

THE CRANE CORNER

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A WORD FROM TOPSIDE Sam Bevins

CRANE SAFETY AWARENESS FOR THE SUMMER MONTHS

The summer months of June, July, and August have historically had some of the highest numbers of crane accidents. As we begin these summer months this year, I ask everyone involved in weight handling to intensify their emphasis on crane operations safety, through safety-awareness briefings, pre-lift briefs, operations surveillance, etc. The principles of OPNAVINST 3500.39A, Operational Risk Management (ORM), should now be standard practice for each and every weight handling operation. Ninety-five percent of crane accidents are due to human error. Increased safety awareness by all personnel involved in weight handling operations and consistent application of ORM principles will help prevent accidents.

A special safety emphasis must be placed on mobile crane operations. Mobile cranes are indispensable in supporting the Navy's varied missions. Their mobility and versatility are the attributes that hallmark their great value. However, these same attributes make this type of crane much more hazardous to operate than any other type of crane in the Navy inventory. Mobile cranes make up less than ten percent of the total inventory, yet they are involved in over one third of all reported Navy crane accidents. Surprisingly, most mobile crane accidents occur with no load on the hook; e.g., while traveling, setting up the crane, assembling ancillary devices, two-block accidents while telescoping or lowering the boom, attaching hook tie-backs, and spooling the wire rope on the drum too quickly with an empty hook. During every mobile crane operation (including non-lift operations), it is extremely important for the crane team to remain alert and attentive.

Contractor crane accidents continue to be a serious problem. Thorough reviews of contractor critical lift plans and surveillance of contractor crane operations by knowledgeable personnel will help reverse this trend. NAVFAC P-307, paragraph 1.7, describes the responsibilities of the contracting officer and shore activity commanding officer regarding contractor cranes operating at naval shore activities.

During the summer, supervisors must ensure that their crews remain focused on the critical work at hand prior to leaving for vacation and provide reminders to re-focus on safety upon their return.

Inside This Issue A Word From Topside, Page 1 NAVFAC P-307 June 2003 Edition, Page 2 Have You Heard About, Page 3 CSA's & EDM's, Page 4 Color Designation of Wire Conductors, Page 4 2004 Weight Handling Equipment Conference, Page 5 Second Quarter FY03 Accident Report, Pages 5-7 P-307 Questions & Interpretations, Page 7 360-Degree Swing Locks, Page 8 When a New Crane Goes Bad, Page 9 Navy Crane Center Contract Toolbox, Page 10 Each weight handling accident diminishes support to the fleet. A safe and reliable Navy weight handling program is essential for fleet readiness. Commanding officers are strongly encouraged to intensity their efforts to raise the level of safety awareness in their weight handling operations and continue to strive for the goal of zero accidents.

NAVFAC P-307 JUNE 2003 EDITION

The NAVFAC P-307 has been revised as the June 2003 edition. Significant additions include:

- Boat lifts (mobile boat hoists), rubber tire gantry cranes, and ammunition handling cranes (which were previously covered by NAVFAC P-300) have been added.
- Additional requirements are included for barge-mounted mobile cranes, both Navy-owned and contractorowned.
- A new category of accidents, rigging gear accidents, has been added. These are accidents that occur when gear covered by section 14 is used by itself in a weight handling operation, i.e., without a category 1 through 4 crane.
- Requirements have been added for critical non-crane rigging operations, i.e., rigging tasks that involve a higher than normal level of risk.

Numerous cost-saving changes have been made including the following:

- Installing or removing outrigger extension pins or removable counterweights on mobile cranes do not require NCC-approved controlled procedures.
- Certain overloads associated with planned maintenance, e.g., burnishing brakes, checking overload device calibration, do not require NCC approval.
- Certain minor alterations to load bearing parts may be approved locally.
- Work leaders may perform certain complex lift responsibilities formerly prescribed for supervisors.
- Certifying official approval is not required for the use of mobile crane wedge sockets.
- Disassembly frequencies have been extended for category 2 and 3 crane hoist holding brakes when the hoist is also equipped with a mechanical load brake.
- The periodicity for inspecting travel brakes on mobile cranes has been extended.
- The boom length requirement for the hydraulic slippage test of telescoping boom cranes has been revised. The test shall be at the maximum length allowed by the wire rope as reeved.
- Email submission of requests for clarification and deviation, deficiency reports, accident reports, and crane alteration requests is encouraged.

