



**ASSOCIATED WIRE ROPE FABRICATORS**  
2024 ISSUE 182

**AWRF 2024 FALL  
GENERAL MEETING**  

---

**DAWN IN DENVER**



Photo Provided by  
**DOLECO**

**Quality.  
Strength.  
Reliability.**



Electroline Product:  
Electro-Mechanical Cable Fitting  
Oceanographic Data Collection System - Antarctica

## **Electroline End Fittings & Swivels The Choice of Oceanographers**



Patented Electroline Fittings Can Be Assembled On-Site Without Special Tools  
Over Eighty Years of Reliable Performance

Electroline Swivels and Fittings Exceed Breaking Strength of Most Ropes  
Available in Many Models, Sizes and Finishes for Wire and Synthetic Rope

**ELECTROLINE**

1.800.321.0870 • [info@esmet.com](mailto:info@esmet.com) • [ElectrolineUSA.com](http://ElectrolineUSA.com)



## 2024 AWRF PRESIDENT

Justin Brown



3070 Universal Dr.,  
Mississauga, ON L4X 2C8, Canada  
+1 905-624-5131

Dear AWRF Member,

I hope this letter finds you well. As my term as President of AWRF comes to an end, I wanted to take a moment to reflect on the significance of our trade association and share some exciting updates with you.

Trade associations like ours play a pivotal role in fostering industry growth and collaboration. They serve as a platform for networking, knowledge sharing, and advocacy, ensuring that our collective voice is heard on key issues that impact our industry. Through your active participation and support, we have been able to achieve remarkable milestones together.

I am particularly proud to highlight the introduction of our new Spring meeting format, which now includes a Technical Summit. This innovative addition is designed to provide deeper insights into the latest technical advancements and industry trends. It has been met with overwhelmingly positive feedback, and we are confident that it will become a valuable tradition for years to come.

I encourage each and every one of you to register for the upcoming Spring meeting and Technical Summit. This event promises to be an unparalleled opportunity to learn, network, and contribute to the future of our industry. Your participation is not just beneficial for your professional growth but also vital for the continued success and relevance of our association.

In closing, I want to express my deepest gratitude for the trust and support you have given me during my tenure. It has been an honor to serve as AWRF's President, and I look forward to seeing our association continue to thrive in the years ahead.

Warm regards,  
Justin Brown  
President, AWRF

# INSIDE

AWRF President	3
AWRF 2024 FALL GENERAL MEETING	4
The Government Affairs Committee	6
AWRF BOD SPOTLIGHT Jeff Marterella	11
AWRF NEW MEMBERS	15
AWRF QUALITY COMMITTEE	15
THOUGHT LEADERSHIP Dawn in Denver	16
AWRF 2024 SCHOLARSHIP WINNERS	20-22
AWRF TECH COMMITTEE	25
Baltimore Bridge Collapse	26
AWRF BOD SPOTLIGHT Curt Jabben	33
Fulcrum Lifting	36
AWRF BOD SPOTLIGHT Kelly Jones	38
Rope Guru	41
AWRF BOD SPOTLIGHT Debra Cushman	43
FASCINATING CHAIN FACTS	47
AWRF TECH COMMITTEE The Risk Management	51
Mazzella Companies	55
Modulift	59
The Future of Load Securement is Here	62
Pelican Rope Works	67
Ad Index	70



**ASSOCIATED WIRE ROPE FABRICATORS**  
"An Association Serving the Lifting,  
Rigging and Load Securement Industry"  
P.O. BOX 748 • WALLED LAKE, MI 48390  
**1-800-444-2973**  
[www.awrf.org](http://www.awrf.org) • [awrf@awrf.org](mailto:awrf@awrf.org)

## FUTURE MEETINGS

### 2024

October 27 – 30 AWRF General Meeting  
La Quinta Resort & Club  
La Quinta, CA

### 2025

April 6 – 9 AWRF P.I.E. and Technical Summit  
Sheraton Denver  
Denver, CO

October 19 – 22 AWRF General Meeting  
Omni Charlotte Hotel  
Charlotte, NC

# AWRF 2024 FALL GENERAL MEETING

October 27 – October 30, 2024

La Quinta, CA



## CONFERENCE

### HIGHLIGHTS

#### 2024 General Meeting Guidebook

Download the Guidebook app for current information for AWRF 2024 Fall General Meeting.



#### AWRF GALA

Join us for a black and white attire event featuring Dueling Pianos International and live cigar roller. During the event a silent auction will be held benefitting the Tunnel to Towers Foundation.

#### EMERGING LEADERS

Under 40? Join our Emerging Leaders group as they network throughout the course of the conference. Schedule starting on April 28th for a welcome reception & fun events throughout the meeting!

## THE FUTURE IS BRIGHT

### I-Pay-Twenty-A-Meeting

Donate to the AWRF Scholarship Program and receive this sticker on your registration badge!



PayPal

\*THESE ARE INDIVIDUAL DONATIONS NOT COMPANY SPONSORED\*

## DESERT WILLOW GOLF CLUB

### Tournament Monday

@ 12 pm

Bus Pickup @ 11 am

**\$165/pp**  
**\$80 Club Rentals**



## 2024 AWRF First Pickleball Tournament

### Pickleball Schedule:

Pickleball Clinic - Monday @ 2:00 pm

Beginners Welcome

Pickleball Tournament - Tuesday @ 2:00 pm

Pickle Ball Clinic  
with Instructor,  
Cuneyt Ertezuik

**\$50/pp**

## SCHEDULE OF EVENTS

### SUNDAY – OCTOBER 27th, 2024

- 8:00–11:00 am Board of Directors Meeting – *Diego Rivera 1*
- 11:00–4:00 pm Registration – *Flores Ballroom Foyer*
- 4:30–5:30 pm Emerging Leaders & First Timer’s Reception – *Diego Rivera 1*
- 5:30–7:00 pm Opening Reception – *Hotel Waterfall*

### MONDAY – OCTOBER 28th, 2024

- 7:00–8:00 am Networking Breakfast & Safety Awards – *Flores Ballroom*
- 8:00–11:00 am General Business Sessions – Flores Ballroom**
- 12:00–4:30 pm Networking Golf Tournament – *Desert Willow Golf Club*  
Bus Pickup @ 11 am
- 2:00–3:00 pm Pickle Ball Clinic – *Pickle Ball Courts*
- 6:00–7:00 pm Reception – *Main Lawn*

### TUESDAY – OCTOBER 29th, 2024

- 7:00–8:00 am Networking Breakfast – *Flores Ballroom*
- 8:00–12:00 pm General Business Sessions – Flores Ballroom**
- 12:15–1:15 pm Emerging Leaders – TBD
- 2:00–4:00 pm Pickle Ball Tournament – *Pickle Ball Courts*
- 6:00–7:00 pm Reception – *La Casa Complex*
- 7:00–11:00 pm AWRF Gala – *La Casa Complex*

### WEDNESDAY – OCTOBER 30th, 2024

- 7:00–8:00 am Technical Committee – Breakfast – *Frank Capra B&C*
- 8:00–12:00 pm Technical Committee – Meeting – *Frank Capra B&C*
- 10:00–11:30 am Guided Sound Bath – TBD
- 12:00–12:30 pm Technical Committee – Working Lunch – *Frank Capra B&C*
- 1:00–3:00 pm Technical Committee – Meeting – *Frank Capra B&C*
- 4:30–6:00 pm Closing Reception – *Frank Capra Lawn*

*\*Schedule is subject to change*



## The Gala

A Black and White Attire Event

Tuesday October 29<sup>th</sup>, 2024

7:00 – 11:00 pm

### Dueling Pianos International



Put two sharp-witted, incredibly talented musicians with two grand pianos on a stage, then add in a roomful of people; The result is an evening of fast, funny, and unforgettable entertainment

### Live Cigar Roller



Our performance as entertainers is legendary! Sharing the story, explaining the process, demonstrating the artistry of the hand rolled cigar. Weaving

the history of the industry, telling the story behind the brands, dispelling the myths, legends and lore of our shared history through the artistry of making a stogie has been the hallmark of our performance.

## Donate to the Silent Auction Benefitting the Tunnel to Towers Foundation

The Tunnel to Towers Foundation is a nonprofit organization committed to honoring the legacy of 9/11 heroes and supporting their families. Founded by Frank Siller in memory of his brother, Stephen Siller, a firefighter who perished in the 9/11 attacks, the foundation provides crucial assistance to first responders, veterans, and their families. Their initiatives include building specially adapted homes for severely injured veterans, paying off mortgages for families of fallen first responders, and funding first responder education and training. The foundation's work ensures that the bravery and sacrifices of those who serve are recognized and that their families receive the support they need.



PROUD  
SUPPORTER  
OF THE

**Tunnel to Towers Foundation**

T2T.ORG

# The Government Affairs Committee

## Small Business Council Meeting

By: J. Barry Epperson  
General Counsel and  
Chairman of the  
Government Affairs Committee



Earlier in the year I attended the SBC meeting in Phoenix, Arizona sponsored by the U.S. Chamber of Commerce. The meeting took place over a two day period at the Greater Phoenix Chamber of Commerce offices. Many speakers covered numerous topics of interest to small businesses in particular and all industry in general. The attendance was small enough to allow personal exchanges with speakers as well as group discussions. Subjects covered, among others, were the following: The need for certainty in tax policy; trade; immigration; family owned business; state of the economy; worker shortage; inflation; the need for tax extenders; greentech businesses; the U.S. Chamber's ten top businesses; independent contractor law; creating workplaces for optimum production and expansion; burdensome banking rules; preserving entrepreneurship; the joint employer rule; women taking the lead; and association member engagement.

### Proposed OSHA Heat Illness Prevention Rule

On July 2, 2024, OSHA published a new proposed regulation entitled "Heat Illness Prevention in Outdoor and Indoor Work Settings." The rule would include universal index thresholds, factoring in both humidity and temperature. At eighty degrees (F) employers would be required to provide drinking water and break areas. In addition companies would need a plan for new and returning employees to increase work requirements incrementally. At ninety degrees compulsory fifteen minute rest breaks would be necessary every two hours accompanied by monitoring and hazard alerts. A safety coordinator would be considered essential to evaluate mandatory safety plans on an annual basis. Economic impact analyses by the Labor Department indicate the average cost to businesses to be \$3,085 per year. Commercial kitchens, manufacturing and construction industries are projected to have the highest number of impacted workers.

### Warehouse Worker Protection Act

This legislation would restrict employers' use of workplace safety quotas and will instead result in lost business, economic growth and jobs. The bill also orders OSHA to issue new rulings regulating ergonomics via mandated workplace space controls as well as requiring medical professionals on premises. The Coalition for Workplace Safety (of which AWRP is a member) has organized a letter to Congress strongly opposing this bill.

### Overtime Pay

Since the 1st of July, employers have been required to pay overtime to salaried workers who make less than \$43,888 per annum in certain executive, administrative and professional roles. This cap will rise to \$58,656 in 2025 and presumably elevate from year to year as the cost of living increases, with intermittent reprieves as more business friendly administrations are elected.

### New Tariffs on Mexican Imports with Metal from China

Look for a twenty-five percent duty on imports from Mexico containing steel and another of ten percent on aluminum made products. This new levy excludes materials melted and actually poured in Mexico, Canada or the U.S., which will continue to enjoy duty-free treatment pursuant to the North American Free Trade Agreement (NAFTA). Precipitating this executive action were multiple complaints that China was dodging U.S. tariffs on these metals by routing them through Mexico. The U.S. tariffs on Chinese exports were originally imposed because of countervailing rate practices, i.e. government subsidies. U.S. Census Bureau statistics place Mexico second only to Canada as steel exporters to the U.S., with shipments of over four million tons last year.

### Chevron Doctrine Overturned by Supreme Court

On June 28th the U.S. Supreme Court negated a significant law which for four decades has directed courts to defer to government agency interpretations of their own regulations. By a six to three majority, the high Court ruled that lower court judges must now follow the Administrative Procedures Act (APA) which mandates



that courts (not administrative agencies) “decide all relevant questions of law ... and interpret statutory provisions.” In writing for the majority, Chief Justice Roberts declared that that Chevron deferral had undermined the rule of law requiring reliance on the system of precedent codified in the APA.

In concurrence, Justice Gorsuch pointed out that following the Chevron doctrine required the ordinary citizen to be a sophisticated student of the law with knowledge of agency-nuanced interpretations of their own regulations which inevitably change with each new administration that espouses a different philosophy of governance. This revelation underscores the practical value of the separation of powers, i.e., keeping the executive branch out of the judiciary and guaranteeing, at least in theory, an impartial interpretation of the myriad of rules and regulations affecting all AWRF members in the workplace.

### **OSHA Inspections/AWRF Swager Safety Guide**

Some twenty years ago, AWRF members were experiencing a rash of Occupational Safety Health Administration (OSHA) inspections of their swaging operation. Because the applicable OSHA standard does not have a designation for swaging machines, the government inspectors were regularly classifying them as “power presses.” The results often ended in citations for failure to utilize barrier guards at the point of operation as required by the agency for power presses.

The AWRF Governmental Affairs Committee (GAC) was tasked with the objective of convincing the decision makers of the Department of Labor (DOL) that, unlike a power press function the swaging operation requires hand guidance work, rendering barrier guards at the point of operation a counter-intuitive intervention.

The GAC then engaged in a succession of meetings with OSHA with the objective of educating them with respect to the vast differences between power presses and swagers. After many sessions at the DOL in Washington, D.C., OSHA was persuaded to issue a public letter, readily accessible by OSHA inspectors, in order to settle the confusion. The letter, dated August 23, 2007, was signed by the Director of the Directorate of Enforcement and Programs at OSHA and addressed to this author as Chairman of the GAC on behalf of Associated Wire Rope Fabricators. This communication appears in the AWRF Swager Safety Guide and should be accessible to all swaging workers and supervisors at all times to be produced during OSHA inspections whenever deemed necessary. Experience has taught us that while many OSHA inspectors are familiar with the content of the letter, others are not. The letter can be summarized by the caveat that, on a case by case basis, workers can follow the recommended swaging operation guidelines set forth in the AWRF Swager Safety Guide as a viable alternative to barrier guards at the point of operation.





Safety is our first priority™

### YOKE offers

- ✓ Full range of G100 fittings
- ✓ For your Wire Rope, chain sling and web sling needs.

Call your local YOKE distributors for further information.



## YOKE INDUSTRIAL CORP.

North America Contact :  
 Al Tanzil, VP of Sales  
 1-360-526-1787  
 www.yoke.net

Slingmakers

Quality Management System and Type Approved by:



Q1 0467



QMS 0726





# DEPENDABLE AMERICAN-MADE QUALITY



- ✓ Inch and metric sizes available
- ✓ Proof tested to 200% of rated load capacity
- ✓ Rated at 5:1 strength factor



877-440-LIFT (5438) | [LIFTING@JERGENSINC.COM](mailto:LIFTING@JERGENSINC.COM)



**ROPEBLOCK**

**Associated**  
WIRE ROPE & RIGGING  
310-448-5444  
SALES@AWRRINC.COM

**WATERMAN**  
SUPPLY COMPANY  
MARINE & INDUSTRIAL EQUIPMENT  
310-522-9698  
SALES@WATERMANSUPPLY.COM

ASSOCIATEDWIREROPE.COM

# SEALINK

Quality Rigging Products

## Blocks for your most Demanding Applications



- ✓ **Construction**
- ✓ **Marine**
- ✓ **Wood Shell**
- ✓ **Steel Shell**
- ✓ **Cargo Hoist**
- ✓ **Special Applications**



**NEW!**

### 400 Series Steel Shell Snatch Blocks



- ✓ **Shackle, Hook or Tailboard Configuration**
- ✓ **4t - 22t WLL**
- ✓ **Individually Proof Tested & Serialized**
- ✓ **Top Dead End style available upon request**

**Associated**  
WIRE ROPE & RIGGING  
(310) 448-5444  
sales@awrrinc.com  
associatedwirerope.com

**WATERMAN**  
SUPPLY COMPANY  
MARINE & INDUSTRIAL EQUIPMENT  
(310) 522-9698  
sales@watermansupply.com  
watermansupply.com

## Jeff Marterella



**Company:** Nelson Wire Rope Corporation, Hatfield, PA

**Committee:** Preservation Committee

**Favorite TV Show/Movie:** Last Man Standing/ The Five on Fox/ Apollo 13

**Glimpse into Your Life:** Married to my grade school sweetheart of 46 years. We have two daughters who are both school teachers. Two grandkids JD 5 and Juliette 3.

