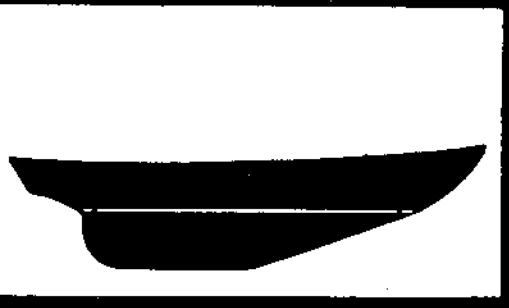
OWNER'S MANUAL

CAPE DORY YACHTS



INCORPORATED

T A B L E O F C O N T E N T S

Letter of Welcome

Cape Dory Owner's Association

Owner's Record

Introduction

1.0 Commissioning Information
- 1.1 Receiving Checklist
- 1.2 Launching and Commissioning Checklist
- 1.3 Warranty Procedure

2.0 Operation and Maintenance
- 2.1 Hull and Deck
  - 2.1-1 Construction
  - 2.1-2 Maintenance
  - 2.1-3 Bottom Paints
  - 2.1-4 Hardware
  - 2.1-5 Mast Step and Reinforcement
- 2.2 Spars and Rigging
  - 2.2-1 Spars
  - 2.2-2 Rigging
  - 2.2-3 Turnbuckles
  - 2.2-4 Tuning
  - 2.2-5 Sheets
- 2.3 Sails
  - 2.3-1 Sail Attachment
  - 2.3-2 Reefing Mainsail
  - 2.3-3 Sail Care
  - 2.3-4 Battens
  - 2.3-5 Optional Sails
- 2.4 Bilge Pump
- 2.5 Plumbing Systems
  - 2.5-1 Fresh Water Tanks
  - 2.5-2 Pumps
  - 2.5-3 Scupper Drains
  - 2.5-4 Head

2.6 Through Hulls, Valves and Seacocks
2.6-1 Seacocks
2.6-2 Gate Valves

2.7 Steering Gear

2.8 Electrical System
2.8-1 Battery
2.8-2 Battery Switch
2.8-3 Fuse Panel and Circuits
2.8-4 Lightning Ground

2.9 Engine and Propulsion System
2.9-1 Propeller Shaft Alignment
2.9-2 Stuffing Box

2.10 Interior Maintenance
2.10-1 Cushions
2.10-2 Ice Box
2.10-3 Ports
2.10-4 Carpet
2.10-5 Curtains
2.10-6 Sinks
2.10-7 Head
2.10-8 Woodwork
2.10-9 General
2.10-10 Stove

2.11 Maintaining Teak

3.0 Safety and Equipment
3.1 Fire Extinguishers
3.2 Minimum Required Equipment
3.3 Fueling
3.4 Weather Forecasts
3.5 Boating Safety Organizations
3.6 Charts

4.0 Winterizing
4.1 Blocking the Hull
4.2 Cockpit Scuppers
4.3 Ice Box
4.4 Stove
4.5 Electrical System
4.6 Propeller
4.7 Head
4.8 Water Tanks
4.9 Engine
4.10 Fuel Tanks
4.11 Covering

LETTER OF WELCOME

Dear Skipper,

Welcome to the Cape Dory fleet!

You have joined the select group of sailors who recognize the quality construction and traditional workmanship found in Cape Dory yachts. We appreciate your confidence in our product and assure you that, with proper care, you should have many years of enjoyable sailing in your new Cape Dory.

This manual has been prepared to assist you in getting to know your new yacht before setting sail for the first time. It also is a helpful guide to follow for proper care and maintenance in the future.

Please review the material carefully. You will enjoy your new Cape Dory more if you are familiar with the design and construction of the yacht and with the equipment used on board. Any questions you may have can be answered by your authorized dealer as he is a knowledgeable professional and is familiar with your new boat. He will continue to be your most important contact for information about your boat and for any problems should they develop.

Certain sections of this manual may not apply to the yacht you have purchased. Frequently we find our owners will advance to a larger Cape Dory within a few years; thus this manual may be helpful in choosing your next Cape Dory.

Again, welcome to the fleet. We wish you many years and many miles of enjoyable sailing. May the wind always be fair.

Sincerely,

Andrew C. Vavolotis
President
Cape Dory Yachts, Inc.

CAPE DORY OWNERS ASSOCIATION

The Cape Dory Owners Association was formed as the company grew from its original beginnings in 1964 as a sailing dory builder. The earliest Cape Dory owners would gather for regattas, races and picnics in summer and during the frostbite season in the winter months. Later, as the Typhoon spread in popularity, more and more activities began taking place involving that class. With the advent of the Cape Dory 25, other Cape Dory owners readily welcomed the newcomers.

Today, the Cape Dory Owners Association is national in scope, and activities are increasing in number rapidly. Several Typhoon fleets are actively established and most Cape Dory owners find the Association an excellent means of communication. The Association publishes a periodic newsletter which contains interesting as well as helpful information.

If you are a Cape Dory owner, and are not receiving the newsletter, please write to us and we'll enroll you immediately. We need to know your name, address, and the model and hull number of your Cape Dory.

CAPE DORY YACHTS
INCORPORATED

Cape Dory Owners Assoc.
P.O. Box 11
East Taunton, Mass. 02718

☐ I own a Cape Dory _____ hull no. _____
Please enroll me in the Cape Dory Owners' Association.
☐ I really don't own a Cape Dory, but I'd like to know more about your boats. Please send information and the newsletter.

Name _____

Street _____

City _____ State _____ Zip _____

I moor the boat in _____ and sail mostly in _____

CAPE DORY OWNERS RECORD*

Complete and save this form for your records and future reference.

Yacht Name _____ Home Port _____

Hull Identification Number _____

(See introduction for location)

Dealer Name _____ Address _____

Salesman _____ Delivery Date _____

Date Commissioning Checklist/Warranty returned to CDY _____

* * * * * * * * * * *

Owner's Name _____

Owner's Address _____

Registration Number _____

Engine Manufacturer _____

Model Number _____

Serial Number _____

* It is recommended that you keep one copy of the information recorded above in a safe place not on board your boat and an additional copy on board.

INTRODUCTION

Cape Dory yachts are constructed in a recently remodeled building facility located in East Taunton, Massachusetts. Our boats are assembled using modern methods, equipment, and materials obtained from the most reputable suppliers. The Cape Dory team of managers, supervisors and quality control personnel do their very best through every step of the construction process. Cape Dory strives to build boats of exceptional quality which will provide their owners with many years of sailing pleasure and retain high resale value.

The basic hull design of Cape Dory yachts is a traditional one which has proven itself over many years of use and thousands of miles of cruising by experienced sailors. The long-keel-with-attached-rudder hull configuration combined with a generous but not bulbous beam provides stiffness and longitudinal stability; it also provides protection for the rudder, propeller and propeller shaft. Our sail plans are not as lofty as those used on the more race-oriented designs of similar size. Instead of high aspect-ratio main sails, Cape Dory has continued with what it considers to be a more sensible cruising sail plan. This means that a smaller head sail is needed, that a family or small crew can handle a Cape Dory, and that the stresses on the rig and boat are less than those on high-aspect-ratio rigged boats under identical conditions. The interior layouts of Cape Dory yachts are designed to provide comfortable accomodations for a reasonably sized crew on boats of their size.

To protect your investment and to insure the enjoyment of your Cape Dory, we recommend that you read this manual carefully and complete the Commissioning Checklist contained in it with your dealer. This list will serve as a guide in determining that no loss or damage has occurred to your boat while it was being transported from the factory to your dealer, and that all equipment is in order when you accept delivery. The checklist is for your protection; insist that it be completed. One copy must be returned to Cape Dory Yachts as a warranty registration. Once this registration process has been satisfactorily completed, your dealer will, if necessary, be able to file warranty claims for parts or service. He cannot do so unless the checklists are completed and returned. You will also become a member of the Cape Dory Owners Association.

IMPORTANT

Your Cape Dory is identified by a hull identification number (HIN) on the right corner of the transom. This identifies the number of the hull and supplies government officials with additional information concerning the builder, and the year of manufacture. There is also a builder's plate with the hull number located aft in the cockpit. In addition, there are serial numbers on your boat's engine (see the engine manufacture owner's manual) and on some of the accessory equipment which you may elect to have installed.

We recommend that you record these important numbers carefully and keep copies of them both at home and aboard (see "Owner's Record" form). These numbers and an accurate description of your property, in the event of theft, could be essential to their recovery.

Marking an inconspicuous place such as the inside of a locker, underside of a door or drawer, or the base of the mast with your initials, social security number, or other unique "brand" may also aid in the prompt identification of your property, should the need to do so ever arise.

1.0 COMMISSIONING

Cape Dory dealers are chosen because they are knowledgeable professionals. Since you are bearing the launching and commissioning expenses of your new yacht you have the right to expect a thorough and professional job.

Please note that the checklists provided in this manual are to assist you and your dealer with the first launching of your boat. In subsequent years, you may wish to review this list in preparing your boat for launching.

Model _____ Hull Number _____

Owner's Name and Address _____

_____

Dealer _____

Date Sold _____ Date Launched _____

* Indicates further information and/or drawings elsewhere in manual.

1.1	Date	Initials	Receiving Record
1.	_____	_____	* All items on receiving checklist received in good order. Dealer should notify factory within ten (10) days of receipt, of any shortages or damaged goods.

1.2 PRE-LAUNCH CHECKLIST

2.	_____	_____	Visually check underwater hull surface for any damage sustained during trucking or handling
3.	_____	_____	Through hulls all tight and clear of any foreign objects.
4.	_____	_____	* Seacocks and valves all closed. Hose clamps tight.
5.	_____	_____	* Check two propeller retaining nuts for tightness. Cotter pin in place and bent over (applies to 27, 28, and 30 only)

Record propeller information below:

Diameter _____ inches

Pitch _____ inches

Rotation _____ left or right hand

# of blades _____ 2 or 3 (optional)

On Cape Dory 25's it is sometimes easier to install outboard motor prior to launching Check clearances and propeller angle.

6. _____ _____ * Rudder swings freely side to side. (On CD-30's with worm drive steerers, wheel must be turned.)

7. _____ _____ * Stuffing box packing adjusted (applies to 27, 28, and 30 only)

8. _____ _____ * Bottom under cradle poppets or bulkheads sanded, primed, and painted

9. _____ _____ Bilge dry

10. _____ _____ * Bilge pump connections okay and handle on board

11. _____ _____ Check deck and hull for any chips in gel coat

POST-LAUNCH CHECKLIST:

12. _____ _____ Immediately after launching, check bilge for water. If water is present, check all through hulls and stuffing box

13. _____ _____ Open seacocks or valves one at a time and check for leaks

14. _____ _____ * Check stuffing box. It should drip water slowly, approximately one drop every 10 seconds while running to insure that the bearing and packing gland are lubricated by water

15. _____ _____ * Check battery switch and electrical system operation

16. _____ _____ Check battery electrolyte and charge level

17. _____ _____ * Check head operation

18. _____ _____ * Check bilge pump operation

ENGINE START-UP CHECKLIST: (applies to 27, 28, and 30 only)

The following checklist is not intended to replace the engine manufacturer's manual. Refer to that manual before starting engine.

19. _____ _____ Check engine and transmission oil level and condition.

20. _____ _____ Check belt tension on all belt driven components

21. _____ _____ * Check that cooling water intake seacock is open

22. _____ _____ Check to see that all clamps on exhaust hose are tight (on Yanmar engines make sure that exhaust hose enters water lock at location marked "in")

23. _____ _____ Check engine mount nuts for tightness

24. _____ _____ * Check shift and throttle cable connections

_____ _____ Check operation

25. _____ _____ * With coupling disconnected, check prop shaft alignment using feeler gauges

26. _____ _____ Check prop shaft set screws, and see that they are wired in place

27. _____ _____ Start engine according to manufacturer's recommendations. Failure to start may be due to air in fuel lines. Refer to manual for bleeding directions.

28. _____ _____ Immediately after engine starts, check to see that water is coming out of transom exhaust port.

29. _____ _____ Check gauges and/or warning lights.

30. _____ _____ Check entire system for water, oil, fuel, or exhaust leaks. Note: sealers and paints may burn off as engine heats up.

31. _____ _____ * Check throttle and shift operation.

32. _____ _____ * Recheck stuffing box.

33. _____ _____ * Report any unusual noises or vibrations to factory immediately. Do not continue to run engine if any are present.

RIGGING CHECKLIST:

34. _____ _____ Check all fasteners on spars for tightness

35. _____ _____ * Reeve halyard

36. _____ _____ * Attach stays, shrouds, spreaders and topping lifts

37. _____ _____ Check all clevis pins and cotter pins for security. Tape all potential chafe points including spreader bases and ends

38. _____ _____ * Check wiring of combination deck and bow light. Be sure bulbs work.

39. _____ _____ Step mast and rigging

40. _____ _____ Check all rigging for length

41. _____ _____ Check all clevis and cotter pins for security. Be sure the locking nuts on the turnbuckles are secure. Tape all potential chafe points.

42. _____ _____ * Tune rigging to proper tensions (including bobstay on 28 and 30)

43. _____ _____ * Attach booms, sheets, blocks, oars, reefing lines, topping lifts, etc.

44. _____ _____ Wire bow and deck lights

MISCELLANEOUS CHECKLIST:

45. _____ _____ * Fill Water tank(s) and check operation of all pumps and drains

46. _____ _____ Fill alcohol tank (27, 28, and 30). Check for leaks and test operation of stove.

47. _____ _____ Water test ports and hatches

48. _____ _____ * Recheck all through hulls, valves, seacocks, hose clamps, hoses, and stuffing box.

49. _____ _____ * Bend on sails

50. _____ _____ * Interior appointments complete

51. _____ _____ Optional equipment installed and operational

52. _____ _____ Owner's packet, ship's papers, and ignition key given to owner

53. _____ _____ Checklist (warranty registration) ready for mailing to factory.

Owner _____ Dealer _____

Date _____

WITHIN SEVEN DAYS OF LAUNCHING,

RETURN CHECKLIST TO:

CAPE DORY YACHTS, INC.
160 Middleboro Avenue
East Taunton, Massachusetts 02718

WHITE — Return to Cape Dory; YELLOW — Owner's Copy; PINK — Dealer's Copy

1.3 Warranty Notification Procedures

Cape Dory Yachts is very proud of its "Track Record" of minimum warranty problems. After commissioning, you as an owner should not expect problems to develop. However, should you need assistance, there is only one very important thing to do . . . CONTACT YOUR CAPE DORY DEALER.

Your Cape Dory dealer is a knowledgeable professional who is familiar with your boat and capable of answering most of the questions which you may have. He will communicate any problems or inquiries which you may have directly to Cape Dory so that we can both work together towards an expeditious and satisfactory solution. Your dealer is not, however, authorized by Cape Dory to consent to repairs or the replacement of parts without the express written approval of Cape Dory.

2.0 OPERATION AND MAINTENANCE

The following sections of this manual describe briefly the structural and functional systems of your Cape Dory. We have also provided you with operating and maintenance instructions where we thought these would be helpful. These instructions are to serve as a guide only. For more extensive information consult the publications available and seek the advice of your dealer.

2.1 Hull and Deck

2.1-1 Construction

Your Cape Dory has been fabricated using the widely accepted glass-reinforced-plastic system. This system utilizes "fibrous glass" in the forms of mat and various weight cloths and woven rovings, bonded together with polyester resins. Fiberglass is one of the stronger and more easily maintained boat building materials. It is not subject to organic decay as wood is.

Cape Dory boats are constructed from four major fiberglass components: hull, deck, bunk, and headliner. The bunk and headliner units form the interior of the boat and are of lighter construction than the hull and deck.

The hull of your Cape Dory was fabricated in layers beginning with gel coat mat and woven roving. The number of plys in the hull laminate vary depending on the size of the hull and the location in the hull. Decks are laminated using the same basic system as the hulls, but end-grain balsa core material is added in certain areas to increase the stiffness of flat surfaces.

2.1-2 Maintenance

Fiberglass is one of the most maintenance-free materials utilized today in boat construction. If given proper care and treatment, the gel coat surface will look new for years. If not maintained, it will eventually turn to a flat, chalky texture.

We recommend that you wash the exterior fiberglass surfaces of your boat several times each season with mild soap and plenty of warm fresh water. Rinse liberally with fresh water. After the boat has dried, use a good quality fiberglass cleaner in paste form; follow this process with a wax or polish prepared for marine use. A fiberglass cleaner with a very gentle abrasive in it may help remove minute scratches and surface wear. The continued use of cleaners containing abrasives will gradually erode the gel coat surface. Marine wax will fill small scratches and provide a glossy finish.

Stubborn stains may be removed with fiberglass cleaner in some instances. More difficult stains may be worked out with judicious use of a very mild abrasive powder such as Bon Ami. Stubborn tar and petroleum stains may be removed with careful application of acetone. (Acetone is a powerful but extremely flammable solvent which is available in most paint and hardware stores).

Stress or "spider cracks" are a common occurrence on the fiberglass boats of even the most careful skippers. Most of the time, these cracks represent no structural problem and are limited to the gel coat surface. If you have any doubt about the seriousness of any crack, consult your dealer. Minor gel coat repairs are not difficult and a reasonably handy person with a little study and practice can make adequate cosmetic repairs. Structural fiberglass repairs, however, are best left to the experts.

If for any reason you desire to apply paint to areas of the boat other than to the bottom or boot-top, seek the advice of qualified personnel at a boat-yard in your area for information about the latest development in chemically-based paints for fiberglass, and the recommended surface preparation procedure.

2.1-3 Bottom Paints

Your Cape Dory was painted with Dolphinite # 9303 Dark Blue or Woolsey # 706 Brilliant Green anti-fouling bottom paint before it left the factory. The area under the cradle poppets and keel supports may require additional painting prior to launching. These areas should be well sanded with 50 grit paper and washed with solvent to remove wax prior to painting.

In certain geographical areas some bottom paints work much better than others. If you intend to repaint the bottom of your Cape Dory, seek the advice of your dealer or knowledgeable local boat owners on what brand of bottom paint works well in your area. Caution: not all bottom paints are chemically compatible. Be sure to tell your paint dealer what paint is currently on the bottom of your boat to be certain that you purchase compatible anti-fouling paint. The Dolphinite bottom paint is a vinyl-resin based vehicle; the Woolsey paint has a plasticized resin binder. The red boot-top paint used on Cape Dory boats is Gloucester Seminole Red # 593. The black boot-top is Woolsey # 679.

2.1-4 Hardware

The deck hardware items on your Cape Dory were carefully engineered for their intended purposes. In fact, many items are customed designed and manufactured for Cape Dory by Spartan Marine Products.

Since many deck hardware items are expected to withstand considerable strains, they are bolted through the deck and through a back-up reinforcement where required. (See drawings 2.1-4 a and b). The bolts securing these items should be checked frequently to be certain that they are still tight. Because of the extremely critical nature of chainplates, their fasteners deserve special attention. 1/2" chainplate bolts were torqued to 140 inch pounds at the factory. 3/8" bolts were torqued to 90 inch pounds. Be careful not to over tighten any fastener thereby causing it to fail or be reduced in strength.

The judicious use of a silicone-type product on sail, genoa, and traveler tracks works well to keep these running free in a salt air environment. Sheaves should be disassembled occasionally, washed, and well lubricated with a thin oil.

Turnbuckles, stanchions, rails, and other stainless steel hardware will discolor in a salt air environment. Keeping stainless steel cleaned and polished using a marine wax provides protection and keeps it free of rust stains. Frequent cleaning and washing with fresh water will keep your spars and hardware in good condition, and will help to keep your sails clean.

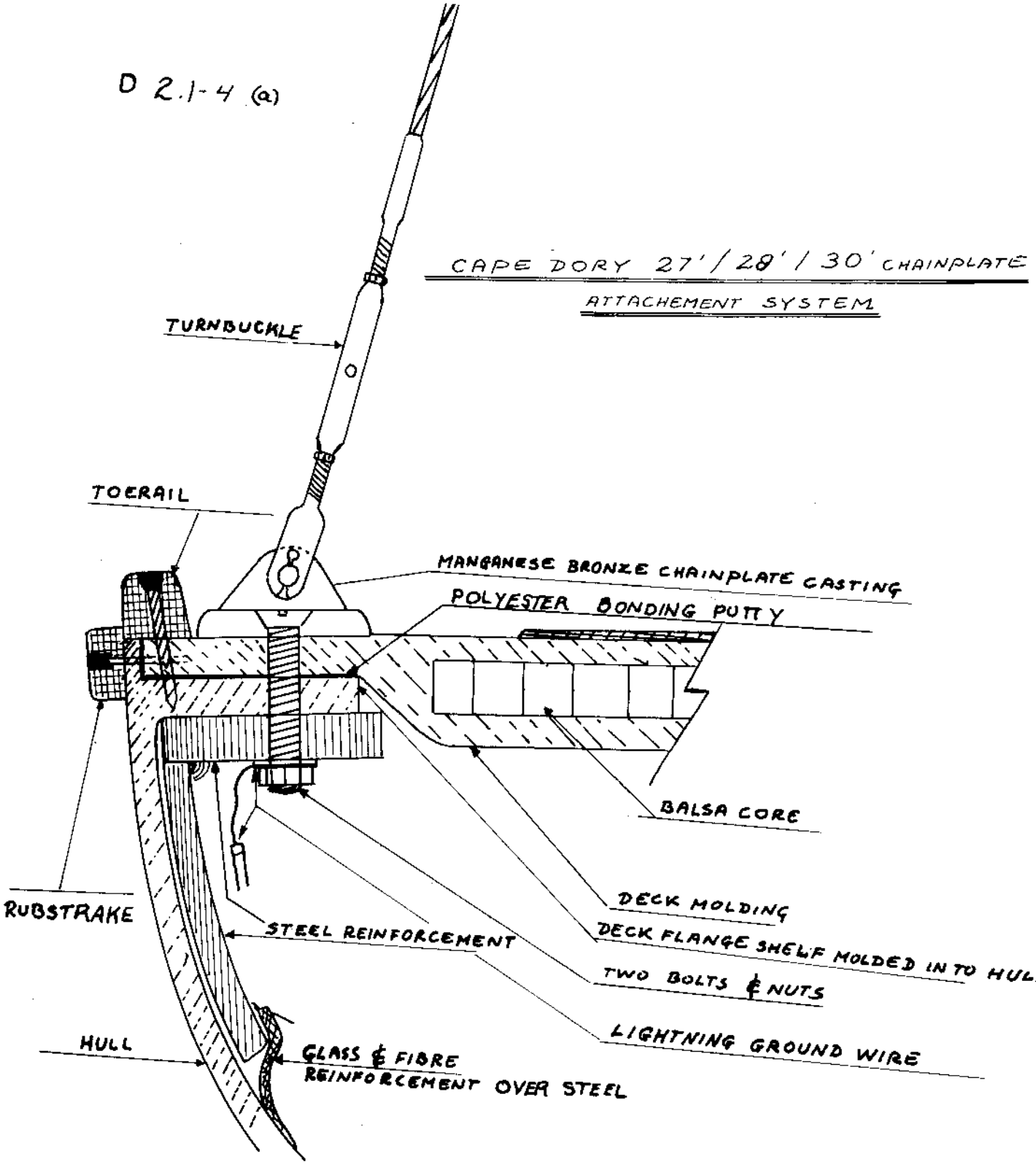
Lubrication on a regular basis is essential to keep winches operating freely. The roller bearings of Barlow winches should be cleaned and regreased (using light grease) about every three months. Caution should be exercised in the quantity of grease used, as excessive amounts may clog the ratchet mechanism. All winches should be dismantled, cleaned, and inspected at least once a year. It is recommended that winches be covered when not in use.

