

Euro-Seeder



Mounting instructions



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Safety Instructions for Euro-Seeder

Do not start the machine in case there are persons in exposed positions** within a hazardous area*.

When persons are staying in exposed positions (e.g. in connection with adjustment, maintenance, attachment and uncoupling), the following conditions shall be observed:

1. The machine shall be lowered to firm ground.
2. The hydraulics shall be relieved.
3. The tractor shall be stopped and the key removed from the ignition switch.
4. The driver shall ensure that no persons are staying in exposed positions during the operation.

* Hazardous area: At and under the machine with a distance of 4 m from the machine..

** Person in exposed position: Any person who is staying wholly or partly within a hazardous area.

Most accidents happening in connection with the operation, transport and maintenance of the machine are caused by non-compliance with the most elementary safety conditions.

Therefore it is vital that anybody working at the machine carefully complies with the safety instructions as well as other instructions applying to the machine.

The machine may only be operated, maintained and repaired by persons, who are familiar with this work and who are further familiar with the possible elements of danger in this connection.

ATTENTION !!

**Rotary parts and loose clothes are a dangerous combination.
Damages at the PTO transmission and its protective screens shall be repaired immediately and before the machine is used.**

IMPORTANT !!

In connection with the risk of parts falling down, it may endanger the lives of persons staying on the base frame of the machine, when it is operated attached to a tractor.

Safety and Instructions on Hydraulics

1. The maximum working pressure is 225 bar.
2. It is advisable to label the attachment parts at hydraulic connections between the tractor and the tool in order to eliminate incorrect operation!
3. In connection with the search for leaks, use suitable aids due to the danger (eye protectors, gloves, etc.)
High-pressure hydraulic oil may penetrate the skin and cause dangerous injuries.
In case of injury, consult a doctor immediately. **RISK OF INFECTION !**
5. Before operating the hydraulics, lower the machine to firm ground.
Relieve the hydraulics, stop the motor and remove the ignition key.
6. Check the hydraulic hoses on a regular basis, however, every six months as a minimum due to any cracks, wear and tear, etc. Replace any defective hoses immediately.

The life of hydraulic hoses is maximum 5 years.
New hydraulic hoses shall meet the manufacturer's requirements.

Instructions on Transport on Public Roads

Check before transport on public roads that the attachment of the machine at the tractor is in accordance with the local rules and regulations in force (permitted total weight, permitted axle load, transport width, lights, warning signs, etc.)

Front Axle Load

After the attachment of the machine and at maximum load, the driving properties of the tractor shall be ensured. Check that the front axle is sufficiently loaded. As a minimum, the front axle load shall be 20% of the tractor weight. Permitted axle load and permitted total weight for the tractor shall always be observed.

NB! The driving, controlling and braking properties are affected by the attached machine combination.

Technical Specifications

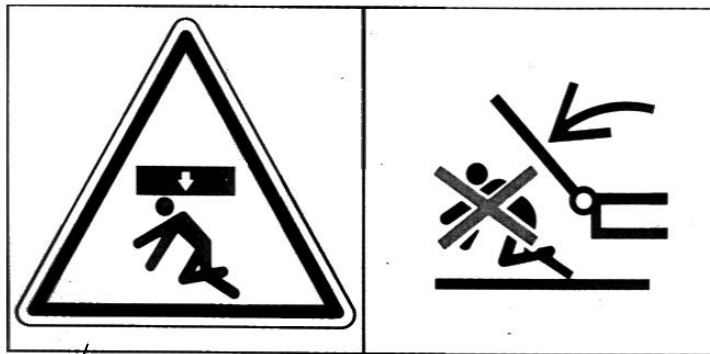
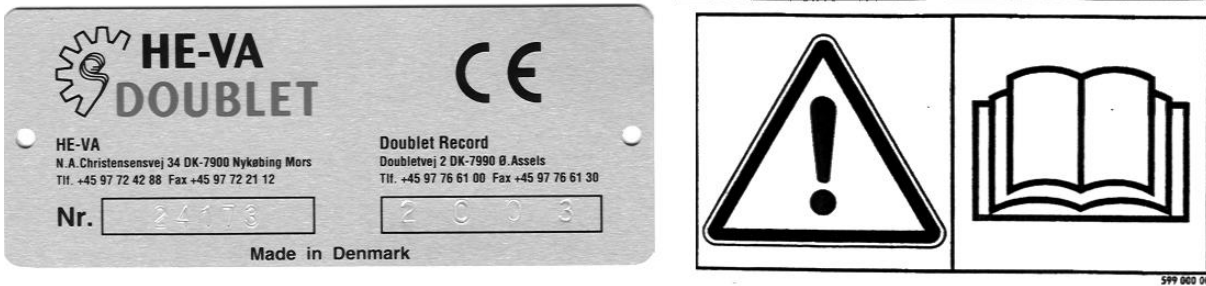
Machine Type

EURO-SEEDER

Working width		3.00m	4.00m
Transport width		3.20m	4.20m
Machine length		7.80m	7.80m
Filling height		2.40m	2.40m
Filling opening		1.40m ²	1.40m ²
Hopper volume		3100l / 2400 kg	3100l /2400 kg
Weight without front tool		3600kg	4400kg
No. of disc coulters		24	32
Row distance		12.5cm	12.5cm
Disc coulters diameter		400mm	400mm
Pneumatic seed system		Rauch	Rauch
Seed rate		1.5-430kg/ha	1.5-430kg/ha
No. of hydraulic outlets		3 double-acting	3 double-acting
Blower drive		Vario / oil drive	Vario /oil drive
Hydraulic marker set, vertical		yes	yes
Wheels		600/50x22.5	600/50x22.5
Tyre pressure at 15km/h	minimum	1.0bar	1.0bar
Tyre pressure at 40km/h	minimum	1.5bar	1.5bar

Labels at the Machine

You will find several labels at your Disc-Roller and they contain **safety** and practical instructions as regards the correct application of the machine. Please study the instructions and point out to the user the importance of the labels as well as the **safety instructions** in these Operating Instructions. Always keep the labels clean and readable – if not they must be replaced.



