



Neil Pryde Sails International
Design and Technical Office



Beneteau U.S.A.
Oceanis Series
Overview

INTERNATIONAL DESIGN AND TECHNICAL OFFICE

Product Overview for Beneteau Dealers

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2007 Oceanis Specification Overview

Neil Pryde Sails proudly uses the best first quality materials available in the marine industry today.

Every Neil Pryde sail is the result of a combination of craftsmanship, technology and efficient manufacturing methods. Our extensive sailing and sailmaking experience, traditional handwork, attention to detail, high-tech tools such as computer aided design and manufacturing (CAD/CAM), laser cutters and special purpose sewing platforms unite to produce the finest of sails for the O.E.M. market in the world today. The materials used in all Neil Pryde Sails are primarily produced in the U.S. by four main sailmaker suppliers; Challenge Sailcloth, Bainbridge Int., Dimension/Polyant and Contender USA. All designs, R&D and O.E.M. details are handled by our office in Milford, Connecticut. We work closely with our OEM clients to ensure manufacturing quality, design consensus, and delivery. With weekly production reports and UPS tracking, we can concisely monitor order progress. This coupled with the use of E-mail keeps the clients posted and up to date.

Design

Sailmaking

As part of the integration of computers and software within the marine industry, we work with many file formats to provide cross-company integration of CAD files. This coupled with our commitment to quality produces documents for each production sail. These are made available in hard copy or on disk to the OEM clients, giving them the ability to crosscheck specifications and final product. With cross-platform products such as *Acrobat*, we can have same day turn-around on specification sheets and/or revisions, for your records, reducing real time production time and future warranty issues. These specification sheets can be and are used on the retail level as well, as a comprehensive sail guide for your customer's records.

Software

We currently use the Microsoft family of products, including Word, Excel, Outlook and Access in day-to-day work and communications. We also rely heavily on Adobe Acrobat as a 'cross-platform' device to provide formatted, white papers such as this via electronic mail. On the technical side, we use the Autometrix family of sailmaking tools including; SMSW 6.0 design software, Plotterpilot/Patternsmith nesting and part editing tools and in addition we use Patchtool for sail reinforcement details. This coupled with CAD and strong graphic software allows us to handle all facets of sailmaking, design and graphics.

Sailcloth

We work closely with Challenge Sailcloth and Contender USA in developing the fabrics that will represent the best performance, longevity and value to our customers. All of our woven fabrics that we use in our sails come from these two suppliers. Through an aggressive manufacturer quality control system, and then through our own in-house testing procedures, which include INSTRON strip testing and visual testing for flatness, the fabric we use day to day is consistently the best we can buy



Challenge Dacron is finished 100% in-house (the largest U.S. based sailcloth manufacturer to do so). The fabric is heat-set, shrinking up to 20%. The Challenge durable Stabilized finish is achieved by immersing the fabric in a bath of suspended resin. The resin is absorbed by the fiber. The cloth is then fed into a long oven where the liquids are driven off, leaving the resin solids bonded to the fibers. The result is the tightest possible weave, lowest bias stretch, and maximum durability.



Cross-Cut Fabrics

Challenge fabrics use almost exclusively Dacron yarns and Type 52 High Tenacity High Modulus Dacron is used wherever possible, as we consider it the best sailcloth yarn in the world, due to its low stretch (for strong cross-cut leeches), and high shrinkage (translates into lowest bias stretch and best durability) Type 52, made for sailcloth, is only available in 220, 350, and 440 deniers. In yarn diameters where high tenacity is unavailable, standard Dacron is used in order to maintain the precisely engineered density ratios necessary to achieve maximum fill yarn efficiency, and lowest stretch.

Warp Fabrics

Woven warp fabrics are intended for use in radial or vertical applications. They are used to minimize bias loading by aligning warp fibers along highest loaded vectors in the stress map of a sail. We utilize these fabrics in the high-load areas of the clew and head of the sails, making them stronger and more resistant to shape distorting stretch.

Hardware

We use the industry best stainless steel external rings and hydraulically press rings, coupled with quality lines, ropes and importantly, sewing thread, which is an underrated but most important feature of ultimate product longevity. Our thread is the best Hemingway & Bartlett *Dabond 2002 polyester* in various weights/sizes. Hardware is carefully selected for specific use on each sail and selection is based not only on working load applications but with long-term useful durability as well. Our primary supplier for hardware components is Bainbridge Int.



