

# *CALIBER 40LRC Series*



**Use arrow keys to turn pages  
Hit Escape (esc) key to return to Windows view.**

**CALIBER. A YACHT CREATED TO MEET THE RIGOROUS DEMANDS OF THE SEA, AND THE QUALITY MINDED SAILOR.**

**D E S I G N**



**A SERIOUS OFFSHORE CRUISER, POSSESSING EXCELLENT ALL-AROUND CAPABILITIES.**

**Caliber Performance Cruising Underbody™**



What sets a Caliber apart from the fleet of her rivals? Is it her swiftness? Her seaworthiness and durability? Her exceptional stability and comfort? As Caliber owners know, it is the artful combination of these qualities, which enables a Caliber to perform beyond the limits that constrain so many others.

How swiftly a boat sails, how well she handles, and how she weathers the sea are the direct

- 1. Skeg/Rudder combination designed to maximize both maneuverability and strength.
- 2. Impact Resistant Zones for added protection.
- 3. Integral Long Range Tanks, under cabin sole, dramatically increase cruising distances and useable storage in cabin. Plus,

- 4. High Ballast / Displacement Ratio for stability, and higher positive righting moment for increased safety.
- 5. Bottom of Skeg/Rudder located higher than keel for grounding protection.
- 6. Watertight Collision Bulkhead for added protection against striking submerged objects.
- 7. The best of fin and full keel designs merge to create the Caliber performance cruising keel.
- 8. Super-strong, chafe-free attachment point for emergency storm sea anchor, or emergency towing point.



result of her design. At Caliber, efforts at the drawing board have produced the ideal underbody configuration for Long Range Cruising, but not at the cost of maneuverability or speed.

A modified fin keel with skeg-hung rudder makes a Caliber exceptionally responsive and quick. And she has outstanding directional stability, which enables her to keep a true course, even through pounding seas. Together, these characteristics add up to cruising performance unmatched by a racing fin or full-keel design.

### **How a Caliber feels is as important as how she sails.**

When rough water makes most sailors miserable, a Caliber owner can cruise in comfort and with confidence. The Caliber moves more steadily in heavy seas. And because of her high ballast-to-displacement ratio, the Caliber is very stable.

What's more, because much of the Caliber's weight is due to her superior construction and not just added ballast, Caliber owners can be extra certain that their boat can take what the sea dishes out. Other builders may extol their use of exotic new building materials to save weight. Caliber sticks with hefty, hand-crafted lamination. A

time-tested construction method that provides layer upon layer of strength against tough offshore conditions. It's the reason why a Caliber is, and feels, so solid.

### Special features enhance your safety at sea.

Caliber hulls are built for outstanding resistance to collisions, with extra layers of solid fiberglass at potential impact points. In case of damage to the bow or rudder, a Watertight Collision Bulkhead and a Rudder Dam are designed to minimize flooding. The keel is not only of a one piece integral construction, but it's also double-sealed for an added layer against grounding damage.

Elsewhere on a Caliber, thoughtful features add

#### From "Ted Brewer Explains Sailboat Design" by Ted Brewer

*"In this regard, I must add that a fin keel yacht with a skeg hung rudder of adequate size can have all the directional stability of a full keel cruiser and yet be more quickly tacked or maneuvered when the necessity arises."*

#### From "Readers Design the Ideal Bluewater Cruiser" by Quentin Warren for Cruising World Magazine

*"In spite of the anticipated variety of opinions and replies generated by this survey, what emerged was a remarkably defined set of parameters. The tallied results indicated a moderate displacement, medium-draft fiberglass cutter with a two-spreader aluminum spar, integral lead ballast, full keel with cutaways and an inboard skeg-hung rudder."*

## Combination of Best Underbody Design Characteristics



*High performance fin keel is fast, but at the expense of directional stability. Hull shape creates a quick, uncomfortable motion offshore and limited load carrying capacity.*

*Full keel adds control, but at great sacrifice to performance, windward pointing ability, and maneuverability. Has high load carrying capacity.*



## Equals...



*The Caliber Performance Cruising Underbody™ is a combination of the two extremes, resulting in a proven hull design with these characteristics: great performance, high pointing ability, excellent directional stability, easy tacking, high maneuverability, and load carrying capacity.*

flexibility and control, which makes for extra safety. For instance, the optional Convertible Cutter Rig™ with a retractable inner forestay, instantly lets a Caliber change with the weather, from a swift sloop into an easily controlled cutter. It's a real lifesaver when winds turn heavy.

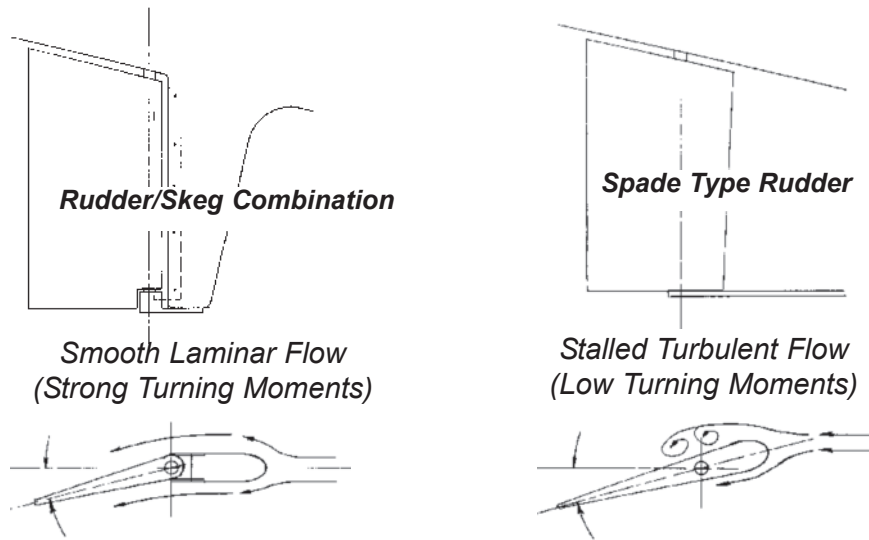
### Seaworthiness *and* good looks.

Can a single boat have it all? The Caliber does. From the substantial anchor roller platform to her stately quarter and stern, the Caliber's lines are fresh and graceful, without a hint of trendiness. She'll be every bit as attractive years from now, long after today's flashier designs have been forgotten.

### Full Length Skeg -- Powerful control and strength.

The Rudder/Skeg Combination is an important element of the Caliber steering system. A full length structural skeg, located directly in front of the rudder, has many advantages over a partial skeg or

## Rudder/Skeg Combination



spade type system.

The stall angle of the Rudder is substantially higher, during times when it is needed most- in heavy seas, or tight docking situations. A powerful turning moment can be generated because a skeg increases the stall angle of the rudder, resulting in higher turning moments.



The skeg also offers protection for the rudder. Adding a third, structural bearing at the lower end helps reduce vibration.

A skeg allows the water to sweep past across the rudder in a more gentle fashion. This not only increases the stall angle, but also helps reduce vibration feedback through the steering wheel.

### From "Yacht Designed Explained" by Steve Killing, Douglas Hunter

*"The skeg, which sits solidly in front of the rudder, performs two functions--the first hydrodynamic, the second structural. Because the skeg is mounted on centerline and is at a constant angle to the incoming flow, it never sees a very high angle of attack, and the likelihood of stalling is greatly reduced. When the rudder is turned, it forms with the skeg a shape approximating that of an efficient, cambered foil, which can produce high lift values.*

### From "Ted Brewer Explains Sailboat Design" by Ted Brewer

*"The benefits of a skeg ahead of a rudder are numerous. The skeg raises the stall angle at which the rudder will lose its lift; it provides a greater control surface area thereby adding to directional stability; it offers better control than a spade rudder when there is a high flow angle of attack, i.e., in case of a serious broach."*

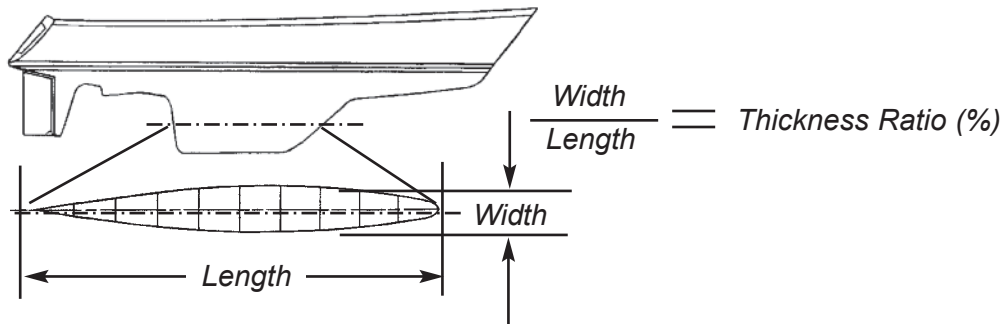
## Keel Design -- It's all about lift and drag. A fine balance.

It's important that the section shape of a keel is scaled using a NACA (forerunner of the National Aeronautics and Space Administration) series airfoil section. Yet, it still does not mean it will create lift as choosing the proper thickness ratio of a keel is just as important.

Maintaining thickness of the keel as a percentage of its length is important because the proper ratio will allow the keel to develop lift with minimum drag. Testing has shown that 12% to 13% is an optimum number for moderate displacement cruising hulls.

Ratios less than 12% result in a keel that will tend to stall when going to windward. Hence tacking angles are forced into the 100° - 110° range to prevent stalling. A fine balance was achieved in designing the Caliber keel section.

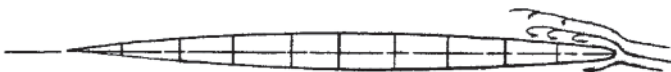
### 12% NACA Foil Keel Sections



*Optimum NACA Foil 12% Thickness Ratio for cruising yachts. High Lift for windward sailing / low drag for offwind sailing. Tacking angles of 85° - 90° possible.*



*Narrow NACA Foil on cruising yachts tends to stall out, forcing yacht to fall off to regain laminar flow. Windward speed drops substantially with tacking angles of 100° - 110°.*



## Seaworthy Stability -- Avoiding the Big Three; Broach, Pitch-pole, and Capsize.

A sailor's worst nightmares are broaching, pitch-poling, and capsizing. The Caliber hull form minimizes the chance of all three because of its careful blend of moderate characteristics; beam, section shape, and balanced ends. A Caliber, has a more sea kindly motion while underway. And even more important, in storm conditions too.

A Caliber seaworthy hull does not carry the max beam into the extreme stern of the hull. Balanced ends and overhangs keep the Caliber hull on a more level plane in the fore and aft direction (trim). As heeling increases, the longitudinal center of buoyancy (LCB) in a Caliber design, does not move aft. So as the wind increases, her hull remains trimmed. In the case of a wide stern yacht with a fine bow, the LCB does move aft, which results in the bow pitching down. This has a nasty result of a possible broach or pitch-pole. Either can be scary and sometimes dangerous for the off-shore sailor.

(continued page 8)

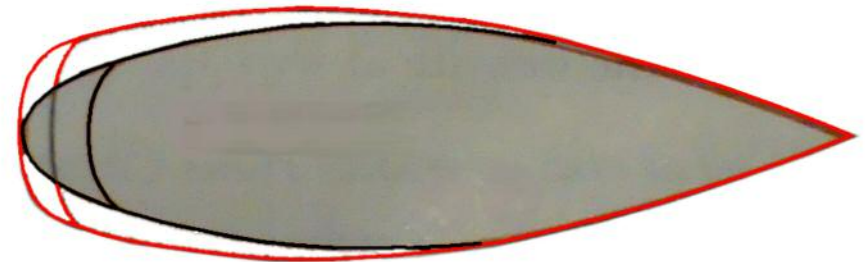
*A modern ultra-fast racing hull and the unavoidable consequence of too much beam aft-- a plunging bow. Unfortunately, this is a design trend even cruising yacht hulls are starting to mimic.*



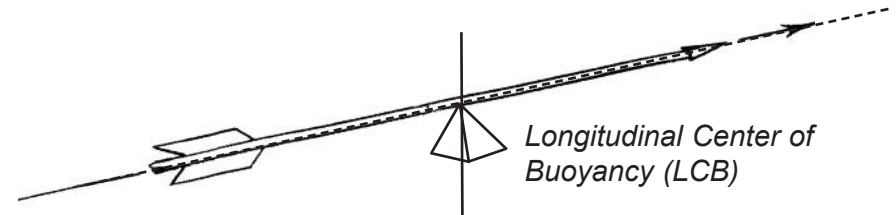


The moderate transom width on a Caliber assures a stable course even when the winds pick up. The Caliber hull will tend to gently heel while maintaining a level trim. It is difficult to broach a balanced hull design.

## Sea Kindly Balanced Ends

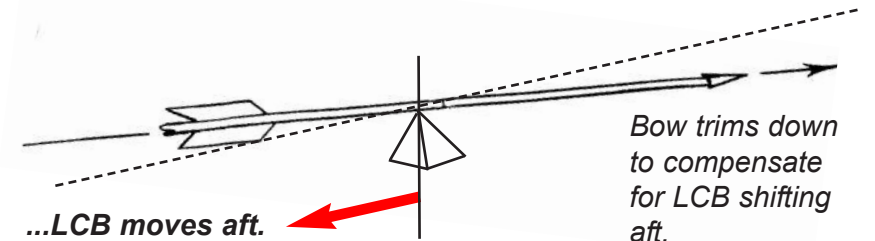


- Caliber Balanced Hull Lines Moderate Beam Aft
- Trend Towards Unbalanced Super-wide Transoms



Longitudinal Center of Buoyancy (LCB)

With increasing wind and heel...



...LCB moves aft.

Bow trims down to compensate for LCB shifting aft.

The LCB acts like a fulcrum. As the LCB moves aft, the hull pitches down to compensate. An acceptable option for a racing hull design with a racing crew aboard, but not a sea kindly hull shape for serious offshore cruising hulls.



### From “Seaworthy Offshore Sailboat” by John Vigor

“Imagine a boat shaped like an old-fashioned flat iron-- almost triangular in shape, pointed in front and wide at the back. Now think what happens when that boat heels under sail. The bow end sinks slightly because it has little buoyancy; the stern end rises much more because it has excess buoyancy.

Now that the stern has less grip on the water than the bow has, the stern tends to be blown downwind through the water and the boat weather-cocks into the wind, pivoting from the bow. This is called griping [broaching].”

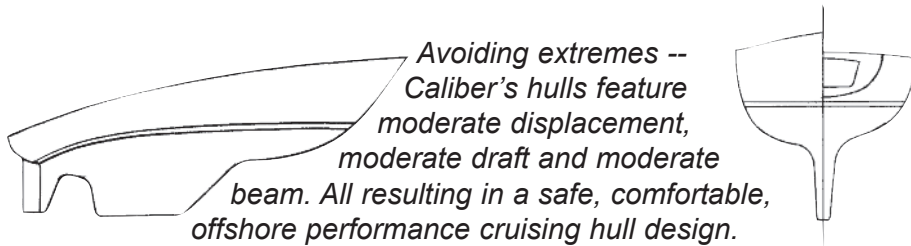
### From “Rough Weather Seamanship” by Roger Marshall

“The stern shape is critical to the boat’s behavior. A boat with a large, fat stern and fine bow will tend to sail bow-down as it heels, which can cause the rudder to lift out of the water slightly and become less efficient. The boat may also be more prone to broaching in heavy weather [...]”

