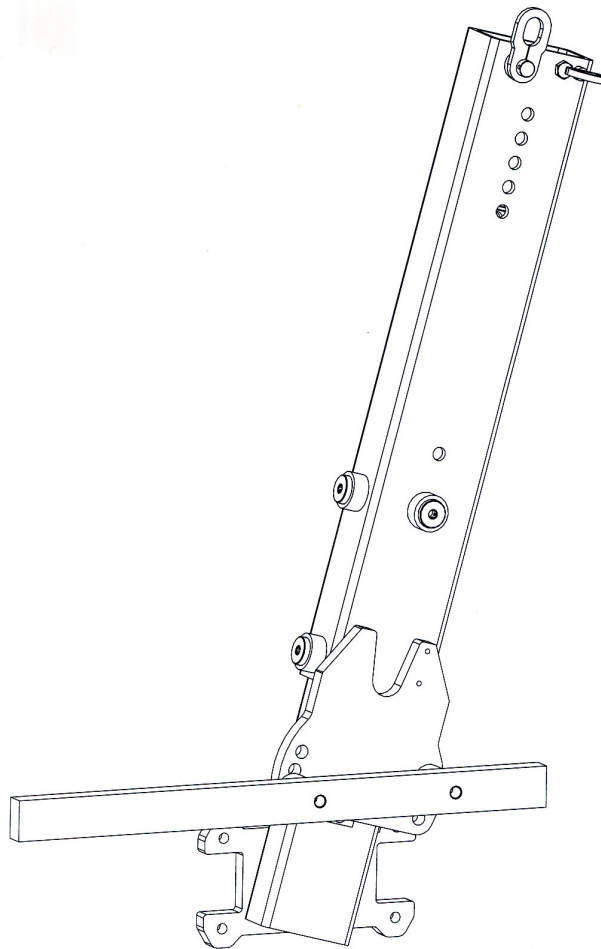


Operating Instructions

Column lifter S-5



MANUFACTURER:

CLEMENS GmbH & Co. KG
Maschinenfabrik
Rudolf - Diesel - Strasse 8
D-54516 Wittlich / Mosel

Contents :

	Page:
1. Foreword	3
2. Functional description of the column lifter S-5	5
3. Start-up and possibilities for installation	6
- Before using for the first time	6
- Possibilities for installation	6
- Mounting appliances on the column lifter S-5	8
4. Maintenance and care	9
5. Safety	10
6. Technical data	11
- Declaration of conformity	12
7. Spare parts list	13

Note :

The manufacturer cannot accept any liability for damage and losses due to non-compliance with the Operating Instructions or to the use of impermissible spare parts. The column lifter must not be modified, extended or converted in any way capable of impairing its safety without the manufacturer's prior consent.

Subject to change without notice!

© 2006 CLEMENS GmbH & Co. KG
All rights reserved !

1. Foreword :

Dear user !

The **CLEMENS column lifter S-5** is a product from the range of **All-around weeders from CLEMENS** which will make it very much easier for you to maintain your vineyard all around the vine.