Metal Cleat with Stainless eyes

Oceanis Series 2007

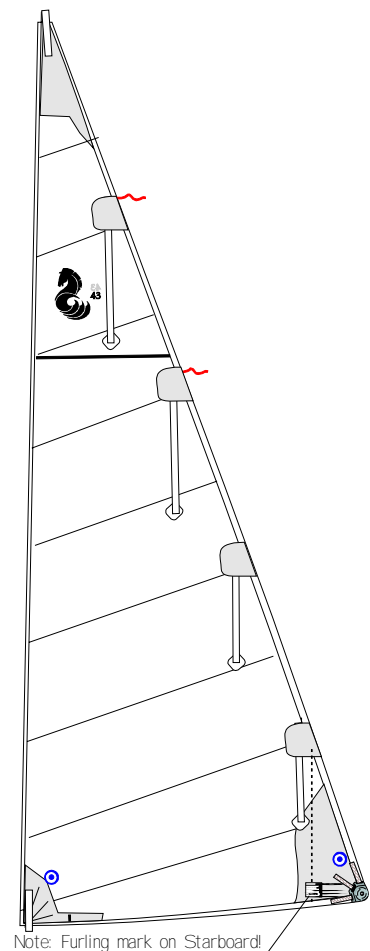
PBF Mainsails

Overview

New this year is the Neil Pryde Sails PBF or *Power Batten furling mainsail*, which adds a more 'classic' look to the visual aesthetics of the mainsail. In working directly with US Spars and Beneteau in developing this vertically battened furling mainsail we have improved the aerodynamic efficiency and increased the area of the mainsail.

In-mast furling mains are generally about 18-20% smaller than the classic mainsails and the PBF main gains back 50% of this lost area. The performance gains due to increased area are obvious, but the boat will also gain an improvement in upwind performance due to the increased upper leech area, which makes dramatic improvements to the foil efficiency. The result is better airflow and increased pointing ability over the conventional furling mainsail. These sails are designed fairly flat to ensure ease of mechanical furling and with a specific amount of clew "rise" also to help facilitate smooth furling. Each mainsail is equipped with 4 vertical battens that are inserted with a internal Velcro system and an external clew cover to protect the exposed sail surface from U.V. when furled. Importantly; the webbing straps that secure the clew-furling block are U.V. treated as well. NOTE: All PBF mainsails are equipped with a safety clew ring to be used in the advent of clew block failure. Patch styles include reefing 'buffer' patches at head and tack that help to disperse sail loads when reefed. We also incorporate one reefing mark for reference at the tack. Lastly, new for 2005-2007 is the reintroduction of the 'Stallion' logo.

| Typical Specifications for Beneteau Oceanis Series 2007 PBF Mainsails | |
|--|--|
| DETAIL | DESCRIPTION |
| Fabric | Challenge/Contender Sailcloth |
| Head/Tack | Heavy duty, flexible webbing |
| Leechline | Oversize low-stretch cord, with aluminum cleats equipped with snubbing eyelets |
| Luff Tape | Sized to fit furler specifications |
| Clew Block | Z-Spar Aluminum clew block with hydraulically pressed safety ring above. |
| Miscellaneous | Tell-tails, bag, ditty bag (includes owners manual, warranty information and repair items), Beneteau Insignia and Battens. |



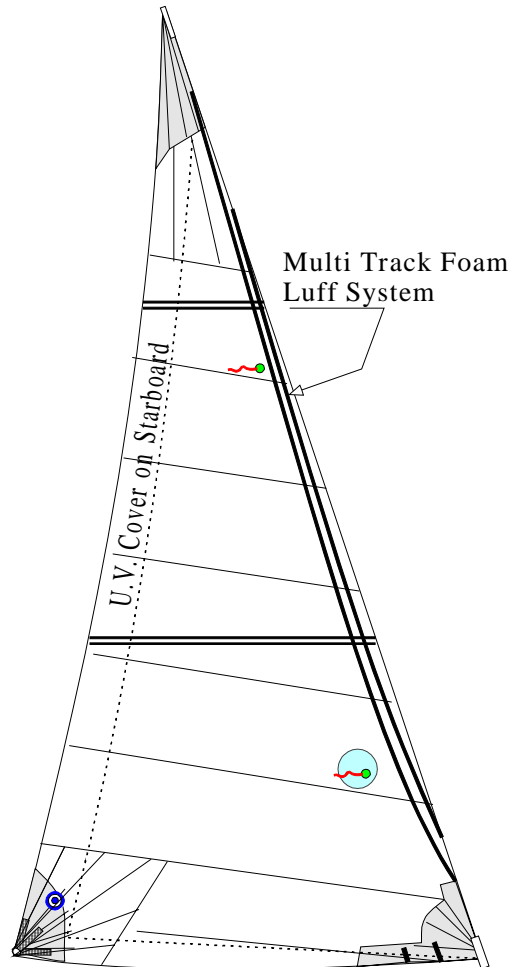
Oceanis Series 2007

Roller Furling Headsails

Overview

Neil Pryde Sails roller-furling headsails are designed to give the best all-around performance possible in a furling application. In general, the sails are designed to an 'All Purpose' shape to ensure wide range of use, as this is the initial sail for all conditions. Each headsail is equipped with a lightweight UV cover to protect the exposed sail surface from U.V. when furled. Head and tack are finished with strong, flexible webbing to enhance the furling action of the sail. The exclusive Neil Pryde Multi Track™ foam luff system is the most positive reefing system on the market today and results in a smooth positive reefing action when furling. Patch styles include reefing "buffer" patches that help to disperse sail loads when reefed. The tack buffer patch is fitted with furling marks that allows the user to quickly and easily furl the sail to predetermined settings for the genoa leads.

