

Andy Burdick provides tips on...

Racing your asymmetrical at full speed

by Andy Burdick

Welcome to another season of championship ILYA sailing. As you know, the National E Scow Class has approved the use of an asymmetrical spinnaker and bow sprit. In the Inland we see the asymmetrical set up on the A Scow, I-20 Scow, and the new Melges 17. This new trend has made these tremendous scows and ILYA sailing more exciting, easier to race/sail, and faster—a combination that is putting a spark into our racing scene.

We wanted to provide you with some helpful tips so that your learning curve moves upward. Please follow some of these initial tips so that you reach maximum performance right out of the gate. Teamwork is a major factor in this sport. So, work with your team and see what techniques may work for you specifically. The tips provided are a baseline to work from.

Set Up Check List:

Get your rig tension gauge and tape measure out. Have a permanent marker, rigging tape and Teflon tape available.

Tune Your Rig:



Andy Burdick is President of Melges Performance Sailboats, and a multiple champion in ILYA and National Classes X, M, C, MC, A and E. Whether skipper or crew, Andy is the guy to give the best advice on handling the asymmetrical spinnaker.

Be sure to use your class's tuning guide. Specific measurements and recommended shroud tensions can be found there. Many people have asked if the tuning on the E Scow rig is the same. Yes, it is. The only addition is the diamond stays; this brings an added but simple element to the spar tuning. Read below for some recommendations.

When setting up your asymmetrical sheets, be sure to rig them so that you are doing "inside jibes." The clew passes between the luff of the kite and the forestay. A quick way to ensure that you set this up correctly is to lead the tack line over the starboard spinnaker sheet when you rig your sheets. *Tack over sheet* is the theme.

Tape your connection points on the clew, tack and head, but be sure to leave a "tail" on your tape so that if you need to do a quick change you can peel the tape off easily.

Teflon tape your shroud turnbuckles and any other "resistant surfaces." The Melges 17 has a cool kite launcher. Be sure this is clean and tefloned smooth so that the sail goes in and out with ease.

On the A Scow we Teflon tape the upper shrouds so that there is no resistance on the rig. You can try this on the E Scow too.

When tuning a rig like the E Scow, there are some essential points to cover. The following points will specifically cover the new E Scow rig. Some of the items, however, apply to the other asymmetrical classes too. As with any mast-head spinnaker configuration, the rig is more loaded and will require more attention to rig tuning and some changes in sailing technique.

Spreader Position – Maximum aft spreader sweep is what we recommend. This is fast for all wind conditions whether you have the new I-1 style rig or if you have the chainplates in the forward position. You can adjust your spreader bracket to achieve this. Spreaders should be in the forward hole of the spreader bracket. (for maximum sweep – standard setting).

Diamond Stay Tension - The diamond stays on the mast help to support the mast-head spinnaker configuration, and

the tension on the diamonds is important to insure that the mast stays pre-bent and in column. In wind ranging from 0-10 knots it is good to set the diamonds up so that the mast has 3.5" of pre-bend. To measure this you can pull the main halyard down along the back edge of the mast and touch the mast just above the boom. At a point just above the spreaders the distance from the aft edge of the mast to the main halyard should measure 3.5" or more. When the wind is over 10-12 knots it is important to start tightening up the diamonds to help support the mast head. When it is over 15 you need to have 4"-5" of pre-bend in the mast; this equates to 400+ lbs. on the diamonds when measured with a Model A Loos Tension Gauge.

****Please Note**** - Diamond stays will stretch when they are new and you must check them before and after heavy air races, especially when the rig is new. If the diamonds are too loose and the uppers are too loose this will also compound the situation and cause the mast to invert and could cause failure.