All changes are identified in the change synopsis. Navy shore activities shall be in full compliance with the changes identified within one year.

NAVFAC P-307 is now available for download from NCC's web site, <u>http://ncc.navfac.navy.mil</u>/. NCC will not be issuing printed copies. For DOD/contractors, printed copies may be ordered from the Naval Logistics Library, <u>http://nll.navsup.navy.mil/</u>. For others, printed copies may be ordered from Naval Inventory Control Point, 700 Robbins Avenue, Philadelphia PA 19111-5098, (215) 697-2626. Stock number is 0525-LP-102-2574. DOD/contractors may also use the DAPS online ordering system, <u>http://www.daps.dla.mil/</u>.

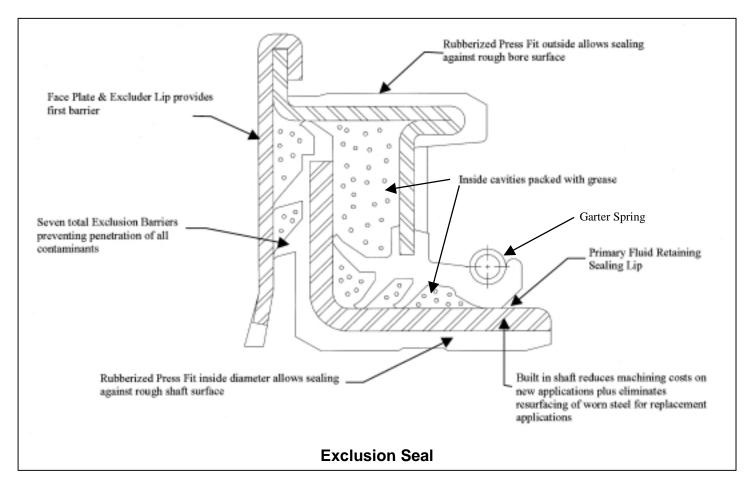
SAFETY VIDEOS

NCC distributed seven crane accident prevention lessons learned videos 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 the 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. In addition, NCC provided a mobile crane load test video to help activities ensure mobile cranes are properly and safely

HAVE YOU HEARD ABOUT?

Heavy-duty construction exclusion shaft seals are available to provide a high level of protection against outside contaminants. These shaft seals provide a very effective barrier between lubricated enclosures and outside contaminants. Primarily used as oil seals they can be used as grease seals as well. The seals can be installed against rough shaft and bore surfaces and do not require shaft or bore sealants.

The seals each consist of interlocking rubber and steel rings, a garter spring, and grease filled cavities. The rubber rings incorporate multiple seal lips, which act on internal seal surfaces, forming cavities that are filled with grease. These grease cavities greatly enhance sealing capability and extend seal life. The outer sealing lip, which acts as the primary means of retaining lubricating fluid, is spring loaded against a steel ring surface. The rubber rings are pressed onto the inner and outer steel rings providing sealing against rough shaft and bore surfaces.



The seal construction is available in many configurations, to suit particular installations. Each configuration is effectively customized for a particular application. The seals can be customized to compensate for factors such as excessive misalignment, high temperatures, high lubrication pressure, and marine environments. The steel rings and garter springs can be made of stainless steel for extreme marine environments. Different types of rubber can be used to accommodate high temperature applications. Seal lips can be coated with Teflon to reduce friction and wear at the rubbing surfaces.

These shaft seals may be used in crane applications where the contaminants in the outside environment pose a significant risk of contaminating the lubricated enclosures. They can also be used in existing installations where shaft and/or bore surfaces are not sufficiently smooth to accommodate conventional lip seals.

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.

CRANE SAFETY ADVISORIES

CSA-96A: Operation of Boom Hoist Pawls.

CSA-116: Support Bolts on Whiting Hoist Unit Gear Cases.

