

B & R rig (Bergström & Ridder) without backstay

B & R characteristics:

- The spreaders are swept 30°, considerably more than on conventional rigs.
- Reverse diagonals (RD) are used to induce pre-bend compression, adding rigidity to the mast section. This negates the need for a baby stay or inner forestay.
- Runners and backstay are not usually fitted as the spreader sweep angle allows the cap shrouds to provide the necessary longitudinal support.
- Inner forestays and baby stays are never used.
- Sometimes fitted with fixed struts which stay the lower part of the mast.

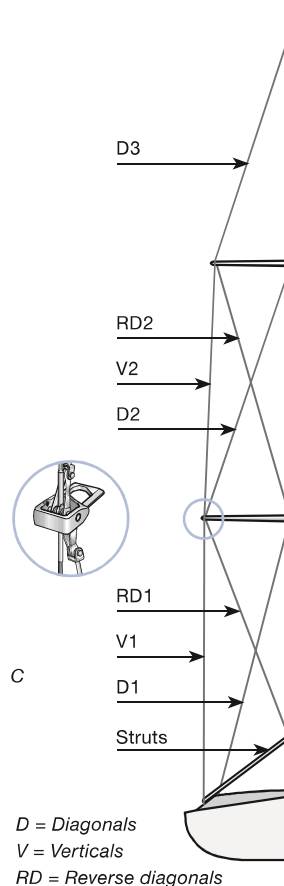
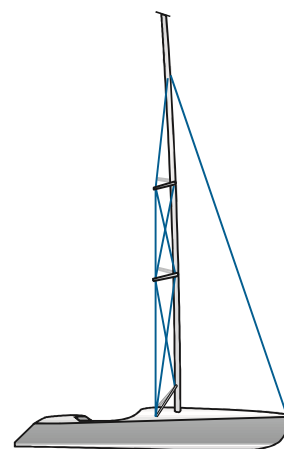
The absence of a backstay reduces the mast compression on this type of rig in comparison with conventional rigs. This, along with any fixed struts, means that the mast profile is often relatively small both athwartships and fore-and-aft. Advocates of the B & R rig maintain that its “better aerodynamics” make it suitable for racing, and the leisure sailor benefits from avoiding trimming the rig while sailing. The lack of backstay and runners means that there are no adjustments to be made at sea. The foredeck is free from baby stay and inner forestay, and this makes tacking easier.

Most of the trimming of the rig must be done before the mast is stepped on the boat.

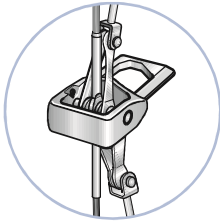
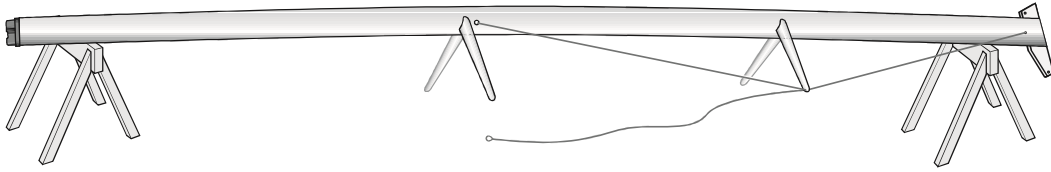
At the crane

- Lay the mast on two trestles. The sail track must face downwards. The trestles must be high enough to keep the spreader ends off the ground. All stays must be loose.
- Tighten the reverse diagonals to give the mast a positive pre-bend. Begin with RD1, then RD2. These shrouds interact, and, to provide an even curve, they must be tensioned by about the same amount.

