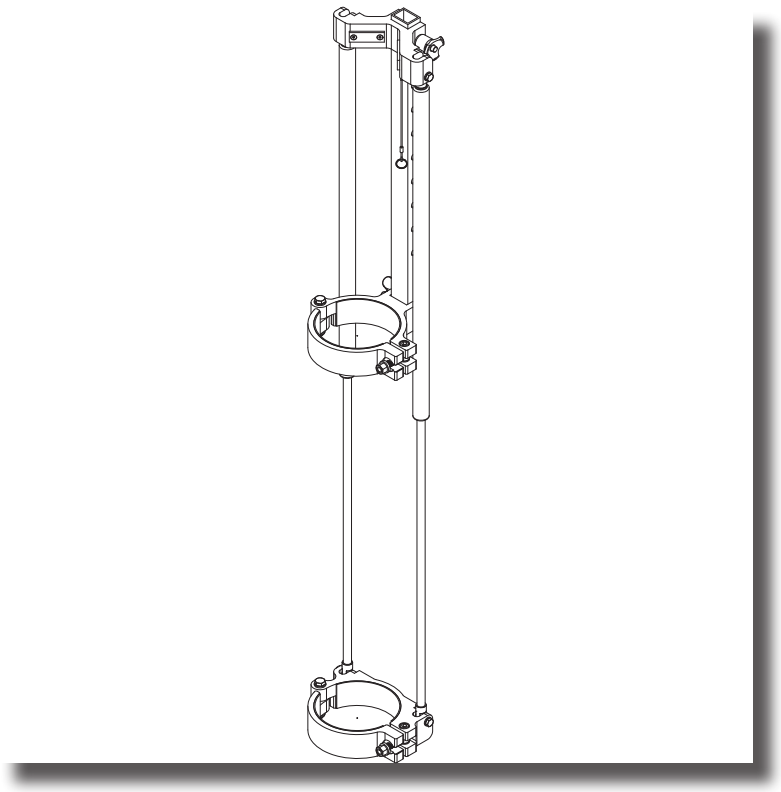
Operating manual:
Raise & lowering tool



Sapa Pole Products

Content:

Preface:

The purpose of this manual is to provide lighting column installers and service mechanics sufficient information needed to operate and maintain the Sapa raise & lowering tool in a responsible manner. Therefore the quality of Sapa low-hinged columns and the Sapa raise & lowering tool will be guaranteed.
This guide provides information about the Sapa raise & lowering tool, applied on Sapa low hinged columns. This information includes the products description, use, maintenance, and storing.
It is assumed that the installer / service mechanic has sufficient knowledge and experience to work on building constructions and electric installations.
It is also assumed that the installer / service mechanic has the basic knowledge of safety and competence necessary to operate machines and tools required for the operation of the raise and lowering column and the raise and lowering tool.

1 Introduction:

The Sapa raise & lowering tool is a supporting tool to raise and lower Sapa low hinged columns. The raise & lowering tool is most likely used in situations where raising and lowering of the column is uncomfortable or even too heavy, to be done by one person.
The Sapa raise & lowering tool is suitable for both Sapa cylindrical as conical low hinged columns.
The lifetime of the gas springs is approximately 5000 strokes (under ideal circumstances).

ATTENTION:
Read this manual before using the raise and lowering tool.

Always wear personal protection equipment; helmet, gloves and safety glasses.
Always check the joints and fixations of the raise & lowering before lowering the column.
Always check the gas springs visually before each use.
Always transport the raise & lowering tool in the supplied box, to prevent it from damage.

2 Product description:

The Sapa raise & lowering tool consists of:
1 Two clamping brackets
2 Two gas springs
3 Support block
4 Locking pin
5 Connection bar
6 Box