CSA-117: <u>Defective Nylon Sheaves Installed on Top and Bottom Boom Head on Terex Model RT160, RT175,</u> <u>RT1000, and T750 Cranes Manufactured Between May and December 2001</u>.

CSA-118: Cracked Frame Welds on Lorain Models LRT-225E and MCH-230E.

CSA-119: Longitudinal Indications Found on Coil Chain Links for Budgit and Tugit Hoists.

CSA-120: Potential Hazard in the Use of 1.50-Inch, 2.0-Inch, M36, M42, and M48 Crosby Swivel Hoist Rings.

CSA-121: Microprocessor Failure on Avtron Addvantage-32 Hoist Drives.

EQUIPMENT DEFICIENCY MEMORANDA

EDM-056: Poor Workmanship During Crane Installation.

EDM-057: Possible Defective Plastic Battery Bracket Assembly on Challenger MSI-3260 Crane Scales.

EDM 058: Possible Defective Diesel Engine Control Relay Base.

COLOR DESIGNATION OF WIRE CONDUCTORS

An activity discovered a non-compliance with the National Electric Code (NEC) and the National Electrical Manufacturing Association (NEMA) ICS 1 color-coding of two conductors used in a DC application. The two ungrounded conductors in question were color-coded green and were wired to a DC brake. NEC sections 310.12(C) and 250.119 together indicate that green conductors are reserved specifically for equipment grounding conductor purposes.

NEC section 310.12(C) states, "ungrounded conductors, whether used as a single conductor or in multiconductor cables, shall be finished to be clearly distinguishable from grounded and grounding conductors." NEC section 250.119 states, "Individually covered or insulated equipment grounding conductors shall have a continuous outer finish that is either green or green with one or more yellow stripes." Additionally, NEMA ICS 1-1993 section 7.6 requires that thermoplastic insulated DC control circuit wiring be blue.

Please be aware of the color-coding requirements in both the NEC and NEMA when working on cranes. Should you come across a situation where a green conductor is not used as a grounding conductor in accordance with Article 250 of the NEC, follow established procedure/protocol to correct non-compliances.

2004 NAVY WEIGHT HANDLING EQUIPMENT CONFERENCE

The Navy Crane Center (NCC) is planning to host a weight handling equipment (WHE) conference in spring 2004. The specific dates and location are yet to be determined. The length of the conference will be three days. The purpose of the conference is to share WHE improvement practices and safety initiatives as well as to discuss common issues with the goal of further improvements in WHE safety, maintenance management, engineering, rigging, operations and training.

All Navy shore activities and shore based operational units with WHE are invited to attend and participate. The basic format of the conference will be presentations and selected working group meetings. Action items from the working group meetings will be assigned for subsequent review and resolution.

For planning purposes, request interested activities respond with approximate number of attendees. Also indicate if interested in making presentation on initiatives or issues of particular interest. Proposed agenda items (may include background, discussion, and proposals for improvement) are also welcome.

SECOND QUARTER FY03 ACCIDENT REPORT

The Navy Crane Center (NCC) disseminates crane accident lessons learned to prevent repeat accidents and improve overall crane safety. NAVFAC P-307 requires commands to submit to the Navy Crane Center (NCC) a final, complete accident report (including corrective/preventive actions) within 30 days of an accident involving Navy-owned weight handling equipment, regardless of severity or type. In addition, contracting officers are required to forward to NCC and the host activity reports of all contractor accidents regardless of severity. For the second quarter of FY03, 53 Navy and 2 contractor weight handling equipment accidents were reported. Serious accidents this quarter included one injury, one dropped loads, eight overloads, and two two-blockings.

DROPPED LOAD AND INJURY

- Accident: A category 3 crane operator installed three-swivel hoist rings into a 500-pound plate. The plate was lifted several times. The crane operator and a mechanic then secured the job and went to lunch. A rigger not associated with this job removed two of the hoist rings from the plate to perform another lift. When he reinstalled the hoist rings into the plate, he could not remember the exact configuration so he partially installed them back into the plate. Upon returning from lunch, the crane operator and mechanic lifted the plate without re-verifying the proper installation of the hoist rings. One of the hoist rings became detached and the plate tilted and struck the mechanic's steel-toed safety shoe, fracturing his toe. The injury was not immediately reported. The injured employee, being newly hired, had not completed indoctrination training.
- Lessons Learned: Personnel should never remove equipment from rigged loads for any lifting operation without first obtaining permission from the person in charge. Any time a rigged load is secured and left unattended, the rigging set-up should be inspected for proper installation before resuming the lift operation. All crane accidents shall immediately be reported. New employees shall not perform work duties without first receiving proper indoctrination training.

