



NORTH SAILS

Osprey Tuning Guide Om-1 / J-4(J-4F)

WIND SPEED	1 – 5 Kts	6-8 Kts	9-12Kts	13-15 Kts	16 - 20 Kts	21 + Kts
MAST RAKE	24'6"	24'6"	24'4"	24' 4" -24'2"	24'2""-24'0"	24'0"+
RIG TENSION	400 lbs (200kgs)	400bs	400lbs	450 lbs	450 lbs	400 lbs
KICKER	None	Set to maintain leech tension when the mainsheet is eased	Tension increased until 2nd tell tale stalls 25% of the time	Tension increased until 2nd tell tale stalls 25% of the time	On Hard	Full On
	(Set for the run)					
STRUT (From Neutral) at deck level	Pull forward 10mm	Neutral	Neutral	Ease 10mm	Ease 20-30mm	Ease 10-50mm
OUTHHAUL	Full On	Ease 20mm in a chop	Ease 10mm in a chop	Full on	Full On	
CUNNINGHAM	None	None	Remove wrinkles	On hard	Full On	
JIB FAIRLEADS						
(From inboard)	In	In	In	Out 5cm	Out 10-15cm	Fully out
JIB FAIRLEADS						
(Sheeting angle) See page 2	Mid - Bottom Line	Top Line	Top Line	Middle Line	Bottom Line or lower	Below the bottom line
CENTREBOARD	Fully down	Fully down	Fully down - up 1"	Up 2-3"	Up 4-6"	Up more

Strut is set in Neutral on 24'4" rake. All settings use this point as datum?

Spreader Length: 450 – 475 mm

Sweepback 160-180mm

This guide is designed to give the basic measurements. It is worth experimenting to find the settings work best for your boat and sailing technique. I've added some notes for those of you with adjustable shrouds.

Mast Rake

Light Winds	24' 6"	Moderate Winds	24' 4" - 24' 2"	Strong Winds	24'2" or more
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To measure the mast rake hoist a tape measure on the main halyard then hold it down the back of the mast and adjust it so that it measures 20' to the top of the mast band at the gooseneck. Measure the mast rake to the top centre of the transom with the rig tension at 400 lbs on the shrouds and the strut in neutral.

Rig tension (measured on shrouds) 400lbs

I use the adjustable shrouds as follows: Starting with the mast upright at 24'6" I use 400lbs on the shrouds. As the wind increases and I rake back to 24'4" (when I can keep the crew on the trapeze most of the time) and I pull the shrouds on to 400lbs again. As the wind increases further and I have to rake back more I look at the leeward shroud and pull until I can see it is just tight and no more. The reason is that at this point I will have eased the strut forward of neutral (see matrix) and the kicker will have bent the mast. The amount of bend will vary depending on crew weight sea conditions and difference between the strength of gust and lulls so pulling on the shrouds will keep the leeward shroud just short of going slack is better than trying to stick religiously to a mark. (Also see notes on strut and boom angle)

Strut and Boom angle

I use the strut to control mast bend and therefore how far the end of the boom is from the centreline. Once you are overpowered you have to ease the boom to keep the boat level. How far you ease the boom will determine how high you can point. As long as the end of the boom goes no more than half way from the centreline to the corner of the transom your pointing will not be affected (this is an average position as the boom will move in and out in the gusts). Once the end of the boom is out beyond the corner of the transom your pointing will be affected and you will be in low and fast mode. This can be good especially on the sea or on a big course when going low and fast can give you a different tactical option, though I will add that as the Osprey is a heavy boat pointing high usually gives the best VMG.

Understanding how to achieve the desired boom position is case of flattening the main more to bring the boom in and making it fuller to move the boom out. I do this by bending the mast more or less as required. More rake without moving the strut back will bend the mast and vice versa. The kicker will not only affect the position of the boom but it will bend the mast. A small increase in kicker will just tighten the leech and may require you to let the boom out to keep the boat level. A lot of kicker combined with pulling the Cunningham hard will bend the mast and flatten the sail which may mean you can pull the boom back in. In winds over 20kts the only way to keep the boom in and therefore the boat pointing high enough may be to ease the kicker although this may be the only option to keep the boat under control it is a compromise as easing the kicker straightens the mast making the sail fuller. I am working on a way of quantifying all this and will add it to the guide when its done.

When I'm trying to depower I pull the kicker and Cunningham on first. If that isn't enough I rake the rig back.

