

Fall Educational Conference, Lexington, KY Viewed from the eyes of a First Timer and New Member

Message Boards? What is it? How to get to it.

Rigging in Construction, Changing times, for some!



Letter from the President

Dear Members and Friends,

The recent turmoil created by COVID-19 has created a vacuum of sorts in our planning and program development for our usual Educational Conferences. Therefore, we must resort to other means of communication that can be delivered without threatening the health and safety of our members.

We are working diligently to develop web-based programs that will address subjects such as Inspection Preparation, Line Pull Testing, and Correction Verification, to name a few. Some of these will be posted on the members section of our website and some will become part of a virtual conference. We hope to publish a menu on the website from which you can choose.

In order to respond to this pandemic's effect on normal meetings, the Certifying Crane Surveyor (CCS) committee is working to develop a system which will allow online testing for the program. The application process and study materials are already available and can easily be provided online. I'm sure you will note that the test can be available to the applicant at their convenience rather than having to wait until the next Conference.

Members of our Board of Directors are currently developing the CCAA CRANE SURVEYOR'S HANDBOOK. The Handbook will contain several chapters of useful information on many subjects that surveyors deal with during every inspection. Some of the subjects covered will be Inspection Preparation, Visual Inspection, Inspection Report Documents, and many others. We hope that the Handbook will be available within the next several months.

These developments are being implemented to respond to the COVID-19 pandemic and how it has affected our regular meetings while also aiming to increase availability of the services CCAA wants to provide.

CCAA is the place where crane surveyors learn to be the best that they can be!

Best regards,

John W. Davis, P.E. Davis Engineering *President*



Crane Certification Association of America www.cranecertification.org

CCAA NEWSLETTER



The CCAA Conference Through the Eyes of a New Member & First Timer By Eric Johnson, CSP, Newsletter Editor

The date is Saturday, October 5th, 2019. I walked into the Hyatt Regency Hotel in Lexington, Kentucky, after a flight from Baltimore for my first CCAA fall conference. The host is Link-Belt construction equipment. The conference will include a plant tour and presentations by Link-Belt, Yale-Cordage, and NCCCO. Context is everything, so let's take a moment and visit essential dates that were key to an amazing first-time experience at a CCAA conference. After months of research, I found the CCAA, and in April 2019, I became a member. Skip forward to August 2019, I receive a call from Ed Shapiro, who serves on the Certification Committee for the CCAA. He asked if I was planning on attending the Fall conference? I informed him that I probably would attend but was not committed yet, to which he further encouraged me to attend. That night, I registered for the conference. Within a week, I had booked flights, a rental car, and a room in the hotel.

Now that you have some context, we can move forward. Saturday night, October 5th, 2019. I meet up with Ed who promptly introduces two other CCAA members, one being a familiar face. The latter is Ray Feidt, Chair of the CCAA Training Committee who I remember from articles that he has written and associated photos. The other is David Raraigh, CCAA Secretary. We have a drink and great conversation over dinner.

Sunday, October 6th, 2019, I'm up early for the CCS testing at 8 a.m. The Certified Crane Surveyor test is a comprehensive examination of your knowledge in the Third Party Crane Inspector's wheelhouse which I am thoroughly reminded of while sitting from my exam. There are three disciplines to choose from. Take all three at once if dare. Fair warning; it is no walk in the park, so compile your resources, which should include the CCAA Handbook when available and study up. After CCS testing, there is a first timer reception for new members and a welcome reception for all members and guests. Ed introduces me to a bunch of friendly faces, including the president of the CCAA, John Davis. Everyone I spoke with that morning was very welcoming and had a lot of information to share. The welcome reception put me at ease, and I immediately felt like this was home.







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Monday morning is the networking breakfast where once again, everyone received other new members and myself with open arms and open minds, further putting my own mind at ease. Later that morning, the conference starts off with speaker Richard Thompson-NCCCO, David Raraigh-CCAA, and Jaime Goddard-Yale Cordage. All great speakers with informative topics. It's now lunchtime, and it could not have come at a better time. I needed to digest the horse trough full of information that was just thrown in my face. In a good way. After lunch, it's back to the conference room where Ray Feidt-CCAA leads off with Crane Capacity Charts and What are they anyway.



