommended 3 days

By the end of the course the successful sailor will be safety conscious, have a basic knowledge of sailing and be capable of sailing a keelboat with little input from the Instructor in light winds. The course introduces personal safety, seamanship and helmsmanship to the level required to be a useful member of the crew of a cruising yacht.

Candidates for the Competent Crew Course are expected to have passed either the Keelboat Level 1 Introduction to Sailing course, or the Level 2 Basic Skills Dinghy Course.

- 1. Personal Preparation**
 - Choice of clothing for different weather conditions / seasons
 - Understands and complies with rules regarding wearing of Lifejackets
 - Can wear and use a safety harness / tether
 - Dangers of Dehydration, heat stroke, hypothermia, seasickness

- 2. Rigging**
 - Rigging according to weather conditions.
 - Parts of the boat & their function
 - Setting, reefing and handling of sails
 - Use of sheets, halyards, cleats and winches

- 3. Ropework**
 - Revision of knots from Keelboat 1
 - Clove hitch, rolling hitch, reef knot, sheet bend
 - Handling of ropes including coiling, stowing, securing to cleats and bollards

- 4. Leaving & Returning to the Pontoon**
 - Revision of Keelboat 1, plus making the boat fast for longer periods of time
 - Practical use of springs

- 5. Sailing Techniques & Manoeuvres**
 - Use of engine, starting, stopping and running procedures
 - Storage of engine and fuel (as appropriate)
 - Understands the importance of communication on board

- and the role of the skipper
- Knowledge and application of the Four Essentials
- Demonstration of the following tasks:
 - Tacking & gybing efficiently
 - Dangers of a crash gybe
 - Basic stop & furling of sail
 - Sailing around a course that includes upwind and downwind legs using all points of sailing
 - Coming alongside and picking up a mooring under power
 - Coming alongside a moored boat
 - Crew overboard recovery (MOB), including correct technique to return to casualty and how to recover a person from the water
 - Reefing & shaking out reefs
 - Awareness of other water users & importance of an efficient lookout
 - Can use the compass to steer a course
 - Heaving-to
 - How to deploy an anchor

6. Safety

- Dangers of fire and precautions including the location and use of fire extinguishers
- First aid skills aboard and location of first aid equipment
- Importance and understanding of the use of flares, operation and storage
- Techniques for emergency communication and who to contact
- Calling for help and distress signals.
- Use of VHF radio and limitations of the use of mobile phones.
- Telling someone ashore the passage / trip plan
- Awareness of lee shore dangers.

7. Sailing Theory & Background

- Points of Sailing. No Go Zone
- Basic principles of how a sail works and how a sailing boat moves
- Club or center regulations, local bylaws & Maritime regulations as appropriate
- Understands the following terminology: port & starboard, fore & aft, amidships, windward, leeward, abeam, downwind, pinching, sailing by the lee, luff up, bear away, broaching
- A basic introduction to the International Rules for the Prevention of Collision at Sea (IRPCS)

8. Meteorology

- How the weather forecast relates to local keelboat sailing
- The Beaufort Wind Scale
- Awareness of changing weather conditions
- When not to sail and when to reef

9. Boating and the Environment

- Sources of pollution at sea & rubbish disposal
- Biodegradable pollution & non-degradable pollution
- Recycled & re-usable materials
- Toxic-free cleaning materials & “WOW - Water Only Washdowns”

龍骨帆船第二級 船員訓練

訓練時數最少 21 小時

建議 3 天

在完成本課程後，參加者將會有安全意識，掌握駕駛帆船的初步技術，在輕微至和緩的風力下，極少需教練指導而能夠駕駛帆船。課程介紹個人安全，航藝，掌舵技巧，以提昇學員至稱職船員的水平。

