ABS lifting unit 2,3 kN

Installation and Operating Instructions
Translation from original instruction

www.sulzer.com
Installation and Operating Instructions

for ABS lifting unit 2,3 kN
(for DL6151113)
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Appendix:

Check list/Hints for the check by an expert

Installation and operating instructions of the winch (part of the packing of the manufacturer).

Instructions for the handling of chemical anchors (part of the packing of the manufacturer).
1 General

1.1 Introduction

These **Installation and Operating Instructions** and the separate booklet **Safety Hints** contain basic instructions and safety hints which must be observed during transport, installation and commissioning. For this reason it is essential that they are read by the installing technician as well as by relevant skilled operators or users. They should also be always available where the unit is installed.

⚠️ Safety Instructions which might cause danger to life in case of non-observance have been specifically highlighted with the general danger symbol.

**ATTENTION** Appears at safety hints, the non-observance of which could damage the unit or affect its functioning.

**NOTE** Used for important pieces of information.

Illustrations code; e.g. (3/2). The first digit refers to the figure no. and the second digit to the position in that figure.

The documents listed below are integral parts of these installation and operating instructions:

- Installation and operating instructions for ABS lifting unit 2,3 kN.
- Declaration of conformity for ABS lifting unit as defined by: Machinery Directive 2006/42/EC.
- Check list for the expert inspections of winches, pulling and lifting devices.

The documents listed below are also substantial parts of these instructions:

- Operating instructions for the winch.
- Instructions for the handling of chemical anchors.

1.2 Application areas

The ABS lifting unit is suitable to lift and lower submersible mixers, smaller pumps, aerators and their accessories manually. It can be rotated 360°; the boom can be adjusted to the required overhang and lifting capacity by tilting it.

In the working position the lifting unit is pushed into a lifting device support which is connected to the building.

1.3 Application limitations

The ABS lifting unit 2,3 kN and the lifting device supports are weather proof. Some of the winches are not and should be stored in a sheltered place when not being used.

If the lifting unit is operated in aggressive atmosphere or the wire rope in an aggressive liquid they have to be cleaned after operation and must be checked by an expert in shorter intervals.

⚠️ The maximum allowable loads must be observed when using the ABS lifting unit 2,3 kN.
1.4 Dimensions

The max. lifting capacity for the different overhangs can be obtained from the nameplate on the lifting unit.

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Figure 1 Dimensions
1.5 Type designation of the ABS lifting unit 2,3 kN and the components

Legend

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Bottom fixing support</td>
<td>1</td>
</tr>
<tr>
<td>02</td>
<td>Chemical anchor HAS, HUV M12x110</td>
<td>4</td>
</tr>
<tr>
<td>03</td>
<td>Lifting unit</td>
<td>1</td>
</tr>
<tr>
<td>04</td>
<td>Handle grip</td>
<td>1</td>
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<tr>
<td>05</td>
<td>Rope winch 2,3 kN</td>
<td>1</td>
</tr>
<tr>
<td>06</td>
<td>Shackle ∅ 6 mm</td>
<td>1</td>
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</tbody>
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1.6 Nameplate

We recommend that you record the data from the original nameplate on the nameplate illustrated in Fig. 3 below so that you can refer to the data at any time.

Legend

1  Type designation
2  Unit nr.
3  Production year
4  Lifting capacity
5  Lifting capacity in [kg]
6  at max...
7  overhang in [m]
8  overhang
2 Security

The following standards and regulations have to be observed:

- DIN 15020 T1 and 2
- UVV VBG 1, 8, 9, 9a

The owner of the lifting unit has to make sure that.....

- These instructions are always available to the operator.
- The lifting unit is only operated by skilled and instructed individuals.
- The operator is using all required personal protection equipment.
- The lifting unit is checked by an expert before commissioning. (Faultless assembly and installation, ready for work). A written report on this inspection is required.
- The unit will be checked by an expert at least once a year. (See check list at the end of this booklet) When operating the unit under unfavourable conditions more frequent checks may be required.
- No changes on the unit are to be made without prior written consent from the manufacturer.
- Damages to the unit are immediately repaired and faulty units are not operated.

2.1 Safety instructions for the operator of the lifting unit

⚠️ Study installation and operating instructions with care!

⚠️ Prior to any operation, the lifting unit has to be checked carefully, including correct guidance in the lifting device support. In case of faults the owner has to be informed immediately and the unit has to be blocked!

⚠️ Make sure no persons are within the working radius of the unit. If required this area is to be blocked by suitable means.

⚠️ Do not stand under the suspended load!

⚠️ Never exceed the maximum load, related to the actual overhang!

⚠️ Use suitable sling elements only (according to VBG UVV 9a)!

⚠️ Make sure that there is no risk of jamming or catching of the load!

⚠️ Moving human beings with the lifting unit is strictly prohibited!

⚠️ The load must never move out-of-perpendicular!

⚠️ The winch is not to be operated by motors!

⚠️ The wire rope must not be used to sling the load!
The load must always be visible to the operator. If this is not possible, the assistance of a second person is required (Marshal)!

When winding the wire rope it always has to be held tight! If the rope is wound not tight enough on the winch drum, the breaking load of the rope can be reduced dramatically! An additional weight attached to the end of the wire rope will reduce the risk of loose winding.

Attaching the wire rope to the winch drum is to be done according to the instructions of the winch manufacturer!

At least three turns of wire rope must remain on the winch drum when the load is in its lowest position!

When operating the unit all bolts have to be secured by security pins!

These hints are only supplementary to the regulations of DIN 15018 and the regulations for the prevention of accidents from the authorities VBG 8, VGB 9a.

Furthermore any local regulations are to be observed!

3 Installation of the bottom fixing support

NOTE Please find the necessary dimension for installation at chapter 1.4 Dimensions

- First check all parts whether they are correct and all available according to the parts list.
- Inspection of the installation site according to the drawings:
  a. Check the installation site regarding stability (min. B25).
  b. Check the installation place regarding suitability for the safe operation of the lifting unit.
- Take care of correct conditions for anchoring, e.g:
  - Depth of holes
  - Drill diameter
  - Edge spacings
  - Working temperature
  - Expiration date of plastic mortar
  - Curing time
  - Fastening torque of nuts
  - Nut lockings
- Before first operation of the lifting unit the support installation has to be inspected by an expert. A written report on this inspection is required.
4 Installation of the ABS lifting unit

Figure 1 Dimensions
Appendix:

Check list / Hints for check by an expert

1. Manufacturer: Sulzer Pump Solutions Germany GmbH, Scheiderhöher Str. 30 – 38 D-53797 Lohmar
2. Year of production: __________________________
3. Serial no.: ________________________________
4. Lifting capacity: __________________________________________________________
5. Manufacturer of rope winch: __________________________ Type: ______________________
6. Lifting rope: Diameter: Ø ____________ mm Min. breaking load: ____________ kN
7. Check before first operation: On: __________________________ By: ______________________

Recur checks (at least once a year)

<table>
<thead>
<tr>
<th>Date</th>
<th>Result</th>
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Hints for checks by an expert

1. Are the nameplate, load rating and warning labels complete and readable?
2. Check the post, boom and lifting device supports regarding damages, wear, corrosion and deformation.
3. Check the load bearing elements regarding smooth function (post, pulley).
4. Check all bolts regarding wear and deformation. Are all securing pins in the bolts?
5. Check the wire rope regarding damages, corrosion and correct dimensions.
6. Winch: Inspection according to the instructions of the manufacturer.
7. Installation of the lifting device supports: Check regarding damage on the load bearing parts of the building, corrosion, deformation and tight fastening of the base parts.