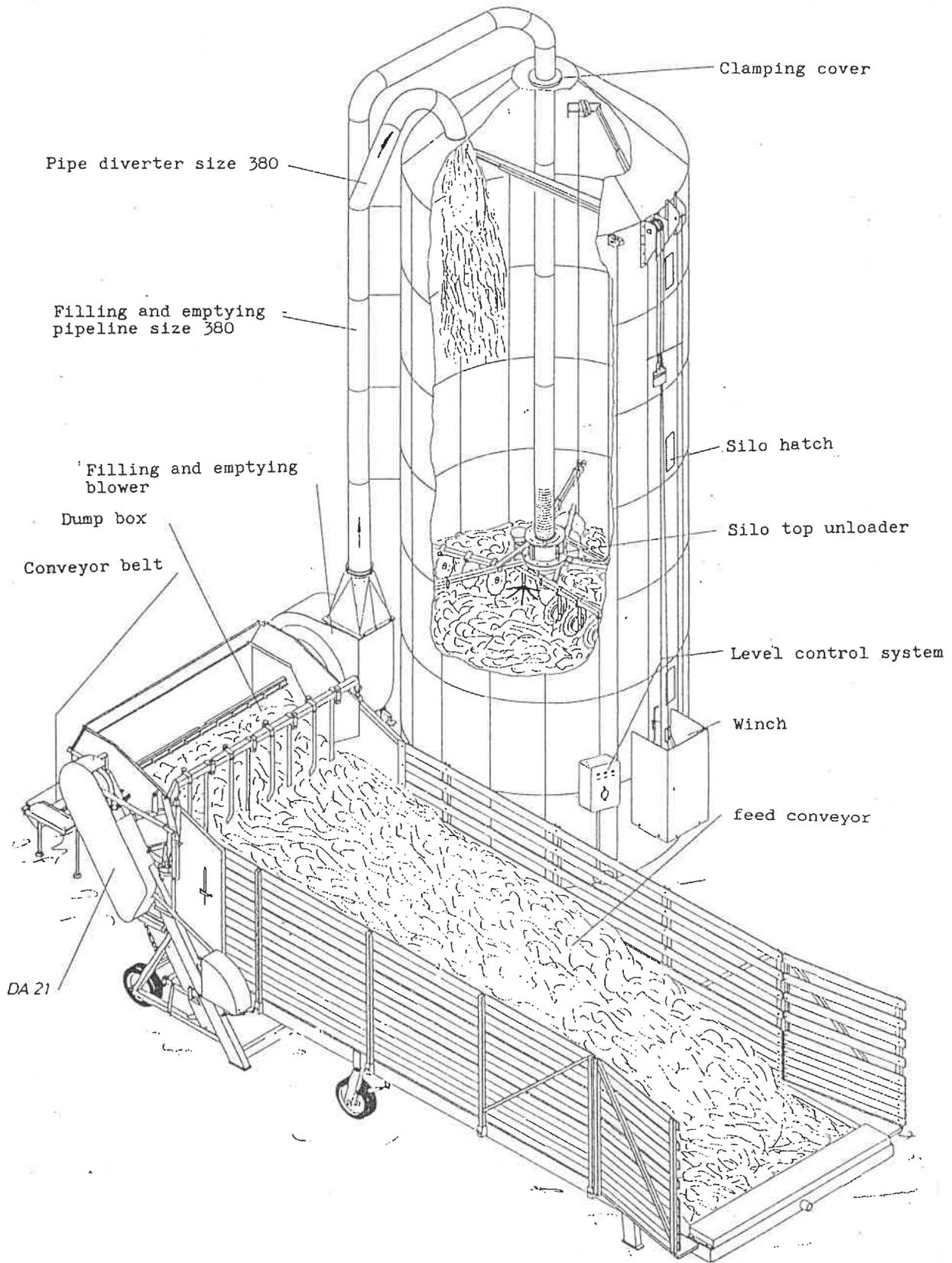


NEUERO



NEUERO

ASSEMBLY INSTRUCTIONS

NEUERO Silo Top Unloader AS

PLEASE NOTE THE FOLLOWING:

Under the German act of 24. 6. 68 relating to technical equipment (Federal Legal Gazette I, page.717) as amended on 13. 8. 79 (Federal Legal Gazette I, page 1432) we would like, inter alia, to draw the following facts to your attention:

1. To operate the present equipment in any way it is essential for the operator to be fully familiar with the present operating instructions and to comply with them.
2. The equipment is intended only for the purposes detailed in the present operating instructions.
3. In all cases, the owner or operator assumes responsibility for the safe functioning of the equipment when it is used in a non-standard manner.
4. We accept no responsibility for damage or loss arising as a result of failure to observe the above stipulations. These stipulations do not constitute a widening of the scope of the terms of guarantee and liability contained in our General Terms of Business.
5. We or the producers of the individual units retain copyright in all documents and drawings. They are made available to the recipient for his personal use only. They may not be copied or duplicated or passed on or shown to third parties, particularly competitors, without our written consent. Unlawful use by recipients or third parties may have consequences in civil and criminal law.

We reserve the right to make technical modifications aimed at improving the equipment.

NEUERO Landtechnik
ENGELBRECHT + LEMMERBROCK GmbH + Co.

A S S E M B L Y I N S T R U C T I O N S

NEUERO Silo Top Unloader AS

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S A F E T Y R E G U L A T I O N S

The silage silo is a closed bin. Lethal gases may also be contained in a bin which has already been emptied.

NEVER ENTER A SILAGE SILO COMPLETELY OR PARTIALLY FILLED WITHOUT TAKING THE BELOW-MENTIONED PRECAUTIONS!

DANGER TO LIFE BECAUSE OF SILAGE GASES!

The term "silage gases" means t w o different kinds of gas:

1. Carbon dioxide CO₂

It is not detrimental to health, but replaces atmospheric oxygen thus resulting in suffocation. Carbon dioxide is heavier than air; it is scentless, tasteless and colourless.

CO₂ is always produced during fermentative process.

2. Nitrogen oxide, mainly NO₂

is a hazardous gas because it dissolves on the wet internal surfaces of the lungs when breathing in. In this connection strong nitric acid is produced burning the surface of the lungs.

NO₂ is heavier than air, it smells pungently, its colouring is rufous/yellowish-brown.

NO₂ may develop. However it is only developed in case the plant has taken up nitrates and these have not yet been changed to forage proteins.

We recommend that you contact agricultural organizations in order to find out how you can prevent the development of nitrogen gases.

BEFORE ENTERING the silo for discharge of residuals and for maintenance of the unloading and loading equipment

- open the centre hatch in the roof and the silo hatch above the silage layer or the silo floor cautiously.

Hold a wet cloth in front of mouth and nose in case you notice symptoms of a pungent smell.

Go away from the silo quickly or climb up the ladder because the gas will sink down in the air.

- AERATE OR DEAERATE the silo bin with fresh air by using a powerful blower (possibly pneumatic conveyor) for a minimum period of 45 minutes depending on the size of the silo. Let the blower run while staying in the silo.
- Make a LIGHT TEST with a naked flame (e.g. kerosene lamp). If the flame is extinguished, CO₂ is available.
- For his safety, the person entering the silo must be roped up by two strong assistants standing outside the silo.
- The main switch for the unloading and loading equipment has to be set to position "0". (See also operating instructions for silo equipment).
- Never enter the silo while the unloader is raised.
- Lock the silo hatches in the operating area of the unloader.

Should it prove necessary to enter the silo, this should be done immediately after the filling process. Do not wait until the next day!

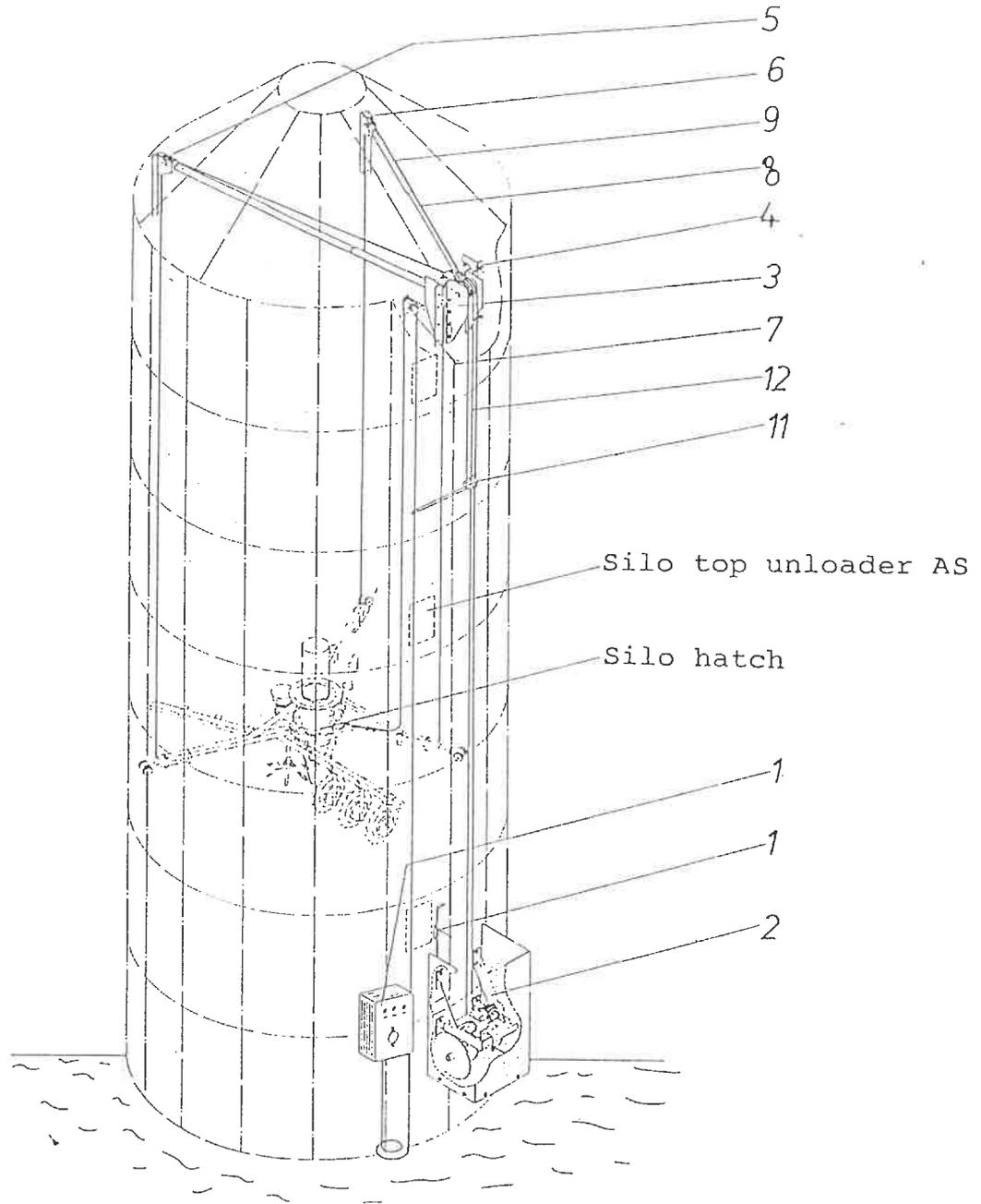
The lower ladder which can be removed by hand has to be put on a safe place and locked up after each access. This will prevent children from climbing up the silo.

Fasten all loose parts laying on the roof (e.g. pipeline parts) to ensure that they will resist strong wind loads.

The silo must only be used for purposes for which it is designed.

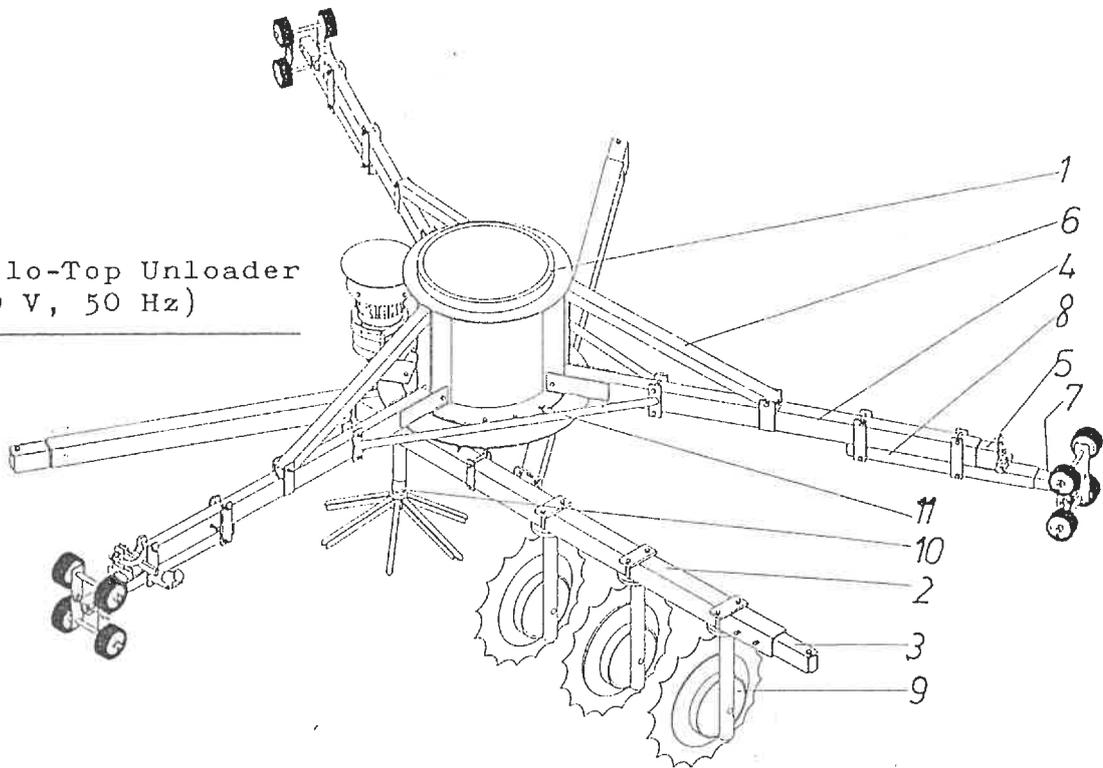
Do not forget to observe the local SAFETY REGULATIONS imposed by the authorities in the country of destination!

NEUERO Silo-TOP Unloader AS 2 with winch and level control.



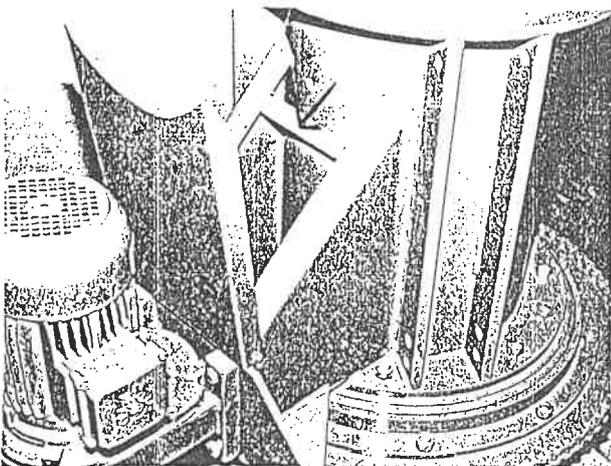
- | | |
|--|---------------------------------------|
| 1. Limit switch | 8. Adjusting pipe |
| 2. Winch | 9. Transverse bracing |
| 3. Outer roller block | 10. Level control |
| 4. Internal roller block | 11. Deflection pulley |
| 5. Internal roller support, left hand | 12. Bundle of hauling ropes and cable |
| 6. Internal roller support, right hand | |
| 7. Cable pulley block | |

NEUERO Silo-Top Unloader
AS 2 (380 V, 50 Hz)

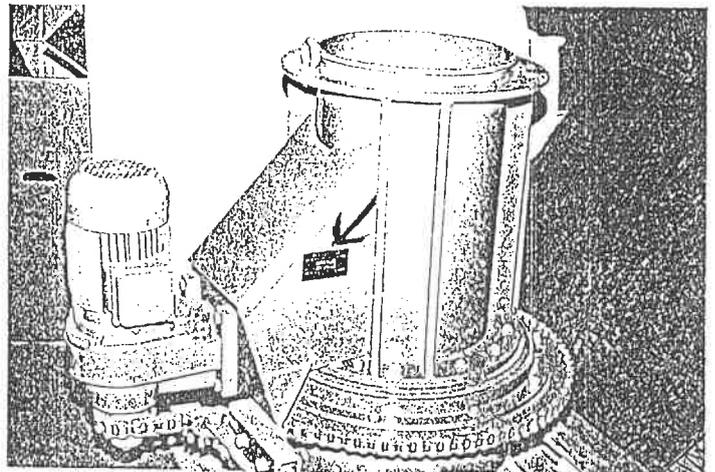


- | | |
|---------------------------|-------------------------------------|
| 1. Driving head | 7. Supporting wheel bracket |
| 2. Rotary arm | 8. Supporting wheel sleeve |
| 3. Rotary arm extension | 9. Pick-up disc |
| 4. Carrying arm | 10. Clean-up device |
| 5. Carrying arm extension | 11. Cross bracing for carrying arms |
| 6. Supporting arm | |

On inquiries, orders etc., please indicate the production number and the serial number.

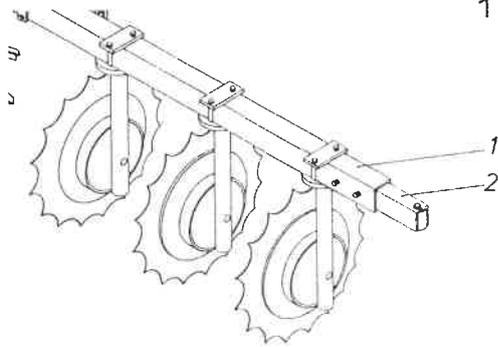


Production number



Serial number

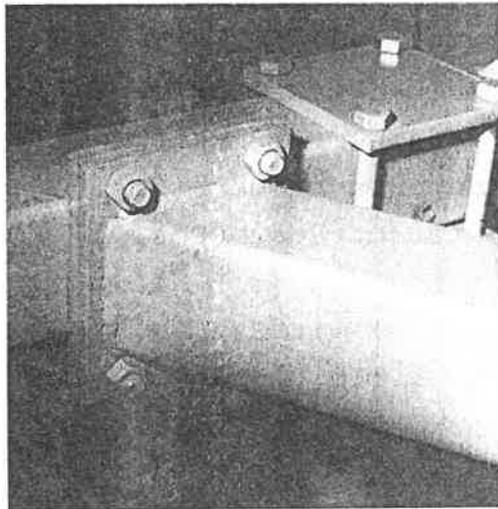
For level control, the identification number from the type plate and the drawing number (in the switch cabinet) should be indicated.



Ill. 1.1

1. ASSEMBLY OF DRIVING HEAD, ROTARY ARMS AND CARRYING ARMS

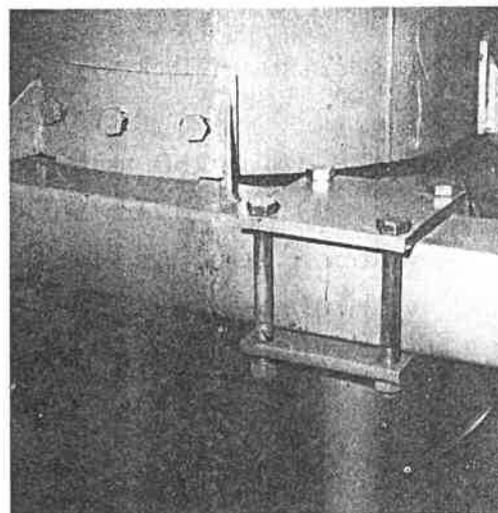
The assembly is carried out inside the silo. The component parts are therefore assembled in the silo according to the progress of assembly. In case the assembly is carried out in a filled silo the silage should be covered with a tear-resistant tarpaulin.



Ill. 1.2

For better transport into the silo the driving head can be dismantled into 4 components (gear motor - ball bearing - upper part - lower part). The minimum dimensions of the hatch must be 650 x 530 mm.

1.1 Push the rotary arm extension (item 2) into the rotary arms (ill. 1.1, item 1) and secure by 2 hexagon bolts (M16x35).

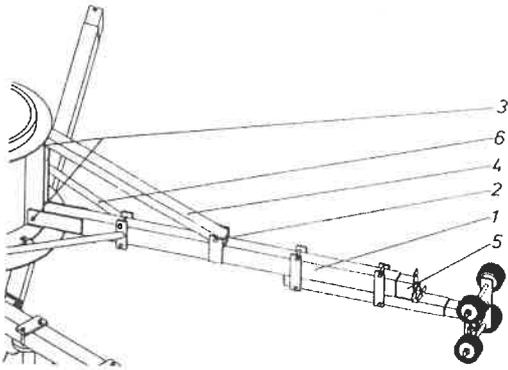


Ill. 1.3

1.2 Lay-out the rotary arms in form of a star and bolt them together by hexagon bolts (M16x45) (ill. 1.2). Attention must be paid to the fact that the welded semicircular segments stand erect.

1.3 Insert the driving head in the centre of the triangle formed by the rotary arms and bolt together by hexagon bolts (M16x35) (ill. 1.3).

