4x4x4 by Derek Rijff

FIRST 4: FOUR WAYS TO SAIL UPON A WINDSURFER.

1. Sail normal, the mast is closer to the wind.
2. Sail leeside (backwinded), the mast is closer to the wind.
3. Clew first, the clew is closer to the wind.
4. Clew first, leeside (backwinded), the clew is closer to the wind.

SECOND 4: FOUR COMMON WAYS TO TRANSITION YOUR SAIL OR BODY SO YOU END UP HOLDING THE OTHER SIDE OF THE BOOM:

(technically there are other ways you could end up holding onto the other side of the boom - clew first duck tack being one - but while technically possible, on the water these four common ways are all that one ever does.)

1. Normal hand and foot work for a tack. By Tacking to the other side of the sail, the body goes around the mast, so you end up on the other side of the sail and holding the boom on the opposite side.

2. Sail 180 (Duck). The body does not move so once the sail has rotated you are now looking at the opposite side of the sail and holding onto the on the opposite side of the boom clew first.

3. Regular Jibe sail flip. (Starting clew first you let the sail rotate as it would at the end of a gybe.) The body does not move, so once the sail has rotated you are now looking at the opposite side of the sail and holding onto the on the opposite side of the boom.

4. Duck Tack (New or old school. Body moves to the opposite side of the sail, with hands ending up holding the other side of the boom and the rider going around from the clew end of the rig.) While the sail will have to slice forward and back into the wind to allow space under the foot of the sail, the sail will not rotate, and it ends up in the same position at the start and end of the transition. It is only the rider that ends up in a different position, as they are now facing the opposite direction and holding onto the boom on the other side of the sail. The rider can either position their feet and body before the sail is sliced into the wind allowing them to simply duck the sail to end up holding the opposite side of the boom (new school). Or the rider can both duck and move their feet/body as the sail is sliced forward into the wind (old school) to once again, result in the rider holding onto the opposite side of the boom, and the body facing the opposite direction.

<u>THIRD 4: FOUR WAYS TO DO A SAIL AND BODY 360.</u> YOU CAN ONLY ROTATE CLOCKWISE OR COUNTER-CLOCKWISE (as viewed from above the board ie. a helicopter view) AND THE RIG CAN EITHER START MAST FIRST OR CLEW FIRST:
For the following, it can help to picture yourself starting off all four rotations with the board sailing in the same direction across the wind (3 or 9 o'clock) and not having the board steer or change direction underneath you at any time during the rotation.
Rotation 1. and 2. will be in one direction.
Rotation 3. and 4. will both be in the opposite direction.

1. Starts Off Normal Mast First (Normal Sail Body 360) Part 1 - Hass Tack - rider pushes clew towards the nose of the board to start and then across the board and into the wind, ending up clew-first (back-winded). as the sail moves the body rotates as well so that once the clew is in position the rider is facing into the wind. Result, backwinded clew-first. Part 2 - An Awkward Clew-First Nose Sink Tack - Rider pushes the clew completely through the wind, then as the clew moves across the board. they release the clew hand and follow the sail as it rotates back to its original mast first position. The rider also returns to their original position with their back to the wind. Result, sail and rider back where they started, having rotated 360 degrees, and once again sailing mast-first.While all the hand and footwork are essentially the same for this second rotation the rig's change in position makes this rotation a lot more difficult.

2. Starts Off Clew First. Part 1 - Beat Tack / Clew-First Hass Tack - rider starts by pushing the mast towards the nose of the board and then forcefully into the wind ending up mast-first (back-winded). As the sail moves the body rotates as well so that once the mast is in position the rider is facing into the wind. Result, normal mast-first backwinding. Part 2 - A Very Awkward Mast-First Nose Sink Tack - rider pushes the mast completely through the wind then as the mast moves across the board, they release the mast hand and follow the sail as it rotates back to its original clew first position. The rider also returns to their original position with their back to the wind. Result, the sail and rider back where they started, having rotated 360 degrees, and once again sailing mast-first.

3. Starts Off Clew First. Part 1 - Clew First Nose Sink Tack – rider releases clew hand allowing sail to rotate (in the opposite direction from the first two rotations, as viewed from above the board.) The rider follows the rig around as it rotates, keeping the mast hand in the same position on the rig, and ending up mast first on the leeward side of the sail. Result, normal mast-first backwinding. Part 2 - Leeside escape / Helicopter tack - Sail rotates back to clew first by releasing the mast hand and allowing the mast to move downwind towards the rider. The rider moves out of the sails way and pivots their body 180 degrees. Result, the sail and rider back to their original position, sailing clew first. While all the hand and footwork are essentially the same for this second rotation the rig's change in position makes this rotation a lot more difficult.

4. Starts Off Normal Mast First with same directional spin as number 3. Part 1 - Mast First Nose Sink Tack - rider releases mast hand allowing sail to rotate with the mast moving downwind across the board. The rider follows the rig around as it rotates, keeping the clew hand in the same position on the rig, and ending up clew first on the leeward side of the sail. Result, clew-first backwinding. Part 2 (second 180 degrees) - Clew-First Leeside escape / Mister Wiggly - Sail rotates back to mast first by releasing the clew hand and allowing the clew to move downwind towards the rider. The rider moves out of the sails way and pivots their body 180 degrees. Result, the sail and rider back to their original position, sailing mast first.

Note: Use Derek's Windsurfing 4x4x4 to analyse windsurfing and to be creative.