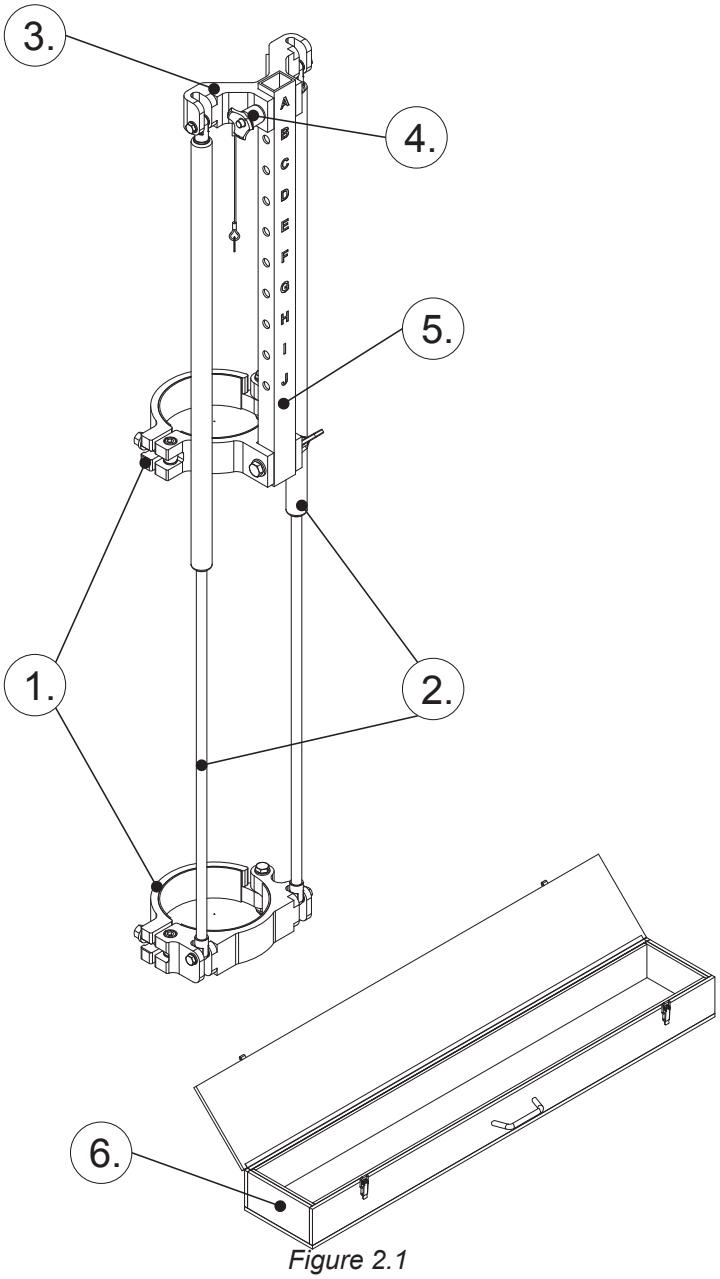


Figure 2.1

The raise and lowering tool is adjustable for different models of low hinged columns (7-8) and a range of top loads from 5-25 Kg. To do so the locking pin must be put into the most suitable hole of the connection bar (see table 1 in section 3).

3 Use of the raise and lowering tool

3.1 Mounting the raise & lowering tool tot the low hinged column.

Before each use check the raise & lowering tool visually and make sure that alle the joints and fixations are good.

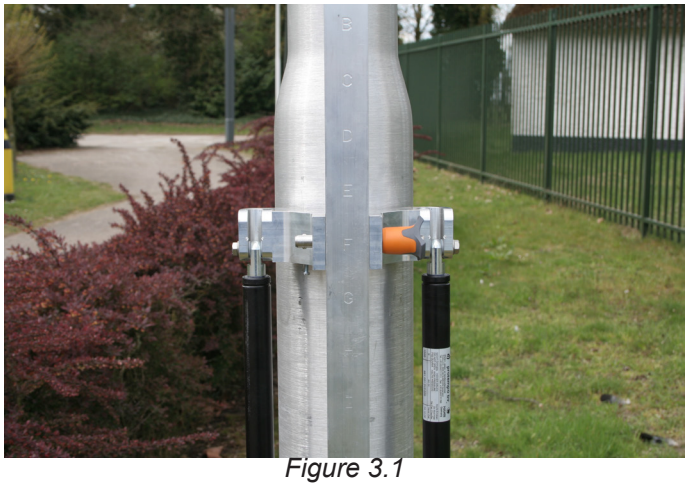


Figure 3.1

1. Adjust the raise & lowering tool to the obtained situation: Put the locking pin in the best suitable hole of the connection bar, using the selection table 1 (see figure 3.1).

	4m	5m	6m
A			20Kg
B			
C			15Kg
D		20Kg	
E			10Kg
F		15Kg	
G			5Kg
H		10Kg	
I	20Kg		
J	15Kg	5Kg	

Table 1

Figure 3.2

2. Place the upper clamping bracket above the hinge point, close the bracket and fold the eye bolt on its place (see fiigure 3.2).

3. Mount the upper clamping bracket approximately 100 mm above the hinge oint of the low hinged column (see figure 3.3). Make sure that the top of the wedge is free from the bottom side of the clamping bracket (see figure 3.4).
Align the centre of the connection bar with the hole in the wedge. The raise and lowering tool is now alligned with the hinge direction.
Tighten the eye bolt for sufficient grip on the column.

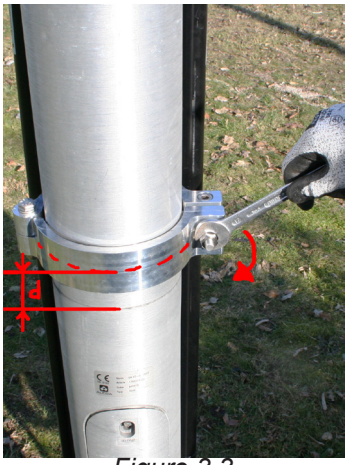


Figure 3.3

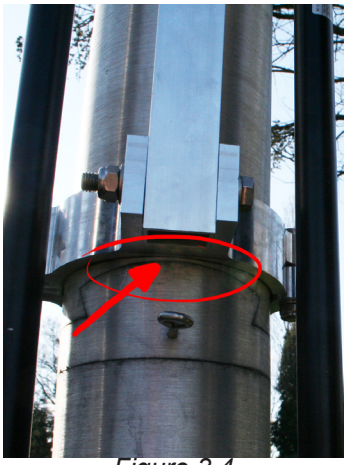


Figure 3.4

4. Close the bottom clamping bracket and tighten the eye bolt (see figure 3.5).

Check if all connections are secured then move on to the “lowering and raising the low hinged column” section.


