Instruction Manual

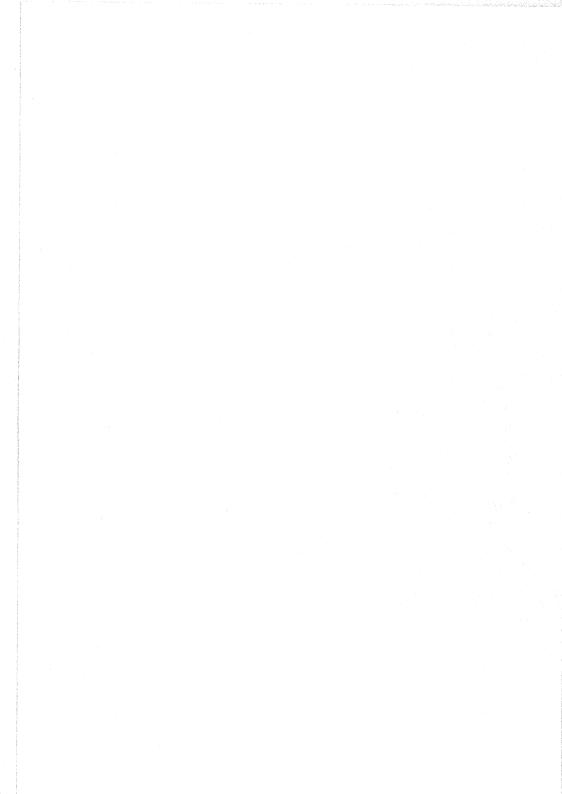
Tyre Packer RP-Till- and Drill-Combination with Pack-Top Seed Drills AMAZONE RP AD-2



AMAZONEN-WERKE



DB 622 (GB) 5.95 / MG 183 Printed in Germany



The till- and drill-combination with the AMAZONE band packer RP plus pack top seed drill AD-2 has been developed according to the latest findings of plant production science and is one machine from the wide range of AMAZONE farm machinery.

In this instruction manual the fitting, way of operating and function of the AMAZONE Tyre Packer RP in combination with AMAZONE soil tillage implements and AMAZONE pack top seed drills AD-2 are described. Please also adhere to the instruction manuals of these machines. This instruction book should be considered as a supplement to the instruction books for the soil tillage machine and pack top seed drill AD-2 the contents of which should also be adhered to.

Please get acquainted with the correct way of operating your AMAZONE tyre packer-till-and drill-combination and its operating devices. Never let untrained persons operate the till-and drill- combination.

Maintain your till- and drill-combination in good operational order. Any unauthorized changes to the tyre packer till- and drill-combination may affect its operation and/or safety as well as its longevity. You will, of course, appreciate that we will not be able to accept claims under the guarantee if any damage is caused due to incorrect operation or to unauthorized changes.

Please carefully read the safety instructions in this instruction manual and on the safety stickers on the tyre packer-till- and drill-combination. All safety signs and stickers should always be kept in a readable condition. Missing or damaged signs or stickers should be replaced for your own safety.

Please enter the serial number of your band packer RP into the space provided below. You will find this number on the type plate (Fig. 1/1) on the right hand on the outside of the right hand side of the frame.

AMAZONI	E Tyre packer Type I	₹P	
Serial No.			

Your tyre packer till- and drill-combination complies with the regulations by the Agricultural Health and Safety Authorities. In case of repair only original spareparts of the AMAZONEN-WERKE should be used for replacement. Claims for guarantee can only be filed if exclusively original options, spare and wearing parts were used.

Please note the advice regarding the parking of the tyre packer roller of para. 6

Contents

		Page
\triangle	Important hints	3
1.0	AMAZONE Tyre packer Till- and Drill Combinations	5
1.1	AMAZONE Tyre packer Pack Top Seed Drill RP-AD-2	
	Technical data	
Α	General Safety and Accident Advice	11
<u> </u>	Safety advice when operating	
	Safety advice when fitting	13
2.0	Coupling the Tyre packer Pack Top Till- and Drill Combination	13
2.1	Fitting the tyre packer with the correct coupling parts	13
2.2	Coupling of soil tillage implement and tyre packer	15
2.3	Attaching the pack top seed drill to the tyre packer and	,
	soil tillage implement	
2.4	Attaching the top link tower	25
3.0	Calibration test	27
4.0	Setting the working depth of the soil tillage implement	29
5.0	Putting into operation the tyre packer Till- and Drill combination	31
5.1	Levelling board for the tyre packer roller	31
5.2	Clearing fingers	29
lack	Safety advice for road transport	21
	·	
6.0	Parking the tyre packer till- and drill-combination	33
7.0	Tyre packer till- and drill combination RP-AD 602 with 6.0 m working width	37
7.1	Coupling the tyre packer to	
7.2	AMAZONE soil tillage implements with 6 m working width Coupling the pack top seed drill AD 602	
7.2 7.3	Track marker of pack top seed drills AD 602	
7.3 7.4	Parking the tyre packer combination of 6 m working width	
/ . ~1	r arking the tyre packer combination of our working width	39
8.0	Maintenance and care of the tyre packer	41
	Manufacturer	



This sign is used in this instructions or on the machine to draw your attention to safety advice in the instructions for the tyre packer and attached machines. It signals particular danger of injury!

Adhere to all safety advice!

Please pass on all safety advice also to other users!



Important advice

- 1. Declined use:
 - The AMAZONE tyre packer combination has been exclusively designed for the usual operation in agriculture.
- 2. Any use beyond the above is no longer considered to be a declined use. The manufacturer does not accept any claims from damages resulting from it. Solely the operator himself carries the full risk.
- 3. The declined use also includes the adherance to the manufacturer's prescribed operation, maintenance and repair conditions.
- 4. The AMAZONE tyre packer combination may only be operated, maintained and repaired by such persons who have been made acquainted with it and who have been advised about the dangers.
- 5. The Health and Safety Executive Advice as well as further generally accepted safety technical, working, medical and traffic laws should be adhered to.
- 6. Any damages resulting from arbitrary changes on the machine rule out the responsibility of the manufacturer.

On receipt of the machine

When receiving the tyre packer or the tyre packer combination, please check that no damage has been caused in transit and all parts are present. Otherwise no responsibility can be accepted by us or the carrier. Best chances for replacement of damaged components are if any claims are filed immediately with the forwarder.

After the first ten hours of operation please check all bolted connections of components for firm seating and retighten where necessary.



Fig. 1



Fig.2

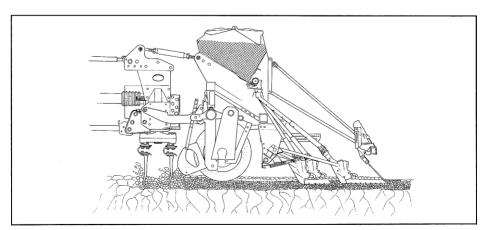


Fig.3

1.0 AMAZONE Tyre Packer-Till- and Drill-Combination

The AMAZONE tyre packer has been developed for the use in combination with an AMAZONE pack top seed drill AD-2 or a AMAZONE airplanter ED. The forward tilted seed box of the pack top seed drill is mounted onto the tyre packer roller. In conjunction with an AMAZONE soil tillage implement this enables a one pass operation for soil tillage, soil recompaction and sowing by tractors of smaller horse power and lifting power requirement. The combination of a tyre packer with the AMAZONE pack top seed drill AD-2 can only be combined with AMAZONE-soil tillage implements.