**Goal for Your Committee?** My goal is to build what has already been started preserving the history of AWRF. The next 30 years.

**Why did you join the BOD?** I was nominated by Jack Gibbons. If elected I thought it would be a good way to give back to an industry that has given me so much after 37 years.

**What aspects of our industry do you love most?** Being able to help customers understand wire rope. For me it all started climbing on a Manitowoc 4600 in the Anthracite Coal region. Being part of the growing acceptance of the high-performance crane ropes into the market. Knowing I played a part in OEM engineering approvals.

**What do you get out of your AWRF Membership (both personally and professionally)?** Personally I have been able to build some long lasting friendships of potential customers and Co-workers. Attending the board meetings has given me the opportunity to learn from the legends of the industry.

**What advice would you give AWRF Members currently seeing more out of their membership?** Get involved. I have learned so much attending the Technical Board meetings along with our general meetings. When I joined Paulsen in 1985 our customer service person told me that she learned something new everyday she was at work. She had been with the company for 40 years. No truer words were spoken.

# Modulift®

working between the hook and the load



**MOD®**  
Modular spreader beam



**CMOD®**  
4, 6 and 8-point spreader frame



**TriMOD®**  
3-point spreader frame



**TRUNNION**  
Shackle-free spreader beam



**MULTI-POINT**  
Lifting beam



**LATTICE**  
Long and light spreader beam



Globally certified • Worldwide distributors • Next day delivery

011 44 1202 621511 sales@modulift.com www.modulift.com

When you can remove **risk**, do it.  
When you can't, reduce it.

# AWRF & hsi

ARE EXCITED TO BRING PERSONALIZED TRAINING WEBSITES TO THE  
MEMBERS OF AWRF. WE HOPE THAT YOU CONTINUE TO PROMOTE



THROUGHOUT YOUR ORGANIZATION. JOIN US TO HELP CREATE A SAFE  
WORKPLACE ENVIRONMENT FOR ALL.

**SIGN UP TODAY!** EMAIL: [CAREN@AWRF.ORG](mailto:CAREN@AWRF.ORG)

(NOTE: THIS PROGRAM IS REPLACING CLMI CLIXSTREAM VIDEOS)



# CARTEC

## An Italian story in three acts

The beginning, the development, the travel

REPRESENTED IN  
NORTH AMERICA BY



[www.allmaterialhandling.com](http://www.allmaterialhandling.com)



[www.carcano.it](http://www.carcano.it)





**SAFETY • RELIABILITY • EFFICIENCY**

**HEAVY LIFT SLING EXPERTS**



**GLOBAL NETWORK OF 38  
MANUFACTURING DEALERS**



**STRONGEST OUTER SLING  
JACKET & INTERNAL CORE  
YARN AVAILABLE**



**PROVEN SLING OVERLOAD  
DETECTION DEVICES**

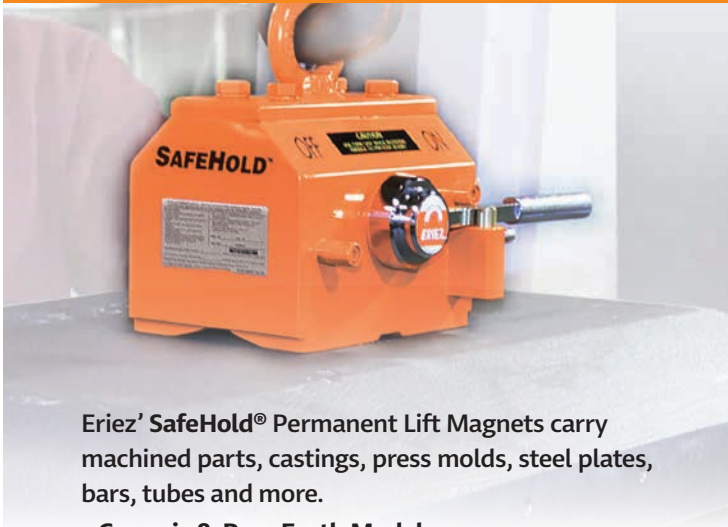


**INNOVATIVE OVERHEAD LIFTING PRODUCTS**

**WWW.SLINGMAX.COM • +1 (610) 485-8500**

# Power Up

with Rare Earth Magnets



Eriez' SafeHold® Permanent Lift Magnets carry machined parts, castings, press molds, steel plates, bars, tubes and more.

- Ceramic & Rare Earth Models
- Lifts Up To 7,500 lbs
- Needs No Power Source
- Turns ON & OFF With Ease



Download our Full Line Selection Guide at [Eriez.com](http://Eriez.com) | 814.835.6000

## AWRF NEW MEMBERS

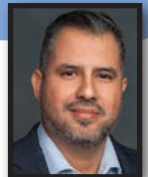
Congratulations and welcome to the following new AWRF Members:

**Manufacturing Member**  
**Global Rope Fittings, GmbH**  
 Raju Schnettberg  
 Bad Bentheim, Germany  
[www.globalropefittings.com](http://www.globalropefittings.com)



## AWRF QUALITY COMMITTEE

### Update



**Frank Arellano**  
 Washington Wire Rope  
 Houston, TX

We are working closely with the Technical Committee to revitalize and update the Quality Committee, which has been without a leader for some time. Our primary objective is to promote the development of high-quality products, foster healthy organizations, ensure shop safety, and maintain environmental compliance (QHSE). We aim to keep our members informed about factors that impact the ongoing success of their businesses through educational materials, expert speakers, and awards.

To further support our members, a Quality Audit will be conducted this November to assess compliance with industry standards and best practices. This audit, organized in collaboration with the Technical Committee, will provide valuable insights to our Regular Members. This presentation of Survey results will be during the Spring Meeting.

## Dawn in Denver

***The 2025 Spring PIE & Technical Summit marks the start of a new format of AWRF meetings, which has been welcomed by rigging shops and wider membership.***

The AWRF community will flock to the new-look Spring PIE & Technical Summit, which takes place on April 6-9, 2025 at Sheraton Denver Downtown Hotel. That is the verdict of Justin Brown, President.

As announced earlier, starting next year, at every Spring General Meeting, we will hold our industry-best product expo – or Product, Information & Exhibition – along with a Technical Summit. Each fall meeting, we will hold an Annual General Meeting. In Denver, the PIE will take place on Monday and the summit the following day. Owners and managers of rigging shops have been among those applauding the change.

Brown says, “The PIE is where our industry presents and demonstrates its products. And so, it goes hand-in-hand that we dedicate a second day for the technical experts of our industry to delve into the details of product use, inspection, safety, and maintenance, along with a broad array of other interesting topics.

“It will be big for several reasons but the word I would use is, ‘Best’. This will be the best program we have ever presented, the best PIE we have ever held, and we will offer the best price – ensuring incomparable value and accessibility.

“We are delivering a program that was requested by the membership and for that reason alone I expect our best attendance yet.”

Mike Poroo, Vice President, concurs: “By increasing this content, we hope to find growth in attendance on a couple of fronts: the first being contributors. Whether we are building Recommended Practices & Guidelines (RP&Gs), or showcasing more products or innovation, there simply is no better place to get the word out.

“Secondly, we also hope our members will find these annual events to be a key tool in fueling the growth of their greatest assets – their team members. Having access to such an opportunity early in my career; to be able to touch the products and ask questions in-person, would have piqued my curiosity and shortened my learning curve.”

Poroo adds, “The opportunity here is huge. If we can demonstrate success by driving attendance, contributions, and value, we will be able to more confidently invest capital into building out even more comprehensive and robust events for years to come.”

*The 2025 Spring PIE & Technical Summit takes place on April 6-9 at Sheraton Denver Downtown Hotel.*



## At the summit

The overarching purpose of the Technical Summit is to meet the direction of the association that has been outlined and reaffirmed several times during our history. Central directives are to become even more useful to our members and to arrange meetings to appeal to a broad spectrum of that membership. With this new format, we are delivering on these directives – and so much more.

The overall agenda and execution are being discussed by an ad hoc committee consisting of the association executive, programs chair, and PIE chair. Tim Klein, Chair of the Technical Committee, is also involved in planning, and will eventually lead proceedings at the summit.

Klein says, “The technical presentations are expected to cover all topics in the lifting industry, addressing all types of lifting devices, tools, and methods for implementation.”

Remember, the mission of the Technical Committee, through its subcommittees, assumes the responsibility for identification and investigation of testing, industry innovations, new products, and domestic and foreign standards for the purpose of establishing AWRP RP&Gs and for such other purposes as the committee shall determine. The summit dovetails with those ongoing endeavors.

Terry Driscoll, Programs Chair, says, “The association has pursued, at membership request, a better way to disseminate information to the masses, and what better way than introducing the Spring PIE & Technical Summit? We are encouraging membership to send employees for continued education into the world of lifting and rigging; learn about products firsthand from manufacturers; and ask questions among peers.

“AWRF strongly encourages a hands-on approach to learning. To blend the classroom courses with the hands-on and visual appeal of the PIE, while incorporating manufacturers and distributors, is invaluable.”

Brown continues, “I expect that we will see an increase in the attendance from our rigging shop members. What our regular members need to know is that there are benefits for a broad range of employees in attending this event. There is no better training ground in the industry than there is at an event like this. They can see every great product and solution being offered in the industry and receive technical presentations from the best minds in the industry. There is something here for sales teams, customer service teams, operations, and management.”

Poroo points to AWRP’s legacy of delivering value to these rigging shops. He says, “Half a century ago that core value was rooted in assistance with product liability for rigging shops. AWRP has only stayed relevant by seeking new areas of value in which it could deliver to its members over the years. With the addition of the PIE, many years ago, it was clear that connecting hungry [rigging] shops with the latest and greatest from the various manufactures in our industry was going to be another key area of value for years to come.

“No doubt,” Poroo adds, “These PIEs have not only become the number one place to showcase new products, but also ground zero for the brightest minds in our industry to meet, collaborate, network, and push the industry forward.

“Understanding how important these gatherings are to our members, and getting relevant stakeholders together in-person, it’s clear that AWRP has the opportunity to further increase the value we’re delivering by doubling down on technical content once a year.”

- As previously announced, in the future, we will likely move the Spring program forward by one day to allow weekday travel for most attendees and technical committee volunteers, and further enhance the probability of attracting the highest volume of attendees possible.
- Booth sales for the 2025 Spring PIE & Technical Summit will open in November.

# X100<sup>®</sup>

by  **ADVANTAGE**



## **GRADE 100 CHAIN & HARDWARE**

**ADVANTAGE SALES & SUPPLY, INC.**

**TOLL FREE: 800-216-2183**

[www.advantagesales.biz](http://www.advantagesales.biz)

# SUNCOR<sup>®</sup> Stainless

Since 1984



## BENT LASHING RINGS

NEW PRODUCT



New Bent D-Rings are angled and extend beyond the surface. They are designed to enable the user to attach lashing fittings to the ring without having to lift the ring first. They are suitable for demanding tie-down applications as long as the specified working load limits (WLLs) are strictly adhered to.

## EYE BOLTS AND U-BOLTS



The eye bolts feature a variety of styles including welded, unwelded, ring, plain and shoulder. Custom eye bolts are also available. All of the u-bolts include nuts and many also include washers or backing plates. They are ideal for marine, industrial and architectural applications.

## WIRE ROPE



Suncor offers a variety of stainless steel wire rope including: 1x19, 7x7, 7x19 and Mil. Spec cable assemblies. Full reels and cut to length orders are available. Suncor is a proud member of AWRP.

## HEAVY-DUTY TURNBUCKLES



Suncor manufactures a diverse line of stainless steel turnbuckles, components and accessories. Our line features standard, machine swage, hand swage and mechanical swage turnbuckles.

## Thousands of Stainless Steel Products



- Chain & Accessories
- Turnbuckles
- Heavy Duty Hooks
- Wire Rope
- Shackles
- Swage Fittings
- Quick Attach™ Fittings
- Eye Bolts
- Pad Eyes
- Mil. Spec. Fittings

www.suncorstainless.com | sales@suncorstainless.com | (800) 394-2222

70 Armstrong Rd - Plymouth, MA 02360 | 3900 Civic Center Drive - North Las Vegas, NV 89030



# PLATE LIFTING CLAMPS

**PCUA**  
Universal  
1/2-5 ton



**PCH**  
Horizontal  
1/2-5 ton  
(Per Pair)



[sales@allmaterialhandling.com](mailto:sales@allmaterialhandling.com)  
ALL MATERIAL HANDLING  
Lifting Equipment

# AWRF 2024 SCHOLARSHIP WINNERS



**Claiborne Dumont**  
**The "16 Guys" Memorial Scholarship**  
**DCL Mooring & Rigging**  
**Auburn University**

My name is Claiborne Dumont and I go to Auburn University in the College of Nursing and I am currently beginning my last year of my BSN. My sponsor is Keith Shepherd from DCL Mooring and

Rigging in New Orleans, LA where my dad works. I will be graduating in August with my BSN with hopes to become a neonatal intensive care unit nurse or pediatric oncology nurse. After I graduate, I will take my NCLEX to be registered as an RN. After working a few years as an RN, I have thought about going back to school to take online classes while I work to get my NP or DNP and further my studies and degree. Thank you for this opportunity and helping me to achieve my dreams!



**Erin Kim**  
**Ronald J. Worswick Memorial Scholarship**  
**Ribbon Webbing Corp.**  
**University of Michigan - Ann Arbor**

My name is Erin Kim, and I am entering my senior year at the University of Michigan-Ann Arbor. I am majoring in Biology with aspirations to become

a physician specializing in geriatrics and palliative care. My sponsor is my dad Shawn Kim, who works at Ribbon Webbing Corp and has worked extremely hard for over 30 years there.



**Lindsay Steis**  
**AWRF Scholarship**  
**Advantage Sales & Supply**  
**University of California, Berkeley**

My name is Lindsay Steis and I am from Ridgway, PA. My sponsor company is Advantage Sales in Ridgway, where my dad, Jeff Steis, is employed as a technician. I recently

graduated from Gannon University (Erie, PA) in May 2024 with a BS in Environmental Engineering and will be attending the University of California, Berkeley this year to complete a one-year MS degree in Environmental Engineering with a focus on Water Quality.



**Andrew Carmichael**  
**AWRF Scholarship**  
**I & I Sling**  
**University of Tennessee, Knoxville**

My name is Andrew Carmichael. I am starting my freshman year at the University of Tennessee, Knoxville, and have been accepted to the TICKLE College of Engineering, majoring in

Mechanical Engineering. My sponsor is Tim Shears with I&I Sling, and my dad, Robert Carmichael, Inside Sales, who has been with I&I Sling for a total of 18 years. Over this past summer, I received a scholarship from the Air Force and earned my private pilot license, and in the future, I plan on becoming a pilot in the Air Force. Later, I plan on retiring from the Air Force and working as an Engineer.



**AJ Agnew**  
**AWRF Scholarship**  
**Fulcrum Lifting (Kentuckiana Wire Rope)**  
**University of Purdue Fort Wayne**

My name is AJ Agnew and I'm sponsored by Kentuckiana Wire Rope (a Fulcrum Lifting Company). This year, I'm proud to say that I was privileged enough to have worked back in the

shop over summer break from college. I was able to learn first hand about wire and chain fabrication, wire rope spooling, and the inspection processes used on a daily basis. My father, Brian Agnew, has been employed here since 1998. Now I will begin my sophomore year at Purdue Fort Wayne in the pursuit of a Bachelor's degree in Mechanical Engineering while participating in D1 Men's Golf for the Mastodons. A huge shout out to everyone in the AWRF Scholarship Program for this amazing honor.



**Nicholas Arellano**  
**Jurgen Prohaska Memorial Scholarship**  
**Washington Wire Rope**  
**University of Mary Hardin-Baylor**

My name is Nicholas Arellano and I am currently a junior at The University of Mary Hardin-Baylor. My company sponsor is Washington Wire Rope and

my sponsor is Frank Arellano. I plan on graduating with a Bachelors in Business Administration. I am very grateful for this scholarship as it will help me achieve my goals.



