



## LSB SERIES INSTALLATION GUIDE



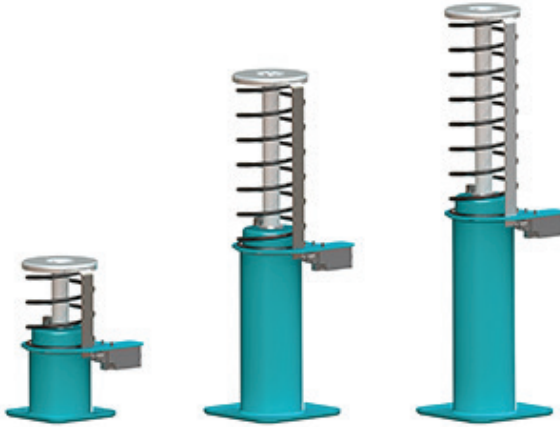
ELEVATOR BUFFERS  
LSB 10-18



# LSB BUFFERS : INSTALLATION INFORMATION

## 1 SCOPE OF DELIVERY

Oleo buffers are supplied with a standard finish suitable for dry conditions (finished Oleo Green primer). The standard finish is not suitable for wet, corrosive conditions.



Oleo LSB buffers can be supplied pre-filled with oil, or without oil.

Check the buffer to confirm it is pre-filled or without oil.

Should there be any discrepancies contact Oleo International before proceeding.

## 2 INDICATION OF USE

Environmental temperature acceptable conditions in line with EN81-20 (0.4.16) Ambient Temperatures.

### 3 HANDLING

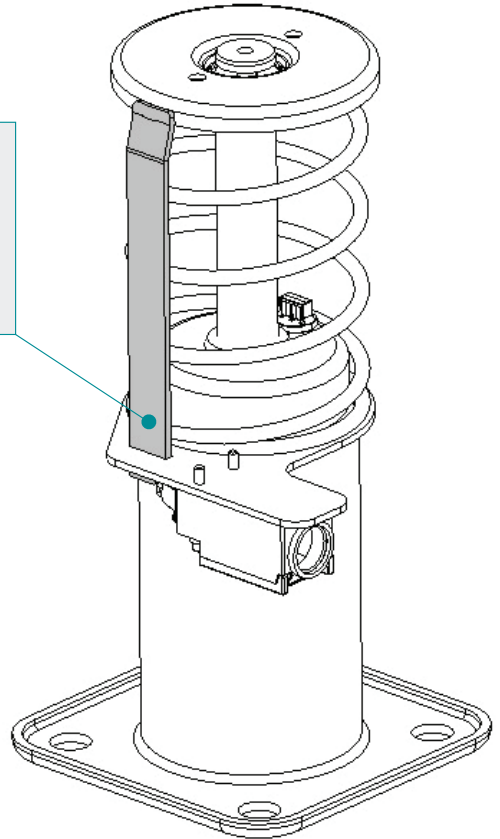
When handling LSB buffers ensure your regional health and safety laws are adhered to.

Figure 1

#### ⚠ WARNING

DO NOT lift buffer with the striker rod shown in *Figure 1*. Avoid contact as this may cause damage.

Always confirm the weight of the buffer to be lifted and ensure that a suitable lifting method is used.



## 4 BUFFER WEIGHTS

### LSB Range



Buffer Model	<b>LSB 10</b>	<b>LSB 16</b>	<b>LSB 18</b>
Without Oil			
Kg	3.529	6.565	7.820
Lbs	7.780	14.47	17.24
When Filled with Oil			
Kg	3.925	7.339	8.726
Lbs	8.650	16.18	19.24

## 5 BUFFER INSTALLATION PROCEDURE

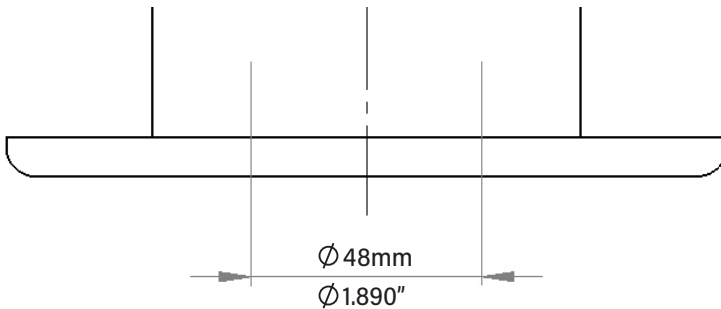
Ensure the buffer has been secured into its installation position.

Oleo recommends a bolt size M10 fixings for LSB 10 and M12 fixings for LSB 16, 18 and all four fixing positions are used.

Ensure this area at the base of the buffer, shown in [Figure 2](#) is supported.

Buffers are to be fitted vertically parallel to guide rail  $\pm 5\text{mm}$ .

*Figure 2*



Do you have a pre-filled buffer?

**No** - Please continue to [Section 6](#).

**Yes** - Go to OIL FILLED OPTIONS [Section 8](#).

## 6 OIL SPECIFICATION

The oil must confirm to the specification on the buffer data plate -  
ISOVG68 : SG.88/90 at 15°C : hydraulic.  
Pour Point : 18°C or lower. Viscosity index 75 or higher.

