Instruction Manual

HARKEN

# 253 Lazy Jacks

For boats 27 - 37 ft. (8.2 - 11.3m) in length with mainsail luff lengths 32 - 42 ft. (10m - 13m)

WWW.DYSAILOR.COM
Changes to Instructions
For 252 and 253 Harken Lazy Jack

10-32 Machine Screws Now Included

10-32 machine screws are now included with Lazy Jack Kits. These can be used wherever stainless steel rivets are specified.

Note Regarding Rivets: Do not try to install the system using the stainless steel rivets unless you have a professional two-handled rivet gun capable of popping the enclosed rivets.

Tools required using machine screws:

10-32 Tap Set
#21 or 5/32" Drill Bit
Flat Bladed Screwdriver

Instructions:

Drill holes, tap threads and install screws using blue Loctite.

Additional Eyestrap Included

An additional eyestrap is now included for the aft line of the Lazy Jacks.

Mount a strap on each side of the boom to hold the aft line in place. See diagram below.

Note: Do not mount the eyestrap on the bottom of the boom as directed on pages 8 and 9 of the manual.
If you have any questions or comments please contact:

Harken Yacht Equipment
1251 East Wisconsin Avenue
Pewaukee, WI 53072

Telephone (414)691-3320

Parts List

2 wire assemblies including blocks and mast tangs
1 60' (18.3m) length of 5/16" (8mm) line with eye splice
3 stainless steel eye straps
1 big bullet cheek block
1 4" (101mm) aluminum cleat
17 3/16" (4.76mm) stainless steel rivets (includes 3 extra)
3 #10 x 1 1/4" (32mm) flat head sheet metal screws (1 extra)

Tools Required

rivet gun - Please note: Stainless steel rivets require a heavy duty rivet gun. It may be necessary to rent a rivet gun if you do not have a heavy duty model.

marker or pencil
set punch
hammer
electric drill
11/64" (4.5mm) drill bit
13/64" (5mm) drill bit
long extension cord
phillips screwdriver
tape measure long enough to measure luff length
pliers or vice grips

Altering Sail Cover

Take your sail cover to a sailmaker to have slits cut in the cover for the Lazy Jacks. Slits should have velcro or snap closures to make it easy to cover the mainsail. Mark your cover after installation or bring Chart B and the drawing on page 9 so the slots can be positioned correctly. Note: Chart B was changed on 9/88 so be sure to bring your chart. Do not rely on sailmakers chart which may be from an old manual.
Determining the Location Of Mast Tang

Measure the mainsail luff length or find the P dimension of the mast. Locate this measurement in the left column below and circle the number in the right column. See drawing, page 5.

Chart A

If the mainsail luff length or P dimension measures: the tang location measured from the top of the boom is:

<table>
<thead>
<tr>
<th>P (93&quot;)</th>
<th>22'6&quot; (6.85m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31'7&quot; to 32'</td>
<td>(9.47 - 9.61m)</td>
</tr>
<tr>
<td>32'1&quot; to 32'6&quot;</td>
<td>(9.62 - 9.76m)</td>
</tr>
<tr>
<td>32'7&quot; to 33'</td>
<td>(9.77 - 9.91m)</td>
</tr>
<tr>
<td>33'1&quot; to 33'6&quot;</td>
<td>(9.92 - 10.06m)</td>
</tr>
<tr>
<td>33'7&quot; to 34'</td>
<td>(10.07 - 10.21m)</td>
</tr>
<tr>
<td>34'1&quot; to 34'6&quot;</td>
<td>(10.22 - 10.36m)</td>
</tr>
<tr>
<td>34'7&quot; to 35'</td>
<td>(10.37 - 10.51m)</td>
</tr>
<tr>
<td>35'1&quot; to 35'6&quot;</td>
<td>(10.52 - 10.66m)</td>
</tr>
<tr>
<td>35'7&quot; to 36'</td>
<td>(10.67 - 10.81m)</td>
</tr>
<tr>
<td>36'1&quot; to 36'6&quot;</td>
<td>(10.82 - 10.96m)</td>
</tr>
<tr>
<td>36'7&quot; to 37'</td>
<td>(10.97 - 11.11m)</td>
</tr>
<tr>
<td>37'1&quot; to 37'6&quot;</td>
<td>(11.12 - 11.26m)</td>
</tr>
<tr>
<td>37'7&quot; to 38'</td>
<td>(11.27 - 11.41m)</td>
</tr>
<tr>
<td>38'1&quot; to 38'6&quot;</td>
<td>(11.42 - 11.56m)</td>
</tr>
<tr>
<td>38'7&quot; to 39'</td>
<td>(11.57 - 11.71m)</td>
</tr>
<tr>
<td>39'1&quot; to 39'6&quot;</td>
<td>(11.72 - 11.86m)</td>
</tr>
<tr>
<td>39'7&quot; to 40'</td>
<td>(11.87 - 12.01m)</td>
</tr>
<tr>
<td>40'1&quot; to 40'6&quot;</td>
<td>(12.02 - 12.16m)</td>
</tr>
<tr>
<td>40'7&quot; to 41'</td>
<td>(12.17 - 12.31m)</td>
</tr>
<tr>
<td>41'1&quot; to 41'6&quot;</td>
<td>(12.32 - 12.46m)</td>
</tr>
</tbody>
</table>
| 41'7" to 42' | (12.47 - 12.60m) | 29'5" (8.96m)