The coupling parts are designed in such a way, that during operation the pack top seed drill is supported by the tyre packer and not by the soil tillage implement. This has the advantage, that the soil tillage implement during operation is not strained by the weight of the pack top seed drill. This way the soil tillage implement can give way to stones or other obstacles and move upwards unhindered.

Hereby damages to tines and components of the gear box are prevented.

The **AMAZONE tyre packer** is designed for use with the following combinations and fields of operation:

- AMAZONE front harrow with pack top seed drill with 'K' (Suffolk) coulters for operation in light soils following the plough.
- AMAZONE reciprocating power harrow with pack top seed drill with 'K' (Suffolk) coulters (Fig. 2 and 3) for operation on light to medium heavy soils following the plough.

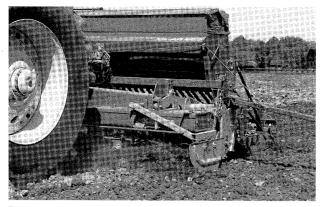


Fig.4

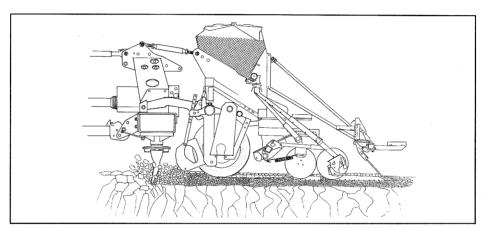


Fig.5

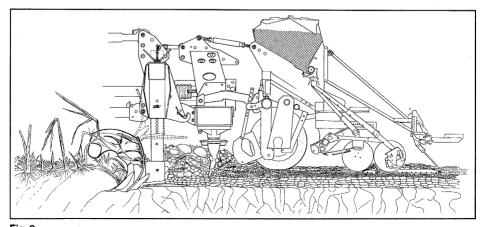
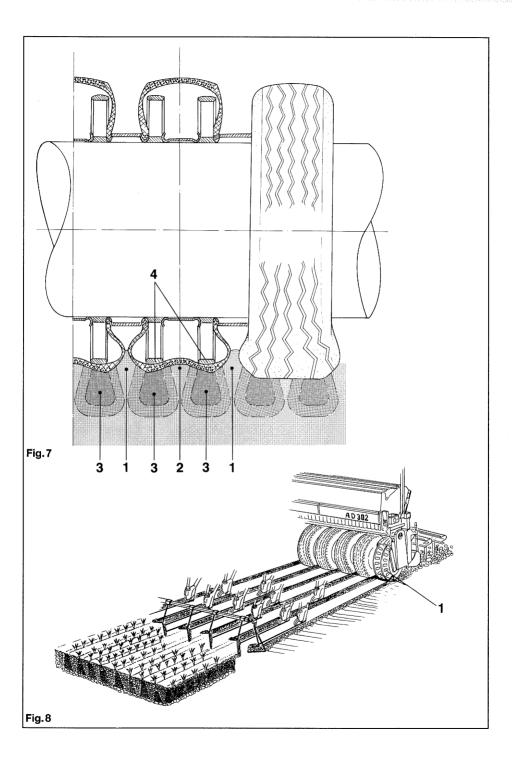


Fig.6

- AMAZONE-rotary harrow with pack top seed drill with 'K' (Suffolk) coulters for the use on all soils following the plough.
- AMAZONE-rotary harrow with pack top seed drill with roll disc coulters for operation following the plough or a spring tine cultivator, with or without organic matter on the surface of all soils.
- AMAZONE-rotary cultivator with pack top seed drill with 'K' (Suffolk) coulters for operations on all soils (also extreme high content on clay and stones) with or without preparation by heavy spring tine cultivators or following the plough with little or without organic matter on the surface.
- AMAZONE-rotary cultivator with pack top seed drill with roll disc coulters (Fig. 4 and 5) for operations on all soils (extreme high content of clay and stones) with or without soil preparation by heavy spring tine cultivator or plough, with or without organic matter on the surface. In Fig. 6 this tyre packer-till- and drill combination is illustrated with AMAZONE-deep loosener TL.

The tines "on grip" of the rotary cultivator and reciprocating power harrow create a demixing effect. The coarse particles of the soil thrown further forward than the fine ones. For this reason the fine soil is concentrating in the lower areas of the worked zone or in the area of the seed placement whereas the coarse parts (clods) remain on the surface and this way protect the surface from panning. With the ridge of soil produced by the tines simultaneously any soil undulations are filled.



1.1 AMAZONE tyre packer-pack top seed drill RP-AD-2

The AMAZONE tyre packer-pack top seed drill RP-AD2 (Fig. 8) consists of a tyre packer and a seed drill. In conjunction with the AMAZONE soil tillage implement the soil will first be tilled and loosened and afterwards recompacted by the tyre packer. The soil tillage implement is resting on top of the tyre packer roller and this way maintains accurately the preset working depth.

The recompaction by the tyre packer this way will even be increased. For recompacting the soil, automobile tyres without tubes and without air pressure are slid over the roller drum. Each tyre is positioned on the drum by two bracing rings (Fig. 8/1). The shape of these bracing rings and the flexibility of the tyre results in differently recompacted zones in the soil:

Zone 1: Uncompacted (see Fig. 7/1)

Here the clods are not crushed. This area of soil will be used for covering the rows of seed. The crumbling structure of the soil is maintained.

Zone 2: Slight recompaction (see Fig. 7/2) In this area no seed will be placed.

in this area no seed will be placed.

Zone 3: High recompaction (see Fig. 7/3)

In this area the soil is highly recompacted by the bracing rings /Fig. 7/4). On these recompacted strips of soil the seed will be placed by the coulters. The extremely good soil texture is responsible for the quick and even germination of the seed.

While the tyre rolls over the soil continuously its contacting area is raised and expands again. Hereby any sticking soil will flex off. The tyres are cleaning themselves, even on extremely sticky, moist soils.

This germination conditions for the seed result from the ideally structured seed bed and from the high recompaction in the stripes into which the coulters place the seed.

In the highly recompacted strips of soil the coulters of the pack top drill require a high coulter pressure to achieve the desired sowing depth. By the high coulter pressure disturbing factors such as stones or clods will hardly impair the sliding of the coulters. Low placed coulter pivoting points additionally result in the especially smooth running of the coulter. Therefore, if compared with conventional seed drills, the work of the AMAZONE tyre packer-pack top seed drill RP-AD produces a very uniform sowing depth and a correspondingly uniform plant development. This again is one of the most important preconditions for a targeted guidance of the crop growth.