(continued from page 6)

In the transverse plane, Caliber's designs also possess seaworthy stability characteristics. A Caliber has a high ultimate stability because of a hefty ballast-displacement ratio. And, because of a Caliber's moderate beam, moderate freeboard and large cabin house, this design has less tendency to remain inverted in the extreme case of a roll-over.

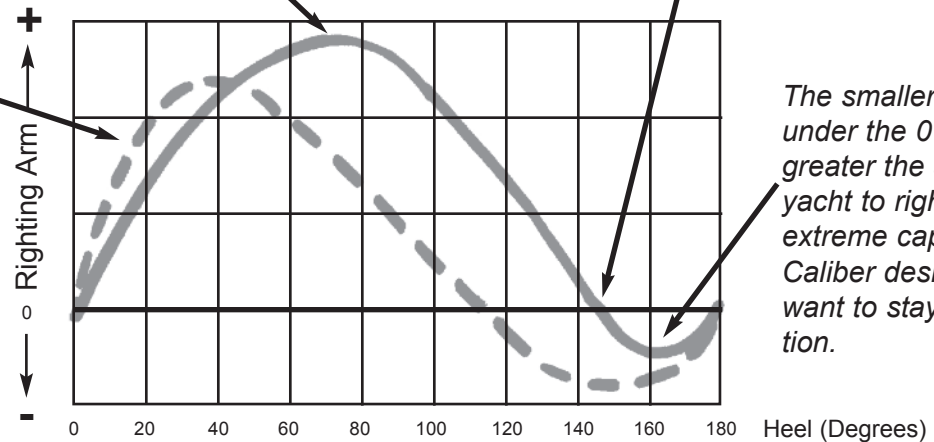
## Seaworthy Stability Characteristics



High initial stability in flat bottom light displacement hull design, means a snappy, quick, and uncomfortable motion in offshore conditions.

Increased righting arm in offshore designs means a greater righting moment because of moderate displacement. Design is "Stiff".

High angle of vanishing stability for all Caliber LRC's models due to moderate beam and freeboard, large cabin house, high coamings and ballast located low in modified fin keel.



The smaller this area under the 0 line, the greater the ability for the yacht to right itself in extreme capsizes. A Caliber design does not want to stay in this position.

### From "Modern Cruising Under Sail" by Don Dodds

"If the stern gets too wide it can create turbulence; it also adds wetted surface when hard on the wind at larger angles of heel. As I discussed earlier, stability problems have been blamed on excessive width in the stern."

### From "Seaworthy Offshore Sailboat" by John Vigor

"Designers of oceangoing cruisers try to balance the ends of a boat by keeping the submerged areas fore and aft roughly equal at all stages of heel. This results in a boat that is easily balanced by varying the areas of sail fore and aft of the mast. Such a boat obeys the helm easily and quickly in all conditions without excessive strain on the rudder. It is a great safety feature"



## A matter of degree -- Where a small change, makes a big difference.

At Caliber, we believe that a true offshore cruiser should be expected to have good upwindward performance for long windward passages which cannot be avoided. We have taken the extra steps required to get the headsail sheeted in properly when that need arises.

It is important to get the sheeting angle correct when going to windward because a small difference, has a big effect while beating to windward. Inboard genoa tracks and chainplates are standard equipment across the entire LRC Series of yachts allowing for tighter sheeting angles.

### From "Modern Cruising Under Sail" by Don Dodds

"The tighter the headsail can be sheeted in, the closer to the wind the boat can sail, especially in winds of less than about 12 knots (Marchaj, Aero-Hydrodynamics). Obviously the sail can only be sheeted in until it contacts the shrouds. When it does so depends on the sail's curvature, how high its foot is off the deck (since the shrouds angle inboard as they rise), and the position of the shroud chainplate. The first two items are variable, but the position of the chainplate is fixed and therefore will determine how close to the wind the boat can be sailed in light air."

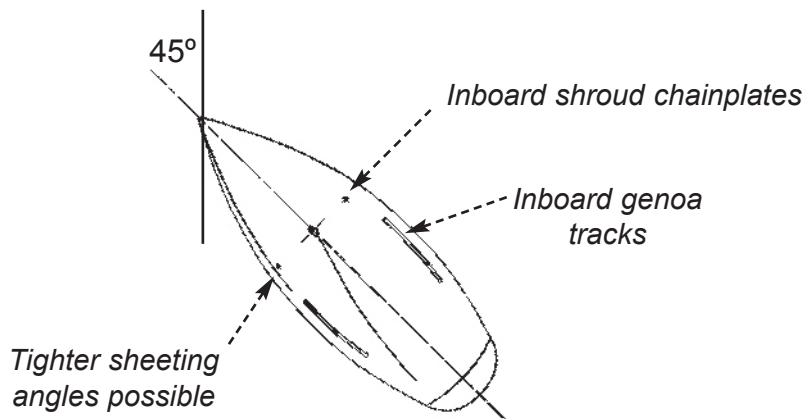
### From "Further Offshore: A Practical Guide for Sailors" by Ed Mapes

"Chainplates attached to the outside of the hull are more likely to cause leaks and, by forcing the jib's sheeting angle outboard, reduce upwind sailing efficiency."

## Inboard Genoa Tracks & Chainplates

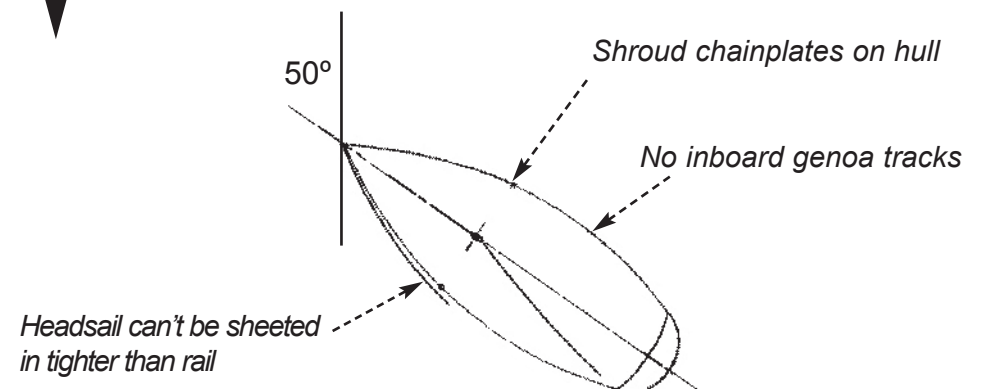
### With

Tacking Angles of 85° - 90°. Inboard Shrouds and Genoa tracks mean higher pointing ability. VMG is up to 30% greater because of decreased tacking angles.



### Without

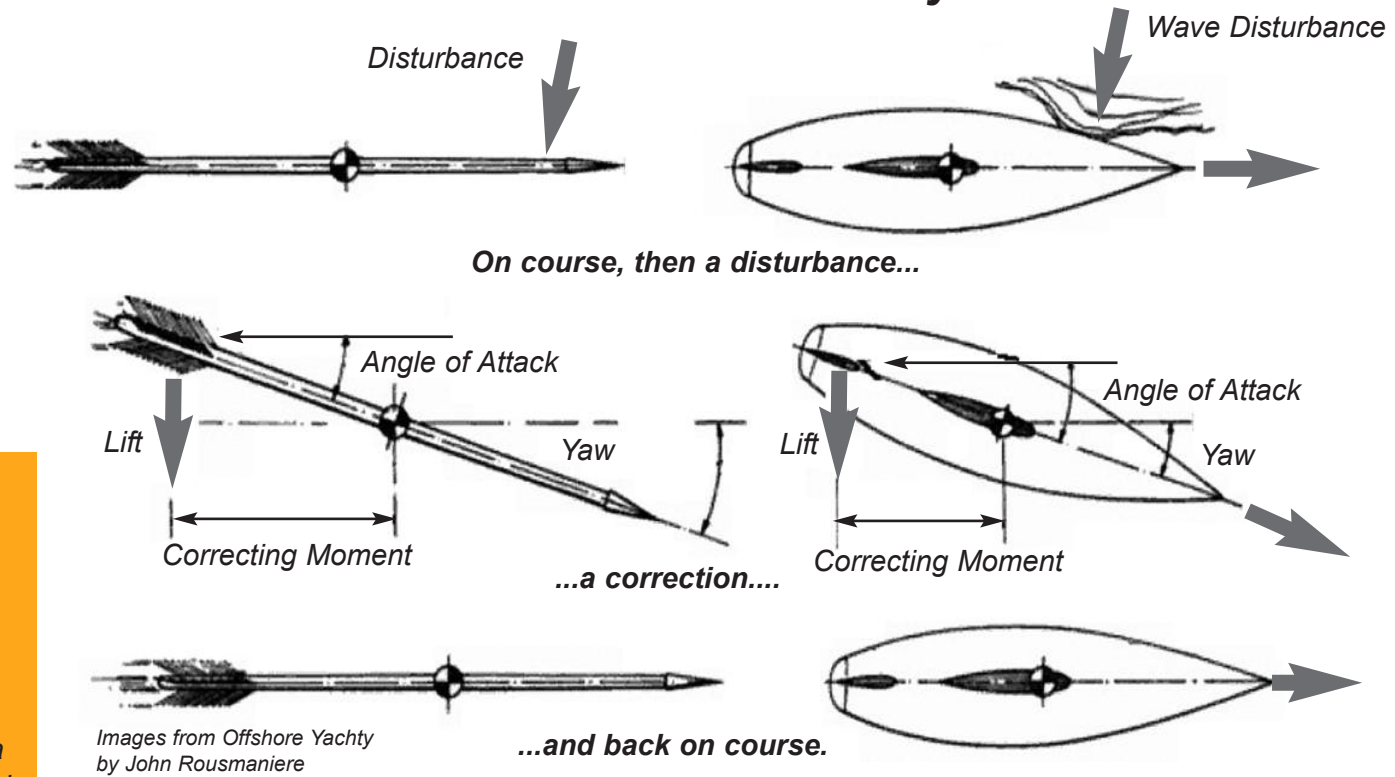
Tacking Angles of 100° - 110°. Results in overall VMG down around 30% because of this increased tacking angle.



**Holding your course -- Straight as an arrow.**

A large full length structural skeg directly attached to the hull keeps a Caliber on course. It is because the full length skeg not only supports the rudder, but reacts to a course change like the feathers on an arrow. The skeg acts as a stabilizer to help maintain a consistent and true course through the water as demonstrated in the illustration to the right.

**Directional Stability**



**From "Yacht Designed Explained" by Steve Killing, Douglas Hunter**

*"The skeg, which sits solidly in front of the rudder, performs two functions--the first hydrodynamic, the second structural. [...]. The real benefit of a skeg rudder is the increased tendency of the boat to travel in a straight line. Because the skeg is like a fixed rudder on centerline, it helps maintain a straight course in lumpy waves, with the rudder itself used only for course corrections."*

**From "Offshore Yachts" by John Rousmaniere**

*"Second, directional stability is improved by the skeg because it acts like tail feathers well aft of the center of gravity. The dorsal-type fin forward of many skeg-mounted rudders also acts as a stabilizing factor [...]."*





## Sloop or a cutter -- Depending upon the weather, you now have a choice.

While cruising, you can expect the weather to be unexpected. With the optional Caliber Convertible Cutter Rig™, you can be prepared.

This rig allows you to sail with the efficiency of a sloop rig when going to windward in light to medium winds. Tacking is a breeze as there is no intermediate headstay to interfere. Yet, when the wind turns strong, and the seas become choppy, within minutes you can turn to the versatility of a cutter rig. A rig that allows you to balance the sail plan against any wind and seas conditions you encounter.

For when the weather turns really nasty, you have the option of sailing with a fully self-tacking, all inboard rig that is extra strong. By reefing the mainsail down, so the headboard of the main is aligned with the headboard of the staysail, extra strength is created. All the sail loads add to the support column of the mast.

Furthermore, since it's an all inboard rig and high off the deck, this eliminates the need for any foredeck work out on a pitching bow. Also this rig allows freak breaking waves to wash freely under the sails without doing any damage.

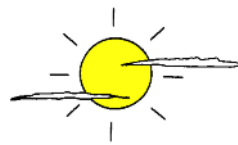
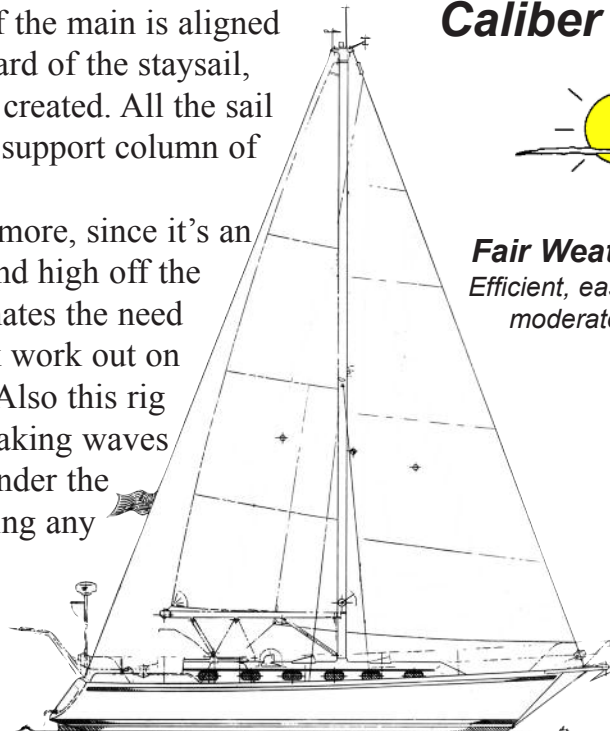
### From "Modern Cruising Under Sail" by Don Dodds

"The advantages of the cutter rig for boats between 35 and 45 feet are being recognized by the cruising community. In a recent survey, 48 percent named the cutter as their preferred rig. Also, 19 percent of the sloop owners would abandon that rig in favor of the more flexible cutter. But, more surprisingly, 10 percent of the ketch owners would opt for the more efficient cutter rig. (Jimmy Cornell, World Cruising Survey)."

