highways england

INFORMATION

# Safety Alert

## Lifting Chains failure

8th April 2019

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

## Severfield

SAFETY ALERT

FOR INTERNAL USE ONLY

Severfield

| | | | |
|---|---|---|---|
| | Fatality | | Major injury Over 7 Days |
| | Public Interface Incident | | Dropped Items (Above 2 floors) |
| X | Major High Potential Incident | | Significant Fire |
| | Significant Plant Incident | | Significant Environmental Incident |
| | Other | | |

| 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

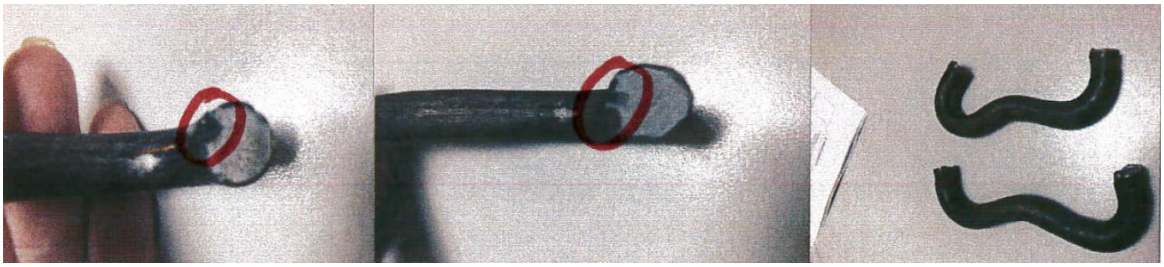

Photo C

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## 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