SUSPENDED SCAFFOLDING SECTION

SSFI TECHNICAL BULLETIN

Supplier Qualification for Modular Suspended Platforms

On Christmas Eve 2009, 4 workers restoring the facade of a Toronto housing project fell to their deaths as a result of overloading their modular suspended platform and not using appropriate personal fall arrest equipment. A load of 5 workers plus extensive construction debris on the 40 foott platform was simply too much for the platform. The consequences for the workers were tragic and avoidable - the worst type of incident.

Was this really a catastrophic load on the platform?

Platform overloading incidents are rare. This one brings to mind only one other similar incident. With thousands at work daily on suspended platforms, why is it that we nearly never hear of platform failures due to overloading?

To suggest overloading of platforms doesn't happen simply ignores the reality of production-based work, where one more bucket of material on the platform saves some fraction of a working hour. See the related SSFI Technical Bulletin, "Overloading Suspended Scaffold Hoists" for more.

Also, understand that platforms are built to withstand loading in excess of the rated load. This safety factor protects workers from variances in material strengths or fabrication methods, and the unintentional overloading that can occur.

Let's look at what made the Toronto incident so fatal. It is unlikely a single fatality would have occurred if the workers used properly installed fall arrest equipment, despite the platform failure. The workers would have remained suspended, awaiting emergency services or escape through the structure, if possible. Fall arrest equipment is the last line of defense against fatal injury.

The platform is alleged to be an imported knocked-off design of an established European manufacturer's modular platform. Whether it was designed and tested to the required strength or labeled with rated load capacity, warning labels, or other operator responsibilities is unknown.

If this contractor selected this product, what keeps others from making the same choice? How does a contractor know what to source?

Start with the codes:

In the US, OSHA and ANSI have coverage:

This Technical Bulletin was prepared by members of the SSFI Suspended Scaffolding Section.

OSHA 1926.452(p)(4) Platforms shall be of the ladder-type, plank-type, beam-type, or light-metal type. Light metal-type platforms having a rated capacity of 750 pounds or less and platforms 40 feet (12.2 m) or less in length shall be tested and listed by a nationally recognized testing laboratory.

American National Standard ANSI A10.8 – 2011: Paragraph 6.13.3
Modular platform sections and standard assemblies shall be design tested by an independent nationally recognized testing laboratory per UL 1322 section on modular suspended platforms.

Under the OSHA code, the Nationally Recognized Test Laboratory (NRTL) stipulates the testing criteria. The ANSI code is more directive. Note at the time of publication, only Underwriters Laboratory is a NRTL for modular platforms.

In Canada, CSA Z271-10 sections 4-6 cover platform design, fabrication and loading. Sections 10-12 cover platform marking, inspection, testing and maintenance. Canada does not require a 3rd party independent verification of a manufacturer's performance to this standard. Some manufacturers invest in this certification to provide more assurance of compliance for buyers.

Verify the independent qualifications. Go to the source or request this documentation from your supplier.

Remember that these are minimum standards, you may also want to develop an internal specification for product and supplier quality. These additional criteria may include:

- Specifying what welding certifications the fabricators hold – i.e. AWS certified or compliant with CSA W59/59.2 and CSA W47.1/47.2 or equivalent.)
- Stipulating a desired country of origin.
- Minimum insurance levels and other carrier minimum requirements.
- Quality assurance certifications, such as third-party audited ISO 9000 series certification of the supplier's quality and inspection programs.

For contractors renting these platforms:

- know how your rental supplier selected the platforms it rents and what their processes for maintaining product quality are.
- Know what your supplier does to verify ongoing structural soundness of platforms.
- Do they remove paint build-up or other materials at structural members to inspect welds?
- Do they have a standard for replacing the platform due to damage from drilling into platform components or other modifications?
- Do they replace worn or broken components?
- Does your supplier financially plan for retiring a portion of its rental platforms every year based on diminished structural integrity?

Tough economic times press everyone to reduce costs. Contractors are under extreme pressure to deliver their margins, which flows to their suppliers as well. Work with manufacturers who professionally build modular platforms fully in compliance with your local code, and with suppliers who maintain rental platforms appropriately.

In the end, when the price is too good to be true, it usually is.

This Technical Bulletin was prepared by members of the SSFI Suspended Scaffolding Section.

SSFI is a trade association comprising manufacturers of shoring, scaffolding, forming, and suspended scaffolding. The institute focuses on engineering and safety aspects of scope products.