Technical data	Tyre Packer Pack Top Seed DrillAl			NE RP-AD
Working width 2.5 m	252 SN	252 SR		
'K'-(Suffolk) Coulters	产	_		
Roll-Disc-Coulters	_	卢		
Row spacing	12.5 cm	12.5 cm		
Number of rows	20	20		
Number of tyres	10	10		
Working width 3.0 m	302 SN	302 SR	302 EN	302 ER
'K'-(Suffolk) Coulters	p 章5	-	卉	_
Roll-Disc-Coulters	-	卢	-	, ≇t,
Row spacing	12.5 cm	12.5 cm	10.0 cm	10.0 cm
Number of rows	24	24	30	30
Number of tyres	12	12	15	15
Working width 4.0 m	402 SN	402 SR	402 EN	402 ER
'K'-(Suffolk) Coulters	奔	-	p ^{ilo} t,	-
Roll-Disc-Coulters	-	广	-	p i
Row spacing	12.5 cm	12.5 cm	10.0 cm	10.0 cm
Number of rows	32	32	40	40
Number of tyres	16	16	20	20
Working width 4.5 m	452 SN	452 SR	452 EN	452 ER
'K'-(Suffolk) Coulters	雌	-	产	-
Roll-Disc-Coulters	-	广	-	p å t,
Row spacing	12.5 cm	12.5 cm	10.2 cm	10.2 cm
Number of rows	36	36	44	44
Number of tyres	18	18	22	22
Working width 6.0 m	602 SN	602 SR	602 EN	602 ER
'K'-(Suffolk) Coulters	广		pits	-
Roll-Disc-Coulters	-	雌	-	p [®] t,
Row spacing	12.5 cm	12.5 cm	10.2 cm	10.2 cm
Number of rows	48	48	60	60
Number of tyres	24	24	30	30

General Safety and Accident prevention advice



Safety advice before starting the operation

- Fit and check transport gear, traffic lights, warnings and guards!
- The fitted warning- and advising plates give important hints for a safe operation; adhering to protects your own safety!
- Become acquinted with all installations and controlling devices as well as with their function before beginning with the operation. Doing this during operation is too late and dangerous.
- Put implement into operation only when all guards are fixed in position.
- Do not allow anybody to stand between tractor and implement if the tractor is not secured against rolling away by the parking brake and/or by the supplied chocks.
- Fit weights always as advised to the fixing points provided for that purpose.
- On all pivoting parts actuated by foreign powers (e. g. hydraulics) exists danger of injury by bruising and crushing.
- The clothing of the operator should fit tight. Avoid wearing any loose clothing!
- Before beginning to drive, check surrounding area (children etc.) Ensure sufficient visibility!
- If the seed drill is equipped with a hydraulically driven filling auger, this auger may only be **switched on after the seed box lid has been closed**. Switch it off before opening the lid.
- Always only close or open the lid of the seed box via the steps provided on the rear of the machine.
- Never lean over or reach into open seed box during operation or while the filling auger is running. (Special areas of danger are the centre and the sides of the rotating auger.)



Safety advice during operation

- Never stay or allow anyone to stay within the operating area!
- Sitting or standing on the implement during operation or during transport is not permissible.
- During driving and when the pto is engaged never leave the operator's seat.
- Before leaving the tractor lower the machine to the ground. Actuate parking brake, stop hydraulically driven components also at the tractor mounted implement, stop engine and remove ignition key.

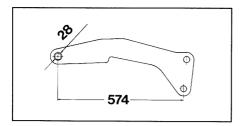


Fig.9

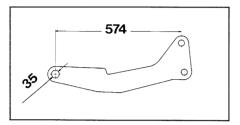


Fig. 10

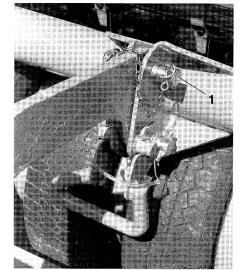
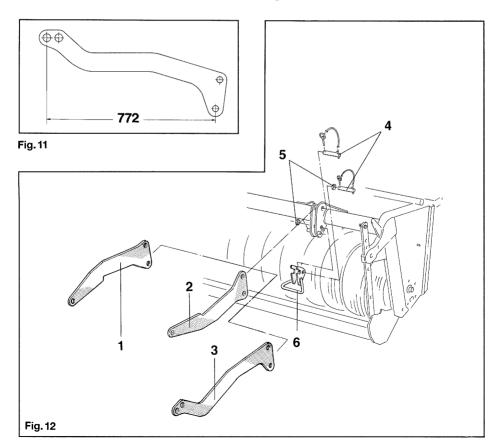


Fig. 13





Safety advice when fitting

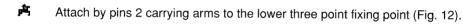
- pår,
- Attach implement as advised and only to the advised devices!
- - Special care should be taken when the implement is coupled to or off the tractor.
- When fitting the machine to the three-point linkage of the tractor bring all control levers into such a position that unintended lifting or lowering is impossible.
- There is danger of injury in the area of the three-point linkage by its squeezing and shearing places.
- When actuating the control levers for the three-point linkage from outside the tractor cab never step between tractor and implement.

2.0 Mounting tyre packer-pack top till and drill combination

The coupling of soil tillage implement, tyre packer and pack-top seed drill is done in three steps (advice for 6 m machines under para. 7):

- 1. Equip tyre packer with the correct coupling parts.
- 2. Coupling of soil tillage implement and tyre packer.
- 3. Fixing of pack top seed drill to tyre packer and soil tillage implement.

2.1 Fitting the tyre packer with the correct coupling parts



The carrying arms are available in three varieties:

- Carrying arms (Fig. 9) for rotary cultivators KG, rotary harrows KE and KE-SPECIAL
- 2. Carrying arms (Fig. 10) for reciprocating power harrows RE-1, RE-Vario and RE-DUO
- 3. Carrying arms (Fig. 11) for front harrows VE.

The fixing of the carrying arms to the tyre packer should be according to:

- 1. Fig. 12/1
- for rotary cultivator KG, rotary harrows KE and KE-SPECIAL
- 2. Fig. 12/2
- for reciprocating power harrows RE-1, RE-Vario and RE-DUO
- 3. Fig. 12/3
- for front harrows VE

Every carrying arm should first be fitted to the tyre packer roller with **each 2 pins** (Fig. 12/4) (see also Fig. 13). The two upper pins are necessary for solo-transport, without seed drill and for coupling the pack top seed drill.

Important

1. Two washers (Fig. 12/5) should be slid on to the lower pins to prevent the pins from moving out of the slotted holes of the lower three-point linkage attachment.