2.1-5 Mast Step and Reinforcement

Since the masts of all Cape Dory boats are stepped on deck, a reinforcement system is fitted to distribute the load safely to the hull. The Typhoon Weekender utilizes a molded-in beam to support the mast step. Cape Dory 25's, 27's, 28's, and 30's use structural metal members located between the deck and the headliner to distribute rigging loads to the forward and aft bulkheads. These supports are located below the cabin sole, directly beneath the bulkhead posts. Please refer to section 2.2-4

D 2.1-4 (a)

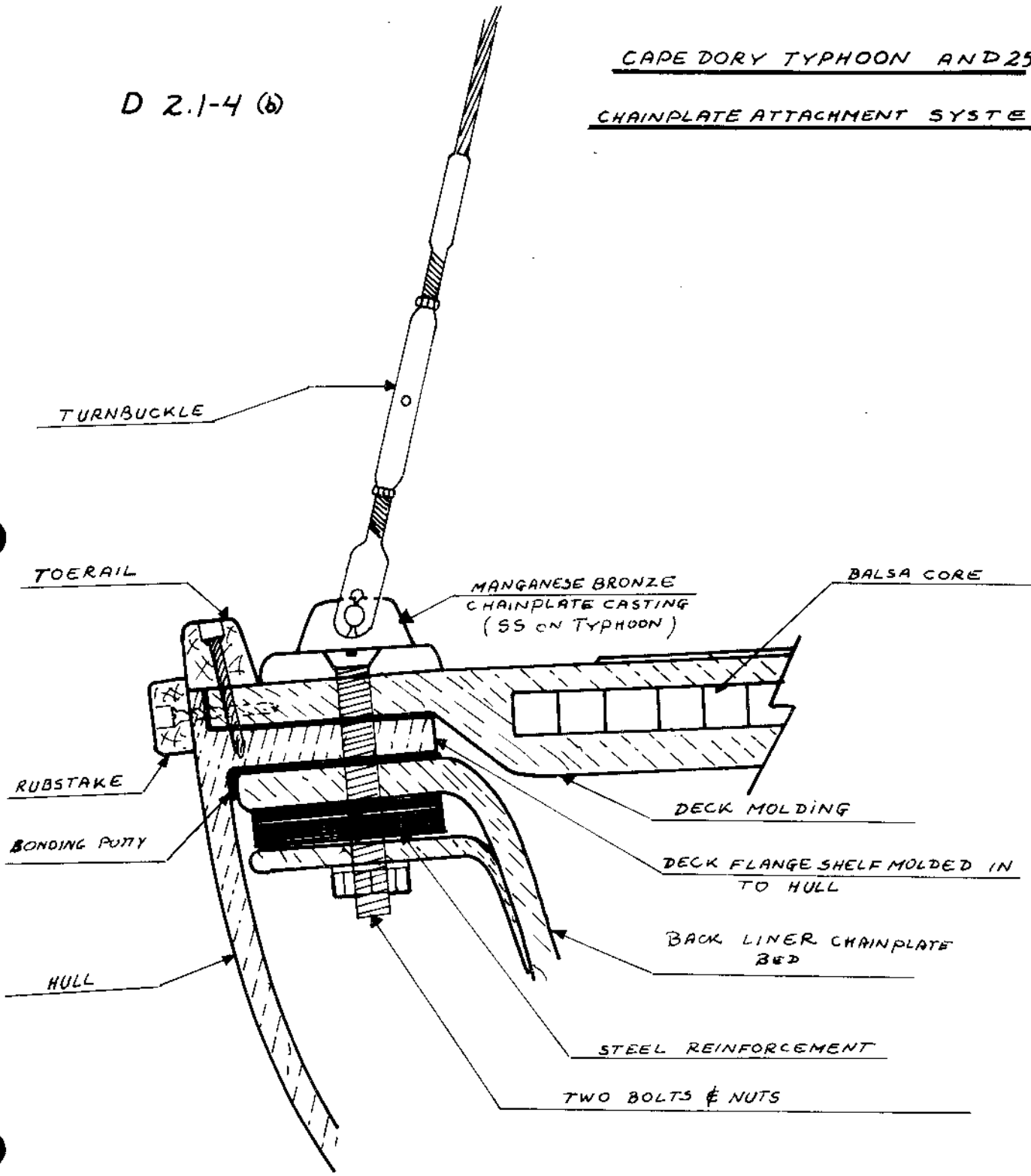
CAPE DORY 27' / 28' / 30' CHAINPLATE ATTACHEMENT SYSTEM



D 2.1-4 (b)

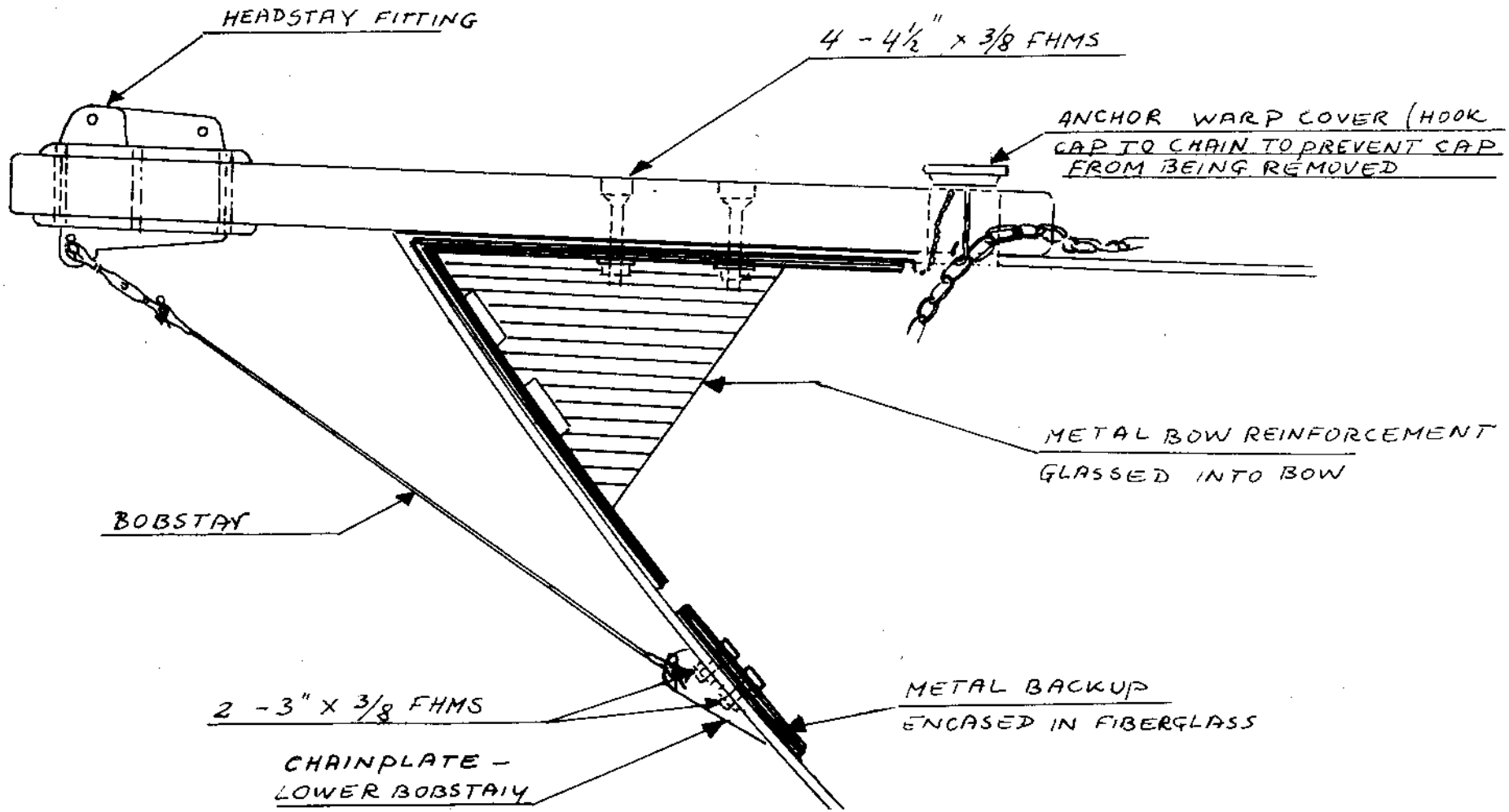
CAPE DORY TYPHOON AND 25'

CHAINPLATE ATTACHMENT SYSTEM



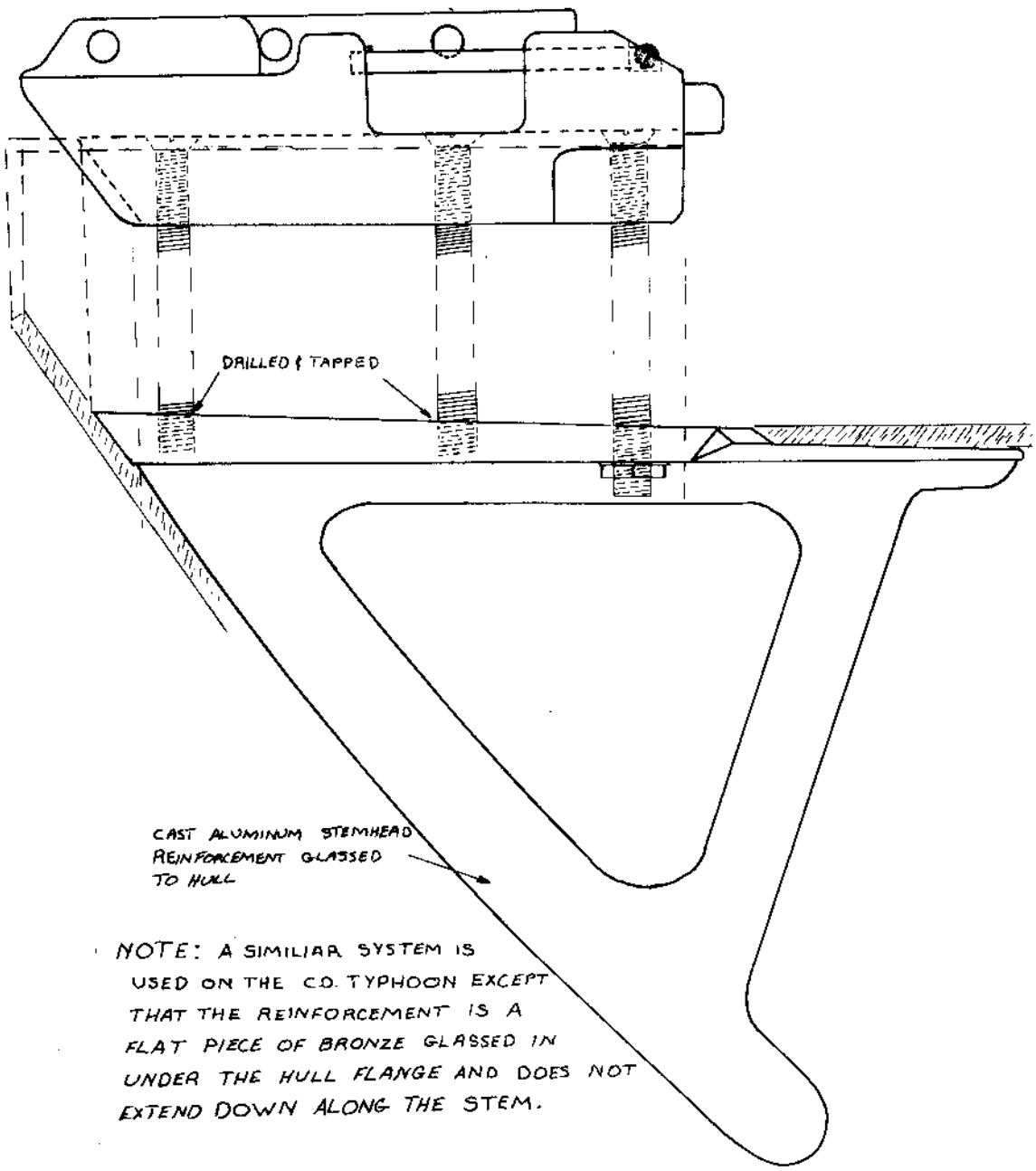
CAPE DORY 28 & 30 BOWSPRIT SYSTEM

D 2.1-4 (c)



CAPE DORY - CD 25' & 27' - STEAMHEAD ATTACHEMENT SYSTEM

D 2.1-4 (d)



NOTE: A SIMILIAR SYSTEM IS USED ON THE C.D. TYPHOON EXCEPT THAT THE REINFORCEMENT IS A FLAT PIECE OF BRONZE GLASSED IN UNDER THE HULL FLANGE AND DOES NOT EXTEND DOWN ALONG THE STEM.

on tuning to avoid overstressing the mast step structure. Over-tightening the turnbuckles is not necessary and can be dangerous.

2.2 Spars and Rigging

(refer to drawings 2.2a and 2.2b)

2.2-1 Spars

Masts, booms, jib clubs and optional spinnaker poles on all Cape Dory yachts are made of high-grade extruded aluminum. All spars are anodized, but unfortunately anodizing is a semi-permanent process, but still the best means of protecting aluminum. After several years of hard exposure to salt spray and sun, the protective virtues may diminish and a protective paint or film may be applied to the mast. However, anodized spars have been used for many years untreated with no apparent harm.

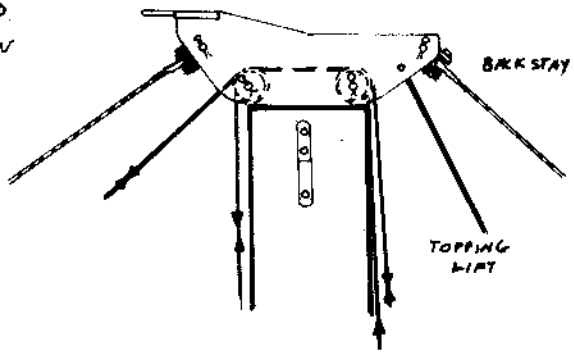
As a general rule, aluminum masts require minimal care and maintenance. When they are removed from the boat for the winter, they should be thoroughly washed with plenty of fresh water and a mild detergent. After a complete rinsing with fresh water, and after all halyards and lifts have been neatly tied-off to prevent tangling and fouling, a thorough inspection should commence. Start at the base of the mast. Water will collect here if the drain hole in the mast step has not been kept clear. This may hasten the breakdown of the anodizing and start the corrosion process. If water has collected and caused corrosion, clear the mast step drain hole and refinish the mast base or heel. Waxing will help preserve anodizing.

Proceed up the mast noting any areas that are scratched or abraded. If these are small they may be covered with a clear lacquer of a mast-kote type product to keep corrosion from starting or spreading. Sometimes it is recommended that you apply to the mast a good hard wax as this helps to protect it further. As you proceed up the mast, check every cleat and fitting for tightness, and for corrosion which may have begun in the screw holes. Make certain that no bronze, brass, or iron fastenings are used on the aluminum as the two metals are incompatible and electrolytical decomposition will start at once.

Check the tang fittings for lower shrouds and mounts for the spreaders as you proceed up the mast. Carefully check all tangs, straps and fittings at the masthead.

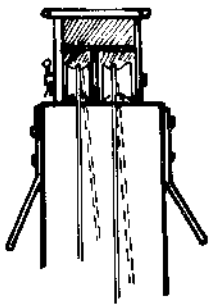
Examine the main and jib halyard sheaves for signs of wear or jamming. If you see anything that looks at all unusual, ask your dealer or local boat-yard for assistance. Booms and jib clubs should be inspected as carefully, with particular attention to gooseneck fittings, sheet blocks, and bales. The combination

DETAIL A
MASTHEAD
SIDEVIEW



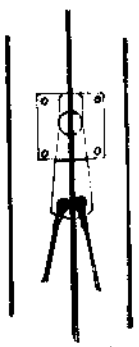
A

MAST HEAD
FORE & AFT VIEW



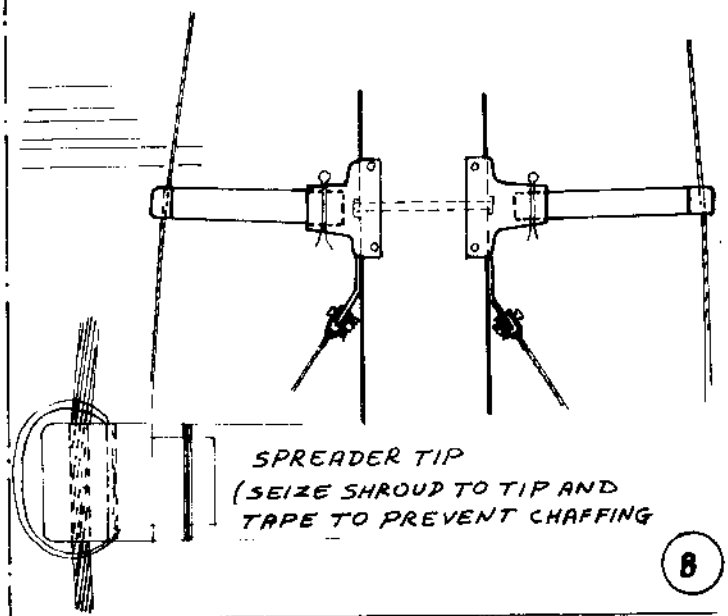
A

LOWER SHROUD TANG AND SPREADER BASE



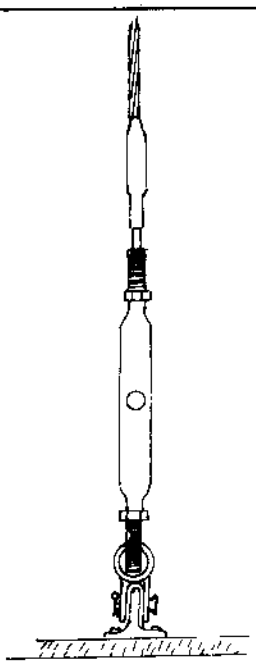
B

SPREADER ASSEMBLY



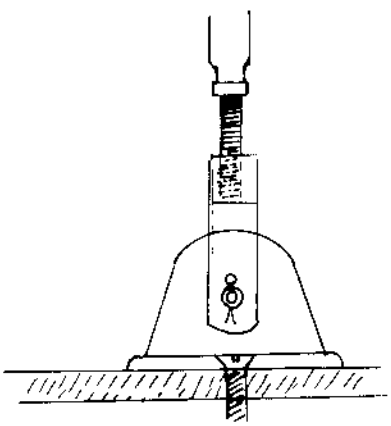
B

TURNBUCKLE



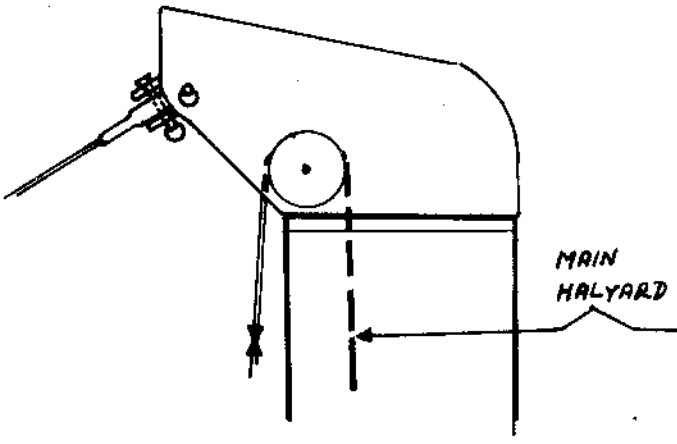
D

CHAINPLATE

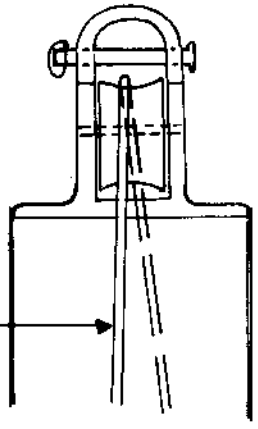


D

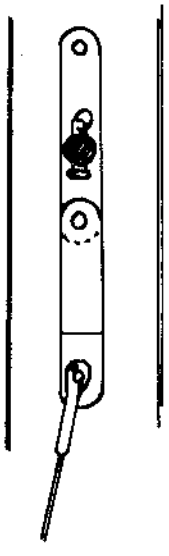
MAST HEAD - SIDE VIEW



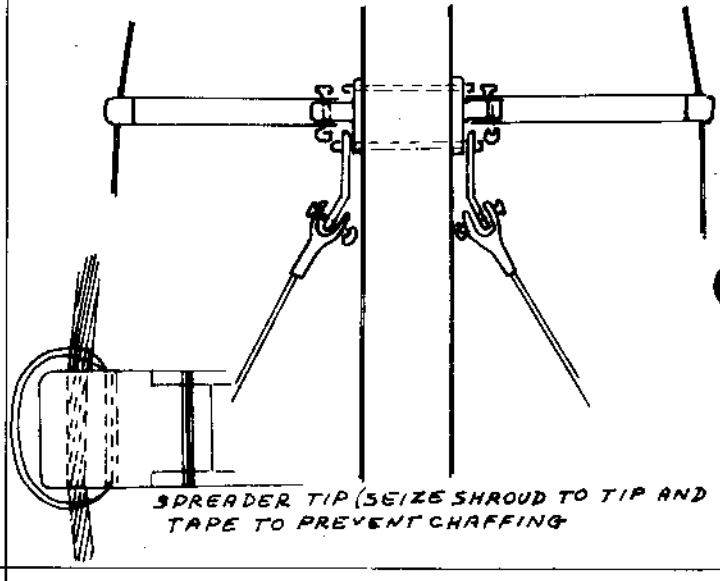
MAST HEAD-FORE AND AFT VIEW



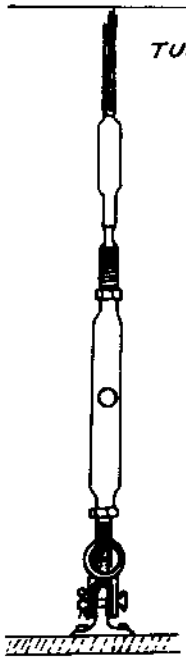
LOWER SHROUD TANG AND SPREADER BASE



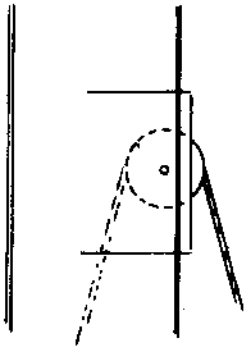
SPREADER ASSEMBLY



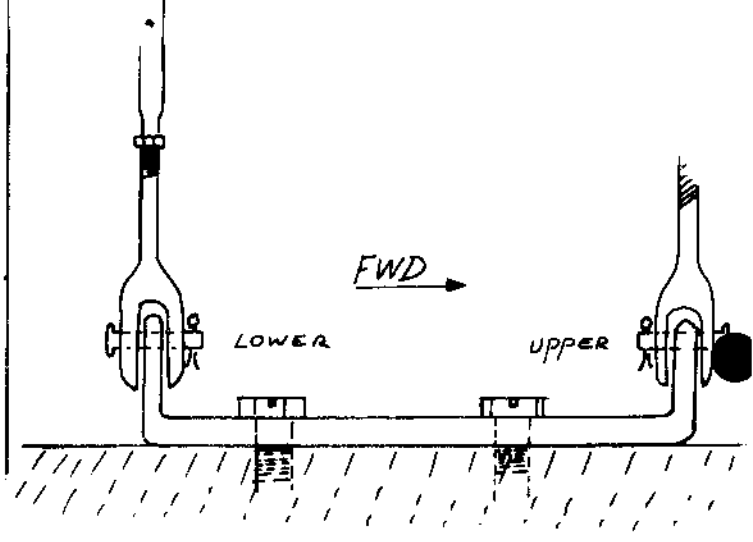
TURNBUCKLE



JIB HALYARD ENTRANCE BLOCK



CHAINPLATE



bow and deck light should also be checked. It is good practice to change the bulbs every year as a mid-season failure is very difficult to correct. Record bulb sizes and carry spares aboard your boat.

The spreaders that support the upper shrouds should be inspected. They are designed to angle slightly upward to best support the mast in column. The inboard and outboard ends should be covered with chafe tape or spreader boots to prevent tearing sails or halyards. If any damage is sustained during mast stepping or winter storage, replace the spreader. DO NOT sail with defective spreaders, spar or hardware.

2.2-2 Rigging

(Refer also to drawings 2.2 a & b)

Standing rigging consists of shrouds and stays which support the mast in an upright position. Running rigging is used to hoist or trim sails. Standing rigging requires attention, as a failure could result in the loss of a mast. Most failures occur from lack of attention, poor tuning or improper maintenance rather than a structural failure.

Before stepping your mast each season inspect all standing rigging thoroughly. Starting at the top of the mast, systematically check each upper shroud and stay tang and be certain that each clevis pin is secured with a cotter pin properly in place and bent over. Wipe down each shroud and stay with bronze wool dipped in a solution of water and mild detergent. The bronze wool will catch any broken wire in the rigging, calling attention to potential trouble; it will not leave steel particles to rust and soil your sails. Follow the bronze wool with a piece of terrycloth sprayed with a water-dispersing agent, such as CRC or WD-40.

Next, see that the spreaders are firmly fastened in place, and that the upper shrouds are locked in place on the grooved end of the spreader with a short length of stainless steel wire. You should use a spreader hook or some other form of chafing gear to protect your sails from the spreader tip. Check the mast tangs, clevis pins and cotter pins for the lower shrouds as outlined above for upper shrouds and stays. The Cape Dory 30 cutter has additional fittings on the forestay to be checked. The tangs for the lower shrouds are designed to allow for some movement in them, so do not overtighten the tang bolt.

Prior to stepping the mast, be sure the halyards are properly reeved. Tradition indicates that the main halyard's hauling part is always secured to the starboard side of the mast, and the jib halyard is secured on the port side.

After checking each piece of standing rigging for broken wires, rust spots, and for secure clevis and cotter pins, inspect the swaged terminal fittings at the ends of each shroud and stay. These fittings should all be examined, using a magnifying glass, for any hairline cracks. These cracks sometimes develop after water has entered the body of the fitting (by following the lay of the wire) causing the wire to corrode and expand. Although this problem is more prevalent in the southern latitudes, many owners seal the space between the wire and swags with bees wax. Turnbuckle boots are also quite popular, but are not recommended by Cape Dory as they cover the turnbuckles which should be inspected frequently. We do not recommend oiling or greasing the swage fittings as a means of preventing water running inside them.

Report to your dealer any fittings that you find to be defective. Wire and fittings with any of the following defects require replacement: kinked wire, wire with broken strands, cracked swage fittings, bent turnbuckles, turnbuckles with stripped threads, clevis pins with grooves worn in them, and tangs or other fittings with distorted holes. The existence of any of the aforementioned conditions should be investigated, the reasons for them determined, and corrective action taken.

After completing the above inspections, the mast may be stepped and the standing rigging secured to the chainplate. In all Cape Dory yachts the upper shrouds are attached to the chainplate in direct line athwart from the mast step. Lower shrouds are attached fore and aft of the upper. The single lower shroud on the Typhoon Weekender is attached aft.

All running rigging on Capy Dory yachts is Dacron. It requires only protection from chafe and the ultraviolet rays of the sun. Stow in neat, seamanlike coils when not in use so that it will run freely without kinks or hockles when it is needed. A rinsing in fresh water at the end of the sailing season is recommended.

2.2-3 Turnbuckles

Cape Dory boats are equipped with closed-bolt integral-toggle stainless steel turnbuckles. Prior to every sail, all turnbuckles should be checked to see that they are properly adjusted (see section 2.2-4 Tuning) and above all, locked, so that they will not loosen. The two lock nuts should be tight against the barrel. The threaded sections above and below the barrels may be taped once the turnbuckles are adjusted and locked in place. This tape serves as an immediate indicator if the turnbuckles are loosening. Engine vibration and even-wave action at a mooring or slip are enough to allow an im-

properly locked turnbuckle to work loose. Some skippers thread stainless steel seizing wire through the hole in the center of the barrel to the toggle as a back-up to the lock nuts. The threads on the studs and barrel of all turnbuckles are both left and right handed. This is required for the turnbuckle to serve its tightening function. Spare locking nuts should be carried aboard in both left hand and right hand configurations. Occasionally, during the season, you should completely disassemble and inspect all turnbuckles. Do not attempt to do this when sea or wind conditions are placing strain on the mast. The shroud turnbuckles (upper and lower sidestays) may be disconnected and inspected one at a time. The remaining shrouds will provide adequate mast support.

Prior to disconnecting headstay and backstay turnbuckles for inspection, special measures to support the mast are necessary. This can be accomplished by using the halyards as temporary stays. Attach the jib halyard to the jib tack shackle; haul it in tight, cleat it. This will temporarily replace the headstay, so that you may disassemble the turnbuckle for inspection. Lead the main halyard aft to a stern cleat and follow the above procedure to check the backstay turnbuckle.

The "pipe" or barrel section of the turnbuckle should be backed off entirely from the top and bottom sections. All threads should be carefully inspected both for broken or worn threads as well as rust, corrosion, or breakdown of the metal itself. The threads in the "pipe" should be inspected as well as those on the long, threaded ends. The locking nut should also rotate freely. Prior to reassembly, lightly lubricate the ends, barrel, and locking nuts with waterproof grease.

The enclosed insert (D 2.2-3) from Spartan Marine Products, Inc. indicates the maximum distance turnbuckles should be opened. The "Y" dimensions listed apply only to turnbuckles with properly centered barrels. Turnbuckle barrels can be centered by measuring the threads exposed above and below the barrel and adjusting accordingly, prior to securing the turnbuckle to the chainplate.

2.2-4 Tuning

The purpose of tuning the rig is to adjust the center of effort of the sail plan fore or aft to obtain a slight weather helm in moderate winds, and to keep it straight without hooks to port, starboard, fore or aft. Properly tuning the rig is an important process which should be attempted only by qualified personnel; consult your Cape Dory dealer.

RIGGING INSTRUCTIONS

IMPORTANT: Read instructions carefully before rigging your sailboat.

SPARTAN MARINE PRODUCTS INC.
160 Middleboro Avenue
East Taunton, Mass. 02718 (617) 823-6776

1.) Hold each coil of wire firmly and carefully, unwind with extra precaution avoiding injury from retracting rigging ends that are under tension. (Take care not to crimp the wire while uncoiling).

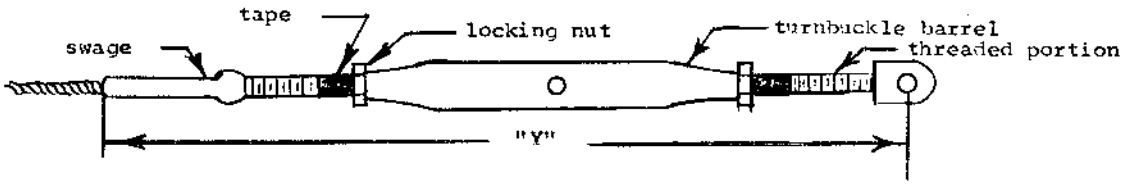
2.) Leave I.D. tags on shrouds and stays to avoid confusion till completion. A helpful hint is to document wire numbers on your rigging kit list enclosed and retain in a safe place for future reference.