C



D

IMPORTANT!

All bolts must be tightened after the first few hours of operation, otherwise our guarantee will not apply.

IMPORTANT!

Resserrer tous les boulons et écrous après la première mise en marche. Le cas échéant nos obligations de garantie seront à considérer comme nulles.

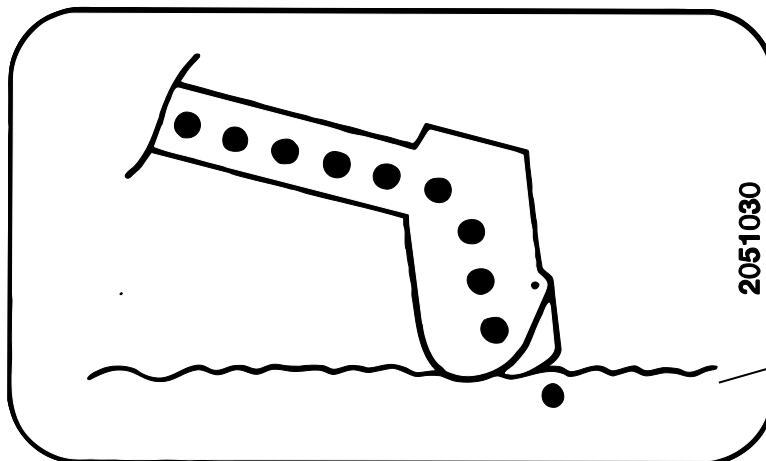
WICHTIG!

Alle Muttern nach kurzem Gebrauch nachziehen. Bei Nichtbeachtung entfallen Gewährleistungsansprüche.

VIGTIGT!

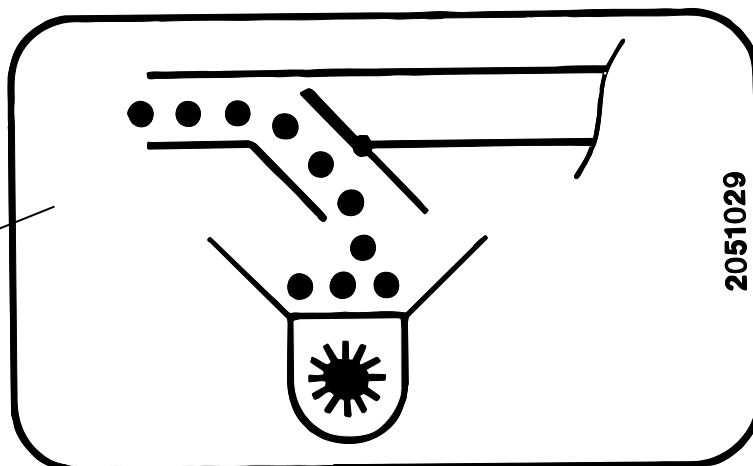
Efterspænd alle møtrikker efter kort tids brug. Hvis dette ikke overholdes, bortfalder vore garantiforpligtelser.

E



F

G



Explanation of the Machine Labels

- A** Number sign with type number and year of manufacture.
- B** Study the Operating Instructions thoroughly before starting to use the machine and observe all safety instructions.
- C** Always make sure that the working area of the marker sets is free before they are operated.
- D** No transport of persons on the footplate.
- E** Tighten up all bolts after a short time. If this is not done, our guarantee obligations will no longer apply.
- F** When the pointer points at this label, no tramlines are made.
- G** When the pointer points at this label, tramlines are made.

Instructions on Unloading and Placing

The machine is supplied completely assembled by our lorry. Our specially trained driver will assist in the unloading of the machine.

The machine shall be driven from the lorry by means of a tractor on the chutes provided and according to our driver's instructions.

Afterwards place the machine on plane and firm ground.

Machine Attachment

The machine is attached in the lift arms of the tractor.

When the Vario (oil pump) is installed, the fittings for the oil pump shall be attached to the tractor so that the oil pump cannot turn round. See Figure 1.

The hydraulic hoses for the marker sets, machine lifting and possible front-harrow shall be attached to the double-acting outlets of the tractor.

The quick-couplings belonging together have caps in the same colours so that you will not risk a wrong connection.

Support for Vario Pump

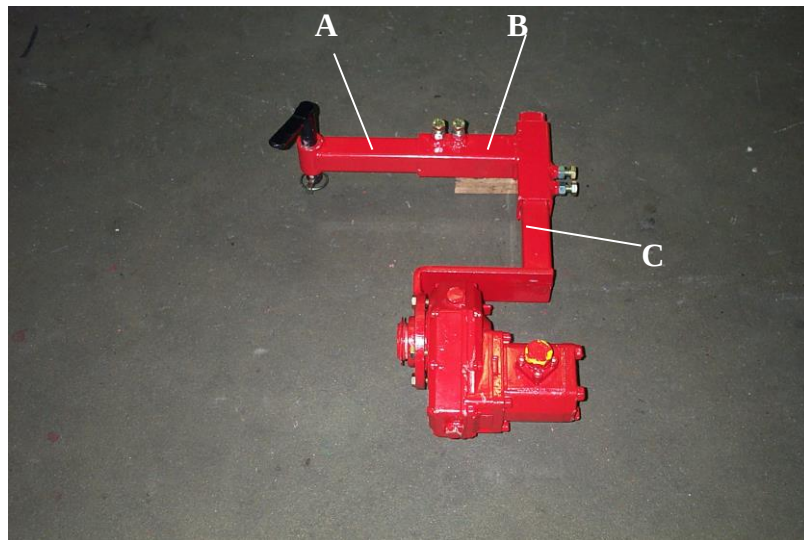


Figure 1

When the Vario pump is installed at the tractor, the support shall also be installed. This is done by attaching part **A** in the fittings of the top link (of the tractor) by means of the rivet. The parts **A**, **B** and **C** may be mutually adjusted so that the fittings may fit all tractors. Remember to tighten up bolts and lock-nuts when the fittings have been properly placed.

