

TECHNICAL BULLETIN

TB # 0115.1

DATE: April 28, 2015

PRODUCT: All Elevators (Residential & Commercial)

SUBJECT: Loss of Oil Pressure/Frequent Re-leveling

Leakage from the internal Hydraulic Power Unit (HPU) EV valve can cause frequent lowering (slow sinking) and re-leveling of the elevator cab. The following procedure may help you determine if the valve is the issue. Also attached is the manufacturer's (Blain) document on what to do if a valve is leaking excessively.

The frequency of re-leveling before it is a problem is a matter of opinion. For some every 6 hours is not a problem, for others once a day is.

We recommend performing the following test procedure at every annual PM, or when there is a customer report of frequent re-leveling.

Procedure: Testing for internal pressure loss.

- Close the ball valve at the output of the power unit.
- Run the elevator up until the pressure stops increasing (this is the Relief Pressure)
- Record the starting pressure.
- Turn off the pump and allow two (2) minutes to pass.
- Record the ending pressure.

Interpreting the results

-If the pressure reaches 0 psi before 2 minutes, the unit fails the test and one the following should be done;

- a) Remove the down valve coil and post and clean out any debris, flip over the washer-like metal donut and then reassemble.
- b) Service the valve with a replacement valve O-Ring kit as per the attached procedure.
- c) Replace the valve.

- If the pressure drops less than 100 psi, the leak is acceptable and the elevator should not re-level more than once a day.

- If the pressure drop is between 100 psi and total loss (500 to 750psi) then it would be up to the customer and the technician to decide if this is acceptable. If not, the valve should be cleaned, serviced or replaced.

If ordering a replacement valve, please give us the model number from the label on the side of the valve. (i.e. EV100-03, EV100-04)

Call CE technical support if you require any assistance with this procedure: Toll-free 1-866-209-3421

EV

EV System Leakage (re-leveling)



Solenoid Valves

C+D

A+B

1.

0-Ring-Size		
No. 1/4"	1 1/2"	2 1/2"
FO 26x2P	47x2.5P	58x3P *
EO 9x2P	9x2P	9x2P
UO 26x2V	39.34x2.62V	58x3V
WO 5.28x1.78V	5.28x1.78V	5.28x1.78V
VO 23x2.5V	42x3V	60x3V **
YO 5.28x1.78P	9x2P	9x2P
XO 13x2V	30x3V	47x3V
HO 5.28x1.78V	5.28x1.78V	5.28x1.78V
SO 5.28x1.78P	5.28x1.78P	5.28x1.78P
MO 26x2P	26x2P	26x2P

* FO by 4F 2 1/2" is 67x2.5P
** 90 Shore

0-Ring: V - Viton
P - Perbunan

Adjustments

5.

Replace possible leaking parts (**DS & DN, XO, VO & WO, FO and HO**) in the order of probabilities 1 - 5.
Replace part 1 and check if the valve is leakproof now.
Replace part 2 only if the valve is still leaking, etc.

Flow Valves

2.

3.

4.

7

9 (from 2000)

9 (until 1999)

KS

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BLAIN
HYDRAULICS
GmbH

Manufacturer of the Highest Quality:
Control Valves for Elevators
Tank Heaters - Hand Pumps
Pipe Rupture Valves - Ball Valves