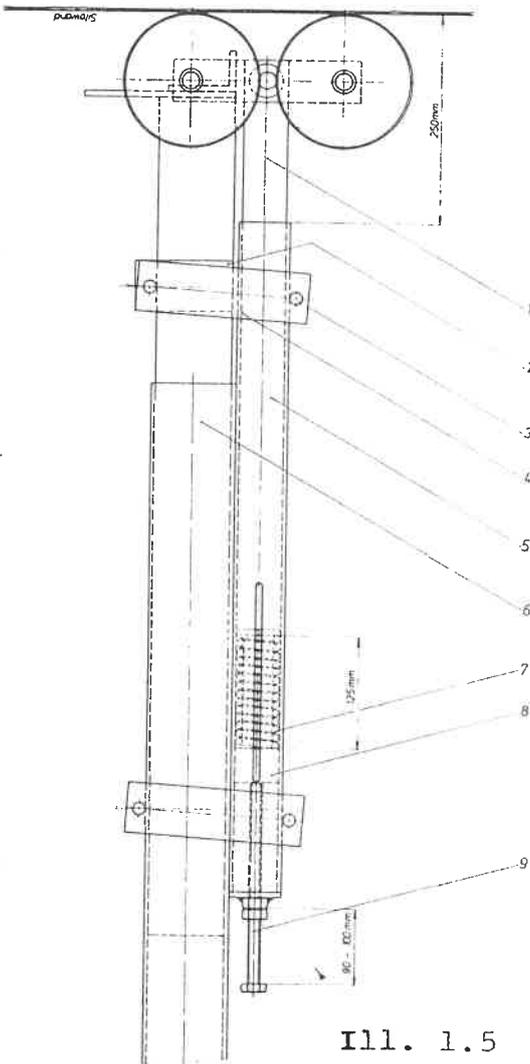
1.4 Push the extension into the carrying arms (ill. 1.4, item 5) and secure by hexagon bolt (M10x25).



Ill. 1.4

1.5 Connect the carrying arms (ill. 1.4, item 1) with the driving head (ill. 1.4, item 3) by means of pin (16x140).

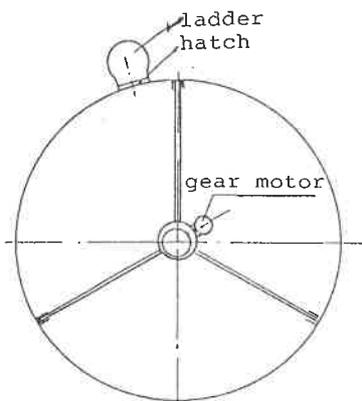
1.6 Mount the supporting arms (ill. 1.4, item 4) to the carrying arms (with pin 16x110) and to the driving head (with pin 16x140). Secure the pin by means of spring pin (\varnothing 4 mm).



Ill. 1.5

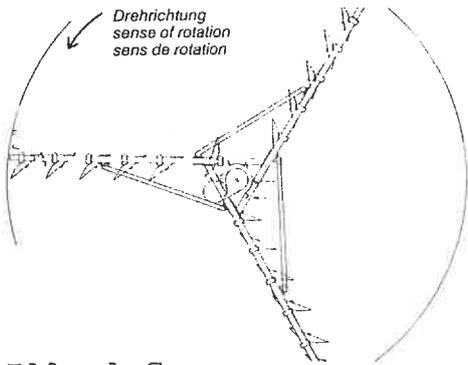
1.7 Complete the supporting wheel sleeves (ill. 1.5, item 5) by one thrust piece each (item 8), one compression spring (item 7) and one supporting wheel bracket (item 1) and clamp them to the carrying arm and to the carrying arm extension (item 6) by 4 clamping flanges each (item 4) and hexagon bolts (M16x110), (item 3), so that the slightly pre-stressed supporting wheels rest against the silo wall. Insert the intermediate pieces (item 2) on the carrying arm extension.

Screw the straining screws M16x250 with counternuts (item 9) by hand to the provided nuts of the supporting wheel sleeves. The supporting wheel sleeves project 250 mm from the silo wall. The clamping plates have to be pushed back until the barrel of the hexagon bolt is close to the supporting wheel sleeve.



Ill. 1.6

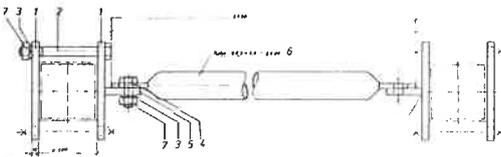
1.8 Assemble the cross connections of the carrying arms by hexagon bolts (M12x100) and counter flange (ill. 1.4, item 6).



Ill. 1.7

1.9 Align the carrying arms by turning them so that the driving motor is placed behind the left carrying arm (seen from the hatch), (ill. 1.6).

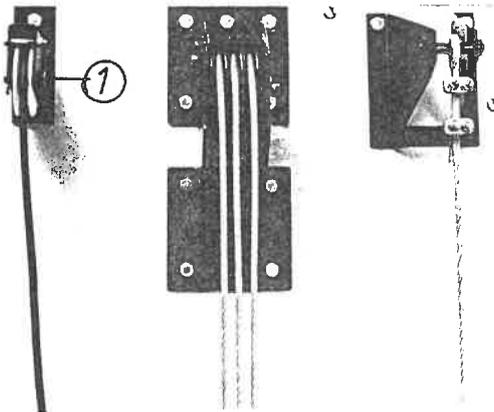
1.10 Release screws of motor ventilator cowl, cover with dust protection cap and re-fasten screws.



Ill. 1.8

1.11 Fasten cross connections with screws additionally between the rotary arms of the top unloader type AS 90 (ill. 1.7). Fasten clamping plates with brackets to the rotary arms by hexagon bolts (M16x150) and connect them with the intermediate pipe. Fixing with hexagon bolts M16x35 (ill. 1.8).

2. ASSEMBLY OF ROPE PULLEY BRACKETS

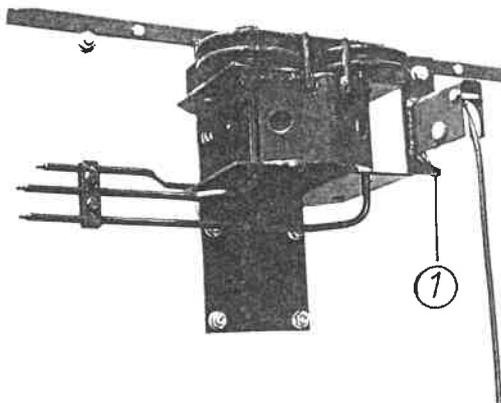


Ill. 2.1 (outer roller bracket)

2.1 Drill the holes for the inner and outer roller brackets according to scheme (ill. 2.5) in alignment above the aligned carrying arm (paragraph 1.9) into the silo wall at its highest point.

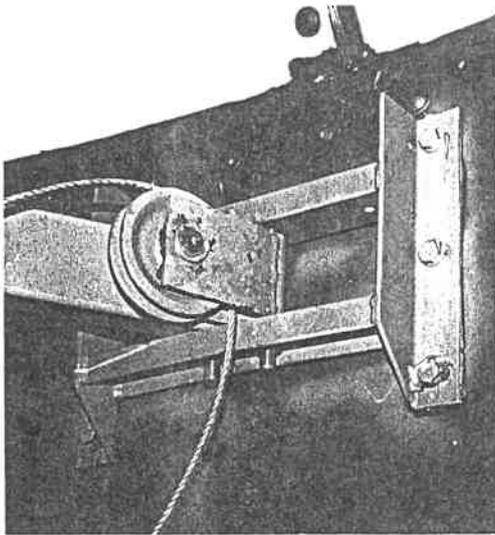
10 holes \varnothing 13 mm, 1 hole \varnothing 25 mm and 1 long hole 65 x 25 mm.

2.2 Fasten the inner and outer roller bracket (ill. 2.1 and ill. 2.2) by hexagon bolts (M12x35). In case of wooden silos use hexagon bolts M12x80.



Ill. 2.2 (inner roller bracket)

2.3 Drill 3 holes (2 x \varnothing 13 mm, 1 x \varnothing 25 mm according to scheme (ill. 2.5) at the level of the rope pulleys to the left of the outer roller bracket (ill. 2.1, item 1).



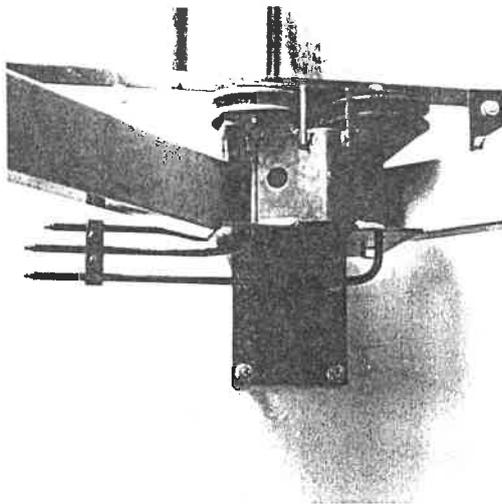
Ill. 2.3

2.4 Fasten cable roller brackets "inside" (ill. 2.2, item 1) and "outside" (ill. 2.1, item 1) by hexagon bolts M12x35 (in case of wooden silos M12x75).

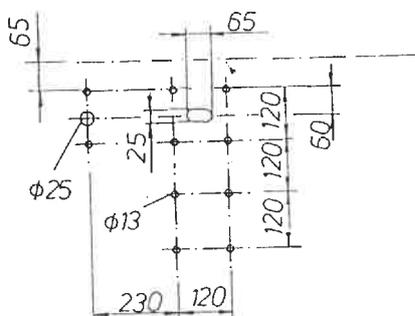
2.5 Drill 6 holes of 13 mm diameter each in alignment above the 2 other carrying arms at the level of the inner roller bracket for the inner roller support (ill. 2.5).

2.6 Fasten the inner roller supports (ill. 2.3) by means of hexagon bolts M12x35 (M12x80) and back stops applied from the outside.

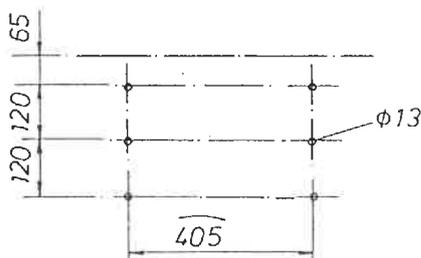
2.7 Assemble the cross bracing of pressure pipe and adjusting pipe and push into the seat of the inner roller supports and the inner roller bracket (ill. 2.3 and 2.4). Fixing by means of hexagon bolts (M16x150). Assemble roller brackets (ill. 2.3) by hexagon bolts (M16x150). The brackets of the pins must point at the cross bracing. Therefore exchange the pin of one roller bracket. Strongly tighten the straining screws of the cross bracing (Allen screw 16 mm) and secure.



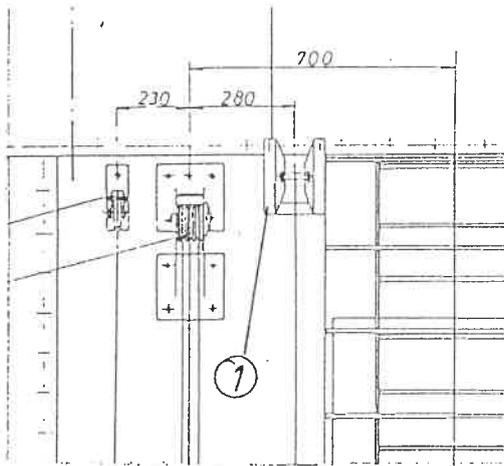
Ill. 2.4



Inner - and outer roller bracket
Ill. 2.5



Inner roller support

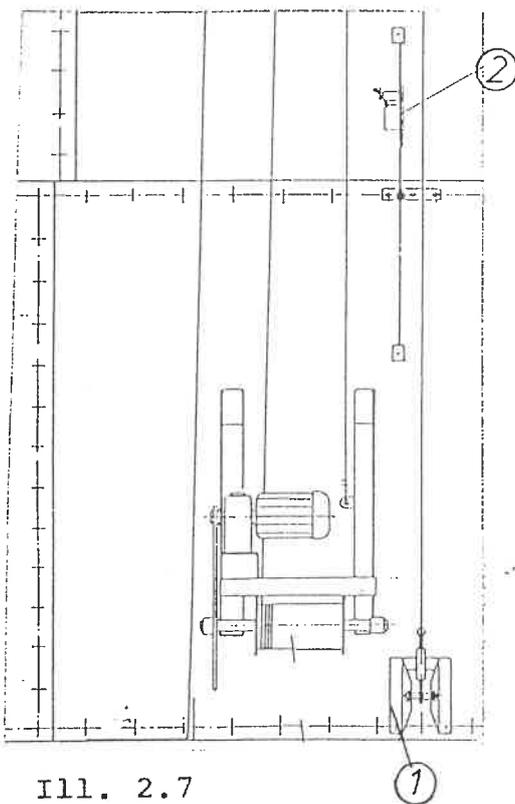


Ill. 2.6

- 2.8 Fasten the upper support for the wire rope guidance (ill. 2.6/1) to the right of the outer roller bracket to the top range of screws.

Assemble the lower support (ill. 2.7/1) vertically underneath in the foundation area.

- 2.9 Check if all screw connections are tight. Check if the rope pulleys run smoothly and grease.

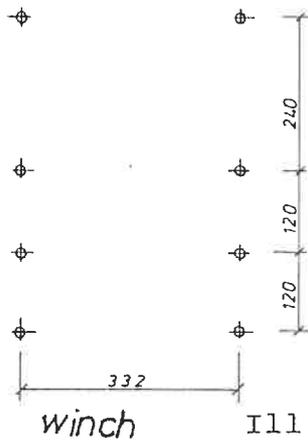


Ill. 2.7

2.10 N o t i c e:

- a) When assembling the rope pulley brackets and the supports in steel silos with very thin walls (less than 2,0 mm) reinforcing sheets are required. These reinforcing sheets must be fixed inside the silo between the rope pulley brackets and the silo wall or outside between the winch and the silo wall respectively.
- b) When assembling the rope pulley brackets in concrete silos with vaulted roof (sheet metal, aluminium, synthetic material etc.), longer fastening screws depending on the wall thickness have to be provided by the customer.
- c) When assembling rope pulleys in concrete silos with horizontal concrete roof the 2 cross bracings are not required. In this case specially manufactured rope pulley brackets can be fixed to the outside of the silo roof by means of dowels and the wire ropes can run over the silo roof from outside.

Bohrschema



Ill. 3.1

3. ASSEMBLY OF THE WINCH WITH LIMIT SWITCH

Assemble the winch as low as possible left to the hatches (ill. 3.2). The winch has to be in alignment with the outer roller bracket.

3.1 In case of an empty silo:

Place the winch at the silo, mark the holes, drill diameter 17 mm (ill. 2.7) and fasten the winch by hexagon bolts M16x35 (in case of wooden silos: M16x80). Set the back stops from inside.

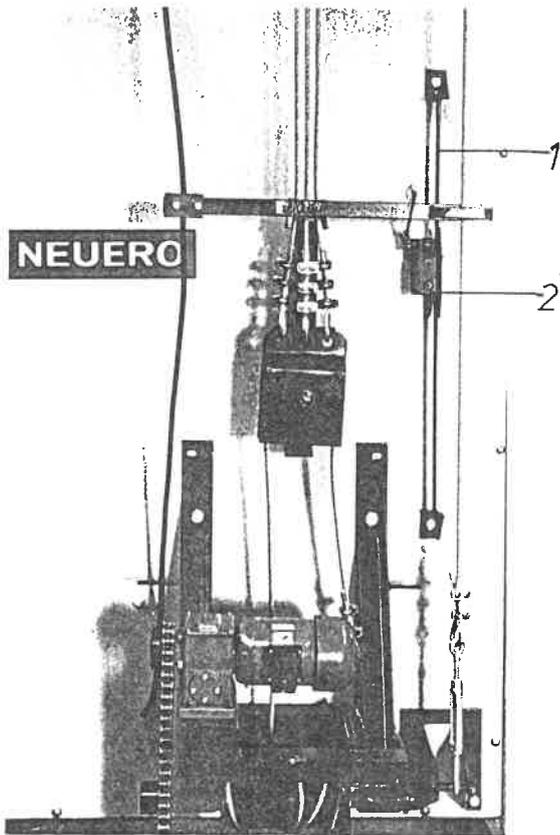
3.2 In case of a filled wooden silo:

Only pilot-drill the holes and fasten the winch by hexagon wood bolts 16x60.

3.3 In case of a filled steel silo:

The customer fastens the winch with dowels by a threaded rod (M12) four times in the foundation. When the silo is empty fasten the winch as described in paragraph 3.1.

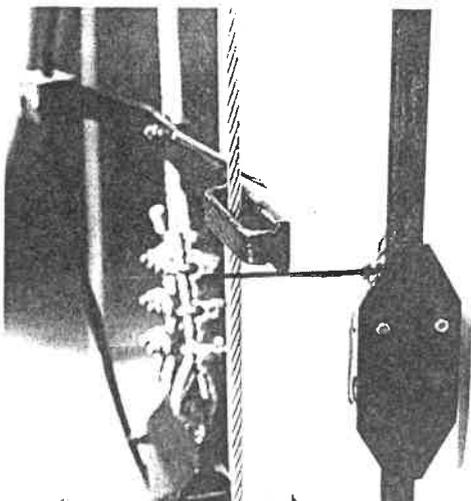
The customer seals the holes with silo mastic.



Ill. 3.2

3.4 Fasten the rail for the limit switch with screws on the right-hand side above the winch (2 hexagon bolts M10x25).

3.5 Clamp the limit switch by 2 cheese head screws (M5x60) and counter plate (170x40x4) to the left of the rail (ill. 3.3). Clamp clamping lever and switch rod to the limit switch (ill. 3.4). Check if all screw connections are tight and grease bearing.

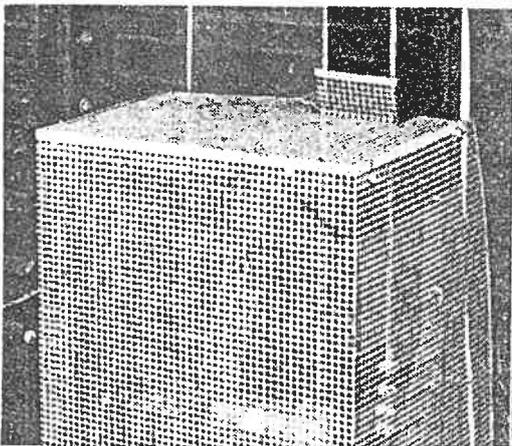


Ill. 3.3



Ill. 3.4

3.6 Cover the winch from the front with the protection cage with the closed side on top and fix by means of washers and hexagon nuts M8 to the safety screws of the winch frame (ill. 3.5). Cut out cover plate in the area of the wire rope, if necessary.

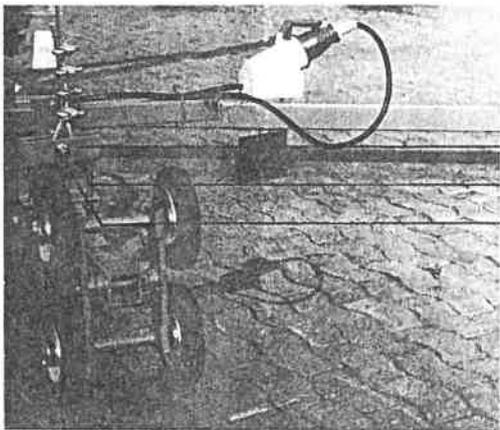


Ill. 3.5

4. LAYING OF WIRE ROPES AND CABLE

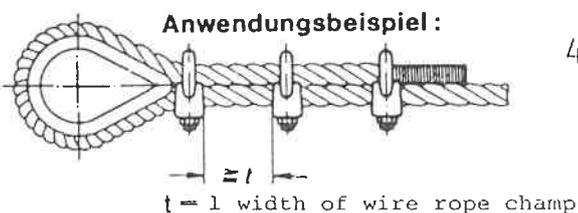
Unwind the wire ropes previously from the bundle in their total length because they have to be laid twist-free.

4.1 Fix U-rail (ill. 4.1/1) by 2 hexagon bolts (M10x120, item 2) with counter nuts to the carrying arm extension. Place the pin (\varnothing 13 mm, item 3) in advance, insert a rope eye in the U-section and secure by washer (\varnothing 13mm) and split pin (4x20).



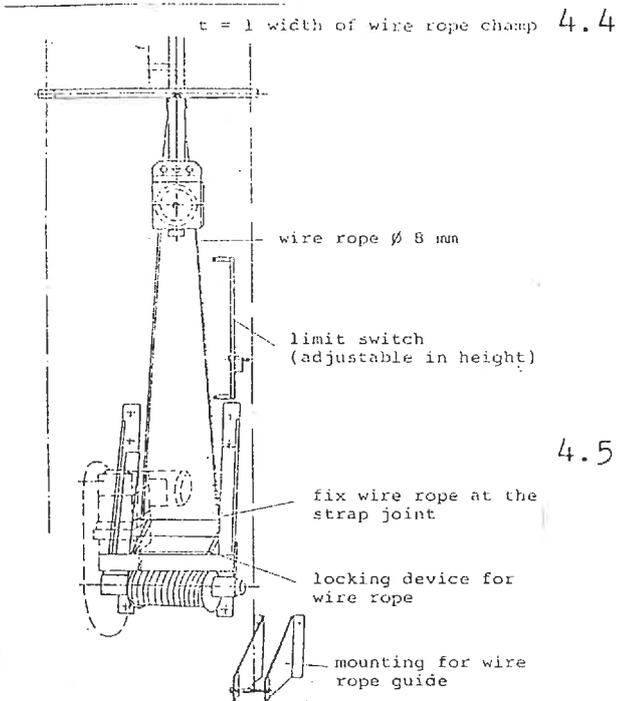
Ill. 4.1

4.2 Lead the wire ropes to the carrying arms as follows:
 the two longer ropes via the outer and inner roller bracket and via the right or left inner roller support respectively. The shorter rope to be led down only via the outer and inner roller bracket directly at the inner silo wall.