| Typical Finishing Specifications for Beneteau Oceanis Series 2007 Roller Furling Headsails | |
|--|--|
| DETAIL | DESCRIPTION |
| Fabric | Challenge / Contender Sailcloth |
| Head/Tack | Heavy duty, flexible webbing |
| Leechline | Oversize low-stretch cord, with aluminum cleats equipped with snubbing eyelets |
| Luff Tape | Sized to fit furler specifications |
| Clew Ring | Heavy Duty stainless steel external ring, webbed to sail and fitted with elk-hide chafe protection |
| Foam Luff: | Neil Pryde Multi-Track Foam Luff system |
| Miscellaneous | Tell-tails, bag, ditty bag (includes owners manual, warranty information and repair items), reefing marks at tack. |



Oceanis Series 2007 Classic Mainsails

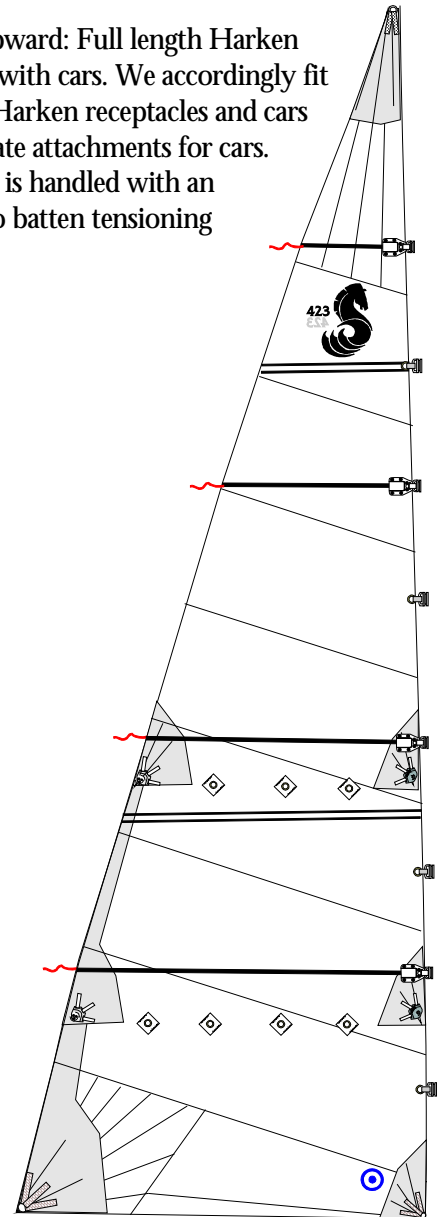
Overview

Neil Pryde Sails Classic mainsails come in two versions and are equipped with continuous reefing systems, which require specialized reefing blocks at each clew and tack reefs.

- L.O.A. Up to 45ft: Two full-length battens fitted with integrated mast cars and Allslip slides with an internal Velcro batten tensioning system.

| Typical Specifications for Beneteau Oceanis Series 2007 Classic Mainsails | |
|--|--|
| DETAIL | DESCRIPTION |
| Fabric | Challenge /Contender Sailcloth |
| Head | Heavy duty aluminum headboard with S.S. Liners |
| Luff Systems | <ol style="list-style-type: none"> 1. Harken receptacles and cars 2. Allslip Slides <p>All equipped with Internal Velcro tensioning systems.</p> |
| Leechline | Oversize low-stretch cord, with aluminum cleats at each reef and clew cleat equipped with snubbing eyelets |
| Tack / Clew | Stainless steel external rings, webbed in place with Elk-hide chafe protection |
| Reef Blocks | Z-Spar Aluminum blocks or Ronstan Blocks |
| Miscellaneous | Tell-tails, bag, ditty bag (includes owners manual, warranty information and repair items), Beneteau Insignia and battens. |

- L.O.A. 45ft upward: Full length Harken batten system with cars. We accordingly fit the sails with Harken receptacles and cars and intermediate attachments for cars. Batten tension is handled with an internal Velcro batten tensioning system.