OVERLOADS

- Accident: A 2000-pound capacity bridge crane was overloaded when the rigger in charge assumed that the weight of a plating tank was approximately 2,000 pounds, when in fact the tank weighed 2,600 pounds. The rigger in charge did not consider the lift a complex lift as required by NAVFAC P-307. This same crane was overloaded a second time when another rigger lifted the tank knowing it was in excess of the crane's capacity.
- Lessons Learned: When the assumed weight of a load is near the capacity of the crane, the rigger in charge must verify the weight before making the lift. In addition, when the weight of the load is more than

80 percent of the crane's capacity, complex lift requirements must be followed. Except for load tests, a crane must never be loaded in excess of its certified capacity without Navy Crane Center approval.

- Accident: An electroplating dipping basket with a working load limit of 600 pounds was overloaded when a category 3 crane operator hoisted 6 valve assemblies with a total combined weight of 1,248 pounds. The crane operator did not know the weight of the load or the working load limit of the dipping basket. When it was suspected that the basket was overloaded, the crane operator continued with the lift instead of stopping. A contributing factor was that the baskets in that building were not marked correctly or consistently.
- Lessons Learned: Containers must be clearly marked with their empty weights and full allowable capacity weights. Category 3 crane operators must be aware of component weights being placed in containers and ensure the container is not overloaded.
- Accident: During an annual load test, a mobile crane with a rated capacity of 60,000 pounds was overloaded when the crane was boomed down beyond the allowable radius for the 60,000 pound rating. The engineered load test procedure was in error.
- Lessons Learned: Mobile crane load test procedures must be reviewed for complete compliance with the crane's load chart.
- Accident: Two 6,000-pound capacity bridge cranes were overloaded on separate occasions when the activity attempted to verify the setting of the hoist overload devices. The overload devices were set at 9,000 pounds as recommended by the hoist manufacturer.
- Lessons Learned: Test loads must never exceed those prescribed in NAVFAC P-307. If overload devices have adjustable settings, they should be set as closely to the rated load as is feasible, giving consideration to nuisance tripping from dynamic effects.
- Accident: During a three-point lift of a cylinder, the eyebolts were overloaded because the rigger and his supervisor did not down rate the eyebolt capacity based on the lift angle. The slings were confirmed to be adequate for the lift angle, but the reduced capacity of the eyebolts was not considered.
- **Lessons Learned:** When eyebolts are used in multiple leg configurations, consideration must be given to both the increased force in the legs and the reduction in capacity of the eyebolts due to the angle of loading. In this case, the 23-degree lift angle (from vertical) reduced the rated capacity of the eyebolts by 65 percent. See NAVFAC P-307, table 14-7.
- Accident: A container crane was overloaded while performing a verification test for the main hoist load cell set point. The crane operator was instructed to slowly put stress on the load cell until the load cell reached its trip point condition. As expected, a fault condition occurred, resulting in the tripping of the drive. When the operator reset the drive, the hydraulic cylinders automatically retracted lifting the 141,000-pound test weight and overloading the crane. The maintenance procedure required that 100 percent of the crane's capacity (104,000 pounds) be used for the test weight.
- Lessons Learned: The crane team must ensure test procedures are strictly followed particularly when loads approach the crane's capacity. In addition, operators and test directors must be aware of the operating characteristics of the crane.

TWO-BLOCKINGS

- Accident: As a jib crane was being re-positioned, the hoist control chains became entangled on an overhead fixture. This caused the inadvertent operation of the hoist resulting in a two-blocking condition. The crane was being operated by an employee not qualified to operate the crane.
- **Lessons Learned:** Shop supervisors must ensure that only qualified operators operate category 3 cranes. The travel path should be inspected to verify that it is clear of obstructions before and during operation of the crane.