在參加本課程前，參加者應已完成龍骨帆船第1級帆船入門課程或風帆課程第2級基本技巧。

1. 個人裝備

- 相應天氣狀況和季節穿著適當的衣物
- 了解並跟從有關救生衣的規定
- 能穿上並使用掛鉤扣具安全衣或掛鉤系纜
- 認識脫水、中暑、低溫症及暈船之危險

2. 裝置船隻

- 根據天氣狀況裝置船隻
- 認識船隻的各部份及其功用
- 設置船隻, 縮帆及帆的處理
- 繩索, 昇帆索, 夾繩器和絞盤

3. 繩藝

- 複習龍骨帆船第 1 級課程內所學的繩結
- 轉動結(rolling hitch)，平結，接繩結 (sheet bend)
- 繩索的處理，包括盤繩，束繩，系纜在羊角和系纜樁上

4. 船隻駛離及返回 浮橋

- 複習龍骨帆船第 1 級帆船入門內所學，並為船隻停泊較長時間作準備
- 使用交叉纜繩 (springs)

5. 基本航行技巧及 操控

- 引擎的使用，啟動，停止，和運作的程序
- 引擎及燃油的收存 (如適用)
- 理解船上船員之間溝通的重要性及船長的角色
- 航行四要素
- 能示範以下操作:

- 有效地迎風轉向及順風轉向
- 意外順風轉向(並了解其危險)
- 基本停船並收起前帆
- 航行一個包括向上風及向下風的航道, 以各種航向航行
- 停靠浮橋或以動力繫泊泡
- 停靠另一艘繫泊船
- 拯救墜海人員, 包括回到船員墜海位置, 及從水中拯救墜海船員的正確技巧
- 進行縮帆及打開縮帆
- 留意其他水上使用者及保持有效的瞭望
- 能使用羅經來航行指定航向
- 頂風停船
- 錨的使用

6. 安全

- 火災的危險及預防、滅火器的位置及使用
- 急救技巧
- 認識照明彈, 其操作及存放
- 緊急情況下的溝通, 及聯絡人
- 求救, 求救信號
- 甚高頻無線電的使用, 手提電話的使用限制
- 通知岸上人員出航計劃
- 下風岸的危險

7. 航行理論及有關知識

- 各種航向, 不能航行區域
- 帆的工作原理, 帆把船向前推動的原理
- 跟從帆船中心的指引, 適用的本地條例及海事條例
- 認識以下術語: 左舷, 右舷, 船頭, 船尾, 船中, 上風, 下風(背風), 橫風, 向下風, 搶風行駛, 以下風舷航行, 轉近迎風, 航向下風, 突然橫轉
- 國際海上避碰規則 (IRPCS)簡介

8. 氣象知識

- 查看與龍骨帆船航行相關的天氣預報資料
- 蒲福氏風級表
- 了解天氣變化對航行的影響
- 了解什麼情況下不應該出航, 及何時應該縮帆

9. 船藝及海洋保護

- 認識海上污染來源及垃圾棄置
- 可生物降解及不可降解的污染
- 循環及可再用物料
- 無毒性清潔劑以及純清水洗滌法

KEELBOAT 3 DAY SKIPPER

Minimum 31 hours,
recommended 4.5 days

By the end of the course, the successful sailor will have a competent, safe, practical approach to the sailing of small keelboats during the hours of daylight and will be capable of sailing and making seamanlike decisions in moderate conditions.

It will be assumed that every student starting this course has already mastered the practical skills and absorbed the background knowledge required for the Keelboat Level 2 Competent Crew Course. In practical terms, a minimum of 100 nautical miles sailed and logged over a period of 5 days or more is recommended since successful completion of a Keelboat 2 Competent Crew Course. A minimum wind strength of Beaufort Force 4 will be required to complete a successful assessment.