You are probably thinking that this topic is not special, well, you would be very wrong. When you speak on Crane Capacity Charts from the inspector's point of view, you now have a whole new ball game that most of the players didn't know they were hitting foul balls. Up next was Dennis O'Rourke-CCAA, John Davis-CCAA, up again is Ray Feidt-CCAA, followed by Bruce MacPherson-CCAA with a topic on How to evaluate structural repairs as "critical" or "less critical." At this point, I have to be honest with two more speakers to go rounding off the evening; my focus and mental resources shifted mostly to note-taking. Fortunately, I brought along my laptop, figuring I would come across some valuable information. An understatement, I know. The speaker and round table part of the CCAA conference will inject anyone with enough mind-tingling information to raise endorphin levels high enough to leave you wanting more. Will I attend another CCAA conference? Does a crane pick stuff up and put it down?







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If the last few hours were lunch and dinner for your mind, it was now time for dessert. By dessert, I mean, it was time to head to the Link-Belt facility for a plant tour. You can run cranes as an operator. You can inspect

cranes as a crane surveyor. There is still room for appreciating these machines when you get a chance to visit the plant they are made and assembled. Witnessing the stages of production and assembly while gaining insight on brand history is invaluable.





The Link-Belt tour was a satisfying dessert, but since I like pastries with cherries on top, I will leave you with my cherry topper. The best part of joining the Crane Certification Association of America CCAA is not the access to the abundance of resources I can find on the website or the topics I can view and or participate in on the website Message boards. It is merely the welcoming feeling you receive from every engaging member of this professional organization. That feeling is more than enough for me, and that single cherry is why I am a member of the CCAA.



CCAA NEWSLETTER Crane Certification Association of America www.cranecertification.org Hey gang. It's almost here! Check out what we have been working on. CRANE SURVEYORS HANDBOOK

A new edition of the Crane Surveyors Handbook will soon be published. It will provide help and understanding to veteran and new surveyors alike. Suggested credentials, basic certifier's library, information you can send to customers on "how to prepare for a Third-Party Crane Inspection." The CCAA Crane Surveyor's Handbook will be somewhere between 40 and 50 pages. No fluff, just useable information for all three disciplines; Mobile, Tower, and Overhead. The Handbook covers multiple topics from what tools should be utilized and Library materials necessary to write deficiencies and receive Sign-offs for the same.

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Learn more 🕨



CCAA INSPECTION Message Board What are you waiting for?

Have you ever had a question related to something you've seen in an inspection? You're not sure how to proceed, but think you know what to do and wonder if other Inspectors would handle the situation in the same way. The association INSPECTION Message Board is the place to go.

The INSPECTION Board is very much like the round-table discussions we have at CCAA Educational Conferences. Here you can ask any question or offer up an opinion of inspection related issues and solicit the views of other members who may have experience in dealing with the very same problem.

Our round-table discussion at conferences is proof that such a group's collective experience usually leads to a general consensus as to how we should proceed as an individual and as a group. Having such a large group of experienced, like-minded subject matter experts can provide us with an assurance that we are getting sound advice to act according to governing regulations or standards and in unison with other qualified inspectors.

You don't even have to be the most experienced member to participate in message board discussions. In fact, the members who have the most to gain from the INSPECTION Board are those with the least experience. The value of the information available far exceeds the cost of annual membership. The INSPECTION Board topics are numerous and on all types of cranes, including Mobile, Overhead, and Tower. Everyone can learn from these discussions. There is no such thing as a stupid question. Chances are, the very question you have been too shy to ask will be raised by someone else. Best of all, the INSPECTION Board is for member-only access. The information discussed remains within the CCAA membership portal and is maintained on the website as a resource when you need it. Please consider opting-in to receive Message Board e-mails and share your questions or opinions with the group. CCAA Members have exclusive member-only access to the Message Boards on the association website: www.cranecertification.org.