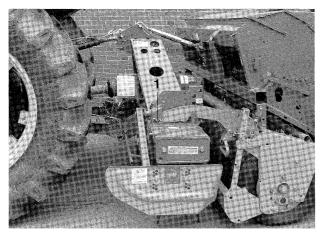


Fig. 14

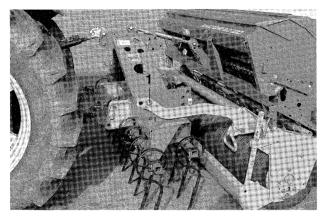
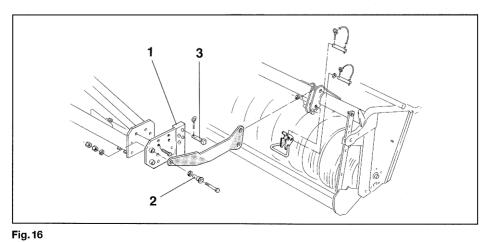


Fig. 15



 The braking lever (Fig. 12/6) should be fitted together with the lower left hand pin (see also Fig. 13). In connection with the braking lever the washers (Fig. 12/5) as mentioned under para. 1 are not needed. However, they are vitally necessary whenever the braking lever is dismantled, e. g. for solo operation without seed drill.

2.2 Coupling of soil tillage implement and tyre packer

Bring tyre packer roller into an upright position and carefully secure against tipping over!



Be very careful when mounting the tyre packer roller to the soil tillage implement because the tyre packer may tip over if not correctly lifted! Danger of injury.

- Fit soil tillage implement according to its instruction to tractor and back up with the unit to the tyre packer.
- Fit carrying arms to the soil tillage implement as follows:
 - 1. The following description refers only to AMAZONE-rotary cultivators KG and rotary harrows KE:

Insert carrying arms into the pivoting pocket (Fig. 14/1), insert pin and secure by linch pins.

2. The following description refers only to AMAZONE front harrows VE:

Carrying arms with hollow pin (Fig. 15/1) should be bolted to the support plate as done with the reciprocating power harrows (see Fig. 16/2).

3. The following description refers only to AMAZONE reciprocating power harrows:

Bolt pivoting plates (Fig. 16/1) to the right hand and left hand side to the main frame of the reciprocating power harrow. Bolt carrying arms with the hollow pin (Fig. 16/2) to the support plates.

Insert the two depth control pins (Fig. 16/3) as described under para. 4 into the next higher hole **above** the carrying arms into both support plates (Fig. 16/1) and secure with linch pins. By these pins lateron the depth control is set.

The setting of the working depth is described under para. 4 and is done only after fiting the top mount seed drill. Of course, the tyre packer may also be used for operating solely with the soil tillage implement without seed drill. In any case please note the advice regarding parking of tyre packer seed drill combination stated under para. 6.

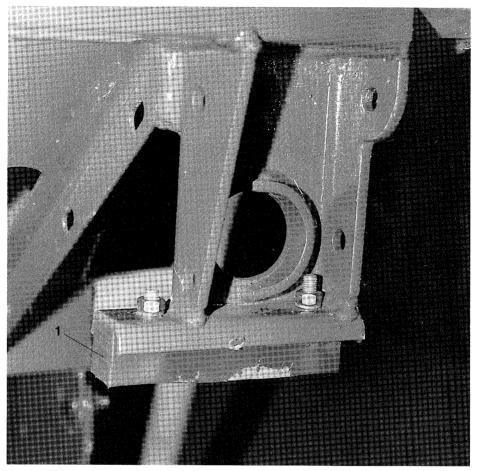
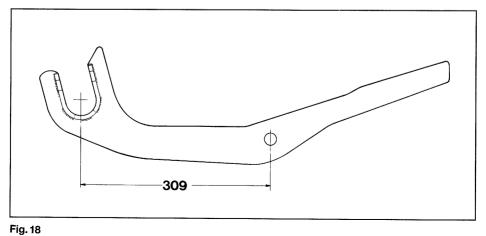


Fig. 17



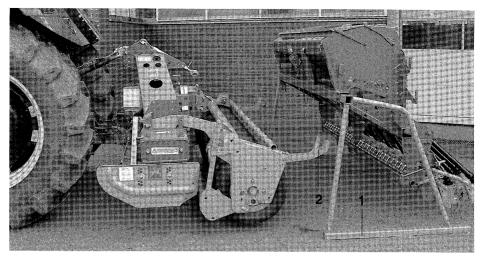
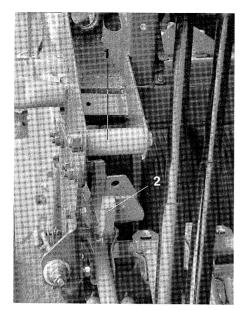


Fig. 19



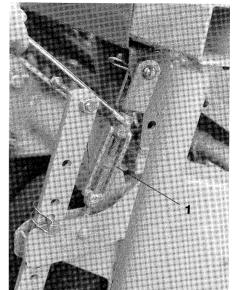


Fig.20

Fig. 22

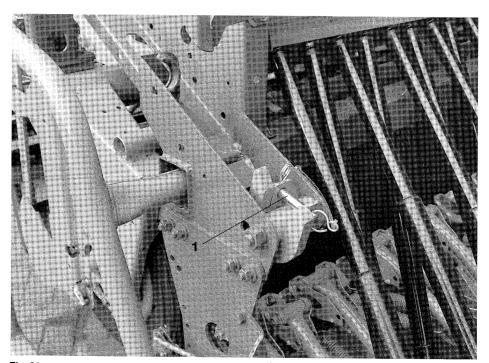


Fig. 21

2.3 Attaching of pack top seed drill to tyre packer and soil tillage implement

Before coupling please note:

Before coupling the pack top seed drill, tyre packer and soil tillage implement should be equipped as follows:

- Fix the two plastic blocks (Fig. 17/1) on the sides of the pack top seed drill.
- Equip tyre packer with the catch hooks for the pack top seed drill AD-2 (Fig. 18).

According to the execution AMAZONE soil tillage implements may be supplied with two different top link mounting points. Both types are shown in Fig. 23 and in Fig. 30.

In the execution as shown in Fig. 30 the additional kit with a top link tower extension (Fig. 30/1) is needed for coupling the pack top seed drill. Fitting the top link tower extension is necessary for attaching the long top link (Fig. 30/2). Fitting is done according to para. 2.4. The top link tower extension is not required for soil tillage implements with a top link mounting point as shown in Fig. 23.

Coupling the pack top seed drill

- For coupling the pack top seed drill the combined soil tillage implement with tyre packer should be lifted on the tractors three-point linkage and backed up to the pack top seed drill standing on its parking support (Fig. 19/1).
- The catch hooks (Fig. 19/2) of the tyre packer are to be guided carefully to the pivoting shafts (Fig. 20/1) below the main frame's square tube of the pack top seed drill.
- The tyre packer roller main frame has been provided on the right hand front part with a centring pin which, when coupling, enters the corresponding hole under main frame of the pack top seed drill. This ensures alignment of the gear box and pack top sprockets before putting on the drive chain.
- Secure pivoting shafts (Fig. 20/1) and catch hooks (Fig. 20/2) by two pins (Fig. 21/1) which should then be secured by lynch pins.
- Fix the front of the drill by 2 turnbuckles (Fig. 22/1) to the tyre packer roller.