Installing Mast Tang and Wire Assembly

If you are installing the system with the mast up, you will need to take up the following parts in the bosun’s chair or send them up with a messenger line. Follow all precautions to insure the safety of the person aloft. Make sure no one is standing where they could be hit with dropped tools.

WARNING! When drilling through mast, do not let drill bit contact the halyard that is holding you aloft! Limit depth.

tape measure
drill with 13/64"(5mm) drill bit
port and starboard templates (attached to page 4)
tape for template
tang assembly including wires and blocks
hammer
set punch
rivet gun

Please note, before going up the mast, insert the middle rivet into the tang. Squeeze the top and bottom of the tang together to insert the rivet. It may be necessary to use a pliers or vice grips.
Installing Mast Tang and Wire Assembly (continued)

Measure up from the top of the boom to the height from chart A.

Movable Gooseneck
If the gooseneck is capable of moving up and down, measure from the top of the boom when the boom is positioned in its normal sailing position.

Mark the mast at this point.

Tape the template to the side of the mast so the middle hole is even with your mark. Line the template up so the vertical line is parallel to the sides of the mast. See drawing on the following page.

Use a set punch to mark the three tang holes. Remove the template and drill three 13/64" (5mm) holes. Rivet the tang to the mast beginning with the middle rivet.
mast tang assembly

use 13/64" (5mm) drill bit

VERT

STARBOARD

mounting template

top view tangs installed on widest part of mast

measurement from Chart A

INSTALLING MAST TANGS
Stringing the Control Lines

Decide whether the adjusting block and cleat will be on port or starboard. The end of the line without the eye splice will be on the side of the boom where you will adjust the Lazy Jacks - the side where you will install the cleat.

With the middle of the control line draped under the boom, pass the ends of the line up and run each end of the line through the blocks that are suspended from the wire. The line should be run through the blocks from stern to bow as shown on the diagram below.
Determining the Location of Boom Hardware

Measure the mainsail foot length or find the E dimension of the mast. Find this measurement in the left column below and circle the corresponding numbers in the right column. Put a mark on the boom at each measurement. See drawing, page 9.

