



## SEB SERIES INSTALLATION GUIDE



ELEVATOR BUFFERS  
SEB 16-25



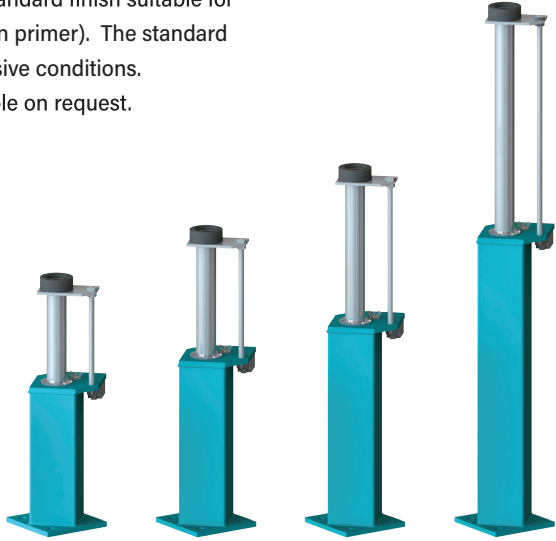
INSTALLATION GUIDE



# SEB 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. Special finished buffers are available on request.



Oleo SEB 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.

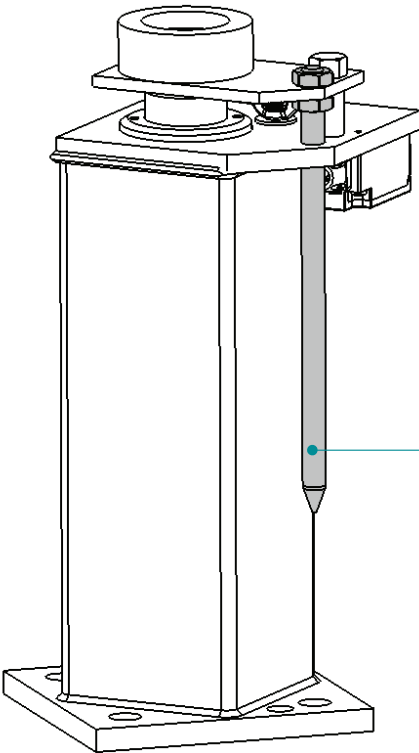
### ! WARNING

The Oleo SEB elevator buffer is supplied containing compressed gas; the plunger is held in the fully compressed condition during transportation by means of a bolt, this should not be removed until the buffer is in its final installed position.

### 3 HANDLING

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

Figure 1



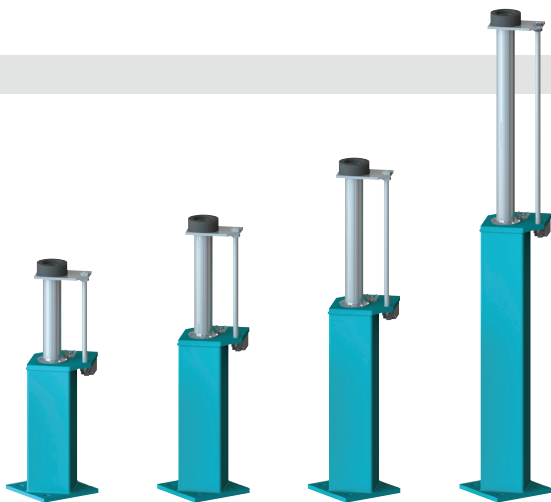
#### ⚠ WARNING

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

### SEB Range



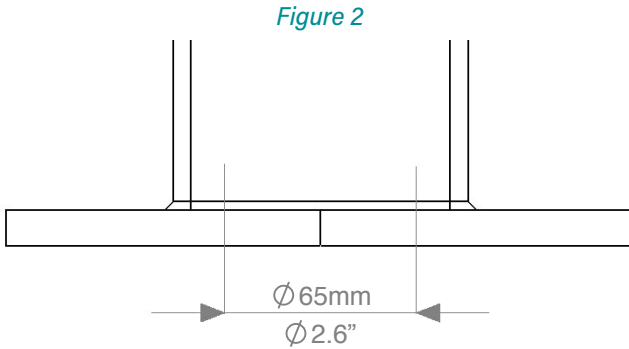
Buffer Model	<b>SEB 16</b>	<b>SEB 18</b>	<b>SEB 20</b>	<b>SEB 25</b>
Without Oil				
kg	11.78	13.26	15.28	20.45
lbs	25.97	29.23	33.69	45.08
Pre-Filled with Oil				
kg	13.05	14.82	17.22	23.36
lbs	28.78	32.68	37.96	51.49

## 5 BUFFER INSTALLATION PROCEDURE

Ensure the buffer has been secured into its installation position.

Oleo recommends a bolt size of M12 for fixing and all four fixing positions are used.

Ensure this area at the base of the buffer, shown in *Figure 2* is supported.



At this point the buffer is still compressed in its transportation state, now the buffer can be released by removing the transportation bolt. The following is the recommended removal procedure:

For a controlled release, lower the elevator car (or equivalent) onto the buffer.