### From "Readers Design the Ideal Bluewater Cruiser" by Quentin Warren for Cruising World Magazine

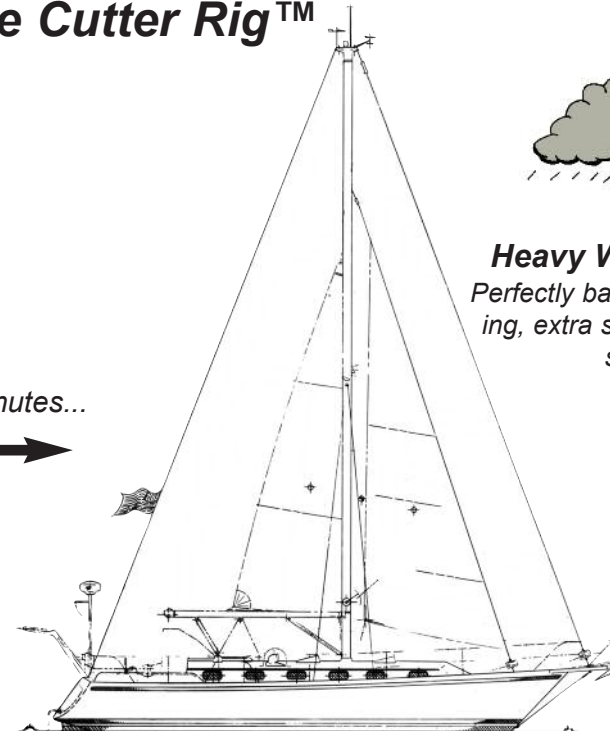
"The cutter rig is desired by the majority and makes good sense for offshore use. A quick release lever on the forestay would convert her into a handier sloop when tacking in tight coastal waters."

## Caliber Convertible Cutter Rig™



**Fair Weather Sloop Rig**  
Efficient, easily tacked, light to moderate wind sail plan

Converts in Minutes...



**Heavy Weather Rig**  
Perfectly balanced, self-tacking, extra strong, all inboard sail plan

**SERIOUS OFFSHORE  
CRUISER POSSESSING  
EXCELLENT ALL-AROUND  
CAPABILITIES.**



*“The next moment my world was literally turned completely on its side.”*



*Christiane Thuraire has circumnavigated the world in her 40LRC*

As I was on the concluding legs of my around-the-world voyage, I knew I was about to embark on the most dangerous section of it. After spending some peaceful time in the beautiful calm waters surrounding Bali, my next major crossing was the Southern Indian Ocean.

The biggest waves on the planet occur where the winds blow consistently strong and in the same direction. This is such a place. So it was with some hesitancy my mate and I left for this part of the journey.

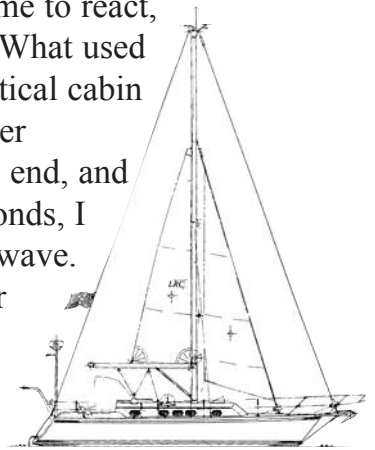
Since the winds were quite strong, I opted to go with my heavy air rig. It's a heavily reefed main with staysail. I chose this rig because it had presented such a balanced and sturdy option when I faced previous passages of this nature. Yet, this was the first time where I really would understand exactly how beneficial it is.

After being awake most of the night, due to the heavy freighter traffic in the sea lanes we were sailing, it cleared up and

we decided to call it a night. This, in spite of the heavy seas and strong winds. I had confidence in my Caliber as I was approaching the fifth year of my world voyage, and my beloved Blue Alligator had always served me well. So at 0400, we went below to take a well deserved rest, quickly falling sound asleep. That's when it happened...

I was abruptly awakened by the roar of what sounded like an oncoming freight train. Before I had time to react, my world was literally turned on its side. What used to be the cabin sole, was suddenly the vertical cabin side! I could hear the gigantic rush of water completely engulfing, knocking on beams end, and washing over Blue Alligator. In those seconds, I realized we were struck by a freak ocean wave. After the wave rushed past, Blue Alligator immediately resumed her normal upright position.

In hearing, feeling, and knowing the full fury of that rogue wave, I quickly scrambled out of my berth. With heart racing, I rushed topsides expecting the



*Heavy weather sail plan-Centered and high allows green water to pass under.*

worst. I envisioned finding the deck washed clear of my mast, rigging, and sails.

I was shocked to see Blue Alligator happily sailing along with absolutely no sign of what had just transpired. It was then I understood, even more, the value of my heavy weather rig.

My rig presented a perfectly balanced sail plan that kept Blue Alligator from rolling off course where the wave could have done more damage. Plus, it's all inboard and high off the deck. The force of that giant wave simply washed entirely OVER Blue Alligator's deck and

UNDER the sails.

Furthermore, the strength of this rig was clear. With all the load points supporting the mast, it easily withstood the violent action caused by this breaking wave.



*Caliber 40LRC Blue Alligator in Thailand. The halfway point in her around the world voyage.*

In recounting this story a few months later, I realized the significance of what I did next -- I went below, battened down the companionway, and went back to sleep. What better vote of confidence could there be.

*--Christiane Thuraine SV Blue Alligator*

**From “Singlehanded Sailing: The Experiences and Techniques of the Lone Voyagers” by Richard Henderson**

*“There are many advantages to the cutter rig for general-purpose singlehanded sailing. The cutter provides a three-sail rig for easy management, but with only one mast. Sail is more centralized or concentrated amidships as compared with other rigs. This increases safety, because there is a wide working space with minimal motion near the mast, and the crew seldom has to venture onto the boat's extremities in heavy weather. Also, the mast amidships provides a wide base for efficient staying, while its weight in that location has a favorable effect on the moment of inertia to help alleviate extreme pitching.*

*[...] In contrast [to a ketch rig], the cutter can reduce sail quite effectively and safely by dropping or rolling up her jib, and the staysail with a slightly reefed main usually provides an efficient rig for prolonged windward sailing in a blow.”*

**From “Further Offshore: A Practical Guide for Sailors” by Ed Mapes**

*“Interestingly, boats with a more traditional hull shape, one that's narrower and of somewhat heavier displacement, are the most stable all around. They are stiffer, have higher angles of vanishing stability, they are easier to control in following seas, and they are more resistant to capsize by waves.”*

## ON DECK



### **SAFETY, CONVENIENCE, AND COMFORT ON DECK.**

#### **The cockpit design maximizes safety.**

The roomy cockpit is designed for safety, comfort, and efficiency. High back supports are built into the seats; plus the cockpit's coaming tops are extra wide, creating comfortable seats too. For extra security, both the bow and stern pulpits are extra long completely enveloping the cockpit and the foredeck.

At the stern, a boarding platform makes it simple to board a dinghy or take a swim. The platform's folding

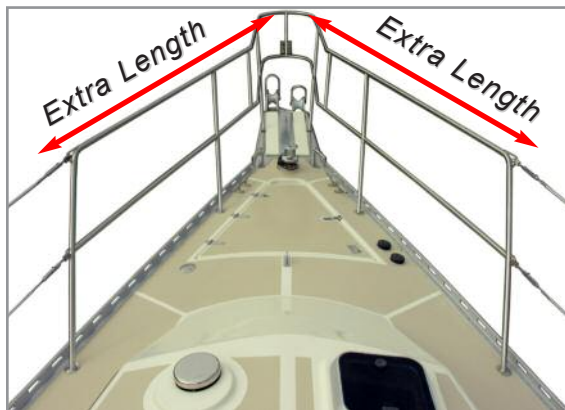
ladder can be deployed from the water, allowing safe, quick access, even for an unassisted swimmer. A hand-held shower provides a rinse-off right on the platform without getting the deck wet.

The transom is a closed designed to not only protect the cockpit from following seas, but it's specifically designed with angles to give the entire surface extra strength. Immediately forward of the transom are the heavily glassed-in timbers of the Triple-Support Rudder System™ making the entire transom extremely strong.

### The deck layout maximizes control.

For short-handed, or single-handed sailing, all sail control lines are led

### Caliber Safety Sea Rails™



*The stern pulpit wraps around the cockpit and even reaches further forward for added security entering and exiting the cockpit in rough conditions.*

*The bow and stern pulpits are extended in length. The bow pulpit wraps the entire foredeck with ss tubing for security when working the foredeck in rough seas or setting the anchors.*



aft to the cockpit. All winches are self-tailing for one-handed use. Even mainsail reefing, an awkward chore on many boats, is quick and easy on the 40LRC, thanks to our single-line auto-reefing system with cockpit controls. The primary genoa winches are specifically placed so they are easily reached by the helmsman or crew.

The T-shaped cockpit accommodates an extra-large diameter wheel, to allow the helmsman to sit off to the side for a clear view of the sails. With the cockpit's generous proportions, there is room for the tallest sailor to relax. An insulated cockpit icebox keeps cold food and drinks within easy reach.

At the forward end of the deck is a large foredeck locker which is not only able to contain the anchor rode, but has additional room for storage such as fenders and docking lines.

Completely surrounding the entire foredeck is the extra tall and extra long bow pulpit. This helps to make working the foredeck more secure.

### Going to great lengths to ensure your security on the foredeck and in the cockpit.

At Caliber, we take the issue of security seriously. And to help you feel extra secure, whether it be in the cockpit or working the foredeck, we have extended the bow and stern rails far beyond what is standard for the industry. The Caliber Safety Sea Rails™ wrap the cockpit and the foredeck, so you can be wrapped in safety.

## Caliber Seaworthy Boarding Platform and Cockpit

1. Hand held shower mounted on transom can be used without splashing deck or cockpit.
2. Swim ladder is designed to be self-deployable by swimmer for safe, quick, and easy recovery of man overboard.
3. Extra wide coaming seat tops for sitting comfort.
4. Full length cockpit seats to stretch out on.
5. Port and starboard boarding gates with secure locking pelican hooks.
6. All halyards and sheets led aft for safe sailing from the cockpit
7. Caliber Safety Sea Rails™ are extra tall and extra long for security in the cockpit or on the foredeck.
8. Flat stable platform at the proper height from which to board a dingy.
9. Line hangers to store excess halyards, sheets and lines.
10. Platform designed with faceted angles for strength against following seas. Additionally rudder supports are bonded to inside of transom for tremendous strength.
11. Twin (not split) backstays for backup reliability, plus makes accessing platform easier.
12. Large comfortable stern rail seats unobstructed by backstays.
13. Primary jib sheet winches within easy reach of helmsman.
14. Cockpit icebox for convenience.
15. Flush mounted and plexiglass protected engine instrument console near the helmsman.
16. Stainless steel dorades and guards are standard equipment.
17. Ergonomic designed seats for comfort.
18. Gas-assisted lift hatch for engine room access.
19. Inboard genoa tracks for more efficient windward performance.
20. Full-length slotted toerail for sheeting blocks, fenders with added extended rubrail for hull protection.





**Smart Anchoring System™ -- Rest assured, we took care of the details. All you have to do is to get a good night's sleep.**



Caliber owners are serious sailors. And part of serious sailing is having a serious anchoring system. We know that security on the hook results in securing a good night's sleep. You can rest assured with the Caliber Smart Anchoring System™. A system that will help provide you with everything you

**A.** Specially designed rollers for raising and lowering anchors that help prevent rode chafe and line jumping.

**B.** Average Conditions anchor Point through the specially designed anti-jump chocks

**C.** Chafe Free attachment point. Can be used as an emergency tow point, sea anchor attachment, as well as a storm anchor attachment. 100% chafe free. Securing low and on centerline also helps keep anchor tacking to a minimum.

# Caliber Smart Anchoring System™



Custom designed and manufactured stainless steel mooring/anchoring chocks help keep anchor rode in place even during storm conditions with a heavily pitching bow.

Heavy duty stainless steel anchor brackets with UHMW (ultra high molecular weight) custom designed rollers.

Designed for ease of launching and retrieving anchors used by serious cruising sailors. Extended platform keeps anchors off deck and away from the hull preventing impacts to the fiberglass.

Chafe Free super secure attachment point. Low and on center to keep anchor tacking to a minimum.

need to stay securely in place even during the worst storm conditions.

There is a unique anti-chafe anchoring point, perfect for when the conditions warrant. A point of attachment that is low on the hull, and on center, to help reduce the effects of “anchor tacking.”

These are the key features of the Caliber Smart Anchoring System™:

- ✓ *Anchors stay out on platform, keeping mud off the deck and anchors away from hull to help prevent damage.*
- ✓ *Replaceable King Starboard chain-runners prevent chain from scratching platform.*
- ✓ *Chain locker specially designed to help prevent chain pile up while raising anchor using windlass.*
- ✓ *Large specially designed UHMW (Ultra High Molecular Weight Polyethylene) rollers help prevent rode from jumping and chafing.*
- ✓ *Extra heavy duty mounting pad area for windlass.*
- ✓ *Heavy-duty chain locks to hold anchors securely in stowed away positions.*
- ✓ *Large chain locker lid makes washing rode easy.*
- ✓ *Custom made massive closed chock system prevents rode jumping.*
- ✓ *Extra strong water level anchoring/towing/sea anchor attachment point eliminates chafe.*
- ✓ *The special storm anchor attachment point, low and on centerline reduces effects of anchor tacking.*
- ✓ *Extra strong bitter end anchor rode attachment point.*
- ✓ *Dual heavy stainless steel reinforced anchor roller holders engineered to hold two very large anchors.*



*Specially designed well so chain can free-fall downwards. Large opening lid makes it easy to wash mud off right in the self-draining locker. If a problem arises with the anchor line, there is quick access to the rode.*



*The chain locker is very deep and will easily hold 300 feet of 5/16 inch chain. Plus a second area (not shown) for a second rode of 200 feet of 5/8 inch nylon line with 100 feet of 5/16 inch chain.*

#### **From “Offshore Cruising” by Jim Howard, Charles J. Doane**

*“In hurricane conditions, chafe probably leads directly or indirectly to the loss and damage of more boats than any other cause. In recovering the ground tackle of boats that broke away from their anchors during storms, divers often find the anchor well dug in, the chain lead still secure, and the nylon line still properly attached to the chain. But the ‘boat’ end of the nylon line invariably is a frayed and ragged remanent that was cut by chafe.”*



Not only is *more* better, but *where* is better too.