1. Rigging

- Preparation of a yacht for sea including engine checks, selection of sails and stowage of gear
- Knows about basic engine care and maintenance including oil, fuel and cooling
- Rigging using all the boat's normal equipment including spinnaker
- A basic understanding of the proper use of sail controls, kicker / vang, preventer, cunningham, outhaul, backstay, traveller and how they affect sail shape according to different wind strengths. Use of topping lift

2. Ropework

Revision of all knots and ropework from Keelboat 1 and 2 courses and others as appropriate

3. Setting Sail From A Pontoon Or Mooring

- The role of the skipper in co-ordinating the crew
- Revision of Keelboat 1 and 2 courses plus roles of different crew members
- Use of engine and sailing checklists

4. Yacht Handling Under Power

- Demonstration of the following tasks:
- Can bring a boat safely to and from a berth
 - Can moor bow and stern
 - Is able to leave and return safely to a mooring buoy
 - Can Anchor safely and is aware of different types and uses of anchors
 - Safe use of a tender engine / oars
 - Crew Overboard recovery (MOB)

5. Sailing Techniques & Manoeuvres

- Efficient use of 4 Essentials
- Use of sail tell tales
- Techniques of good speed control
- Techniques in handling gusts – signs on the water, pinching
- Actions to be taken to avoid or manage broaching
- Knows about changing sails according to conditions
- Sailing with a spinnaker
- Demonstration of the following tasks:
 - Beating, reaching and running efficiently
 - Crew overboard recovery (MOB)
 - Efficient Tacking
 - Gybing in a controlled manner
 - Reefing & shaking out of reefs
 - Heaving-to

6. Navigation & Tides

- Charts, tide tables, tidal stream atlases & apps
- Twelfths Rule. Springs & Neaps
- Use of electronic and magnetic compasses
- Deviation & variation
- Interpretation of important chart symbols
- Use of latitude / longitude & scale
- Position fixing by transits and bearing
- Steering a compass course
- Difference between Estimated Position (EP) and Dead Reckoning (DR) position
- Understands waypoints, transits and soundings
- Use of echo-sounder / depth gauge
- Navigation and general conduct in restricted visibility
- Use and limitations of GPS for planning and undertaking a passage
- Has a basic ability to navigate without a GPS
- Importance of keeping a log

7. Pilotage

- Can prepare a passage plan and is aware of specific local hazards and pilotage
- Is aware of Hong Kong traffic separation zones, shipping lanes, anchorages and bridgeheight restrictions

- Basic knowledge of IALA buoyage
- A working knowledge of the International Rules for the Prevention of Collision at Sea (IRPCS) and knowledge of important parts of the Racing Rules of Sailing (RRS)
- Reduced visibility & Sound signals

8. Meteorology

- Can interpret forecasts and understand local effects
- Can understand and use a synoptic chart
- Typhoon and monsoon signals and other warnings
- Typhoon shelters and actions to be taken in preparation for a typhoon
- Awareness of changing weather conditions

9. Safety

- Revision of Level 2 Crew Course safety
- Boat parts, including through-hull fitting, bilge, emergency tiller
- Understands the use of distress flares
- Has knowledge of how to use a life-raft
- Preparation and handling of a yacht in strong wind conditions
- Towing and being towed; understands how to secure a tow
- Running aground
- Knows about the use of PLB and personal AIS in MOB situations
- Knows about EPIRBs
- Knows how to contact the Hong Kong Marine Department, Marine Police and Hong Kong Maritime Rescue Co-ordination Centre, and the services they provide

10. Boating & The Environment

- Disposal or take-home rubbish; appropriate storage and transport containers
- Beach clean-up programmes and environmental organisations
- Noise & exhaust fumes, oil & fuel
- Invasive species & wildlife

龍骨帆船第三級

日間船長

訓練時數最少 31 小時

建議 4.5 天

在成功完成本課程後，參加者將有信心有實力在中等風力的情況下，在日間安全地航行一艘小型的龍骨帆船，並能在適當的時候，作出航海者應有的正確判斷。

在參加本課程前，參加者應已完成龍骨帆船第2級帆船稱職船員課程，並已充分掌握實習技巧及吸收其相關知識。在實踐方面，在完成第2級課程與參加本課程之間，參加者必須具備最少100海哩的航行經驗（歷時不少於五天）。本課程的評核必須在蒲福氏風級4級或以上進行。