Chart B - Location of Boom Hardware*

<table>
<thead>
<tr>
<th>E Dimension or Sail Foot Length</th>
<th>Cheek Block and Dead End Location</th>
<th>Boom Cradle Strap Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'7&quot; to 9' (2.57 - 2.71m)</td>
<td>1'11&quot; (584mm)</td>
<td>5'6&quot; (1.676m)</td>
</tr>
<tr>
<td>9'1&quot; to 9'6&quot; (2.72 - 2.86m)</td>
<td>2'1&quot; (635mm)</td>
<td>5'10&quot; (1.778m)</td>
</tr>
<tr>
<td>9'7&quot; to 10' (2.87 - 3.01m)</td>
<td>2'2&quot; (660mm)</td>
<td>6'2&quot; (1.880m)</td>
</tr>
<tr>
<td>10'1&quot; to 10'6&quot; (3.02 - 3.16m)</td>
<td>2'3&quot; (686mm)</td>
<td>6'6&quot; (1.981m)</td>
</tr>
<tr>
<td>10'7&quot; to 11' (3.17 - 3.31m)</td>
<td>2'4&quot; (711mm)</td>
<td>6'10&quot; (2.083m)</td>
</tr>
<tr>
<td>11'1&quot; to 11'6&quot; (3.22 - 3.46m)</td>
<td>2'6&quot; (762mm)</td>
<td>7'1&quot; (2.159m)</td>
</tr>
<tr>
<td>11'7&quot; to 12' (3.47 - 3.61m)</td>
<td>2'7&quot; (787mm)</td>
<td>7'5&quot; (2.261m)</td>
</tr>
<tr>
<td>12'1&quot; to 12'6&quot; (3.52 - 3.76m)</td>
<td>2'8&quot; (813mm)</td>
<td>7'9&quot; (2.362m)</td>
</tr>
<tr>
<td>12'7&quot; to 13' (3.77 - 3.91m)</td>
<td>2'10&quot; (864mm)</td>
<td>8'1&quot; (2.464m)</td>
</tr>
<tr>
<td>13'1&quot; to 13'6&quot; (3.92 - 4.06m)</td>
<td>2'11&quot; (889mm)</td>
<td>8'4&quot; (2.540m)</td>
</tr>
<tr>
<td>13'7&quot; to 14' (4.07 - 4.21m)</td>
<td>3' (914mm)</td>
<td>8'8&quot; (2.642m)</td>
</tr>
<tr>
<td>14'1&quot; to 14'6&quot; (4.22 - 4.36m)</td>
<td>3'2&quot; (965mm)</td>
<td>9&quot; (2.743m)</td>
</tr>
<tr>
<td>14'7&quot; to 15' (4.37 - 4.51m)</td>
<td>3'3&quot; (991mm)</td>
<td>9'4&quot; (2.845m)</td>
</tr>
<tr>
<td>15'1&quot; to 15'6&quot; (4.52 - 4.66m)</td>
<td>3'4&quot; (1.016m)</td>
<td>9'8&quot; (2.946m)</td>
</tr>
<tr>
<td>15'7&quot; to 16' (4.67 - 4.81m)</td>
<td>3'6&quot; (1.067m)</td>
<td>9'11&quot; (3.023m)</td>
</tr>
</tbody>
</table>

*Note - This chart is designed for sails of medium aspect ratio with full length battens. If you have high aspect sails or conventional battens, you may want to check sail containment before drilling holes in the boom. To do this, tape the boom hardware in place, reeve lines through system and lower sail. Move if necessary.

Installing Cheek block

Hold the cheek block on the side of the boom so the aft end of the block is even with the forward mark. Use the cheek block as a template to mark the holes and use the set punch to start the holes.

Drill holes for rivets using a 13/64" (5mm) drill.

Note: Position cheek block so the sheave side of the block is towards the cleat. Please refer to the diagram on the following page. In most cases the cleat will be mounted forward of the cheek block near the forward end of the boom. If there is other hardware in the way such as a single line reefing system, mount the cleat aft of the block.

Rivet the block to the boom.
Sheave Side Of Block Is Towards Cleat

**Installing Dead End Eyestrap**

Use the eye strap as a template to mark the holes and start the holes using a set punch.

**Drill Size - 13/64" (5mm).**

**Important:** Put the eye strap through the line eye splice before riveting to the mast. Rivet the eye strap and line to the boom.

**Mounting Adjusting Cleat**

Mount the cleat near the forward end of the boom so the Lazy Jacks may be easily adjusted. Before mounting the cleat, swing the boom out as far forward as it will go to make sure the cleat does not hit the mast. If you have single line reefing or other obstructions forward of the block, mount the cleat aft of the block as pictured on page 9. Use the cleat as a template to mark the holes and using the set punch.

**Drill size for screws - 11/64" (4.5mm).**

**Note:** If you have internal boom control lines, cut off the ends of the self-tapping screws and round off the tip to avoid snagging the internal lines. Screws should be first screwed into the boom to cut threads.

**Mounting Cradle Strap**

Pull the aft line towards the end of the boom, until the line intersects with the mark you have made as indicated in chart B. The eyestrap will be located aft of the mark. See Page 9.

