

# Boom Furler FAQ's

## Schaefer's New Mainsail Furler "Answers All Your Questions"

Q: Why put a mainsail furler on your boat?

A: Contemporary mainsail furlers allow you to:

Shorten sail without leaving the safety of the cockpit.

Choose any amount of mainsail area, without the limitations of reefing grommets and cringles.

Dispense with the clutter of multiple reefing lines and lazy jacks.

Store the mainsail without the labor of rolling, flaking, attaching sail ties, and bending on a sail cover.

Q: What are the different types of mainsail furling & reefing systems?

A: The old style, jiffy reefing, requiring two or more people to reef sail on top of the boom, stores the main under a canvas cover. You must leave the cockpit to reef, douse, and cover the mainsail. New reefing and storage systems reef or store the main by rolling it onto a thin, strong tube called a mandrel. The mandrel may be either boom or mast located. Both systems offer tremendous safety advantages because you don't have to leave the cockpit to shorten or store the mainsail.

Q: Schaefer stores the mainsail in the boom. Why?

A: We believe it's a superior location. Schaefer studied the whole problem of mainsail furling, reefing and storage with an open mind. After long design and engineering studies, we found that there can be numerous recurring problems with in-the-mast furlers:

In-the-mast mainsails cannot use battens; consequently,

mainsails tend to flog and age prematurely.

Without battens, increased wind produces a hollow, boat slowing leech.

You cannot utilize modern mainsail design where fully battened sail area well aloft greatly increases sailing power and speed.

Increased weight aloft, with the mandrel and bearing system extending to the mast's top, disturbs the natural righting action of a sailboat.

Increased windage from either "on the mast" or "in the mast" designs.

Increased compression from forces exerted when sail is unfurled.

Higher center of effort in reefed sail, with resulting greater heel.

Q: What are the advantages of Schaefer's boom furling?

A: Schaefer's boom furler simplifies and improves sail shape, reefing and storage.

With a fully battened main, your on the wind performance increases.

You can cut your main for a fuller roach, thus increasing over all speed and, especially, light air performance.

During reefing or storage, flat battens lie parallel to the boom, efficiently rolled up with the sail.

Boom reefing places the mainsail's furled weight low, with the boat's natural righting motion undisturbed.

The mast takes on no increased cross section area, and no increased windage.

Mast compression does not increase; raising and lowering loads are borne by halyards, sheaves, winches and line stops.

Service is simplified because all moving parts are at boom level.

Q: What makes Schaefer boom furlers better?

A: First, a little background – we invested four years in design, engineering and materials evaluation to produce the

most advanced, trouble free mainsail furler available anywhere. We were determined to produce a system that would operate perfectly right out of the box, and extensive testing while sailing on small, medium and large boats (32 to 50 (feet) indicates we were right on the mark.

Specifically, our design team developed:

The Receptacle Sail Track, a robust and highly u.v. resistant track.

Holds full length battens at the precise distance from the mast for stowing on our boom enclosed mandrel.

The unique feeder design which transfers the battened sail precisely from the bottom of the Receptacle Sail Track to the mandrel, ensuring that each batten does not creep forward, but lines up perfectly on the mandrel. During the furling operation, a boom can rise or fall ten degrees without affecting sail alignment.

A high tensile boom extrusion, manufactured initially to match your boat size to 50 feet is now available. This extrusion is specially designed with a nearly flush "T" track to accept vang, mainsheet, and preventer fittings.

An integrated, powerfully articulated relationship of moving parts, where design fundamentals are superb. Every part of the furling boom swings on the same axis, and each part is integrated with another in the cleanest, most direct possible way.

Q: What about reefing when you're under sail?

A: Simplified reefing under sail is one of the Schaefer Boom Furler's greatest advantages. You can reef on any point of sail, without leaving the cockpit, without bringing the boat into the wind, and without losing either your steerage or bearing.

Q: How does the boom furler work?

A: Raising the mainsail is no different from what you've

always done: attach the main halyard shackle to the headboard of the mainsail and winch it up. (Schaefer's furler works best with a cabin top mounted, self tailing winch and two rope clutches or line jammers.) As you raise the mainsail, a specially designed internal furling drum at the end of the boom winds on a length of braid-on-braid furling line about the diameter of a regular genoa furling line.