CONTRACTOR CRANE ACCIDENTS

- Accident: A truck crane with its boom elevated was traveling from one pier to another in preparation to make a lift. As the crane operator turned the corner, the crane's upper structure rotated causing the crane to tip onto its left side. The accident investigation revealed that the swing locking pin was not engaged.
- **Lessons Learned:** When mobile cranes are traveling, the manufacturer's recommended procedures must be followed. This includes setting of the swing locking pin.
- Accident: While a truck crane was lifting a pallet box loaded with a power washer (weight 800 pounds), the pallet box opened and the power washer fell 25 feet to the pier deck. The pallet box door was not adequately secured. The person who loaded the pallet box was not a qualified rigger.
- Lessons Learned: Only qualified riggers shall be used to rig loads being lifted. Prior to hoisting a load, the rigger must verify the load is secure.

Weight handling program managers and safety officials are encouraged to consider the potential risk of accidents occurring at your activity similar to those highlighted above and apply the lessons learned to prevent similar accidents. OPNAVINST 3500.39, Operational Risk Management, prescribes methods for assessing hazards and controlling and minimizing risks in hazardous operations. Navy activities should incorporate these principles into both training and day-to-day weight handling operations.

E-mail submission of reports of accidents, unplanned occurrences, and near misses is encouraged. Our e-mail address is accident@ncc.navfac.navy.mil. Reports must include a complete and concise situation description, corrective and preventive actions, probable cause and contributing factors, and an assessment of damage. For equipment malfunction or failure, include a specific description of the component and the resulting effect or problem caused by malfunction or failure.

P-307 QUESTIONS & INTERPRETATIONS

The questions and interpretations listed below are based on crane program issues that arose and Requests for Clarification, Deviation, or Revision, P-307, figure 1-1. They are also listed on our web page, <u>http://ncc.navfac.navy.mil/</u>. Click on P-307 and then on P-307 Questions and Interpretations. The issues are arranged by the applicable section or appendix to the P-307.

Question: <u>Multi-Component Commercially Manufactured Sling Assemblies</u>. An activity received a commercially manufactured sling assembly from the Liftex Corporation. None of the components (eye hook and master link) are removable without destruction of the sling assembly. The manufacturer marked the sling as an assembly with the rated capacity and original equipment manufacturer (OEM) identification as required by NAVFAC P-307, paragraph 14.3. The individual components (eyehook and master ring) are not marked as required by NAVFAC P-307, paragraph 14.7. Clarify if individual components of a commercially manufactured, inseparable sling assembly are required to be marked with component OEM and rated capacity if the assembly itself has been marked as required by NAVFAC P-307, 14.3 requirements by the manufacturer.

Answer: Individual hardware components of all sling assemblies used for lifting with Navy-owned cranes are required to be marked with the OEM identification. The purpose for requiring manufacturer identification on rigging hardware is to ensure substandard equipment is not placed into service for lifting. Without some means to ascertain the manufacturer of the hardware, the material properties and suitability for WHE use cannot be known. When placing purchase orders for slings from vendors who assemble the sling using hardware from other manufacturers, activities should specify that only manufacturer-identified hardware be used. Equipment lacking the OEM identifying mark shall not be used in weight handling operations as stated in NAVFAC P-307, paragraph 14.7.1.1.

360-DEGREE SWING LOCKS

One of the great versatilities of mobile cranes is their ability to quickly set-up, pick, and swing a load, and in some cases pick and carry with a load. Controlled starting, stopping, and holding of the rotating superstructure during mobile craning operations are imperative for completing the job safely. Industry standards require that a braking means to restrict movement of the rotating superstructure, with sufficient holding power in both directions, shall be provided. A device to prevent the superstructure from rotating when in transit is also required. Mobile crane manufacturers provide swing brakes and swing locks to meet these industry standards.