Upper Sidestay Tension - Sidestay tension with the forward chainplate rigs: It is important to start to put some tension on the uppers once the breeze is over 10 knots. 400 lbs. on the uppers is necessary to insure that the mast stay pre-bent when sailing downwind. We recommend sailing with the uppers closer to 600 lbs. once the breeze is over 15 knots. This is the same for the aft chainplate rigs, or, as we like to call them, the I-1 Rig configuration. Personally, with the I-1 rigs, I rarely go below 600 lbs. on the upper sidestay tension.

Lower Sidestay Tension – You need to go sailing to set these. While sailing, sight up the aft side of the spar (up the tunnel) and adjust the lower so that there is approximately 1/2" of sag in the mast.

Sailing Techniques

Mainsheet techniques - It is important with the asymmetrical to sail at slightly hotter or higher angles than with the symmetrical kites to achieve the greatest performance. This, along with the higher speeds you are achieving, will bring the apparent wind angle forward and require

see **Asymmetrical**, page 20

Asymmetrical

(continued from page 19)

the mainsail to be trimmed tighter. Also, more vang can be carried since you are sailing at hotter angles with more load on the mainsail. Because you are sailing at hotter angles and the A sails are so easy to gybe, you should not ease the main sail out too far on the gybes. The maximum the sheet should ever be eased is about 10' measuring from the aft corner of the boat to the boom. This technique along with keeping some vang on will help maintain a positive bend in the mast, and regardless of backstay tension, will help insure that the mast does not do an inverted bend.

Asymmetrical Technique Tip - Gybing in heavy air with the vang loose and the mainsail eased out too far can be a recipe for mast problems. With the speeds we now reach with these new sails the apparent wind has moved way forward, so you need to keep the mainsail trimmed in much further downwind—even further in when it is medium to heavy air. Many people will need to become accustomed

to this as it is critical. *This is the single most important thing you need to concentrate on when sailing the A sail configuration.* When you go into a gybe do not slow the boat down; go from high speed mode right into the gybe. I equate this to a high speed windsurfing gybe.

As with any powered up mast-head configuration, you have to learn the techniques to insure that you are safely performing the maneuvers. Once



Approaching the leeward mark to take it to port, the boat on the right will plan a windward takedown. The boat on the left will do a 'Mexican.' Photo by Larry Kmiecik

you understand the mechanics of the rig you will realize how much fun the A sails are and how much easier they are to sail.

see **More Asymmetrical**, page 21

NEW FOR 2008!

Recently approved by the E Scow class, the new **Asymmetrical spinnaker** is Pure Power! North has been developing the sail for many years and it is championship ready!

FAST*er*



More Asymmetrical (continued from page 20)

With the proper mechanics of boat handling and rig tuning the rigs are very durable and will stand up to a lot of wind.

Downwind Asymmetrical Techniques

1. Pull the bow sprit all the way out – IMPORTANT – You cannot pull the bowsprit out until you break the plane of the windward mark and or you are executing your set. Point being you cannot sail with your bowsprit out; you must be in the act of hoisting the kite!

2. Mid crew opens the bag and prepares for the kite to exit the cockpit.

3. Make sure to keep the boat flat when in the hoisting process, as this helps keep the spinnaker out of the water.

4. Jib crew pulls the spinnaker halyard all the way up - *** Tip – have a permanent mark on the halyard in the “full up” position so you pull to that point every time.

5. After the halyard is all the way up, Jib crew now pulls the tack of the asymmetrical all the way out. Make sure that you tail the foot of the spinnaker out of the bag and insure that the tack line and kite stay up on the deck as the tack goes out so that it does not get caught in the water rushing by.

6. Helmsperson Tip – on the set it is very important to help your crew by heading dead downwind on the hoist. This allows the kite to go all the way up with ease. It is important to also make sure the mainsail is not let out too far. The halyard and head of the kite can get hung up behind the spreader, delaying the hoist. Keep on eye on these things.

7. Once the halyard is up, your Jib crew should communicate “Made!” The helmsperson should freshen (head up) right away so that the kite blows away from the rig and then fills.

