



# Safety Alert

## Road Bridge Crane Strike

20<sup>th</sup> March 2018

The following pages of this safety alert were issued by Highways England's supply chain partner:

**Vibro Menard**

**working on**

**M49 Avonmouth Junction RIP SW**

## HI-POTENTIAL NEAR MISS CRANE STRIKING ROAD BRIDGE



### Background

At 16:07 on the 18<sup>th</sup> February 2019 a mobile crane struck a bridge while exiting the site along the hard shoulder of the M49 Motorway.

The crane involved in the incident was a Liebherr LTM 1060-3.1 owned by Ainscough crane hire (ACH). On the date of the incident the crane had been on hire to Vibro Menard to dismantle a zone test. All lifting operations were undertaken as per the lift plan without any issues and the zone test was dismantled under the supervision of Vibro Menard's Crane Supervisor / slinger signaler (CSSS).

### Incident details

Following completion of the lifting operation, a further ACH vehicle arrived to load the navy mats. The VM CSSS assisted the crane operator to part de-rig the crane and bundle the navy mats ready for loading onto the ACH pick up. This left the crane operator to fully retract the out-riggers and lower the jib.

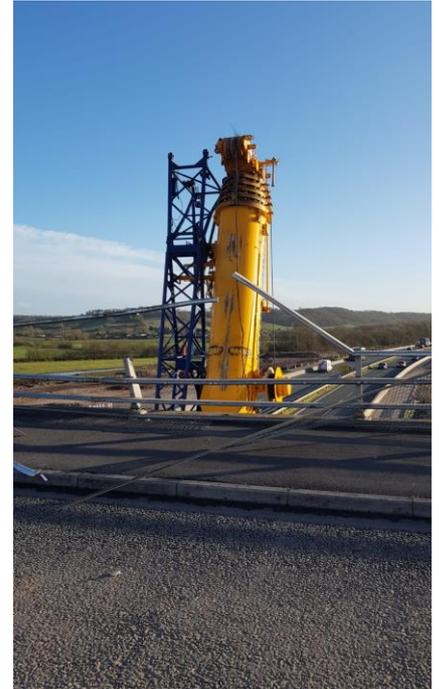
Once instructed by the crane operator he was no longer required, the CSSS left the immediate area at 15:50 to conduct other works. Immediately before the time of impact the crane was witnessed travelling along the hard shoulder of the M49 with the jib still erect. The CSSS along with other site staff tried to warn the crane operator the mast was still erect but unfortunately the driver did not respond resulting in the jib striking the bridge deck.



## Findings

Following the investigation into this near miss / incident the findings are as follows:

- If the crane operator had not inserted the slew lock it is highly likely the crane would have overturned with the mast landing on the M49 motorway potentially leading to fatal or very serious injuries to other road users or site workers.
- The crane operator had received all the necessary inductions including a briefing on the NDT RAMS and lift plan.
- The crane operator had the required competencies, experience and qualifications to operate the crane.
- Following the initial investigation, it was found that the crane did not have any warning systems fitted to the crane to indicate that the jib was still elevated while being operated from the road driving cab. This was in line with the manufacturer's instructions.
- It was reported by ACH, the crane operator was not deemed to be suffering from fatigue and tested negative for alcohol.



---

## Recommendations

Following this high potential near miss / incident, the following actions have been undertaken:

- All crane supervisors must always remain with the crane whilst it is rigging/derigging or lifting.
- The above will also apply to all haulage companies delivering/removing plant from our work sites.
- All VM supervisors are to check with the operator/driver of subcontract plant equipment or haulage before it leaves their worksites, that they have conducted a visual inspection to ensure they have stowed and secured their equipment correctly before it leaves.
- Debrief of all supervisors on the start of shift briefings with regards to capturing roles and responsibilities and supervision of subcontractors.
- Other recommendations have been made to crane supplier regarding the fitting of additional alarms and post de-rigging inspections before they leave site.



# Safety Alert

## Lifting Chains failure

8<sup>th</sup> April 2019

The following pages of this safety alert were issued by Highways England's supply chain partner:

**Severfield**



<input type="checkbox"/>	Fatality	<input type="checkbox"/>	Major injury Over 7 Days
<input type="checkbox"/>	Public Interface Incident	<input type="checkbox"/>	Dropped Items (Above 2 floors)
<input checked="" type="checkbox"/>	Major High Potential Incident	<input type="checkbox"/>	Significant Fire
<input type="checkbox"/>	Significant Plant Incident	<input type="checkbox"/>	Significant Environmental Incident
<input type="checkbox"/>	Other	<input type="checkbox"/>	

Date	March 2019	Topic	Failure of lifting chain
------	------------	-------	--------------------------

## Safety Alert Details

During a routine lifting operation on site a 13mm Grade 8 chain with a SWL of 5.3 tonne failed at a weld on one of the links, with a load of less than 2.5te (Photo A).

The chain was quarantined and sent for examination by a metallurgist and all 13mm chains by the same manufacturer (Force) were traced through orders (6 months either side of the supply of the failed chain) and quarantined (Photo B, Similar chains on site).

There was no deformation either side (i.e. no warning) of the link that snapped as can be seen in Photo A, of the actual chain that failed.

We have now received the metallurgist examination and following further tests on the chains it appears that other links are failing too, before reaching the appropriate factor of safety required.

Photo C shows a slight inclusion in the weld on the additional part of chain that was tested, which is like the failure identified at the original site incident.

Nobody was injured and no damage to materials or property were suffered, only because the member had enough bolts in place to hold it when the chain snapped.



