



# **SERIOUS INCIDENT ALERT**

INCIDENT	Near Miss - Yanmar 5.5t Excavator - Projectile Dipper Arm Activator Pin
SUBJECT	Dipper Activator Pin flew off under pressure
INCIDENT DATE	23 <sup>rd</sup> April 2018
<b>BUSINESS UNIT</b>	Higgins Contractors - Wairarapa

### 1. WHAT HAPPENED?

2002 Yanmar V1050-2 Mini Excavator 5 1/2 tonne, trenching to expose sewer pipe, 2 spotters standing to the front of the working zone.

The dipper arm hydraulic cylinder pin assembly was not secured, the spacer had not been fitted to the flange of the pin assembly when the locking bolt and washer was fitted. This caused the locking bolt to come loose and fall out, followed by the pin assembly working its way out of the right hand side of the dipper arm.

At this stage it was only secured by the left hand side of the dipper arm hydraulic cylinder mount, once the dipper arm was operated it caused the left hand side mount to bend and snap off, firing the pin assembly and mount approx. 10-15m away from the excavator.



#### 2. WHAT DID YOU DO ABOUT IT?

- Immediate notification through to Contract Manager from onsite Foreman.
- Excavator was tagged out and transported back to the workshop depot for Inspection.
- All excavator re-inspected to ensure similar issue not present.
- ICAM investigation commenced.

## 3. WHAT DO YOU NEED TO DO TO PREVENT IT NEXT TIME?

- Re-inspect all Excavator, check and confirm;
  - That all securing bolts and washer configuration are as Per manufacturer's instructions and not any another configuration.
  - Ensure Daily pre-starts are undertaken and include inspection of these securing bolts and reporting of any crack/damage/deterioration in the housing.



Fig 1.1

# FOR MORE INFORMATION, PLEASE CONTACT

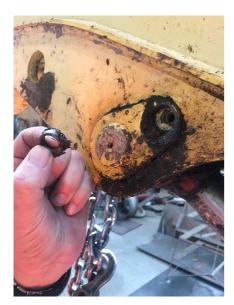
Name: Nathan Montgomerie, Phone: 027 442 0014, Email: N.Montgomerie@higgins.co.nz

Name: Tony Smith, Phone: 027 274 6428 Email: t.smith@higgins.co.nz



Securing bolt as per manufacturers specifications.

Fig 1.2



Internal washer that must be present to ensure there is no slippage of bolt.

Fig 1.3

