ASA Registered
Cruising Catamaran Examination

IMPORTANT: Read Prior To Opening This Booklet

IF THIS EXAM IS BEING TAKEN OUTSIDE AN ASA AFFILIATED SAILING SCHOOL, IT IS AUTOMATICALLY INVALID.
CONTACT THE AMERICAN SAILING ASSOCIATION IMMEDIATELY AT (310) 822-7171.

REMOVE THE BACK PAGE OF THIS EXAM AND FILL IN ALL OF YOUR CONTACT INFORMATION —
THEN WAIT FOR YOUR INSTRUCTOR TO ADVISE YOU BEFORE OPENING THIS BOOKLET.

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Instructions For Taking This Exam

1. This Examination is a prerequisite for Certification to the Cruising Catamaran Sailing Standard. Your examination consists of two parts: Part A — Written examination of sailing knowledge and Part B — Examination of on-the-water sailing skills. Both parts must be satisfactorily completed prior to awarding your Certification. If there is a delay in your completing one of the two parts, the remaining part must be fully completed within 12 months of the date the first part was undertaken.

2. In Part A there are 41 questions for you to answer. Read each question carefully, take your time and use your best judgment in marking the correct answer. A passing score of at least 80% is required.

3. Part B contains 37 items of boat handling skills for you to demonstrate to your ASA Instructor. Your instructor will place a checkmark in the appropriate box when you have satisfactorily performed the task required. To achieve Certification you must attain 100% on Part B.

4. To enhance your educational experience you are entitled to review the questions and your answers with the Instructor. If you choose to do so, inform your Instructor so that a mutually convenient time can be arranged.

5. Should you be unsuccessful in passing either or both parts of your Examination, you may arrange for retesting. Consult your Instructor or school for details.

Part A: Examination of Sailing Knowledge (ASHORE KNOWLEDGE)

Terminology (1 point per letter or 10 points for the question)

1. Define or explain the following:
   a. Bridgedeck _____
   _____
   b. Full bridgedeck _____
   _____
   c. Partial bridgedeck _____
   _____
   d. Open deck _____
   _____
   e. “Seagull striker”/forestay bridle _____
   _____
   f. “Dolphin striker” _____
   _____
   g. Anchor Bridles _____
   _____
   h. “Galley up” _____
   _____
   i. Multihull Stability _____
   _____
   j. Nacelle _____
   _____

True or False

(Questions 2–16 are 1 point each.)

____ 2. The stability of a cruising cat is so great that working in the galley requires no safety precautions.

____ 3. Storing all the heavy drinks, food and water in one hull and all the light personal gear and bedding in the other makes it easy to find things and won't unbalance even the smallest cruising cat.

____ 4. Catamarans, especially large spacious charter cats, have excellent windward ability.

____ 5. Placing two engines close to the centerline of the boat makes it harder to operate with one engine out of service.

____ 6. Shoal draft, high windage and low weight cause the catamaran to drift quickly when not sailing or powering.

____ 7. Towing the dinghy is necessary because there is little room and no safe place to store it on a multihull.

____ 8. Having full standing headroom in the bridgedeck cabin usually increases overall height or reduces under deck clearance.

____ 9. Crew fatigue during a passage is less problematic because of low heel angles and less rolling motion.

____ 10. When turning a large twin engine catamaran in close quarters the use of one engine in forward and the other in reverse is common.

____ 11. Sea anchors hold the bow toward the wind and allow for a minimum of leeway when deployed in heavy weather.

____ 12. Because of low heel angles and less severe rolling, the multihull is not in need of jack lines and harnesses in rough weather.

____ 13. When running in following seas the multihull will easily round-up and broach.

____ 14. The windage on a multihull is the greatest factor in its ability to accelerate and decelerate.

____ 15. Reefing a large cruising catamaran might require less effort than on a monohull.

____ 16. A cruising cat with counter-rotating propellers will back to port with both engines in reverse.

Multiple Choice

Select the best answer available. (Questions 17–26 are 2 points each.)

17. A cruising multihull will be _____ faster than the same size monohull.
    a. 50%–70%
    b. 5%–10%
    c. 20%–30%
    d. depends on the displacement, loading, sail area, hull sizes and shapes

18. In heavy weather _____ is the most critical to the safety of the multihull boat and crew.
    a. Clockwise currents
    b. Loading the hulls evenly
    c. Helm station position
    d. Steering in following seas
    e. Mast height

19. When rafting multihulls and monohulls together _____.
    a. Watch positions of the rigs to prevent contact when rolling
    b. Pick anchorage carefully for a minimum of rolling
    c. Windage in a raft-up is normally high; adding multihulls doubles the need for proper anchoring
    d. All of the above

20. When maneuvering in a confined area _____ is the biggest concern to multihull operators.
    a. Wind
    b. Current
    c. Beam of the boat
    d. Number of opening ports
    e. Number of crew

21. Sailing or powering a multihull into large seas will _____.
    a. Not pound on the bridgedeck
    b. Make slow progress
    c. Give a gentle ride to the crew
    d. Have dry decks