**Gabriela Da Silva**  
**Bill Franz Memorial Scholarship**  
**Bridon · Bekaert**  
**Penn State University**

My name is Gabriela Da Silva, and I am proudly supported by my sponsor, Bridon Bekaert, and my father, Rodrigo Freitas. This fall, I will be continuing my education at Penn State University's Main Campus, where I plan to major in Biology with a Pre-Med concentration. My ultimate goal is to attend medical school and become a physician.



**Kimberly Hernandez**  
**Green Pin Scholarship**  
**Lift-All Company, Inc.**  
**Agnes Scott College**

My name is Kimberly Hernandez, a first-generation college student. I aspire to become a strong leader and role model for the Hispanic community through my efforts as I strive for my MD. My goal is to obtain a medical degree, so that I can pursue a career as a surgeon. I am interested in specializing as either an orthopedic surgeon or a reconstructive plastic surgeon. With my degree, I aim to establish a clinic in Chalatenango, El Salvador, where my mom was born. My intention is not only to provide better essential healthcare services but also to create internship/work opportunities for the youth and adults.



**Olivia Waycott**  
**Yoke Scholarship**  
**Stren-Flex**  
**University of Vermont**

My name is Olivia Waycott and I am a sophomore at the University of Vermont pursuing a B.S. in Psychological Science and a B.A. in Russian Language. I'm sponsored by the company Stren-Flex through Trevor Waycott. I have worked at Stren-Flex for 3 years and plan to continue throughout college. I hope to continue my education with a Master's and PhD in Psychology to eventually work in research or I/O.



**Leina Beshir**  
**NACM Scholarship**  
**KITO CROSBY**  
**University of Texas at Austin**

My name is Leina Beshir, I am about to start my freshman year as a Mechanical Engineering major at the University of Texas at Austin. My sponsor is Rasha Abouzeid at Kito Crosby. My goals for schooling include furthering my impact on the community within UT Austin, but also outside of it. I've joined the Student Engineers Educating Kids organization in which I can continue helping kids explore and appreciate the world of science, while also learning about future careers of interest for them. As a Mechanical Engineering major at UT Austin, I will have access to so many resources and am most excited about building devices to help others with accessibility issues.



**Ainsley Dillon**  
**Robert H. Ashley Memorial Scholarship**  
**WireCo**  
**University of Kansas**

Ainsley Dillon was sponsored by Tim Klein, Director of Engineered Fabrications for WireCo WorldGroup, and is the daughter of Dionne Dillon, Vice President of Global Quality and Process Engineering. Ainsley is attending the University of Kansas where she is a junior studying Chemical Engineering and is looking forward to exploring the different areas of emphasis in that field. She is also excited to be working as an undergraduate teaching fellow and researcher for Dr. Bertuccio modeling drug delivery processes with synthetic materials.



**Lindsey Weaver**  
**The Don Sayenga Memorial Scholarship**  
**Ken Forging, Inc.**  
**Slippery Rock University**

My name is Lindsey Weaver, and I am from Ashtabula, OH. My sponsor is Gerald Weaver from Ken Forging, Inc., in Jefferson, OH. Thanks to the AWRF scholarship, I will be able to continue my education at Slippery Rock University by completing my Bachelor's of Science in Recreational Therapy and Doctor of Occupational Therapy degrees. After graduation, I plan to work in pediatric occupational therapy with children with intellectual and developmental disabilities, such as Autism Spectrum Disorder (ASD), ADHD, and Down syndrome. Thank you to the Scholarship Committee for awarding me this generous scholarship.

# AWRF 2024 SCHOLARSHIP WINNERS

## TRADE SCHOLARSHIPS



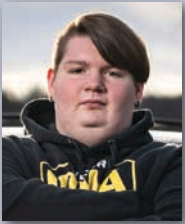
**Matthew Acton**  
**AWRF Trade Scholarship**  
**Canyon Rigging Inc.**  
**SAIT Polytechnic**

My name is Matthew Acton, and I am a 2nd year Plumber. Celine Parrill with Canyon Rigging Inc. graciously sponsored me for this scholarship application, and I couldn't be more honoured to have won! My goal is to complete my Red Seal by the end of 2025 and continue my career as a plumber, eventually working my way into Project Management and/or Rigging Training. Thank you AWRF!



**Jesús Quintero**  
**Mel Fireovid Trade Scholarship**  
**Chicago Hardware & Fixture Co.**  
**Triton College**

My name is Jesús Quintero. I'm 23 years old, and my sponsor company is Chicago Hardware & Fixture. I would like to extend a special thanks to my sponsor, Jay Richmond (Sales Manager). I am studying to become an electrician at Triton College in Illinois. My aim is to explore this field thoroughly and take full advantage of the opportunities that come my way. I sincerely appreciate Mira Bielat from College of DuPage for her outstanding support.



**Casey Whalen**  
**AWRF Trade Scholarship**  
**Bridon · Bekaert**  
**Luzerne County Community College**

Hi, my name is Casey Whalen. My father, Brian Whalen, and his company, Bridon American are my sponsors. I am just starting my final year of school. I have made Dean's list throughout my entirety at school thus far and hope to finish the same way. I look forward to putting my knowledge to use this time next year in the work force. Eventually opening my own garage and being my own boss. I would just like to thank the AWRF for helping me reach those goals with their generosity.



**Jordyn Werner**  
**Oliver Crosby & Edwin Harrington**  
**Memorial Scholarship**  
**Peerless Chain**

My name is Jordyn Werner. I was sponsored by KITO/Crosby - Peerless Industrial Group and my mother, Christine Werner, who has been with the company for 18 years. This Fall I plan to continue my education at Minnesota SE Technical College to obtain my Associates degree in Sociology with a focus on communication, critical thinking, and logical reasoning. I plan to transfer those credits to a Law Enforcement Academy. I am honored to receive this scholarship, and am excited to move forward with the next steps to my career.





**SAHM SPLICE**

since 1961



# SWAGERS, ANNEALERS & MORE IN STOCK

## Ripley, Mississippi

SAHM SPLICE USA, LLC – Your one-stop shop for:

- US-made Flemish Eye sleeves and buttons
- Seamless aluminum, copper and steel ferrules
- Swaging machines and dies
- Annealing machines
- Test Beds

FERRULES

SWAGING MACHINES

ANNEALING MACHINES

TEST BEDS



SAHM SPLICE USA, LLC  
171 CR 562  
38663 Ripley, MS

sales-usa@sahm-splice.com  
www.sahm-splice.com  
Telephone 662-471-4661



**MADE IN GERMANY**

# Durable. Reliable. Built to Perform.



Introducing New Coffing® LSB-NC and LHH-NC Manual Hoists

Made in the USA with American and imported parts, Columbus McKinnon's new LSB-NC lever hoist and LHH-NC hand chain hoist provide the durability, reliability, and performance you've come to expect from the Coffing name. Built on decades of engineering expertise, these hoists feature hooks and chain made right here in the USA at Columbus McKinnon's manufacturing facilities, along with a variety of high-quality components designed for safety and long life.

#### What can these new hoists offer you?

- **Durability:** Robust construction for long-lasting performance
- **Reliability:** Trusted Coffing quality for every lifting application
- **Versatility:** Ideal for construction, commercial, and industrial applications...and more



**NOW**  
**AVAILABLE**  
**TO ORDER**

**COFFING®**  
**HOISTS**  
By Columbus McKinnon

1.800.888.0985 • 1.716.689.5400  
CMCOPartners@cmworks.com  
Slingmakers

Get quality hoists you can rely on. Learn more.



# AWRF TECH COMMITTEE



**Timothy W. Klein, P.E.**  
AWRF Technical Committee Chair  
WireCo | Corporate Headquarters  
Principal Engineer  
Structures and Fabrication



**Bob Cushman**  
AWRF Technical Committee Vice Chair  
Cascade Rigging  
AWRF Past President



Recently I had a conversation with a manufacturer about quality and knowledge of varying products in the lifting industry. During this conversation I referenced a quote often attributed to Albert Einstein that reads "If you can't explain it simply, you don't understand it well enough". The quote suggests that if you can't explain complex concepts in simple language to someone who isn't versed in the subject, then you might not truly understand it yourself. There are a significant number of experienced personnel in the industry and gaining knowledge from their time is extremely important. We both agreed the negative impact seen when experienced employees retire or leave the industry is difficult when a transfer of knowledge has not taken place.

The Technical Committee has a wealth of experienced people that strive to share their knowledge through multiple channels that AWRF offers. These people range from Engineers to owners with years of experience behind them. As the Technical Committee we are tasked with providing information about industry innovations and product standards to the membership. These topics are a common discussion in the committee meetings and we are

excited to be working on discussion topics for the Technical Summit in the spring of 2025. The proposed topics range from new innovations to theoretical testing in a laboratory setting. In addition, we have topics about the inspection, use, and refurbishment of lifting products and how the applicable standards are applied. The time and effort in preparing for this event has just begun. With time on our side, I have confidence this event will provide good information for all of the AWRF Membership new and old.

The experience and commitment of the Technical Committee members always shows me a collective group of professionals dedicated to the cause of the association. The AWRF Technical Committee continues to review technical information and look for opportunities that build on the good work that has been done before us. I request that any ideas for new documents or technical presentations be submitted to the Technical Committee for review. We will continue to provide you with current relevant industry technical information for the lifting, rigging, and load securement industry. If you know someone who is involved with the Technical Committee ask them how you can become involved in making a difference in the industry.

## FX PERMANENT LIFT MAGNETS



Special training, demo units and display opportunities are available. Contact your IMI Regional Manager or [sales@magnetics.com](mailto:sales@magnetics.com) for more information!

**FEEL THE FX DIFFERENCE**



**See you at AWRF (Fall Meeting)!**

Industrial Magnetics Inc. [imi@magnetics.com](mailto:imi@magnetics.com) PHONE: 1.888.582.0822

**magnetics.com**

## Baltimore Bridge collapse reveals issues with larger ships, unprepared ports

by Peter Hildebrandt

For some 47 years, after weathering storms, blizzards, and sweltering summers, the Francis Scott Key Bridge a.k.a Key Bridge or Beltway Bridge stretched its steel continuous arch-shaped truss over Baltimore's harbor. The structure's roadway was suspended from the steel arching enormous overhead structure. Such a design finds use in places requiring much force and tension, such as heavy transportation and exposed areas with unforgiving winds. They hold far stronger forces and heavier weight than other types of bridges.

Initially named the Outer Harbor Crossing, the bridge was renamed in 1976 for poet Francis Scott Key, who wrote the lyrics to "The Star-Spangled Banner", the U.S. national anthem. At 8,636 feet, it was the second-longest bridge in the Baltimore metropolitan area, after the Chesapeake Bay Bridge.

Its main span of 1,200 feet was the third-longest of any continuous truss in the world. Operated by the Maryland Transportation Authority (MDTA), the bridge was the outermost of three toll crossings of Baltimore's harbor, along with the Baltimore Harbor and Fort McHenry tunnels.

The bridge carried an estimated 11.5 million vehicles annually, including many trucks carrying hazardous materials prohibited in the tunnels. The construction of the bridge and its approaches completed the two-decade effort to build I-695, although the bridge

roadway was officially a state road, the unsigned Maryland Route 695.

In the early hours of March 26, 2024 – 1:29 to be exact – the *MV Dali* (motor vessel) struck one of the two pylons supporting the Key Bridge's main span. Such an event, known as an allision knocked down the entire 1.6 miles of bridge span and three sections of the southwest approach. For clarification, had the vessel struck another ship, a *collision* would have occurred; with one of the objects being stationary the term is allision.

Some might wonder how a bridge of this size and length could have collapsed so quickly. The answer, according to a former crane service director is balance. "All the sections of this bridge were connected on a chain. This is the opposite of dominos, by comparison."

The *MV Dali*, owned by Grace Ocean and operated by Synergy, at 934 feet in length was 51 feet longer than the Titanic and 112 feet shy of the Chrysler Building's horizontal length. At 95,000 tons with 4,700 cargo containers bringing that vessel's burden an additional 262,000 tons, there is a legitimate concern, still under investigation as to why *MV Dali* sailed with knowledge of its unresolved electrical problems while docked.

These included reports of various power outages when loading; technicians were flown in to fix breaker problems, ones obviously

not resolved. "The decision to sail was the first error in the accident chain," say the ex-crane service director. "Failure to report problems of unseaworthiness to the USCG (United States Coast Guard) is a federal offense, and the FBI is investigating."

An unparalleled difficulty exists with this salvage job placing an urgency onsite. The vessel's bow was pinned to the bottom of the harbor at the bridge abutment by some 200,000 pounds of steel bridge structure. This material crashed from the remains of the bridge to the harbor bed. A potential threat in turn existed from tidal fluctuations sooner or later causing the vessel to break with 60,000 gallons of fuel oil leaking into Baltimore Harbor.

Top priorities in the salvage included lifting the steel off the deck and re-floating the *MV Dali*. Following the freeing of the starboard steel, explosive charges cut the steel beams, dropping span four on the port side into the main channel where cranes could salvage this material. On May 20th re-floating enabled four tugs to push the vessel 2.5 miles to Seagirt marina for repairs – just 55 days after the allision occurred.

Top priorities after the accident included trying to rescue the workers who fell in the water when the bridge was hit. Then the ship which was pinned to the harbor bottom needed stabilization. Underwater debris once cleared opened side channels

with a minimum draft. This allowed barges carrying aircraft fuel to unload their cargo at the Air Force base located at the port as well as tugboat access for helping in the recovery.

Steel and debris above the water, including that lying on the ship, and debris 55 feet deep in the channel had to be removed. Hazardous complications in the completion of this work included an LPG gas line running beneath the ship and channel, high voltage power lines crossing the channel beside the bridge, and changeable weather, tides, currents, and waves.

For removal of steel able to be reached from above water and from damaged containers to lighten the bow weight, floating cranes and barge-mounted crawler cranes will be moved. Weight of steel above the water is not difficult to estimate, therefore crane overloading should not be a problem. Larger cranes keep hold of sections attached to their hooks.

Versatile barge cranes position welders in baskets or aerial lifts for cutting sections into pieces able to be more mobile. Once enabled to be moved, barges transport them to a nearby Tradepoint disposal site before lifting them off with a 230-ton crawler crane. As may be imagined, such work is dangerous for those involved in cutting.

“Tension of the crane’s load line is especially critical and when the final

releasing cut is made, hopefully that freely suspended load gently lifts, doesn’t drop, or forcefully jerk up and hit anyone. Communication between the cutting crew and the crane operators is critical.

Modern crawler hydraulic demolition excavators with steel-cutting severing end attachments can grab, cut, and remove the steel structure, replace the men’s flame-cutting up on the bridge, and eliminate the dangerous activity. These units were in place on barges and spotted at the mangled bridge about a week after salvage started.”

The greatest challenges came with working below the water. Visibility remained extremely poor; the US Army Corps of Engineers had to use sonar to find the tangled steel truss. Planning had to be done on where to cut the weight of the chunk needing lifting. Four hundred and 500 ton loads were brought to the shore. Since load weight is 14.7 less underwater, based on the displacement volume, when the loads rise free to the surface, lifting equipment suddenly feels the suspended weight.

“This must be less than the capacities of the rigging and cranes. To date the largest subsurface piece was 500 tons – handled by the 1,000-ton water derrick. We over rig in



NTSB drone image of Francis Scott Key Bridge and Cargo Ship Dali

these circumstances due to ample room and attachment points. This philosophy has kept the number of accidents in the salvage work at zero.”

As far back as 1980, the bridge suffered a similar collision in the same location but had minimal damage. Though this structure was built in the last century, current modern equipment is not as able to salvage as equipment manufactured around the time that it was constructed.

Some have suggested protected fendering – piling designed to withstand collisions – may have saved the bridge. But the expansion of global shipping, as well as new monster ships must be considered.

In the past ten years ships have grown to this New Panamax-sized monster container vessel capable of destroying 30-foot reinforced concrete thick structures. After this incident harbors most likely will begin to protect themselves.