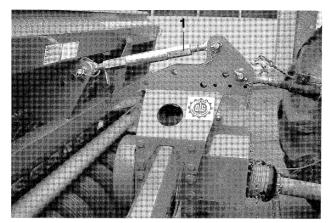


Fig.23

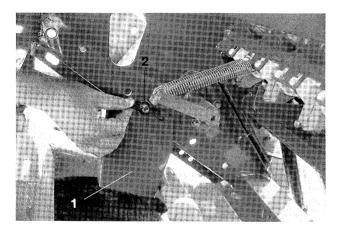


Fig.24

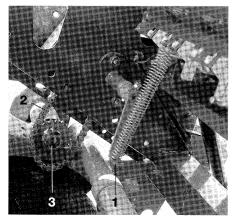


Fig. 25



Fig.26

- Connect the pack top seed drill to the soil tillage implement by the top link (Fig. 23/1) and secure the fixing pins with lynch pins.
- Now lift the total combination and remove the parking support (Fig. 19/1).
- After removal of the wing nut (Fig. 24/2) take off the drive chain guard (Fig. 24/1) at the right hand inner side part of the seed drill.
- To slacken the drive chain press the lever downwards (Fig. 25/1) and place drive chain of seed drill around the sprocket (Fig. 25/3) of the tyre packer.
- For tensioning the drive chain swivel the lever upwards (Fig. 26/1) and refit the chain guard (Fig. 24/1).

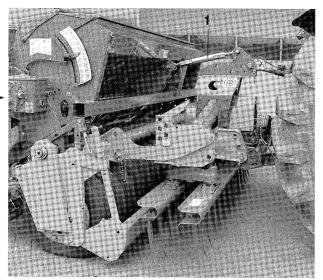


Fig. 27



Fig. 28

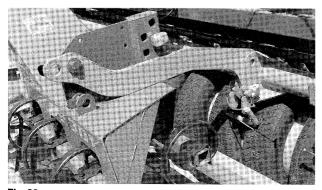


Fig. 29

Important!

Remove the two upper carrying arm pins (Fig. 13/1) of the tyre packer after having mounted the pack top seed drill so that the brake lever (Fig. 28/1) can be activated and the tyre packer pack top seed drill can move freely in the parallel linkage. Adjust the top link (Fig. 27/1) to such an extent that both carrying arm pins can easily be removed.

The braking lever is needed for braking the tyre packer roller in certain situations. The tyre packer drives the metering devices of the seed drill. In order that no seed is lost when turning at the headlands, it is necessary to switch off the drive for the metering gear box as soon as the seed drill and tyre packer is lifted by the tractor's hydraulic. When lifting the seed drill the carrying arm presses the braking block (Fig. 29/1) onto the running surface of one or several tyres and this way brakes the tyre packer roller immediately.

Adjust the length of the top link (Fig. 27/1) in such a way that the seed drill's rear wall in the area of A (Fig. 27) stands about vertically.

Separating the pack top seed drill from the soil tillage combination is done in reverse order.

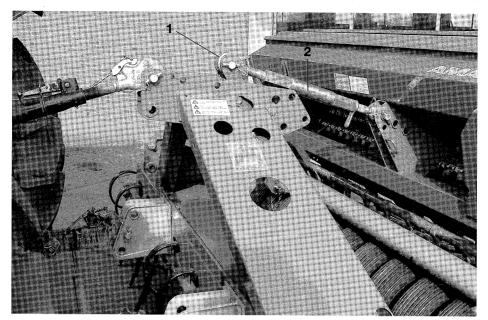


Fig. 30

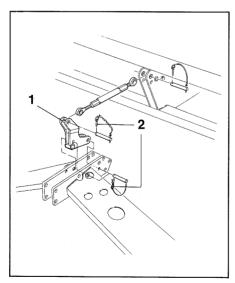


Fig. 31

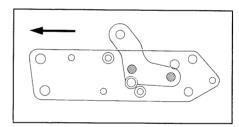


Fig. 32

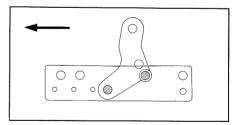


Fig. 33

2.4 Attaching the top link tower

Depending on the execution AMAZONE soil tillage implements can be equipped with two different top link mounting points. Both executions are illustrated in Fig. 23 and Fig. 30.

For coupling the pack top seed drill to the execution as shown under Fig. 30 the additional fitting with a top link mounting tower (Fig. 30/1) is necessary. this top link mounting tower is not necessary if the soil tillage implements are equipped with a top link mounting point as shown in Fig. 23.

The mounting of the top link mounting tower (Fig. 31/1) is required for fixing the long top link (Fig. 30/2).

The fixing of the top link mounting tower is done according to:

Fig. 32 - for rotary cultivators KG, rotary harrows KE, KE-SPECIAL and for front harrows VE.

Fig. 33 - for reciprocating power harrows RE-1, RE-Vario and RE-DUO

Secure the fixing pin (Fig. 31/2) by clip pins or spring pins.

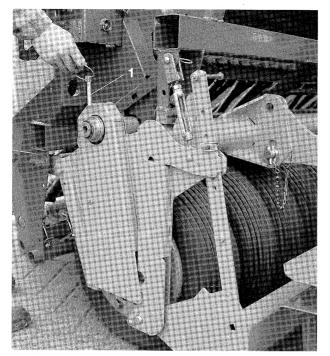


Fig.34



Fig. 35

3.0 Calibration test

The calibration test should be conducted to ascertain whether the required seed rate is really achieved.

The calibration test should always be conducted prior to the sowing operation with a new batch of seed.

The calibration test should be conducted according to the instruction manual for the pack top seed drill AD-2. In order to be able to calibrate the pack top seed drill stationary the clip pin (Fig. 34/1) should be removed from the intermediate drive at the tyre packer. For the calibration test the calibration crank (Fig. 35/1) is inserted into the intermediate drive and turned clockwise.

In the following table the number of necessary crank turns in relation to the working width is stated:

AMAZONE tyre packer pack top seed drill RP-AD-2					
	Crank turns at the tyre packer				
Working width	for 1/40 ha	for 1/10 ha			
2.50 m	59.0	235.0			
3.00 m	49.0	196.0			
4.00 m	37.0	147.0			
4.50 m	33.0	130.5			
6.00 m	24.5	98.0			
calculation factor for other working widths	147.0	588.0			

Never forget after the calibration test to reinsert the clip pin (Fig. 34/1) to provide the metering units with drive.

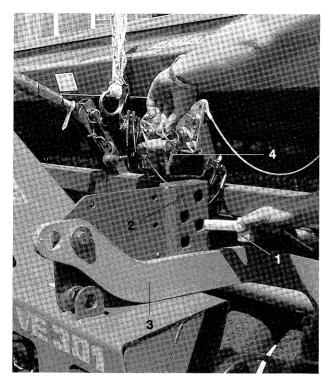


Fig. 36

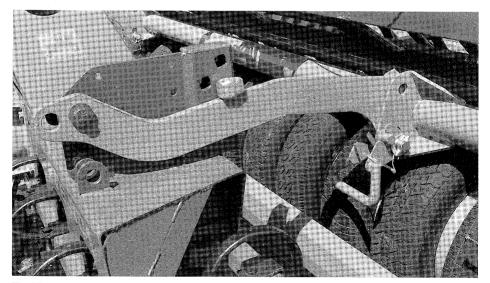


Fig.37

5.0 Setting the working depth of the soil tillage implement

The AMAZONE soil tillage implement is resting on the tyre packer and therefore always maintains accurately the working depth.