Support for Hydraulic Hoses

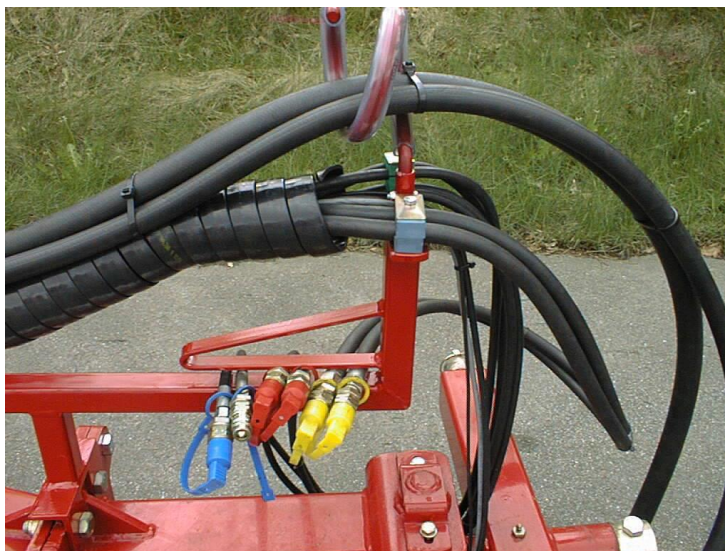


Figure 2

When the machine is not being used, the hydraulic hoses shall be placed in the support so that the quick-couplings are not lying on the ground.

The road wheels/transport wheels are operated by a double-acting outlet at the tractor. Before transport, the safety locks, **A**, at the wheel cylinders shall be tipped up and clicked onto the piston rod when the machine has been lifted to top position. Before the machine is lowered again, the safety locks shall be clicked off the piston rod and laid down. See Figure 3.

Safety Lock for Wheel Rack

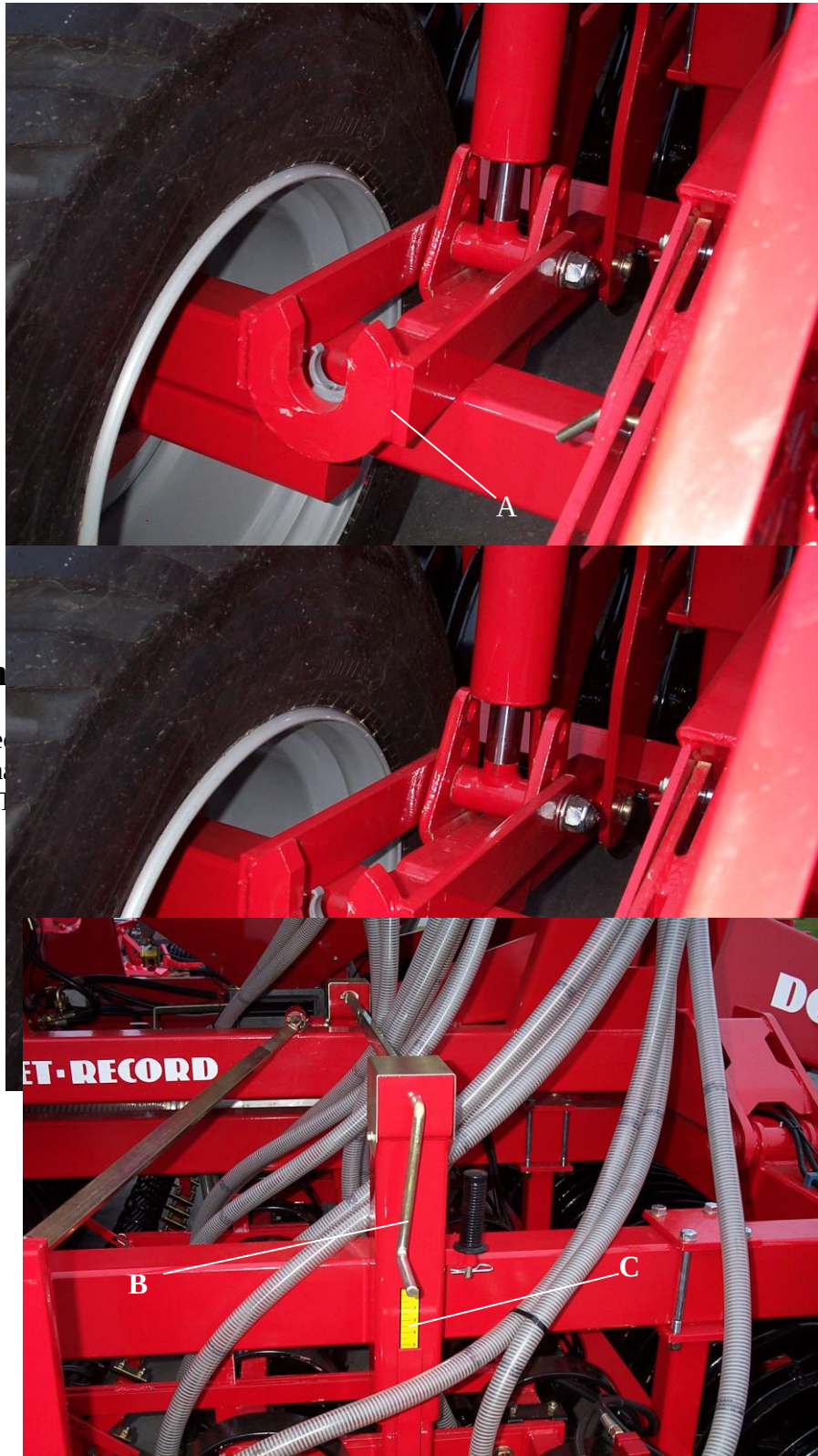


Figure 4

Adjustment

Adjust the seed depth. Make sure that they sow in the same depth. The ground.