This mass must be at least equivalent to the minimum mass of the specified buffer.

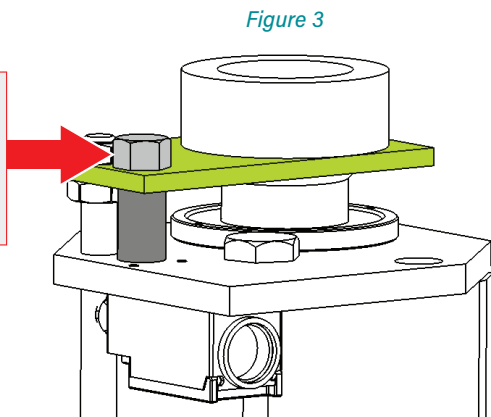
Minimum mass of the buffer shown in table below:

Buffer Model	<b>SEB 16</b>	<b>SEB 18</b>	<b>SEB 20</b>	<b>SEB 25</b>
Min. Mass				
kg	450	450	450	450
lbs	992	992	992	992

## 5 BUFFER INSTALLATION PROCEDURE (Continued)

### ⚠ DANGER

Now to release the plunger.  
DO NOT stand over the plunger  
when releasing



To release the plunger, undo the bolt (GREY in *Figure 3*).

Discard transportation bolt and spacer (GREY in *Figure 3*).

If used, remove the elevator car (or equivalent) and this will control the recoil of the buffer.

After periods of being held in the compressed state during transportation and storage, the plunger may require assistance to initial extend. This should be done using rubber dead blow mallet to tap the underside of the buffer top plate (GREEN in *Figure 3*) at 90 degree intervals until the plunger extends.

Once fully extended and stroked the buffer will perform as designed.

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

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 conform 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

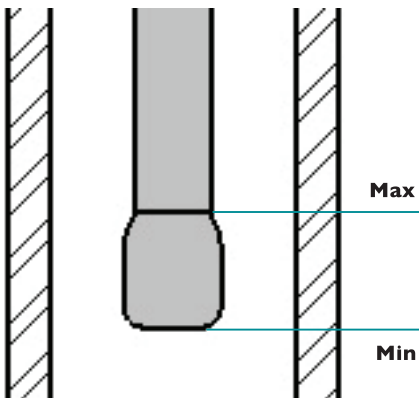
### ! CAUTION

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

The oil volume guide can be found in table below:

Buffer Model	SEB 16	SEB 18	SEB 20	SEB 25
Approximate Oil Volume				
litres	1.45	1.77	2.20	3.30
US Gallons	0.38	0.47	0.58	0.87

Figure 4



### MINIMUM & MAXIMUM

The oil level needs to be between the Minimum and Maximum marks

indicated on the dipstick as shown in *Figure 4*.

## 7 OIL FILLING PROCEDURE

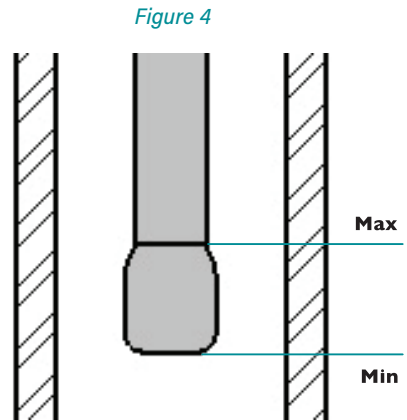
### NOTICE

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 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 4*).
- 4 Allow the buffer to stand for a minimum of 30 minutes.
- 5 Re-insert the dipstick and 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 4*.
- 7 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 repeat steps 3-7.

### WARNING

DO NOT overfill past the maximum dipstick mark.

If this occurs, then oil must be removed from the buffer.



## 8 OIL FILLED OPTIONS

Remove yellow transportation plug and replace with the dipstick supplied.

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

## 9 OIL CHECKING PROCEDURE

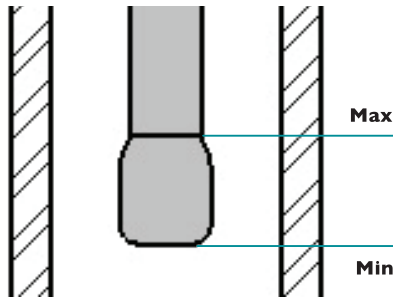
The oil level must be correct and needs to be checked using the following procedure:

- 1 Unscrew the dipstick and remove from the buffer.
- 2 Wipe dipstick clean.
- 3 Re-insert the dipstick and 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 shown in *Figure 4*.
- 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](#).

*Figure 4*



### ! 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 its full working stroke then allowed 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  $+0/-8\text{mm}$  of the figure stated.

Buffer Model	SEB 16	SEB 18	SEB 20	SEB 25
Extended Height				
m	0.5400	0.6430	0.7770	1.1260
in	21.260	25.315	30.591	44.331

### ! 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. See [Section 9](#).
- 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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ALTERNATIVE LANGUAGE INSTALLATION INSTRUCTIONS ▶



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Please visit:

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