



THE CRANE CORNER

Navy Crane Center Technical Bulletin

<https://portal.navfac.navy.mil/ncc>

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A WORD FROM TOPSIDE

Sam Bevins

Navy shore activities have the opportunity to make a substantial improvement in weight handling safety by reducing the number of “significant” crane accidents (injury, dropped load, overload and two-block) over fiscal year (FY) 2011 performance. As we approach the halfway point in FY 2012, Navy shore activity significant crane accident totals are 11 percent lower than last year’s number, but for last three months the total is a very encouraging 56 percent lower than for the same period last year! We still have six months to go, but with proper risk management, we can maintain, or even better, this pace of improved safety performance. Some actions you can take to achieve this improvement in safety are: focused preemptive safety briefs at key times of the year; selecting the proper equipment for the job at hand; ensuring the equipment is in good condition; thorough, interactive pre-lift briefs; following crane team principles; situational awareness by all throughout the lift; and an objective observation program by knowledgeable personnel providing constructive documented feedback on lift operations. In short, this means effective Operational Risk Management.

For every crane accident that is reported, there are many more unsafe acts and near misses that occur. One positive way of avoiding accidents is to maintain a focus on these “accident indicators.” We are very encouraged at the increase in the number of near misses being reported. It is the sign of a safety-conscious activity. We were recently notified of a situation where limit switch bypass keys were found engaged in their switches on two mobile cranes without apparent control. We were thus able to issue a Weight Handling Safety Brief on this item and help prevent a potentially catastrophic accident. Our goal is to evolve a culture where people instinctively focus on the value of gaining lessons learned from the reporting of all unusual events in a weight handling operation...to prevent more serious events from occurring. Weight handling managers and supervisors should not send the wrong message to deck plate personnel by focusing solely, and negatively, on just the total number of events reported but should encourage the reporting of all events where lessons can be learned and shared.

An added benefit to safer weight handling operations is the improvement to mission execution efficiency that results. This can be significant under the current challenging fiscal environment. As we know, the efficiency of mission execution is significantly improved by preventing personnel injury, equipment damage, and schedule disruption that can result from weight handling accidents.

Our mutual overall goal is ZERO crane and rigging accidents. One very powerful tool that is being utilized at more and more Navy activities is a documented operations observation program. Supervisors frequently provide oversight of weight handling operations and they occasionally see something being done incorrectly and remedy the situation on the spot. This helps the immediate crane team, but by documenting the deficiency, it can be

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shared with the rest of the activity. By documenting potentially unsafe acts, missed steps in lifting and handling processes, better and safer ways to perform the lift, defective equipment, etc., and sharing this information activity-wide, all weight handling personnel can become aware and improve overall activity safety. Regardless of the size of your weight-handling program, an operations observation program that documents these opportunities for improvement... and shares this information with all...will help drive crane and rigging accidents to ZERO...while significantly improving the efficiency of mission execution. ■

CRANE SAFETY ADVISORIES AND EQUIPMENT DEFICIENCY MEMORANDA

We receive reports of equipment deficiencies, component failures, crane accidents, and other potentially unsafe conditions and practices. When applicable to other activities, we issue a Crane Safety Advisory (CSA) or an Equipment Deficiency Memorandum (EDM). A CSA is a directive and often requires feedback from the activities receiving the advisory. An EDM is provided for information and can include deficiencies to non-load bearing or non-load controlling parts.

We have had no CSA's or EDM's this quarter. ■

NAVY CRANE CENTER AUDIT PROGRAM

SECNAVINST 11260.2 tasks the Navy Crane Center with auditing Navy shore-based weight handling programs biennially at a minimum to ensure compliance with Navy weight handling program requirements. For those activities with a high tempo of operations and those involved in critical weight handling operations such as lifting ordnance, naval nuclear propulsion materials or other items where a high degree of reliability is required, an annual audit is prescribed. Currently, there are over 370 Navy shore activities and shore-based operational units with weight handling programs that require an audit by one of our five audit teams based in Portsmouth, VA, San Diego, CA, and Keyport, WA. The Navy Crane Center performs 200 to 220 weight handling program audits annually.