3.) Attach each piece to its respective location on the mast making sure to insert proper clevis pin and locking it with a cotter pin. (The mast lights should be checked before the mast is installed so that defective bulbs can be replaced easily).

4.) When all rigging is properly located p/ identification tags and turnbuckles are in place, make sure again that each turnbuckle is stationed with a corresponding clevis pin and locked in place with a cotter pin.

5.) Take note on the maximum dimension your turnbuckle should be opened with turnbuckle barrel equally located between threaded sections.

Measuring from the center of the clevis pin to the top of the swage, the maximum "Y" dimension should be as follows:



		"Y" DIMEN.			"Y" DIMEN.
TYW	all	12 1/4"	C-28	upper, fore, backstay	15 5/8"
C-25	lowers	12 1/2"	C-30K	lower, miz upper, & lower	14 1/2"
C-25	upper, fore, backstay	14 1/2"	C-30K	upper, fore, backstay	15 5/8"
C-27	lowers	12 1/2"	C-30C	lowers	14 1/2"
C-27	upper, fore, backstay	15 1/4"	C-30C	upper, fore, backstay	15 5/8"
C-28	lowers	14 1/2"	C-30C	staysail	12 1/2"

6.) To lock turnbuckle in position snug the locking nuts up to each side of the turnbuckle barrel.

a.) Either use two wrenches one located on swage fitting and one on the nut.

b.) Or insert a rod or awl in the hole of the turnbuckle barrel and tighten each nut with wrench.

c.) When both nuts are tight, we recommend taping the threaded portion adjacent to the nut to aid in keeping the nut secure.

7.) Finally fill out enclosed registration form and return white copy to Spartan Marine promptly.

8.) ATTENTION: SKIPPER

a.) Please note: When rigging and mast are properly assembled and installed, avoid taking unnecessary risks that would use rigging assembly for purposes other than what it was designed for. Exercise good judgement.

b.) Frequent checks for excessive rigging wear and weak areas should be made to ensure maximum safety. Especially check for chafing. Sails and running rigging can be easily chaffed.

c.) Worn rigging or any pieces that are in question should be replaced as soon as possible. (For further clarification consult your dealer on any pieces in question).

d.) Your sparset also demands attention and periodic checks, to ensure that all pieces are secure and free from wear.

The fore and aft alignment of your mast can be checked by comparing it to a vertical structure such as a radio tower, chimney, etc. Before checking the mast alignment in this manner, be certain that the boat is resting on her design water line. If the mast is leaning fore or aft, ease the turnbuckle toward which the mast is leaning a few turns, and take up a corresponding number of turns on the opposite turnbuckle. (Note: when adjusting turnbuckles never use excessive force or the turnbuckle may be contorted. Always prevent the upper threaded turnbuckle stud from turning. The Cape Dory 30 ketch has a split backstay with two turnbuckles. Headstays and backstays should never be taken up so tightly that they will not "give" an inch or so if you pull on them with moderate force.

Upper shrouds should also be tightened equally and have about an inch of "give" to them. Forward lower shrouds should have one to two inches of "give", and the aft lowers slightly more.

Under no circumstances take up the rigging to bar tight tension. Both the mast and the boat can be severely damaged by excessive tension.

Fine tuning of the rig can be completed after the boat has been sailed, and may have to be done again after the boat has been out in strong winds. When sailing, it is important that the mast remain straight and as nearly in column as possible at all times. While sailing close hauled, sight up the mast track and note any mast curve. Does the mast appear to be falling off to leeward at the top, or does ot look to windward? Repeat this procedure on the opposite tack.

If the masthead is falling off on both tacks, the forward lower shrouds are too tight and the upper shrouds are too loose. If the masthead hooks to windward, the upper shroud is too tight in relation to the lower on the same side. When sailing to windward, the forward lower shrouds bear a greater load than the after lower shrouds; however, the after lower shrouds on the windward side should never be loose. All shroud tuning should be done from the leeward side. If the rig seems to be equally balanced when you begin, duplicate every half turn from side to side.

On Cape Dory boats with bowsprits, try to keep the bowsprit straight and not bowed up or down. This should be checked while sailing upwind in moderate conditions.

Be sure that every locknut is tightened after adjusting turnbuckles. Check to see that all cotter pins or rings are in place and that all sharp edges are taped.

2.2-5 Sheets

Drawings 2.2-5a, 2.2-5b, 2.2-5c, 2.2-5d illustrate the correct reeving of the mainsheets for all boats and the club jib sheets on the 28 and 30. Swapping sheets end for end will extend the useful life of a sheet that has started to chafe where it passes a sheave or engages a cam cleat.

2.3 Sails

The fine quality sails provided with your Cape Dory will give you many years of pleasure with proper care and maintenance.

2.3-1 Sail Attachment

The mainsail has plastic slugs which are inserted into the track on the after side of the mast. The Typhoon and Cape Dory 25 use sail slide stops to prevent the slugs from coming out of the track each time the sail is lowered. On larger Cape Dory boats a hinged mast gate is provided. After the sail slugs are inserted in the track, close the gate and install the cotter pin with ends directed away from the sail so they will not tear it. Bend the ends of the pin over and tape them. Insert plastic slugs or bolt rope at foot of main into boom sail track.

1978 Models Feature:

Diagram A - Illustrates an Adjustable Outhaul System

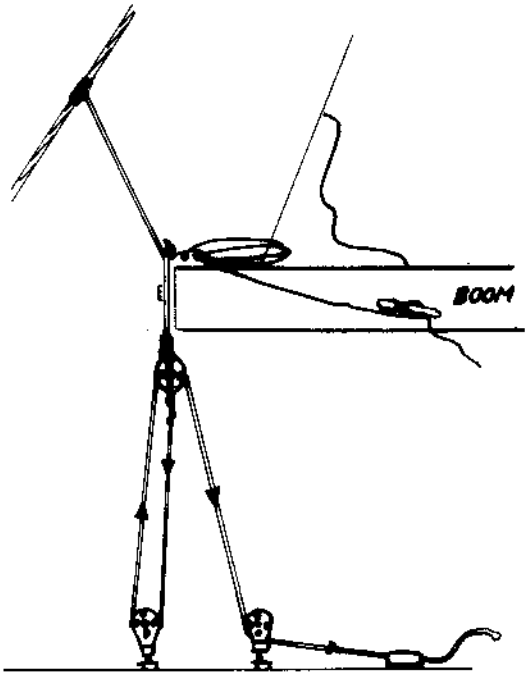
A single block with a becket is attached to the boom end. The outhaul line is attached to the becket and led through the clew grommet, then back through the single block. The outhaul is cleated on the port side of the boom.

Although the single purchase outhaul is adequate, a double purchase can be established by starting the outhaul line at the clew grommet running in through the becket (acting as block), back to the grommet and then finally to the single block. This establishes a stronger and tighter outhaul with less effort.

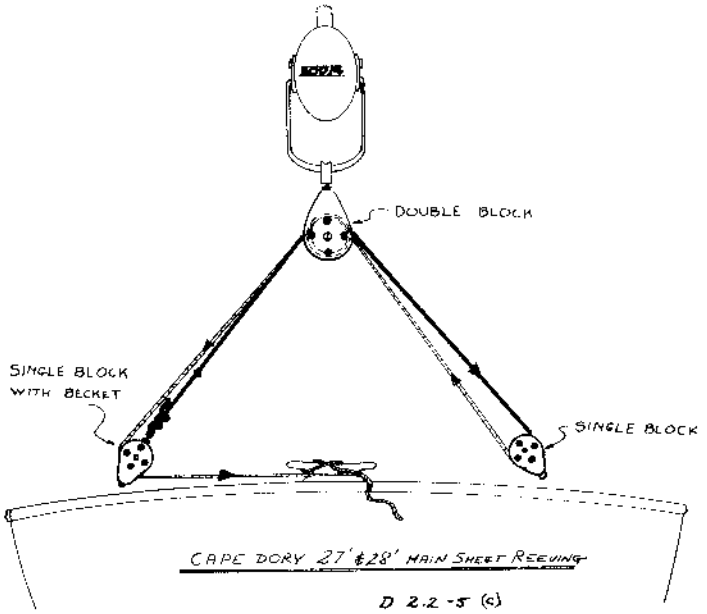
The adjustable outhaul should be utilized in trimming the foot of the sail.

Diagram B - Illustrates an Adjustable Boom Topping Lift

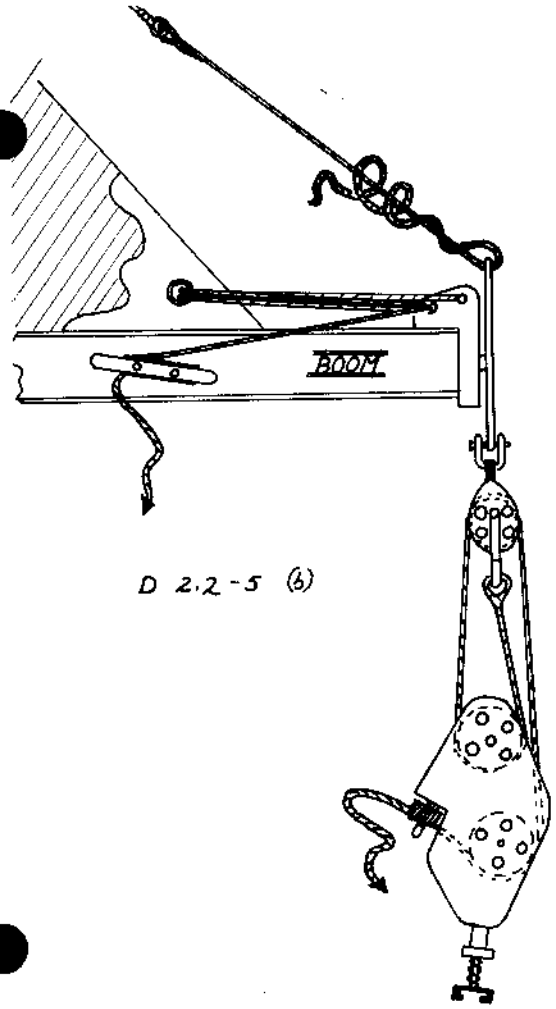
A 1/4" bolt is run through the eyespice attaching the topping lift to the aft portion of the masthead. The topping lift ad-



TYPHOON MAINSHEET
D 2.2-5 (a)

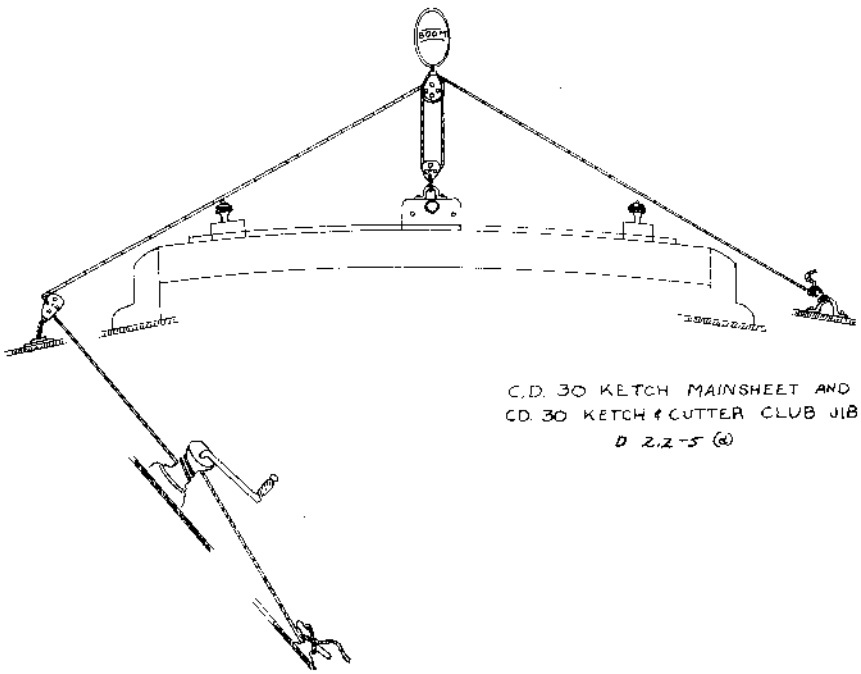


CAPE DORY 27' & 28' MAIN SHEET REEVING
D 2.2-5 (c)

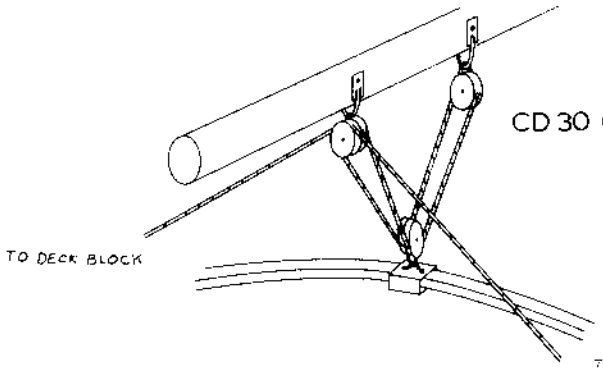


D 2.2-5 (b)

C.D. 25 MAINSHEET

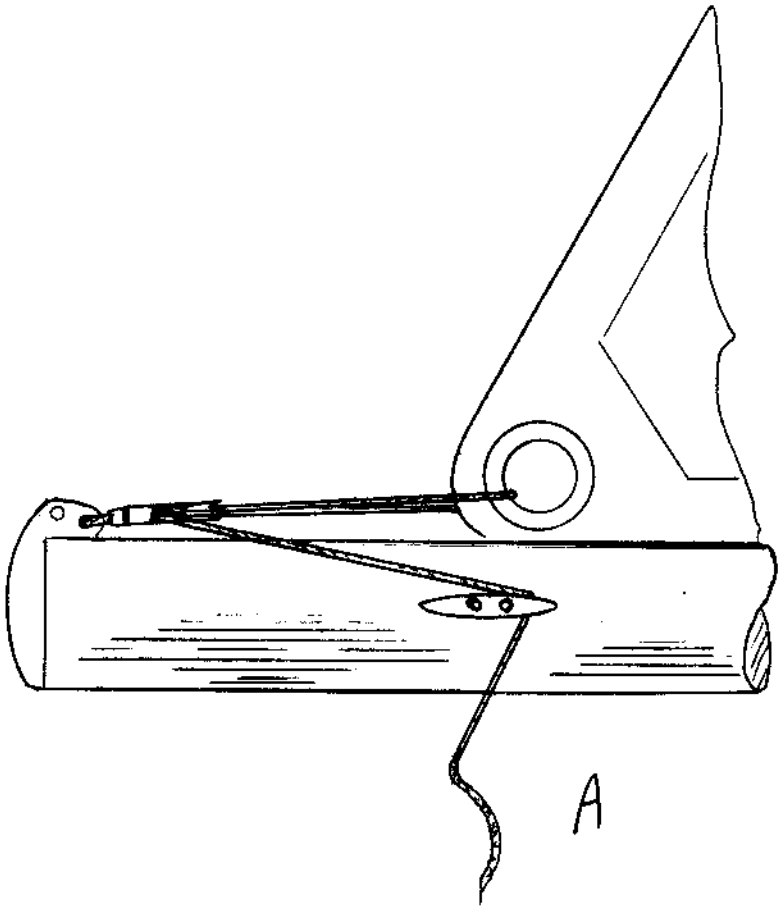


C.D. 30 KETCH MAINSHEET AND
C.D. 30 KETCH & CUTTER CLUB JIB
D 2.2-5 (a)

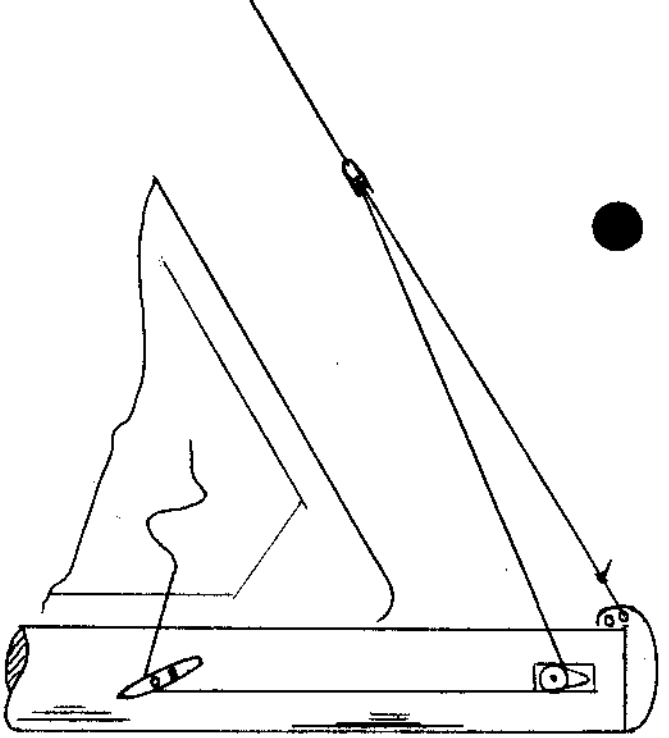


CD 30 CUTTER MAINSHEET

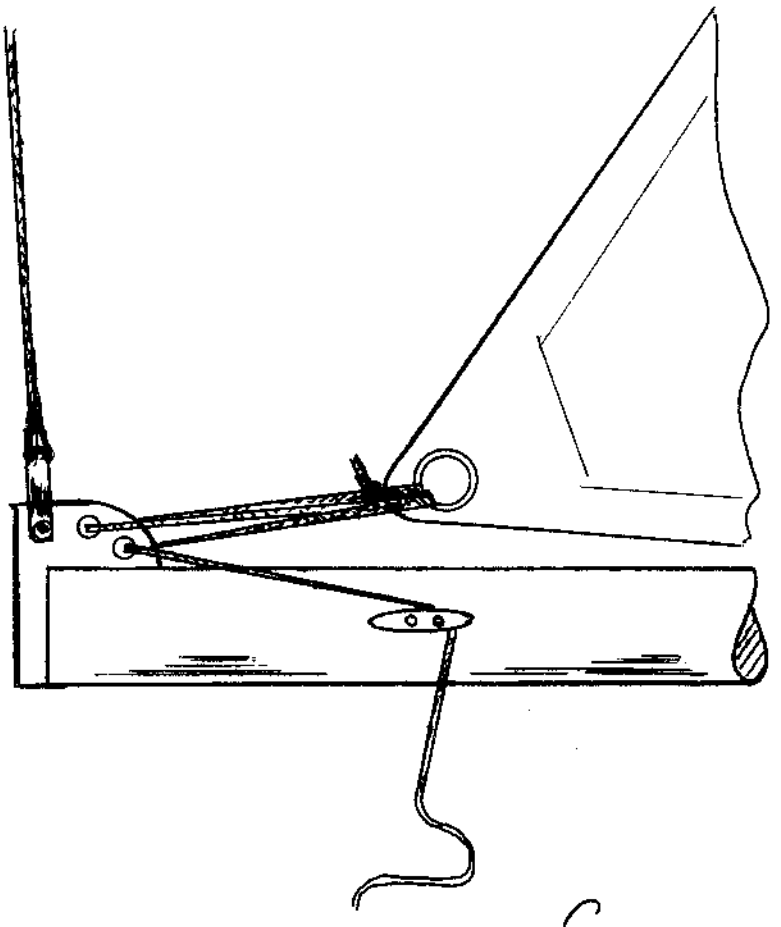
D 2.2-5 (a)



A



B



C

juster is knotted or spliced to the boom end and run through the single block which is spliced at the end of the topping lift. Leading back to a cheek block on the starboard side of the boom, it adjusts the boom to your desired height and cleats fast on the starboard side of the boom.

Diagram C -

Note: A self-tending jib has an adjustable outhaul system that is similar but does not use a block.

Headsails are attached to the headstay with piston hanks. Care must be taken to see that they are attached right side up and in order. The tack is attached with a shackle to the hole in the stemhead fitting behind the turnbuckle. On club footed jibs, the outhaul is attached to the boom end, as on the mainsail. Cape Dory furnishes jib sheets for loose footed sails in one piece. One attachment method is to pull the center of the line through the clew forming a loop. Pass both ends of the line through the loop and pull tight.

2.3.2 Reefing Mainsail

Roller reefing is used on the Typhoon and Cape Dory 25; "jiffy" reefing is used on the larger boats. Remember: IF YOU ARE THINKING ABOUT WHETHER OR NOT TO REEF, IT'S TIME TO DO IT. Being over-canvassed is hard on crew and boat, potentially dangerous, and will not make the boat go any faster.

Roller Reefing (Typhoon and Cape Dory 25)

Hoist the main to its full height, then with the crew on the main halyard, pull the outboard end of the boom toward the stern of the boat. It will move out about an inch. Hold the boom out, and as the crew slowly eases the halyard, turn the boom in a circular motion. (It makes no difference which way you turn the boom). As the leech moves in on the boom, pull it aft to make the sail lay as flat and evenly as possible around the boom. When you have reduced the size of the main to the desired level, push the boom back in to the gooseneck fitting and have your crew take up on the halyard so that the luff is tight.

To shake out the reef return the topping lift to its original position and reverse the above procedure.

"Jiffy Reefing" (Cape Dory 27, 28 and 30)

"Jiffy reefing" is the more traditional method of shortening

sail. You do not have to raise the main to its full height on the mast to properly reef, but it is somewhat easier if you do as it keeps the sail out of your way.

Reeve the reefing lines through the reefing cringles — the grommets on the luff and leech that will become your new tack and clew. Pull the tack down to the top of the boom. Make the line fast to the clear on the mast. Next, haul on the clew line, pulling the clew down and aft. The clew line runs from a padeye up through the grommet, down to a cheek block and forward to a cleat. The key to this type of reefing is to have sufficient tension on the foot of the sail. When the clew has been pulled out and the foot is tight, make the line fast around the cleat on the boom.

There are reef "points" in the mainsail of Cape Dory Yachts fitted with "jiffy" reefing. Use 18" lengths of 1/4" line and run them through each reef point. Lead the line through the reef point, under the foot of the sail and tie the reef lines in a reef knot. This will keep the unused sail out of the way and reduce windage. It is also the seamanlike procedure.

To shake out the reef, release the lines through the reef points, stow them, and release the reef line through the reefing cringle that is serving as your clew. Then release the reef line on the reefing cringle for the tack, and hoist the mainsail so that the luff is tight. Return the topping lift to its original position.

Generally speaking, reefing is desirable when you find yourself heeling more than 20^0 or wish to slow the boat down to keep it manageable in heavy airs. When going off the wind, the boat will probably sail as well running under headsails alone, since the reefed main will usually blanket the headsail. You may wish to leave the mainsail reefed, furled and ready to hoist when you change direction to windward.

The following explanation of "quick reefing" is out of the catalogue of Schaefer Marine Products of New Bedford, Massachusetts. It is reprinted here with their permission.

QUICK REEFING*

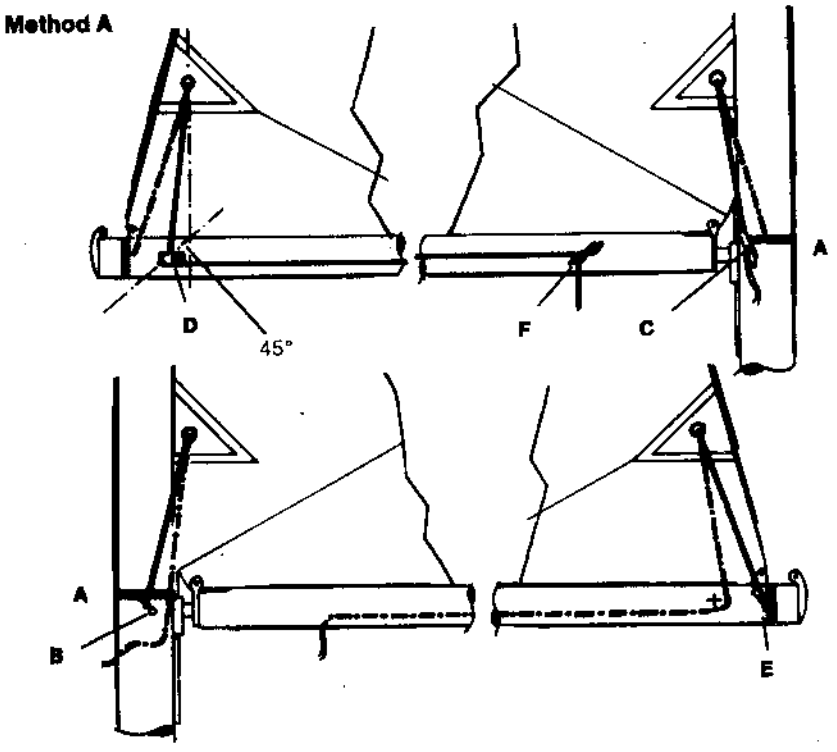
As the modern offshore racing yacht rapidly becomes more sophisticated, and offshore racing itself becomes more challenging, hardware and sail handling systems are refined and developed to make yachts faster and easier to operate. Perhaps the most important development in the area of sail handling has been Quick Reefing.

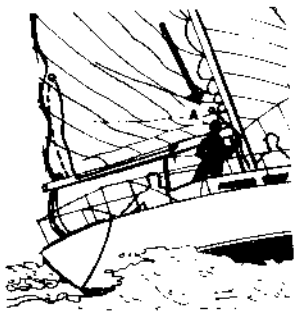
Time was when the call to reef meant a sacrifice of speed, time and lots of crewmen on deck. Quick Reefing has changed all this. It is very fast, requires few hands and retains proper sail shape.

Although sophisticated refinements have been developed, the basic system is simple and effective. Installation or conversion is easy, and the benefits of this fine system are appealing to racer and cruiser alike.

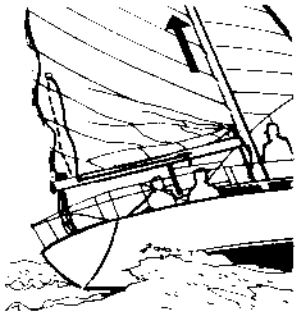
*Also known as California Reefing, Slab Reefing or Jiffy Reefing.