22. At anchor, to reduce sailing on the hulls, _____ should **NOT** be used?
    a. Bridle to a single anchor
    b. Bahamian moored
    c. Med. moored
    d. Bow and stern
    e. Single anchor on short scope

23. When dragging anchor in a multihull. The first response is to _____.
    a. Deploy a second anchor
    b. Cast off and motor away
    c. Call for assistance
    d. Reduce scope
    e. Increase scope

24. A beached or aground multihull will not lay on its side like a monohull but _____ precautions need to be observed.
    a. Positions of hull mounted electronics
    b. Damage to keels or daggerboards
    c. Vulnerability of propellers and shafts
    d. Damage to rudders
    e. All of the above

25. Catamarans having a narrow beam for docking _____.
    a. Have high performance
    b. Have large sail areas
    c. Have compromised performance and stability
    d. Handle heavy weather well

26. The forward netting, common to many multihulls, is a great place to lay out, read, stow the dinghy, but needs to be inspected for chafe, UV damage and _____.
    a. Bird droppings
    b. Broken or damaged mounting hardware
    c. Sun tanning products
    d. Trapped fish

(Question 27 is 2 points per letter or 14 points for the question.)

27. Some multihulls have daggerboards or centerboards in the hulls. Indicate the pros (P) and cons (C) of these devices.

____ a. Jam in the trunk
____ b. Improves windward performance
____ c. Access to shallower water
____ d. May allow beaching
____ e. Easy to forget to pull up when entering shallow water
____ f. Easy to forget when needing a "bite" in the water for turning and going to weather.
____ g. More positive turning control

(Question 28 is 5 points.)

28. Crew overboard return and recovery can be difficult on a monohull. Describe five of the limitations and advantages of a multihull in COB return and recovery.

_____

_____

_____

Choose the best answer. (Questions 29–38 are 2 points each.)

29. Extra caution is needed when a swimmer or MOB is in the water and the engines are on.

____ a. They could breathe the exhaust gasses
____ b. The exhaust water is very hot and may burn them
____ c. The propellers are mounted on narrow hulls and just a few feet under water
____ d. The boat may be operating the water maker

30. Although usually conservatively rigged for charter operations, the cruising catamaran can be overpowered. What conditions need to be watched for safe operation?

____ a. Heel angles greater than 10 degrees
____ b. Windward hull getting "light"
____ c. Combinations of wind and waves causing steep angles of pitch and roll
____ d. Excess speed when running allowing the bows to bury in the back of the wave ahead
____ e. All of the above

31. When on a broad reach in heavy seas and strong wind conditions it is important to

____ a. Head up so the wind is on your beam in gusts.
____ b. Bear away in the gusts.

32. While sailing close hauled (beating) in a fresh breeze, the helm is turned to fall off to a broad reach. The boat doesn't change heading. What is going on in this situation?

____ a. The rudders have disconnected

____ b. The large mainsail is acting as a wind vane

____ c. The boat has improperly stowed gear and is off balance

____ d. The seas are too high to fall off

____ e. The helmsman is incompetent

33. In the question above the helm doesn't change the direction of the boat. What can be done to allow the rudders to work properly?

____ a. Loose water jugs are moved amidships

____ b. The engines are turned on

____ c. The jib sheet is eased

____ d. The mainsheet is eased

34. Close quarter handling is made difficult by the wide beam and poor visibility from the steering station but made easier by

____ a. Narrow hulls

____ b. High freeboard

____ c. Generally light weight

____ d. Twin engine control

____ e. Twin swim steps

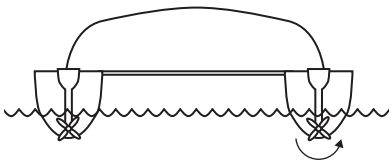
35. Casting off a dock is greatly helped by

____ a. Crew pushing off

____ b. Short rudders

____ c. Running springlines

____ d. Doubled bow lines



36. The illustration shows twin engine configuration common on the larger charter catamarans. With the starboard engine in reverse, the port engine in neutral and rudders amidships; which direction would the stern be pushed?

____ a. Left

____ b. Right

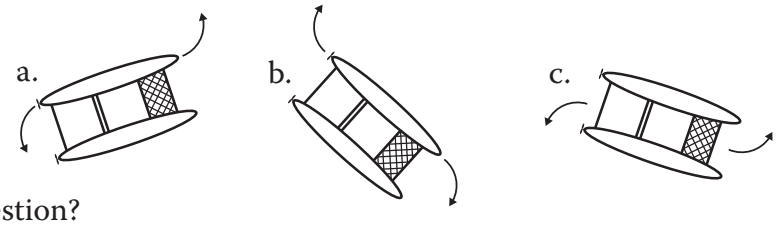
____ c. No change of direction

37. With engines at idle, port engine in forward, and the starboard engine in reverse, rudders amidship, the boat would maneuver in which direction?

