

# Bomar Top Choice in Serious Offshore Hatches

*We also like the cast-frame Atkins & Hoyle. Among extruded models, Lewmar has the widest selection.*

**A**s is widely known in this era when so many of us are buying and upgrading older boats, there's not much gear on a sailboat that doesn't eventually need replacement.

Consider foredeck hatches. Seemingly made to last forever, hatches fall prey to broken hinges, fractured or worn-out dogs, bent locking mechanisms, lost knobs and to the deterioration of the adhesives, caulking and gaskets that make them waterproof. They also succumb to spinnaker poles, whisker poles and anchors, all of which behave like hatch-seeking sidewinder missiles.

We recall a popular 19' 2", two-berth cruising boat that in its early production versions had a hatch attached with two small hinges whose little machine screws sheered easily

when the hatch was leaned on while handing a jib. If you had one of these boats, you know the name. The boat, now a four-berth model, still is being produced, improved by the simple elimination of the forward hatch.

If it is merely the acrylic insert in the hatch that is scratched or crazed (common) or cracked (uncommon), replacing the "lens," as it is called in the trade, is not difficult. On most hatches, a simple, hard razor cut frees the lens. Clean the channel and lay in a bead of the adhesive supplied with the replacement lens, usually a chemical adhesive called "Silpruf," made by the Silicone Products Division of General Electric. Then, press home the new panel and clean up the edges. The principal bond takes place between the edge of the lens and the frame.

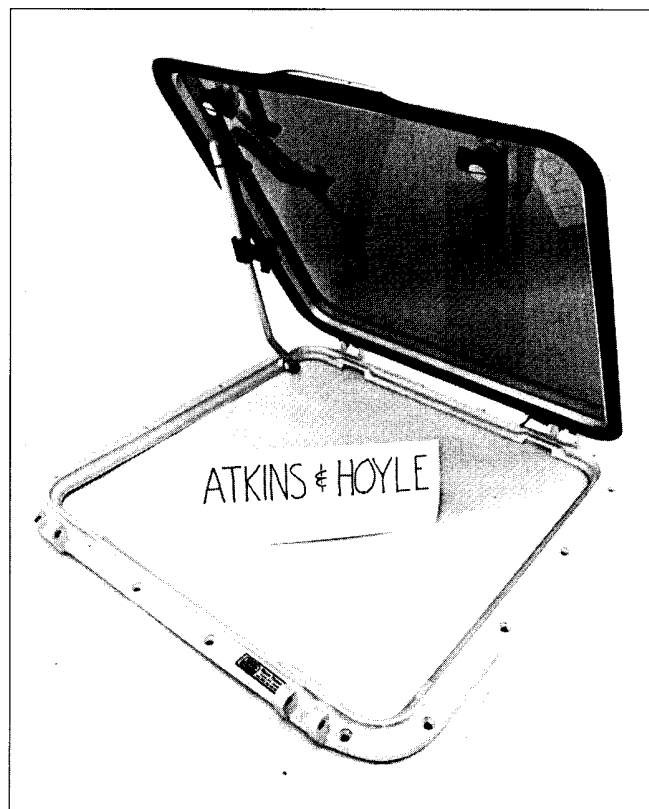
It may seem strange to have something as important as a hatch lens merely glued in place, without mechanical fasteners. However, no

hatch maker to whom we talked has ever had a "lens" pop out by accident. We've never heard of it happening.

If you like to spend money and want even greater (but probably unnecessary) strength, get a Lexan lens with a Margard finish to hard-glaze the surface. Moby Dick can land on it, without mishap.

Finding a replacement for a hatch damaged beyond repair can be difficult, especially if, as is often the case, it was custom made by a boat builder now out of business, or if you have a cambered mounting surface. The retrofit is much simplified if the manufacturer of your boat used stock hatches still being produced.

The key to avoiding extra work



**Right:** Atkins & Hoyle's XR double frame hatch is a beautifully-made and soundly-engineered hatch with an excellent finish. Extremely strong, it is all-cast aluminum with an acrylic lens, which Eric Atkins greatly prefers to Lexan. The dogs are spring-loaded and adjustable. Available in seven sizes, it has strong support arms (stainless spring-loaded hinges are an option). Clear anodizing, an extra-thick lens and deck-operated dogs with locking mechanisms also are options. It's a sleek, heavy-duty hatch intended for ocean work.

