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

**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.
## Buffer Weights

### SEB Range

<table>
<thead>
<tr>
<th>Buffer Model</th>
<th>SEB 16</th>
<th>SEB 18</th>
<th>SEB 20</th>
<th>SEB 25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Without Oil</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kg</td>
<td>11.78</td>
<td>13.26</td>
<td>15.28</td>
<td>20.45</td>
</tr>
<tr>
<td>lbs</td>
<td>25.97</td>
<td>29.23</td>
<td>33.69</td>
<td>45.08</td>
</tr>
<tr>
<td><strong>Pre-Filled with Oil</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kg</td>
<td>13.05</td>
<td>14.82</td>
<td>17.22</td>
<td>23.36</td>
</tr>
<tr>
<td>lbs</td>
<td>28.78</td>
<td>32.68</td>
<td>37.96</td>
<td>51.49</td>
</tr>
</tbody>
</table>
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.

![Figure 2]

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:

<table>
<thead>
<tr>
<th>Buffer Model</th>
<th>SEB 16</th>
<th>SEB 18</th>
<th>SEB 20</th>
<th>SEB 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. Mass</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>kg</td>
<td>450</td>
<td>450</td>
<td>450</td>
<td>450</td>
</tr>
<tr>
<td>lbs</td>
<td>992</td>
<td>992</td>
<td>992</td>
<td>992</td>
</tr>
</tbody>
</table>
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 ±5mm.

Do you have a pre-filled buffer?

No - Please continue to Section 6.

Yes - Go to OIL FILLED OPTIONS Section 8.
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:

<table>
<thead>
<tr>
<th>Buffer Model</th>
<th>SEB 16</th>
<th>SEB 18</th>
<th>SEB 20</th>
<th>SEB 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>litres</td>
<td>1.45</td>
<td>1.77</td>
<td>2.20</td>
<td>3.30</td>
</tr>
<tr>
<td>US Gallons</td>
<td>0.38</td>
<td>0.47</td>
<td>0.58</td>
<td>0.87</td>
</tr>
</tbody>
</table>

*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*. 
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.
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.

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.
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 ±0.5mm.
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/-8mm of the figure stated.

<table>
<thead>
<tr>
<th>Buffer Model</th>
<th>SEB 16</th>
<th>SEB 18</th>
<th>SEB 20</th>
<th>SEB 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Height</td>
<td>m</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>0.5400</td>
<td>0.6430</td>
<td>0.7770</td>
<td>1.1260</td>
</tr>
<tr>
<td>in</td>
<td>21.260</td>
<td>25.315</td>
<td>30.591</td>
<td>44.331</td>
</tr>
</tbody>
</table>

**NOTICE**
If the buffer has not returned to the fully extended position (determined by measuring overall height) contact Oleo International.
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.
This Installation Guide can be found in the following languages:

<table>
<thead>
<tr>
<th>Language</th>
<th>Language</th>
<th>Language</th>
<th>Language</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Français</td>
<td>Deutsche</td>
<td>Español</td>
<td>Porigiese</td>
<td>中文</td>
</tr>
<tr>
<td>French</td>
<td>German</td>
<td>Spanish</td>
<td>Portuguese</td>
<td>Chinese</td>
</tr>
<tr>
<td>Brasileiro</td>
<td>Italiano</td>
<td>Russian</td>
<td>Korean</td>
<td>Japanese</td>
</tr>
<tr>
<td>Brazilian</td>
<td>Italian</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please visit:
https://www.oleo.co.uk/downloads/elevator-installation-booklets