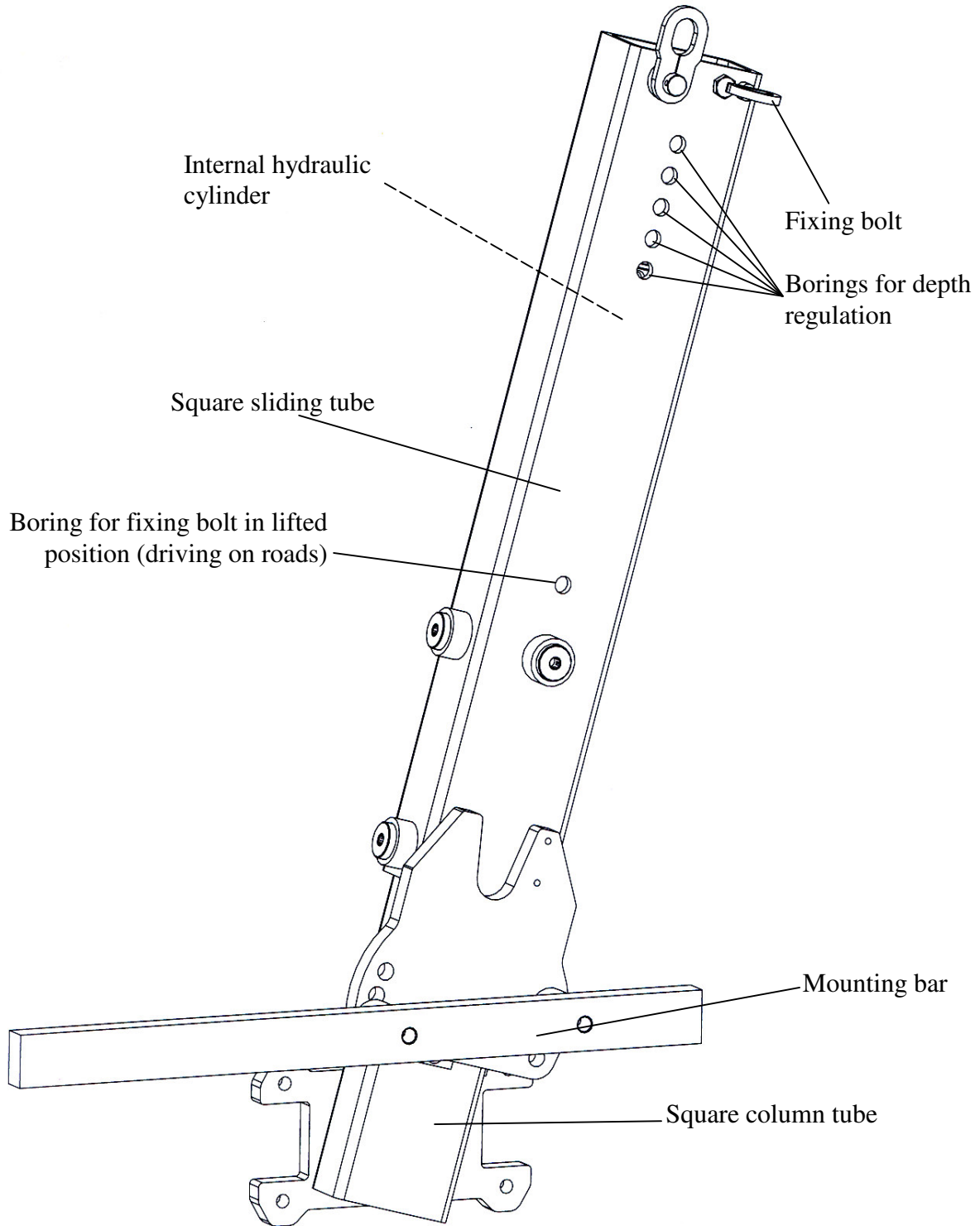
So that the column lifter can be used safely and correctly for its intended purpose, it is essential to read these Operating Instructions before using the product and scrupulously to follow all the instructions.

Ensure that you are familiar with the principle of operation of the column lifter and other fitted attachments before starting work.

General note :

- The column lifter may only be operated when all guards and safety mechanisms are in place and functioning correctly.
- All faults and malfunctions capable of impairing safety must be remedied immediately by specialist personnel.
- The column lifter may only be used to lift out tillage implements mid-mounted on the tractor.
- The hydraulic connections of the column lifter must not be modified, as this will lead to malfunctions and endanger both yourself and other people.
- Repairs should only be carried out by specialist repair shops or the CLEMENS Customer Service Centre. Never undertake any unauthorized modifications on the device.
- The instructions supplied with the attachments must also be read with care.

Figure 1 : Column lifter S – 5 (right hand side device shown)



2. Functional description of the column lifter S - 5:

(See Fig. 1)

The **CLEMENS column lifter S - 5** is available as right hand side and as left hand side device and essentially comprises the following components:

- **Square sliding tube inside and square column as enclosure, with clamping plate**
- **Fixing bolt as depth limitation**
- **Single acting hydraulic cylinder with hose connections (cylinder can be changed to double acting functioning)**

The column lifter is secured to the square block on the mounting bracket of your tractor by means of four clamping screws.

If your tractor does not include a mounting bracket, please contact your dealer to obtain a suitable mounting bracket which the dealer can then install on your tractor.