Ill. 4.2

4.3 Lead the outer wire ropes via the rope eyes of the deflection pulley and fasten each wire rope by 4 wire rope clamps (8 mm). Place the first clamp directly above the rope eye and the other clamps at a distance of one width of a clamp in each case. Place the clamp strap on the unstrained end of the rope



Winch with deflection pulley
and limit switch

Ill. 4.3

4.4 In case of an empty silo pull up the deflection pulley to the outer roller bracket, lead the wire ropes into the rope eye at the carrying arm extension and fasten. The height (horizontal installation of the silo top unloader) can be adjusted by means of the straining screws (M10) at the carrying arms.

4.5 Draw the longer wire rope, $\varnothing 8$ mm, over the deflection pulley, fix it to the bracket of the winch (right) (ill. 4.3), lead the opposite side over the winch drum and fix it to the wall of the rope drum by means of 2 rope clamps.

A t t e n t i o n:

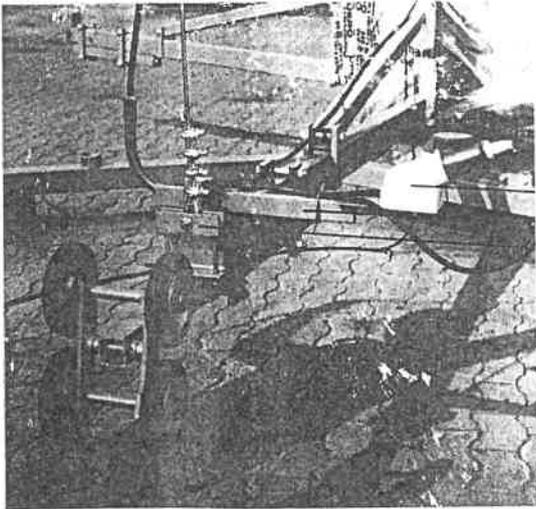
The wire rope must lead to the side of the drum pointing at the silo.

5. ELECTRICAL INSTALLATION

The electrical installation (electric motors and level control system) will be delivered for 380 V, 50 Hz.

Connection of the equipment delivered by our company to the power supply may only be carried out by a qualified electrician authorized by the Electricity Board (EVU).

5.1 Draw the feed cable $4 \times 1,5 \text{ mm}^2$ over the cable roller bracket.



Ill. 5.1

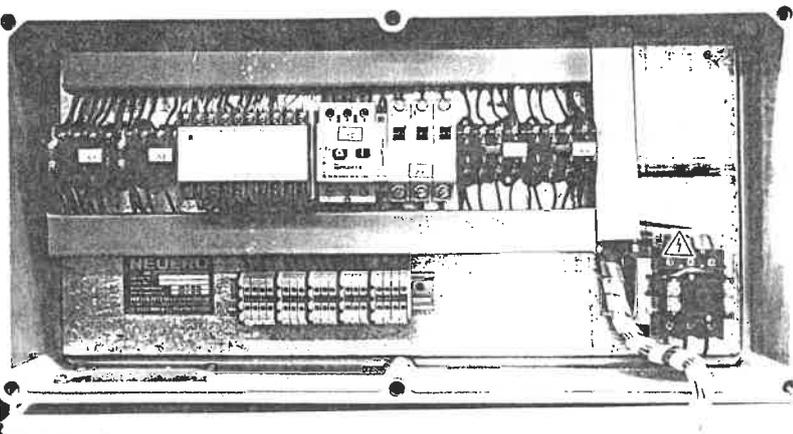
5.2 Fix the supporting arm (ill. 5.1/1) for the CEE-coupling and the cable conduct to the carrying arm extension (left of the hatch) by 2 hexagon bolts M8x50. (The supporting arm points at the hatch).

5.3 Draw the cable through the cable conduct, secure by means of the cable clamp and fix by clamps in the coupling. Fasten the coupling piece with screws to the plate of the supporting arm by means of 2 cheese head screws M5x12 (ill. 5.1, item 2).

5.4 Take the length of the feed cable which is necessary to bridge-over the connection from the driving motor to the CEE-coupling. Clamp the cable both-sided to the motor and to the CEE-plug and fix it to the carrying arm.

5.5 Assemble the level control system at a suitable location (adjacent building or switch cabinet at the silo provided by the customer). The other switches for blower etc. should possibly be installed at the same place.

5.6 Connect the level control system (ill. 5.2) according to the wiring diagram. The cables must lead into the switch cabinet from below.



Ill. 5.2

Feed network

L_1, L_2, L_3, N, PE

Silo top unloader U_1, V_1, W_1, PE

Winch U, V, W, PE

Thermal protection 1,2

Limit switch (run-up limitation for top unloader)

3,4, PE

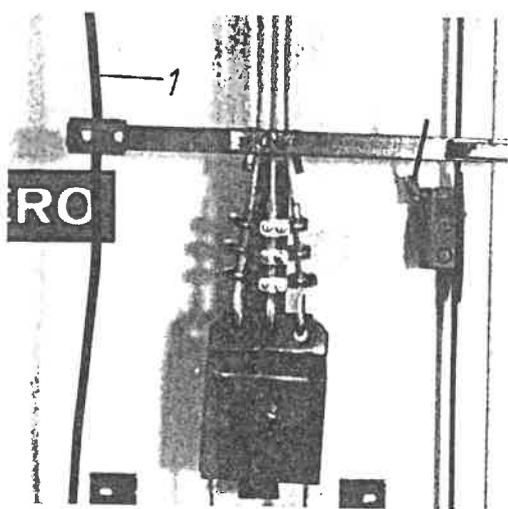


Ill. 5.3

A T T E N T I O N:

The NEUERO level control system is made of electrical high-accuracy elements. Special care must be taken that it is protected from dust, dirt and humidity.

Set the protective motor switch F2 on approx. 5,3 Amps. The minimum current (ill. 5.3/1) must be set on approx. 4,0 Amps., the maximum current on approx. 5 Amps. (ill. 5.3, item 2).



Ill. 5.4

5.7 Clamp the feed cable and the thermal protection to the winch motor.

5.8 Connect the limit switch by clamps.

5.9 Draw the feed cable to the motor of the silo top unloader tightly through to the outside and fix it with the wooden clamps by hexagon bolts (M8x50) to the feed support (ill. 5.4.1).

6. ALIGNMENT OF THE SILO TOP UNLOADER

6.1 Disconnect the coupling and the plug of the feed cable inside the silo.

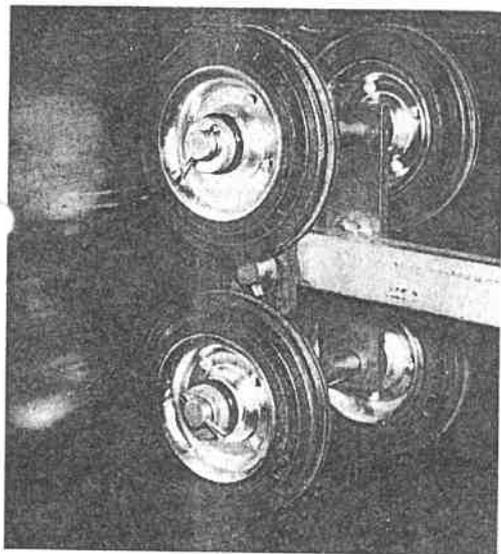
6.2 Set the main switch of the level control system to position I and operate the winch by means of the rotary switch - UP -. Take care that the wire rope is tightly wound up to the rope drum of the winch; lead the rope in case it slacks. The outgoing side of the wire rope points at the silo.

- ACHTUNG!**
1. Vor dem Öffnen einer Silo-Einstiegsluke muß der AS-Hauptschalter auf Stellung 0 (Aus) geschaltet und mittels Verriegelung gesichert werden!
 2. Nach dem Betreten des Silos ist sofort die Kupplung des Zuführtrahls zu lösen!
 3. „Nicht unter angehebenem Scheinleuchten stehen.“



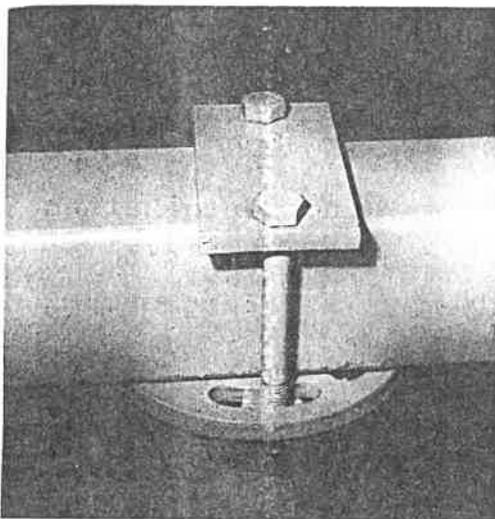
Ill. 6.1

Lift the silo top unloader by approx. 0,4 m inside the silo. The hand switch for winch operation has no grid position for "UP" or "DOWN" respectively and must therefore be kept in position by hand. It will reset to position "0" automatically (ill. 6.1, item 1).



Ill. 6.2

- 6.3 Check the horizontal installation of the silo top unloader by means of a spirit level placed on the rotary arms. Level by means of the straining screws M10, if necessary (ill. 5.1, item 3).
- 6.4 Check if the driving head is placed in the centre of the silo by measuring the distance between the carrying arm and the silo. Level by changing (stretching) the supporting wheels.
- 6.5 The supporting wheels have a full floating axle levelling possible unevennesses - bolt heads etc. The tread of these rubber wheels is softer than the core and consequently slightly digs in so that a wider bearing surface is achieved (ill. 6.2). Assemble and adjust the supporting wheels according to ill. 1.5.
- 6.6 Rotate rotary arms by hand and check the distance to the silo wall which should be 10 cm at its tightest space. Move rotary arm extension, if necessary.



Ill. 7.1

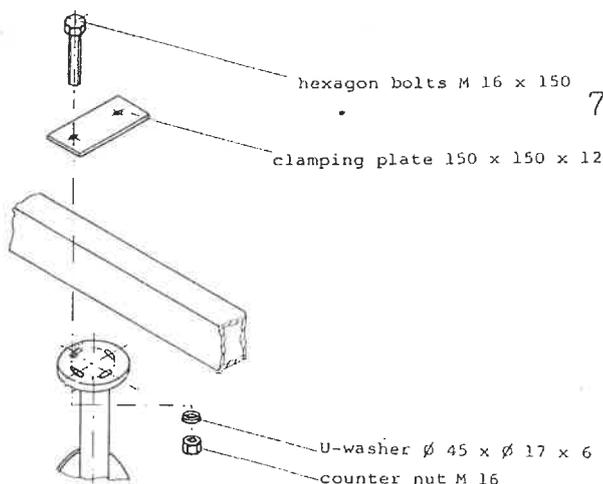
7. ASSEMBLY OF PICK-UP DISCS AND CLEAN-UP DEVICE

7.1 The arrangement of the pick-up disks is effected according to the attached setting plan for the corresponding suction device. Fix the pick-up disks to the rotary arms in compliance with ill. 7.1 and ill. 7.2.

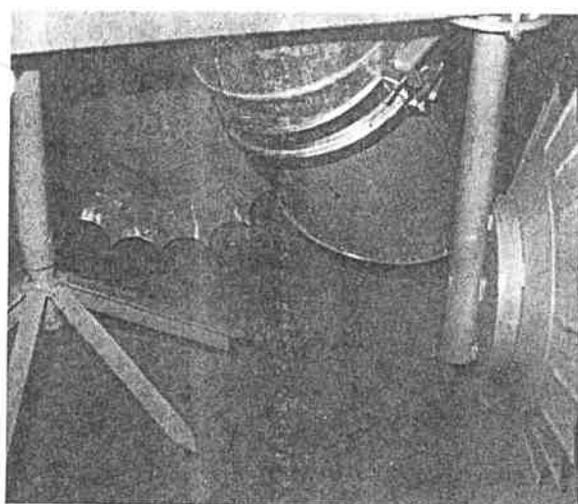
7.2 Set the pick-up disks to filling or emptying respectively (according to the attached setting plans). Tighten hexagon bolts.

7.3 Fix clean-up device in the centre (to the rotary arm) opposite to the suction device by clamping plate (150x150x12) and 4 hexagon bolts (M16x150). The higher part of the clean-up device points at the centre of the silo or at the suction device respectively (ill. 7.3). (See setting of pick-up disks).

7.4 Grease pick-up disks and clean-up device and check if all screw connections are tight. Check if the pick-up disks and the clean-up device run smoothly.

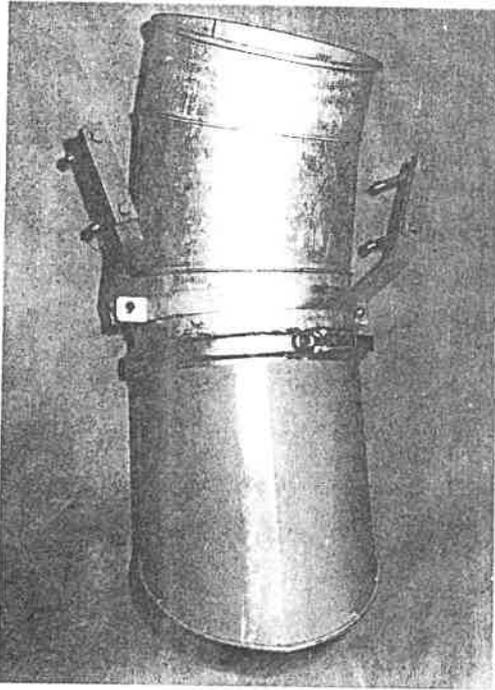


Ill. 7.2



Ill. 7.3

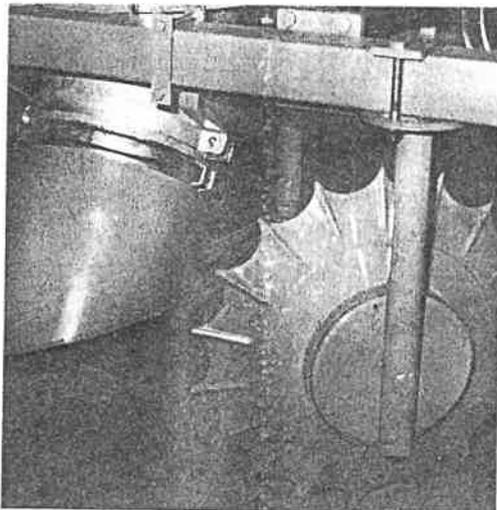
8. ASSEMBLY OF THE SUCTION DEVICE



Ill. 8.1.1

- 8.1 Suction device, size 380, for grass silage up to 15 cm and chopped maize (emptying by forage blower).
- 8.2 Suction device, size 380 L, for grass silage with a dry substance contents of more than 50% (emptying by forage blower).
- 8.3 Suction device, size 310, for short-cut grass silage up to 10 cm (emptying by SAG 14 or 16).
- 8.4 Suction device, size 250, for chopped maize (emptying by SAG 14,16 or 20).

8.1.1 Assembly of the suction device, size 380, according to drawing 17M840.



Ill. 8.1.2

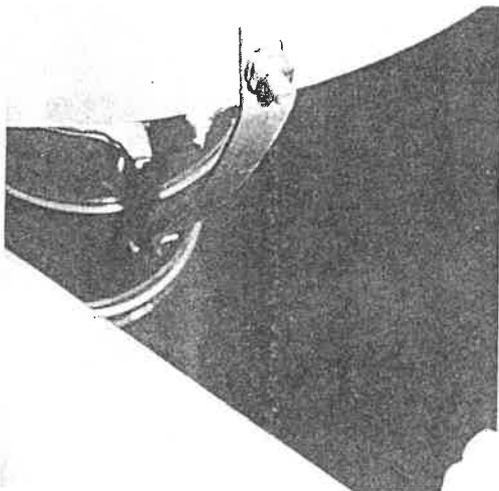
8.1.2 Clamp the mounting bracket (item 12 and 13) and the angular strap (item 8) to an end part of the bend, 30° , (item 1) by hexagon bolt M10x35 (ill. 8.1.1).

8.1.3 Push bend from below into the driving head and fasten by hexagon bolt (M12x140) and clamping bracket (40x8x160) to the rotary arm opposite the clean-up device (ill. 8.1.2).

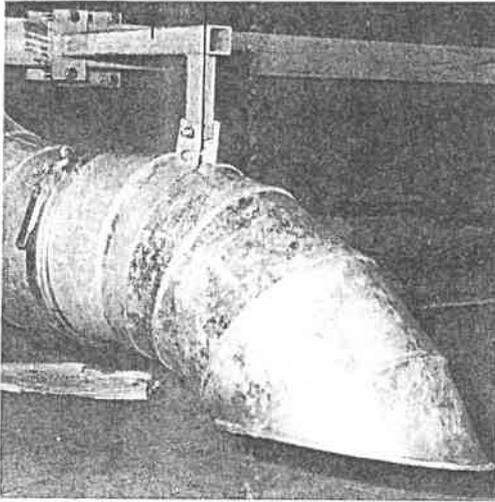
8.1.4 Fasten the strut of the mounting bracket to the lower part of the driving head by hexagon bolt M10x35 (ill. 8.1.3). Drill a hole, \varnothing 11 mm, if necessary.

8.1.5 Push the bend up to the limit stop in the driving head and tighten the screw connection.

8.1.6 Fasten the suction pipe (item 7) to the bend (ill. 8.1.2) by means of the pipe clamp, size 380, with sealing. Only in case of emptying in the first place.



Ill. 8.1.3



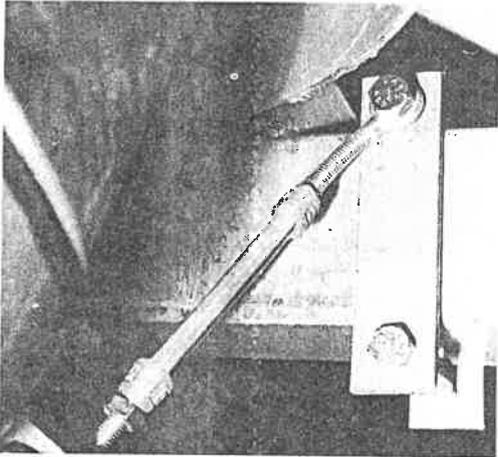
Ill. 8.2.1

8.2.1 The suction device, size 380 L, is assembled according to drawing 17M835.

8.2.2 Fasten mounting with clamping flange (150x80x12) by 2 hexagon bolts M16x150 (ill. 8.2.1).

8.2.3 Fix brackets 17x8x160 to the opposite rotary arm by hexagon bolts (M12x140) and turnbuckle M12x125mm (ill. 8.2.2).

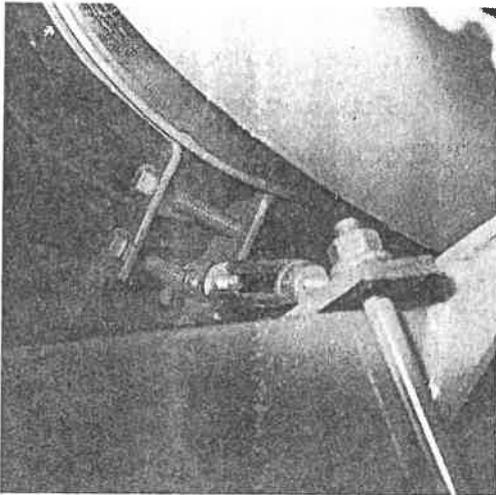
8.2.4 Connect bend, 45°, size 380, mid-diameter 600, with pipe clamp, size 380, cover with clamp and push tightly from below into the driving head. Fasten by means of turnbuckle and hexagon bolt M12x65 (ill. 8.2.3).



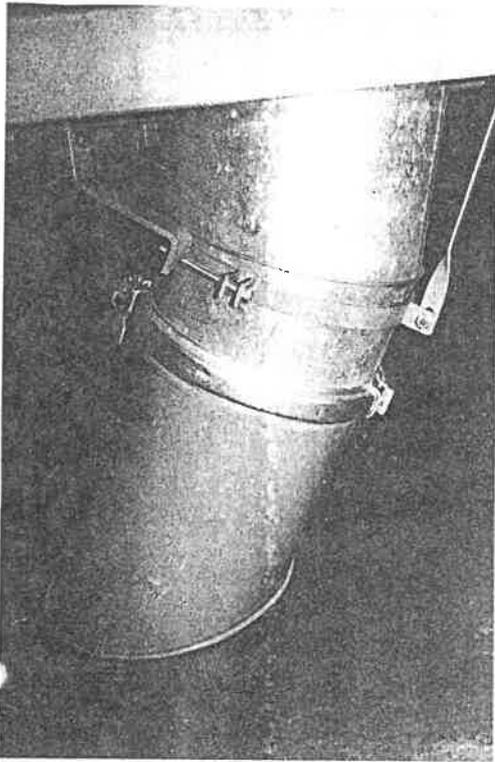
Ill. 8.2.2

8.2.5 Connect the shortened bend, 90°, with the pipe clamp, size 380, to the bend, 45°, and fasten to the supporting arm by clamp and bolt M12x65 (ill. 8.2.1, item 3). (Only in case of emptying in the first place).

8.2.6 Check if all screw connections are tight. Set pick-up disks according to setting plan.



Ill. 8.2.3



Ill. 8.3.1

- 8.3.1 The suction device, size 310, is assembled according to drawing 17M1240.
- 8.3.2 Connect lower part (item 2) and bend, 30° , by a pipe clamp with sealing.
- 8.3.3 Assembly of mounting and suction parts as described in paragraph 8.1.3 - 8.1.5, but fix the bend to mounting bracket and angular strap by hexagon bolt M10x120 (ill. 8.3.1). The suction device can thus be exactly fastened in the driving head.
- 8.3.4 Insert the upper part (item 1) from above into the driving head and fasten by pipe clamp, size 380, with sealing.
- 8.3.5 Check if the suction device is freely rotating at the upper and lower part by rotating the rotary arms; adjust at the mounting bracket, if necessary.
- 8.3.6 Fasten the suction pipe (item 6) with pipe clamp (item 5) to bend. (Only in case of emptying in the first place).