**Drill Size - 13/64" (5mm)**

**Make sure the line is inside the eye strap before riveting.** Rivet the eye strap in place.
mount eyestraps so line intersects with mark from Chart B

boom cradle strap location from Chart B

alternative cleat location—sheave side of cheek block is towards cleat
Adjusting Lazy Jacks

The Lazy Jacks may be set to the proper tension at the dock. Raise the mainsail and make sure the adjusting line is uncleated at the boom. Tighten the mainsheet as tight as it will go to find the maximum distance that the boom would be lowered while under sail. Next tighten the adjusting line and slack it off 2\" (50mm). The system should now be set at a reasonable tension so it will not interfere with sail shape, yet it will contain the sail when lowered onto the boom. Some further adjustment may be necessary.

Using Your Lazy Jacks - Precautions

Before sailing, make sure the Lazy Jacks will not catch on the spreaders. While at the dock, swing the boom out so the sail is against the spreader tips. Try lifting the boom and shaking it to see if the Lazy Jack lines are apt to swing behind the spreaders. When first sailing with the Lazy Jacks, look aloft while sailing downwind to see if the Lazy Jacks catch behind the spreaders. If they get snagged while sailing, release the snagged Lazy Jacks from behind the spreader before bringing the mainsail in towards the center. If this is not done, you run the risk of breaking your spreaders as the mainsail is cranked in.

If the Lazy Jacks are prone to snagging the spreader tips, there are 2 solutions. The easiest thing is to rig shock cords to pull the Lazy Jacks forward out of the way of the spreader tips. Rig a length of shock cord on each side of the sail. Dead end the shock cord at or near the gooseneck and run it up to the blocks which are suspended from the wires.

If this does not help, you will need to reposition the Mast Tangs so they are lower on the mast and do not interfere with the spreader tips.

Raising Sail

When hoisting sail check to make sure the sail does not get caught in the Lazy Jacks. The headboard or battens may catch between the mast and the Lazy Jacks or jam in the angle between the lines. If the halyard is forced, this could result in a broken batten, ripped sail or damaged Lazy Jack. To avoid this, look aloft as you raise the mainsail and stop if the sail gets caught. Also, make sure the boat is facing head-to-wind.

The sail is less apt to catch on the Lazy Jacks if the topping lift is used and the Lazy Jacks are somewhat loose. This way they will deflect out of the way easier when the sail makes contact with them.
USING SHOCK CORD TO PULL LAZY JACKS OUTWARD

Shock cord may be used to hold Lazy Jacks open to make it easier to raise sail.

1. Attach shock cord to the end of the lower spreaders. Hog rings work well for this purpose. Use rigging tape over hog rings.

2. Temporarily tie the other end of the shock cord to the lazy jacks at a length that holds the lazy jacks out, yet will not be too short and damage the spreaders when the boom is swung out.

3. Test the length by swinging the boom all the way out. If necessary, lengthen the shock cord before permanently attaching to the lazy jacks.
Instruction Manual

HARKEN

#253 Lazy Jacks

For boats 27 - 37 ft. (8.2 - 11.3m) in length
with mainsail luff lengths 32 - 42 ft. (10m - 13m)


If you have any questions or comments please contact:

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1251 East Wisconsin Avenue
Pewaukee, WI 53072

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Parts List

2 wire assemblies including blocks and mast tangs
1 60'(18.3m) length of 5/16"(8mm) line with eye splice
2 stainless steel eye straps
1 big bullet cheek block
1 4" (101mm) aluminum cleat
15 3/16" (4.76mm) stainless steel rivets (includes 3 extra)
3 #10 x 1 1/4"(32mm) flat head sheet metal screws (1 extra)

Tools Required

rivet gun - Please note: Stainless steel rivets require a heavy duty rivet gun. It may be necessary to rent a rivet gun if you do not have a heavy duty model.

marker or pencil
set punch
hammer
electric drill
11/64" (4.5mm) drill bit
13/64" (5mm) drill bit
long extension cord
phillips screwdriver
tape measure long enough to measure luff length
pliers or vice grips

Altering Sail Cover

Take your sail cover to a sailmaker to have slits cut in the cover for the Lazy Jacks. Slits should have velcro or snap closures to make it easy to cover the mainsail. Mark your cover after installation or bring Chart B and the drawing on page 9 so the slots can be positioned correctly. Note: Chart B was changed on 9/88 so be sure to bring your chart. Do not rely on sailmakers chart which may be from an old manual.
Determining the Location Of Mast Tang

Measure the mainsail luff length or find the P dimension of the mast. Locate this measurement in the left column below and circle the number in the right column. See drawing, page 5.