The underlying principle of the column lifter is that a single-acting hydraulic cylinder raises or lowers your attachment when the hydraulic control is actuated from the driver's seat. The hydraulic cylinder has a maximum stroke length of 500 mm (19.7"). The depth limitation and working height can be adjusted manually by fixing the limiting bolt in the respective boring. Alternatively, the depth limitation can be made with the help of a support wheel. In this case, the fixing bolt can be removed, the valve is to be set in floating position and thus the column lifter can follow the ground contour. In case of double acting functioning, the mechanical fixing of the working depth is not necessary, this regulation being taken over by the hydraulic cylinder.

The three sliding blocks on the square column ensure that the sliding tube is guided linearly and almost without play.

The column lifter is also optionally available with a double-acting hydraulic cylinder.

3. Start-up and possibilities for installation:

* Before using for the first time:

- Read the Operating Instructions through carefully and ensure that you are familiar with the mode of operation of the column lifter and attachments.
- Check that the hydraulic connections of the column lifter match those on your tractor.

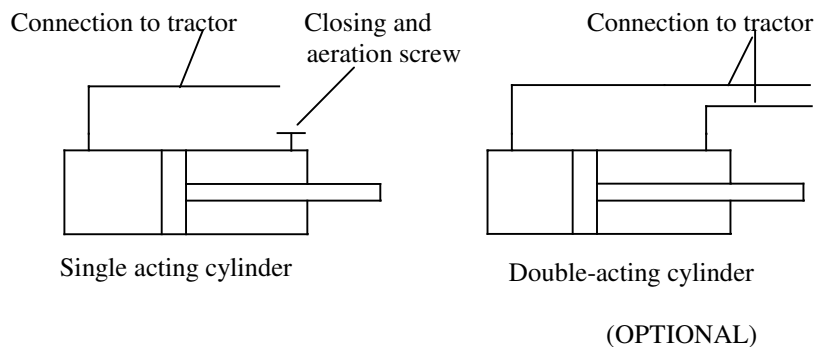
* Possibilities for installation:

The column lifter S – 5 is secured to the square block on the mounting bracket of your tractor by means of four clamping screws.

If your tractor does not include a mounting bracket, please contact your dealer to obtain a suitable mounting bracket which the dealer can then install on your tractor.