8.4.1 The suction device, size 250, is assembled according to drawing 17M1245 and inserted in the driving head.

Bolt lower part (item 2), bend segment, 30°, (item 3) and pipe (item 5) together by 2 tension rings, size 250, (item 6).

8.4.2 Fasten the angular straps (item 9) to the rotary arm opposite the clean-up device by means of hexagon bolts M12x140 and clamping bracket (item 10).

8.4.3 Push the assembled lower part tightly into the driving head and strongly fasten with screws to the brackets forming an angle by clamp and hexagon bolts (M10x120). Fix strut to the lower part of the driving head by means of hexagon bolt (M10x35). (Ill. 8.1.3).

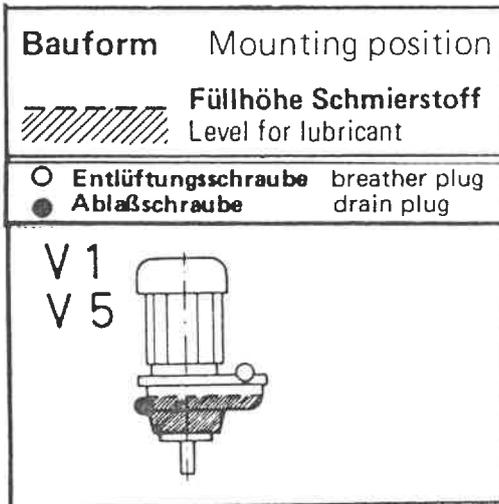
8.4.4 Insert the upper part (item 1) from above in the driving head, make sure that the upper part doesn't touch the lower part and fasten to the centre by means of pipe clamp, size 380, with sealing (item 17).

8.4.5 Check if the lower part is tight in the driving head and freely rotates opposite the upper part. Tighten all screw connections.

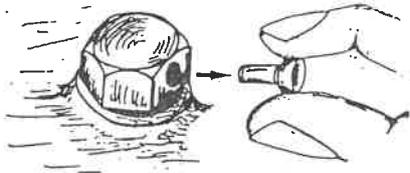
8.4.6 Screw suction piece (item 7) in front of the pipe (item 5) and fasten by tension ring, size 250. (Only in case of emptying in the first place).

8.4.7 In case of very humid silo maize silage the suction pipe can be extended by 50 mm.

9. FUNCTIONAL TEST



Vor Inbetriebnahme auf jeden Fall Plastkappen aus der Entlüftungsschraube heranziehen, damit die Entlüftung des Getriebes gewährleistet ist.



Before starting remove plastic stopper from breather plug to ensure proper ventilation of the gearbox.

Ill. 9.1

- 9.1 In case of an empty silo lower the silo top unloader up to approx. 10 cm. Place square timber underneath, if necessary.
- 9.2 Unwind the wire rope of the winch so far that the deflection pulley can be pulled up to the outer roller bracket. Increase the tension of wire ropes inside the silo; shorten, if necessary.
- 9.3 Remove all tools etc. from the silo. Remove the plastic stopper from the breather plug (ill. 9.1). Grease the 4 lubricating nipples at the rotating ring. Subsequently lift the silo top unloader by approx. 1,0 m.
- 9.4 Set main switch to position ZERO and secure, assemble coupling inside the silo. Thoroughly close the silo hatches in the working area of the silo top unloader.
- 9.5 Unlock the main switch and set to position I. Check if the winch lifts or lowers the silo top unloader in case of position "UP" or "DOWN" respectively. Exchange one phase, if necessary.
- 9.6 Operate press button I and check the sense of rotation from a higher situated hatch (seen from above, anticlockwise, i.e. to the left). Exchange one phase, if necessary. In case the silo top unloader is switched on the winch must move downwards after a few seconds. The signal lamp "DOWN" at the level control system lights.
- 9.7 Check limit switch by hand operation. In case the switch lever is pressed down the winch motor must switch off.

ATTENTION: The limit switch only operates automatically and can therefore be overrun in manual operation.

Fasten the limit switch so high to the rail that it switches off the winch motor before the supporting wheels touch the roller brackets. Under any circumstances this must be observed in case of initial filling.

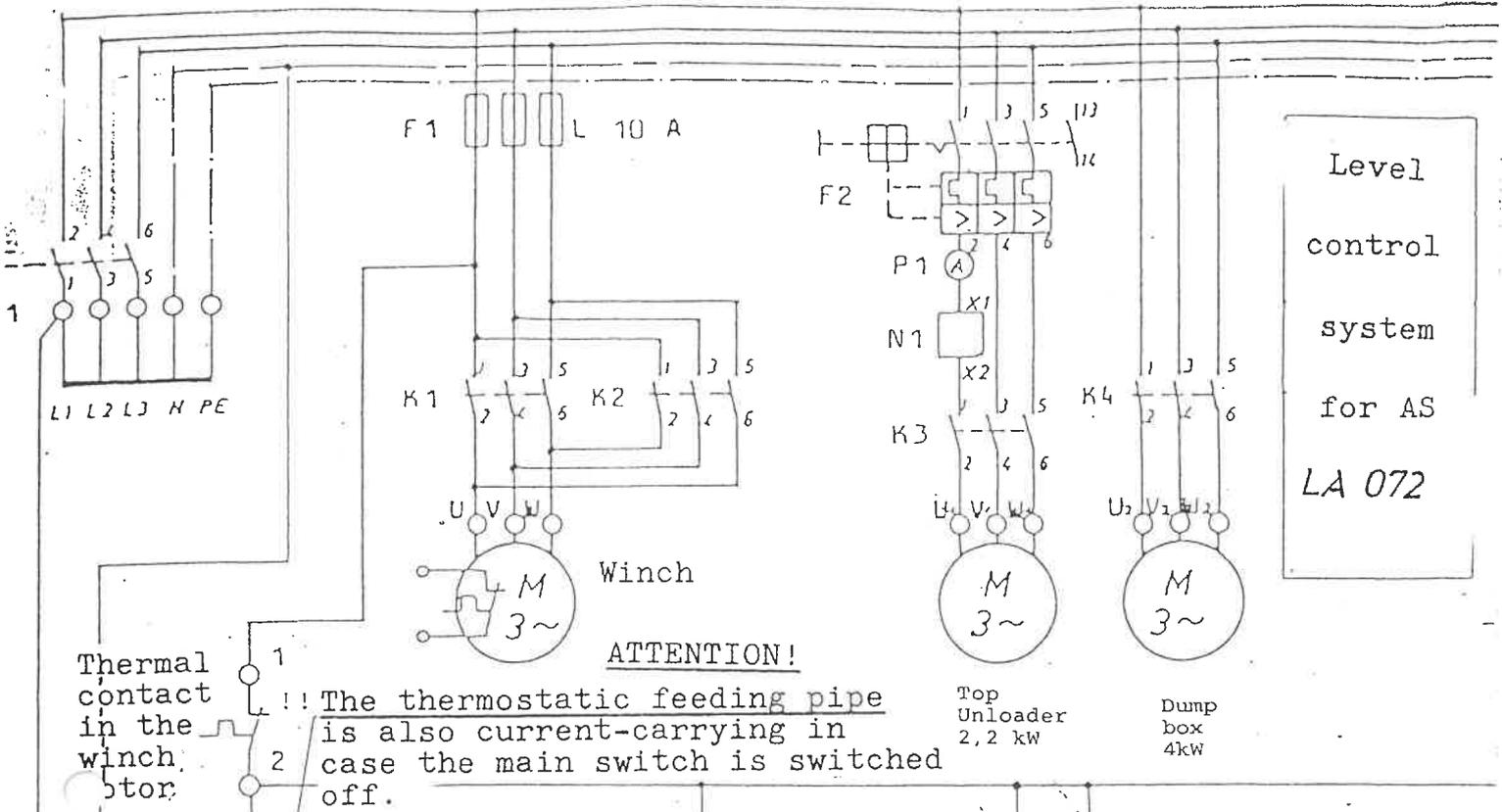
9.8 The winch motor is equipped with a thermal protection installed in the motor winding which will interrupt the motor current in case of having reached a temperature of approximately 130° and consequently switches off the complete installation. In this case the electrical installation has to be checked and switched on again.

9.9 In addition the level control system contains the feeding pipe for a dump box or conveyor belt respectively (max. 4 kW). If for certain reasons the driving motor of the silo top unloader, the winch motor or the limit switch will release, the driving motor of the dump box or the conveyor belt respectively stop at the same time.

This function doesn't operate in case the plug is not plugged in the coupling inside the silo.

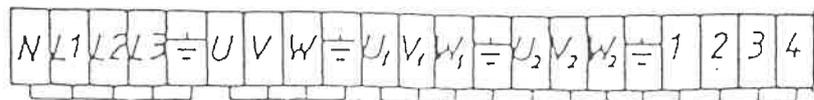
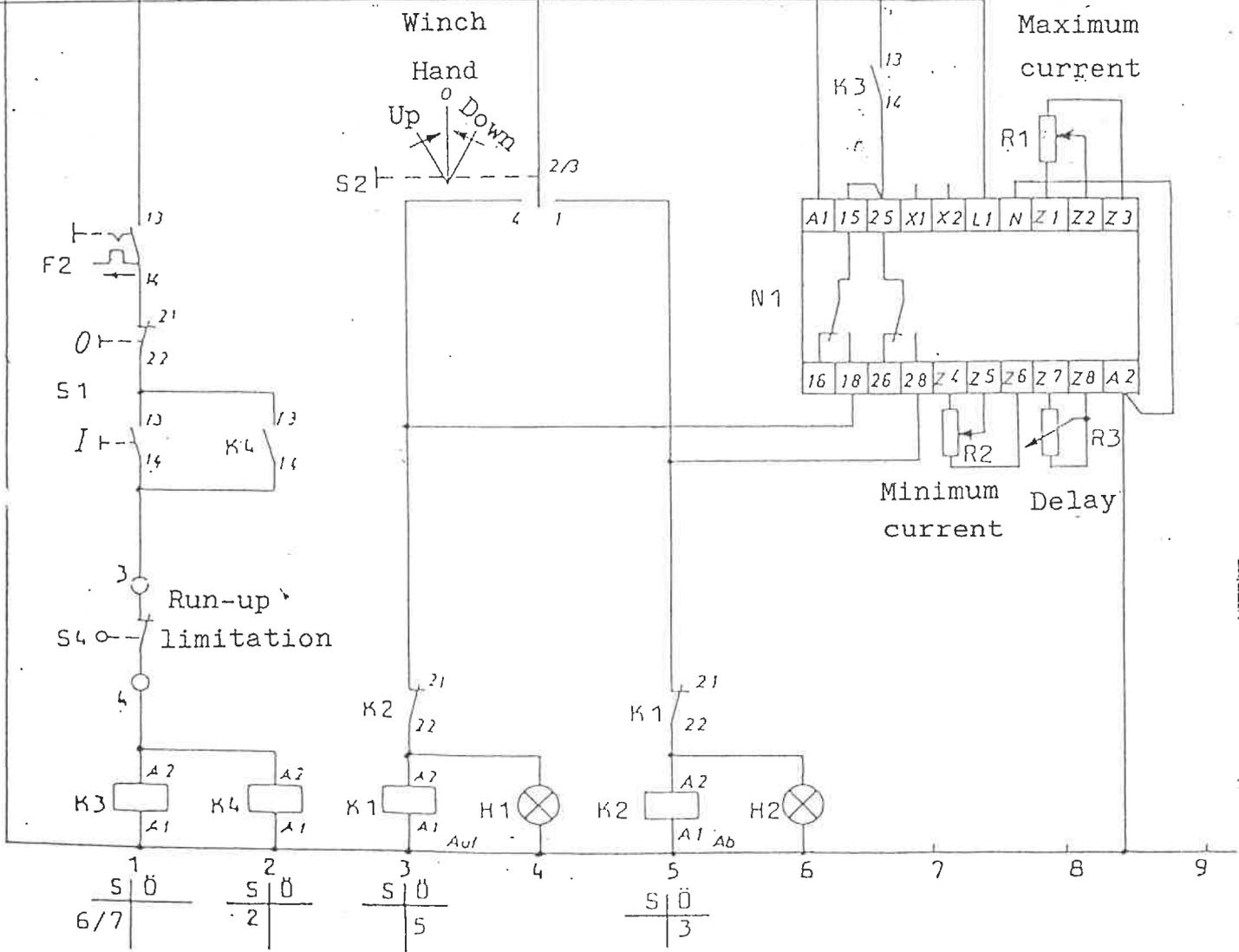
ATTENTION: In this case the silo top unloader is covered with material to be conveyed.

9.10 Setting of the level control system as well as a possible adjustment of the pick-up disks is carried out according to the operating instructions "AS".

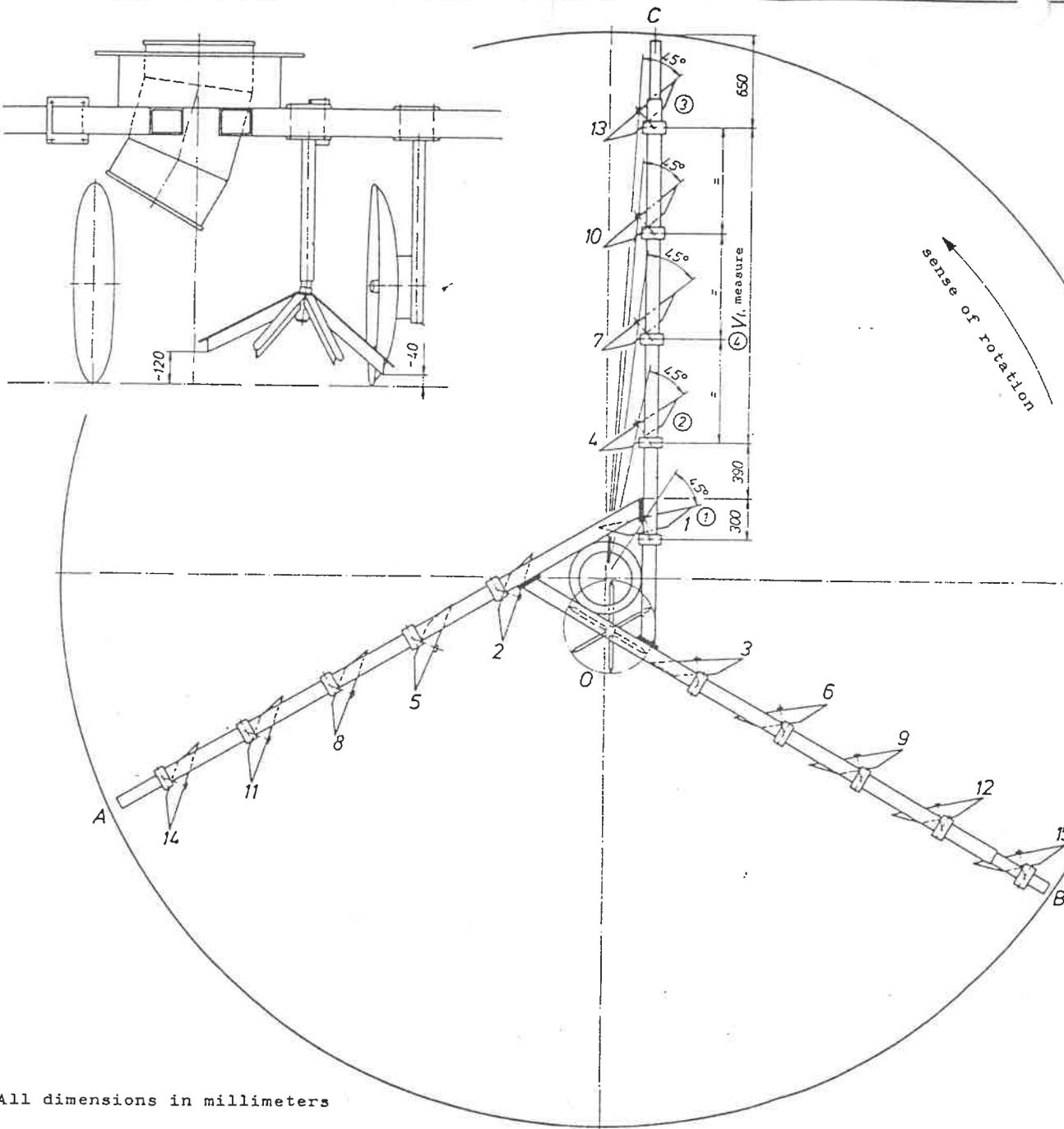


Thermal contact in the winch motor

ATTENTION! The thermostatic feeding pipe is also current-carrying in case the main switch is switched off.



Network Winch Top Dump box Run-up limitation Thermal contact unloader



FIXING OF DISCS ON ARM C

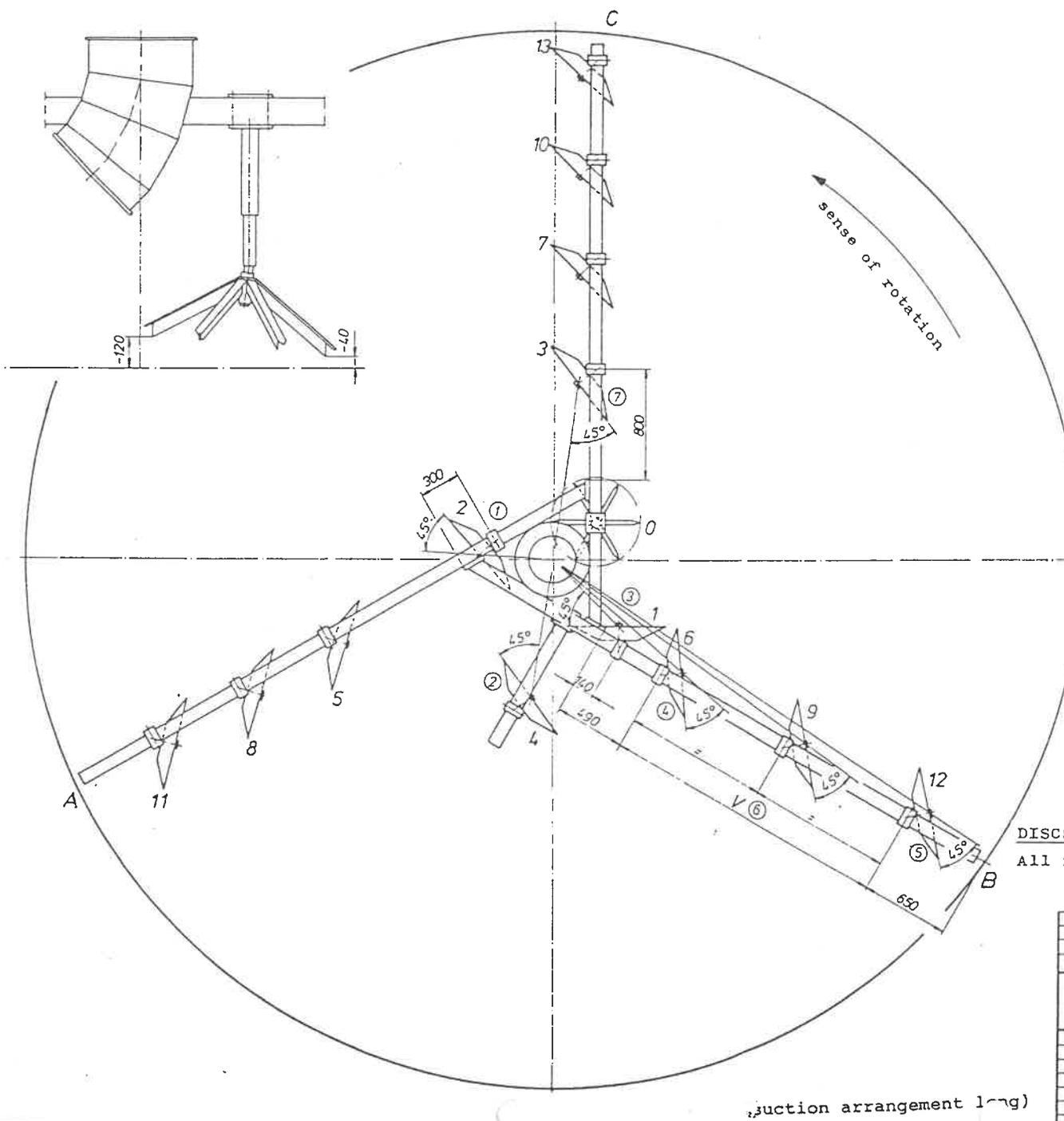
- ① Disc 1 - change angle only
- ② Disc ④ - according to the indicated dimensions
- ③ Disc 13- according to the indicated dimensions
- ④ determine distance V and subsequently fix the other discs uniformly

FIXING OF DISCS ON ARM A and B

Indications, see drawing - setting up of emptying discs -

All dimensions in millimeters

Zustellung-Nr.	Teil	Gegenstand	Stück	Menge	Werkstoff	DW
AS		SETTING OF DISCS FOR FILLING (suction arrangement short)				
<p>NEUERO Engelbrecht & Lemmerbrock GmbH & Co. 4520 Melle, Neuerstraße Maschinenfabrik</p>						<p>Zeichn. Nr. Tab 1106</p>
<p>Gezeichnet Geprüft Abgemessen Ersatz-Nr.</p>						<p>Menge Name Ersatz durch</p>



FIXING OF DISCS ON ARM A

- ① Disc 1 - according to the indicated dimensions

FIXING OF DISCS ON ARM B

- ② Disc 2 - change angle only
- ③ Disc 3 - according to the indicated dimensions
- ④ Disc 6 - according to the indicated dimensions
- ⑤ Disc 12 - according to the indicated dimensions
- ⑥ Determine distance V and fix the other discs uniformly