Due to the number of activities required to be reviewed each year, audits are of relatively short duration (one to five days depending on the size and scope of an activity's program). For this reason, our audit teams request a large amount of material (local instructions, equipment inventories, surveillance and internal audit data, etc.) in advance of the audit. This information is reviewed ahead of time to get a better understanding of your activity and more importantly, to assist us in the early identification of potential problem areas and areas for improvement. A key component of this advance material is your activity's self-assessment. An internally focused, self-critical assessment serves two key purposes. First, personnel in your activity's weight handling program are aware of the problems and challenges faced on a day-to-day basis and can provide valuable insight and recommendations to improve your overall program. Second, as stated above, our audit teams are only at your activity once a year or once every two years and the self-assessment assists in efficient use of audit time at your command to provide you a better perspective of opportunities for further improving your program. This self-critical approach within all levels of your weight handling program can be very instrumental in identifying weaknesses and areas for improvement. The self-assessment should be an ongoing process and not just something done in advance of our visit. Your supervision and management should be in the field or on the deck plates regularly, promoting this mindset that will strengthen your weight handling program for the long term.

Although our primary audit focus is to ensure compliance with NAVFAC P-307, our audit teams also look to identify opportunities for improving the efficiency and effectiveness of your program. These include a review of material assets, weight handling personnel resources, the documentation of lessons learned, and the identification of other improvement efficiencies.

Our audit teams are sometimes asked if there is a grading scale associated with the audit or how one activity compares against another activity. Due to the relatively short duration of the audits, varying operational tempos, and other factors, our audit teams only assign an overall assessment of satisfactory, marginally satisfactory, or unsatisfactory. Of the 215 weight handling programs audited in FY11, 91 percent were assessed as satisfactory, with 20 activities receiving a less than fully satisfactory rating. We intentionally do not compare one activity against another. That comparison would tend to undermine what we consider to be the most important factor in your periodic review, which is whether your program meets the requirements and how you compare against your past performance. This comparison against past performance, if done objectively and openly within your organization, fosters a culture of continuous improvement which is a proven key element in the development and sustainment of a mature, safe, and reliable weight handling program. Among the many responsibilities of the Navy Crane Center, as laid out in the SECNAV instruction, the audit program has proven to be a prime factor in improving the safety and effectiveness of the Navy's weight handling program. ■

Storing Grease-Lubricated Equipment

Many activities store weight handling equipment (WHE) for future needs. However, grease deteriorates over time when not in use. An activity reported where oil had separated from grease and migrated to brake components on a manual chain hoist that had been in long-term storage. Proper storage and handling can reduce the effects of storage on grease quality. Navy Crane Center encourages activities to consider the following measures when storing WHE for long periods:

- Store in cool, dry indoor locations. Storing away from direct sunlight and heat sources will also help with temperature control. Stored grease releases its oil faster with increasing temperature.
- Keep the storage area clean and dry. Dust, dirt and moisture deteriorate grease quality.
- Un-box hoists and store hoists on storage racks where available.
- Store WHE in a location separated physically from work areas. This will minimize contaminants around the stored WHE.
- Label the WHE with the date put in storage. This will help the condition inspector assess the condition of the grease prior to placing the WHE in service.

Activities should be mindful of the effects that long term storage can have on grease and should carefully inspect WHE for the potential of contamination of critical components prior to use. ■

Twin-Path Slings

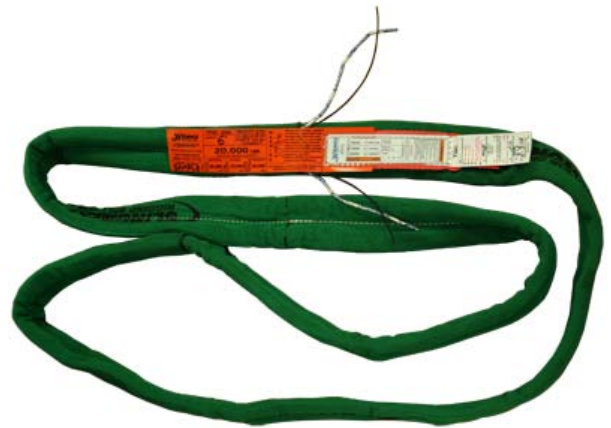
Inspection Systems and P-307 Requirements for Alternate Yarn Slings

Twin-Path® slings are synthetic round slings with dual load bearing paths that are typically provided with “tell tale” overload indicators, and a fiber optic internal inspection system.