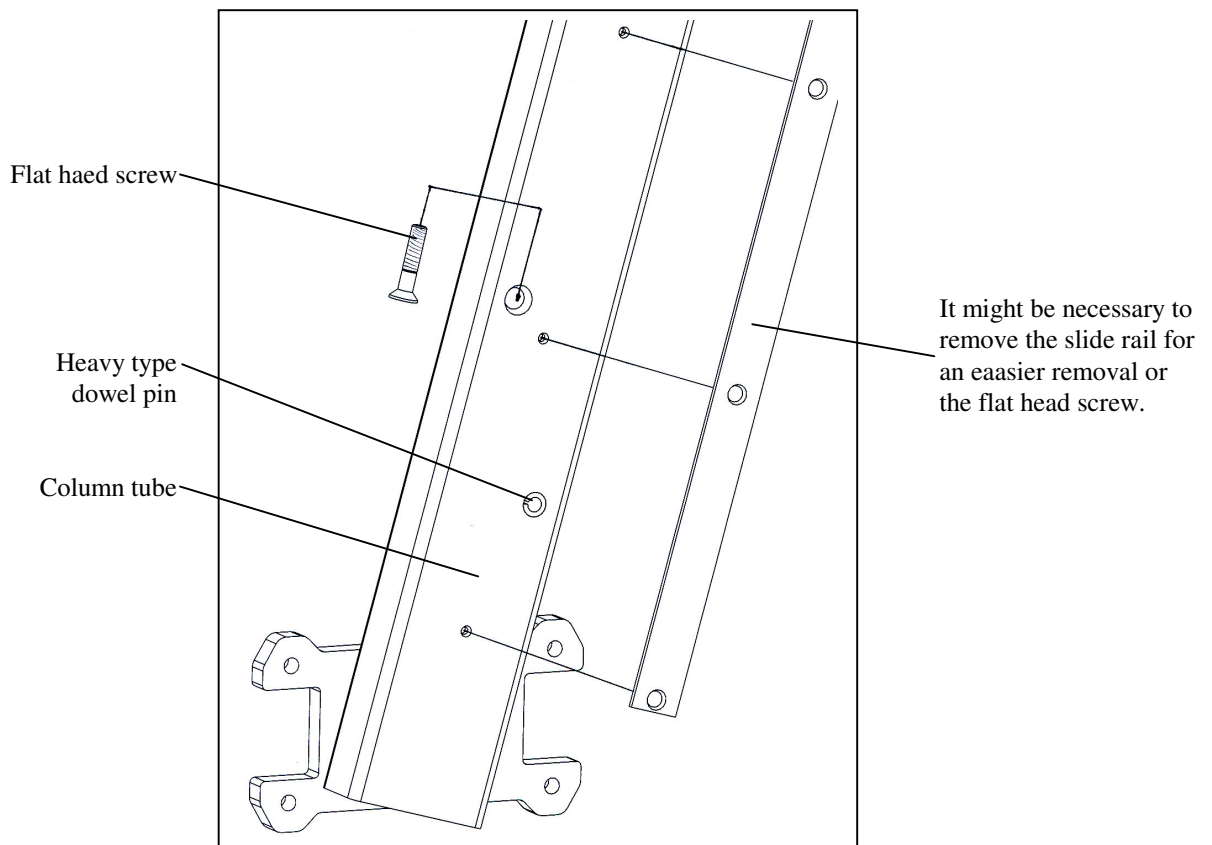
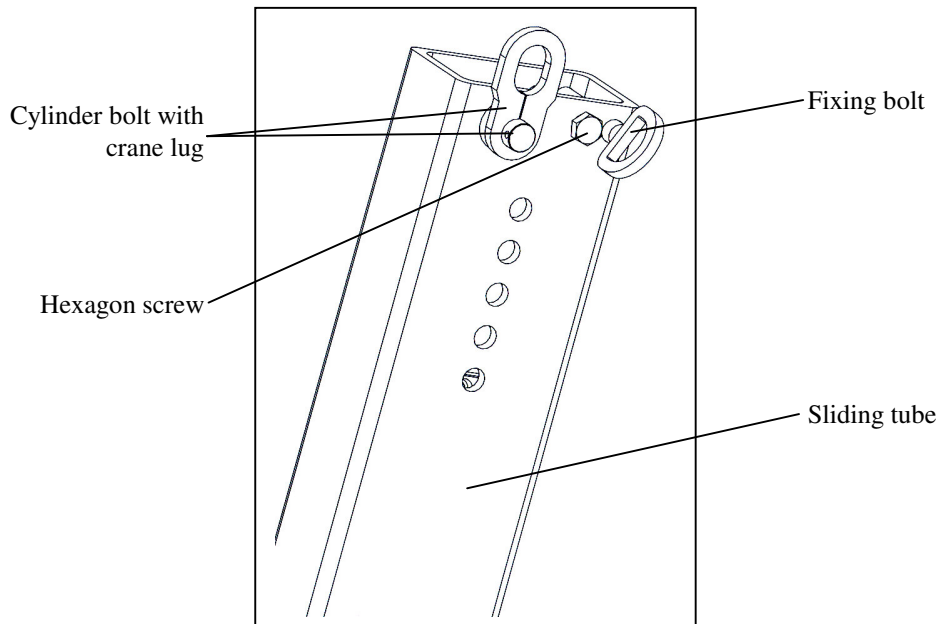
In order to install the column lifter, it can be raised with the aid of a hoist (e.g. chain hoist) and mounted on the tractor. It can be suspended from the crane lug at the top of the column lifter.

The column lifter S – 5 is connected to the hydraulic system of the tractor by means of quick-release detent couplings.