## DECK HARDWARE

and expense is finding a hatch that fits the original opening in the deck. Luckily, most hatch makers make relatively standard-sized hatches. If the mounting holes match, it's a bonus, but don't count on it. Also, the radius on the corners of the hatch base must be approximately the same. And, finally, you must decide if you need a flush-deck or spigot model. The spigot is a flange on the base that extends down into the deck opening. The interior then can be finished off easily with an optional trim ring to which a screen (if available) may be attached.

Whatever kind of hatch you choose or are forced to choose, a first-rate

foredeck hatch has a lot of priority when you take solid water over the bow. An absolutely watertight hatch also avoids a serious annoyance factor for those who sleep in the forward berths.

For these reasons, we selected for this evaluation top-of-the-line hatches from nine major suppliers. Most manufacturers make hatches in a number of sizes and shapes, including low-profile models. We arbitrarily chose a square size—for a deck opening of 19" x 19".

### Hatch Manufacturers

The world's largest producer of alu-

minum hatches, both cast and extruded, the Bomar Company, in New Hampshire, makes more than 90 percent of all powerboat hatches and used to have an equally lopsided share of the sailboat market. Bomar offers many models, sizes and shapes, including round, trapezoidal and one with a curved base for cambered decks.

Lewmar, increasingly aggressive in recent years with a wide range of highly-engineered extruded hatches, has cut severely into the sailboat hatch market. Bomar is fighting back, but the big British company, well represented in the United States by IM in Connecticut, means business.

Another player in this lively scrap is an old-line Canadian company, Atkins & Hoyle. It's knowledgeable CEO, Eric Atkins, takes pride in its excellent hatches that are, like Bomar's, cast in Almag 35, a light-weight aluminum-magnesium alloy with great strength.

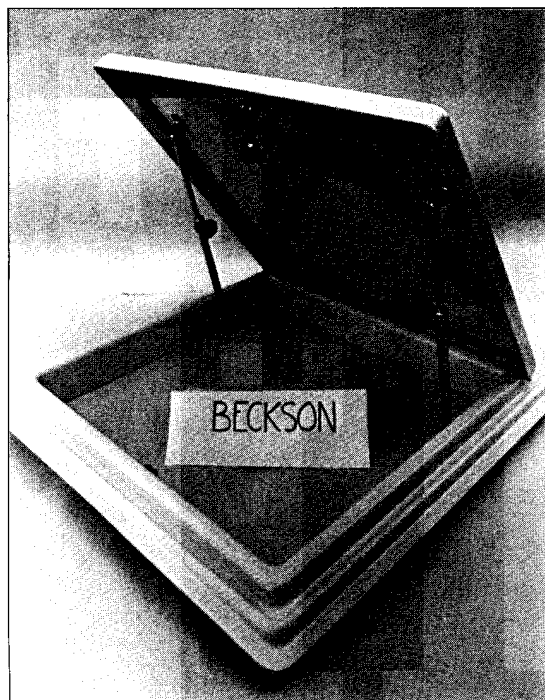
And determined not to be left behind is Nicro Marine, which imports a line called Moonlight hatches, frequently seen with Nicro's popular Day and Night Solar Vents mounted in the lens. The hatches are made by the respected Sophus Berendsen company in Denmark.

Goiot, the French hatch manufac-

turer (owned by Beneteau), is trying for a place in the American market, but has had no U.S. representative since Welborn Marine in Florida dropped Goiot at the "suggestion" of Ronstan, the Australian marine gear maker. The Goiot hatch in this evaluation came directly from France.

Vetus, a Dutch manufacturer with an excellent U.S. representative (Ve-

**Below left:** Beckson's acrylic-clad ABS plastic hatch is lightweight and very inexpensive. It has a domed lid (for strength) and small rivet-fastened hinges, small knob-operated dogs and support arms made of stainless steel. It comes without holes in the base, which means that you must drill your own. An optional clear deck plate or Beckson's Vent-O-Mate can be mounted in the lid. Available also in a flat, low-profile version, this somewhat fragile hatch is, in our view, for conservative sailing in protected waters. **Below right:** Bomar's 139LO, shown here in a large black-painted anodized version with six dogs (smaller ones have four dogs), has a cast base and lid, a Lexan lens (equal in strength to 5" of acrylic), superior lever-type dogs and excellent support arms. The hardware is 18-8 stainless steel. It has a special gasket material compounded and extensively tested by Bomar. Available in seven sizes, it comes with several options, including an extra-thick lens and a clear-anodized finish. There is a cambered deck version. It's intended for severe usage.



tus-Denouden in Baltimore, Maryland), continues to have difficulty in its effort to carve out a niche. (Another Dutch company, Rondal, represented by Norseman Marine in Florida, makes only custom hatches.)

