

Vacuum Excavator Powerarm Failure

Conforming to Manufacturers Maintenance Requirements.

On one of our Smart Motorways Schemes, during a night shift, a suction excavator was used to carry out trial holes on site.

After approx. 1hr 30mins work, 6 of the 8 bolts which connect the arm of the vacuum excavator to the main unit failed, causing the arm to come loose.

The subsequent investigation found that the bolts in question had been in place since the manufacture of the unit in 2008. The manufacturer's service schedule stated that re-tightening of the bolts and screws throughout the 'Powerarm' should be carried out on a monthly basis. This service schedule had not been provided to the suction excavator hire company for the unit. The suction excavation hire company carried out visual daily inspection checks of the equipment. Analysis indicated that the failure of the set screw was due to corrosion fatigue as a result of applied cyclic stress, due to the bolts not being tightened correctly.



Action Required

Ensure that suction excavator hire companies have the correct manufacturer service schedule for their equipment and are competent to undertake it.

Hire Companies providing a suction excavator, must supply the following for each excavator:

- Evidence of driver competence to use equipment;
- Evidence of second-operator competence to use equipment;
- Copies of driving licences;
- Evidence of daily inspections and PUWER inspections carried out;
- Evidence that they have undertaken and comply with the required maintenance regime for the equipment as per manufacturers requirements for that specific model.

For further information please contact the National Health and Safety team
Via NH&ST@highwaysengland.co.uk