FIXING OF DISCS ON ARM C

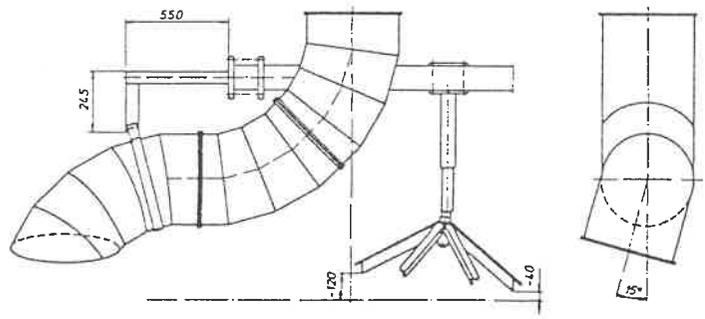
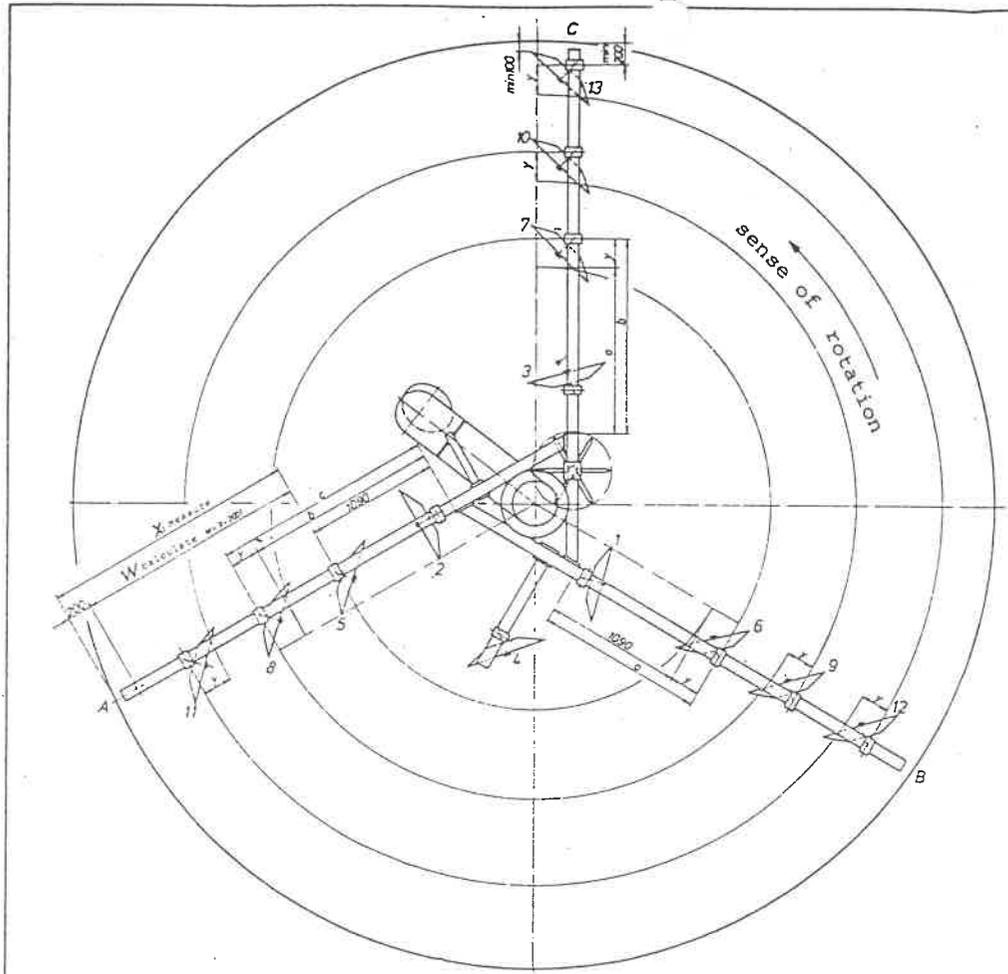
- ⑦ Disc 4 - according to the indicated dimensions

DISCS WITHOUT DIMENSIONING

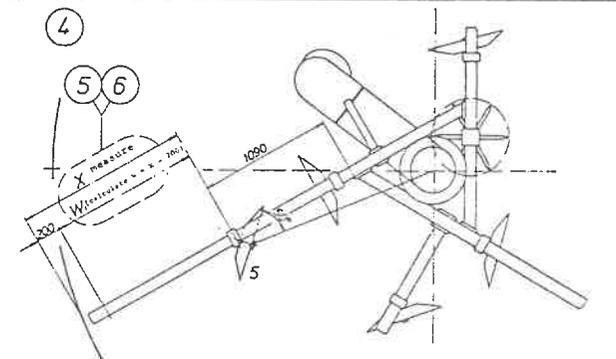
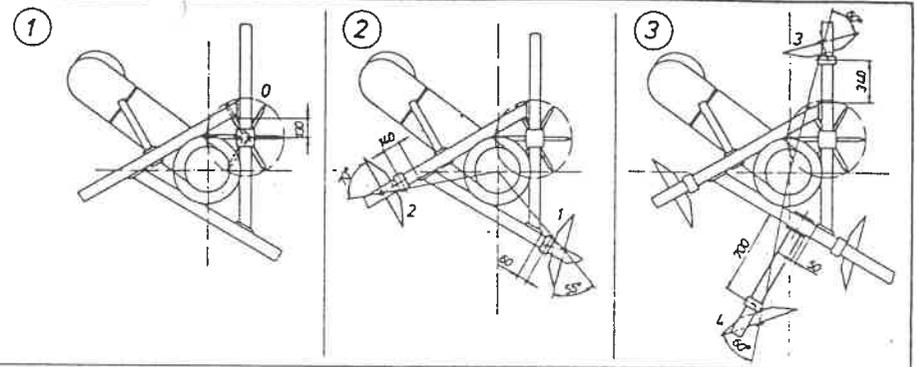
All indications on drawing - adjustment of discs for emptying L

(suction arrangement long)

3						
2						
1						
Zeichungs-Nr.	Art	Gegenstand	Stück	Abnahme	Werkstoff	DW
AS						SETTING OF DISCS FOR FILLING L
NEUERHO		Gesamtheit	14.01.1983	Mitarbeiter		sel
Engelbrecht & Lammerbrock		Gesamt		Zustelle Nr.		Tab 1108
GmbH + Co.						
4520 Melle, Neuerstraße						
Maschinenfabrik						
Änderung	Nr.	Name	Erstellt für	Erstellt durch		

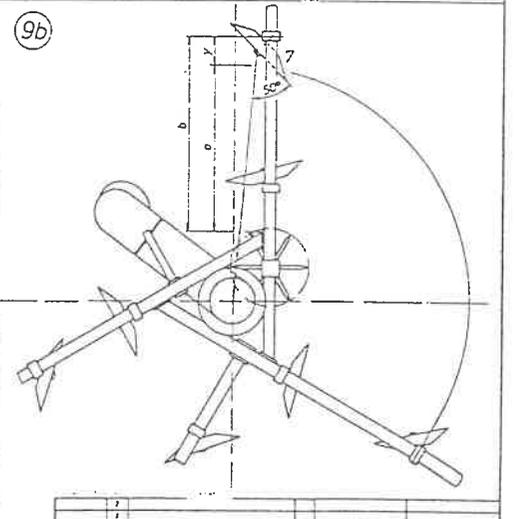
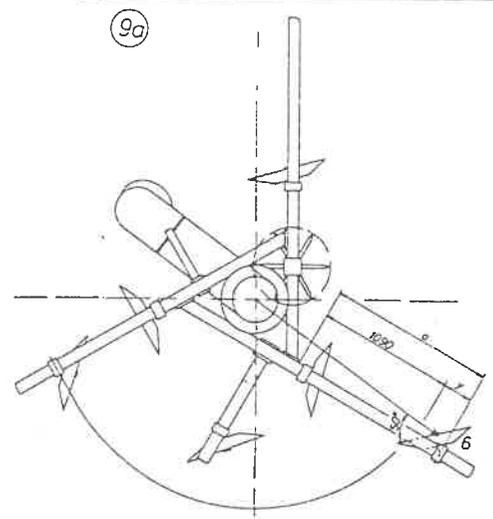


All dimensions in millimeters



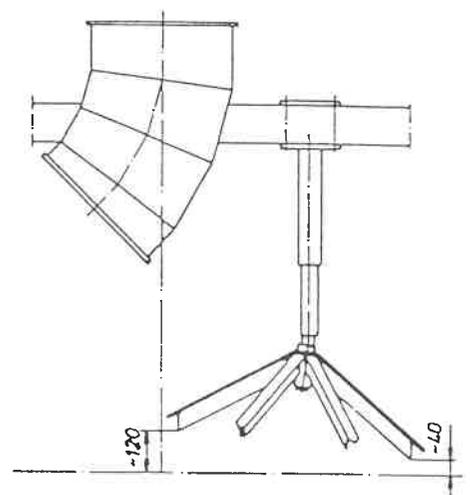
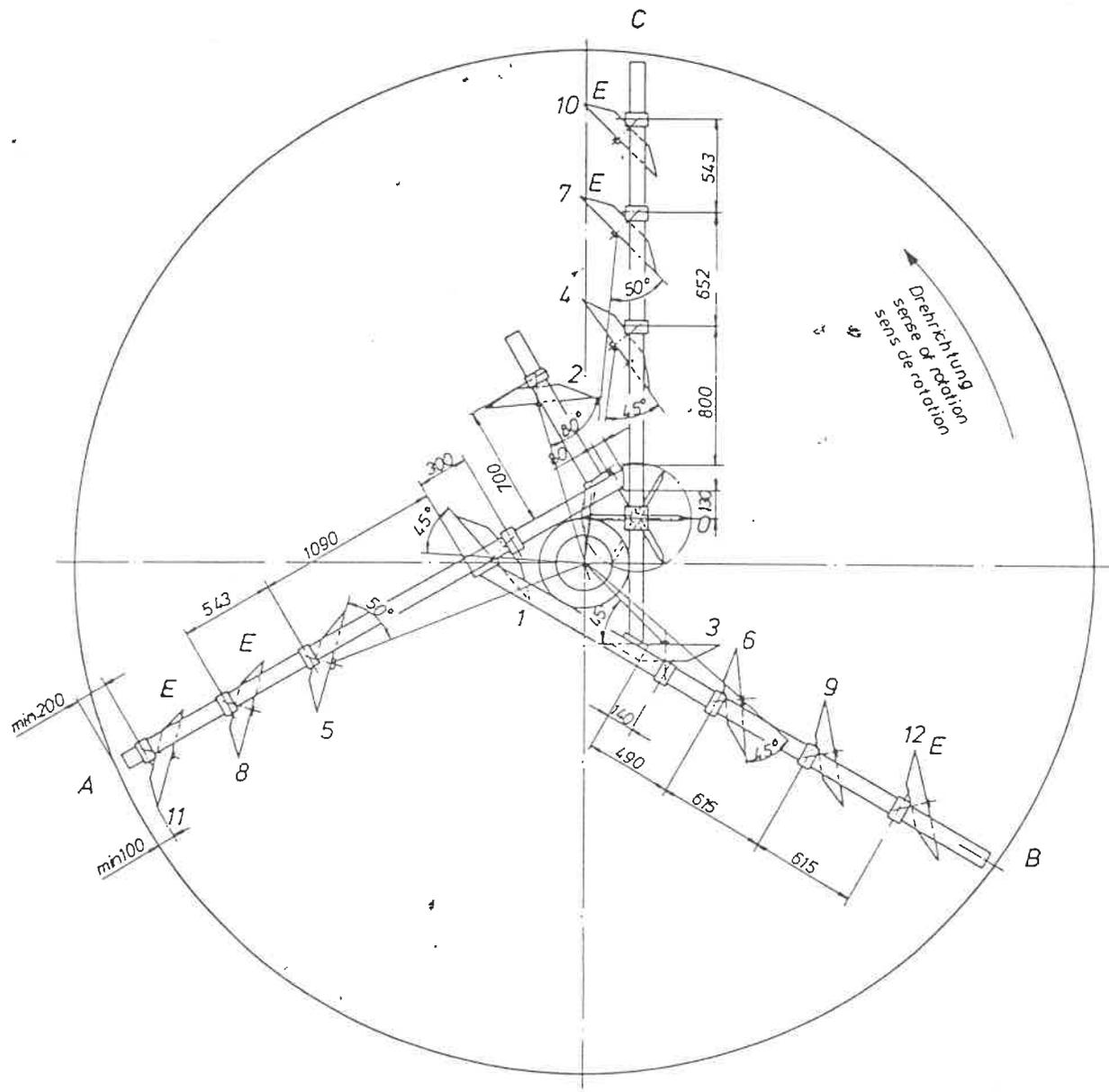
7 Z = Number of the remaining discs (less 1, 2, 3, 4 and 5)

8 $Y = \frac{W}{2Z}$ (see 5)
 $\frac{W}{2Z}$ (see 6)



Adjusting angle for all other discs 50°

Author	Editor	Approvers	Rev.	Release	Quantity	Dist.
SETTING OF DISCS FOR EMPTYING L						
WILHELM FINK Engineering & Lumber Products 2201 N. 1st St. Milwaukee, Wisconsin		Date: 1201 1943 Scale: A.S.A. Title: Tab 1107				

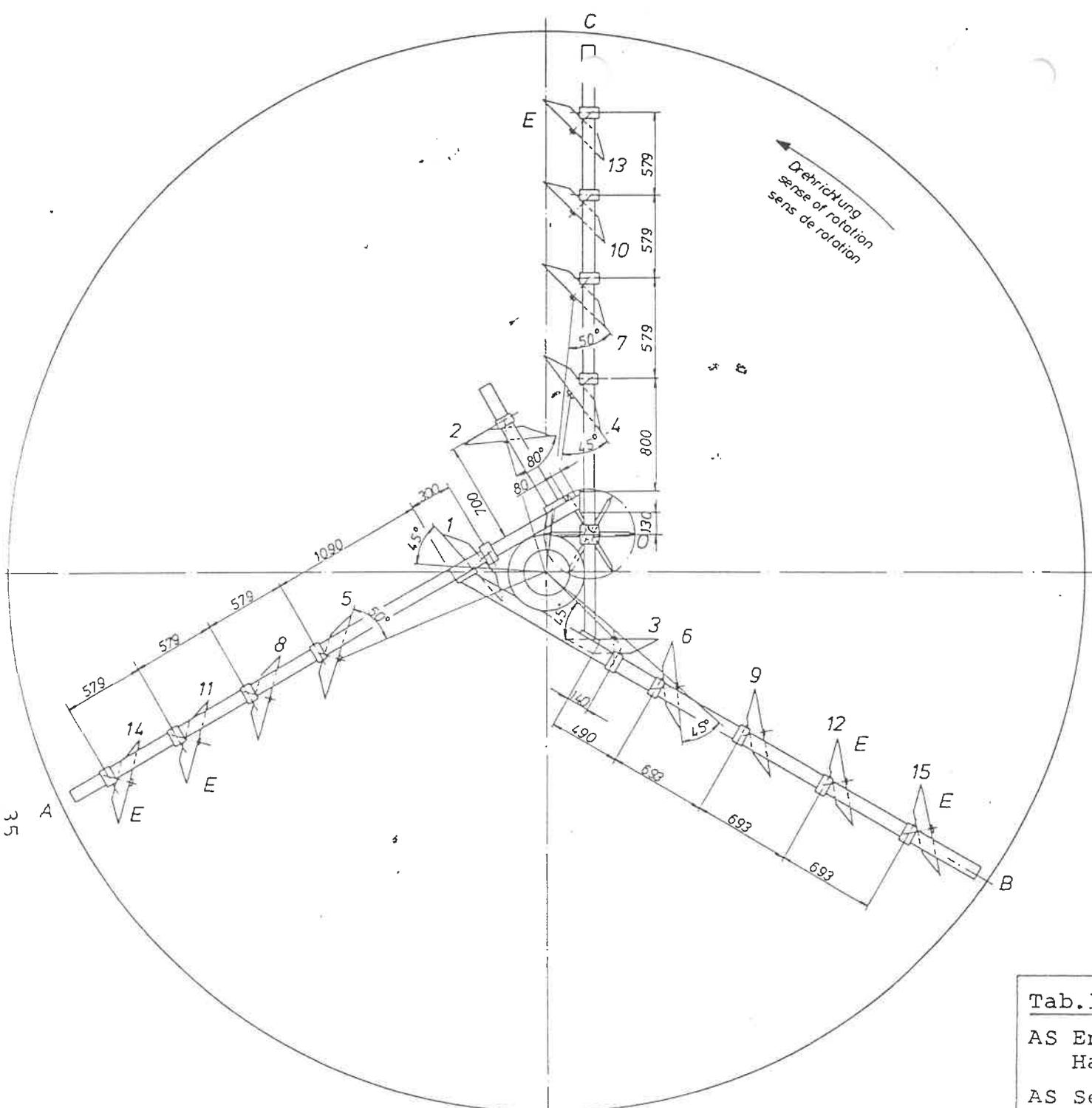


E = Entnahmerad mit Eisdorn
pick up discs with spikes

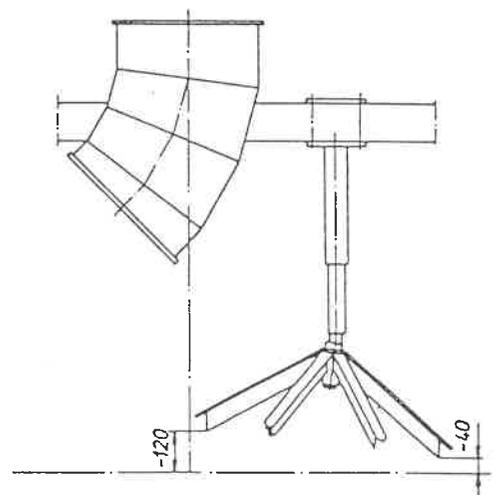
Tab.1405/Maßstab 1:20

AS Entnahmeradeinstellung Einlagerung L
Harvestore Typ 20 Ø 5,98 m

AS Setting of discs for filling L
Harvestore type 20 Ø 5.98 m

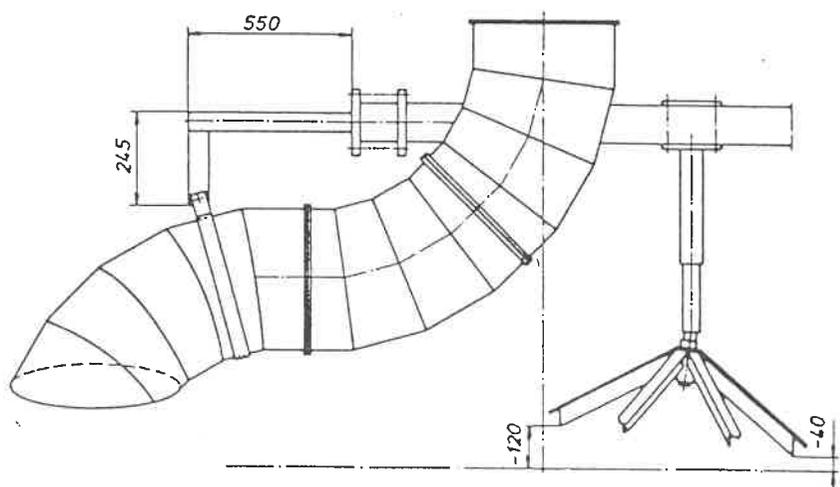
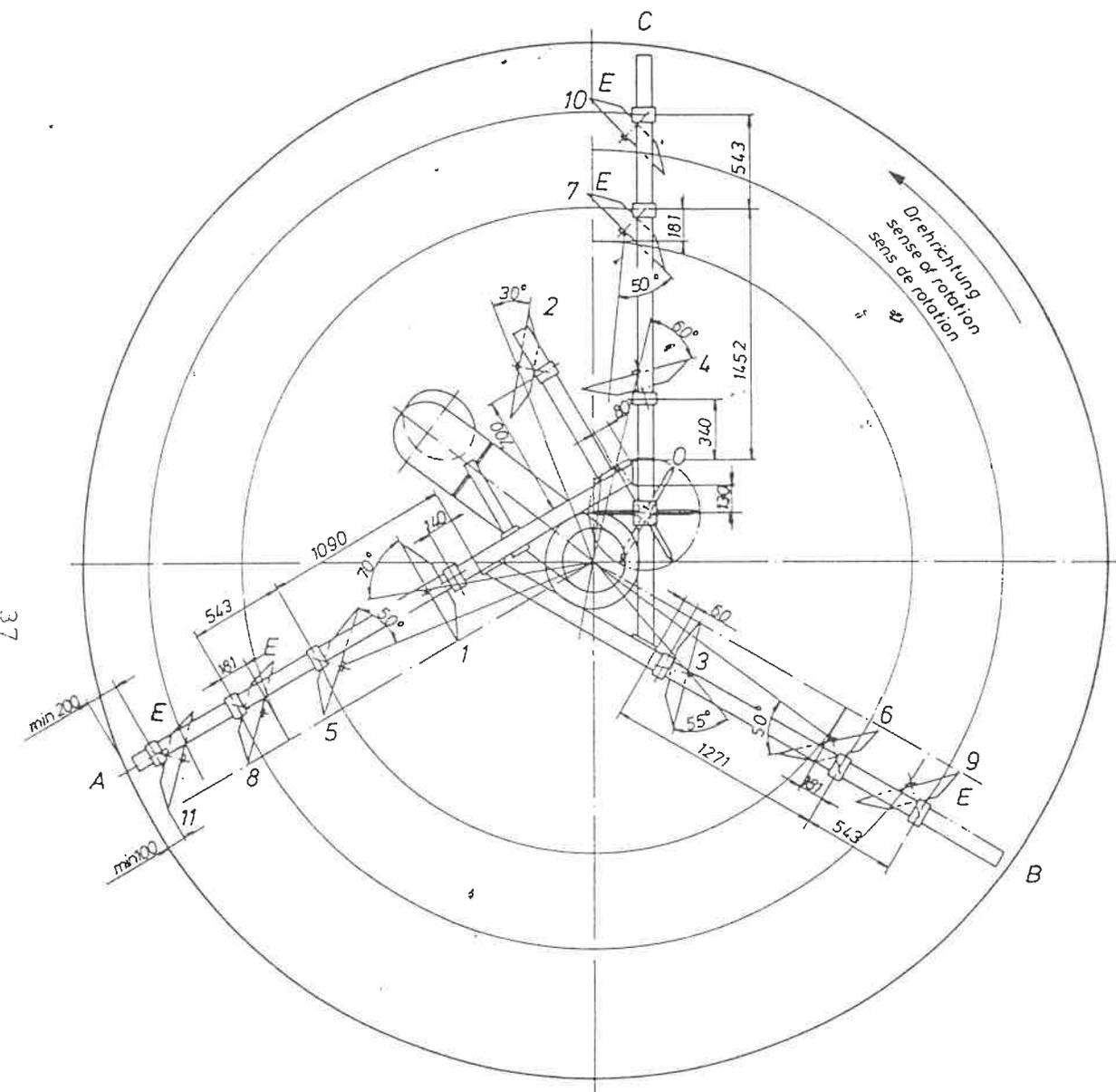