Method A

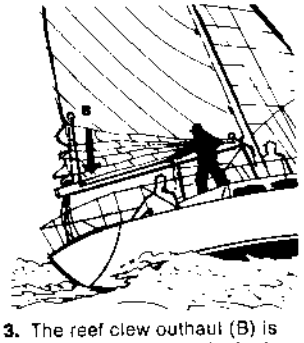




1. The halyard is released and the reef tack downhaul (A) is tightened until the reef cringle is drawn down to the gooseneck, then cleated. (Pre-marking the halyard provides a good reference when releasing)



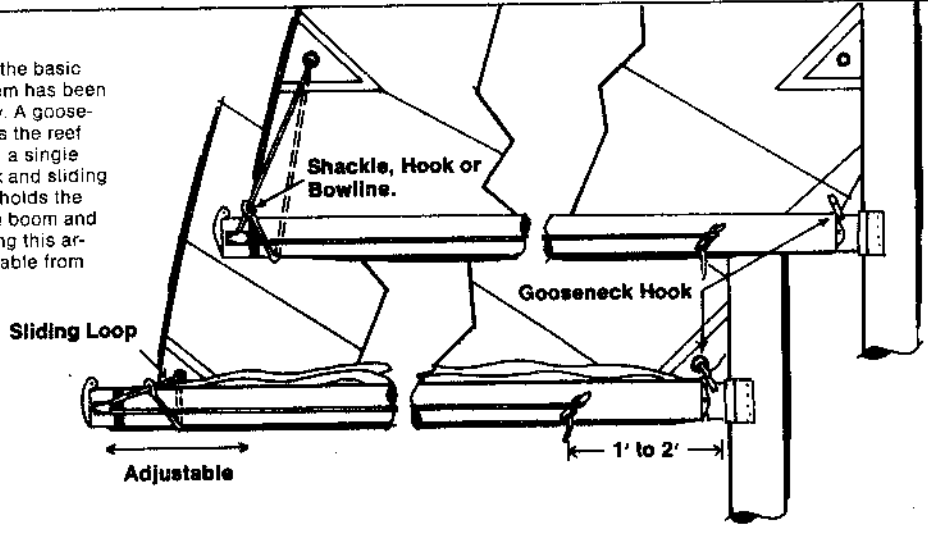
2. The main halyard is tightened up. *Note: The mainsheet should be slacked only if necessary. (Usually when reaching)*

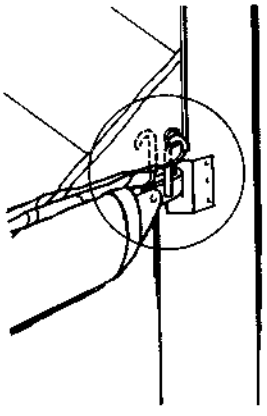


3. The reef clew outhaul (B) is tightened up to the reef cringle and cleated. *With practice, a Quick Reef can be executed in between 15 and 30 seconds on a boat of 40 ft. in length!*

Method B

A simplification of the basic quick-reefing system has been developed recently. A gooseneck hook replaces the reef tack downhaul and a single ended cheek block and sliding loop arrangement holds the clew. A production boom and gooseneck featuring this arrangement is available from Schaefer Spars.





The reef tack cringle can be hooked quickly onto the gooseneck hook as the halyard is released.

2.3-3 Sailcare

Sails should be protected from chafe by padding spreaders and other gear or by installing chafe patches on the sails themselves. Spreaders and shrouds can chafe genoas and other overlapping jibs when those sails are sheeted in tightly and can chafe the mainsail when running before the wind. Topping lifts frequently chafe the leach of mainsails.

Inspect your sails frequently and take care of chafed stitching or small tears before they become a major problem. A small ditty bag with some thread and a few sail makers tools on board can come in handy and save you a few dollars.

Sails should also be protected from sunlight as much as is practical. Ultra violet light can break down the dacron in the sail cloth and stitching. Sails that are left furled on booms, jib club booms and forestays without suitable covers are most susceptible to this problem. Suitable sail covers are available from Cape Dory through your dealer.

Mildew is no longer the major concern that it was in the days of natural fiber sails. Your new sails should be dry before folding if for no other reason than to prevent the unsightly growth of this dark mold.

In order to retain the shape of your sails they should be folded after each use. In the case of the mainsail, outhaul tension should be relieved before folding the sail on the boom.

After the season sails should be inspected and if necessary serviced by a competent sail maker. For appearance's sake stains should be removed and the sails gently washed with a mild soap and thoroughly rinsed.

2.3-4 Battens

Battens are thin wooden or fiberglass stiffeners inserted in the trailing edge of your boomed sails to support the outward curved leach. When inserting the batten the thin edge goes into the batten pocket first. Battens, particularly wooden battens, can twist and warp if they are not kept flat. Keep this in mind when storing them. Battens should always be removed when the mainsail is furled.

2.3-5 Optional Sails

The first sail that you will probably want to add to the complement of working sails provided with your Cape Dory is a 150% genoa. This sail provides more power and speed in lighter

wind conditions and is particularly effective gloing to windward. Cape Dory has genoa and genoa gear packages available for all models.

If you choose to add a spinnaker or other sails to your inventory, select your equipment carefully. Your Cape Dory dealer will assist you in selecting suitable equipment and will make you aware of the optional sails and equipment that Cape Dory has available.

2.4 Bilge Pump

The Cape Dory 27, 28, and 30 are all equipped with a permanently installed diaphragm-type bilge pump. This type of pump is also available as optional equipment on the Cape Dory 25. The pump itself is located in the cockpit area and is operated by inserting the (removable) handle into the through deck fitting. This arrangement allows the pumping of the bilge with all hatches closed; a safety precaution should you have to pump in severe conditions.

Water is carried from the bilge to the pump by a reinforced plastic hose with a strainer at the bilge end. This strainer should be checked frequently and cleaned as needed. The pump discharges water overboard through a fitting located above the waterline near the transom.

The pump is designed to pump water containing a variety of debris, but can become clogged by excessive solid matter. If the pump should fail to prime itself after several strokes check to see that the pick-up hose is positioned properly, then check the pump body for debris. The rubber diaphragm may be removed by loosening the screw which holds the stainless steel clamp. Inspect the pump body for foreign material and gently lift the intake and outlet flapper valves to determine that they are clear. Reassemble the pump and continue pumping.

It is wise to pump the bilge before casting off and again on returning to see if the boat is taking on unusual amounts of water.

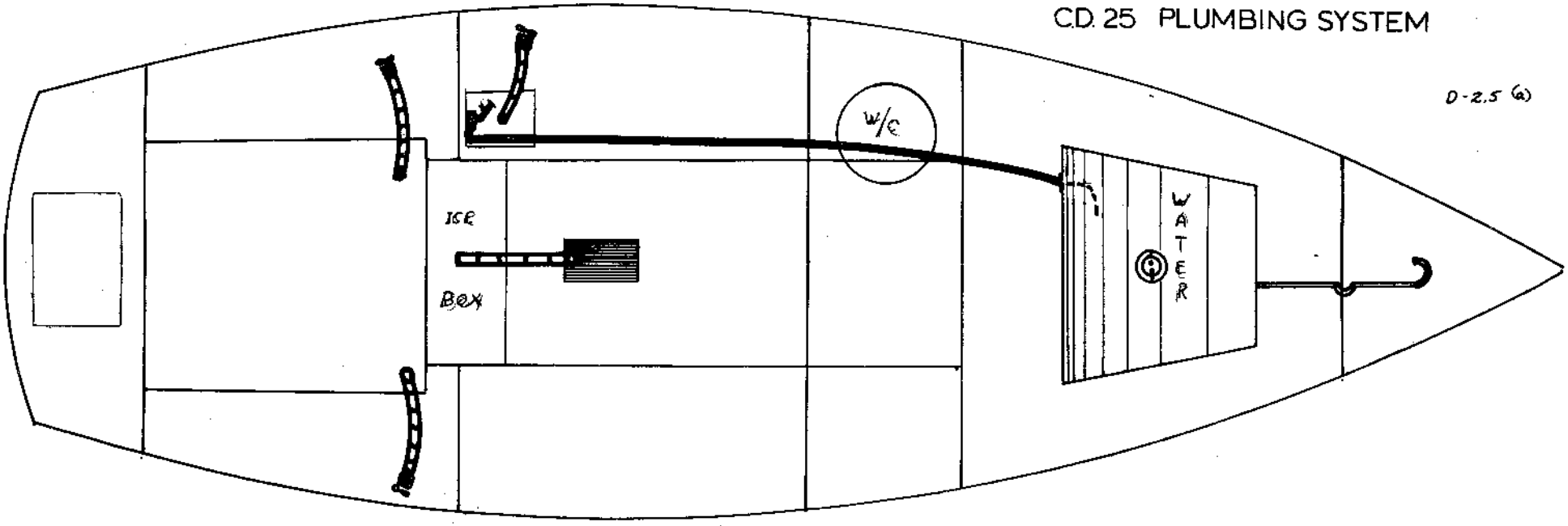
Note: If you decide to have an electric bilge pump installed, be sure to consult an expert on the wiring and plumbing of that piece of equipment.

2.5 Plumbing Systems **(refer to drawings 2.5 a, b, c, and d)**

The plumbing systems on your Cape Dory are simple and functional. The fresh water system consists of water tank(s), hoses and the manual hand or foot pump(s). The scupper and drain system consists of cockpit and sink drains.

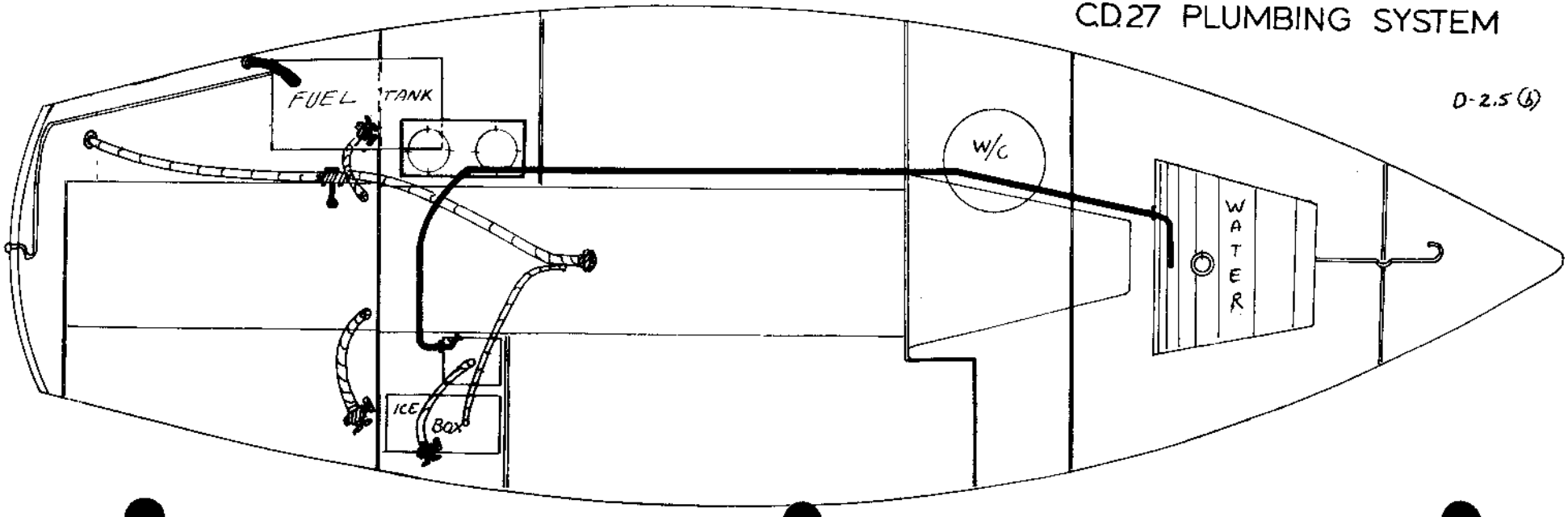
C.D. 25 PLUMBING SYSTEM

D-2.5 (a)



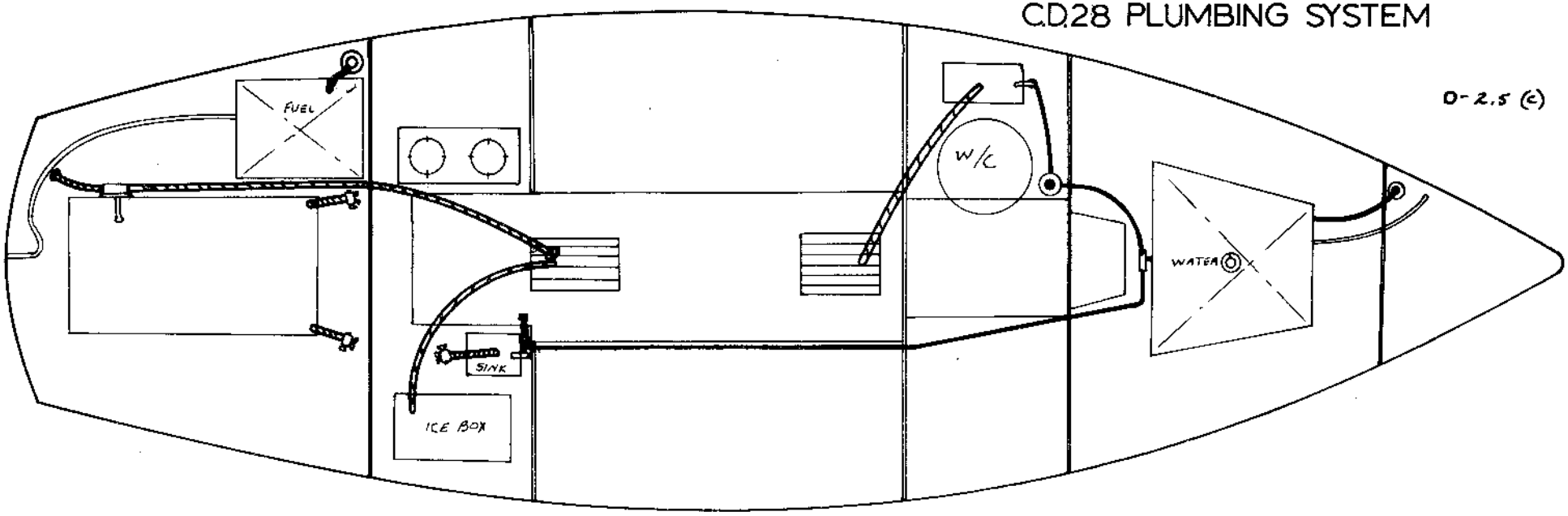
C.D.27 PLUMBING SYSTEM

D-2.5 (b)



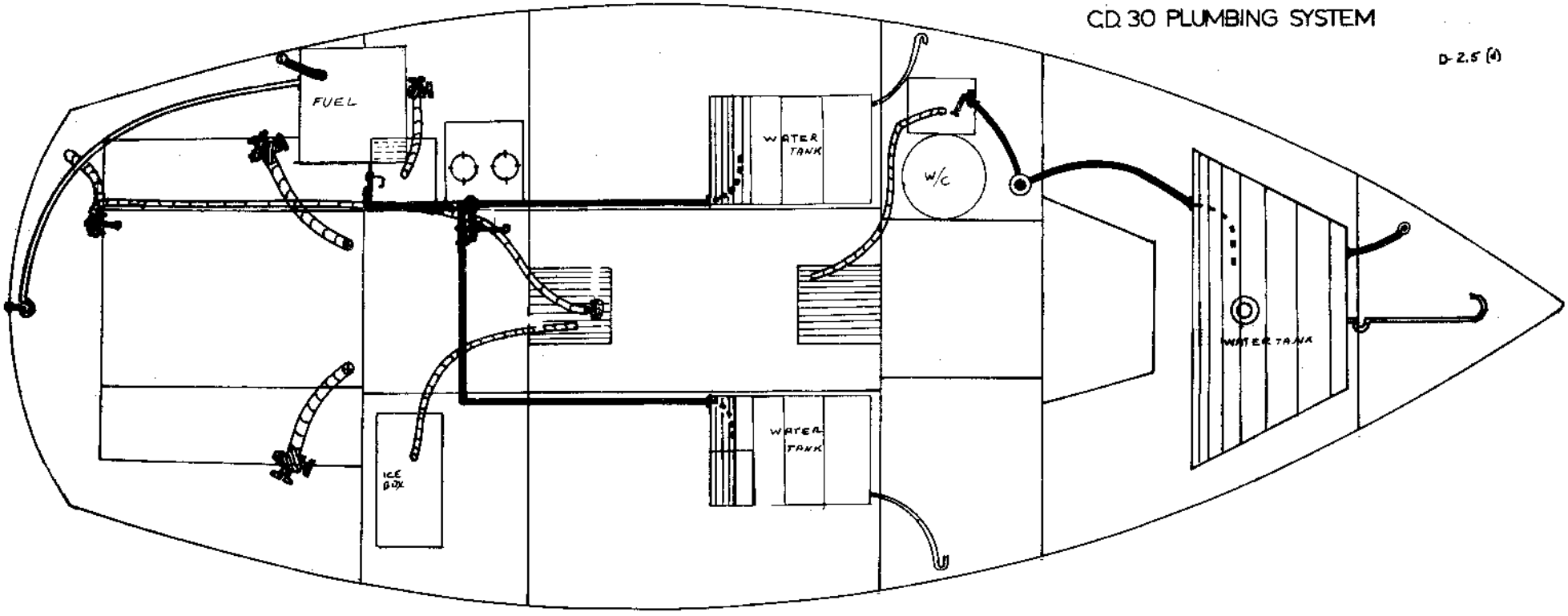
C.D.28 PLUMBING SYSTEM

D-2.5 (c)



C.D. 30 PLUMBING SYSTEM

D-2.5 (d)



2.5-1 Fresh water tanks

The Cape Dory 25, 27, 28, and 30 are equipped with 24 gallon polypropylene bow tanks located under the vee berth. The Cape Dory 30 also has port and starboard side tanks located under the main cabin berths; each tank has a 15 gallon capacity.

On the Cape Dory 25 and 27 the water fill for the bow tank is located in the vee berth. The 28 and 30 foot boats fill the bow tank through flush deck fills located on the bow. There are access covers for filling the side tanks under each main cabin berth cushion on the Cape Dory 30. All Cape Dory installed water tanks have a vent hose that also serves as an overflow to the bilge. (see drawings 2.5.)

Water is fed from these tanks to manual pumps at the sinks through PVC hose. The bow tank on the 30 supplies the head sink only. The side tanks supply the galley sink and are equipped with check valves that prevent the transfer of water from one tank to the other as the boat is heeled.

If water is left standing in tanks for extended periods of time, it may adopt an unappetizing odor and appearance. If flushing the tank does not eliminate this problem a mild solution of baking soda may be used. After letting the baking soda stand for several hours the tank and water system should be flushed thoroughly before refilling with fresh water.

2.5-2 Pumps

The hand and foot operated fresh water pumps located in the galley and head areas are self priming. If a pump fails to operate, check first to be certain that there is water in the tank, and then to see if the hose is kinked or being constricted by some heavy object. If the hose is clear and the pump still fails to operate, disassemble the pump and inspect the operation of the internal check valve.

2.5-3 Scupper Drains

The cockpit scupper drains on your Cape Dory use multi-ply wire reinforced hose throughout. The hose is 1" inside diameter on the Typhoon and 1-1/2" inside diameter on all other models. All connections are sealed with gasket sealer and secured with stainless steel hose clamps. Scupper drains and galley sink drains (refer to drawings 2.5) discharge overboard below the waterline. Protect these hoses from sharp objects and chafe. Inspect hose clamps for security regularly.

2.5-4 Head

The optional head installation on your Cape Dory may be one of several types, holding tank with deck pump out, holding tank with overboard pump out, or of the recirculating type.

Included with the ship's papers are the operating and maintenance instructions for the particular head installed in your boat. Refer to these for any information needed.

2.6 Through Hulls, Valves, and Seacocks

All Cape Dory boats are equipped with bronze, flanged through hull fittings. Valves are installed immediately adjacent to the through hull to shut off the flow of water, should a hose fail. Typhoons and CD-25's are equipped with bronze gate valves. Cape Dory 27's, 28's and 30's have bronze seacocks fitted as standard equipment.

Before each launching, and every time before the boat leaves its mooring or dock, you should check to see that the through hull nuts are tight, that seacocks and gate valves are working properly, and that all hose clamps are tight and in good condition. Seacocks and gate valves are designed to provide a positive means of stopping a flow of water into the hull, should a connection fail or hose rupture. These fittings are the single most important safety devices that affect the water-tight integrity of your boat. Checking them for ease and effectiveness of operation means making certain that the handles move (or turn as in gate valves) the full arc that they were designed for, and that sinks, toilets and cockpits drain easily when filled. (see drawing D 2.6)

When ever the boat is left unattended, all through hull fittings should be left in the closed position except for those serving the cock-pit scuppers. Be certain to open the engine cooling seacock before starting diesel engines.

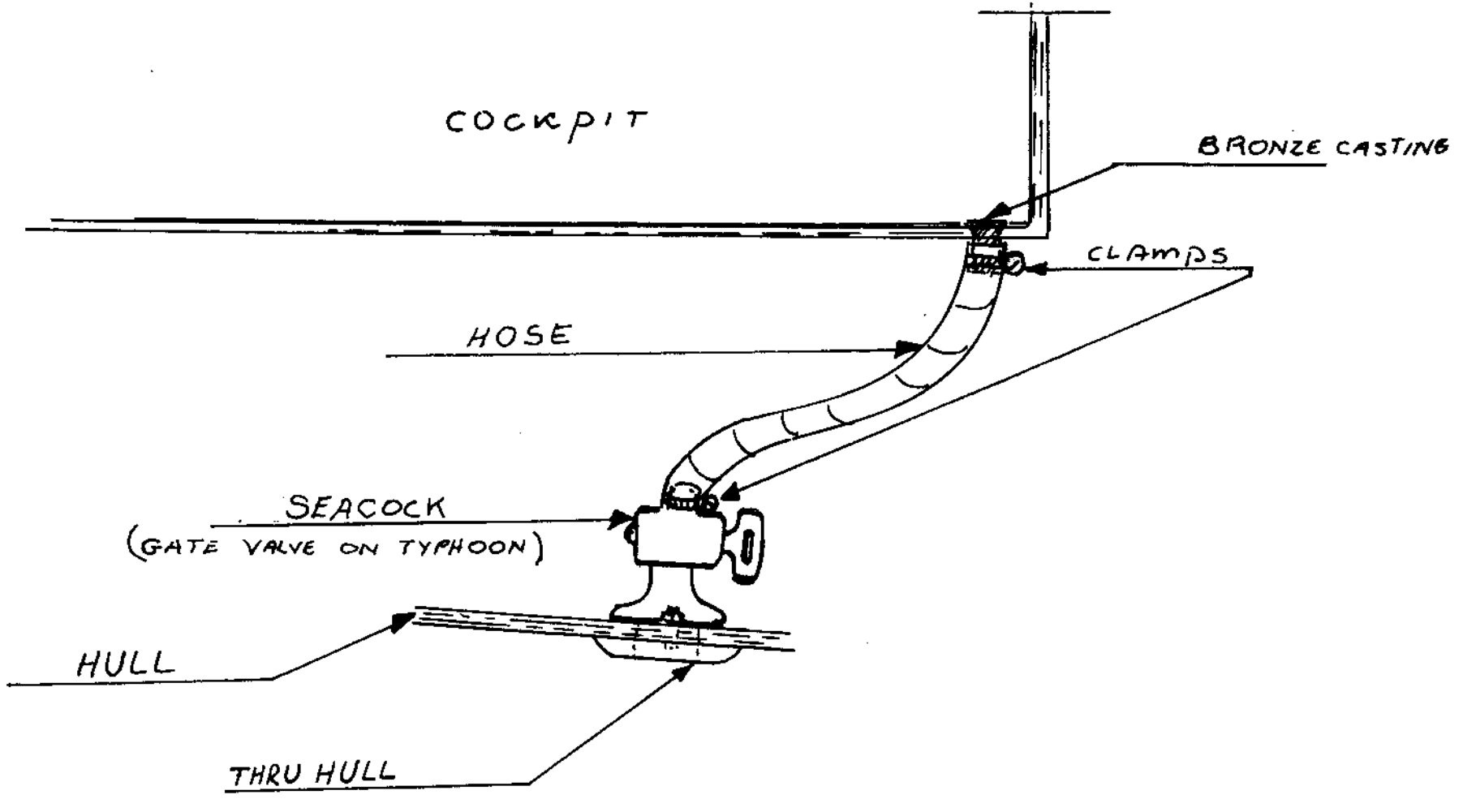
2.6-1 Seacocks

Since some holes below the waterline are necessary, seacocks are designed to open and close those holes reliably. They have been in use for years aboard craft of all types, and have proven their value many times over.

The seacock is essentially a round tapered bronze shaft with a hole running along its diameter. It can be rotated from one end in a 90^0 arc within a pipe junction to the open or closed position. The seacock is least likely to jam open with seaweed or other foreign matter.

TYPICAL SCUPPER INSTALLATION

D-2.6



Routine maintenance of seacocks calls for disassembling them when the boat is out of the water, applying a waterproof grease to all friction-bearing parts and reassembling. When disassembling seacocks do so one at a time as the components are individually fitted to each other by their manufacturer. Your dealer or marina will suggest a good grease available in your locality.

Seacocks should be worked frequently to keep corrosion from forming, causing them to jam.

To disassemble your seacocks consult the accompanying diagram (see drawing 2.6-1). There is a locknut on the outer end of the shaft - back it off and remove it. Next, back off the hexagonal end plate, removing it completely from the shaft. Then from the opposite end, pull the shaft out of the housing. Do not use a hammer or hard object to force the shaft out of the barrel as you may damage the threads. After you have cleaned off the old grease - inside and out - and replaced it with new, reverse the procedure and reassemble. Be sure that you tighten the end plate tight enough so that the seacock will not leak, but not too tight of the mechanism will not turn. A thin layer of lubricant between the end plate and locknut will facilitate teardown next season. For obvious reasons, this procedure is to be carried out while the boat is out of the water.

Your seacocks for the cockpit drain should almost always be left open. Their primary function is to be able to shut off a flow of water should the drain hose burst or come disconnected. Because these are the least used seacocks on the boat, there is a tendency to forget that they are there. DON'T! Work them frequently, and service them annually so that they will work should an emergency arise. Leave them open when the boat is winter stored so that the cockpit will drain.

The other seacocks should normally be left in the closed position when you leave the boat. Be sure that you establish a routine of opening and closing seacocks so that you don't overheat your engine or burst hoses in the head.

Should water start to enter the boat, and for any reason a seacock is inoperable, a wooden plug (fitted for the purpose) or rags or clothing can be stuffed into the through-hull fitting to slow or stop the rush of water.