Ventilation on the Caliber 40LRC SERIES yacht is simply outstanding. She has fourteen opening portholes, twelve on the cabin sides and two extra portholes in the cockpit. There are seven overhead hatches (with screens and sunshades). Plus two deck

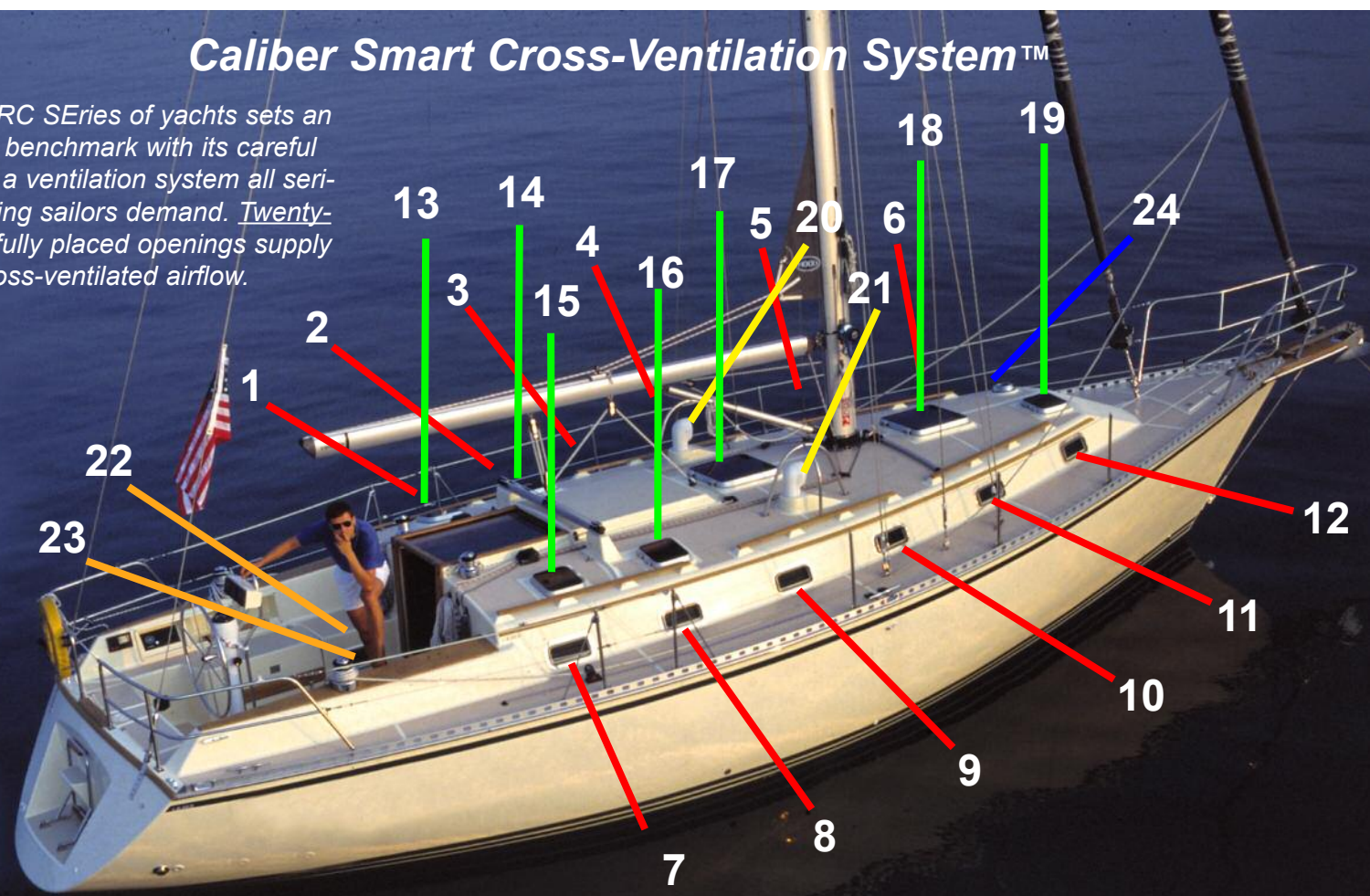


From "Modern Cruising Under Sail" by Don Dodds  
"Cabin ventilation is another area in which designers follow the mistaken idea that cruising sailboats are used mostly at sea. [...] The answer is hatches, hatches, and hatches; the more hatches, the more air below. Get as many opening hatches as you can without compromising the safety of your vessel."



### Caliber Smart Cross-Ventilation System™

Caliber LRC SERIES of yachts sets an industry benchmark with its careful design of a ventilation system all serious cruising sailors demand. Twenty-four carefully placed openings supply cross-ventilated airflow.





**SERIOUS DECK LAYOUT AND  
HARDWARE FOR EXTENSIVE  
OFFSHORE VOYAGES.**

cowls, and even a mushroom ventilator providing ventilation at all times. An extraordinary number of air flow openings.

Yet, quantity isn't enough. Air needs a method of traveling in-and-out for ventilation to be most effective. This is the very definition of cross ventilation. The ability for air to flow through a cabin area requires openings which are strategically located to keep the air moving. This is true whether on the hook, under sail, or at the dock.

At Caliber, we have designed the air to flow through the yacht's interior into all of the cabins, all of the time. No air is ever trapped and left to stagnate. It's the essence of the Caliber Smart Cross-Ventilation System™.

Furthermore, these openings let light in too. This, in combination with the all teak interior, creates a remarkably livable yacht.

## CONSTRUCTION



### WHAT GOOD IS SUPERIOR YACHT DESIGN WITHOUT SUPERIOR CONSTRUCTION?

Exceptional engineering and craftsmanship make durability one more of a Caliber's impressive attributes. Following are just some of the construction product features that set the Caliber apart from other yachts.

### Withstanding the Test of Time -- Heavy solid fiberglass hull construction.

At Caliber, we believe serious offshore sailing passages should not be the proving ground for the latest high-tech fabrics,

sandwich cores, or exotic resins. We stick to a construction method as old as the creation of fiberglass with its proven track record-- the first fiberglass boats

built many decades ago, are actively sailing today. They are constant reminders that solid fiberglass hulls, built with heavy woven roving fabrics, have stood the test of time.

Other builders may extol the use of the latest materials to build a hull that is, "lighter but just as strong." In reality, it may save not only weight, but labor and material costs too. At Caliber, we stick with the heavy, strong, labor intensive, solid construction method that serious offshore sailing demands.

It is pure logic. A heavy woven roving glass laminate creates a thicker panel which increases strength. Just bang the hull of an LRC Series yacht with your fist. Compare it to others. Common sense will tell you which hull you want to be aboard when you are on the open ocean and out-of-sight of land.

## Solid Fiberglass Laminates



From **"Defining the Offshore Vessel"** by Ocean Voyager magazine

*"Hulls are the foundations upon which a boat is built, so they must handle the stress and strain imposed on them.*

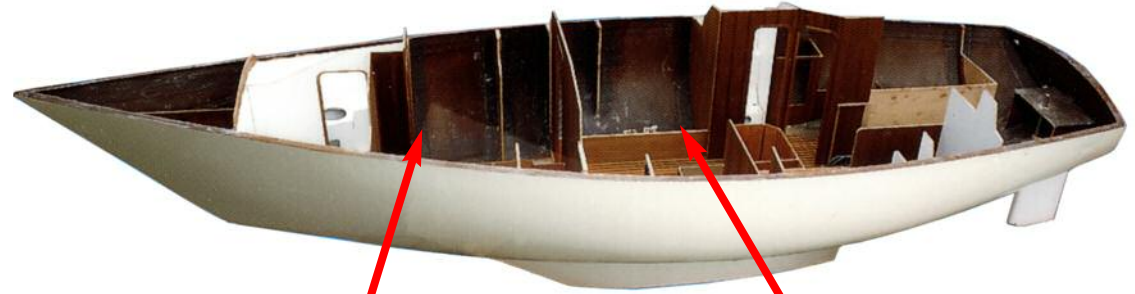
*Hulls must have adequate longitudinal and athwartship strength and hull thickness to withstand collisions and groundings as well as the stress and strain of hard beats to windward."*

## Why Calibers don't suffer from stress.

Don't look for a pre-fab fiberglass liner inside a Caliber. Instead, look at how we've integrated dozens of interior members into the hull to take on the stresses of wind and water.

The interior of a Caliber is hand-crafted for strength, not mass produced from glass liners and glass components. All our bulkheads are individually taped in place top to bottom, bow to stern, throughout the

## Multi-Bulkhead Bonding System™



### From "Offshore Yachts" by John Rousmaniere

*"The hull must be locally strengthened to withstand loads imposed by the mast and rigging, the ballast keel, and the rudder (if skeg-mounted or spade). All these loads must be spread out over an area as large as practicable. Bulkheads and vertical floors are the best way to distribute the stresses from ballast weight and mast compression.*

*Bulkheads required by the interior accommodations can do double duty and will contribute greatly to the structural integrity of the hull and deck if they are installed as true structural members rather than simple partitions. Considerable strength is gained this way, at very little expense in weight."*

### From "The IBEX Report" by Steve Callahan for Cruising World magazine

*"All internal structures-- bulkheads, floors, longitudinals, even furniture, should be structurally tied together and to the hull wherever feasible.*

*Rob Schofield, N.A., a composites and structural specialist, says bulkheads and other components that meet the hull must be tabbed in on both sides. "Peel is the big enemy," he says. "Glass is very strong in tension and compression, but you most easily peel it. Tabbing on one edge alone just doesn't cut."*



*Individual bulkhead being thoroughly taped, top-to-bottom using Caliber's method of construction. It takes a lot of time, but the increase in strength is worth it.*



*Massive amount of structural support just in the main salon area. This is common to all LRC Series models, and common throughout the hull. One reason all Calibers are rock solid.*



*With this method of construction all individual bulkheads can be thoroughly taped top-to-bottom. It is a labor intensive method. Bulkheads, shelves, berth tops, furniture, etc. are ALL bonded in place without interference from fiberglass pans or liners.. No other method of construction is better for making a hull strong.*

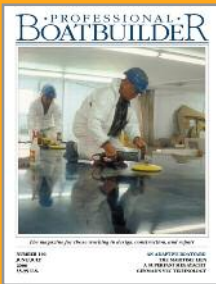
entire hull. In addition, from the floor stringers and the subsole, to berth tops and shelves, everything is solidly hand-laminated to the hull. Such thorough lamination is virtually impossible when installing large fiberglass liners or fiberglass components.

Our Multi-Bulkhead Bonding System™ is a painstaking construction method but it adds greatly to a Caliber's durability and seaworthiness. A Caliber is able to carry the load of stores for offshore voyaging, and the loads of the sea.

## Our Integral Keel, Tanks, and Sub-sole enhance structural integrity.

The internal keel, tanks, and sub-sole on a Caliber are actually *integrated* as part of the hull. The keel is not just bolted on, the tanks are not just dropped in place, and the sub-sole doesn't just support furniture. Each object is *heavily* bonded into place and tied together which is a labor intensive method of construction, but we feel is worth the extra effort. We call this method our Integral Strength-Grid System™. A system where keel and primary sea loads are spread evenly over large hull surface areas. Compared to other boats, our integrated structure offers many significant advantages: (continued next page)

### Integral Strength-Grid System™



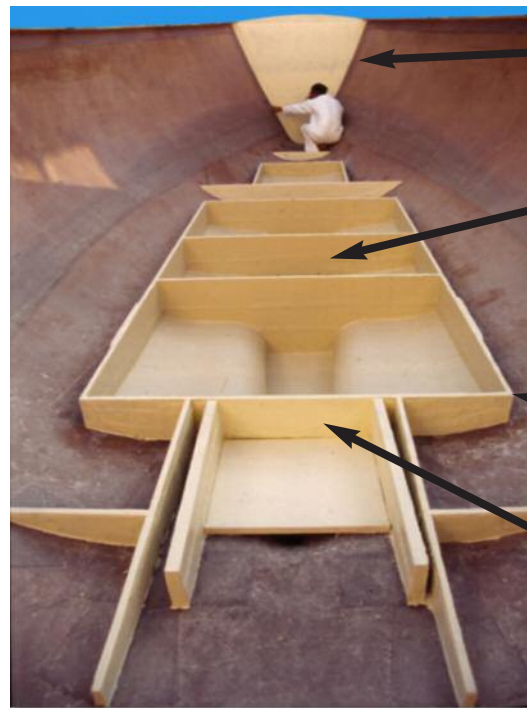
**Michael Kasten of Kasten Marine Design in Port Townsend, Washington with over 20 years of boat building and design experience says,**

*"Integral tanks provide a number of design benefits. Consider the following:  
--They prevent the volume lost with separately installed non-integral tanks.*

*--They eliminate the dead space present around non-integral tanks, thus abolishing yet another place where water and objects can collect.*

*--They reinforce the hull with baffles and tank-faces that are attached to, and therefore reinforce the hull skin.*

*--They create a double-bottom beneath the sole so damage to the hull where the tanks are located won't compromise the watertight integrity of the vessel. In other words if you puncture the hull in the tank area, you will lose the fluid in that tank compartment, but the boat is not likely to sink."*



← *Extra heavily bonded Watertight Collision Bulkhead. Any serious off-shore yacht needs one.*

← *Integral Tanks create double bottom safety effect. If there is any damage to the hull in this area, it will be contained to the tank area only.*

← *Sub-sole to be bonded to stringers and taped around its entire perimeter to spread loads.*

← *Extra heavily bonded Integral Tanks add additional longitudinal and transverse strength to floor stringers system.*

(continued from previous page)

- ✓ A deeper bilge prevents water from sloshing into lockers while the boat is heeled.
- ✓ No external keel bolts to maintain or cause leaks.
- ✓ Weight of keel and primary sea loads are evenly distributed throughout grid structure.
- ✓ Integral tank structure enhances the hull's strength. Serves as a double bottom that can prevent flooding if the hull is holed.
- ✓ There is no wasted volume under or around the tanks. Every cubic inch is utilized to increase capacity of fuel and water.
- ✓ Large tanks under the sub-sole means more useable volume above the sole for storage

### For the serious sailor, two is better than one.

The Caliber keel is not only molded into the one piece hull for added strength, but it is also double laminated on top with two independent layers of heavy woven roving, separated by a three-inch layer of ballast material. If damage occurs to one layer, then the backup layer will help prevent water penetration into the hull.