Activities have reported cases where the tell tale indicators have been drawn into the outer cover without an apparent overload. They have also reported cases where continuity is lost in the fiber optics indicator, which can indicate damage to the sling, but no damage was found.

The tell tale indicator can be particularly susceptible to being drawn into the outer cover during load manipulation and when being used in a choker hitch. The fiber optics cable, which is more brittle than the slings core yarns, can be damaged during normal handling. Regardless, when either of these events occurs, the sling is to be treated as if it has been damaged and returned to the OEM for evaluation; and repair if it is determined that no overload or damage has occurred. Extra care should be taken when using these slings to avoid inadvertent damage to either of these indicators. Riggers should make certain that the sling is properly rendered and take extra care in handling and storage.

These slings can be ordered without the fiber optic inspection system at the user’s discretion. In addition, when a sling is found with a damaged fiber optic cable, with no damage to the sling, the device can be removed by the OEM and patches applied to the original holes.



Many synthetic round-slings in the Navy inventory are made with yarns other than nylon or polyester (these are referred to as “alternate yarn round-slings”). As required by ASME B30.9, the core material, and cover material if different from core material, is to be marked on the sling. In addition, P-307, paragraph 14.7.4.3.4.d requires that the proof test documentation for alternate yarn round-slings must include the diameter of the pin used during the proof test. The minimum diameter allowed for use, no smaller than the test pin diameter, shall be marked on the sling. In addition to these requirements, purchase documents shall also require that the proof load be held for two minutes. It is the purchasing activities’ responsibility to ensure that P-307 requirements are included in all purchase orders. ■

ACQUISITION UPDATES

Pendulum Impact Tester

The Navy Crane Center assisted the US Army Corps of Engineers in accepting a 10-ton rated capacity, under-running pendulum impact testing crane. The system is unique, as it has a two trolley, four hoist configuration designed to convey the lifted load such that it impacts an immovable concrete barrier at a particular speed for testing. The system consists of two 10-ton electric-powered chain hoists on each of two 10-ton rated trolleys running on twin 18-inch I-beams composing the 42-foot long runway. Using a radio controller, each of the four hooks raises and lowers individually or simultaneously using the single speed hoists while each of the two trolleys can travel individually or simultaneously using variable frequency drives. The trolleys and hoists are supplied power through conductor bars connecting to a 480v/3-phase/60Hz service. The system raises an object off the floor, using four pick points only, and moves the object to the face of the immovable barrier. Power is turned off to the crane activating four caliper brakes that secure the crane to the lower flange of the runway beams. The suspended object is then pulled away from the barrier until it arcs upward some prescribed distance; a quick-release mechanism disengages the pulling force allowing the object to swing freely and impact the barrier. ■



3-Ton Free Standing Cranes

The Navy Crane Center accepted two 3-ton under running single girder electric traveling, ordnance handling cranes on a free standing structure. The contract acceptance test was used in each case by the activity as the load test for crane certification. The MH27.1, Class D cranes, have a 10-foot span with 8-foot hook height. Features of the cranes included ASME HST-4, packaged wire rope hoists, patented track bridge girders, dual hoist brakes, infinitely variable speed electronic drives on all functions, and pendant mounted crane controls. Hoist noise levels were measured at less than 70 dB when loaded at rated capacity and unloaded. ■