Drehrichtung
sense of rotation
sens de rotation



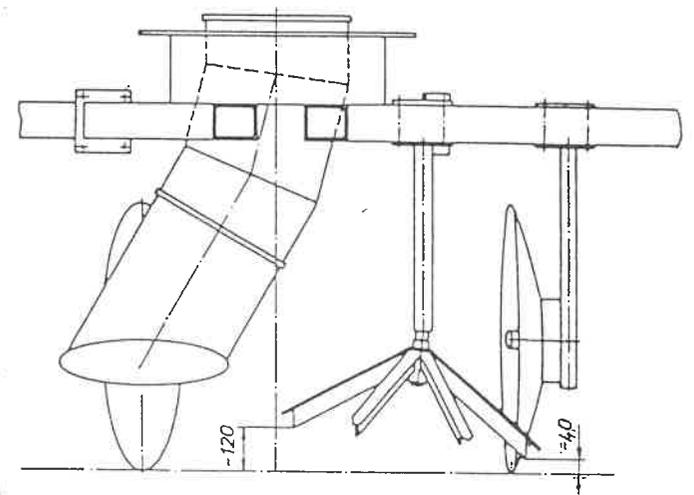
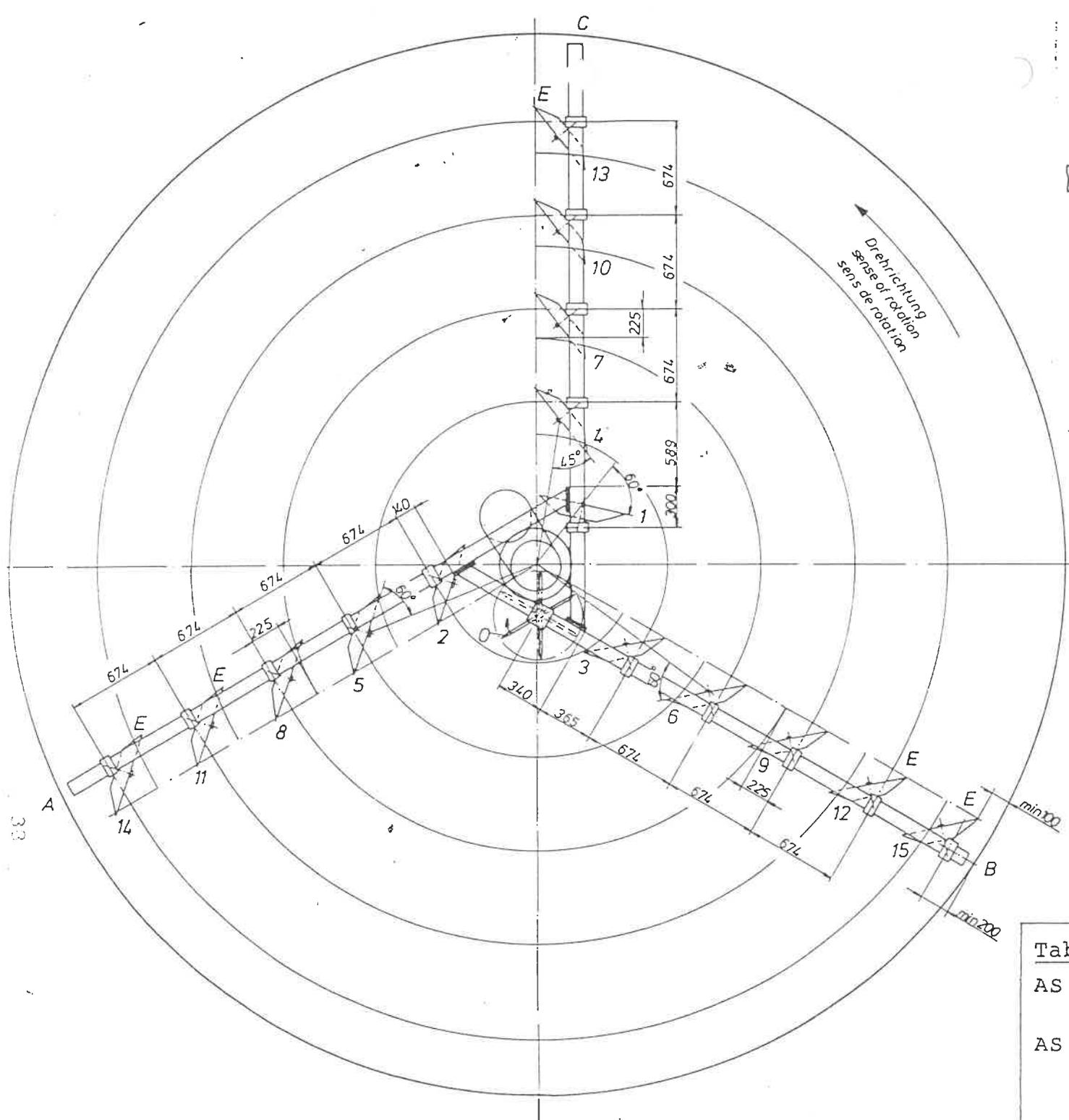
E = Entnahmerad mit Eisdorn
pick up discs with spikes

Tab.1409/Maßstab 1:20
 AS Entnahmeradeinstellung Einlagerung L
 Harvestore Typ 25 ϕ 7,68 m
 AS Setting of discs for filling L
 Harvestore type 25 ϕ 7.68 m



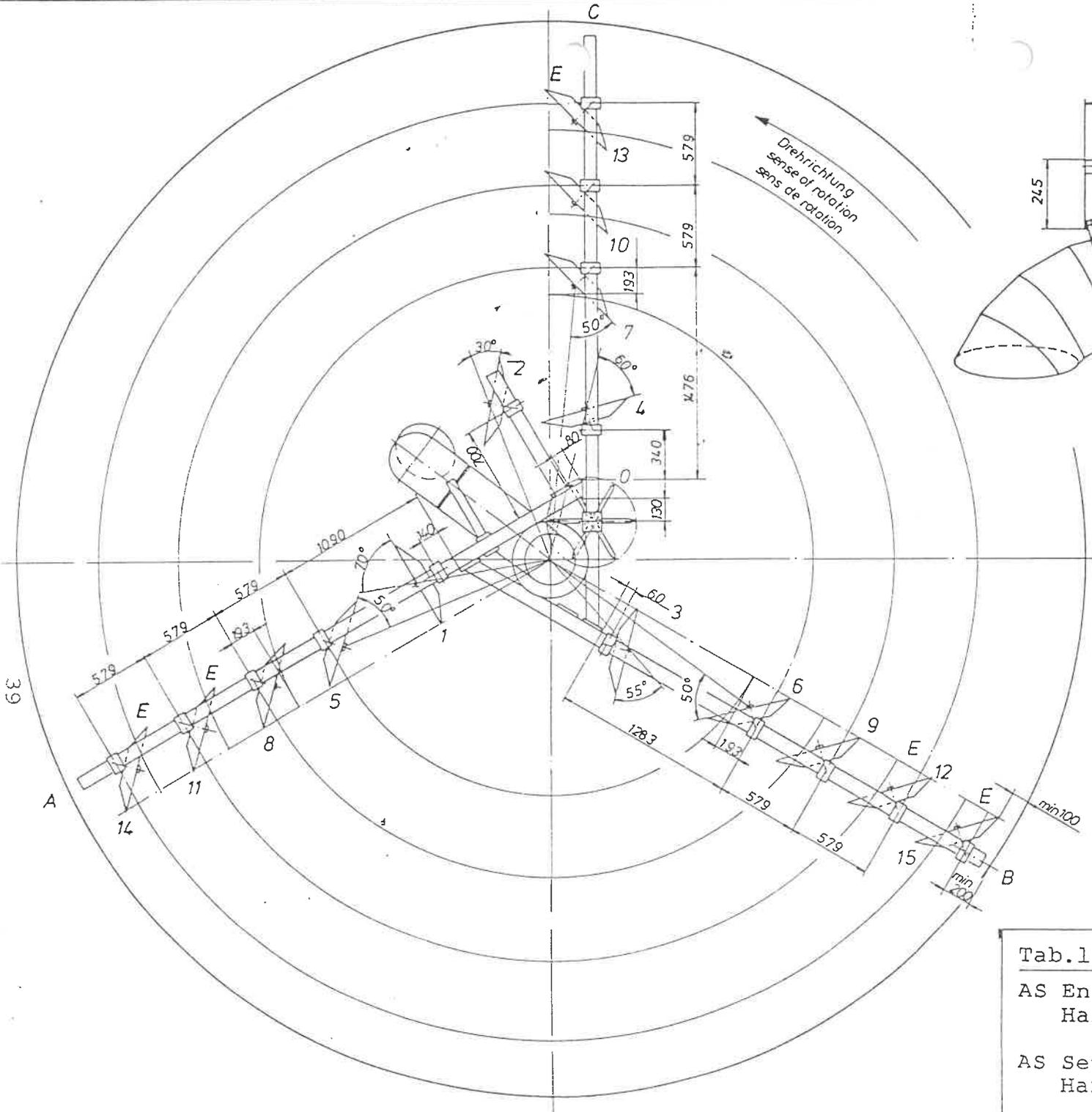
E=Entnahmerad mit Eisdom
pick up discs with spikes

Tab. 1404/Maßstab 1:20
 AS Entnahmeradeinstellung Auslagerung L
 Harvestore Typ 20 \varnothing 5,98 m
 AS Setting of discs for emptying L
 Harvestore type 20 \varnothing 5.98 m

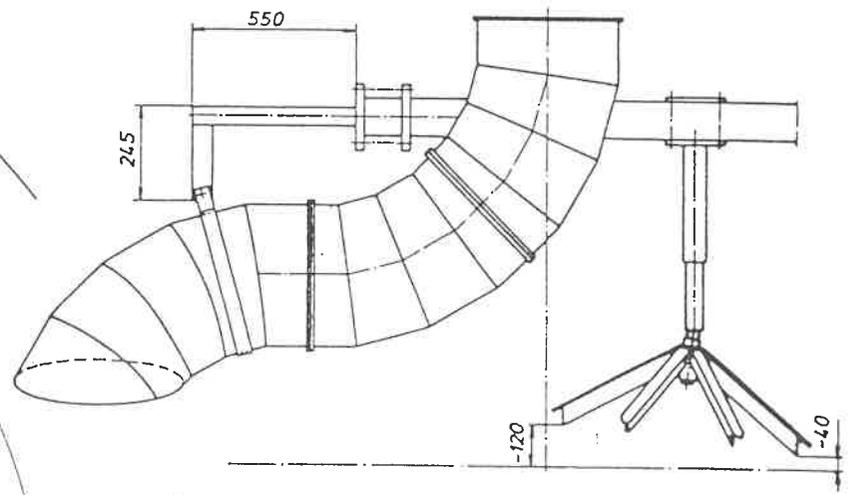


E = Entnahmerad mit Eisdorn
pick up discs with spikes

Tab.1406/Maßstab 1:20
AS Entnahmeradeinstellung Auslagerung
Harvestore Typ 25 \varnothing 7,68 m
AS Setting of discs for emptying
Harvestore type 25 \varnothing 7.68 m



Drehrichtung
sense of rotation
sens de rotation



E = Entnahmerad mit Eisdorn
pick up discs with spikes

Tab.1408/Maßstab 1:20
 AS Entnahmeradeinstellung Auslagerung L
 Harvestore Typ 25 \varnothing 7,68 m
 AS Setting of discs for emptying L
 Harvestore type 25 \varnothing 7.68 m

P a c k i n g L i s t

for Harvestore-silos

10 Tab. 1338

	A' S 60	A' S 80
20 m	2412600	2413600
24 m	2412700	2413700
27 m	2412800	2413800

Part no.	Drawing no.	Designation	Type SiloØ	20 5,98m	25 7,68m	kg
24 202		Driving head AS 2+3		1	1	
24 207		Rotary arm 100x100x2,85m		3	-	109
24 211		Rotary arm 100x100x3,85m		-	3	147
24 214		Rotary arm extension 90x90x1,0 m		3	3	30
24 221		Carrying arm 100x60x2,17m		3	-	69
24 234		Carrying arm 100x60x3,17m		-	3	105
24 226		Carrying arm extension 1,2 m		3	-	31
24 228		Carrying arm extension 2,0 m		-	3	51
24 341		Deflection pulley AS/AZ 3		1	1	
24 233		Supporting arm 60x60x1,874 m		3	3	36
24 236		Supporting wheels with twin axle		3	3	19
24 238		Supporting wheel sleeve		3	3	16
24 239		Cutaway pick-up disk		7	10	
24 241		Clean-up device		1	1	
24 217	15M538	Cross connection pipe for rotary arms		3	3	
24 255	15M538	Addition - assembly kit cross connection rotary arms		1	1	
24 243		Pick-up disk with ice spike		5	5	

P a c k i n g L i s t

for Harvestore-silos

10 Tab 1338

Part no.	Drawing no.	Designation	Type Silo Ø	20 5,98m	25 7,68m	kg
24 245		Cross connection for carrying arms Ø34x1300		2	2	
24 256	16M785	Winch 250 Watt		1	1	
24 342	83M1398	Roller bracket		2	2	
24 343	83M1396	Inner roller support for outside winch		2	2	
24 344		Outer roller bracket, 3-grooved		1	1	
24 253		Assembly kit-limit switch AS/AZ 3		1	1	
24 345		Cable roller bracket AS3		2	2	
24 346	83M1395	Inner roller bracket		1	1	
24 269	80M829	Adjusting pipe 90x50x2,2m		2	-	
24 271	80M829	Adjusting pipe 90x50x3,7m		-	2	
24 841	80M831	Cross bracing 100x60x4000		2	2	
24 250	10Tab.1332	Assembly kit AS 3		1	1	
24 328		Bundle of wire ropes and cable 20 m		1	1	
24 329		24 m see annex				
24 330		27 m				
24 292	LA 072	Level control system		1	1	

P a c k i n g L i s t

SUCTION DEVICE SIZE 250

Part no.	Drawing no.	Designation	AS 2	Weight kg	Pcs.
24 352	17 M 676	Upper part	1		pce.
24 353	17 M 905	Lower part	1		"
24 315		Accessories for suction devices	1		"
82 339		Pipe clamp, size 380, galvanized	1		"

SUCTION DEVICE SIZE 310

24 354	17 M 684	Upper part size 310x600	1		"
24 355	17 M 896	Lower part size 310x136	1		"
24 371	17 M 622	Suction pipe size 310x490	1		"
81 423	24 M 626	Mounting bracket size 310	1		"
82 116		Bend 30°, size 310, for pipe clamp connection, galvanized	1		"
82 140	13 B	Pipe clamp, size 310, galv., with sealing	1		"
82 339	13 B 897	Pipe clamp, size 380, galvanized	1		"

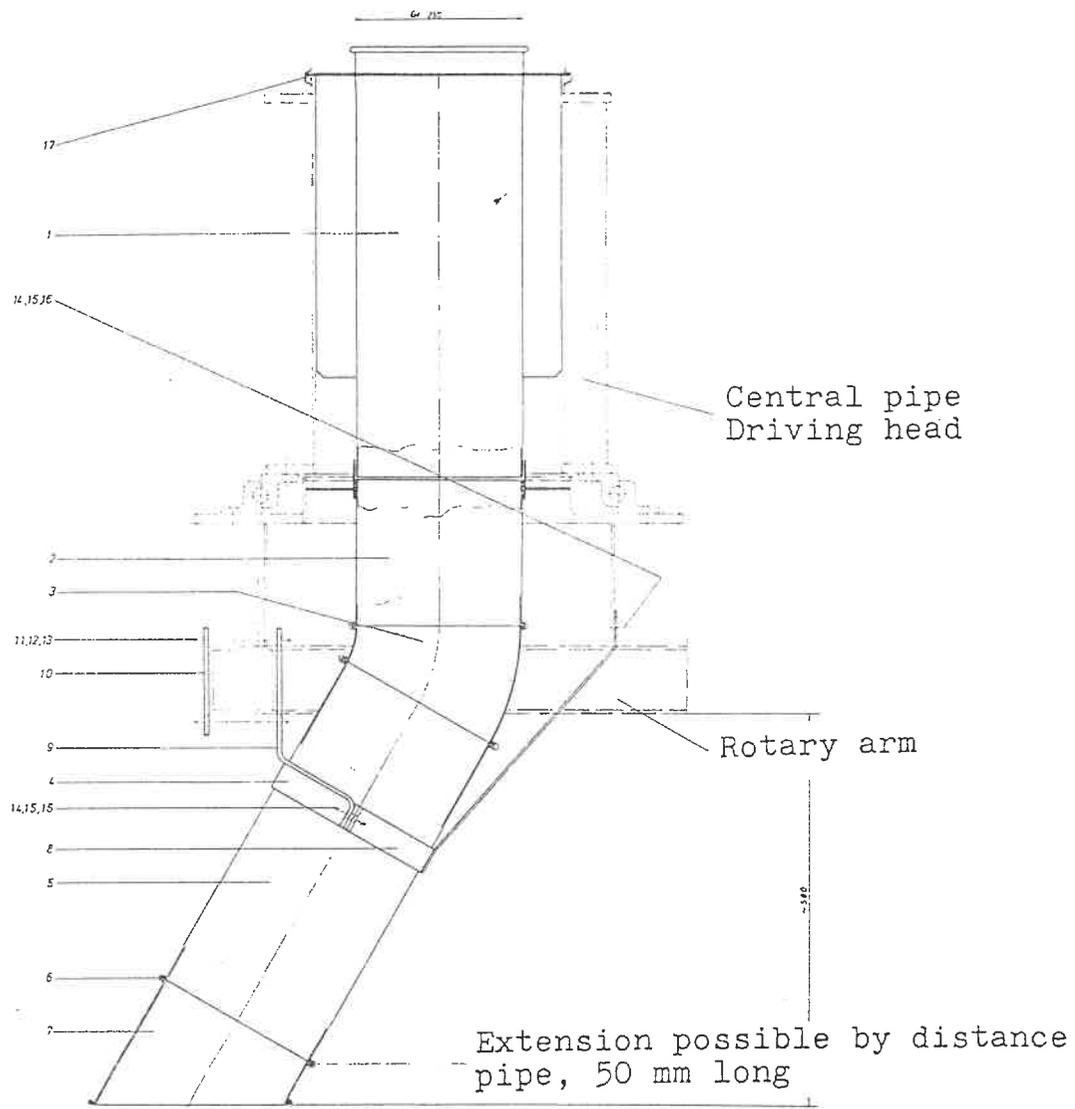
SUCTION DEVICE SIZE 380

82 331	12 B 2641	Bend 30°, size 380, for pipe clamp connection, galvanized	1		"
24 304	17 M 392	Suction pipe, size 380, 0.45 m	1		"
82 340	13 B 897	Pipe clamp, size 380, galv., with sealing	1		"
81 424	13 B 2263	Mounting bracket, size 380, galvanized	1		"