1. 裝置船隻

- 為出航作準備，檢查引擎，帆的選擇，器材的儲存
- 基本引擎維護和維修，包括檢查機油，燃料和冷卻水系統
- 因應船上的裝備而設置帆，包括球型帆
- 了解帆的控制，包括斜拉器或支索，防意外轉向拉索 (preventer)，主帆下拉索，外拉索，後支索，滑軌，及在不同風力下它們對帆的形狀的影響，橫桿固定索的使用。

2. 繩藝

複習龍骨帆船第1級及2級內所學的繩結，另加其它適用繩結

3. 以帆駛離浮橋或泊泡

- 船長指揮船員的角色
- 複習龍骨帆船第1級及第2級內船員的不同角色
- 使用引擎和出航檢查清單

4. 以動力推進時船的操控

- 能示範以下操作:
- 安全駛離並回到泊船位
 - 以船頭或船尾泊繫浮泡
 - 駛離並回到繫泊浮泡
 - 安全下錨，了解不同種類的錨及其使用方法
 - 安全使用船尾機或以槳划艇
 - 拯救墜海人員

5. 基本航行技巧及操控

- 有效運用航行四要素
- 風向線的使用
- 船速的控制技巧
- 陣風下的操控, 水面現象, 搶風行駛
- 能根據天氣而選擇更換帆的使用
- 使用球型帆
- 防止船隻突然橫轉, 及突然橫轉時應採取的行動
- 能示範以下操作:
 - 拯救墜海人員
 - 順風航駛、逆風航駛及橫風航行
 - 有效地迎風轉向
 - 受控制下順風轉向
 - 縮帆及打開縮帆
 - 頂風停船

6. 導航及潮汐

- 海圖, 潮汐, 水流圖, 及應用軟件
- 十二分法則, 大潮和小潮
- 電子和磁羅經的使用
- 自差和偏差
- 重要的海圖標記
- 緯度和經度
- 利用疊標方法及羅盤方位測定位置
- 航駛固定的羅經方向
- 估計位置(EP)和推算定位(DR)的分別
- 了解航點(waypoints), 疊標線和水的深度
- 回聲探測器和測水深儀器的使用
- 在有限能見度下的航行安全
- 使用全球定位系統 (GPS) 計劃及跟隨航程
- 能不使用全球定位系統(GPS)而進行基本導航
- 航海日誌的重要性

7. 領航

- 能計劃並領航長程航行, 對當地海域危險有認識
- 認識香港分道航行制, 海運航道, 錨地, 和大橋高度限制
- 認識國際航標協會(IALA)的浮標制度
- 掌握國際海上避碰規則及國際帆船競賽規則(RRS)的實用知識
- 在有限能見度下的行動及聲號

8. 氣象知識

- 天氣預告的解析及本地效應
- 解讀天氣圖
- 颱風和季候風的信號和其它天氣警告信號
- 颱風避風港及颱風來臨前的準備
- 了解天氣情況的變化

9. 安全

- 複習龍骨帆船第2級有關安全的內容
- 船有關安全的部件: 貫穿船身配件, 污水泵, 緊急舵柄
- 了解照明彈的使用
- 認識及了解如何使用救生艇
- 應付強風的船隻準備及操控
- 拖他船或被拖, 繫拖繩的安全位置
- 擱淺
- 人員落水時個人定位信標(PLB)及個人自動識別系統(Personal AIS)的使用
- 了解緊急無線電示位標(EPIRB)
- 知道如何聯繫香港海事處, 香港水警和香港海上救援協調中心及各部門可提供的協助

10. 船藝及海洋保護

- 垃圾棄置或帶回的垃圾, 適合貯存及運輸垃圾的容器
- 沙灘清潔活動及有關環境保護組織
- 噪音和廢氣排放對環境的影響
- 機油及燃油的處理
- 入侵物種及野生動物的保護