Chart A

If the mainsail luff length or P dimension measures: the tang location measured from the top of the boom is:

<table>
<thead>
<tr>
<th>Luff Length (ft)</th>
<th>P Dimension (ft)</th>
<th>Tang Location (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>31’7” to 32’</td>
<td>(9.47 - 9.61m)</td>
<td>22’6” (6.85m)</td>
</tr>
<tr>
<td>32’1” to 32’6”</td>
<td>(9.62 - 9.76m)</td>
<td>22’9” (6.93m)</td>
</tr>
<tr>
<td>32’7” to 33’</td>
<td>(9.77 - 9.91m)</td>
<td>23’1” (7.03m)</td>
</tr>
<tr>
<td>33’1” to 33’6”</td>
<td>(9.92 - 10.06m)</td>
<td>23’5” (7.13m)</td>
</tr>
<tr>
<td>33’7” to 34’</td>
<td>(10.07 - 10.21m)</td>
<td>23’10” (7.26m)</td>
</tr>
<tr>
<td>34’1” to 34’6”</td>
<td>(10.22 - 10.36m)</td>
<td>24’2” (7.36m)</td>
</tr>
<tr>
<td>34’7” to 35’</td>
<td>(10.37 - 10.51m)</td>
<td>24’6” (7.46m)</td>
</tr>
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<td>(10.82 - 10.96m)</td>
<td>25’7” (7.79m)</td>
</tr>
<tr>
<td>36’7” to 37’</td>
<td>(10.97 - 11.11m)</td>
<td>25’11” (7.89m)</td>
</tr>
<tr>
<td>37’1” to 37’6”</td>
<td>(11.12 - 11.26m)</td>
<td>26’3” (8.00m)</td>
</tr>
<tr>
<td>37’7” to 38’</td>
<td>(11.27 - 11.41m)</td>
<td>26’7” (8.10m)</td>
</tr>
<tr>
<td>38’1” to 38’6”</td>
<td>(11.42 - 11.56m)</td>
<td>26’11” (8.20m)</td>
</tr>
<tr>
<td>38’7” to 39’</td>
<td>(11.57 - 11.71m)</td>
<td>27’4” (8.33m)</td>
</tr>
<tr>
<td>39’1” to 39’6”</td>
<td>(11.72 - 11.86m)</td>
<td>27’8” (8.43m)</td>
</tr>
<tr>
<td>39’7” to 40’</td>
<td>(11.87 - 12.01m)</td>
<td>28” (8.53m)</td>
</tr>
<tr>
<td>40’1” to 40’6”</td>
<td>(12.02 - 12.16m)</td>
<td>28’4” (8.63m)</td>
</tr>
<tr>
<td>40’7” to 41’</td>
<td>(12.17 - 12.31m)</td>
<td>28’8” (8.73m)</td>
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<td>41’1” to 41’6”</td>
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<tr>
<td>41’7” to 42’</td>
<td>(12.47 - 12.60m)</td>
<td>29’5” (8.96m)</td>
</tr>
</tbody>
</table>

Installing Mast Tang and Wire Assembly

If you are installing the system with the mast up, you will need to take up the following parts in the bosun’s chair or send them up with a messenger line. Follow all precautions to insure the safety of the person aloft. Make sure no one is standing where they could be hit with dropped tools.

- tape measure
- drill with 13/64" (5mm) drill bit
- port and starboard templates (attached to page 4)
- tape for template
- tang assembly including wires and blocks
- hammer
- set punch
- rivet gun

Please note, before going up the mast, insert the middle rivet into the tang. Squeeze the top and bottom of the tang together to insert the rivet. It may be necessary to use a pliers or vice grips.
Installing Mast Tang and Wire Assembly (continued)

Measure up from the top of the boom to the height from chart A.