P a c k i n g L i s t

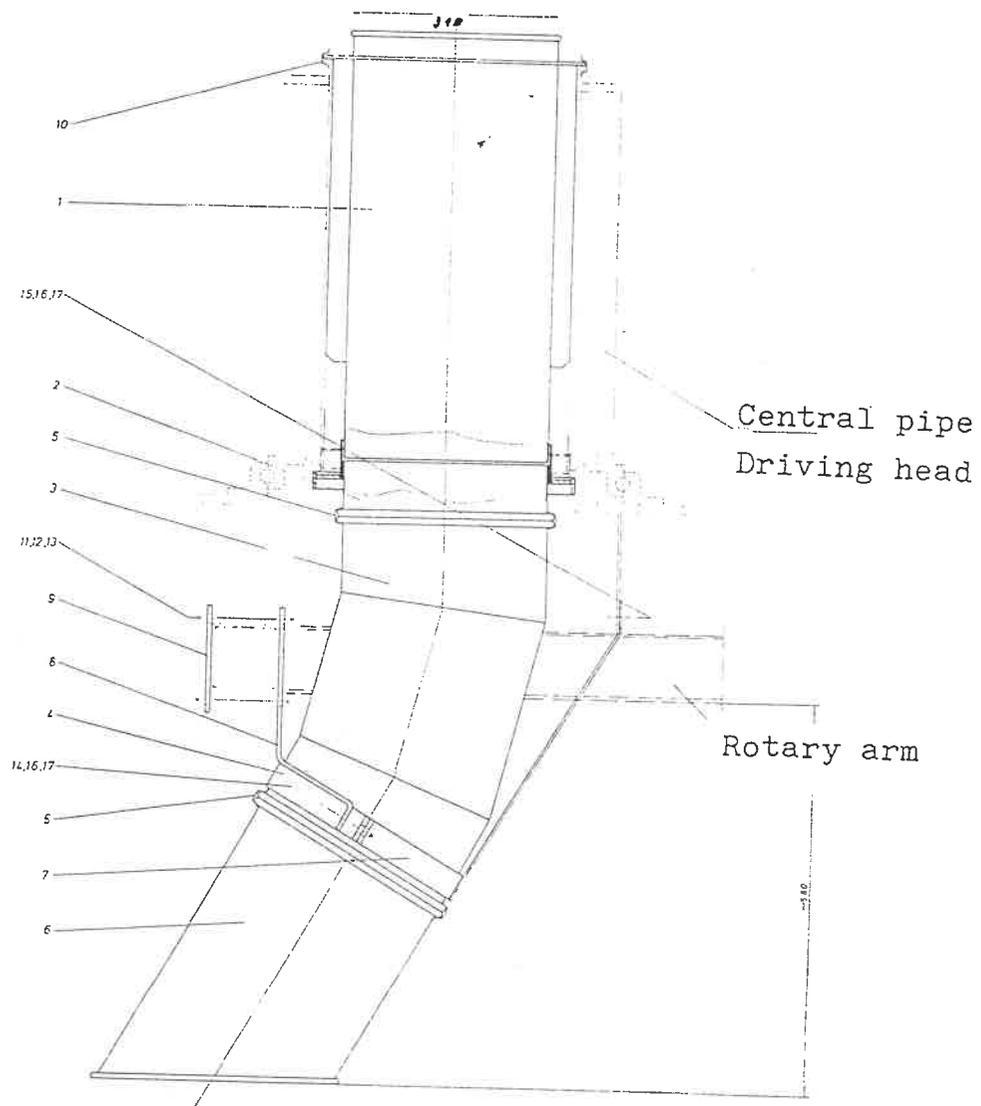
SUCTION DEVICE SIZE 380 L (GRASS) FOR AS 2

Part no.	Drawing no.	Designation	Weight kg	Pcs.
82 370	17 M 692	Suction-pipe bend 90 ^o , size 380, mid-radius 600	1 7,5	"
82 371	17 M 691	Suction-pipe bend 45 ^o , size 380, mid-radius 600	2	"
82 340	13 B 897	Pipe clamp, size 380, galv., with sealing	2 2,3	"
24 306	15 M 627	Supporting arm, 100x100x1000	1 13,0	"
24 307	17 M 628	Mounting 50x50x550	1 5,0	"
24 308	15 M 630	Clamp, size 380, one-piece	2 2,0	"
24 309	10Tab.1135	Assembly kit for suction device, size 380 L	1 4,5	"



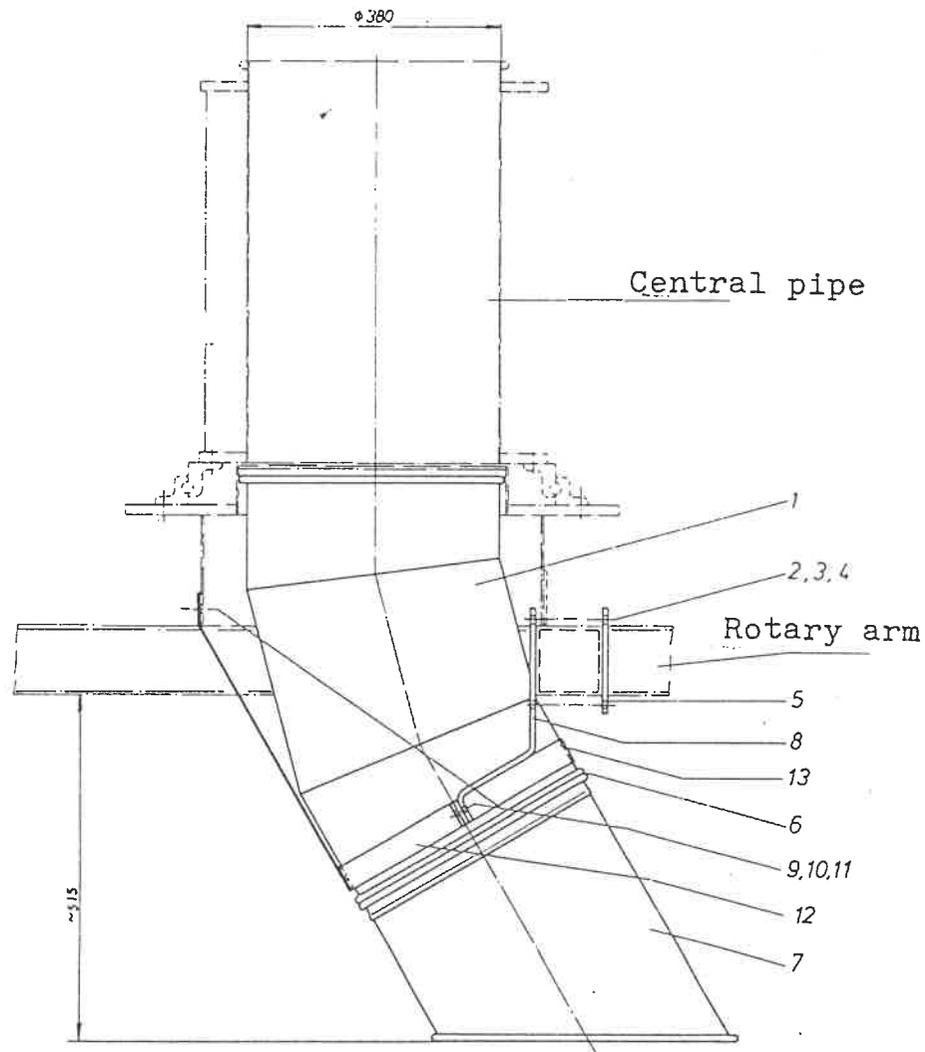
Suction device size 250
according to drawing no. 17M1245

- 17 Pipe clamp galv. with sealing
- 16 Hexagon nut
- 15 Spring washer
- 14 Hexagon bolt
- 13 Hexagon nut
- 12 Spring washer
- 11 Hexagon bolt
- 10 Clamping bracket
- 9 Angular strap
- 8 Clamp-half with strut
- 7 Suction piece
- 6 Tension ring
- 5 Pipe
- 4 Clamp-half
- 3 Segment
- 2 Lower part
- 1 Upper part



- 17 Hexagon nut
- 16 Spring washer
- 15 Hexagon bolt
- 14 Hexagon bolt
- 13 Hexagon nut
- 12 Spring washer
- 11 Hexagon bolt
- 10 Pipe clamp galv. with sealing
- 9 Clamping bracket
- 8 Angular strap
- 7 Clamp-half with strut
- 6 Suction piece
- 5 Pipe clamp galv. with sealing
- 4 Clamp-half
- 3 Pipe bend
- 2 Lower part
- 1 Upper part

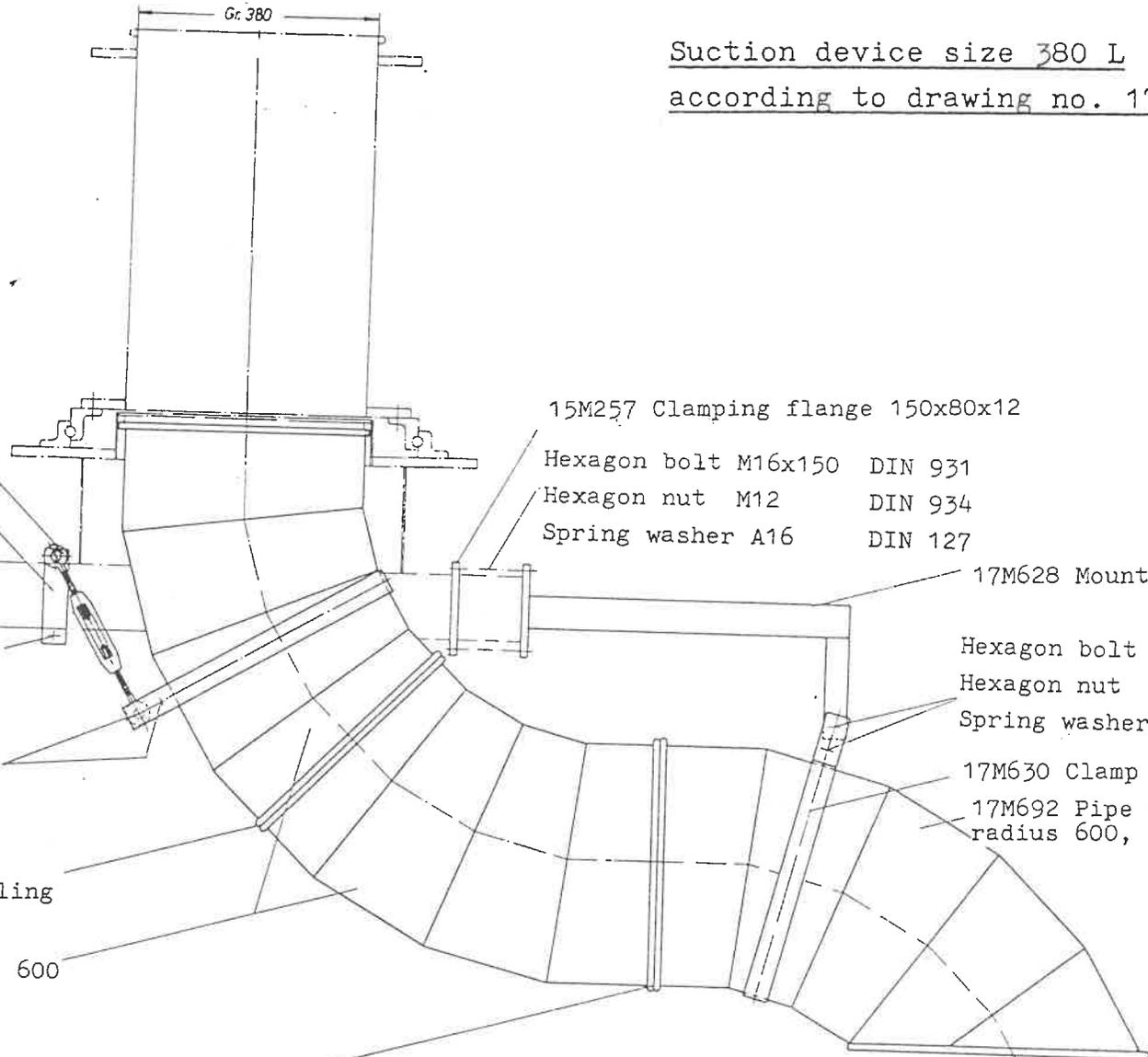
Suction device size 310
according to drawing no. 17M1240



- 13 Clamp-half
- 12 Clamp-half with strut
- 11 Hexagon nut
- 10 Spring washer
- 9 Hexagon bolt
- 8 Angular strap
- 7 Suction pipe
- 6 Pipe clamp size 380 galv. with sealing
- 5 Clamping bracket
- 4 Hexagon nut
- 3 Spring washer
- 2 Hexagon bolt
- 1 Pipe bend size 380

Suction device size 380
 according to drawing no.
 17 M 840

Suction device size 380 L
according to drawing no. 17M835



Turnbuckle 1/2"x125 with counter nut

Bracket 17 M 330

15M257 Clamping flange 150x80x12

Hexagon bolt M16x150 DIN 931

Hexagon nut M12 DIN 934

Spring washer A16 DIN 127

17M628 Mounting

Hexagon bolt M16x140 DIN 933

Hexagon nut M16 DIN 934

Spring washer A16 DIN 127

Clamp 17M630

Hexagon bolt M12x65 DIN 933

Hexagon nut M12 DIN 934

Spring washer A12 DIN 127

Pipe clamp size 380 with sealing

Hexagon bolt M12x65 DIN 933

Hexagon nut M12 DIN 934

Spring washer A12 DIN 127

17M630 Clamp

17M692 Pipe bend size 380, mid-radius 600, 90° shortened

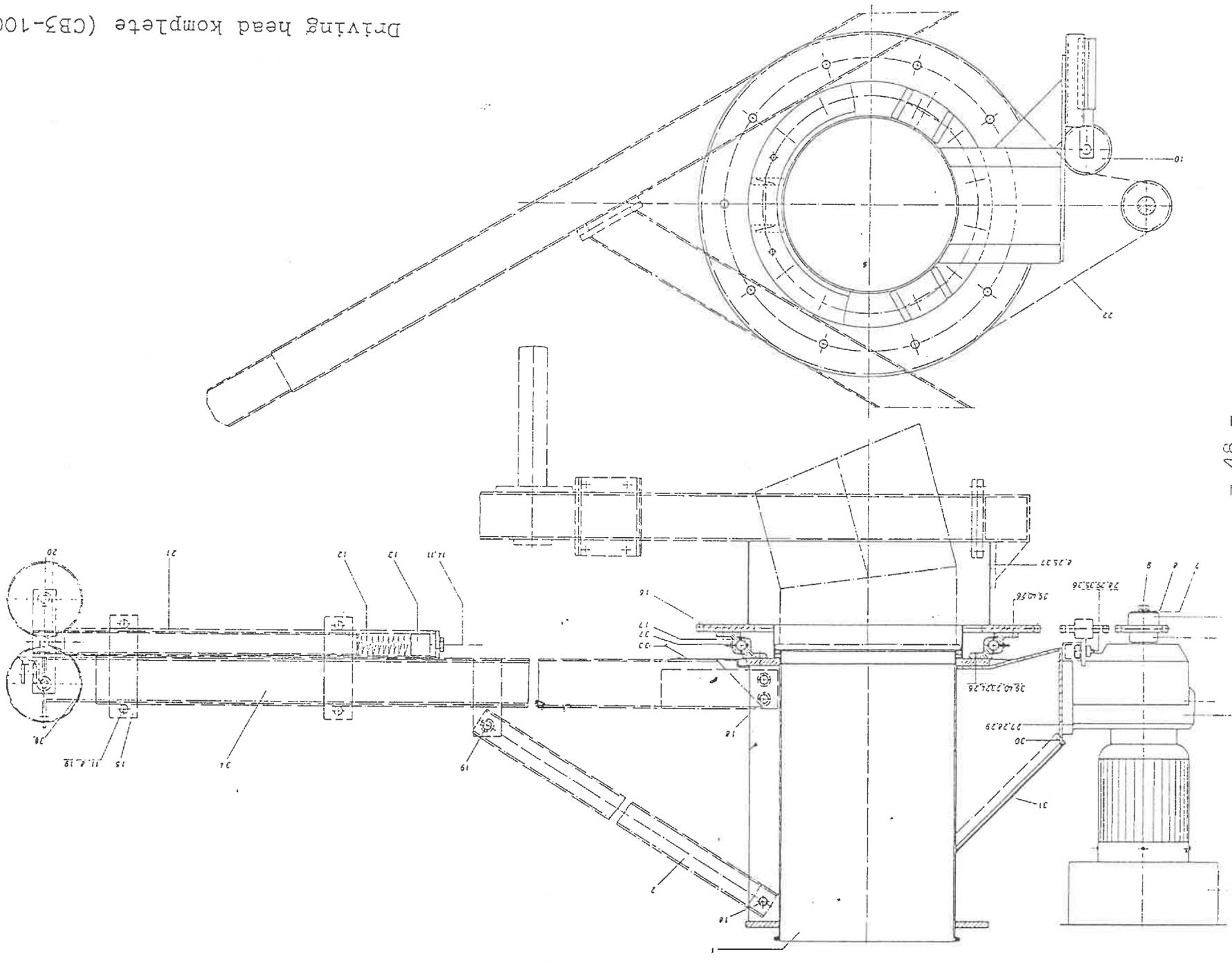
Pipe bend size 380, mid-radius 600
 45° 17M691, shortened

Pipe clamp size 380 with sealing

Driving head complete (CB3-100)

- 1 Central pipe
- 2 Supporting arm
- 3 Gear motor
- 4 Dust protection
- 5 Distance sleeve
- 6 Chain wheel
- 7 Washer
- 8 Spring washer
- 9 Hexagon bolt
- 10 Chain tensioning device
- 11 Hexagon nut
- 12 Pressure spring $\phi 50 \times 250$
- 13 Pressure plate
- 14 Locking screw
- 15 Clamping bracket
- 16 Driving head - lower part
- 17 Ball bearing slewing rim
- 18 Pin
- 19 Hexagon bolt
- 20 Supporting wheel bracket
- 21 Supporting wheel sleeve
- 22 Roller chain
- 23 Hexagon bolt
- 24 Hexagon bolt
- 25 Hexagon bolt
- 26 Hexagon bolt
- 27 Hexagon bolt
- 28 Spring washer
- 29 Hexagon nut
- 30 Split-pin
- 31 Covering cap
- 32 Lubricating nipple
- 33 Safety disk
- 34 Carrying arm
- 35 Hexagon bolt
- 36 Washer $\phi 13$
- 37 Washer $\phi 17$
- 38 Carrying arm extension
- 39 Hexagon nut
- 40 Washer

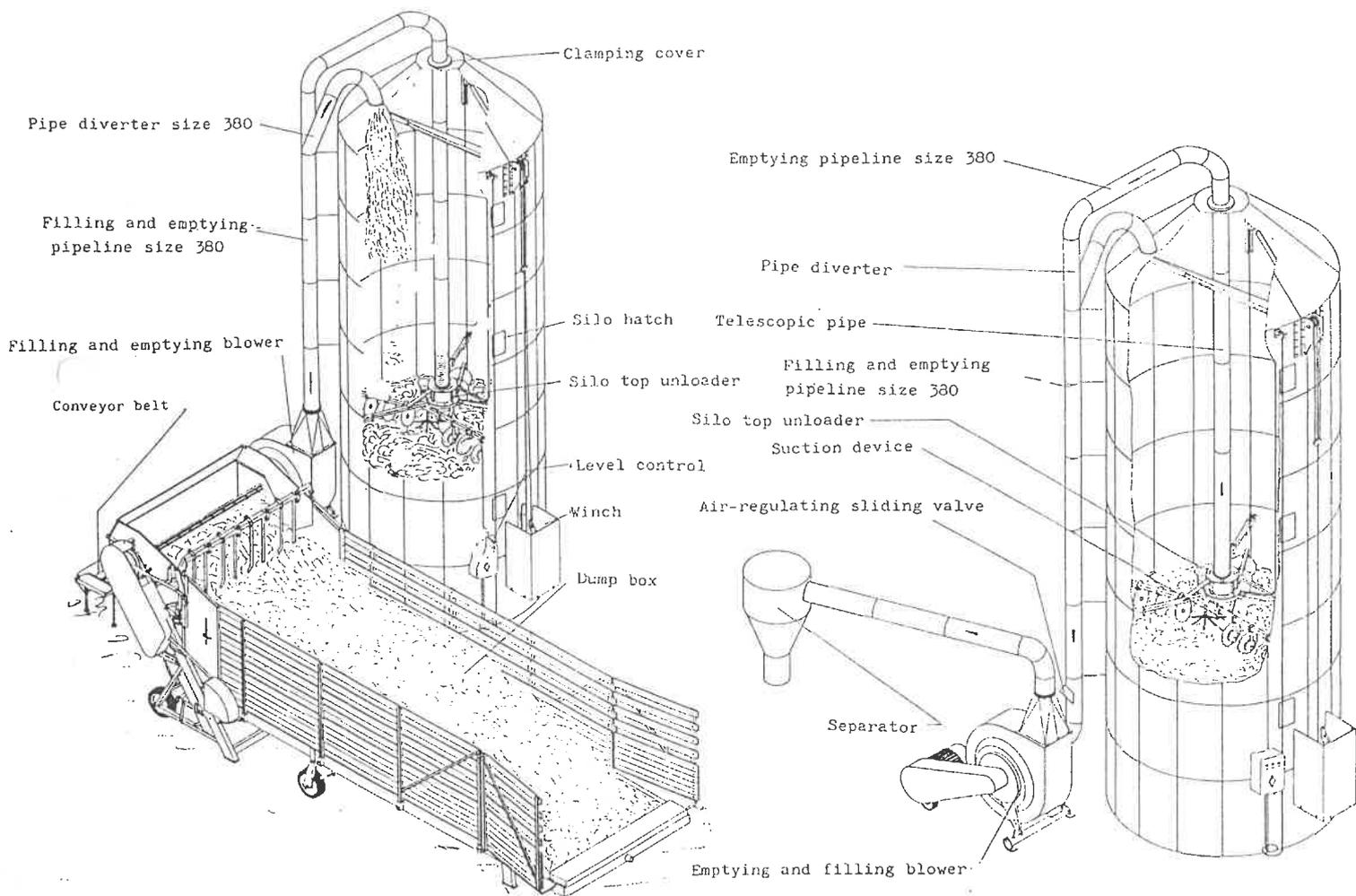
Zelchnik 13 M 653

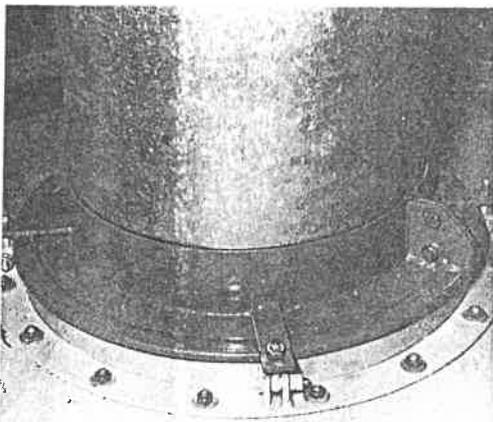


ASSEMBLY INSTRUCTIONS

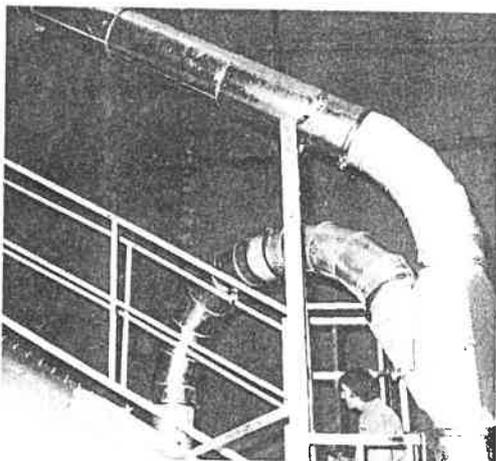
PART B

(General information of pipeline assembly)

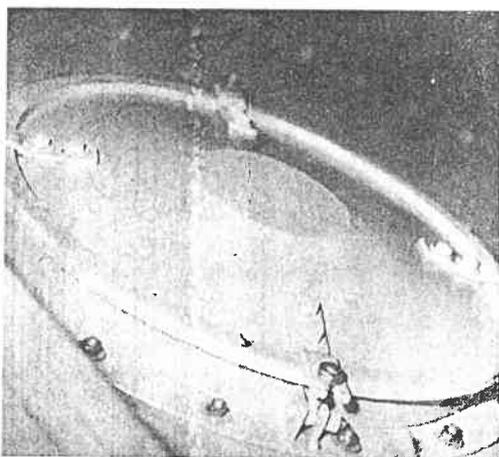




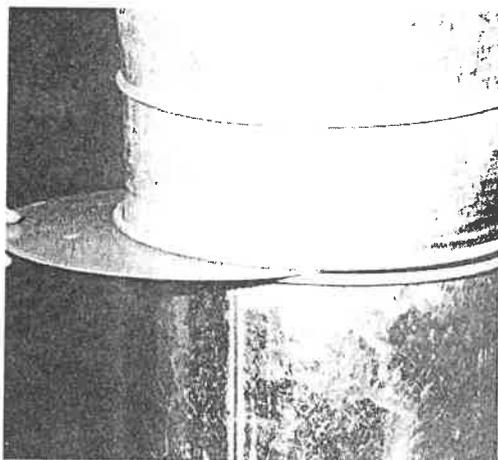
Ill. 20.1



Ill. 20.2



Ill. 20.3



Ill. 20.4

20. Assembly of the filling and emptying pipeline to the silo. - Filling and emptying by discharge blower -.

Assemble the pipeline size 380 on the back guard of the access ladder. The pipeline is assembled during the erection of the silo.