ding depth. at they sow in the fted a little from

Adjustment of Long-finger Harrow after Seed Section

The spring tension of long-finger harrow may be adjusted by means of the hole row of the adjustment handle, **D**, Figure 5. Make sure that the adjustment handles have been adjusted in the same way.

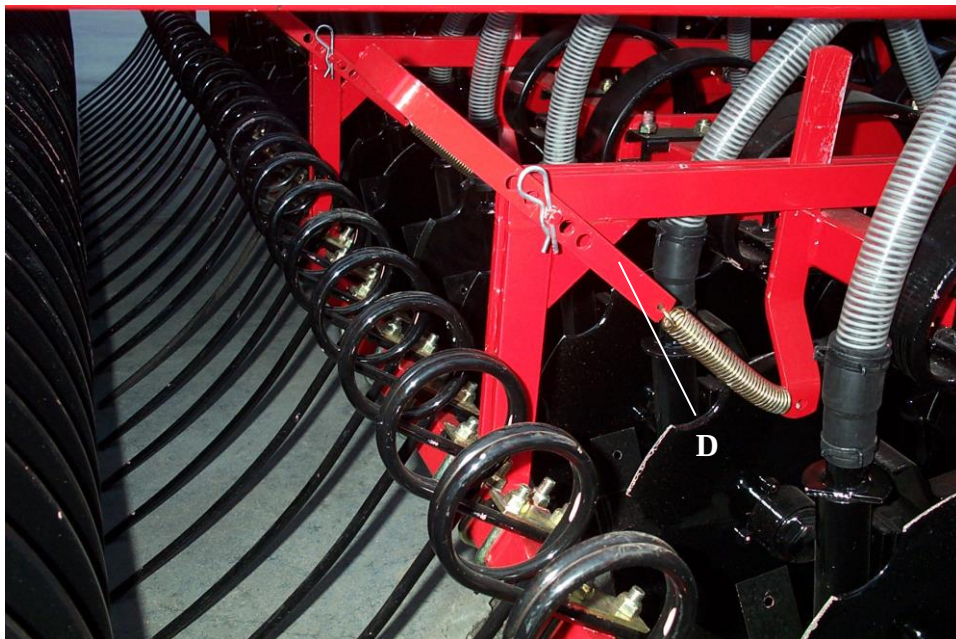


Figure 5

Adjustment of Long-finger Harrow after Roller

The long-finger after-harrow may be adjusted in the depth by the rivet, Figure 6. The angle of the tines is adjusted by means of the rivet **F**, Figure 6. The tines shall be placed so that the ends, **G**, Figure 6, lie horizontally on the ground in order to have maximum levelling effect.



Figure 6



Figure 7

The long-finger after-harrow has been designed so that it can tip forward. This prevents the after-harrow and suspension from being damaged if the machine should back a little.

Adjustment of Marker Set

The angle of the marker disc may be set to be more or less aggressive by turning the adjusting piece, **H**, Figure 8 in relation to the marker set arm. When the marker set length shall be adjusted, the bolts and lock-nuts, **I**, Figure 8, shall be loosened. Set the internal arm in the correct length and retighten the bolts and lock-nuts.

The marker set is further equipped with a 8x30mm shear bolt of quality 8.8 in order to prevent the marker set arm to be damaged when hitting trees, wells, etc.



Figure 8

Attention !

For transport, lock the marker set arms (in vertical position) by means of the hydraulic cocks of the marker set cylinders.

Adjustment of Marker Set

The marker set may be adjusted in relation to the tractor centre and the tractor track.

Adjustment in relation to Tractor Track

Marker set length M

$$M = \frac{\text{Working width} + \text{sowing distance} - (\text{track})}{2}$$

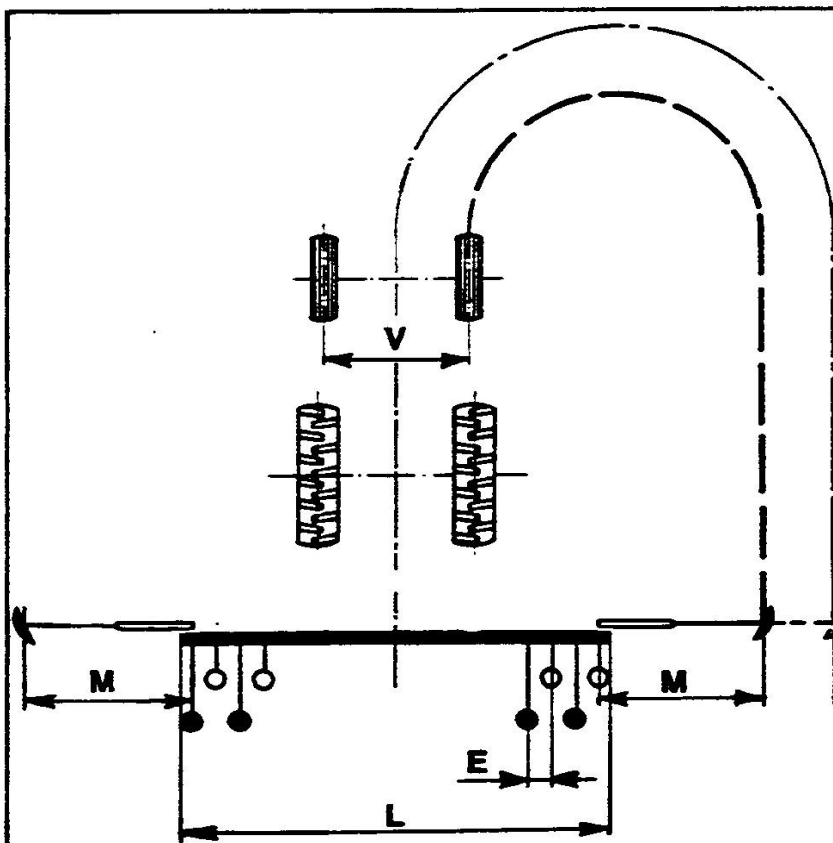
Example: Venta with 32 shares
 Seeding distance 12.5 cm
 Tractor track 180 m