2.6-2 Gate Valves

Gate valves should be disassembled and inspected every time the boat is hauled. To disassemble a gate valve, remove the handle and back off the stem retaining nut. If any corrosion or

wear is apparent, the valve should be replaced. Water pump grease should be used to lubricate the moving parts inside the valve. Hose clamps should be checked often during the season. It is also a good practice to inspect all hoses and clamps once a year to see that they have not been damaged. Since a hose failure could sink your boat, frequent inspections during the season are also justified. (see drawing 2.6.2)

2.7 Steering Gear

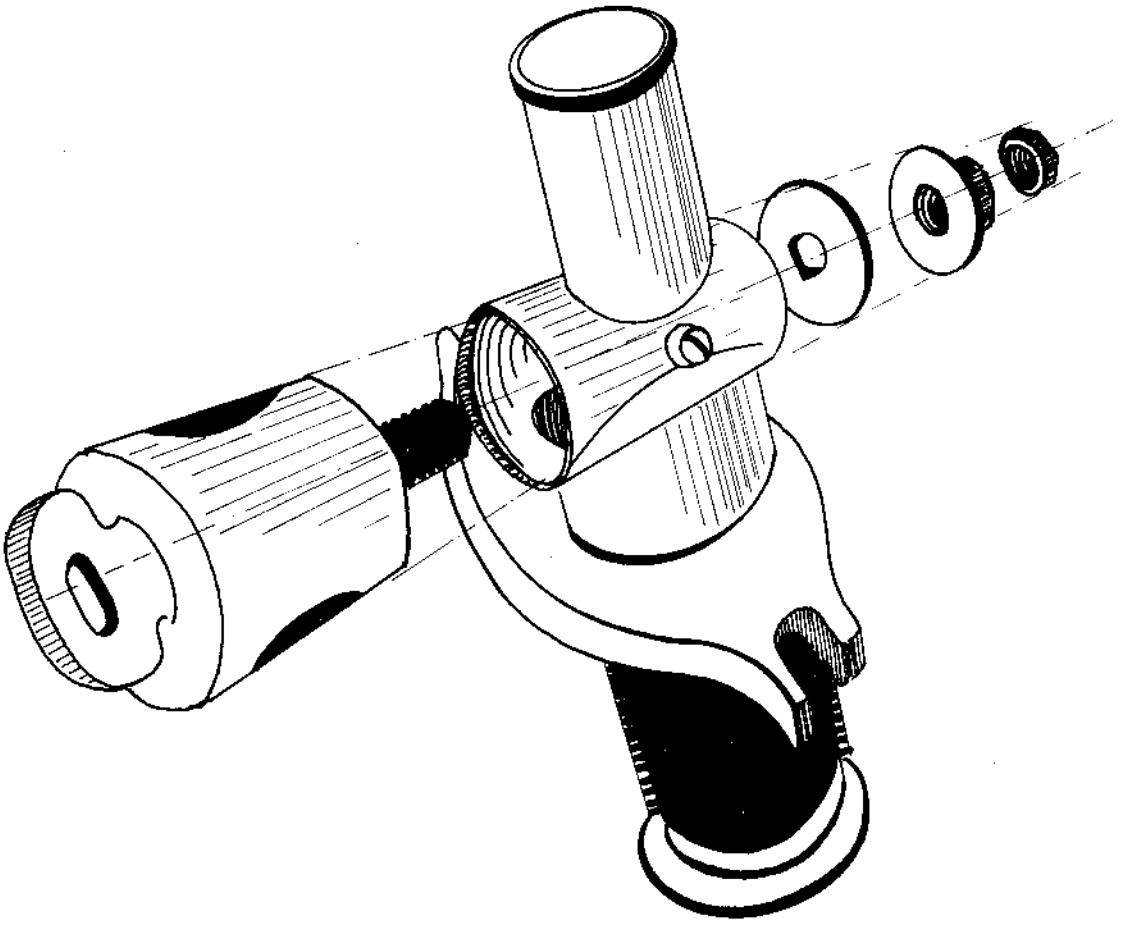
The rudder post on all Cape Dory Yachts extends well below the waterline, and occasionally when heeling or in a sloppy and confused chop, water will enter the cockpit through the fitting at the top of the rudder post. This is not cause for concern.

Maintenance of the tiller-steered Cape Dory system is simple: keep the bearing at the top of the rudder post lubricated with a good waterproof grease. Tilt the tiller upward and apply the grease to the top of the shaft and bearing. Inspect the condition of the key. Inspect the gudgeon, the heel fitting at base of keep where the rudder is connected. There should be no, or very little, play at that point.

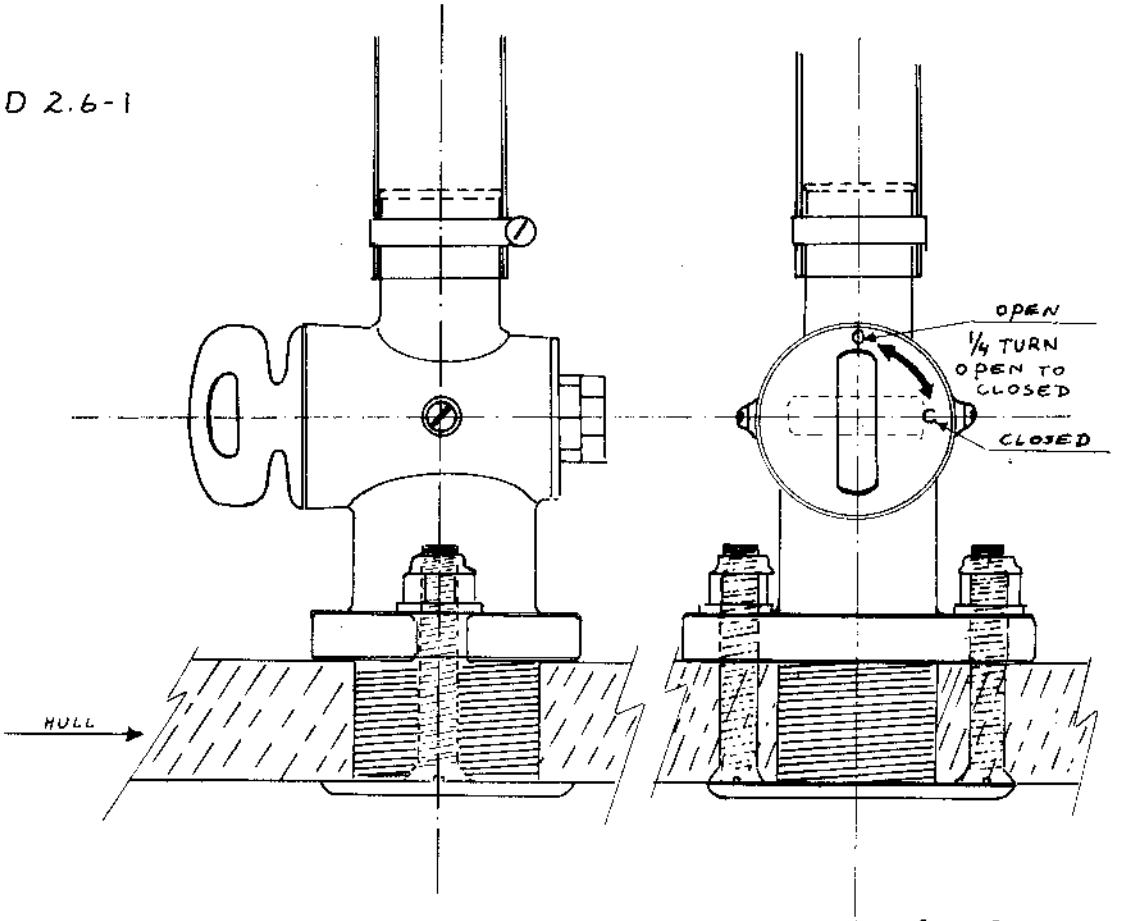
If the tiller cap is removed from the head of the rudder post, be certain to re-install the tiller cap properly. Both the rudder post and the tiller cap have machined keyways in them. Be careful that the key is in the keyway and that the tiller cap is installed correctly.

For Cape Dory yachts with factory-installed wheel steering, the shaft bearing should be lubricated as above. Owners of wheel steerer boats should also refer to the steerer manufacturer's maintenance and usage information shipped with the boat.

When the boat is hauled, be sure to check the condition of any play in the shaft and gudgeon as described above. Refer to drawing 2.7 for a better understanding of the steering system.



D 2.6-1

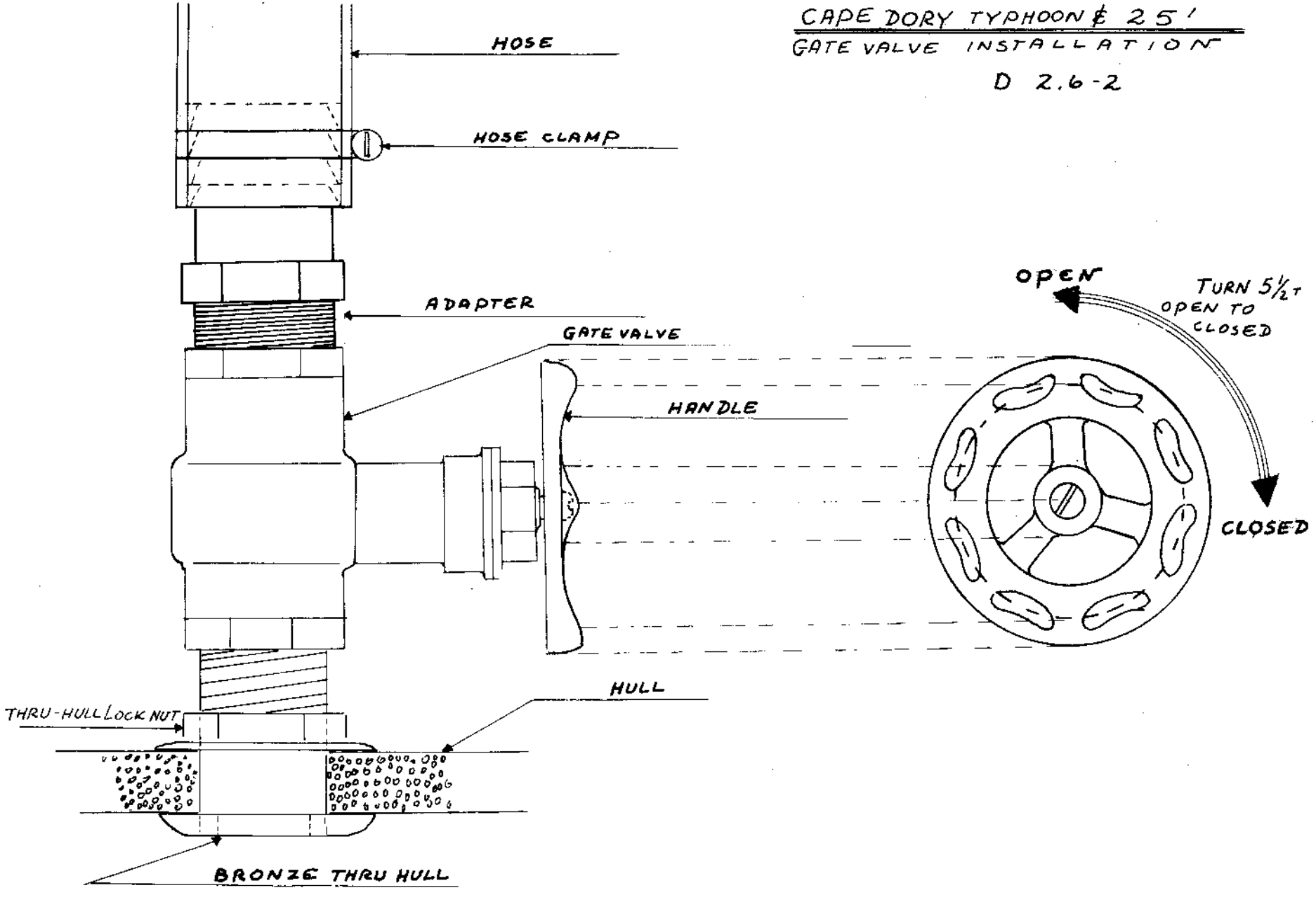


SEACOCK ASSEMBLY & INSTALLATION - CAPE DORY 27', 28', 30'

CAPE DORY TYPHOON ℄ 25'

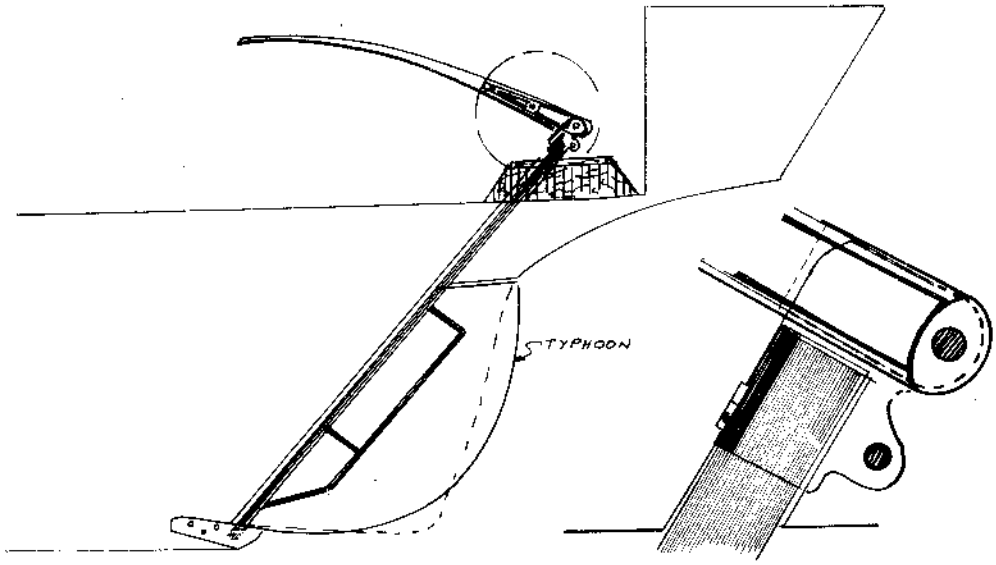
GATE VALVE INSTALLATION

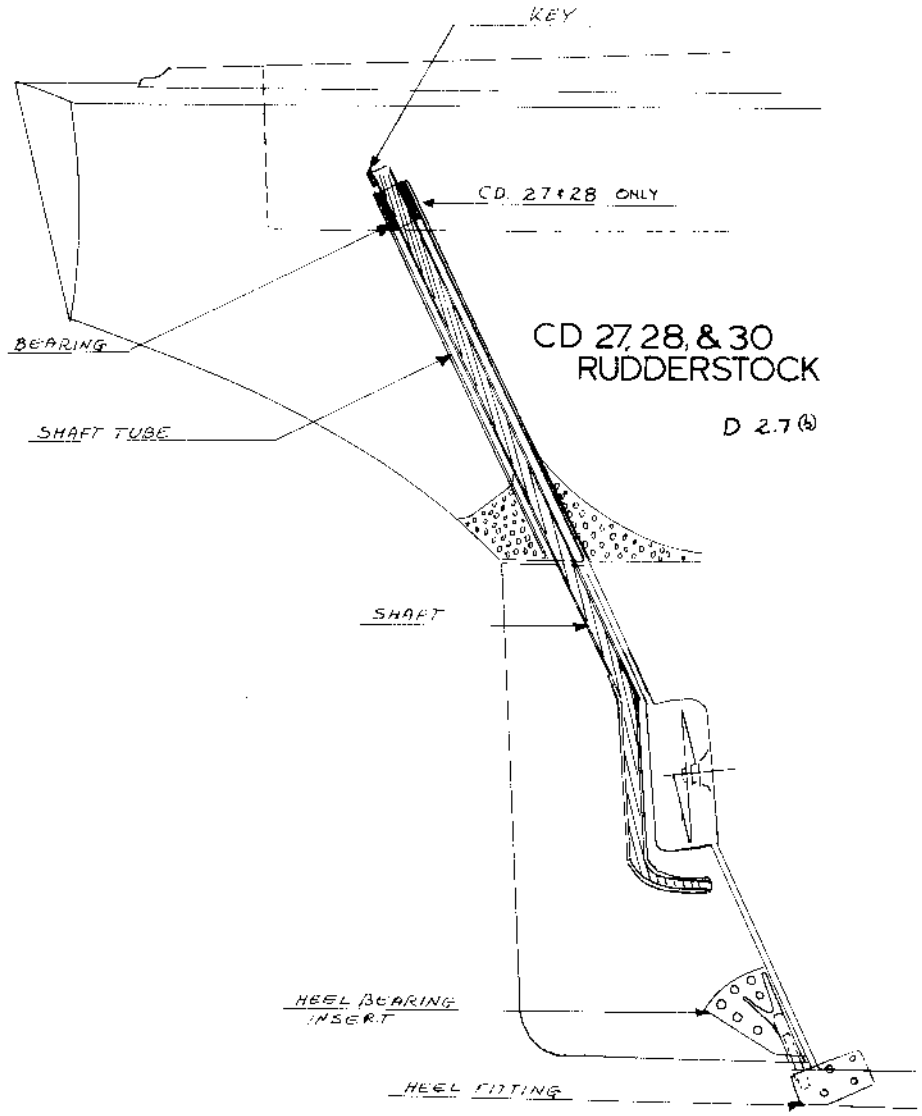
D 2.6-2



TYPHOON & CD 25 RUDDER DETAILS

D 2.7 (a)



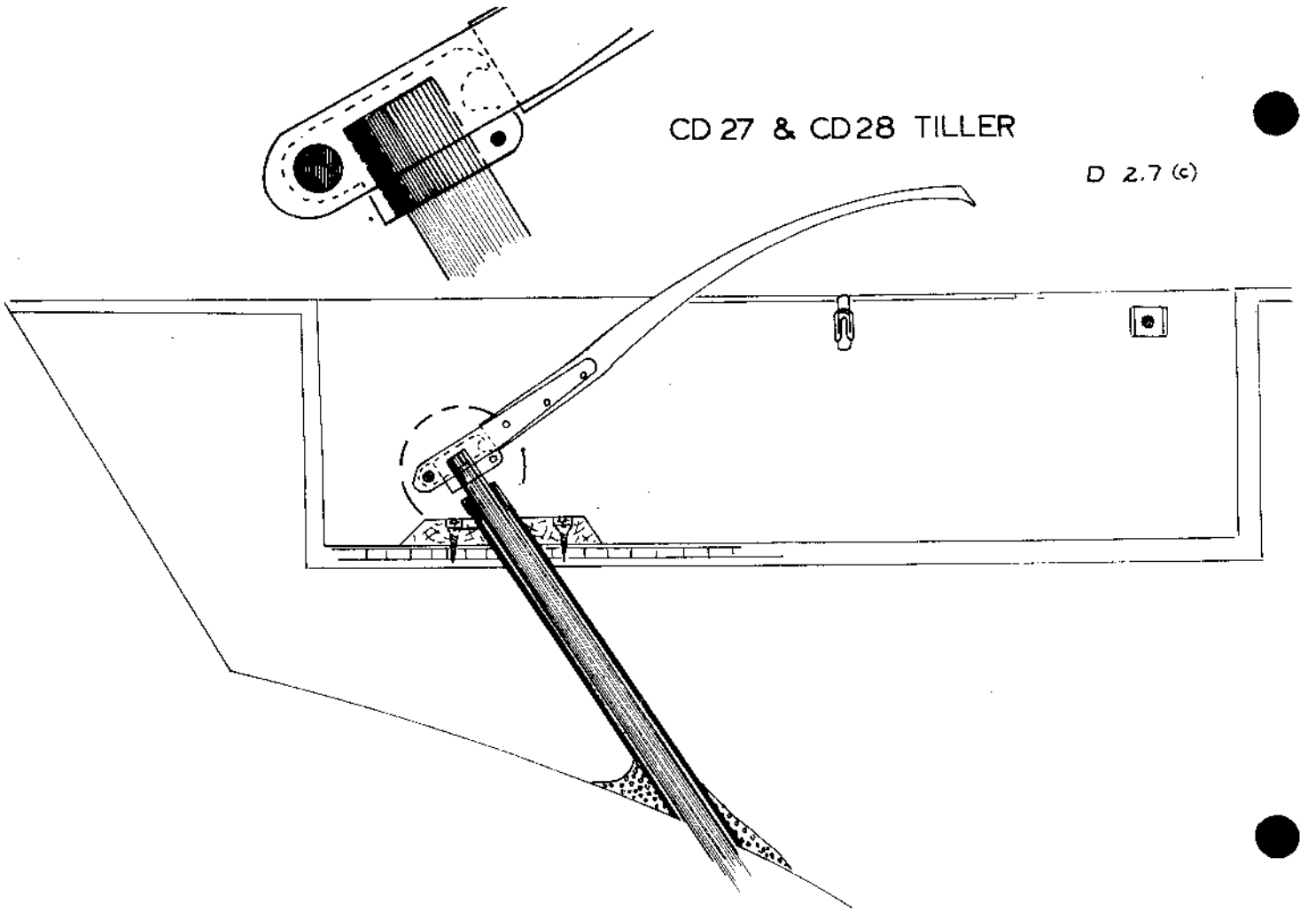


CD 27, 28, & 30 RUDDERSTOCK

D 2.7 (b)

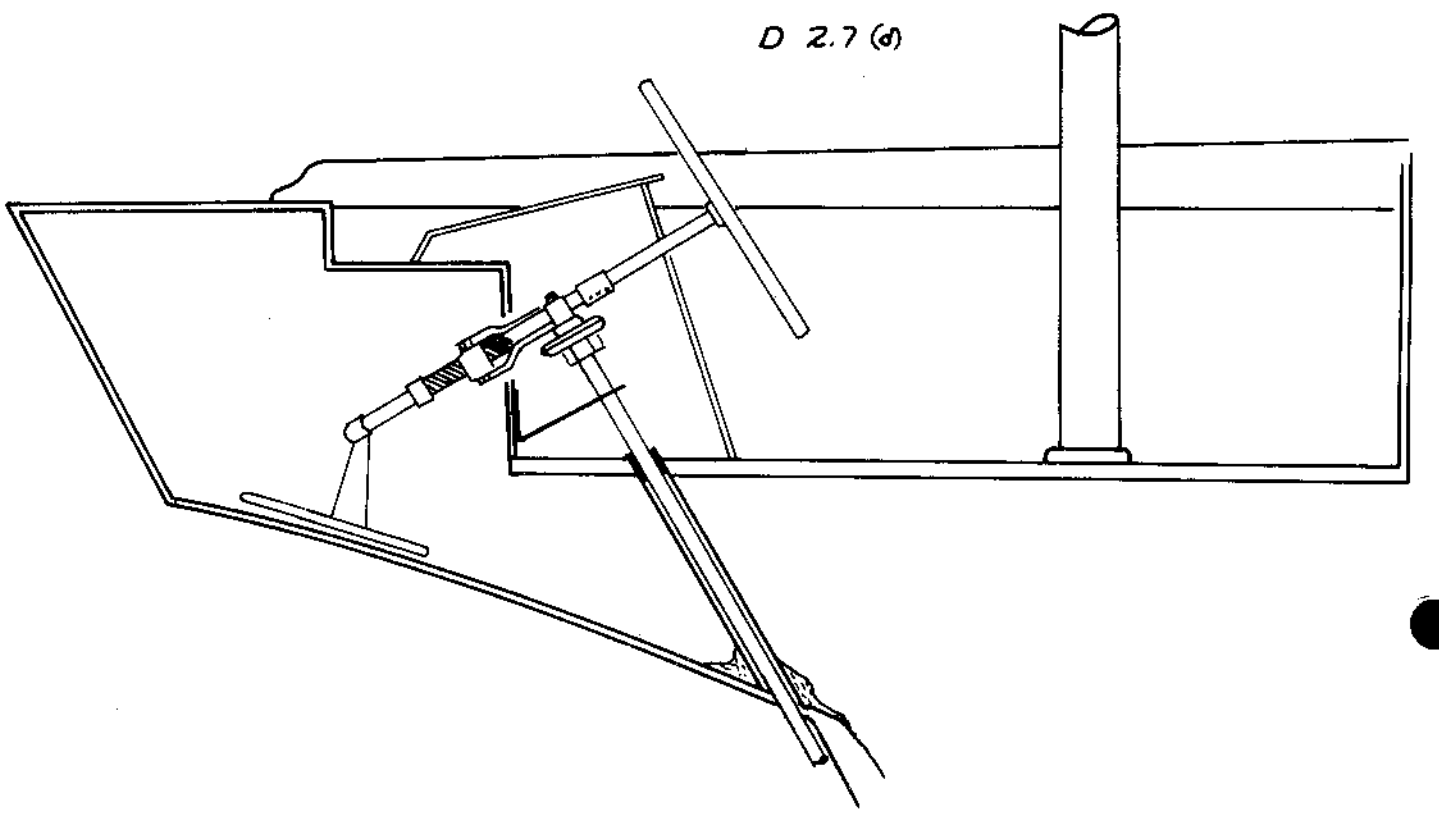
CD 27 & CD28 TILLER

D 2.7 (c)



CD 30 WHEEL STEERING

D 2.7 (d)



2.8 Electrical System

(refer to drawing 2.8 a, b, and c)

2.8-1 Battery

The Cape Dory 27, 28 and 30 are equipped with a 65 amp-hour 12 volt marine type battery. This battery is located in the saillocker. The Cape Dory 25 can be ordered with a 65 amp-hour 12 volt battery as optional equipment. All batteries are enclosed in a break resistant non-conductive case. All Cape Dory boats shipped with batteries are negative ground.

Batteries are relatively maintenance free, If you keep the battery and terminals clean and free from corrosion and if you keep the electrolyte at the proper level they should give you trouble free service.

Caution: Avoid spilling battery electrolyte into the bilge and avoid getting any salt water in the battery. If this should occur ventilate extremely well since poisonous gas will be given off.

2.8-2 Battery Switch

Since many skippers of cruising auxiliaries prefer a two battery system, Cape Dory 27's 28's and 30's are equipped with a battery switch that will accomodate dual betteries. A location for the second battery is also provided in the saillocker.

This spare battery is commonly reserved for engine starting duty. Once the engine is started the alternator is allowed to fully charge the starting battery, then the switch is thrown to the other battery for charging. NEVER TURN THE BATTERY SWITCH TO THE OFF POSITION WHILE THE ENGINE IS RUNNING. This can seriously damage the alternator or regulator.

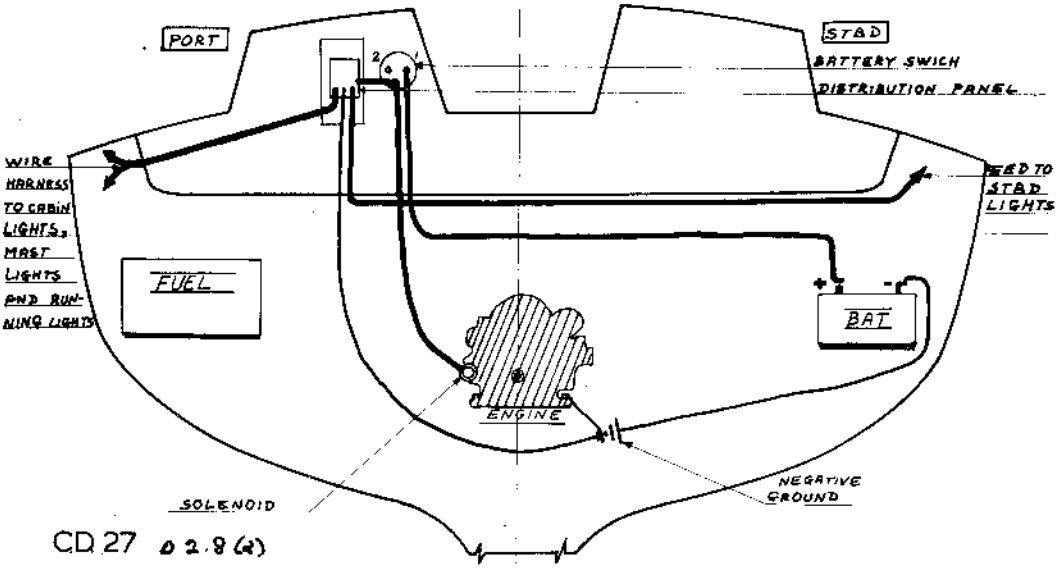
2.8-3 Fuse Panel and Circuits

(refer to drawing 2.8-3)

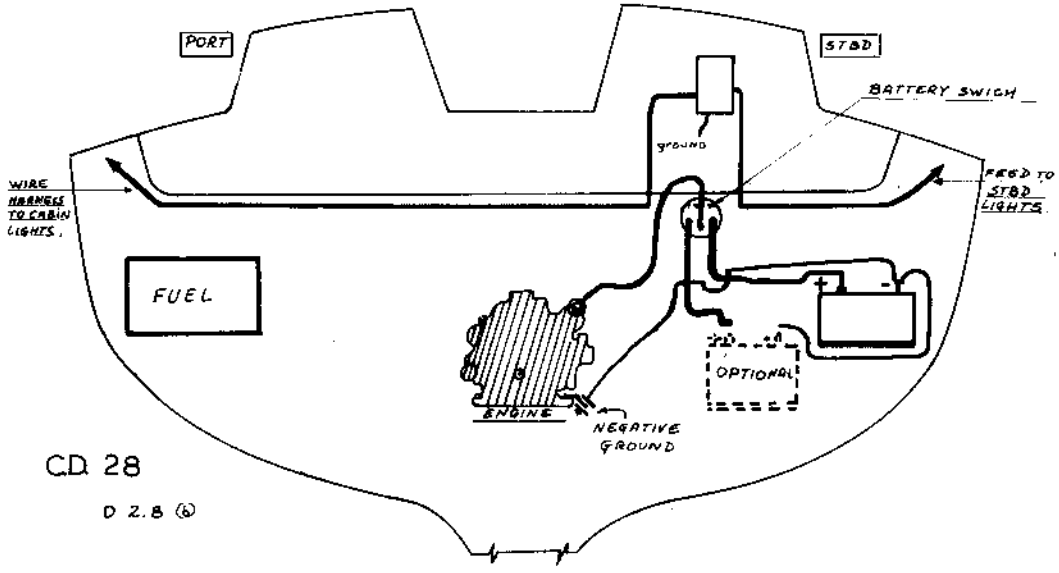
Other than the Typhoon all Cape Dory models are equipped with a fused electrical distribution panel. The function of each toggle switch is labeled on the panel.