The taxpayers will bear a great cost of infrastructure improvements, not the cartels, according to the crane service director. The MV Dali, a Panamax class vessel able to carry 5,100 containers isn’t even the largest – the new Panamax can be loaded with nearly three times that amount, 14,500 containers.

This accident didn’t just affect Baltimore, but the entire region which in a matter of minutes ground much of the area’s transportation to a halt. Maryland’s governor, Wes Moore recalled the morning when he was told of the accident.

Continued on page 68

Lt. Governor Aruna Miller Lt Governor Miller Tours the Dali Site by Joe Andrucyk at Maryland Cruise Terminal, 2001 E McComas St, Baltimore MD



**CHICAGO**  
Since 1972  
chicagohardware.com

**Chicago Hardware & Fixture Co.**  
American Made    Family Owned    Superior Quality

QUALITY SYSTEM CERTIFICATION  
ISO 9001:2008  
DNV

MGMT. SYS.  
RVA C024

**NB** National Band & Tag Company  
INTERNATIONAL IDENTIFICATION INC.  
*Family Operated Since 1902*

Scan for more info

**CHAIN SLING TAGS**  
**WIRE ROPE TAGS**

**CHAIN SLING TAGS**  
ALUMINUM, STAINLESS STEEL & GALVANIZED STEEL  
(SPLIT RING OPTION AVAILABLE)

**WIRE ROPE TAGS**  
MULTI LEG & SINGLE LEG  
ALUMINUM & STAINLESS STEEL

**WIRE ROPE TAG CONNECTORS**  
1.5" & 2.5" AVAILABLE

**CHAIN SLING TAG CONNECTOR**  
1 3/8" INSIDE DIAMETER

**HEAVY DUTY OUTDOOR DURABLE VINYL WARNING LABELS**

**QUICK SHIP AVAILABLE SEE WEBSITE**

**COMPANY NAME**  
WLL TONS  
#1.2 #.92 #2.5  
SPLIT RING CHOKER BASKET  
3/8" DIA.  
PHONE NUMBER  
MADE IN USA

**COMPANY NAME**  
PHONE NUMBER  
#LEGS DIA LENGTH  
30° 45° 60° /HOR  
WLL TONS  
NEVER EXCEED RATED CAPACITY

**COMPANY NAME**  
DATE  
1/2" DIA LENGTH  
WLL TONS # 2.5 # 1.9 # 5.1  
SPLIT RING CHOKER BASKET  
NEVER EXCEED RATED CAPACITY

**! WARNING !**  
INSPECT SLING AND/OR FITTINGS. REVIEW INDUSTRY RECOMMENDATIONS AND OSHA STANDARDS BEFORE EACH USE. THIS SLING AND/OR FITTINGS MAY FAIL IF IT IS DAMAGED, ABUSED, MISUSED, OVERLOADED OR IMPROPERLY MAINTAINED.

**! WARNING !**  
INSPECT SLING AND/OR FITTINGS. REVIEW INDUSTRY RECOMMENDATIONS AND OSHA STANDARDS BEFORE EACH USE. THIS SLING AND/OR FITTINGS MAY FAIL IF IT IS DAMAGED, ABUSED, MISUSED, OVERLOADED OR IMPROPERLY MAINTAINED.

COMPANY NAME  
PHONE NUMBER  
DATE  
SIZE  
GRADE  
TYPE  
REACH  
HOR.  
LBS  
S/N

COMPANY NAME  
PHONE NUMBER  
DATE  
SIZE  
GRADE  
TYPE  
REACH  
HOR.  
LBS  
S/N

[www.slingtags.com](http://www.slingtags.com) • 859-261-2035 • [tags@nationalband.com](mailto:tags@nationalband.com)


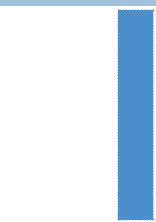
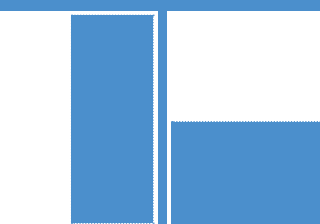

Proudly manufactured in America

# Associated Wire Rope Fabricators Slingmakers Rates

Email: [slingmakers@awrf.org](mailto:slingmakers@awrf.org) AWRF Phone: 248.231.5253

[www.awrf.org](http://www.awrf.org)

## Rates:

	1X	2X	4X	
 <p><b>1/4 Page</b> 3-13/16" x 5"</p>	\$452	\$790	\$1352	
 <p><b>1/3 Page</b> 2-1/2" x 10-1/8"</p>	\$497	\$880	\$1533	
 <p><b>1/2 Page (V)</b> 3-13/16" x 10-1/8" <b>1/2 Page (H)</b> 7-3/4" x 5"</p>	\$577	\$1039	\$1852	
 <p><b>Full Page</b> 7-3/4" x 10-1/8" <b>Full Page w/ Bleed</b> 8-1/2" x 11" with 1/8" bleed</p> <p>Same image space as full page size</p>	\$772	\$1431	\$2635	
<b>COVER ADVERTISEMENTS</b> (WILL BE ASSIGNED ON FCFS BASIS) 8-1/2" x 11" with 1/8" bleed			<b>MUST COMMIT TO 4 ISSUES</b> FOR ALL COVER PLACEMENTS	\$3255

## Issue Numbers & Content Closing Dates

NOTE: Street date is discretionary and may be adjusted to coordinate with OR around an event to provide timely, pertinent information for our readers.



Issue:	Closing Date:	Street Date:
#180	February 16th	March
#181	May 17th	June
#182	August 9th	September
#183	November 8th	December

### Requirements:

Please supply electronic files ONLY. High resolution files (min 300 dpi) camera ready files in PDF, EPS, TIF, or JPEG formats. We will accept either MAC or PC files. We work in Quark, InDesign, Illustrator and Photoshop. NO spot colors, process colors only.



2024  
MEDIA  
KIT

28345 Bleck Road STE 209  
Wyomir, MI 48393  
phone +248.231.5253  
Email: [slingmakers@awrf.org](mailto:slingmakers@awrf.org)  
[www.awrf.org](http://www.awrf.org)

Associated Wire Rope Fabricators

COMPANY & POC NAME: \_\_\_\_\_

PHONE: \_\_\_\_\_ FAX: \_\_\_\_\_

EMAIL: \_\_\_\_\_

AD SIZE: \_\_\_\_\_ NO. OF ISSUES: ALL: \_\_\_\_\_ OR SPRING: \_\_\_\_\_ SUMMER: \_\_\_\_\_ FALL: \_\_\_\_\_ WINTER: \_\_\_\_\_

WEB LINK \$35.00: \_\_\_\_\_ BLEED \$100.00: \_\_\_\_\_

**NEXT ISSUE**

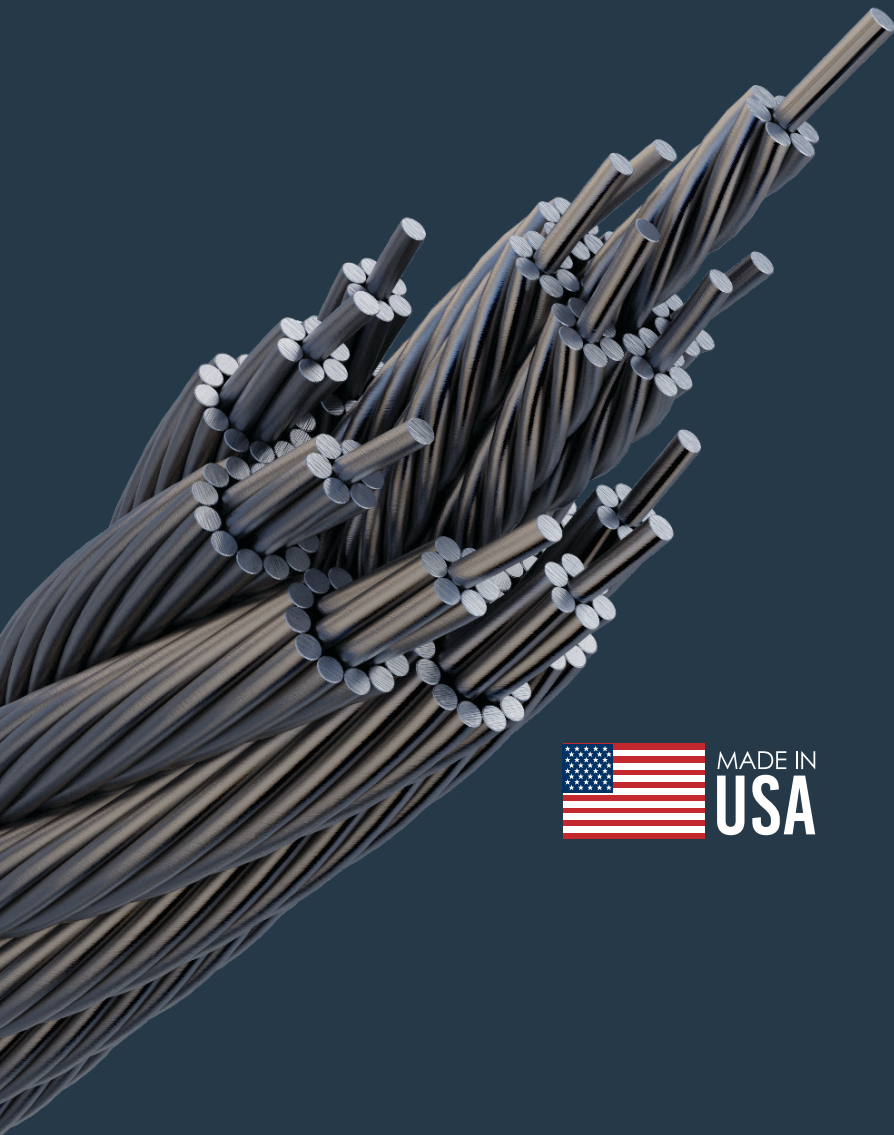


# Ropes with Purpose

WireCo offers many in-stock diameters of **General Purpose** ropes including 6x19, 6x26, 6x36 and 6x49.

Union brand general purpose ropes are manufactured in various constructions within the 6x36 and 6x49 classification. Specific constructions can be chosen to provide the necessary combination of resistance to abrasion, fatigue and crushing for a wide range of applications.

Contact your local distributor or call 816.270.4761



+1.816.270.4700  
[info@wireco.com](mailto:info@wireco.com)

2400 West 75th Street  
Prairie Village, KS 66208  
[www.wireco.com](http://www.wireco.com)







# EVOLUTIONARY LIFTING TECHNOLOGY. SINCE 1948.

JEFF DOERGE · (314) 578-7035 · [JEFF@CROMOX-US.COM](mailto:JEFF@CROMOX-US.COM)  
CROMOX US, INC. · 3593 MAYLAND CT · RICHMOND, VA 23233, USA · [WWW.CROMOX-US.COM](http://WWW.CROMOX-US.COM)

Made in Germany

# AWRF BOARD OF DIRECTORS SPOTLIGHT

## Curt Jabben



**Company:** Associated Wire Rope & Rigging

**Committee:** PIE

**Favorite TV Show/Movie:** Yellowstone, Tulsa King, Frasier, Seinfeld

**Glimpse into Your Life:** Wife Kari, married 35 years this September. Two kids, Kelsy & Levi. Two dogs, Jack & Kevin. Love to ride

motorcycles on long trips

**Goal for Your Committee?** My goal is to make the PIE the best event possible for exhibitors and attendees.

It needs to be an enjoyable experience for attendees, easy to get through and see everyone, but also needs to be worthwhile for the exhibitors so that they get the best exposure possible to as many people as possible.

**Why did you join the BOD?** I joined because I had always felt that it was a great way to interact with other friends and professionals in the industry.

Scott Fishfader was instrumental in pushing me to join the Board.

It's a tremendous means of getting to know some of our customers as well as other suppliers on a more personal and professional level.

**What aspects of our industry do you love most?** I enjoy the relationship aspect of the industry. It's a fairly small, tight knit

group.....almost like a family reunion when there is an AWRF get together. Since crane blocks are not something that most people sell on a regular basis, they are not really comfortable with the details. I take great pride in being able to help our customers to be able to look like a hero to the end users, by being able to offer & supply a quality product in a timely manner.

**What do you get out of your AWRF Membership (both personally and professionally)?** What I get out of my AWRF membership is the relationship with other people in this industry, whether it is based on being a customer or another supplier. We all manage to get along and promote each other.

I thoroughly enjoy my time with the Board....it's a group of friends working to improve / enhance an already strong membership group.

**What advice would you give AWRF Members currently seeing more out of their membership?**

I would highly encourage anyone with an interest in membership to jump into the fray with both feet!

By attending the meetings/functions, you can gain relationships with others in the industry, facing the same problems / situations. It's a great way to network and gain new friends who are genuinely willing to help as much as possible.

If they are looking for more adventure, then definitely put your name on the ballot for a Board position.

I've enjoyed my time on the Board & will always maintain the friendships that I've gained from being here.



Your **Reliable Source** for  
**Wirelock Socketing Resin**  
in Canada, USA & Mexico

In Stock for Immediate Delivery

Lifting & Rigging Products  
for the 21st Century™

[www.strider-resource.com](http://www.strider-resource.com)

Email: [service@strider-resource.com](mailto:service@strider-resource.com)

# PROVIDING SAFE LIFTING SOLUTIONS FOR DEMANDING APPLICATIONS

OZ Lifting Products has a wide range of davit cranes to meet any demanding application and fit any environment

## OVER 19 YEARS OF EXPERTISE

Committed to quality, innovation, & customer service. Providing safe lifting solutions worldwide since 2004.

## MADE IN THE USA

OZ Lifting offers innovative lifting products designed and manufactured in the United States.

## CUSTOMER SERVICE

We want to hear about your project. Our expert team will help you find the right solution for your demanding application.

Call us today:  
(507) 474-6250  
(800) 749-1064



# SAFE. LIGHTWEIGHT. PORTABLE.

- STEEL DAVIT**
  - 500, 1200 & 2500 lb. capacity
  - 360° rotation with four different boom heights
- COMPOSITE**
  - 1200 lb. capacity crane weighs only 83 lb.
- COMPOSITE-ELITE**
  - 1200 lb. capacity ultra lightweight & portable carbon fiber crane
- TELE-PRO**
  - 500, 1200 & 2500 lb. capacity
  - Telescoping boom adjusts while under load
- ALUMI-LITE**
  - 500 lb. capacity crane weighs only 24 lb.
  - 1000 lb. capacity crane weighs only 47 lb.
- XR SERIES**
  - 500 & 1000 lb. capacity
  - Maintains full capacity in all positions
- WHEEL BASE**
  - Oversized casters make moving heavy loads easy
  - Compatible with all OZ Lifting davit cranes up to 1200 lb. capacity
  - Durable steel construction with powder-coated finish
  - Patent pending floor-anchoring system

## POPULAR APPLICATIONS:

- ROOFTOP HVAC/FACILITIES MAINTENANCE
- WASTEWATER TREATMENT PLANT
- OIL & GAS • AVIATION • MANUFACTURING

# Qingdao Dayu Rigging Co., Ltd.

30<sup>th</sup>  
SINCE 1994

Qingdao Dayu Rigging Co., Ltd. (Jimo Dayu Rigging Factory) established in 1994. Located in Jimo, Qingdao, 70km from Qingdao International Airport, and about 50 minutes from Qingdao International Port by car. We are professional manufacturer in providing forging, heat treatment, mold making and machining as well as testing. Qingdao Dayu Rigging Co., Ltd. is mainly engaged producing shackles, hooks, turnbuckles, swivels, thimbles and the assemble. We can provide hundreds of metal products besides the main products. CAD and ANSYS design are applied in the research. Punching machine and heat treatment machining are imported, with advanced European tech, CNC and complete testing equipment can test the tensile and hardness precisely. Qingdao Dayu Rigging Co., Ltd. has ISO9001:2015, CCS, SGS quality management system certification as well as IQC, PQC and OQC to control the quality, can ensure product traceability and control. We have strong quality control in durability and production efficiency, constantly R&D. Our philosophy is "Quality is Life." We sincerely welcome friends from all over the world to come to start business with mutual benefit. We wish to work together to develop the rigging market jointly.