Mobile Boat Hoist

The Navy Crane Center recently witnessed assembly, performed equipment inspection, and witnessed acceptance testing of a NAVFAC Headquarters' procured 250 metric ton mobile boat hoist. The boat hoist is used to support maintenance and inspection of surface craft at the facility. The diesel-powered, electric-over hydraulically operated crane can be controlled from either the operator's cab or remotely by radio controls. The operator's cab is equipped with a video monitoring system that incorporates video cameras at each corner of the crane. The mobile boat hoist has the capability of traversing a 6 percent grade under a full load. ■



SUMMARY OF WEIGHT HANDLING EQUIPMENT ACCIDENTS FIRST QUARTER FY12

For the 1st quarter of FY12, 56 Navy WHE accidents (41 crane and 15 rigging), and 12 near-miss occurrences (11 crane and 1 rigging) were reported. A total of eight contractor crane accidents and three contractor rigging accidents were also reported. Of the 56 Navy WHE accidents, 20 were considered significant (overload, dropped load, two block, or injury). Lessons which can be shared from the significant Navy crane accidents are discussed below.

Collisions continue to be the leading crane accident type. Of the Navy crane accidents reported, 14 (34 percent) involved collisions. In FY11, approximately 39 percent of Navy crane accidents reported were collisions. Activities should place an emphasis on monitoring crane operations to ensure adequate clearance is maintained during all crane movements. This should include monitoring operation during crane pre-use inspection, positioning, and maintenance, since a large majority of crane collisions occurred during these evolutions, not just during crane lifts. Maintaining and ensuring adequate clearance prior to crane movement should be stressed to crane and rigging personnel during pre-job briefings to provide an increased awareness of this problem. The placement of additional personnel to monitor clearances and restricted or poor visibility areas may also aid in reducing collision type accidents.

OVERLOAD

Accidents: Overloads accounted for 12 of the 20 significant crane and rigging gear accidents with 10 being overloads of rigging gear. While attempting to take the slack out of a sling to facilitate removal of bolts attaching a motor to its foundation, the operator did not notice tension on a chain-fall which was attached to the sling. The chain-fall was overloaded and the load chain parted. During removal of slack in rigging attached to a lifting fixture, the tip of the lower rigging hook became hung up in a bolt hole in the lifting fixture, overloading and straightening the hook. During rotation of a component from vertical to horizontal, a protective cover was damaged. During the investigation, a 1-ton chain hoist used in the rigging configuration to upright the component, was also determined to have been overloaded. While lifting a stack of wooden timbers, a sling parted when it was incorrectly routed under one end of a metal frame. A category 3 crane, with a 1,000-lb capacity, was overloaded when an incorrect weight of 750 lbs was used for the weight of a motor. The motor actually weighed 1,190 lbs. During testing of a support bar, the operator of an electric hoist engaged the hoist button instead of the lower button causing an overload and damage to the bar.

Lessons Learned: Personnel must monitor crane and rigging operations at all times. Additional personnel should be assigned to help monitor the load and rigging gear where necessary. The weight of the load must be known. Crane and rigging personnel must ensure that rigging gear being used has adequate capacity for the work to be performed in the configuration in which it is being used. Where the weight of the load is in question, a load indicating device with readout readily visible to the signal person or rigger-in-charge (RIC) should be used. An appropriate stopping point should be established to minimize the risk of overload. When necessary, chain-falls or other hoisting control means shall be used to avoid sudden overload of the crane or rigging gear. Operators of cranes and rigging equipment should visually locate and ensure that the proper function or control is selected prior to engaging the function. Operators should never guess or rely on visual movement of the hoist or crane to determine if the proper function or movement is selected.

DROPPED LOADS

Accidents: Five dropped load accidents occurred during rigging and crane operations. During a battery removal job, a lifting fixture failed causing the battery to drop approximately six feet to the deck. The lift fixture was installed incorrectly and was not manufactured per the engineered plan. During repositioning of a sponson, the operator intended to lower the hoist, but engaged the "hoist up" control instead, causing the load to shift off of the work horses and strike the floor. During lifting of shore power cables, the operator hoisted the block into the anti-two-block device and the controllers became inoperable. After several attempts to hoist down and retract the boom, the shore power cable fell from the block and landed in the water between the ship and pier.