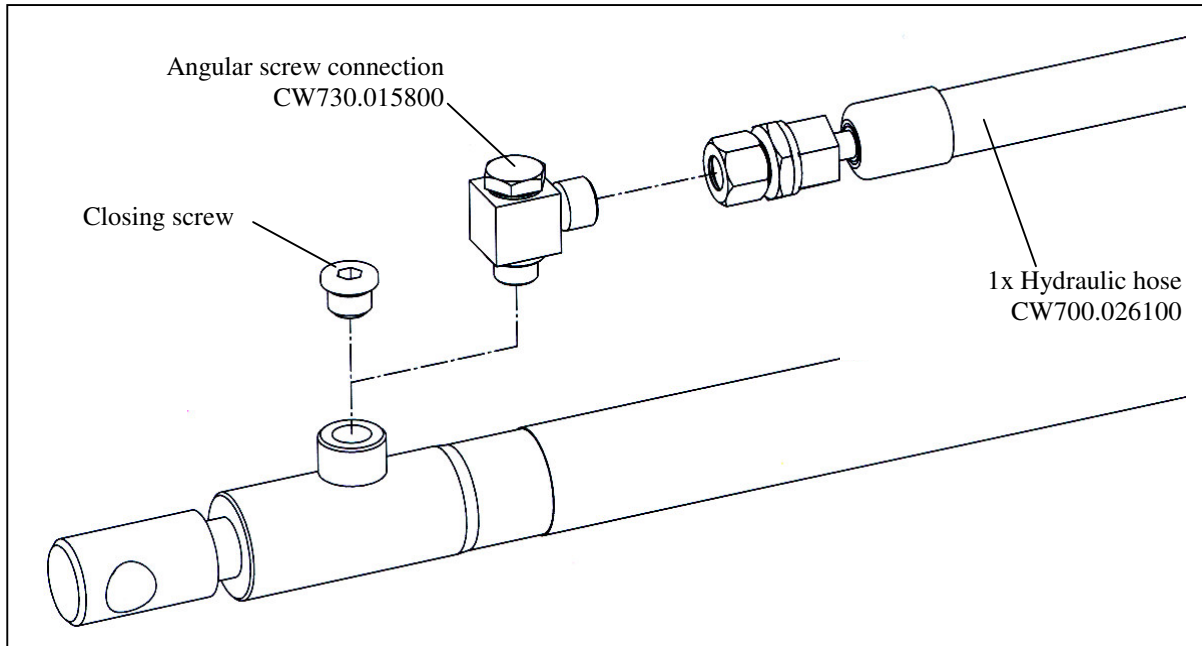


If you should wish to change the column lifter from single into double acting functioning, please proceed as follows:

- Disconnect the hydraulic system from the tractor
- Remove the attached device from the mounting bar
- Remove the column lifter from the tractor
- Remove the hexagon screw, the cylinder bolt and the fixing bolt
- Pull down the sliding tube
- Wind out the flat head screw for spring, remove the spring
- Knock out the heavy type dowel pin for cylinder, remove the cylinder



Remove the cylinder from the column lifter, then remove the closing screw from the upper hydraulic connection of the cylinder. Here, an angular screw connection P-RSWS12L is screwed in. The exit must be orientated in direction of the longitudinal axis. Now, the hydraulic hose can be mounted. Pull the hoses trough the internal column tube while mounting. For the final mounting of the column lifter, proceed in reversed sequence as described. The tension spring and the closing screw are not needed anymore. The additional parts needed for the modification can be purchased from you local dealer or directly from Clemens.



*** Mounting appliances on the column lifter:**

Appliances are mounted on the column lifter by sliding the clamping bracket of the appliance over the clamping rail of the column lifter and clamping them together by means of the clamping device provided on the appliance.

4. Maintenance and care:

The column lifter is designed to require minimum maintenance and care.

The following points must be noted, however:

- All screws and bolts must be checked after the first five hours of operation in order to ensure that they are secure.
- When cleaning the column lifter with a high-pressure cleaner and fitted attachments, care must be taken to ensure that the high-pressure jet is not directed towards bearings and seals or hydraulic connections, as this could lead to damage and premature failure of the lifter.
- After cleaning, the guideways should be lightly greased with sulphur-free grease. This increases the service life of your column lifter.
- The hydraulic fluid should be filtered at some point in the hydraulic system of the tractor.
- If play develops between the sliding tube and column, the three sliding blocks must be adjusted until the sliding tube moves without play.

*** Possible reasons for a major rise in oil temperature:**

- The nominal size of the intake, delivery and return hose lines is too small.
- The oil tank (reservoir) is too small.
- The oil level in the tractor's hydraulic system is too low.
- The oil filter is fouled.
- The required oil quantity is not achieved.
- The setting of the pressure limiting valve on the tractor is too low.

5. Safety:

- Before starting to use the appliances, read through the associated operating instructions and follow their safety instructions without fail.
- No-one is permitted within a radius of at least 10 metres (11 yards) of the appliances mounted on the column lifter during operation, since all rotating or slewing tools constitute a hazard.
- Before use, the hydraulic lines must be examined for signs of damage and ageing and must be replaced if necessary. Note the expiry dates printed on the hoses and possibly also on the screw couplings.

Important: Splashing oil can cause injuries and endanger the environment!