### From "There Are No Maintenance-Free Metallic Fuel Tanks" by United States Coast Guard Boating Safety Circular

*"While FRP fuel tanks [integral fiberglass tanks] have proven their effectiveness, they are very labor-intensive to produce, making this option time-and cost-prohibitive to many of the high volume manufacturers of low and medium priced boats."*

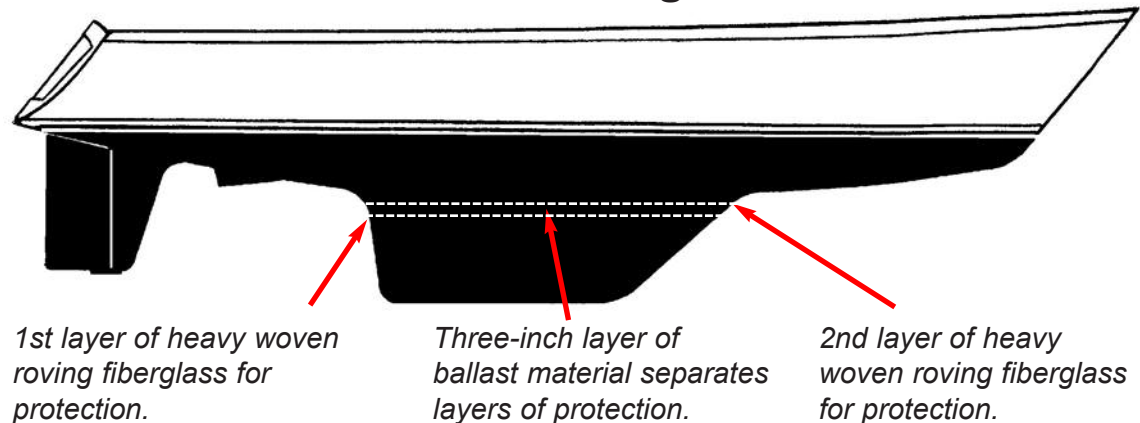
### From "Offshore Yachts" by John Rousmaniere

*"The sides and tops of integral tanks can add to the longitudinal strength and stiffening of metal and fiberglass hulls if they can be arranged to be continuous over a reasonable distance, or at least between structural bulkheads."*

### Yacht designer Paul Bieker of Seattle, Washington says,

*"Integral tanks and their baffles provide structural strength to the hull," he continues "Non-integral tanks provide the opposite, by creating a void where structure cannot be." Further Bieker adds, "As a teenage, I spent a year and a half cruising down in the South Pacific," he concludes, "while anchored in an atoll, we were hit by a surprise storm that knocked a fiberglass boat into the coral. It was held by a metal fuel tank, and sank. The fact that the boat may not have been lost if that tank was integral made a lasting impression on me."*

### Double-Seal Integral Keel™

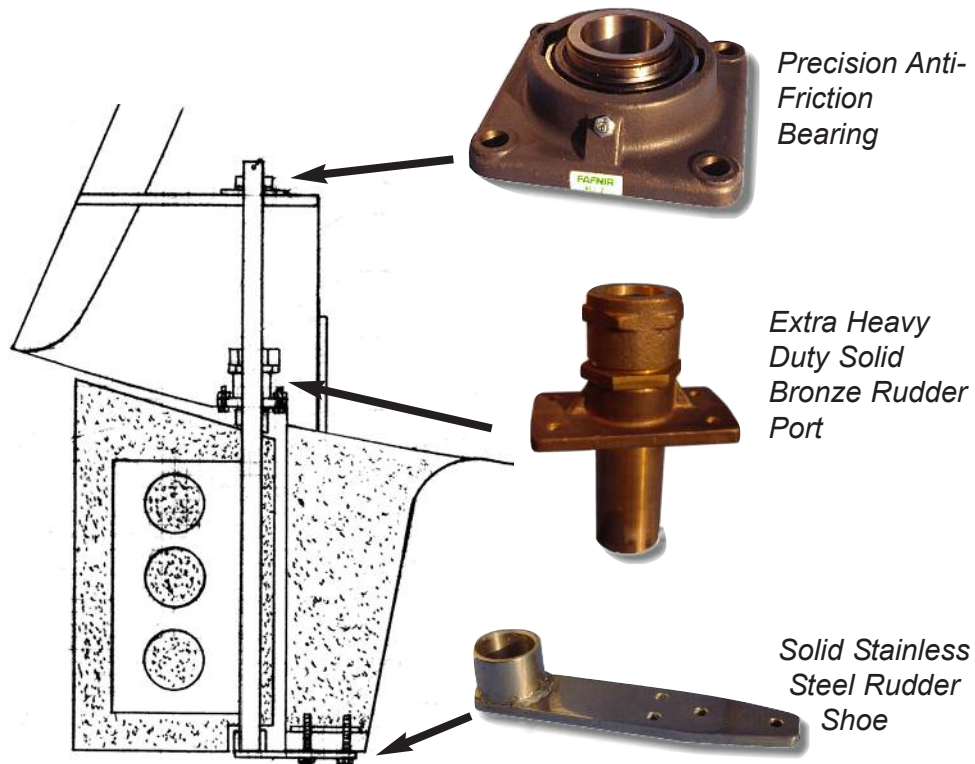




## A rudder that's easy to maintain, but extremely difficult to damage.

The rudder is the most vulnerable appendage on any boat's hull. At Caliber, extra measures are taken so that rudder systems are strong and well-protected. The rudder's steel core is welded to a shaft of solid 2" diameter stainless steel. The Triple-Support Rudder System™ shares the rudder's load among three bearings -- one more than on most boats.

### ***Triple-Support Rudder System™***



For ease of maintenance and protection from corrosion, the upper rudder bearing, which supports most of the rudder's load, is housed inside the hull on a heavily bonded frame which also reinforces the transom.

Our structural skeg not only supports the lower end of the rudder and shaft, but helps shield the entire assembly from damage in a grounding.

The bottom of the Caliber structural skegs on all models, are substantially higher than the bottom of the keel. In a hard grounding, this is the best protection of all.

#### **From "Safety Preparations for Cruising" by Jeremy R. Hood**

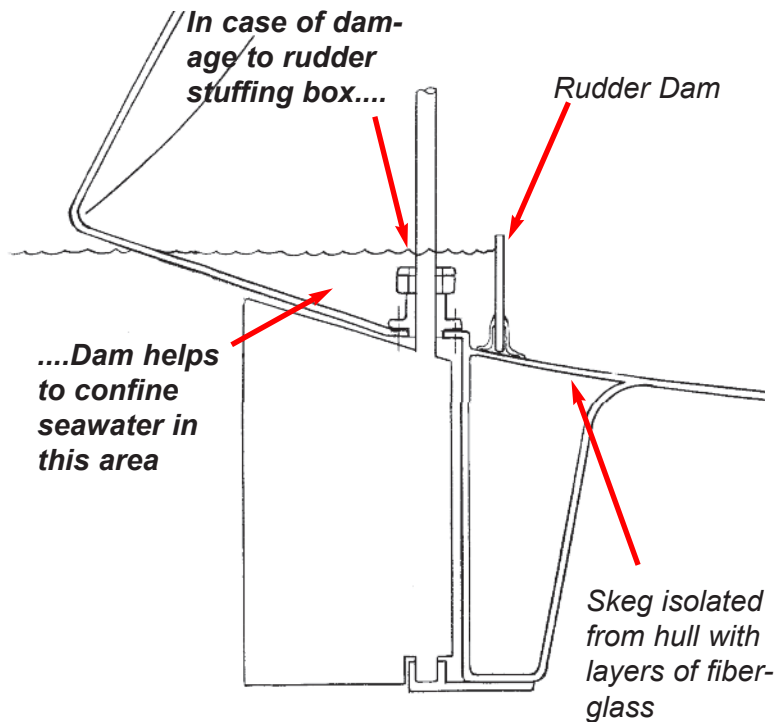
*"When a vessel has a fin keel that does not reach to the stern, a small additional structure (skeg) can be fitted to the hull like a small keel from which to hang the rudder. The skeg design is sometimes strong and deep so that a rudder can be supported top and bottom while other designs have only a partial skeg allowing the rudder to be a balanced type.*

*The skeg performs two functions. It supports the rudder and it protects it from damage. Not all skegs are designed to be sufficiently strong for ocean sailing. In my opinion, the rudder is such an important yet vulnerable part that a cruising boat needs to have a strong, full skeg if one is used. Make sure yours is. If the vessel runs over a line at sea or goes aground, a strong skeg will help protect a rudder from damage that could otherwise disable the boat."*

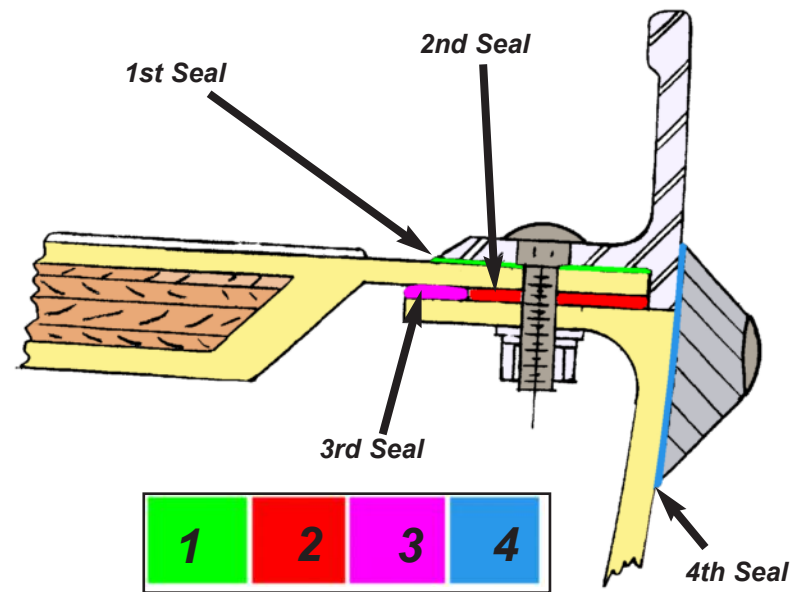
## A small feature that could make a big difference.

In the unlikely case of any damage to the rudder stuffing box, we've added a protective barrier that will help to prevent flooding. It's our Water-Tight Rudder Dam. A small feature that has big potential. Temporary repairs can be made until a haulout is feasible because this dam will help to confine seawater to a volume behind the dam. Just another small detail that is part of what makes the LRC Series a serious yacht for serious sailors.

### Water-Tight Rudder Dam



## Quad-Seal Deck to Hull System™



### Our four-way deck-bonding system builds in strength and shuts out water.

Like most sailors, we can't abide a weak, leaky boat. That's why we take four steps to join and seal the Caliber's hull-to-deck joint. These steps make our Quad-Seal Deck to Hull System™ extremely strong and dry.

- ✓ An aluminum toerail is bonded to the hull and deck with polyurethane and thru-bolted with 1/4" stainless steel bolts set at six-inch intervals.
- ✓ A tough, waterproof polyurethane adhesive chemically bonds the hull and deck flanges.
- ✓ A waterproof Co-Polymer sealant on the hull flange ensures a watertight connection.
- ✓ A maintenance free heavy vinyl rubrail that protects the hull from severe impact and is replaceable.
- ✓ A Stainless Steel striker fastened onto the rubrail protects the hull around pilings and docks and is easily replaceable.

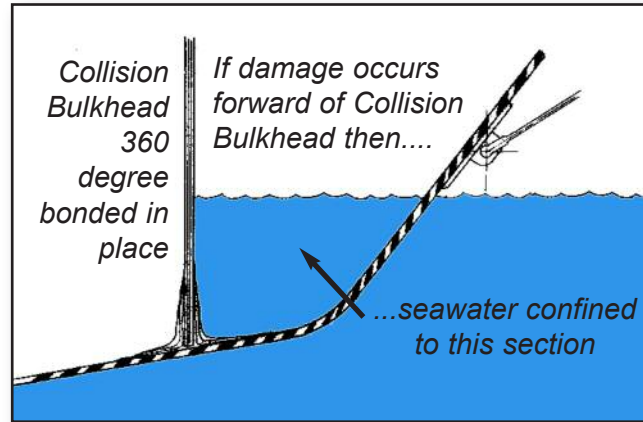


**For extra protection in case of collision -- Nothing beats this bulkhead.**

Although not a common occurrence, collisions with

submerged or floating objects are possible. Caliber believes that any serious offshore yacht should have additional protection in case of this event. A Water-Tight Collision Bulkhead is heavily taped in place in the bow sections of the hull. In case of damage to this area, the bulkhead

## Water-Tight Collision Bulkhead



may help keep seawater confined to the area forward of this partition. It's one of the most significant features that makes a Caliber ready for serious offshore cruising.

From "Safety Preparations for Cruising" by Jeremy R. Hood

"The most likely cause for a vessel to sink is a collision, and the most likely area on the boat to be damaged is the bow. For this reason, many serious ocean-cruising yachts are built with a watertight bulkhead toward the bow."

From "Defining the Offshore Vessel" by Ocean Voyager magazine

"Since damage and holing to sailboats most often occur in forward areas, resulting often from collisions with submerged or floating objects, a forward collision bulkhead is a good feature. [...] manufacturers of some fiberglass vessels are also beginning to mold in watertight bulkheads. This may be one of the most significant factors in what makes a vessel ready for an open-sea voyage for modern seafarers."



### What are the Reinforced Impact Zones?

Reinforced Impact Zones are located in two areas of the hull where damage from floating or underwater obstructions is possible. These areas are heavily laminated, above and beyond standard laminates, with extra layers of solid fiberglass to help minimize damage in case of impact.

## How our Chainplate System shares a heavy load.

When a boat is under sail, her stays and shrouds are under tremendous tension. On many boats, the load on these mast supports is carried by chainplates attached directly to the hull. But there's much more to the chainplate system on a Caliber.

We anchor each chainplate with large stainless hex bolts to a massive thick bulkhead, which is thoroughly bonded to the hull over its entire height. We go to all this trouble so that the load on the chain-

plates is dispersed throughout the hull, not concentrated in small spots. And using our Double-Lock Chainplate System™, the chainplate attaches directly to the deck. Locking it to the deck, can help prevent any possible chainplate leaks.

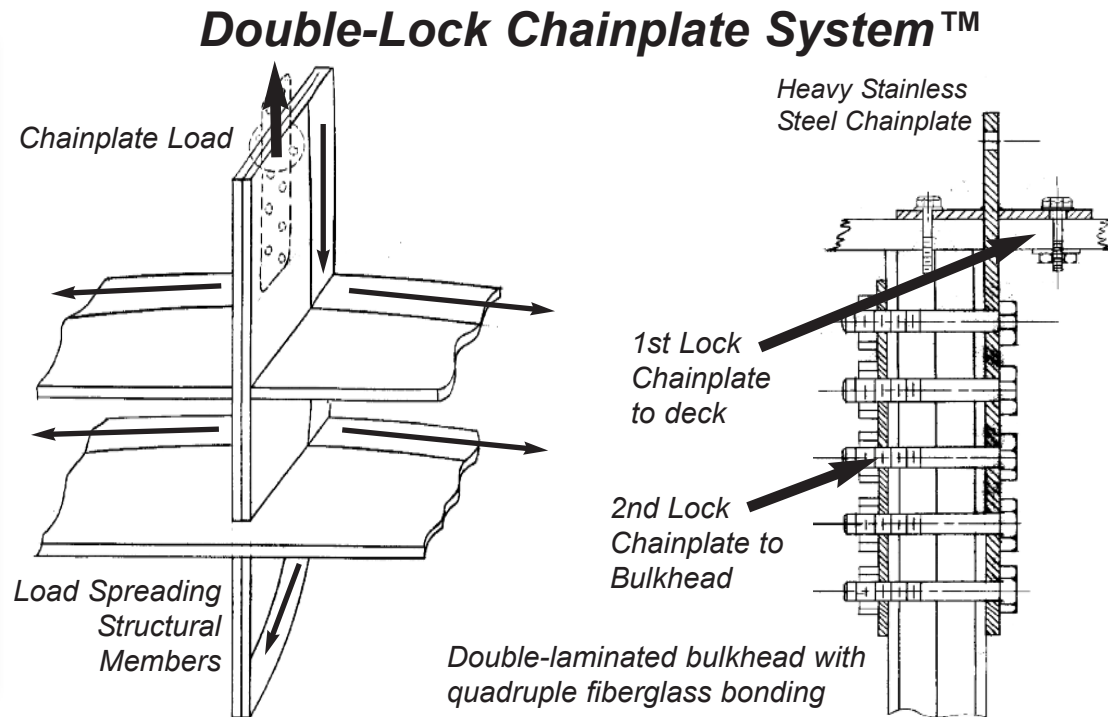
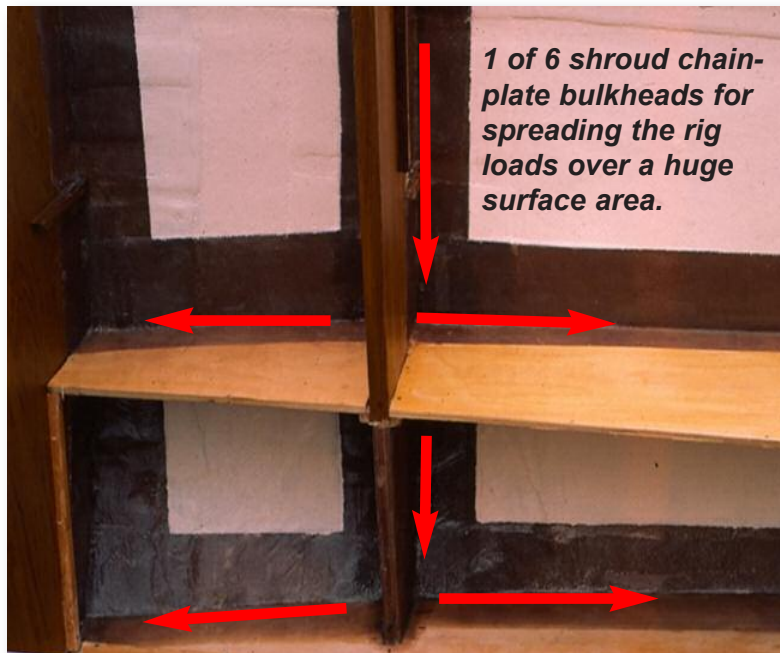
We then set our chainplates inboard on the deck edge to allow tighter sheeting of the genoa when close-hauled for better performance, plus easier passage fore and aft on the deck.