Lessons Learned: If procedures for rigging gear assembly or attachment are inadequate or do not exist, the activity should seek engineering assistance. Personnel must ensure safe rigging practices are followed and proper rigging attachment is made prior to lifting loads. As discussed above, operators of cranes and rigging equipment should visually locate and ensure that the proper function or control is selected prior to engaging the function. Limit switches and anti-two-block devices should not be used to stop movement of the crane or hoist during lifting operations. The only time limit switches should be activated is during the pre-use inspection of the crane or hoist.

TWO BLOCK

Accidents: Three two-block accidents occurred during crane operations. All three events occurred while stowing the boom into its cradle for travel. This operation requires bypassing the anti-two-block device and requires extreme care. During a training evolution, a whip line was two-blocked. In a different accident, the rigger pulled on the chain of the anti-two-block switch which allowed the operator to continue lowering the boom onto the cradle and hoisting up on the hook block. The rigger became distracted and when he turned back, he saw the hoist block was pulled up into the sheaves. In another accident, the operator was performing two operational functions simultaneously to stow the boom. The functions were not performed correctly and the hoist block contacted the sheaves, causing a two-block condition and sheave damage.

Lessons Learned: Personnel must remain alert at all times when securing the crane and placing the crane boom into cradles in preparation for travel. Additional personnel must be used when the operator is unable to see the blocks and hooks. Personnel must monitor hook clearances and ensure two-blocking, collision, or contact does not occur during these operations.

CONTRACTOR ACCIDENTS

Accidents: Eight contractor crane accidents were reported during the first quarter, and five were considered significant (two dropped loads, two overloads, and one two-block). During lifting of a mobile crane, inadequate chafing gear was used and the synthetic slings attached around the outrigger beams parted, causing the left side of the crane to drop and contact the pier. While preparing a mobile crane for travel, the operator rotated the crane with the outrigger pads lowered but not extended as required, causing the crane to overturn. In another accident, during operation of a mobile crane, the operator became distracted while performing multiple functions. The whip line was two-blocked and the crane was damaged.

Lessons Learned: Critical lift plans must be reviewed to ensure the rigging plan, including the lift geometry, lift points, rigging equipment, and rigging procedures are adequate and appropriate for the lift. Adequate chafing gear or material should also be used where necessary. Contracting officers shall ensure adequate

oversight of contractor crane and rigging operations. Appendix P, Figure P-2 of NAVFAC P-307 provides a checklist that shall be used during oversight of contractor crane and rigging operations. This checklist includes items such as crane set-up, outrigger placement/positioning, operator and operation, lift considerations and rigging use, inspection and configuration.

Weight handling program managers and safety officials should review the above lessons learned with personnel performing weight handling functions and consider the potential risk of accidents occurring at your activity. Contracting officers should share this information with representatives who oversee contractor weight handling operations. This is also a good time to reinforce the principles of operational risk management. Our goal remains zero weight handling accidents. ■

NAVCRANECEN WEBSITE – CHECK IT OUT

<https://portal.navfac.navy.mil/ncc>

The Navy Crane Center website has a wealth of information on the Navy’s weight handling program. Do you need to check a NAVFAC P-307 requirement? It’s in there. Do you want to read a Crane Corner from 2007? It’s in there. View interesting safety videos? They’re in there. Crane safety advisories? Accident data? Crane design guidance? Training information? Crane acquisition forms? They are all readily available on the Navy Crane Center’s website.

There is a “What’s New” section showing the latest information that has been posted. And these postings are made as soon as the information is released by the Navy Crane Center. There are nine subject areas, each filled with complete and easily accessible information on that subject.

The section on NAVFAC P-307 has the latest version, including Changes 1 and 2. P-307 forms are separately accessible. Thanks to our friends at NAVFAC Far East, there is even a Japanese language version, complete with the latest changes. There is also a link to interpretations that are in effect, conveniently listed by P-307 chapter.

