

as special lifting devices and lifting and spreader beams, may require an initial inspection by a person qualified for that piece of equipment.

Rigging identification (tagging) reference material, such as manufacturer's load charts and/or ASME B30 or Web Sling & Tie Down Association identification requirements should be available for the inspector's reference.

Recommended Inspection Process

Compare the rigging gear received to the purchase order to verify they are both the same type and configuration as was ordered.

Verify that rigging gear identification is correct.

Verify that sling/hardware fabrication looks correct. When an inspector knows how a piece of gear *should* look, it is much easier for them to recognize rigging gear that appears out of the ordinary.

Common Defects Found in New Gear

The most common defects on wire rope slings include:

Incorrect identification – Clients have shown me two-, three-, and four-leg wire rope bridle slings that were ordered at the same time. The fabricator had put the wrong tags on the assemblies. The two-leg assemblies had four-leg tags on them. The three-leg bridles had the two-leg identification attached. And the four-leg bridles had the three-leg identification on them.

I have inspected slings made from cable-laid wire rope with a load rating based on 6x19 class wire rope (which has a greater capacity than a cable-laid sling of the same size).

Improperly pressed or nonpressed fittings – A new training client of ours recently bought new 1/2" wire rope slings with Flemish Eye splices. They learned too late that one sleeve had not been pressed. The sling fabricator that made the sling sold it to an industrial reseller, then the industrial reseller sold it to our client.

No initial inspection was completed on the sling. It went straight into service. The error was not discovered until after the lift was completed. The sleeve had slid

Common Errors to Check For



down the body of the sling exposing the eye splice.

Incorrect fabrication – Some sleeves are noticeably pressed incorrectly onto the sling. Incomplete pressing of sling's sleeves may not be noticeable without measuring them.

The most common defects on new alloy-chain slings include:

Non-alloy chain sling fittings – I have seen new alloy-chain slings in use that had improper fittings on them. Most of those improper fittings are alloy hooks designed for purposes other than a lifting sling. Unknowledgeable fabricators use them on slings because of low price and ease of attachment to the chain. Just because a fitting is an alloy grade does not mean it is designed for use in a sling.

Incomplete tag identification – I suspect the most common issue for chain assemblies is insufficient identification. Most commonly missing is the chain grade. The tag usually identifies the sling as an alloy, but the grade of alloy must also be identified.

The most common defects on new synthetic web slings are:

Incorrect tag on sling – If you have ever seen web slings being sewn, you will recognize how easy it can be to put on an incorrect tag. On slings that are 2" or more wide, the tags are all generally the same size, so mislabeling is fairly common.

The example of wrong tagging shown above is not as dangerous as it could be. The tag sewn on this sling is for a 2" two-ply sling, but it is sewn on a 3" two-ply sling.

Another frequent identification issue is that the tag may identify the wrong material that the sling is made from. When I see this, it usually is a tag identifying a sling as being nylon when the sling is, in fact, made of polyester. This becomes a concern when the slings are used in a chemical or radioactive environment.

The most common defects on new synthetic roundslings include:

Incorrect cover identification – Usually, cover misidentification happens when a polyester roundsling has what might be identified as a heavy-duty cover. Heavy-duty covers are usually made from nylon. Standard covers are made from polyester. ASME B30.9 says, "...cover material [should be identified], if different from core material." Once again, this is important when the sling will be used in a chemical environment.

Defects found on rigging hardware and other lifting devices generally show up as incomplete identification or broken or cracked components.

My best recommendation to users of rigging gear is twofold. First, appoint and train personnel to perform proper initial inspection of all new and repaired rigging gear.

Second, buy rigging gear from a supplier that has a good quality control system and participates in rigging-manufacturer organizations like the Association of Wire Rope Fabricators, the Web & Sling Tie Down Association, the Cordage Institute, or ASME.

When your rigging supplier is part of your inspection process, you will have safer outcomes. ■