### From "Offshore Yachts" by John Rousmaniere

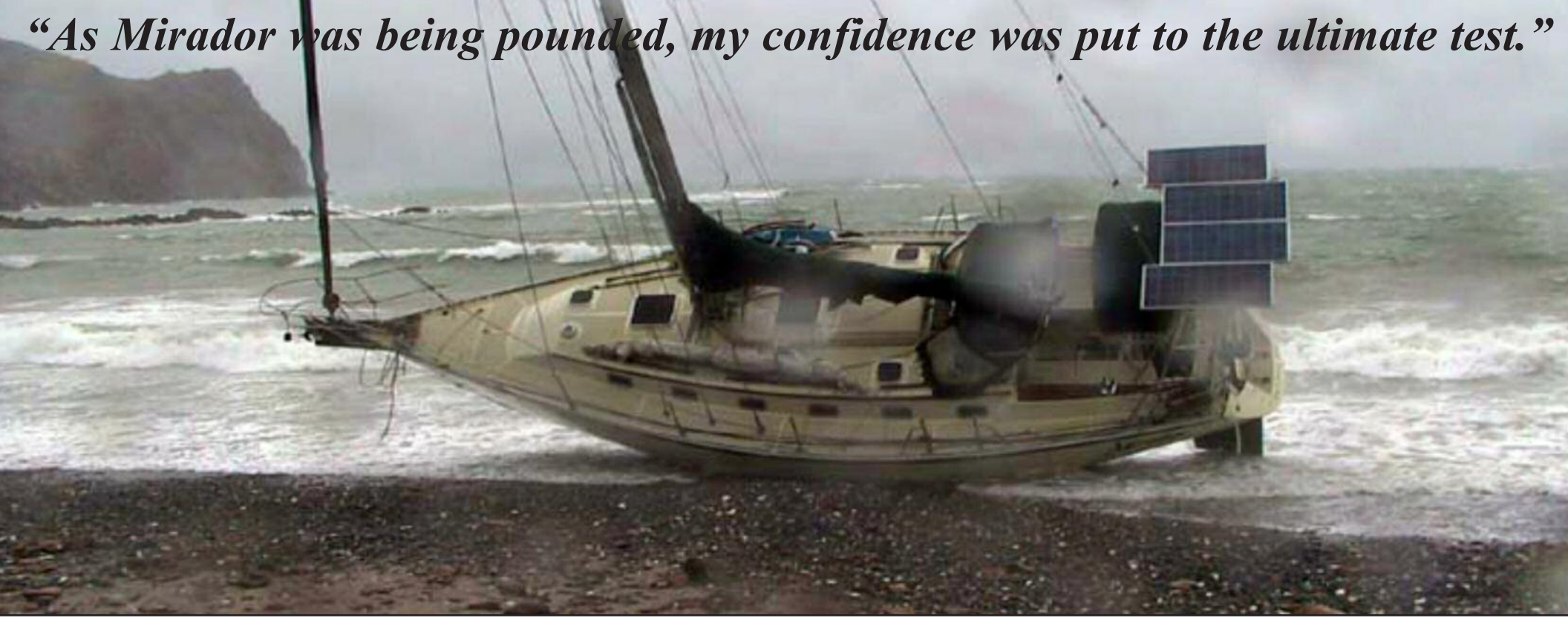
*"The mast step must distribute mast compression fore and aft to floors. A bulkhead close to the mast is a desirable feature. Chain-plate loads should be spread by a hull attachment that is as long as possible--a structural bulkhead is ideal."*

### From "Further Offshore: A Practical Guide for Sailors" by Ed Mapes

*"The chainplates, port and starboard and on the stem and transom, should be attached to solid structural members that distribute the rigging loads to the vessel's backbone without causing local distortions. Ideally, for strength and redundancy, each stay and shroud should have its own chainplate."*



*“As Mirador was being pounded, my confidence was put to the ultimate test.”*



*Jerry King has extensive experience sailing and living aboard his Caliber in the Baja.*

Hurricane Marty, sweeping through the Sea of Cortez last September, was the greatest disaster to hit the local community and was a potential disaster for my Caliber 40 Mirador. Ultimately, Mirador proved to me how my confidence in her construction was justified.

In Marty's path, destruction ensued. Many yachts suffered major damage. At one marina, there were 13 sinkings, 4 dismastings, 14 yachts grounded and severely damaged, 3 broke free and swept out to sea. At a nearby anchorage, 10 boats sank, 6 went aground, and 3 more disappeared out to sea. It was a brutal storm.

At the height of the storm, my anchor line parted. Moments later, I was under full power battling the terrific winds. Ten-foot breaking seas prevented me



from leaving my anchorage surrounded by rocks and reefs. After an hour, I was shivering with cold, feeling seasick for the first time in 20 years of sailing, barely able to maintain control to dodge other boats and reefs around me.

I faced a tough decision at 5AM. Though I knew it was going to be risky, it was my best option - I decided to deliberately beach my beloved Mirador in the pounding surf during the peak of the storm. I knew Caliber built a strong boat. Now I was forced to put it to the test.

So early Tuesday morning, I parked Mirador on a steep sandy beach covered with fist sized rocks. She came to rest with her port toe rail a foot above the beach with her mast toward shore. Breaking waves came over the starboard side filling the cockpit with sand. Those waves battered Mirador nonstop for the next 7 hours. Finally... high tide arrived just as the wind shifted to offshore.

I immediately set the genoa and after 30 minutes of Mirador being lifted and violently deposited directly and squarely on her rudder and skeg, she was free. Upon anchoring Mirador, I inspected the bilges, engine room, and rudder shaft.

Miraculously, I found the bilge bone dry as if the previous 14 hours was only a nightmare. The wheel and rudder turned freely and smoothly. Not a spot of damage was to be found anywhere inside. Ultimately the major damage, after what could have been catastrophic, was only cosmetic and repaired shortly after. I will be a forever grateful for the strength of Caliber's amazing hull and rudder system.

*--Jerry King, SV Mirador*



*Caliber Multi-Bulkhead Bonding System™ took a severe pounding and proved its strength.*



*Cosmetic repairs being completed on Mirador. Though not recommended, a Caliber hull can easily withstand the pressures of a haul-out island style. After all, if a hurricane can't damage her, a sandbar certainly won't. A Caliber deserves the confidence it gets.*



*Mirador anchored in the Baja, like new, shortly after the adventure with Hurricane Marty.*

# INTERIOR

**SIMPLE ELEGANCE--  
SPACIOUS ACCOMMODATIONS  
GRACIOUSLY APPOINTED IN  
HAND-CRAFTED TEAK.**



Caliber Yachts takes the Series (Simple Elegance Series) to new levels of luxury never

before found on American built yachts. Within the all teak interior, from the hand-crafted soft headliner, to the premium gloss finish of the teak and holly sole, Caliber uses no labor saving cold, hard fiberglass to disturb this truly livable yacht.

Step below deck and you'll immediately feel the warmth of the hand-selected, hand-varnished teak that completely surrounds you. Furthermore, the same attention to design that made the 40LRC SE so enjoyable topsides makes her eminently livable below.



*Looking Aft into Aft Cabin and Nav Station*



*Main Salon Looking Aft*





## L-Shaped Galley -- Luxury in teak with loads of practical storage.

A gourmet cook will appreciate this galley with its LPG stove with oven, built-in microwave, a 6 cu.ft. top loading refrigerator/freezer box, large premium double stainless steel sink, lots of storage for food and utensils, and an L-shaped counter for space to prepare meals.

And, unlike some galley designs, ventilation is a priority. Flow-through ventilation is accomplished with its two dedicated portholes and two dedicated overhead hatches. This in addition to its location beside the large companionway opening.



**Every available space is converted into usable storage.**

As with all LRC SERIES yachts, every conceivable spot is used for storage so no volume is wasted.

The icebox is super-heavily insulated with a 4" layer of premium two-part expandable foam that fills all voids. A super energy efficient process.



## Main Salon -- Fold away bulkhead table creates space for entertaining guests or for quiet relaxation.

The Main Salon takes full advantage of the wide beam to provide an expansive main living area. The main salon, with the table up, provides a nice place to sit, have a drink, watch TV, or read a book. With the fold-up bulkhead table (wine and magazine rack behind) down, it creates the perfect area for dining with a large group when the occasion arises.

Storage in the main salon abounds. There are large storage lockers under, behind, and above both the port and starboard settees. Shelves, with book bars, are located outboard of the settees as well.

When extra guests arrive, the port L-shaped settee easily converts into either a large single berth, or a small double.

Teak hull panels make this a warm and inviting area. An area where the majority of your time below will be spent.





*Large L-shaped Galley with Loads of Storage.*



*Main Salon Looking Forward into Forward Cabin*

**Pure Luxury -- Two sleeping cabins, both with their own privately accessible heads.**



The 40LRC Series offers two private sleeping cabins. Not only that, each has its own attached private head too.

The forward owner's cabin is a true stateroom. Instead of a confining V-berth, there's a generous offset queen-sized pullman berth. This stateroom features a vanity, cedar-lined double-hanging locker, bookshelves above the berth, plus locker and drawer storage below. There is private access to the dedicated private owner's head forward. This head features a walk-in shower stall enclosed by a plexiglass door.

The private aft cabin features a double-berth which can also double as a sea berth on offshore passages. This cabin contains a cedar lined hanging locker and a storage locker below the berth. This cabin also has private access to the aft head.



*Looking into the Private Guest Cabin*



*Looking into the Forward Owner's Cabin and Private Head*



## Not one, but two heads for owner and guest privacy.

Uncommon for a yacht of this size is having two heads. A dedicated owner's head and another for guests. The guest head has dual accessibility. It can be accessed from the main salon area during the day, or private access for guests in the aft cabin at night.

The forward head has a walk-in shower stall which is independent of the basin/toilet area. It's further protected by a large plexiglass shower door. There is also a built-in shower seat with teak slates.

Both heads feature large basin/toilet areas. There is plenty of elbow room and plenty of storage, above and below the sink. To make cleaning and maintenance easy, these are the only interior areas that are built using fiberglass components.

Premium quality hoses and solid PVC piping help reduce the mildew odor usually associated with marine discharge systems. Additionally for further odor prevention, the large holding tank for both WCs is located well forward in the bow of the yacht where it is completely isolated from the rest of the yacht interior.



**From *The Voyager's Handbook: The Essential Guide to Blue Water Cruising* by Beth A. Leonard**

*"Saltwater in clothing and bedding absorbs additional water, making everything damp and promoting mold and mildew. To control moisture below, we shed clothes and rinsed thoroughly before entering the main living space of the boat. Ideally, you want a place to drop your clothes or towel yourself off at the bottom of the companionway."*

## A Dedicated Nav Station -- For the SERious Navigator.



The dedicated navigator's station, located aft near the companionway, gives the navigator a secure location to plot a course and to monitor the electronics. Adjacent to the nav seat is a communications porthole. This makes communicating with the helm station very easy.

There is extra space to accommodate a full range of electronic navigation equipment on the drop-down mounting surface designed for this purpose. Even a radar display is possible.

As in other areas of the 40LRC Series yacht, every

available cubic inch is turned into usable storage. The working surface of the chart table is large enough to make chart reading and plotting easy. The lid raises for instrument and chart storage, with additional storage under the seat.





## Light -- Day or night. Simply outstanding.

At night, or during the day, a serious cruising yacht needs plenty of light. The LRC Series delivers. Specialty lights are placed throughout the entire interior. There are more than 22 switched lights in total. 11 dome lights are placed throughout the interior for general purpose white lighting. When needed, these are capable of red illumination for night running. There are 3 under deck lights with variable lighting power. There are 7 specialty spot lights located specifically for reading. A chart table light and

courtesy night lights round out this abundant combination.



During the day, a multitude of openings are located in every cabin that let in an abundance of natural light (See page 12 for details). What's more, the overhead hatches come with a quick way to adjust them,

depending upon what the conditions outside are. They have custom installed Skyscreens in each one. This allows quick adjustment of not only a built-in sun and privacy shade, but also the insect screen which is included.

From darkness to a completely sunny day, a Caliber LRC Series puts you in full control of how much light you desire inside.



## The Caliber LRC Series Delivers-- Yes, you can bring it with you.

Whether your voyages last a week or months at a time, storage space on a boat is at a premium. So at Caliber, we put a lot of thought into equipping our LRC Series yachts with extraordinary storage capabilities.

Building our integral tanks under the sub-sole and into the ends of the hull, frees up a huge amount of volume where it's converted into usable, accessible storage. In addition, because all Calibers are designed with a true dedicated engine room, all major mechanical and electrical equipment is installed there. Once again, freeing up space in the livable cabin areas for storage.

Of course, there are numerous lockers, drawers, and shelves throughout the interior. But where space is squandered on other boats-- under counters, above counters, under settees, behind settees, and under berths -- it is all designed to be usable storage on a Caliber.

Furthermore, with the moderate displacement Caliber Performance Cruising Underbody™, the extra stores won't bog down performance. The hull is designed for load carrying capability. Designed to perform when fully loaded for an extended offshore voyage.

