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Using a Horizontal Lifeline System

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Comments:

Today we're reviewing how to correctly set up and use a Horizontal Lifeline (HLL) including popular systems like the 3M/DBI-SALA EZ-Line and the Werner Horizontal Lifeline. These systems are ideal for temporary work areas because they're quick to deploy and easy to set tension. But speed should never come at the expense of safety.

What is a Horizontal Lifeline (HLL):

A horizontal lifeline is a cable or rope system anchored between two fixed points. It allows workers to move side-to-side while staying tied off for fall protection. You'll commonly see them on rooftops, open decks, steel structures, leading edges or anywhere overhead anchorage is limited.

But remember, an HLL is only as strong as its weakest component. That's why proper setup is critical.

Essential Components of as Horizontal Lifeline System.

Anchorage Points

It must be structural and rated for fall arrest (at least 5,000 lbs. per worker).

Never use piping, guardrails, or scaffold frames.

The Lifeline

Can be synthetic rope, cable, or a pre-engineered system like EZ-Line or Werner systems.

Must be rated specifically for fall protection: not lifting or rigging.

Tensioning System

Horizontal systems must be properly tensioned to reduce sag and fall distance.

Pre-engineered systems include a crank handle for controlled tensioning.

Rated Connectors

Use only ANSI/OSHA-approved shackles, carabiners, or hardware.

Tie-Off Method

Workers must wear a full-body harness and use a shock-absorbing lanyard, SRL, or rope grab that's approved for HLL use.

Connect to the lifeline using a shuttle or sliding :bull ring: device designed for smooth movement along the line.

Step By Step Setup Guide

Inspect the System

Check for frayed cables, kinks, or damaged components.

Inspect the energy absorber and ensure the system retracts and locks properly.

Anchor the Housing End

Use a rated anchor point and attach the housing securely with a heavy-duty Shackle or carabiner.

Walk the Cable to the Second Anchor

Slowly extend the line across the work area to your second approved anchor.

Connect the End Connector

Secure the cable to the second anchor point using the end hook or rated hardware.

Tension the Lifeline

Use the built-in crank to tighten the line until sag is minimal.

You'll hear a clicking sound as the system tensions.

Lock the Crank Handle

Once tensioned, lock the handle in place so it cannot unwind on its own.

Tie Off Correctly

Each worker connects using a sliding shuttle or SRL rated for HLL use.

Ensure the shuttle moves freely across the line.

Critical Safety Reminders

Inspect all components before every use: damage or missing parts = no-go.

Never exceed the system's rated capacity: most HLLs allow a max of 2 workers.

Don't anchor to unapproved structures like scaffolding or guardrails.

Always verify fall clearance: especially important with rope systems or longer spans.

Complete a Fall Protection Work Plan in the LMS for any work above 10', including a written rescue plan.

For those of us who are visual learners, please check out these short video walkthroughs.

[Werner Horizontal Lifeline's Explained](#)

[EZ-Line Retractable Horizontal Lifeline System](#)

Remember This!

If You're Ever Unsure : STOP and ASK. Fall protection is not the time to improvise. When in doubt, pause and confirm the setup with your foreman or job lead.