### ! CAUTION

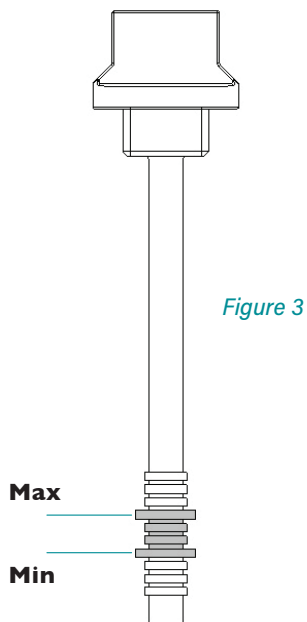
Take care when handling the oils. Observe the oil manufacturers recommendations.

The oil volume guide can be found in table below:

Buffer Model	LSB 10	LSB 16	LSB 18
Approximate Oil Volume			
Litres	0.45	0.88	1.03
US Gallons	0.12	0.23	0.27

### MINIMUM & MAXIMUM

The oil level needs to be between the Minimum and Maximum marks indicated on the dipstick as shown in *Figure 3*.



## 7 OIL FILLING PROCEDURE

### ! NOTICE

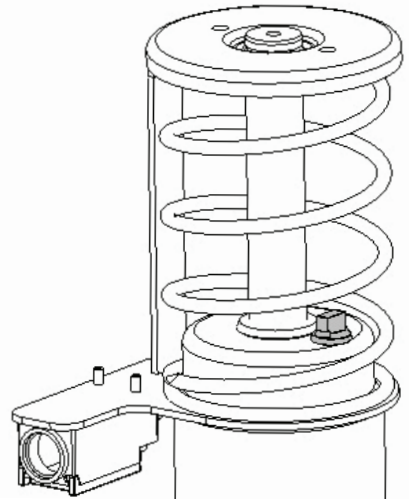
The buffer must be vertical and fully extended before filling with oil.

### ! CAUTION

Take care when handling the oils.  
Observe the oil manufacturers recommendations.

- 1 Unscrew the dipstick (indicated on *Figure 4*) and remove from the buffer.
- 2 Wipe dipstick clean and keep safe.
- 3 Gradually fill the buffer with oil until the oil level is visible between the minimum and maximum levels on the dipstick (indicated on *Figure 3*).
- 4 Allow the buffer to stand for a minimum of 30 minutes.
- 5 Re-insert the dipstick **DO NOT** screw down.
- 6 Remove dipstick and inspect level. The oil level needs to be between the minimum and maximum marks indicated on the dipstick as shown in *Figure 3*.
- 7 Once oil level is correct replace dipstick and securely fasten.

*Figure 4*



The oil must be within the correct operating range for the buffer to perform correctly.  
If further oil is required after checking repeat steps 1-7.

### ! WARNING

DO NOT overfill past the maximum dipstick mark.  
If this occurs, then oil must be removed from the buffer.

## 8 OIL FILLED OPTIONS

The buffer now needs to stand for at least 30 minutes; this allows the oil to settle.

## 9 OIL CHECKING PROCEDURE

The oil level must be correct and needs to be checked using the following procedure:

- 1 Unscrew the dipstick (indicated on [Figure 4](#)) and remove from the buffer.
- 2 Wipe dipstick clean.
- 3 Re-insert the dipstick **DO NOT** screw down.
- 4 Remove dipstick and inspect level. The oil level needs to be between the maximum and minimum marks indicated on the dipstick as show in [Figure 3](#).
- 5 Once oil level is correct replace dipstick and securely fasten.

The oil must be within the correct operating range for the buffer to perform correctly. If further oil is required after checking refer to Oil Filling Procedure [Section 7](#).

### ! WARNING

DO NOT overfill past the maximum dipstick mark.  
If this occurs, then oil must be removed from the buffer.



## 10 FINAL COMMISSIONING

Oleo recommends the final 7 step process is followed prior to commissioning:

- 1 Ensure oil level is correct.
- 2 Ensure striker is vertically aligned to  $\pm 0.5\text{mm}$ .
- 3 Complete electrical connections to the limit switch.

### ! WARNING

As a safety critical component, buffers should not be installed without a switch.

- 4 Compress the buffer at slow speed across the full working stroke then allow to recoil.
- 5 Allow the oil to settle for 30 minutes then recheck oil level – see [Section 9](#).
- 6 Finally, impact the buffer at the full rated speed of the elevator.
- 7 Complete final checks of oil level and the buffer is at correct working height.

### ! NOTICE

CHECK: The maximum overall height against table below LSB 10 +0/-2.8mm and LSB 16, 18 +0/-5mm of the figure stated.

Buffer Model	LSB 10	LSB 16	LSB 18
Extended Height			
m	0.2222	0.4855	0.5775
in	8.748	19.114	22.736

### ! NOTICE

If the buffer has not returned to the fully extended position (determined by measuring overall height) contact Oleo International.

## 11 MAINTENANCE

Oleo recommends the following be carried out every 12 months from installation:

- 1 Clean away debris and dirt from around the plunger and switch.
- 2 Check the oil level is correct
- 3 Compress the buffer across its full working stroke.
- 4 After the compression, ensure the buffer has returned to its correct working height and visually check for any damage. See correct working height in table in [Section 10](#).

Ensure regional jurisdictions and laws for maintenance are adhered to.

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Please visit:

<https://www.oleo.co.uk/downloads/elevator-installation-booklets>