Movable Gooseneck
If the gooseneck is capable of moving up and down, measure from the top of the boom when the boom is positioned in its normal sailing position.

Mark the mast at this point.

Tape the template to the side of the mast so the middle hole is even with your mark. Line the template up so the vertical line is parallel to the sides of the mast. See drawing on the following page.

Use a set punch to mark the three tang holes. Remove the template and drill three 13/64" (5mm) holes. Rivet the tang to the mast beginning with the middle rivet.
mast tang assembly

use 13/64" (5mm) drill bit

VERT.

STARBOARD

mounting template

measurement from Chart A

top view tangs installed on widest part of mast

INSTALLING MAST TANGS
Stringing the Control Lines

Decide whether the adjusting block and cleat will be on port or starboard. The end of the line \textit{without} the eye splice will be on the side of the boom where you will adjust the Lazy Jacks - the side where you will install the cleat.

With the middle of the control line draped under the boom, pass the ends of the line up and run each end of the line through the blocks that are suspended from the wire. The line should be run through the blocks from stern to bow as shown on the diagram below.
Determining the Location of Boom Hardware

Measure the mainsail foot length or find the E dimension of the mast. Find this measurement in the left column below and circle the corresponding numbers in the right column. Put a mark on the boom at each measurement. See drawing, page 9.

**Chart B - Location of Boom Hardware**

<table>
<thead>
<tr>
<th>E Dimension or Sail Foot Length</th>
<th>Cheek Block and Dead End Location</th>
<th>Boom Cradle Strap Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>8'7&quot; to 9'</td>
<td>1'10&quot; (.55 m)</td>
<td>6'10&quot; (2.08 m)</td>
</tr>
<tr>
<td>9'1&quot; to 9'6&quot;</td>
<td>2' (.60 m)</td>
<td>7'3&quot; (2.20 m)</td>
</tr>
<tr>
<td>9'7&quot; to 10'</td>
<td>2'2&quot; (.65 m)</td>
<td>7'7&quot; (2.31 m)</td>
</tr>
<tr>
<td>10'1&quot; to 10'6&quot;</td>
<td>2'5&quot; (.73 m)</td>
<td>8' (2.43 m)</td>
</tr>
<tr>
<td>10'7&quot; to 11'</td>
<td>2'7&quot; (.78 m)</td>
<td>8'4&quot; (2.53 m)</td>
</tr>
<tr>
<td>11'1&quot; to 11'6&quot;</td>
<td>2'9&quot; (.83 m)</td>
<td>8'9&quot; (2.66 m)</td>
</tr>
<tr>
<td>11'7&quot; to 12'</td>
<td>2'11&quot; (.88 m)</td>
<td>9'1&quot; (2.76 m)</td>
</tr>
<tr>
<td>12'1&quot; to 12'6&quot;</td>
<td>3'1&quot; (.93 m)</td>
<td>9'6&quot; (2.89 m)</td>
</tr>
<tr>
<td>12'7&quot; to 13'</td>
<td>3'4&quot; (1.01 m)</td>
<td>9'11&quot; (3.02 m)</td>
</tr>
<tr>
<td>13'1&quot; to 13'6&quot;</td>
<td>3'6&quot; (1.06 m)</td>
<td>10'3&quot; (3.12 m)</td>
</tr>
<tr>
<td>13'7&quot; to 14'</td>
<td>3'8&quot; (1.11 m)</td>
<td>10'8&quot; (3.24 m)</td>
</tr>
<tr>
<td>14'1&quot; to 14'6&quot;</td>
<td>3'10&quot; (1.16 m)</td>
<td>11&quot; (3.35 m)</td>
</tr>
<tr>
<td>14'7&quot; to 15'</td>
<td>4'1&quot; (1.24 m)</td>
<td>11'5&quot; (3.47 m)</td>
</tr>
<tr>
<td>15'1&quot; to 15'6&quot;</td>
<td>4'3&quot; (1.29 m)</td>
<td>11'9&quot; (3.58 m)</td>
</tr>
<tr>
<td>15'7&quot; to 16'</td>
<td>4'5&quot; (1.34 m)</td>
<td>12'2&quot; (3.70 m)</td>
</tr>
</tbody>
</table>

**Installing Cheek Block**

Hold the cheek block on the side of the boom so the aft end of the block is even with the forward mark. Use the cheek block as a template to mark the holes and use the set punch to start the holes.