### From "World Cruising Survey" by Jimmy Cornell

*"Displacement was also examined in the Ideal Boat Survey and the majority of those questioned favored a medium displacement boat, able to carry sufficient stores and provisions, but without being sluggish."*



*Caliber knows that serious sailors demand serious storage capacity. Just a quick look into any cabin of a LRC Series yacht and you will see that every available cubic inch is turned into usable storage.*

**From “Ready for Sea” by Tor Pinney**

*“It seems to be an axiom that no matter how large or small the vessel it will be overflowing by the time we go cruising.”*

**From “Ted Brewer Explains Sailboat Design” by Ted Brewer**

*“Heavy displacement also allows the yacht to carry larger supplies of stores, water, fuel, spares, and gear for extended voyages plus such amenities as generator sets, air conditioners, and heating systems.”*

**From “Buying and Selling Making Sound Investments in a New or Used Boat” by The Editors of Practical Sailor**

*“Conceptions and misconceptions aside, the chief advantage of heavy displacement, especially in smaller boats, is that for the same overall length, the heavy boat can be more roomy and carry a larger payload than a light boat without affecting performance.*

*“Whereas livability (space, carrying capacity, seakindly motion, etc.) is the major advantage of a boat with heavy displacement, the top priority for the light boat is performance.”*



## Caliber Long Range Storage Capacities



Below the cabin sole are the extraordinary large fuel and water tanks. Therefore, every useable cubic inch above the sole can now be converted into useable storage as these photos illustrate.

From *“Further Offshore: A Practical Guide for Sailors”* by Ed Mapes

*“The interior must be suited to the intended use, provide the desired number of berths and heads, and be functional. You will need lots of storage space below. Try to envisage the quantities of provisions you’ll need on passages, given the number of crew aboard and make sure the vessel you choose has the storage space to accommodate them.”*

From *“Elements of Yacht Design”* by Norman L. Skene

*“Ample storage space is another requisite and one that is too often overlooked in the owner’s eagerness to get the maximum of living accommodations. Spare gear, supplies and personal equipment require an amount of space hard to realize, even for ordinary coasting, and there is never any too much storage space.”*



Sturdy double anchor roller platform forms the basis of the Caliber Smart Anchoring System™. See page 16.

Divided locker for storage of fenders, mooring lines, gear... Plus, second area for anchor rode which is designed for non-binding chainfall.

Private, fully enclosed shower stall, shower seat, and Plexiglass door to keep shower water within.

Forward stateroom features easily accessible offset berth, with loads of storage options above and below berth. Above berth is a cabinet locker plus bookshelf with book bar for security.

Large bulkhead mounted table for large dinner gatherings. Can be folded out of the way for a spacious entertaining area.

Large, efficient L-shaped Galley offers abundant storage to prepare sumptuous meals. Dedicated garbage-bin built into companionway steps for out of way storage.

Dedicated navigator station out of the way of traffic. Can accommodate an array of electronics, charts, and instruments.

All serious offshore cruisers should have a dedicated, well engineered engine and equipment room. All major equipment should be accessible. By having a dedicated engine room, more storage is available in the rest of the interior.

Roomy private forward head has lots of storage places and loads of room for moving about.

A double cedar-lined hanging locker, multiple storage lockers, with stand up vanity and storage under, are just a few features in this private forward cabin.

Main salon takes full advantage of the maximum beam and headroom by creating an extra roomy space for living.

Dual access aft head with convenient access to the cockpit and private access from the aft cabin.

Private, aft stateroom accommodates a couple in comfort. Storage consists of a cedar-lined hanging locker, cabinet and drop-in storage.

Safety Boarding Platform adds convenience and safety without sacrificing seaworthiness. It's extra strong with the addition of substantial structural rudder supports bonded to it inside the hull. Incorporated is a self-launching boarding ladder deployable by a person in the water.

## No matter where your voyages take you, be comfortable -- Insulate.

At Caliber we take the issue of liveaboard comfort seriously. We understand that a serious offshore voyager can experience the extremes of weather conditions all over the world.

A yacht interior is notorious for exaggerating ambient air temperatures. When it is hot outside, it is even hotter below. When it is cold outside, it is even colder below. To make life more com-

fortable, we now offer a way to beat the weather with our fully insulated interiors using Armaflex™ engineered insulation sheet foam. The difference is remarkable and immediately noticeable.

Because of Caliber's unique Multi-Bulkhead Bonding System of construction, all exposed areas of the hull can be fully insulated without obstruction. And because of our soft headliner method of construction, the entire deck surface can also be insulated just as well.

Boats with fiberglass pans or hard headliners don't have the accessibility to insulate throughly.

As an additional benefit sound dampening can also make life aboard more comfortable. A fully insulated interior means it is easier to sleep at night. The sounds of slapping hal-yards, wind howling through the rigging, and normal anchorage noises are considerably dampened.

### From "The Essentials of Living Aboard a Boat" by Mark Nicholas

"Care to guess how much insulation a boat has? None. It's just fiberglass. Well, that's not entirely true, as there might be two layers of fiberglass on either side of a thin piece of balsa wood or foam core. The ports might be only a thin piece of glass or plastic; hatches are typically made from a single pane of plastic, glass, Lexan, or acrylic, none of which is know fir tis insulating or soundproofing capabilities.

Lack of insulation means that (in addition to added noise) when cold water surrounds the boat, the interior hull and surfaces will chill. We will talk about this in the "Climate" chapter. When there's cool or cold air, the boat's topsides will chill. When it is cold and damp/rainy outside, eerything will chill. This is not only uncomfortable, but it also results in condensation."

"[...] A nice temperature is essential for comfort. If you are not comfortable, you won't live aboard long-term."

### From "The Voyager's Handbook: The Essential Guild to Blue Water Cruising" by Beth A. Leonard

"In New Zealand in November, which is the equivalent of early spring in the temperate latitudes of the Northern Hemisphere. In such temperatures, condensation forms on poorly insulated hulls; the amount of water can be astonishing. In South Africa, friends of ours on an older boat with a solid fiberglass hull had streams of water trickling down the cabin sides in 30-degree temperatures."

## SERIOUS Insulation Protection



Hot or cold weather? No problem. You still can be dry and comfortable below.



We use Armaflex™ barrier with anti-bacterial protection

## Dedicated Engine Room -- The heart of a Serious offshore voyager.

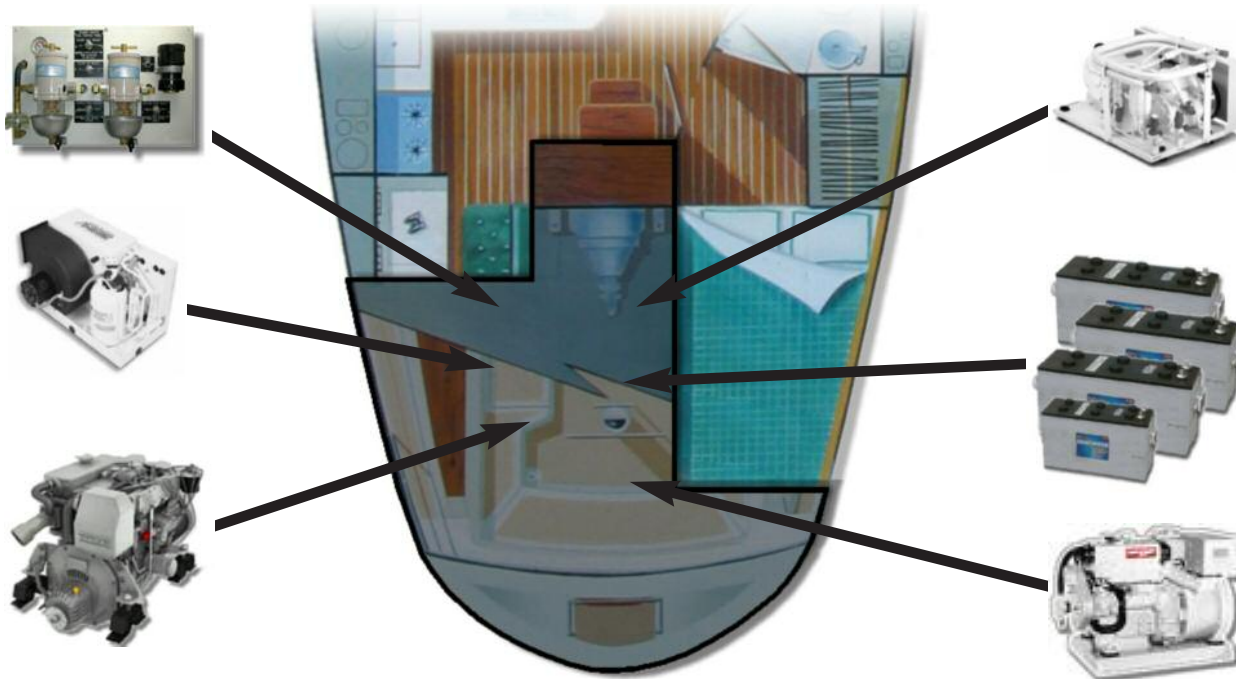
The engine room, so often neglected in other cruising yachts is considered the heart of an LRC Series yacht, and given the attention it deserves. It is designed with the utmost planning and attention to detail.

There is another trend developing

in yacht design to totally eliminate the engine room. Some yachts place major system components under sinks, buried in lockers, and under berths, taking up valuable storage space in the living cabin areas. Not on an LRC.

All of the LRC Series yacht's major system components are primarily located in the dedicated engine room. This

### Caliber Dedicated Engine Room



Equipment required of a serious offshore yacht adds up quickly. Good accessibility is important for maintenance. Placing equipment in the engine room frees up interior space for storage.

### From "All in the Same Boat: Living Aboard and Cruising" by Tom Neale

"A good solution, in boats of 37 feet and longer, is to have an aft cabin arrangement with the engine room under the cockpit. The engine room should contain as many systems as is practical. This setup is an excellent compromise.

Some builders don't favor these engine rooms because they supposedly take up too much potential living space. These are the same builders who wedge the engine into a little slot between the gally and a head and as aft passage and whatever else they can think of. A shoehorn is the first tool you'll need with these installations, but there is a wonderful feeling of spaciousness when you go below at the boat show.

It is true that a dedicated engine and equipment room takes away from living space, but other arrangements may obliterate most of the living space while you're making repairs."

### From "Handbook of Offshore Cruising" by Jim Howard, Charles J. Doane

"Considering the importance we attach to engines it seems strange that the space provided for them is often badly located, poorly designed, and undersized. Probably the reason for this is that on the showroom floor it is human space, not engine space, that sells boats. How often do you see a picture of an engine compartment in a boat advertisement?"

leaves extra room in the rest of the yacht interior for useful storage.

Within the engine room, there is space and shelves for an air conditioner, water maker, inverter, etc. There is good access to all this equipment-- Including the diesel engine which is accessible 360 degrees around. The marine batteries, fresh water manifolds, and Fuel

Control Panel are all within easy reach.

Engine access is not just an after-thought in a Caliber. Care was taken to make sure you will not have a problem accessing the entire engine when the need arises. And for occasional maintenance work, access is made easy by simply removing the companionway steps.

## Smart Engine Access



Great engine access in three easy steps. 1. For a quick look simply flip up the hinged top step. You can have a quick look to make sure all is in order.



2. For routine maintenance work, the steps can be removed by the turn of a few thumb screws. There is a special side panel for access to the water pump impeller.



3. For complete access to the engine for replacement of any major parts or for an overhaul, the front panel can be unscrewed. Access to the back of the engine is through the cockpit hatch.

From **“Handbook of Offshore Cruising”** by Jim Howard, Charles J. Doane

*“If I am ever fortunate enough to design or build my own boat it will have an engine compartment that is easily accessible on at least three and preferably four sides. If an engine is stuck back in a tiny, cramped compartment it will almost always suffer from poor maintenance. With a little bit of thought in planning and building, an engine room can be designed with removable panels to permit easy access to any part of the engine.”*

From **“The Voyager’s Handbook: The Essential Guide to Blue Water Cruising”** by Beth A. Leonard

*“Easy engine work becomes difficult when you cannot reach a filter or put a wrench on a recalcitrant bolt. An aggravation in harbor, poor engine access becomes a nightmare at sea. Good engine access means you can reach the following elements through engine access panels: oil dipstick; fuel and oil filters; air filter; water, fuel, and oil pumps; injectors; gear box. You improve your engine access by replacing solid panels with removable ones.*

# ENGINEERING

## LONG RANGE SYSTEMS -- EXTRA FEATURES FOR EXTRA PEACE OF MIND.



Cruising the open sea is one of life's great adventures. But as experienced blue-water sailors know, the fun can easily be dampened by nasty surprises. Such as violent

weather. Uncooperative winds. Weak battery power. Questionable water supplies and fuel rip-offs at out of the way places. Fortunately, for the owner of a Caliber LRC Series yacht, such difficulties aren't so disheartening. That's because we've designed our systems for long range capacity and dependability. Giving you more freedom, confidence, and control at sea.

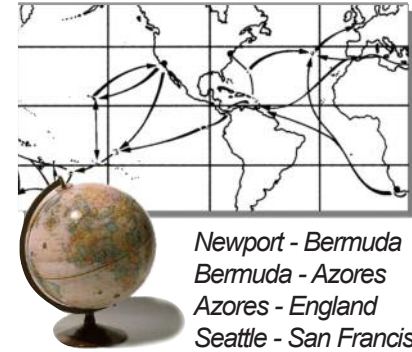
### Fuel and Water--More capacity means less worry.

The 40LRC Series yacht hauls an amazing 165 gallons of water and 212 gallons of fuel. Because of capacities like these, a Caliber owner won't constantly have to top up at foreign ports, where the fuel and water prices may be high, and quality suspect.

Since the fuel tanks hold a lot of fuel, this extends her motoring range many hundreds of miles beyond other boats in her class.

When becalmed, or a storm is threatening, the 40LRC Series yacht can motor vast distances to reach more favorable conditions for sailing.

As further assurance against trouble, the LRC Series yachts are equipped with dual tanks and dual filters for both fuel and water systems. What's more, a feature of the new Caliber Smart Fuel



Newport - Bermuda	700 NM
Bermuda - Azores	2,000 NM
Azores - England	1,300 NM
Seattle - San Francisco	700 NM
San Francisco - Hawaii	2,000 NM
Hawaii - Tahiti	2,500 NM

## Caliber Long Range Tank Capacity



**Few 40 footers can rival the LRC SE's tank capacities -- Amazing 212 gallons (803 liters) of diesel and 165 gallons (625 liters) of water.**

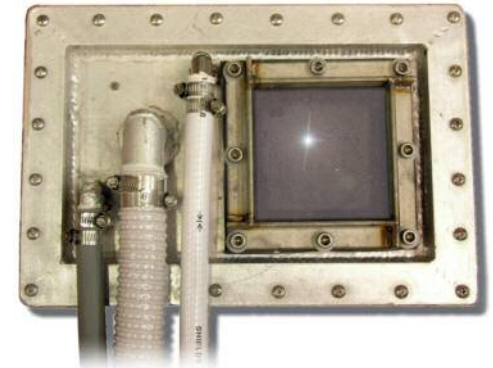
System™, is an intelligent auto-routing of the fuel. Switching of fuel delivery systems is done by a simple flip of levers--Even while underway. As part of the new system, extra filters and a backup electric fuel pump is now standard.