Follow these basic instructions to access the INSPECTION Message Board on the CCAA website:

1. Log-in to your CCAA Member Account.

2. Click on **<u>COMMUNICATION</u>** icon in the Member Menu above My Membership Information.

3. Click on Message Boards at the bottom of the drop-down list of folders.

4. All Message Board categories will appear in alphabetical order.

5. To **Opt-In** to the Inspection Board, click to place a check mark in the far, left box in the same row as the **Inspection** Board. When there is activity in the Inspection Board, you will now receive an e-mail message alert.

6. Click on the underlined blue text <u>Inspection</u> to open the Inspection Board and see all topics being discussed.

7. Click on the underlined blue text for a topic to open and read the discussion. Example: Lattice Boom Welds

8. You will now see all discussion and replies. Scroll down to read the discussion and replies.

9. Scroll to the very bottom of the page and click on the CLICK TO REPLY.

David Raraigh Secretary INTERGRATED EQUIPMENT SERVICES Pittsburgh, PA







Thinking about "Construction" brings to mind many images. These visions are of buildings, bridges, houses, tunnels, roads, and so much more. And, the types of objects moved to complete these projects are as diverse as their locations. Now adding to this, the need for longer crane radius and the loads getting heavier, taller, more complex, modular, pre-assembled, and just harder to set in place using "our" dad's tools and knowhow! (fig. 1)



Fig. 1 A simpler day!







In the past, the material came in by truck and was off-loaded with wire rope slings and a mobile crane. The "formed and poured in place" concrete structure and "setting steel" was the standard practices. Now being substituted by methods calling for elaborate rigging methods and off-site planning. (fig. 2)



Fig. 2 Formal Lift Plan needed!

The point being is, what are your worker's duties and specific responsibilities on these new construction sites? An analysis is a must to determine the employee training needs and supervisory controls for safety. The Rigging skills and cranes needed in residential construction as contrasted to the building of a Nuclear power plant is so dramatically different as to be almost unrecognizable, yet, it is all generically called" Rigging."

On a typical building site, what are the rigger's basic duties? (1) Selecting the gear of the proper capacity, they (2) Inspects the gear to make sure of its satisfactory condition, and (3) determines the attaching methods to control the load throughout its movements. And finally, (4) determine acceptable weather conditions at the "moment" of the lift. The employer can assign other duties, but these are their "core" responsibilities.







Now your guy "Denny" has been promoted to a foreman on this job (white hat, far side.) The job is to place a pre-cast concrete floor panel with a mobile crane. Pictured below is one of the "best" examples of "how-not-to-do-it!" (Fig. 3)

He is using two fiber slings over the crane hook in a basket hitch. These slings pass through two other sling eyes that are in a basket hitch around the concrete floor panel. The angles are severe, increasing tension in the slings.

Let's assume the capacity of the slings are greater than the load plus the 45 degrees angle (to the horizontal), which adds about 41.7% stress to the slings. Also, adding to sling stress is inertial loading caused by the normal moving of the load, which I have measured at 100% in some abnormal load movements (shock loading).

Now, at the "bite" (contact area between the top and lower slings) is what could be mistaken as a basket hitch, but it's missing the required PD to RD diameter. And you must never connect two fiber slings without using a shackle; this reduces the D/d (diameter of the support to the diameter of the sling) ratio and significantly reduces the sling's strength.



Fig. 3 How-not-to-do-it!

The most horrifying in this photo is the unpadded area where the fiber slings contact the concrete and the lack of shackles connecting the lower slings. These mistakes are elementary topics in rigging training. So why are these well-dressed workers so negligent?







The configuration of a basket hitch is with both Eyes on the hook and the body of the sling in contact with 180 degrees of the object's surface. The surface area support is what provides the "grip" to double the capacity of a basket over an eye to eye sling. Sharp corners can cut the fiber sling. Am I getting too elementary here? Well, if so, these guys need elementary training. There are six basic problems with this lift. Can you spot them?