The section titled “CSA/EDM/Safety Msgs” has a complete listing of crane safety advisories that are currently in effect, all of the equipment deficiency memoranda that we’ve issued, and all of the safety messages that we’ve issued, including quarterly accident lessons learned and special-focus messages addressing an urgent safety issue.

The Training section has instructions for enrollment in Navy Knowledge Online (NKO) for the 16 training courses listed in NAVFAC P-307, including a description of each course, a list of frequently asked questions for accessing NKO, student guides for each of the courses, and instructions for becoming an authorized instructor for providing instructor-led training. Also available is our Crane Contractor Awareness Workshop that activities can use in conjunction with contracting officer representatives to jointly maintain the safety of contractor operations. And for new engineers as well as for others involved in weight handling, we have four basic, but very informative, crane engineering courses addressing the disciplines of structural, mechanical, and electrical engineering as they relate to crane design.

Our CRANEALT section provides a complete list of mandatory crane alterations that are applicable to specific NAVSEA cranes, as well as a comprehensive listing of pre-approved standing alterations that activities can use for common replacement parts and replacement of small overhead hoist/trolley units.


The Downloads section includes our weight handling design standard UFC-320-07N and numerous forms and

guides associated with the crane acquisition process.

As noted above, you can look at any Crane Corner we've issued since 2001 in the Crane Corner/Reports section. There is a handy index for quick access to every article in each edition. Also on the Crane Corner page is a short summary of the prior year's safety and audit results for the Navy shore weight handling program.

As we note in all of our Crane Corners, in the Videos section we have a very comprehensive list of safety and instructional videos, some that we developed in-house and some generously donated. There are seven short, hard-hitting videos of what can happen from miscommunication, lack of awareness, lack of planning, and taking shortcuts in the world of weight handling. We have an orientation video for activity commanding officers; a video specifically focused on mobile crane safety; a "Take Two" video addressing questions the crane team should ask themselves just prior to making a crane lift; and a video for operations of category 3 cranes, which includes both operational instructions and basic rigging awareness. We also have an instructional video on mobile crane load testing, which we've temporarily pulled in order to update to conform to the recent change to NAVFAC P-307. All of these videos can be viewed on our website.

The Weight Handling Accident Prevention Information section lists and describes all of the crane and rigging gear accidents reported for the current fiscal year, and shows charts of crane and rigging gear accident totals for the past seven years. Also included in this section are our weight handling safety briefs (WHSB), which are "quick reaction" alerts to recent safety issues.

The above is not a complete list of the useful information available on our website. There is something there for everyone involved in the Navy's weight handling program. So, check it out! 

Weight Handling Safety Brief

The first weight handling safety brief (WHSB) reiterates the rules/requirements for controlling by-pass keys for crane safety devices. This information is applicable to all personnel who operate cranes and for personnel that supervise or provide oversight of crane operations.

The second WHSB reiterates common rules/requirements for hook loading and sling attachment to hooks. This information is applicable to all personnel who perform crane or rigging operations.

The Navy Shore WHSB is intended to be a concise and informative, data driven, one page snapshot of a trend, concern, or requirement, related to recent / real time issues that have the potential to affect our performance and efficiency. The WHSB is not command specific and can be used by your activity to increase awareness of potential issues that could result in problems for your weight handling program. The WHSB can be provided directly to personnel, posted in appropriate areas at your command as a safety reminder to those performing weight handling tasks, or it can be used as supplemental information for supervisory use during routine safety meetings. Through data analysis of issues identified by accident and near miss reports, and taking appropriate actions on the information we gain from that analysis, in conjunction with effective communication to the proper personnel, we have the tools to reduce serious events from occurring. As we improve the Navy weight handling safety posture, we improve our performance, thereby improving our efficiency, resulting in improved Fleet Readiness!