Better known for its portlights, Beckson Marine, of Bridgeport, Connecticut, makes a limited range of plastic hatches, and Nelson Taylor Company ("Taylor-Made"), in Gloversville, New York, offers but one hatch (in five sizes).

(The California firm, Forespar, known primarily for its poles, life-saving gear and Marelon® plumbing fittings, said it is getting out of the hatch business. Because its Marelon®-framed hatch, still shown in its 1994 catalog, will be dropped next year, we did not include it in our evaluation.)

Finally, pretty much in a special category, is the heavyweight stainless steel hatch sold by Hood Yacht Systems in Portsmouth, Rhode Island. (Hood was purchased by Bomar in late March.)



**Above left:** Goiot's Cristal hatch has a strong cast aluminum lid with a fair clear anodized finish. However, the frame base is an extrusion, rough anodized (in the European fashion) to give the impression that it is cast aluminum. Available in 16 sizes with several finishes, it has good dogging levers. The spring-assisted lid has an oddly-designed, adjustable-friction, burglar-proof hinge that is not pre-assembled, which makes the installation (with machine screws) somewhat difficult. Once installed, the hatch operates smoothly and securely. **Above right:** Hood's stainless steel hatch is a heavyweight. Made of extruded stainless that is finely finished on the outside but indifferently finished where it doesn't show, the hatch also suffers from some crude welding of the extrusion closures and the dogging plates. It has excellent, spring-loaded, adjustable dogs. The two support arms are well-made and have notch locks operated by clever spring-loaded twist knobs that help when opening and securing this heavy hatch. Very handsome, very rugged, very heavy to operate.

## The Evaluation

Writing about the hatches and showing them in two or three photos, would be quite confusing and somewhat repetitious. Instead, each hatch is shown in an individual photo, with a caption describing its features (especially what cannot be clearly seen). Additional information is contained in the chart, including in the "Comments" column a few words about each manufacturer's less expensive hatches.

Several general observations apply to hatches. They're not simple devices. The choice is made even more difficult by the bewildering variety offered by the manufacturers.

Cast aluminum hatches, although heavier and more expensive, generally are considered better than those made of extruded aluminum. Cast hatches provide the rigidity needed to get a good mating between the deck and the hatch base and also between the base and the hatch lid. Cast hatches also have integral hinge "ears" and good dog mounts, all part of the casting (which makes unnecessary any holes in the lens).

On hatches made of extruded aluminum, hydraulically bent to shape, the hinges and other fittings must be attached with rivets or other fasteners to the extruded frame or the lens. All

such holes are potential leak points. Extruded hatch bases, unless made of very heavy structural shapes, can flex at the deck, break the seal and result in leaks, especially on offshore boats that take aboard solid water. Unlike cast hatches, extruded hatches have butt seams that must be welded or sealed with tape (usually secured under a hinge). The frame finish is important. Unless very carefully maintained, stainless steel will deteriorate in time, especially at the weldments. Although initially very handsome, powder-coated aluminum (black or white) tends, sooner or later, to flake off. Black anodizing often discolors in saltwa-

## Specs: Deck Hatches

| Manufacturer   | Model                  | Price List/<br>Discount * | Weight<br>(lbs.) | Material                 | Lens    | Opening | Hinge                            |
|----------------|------------------------|---------------------------|------------------|--------------------------|---------|---------|----------------------------------|
| Atkins & Hoyle | XR Double Frame        | \$745/N.A.                | 16               | Cast aluminum            | Acrylic | 150°    | Part of casting, spring-assisted |
| Beckson        | H-1                    | \$225/N.A.                | 8.25             | ABS Plastic              | None    | 80°     | Small riveted                    |
| Bomar          | 139LO (lever operated) | 605/\$400                 | 20               | Cast aluminum            | Lexan   | 120°    | Part of casting                  |
| Goiot          | Cristal                | \$757/N.A.                | 18               | Cast lid, extruded base  | Acrylic | 180°    | Friction, spring-assisted        |
| Hood           |                        | \$837/N.A.                | 21               | Extruded stainless steel | Acrylic | 180°    | Welded                           |
| Lewmar         | Ocean                  | \$512/\$400               | 12.5             | Extruded                 | Acrylic | 180°    | Friction, spring-assisted        |
| Nicro          | Offshore               | \$664/\$529               | 14.5             | Extruded                 | Acrylic | 180°    | Mechanically fastened, friction  |
| Taylor         |                        | \$338/N.A.                | 15               | Extruded                 | Acrylic | 100°    | Welded                           |
| Vetus          | Libero                 | \$530/N.A.                | 18               | Extruded                 | Acrylic | 90°     | Mechanically fastened            |