- Goggles must be worn without fail if there is any risk of earth, stones or other objects being hurled aside during operation of the attachments.
- Maintenance and repair work may only be undertaken when the hydraulic lines have been disconnected from the tractor. (Risk of crushing!)
- The column lifter and appliances must never be used by anyone who has not read the safety and operating instructions.
- The accident prevention regulations of the employers' liability insurance association must be observed.
- Due to the noise generated when operating the appliances, hearing protection must be worn without fail when working on a tractor with open driver's cab.
- The column lifter and appliances may only be used during sufficient daylight in order to avoid the risk of accidents.
- Always make sure that the bolt of the depth limitation is correctly secured.

6. Technical data:

Weight (without appliances)	:	approx. 50 kg (110 lb)
Dimensions without appliances	:	L x W x H : 700 x 200 x 1000 mm (27.6 x 7.9 x 39.4 “)
Stroke of the column lifter (maximum)	:	single acting: 500 mm (19.7“)

EC Declaration of Conformity

in accordance with EC Directive Machines 98/37 EEC

Manufacturer : CLEMENS GmbH & Co. KG
Maschinenfabrik
Rudolf - Diesel - Strasse 8
D-54516 Wittlich / Mosel

We herewith declare that the mechanical design of the

Machine type : Column lifter S 5

complies with the following relevant regulations (Directives):

Directive on machines	89/392/EEC
	Official Journal of the EC, No. L 183/9
Amended by Directive	91/368/EEC
	93/44/EEC
	93/68/EEC

The following harmonized standards have been applied:

DIN EN 292 , Part 1
DIN EN 292 , Part 2

The following national technical standards and specifications have been applied:

DIN v 8418

Particulars of the authorized signatory

Surname, first name: Clemens, Bernd

Position : Managing Director



Wittlich, 24.05.2006

Place, date

Legal signature

7. Spare parts list:

Address for customer service:

**CLEMENS GmbH & Co. KG
Maschinenfabrik
Rudolf - Diesel - Strasse 8
D-54516 Wittlich**

**Phone: ++49-6571 / 929 - 00
Fax: ++49-6571 / 929 - 192
e-mail: info@clemens-online.com**

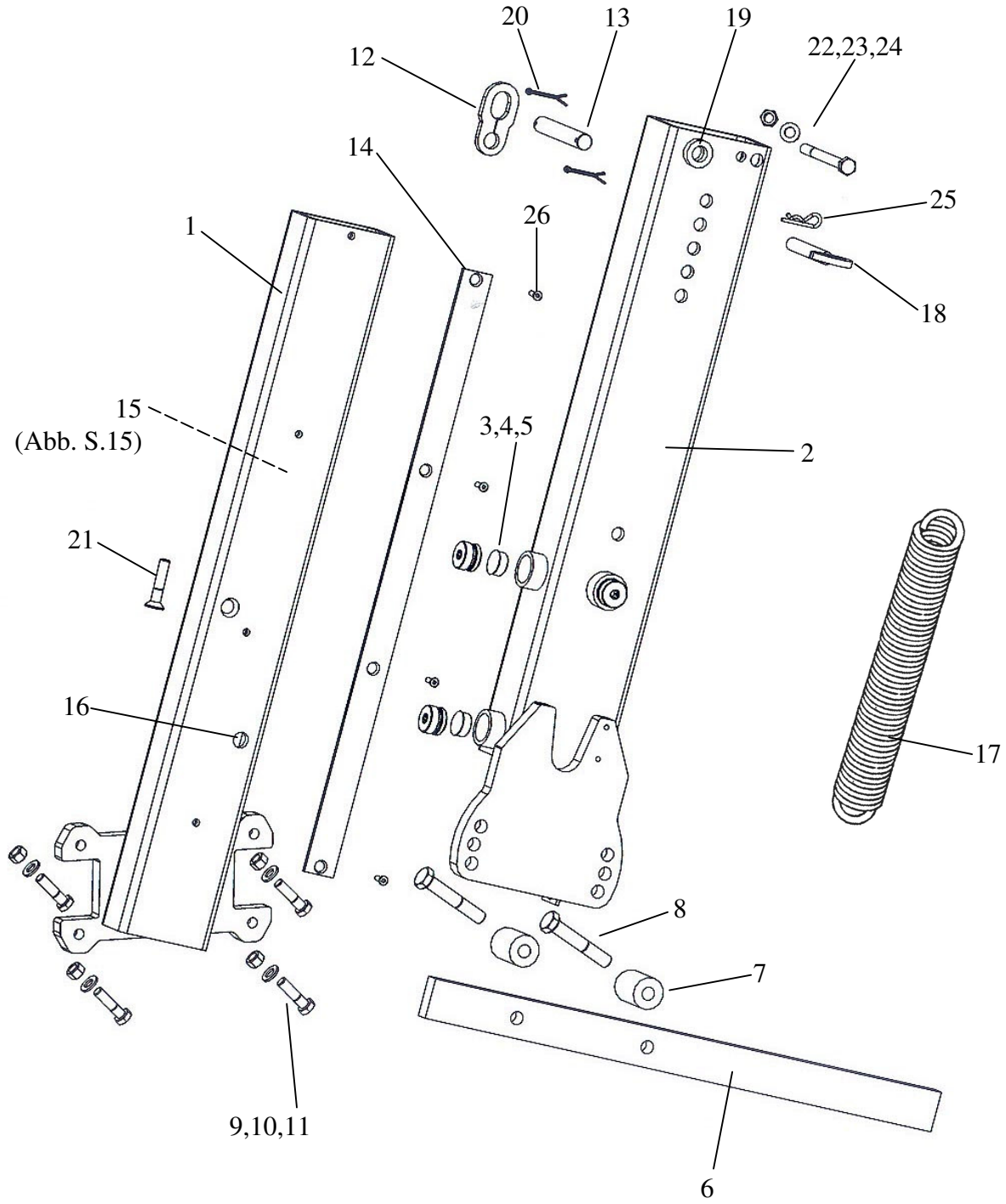
Address for customer service in the USA:

**Clemens Vineyard Equipment, Inc.
224 N. East Street
Woodland, CA 95776**

**Phone: (530) 406-0577
Fax: (530) 661-0451
e-mail: CLEMENS@NETEZE.COM**

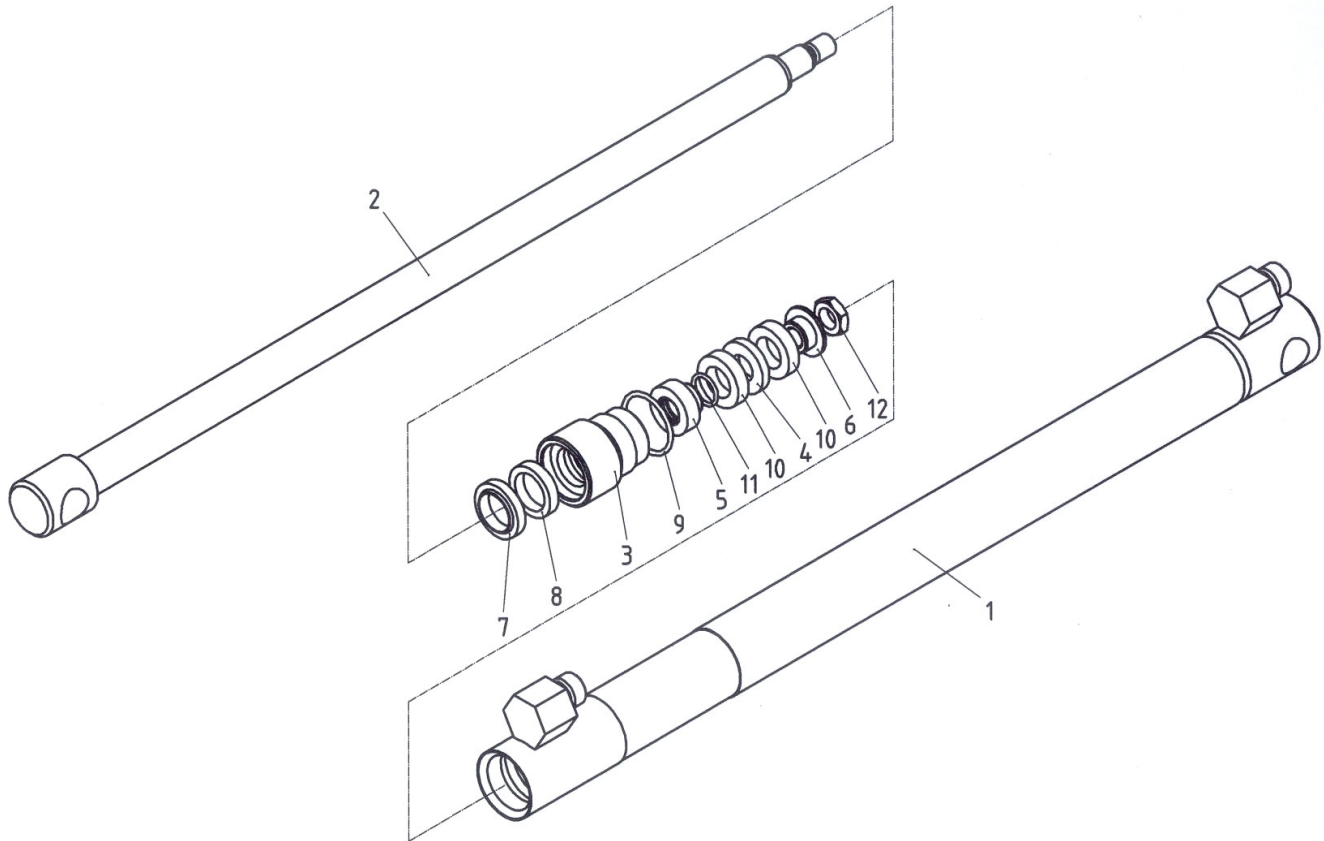
Item No.:	Quantity:	Description:	Order No.:
1	1	Column, rhs	
1	1	Column, lhs	
2	1	Sliding tube, rhs	
2	1	Sliding tube, lhs	
3	3	Slide ring flat	CL 723.010002
4	3	Seal	CW780.025100
5	3	Clamping levers	CL 723.010003
6	1	Mounting bar	CL 866.905100
7	2	Lock washer D 16	CW520.003100
8	2	Hexagon screw M 16 x 1,5 x 50	0961 16 050
9	4	Lock washer Ø 12	CW520.002900
10	4	Hexagon nut M 12	0934 12
11	4	Hexagon screw M 12 x 50	0931 12 050
12	1	Crane lug	CL 866.700006
13	1	Cylinder bolt	CL 866.900001
14	2	Slide rail	CL 866.900002
15	1	Hydraulic cylinder Ø 22, Hub=500	CI 895.270000
16	1	Clamping sleeve Ø 20 x 60	1481 20 060
17	1	Tension spring	CW009.021200
18	1	Bolt	CW003.004000
19	2	Washer Ø 20	1440 20
20	2	Split pin Ø 4 x 30	0094 40 030
21	1	Senkkopfschraube M 12 x 60	7991 12 060 S
22	1	Flat head screw M 12 x 100	0931 12 100
23	2	Washer Ø 12	1440 12