$$L = 400 \text{ cm} \qquad E = 12.5 \text{ cm} \qquad V = 180 \text{ cm}$$

$$M = \frac{L + E - V}{2} = \frac{400 + 12.5 - 180}{2} = \frac{232.5}{2} = 116.25 \text{ cm}$$

Adjustment in relation to Tractor Centre

Adjustment in relation to tractor centre: $M + \frac{1}{2} V$



Dosing

Adjustment to Normal Seeding

The dosing is made centrally by means of a feed tray with a maximum efficient width of 200 mm. By means of the adjusting screw (a) Figure A, page 14, the efficient width and thus the seed rate may be varied.

In connection with normal seeding, the pawl (b) shall be locked in the locking groove (c), Figure B, page 14.

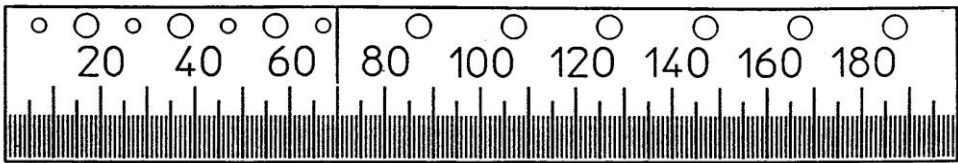
Adjustment for Fine Seed Grains

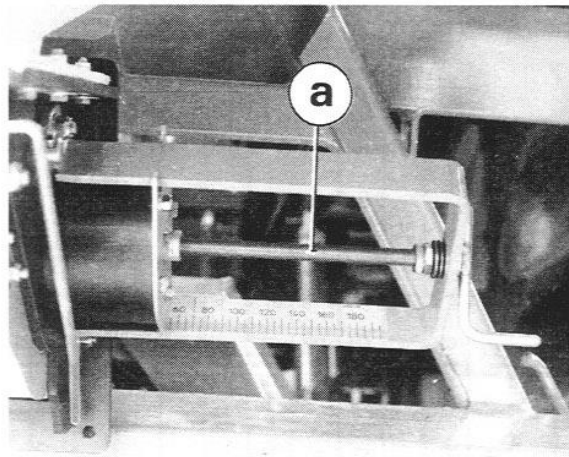
For seeding of small quantities of fine seed grains, the feed tray volume may be additionally reduced by means of a fine seeding valve. When the hopper is empty, the dosing device is set to opening 0 by means of the adjustment handle (a) Figure C, page 14. The pawl (b) is loosened, turned and locked in the locking groove (d) Figure D, page 14.

By means of the adjustment handle (a) Figure C, page 14, the seed rate may now be adjusted between 0 and 70 mm.