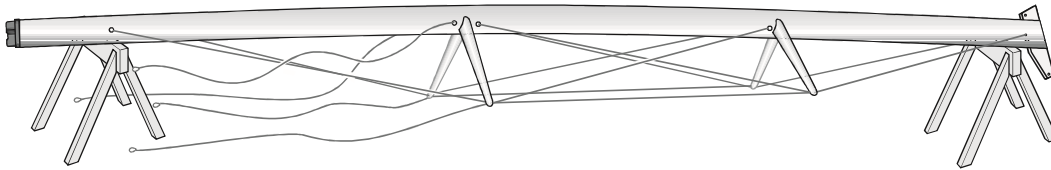
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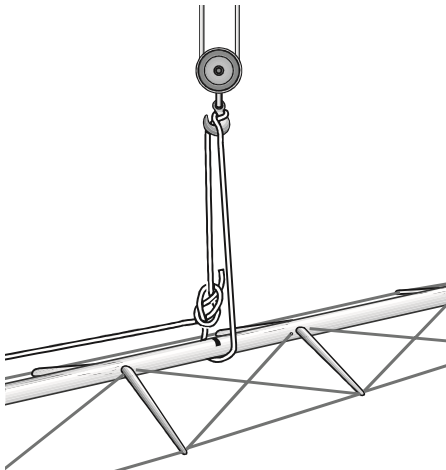
Continued: B & R rig (Bergström & Ridder)
without backstay.



- The amount of a pre-bend depends on the cut of the mainsail. A general rule is that the pre-bend should be 1% of the distance from the masthead to the gooseneck, measured at the centre of this distance. The mast must have no lateral bend. All pre-bend must be in the fore-and-aft direction.

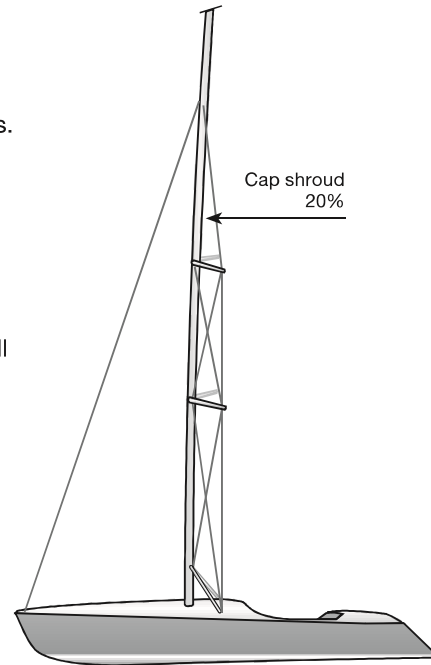


- Position the lifting strop between the spreader brackets, just above the point of balance, and hold down with a strong line. Make sure the forestay is not inside the strop. It is usually possible to make the eye long enough to enable it to be cast off without going up to the lower spreaders on a double spreader rig.
- Raise the mast, and place it on the T-base.
- Attach the cap shrouds but do not tighten them yet.
- Attach the forestay.
- Attach the lower shrouds.
- Hand-tighten the cap shrouds and forestay.
- Set the fore-and-aft mast rake by using the main halyard as a plumb line. Attach a weight to the halyard. The mast is normally either vertical or has a slight aft rake. The mast rake can be altered by adjusting the length of the forestay using the rigging screw or using toggles.
- Tension the forestay rigging screw, but not too much.
- Tension the cap shrouds to 20% of their breaking load. See the folding rule method, page 32. The pre-bend will now increase slightly.
- Lower and remove the lifting strop. Move the yacht away from the crane.



Tuning

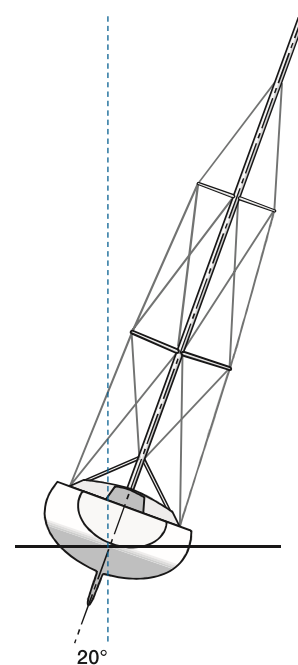
- Check that the upper part of the mast is straight athwartships. Adjust if necessary using the intermediate shrouds. Slacken one side by the same amount you tighten on the other.
- Tension the lower shrouds to 20% of their breaking load. Check that the mast is straight athwartships. Adjust if necessary using the lower shrouds on the same principle as above. The mast should now have approximately the same pre-bend as it had when it was lying on the trestles, and it will be straight athwartships.



