

Lifting slings made with Dyneema®

Canton Stevedoring saves time, cuts costs and improves overall performance

It's an intensive, repetitive job that simply has to be done quickly, efficiently and safely. Lifting steel coils, with a typical weight of up to 35 tons each, from or into the hulls of vessels calls for the services of highly experienced stevedore crews. On average these crews cost \$1500 an hour, so time is money. Yet, crews cannot afford to be hasty. They need to be careful to avoid damage to the coils and to themselves.

Canton Stevedoring, one of the largest stevedoring companies on the east coast of the United States, was searching for a more efficient method of lifting these coils

onto the docks of Baltimore. They had been using traditional lifting slings made from wire mesh. They wanted to find a way to save time and money – without compromising safety in any way – of unloading cargo. In August 2007 Canton trial-tested high performance Twin-Path® slings made with Dyneema®, the world's strongest fiber™. The slings were fitted with heavy duty Cornermax™ sleeves with Dyneema® that provide superior cut protection from the coil's sharp edges. The trial involved repetitive intensive coil lifting from the M/V Spiegelgracht, which was tied up at the company's dock in Baltimore.

Here's what happened.





Strong and lightweight to save time and money

The Twin-Path® slings made with Dyneema® – manufactured by I&I Slingmax – were put to work unloading the cargo of over 200 steel coils. The slings made an immediate and positive impression with Canton.

Rex Wheeler, president of Canton Stevedoring, said this about the slings made with Dyneema®: “This is really an

innovative development for the lifting industry.

The slings were much easier to handle. That makes a big difference.” This is because, weight-for-weight, Dyneema® high performance polyethylene fiber is 15 times stronger than steel. Slings made with Dyneema®, therefore, can be of the similar diameter and of equal strength as slings made from steel wire, at a fraction of the weight.

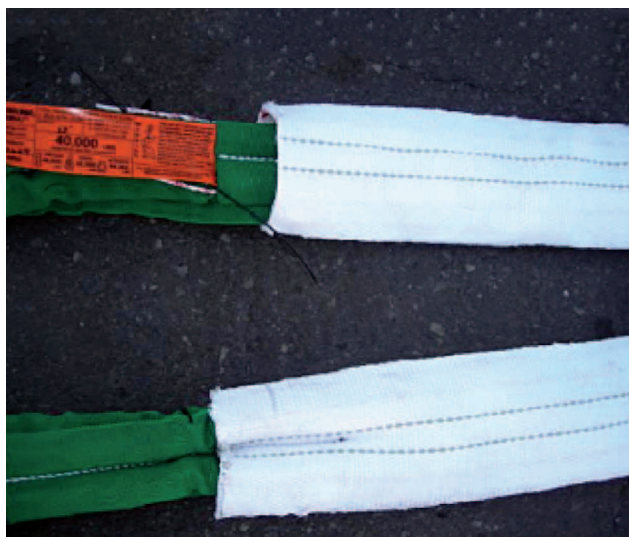
The lightweight Twin-Path® slings made with Dyneema® were so much easier to handle that only two people were needed to handle them, instead of the usual four required to handle a sling made with steelwire. This, of course, helps reduce costs.

Wheeler: “Our crews were able to work significantly faster, which really helps to reduce costs.”

In fact, up to 25% faster. Field tests show that 1.5 hours can be saved for every 90 coils off-loaded. With an average ship cargo of 200 coils, this amounts to a saving of over three hours. Or, more than \$4500 per ship.

Safe for the crew and the cargo

Due to the lightweight and smooth surface of Dyneema®, slings made with the fiber also present less of a threat to the crew and the steel coils. Steel slings, for example, can fray and expose dangerous hooks of cut wire.



About crew safety, Wheeler states: “Risk of injury was reduced significantly as the slings are light and soft.” Not only can steel slings harm the crew, it also can damage the cargo load. By using slings made with Dyneema®, the Canton stevedore crew unloaded the steel coils with no damage to themselves or to the cargo.

By contrast, using the steel mesh lines not only took longer but resulted in damage to 5% of the steel coils.

According to Wheeler: “The Slingmax Twin-Path® slings made with Dyneema® were used extensively and showed no damage to the cargo and packaging.”

Cost-efficient over the long haul

Lifting slings made with Dyneema® also are highly durable, making them a good, long-term investment. This is due to other properties of the Dyneema® fiber. It is resistant to abrasion as well as exposure to UV radiation and chemicals. A sling cover made with Dyneema® is also highly cut resistant.

As Canton Stevedoring discovered, slings made with Dyneema® can be used time after time, making them ideal for use in demanding, repetitive lifting jobs. There is simply less need to replace them, which saves both time and money.

“After 100 lifts,” says Wheeler, “there was no noticeable wear to the slings or sleeves.”

How slings made Dyneema® helped lift business for Canton
Remember, they:

- Are easier to handle, due to their light weight and strength.
- Enable faster off-loading with fewer personnel.
- Enhance productivity and worker safety.
- Protect cargo.
- Are extremely durable... one sling can be used for hundreds of lifts of different types of loads.
- Are resistant to UV exposure, chemicals and salt... further boosting their cost efficiency.

Clearly lifting slings made with Dyneema® worked well for Canton Stevedoring. Now find out how they can give a lift to your operation.



About Canton Stevedoring Inc.

Canton Stevedoring Inc., a service provided by Canton Maritime Services Inc. is a regional based company in Baltimore, MD which provides warehousing and distribution along with Pier access and stevedoring services for container and bulk ship importing and exporting.

About Slingmax®

The Slingmax® Organization is a worldwide team of 40 full-service locations which fabricate the most advanced rigging products on the market today. The rigging “solutions” include Twin-Path® Extra Slings with K-Spec® Core Yarn, capable of lifting up to 250 tons each. K-Spec® Core Yarn is so abrasion resistant that it exceeds catalog breaking strength after 50,000 cycles! Besides ergonomically superior high performance synthetic slings and multi-part wire rope slings, Slingmax® also provide training and rigging accessories, including protection for slings and loads. For safety, quality, durability and the lowest true “cost of use” in innovative rigging equipment.

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