Figure 3.5

3.2 Lowering and raising the low hinged column

1. Unscrew the bolt from the door locks and slide them open (see figure 3.6).

2. Remove the door (see figure 3.7).

Figure 3.6

Figure 3.7

3. Unscrew the three M12 bolts, using a hexagon key (see figure 3.8).

Note: The M12 bolts in the low hinged column are prevented to come out completely: The bolts are secured with a POM retaining ring.

Figure 3.8

Figure 3.9

4. Screw the M6 eyebolt into the hole of the wedge (see figure 3.9).

CAUTION!
BY PERFORMING STEP 5 THE COLUMN IS FREE TO BE TOPPLED OVER!

5. Pull out the wedge (see figure 3.10). If the wedge is stuck, please try to pull out the wedge while pressing against the upper part of the column.

6. Gently lower the column (see figure 3.11). Pull or hold back the column if necessary, depending on the force applied by the raise & lowering tool.

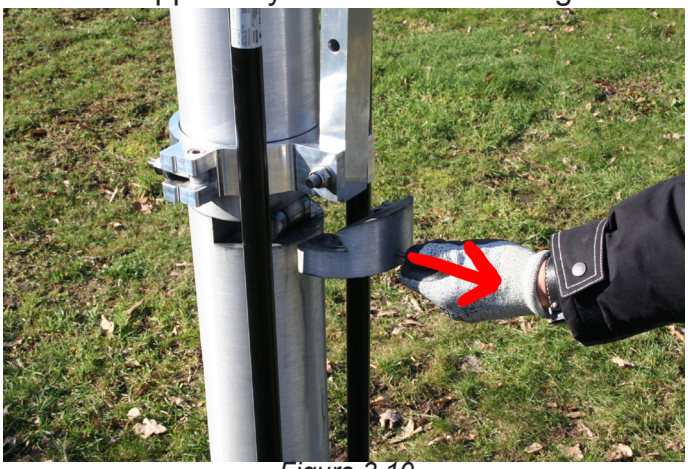


Figure 3.10

Figure 3.11

7.Bring the column down completely. It is possible that the column tends to raise itself. In that case have someone holding the column down, or use a weight to do so.

CAUTION!
IF THE LANTERN/ CAMERA IN THE TOP OF THE COLUMN IS REMOVED THE COLUMN MAY SWING BACK UP!

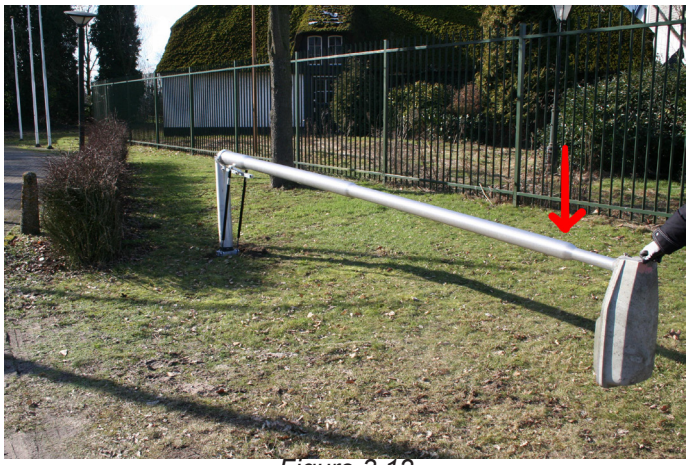


Figure 3.12

For raising the column repeat the steps 1-7 in reverse order and usncrew the raise & lowering tool from the column.
To put the raise & lowering tool back into its box, dissassemble the top clamping bracket and the connection bar.

4 Maintenance:

The Sapa raise & lowering tool only has a small need in maintenance. However Sapa recommends a visual check of the raise & lowering tool before each use.
Please pay attention to the surface condition of the gas springs piston rod. This surface must be free of scratches, dirt and corrosion. Due to the construction of the gas spring the piston rod will always have thin oil film around it.
All connections and joints need to be checked before each use.

The gas springs are self-lubricating, however in order to keep de gas springs in good condition, Sapa advises to use the raise and lowering tool on a regular base.

The joints of rotating parts must be treated with silicon spray at least once every year, depending on the intensity of use.

Make sure that rubber pads are inside the clamping brackets.

Replacement of the gas springs:
The gas springs need to be replaced when worn out. If replacement is needed, please contact Sapa or your supplier. The gas springs can not be refilled. Under no circumstances make holes in the gas spring.

Sapa Pole Products
Alcoalaan 1, 5151RW Drunen
P.O. Box 75 5150 AB Drunen
The Netherlands

Phone: +31 416 38 65 00