O’Day Sailboats
Sails Overview

2002
Product Overview
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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 in the world today. The materials used in all Neil Pryde Sails O’Day sails are primarily produced in the U.S. by four main sailmaker suppliers; Challenge Sailcloth, Bainbridge Int, Dimension/Polyant and Contender USA. In addition we use some Tejin goods as was found in many of the original O’Day sails. Our office in Milford, Connecticut handles all designs, R&D and O’Day details.

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 several documents for each sail, which is then cross-referenced in our own database system. In this way we have complete records of every sail we build and can call up every detail, design, cut file and B.O.M. on demand. This is incredibly useful in replicating sails years down the road.

In the case of the O’Day work, most of this information comes from the hard copy designs and notes that we carried out in the 1970’s and 1980’s. We worked with original blueprints (left) from the offices of C. Raymond Hunt who carried out the majority of boat designs for O’Day. The O’Day 12 design drawing (above), circa 1976, illustrates the design process of that era. To a trained sailmaker (in old school technology) there is a certain sweetness and elegance to this work. We at Neil Pryde have had the great fortune to work for a man (Neil Pryde) who has always believed in the infinite possibilities of technology. To this end Neil Pryde was the first sailmaker to use commercial available cutting machines and our own proprietary software going back to the early seventies. As sailmakers involved with Neil Pryde, we have been able to take our original work such as the O’Day 12 drawing shown here and bring it into the CAD age.
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 and Gerber nesting and part editing tools and in addition we use Patchtool for sail reinforcement details. This coupled with CAD and strong graphics software allows us to handle all facets of sailmaking, design and graphics.

The picture (at right) illustrates the beginning of a new O’Day Widgeon mainsail CAD design, via our original documentation. The controls are much more dynamic in CAD, but the fundamentals that we have been schooled on remain the same. The result is a sail that is identical in sizing and contemporary in shaping from the original and one that now has the ability to be documented, revised and replicated digitally.

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

Hardware
We use the industries best stainless steel external rings and hydraulically pressed rings, coupled with quality lines, ropes. Our thread is the best Hemingway & Bartlett Dabond 2002 polyester in various weights/sizes which is paramount for ultimate product longevity. 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 life as well. Our primary supplier for hardware components is Bainbridge Int.
O’Day Mainsails

Overview

Neil Pryde Sails mainsails are newly designed but based on our original designs and class rules. In most cases we now build the sails to an improved finishing specification than was found on the original sails. (Incredibly we might add, knowing how well and long the original sails have lasted!!) In general, the sails are designed to match the mast bend, which for the most part on the O’Day’s was very little. The overall shape is fuller on the smaller Daysailers and progressively getting flatter as we go up in size. The smaller boats that rely on crew weight for stability are easily trimmed to the fuller mainsails while the fixed keelboats require a lower drag foil section.

<table>
<thead>
<tr>
<th>DETAIL</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>Fabric</td>
<td>Challenge or Contender Sailcloth</td>
</tr>
<tr>
<td>Head</td>
<td>Plastic or Aluminum Headboards depending on application</td>
</tr>
<tr>
<td>Leechline</td>
<td>Dacron cord, with snubbing cleats</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Tell-tails, bag, battens and Insignia ditty bag (includes owners manual, warranty information and repair items),</td>
</tr>
</tbody>
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O’Day Headsails

Overview

Neil Pryde Sails roller-furling and hank-on headsails are designed to give the best all-around performance possible. 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. In the case of Roller Furling Headsails, each headsail is equipped with a lightweight UV cover to protect the exposed sail surface from U.V. when furled.

On the larger O’Day boats we recommend our exclusive Neil Pryde Multi Track™ foam luff system which is the most positive reefing system on the market today and results in a smooth positive reefing action when furling. The larger sails that will be ‘reefed’ 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. See the spec sheet on the Multi-Track system here.

<table>
<thead>
<tr>
<th>Typical Specifications for O’Day Headsails</th>
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<tbody>
<tr>
<td>DETAIL</td>
</tr>
<tr>
<td>Fabric</td>
</tr>
<tr>
<td>Head / Tack</td>
</tr>
</tbody>
</table>
| Leechline and 
foot line | Dacron cord, with snubbing cleats |
| Cover / Hanks | U.V. cover with foil tape or brass jib hanks |
| Miscellaneous | Tell-tails, bag, ditty bag (includes owners manual, warranty information and repair items), |

"U.V. Cover"
O’Day Spinnakers

Cruising Asymmetric Spinnaker Overview
This generation of cruising spinnakers somewhat follows well after the introduction of most the O’Day boats, but is one feature we recommend for any of the boats that sail short handed and in lighter airs. 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 an optional dousing sock for use when flying the spinnaker. All 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.

Symmetrical Spinnaker Overview
The all-purpose series spinnakers have been optimized for use in a variety of conditions. Our designers have been able to create shapes that demonstrate superb off the wind sailing characteristics while at the same time being able to sail well when pressed at tight angles. We achieve this through careful optimization of the vertical and horizontal cambers, which produces a head shape that is both stable and projects well at lower sailing angles. Many will find these sails to be the first and last spinnaker used in coastal and buoy racing.

These sails are used primarily for racing and are seamed with single flat seams to reduce weight and promote smoothness. Other finishing specifications are as with our asymmetric spinnakers.

Typical Specifications for O’Day Spinnakers

<table>
<thead>
<tr>
<th>DETAIL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric</td>
<td>Challenge Nylon</td>
</tr>
<tr>
<td>Corners</td>
<td>Stainless steel external rings webbed in place</td>
</tr>
<tr>
<td>Finishing</td>
<td>Offset color coded tapes on luff and leech</td>
</tr>
<tr>
<td>Dousing Sock</td>
<td>Optional sock with external control lines</td>
</tr>
<tr>
<td>NPS Parrel Beads</td>
<td>Provided and permanently affixed to the tack ring.</td>
</tr>
</tbody>
</table>

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