\*19 inches by 19 inches approximate

ter. The longest-lasting finish is clear anodized aluminum (about a 10-percent premium, but worth it). Extruded aluminum is easy to anodize. The cheapest is "strip anodized," which means the long extrusions are formed and anodized in one continuous operation. As long as the extrusion die (a two- or sometimes three-piece, hand-made assembly that can cost upwards of \$5,000) is very well made, strip anodizing can be very handsome. As used on hatches, "piece anodizing," which coats the end cuts against corrosion, is somewhat more expensive. Most expensive is anodized cast aluminum, because the castings must be laboriously polished before anodiz-

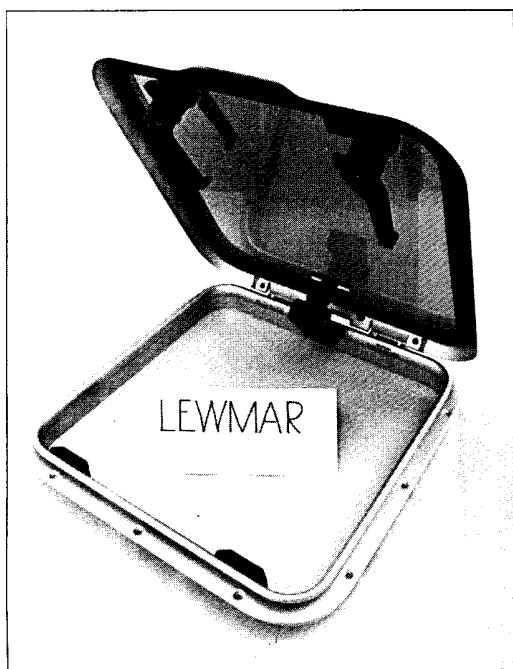
ing.

The all-important waterproof seal strip (called the gasket) can be closed-cell foam, which tends to compress in time; an extruded lip-type seal inserted in the aluminum extrusion, which is better but can be difficult to replace; or, best of all, a round- or box-shaped tube, with an air space that "rests" the tube when the hatch is open. Whatever elastomer is used, it should have minimal shrink. If the gasket shrinks where the ends butt, the resulting tiny crack may produce that not serious but annoying leak.

Hinges are interesting. Some open to about 90 degrees; others open 180 degrees, flat on the deck (which may be desirable if there's room or if you often rig a fabric wind scoop). The trend is to spring-loaded hinges, to make the

hatch easier to lift open. Lewmar, Goiot and Nicro hatches (and one Atkins & Hoyle model) have adjustable friction hinges that hold the hatch in position, dispensing with support arms that can be clumsy to secure with little tightening knobs. The new friction hinges, usually adjusted with Allen wrenches, do require occasional maintenance to avoid the problem with earlier versions that simply wore loose and left you with a flopping hatch lid.

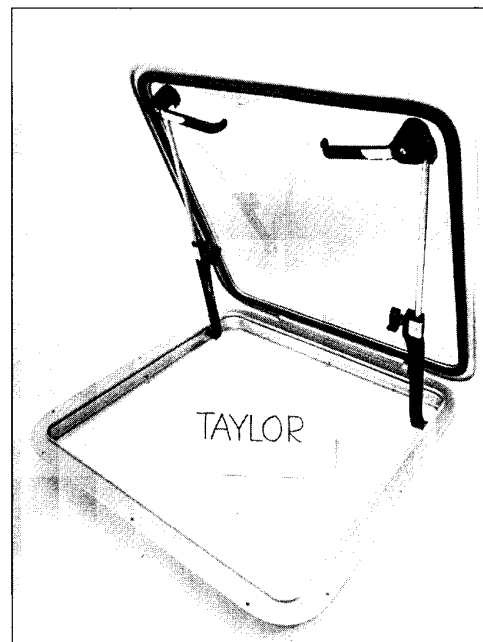
Bomar and Atkins & Hoyle offer excellent hatches, with two sets of "gudgeons" to reverse the "pintles," to make the hatch open either forward (in the customary manner) or aft. They are very desirable on boats in tropical weather. Goiot also has a two-way hatch with a patented system that dispenses with conventional hinges