Quality Management System and Type Approved by:



ABS

CE



太平洋保險  
CPIC

SGS

Shackle, hook and rigging, types available in Carbon Steel and Alloy Steel



Quality is life.



No one can match us so far as quality is concerted in China.



Tel: +86-532-86521117

Fax: +86-532-86526877 Website: [www.dayusuoju.com](http://www.dayusuoju.com)

Phone: +86-18678963298 E-mail: [service@dayusuoju.com](mailto:service@dayusuoju.com) [sara@dayusuoju.com](mailto:sara@dayusuoju.com)



Address: Dongqiu Village, Aoshanwei Town, Jimo District, Qingdao City, Shandong Province, China



5246 Wooster Rd, Cincinnati, OH 45226  
(888) 339-8003 • fulcrumlifting.com

## Fulcrum Lifting Opens New Columbus, Ohio Branch

### Company's 5th branch in the Midwest joins locations in Cincinnati and Dayton, Ohio, and Jeffersonville and Evansville, Indiana

Fulcrum Lifting, one of the Midwest's leading providers of quality rigging products and services deployed in lifting or load securement operations, has announced the grand opening of its newest branch location in Columbus, Ohio. Located at 1782 Dividend Drive, the new Columbus branch will offer the company's full line of products and services. Fulcrum's customers include companies from a vast number of industries, including construction, energy, infrastructure, manufacturing, aggregate, fossil fuels, maritime, steel, concrete, heavy equipment, and countless others that originate or involve the movement of bulk, raw or assembled materials.

"Fulcrum is excited to officially expand our reach into Columbus with this new location," said John Fireovid, President of Fulcrum Lifting. "We've been serving this market for years, and now we have an on-site location to reinforce our customer support and reach new customers in the region."

Fulcrum's Columbus branch is the company's fifth location in the Midwest, joining these longtime branches operating under the names:

#### TRI-STATE WIRE ROPE SUPPLY

5246 Wooster Road      2322 S. Edwin C. Moses Blvd.  
Cincinnati, OH 45226    Dayton, OH 45417  
513-871-8656            937-220-9210

#### KENTUCKIANA WIRE ROPE AND SUPPLY

3335 Industrial Parkway  
Jeffersonville, IN 47130  
812-282-3667

#### VERNON LIFTING PRODUCTS

6700 Frito Lay Drive  
Evansville, IN 47715  
812-897-3488



"The rigging products we offer, paired with the right dose of expertise and equipment, help build many things we see in our daily lives," added Fireovid. "Rigging products help get the job done, and Fulcrum offers complete solutions for these tasks. Adding a new location in Columbus gives us the opportunity to offer those solutions to more companies more easily."

Fulcrum fabricates wire rope, synthetic and chain slings in-house and stocks a full assortment of slings, hardware, hoists, hydraulics, tiedowns and related products. The company represents the leading manufacturers in the industry and works directly with them to give customers the best product support at competitive prices. On the service side, Fulcrum provides expertise, products, and a range of support related to rigging gear and equipment to aid in compliant and efficient lifting operations. Fulcrum experts can help identify potential issues, provide repairs and maintenance, and offer inspections and training to assist lifting operations.



# pewag

Time is money,  
and product availability  
makes all the difference.

pewag is dedicated to  
maintaining increased  
inventory levels ensuring  
you get what you need,  
when you need it.

[pewag.us](http://pewag.us)  
[sales@pewagchain.com](mailto:sales@pewagchain.com)  
630.226.6020



# AWRF BOARD OF DIRECTORS SPOTLIGHT

## Kelly Jones



**Company:** Holland Nameplate

**Committee:** Emerging Leaders.  
Preservation. Environmental.

**Favorite TV Show/Movie:** Although I've seen both a MILLION times, I will always watch Tombstone and The Shawshank Redemption.

**Glimpse into Your Life:** I am passionate about my hometown and preserving its history and traditions. I enjoy time with my three girls, husband, and large extended family living our small-town life!

**Goal for Your Committee?** Helping new and younger AWRf members become involved through Emerging Leaders to continue the success of the association. I'm excited to help record the 50-year history and learn and teach everyone of AWRf'S importance and relevance.

**Why did you join the BOD?** Being a part of any association is a privilege and being instrumental in

its successes and future even more. I enjoy being a doer and to me there is no better way than to be involved. What better way to get the most out of something than to help lead it? My aspirations to run for the BOD, stemmed from watching Nicole Parkerson give her President's speech in San Antonio. She then pushed me to run, and I'm so glad I did!

**What aspects of our industry do you love most?** I love the camaraderie and connections that are made every meeting, and customer visit. I consider some of the people I have met through my time in the industry as some of my best friends.

**What do you get out of your AWRf Membership (both personally and professionally)?** Being a part of AWRf has taught me the ins and outs of this industry. Without networking with manufacturers, reps, and shops, I'd only see one side. Being around like-minded people motivates me to work harder and smarter. I enjoy getting to know new people, see new places, and get a different perspective on life.

**What advice would you give AWRf Members currently seeing more out of their membership?** Get involved! Speak up and share your opinions, and ideas.

## NATIONAL ASSOCIATION OF CHAIN MANUFACTURERS

Our Members

☎ 844-970-0789    🌐 [www.nacm.info](http://www.nacm.info)    ✉ [NACMoffice@nacm.info](mailto:NACMoffice@nacm.info)

Representing domestic manufacturers of welded and weldless chain since 1933.

# CAROLINA WEBBING

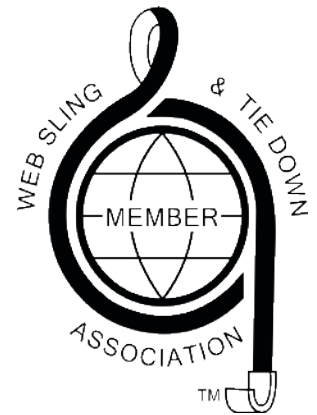
For Product Info or Sales Inquiry:



**Rodney Williamson**  
**rwilliamson@carolinawebbing.com**  
**704.685.3125**



Proud producer and partner of Slingmax



TOSL Engineering Limited

**Over 40 years  
 Experience in Wire rope  
 & Rigging Equipment,  
 Supplies & Services,  
 in the Caribbean**

- Chain Blocks and Slings
- Come-A-Longs | Crosby® Shackles
- Computerized Load Testing of Slings
- Dynaguard™ Blue Wire Rope Lubricant
- Eye Hooks | Galvanized Chain
- Lifting Chain | Spelter Sockets
- Polyester Round & Web Slings
- Ratchet Binders, Chains, Tie Downs

- Snatch Blocks
- Socket Fast
- Stud Link Anchor
- Chains & Accessories
- Tifors | Turnbuckles
- Polypropylene Ropes
- Wire rope Clips & Sling
- Wire rope



TOSL.COM

8-10 Maharaj Avenue, Marabella,  
 Trinidad & Tobago W.I.  
**Office: +1 (868) 657-8675 (TOSL)**  
**24/7 Hotline: +1 (868) 355-7167**  
**Sales & Service: sales@tosl.com**



# COMING SOON!



**SUPER TOOL CO., LTD.**

*High End Industrial Clamps & Specialty Products*



Exclusively Represented  
in the USA by  
Tiger Lifting North America  
[tigerliftingna.com](http://tigerliftingna.com)



**Tiger**

TIGER LIFTING NORTH AMERICA, INC.



PROUD DISTRIBUTOR OF  **THIELE®** LIFTING PRODUCTS



*A member of the THIELE-Group*



 Made  
in  
Germany

KWS Inc. | P.O.Box 470487 - Tulsa OK 74147 |  (800)872-9313 |  [sales@kwschain.com](mailto:sales@kwschain.com) |  [www.kwschain.com](http://www.kwschain.com)



39 Tarkiln Pl. New Bedford MA 02745  
+1 (508) 995-1114 • info@rwrope.com



## R&W Rope Acquires The Rope Guru

USA-based synthetic rope and rigging specialist R&W Rope has acquired The Rope Guru, enhancing its presence in the New England market.

R&W Rope's acquisition of The Rope Guru aligns with its ongoing strategic mission to become the premier provider of synthetic rope products and services in the region. By combining forces, R&W Rope and The Rope Guru are poised to offer unparalleled expertise and innovation to their customers.

Following the acquisition, Jamie Goddard, founder of The Rope Guru, will stay on board part time to ensure a smooth transition and to maintain the high level of service and knowledge customers have come to expect.

"We're excited to announce this acquisition as a significant step in our growth strategy," said Rodney McCollester, President of R&W Rope. "The addition of The Rope Guru allows us to expand our reach and better serve the synthetic rope and rigging industry in New England and beyond. We look forward to working with Jamie and leveraging his expertise as we continue to provide high-quality products and services to our customers."

Marc Halverson, Director of Sales and Marketing at R&W Rope, added, "This acquisition not only strengthens our market position but also opens up new opportunities for joint ventures and collaboration. Together, we are set to achieve great things and bring innovative solutions to the market."

R&W Rope and The Rope Guru provide a comprehensive range of products and services for industrial, marine, arborist, architectural, sports, specialty, and utility markets. Offerings include bulk and cut lengths of synthetic and wire rope, netting, custom splicing, swaging, and fabrication. They also supply hardware and fittings, chain and synthetic chain products, and various slings and specialty items.

Additionally, R&W Rope and The Rope Guru offer mobile on-site splicing, training, inspection, and repair services, as well as break testing and proof loading on a new 50,000-pound test bed. These solutions ensure the highest standards of quality and service across all applications.

Stay tuned for the exciting developments this synergy will bring as R&W Rope and The Rope Guru move forward together.

# Quality Has But One Name..



## ..Anything Else, is a Poor Imitation.

**! WARNING !**  
Do Not Exceed Work Load Limit.  
Do Not Use For Lifting.

Meets or Exceeds DOT,  
FMCSA 40, WSTDA, CHP, & CVSA  
Standards & Requirements.

Durabilitusa.com  
Sales Tel 708-223-0258  
Email info@durabilitusa.com

*Thank you  
to our company sponsored  
scholarship donors!*

**"16 Guys"**

**Worswick Family**

**Mazzella Companies**

**Ashley Sling**

**Royal Van Beest**

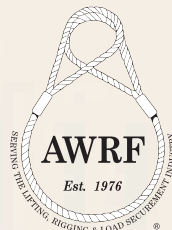
**Yoke**

**Fulcrum Lifting**

**Prohaska Fund**

**NACM**

**KITO CROSBY**



## Debra Cushman



**Company:** Cascade Rigging

**Committee:** Communications & Marketing

**Favorite TV Show/Movie:** Anything on the History channel /Top Gun.

**Glimpse into Your Life:** My father had been in the Wire Rope and Rigging industry for as long as I can remember. As I grew up it was a great surprise to find out that not everyone stopped by rigging shops on vacation. I am married to my high school sweetheart Bob and just we celebrated our 48th anniversary. I convinced my father to give Bob a job where he worked until we opened Cascade Rigging in 1999. We have a silver lab that rules the roost on her 10 acres in Boring OR.

**Goal for Your Committee?** Along with my Co-Chair Jeff Ferchen we want to keep the membership up to date on the happenings of AWRF. We want every member company to be aware of the BOD and the Technical Board's work and how it can assist their company. We are also promoting AWRF to outside organizations for collaboration and the industry to demonstrate what makes our members special.

**Why did you join the BOD?** I was encouraged to run for the Board by my husband as he is a Past President. I ran for the Board in 2016 due to my desire to provide a little different perspective, we are a small family-owned business with its own set of obstacles. We attended our first meeting in 1986 and watched AWRF evolve, and I wanted to participate in it.

**What aspects of our industry do you love most?** The wire rope and rigging industry has become a way of life.

**What do you get out of your AWRF Membership (both personally and professionally)?** I appreciate the friendships and experiences that our AWRF membership afforded me. There is such a great opportunity to connect with people that you might not get a chance to if not for AWRF. AWRF is also such a great opportunity to educate your employees with the P.I.E and the Technical resources.

**What advice would you give AWRF Members currently seeing more out of their members?** Get and stay involved. Please take advantage of all the resources that are available to you. Don't be afraid to ask questions or voice your concerns.

**MAXIMIZE EFFICIENCY**

Discover the power of versatility with our Hydraulic Power Unit (HPU) that seamlessly runs both a Vertical Proof Test Machine and a Horizontal Proof Test Machine.

**Dual Operation:** One HPU efficiently powers two machines.

**Unmatched Precision:** Ensures reliable and accurate test results every time.

**Space-Saving Design:** Optimize your workspace without compromising performance.

Streamline your operations with Chant Engineering's innovative solutions.

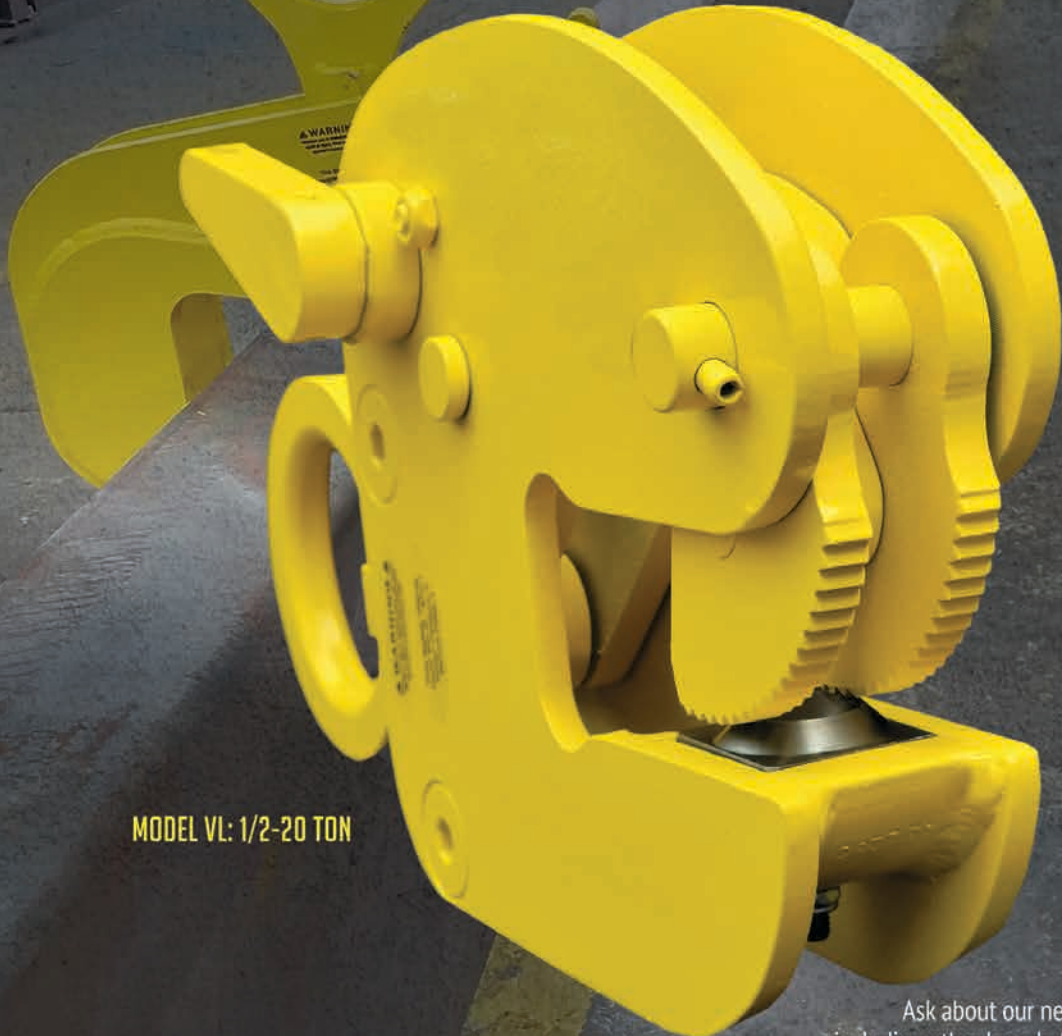
**CHANT**  
Chant Engineering Co. Inc.