The swing brake is normally a disc type brake mounted on the swing speed reducer and can be set with the superstructure in any position about its 360 degrees of rotation. The swing brake allows the operator to control the rotation of the superstructure during normal operations. The swing brake is normally controlled by an "on and off" switch on the console, that sets or releases the swing brake, and by a swing brake pedal located on the floor of the cab that actuates the brake to slow or stop motion.

The swing lock is normally provided as a pin-type lock that engages the superstructure and turntable to prevent rotation of the superstructure. Pin-type swing locks are normally provided at two positions that secure the superstructure over the front or rear of the carrier only. The pin-type swing lock is engaged to secure the crane while parked or in transit. Another type of swing lock, which is normally provided as optional equipment, is the 360-degree mechanical swing lock, sometimes referred to as the NYC type 360-degree swing lock. This type of positive swing lock is approved for use in New York, NY; hence mobile crane manufacturers have loosely adopted the term NYC 360-degree type swing lock. This swing lock allows the operator to lock the superstructure in any position about its 360-degrees of rotation during normal operations or while parked when the pin-type lock cannot be engaged.

Manufacturers can provide several methods for positively locking the superstructure at any point of rotation. The most common method of accomplishing positive swing lock is through the meshing of the swing lock's teeth with those of the turntable ring gear.

Recently, an activity reported a failure of the 360-degree swing lock on a Grove mobile crane. In preparation for traveling the crane, the operator was attempting to engage the 360-degree swing lock along with the pin type swing lock. When the pin type swing lock was engaged, the 360-degree swing lock's teeth did not align with the turntable ring gear and subsequently caused damage to the swing lock teeth.

Common practice for preparing the crane for transit is to set the swing brake and the swing lock - either the pintype swing lock or 360-degree swing lock – but never both pin-type and 360-degree type swing locks. Trying to engage both can damage the swing lock teeth and/or turntable ring gear or bind the superstructure rotate preventing either swing locks from being disengaged.

Another activity recently reported a crane accident with damage to a hydraulic filter head on a Grove mobile crane while rotating the superstructure with the pin-type swing lock down. The probable cause was attributed to inadvertent engagement of the swing lock during normal operations. After transit and prior to resuming normal operations, always ensure that the swing lock is fully disengaged by observing the proper position of the swing lock control handle in the cab. Swing locks not fully disengaged may contact equipment/components on the turntable causing damage to the pin and/or equipment.

As always, consult with the OEM operator's manual for the proper use of swing brakes and swing locks applicable to your crane.

WHEN A NEW CRANE GOES BAD.

SOME HELPFUL IDEAS WHEN YOU PURCHASE NEW CRANES

NCC has received numerous reports from activities that purchase cranes without NCC involvement only to encounter a host of problems during the annual certification. Some of the problems include contaminated oil, improper wiring, brakes that didn't hold the load due to improper settings, and incomplete crane designs that did not take into account such factors as outdoor cranes (no weather sealing or NEMA 4 enclosures). If a new crane is going to be procured by an activity, before the contract goes out for bid, it is very important that a person knowledgeable about cranes assists in either writing or reviewing the specification, and carefully inspects and tests the crane before it is accepted.

When writing a specification, keep in mind the type of duty and environmental conditions in which the crane will be exposed. Be sure to include applicable specifications that the crane must comply with, including OSHA, NEC, CMAA 70 or CMAA 74, and AISC. DOD MIL-HDBK-1038 has numerous design requirements for cranes, but it cannot be used as a reference document for procurement. Be sure to include receipt of documentation that will be required by NAVFAC P-307 for certification, such as wire rope breaking strength certifications, hook tram measurements, hook and nut NDT reports, rotate bearing clearance measurements (if required by the OEM), and coupling alignments (if required by the crane design). File the purchase contract and acceptance test in the crane history jacket for the life of the crane. Proofread all specifications before they go out for bids. Give it to a coworker or supervisor to proofread as well. Specification errors are never easy or cheap to correct after the crane is accepted.

When the contractor is installing the crane, a person knowledgeable about cranes should oversee the installation without instructing the contractor on how to do his job. If you instruct them to do something not specified in the contract, they may do it but enter a claim against the Government. If you instruct them to do something and it turns out wrong, you could be held liable. Be suggestive rather than directive and cooperative rather than argumentative. Keep a copy of the specification with you for reference.