**Left:** Lewmar's highly-engineered Ocean hatch, extruded aluminum with an acrylic lens (both glued and mechanically fastened), has strong cast hinges (welded into the extrusion). The torsion hinge is spring-assisted and also has an adjustable tensioning mechanism that holds the hatch open in any position up to 95 degrees and makes support arms unnecessary. It has excellent dogs, with interior locking and exterior "breakaway" handles. Using a two-lipped extrusion, the hatch also has a ventilation position that can be locked. **Opposite right:** Nicro Marine's Danish-made Offshore hatch, often seen equipped with Nicro's solar-powered vents, is extruded aluminum with an acrylic lens. It has excellent adjustable tension hinges, mechanically fastened to the lens, that hold the lid in any position. Interior and exterior locking dogs, very easy to operate, are standard and have, like Lewmar's Ocean hatch, a ventilation position and a thumb-operated locking mechanism. Available in nine sizes, the Nicro hatch also has an outstanding tubular gasket.

| Dogs                               | Screens | Inside Trim | Comments   |
|------------------------------------|---------|-------------|--|
| Spring-loaded, adjustable          | No      | No          | In basic black without options: \$450. Optional friction hinges. |
| Part of support arms               | No      | No          | Domed top is fairly strong. Base lacks screw holes. Light duty.  |
| Spring-loaded, adjustable          | No      | No          | Has most extensive line of hatches, many sizes and options.      |
| Adjustable tension                 | Yes     | Yes         | Offers many options and finishes, but is difficult to install.   |
| Spring-loaded, adjustable          | No      | N.A.        | Welding is crude, very heavy to open and lock in place.          |
| Inside-outside opening, adjustable | Yes     | Yes         | Like Bomar, offers many models, finishes and many options.       |
| Inside-outside opening, adjustable | Yes     | Yes         | Excellent tubular gasket and the best friction hinges.           |
| Part of support arms               | Yes     | Yes         | Cleverly engineered for low price, but not a heavy-duty hatch.   |
| Held in stops                      | Yes     | Yes         | Good Dutch engineering, soundly manufactured, many options.      |

**Right:** Taylor's "Taylor-Made" extruded hatch (with a baked acrylic finish) and an acrylic lens, is a conventional hatch with chromed hatch support arms that pierce the smoke-tinted lens and are integral with the big locking dogs. The hinge, welded in place, is a long extrusion with a long hinge pin. Soundly engineered to provide a simple hatch at reasonable cost, the Taylor hatch opens to 100 degrees. It comes only with a 1" spigot. An aluminum trim ring is standard. The only hatch offered by Taylor, it is available in five sizes.



and opens either way without repositioning a hinge pin.

For the ultimate refinements, Goiot offers on its hatches an optional "opening detector," an electrical connection wired to a panel light to indicate that the hatch is locked, and

Lewmar, in addition to a choice of clear, white, smoke gray, bronze, slip-resistant or light-weight honeycomb lenses (for the weight-conscious ocean racer), offers an optional key lock to secure any of its hatches.

Locking dogs, another trouble spot (they can break when somebody on deck slams the hatch with the dogs in the wrong position), also have been greatly improved. The dogs, usually glass-filled nylon, have larger handles, usually tensioned with spacers and tightening bolts to keep them snug. Another recent innovation on some models by Bomar, Lewmar, Goiot and Vetus are dogs that can be operated from on deck. It's handy to be able to open the hatch from on deck. However, this innovation required the development of an interior locking system and exterior

or "breakaway" handles to thwart would-be burglars.

Whereas older hatches rarely had screens, some (but not all) hatches now come with well-engineered screens that fasten neatly and positively to a trim ring. A trim ring and screen usually is an option costing about \$100 to \$150. The screens still must be removed to open and close the hatch and are just as prone to being torn or bent when you forget the screen is in place when you stuff a jib down the hatch.

To reduce the possibility, when coming about, of snagging the hatch with a foresail sheet (a common problem with hatches mounted on raised

