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Beam Strap Anchorage Training

Instructor -- Chris Jenkins

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Job Name -- Port of Tacoma maritime

Foreman -- Lee Jones

Attendance -- Lee Jones, Chris Jenkins, Langston Patterson, Luke Wilson

Comments:

Today we're going to spend a few minutes talking about beam straps : you might also hear them called tie-off adapters or anchorage connectors.

We're covering this because we've seen some confusion in the past around how these straps are routed and used. This isn't about calling anyone out. It's about making sure everyone is clear on expectations, confident in what they're doing, and able to go home safe at the end of the day.

One of the most important parts of any personal fall arrest system is planning the setup before you ever tie-off. OSHA and WISHA requires fall protection systems to be properly selected, installed, and used and the anchorage point is a big part of that.

Planning Before You Tie Off

Fall protection doesn't start when you clip in, it starts before that.

One of the most important parts of any personal fall arrest system is taking a minute to plan your setup before you ever tie off. OSHA and WISHA require fall protection systems to be properly selected, installed, and used, and the anchorage point plays a huge role in whether that system

actually works when you need it.

Step 1: Inspect Before You Use It

Every beam strap needs to be inspected before each use. This doesn't take long, but it matters.

Check the following:

Webbing : No fraying, cuts, broken fibers, tears, burns, mold, discoloration, or chemical damage.

Stitching : Nothing pulled, cut, loose, or missing.

D-rings : No cracks, sharp edges, bends, burrs, or corrosion.

Labels : Manufacturer labels must be present, readable, and show that the annual inspection has been completed.

If something doesn't look right, don't try to make it work. Immediately take it out of service and get a replacement. A damaged strap may look fine until the moment it's loaded and that's not a risk worth taking.

Where Beam Straps Can and Cannot Be Used

Beam straps may only be attached to **approved structural anchorage points** that can support at least **5,000 pounds per person**, or that are part of a properly engineered fall protection system.

Acceptable anchorage points include:

Permanent structural steel beams.

Girders or columns that are part of the building's main structure.

The anchorage must be solid, stable, and free of sharp edges that could damage the strap.

Beam straps must **never** be attached to:

Conduit or piping

Sprinkler lines

Cable trays

Handrails or guardrails

Light fixtures

Temporary structures

If you're ever unsure whether something is rated to be used as an anchorage point, **stop and ask**. your supervisor or the safety department. We would much rather answer the question than respond to an incident later.

Step 2: Installing the Beam Strap Correctly

There is a right way and a wrong way to install a beam strap and this is where we've seen the most issues.

The correct method is:

Place the beam strap over the anchorage with the **labels facing outward**.

Let the **D-rings hang below** the anchorage point.

Pass the **small D-ring through the large D-ring**.

Pull it snug so the strap **chokes tight** around the beam.

This setup ensures the strap loads correctly if a fall occurs.

Adjusting Length to Reduce Free-Fall

If the strap needs to be shortened:

Continue passing the **small D-ring through the large D-ring**.

Repeat until the length is right.

Make sure the **small D-ring always stays below the anchorage**.

Step 3: Making the Connection

How you connect to the beam strap matters just as much as how it's installed.

Only use **self-locking snap hooks or carabiners**.

Connections must be **one-to-one**.

Connect **only to the small D-ring**.

Never connect to both D-rings or side-load the connector.

Remember This!

Beam straps only work if they're used correctly. Inspect them, anchor them properly, route them the right way, and make clean connections. If you're unsure at any point, stop and speak up, that conversation is always easier than dealing with an injury.

For a [video demonstration](#), please click on the link or visit the Videos tab in your LMS.