When Navy Shore Weight Handling Safety Briefs are issued, they are also posted on NCC's web site at:

https://portal.navy.mil/portal/page/portal/navfac/navfac_ww_pp/navfac_ncc_pp/tab66035:whapi 

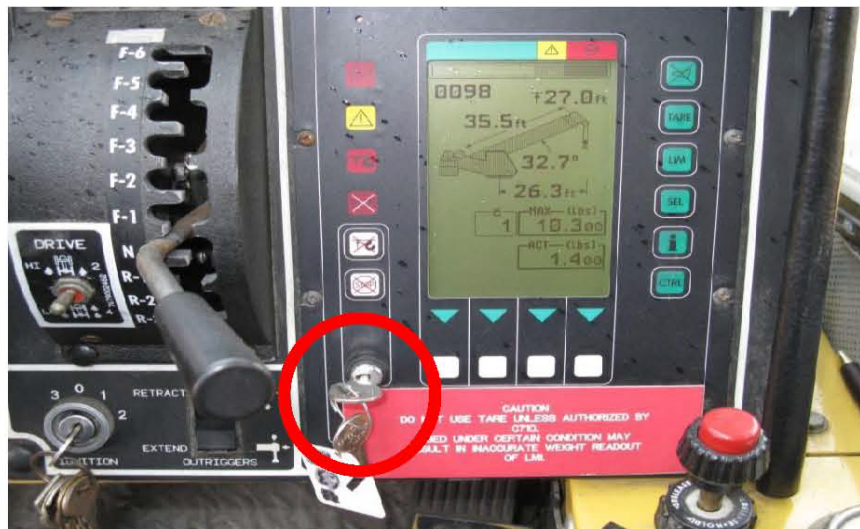
Weight Handling Safety

Title: **Control of Bypass Keys for Crane Safety Devices**

Target Audience: Weight Handling Managers, Supervisors, and Crane Operators

Bypass keys for crane safety devices must be strictly controlled and only used per NAVFAC P-307, paragraph 10.2.2.3.

- ❑ A momentary lapse in control of these critical devices could result in significant material damage and/or severe personnel injury.



Per NAVFAC P-307, paragraph 10.2.2.3:

- Each activity shall **develop procedures for controlling the bypassing of safety devices.**
- **Supervisors shall control** the usage of **keys** for safety device bypassing.
- **Keys shall be removed from the crane,** and retained by the supervisor unless unique activity operations (remote site operation, etc.) require the keys to remain on the crane.
- In the rare instances where this is not practical or where safety devices may be bypassed by other means, **permission for bypassing or defeating safety devices shall be obtained** from the operator supervisor (with the exception of the ODCL). This requirement shall be posted in the operator's cab.
- In either case, **keys** shall be **removed** from the switches **when not in use.**

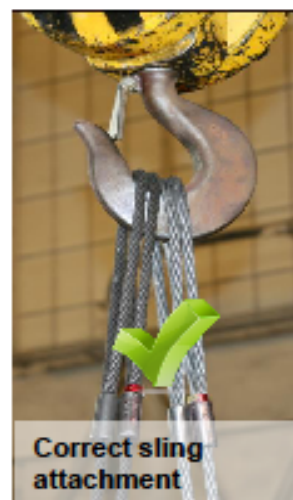
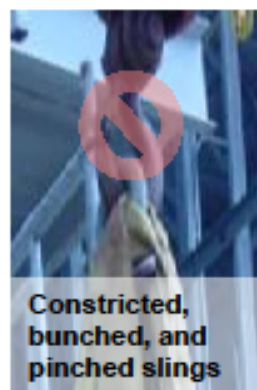
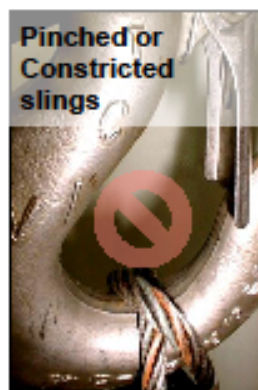
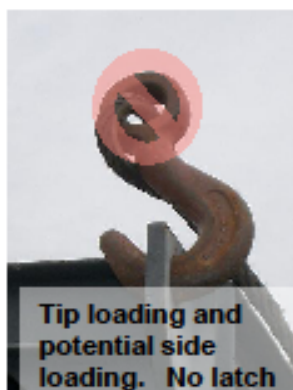
NOTE: This bulletin is only a summary of bypass key requirements and NAVFAC P-307, par. 10.2.2.3 should be reviewed in its entirety to ensure full compliance.