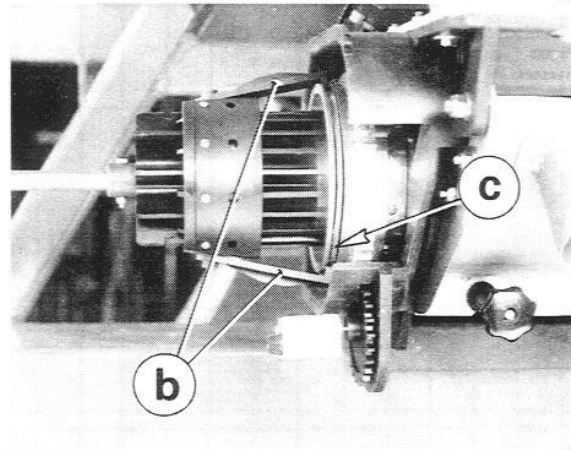
Dosing Adjustment Segment

0- 70: Fine Seeding
70-200: Normal seeding

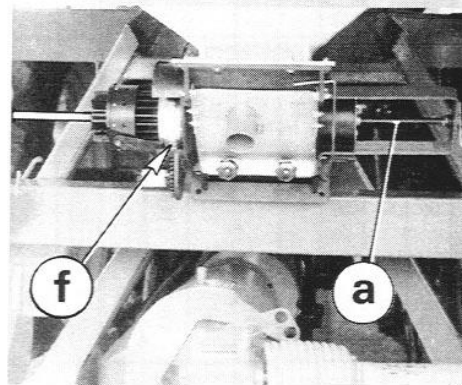




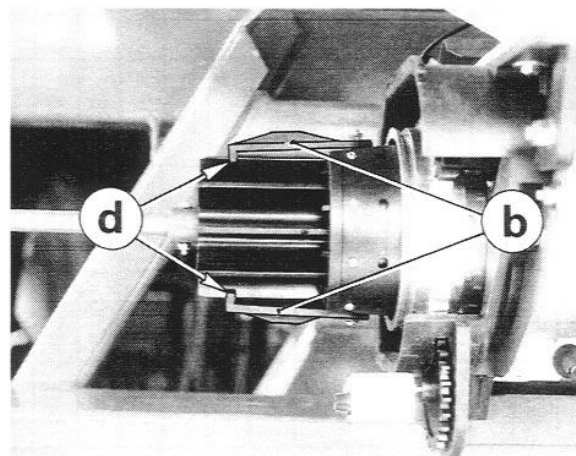
A



B



C



D

Seeding Rate Table

VENTA Seeding Rate Table																
	Wheat	Barley	Rye	Oat	Horse Beans	Peas	Maize	Flax	Grass			Canola	Grass	Clover	Lucerne	Phacelia
kg/l	0.78	0.68	0.80	0.53	0.82	0.80	0.80	0.72	0.36		kg/l	0.65	0.36	0.75	0.75	0.68
Pos.	kg/ha										Pos.	kg/ha				
10	18	15	18	8				15	8		2.5	1.0	0.8	1.2	1.0	1.0
20	39	33	39	18	30	28	33	33	22		5	2.3	1.7	2.9	2.8	1.9
30	59	50	60	29	55	51	53	49	37		10	4.8	3.6	6.2	5.9	4.0
40	79	70	81	40	80	76	72	66	51		15	7.4	5.8	9.4	9.0	6.1
50	100	89	102	50	100	96	91	82	64		20	10.1	8.0	12.6	12.0	8.8
60	119	108	123	64	121	117	111	99			25	12.5	10.1	15.8	15.1	11.5
70	139	126	143	78	142	138	131	115			30	15.2	12.2	18.9	18.2	14.2
80	158	144	164	91	163	159	151	132			35	17.5	14.3	22.1	21.3	16.9
90	179	162	185	104	184	180		148			40	20.3	16.5	25.3	24.3	19.6
100	199	180	205	118	206	200		164			45		18.6			
110	218	198	226	130	228	221		180			50		20.7			
120	239	216	247	142	250	242		196			55		22.8			
130	260	234	268	154	273	263					60		25.0			
140	279	252	288	166	295	284					65		27.1			
150	300	271	309	178	318	305					70		29.2			
160	318	290	329	190	339	326										
170	338	309	350	202	360	347					4m machine 106 rev. = 0.1 ha					
180	359	328	370	215	381	369										
190					402	391					3m machine 141 rev. = 0.1 ha					
200					424	412										

Indicative values

Calibration Test

Warning: Only perform the calibration test when the machine has been lowered to the ground, the tractor motor has been stopped and the ignition key removed.

Find the adjustment of the feed tray corresponding to the required seed rate acc. to the seed table and adjust the tray with the handle (a), Figure A. Use the right bearing ring as reading mark on the scale. Fill in the seed grains.

If necessary (with grass seeds, etc.), activate the agitator.

Fit the turning handle (c) Figure G to the driving wheel

Push down the locking handle (b) Figure F for the bottom flap so that the seed is caught.

Place the turning box under the outlet and turn the driving wheel approx. 4 turns in the direction of the arrow.

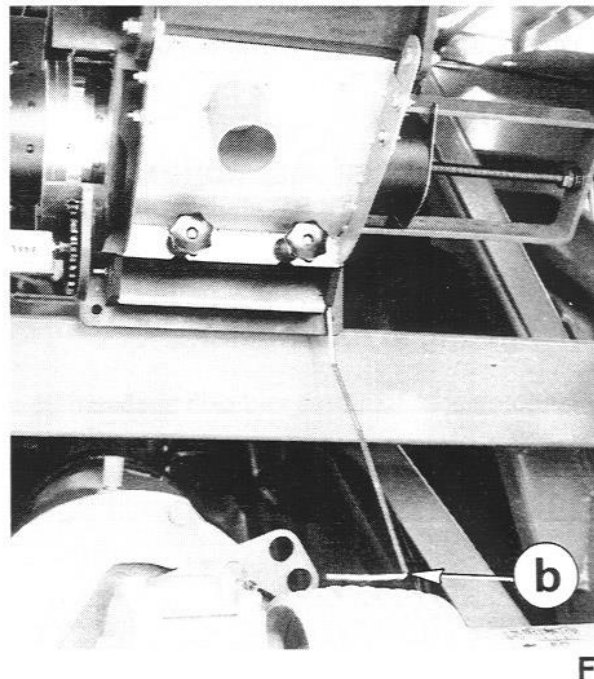
Empty the box and reset the hectare counter.

Put in the box again and perform the calibration test carefully:

106 rev. (4m) and 141 rev. (3m) = 1/10 ha = hectare counter displays 100.

Weigh the seed grain considering the weight of the bucket.

If the calibrated quantity deviates from the required value, the setting at the feed tray shall be proportionally changed.



Example 1

106 rev. (4m) or 141 rev. (3m) with the driving wheel = display 100 = 1/10 ha.

Seed rate caught: 13 kg

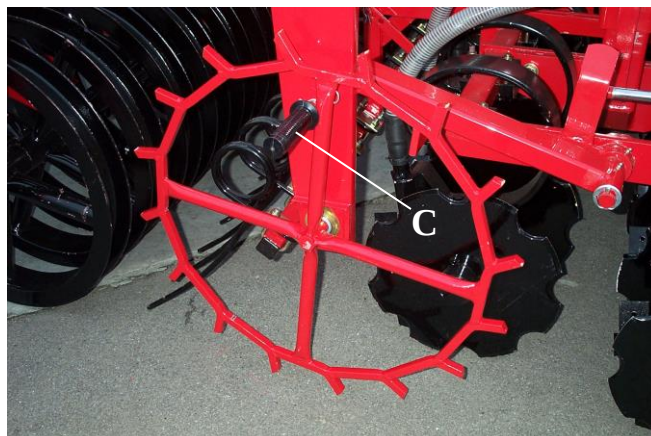
Seed rate per ha: $13 \text{ kg} \times 10 = 130 \text{ kg}$

Example 2

Required seed rate per ha: 180 kg

Seed rate caught: 16 kg = 160 kg/ha

This seed rate is approx. 10% below the required value. The adjustment value (opening of the dosing unit) is increased by 10% and a new calibration test is made.



