

## HYDRAULIC PRESSURE RELIEF VALVE FAILURE



---

### INTRODUCTION

An incident has recently occurred on one of our projects that had the potential for a significant injury to one of our staff from a Hydraulic Injection Injury.

---

### EVENTS LEADING UP TO THE INCIDENT / IMMEDIATE ACTIONS

The Enteco No 2 (>7 months old) was working on a project in Blackburn, Lancashire and was installing 7m CMC columns. During operation a hydraulic burst occurred between the front of the cab and the rear of the mast causing pressurised, hot hydraulic oil to spray over the cab, and the engine of the machine.

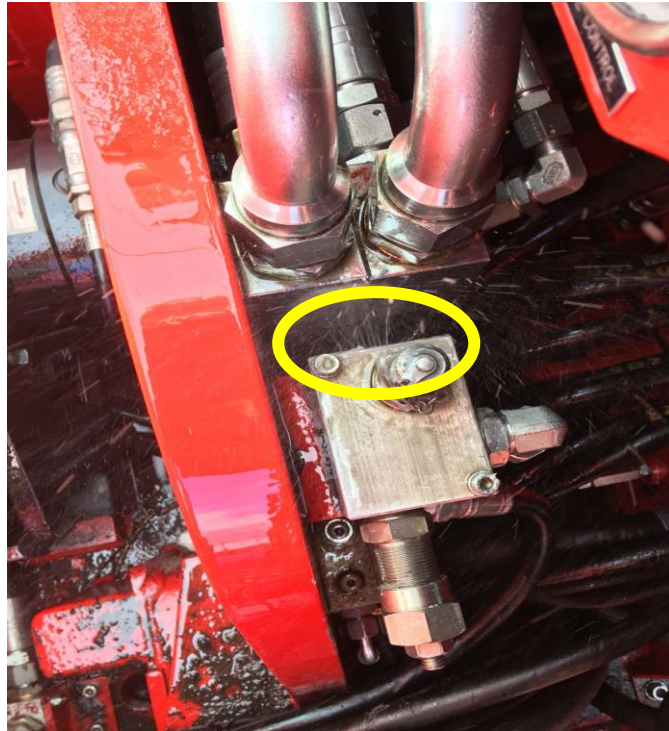
The rig operator placed the machine into a safe condition and turned off the machine immediately.

---

### INITIAL FINDINGS

During initial investigation it was observed one of the aluminium hydraulic pressure relief valves next to the auxiliary winch had suffered a hairline crack to the top of the valve. The damage sustained to the machine would not have been observed during a pre start check due to its location on the machine (SEE YELLOW CIRCLE BELOW).

It was also observed that the exclusion zone requirements for working with this machine were being utilised at the time of the incident and no staff were at immediate risk of injury.



---

## ACTIONS FOLLOWING THE INCIDENT

Following this incident, the following actions have been completed:

- This alert will be sent to Menard H&S department for circulation across the company.
- This alert will be circulated across all UK business units.
- This incident has been reported to the manufacturer Enteco to see if this requires further investigation or alerts to be sent out to other owners/operators of this type of equipment.

---

## RECCOMENDATIONS

Following this incident, the following recommendation must be adopted:

- During pre-start checks additional focus is to be made on any residue coming from any valves of this type (with engine off).
- If residue is found the machine is to remain isolated and the fault reported immediately the plant department.
- Maintain safe exclusion zones at all times. If the rig banksman had been standing close to the machine there is a high potential they could have been struck by hot pressurised hydraulic oil. This can be fatal or could have resulted in burn type injuries.
- Always ensure staff are wearing protective eyewear to prevent splashes / contact with pressurised fluids when working near to hydraulic pipes / hoses etc.