Drill holes for rivets using a 13/64" (5 mm) drill.

**Note:** Position cheek block so the sheave side of the block is towards the cleat. Please refer to the diagram on the following page. In most cases the cleat will be mounted forward of the cheek block near the forward end of the boom. If there is other hardware in the way such as a single line reefing system, mount the cleat aft of the block.

Rivet the block to the boom.
Sheave Side Of Block Is Towards Cleat

Installing Dead End Eyestraps

Use the eye strap as a template to mark the holes and start the holes using a set punch.

Drill Size – 13/64” (5mm).

Important: Put the eye strap through the line eye splice before riveting to the mast. Rivet the eye strap and line to the boom.

Mounting Adjusting Cleat

Mount the cleat near the forward end of the boom so the Lazy Jacks may be easily adjusted. Before mounting the cleat, swing the boom out as far forward as it will go to make sure the cleat does not hit the mast. If you have single line reefing or other obstructions forward of the block, mount the cleat aft of the block as pictured on page 9. Use the cleat as a template to mark the holes and using the set punch.

Drill size for screws – 11/64” (4.5mm).

Note: If you have internal boom control lines, cut off the ends of the self tapping screws and round off the tip to avoid snagging the internal lines. Screws should be first screwed into the boom to cut threads.

Mounting Cradle Strap

Pull the aft line towards the end of the boom, until the line intersects with the mark you have made as indicated in chart B. The eyestraps will be located aft of the mark. See Page 9.

Drill Size – 13/64” (5mm)

Make sure the line is inside the eye strap before riveting. Rivet the eye strap in place.
mount eyestrap so line intersects with mark from Chart B

boom cradle strap location from Chart B

alternative cleat location—sheave side of cheek block is towards cleat
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ACKNOWLEDGEMENTS

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APPENDICES
Adjusting Lazy Jacks

The Lazy Jacks may be set to the proper tension at the dock. To adjust the Lazy Jacks, raise the mainsail and make sure the adjusting line is uncleated at the boom. Tighten the mainsheet as tight as it will go to find the maximum distance that the boom would be lowered while under sail. Next tighten the adjusting line and slack it off 2" (50mm). The system should now be set at a reasonable tension so it will not interfere with sail shape, yet it will contain the sail when lowered onto the boom. Some further adjustment may be necessary.

Using Your Lazy Jacks - Precautions

Before sailing, make sure the Lazy Jacks will not catch on the spreaders. While at the dock, swing the boom out so the sail is against the spreader tips. Try lifting the boom and shaking it to see if the Lazy Jack lines are apt to swing behind the spreaders. When first sailing with the Lazy Jacks, look aloft while sailing downwind to see if the Lazy Jacks catch behind the spreaders. If they get snagged while sailing, it is important to release the snagged Lazy Jacks from behind the spreader before bringing the mainsail in towards the center. If this is not done, you run the risk of breaking your spreaders as the mainsail is cranked in.

If the Lazy Jacks are prone to snagging the spreader tips, there are 2 solutions. The easiest thing is to rig shock cords to pull the Lazy Jacks forward out of the way of the spreader tips. Rig a length of shock cord on each side of the sail. Dead end the shock cord at or near the gooseneck and run it up to the blocks which are suspended from the wires.

If this does not help, you will need to reposition the Mast Tangs so they are lower on the mast and do not interfere with the spreader tips.

Raising Sail

When hoisting sail check to make sure the sail does not get caught in the Lazy Jacks. The headboard or battens may catch between the mast and the Lazy Jacks or jam in the angle between the lines. This could result in a broken batten, ripped sail or damaged Lazy Jack. To avoid this, look aloft as you raise the mainsail and stop if the sail gets caught. Also, make sure the boat is facing directly into the wind when hoisting sail.

You may find that the sail is less apt to catch on the Lazy Jacks if the topping lift is used and the Lazy Jacks are somewhat loose. This way they will deflect out of the way easier when the sail makes contact with them.

Lazy Jacks are designed to neatly contain the mainsail on the boom when you are lowering or reefing the sail. Please contact us if you have any questions or comments.

Good Sailing! Harken Yacht Equipment (414) 691-3320