Tuning under sail

- Sail the boat at about a 20° angle of heel. The lee cap shroud and lower shroud must not be slack. If they do slacken, they must be tensioned so that the slack is halved. Then tack the boat and tighten the equivalent amount on the other shrouds, which are now on the lee side.
- Check that the mast is straight athwartships by sighting up the mast from deck level. Tension both sides by the same amount so that the mast is straight on both tacks.

When you have trimmed a B & R rig, you must document the setting of the rigging screws very carefully. Alternatively, store the mast for the winter with the spreaders mounted and the intermediate shrouds and reverse diagonals in tune.



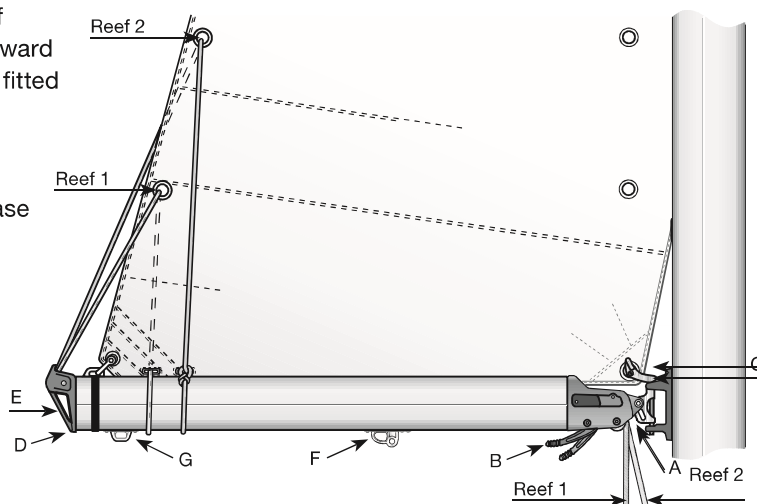
Booms

Slab-reefing boom

Seldén's booms are fitted with slab-reefing or single-line reefing, or are adapted for use with in-mast furling. The boom profiles are relatively deep in relation to their width. This gives a boom which is light in weight, and has a high resistance to vertical bending. The booms are fitted with stoppers at the gooseneck, if sailhandling is to be done forward at the mast. No stoppers are fitted if the lines are to be led back to the cockpit.

For detailed information, please order our spare parts list, art. no. 595-081-E.

Fitted with 1-4 reefs and outhaul.



Reefing

1. Ease the sheet and vang, then set up the topping lift.
2. Ease the main halyard by just a little more than the height of the reef.
3. Hook the luff cringle for the reef in one of the two reef hooks at the gooseneck.
4. Tighten the halyard.
5. Reef the leech by hauling in the reefing line using the reefing winch.
6. Ease the topping lift, tighten the vang and haul in the sheet.

To shake out a reef

1. Ease the sheet and vang, then set up the topping lift.
2. Release the reefing line.
3. Ease the halyard slightly, unhook the luff cringle.
4. Tighten the main halyard.
5. Ease the topping lift, tighten the vang and haul in the sheet.

- A. Gooseneck including sheaves for reef-lines and outhaul.
- B. Spring-loaded rope clutches, colour code equivalent to rope.
Reef 1: Blue
Reef 2: Red
Reef 3: Yellow
Reef 4: White
Outhaul: White
- C. Reef hooks for slab-reefing.
- D. Boom end, fitted with screws. Easy access for maintenance and line replacement.
- E. Cast bracket for preventer guy. See page 12.
- F. Kicker slider.
- G. Main sheet slider.