8. Limit your mistakes on the set – do not sail too high on the set – this makes it harder to pull the halyard up and the kite will fill early making it harder on the crew.

9. Limit your mistakes on the set – hoist straight out of the spinnaker bag with some help from the middle crew. Do not put the kite on the deck or near the water.

10. Be sure to have the hoist all the way up, then pull out the tack line and then trim the kite to fill.

11. Practice your timing on all of these things and know when you can

push the envelope for the ultimate set!

Things To Think About And Practice

1. When sailing downwind with the asymmetrical we sail with our boards all the way down. In varying conditions you may want to experiment with pulling your boards up some. This could be especially good in moderate winds and wavy conditions. Practice this technique and find out what is fast for your team. When in doubt, though – keep the boards all the way down.

2. Angle of heel will not vary from the symmetrical kite set up.

3. Downwind Sailing Angles – this will vary some. Many think that you have to sail hot and fast in all conditions with this set up. This is not the case. Here is a brief guideline to go by.

a. Winds 0-8: a higher angle is required so that the boat builds apparent wind. With this speed you can begin to sail low. As soon as the boat slows even slightly or the boat begins to flatten in angle of heel, you need to head right back up and fire up the speed again. This requires constant attention and focus.

One key factor in this condition is mainsheet trim. As your apparent wind moves forward, you need to keep your mainsheet trimmed a lot more. Make sure your mainsail is not luffing. You will be amazed as to how the boat reacts to a tighter mainsheet and how much the boat likes to have the mainsheet worked downwind. Practice this. In this wind range you want to practice float gybes where you bear away slowly and ease the kite out and start pulling it around so it floats around the bow.

b. Winds 9-12: you can experiment with sailing a lower or deeper angle in these conditions. As the breeze hits and the boat heels, begin to drive the boat down and sail deeper. Work your mainsheet. As you sail deeper the main will need to be eased slightly, but not nearly as far as you would for a symmetrical sail.

c. Winds 13-25: this is where it is really fun! Rock and Roll time! Crew should all be on the high side in their hiking straps. The mainsail will need to be trimmed in—almost all the way at times—as your apparent wind is way forward. The Jib crew will need to work the jib and also the vang. It will feel like

you are sailing a higher angle due to the speed build up. You really need to get the boat up and rolling; do not sail low or keep people in the boat. Put them on the rail and go for a fast ride! The key is the mainsheet; keep the main trimmed. Do not ease the main much through your gybe either! Keep the sail in! In this wind condition you want to perform Mexican gybes, the skipper turns right into the gybe, you trim the sheet tight, strap the foot of the kite, let it back slightly onto the rig on the new windward side of the boat and as the main is coming across you blow the sheet off and trim the new sheet on quickly.

4. It is very important to keep your lines clean and drop-coiled. You need to drop-coil your spinnaker sheets after every gybe so that the sheet runs free through this maneuver.

5. Compass – it is key to watch your compass angles downwind while staying in the freshest breeze on the course. These boats will be going very fast. Angles and wind really make the difference. Watch your compass as much if not more than you do going upwind.

Asymmetrical Takedowns

The easiest take downs are the windward take down or the Mexican take down. The leeward takedown is your third option.

Windward Takedown

1. Head the boat virtually dead downwind.

2. Middle crew begins to pull the windward spin sheet around and then the Jib crew releases the tack line shortly after that. You can release the bow sprit line shortly after.

3. Middle crew - Pull the windward sheet aggressively through the ratchet - all the way back so that the clew reaches the ratchet block. The sail will have inverted.

4. Middle crew - Call for the halyard once you have the sail in hand.

5. Helmsperson - Before the halyard begins to drop be sure to steer up slightly so that the sail blows onto the deck of the boat. If you are dead downwind or sailing by the lee the kite will blow out away from the boat and go into the water. This is not good. It is very important that the helmsperson helps out

see **Even More Asymmetrical**, page 22

Youth Champs reverts back to its original name—'Youth Champs!'