CHANT ENGINEERING CO. INC. • PHONE: 215.230.4260 • WWW.CHANTENGINEERING.COM



# SAFETY CLAMPS INC.

Home of the "Big Bite" Lifting Clamps



MODEL VL: 1/2-20 TON



Ask about our new program to exchange old clamps, including other brands, for AMERICAN MADE Safety Clamps.



MADE IN THE USA  
FOR OVER 60 YEARS

## ONE CLAMP DOES IT ALL!

DESIGN FACTOR 10:1 • LOAD TEST 3:1 • RATED TO LIFT MATERIAL UP TO 450 BRINELL HARDNESS

### GET YOUR CLAMPS IN DAYS, NOT WEEKS

**SAFETYCLAMPS.COM**

**800.456.2809**

Our team of service personnel and engineers are available to assist you in choosing the right lifting clamp, or designing special lifting products based on your unique requirements.



Register your Safety Clamp online to receive product related service, support, and training aids for your clamp.



EVERY  
**JOB**  
**SITE** REQUIRES  
**SAFETY.**  
MAKE IT SAFETY  
**YOU** CAN  
**SEE.**

Lift with confidence using the strongest domestically-manufactured and safety-enhanced chain available: Hi-Viz Grade I20 chain and fittings. Our Hi-Viz coating (also available in Grade I00 Yellow) stands out from both indoor and outdoor environments to improve visibility and safety for your team.



[LACLEDECHAIN.COM](http://LACLEDECHAIN.COM)

Request your quote online today.



## BHARAT WIRE ROPES LIMITED

INDIA'S LARGEST EXPORTER OF STEEL WIRE ROPES



One of India's largest wire rope manufacturer with Over 30+ years of specialized experience in manufacturing General Purpose wire ropes, Specialty wire ropes, Strands, Slings. We are driven by a sheer commitment to deliver 'Best In Class Value Proposition' to our customers across the globe.

### APPLICATIONS

- OIL & GAS • MINING • SHIPPING • PORTS • FISHING • ELEVATOR
- CONSTRUCTION • POWER TRANSMISSION • RAILWAYS
- PASSENGER ROPEWAYS • AERIAL TRANSPORT
- INFRASTRUCTURE • DEFENSE • CRANE INDUSTRIES

**37 YEARS**  
EXPERIENCE

**GLOBAL PRESENCE**  
Ship to over 54+ countries across the Globe

**FINISH**  
Ungalvanized, Galvanized

**HIGH-END MACHINES**  
From WORLD LEADERS

**SPECIAL ROPES**  
• COMPACTED • SPIRAL  
• STRANDED ROPES  
• NON ROTATING  
• POLYESTER IMBROGHIATO  
• CORE (CUSHION CORE)  
• PLASTIC VALLEY  
• FILLED (PPV or PVP)

**PRE-STRETCHING BED MACHINE**  
2 Nos.  
300 mtrs & 280 mtrs

**Diameter**  
6mm to 90mm  
Tensile grades upto 2380 N/mm<sup>2</sup>

**A GREENFIELD PROJECT**

### CHALISGAON PLANT

TOTAL INSTALLED CAPACITY OF  
**72,000 MT**  
PER ANNUM  
Investment of **US\$ 85**  
Million

**More than 6000 FCLs**  
NO OF CONTAINERS EXPORTED TO MORE THAN 52 COUNTRIES SINCE 2017

### PRODUCT PORTFOLIO

STEEL WIRE ROPES | SPIRAL STRAND | WIRE ROPE SLINGS



### CERTIFICATIONS



✉ [exports@bharatwireropes.com](mailto:exports@bharatwireropes.com) 🌐 [www.bharatwireropes.com](http://www.bharatwireropes.com)



# FASCINATING CHAIN FACTS

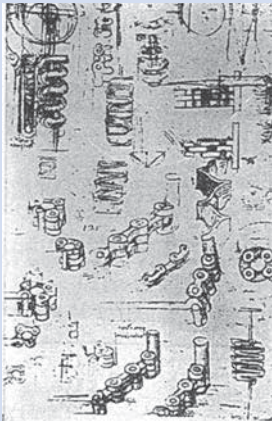
By Jeff Doerge – Sub Committee Chair, Chain & Chain Sling

Jeff Doerge  
North America Sales Manager  
cromox US



Don't be fooled by the title of this article. It's not a throwback to a high school term paper. The history of chain is fascinating with unexpected connections to ancient times, artists, and inventors. You may never see some of these facts at a trivia night, but you never know.

The use of chain goes way back and, like most things, was an invention designed to make life easier. Sometime around 225 BC, some enterprising Egyptians decided that there had to be an easier way to get water from a well and voila, the first known use of chain. Ancient civilizations also used simple metal links to contain animals and secure items. Most archeologists believe that some sort of chain was used to construct the great pyramids.



First drawing of chain during the Renaissance by Leonardo da Vinci

Along the way to the many uses of chain we are familiar with today are a series of inventions and innovations that are equally interesting. In the 16th century, Leonardo da Vinci created drawings of what is believed to be the first steel chain. His drawings depict a combination of plates, pins and a roller bearing which is remarkably like modern chain.

Go to a Medieval festival and you will be sure to see chainmail armor. Used from ancient times through the Renaissance, chainmail armor has a long history. The rings are made of iron, steel or bronze in interlocking patterns that provide protection and freedom of movement.

The development of the chain we are familiar with took some time. Problems in the manufacturing and processing of steel limited the growth of chain up until the 19th century. New technologies made molded chain and steel bearings possible

and the market for chain exploded. The Industrial Revolution and the development of chain are closely connected. Chains were essential for advances in mechanization, transportation, and industrialization. The versatility and limitless applications found for chain drove economic growth, technological advancement and changes in the way goods could be produced and delivered.

When the Wright Brothers were dreaming about flight, one problem was finding a method of thrust or forward motion. Solving that challenge came from their experience with bicycle chain. In 1903, for 59 seconds the Wright Flyer covered 852 feet using a pair of propellers connected to the engine with a system that looked like bicycle chain.

If you aren't seeing chain, you are most likely hearing about it. From Janis Joplin's Ball and Chain to Fleetwood Mac singing The Chain, musical culture uses the words and images of chain in many ways. Chain itself can even serve as a musical instrument.

Sports is another place where you will find chain. Playground equipment, disc golf courses, weightlifting equipment and chain basketball nets all use chain. But one of the most interesting uses of chain in sports is the use of two rods and a chain to make game altering decisions in a multi-billion-dollar industry. The NFL still uses chains to measure even though more accurate technologies have been around for over 70 years.

Today, chain of all types, materials and sizes is used in an array of industries. Chain is used in all environments from the ocean to chemical plants and even in Space. Slings, hoists, anchor chain and pump chain are just a few modern chains that impact industries of all types. The materials and processes used to manufacture chain today expand the applications and uses of chain. The weight of the largest anchor chains is truly mind boggling. A typical anchor chain for a container ship or oil tanker can weigh several hundred tons.

Look around as you go about your day. Chain is everywhere, from dog leashes to roller coasters. You will see chain on trucks, ships, construction sites, doors, and even disc golf courses and art installations. The beauty and versatility of chain has come a long way from moving water from a well in ancient Egypt.

# KEN FORGING

Forged Industrial Hardware

## READY TO FORGE AHEAD!

CHECK OUT OUR NEWLY  
DESIGNED WEBSITE

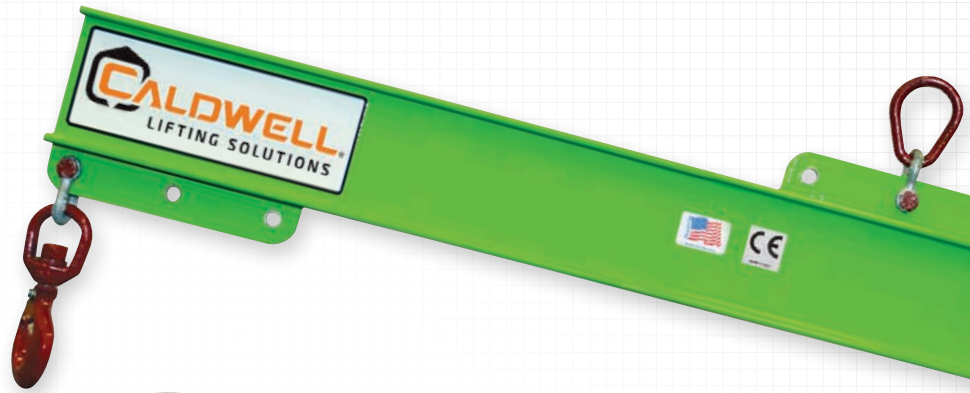
- » LIVE CHAT
- » TECHNICAL DATA
- » SUBMIT QUOTE REQUESTS
- » SHIPMENT TRACKING

*American Made  
American Owned*



[www.kenforging.com](http://www.kenforging.com)

1-888-536-3674 » [sales@kenforging.com](mailto:sales@kenforging.com)



# IN STOCK OUTSTANDING

## BTH LIFTERS READY TO SHIP TODAY

When you need it, you need it right now. Your job is hard enough without having to chase down what should be an easy-to-find Caldwell spreader beam, Renfro plate clamp, or RUD lifting point. With Caldwell backing you up, it really is easy. No chasing required... because more than 400 of our best-selling items are in stock and ready to roll. Every day.

And better yet, they ship for free.



**IN STOCK**

**WANT TO KNOW MORE? CALL 800.628.4263 OR ASK YOUR CALDWELL DEALER FOR DETAILS.**





A DIVISION OF SAFETY CLAMPS INC.

# SOUTHERN INTERNATIONAL PROFESSIONAL ENGINEERING

CUSTOMIZED PRODUCTS • BETTER PRICING • QUICK DELIVERY



MODEL LBF: 1/4-125 TON

2 TON CAP.



PRODUCED IN THE  
UNITED STATES

## THE RIGHT COMPANY WHEN YOU NEED A LIFT

LIFTING AND SPREADER BEAMS • C - HOOKS/COIL LIFTERS • ROLL & PALLET LIFTERS  
BULK BAG & DRUM LIFTERS • FORKLIFT ATTACHMENTS • TONGS



## OFFERING STANDARD AND CUSTOMIZED LIFTING PRODUCTS FOR ANY APPLICATION

If you have an application, we have a solution. Utilizing our broad experience base in many industries gives us the capacity to design innovative product solutions that makes work easier and safer. Our manufacturing system is designed to quickly transform concepts into tangible lifting devices and minimize lead times. [www.southerninternationalpe.com](http://www.southerninternationalpe.com)



800.456.2809



**Mason Chant**  
Chant Engineering  
Technical Committee  
Emerging Leader

## The Risk Management Committee Update:

The Risk Management committee would like to thank Tim Klein and the Technical Committee members for their valuable feedback and assistance in putting together the Testing and Risk Management presentation given in Nashville. During the Technical Committee meetings following the presentation, multiple members shared their thoughts regarding additional tasks for the Risk Management committee. We are pleased to report that the committee is working on both continuing education via articles/presentations and new research in order to improve safety and manage risk at the member companies.

Due to popular request for additional information presented in a written format, the committee is going to present further information regarding test bed calibration via a future article in a 2025 issue of Slingmakers magazine.

This will cover specifics, standards, and best practices for test bed calibration, all presented in an easy to read (and reference) format.

Looking ahead, we are working on new research in order to improve safety and risk management in our industry. Expect additional presentations and articles sharing the results of this research with the member companies in the coming years.

## Wood Reels · Plywood Reels · Fiberboard Tubes

**ANDERSON**  
**FOREST PRODUCTS, INC.**  
est. 1967

**ISO 9001**  
CERTIFIED

[sales@afp-usa.com](mailto:sales@afp-usa.com)

Your choice for custom industrial packaging solutions.

# RECLAIM YOUR EVENINGS

## YOU'VE GOT RUBICON ERP

Visit [rubgrp.com](https://rubgrp.com) or call (630) 574-7766

- ✓ Fewer Touch Points
- ✓ Better Accuracy
- ✓ Faster Throughput



SCAN ME!

# KITO CROSBY™



The global leader of the lifting and securement industry it pioneered, and for which it continues to set the quality standard.

**Raise your world**



**LET'S GET SOCIAL**

Facebook icon with QR code

X icon with QR code

Link icon with QR code

*New*  
**BOB'S RIGGING & CRANE HANDBOOKS & REFERENCE CARDS**

**BOB'S RIGGING & CRANE HANDBOOK**  
 THE HOISTING TRIANGLE  
 WITH APPENDIX  
 PELLOW ENGINEERING SERVICES, INC.

**BOB'S OVERHEAD CRANE & RIGGING HANDBOOK**  
 FOR INDUSTRIAL OPERATIONS  
 THIRD EDITION

**NEW 9TH EDITION**

- Training - Rigging & Cranes
- Rigging & Crane Safety Rules
- Rigging Training Program Example
- Horizontally Moving Loads
- Wire Rope Tables
- Working Load Limits - Slings & Hardware
- ASME Safety Standards
- OSHA Regulations

**BOB'S INDUSTRIAL PUBLICATIONS LLC**  
 Crane & Rigging Industry Publications  
 info@bobsindustrialpublications.com  
 877-473-5569

[www.BobsIndustrialPublications.com](http://www.BobsIndustrialPublications.com)

**DON PELLOW**  
 Engineering Consultant

**2000 tons of heavy lifting for optimal performance**

THE SOLID BRAND SINCE 1898

**DE HAAN**<sup>®</sup>  
 SPECIAL EQUIPMENT



## Mazzella Companies Celebrates 70th Anniversary

**CLEVELAND, OH** – Mazzella Wire Rope & Sling Co. was founded in 1954 by Jim Mazzella, Sr. – specializing in wire rope slings that were braided by hand and used in construction sites, ports, and steel mills across Northeast Ohio. 70 years later, Mazzella Companies has grown from a single location in Cleveland’s Linndale neighborhood, to employing more than 1,200 team members at 50 locations across North America.

Today, the business is run by Jim Mazzella, Sr.’s son, and Mazzella Companies’ CEO, Tony Mazzella. Tony’s two sons, Matt Mazzella and Adam Mazzella, are now the third generation involved and act as Presidents of Mazzella’s Lifting and Metals businesses, respectively.

“Celebrating 70 years of our family business, we honor the legacy of my grandparents, whose vision and hard work laid our foundation. My parents nurtured this dream with dedication, resilience, and love—steering us through challenges and triumphs. My brother Matt, with his innovation and spirit, represents our bright future. Together, we embody the past, present, and future, united by values and aspirations that guide us. Here’s to our family’s journey and the promise of many more successful years ahead,” said Adam Mazzella, President of Sheffield Metals and New Tech Machinery.

Beyond traditional rigging products, Mazzella has evolved into a leader in the design and manufacturing of overhead cranes, engineered lifting devices, electrode handling equipment, and fall protection systems. Additional services include wire rope socketing and spooling, crane upgrades and modernizations, rigging inspections, crane inspections and repair, warehouse rack inspections, and end-user training. Sheffield Metals International and New Tech Machinery round out Mazzella Companies’ diverse portfolio as distributors of coated bare metal products for engineered metal

roof and wall systems, and manufacturers of portable roof panel and gutter machines, respectively.

“We believe it’s our responsibility to be invested in the success of our customers. We care deeply about their growth, and we partner with them to provide the best product solutions and services that mitigate risk and improve the safety and efficiency in their business. That’s been our mentality from day one and is something that will never change,” said Matt Mazzella, President of Mazzella.

Mazzella Companies remains privately-owned when many other companies in the industry have moved to private equity ownership. Mazzella’s growth can be attributed to an aggressive strategy to enter new markets through greenfield opportunities and through acquisitions. Some of the more significant acquisitions include Sheffield Metals in 2004; Progressive Crane in 2005; The Indusco Group in 2011; New Tech Machinery in 2015; FHS, Inc. in 2017; Page Wire Rope in 2022; John Sakach Co. and Midco Companies in 2023; and Piedmont Hoist and Crane earlier this year.

While Jim Mazzella, Sr. passed away in 2001, the core values he lived by and passed down to his family are still present as the company’s core values.