Pre Bend/ Spreaders

Length 475mm (from sidewall of mast to shroud) 440-460mm for light crews
Sweepback 160-175mm (from back of mast track to a line between the shrouds)

You should have roughly 25mm of prebend on 24' 6" of mast rake, for the OM-1 main and 30-35mm for the OSPM-4, measured as described above. Depending on your hull the spreader sweepback may vary. I suggest using the sweepback above as a starting point and adjust as required. The pre bend is the important figure not the sweepback.

Deck level or strut bend control

V. Light Winds	5-10mm forward at deck level
Light Winds	Neutral
Moderate Winds	Neutral to 5mm forward at deck level
Strong Winds	10-15mm forward at deck level

Fairleads

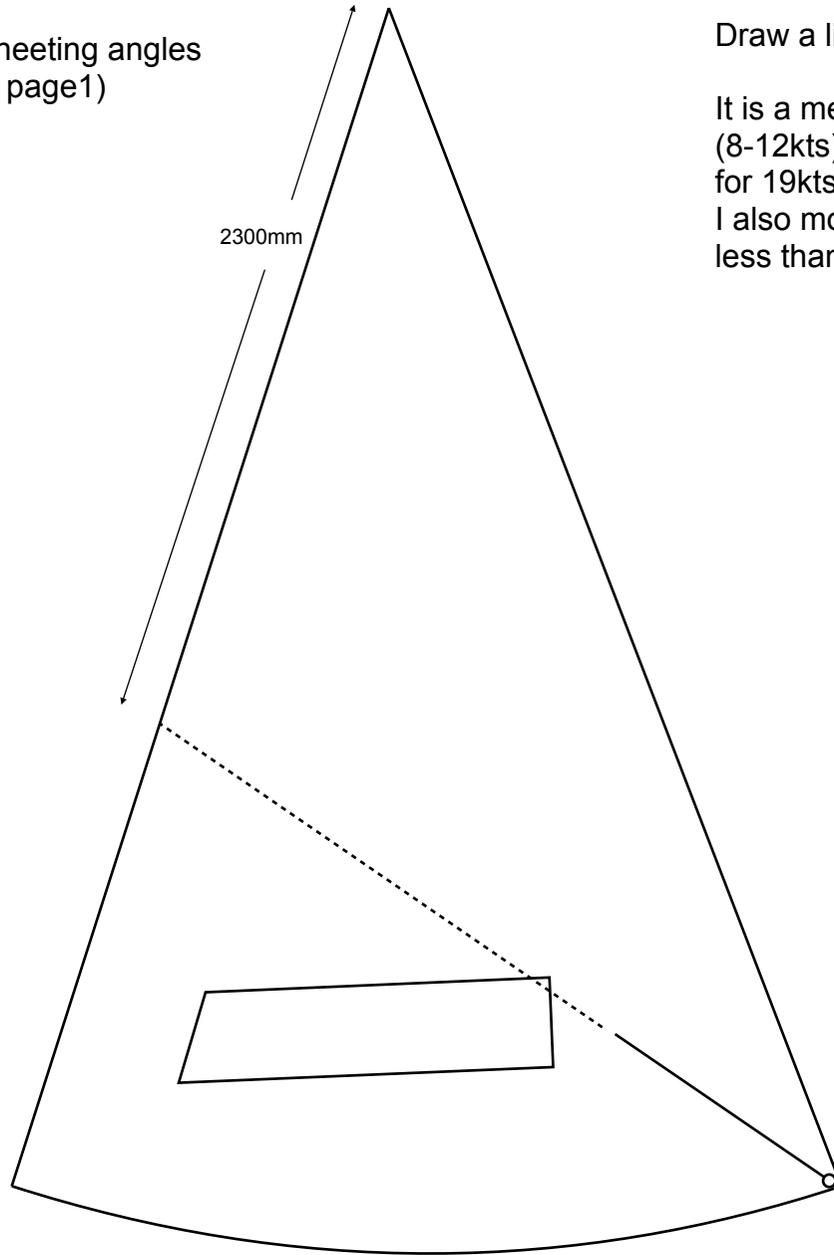
V. Light Winds	100mm aft of neutral
Light Winds	25mm aft of neutral
Moderate Winds	Neutral
Strong Winds	50mm aft of neutral

Good luck on the water.

Osprey

J-4, J-4F and J-6B

Approximate sheeting angles
(See matrix on page1)



Draw a line on the sail. This is an extension of the jib sheet.

It is a medium setting. Move the fairlead forward 50mm for max power (8-12kts) back to the mean setting for 13-18kts and back 50mm more for 19kts+

I also move the fairlead ack 50mm from the mean position for winds less than 8kts on flat water and less than 5kts on the sea