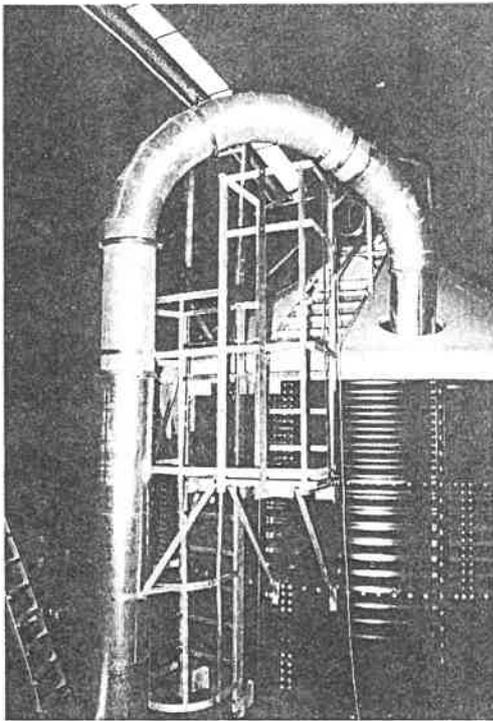
20.1 After the assembly of the silo roof with the first shell plate rings fix the mounting parts to the roof ladder and to the access ladder according to the corresponding pipeline plan.

20.2 Fasten the telescopic pipe with clamping cover in the centre hatch of the roof (ill. 20.1). Connect both pipe bends 60° and fix by means of clamps. Lay the pipeline only up to the mounting at the access ladder (ill.20.2).

20.3 Lay the filling pipeline via the pipe diverter to the filling hatch (right of the roof hatch). Clamp the mounting bracket with suspension chain around the filling pipe and screw to the inside of the hatch ring.

20.4 To close the silo detach the filling pipe from the conveying pipe and leave it on the suspension chain. Subsequently strongly close hatch cover (ill. 20.3).

20.5 To seal the silo during non-working time push the sliding valve into the pipeline above the telescopic pipe at the pipe clamp connection (ill. 20.4)



Ill. 21.1



Ill. 21.2

21. Assembly of the filling pipeline, size 380. - Emptying by suction blower -.

21.1 Assemble the filling pipeline on the backguard. Distance to the silo wall approx. 1.2 m. The pipeline leads directly into the roof hatch via the pipe bend 60° (ill. 21.1). The distance from the centre of the filling pipeline to the centre of the filling hatch is 2.45 m (Tab. 1080).

21.2 Assemble the filling pipeline always firmly.

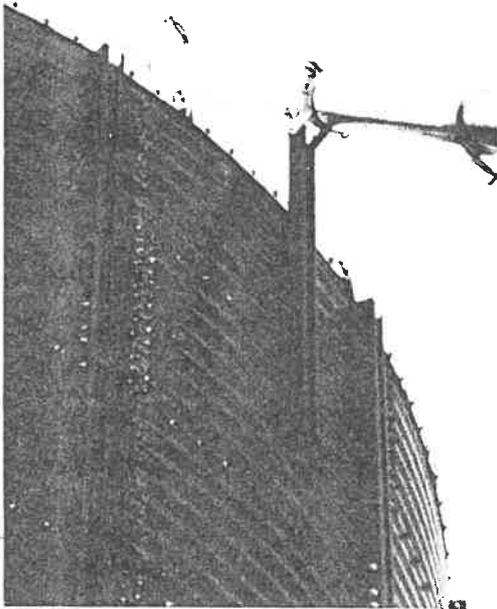
21.3 The pipeline can also be screwed directly to the silo wall by means of clamping piece and pipe mounting. (Distance approx. 0.6m or according to the specification of the manufacturer). (Ill. 21.2).

21.4 Use only original NEUERO pipeline parts and NEUERO pipe clamps with sealing.

22. Assembly of the telescopic pipe

Fix the telescopic pipe of silos with clamping cover in the centre roof hatch of the silo. In this case the measurements (projecting length of the telescopic pipe to the outside) can be learned from the individual tables (silo pipeline). Connect the telescopic pipe without pressure and strain to the suction pipeline or to the suction blower resp. and assemble it vertically in the centre of the silo. The telescopic pipe has to be assembled so high into the silo roof that the silo top unloader can operate unimpededly up to the highest point - underneath the rope pulley brackets.

23. Assembly of the suction blower inside the building.



Ill. 23.1

23.1 It is possible to assemble the suction blowers SAG 16 and 20 inside the building directly in front of the separator (tab. 1085). The pipeline must be designed according to the size of the suction device. Size 250 for chopped material (SAG 16 and SAG 20) or size 310 respectively for short-cut up to a practical cutting length of 6 cm (SAG 16). It is essential to provide pipe clamps with sealing for the pipe connection.

23.2 Place the pressure pipeline descendingly (minimum 30°) from the blower to the separator.

23.3 It is possible to fix the pipeline to the silo wall by means of the pressure pipeline support (ill. 23.2). Fasten the pipeline by means of pipe mountings. It should always lead directly to the separator. Bends reduce the conveying capacity!

Therefore it is important to erect the silo as near as possible to the feed distribution place.

23.4 Assemble the separator above the feed distribution place. The conveying air must be able to escape unimpededly from the insert pipe of the separator. Therefore a distance of 0.5 m from ceilings etc. has to be observed. In case of assembly outside of buildings a protecting roof is to be erected. In case the gravity pipeline ends directly in the stable it should be closed after the conveying process in order to prevent freezing-in or conglutination resp. of the pipeline due to condensed air in the stable.

23.5 Clean the insert pipe of the separator from time to time because a choked up insert pipe reduces the output and conveys more outgoing air through the gravity pipeline into the stable. Always provide a gravity pipe, minimum 0.6 m long, underneath the separator. Special attention must be paid to free descent of the conveying material underneath the gravity pipe. - Danger of choking-up!

23.6 A T T E N T I O N

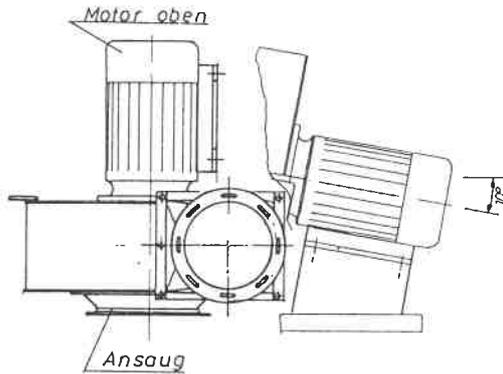
Under any circumstances open at least one silo hatch before starting the blower !

24. Assembly regulations

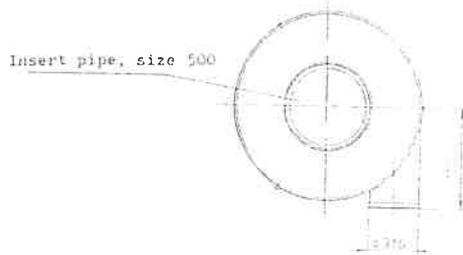
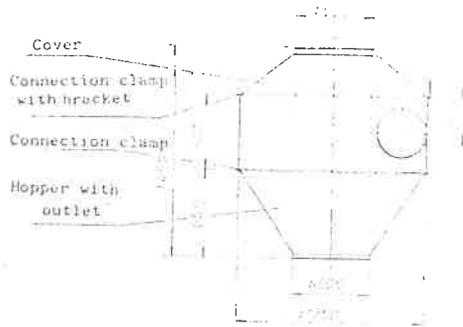
It is permitted to fit the suction blowers type SAG 16 and 20 only with the electric motor to the top or up to 10° below horizontal (building regulation VI - B3).

In case of any other fitting position an additional shaft seal against condensation water must be installed by the manufacturer in front of the motor bearing.

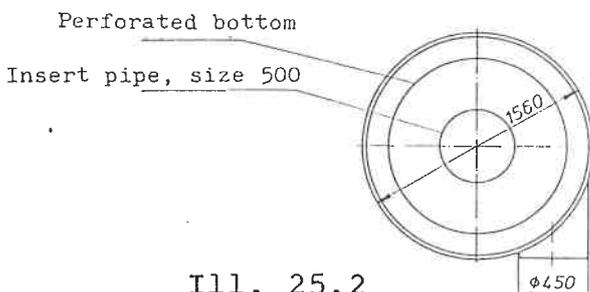
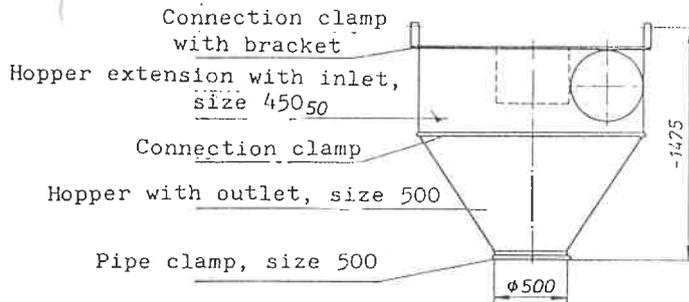
The customer may only fasten the blowers at the motor base (ill. 24.1).



Ill. 24.1



Ill. 25.1



Ill. 25.2

25.1 Assembly of the separator

Size 310 (ill. 25.1)

Size 450 (ill. 25.2)

- Connect hopper and hopper extension by means of clamp.
- Place perforated bottom (size 450) or cover resp. (size 310) on the hopper extension part so that the connection piece, size 500, points to the top.
- Fasten perforated bottom (cover by means of connection clamp.
- Place insert pipe in the opening of the perforated bottom (cover).
- Tighten straining screws of the connection clamps only after the assembly so that the inlet can subsequently be adjusted.

25.2 The customer fixes the separator to the brackets above the distribution place and connects one transition piece to the inlet. Special care must be taken that the conveying air can escape from the separator unimpededly, i.e. a distance of at least 0,6 m from solid ceilings is to be provided. One gravity pipe or one pipeline, size 500, resp. should always be added to the outlet of the separator. Here it is not allowed to assemble bends with an inclination of more than 45° . Assemble the separator so that the maintenance and cleaning works can be carried out without problems.

25.3 Firmly lay the pressure pipeline, size 380, from the blower to the bend 90° , horizontally or decliningly to the separator. Support the outdoor pipeline, if necessary. Bear in mind clearance heights at the silo underneath the pressure pipeline for tractor and loading wagon. In order to achieve an optimum emptying capacity the pressure pipeline (from the blower to the separator) should be as short as possible and be equipped with the minimum of bends.

25.4 In case the outlet of the separator ends directly in the feed corridor of the stable it should be closed after the conveying process in order to reduce the air circulation and thereby a formation of condensation water in the separator and the pipeline. Otherwise the separator may conglutinate.

25.5 The insert pipe and the screen of the separator have to be cleaned from time to time in order to prevent a decrease of the emptying capacity and an intensified supply of outgoing air to the stable.

26. Erection of the blower for filling the silo.

Detach the filling blower from the pressure pipeline and dismount the suction transition piece, the bend 90° and the air-regulating sliding valve. Push the sliding pipe into the filling pipeline so that a clear height of approx. 2,0 m. is provided. Now place the blower underneath the filling pipeline (which should always be fastened to the silo in vertical position) and connect the outlet with the sliding pipe by means of pipe clamp.

Provide space for conveyor belt and dump box!

27. Preparations for filling

27.1 Set blower to low speed by changing the driving pulley (in case emptying was carried out by means of this blower).

27.2 Change the filling pipeline for filling by operating the pipe diverter, open the silo hatch and connect the bend, 30° .

27.3 For silos with only one roof centre hatch lower the telescopic pipe to the silo top unloader and place the pipeline with bend laterally.

ATTENTION:

Place the filling pipeline always in vertical position, possibly in excess of the cylindrical silo height and below 30° inclined to the centre of the silo.

27.4 Set the pick-up disks for filling according to the setting plan. Dismount suction device.

27.5 Clean and check drainage outlet.

27.6 Grease and check silo top unloader.

27.7 Open the top hatch in the cylindrical area.

27.8 Initial operation - see operating instructions.

28. After completion of filling.

- 28.1 Clean the silo top unloader and set the pick-up disks to emptying.
- 28.2 Grease the rope pulleys and check the wire ropes.
- 28.3 If necessary, re-connect the telescopic pipe and firmly close the silo. Insert the sliding valve in the pipeline above the telescopic pipe.
- 28.4 Complete the suction device.
- 28.5 Do not pour any chemical auxiliaries for ensilage (Luprosil etc.) over the silo top unloader. These auxiliaries are very aggressive and can destroy the varnish coat.

29. Preparations for emptying.

A t t e n t i o n !

Before entering the silo it is absolutely necessary to observe the safety regulations.

- 29.1 Open the top silo hatch and remove the sliding valve above the telescopic pipe. Connect the discharge blower on the suction side to the silo pipeline with transition piece, bend 90° and air-regulating sliding valve.

29.2 Change the pipe diverter at the silo roof to emptying and insert the sliding valve in the filling pipeline.

- The sliding valve prevents the entry of additional air into the suction pipeline and thus a reduction of the conveying capacity

29.3 Check the suction and pressure pipeline for density. Clean bend and separator, if necessary.

29.4 Possibly remove cutting cross, knives etc. from the discharge blower and set the speed for emptying by changing the V-belt pulley.

ATTENTION

When carrying out the test run of the discharge blower, at least one silo hatch must be open; otherwise the silo may run the risk to be destroyed.

29.5 For initial operation in case of emptying please see operating instructions AS.

Rohrschelle Gr.380
 pipe clamp ϕ 380
 collier d'attache ϕ 380

60°

Schieberohr 1m
 telescopic pipe of 1m
 tuyau telescopique de 1m

60°

Rohrumschalter
 pipe junction
 dérivation de tuyau

AS 50-80
 OF 30-50

Schieberohr 1m
 telescopic pipe of 1m
 tuyau telescopique de 1m

AG IV NFB IV DA 1 ZB 6

Teleskoprohrsatz 10m-26m
 telescopic pipe kit of 10m-26m
 ensemble de tuyaux telescopiques de 10m-26m

Absaugvorrichtung
 suction device
 dispositif d'aspiration

Luftregulierstutzen
 air regulating socket
 tubulure de réglage d'air

Fördergutabscheider Gr.500
 cyclone ϕ 500
 cyclone ϕ 500

Rohr ϕ 500
 pipe ϕ 500
 tuyau ϕ 500

Übergangsstück 550 - 380
 transition piece 550 - 380
 raccord de reduction 550 - 380

Fütterungsanlage F10 - F40
 feeder installation F10 - F40
 télescopiques d'alimentation automatique F10 - F40

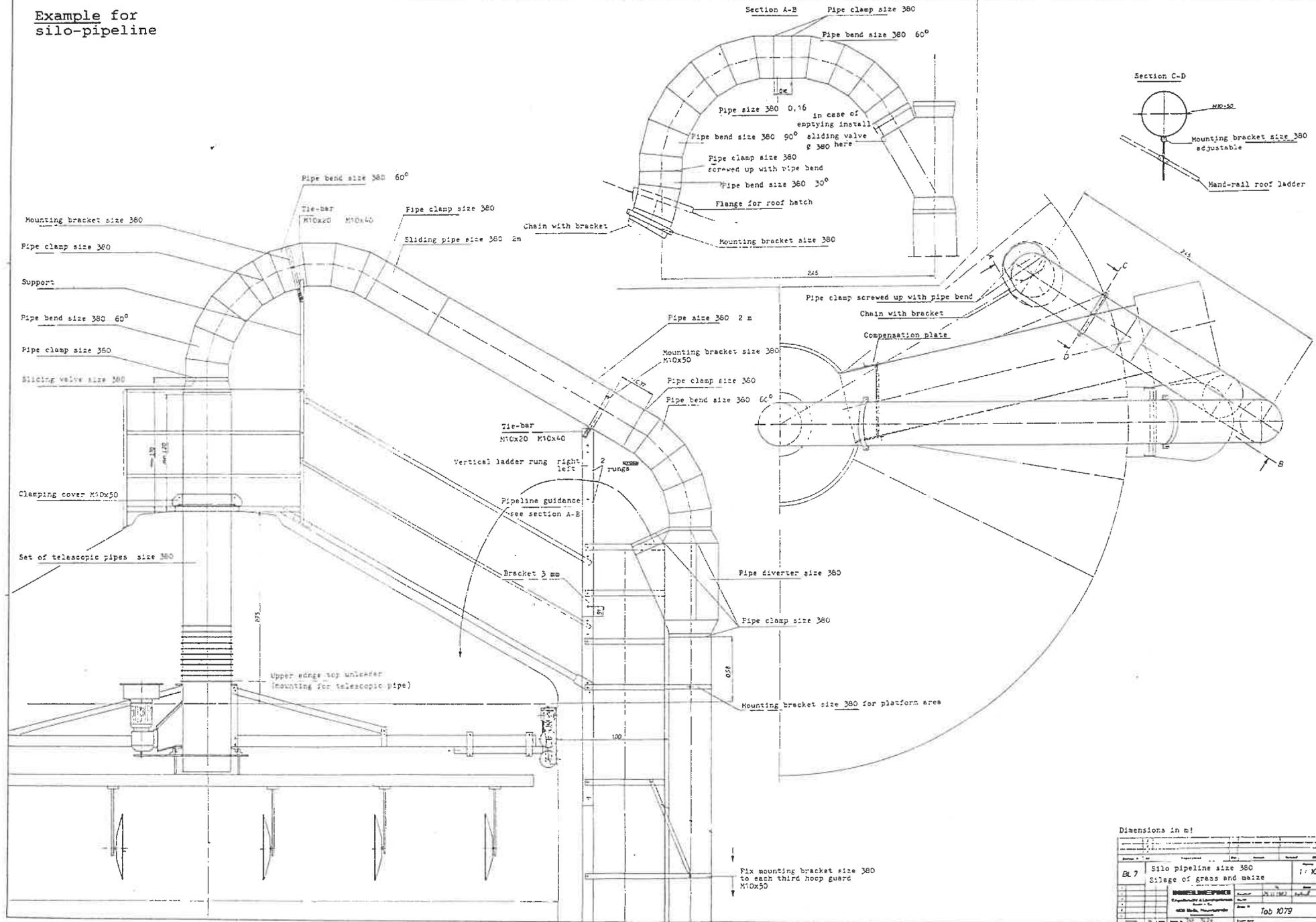
NEUERO

Schema: Ein- Auslagerung
 Scheme: filling and emptying
 Schéma: remplissage et vidage

19.2.79 Schwab.

Tab. 555

**Example for
silo-pipeline**



Dimensions in m!

Item	Description	Quantity	Unit
Bl 7	Silo pipeline size 380	1	M
	Sliding of grass and maize	1	M
INDUSTRIAL ENGINEERING Mechanical & Structural 4028 Havelock, Newmarket Phone 911 1000 Telex 1079			