For setting the working depth the soil tillage implement should briefly be lifted on the tractor's hydraulic and the depth setting pin (Fig. 36/1) be inserted into the desired hole of the quadrant plate (Fig. 36/2) **above** the carrying arms (Fig. 36/3) and secured by clip pins (Fig. 36/4).



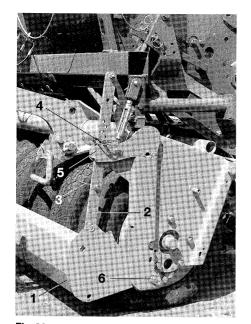
When changing the working depth pin position always hold the setting pin (Fig. 31/1) only in such a way that you would never get your hand between the pin and the carrying arm.

The depth setting pins are provided with a square head whereby each of the four surfaces are differently spaced towards the pins' centre to allow a fine depth setting. The surfaces are marked by the figures 1 - 2 - 3 - 4. Please make sure that the depth setting pins are resting on both carrying arms on the same face marked with the same number (Fig. 37).

The higher the depth controls pins are inserted into the quadrant plates and the higher the figures are on the resting faces towards the carrying arms, the deeper the working depth.

By the varying spacings at the square head of the depth control pin a fine stepping of the depth control of the soil tillage implement also between the individual square holes is possible.

Never forget to secure by the provided clip pins the depth control pins after every resetting!



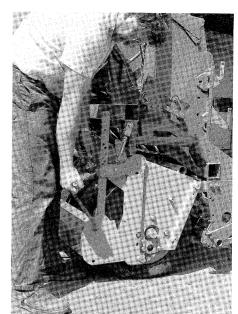


Fig. 38

Fig.39

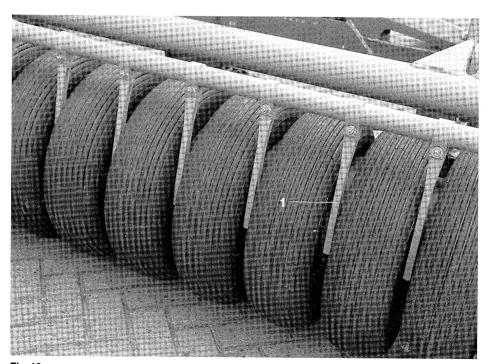


Fig. 40

5.0 Putting into operation the tyre packer till- and drill-combination

Bring the pack top seed drill AD-2 into operation according to the instruction manual. Also please adhere to the advice in the instruction book for your soil tillage implement.

When turning on the headlands or lifting the combination with running pto-shaft the soil tillage implement should only be lifted until its tines or the combination just leave the soil. In this position the angling of the pto-shaft is neglectible and it is possible to turn without harming the running pto-shaft. However, if the soil tillage implement in lifted position is running with unusual vibration, the pto shaft should be stopped before turning.

5.1 Levelling board for the tyre packer roller

The tyre packer roller is supplied as standard with a levelling board (Fig. 3871). The levelling board in front of the tyre packer roller removes slight, possibly still existing undulations of the soil. The loose soil in front of the tyre packer roller is being relevelled by the levelling board. The height of the levelling board should be set in such a way that the levelling board is at maximum half covered by any ridged of soil.

Important!

Set the levelling board in such a way that it always can give way upwards.

Height adjustment of the levelling board

For the height adjustment, lift the levelling board one after the other on both grips (Fig. 38/3) briefly and insert the clip pins (Fig. 38/4) into the desired holes **above** the brackets (Fig. 38/5) into both adjusting rods (Fig. 38/2) and slip over the securing loop. The levelling board may also be raised by the calibration crank (Fig. 39) of the seed drill. For this the calibration crank is inserted into the square tube on the side part of the levelling board. Please regularly check whether the levelling board is still in a position to easily move upwards. Otherwise the bearing (Fig. 38/6) should be checked and freed if necessary.

5.2 Clearing fingers

The tyres of the tyre packer roller usually keep themselves clean of sticking soil. Therefore fitting of any scrapers is not necessary. However, in order that no soil can build up between the tyres clearing fingers (Fig. 40/1) are mounted at these places. The clearing fingers are set by the manufacturer in such a way that there is a spacing of 5 mm between the tyre and the clearing finger. The sticking soil is moved aside without braking of the tyre packer roller.

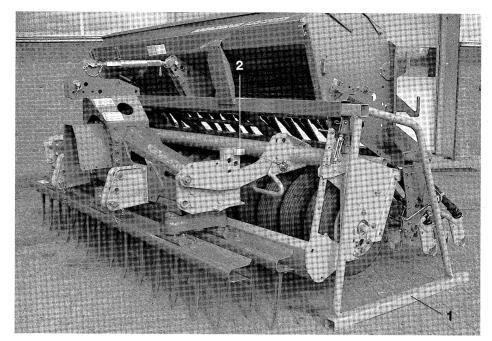


Fig. 41

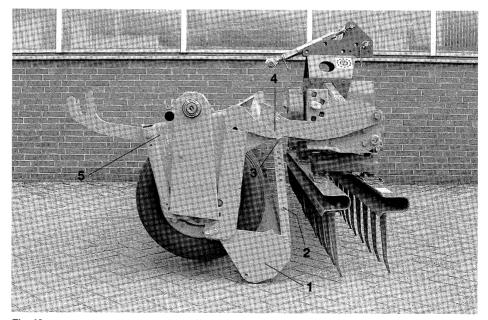


Fig. 42



Safety advice for road transport

If you are using public roads with your combination, tractor and combination should comply with the traffic law. Particulars herefor may be taken from the instruction book of the pack top seed drill AD-2 and instructioan book for your soil tillage implement.

Please adhere to these advice. They help to prevent accidents on public roads!

6.0 Parking the tyre packer-combination

For parking the tyre packer roller after operation we recommend you to support the roller to avoid damage by distortion to tyres and tyre bracing rings.

1. Parking the combination with tyre packer pack top seed drill

Should the till- and drill-combination consisting of the soil tillage implement, tyre packer roller and pack top seed drill be parked, please use the parking support (Fig. 41/1) of the seed drill. Before the depth control pins (Fig. 41/2) should be inserted to the upper most position (please refer also to the hints under para. 4).

2. Parking the combination without seed drill

If the combination is consisting only of the soil tillage implement and tyre packer roller it can be parked on the levelling board (Fig. 42/1). Before lowering the levelling board the combination should be lifted by the tractor's hydraulic. Lift the levelling board one after the other at the grips (Fig. 42/2) at the right hand and left hand adjustment briefly and remove the clip pin. Swivel the levelling board downwards and insert the clip pin (Fig. 42/3) always in the first hole **below** the mountings (Fig. 42/4) and secure.

Carefully lower the combination to avoid damage to the levellling board.