Weight Handling Safety

Brief!

Title: Hook Loading and Sling Attachment

Target Audience: Personnel who perform crane and rigging operations



Improper hook use and attachment of rigging gear **may result in damage to equipment and/or personnel injury or death.**

Listed below are common rules and requirements for hook use and sling attachment. Reference: ASME B30.26 Rigging Hardware and NAVFAC P-307, paragraph 14.8.7 (Hook Use Criteria).

- Hooks **shall be loaded only in the bowl of the hook.**
- Hooks **shall not be loaded at the point or tip.**
- **No side loading** of hooks is permitted.
- Hooks **shall have self-closing latches** or the throat opening **shall be "moused"** to prevent the attached item from coming free of the hook.
- Where slings are supported in a hook, the **included angle of the slings shall not exceed 90 degrees** unless otherwise approved by the activity engineering organization.
- **Slings should not be constricted, bunched, or pinched** in the hook, shackle, or any other fitting.
- **Never place a sling eye around a diameter greater than $\frac{1}{2}$ the eye length!** This creates stress on the swage or splice of the sling.


Rigging personnel and crane operators must select the proper rigging gear and ensure correct hook loading and rigging attachment for each lift. Improper hook use and incorrect attachment of rigging gear may result in a disaster.

22 February 2012

SAFETY

Navy Crane Center 12-S-01

SHARE YOUR SUCCESS

We are always in need of articles from the field. Please share your sea stories with our editor nfsh_ncc_crane_corner@navy.mil. 

WEIGHT HANDLING PROGRAM SAFETY VIDEOS

Accident Prevention, seven crane accident prevention lessons learned videos are available to assist activities in raising the level of safety awareness among their personnel involved in weight handling operations. The target audience for these videos is crane operations and rigging personnel and their supervisors. These videos provide a very useful mechanism for emphasizing the impact that the human element can have on safe weight handling operations.

Weight Handling Program for Commanding Officers provides an executive summary of the salient program requirements and critical command responsibilities associated with shore activity weight handling programs. The video covers NAVFAC P-307 requirements and activity responsibilities.

Mobile Crane Safety covers seven topics: laying a foundation for safety, teamwork, crane setup, understanding crane capacities, rigging considerations, safe operating procedures, and traveling and securing mobile cranes.

“Take Two” Briefing Video provides an overview on how to conduct effective pre-job briefings that ensures interactive involvement of the crane team in addressing responsibilities, procedures, precautions and operational risk management associated with a planned crane operation.

“Safe Rigging and Operation of Category 3 Cranes” provides an overview of safe operating principles and rigging practices associated with category 3 crane operations. New and experienced operators may view this video to augment their training, improve their techniques, and to refresh themselves on the practices and principles for safely lifting equipment and materials with category 3 cranes. Topics include: accident statistics, definitions and reporting procedures, pre-use inspections, load weight, center of gravity, selection and inspection of rigging gear, sling angle stress, chafing, D/d ratio, capacities and configurations, elements of safe operations, hand signals, and operational risk management (ORM). This video is also available in a stand alone, topic driven, DVD format upon request.

Note: ***“Load Testing Mobile Cranes at Naval Shore Activities”*** is currently being updated to address the new load test procedures in the December 2009 edition of NAVFAC P-307.

All of the videos can be viewed on the Navy Crane Center website:

<http://portal.navy.mil/ncc> 

HOW ARE WE DOING?

We want your feedback on the Crane Corner.
Is it Informative?
Is it readily accessible?
Which types of articles do you prefer seeing?
What can we do to better meet your expectations?

Please email your comments and suggestions to nfsh_ncc_crane_corner@navy.mil