1. cabin lights - this switch activates circuits to all interior lights. Each light also has an on/off switch.

2. running lights - this switch activates circuits to the

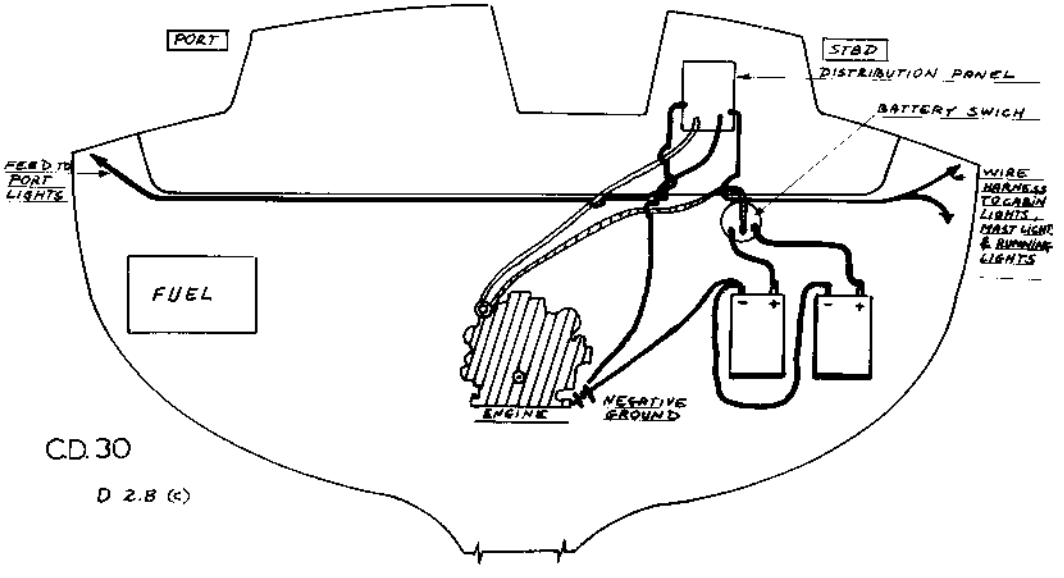


CD 27 D 2.8 (a)



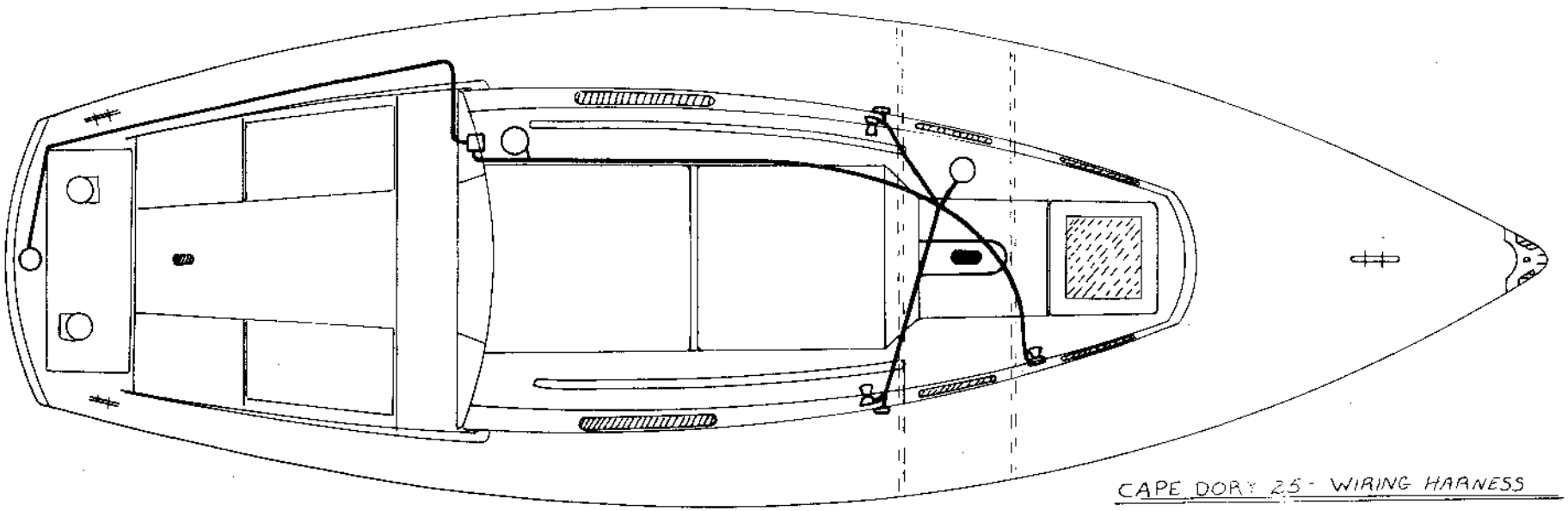
CD 28

D 2.8 (b)



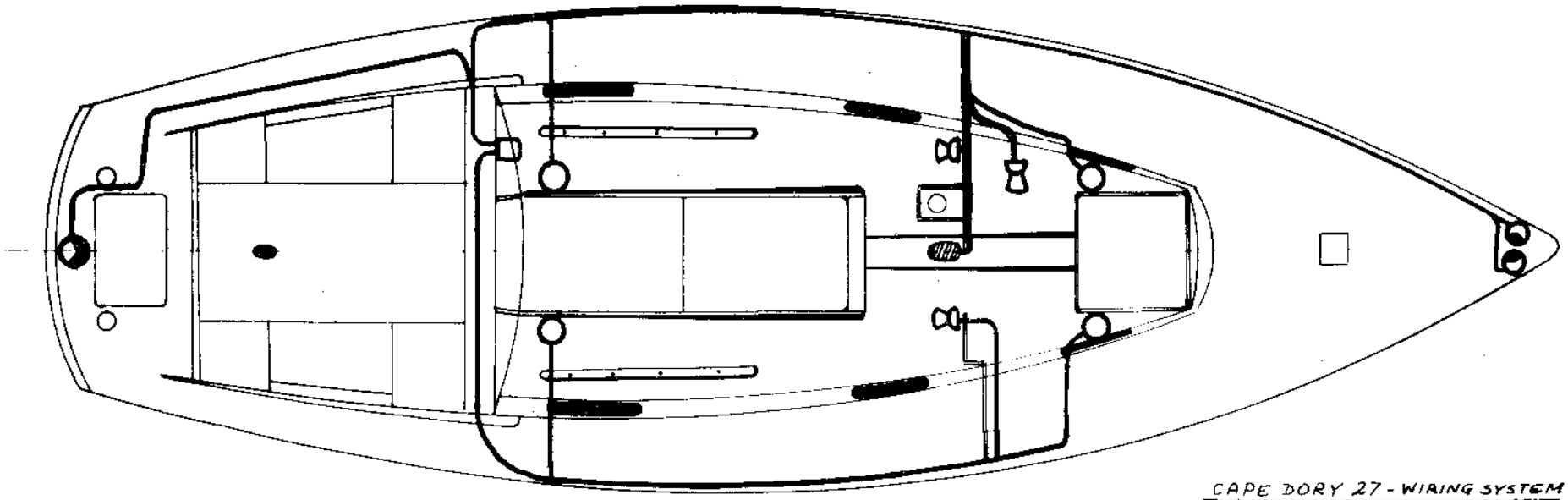
CD. 30

D 2.8 (c)



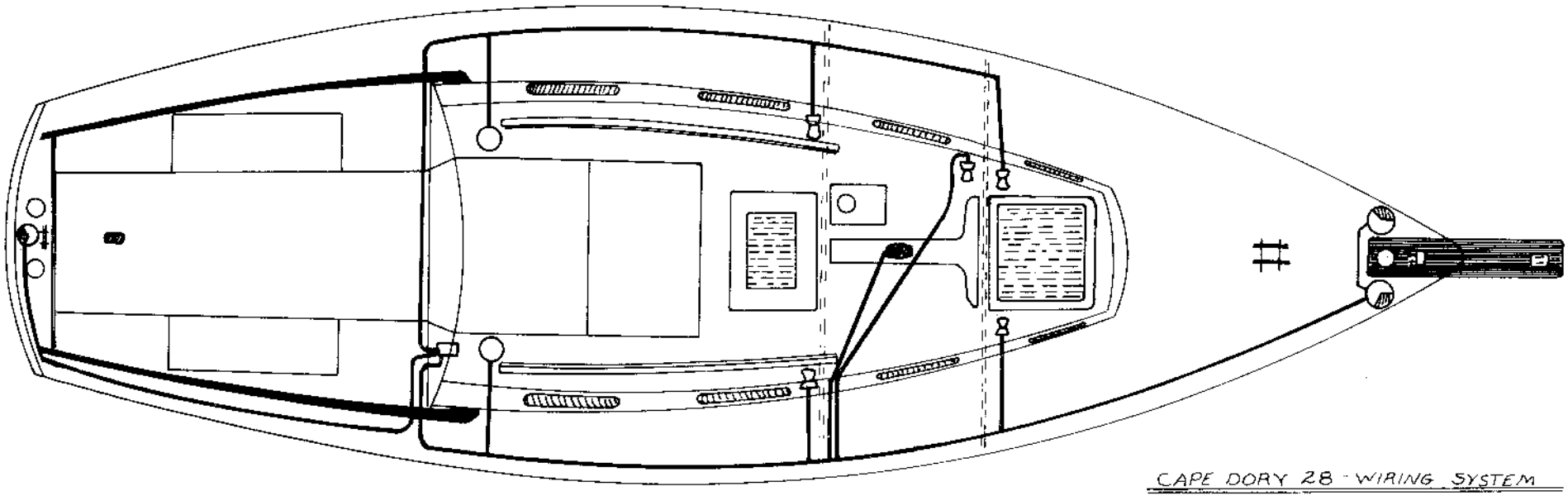
CAPE DORY 25 - WIRING HARNESS

D 2.8-3 (a)



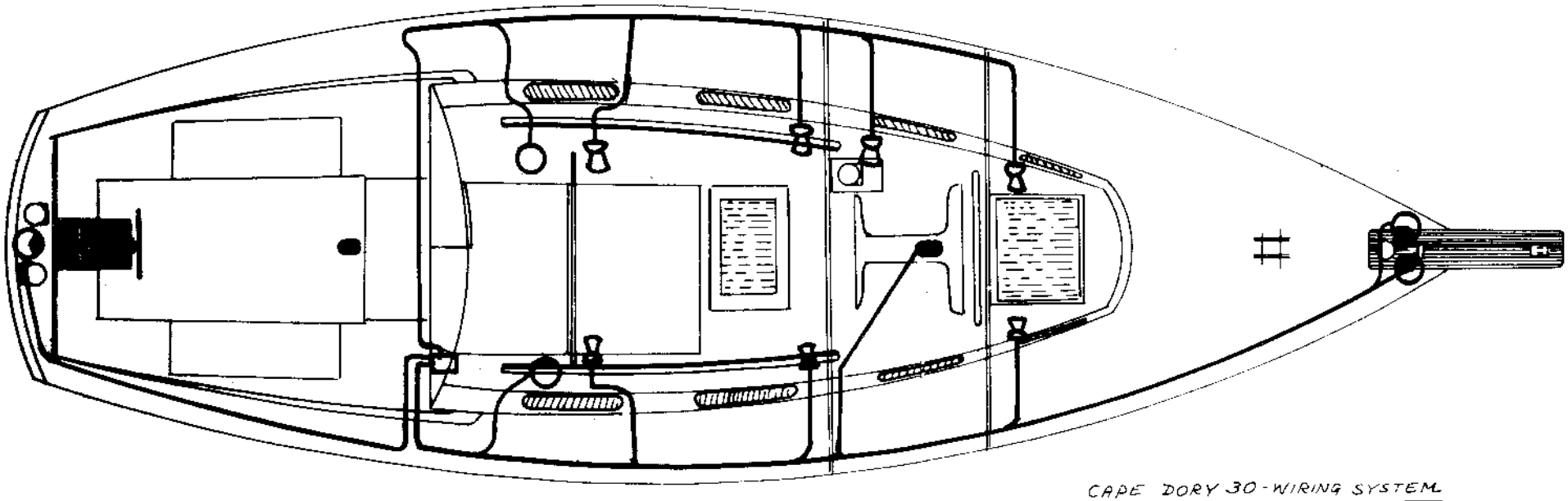
CAPE DORY 27 - WIRING SYSTEM

D 2.8-3 (b)



CAPE DORY 28 - WIRING SYSTEM

D 2.8-3 (c)



CAPE DORY 30 - WIRING SYSTEM

D 2.8-3 (d)

red and green lensed, (port and starboard) running lights and the white lensed stern light.

3. bow light - this switch activates the circuit for the white lensed 20 point light on the mast which is used in conjunction with the running lights when motoring or motorsailing. This light is also a handy method of illuminating the jib in order to check sail trim or to ensure recognition by another vessel.

4. spreader or deck light - this switch activates the circuit to the mast light that illuminates the foredeck.

5. Several spare switches are provided on each panel for use with bilge pumps, compass lights, radios, etc.

Activate only those circuits required in order to conserve the battery charge. Switch all circuits to the off position when leaving the boat unless you have an electric bilge pump which you wish to leave on.

Caution: Do not replace panel fuses with larger sizes. If for some reason fuses are failing determine the cause for the overload and correct. Connections behind the panel can be inspected and serviced by removing the fuse panel from the bulkhead. Remove the four corner screws holding the panel in place and gently remove the panel from the bulkhead.

Wiring for lighting circuits is twisted AWG # 16 with insulation. Engine starter motor wiring and ground wire is AWG # 3 for ground and # 4 for positive. The lightning grounding is AWG # 8 wire.

Check engine wiring connections frequently and clean and tighten them if necessary. Electric start outboard motors with alternators should be installed using wire sizes recommended by the motor manufacturer.

2.8-4 Lightning Ground

Cape Dory 27's, 28's, and 30's are equipped with a lightning ground system which connects shroud and stay chainplates to an underwater metal plate mounted on the hull using AWG # 8 wire. Since no one can predict where or how powerfully lightning may strike, exercise caution. During a lightning storm refrain from touching large metal objects such as shrouds, mast, stanchions, pulpit, etc. as these may attract lightning.

2.9 Engine and Propulsion System

You have been provided with an instruction manual for the engine in

your Cape Dory, or the manufacturer of the outboard which you select will provide you with one.

In the case of the boats equipped with inboard power, which is exclusively diesel with Cape Dory, we have just a few suggestions which will probably repeat what the owner's manual says:

1. Familiarize yourself thoroughly with the starting, running and stopping procedure before you leave the dock. Cape Dorys equipped with Volvo engines are shut off by a "T" handle control on the aft cockpit bulkhead. Yanmar powered Cape Dorys are stopped by moving the throttle slightly aft of the vertical position. In both engines this shuts off the fuel supply.

2. Be sure that you are using clean water-free fuel and that your filters are kept clean.

3. Diesel fuel is flammable. Treat it with respect.

4. Make sure that you do not put gasoline in your fuel tank in error. Marine water-free diesel fuel oil is the only acceptable fuel.

5. Be sure that you put fuel in the fuel tank and water in the water tank.

6. Be sure that cooling water is coming out of the transom exhaust port, that the cooling water seacock is open and that the screen is free of growth and debris.

7. Carefully follow the recommended winterization procedure included in the engine manufacturer's bulletin.

8. See section 3.3 for recommended fueling practice.

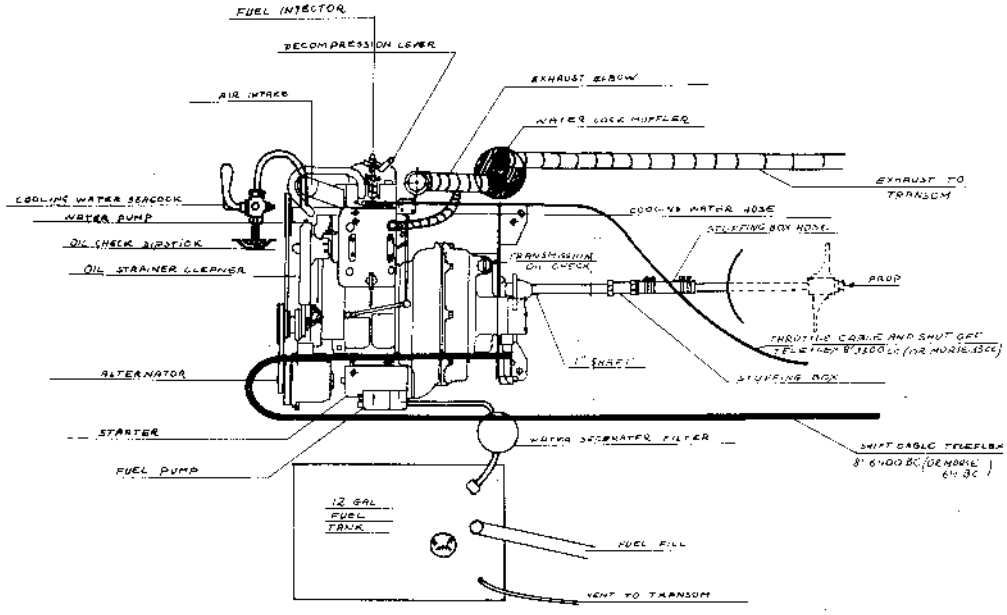
9. Read the engine owner's manual carefully.

10. **Refer to drawings 2.9 a, b, c, d, and e.**

CAPE DORY 27' - YANMAR YSB-8 DIESEL

TOP VIEW

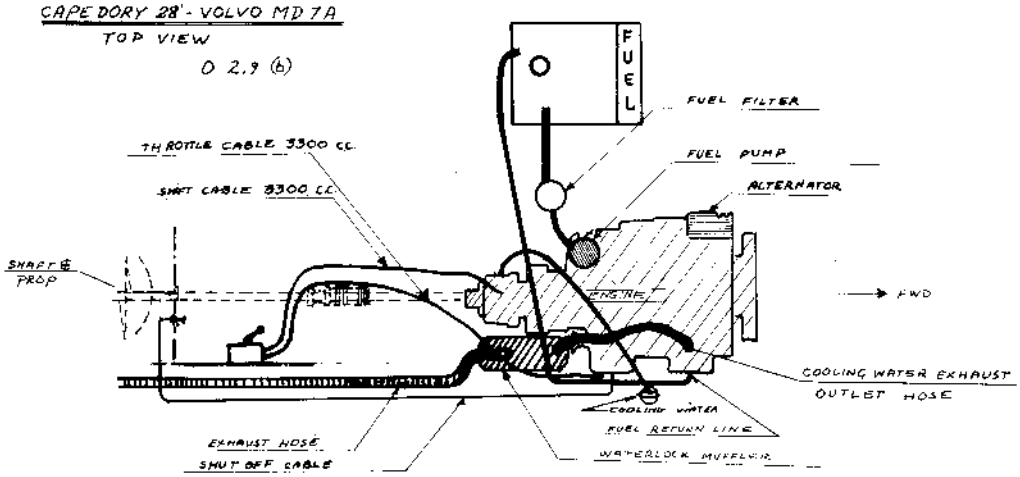
D 2.9 (a)

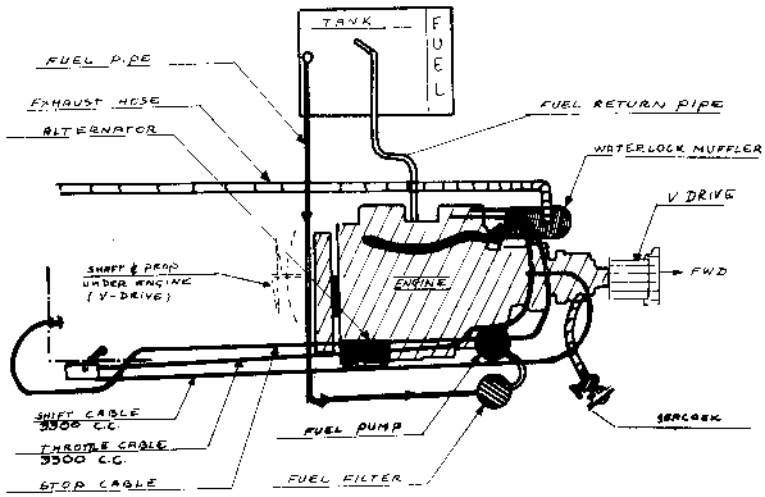


CAPE DORY 28' - VOLVO MD 7A

TOP VIEW

D 2.9 (b)



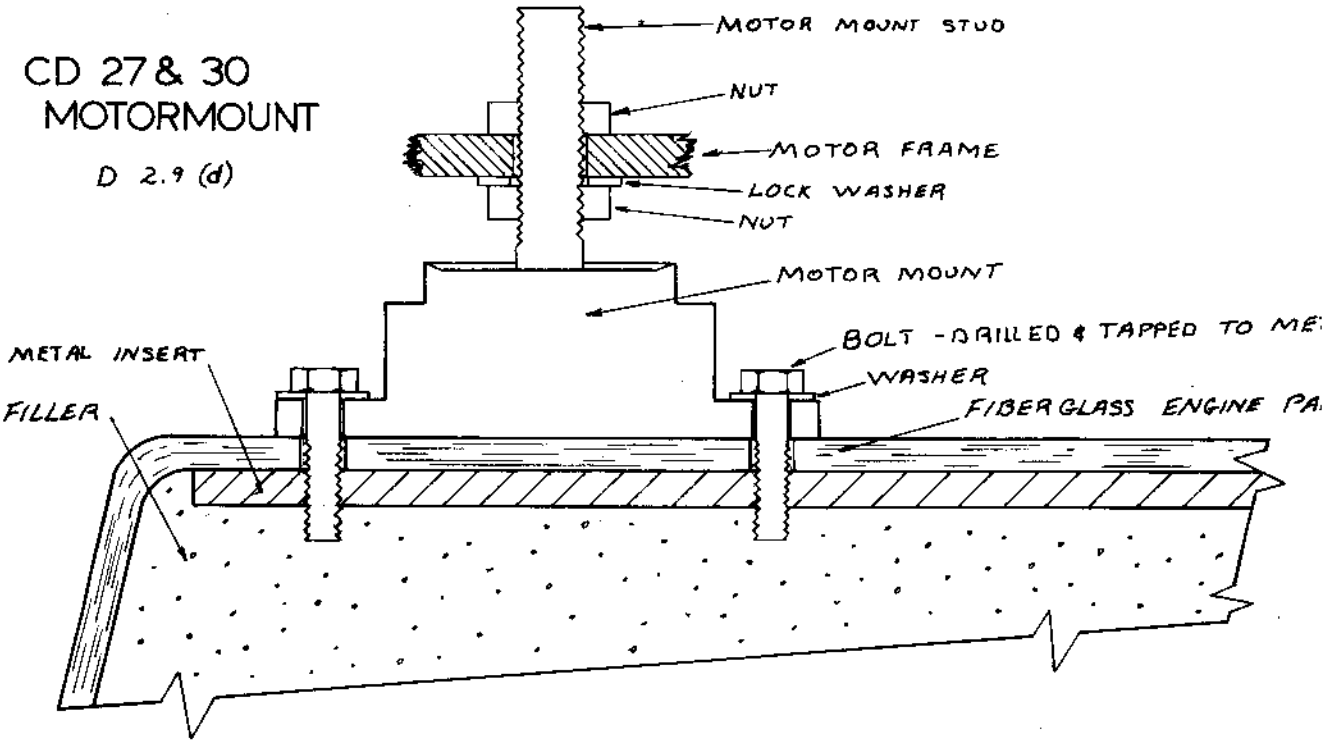


CAPE DORY 30' - VOLVO MD 7A V-DRIVE

TOP VIEW D 2.9 (c)

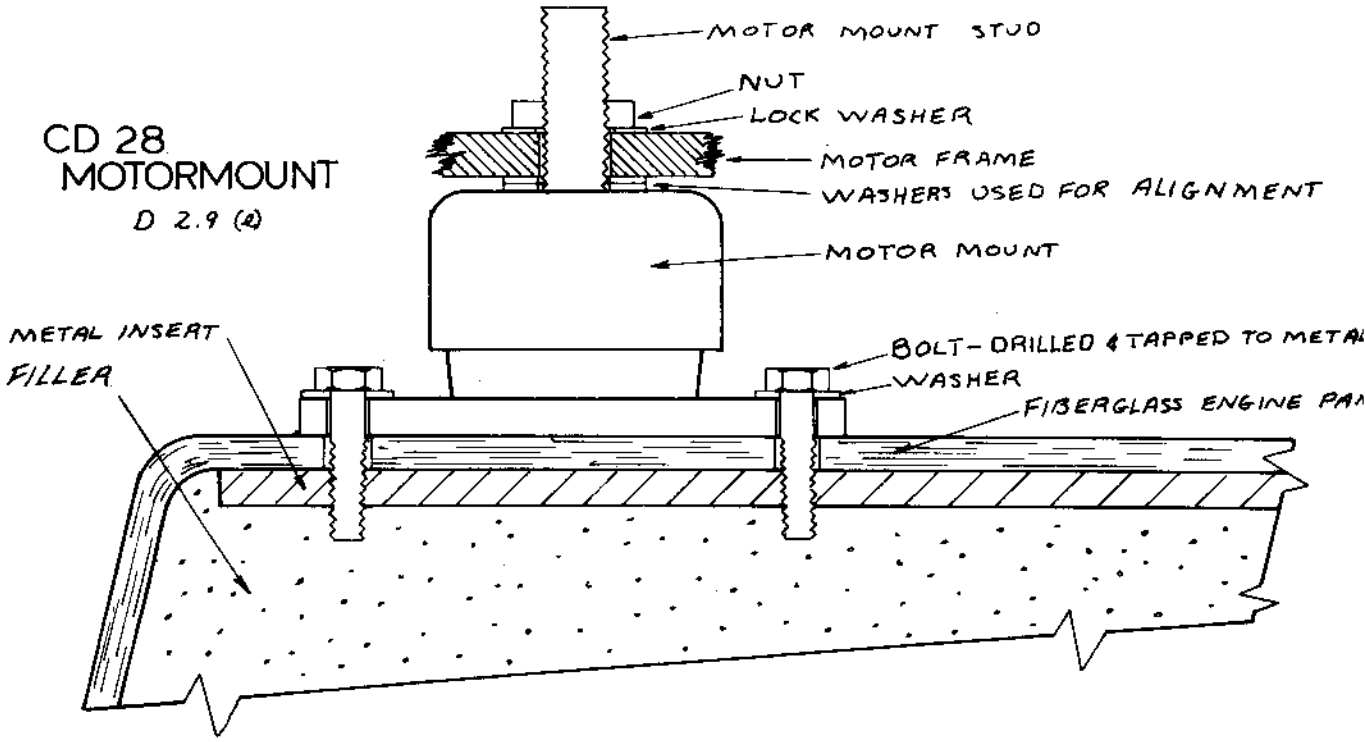
CD 27 & 30 MOTORMOUNT

D 2.9 (d)



CD 28 MOTORMOUNT

D 2.9 (d)



2.9-1 Propeller Shaft Alignment

Propeller shaft alignment is extremely important to the performance of your diesel auxiliary. Every Cape Dory boat has its engine aligned on the bed before it leaves the factory. The engine may shift on its bed, however, during transport or launching. As part of the commissioning procedure your dealer should recheck this alignment. Alignment should also be checked and adjusted every year or whenever vibration seems to be a problem. Proper alignment will not eliminate all vibration but is an important factor in reducing it.