____ a. pivot around the port hull

____ b. pivot around the starboard hull

____ c. pivot around a central point.



38. What property is in force in the last question?

____ a. The hulls are asymmetrical

____ b. The boat is loaded improperly

____ c. Too many crew are aboard

____ d. The propellers are more efficient in forward than reverse

Discussion

Questions 39–41 are discussion questions. Please answer the question and be prepared to discuss them with your instructor. (Questions 39–40 are 4 points each)

39. Everything about boats and boating is a series of compromises. Describe your understanding of two advantages and two disadvantages of cruising catamarans versus monohulls.

_____

_____

40. Mast support on a multihull, especially a catamaran, is a challenge. The methods for mast support and maintaining column are different for multihulls. Although not specifically mentioned in the textbook there are several differences from monohulls. Describe four differences.

_____

_____

(Question 41 is 1 point per letter or 8 points for the question)

41. The stability of multihulls is such that they are equally stable inverted as upright. Although extremely rare in non-racing conditions and basic safety practices are being followed; it could happen. What are the decisions if a capsize should happen? Place in priority order and be prepared to discuss them with your instructor.

____ a. Stay with the boat; it will not sink.

____ b. Many manufacturers have under wing deck access hatches. Use them to access crew and equipment

____ c. Secure hatches, doors and lockers to prevent losing more equipment

____ d. Assure all are accounted for and injured taken care of

____ e. If offshore and rescue is not certain, convert interior to usable shelter.

____ f. Attempt to make contact via radio (handheld) and/or activate the EPIRB

____ g. Locate and make secure vital supplies and distress signals

____ h. Enter life raft only if sinking is certain

T-114 B PART B: EXAMINATION OF SAILING SKILLS

CRUISING CATAMARAN EXAMINATION

Each of the following items must be properly performed before this examination can be considered to be satisfactorily completed. The ASA Instructor must witness the Candidate's successful performance of the following sailing skills, minimally one time or continuously as specified. All sailing skills are to be performed in moderate wind and sea conditions, demonstrating proper safety precautions.

TO BE COMPLETED BY THE ASA INSTRUCTOR INDICATED TO THE RIGHT

VESSEL ORIENTATION

☐ 1. Locate and define unique or different boat parts and equipment

SYSTEMS CHECK OUTS

☐ 2. Engine(s) daily
☐ 3. Engine(s) weekly
☐ 4. Emergency equipment
☐ 5. Tools
☐ 6. Electronics
☐ 7. Hulls
☐ 8. Anchoring equipment
☐ 9. Decking
☐ 10. Rigging
☐ 11. Sails and control lines
☐ 12. Domestic systems

MANEUVERING UNDER POWER

☐ 13. Docking
☐ 14. Turning in a confined space
☐ 15. Stopping, as to a mooring
☐ 16. Maneuvering in reverse
☐ 17. One engine out handling
☐ 18. Use of running spring lines

ANCHORING

☐ 19. To a bridle
☐ 20. Bahamian
☐ 21. Mediterranean moor
☐ 22. Other methods

HEAVY WEATHER

☐ 23. Reefing
☐ 24. Heaving-to
☐ 25. Speed control
☐ 26. Crew safety

CREW OVERBOARD

☐ 27. Under power
☐ 28. COB Safety Under Sail (two methods)
☐ 29. Quick Stop
☐ 30. Recovery onboard (two methods)

HANDLING UNDER SAIL

☐ 31. All points of sail
☐ 32. Tacking
☐ 33. Jibing
☐ 34. Leeway
☐ 35. Note differences in above and sensitivity of trim to performance versus a monohull

REQUEST FOR OFFICIAL CERTIFICATION

TO BE COMPLETED BY CANDIDATE

PLEASE PRINT CLEARLY

Name:_____

Address: _____

_____

City: _____ State: _____ Zip:_____

Daytime phone: _____

Email:_____

I Was Previously Certified to the ASA? ◯ No ◯ Yes

Name of Facility: _____

I am currently a Member of the ASA? ◯ No ◯ Yes

Member #: _____

Signature _____ Date_____

DO NOT WRITE BELOW THIS AREA

TO BE COMPLETED BY INSTRUCTOR UPON COMPLETION OF PARTS A AND B

I certify that I have personally examined this Candidate in accordance with the ASA Basic Keelboat Sailing Standard and that he/she has been found fully proficient in both the Sailing Knowledge and Sailing Skills requirements having attained the following scores:

Knowledge: _____ % (Pass 80%) Written Exam

Skills: _____ % (Pass 100%) Has performed all sailing skills satisfactorily

This Examination of sailing skills was performed aboard the following sailboat:

Class/Type: _____

Type of Rig: _____Length:_____

Furthermore, I have signed and dated his/her personal Log Book in the appropriate certification space.

ASA Instructor's Name: _____

Current Highest Level of Instructor:_____

ASA Instructor Membership Number:_____

Name of Facility: _____

Instructor's Signature:_____Date:_____

TO BE COMPLETED BY ASA AFFILIATE SCHOOL

Validation Number: _____

THIS PAGE OR A COPY MUST BE KEPT WITH THE ASA AFFILIATE SCHOOL RECORDS