### Seeing is Believing -- Caliber Easy-View™ Tank Inspection Plates.

Your eyes are the most reliable gauge of the condition and level of fuel or water tank in the tanks. With the LRC Series of yachts, Caliber has incorporated clear plexiglass viewing ports so you can do just

that-- view inside your tanks. Not only can you get an approximation of the level remaining, but also you can make sure all is right. A factor that will reassure that you have a reliable source of fuel or water when you need it.



When it comes time to polish your fuel tanks, there is no better way than through the oversized inspection plate which is removable for this annual maintenance procedure.

## Caliber Smart Fuel System™

- ✓ Special intelligent auto-routing of fuel allowing rapid filter selection even while underway.
- ✓ Unprecedented fuel capacity with dual delivery system to multiple tanks (two tanks).
- ✓ Electric fuel pump backup safety fuel feed.
- ✓ Electric fuel pump for diesel fuel polishing (filtering) to keep it clean between the annual major cleaning.



- ✓ Vacuum gauge to monitor filter condition.
- ✓ Three coarse fuel pre-strainers.
- ✓ Two hi-capacity independent Racor 500 fuel filters.
- ✓ Dual pick-up tubes in each tank for polishing and cleaning fuel.
- ✓ Easy-View tank inspection plates.
- ✓ Special overfill protection vent system.







## Need extra power and extra reliability? The answer--Caliber Smart Electrical System™

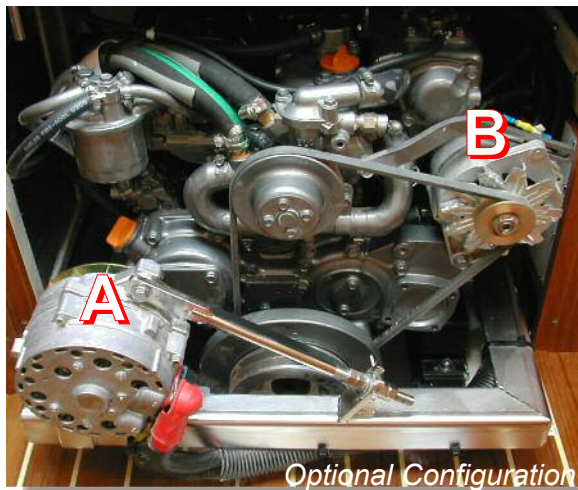
Today's sailor-- who may have extensive navigational electronics and convenience appliances, which makes cruising safer and more pleasurable--Requires extra power. To address this issue we've designed the Caliber Smart Electrical System™. A valuable feature on a yacht that depends upon reliable electrical power.

Increased performance in a marine electrical system is not as simple as adding additional batteries. For heavy duty marine purposes, the solution starts with a battery power system that employs the latest in marine electronics technology.

Deep cycle marine batteries require specialized monitors and charging equipment to be able to supply their potential power reliably and safely.

Caliber's first step is the removal of the standard type

automobile alternator that are generally installed even on marine engines. Then it is replaced with a high-output, small frame alternator. This alternator is capable of producing 110 amps of charging power. To take advantage of this increased alternator power, three very large, high acceptance deep-cycle 200 amp AGM (Absorbed Glass Mat)



High Powered (A) High-output large frame alternator in addition to the standard (B) high-output small frame alternator.

All digital electrical panel with extra space for additional electronics. A standard part of the Caliber Smart Electrical System™.



marine batteries are now a standard in the Caliber Smart

Electrical System™ for the 47LRC Series model. These batteries are carefully located for great accessibility. Even more convenient, adding an extra optional battery is possible.

Now, to make the high output alternator work efficiently and safely with these deep-cycle batteries, there is a specialized "smart regulator" in the system. This regulator can be considered as the communicator between the batteries and the alternator. It controls the charging power to the batteries in a sophisticated step sequence regulated not only by the voltage, but temperature also. These criteria are monitored for the optimal charging

### From "Modern Cruising Under Sail" by Don Dodds

*"The engine alternator is the next most common source of power for the batteries. Almost all engines come with alternators. The bad news is that they were designed for truck or automobile use. Trucks and automobiles have rapid-draw-down, high-power-output batteries; therefore, their alternators and generators are designed to put back that kind of power, by supplying a large current load for only a short time and then substantially reducing the current output. This is a good idea for the average car battery but a poor one for boat batteries. If you have one of these alternators it should be modified to bypass this regulator system, or replaced with a good marine alternator."*

sequence. Should there be a malfunction in the system, it would be indicated by an error lamp and associated audio buzzer which is also part of this smart regulator.

Battery charging while the engine is running is fully automatic and therefore does not require any manual intervention by the owner. If one should want to know the status of the charging regime at any time, a status lamp is incorporated in the smart regulator for this purpose.

As an additional safety feature, the starting battery is isolated from the house batteries. No switching is necessary to start the engine or to charge all the batteries. And, its not possible to accidentally drain the starting battery while using appliances.

In the unlikely event that the starter battery fails, there is an emergency parallel switch which makes it simple to transfer power from the house batteries to start the engine.



*Charging power can be supplied by solar panels, wind genera-*

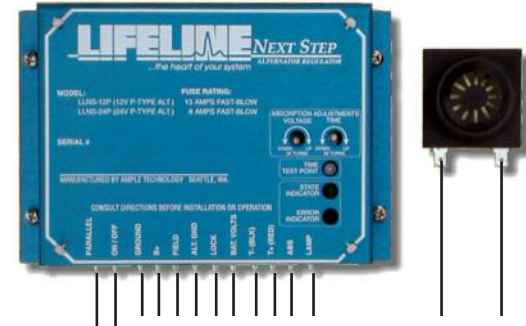
*tors, diesel generator, or engine alternators. Most likely, a combination of them. The Caliber Smart Electrical System makes sure to maximize use of this power to give you your power when you need it.*

Furthermore, the electrical circuits are protected with a circuit protection device (CPD). Every circuit has to go through a main CPD. To help insure the protection of additional future equipment, there are additional positive and negative distribution posts. These create convenient attachment points for optional electronics. For further safety, a main 450 amp manual switch is installed to shut down the entire DC house battery system quickly.

All these features make the electrical system safe and reliable. They are incorporated as standard equipment with the Caliber Smart Electrical System™.

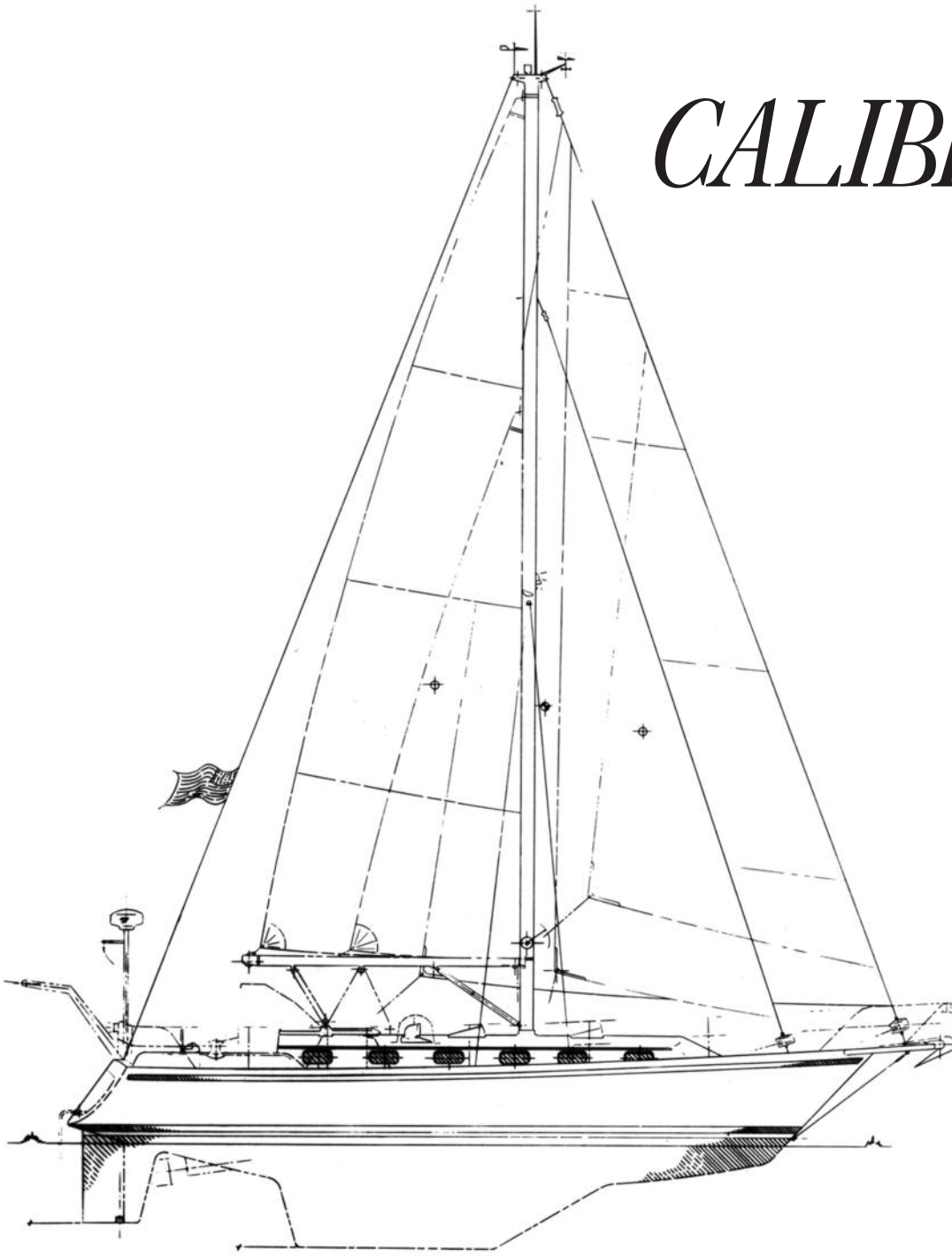
## **Caliber Smart Electrical System™**

*A smart regulator.  
Just one part of a  
well-engineered  
electrical system.*



- ✓ *Three large high capacity 4D AGM deep cycle house batteries*
- ✓ *One dedicated high output starter battery*
- ✓ *Small frame high-output alternator*
- ✓ *Smart engine regulator with temperature sensor*
- ✓ *Audio warning alarm*
- ✓ *Emergency cross over switch from house to starter battery*
- ✓ *Emergency master cutoff switch and breaker*
- ✓ *Auto-charging dual battery banks*
- ✓ *Dedicated distribution posts for additional electronics*
- ✓ *Special intelligent auto-routing of fuel allowing rapid filter selection even while underway.*

# CALIBER 40LRC Series



LOA	40' 11"	12.47m
LOH	39' 1"	11.91m
LWL	32' 6"	9.91m
Beam	12' 8"	3.86m
Standard Draft	5' 1"	1.55m
Headroom	6' 4"	1.93m
Displacement	21,600 Lbs.	9,798 kg
Ballast	9,500 Lbs.	4,309 kg
P	45.75'	13.94m
E	13.25'	4.04m
I	50.50'	15.39m
J	17.25'	5.26m
Sail Area	739 sq.ft.	68.66sq.m.
Water (dual systems)	165 Gallons	625 L
Fuel (dual systems)	212 Gallons	803 L
Auxiliary Power	54 H.P.	39.72 kw

Designed by

Michael McCreary, N.A.

**WE'VE TOLD YOU ABOUT  
CALIBER QUALITY; IT'S  
TIME FOR A MUCH CLOSER  
LOOK.**



For sailors who love a fine yacht, there's nothing quite like standing on a Caliber's solid deck, inspecting her sturdy rigging or exploring her handcrafted interior. An interior that invites you as a liveaboard or as a weekend guest. Whether going around the world, or coastal cruising, the new Caliber LRC Series of yachts are fully capable of taking you anywhere.

So join the many hundreds of discerning Caliber owners and experience a Caliber for yourself. For a closer look, please call our office or your nearest Caliber dealer for more information.

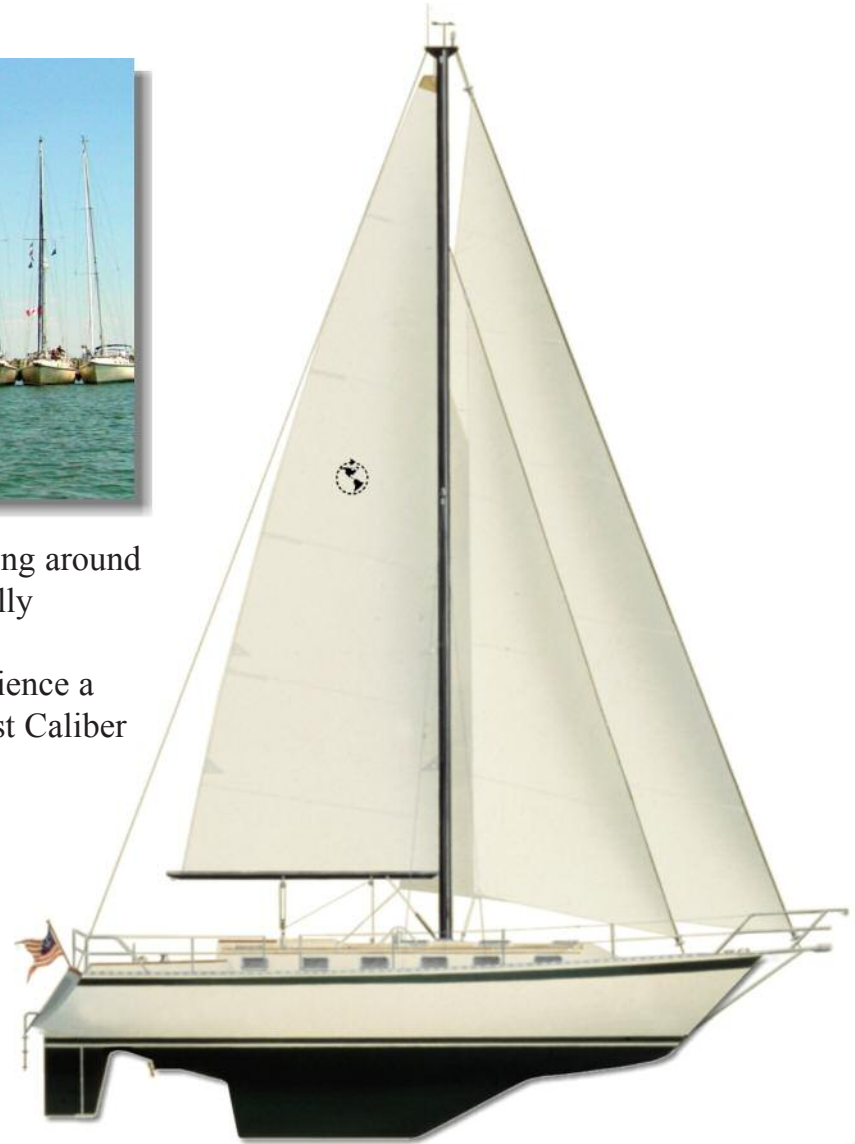
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*Builders of: 35LRC, 40LRC, and  
47LRC Series Yachts*

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