

Lift and Escalator Industry Association 33-34 Devonshire Street, London WIG 6PY England. For the Attention of Nick Mellor, Technical Director.

## Re : Product safety notice - Orion Alpha Hydraulic Power Units / High pressure Circuit

Dear Sir,

Bucher Hydraulics have recently become aware of a safety related issue concerning the high pressure circuit on the Orion Alpha hydraulic power unit, mainly used in the U.K. on the Network Rail system for platform and station lifts.

In order to ensure this is brought to the attention of the owners of these products, Bucher Hydraulics will be contacting them individually to advise them to comply with the attached safety instructions.

In order that this subject is widely distributed throughout the industry we would request that this safety notice is published to LEIA members and placed on the public area of the LEIA web site.

Attached is a copy of the Safety Notice in question.

Should you have any queries relating to this issue, please do not hesitate to contact me.

Sincerely yours

**Bucher Hydraulics AG** 

Daniel Mettler Area Sales Manager daniel.mettler@bucherhydraulics.com



## SAFETY NOTICE

## This safety notice is applicable to Bucher Hydraulics Orion Alpha UD-470/600 hydraulic power units.

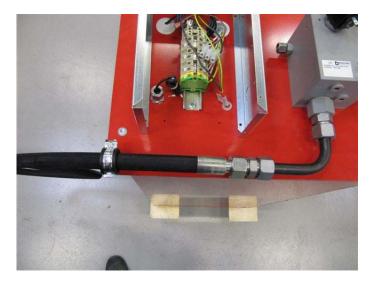
A failure occurred within the high pressure hydraulic circuit between accumulators and accumulator valve. A high pressure fitting at one end of the swept bend connecting valve to hose became detached. The high pressure hose disengaged spraying oil around the motor room.

We have identified the probable cause of the fitting failure as being the incorrect placement and press fit of the "olive" at one end of the pressure pipe bend during manufacturing.

The incident was exacerbated by the hose not being correctly clamped as recommended (every 1.5m between power unit and accumulators) The loose hose was therefore able to "thrash about" within a considerable radius, thereby causing additional damage.

This was the first such failure with over 230 Orion UD-470/600 systems in service with this pipe bend fitting (out of a total of 550 Orion systems in service overall). This was an isolated incident and it is therefore highly unlikely that this failure will reoccur.

Nevertheless, in the interests of safety and to prevent such an incident from ever causing injury or damage, we recommend the following:



1. The pipe bend should be fitted as shown above, with the long end pointing towards the back of the power unit. Bucher Hydraulics have provided a clamping fixture on the tank, as shown above, which is now standard on all new units, and is also available as a retrofit item.

2. Most importantly, and irrespective of the availability of a clamping fixture on the tank, the high pressure hose must be clamped (as is required by good hydraulics practice anyway) securely to a wall and or other fixture every 1.5m between power unit and accumulators. Bucher Hydraulics provide the required clamps with every delivery. These clamps are of course also available as retrofit items if they were not fitted or have been mislaid in the interim.

This hydraulic fitting was not used on the older UD 450 power units.

Any questions can be addressed to our Technical Service Manager in the U.K., Mr. Alan Rolley: Contact: alan.rolley@bucherhydraulics.com