Simply cleat down the reefing line when your mainsail gets to desired height, and then set the tension of the main halyard with the self tailing winch. It's as simple as that.

Remain on your desired bearing, and ease the main sheet to luff your mainsail slightly.

Attach the furling line to the self tailing winch, and uncleat the main halyard.

As you winch down the mainsail with the furling line, keep a slight, hand controlled tension on the main halyard to ensure an even "wrap" as the boom mandrel rolls up the mainsail.

When the mainsail is furled to the desired height, cleat off the furling line. Then re-tension the mainsail with the main halyard.

Q: That's all there is to it?

A: Yes.

**Q: What about unusually windy conditions?**

A: There's no difference in the procedure.

Q: Doesn't the mandrel develop more friction when you reef in a strong wind?

A: It does, but Schaefer has installed double races of oversize Torlon bearings on each end of the mandrel to handle increased side loads. In Schaefer's "angular contact" design all four bearing races load up at the same time, thus dissipating friction

**Q: What about maintaining these bearings in a marine environment?**

A: The races are open, so you can just flush them out with fresh water every few months. The bearing material, Torlon, requires no lubrication.

Q: Does Schaefer's furling boom weigh more than a regular boom?

A: Yes, about twice as much, depending on your original equipment. But Schaefer has designed and engineered every part to handle this weight easily.

Key components are:

The universal gooseneck pin, made from massive, oversized Type 316 stainless steel bar stock, designed to handle a jib in very heavy weather.

Robust gooseneck attachment wings and a rugged, load bearing gooseneck fixture, to provide three-point attachment of the gooseneck fitting to the mast.

Twelve stainless steel bolts tapped into your mast to secure the gooseneck fitting.

A spring loaded vang to support the boom and flatten the mainsail.

Q: What other materials are used?

A: We drew on cutting edge materials and manufacturing technologies developed in well over a decade of making highly successful Schaefer headsail furling systems, numbering in the tens of thousands, worldwide.

Specifically:

Schaefer's furling boom features the same trouble free, oversized Torlon bearings as our headsail furler.

Unlike our competitors, Schaefer uses no metal castings anywhere in its mainsail furling system. Every metal part is

extruded or machined from Type 6061 T6 aluminum or stainless steel.

Q: Can I use my old mainsail with a Schaefer boom furling system?

A: It depends on the design and condition of the sail. If it's fully battened and in very good to excellent condition, maybe. But since reconfiguring the foot, lining up batten pockets parallel to the boom, adding material to the roach, attaching a new luff tape, and installing a new headboard, it may be cost effective to order a new main.

Q: What about storing the sail?

A: Schaefer's boom furler makes it an exceptionally easy, one person operation:

Winch down the furling line until the main is fully enclosed by the boom. Because you require no sail ties or sail cover, dodgers present no physical obstacle to securing the mainsail. Slide in a 2 inch wide Sunbrella cover (your sailmaker can supply) in the special grooves in the top of the boom.

Q: What about safety: does Schaefer's boom furler make a real difference?

A: Absolutely. With old style jiffy reefing shortening the main in heavy air requires seven steps:

Bring boat into the wind

Ease mainsheet.

Ease vang.

Tighten topping lift (a winch operation on larger boats.)

Release tension on main halyard.

Lower mainsail (requires leaving the cockpit.)

Attach tack grommet to the tack horn (requires leaving the cockpit)

Re-tension main halyard (a winch operation on larger boats.)

Trim clew reef line (a winch operation on larger boats.)

In a seaway, these operations are complicated by the pitching of the boat, and safety problems often occur when a sailor loses a grip on the mast in foul weather or fails to keep clear of the oscillating boom. Schaefer's boom furler allows the boat to remain on course, thus preventing most of the yaw and pitching connecting with old style reefing. Operations are reduced from nine to four.

Ease the main sheet.

Release tension on main halyard.

Winch down furling line until mainsail is at the desired height.

Retension main halyard with the same winch.

All operations can be carried out by a single person from within the safety of the cockpit. Risk reductions begin on the first day you install Schaefer's boom furler.