Important!

Before uncoupling the combination from the tractor the depth control pins should - as shown in Fig. 37 - be inserted just above the carrying arms so that the combination cannot drop backwards. When reinserting the depth control pin (Fig. 36/1) hold it only in such a way that you never get your hand between the pin and the carrying arm.

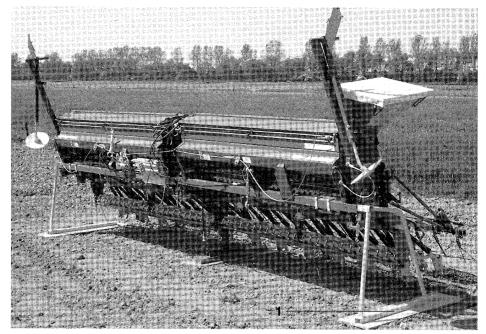


Fig. 43

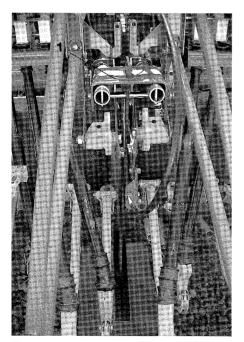


Fig. 44

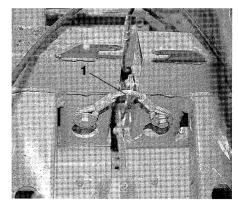


Fig. 45

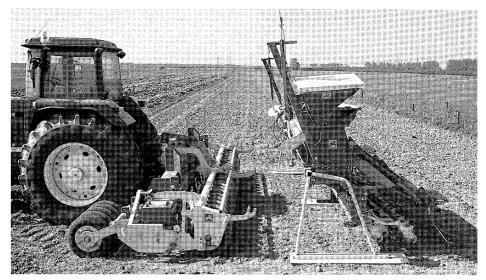


Fig.46

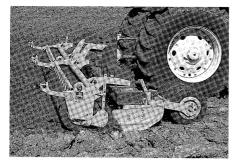


Fig. 47

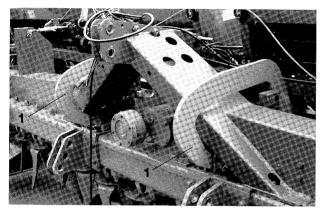


Fig. 48

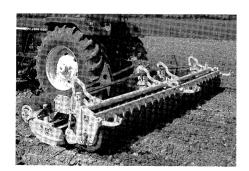


Fig. 49



Fig.50

7.0 Tyre Packer Pack Top Till- and Drill-combination RP-AD 602 with 6 m working width

The AMAZONE tyre packer pack top seed drill RP-AD 602 with 6 m working width consists mainly of two tyre packer rollers and two pack top seed drills (Fig. 43) of 3 m working width each. In order to enable the 6 m tyre packer pack top seed drill to level ground undulations, both seed drills are not fixed rigidly to one another but with a steel cable (Fig. 45/1).

On the machine's outside the 6 m drill is equipped with only one gearbox. Metering shafts, agitator shafts, bottem flap shafts and the counter shaft for the metering wheel tramlining kit are connected to one another in the centre between the seed boxes by universal joints.

7.1 Coupling the tyre packer roller to AMAZONE soil tillage implements with 6 m working width

The tyre packer rollers are coupled to the soil tillage implement as described under para. 2.0. Both tyre packer rollers are to be equipped each with two carrying arms which are fitted as follows:

1. Carrying arms (Fig. 47 and 48) for AMAZONE rotary cultivator KG 601:

- 2 carrying arms in the outer area (see Fig. 9)
- 2 carrying arms in the machine's centre (see Fig. 48/1)

2. Carrying arms (Fig. 49 and 50) for AMAZONE reciprocating power harrows RE 601:

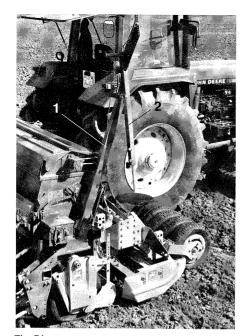
4 parallel carrying arms (Fig. 50/1) at the sides and in the machine's centre.

The reciprocating power harrow must be equipped additionally with a carrying frame (Fig. 50/2).

Setting the working depth should be conducted as described in para. 4.0 at all four carrying arms.

7.2 Coupling the pack top seed drill AD 602

Pack top seed drill and tyre packer roller are coupled together according to para. 2.3 (see Fig. 46). For coupling up the pack top seed drill should be supported at the sides by two parking supports (Fig. 43/1) and in the centre by one parking support (Fig. 44/1).



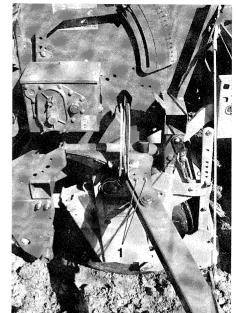


Fig.51 Fig.52



Fig. 53

7.3 Track marker for pack top seed drills type AD 602

The pack top seed drill AD 602 may be equipped with track markers for marking a track in the tractor centre line.

Attention!

For transport swivel the marker arms and the pendulum tube upwards and secure (see Fig. 51)!

For transport the marker arms (Fig. 51/1) are fixed to the drill's main frame and the pendulum tubes (Fig. 51/2) with the marker discs are to be fixed to the marker arms.



Before bringing the markers into working position they must be held as shown in Fig. 53 before undoing the fixings to avoid an uncontrolled falling of the markers and possible injury!

The automatic marker change over actuates the pendulum tubes with the discs in working position while the marker arms are held rigidly by cables. The cables should be fixed in such a way between the automatic marker and the pendulum tubes as described in the instruction book for the pack top seed drill AD-2 so that the marker discs are limited to a working depth of 6 - 8 cm. Each marker disc is set by shifting and turning its shaft inside the marker arm and finally secured in the desired position.

The spacing between the marker disc and centre of machine is 6.00 m.

Should during operation the marker hits an obstacle it can give way to the rear. In this case two hex. bolts M 6 x 90 - 8.8, DIN 931 (Fig. 52/1) shear off which would have to be replaced afterwards. Further details regarding the markers may be taken from the instructions for the pack top seed drill AD 2.

7.4 Parking the 6 m wide tyre packer combination

The parking of the tyre packer combination is done as described under para. 6.0.

Should the combination consisting of a soil tillage implement and tyre packer roller be parked with a pack top seed drill first insert the depth control pin (Fig. 41/2) on the uppermost hole (please refer to the hints given in para. 4). Thereafter use the parking supports (Fig. 43/1) for the outside and the parking support (Fig. 44/1) in the centre of the combination.