24	1	Hexagon nut M 12	0934 12
25	1	Spring pin	CW520.000300
26	8	Flat head screw M 6 x 10	7991 06 010
for single acting cylinder:			
not shown	1	Fitting SWVE 12-PLM	CW730.085700
not shown	1	Closing screw	CI 895.270001
not shown	1	Hydraulic hose NW10x250	CW700.063100
not shown	1	Hydraulic hose NW8x1700	CW700.020600
for double acting cylinder:			
not shown	2	Fitting SWVE 12-PLM	CW730.085700
not shown	1	Hydraulic hose NW10x250	CW700.063100
not shown	1	Hydraulic hose NW8x820	CW700.026100
not shown	2	Hydraulic hose NW8x1700	CW700.020600

Figure Column lifter S-5 (right hand side device shown)



Spare parts list

Hydraulic cylinder CI 895.270000



Item No.	Description	Dimensions	Quantity	Order No.
1	Cylinder pipe		1	CI 895.271000
2	Piston rod		1	CB 895.272000
3	Bushing		1	CL 895.400001
4	Guiding		1	CL 895.400004
5	Collar		1	CL 895.400003
6	Collar		1	CL 895.022003
7	Dust shield		1	CW780.003600
8	Piston seal		1	CW780.003000
9	O-Ring	Ø32x2,5	1	OR 032 25
10	Seal kit		2	CW780.002900
11	O-Ring	Ø15x2	1	OR 015 20
12	Hexagon nut (half)	M12x1,5	1	0936 12 015