Photo A

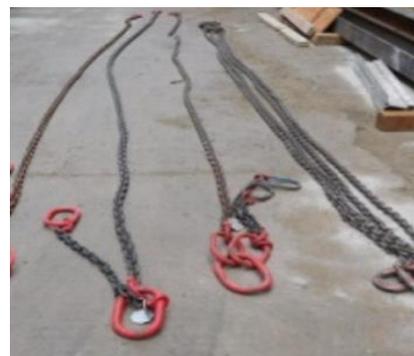


Photo B

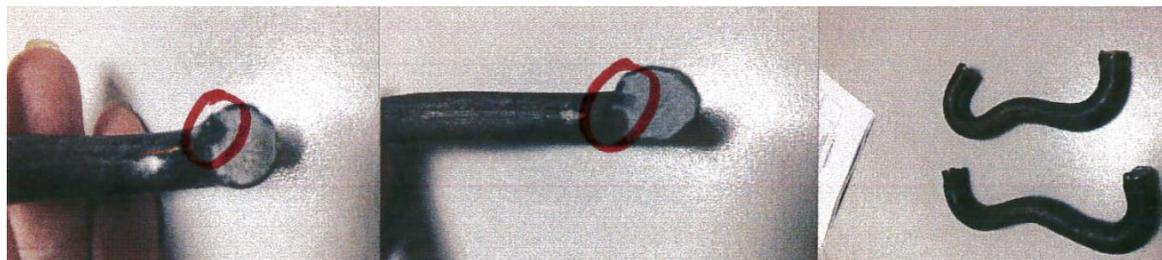


Photo C



# SAFETY ALERT

FOR INTERNAL USE ONLY

## Actions Required –

With immediate effect, all chains manufactured by “Force” must be quarantined until further notice. **This applies to all Severfield construction sites and factories.**

Force chains are stamped on every tenth link on the chain (If there is an ID tag this does not display as these get damaged over time) as below Photo D.

If you require replacement chains at construction sites, contact your construction administrator and through usual procurement at factories.



Photo D

## DO THE SAFE THING



## TIPPER ROLLOVER

### DETAILS OF THE INCIDENT:

A contract tipper driver was delivering to an external customer site with an articulated vehicle. The driver proceeded onto site to the tipping area and his reverse manoeuvre was assisted by the site banksman. After discharging between 6/7 ton, the vehicle overturned onto the near side. Fortunately, the driver did not have any injuries and no other vehicles or people were within the exclusion zone at the time of incident.

### KEY FINDINGS:

- CCTV on the weighbridge established that the vehicle had been loaded evenly.
- The driver was wearing his seatbelt.
- The vehicle cab was free from any loose objects, which could have hit the driver during the rollover.
- The driver had not been inducted at the customer site before proceeding onto site to tip the material.
- The driver was reversed back off a concrete slab onto soft uneven ground by the site Banksman.
- The driver didn't check the ground conditions before commencing to tip.
- The vehicle cab was not in line with the trailer and the trailer was still sheeted.
- The vehicle was not fitted with an audible inclinometer.



### HOW COULD THIS HAVE BEEN AVOIDED?

- The driver should have checked the ground conditions before tipping the material.
- The hazard of an uneven or soft tipping area should have been highlighted by Banksman or during a site induction.
- The Artic unit should of been in line with the trailer vehicle and unsheeted before tipping material.
- The fitment of an audible inclinometer could have warned the driver it wasn't safe to tip



**Seatbelts Save Lives**  
Wear your seatbelt and make sure any passengers do as well.



**Site Safety**  
Check for hazards when on site, be highly visible and assess the risks before unloading.

**BIRDS (ENGLAND ONLY)**

In England, Wales and Scotland, all birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981. It is an offence, with certain exceptions, to intentionally:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built
- Take or destroy the egg of any wild bird
- Or recklessly disturb any wild bird listed while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.



However, there are a number of bird ‘pest’ species (e.g., crow, collared dove, lesser black-backed gull, jackdaw, jay, magpie, feral pigeon, rook, woodpigeon, canadian goose, monk parakeet and ring-necked parakeet) that can adversely impact public health or air safety and / or contribute to the spreading of disease.

Consequently, UK regulators permitted the issuance of General Licences to allow authorised persons (e.g., owner or occupier) to kill or take these ‘pest’ species using certain specified methods (e.g., shooting or cage trapping) or the removal or destruction of these species’ eggs (e.g., using egg oiling) or nests.

**WHAT HAS CHANGED?**

From **April 25<sup>th</sup> 2019**, it will be illegal to kill any of the bird pest species in England without applying to Natural England for an individual licence due to legal action taken by a conservation organisation called Wild Justice.

Natural England are working to implement alternative arrangements to allow for the lawful control of these bird species. In the meantime, anyone needing to control one of these bird pest species in England, where there is no reasonable non-lethal alternative, should apply to Natural England for an individual licence.

**NEXT STEPS**

If a nest is discovered on your site you must stop all work in the immediate vicinity of the nest and inform the site management. The nest must not be moved for any reason. Site management must contact their HS&S Advisor who will provide advice on next steps. Work must not restart until a competent ecologist has advised on the necessary mitigation actions to be taken, which may include applying for an individual licence in England if the nest is associated with a bird pest species.

**Paul Thomas**  
**C&I Environmental Manager**

**Communication Required:** *(double click on box to tick action to be taken)*

Toolbox Talk € Notice Board € Supply Chain € Review of Site Activities € Information only ✓

**Actions Completed by:** ..... **Date** .....