One of the most important items to include in the contract is a thorough acceptance test. By letting the contractor know you are going to test the crane before accepting it, you will help to ensure quality workmanship by working out any bugs while the contractor is still on site and before final payment. As a minimum, inspect and test every aspect of a new crane to the NAVFAC P-307 criteria before accepting it from the contractor. NCC acceptance testing criteria are included in crane procurement contracts in an appendix and specify pre and post-shipment testing procedures. These can be forwarded if requested. During the first year (the usual warranty period), use the crane as much as possible, even if you just cycle it for a few hours a day or week. This may help to identify any warranty items before the warranty has expired. NCC is available to do a specification review or a "certifiability" inspection if requested.

NCC has some sample specifications if you need a guide but remember to use them only as a guide, the specification needs to be specific to the crane design required. Splicing together two or three specifications is not recommended. Although purchasing general purpose service cranes under a 10-ton capacity through NCC is not required, we have established a contract for procuring jib, bridge and monorail cranes from an established "pool" of reputable crane contractors which will help ensure a faster delivery time and a quality product. NCC is available if you have any questions or need assistance on any crane procurements.

NAVY CRANE CENTER CONTRACT TOOLBOX

Through a diverse and expanding number of flexible contract vehicles, the Navy Crane Center continues to better serve its clients by providing expedient and cost effective services, thus providing high quality cranes that meet or exceed the requirements of NAVFAC P-307.

NCC has multiple award contracts (MAC's) for the design, fabrication, testing, and delivery of overhead electric traveling cranes (OET's), jib cranes, and monorails. The MAC vehicles are comprised of several indefinite delivery/indefinite quantity (ID/IQ) contracts. One MAC provides primarily for lower capacity bridge cranes (under 30-ton), as well as jib cranes and monorails. Another covers OET's up to 100-ton capacity or greater. The initial contract awards were made based on best value to the Government, price, and other factors. Crane requirements are competed among a cadre of quality manufacturers, with clients having procurement options for individual requirements of either best value competition for more complex procurements, or lowest price.

Each of the OET MAC's covers a three-year ordering period, with an option to extend the ordering period for an additional two years. Each MAC vehicle has a maximum value of \$15,000,000. NCC has been successfully delivering cranes to clients through use of these MAC's for approximately three years. In so doing, NCC developed an excellent and mutually beneficial professional relationship with its contractors. These manufacturers have become extremely familiar with a wide variety of Navy crane specifications and requirements for effective and safe management of weight handling equipment, further facilitating the process. The amount of time to award contract delivery orders is significantly reduced by using the MAC's. Clients continue to receive the benefits of competition from both a cost and quality standpoint.

Based on the success of these MAC's and increasing client demand for NCC assistance in the overhaul of older OET's, NCC is currently in the planning stages of developing an overhaul/major repair (reconstitution) crane MAC. It is anticipated that this MAC will be awarded in fiscal year 2004, providing more flexibility and options for our clients.

NCC continues to take pride in the success of other contracts in its toolbox, including the requirements contract for portal cranes. This contract provides for the design, fabrication, testing, and delivery of portal cranes for various locations. The contract is currently in its fifth year of the initial five year ordering period, and includes options for three additional one-year ordering periods. Because quality designs for the portal cranes have already been completed as part of the basic award of this contract, pricing for the crane fabrication and delivery for each of the ordering periods has already been established under the contract and clients need only request order placement under this vehicle. Clients are able to effectively plan requirements for portal cranes because cost data is readily available for a wide variety of naval shipyard and activity locations.

In addition to the existing contract vehicles that comprise its toolbox, NCC is making strides in utilizing other acquisition programs to meet the needs of its clients. For example, best value source selection procedures are used as standard practice in negotiated procurements for stand-alone contract awards to ensure selection of high quality firms with proven past performance and technical expertise. In addition, NCC is moving toward commercial item acquisitions, resulting in simplified and expedient contracting procedures and delivery of commercial products that can, in many cases, satisfy the client's mission. NCC also structures its acquisition strategies to suit unique client needs and project requirements.

SHARE YOUR SUCCESS

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

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