



Safety Alert 08

Pistol Grip Crane Hooks

What happened?

During crane operations, two recent reportable dropped object incidents and another low potential non-reportable incident have highlighted a potential problem with the use of pistol grip hook release handles fitted to the hook of the stinger. Fortunately, none of these incidents caused injury, but they were identified as having the potential to cause very serious or fatal injury.

In the first reportable incident, the hook had previously struck a handrail and in the second reportable incident, the hook had previously struck the main block.

In each of these reportable incidents, the pistol grip attached to the crane hook had been subject to impact damage. Subsequently the pistol grip or one of its components became detached and fell from the crane hook during lifting.

In the non-reportable incident that NOPSA have been made aware of, a member of the crew noticed that the fixings for the pistol grip had slackened off. Components of the pistol grip became detached and fell to the deck whilst it was being handled.

What went wrong?

Pistol grip hook release handles fitted to the hook of the stinger are susceptible to damage from impact and snagging. They are fitted as an add-on, not integrated into the construction of the hook. When damaged, the pistol grip can become detached from the hook or components of the pistol grip can be released.

Some designs of pistol grip use bolts and nuts to assemble the unit and attach it to the hook. In these cases, the fixings can work loose during use, particularly if the pistol grip is subject to repeated impacts and the fixings are not locked into place.

Key lessons

During crane operations, if it is considered necessary for safe operations to use a pistol grip hook release handle fitted as an add-on to the hook of the stinger as described above, then all persons involved with the handling and use of this equipment, including non-installation personnel such as supply boat crews, must:-

- be made fully aware of the limitations of this equipment.
- include the potential for dropped objects from this equipment into the Job Safety Analysis (JSA).
- be trained to inspect the equipment and identify problems with or damage to the equipment before, after and at all times during its use.
- keep themselves and others clear of the area beneath the potential path of this equipment whilst it is in use.
- immediately remove damaged equipment from service and have it quarantined

Additionally:-

When the stinger assembly is thoroughly examined and tested for its certificate of load test and examination, the stinger assembly should include all components, including the pistol grip hook release handle fitted to the hook. Damage to any component of the assembly should require that the whole assembly is removed from service and quarantined until it can be repaired and recertified.

Persons involved with the procurement of this type of equipment should try to purchase stinger assemblies that incorporate a hook where the pistol grip and trigger are integrated into the construction of the hook and not fitted as an add-on feature.

Contact

For further information email alerts@nopsa.gov.au and quote Alert 08