The preferred method of checking alignment is to disconnect the shaft coupling from the engine and measure the gap between the coupling halves with a feeler gauge.all around the perimeter of the coupling halves. The maximum difference in measurements should be no more than .005". Engine alignment can be corrected by repositioning the engine on the mounts or by placing washers or shims under the mounts.

Care must be taken when reassembling the coupling to see that the key is properly inserted and that the set screws are wired in place.

2.9-2 Stuffing Box

The packing box gland (stuffing box) is a critical item in the performance and safety of your boat. Waterproof bearings have not been perfected, hence all boats are fitted with stuffing boxes that "control" the leakage. The word "control" is important since the stuffing box must leak to lubricate itself and the bearing. (see drawing D 2.9-2)

After the stuffing box is broken-in a drop of water every 10 seconds or so with the engine running is acceptable.

Frequent checks of the hose clamps and stuffing box should be made.

2.10 Interior Maintenance

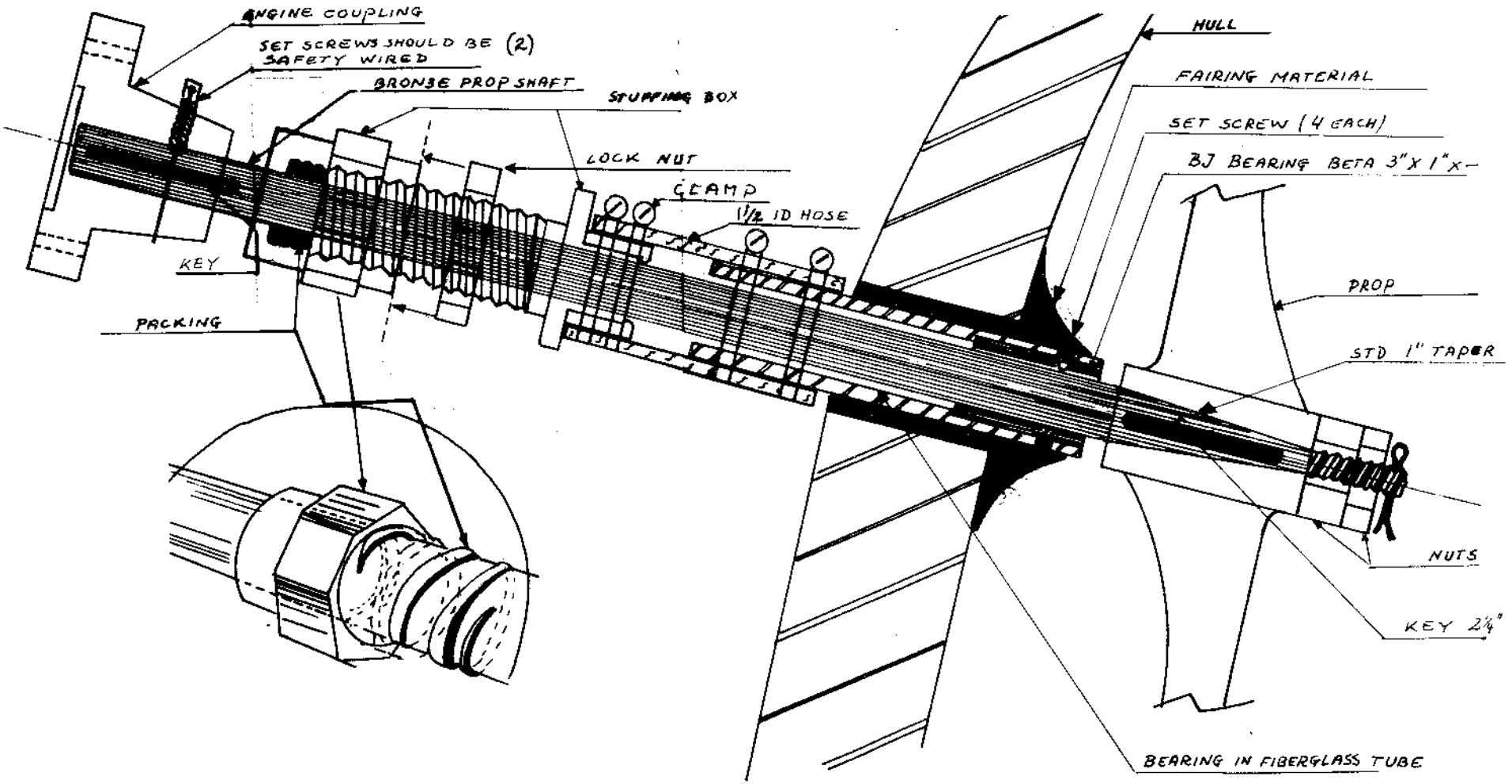
Periodic cleaning is essential to keep the interior of your boat clean and bright. Choose sunny breezy days for your boatkeeping chores as sun and fresh air are great help in drying and airing interior cushions, etc. while you continue with chores below; they also contribute to your enthusiasm for the task!

2.10-1 Cushions

Cloth covered interior cushions on Cape Dory boats are made of nylon fabric. These cushions may be kept clean by washing

TYPICAL SHAFT DETAILS

D 2.9-2



with a 50/50 solution of Lestoil and water. Sponge this solution into the cushions as you would shampoo unholstered furniture. Rinse with clear water in a similar fashion and blot excess moisture remaining with a clean cloth or towel. Cushions must be dried thoroughly after cleaning. Do this type of cleaning on warm, sunny days when cushions may be thoroughly dried outside in the sun.

Vinyl interior cushions and cockpit cushions should be cleaned with a commercial vinyl upholstery cleaner. Follow the manufacturer's instructions regarding the use of these products. To prevent the growth of mildew beneath vinyl cabin cushions, elevate them when leaving the boat to allow air to circulate. Remove traps on boats so equipped so lockers will be aired.

2.10-2 Ice Box

The ice box on your Cape Dory is designed to drain water from melted ice through scuppers into the bilge. Because small food particles, juices from meats, etc. may also drain into the bilge, it is wise to use a name brand bilge cleaner in the bilge as needed or every three to four weeks (depending on how frequently you are using the ice box). Follow the directions for use which accompany the product which you select.

Another alternative is to fit a plastic gallon jug on the end of the ice box drain hose. Periodically dump the melted ice out into the sink.

Food items should not be left for long periods of time in a closed ice box without ice. Spoilage, odors, mold and mildew will result. Plan to clean out your ice box (both ice and food items) at the end of each sail or cruise when you are leaving the boat for an extended period of time. Remove the ice box cover to permit thorough drying. Clean up any spillage of food in the ice box, etc. to prevent blocking of the scuppers and drainage of this material into the bilge.

Clean the fiberglass interior surfaces of your ice box periodically with a sponge dampened with a water and bleach solution (this will help to prevent mildew and odors in the ice box).

2.10-3 Ports

Ports may be cleaned with any household window cleaner and a soft cloth. Do not use strong solvents on plexiglass ports.

2.10-4 Carpet (optional equipment)

Carpeting on Cape Dory boats is foam-backed nylon. It may be laundered in a commercial-type large capacity machine with mild detergent and tumble dried on low heat.

2.10-5 Curtains (optional equipment)

Boats shipped prior to the 1978 model year have 77% cotton 23% acetate curtains. These curtains should be dry cleaned.

1978 model year boats' curtains are of preshrunk polyester cotton blend material. They may be machine washed on gentle cycle with mild detergent and warm water or they may be hand washed. Tumble dry on low heat.

2.10-6 Stainless Steel Sinks

Stainless steel sinks may be cleaned with any stainless steel cleaner according to the manufacturer's instructions or with a non-abrasive cleaner or soft cloth and sponge.

2.10-7 Head

The plastic seat and vitreous china bowl of your head should be cleaned with a non-abrasive cleanser and sponge or soft cloth.

2.10-8 Interior Wood Surfaces

Interior wood trim should be oiled periodically to maintain its appearance with Pentavar or other good quality teak oil. The interior paneling on the Cape Dory 25, 27, and 28 has a phenolic veneer. Surface scratches should be filled with a touch-up crayon or seam filler. "Weldwood Blendstick # 707 Africa Mahogany" and "# 724 Teak" are good color matches. Minor surface scratches in the teak veneer on the Cape Dory 30 may be gently sanded out with 200 grit sandpaper.

Scratched formica surfaces can be touched-up using Seamfil # 901 white, # 933 teak or # 931 Maple for the butcher block pattern.

2.10-9 General

Dirt, hair, etc. should not be washed into the bilge during any cleaning process as these may plug the bilge pump strainer and prevent it from functioning when needed. Use a dust pan to collect dirt, etc. when cleaning the cabin sole of your boat.

Raise covers of lockers when leaving boat to permit adequate ventilation and prevent mildew should these contain moisture. There are scuppers in all lockers for drainage of moisture. Be certain that these are not clogged and remove excess moisture which may have collected in lockers with a sponge.

2.10-10 Stoves

Cape Dory boats other than the Typhoon and 25 come equipped with galley stoves as standard equipment. The manufacturers of the stoves include owner's manuals with the appliance. Read it carefully and make sure that everyone who uses the stove understands its operation. Remember alcohol fires can be extinguished with water or Type B fire extinguishers. Kerosene fires must be extinguished by smothering or with Type B extinguishers.

The following precautions refer to all types of stoves. Refer to owner's manual for specific instructions.

1. Never leave lighted stove unattended.

2. Never leave a stove while it is still hot. Remember alcohol can burn with an almost invisible flame.

3. Always release pressure in the fuel tank when leaving

4. Close fuel valve (if applicable) in case of emergency.

5. Exercise caution when priming burners. Improper priming is one of the most common causes of galley fires.

2.11 Maintaining Teak

Teak above deck on Cape Dory yachts has been sanded and oiled to a full golden hue before it leaves the assembly area. As it gets exposed to sunlight and drying conditions, the woods begins to take on a grey appearance that will eventually lead to surface deterioration of the wood. Teak which is ignored will eventually begin to split and the grain will lift.

Contrary to what you may have heard, teak is not a miracle wood that is totally maintenance free. It is easy to maintain. There are a number of excellent teak cleaning and sealing preparations on the market. We suggest that you ask your sailing friends (who have teak you admire) for their suggestions. (Many excellent teak cleaning and sealing products are not available nationwide, so use the best available in your area).

The teak may also be varnished; put three to six coats on initially; plan to apply another coat at midseason, and a final coat prior to winter layup. Follow the manufacturer's directions for the varnish which you purchase (use only quality marine varnish).

3.0 SAFETY AND EQUIPMENT

Federal regulations require certain safety equipment to be aboard your boat (personal and throwable flotation devices, fire extinguishers, horn, whistle, etc.). Know what equipment is required and have it aboard and properly stowed before you cast off for the first time.

In addition to the equipment requirements outlined here, the U. S. Coast Guard can provide additional information and answer your questions. It is highly recommended that, although not required, certain additional items be kept aboard:

1. an anchor of appropriate size and design and rode of good quality, appropriate size and length
2. first-aid kit
3. compass
4. paddle
5. flashlight
6. up-to-date charts of the waters to be sailed

3.1 Fire extinguishers are not standard equipment on your Cape Dory; they are to be provided by you, the owner. Fire aboard any boat is a real and serious hazard. It is important to take adequate precautions against fire and to be well prepared to extinguish one quickly and thoroughly should it occur. For this reason, U. S. Coast Guard approved fire extinguishers of the appropriate type and size (check U. S. C. G. regulations) should be installed immediately.

The permanent location of fire extinguishers where they are easily accessible (near areas where fires most likely are to occur -- engine, fuel tanks, and galley) is important. They should not be located where fire may prevent their use. At least one extinguisher in a cockpit locker (reachable from outside the cabin) is an excellent precaution.

3.3 Fueling

Appropriate safety precautions are important before, during, and after fueling. Before fueling the first time, be familiar with the instructions provided by the engine manufacturer.

1. Fuel docks should be approached at reasonable speed without wake. Observe posted speed limits and instructions. Be considerate of others using the docks, and watch for a dockmaster or hand who may give you instructions. Maintain control of your boat at all times and have dock lines ready for use before your approach in the event that these are unavailable at the dock.

2. Use bow, stern, and spring lines to properly secure your boat.

3. Close and secure all hatches and ports.

4. FORBID SMOKING while taking on fuel on or near fuel docks. Completely extinguish all smoking materials well in advance of approaching the docks; do not recommence until you are well clear of it after fueling and conditions aboard are safe to do so.

5. Extinguish any other open flames aboard and see that all equipment (e.g. engine, stove, cabin heater, radios,and lights - both lanterns and electrical lights, etc.) which may generate heat or sparks of any kind are turned OFF... Turn off all switches for branch circuits so that there are no live electrical circuits. Main switch should also be turned off AFTER engine is stopped (to avoid alternator damage).

6. If possible, crew members not involved in fueling should leave the boat.

7. An adequate fire extinguisher (USCG approved for Class B fires) should be readily available in case of emergency.

8. Remove fill fitting: Be certain that you are putting fuel in the fuel tank. Note the approximate amount required to fill the tank by either looking at the level gauge if one is supplied or use a clean stick to determine the level of fuel in the tank.

9. Be certain (double check) that you are taking on the appropriate fuel, either diesel or gasoline. Errors of this type do occur and will result in serious engine damage if not immediately detected and corrected.

10. Maintain contact between the nozzle of the fuel hose and the fill pipe rim to prevent generation of static electricity sparks.

11. Fill slowly to about 85% of capacity; do not overfill (allowance must be made for thermal expansion of fuel without overflow).

12. Replace and secure fill fitting after fueling. Carefully clean any spillage. Check fuel tank vents at stern for overflow. Check below decks and in bilge for fumes or leakage. If fumes or leakage are present, adequately ventilate and clean areas completely before proceeding.

13. Open all ports and hatches fully for ventilation.

14. Do not fuel during electrical storms; avoid fueling at night or in rough water, except in emergencies when extreme caution should be exercised.

15. Note the diesel fuel is flammable; handle it accordingly in a cautious manner.

16. Those Cape Dory owners with outboard engines should note that perhaps the safest fueling practice, when possible, is to remove the tank(s) from the boat before filling.

3.4 Weather Forecasts

The U. S. Coast Guard is in the process of discontinuing the display of weather signals at its stations and other locations along all coasts in favor of the NCAA weather broadcasts which are continuously broadcast on weather channels WX-1 and WX-2 (162.40 MHZ and 162.55 MHZ).

Good seamanship requires attention to the weather forecast before leaving port, and while you are sailing. Tune in to VHF weather, and make it a practice to check the broadcast on a regular basis in case there are changes in the forecast.

3.5 Boating Safety Organizations

Every sailor was once a beginner. Very few were born into sailing families and learned at their parents' knee. Therefore, it is to everyone's benefit that there are several fine non-profit organizations that are ready to teach interested persons everything from basic seamanship and piloting to celestial navigation.

Two of these organizations are:

United States Power Squadrons (U.S.P.S.)
United State Coast Guard Auxiliary

3.6 Charts

There is no substitute for complete and up-to-date charts.

The Coast Guard is constantly making improvements on the aids to navigation which change buoy locations, numbers, configurations, etc. These changes are reported in the responsible Coast Guard District's Local Notice to Mariners, and are on display at all NOAA Chart Distributors. Before embarking on any trip outside your home port, make certain that you have the latest editions of the chart, and that they are fully corrected.

4.0 WINTERIZING

Winterizing is a relatively simple procedure on Cape Dory Yachts. We are assuming that the boat will be dry stored in the following instructions. If you should decide to wet store your boat, be sure to take adequate precautions against water freezing in the engine and plumbing systems on your boat.

4.1 Blocking the hull

A good boatyard is, no doubt, expert at properly supporting the hull. Check to make sure that the weight of the hull is resting on the keel. The purpose of cradle bulkheads or poppets is to balance the boat in an upright position, not to bear the weight of the boat.

Before hoisting out show the boatyard the profile of the hull (drawing D 4.1) so that they will know how to position crane or straddle hoist straps. The usual locations for the straps of a typical marine travel lift are just forward of the rudder heel bearing and in the hollow of the fore foot. Typhoons and CD 25's are NOT to be lifted by the eyebolt in the ballast. These were used at the factory to place the ballast in position in the hull during the boat's construction.

4.2 Cockpit Scuppers

Flush with fresh water and leave valves in the open position so that hoses will not fill with rain water and freeze.

4.3 Ice Box

Clean ice box thoroughly and leave open.

4.4 Stove

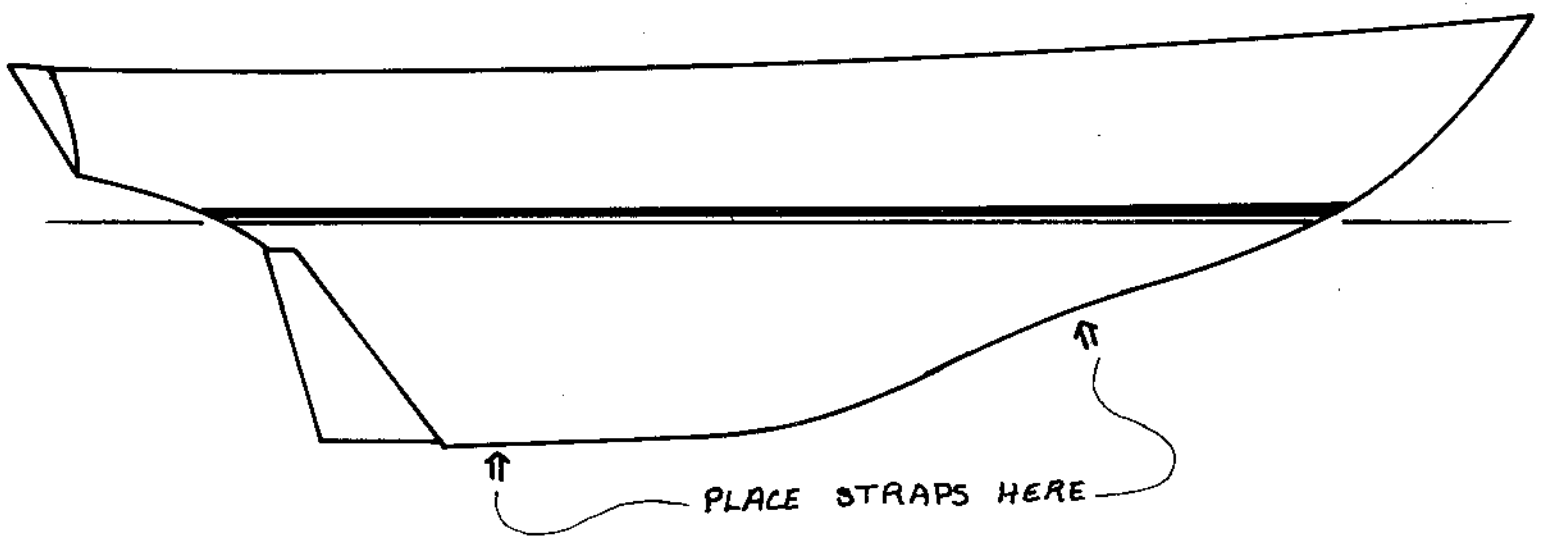
Clean stove thoroughly including burners. Release pressure in fuel tank and leave tank empty.

4.5 Electrical System

Remove battery(s) from boat and store in a warm dry location off a cement or stone floor. They should be completely charged before storing or left on trickle charge.

The balance of the electrical system requires little maintenance. If you wish, each bulb can be removed and the light fixture given a spary of water dispersant such as "WD40", "CRC" or similar products. The main switch and fuse panel can also be treated this way to minimize corrosion.

LIFTING STRAP PLACEMENT



D 4.1

NOTE: BE CAREFUL NOT TO LOCATE THE AFTER STRAP UNDER THE RUDDER

4.6 Propeller

Examine the propeller for any damage or nicks. If evidence of either is apparent have the propeller removed and trued.

4.7 Head

Follow manufacturers directions closely. Remove any water to prevent from freezing.

4.8 Water Tanks

Pump tank(s) as dry as possible, then add a non-toxic water system winterizer that your local marine hardware store will recommend. (Caution: do not use anti freeze or other poisonous substances). Pump this solution through the entire fresh water and drain system.

4.9 Engine

Follow the instructions in the engine owners manual supplied by the manufacturer.

Disconnect engine cooling water intake to make sure that no water remains in the line. Reconnect line and secure hose clamps.

4.10 Fuel Tanks

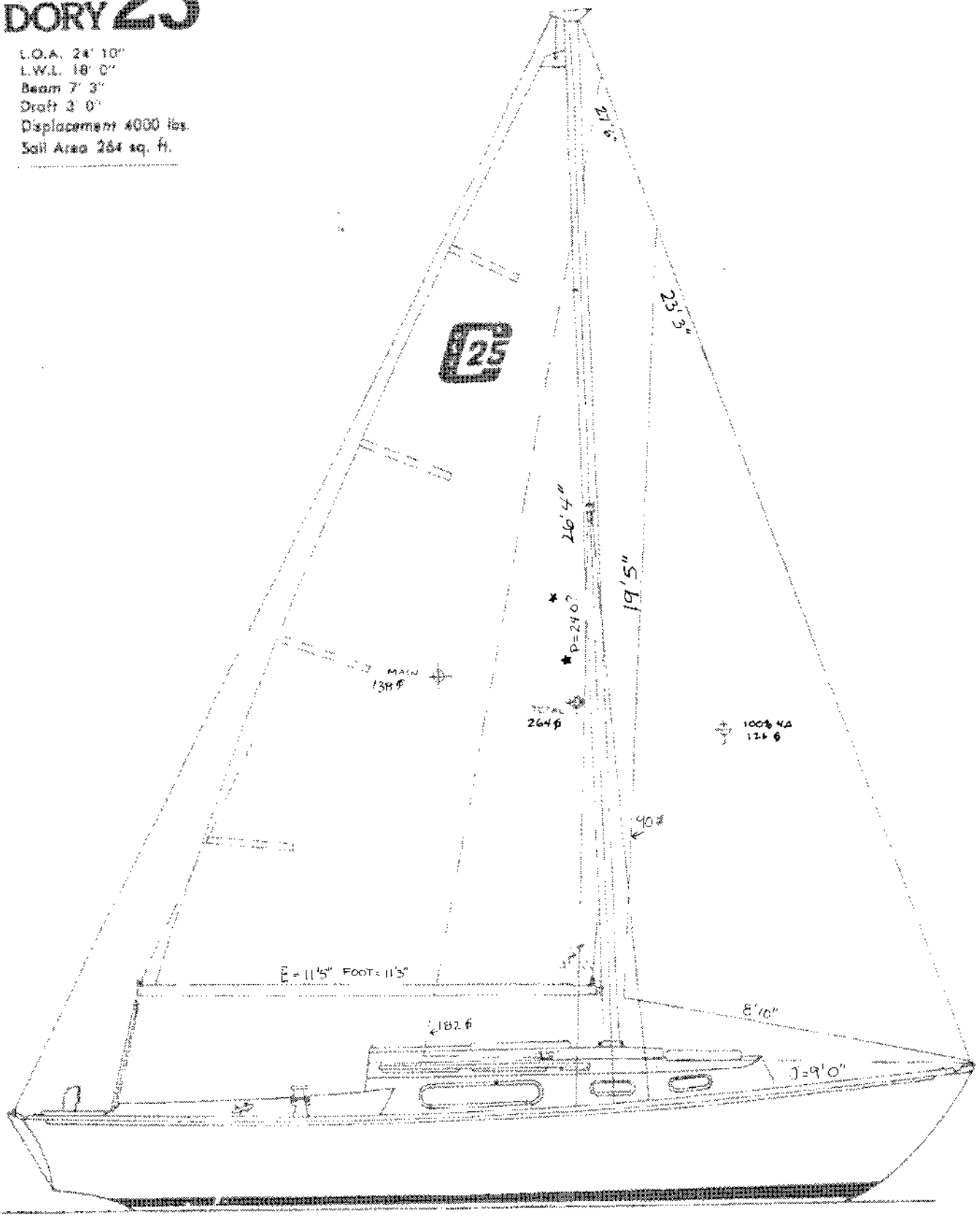
The best way to store a fuel tank is empty. Partially filled tanks invite condensation. Completely filled tanks leave you with old fuel in the spring with its possible gum deposits. Much has been written lately on this subject and new products are being developed to prevent gum deposits. Keep informed and consult your dealer or shipyard for recommendation.

4.11 Covering

It is far better to store a boat under cover than to leave it open to the elements. The teak trim will fare better during the winter and the boat will not be subjected to the pressure of freezing water, a common cause of gel coat stress cracks. If your boat cover is durable, open a couple of ports to allow air to circulate below decks.