“I believe we are here 70 years later because those core values are the foundation of how we think about business regardless of how many changes we have had to make to grow,” said Tony Mazzella, CEO of Mazzella Companies. “My Dad’s mentality of being a lifelong learner and staying with the times—you’re either moving forward or backward—there’s no such thing as standing still. He was very humble, hungry, and smart. All those things we put on the wall today were directly from him, and that’s what has been engrained in myself and inspired Matt and Adam to make the third generation a success. If we deviated from his values, I don’t think we’re here in business today.”

Mazzella plans to release additional content to support their 70th anniversary, including videos and podcasts focused on the history, growth, and the future of the business.

**TW PRODUCTS** is a professional manufacturer of forged rigging hardware products. The key products we produce in-house include shackles, turnbuckles, hooks, wire rope clips, thimbles, sleeves, chain and much more.



**TW PRODUCTS® OFFERS:**

- Hooks
- Shackles
- Turnbuckles
- Load Binders
- Blocks & Pulleys
- Wire Rope & Wire Rope Assemblies
- Chain & Chain Assemblies
- Straps & Strap Assemblies
- Round Slings
- OEM/ODM Products & Services



**TW PRODUCTS**



1.800.620.9188  
info@twprod.com  
www.twprod.com

# The centrepiece of the SpaceX launch program.



## How to nail a rocket to the ground with Green Pin® Sling Shackles.

Elon Musk is known for making the impossible possible. To realize those amazing ideas, you need a partner that matches your ambitions. Musk found his perfect match with Green Pin®. For the testing and validation of their reusable rocket boosters, SpaceX turned to Green Pin®. Testing was done by igniting a rocket for a full 2.5-minute rocket launch while the rocket remained secured to the ground. In this head-to-head matchup with the most powerful rocket in the world, the Green Pin® Sling Shackle came out on top! The centrepiece of rigging. Making the impossible possible.

### Project highlights

- ✓ Total thrust: 7.5 million N (1.7 million lbs)
- ✓ Test duration: 2.5 minutes
- ✓ Rope size diameter: 114 mm (4.5")
- ✓ 8 pieces of 200 t Green Pin® Sling Shackles used



SEE ROCKET LAUNCH VIDEO  
[WWW.GREENPIN.COM/SPACEX](http://WWW.GREENPIN.COM/SPACEX)



**GREEN PIN®**  
CENTREPIECE OF RIGGING.

# SAFETY IS OUR *only* BUSINESS

ADB Hoist Rings stands alone as the world's foremost hoist ring and safety lifting products provider.



- ➔ Made in the USA
- ➔ 5:1 Design Factor
- ➔ 200% Proof Load Tested
- ➔ Specialist in Customized Hoist Rings
- ➔ Serving Multiple Industries:

- Aerospace
- Defense
- Manufacturing
- Stamping & Injection Molding
- Power Generation
- Construction
- Mining
- Concrete & Precast

Find out how we're revolutionizing hoist rings and the lifting industry by visiting [adbhoiststrings.com](http://adbhoiststrings.com).



Scan with Your Phone Camera



adbhoiststrings.com | 800.423.4425  
5740 Hunt Rd. | Valdosta, GA 31606

## Modulift Spreader Beams Lift New Intercity Express “Bullet Train” in Taiwan

**Modulift spreader beams successfully lifted the first EMU3000 new intercity express train in Taiwan.**

Japan-based lifting gear supplier, Nakamura Industry Co. Ltd. and their customer have successfully lifted an EMU3000 train using Modulift spreader beams at Hualien Port in Taiwan.

Below-the-hook, Nakamura’s customer employed two MOD® 34 spreader beams at a span of 3.5m, providing four lifting points underneath the train to evenly distribute the weight.

The two spreader beams were attached to drop links and shackles at the end of each beam, with synthetic round slings below the beams, and wire rope slings above. This allowed the train to be safely lifted onto the vessel ready for transportation from Japan. The spreader beams were disassembled, and the same configuration used to unload the train at its destination in Taiwan, where it will serve the East Coast line.

Deliveries of the EMU3000 trains have been ongoing since 2021 by Hitachi Group, with the remainder of the trains due to be delivered and installed this year. A total of 50 12-car trains (total 600 cars) have been built for TRA (Taiwan Railways Administration), replacing 30-year-old 8-car trains. The whole project



will increase passenger capacity and enable passengers to travel around the island of Taiwan in 6 hours.

Osaka-based business Nakamura Industry Co. Ltd. is a distributor of Modulift spreader beams and holds stock from 6t to 100t for fast delivery throughout Japan. They also supply a variety of products from wire rope and synthetic slings to hooks and shackles.

Sumihide Haruta, Executive Officer and General Manager, Sales Division at Nakamura Industry Co., Ltd. commented “The Modulift spreader beams’ adaptable design allowed our customer to safely configure the lift for the EMU3000. These beams were transported with the train, facilitating easy disassembly, shipping, and reassembly before offloading.”

Sarah Spivey, Managing Director of Modulift said “Modulift spreader beams are portable, lightweight, and easy to transport and store. They proved to be the ideal lifting solution for safely transporting the train from Japan to Taiwan. We are pleased to be part of this important project in Taiwan, contributing to the enhancement of their rail infrastructure which is due for completion this year.”

Modulift spreader beams are interchangeable enabling them to be reused over many lifts. They are lightweight and modular in design. All spreader beams in the standard range from 6t to 2000t come with DNV Type Approval.

For more information, please visit [www.modulift.com](http://www.modulift.com)





MANUFACTURED IN THE USA SINCE 1972

A LEADING MANUFACTURER OF:

- POLYESTER ROUNDSLINGS
- HIGH PERFORMANCE ROUNDSLINGS
- FLOW LINE RESTRAINTS
- WEB SLINGS
- SLING PROTECTION
- LOAD SECUREMENT



ALSO PROVIDE:

- CHAIN & CHAIN SLINGS
- WIRE ROPE & WIRE ROPE SLINGS
- DOMESTIC & IMPORT HARDWARE

**SYNTHETICS  
RIGGING  
RECOVERY  
PROTECTION**

CONTACT US:

EMAIL: SALES@ARABISLING.COM

CALL: 504-279-5225 / 800-445-1123

WWW.ARABISLING.COM

ARABI SLING & RIGGING  
4700 E. JUDGE PEREZ DR.  
MERAUX, LA 70075

# Holland knows RFID



[www.holland1916.com](http://www.holland1916.com)  
(816) 421-4553

## UHF and HF Tags

Holland RFID designs and manufactures passive UHF and HF RFID tags for harsh environments.

These durable tags are utilized on assets in industries that require unique, ruggedized inventory and asset tracking solutions such as Oil & Gas, Construction and Mining.



All of Holland RFID's HF tags are NFC-compatible, allowing users to scan and track with mobile devices!

## Sling and Chain Tags

Stainless steel and aluminum Sling Tags, Chain Tags, Data Plates and Inspection Tags



5 Day Standard Lead Time

On-time percentage over 99%

## RFID Readers

Holland RFID offers a variety of RFID readers and mobile handhelds for UHF and HF tags, as well as adapters for mobile devices.





**Oppermann**



Domestic Manufacturer of:

- Polyester & Nylon Sling Webbing
- Roundsling Cover
- Textured Nylon Protective Sleeve
- Tie Down Webbing
- Mil-Spec Webbing
- Fall Protection Webbing

Oppermann Webbing  
129 Hollow Dr.  
Piedmont, SC 29673  
(864) 331-0800

[www.oppermann-group.com](http://www.oppermann-group.com)  
[frank.kulik@oppermann-group.com](mailto:frank.kulik@oppermann-group.com)

## Web Sling & Tie Down Association

WSTDA **Safety Warning Products** can help you warn about common hazards inherent with use of your synthetic lifting and load securement devices:

- Durable Fabric **Warning Labels** for Synthetic Web Slings, Roundslings & Tiedowns
- Printed **Safety Bulletins** for Synthetic Web Slings, Roundslings & Tiedowns
- Illustrated **Wall Chart** for Inspection of Synthetic Slings for Damage



WSTDA Recommended Standards are available to the public for FREE download at [www.wstda.com](http://www.wstda.com)

Visit [www.WSTDA.com](http://www.WSTDA.com) or call (443) 640-1070 for more information on **WSTDA Safety Warning Products**



Textile chains will make that future stronger, lighter and more efficient than ever before.

In the business of heavy-haul transportation, where the safe and efficient movement of massive loads are paramount, industry professionals are always seeking innovative solutions to optimize their operations. Jesse Krum, transportation projects manager at Bay Crane, has firsthand experience with a game-changing product that is transforming load securement practices: Doleco USA's DoNova PowerLash Textile Lashing Chain. This case study explores Krum's insights into the technical advantages of these textile chains and how they changed his perspective, and are destined to positively impact his business and our industry.

### Advanced Material Technology:

Dyneema is an ultra-high-molecular-weight polyethylene (UHMWPE) fiber that boasts an unparalleled strength-to-weight ratio. "Dyneema's UHMWPE material is 15 times stronger than steel by weight, and when made into chain, up to 85 percent lighter," explains Ralph Abato, president and managing director of Doleco USA. "This remarkable strength, combined with its lightweight nature, makes Dyneema an ideal material for load securement applications."

Doleco has been manufacturing textile chains since 2015, employing a patented construction method. Each chain link is made by laying several layers of Dyneema webbing in a Möbius ring configuration and sewing them together. This unique design ensures optimal strength distribution and allows the chains to maintain their flexibility while offering superior load capacity.



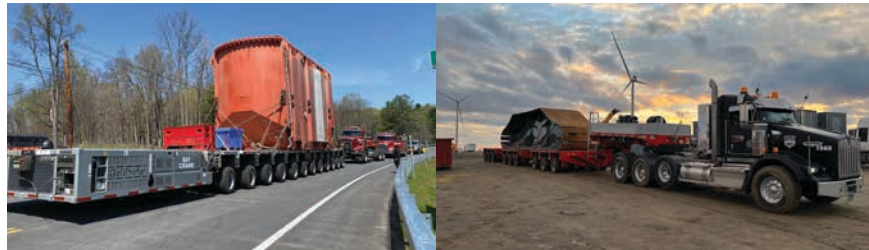
*Dyneema fiber the chains are made of is UV-resistant, chemical-resistant and has less stretch than steel chain.*

*Dyneema's ultra-high-molecular-weight polyethylene (UHMWPE) material is 15 times stronger than steel by weight, and when made into chain, up to 85 percent lighter, so lightweight that it will float on water.*



### Unmatched Performance:

Krum highlighted the impressive load ratings of textile chains compared to traditional steel chains: According to Krum, the textile chains boast a working load limit of 22,000 pounds, nearly double the 11,300-pound load rating of the Grade 70 steel chains that Bay Crane had traditionally relied on. This substantial increase in load capacity opens up new possibilities for heavy-haul operations, allowing companies like Bay Crane to tackle even the most challenging projects with confidence.



*A 25/8 Doleco 20-foot textile chain with a WLL of 22,000 weighs 15.8 pounds with clevis hooks, compared to the same length of 1/2-inch Grade 70 steel chain with clevis hooks that has a WLL of only 11,300 and weighs 57.5 pounds.*

### Real-World Application:

Bay Crane first put textile chains to the test when tasked with hauling a massive 762,000-pound generator for General Electric. "I'm hunched over my desk, calculator in hand, trying to wrap my head around the number of chains this job would demand," recalls Krum. "The figures are just ridiculous, and it's clear as day that we've got to find something with a higher rating, if we're goanna pull this off." The textile chains proved to be the perfect solution for this "super load," which, when combined with the trucks and trailer, amounted to a total weight of 1.1 million pounds.



*Bay Crane first used the Doleco USA's DoNova PowerLash Textile Lashing Chains and Binders to haul a "super load" comprised of a 762,000-pound generator.*

The lightweight nature of textile chains played a crucial role in the project's success. "A 20-foot length of the textile chain weighs 8.8 pounds, 15.8 pounds with clevis hooks. Compare that to 1/2-inch Grade 70 steel chain with clevis hooks at 57.5 pounds," explains Krum. This significant weight reduction not only improves ergonomics and ease of handling but also enables a single operator to work with longer chain lengths when needed.

### Regulatory Compliance Leads to Industry Acceptance:

Before investing in textile chains, Krum sought approval from the New York State Troopers who would ultimately be conducting the inspection before the generator moved an inch. To his delight, they were familiar with Doleco's product and confirmed that in 2018, the Commercial Vehicle Safety Administration (CVSA) had released a bulletin approving the use of the textile chains, providing clear guidelines for their implementation.

This official endorsement from the CVSA gave Krum and Bay Crane the confidence to adopt textile chains, knowing that they met the stringent safety standards set by the feds. Krum's experience underscores the importance of professional foresight, and highlights the importance of staying informed about the latest regulations and guidelines when adopting new technologies in the heavy-haul sector.

### Versatility and Efficiency:

The textile chains' increased load rating and flexibility have drastically changed how Bay Crane approaches load securement. "In some situations, we would have had to use as many as 70 steel chains for specific projects, but by switching to Doleco's textile chains, we were able to drastically cut down on that number," noted Krum. This adaptability is particularly valuable when navigating Department of Transportation (DOT) regulations regarding the number of chains and anchoring locations.

By using fewer chains with higher load ratings, a heavy-hauler can streamline its securement process, saving time and resources while ensuring compliance with safety standards. The textile chains' versatility also extends to their compatibility with various load binders, fittings and accessories, allowing for customized solutions tailored to specific load requirements.

### Gentle on Cargo:

In addition to their strength and efficiency, textile chains offer a softer touch when securing delicate or finished cargo. Krum recounts an instance where Bay Crane transported four fully painted bridge



*On a subsequent job, Bay Crane transported four 90-foot bridge girders that were fully painted, and since the textile chains' fibers are not abrasive, they used only standard corner protectors on edges and didn't need to use padding.*

girders: "These 90-foot girders were for a drawbridge and were fully painted. The textile chains' fiber composition meant that we didn't have to resort to using padding or other forms of protective layers, saving us both time and resources."

The non-abrasive nature of the textile chains' fibers, eliminates the need for additional padding or protection in most cases, reducing the risk of damage to the cargo during transit. This feature is particularly valuable for hauling finished or coated products, as it helps maintain their integrity and appearance.

### Broader Implications for the Industry:

The adoption of textile chains like the PowerLash has far-reaching implications for the heavy-haul industry. Beyond the immediate benefits of increased load



*The increased load rating of the textile chains can drastically change how haulers approach securing loads, particularly when DOT regulations come into play regarding the number of chains and where they can be anchored.*

capacity and reduced weight, these innovative products have the potential to impact safety standards, operational costs and environmental sustainability.

From a safety perspective, the lighter weight of textile chains

reduces the physical strain on workers, minimizing the risk of injuries associated with handling heavy steel chains. The increased load ratings also allow for more secure and stable load securement, reducing the likelihood of accidents caused by shifting or inadequately secured cargo.

Operationally, the use of textile chains can lead to significant cost savings. The ability to replace multiple steel chains with a single textile chain reduces the overall equipment investment and maintenance costs. Additionally, the lighter weight of textile chains translates to lower fuel consumption, as vehicles are not burdened with the extra weight of heavy steel chains.

Furthermore, the adoption of textile chains aligns with the industry's growing focus on environmental sustainability. The production of Dyneema fiber



has a lower carbon footprint compared to the manufacturing of steel chains. Moreover, the extended lifespan and durability of textile chains reduce the need for frequent replacements, minimizing waste and conserving resources.

#### **Overcoming Challenges and Fostering Education:**

While the benefits of textile chains are evident, transitioning from traditional steel chains to this innovative technology does present some challenges. One of the primary hurdles is the need for education and training within the industry.

As Krum points out, "Because it's so much easier to handle, some of my team members would prefer to use it on every job, but we utilize it selectively, where it makes the most sense. Others still worry about DOT accepting it even though I assure them that it's all documented in the CVSA bulletin." This highlights the importance of raising awareness about the capabilities and regulatory acceptance of textile chains among industry professionals.

To facilitate a smooth transition, companies like Doleco USA can play a crucial role in sharing knowledge and best practices. By helping to disperse comprehensive product information like this article, providing application guidelines, and offering training resources, they can help bridge the knowledge gap and build confidence in the use of textile chains.