After the calibration test, remove the seeding handle, close the bottom flap, put the box back to its place and reset the hectare counter.

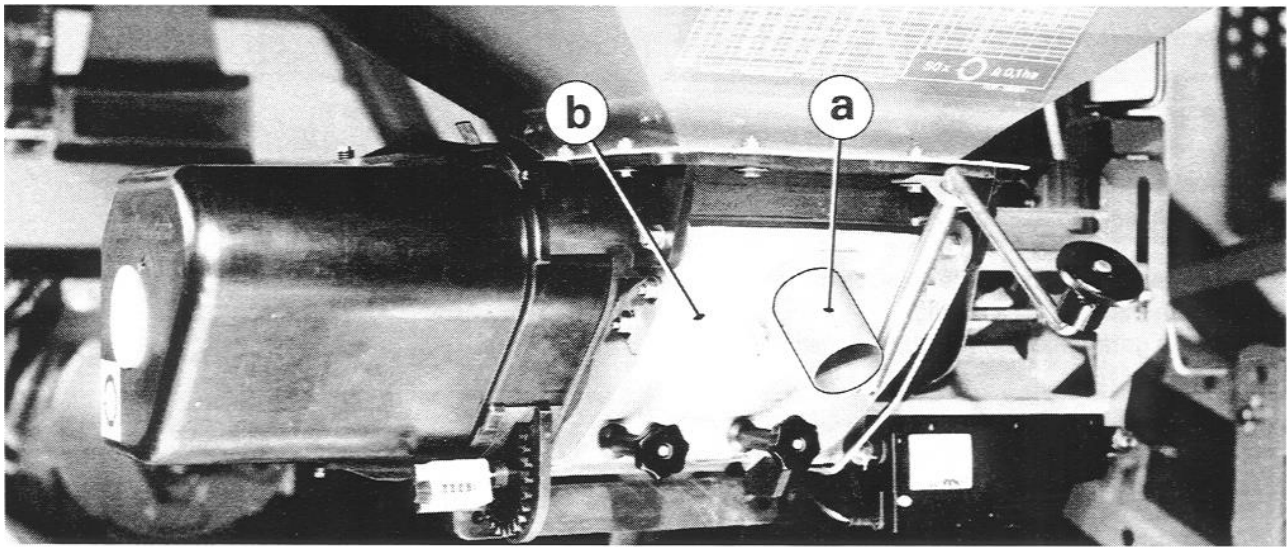
Important !

When reducing the opening of the dosing unit by adjusting the adjusting screw, the calibration arm shall always be turned down. In this way it is prevented that the seed grains are chopped in the dosing unit.

During the seeding, the seeding rate shall be compared with the area sown.

In connection with very great seed rates, the calibration test shall only be made for 1/20 ha. In this case, only 53 rev. (4m machine) or 70.5 rev. (3m machine) shall be made, and then the hectare counter will be at 50.

The seeding rate multiplied by 20 is equal to the seeding rate per hectare.



H

Emptying

After the seeding or after change to another type of seed grain, the hopper may be emptied as follows:

Close the emptying valve (a) Figure H again when the box is full – via emptying gate (b) Figure H.

When the box is empty and the emptying gate is open, turn the dosing handle 2-3 turns by the driving wheel in order to empty all cells.

Remember to empty the gates and the emptying valve before the seed grains are filled again.

Placing of the Machine

The placing of the machine shall be made in the following order:

Stop the tractor motor and remove the ignition key.

Lift the harrow frames so that the machine stands on the support rollers. Remember the "brake block" before and behind the roller.

Dismantle the Vario pump and place it in the respective support.

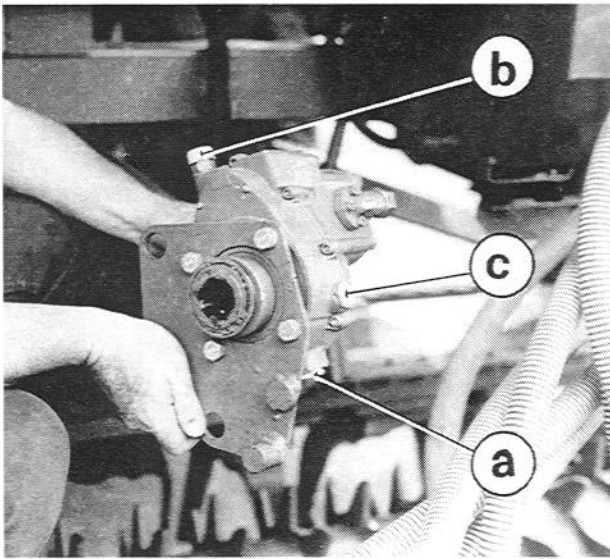
Disconnect the wires from the tractor.

Disconnect the hydraulic hoses from the quick-couplings of the tractor – remember to fit the dust caps on the hoses.