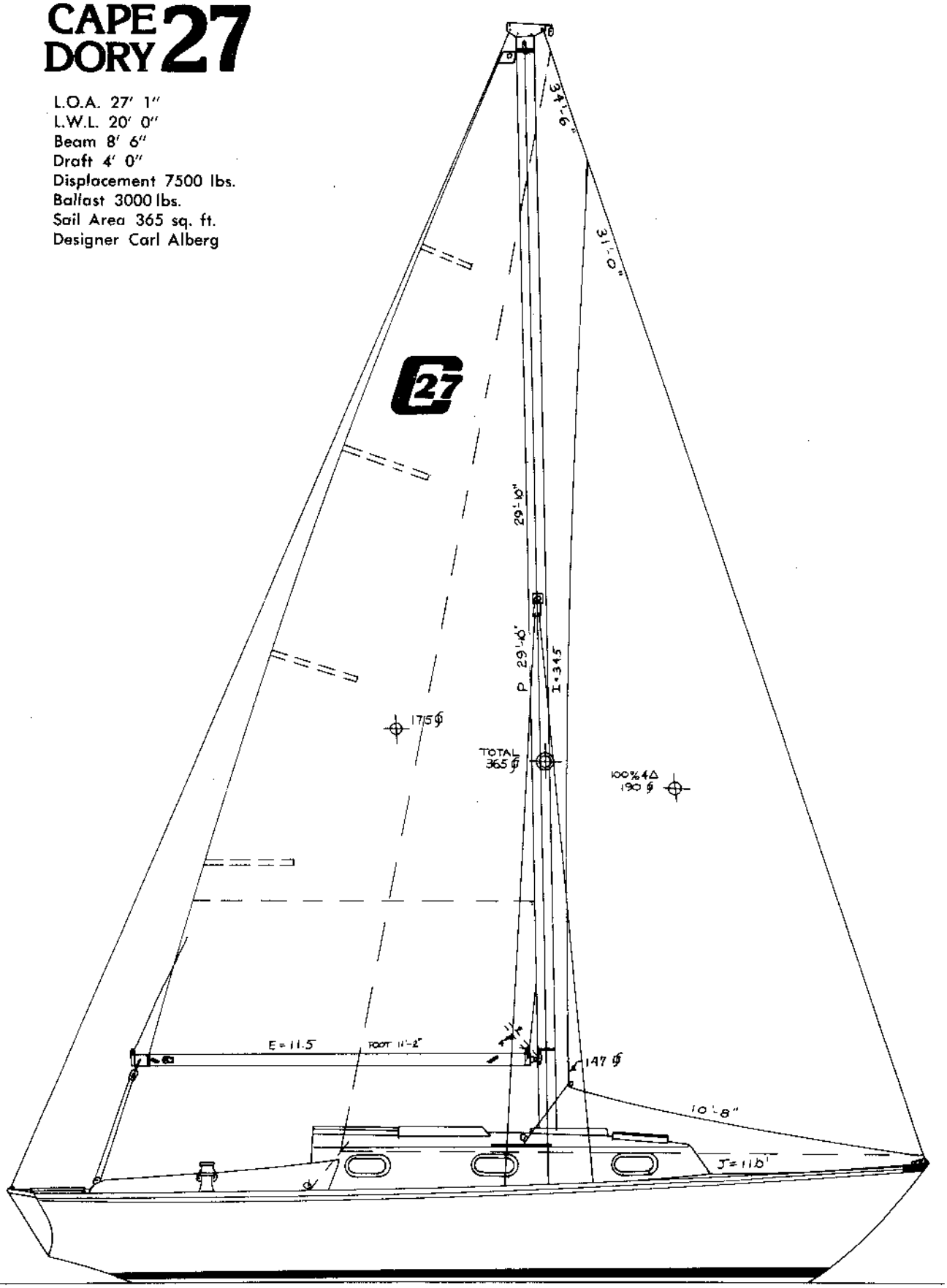
CAPE DORY 25

L.O.A. 24' 10"
L.W.L. 18' 0"
Beam 7' 3"
Draft 3' 0"
Displacement 4000 lbs.
Sail Area 264 sq. ft.



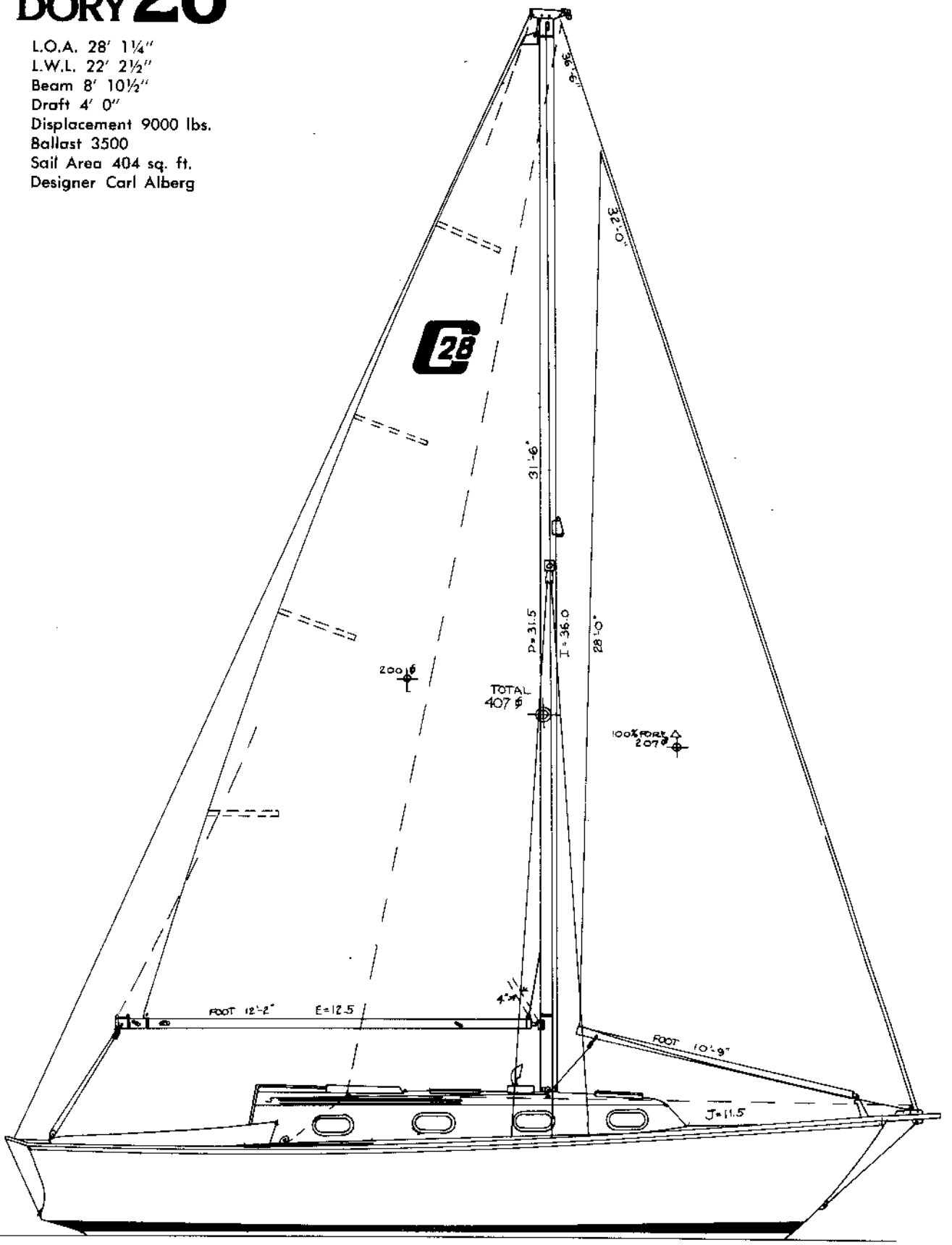
CAPE DORY 27

L.O.A. 27' 1"
L.W.L. 20' 0"
Beam 8' 6"
Draft 4' 0"
Displacement 7500 lbs.
Ballast 3000 lbs.
Sail Area 365 sq. ft.
Designer Carl Alberg



CAPE DORY 28

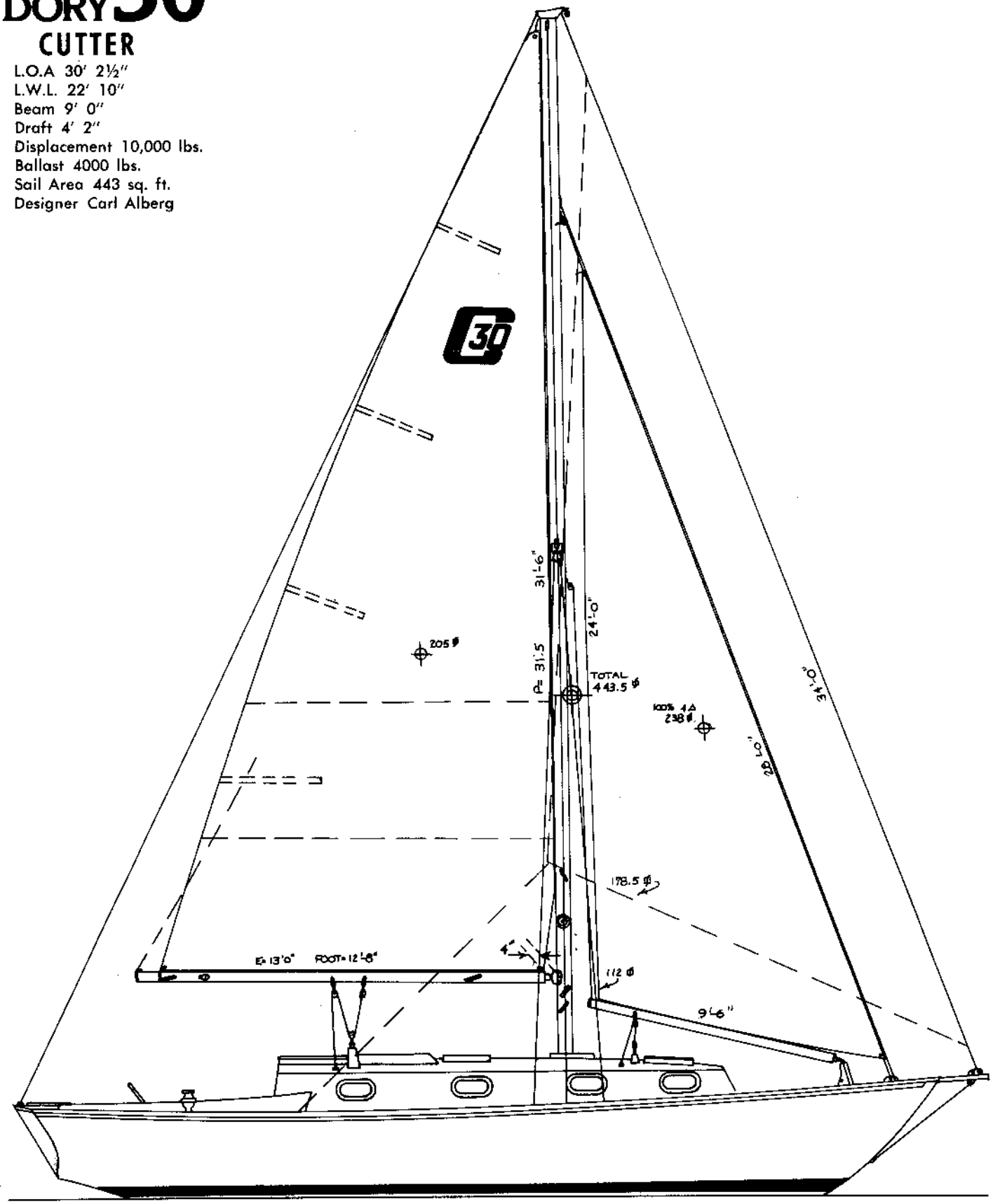
L.O.A. 28' 1¼"
L.W.L. 22' 2½"
Beam 8' 10½"
Draft 4' 0"
Displacement 9000 lbs.
Ballast 3500
Sail Area 404 sq. ft.
Designer Carl Alberg



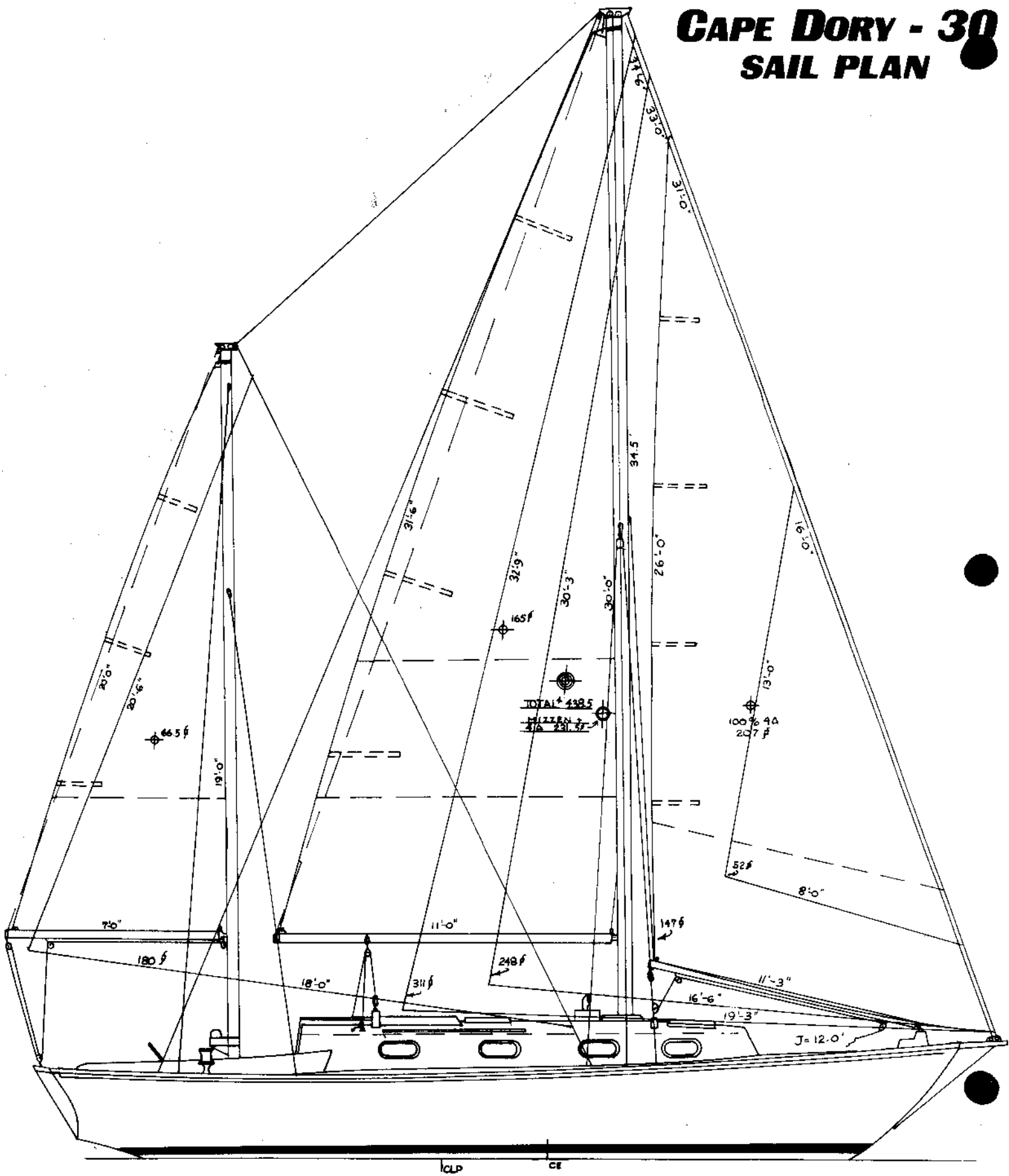
CAPE DORY 30

CUTTER

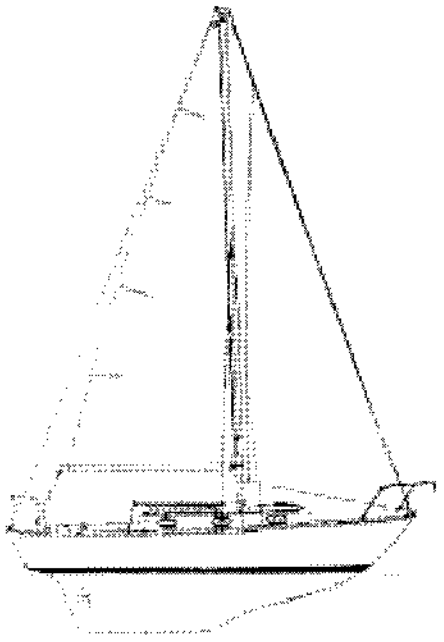
L.O.A 30' 2½"
L.W.L. 22' 10"
Beam 9' 0"
Draft 4' 2"
Displacement 10,000 lbs.
Ballast 4000 lbs.
Sail Area 443 sq. ft.
Designer Carl Alberg



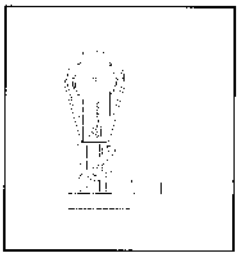
CAPE DORY - 30
SAIL PLAN

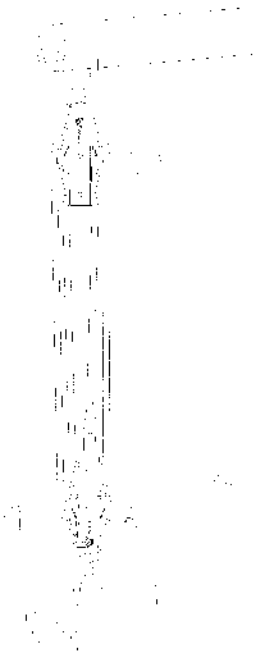


Cape Dory 25



The Cape Dory 25 has different leads for the jib and genoa sheets. The jib sheets are led through a single sheave block forward on the side deck. The genoa sheets lead through a single sheave block aft on the toe-rail. Both blocks are mounted on a stainless steel car to allow for adjusting lead position fore and aft. Both also use stand up springs to help keep the block upright when there is no sheet load.





Cape Dory 25 mainsheet

The Cape Dory 25 started as the Greenwich 24, built by Allied Marine. In 1972, Cape Dory acquired the mold, and the Cape Dory 25 began production. Later, Carl Alberg designed the another 25 footer for Cape Dory, and it was designated the Cape Dory 25D. The Cape Dory 25 uses a 4:1 purchase system for the mainsheet. The mainsheet is attached to a traveler located on the back edge of the cockpit. The system uses two blocks, both of which are fiddle blocks. The bottom block (#1) has a becket, which the dead-end of the mainsheet is attached to. This block also has a cam-cleat to allow for the adjustment of the mainsheet. The bottom block of the mainsheet assembly is attached to the traveler car using a swiveling shackle. The top block (#2) is also a fiddle block, but without the becket or cleat. This block is shackled to a bail at the end of the boom.

The various blocks in the mainsheet system can be easily replaced using the following Wichard blocks:

(1) #84408 fiddle with becket and cam-cleat (#1)
(1) #84405 fiddle with swivel head (#2)

The jib sheet system can also be replaced using Wichard blocks

Parts to replace the jib sheet system:
(4) Wichard #84105 blocks
(4) Wichard 1¼" Stainless Steel genoa cars
(4) Wichard #32540 stand-up springs

Other Equipment

Lazy Jack Wichard	#SP875
Boom Vang Wichard	#SP871
Wind Indicator	#7202

Typical expected Cape Dory 25 rig loads

Wind Speed (Knots)	Mainsheet Load	Genoa Sheet Load		
		150%	135%	100%
10	107	80	72	53
15	240	180	162	120
20	427	319	287	213
30	960	719	647	479
Load data in pounds				

Rig Data
I = 27.60
J = 8.95
P = 24.00
E = 11.42

Something I found @ www.wichard-USA.com

wichard

The following 3 pages were emailed to me. -Thank you, Jeff!

such as [illegible], ... be taken not to overtighten the fasteners as the strength can be [illegible]. Particular attention should be paid to the chainplate fasteners as they are very critical to the safety of the rig. The chainplates were torqued [illegible] at the factory and when recaulking them you should not exceed the torques listed below:

1/2 bolts	300 inch pounds
3/8 bolts	150 inch pounds
5/16 bolts	90 inch pounds

6.17 Tuning the Standing Rigging

The purpose of tuning the rig is to adjust the center of effort of the sail plan fore or aft to obtain a slight weather helm in moderate winds, and to keep it straight without hooks to port, starboard, fore or aft. Properly tuning the rig is an important process which should be attempted only by qualified personnel; consult your Cape Dory dealer.

The fore and aft alignment of your mast can be checked by comparing it to a vertical structure such as a radio tower, chimney, etc. Before checking the mast alignment in this manner, be certain that the boat is resting on her design water line. If the mast is leaning fore or aft, ease the turnbuckle toward which the mast is leaning a few turns, and take up a corresponding number of turns on the opposite turnbuckle. (Note: when adjusting turnbuckles never use excessive force or the turnbuckle may be contorted) Always prevent the upper threaded turnbuckle stud from turning. The Cape Dory 30 ketch has a split backstay with two turnbuckles. Headstays and backstays should never be taken up so tightly that they will not "give" an inch or so if you pull on them with moderate force.

Upper shrouds should also be tightened equally and have about an inch of "give" to them. Forward lower shrouds should have one to two inches of "give", and the aft lowers slightly more.

Under no circumstances, take up the rigging to bar tight tension. Both the mast and the boat can be severely damaged by excessive tension.

Fine tuning of the rig can be completed after the boat has been sailed, and may have to be done again after the boat has been out in strong winds. When sailing, it is important that the mast remain straight and as nearly in column as possible at all times. While sailing close hauled, sight up the mast track and note any mast curve. Does the mast appear to be falling off to leeward at the top, or does it hook windward? Repeat this procedure on the opposite tack.

If the masthead is falling off on both tacks, the forward lower shrouds are too tight and the upper shrouds are too loose. If the masthead hooks to windward, the upper shroud is too tight in relation to the lower on the same side. When sailing to windward, the forward lower shrouds bear a greater load than the after lower shrouds; however, the after lower shrouds on the windward side should never be loose. All shroud tuning should be done from the leeward side. If the rig seems to be equally balanced when you begin, duplicate every half turn from side to side.

On Cape Dory boats with bowsprits, try to keep the bowsprit straight and not bowed up or down. This should be checked while sailing upwind in moderate conditions.

Check to see that all cotter pins or rings are in place and that all sharp edges are taped.

Rigging that has split strands of wire or cracked swage fittings should be discarded and replaced.

6.18 Running Rigging

Because of the recent advances made with pre-stitched dacron line and the age old problem of fish hooks forming in stainless halyards after one season of use, your boat is equipped with pre-stretched halyards. They have gone around the world and received acclaim from almost every notable offshore cruising man.

Periodic inspection of the running rigging will point out any areas of excessive chafe. Often the offending item causing the chafe can be corrected. Otherwise, one way to extend the life of the rigging is to either end for end it or move the shackled end of it up a foot or so every year to move the point of wear away from the sheave, winch or whatever. Only experience will dictate when they need replacement.

Drawings are included to illustrate the correct reeving of the mainsheets for all boats and the club jib sheets on the 28 and 30. Swapping sheets end for end will extend the useful life of a sheet that has started to chafe where it passes a sheave or engages a cam cleat.

6.19 Sails

Sails should be protected from chafe by padding spreaders and other gear or by installing chafe patches on the sails themselves. Spreaders and shrouds can chafe genoas and other overlapping jibs when those sails are sheeted in tightly and can chafe the mainsail when running before the wind. Topping lifts frequently chafe the leach of mainsails.

Inspect your sails frequently and take care of chafed stitching or small tears before they become a major problem. A small utility bag with some thread and a few sail maker's tools on board can come in handy and save you a few dollars.

Sails should also be protected from sunlight as much as is practical. Ultra violet light can break down the dacron in the sail cloth and stitching. Sails that are left furled on booms, jib club booms and forestays without suitable covers are most susceptible to this problem. Suitable sail covers are available from Cape Dory through your dealer.

Mildew is no longer the major concern that it was in the days of natural fiber sails. Your new sails should be dry before folding if for no other reason than to prevent the unsightly growth of this dark mold.

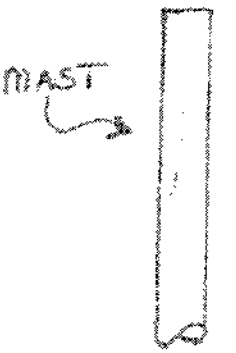
STANDARD MARINE PRODUCTS, Inc.
160 Middlebrook Ave
EAST TAUNTON, MA 02718

VANG SYSTEM INSTALLATION AND RECOMMENDATIONS

BOAT	MAST BAIL	MAST BAIL FASTENERS	BOOM BAIL	BOOM BAIL FASTENERS	X DIMENSION	Y DIMENSION
Y-D	90-10	7/8 x 3" HXHD	SM 291B	4 #10 x 3/8 PHST	3'-10"	2'-6"
Y-40	90-10	3/8 x 3" HXHD	SM 291B	4 #10 x 3/8 PHST	7 1/2"	2'-9"
D-32	90-09	3/8 x 3 1/2" HXHD	90-10	3/8 x 3" HXHD	2"	3'-0"
D-35	90-09	3/8 x 3 1/2" HXHD	90-10	3/8 x 3" HXHD	2"	3'-7"
D-35D	90-07	3/8 x 4 1/4 HXHD	90-10	3/8 x 3" HXHD	6"	3'-5"
D-37	90-07	3/8 x 4 1/4 HXHD	90-09	3/8 x 3 1/2" HXHD	2 1/2"	3'-5"
D-38	90-07	3/8 x 4 3/4 HXHD	90-09	3/8 x 3 1/2 HXHD	4"	4'-0"
D-40	90-07	3/8 x 4 3/4 HXHD	90-09	3/8 x 3 1/2 HXHD	2 1/2"	4'-2"
D-43	90-12	5 1/2 x 5/8 HXHD	90-07	3/8 x 4 3/4 HXHD	7' 10"	4' 3"
D-45	90-12	5/8 x 5 1/2 HXHD	90-07	3/8 x 4 3/4 HXHD	7' 10"	5' 0"

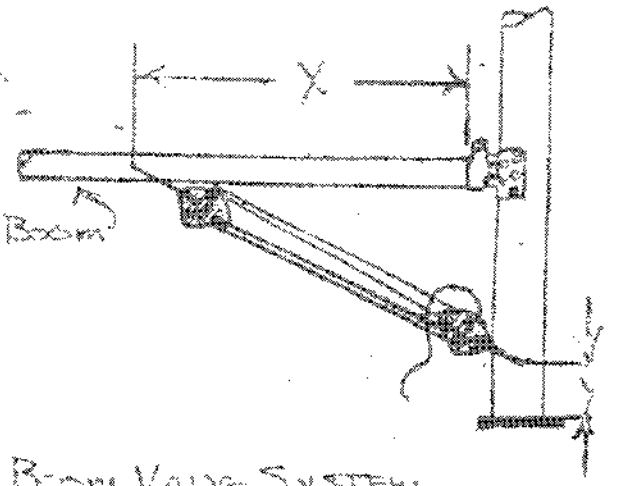
INSTALLATION

1) Drill 3/8" BOLT holes with 25/64" Drill
2) Use 1/8" or 3/16" Drill as Pilot for 25/64" Drill
3) Measure, MARK and drill each side of MAST individually for fastener holes.
4) Do NOT cover tightened bolts
5) #21 Drill Required for #10 Pan Head Fasteners
6) Ample SM 291B Bail at 30° Forward



BOOM PREVENTER

YOUR VANG SYSTEM CAN BE USED AS A PREVENTER BY INCLUDE MAST BLOCK TO AN APPROPRIATE STANCHION BAIL. INSTALL STAINLESS STEEL PADEYE AT A STANCHION DOES



BOOM VANG SYSTEM