Oceanis Series 2007

Mainsail Lazy Bag

Overview

The Neil Pryde Sails Mainsail Lazy Bag (MLB) is designed to be easy to use and modular in design. It can be fitted and removed separately from the sail.

- The MLB is attached to the boom using slug/slides. The bag is NOT sewn between each slide so that rain water AND reefing lines can be led from the sail through the bag to the boom attachment points. The top is fitted with a zipper and integral flap.
- The MLB includes a zippered flap at the front of the bag that wraps around the mast to the opposite side of the bag and zippers closed. This is designed to reduce U.V. damage and keep birds from nesting inside the mainsail!
- Fore/aft tension is provided by two adjustable webbing straps that are passed through the clew and tack rings. The straps are *inside* the bag to reduce U.V. exposure and to allow the bag to be pulled aft over the sail. There are two eyelets at the upper aft ends of the bag that allow a small line to tie to the topping lift for further support of the aft part of the bag.
- The battens are inserted from the forward end of the bag. The design is such, that the battens themselves become the attachment point for the lazy jacks. This reduces point loading and makes the back smoother. The battens are locked in place with the internal Velcro closure system. (Identical to the mainsail batten pocket system)



361 Lazy Bag Installed

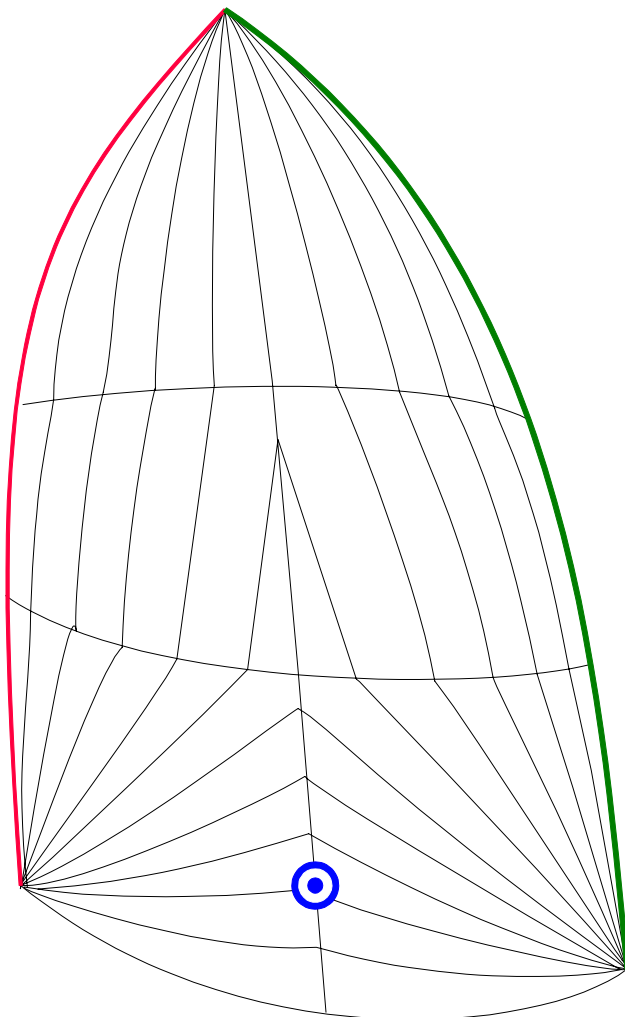
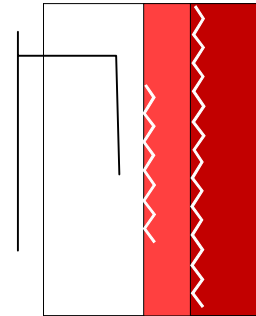
Oceanis Series 2007

Asymmetric Cruising Spinnakers

Overview

Neil Pryde Sails spinnakers are optimized for ease of use and safety while sailing. Each cruising spinnaker is designed to fly up and away from the tack providing visibility while sailing. Each sail is equipped with a drawstring bag for more permanent storage as well as a dousing sock for use when flying the spinnaker. All radial seams are 'French felled' which has no raw edges and provide the strongest seam available. Patches are radial style for lightweight and strength. All rings are webbed in place, and are stainless steel. Leech and luff tapes are color coded for ease in setting up.

Staggered tape finishing eliminates "stacking" of stitching and produces a stronger, smoother edge.



| Typical Specifications for Beneteau Oceanis Series 2007 Cruising Spinnakers | |
|---|--|
| DETAIL | DESCRIPTION |
| Fabric | 1.5oz Nylon |
| Corners | Stainless steel external rings webbed in place |
| Finishing | Offset color coded tapes on luff and leech |
| Dousing Sock | Sock with external control lines provided. |
| NPS Parrel Beads | Provided and permanently affixed to the tack ring. |