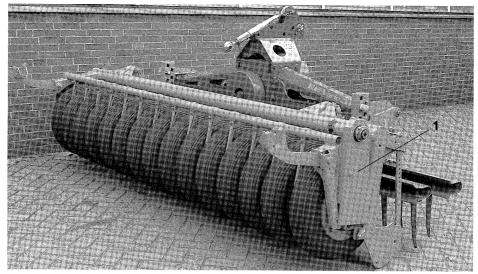


Fig.54

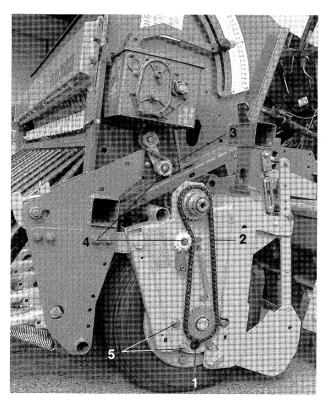


Fig. 55

8.0 Maintenance and care for the tyre packer roller

1. Bolted connections

All bolted connections should be checked after the first 10 hours of operation and retightened if found necessary.

2. Grease nipples

The grease nipples at the axle bearings of the tyre packer (Fig. 55/1) should be greased every 50 hours of operation.

Clean grease nipples and grease gun carefully before greasing to avoid dirt being pressed into the bearings. Any dirty grease inside the bearings should be fully pressed out and replaced by new grease.

3. Drive chains

The metering components are driven by two roller chains. One of the chains (Fig. 55/2) links the tyre packer roller and the intermediate drive, the other chain (Fig. 55/3) links the intermediate drive and the gear box of the seed drill. The chains are tensioned by spring loaded chain tensioners.

Remove the chain guards and oil the chains at regular intervals.

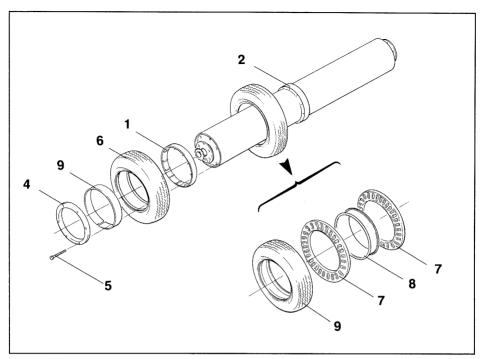


Fig.56





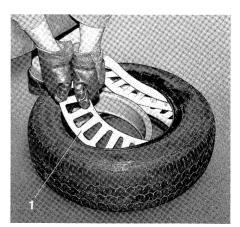


Fig. 58

4. Exchanging a defective tyre

To avoid sand and dirt entering the inside of the non defective tyre **the tyre packer roller should be carefully cleaned** before exchanging any tyre. Dirt inside the tyres could later on lead to damages at the tyres and tyre bracing rings.

- Uncouple seed drill (see para. 2.3).
- Remove chain guard(Fig. 54/1).
- The drive chain (Fig. 55/2) is tensioned by a spring loaded chain tensioner (Fig. 55/4). Untension chain tensioner and remove drive chain (Fig. 55/2).
- Secure roller by chocks against unintended rolling away and remove tyre roller from its frame. For this on both sides the 5 hex. bolts (Fig. 55/5) should be unbolted.
- Raise tyre packer frame with the aid of the tractor hydraulics from the roller.

The spacing of the tyres on the tyre packer roller is maintained by plastic spacing rings (Fig. 56/1). In the centre of the roller a steel spacing ring (Fig. 56/2) is firmly welded to the roller. For this reason not all tyres may be pushed to one side of the roller drum for removal.

Unbolt the roller end-plate (Fig. 56/4) which is closest to the defective tyre. In order not to "edge" the roller end-plate while doing this the bolts should not be unbolted completely individually but consecutively by one turn each one after the other.

You now can replace the defective tyre with the two bracing rings (Fig. 56/7) and the tyre inner ring (Fig. 56/8) by a new completely mounted tyre. Or you can re-use the two bracing rings and the inner ring and order only one unmounted tyre (Fig. 56/9). From this tyre already a 3 to 5 mm wide inner ring (Fig. 57) has been cut off by the factory so that the tyre can be slid on to the packer drum more easily.

The width of the tyre depends on the number of coulters on your pack top seed drill. Smaller row spacings require a tyre packer with narrower tyres, wider spacings require tyre packer rollers with wider tyres (see also "technical data", page 10). The required tyre size for your tyre packer roller you may take from the following table:

Description of the tyre packer pack top seed drill	Order No. of tyre		Usual trade
	with 2 bracing rings and inner ring	without bracing rings without inner ring	description of the tyre
RP-AD-2, EN/ER	Order No. 3374110	Order No. 3373110	155 SR 13
RP-AD-2, SN/SR	Order No. 3376110	Order No. 3375110	175/70 SR 13



The factory supplies partly worn tyres from the trade (see table) which, among other things, due to the cut off inner ring (Fig. 57) are not permissible for use on vehicles for public roads!

Should you purchase tyres from tyre dealers, please watch that the tyres are not older than 4 years of age and do not have any punctures.

Re-use and fitting of used tyre bracing rings

- The two bracing rings (Fig. 56/7) and the inner rings (Fig. 56/8) should be removed from the defective tyre simply by cutting it apart.
- For tyres purchased from a tyre dealer it would be necessary to cut off a 3 to 5 m wide inner ring (see Fig. 57) to enable an easier sliding of the tyre onto the rolle drum.
- Before fitting the bracing rings (Fig. 56/7) should be warmed up in a bucket filled with water of a temperature of between 35° C and 45° C. Heated bracing rings can then easier be bent and thus better be inserted into the tyres.
- Insert both bracing rings and inner ring according to Fig. 58 into the tyre.
- After mounting the tyre should be filled with 0.5 I of a frost-proof lubrication liquid (order No. 0507700). Never use any oil containing lubrication agent.

The assembly of the roller is conducted in vice versa order:

- Pre-assembled tyres (Fig. 56/6) and distance rings (Fig. 56/1) are slid onto the roller drum.
- Before fitting the last tyre the mounting ring (Fig. 56/9) should be slided onto the roller drum to facilitate the mounting of the last tyre. For this the mounting ring should be in line with the outer edge of the last tyre.
- Set the roller end plate (Fig. 56/4) onto the roller drum and insert the bolts (Fig. 56/5) by hand into the threaded holes. To avoid the roller end plate edging, the bolts should not be fully tightened individually but consecutively one after another by each one turn until fully tighened.
- Fit complete tyre packer roller to its main frame.



Safety advice when conducting maintenance and care operations:

- Repair-, maintenance- and cleaning operations as well as remedy of function faults should principally be conducted with a stopped drive and engine. Remove ignition key!
- Check nuts and bolts for tightness and retighten if necessary.
- When conducting maintenance work on a lifted implement always place suitable supports underneath.
- For replacing any tools with cutting edges always use suitable tools and gloves.
- Dispose of old oils, grease and filters as prescribed by law.
- Before working on the electric gear disconnect battery cables.
- Any spare parts fitted must, in minimum, meet with the implement manufacturer's fixed technical standards. This is for example ensured by using original spare parts.

Manufacturer:

AMAZONEN-WERKE

H. Dreyer GmbH & Co. KG

P. O. Box 51

D-W-4507 Hasbergen-Gaste

F. R. Germany

Telephone

[0]5405 - 501-0

Telefax

[0]5405 - 501-193

Telex

944895