An attempt to give the traditional ILYA 'Youth Championship' (sailed in Lasers, Laser Radials, and Club 420s) a more inviting name for its competitors, provided more confusion than it was worth.

In 2007 the event was renamed the ILYA 'Dinghy Championship,' a decision which generated a number of emails and phone calls to the ILYA office, especially from Optimist parents

who weren't sure how to enter the Optimist events, as the Optimist Dinghy Championship and the newly designated 'Dinghy Championship' had different fees, eligibility requirements, venues, and application forms, on-line or other.

For the sake of clarity, the former 'Youth Championship' will revert back to its original title in 2008 and the future, at least until a better, but non-confusing, name is submitted by the fleet.

E Fleet unites around asymmetrical

United region by region, the National E Class (NCESA) overwhelmingly supported a move in 2008 to embrace the asymmetrical configuration. The ILYA region comprises 40% of the organization, but all four regions voted to accept the eventual return to a

September date for Nationals (in 2009), and a 2008 implementation date for the asymmetricals. One hundred fifteen ILYA members voted for the changes. For more information, consult the NCESA website at www.e-scow.org.

Challenger Closeout!

How's that old lifejacket of yours holding up? We are offering Extrasport Retro Avengers at the great price of \$85 to ILYA members. We are advised that the Challenger model is no longer available, so we are closing out our limited stock at \$50 each.

It's easy to order these through the ILYA office. See the order form on page 11.



Even More Asymmetrical (continued from page 21)

the crew by steering up.

6. The Middle crew stuffs the sail into the bag and prepares for the rounding.

Mexican Takedown

This takedown is effective when approaching the leeward mark on starboard tack and you need to gybe to go around the mark. As you reach a 3 boat length circle from the leeward mark you prepare to go into action.

The key is that you need to be at about 150 degrees to true wind as you complete your gybe and you sail on port tack to the mark (as you gybe you need to have the ability to head up on port gybe slightly so that the asymmetrical stays on the deck of the boat. If you come out of the gybe dead downwind the spinnaker will fall right into the water – again, the helmsperson needs to do their job to make the take down easy and effective). So, your relation to the leeward mark is critical – you want to exit the gybe and begin to reach toward the leeward mark.

1. You enter the three boat length circle on starboard tack.

2. Helmsperson calls for a Mexican.

3. Middle crew - Be sure to drop the windward board before entering the gybe.

4. Begin the gybe – the Middle crew needs to trim the sheet hard so that the clew goes to the ratchet on the port side of the boat. This brings the clew and the foot of the sail to within reach for the take down.

5. The helmsperson turns the boat and enters the gybe. As the boom goes across he yells for the halyard release. The Jib crew needs to release the halyard.

6. The helmsperson needs to head up so that the sail gets “pressed” into the rig on the port side. The key is to head up so that the sail falls onto the deck and into the rig keeping the sail away from the water.

7. The crew needs to be on the high side – on this port gybe as you approach the leeward mark – very important if it is windy as the boat will accelerate once you begin to reach to the mark.

8. The tack line and bow sprit line

are the last two items to be released. The Middle Crew needs to stuff the sail into the bag and hike hard as the boat rounds the mark.

9. Middle Crew pulls the board up on the port side as soon as possible or before the leeward mark.

Leeward Takedown

1. The key here is that the helmsman heads down for an easy takedown.

2. Release the tack line and trim the spinnaker sheet in.

3. Release the halyard slowly or with friction for the first 8 feet so that the halyard does not blow out and get hooked on the leech of the mainsail.

4. Middle crew stuffs the kite into the bag.

5. Final release is the bow sprit line which can occur shortly after the release of the tack line.

Great websites to visit are Melges.com and the North Sails website – onedesign.com. There you will find more information on racing your scow up to maximum potential.

Race *FAST!*