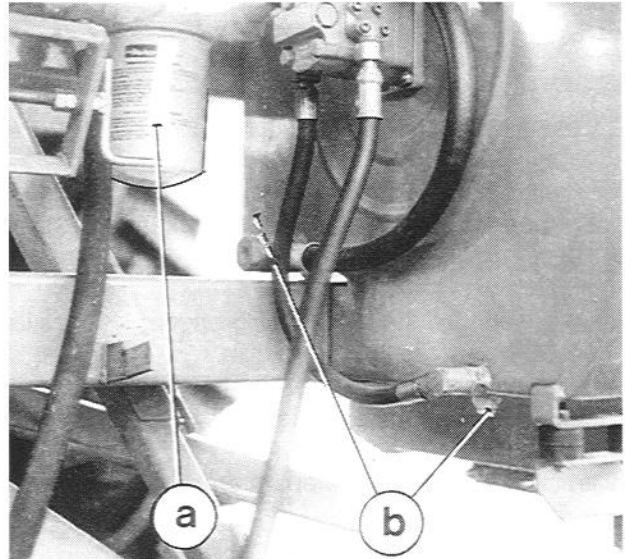
Place the hoses in the hose coupling support.

Start the tractor, release the locking pawls of the lift arms, lower the lift arms and drive slowly forwards.

Maintenance of the Machine



I



J

Transmission at Vario Pump

The transmission is equipped with discharge screw (a) Figure I, oil level control screw (c) Figure I as well as filling and ventilating screw (b) Figure I.

The transmission is filled with 0.2 l oil. Order No. for 0.2 l container: 334230083.

Check the oil level on a daily basis!!!

Perform oil changes after every 100 hours of operation, however, minimum once a year.

Container, Filter Cartridge

Perform oil and filter change (a) Figure J after every 100 hours of operation, however, minimum once a year. Discharge screw (b) Figure J).

Oil change: Fill the new filter cartridge with oil before fitting it on the filter head. Fill new oil into the container. Order No. for oil (18.5 l): 334230109.

Attention !

Always perform a complete oil change. Use the same oil type for refilling. Different oil types must not be mixed!

The system is filled with approximately 17 l of **Wintershall ATF Dexron**.

In addition to this oil type, the following oil types may be used:

Mobil ATF 220, Shell ATF Dexron II, BP Autran DX II, Aral ATF 22, Castrol TQ Dexron II, Esso ATF Dexron, Total Dexron.

Lubrication

The **turning sections** at the drawbar shall be lubricated with grease every 10 hours of operation.

The **bearings** at the front and back support roller (U-section rollers) shall be lubricated with grease every 30 hours of operation.

Drive for dosing device:

The **chain** in the chain box shall be lubricated with oil every 50 hours of operation.

The **cardan joints** shall be lubricated with oil every 50 hours of operation.

Angle gear and **intermediate bearing** shall be lubricated with grease every 50 hours of operation.

The **sprocket wheel drive** at the dosing device shall be lubricated with a thin lubricant (Caramba or similar) every 30 hours of operation.

The **marker set rivets** shall be lubricated with grease every 30 hours of operation.

The **sprocket wheel drive** at the adjusting handle for the seed depth adjustment shall be lubricated with grease every 100 hours of operation.

The **disc coulter rivet** shall be lubricated with grease every 100 hours of operation.

It is important to lubricate the rivet after a possible high-pressure cleaning after the season in order to press any penetrating water out of the bearing.

The **suspension bearings** for the seed sections shall be lubricated with grease every 100 hours of operation.

Scrapers for Support Rollers



The support rollers are equipped with scrapers of special steel. When the scrapers are worn, loosen the scraper plate and push it a few cm sideways where it is retightened. When the scraper plate is also worn in this position, turn the plate so that you will get a new edge to wear on.

Additional Equipment

Front Tool



If the
means
The a

sted by

If the machine is equipped with a front-tool with two tine rows, the depth adjustment is made by means of spindles and the angle adjustment by means of the hydraulics.

If the machine is equipped with a front-tool with two rows of discs, the dept adjustment is made by means of spindles.

Half-side Closing



Half-side closing is
activated.

If the machine is equipped with half-side closing, this is activated by pushing the handle in until the pointer points at the transfer indicating that the grains are running back into the hopper. Remember to lock the handle with the clamp.

When the half-side closing shall not be activated any more, loosen the clamp, pull out and lock the handle so that the pointer indicates that the grains are running into the coulter.

Screw Feeding



The feeding screw tipped inside the working width during working and transport is operated by means of the start/stop button.

Fit the hydraulic hoses into a double-acting hydraulic outlet at the tractor.

Make sure that the screw is running in the correct direction, which is determined by the oil direction.

Remember to switch off the oil flow between the feedings.

A safety switch, A, ensures that the screw is stopping if the feed hopper is lifted before the screw has been stopped on the start/stop button.

The screw may under no circumstances be used without the safety grate in the feed hopper.

Trouble-Shooting

Faults	Cause and Remedy
The seeding rate does not correspond to the calibration test	Check whether the opening setting has changed and possibly retighten the nuts and lock-nuts at the adjustment arm.
	Check whether the feed tray is fouled by fungicide and if so change to another fungicide.
	Check the sealing ring for wear and tear or other damages.
	Check the hectare counter and the chain housing transmission.
	Make the calibration test somewhat more slowly (1 revolution per second).
	Check the weight and consider any tare weight.
Blocking of seed hoses	Check hoses and bends and possibly shorten the hoses.
	Check the PTO velocity. Must be 1000 RPM.
	At low temperatures, the oil shall be warmed up for approx. 10 minutes.
The marker set does not change regularly	The hydraulic connection between seeder and tractor shall be adapted.
	Replace the tractor valve or check with another tractor.
	The control valve of the marker set is defective.
No marking of wheel tracks	Check the voltage.
	Check wires and connections.
	Check the function of the closing flaps.
	Disengage the stop key at the monitor.
The monitor does not count rhythms	Check the connections (including sensors)
	Set the distance between sensor and magnet to approx. 5 mm-
	Disengage the stop key.



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