How should the floor panels be set in place? The job above looks like they all showed up and started looking around for some rigging gear and started to "get it done!" How, if it were planned, it would look like this. (Fig. 4)



Fig. 4





Share'em if you got'em By Eric Johnson, CSP, Newsletter Editor

Where can a member receive advice and knowledge usually obtained by years of experience in the field? How can that same member obtain the same amount of information of someone who has already been in the field for years or even decades when they may only have just gotten started? The CCAA is here with the tools you need to achieve greatness. But how?

Our membership has an extensive amount of time in the field, office, even the courtroom. With all that time comes an extensive amount of experience. With all that accumulated experience comes pictures. So, what are we asking of you, the membership that makes up the Crane Certification Association of America? Contribute! You all have knowledge everyone else can benefit from. Everyone has pictures of shiny new cranes and cutting-edge lifting devices that solve their client's problems. We also have photos of the deficiencies we find. Share the latter omitting the client's information, of course. You are encouraged to visit the <u>CCAA INSPECTION Message Board</u> and visit it often. Search the Message Board for useful information that may answer a question you may have. If the answers you are looking for are not already answered, Ask, and you shall receive. Post your question or problem, and our robust membership will chime in and get you going in the right direction. Remember, this goes both ways. From time to time, visit the <u>INSPECTION Message Board</u> to not only see what is new but with the intention of giving back to the membership. Find the topics and questions that you may have the insight to and give a helping hand.

We want to hear from you. Tell us what you want to hear and see more of. What topics you would like more information on in future editions of the Newsletter. Are you a technical writer or have articles that would benefit members of the CCAA, do not hesitate to send them in. Have a specific industry professional you would like to hear from? Let us know, and we will do our best to make it happen.

We are in search of questions you want to be answered and topics you would like covered. In addition to content and content ideas, we are in need of media. The pictures you have stored away in digital darkness could make it into our Newsletter. Share'em if you got'em. If you have pictures, topics, questions, or anything you would like to share or request for the Newsletter, contact our Newsletter editor Eric Johnson at Eric@peerlesscrane.com to make arrangements for file transfers and other requests.

Each One Teach One

Learn more 🕨



Dear Members and Friends,

The past several months have been trying for most of America and the rest of the world. COVID-19 has made it very difficult to plan future conferences and activities. However, we are continuing to plan without a definite date in mind. We seek headliners and speakers who are willing to participate in our Conference with the date TBD. We will certainly keep the membership advised as plans progress.

Many organizations are using the internet to provide virtual gatherings for their members. This use of technology is on the list of options for the CCAA. Talk to your Board and Officers (me included) and give us your thoughts and ideas about this concept.

Another effort that we are mounting is providing the CCS test online. The CCS Committee has been working diligently to bring this idea to fruition. We know that Computer-Based Testing (CBT) will make it more available to the membership. It will also be more convenient than other CBT testing with the ability to take the test from your office ore home when it fits your schedule. Travel to a test center is not needed. The



CCS Committee will keep you apprised of this development.

COVID-19 has had a devastating effect on the American economy, and it may well worsen in the coming months. As the government gets deeper in debt without a clear plan of recovery. I am concerned about the devaluation of our currency and the emergence of a pseudo currency that threatens to take its place.

Despite the doomsday forecasting, our business seems to be holding its own. Here in California, our members also seem to be doing well. Construction being seen and treated as essential and critical to infrastructure may play a role in propping up our industry.

Because of the uncertainty, I think it is wise to shed your debt as much as possible so that you have a reserve in your savings or retirement accounts that will be accessible as monetary policy becomes less reliable. We do not know what lies ahead, so use your best judgment to protect yourself.

Keep the faith! God bless you all, John W. Davis, P.E. CCAA President



JOHN DAVIS

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1st Vice President AMCRANE Orlando, FL

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