Moreover, industry associations and regulatory bodies can contribute to the adoption of textile chains by developing clear guidelines and standards for their use. Collaborative efforts between manufacturers, end-users, and regulatory agencies can ensure that the industry as a whole, benefits from this technology while maintaining the highest levels of safety and compliance.



*The lightweight nature of the textile chain can make some apprehensive because they think it should weigh more or feel like it needs more substance.*

#### **The Future of Load Securement:**

As the heavy-haul industry continues to evolve, the adoption of innovative solutions like textile chains is not just a choice but an imperative. The benefits offered in terms of increased load capacity, reduced weight, improved ergonomics, and cargo protection are simply too significant to ignore.

Krum's experience with the textile chains serves as a powerful testament to their effectiveness and potential to revolutionize load securement practices. As more industry professionals become aware of the advantages of textile chains and witness their successful implementation in real-world scenarios, the momentum for widespread adoption is expected to grow.

Like many industries in the first quarter of the 21st century, heavy-haul stands at the threshold of a new era, where traditional methods are giving way to cutting-edge technologies like textile chains. By embracing these advancements, companies can enhance safety, optimize operations and deliver unparalleled value to their customers.



*Doleco also makes DoNova Powerlifts Chain Slings out of the same advanced Dyneema fiber.*



**WIROP  
INDUSTRIAL**  
http://www.wirop.com.tw  
**COMPANY LIMITED**



Wire Rope  
Fabricators Specialists

*Zero defects.  
Striving to be the best.*

WIROP  
WP-6000

6000MT Hydraulic  
Swaging Machine



3000MT Test Bed



Ferrules, Sleeves and  
Swaging Products



**Machine products available:**

- Annealing and tapering machines
- Measuring and cutting machines
- Winding machines
- Recoiling machines
- Portable equipment

WIROP INDUSTRIAL CO., LTD. NO. 806, FENGPING 1ST ROAD, DALIAO DIST., KAOHSIUNG CITY 83141, TAIWAN  
www.wirop.com.tw TEL : +886-7-7019369 FAX : +886-7-7019623 E-MAIL : wirop@wirop.com.tw



1600 E McFadden Ave, Santa Ana, CA 92705  
(888) 860-7673 • pelicanrope.com



## Pelican Rope Works and U.S. Rigging Supply Welcome Jacob Williams as Executive Vice President

Pelican Rope Works - U.S. Rigging Supply (PRW-USR), a leader in safety product manufacturing and distribution, is excited to announce the appointment of Jacob Williams as Executive Vice President. With an impressive 28 years of experience in the distribution of rope, safety, and other industrial products, Jacob brings a wealth of knowledge and expertise to our team.

Jacob's most recent role was Chief Commercial Officer at General Work Products (GWP). At GWP, Jacob played a pivotal role in transforming the company from a small startup into a nearly \$100 million business, showcasing his exceptional leadership and strategic vision.

Terry Walker, CEO of Pelican Rope Works - U.S. Rigging Supply, shared his enthusiasm for Jacob's

appointment, stating, "Jacob Williams embodies the spirit of innovation and dedication that our company stands for. His proven track record and unwavering commitment to excellence will undoubtedly drive our growth and success to new heights. We are thrilled to have him join our team and lead us into an exciting future."

In his new role, Jacob will be instrumental in growing core business and expanding the company's product portfolio. His move from distribution to manufacturing marks an exciting chapter, enabling him to leverage his experience to foster growth and innovation across the industry.

Jacob resides in Louisiana near New Orleans with his family. When not immersed in his professional endeavors, Jacob enjoys spending time with his wife and their 4-year-old son and working on his latest classic car project. His passion for both his work and personal life is truly inspiring.



### Are Your Tags As **TOUGH** As Your Slings?

#### SYNTHETIC SLING IDENTIFICATION SYSTEM

#### High Performance ID Tags



THE MOST EFFICIENT.

THE MOST DURABLE.

THE MOST PROFESSIONAL.



## THE TAG YOU'VE BEEN LOOKING FOR.

405-324-1777 TOLL FREE US 877-45F-IRST (3-4778) info@firstsling.com



For more information visit us at [www.firstsling.com](http://www.firstsling.com)

## Baltimore Bridge collapse reveals issues with larger ships, unprepared ports

Continued from page 27

“The word was that it would take months if not years to clear away the debris from the harbor enough for tanker traffic to start up,” says Moore. “However this morning I’m really proud of my state, the coordination in reopening the channel on June 12, 2024, less than three months after the terrible accident. We now have a full federal channel – the Fort McHenry Federal Channel – with a width of 700 feet and depth of 50 feet.”

After the bridge fell, the governor laid out four key directives: bring closure to the families of the victims; clear the full federal channel and fully reopen the Port of Baltimore to vessel traffic; support everyone affected by this crisis – from workers to their businesses; and rebuild the Francis Scott Key Bridge. Promises made to bring each of these priorities to completion – even though success was never guaranteed – were kept according to Moore.

“By working together, we have achieved the first three of our four directives. We can look out onto the Patapsco and see that the Dali is gone, the wreckage cleared. But I will not be satisfied until I can look out on the Patapsco River from this spot and see the Key Bridge standing tall again. That is the push. That is the promise. And by moving in partnership, we will make it reality.”

Governor Moore expressed gratitude to the men and women of Unified Command for working around the clock to quickly and safely reopen the shipping channel to the Port of Baltimore following the March 26 collapse of the Francis Scott Key Bridge. In only 78 days,

Unified Command removed more than 50,000 tons of debris from the Patapsco River, fully restoring the channel, welcoming back global shipping businesses and cruises, and getting Marylanders back to work.

More than 1,500 people from federal, state and local agencies contributed to the reopening of the main shipping channel, including 500 specialists operating dozens of pieces of equipment. Port of Baltimore’s public terminals directly support 8,000 workers, including longshoremen and truckers. Each day the port’s economic impact represents \$192 million or more than \$70 billion a year, representing 13% of Maryland’s gross domestic product.

Those giving speeches at the reopening in the channel in June suggested making sure Marylanders did not pay for the bridge rebuild. If not, then surely the work would be paid for at the Federal level. Yet none suggested the corporations forcing the ships and their companies to spend money on ill-equipped in light of any profits coming their way.

“Now we are in the era of ‘big ships, build it, and they will come’ as one Cornell University professor of maritime commerce explains. In the big ship era, on ship’s problem becomes the world’s problem. Bigger is not always better. They pose risks, such as chaotic cargo concentrations, think Long Beach, CA in late 2021.

“That can degrade supply chain resilience because only a few ports can accommodate them. Examples include such disabled vessels in a sea lane, as the *MV Dali* in Baltimore 2024, and the *Ever-Given* grounding in 2021 in the Suez Canal. The *MV Golden Ray* in 2000, grounded as well, in a Savannah inlet. These events can bottleneck maritime trade for months.”

In the wake of this tragic, and incredibly expensive accident there

has been discussion and criticism of the bridge and its construction. However, the Key Bridge’s continuous truss design with its roadway suspended from a steel arching tremendous overhead structure actually remains a great fit in areas requiring a lot of force and tension, that involved with heavy transportation and exposed the strong winds.

“They can hold much stronger forces and heavier weight than other types of bridges,” adds the crane expert quoted above. “Approach bridges connecting the main channel span to the north and south sides are beam bridge types – the oldest, simplest style roadway structure spanning column to column. posts or pillars depending on each structure.”

When some commented that the bridge had a finely sculptured look or even appeared frail, as the crane expert, concluded, these comments showed a lack of understanding. As with similar comments about the supposed strength of the Twin Towers prior to collisions with jets traveling at hundreds of miles an hour, those constructing the bridge in 1977 most likely never anticipated a ship of this size striking the bridge.

In the current situation of vastly larger ships maneuvering into harbors and infrastructure from an earlier era, the chance of another mishap may be hard to deny. The Port of Baltimore is the closest port to the Midwest, providing a quick and inexpensive way for manufacturers to send and receive cargo. The Port of Baltimore also ranks number one in handling farm and construction equipment and vehicles. The Maryland Transportation Authority is currently accepting requests for proposals for a design-build team to rebuild the Key Bridge. A project team is expected to be selected in mid-to-late summer this year, with the entire project estimated to be completed in fall 2028.

Upstream view of the bridge in 2015; *Dali* hit the fourth pier from left.

Photo by Patrick Gillespie





# SPECIALISTS IN THE DESIGN AND MANUFACTURE OF LOAD MONITORING EQUIPMENT



**CHANT**  
Chant Engineering Co. Inc.

Chant Engineering is the Exclusive Authorized Distributor for Dynamic Load Monitoring Products in North America.

# ELEPHANT LIFTING PRODUCTS™

Over 80 Years of Japanese Manufacturing Expertise,  
Stocked in the USA for Quick Shipping



[ELEPHANTLIFTING.COM](http://ELEPHANTLIFTING.COM)

# AD INDEX

<b>A</b>	ADB Hoist Rings ..... 58	<b>F</b>	FibrXL ..... Inside Back Cover	<b>P</b>	Pewag ..... 37
	Advantage Sales & Supply, Inc. .... 18		FIRST® Sling Technology ..... 67	<b>Q</b>	Qingdao Dayu Rigging Co., LTD. .... 35
	All Material Handling ..... 19	<b>H</b>		<b>R</b>	
	Anderson Forest ..... 51		Holland Nameplate ..... 60		Rubicon Group ..... 52
	Arabi Sling ..... 60	<b>I</b>		<b>S</b>	
	Associated Wire Rope & Rigging ..... 10		Industrial Magnetics ..... 25		Safety Clamps ..... 44
<b>B</b>		<b>J</b>			Sahm Splice ..... 23
	Bharat Wire Ropes ..... 46		Jergens ..... 9		Slingmax ..... 14
	Bob's Industrial ..... 54	<b>K</b>			Southern International ..... 50
<b>C</b>			Ken Forging ..... 48		Strider Resource ..... 33
	Caldwell Group ..... 49		Kito Crosby ..... 36, 53		Suncor Stainless ..... 19
	CARCANO SPA ..... 13		KWS ..... 40		Super Tool ..... 40
	Carolina Webbing ..... 39	<b>L</b>		<b>T</b>	
	Chant Engineering ..... 43		Laclede ..... 45		Talurit ..... Back Cover
	Chicago Hardware & Fixture Co. .... 28	<b>M</b>			Tiger North America ..... 70
	Columbus McKinnon ..... 24		Modulift ..... 11		TOSL ..... 39
	cromox US ..... 32	<b>N</b>			TW Products ..... 56
<b>D</b>			NACM ..... 38	<b>V</b>	
	DE HAAN ..... 54		National Band & Tag Company ..... 28		Van Beest ..... 57
	DURABILT ..... 41	<b>O</b>		<b>W</b>	
	Dynamic Load Monitoring ..... 69		OZ Lifting ..... 34		WireCo WorldGroup ..... 30
<b>E</b>			Opperman ..... 61		Wiroop Industrial ..... 66
	Elebia ..... 31				WSTDA ..... 61
	Elephant Lifting Products ..... 69			<b>Y</b>	
	Eriez Magnetics ..... 15				YORK ..... 6, 64
	Esmet-Electroline ..... Inside Front Cover				



Hoisting, Winching, & Height Safety Ranges

Taiwanese Quality,  
Now Stocked  
in North America  
and Ready to Ship



[tigerliftingna.com](http://tigerliftingna.com)

# FibrXL

smart  
performance  
fibers

**SlingXL Premium Roundsling Yarn** is FibrXL's most reliable roundsling yarn. SlingXL Premium is produced with bio-based **SK78 Dyneema®**.

This Roundsling Yarn has the **LOWEST CARBON FOOTPRINT** Available in the Market Today.

Sling XL Premium provides **ultimate reliability** and the **most consistent performance** you may expect from roundsling yarn.



**Dyneema®**

- ✓ PRODUCED IN USA
- ✓ 100% HMPE
- ✓ LIGHT & STRONG
- ✓ CONSISTENT PERFORMANCE



CALL US: (804) 329-4383



VISIT US ONLINE: [WWW.FIBRXL.COM](http://WWW.FIBRXL.COM)

# THE ORIGINAL

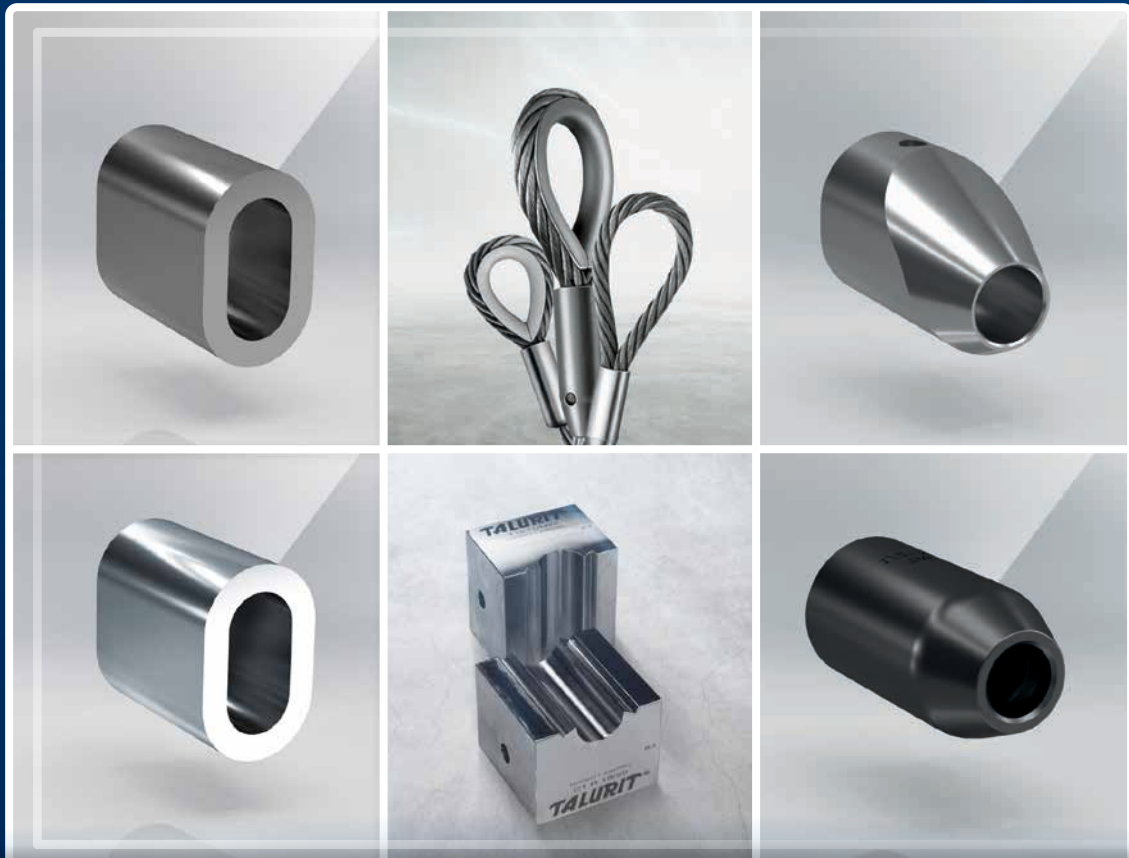
= S I N C E 1 9 4 8 =

The Talurit®-branded T-ferrule is the original turnback system for mechanical splicing and has laid the ground for the European standard. Since then, we have continuously optimized our solutions to keep up with the development of wire ropes, making us the preferred partner of mechanical splicing. By offering turnback ferrules in many materials and designs we are able to deliver systems for a vast variety of applications. We also supply a full range of black oxidized and galvanized flemish eye sleeves from 1/4" to 5" named TAL-X.

All of our ferrules, sleeves and fittings are accompanied by our extensive splicing instructions and knowledgeable technical support. For added protection, our product liability insurance covers up to two million EUR, safeguarding our customers from any third-party claims arising from product defects.

## TALURIT®

Talurit, Inc. Warminster, PA  
us-sales@talurit.com | +1 (215) 660-9427



[www.talurit.com](http://www.talurit.com) | [info@talurit.com](mailto:info@talurit.com) | +46 31 709 30 80  
Talurit® is a registered trademark owned by Talurit AB, unauthorized use is prohibited

