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Aim of the manual

This instruction manual is produced by the manufacturer to provide all those who have dealings with the planting machine (which may also be referred to hereinafter as the 'work vehicle') with all the necessary information and criteria to apply for its use.

Apart from adopting good use practices, operators (in compliance with their job responsibilities) are also required to read and understand the information contained in this use manual and put it into practice exactly as stated.

The original instructions are supplied by the manufacturer in English language.

To fulfil legal or commercial requirements, the original instructions may be supplied by the manufacturer in other languages.

Some illustrations may differ from the actual machine, but this does not affect the content of the instructions.

This manual is an integral part of the work vehicle; it must be kept for future reference, in an easily accessible place known to all those concerned, for the entire working life of the work vehicle.

If the work vehicle is sold on, the seller is required to pass on the manual to the new owner.

To highlight certain parts of the manual's contents deemed important for safety or information reasons the following symbols have been used, whose meanings are outlined below.



DANGER

This indicates information or procedures which, if not strictly followed, cause death or serious personal injury.



WARNING

This shows information or procedures which, if not followed, may cause death or serious personal injury.



CAUTION

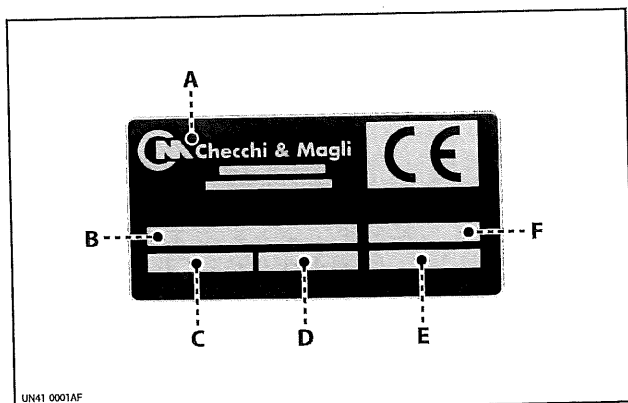
This shows information or procedures which, if not followed, may cause slight personal injury.

NOTICE

This shows information or procedures which are important to follow in order to prevent malfunctions or physical damage.

Manufacturer and machine identification details

The plate shown, which is applied directly to the work vehicle, contains all the essential information for identifying the machine and the manufacturer.



- A - Manufacturer's identification details
- B - Type of machine
- C - Machine model
- D - Gross machine weight
- E - Serial number
- F - Year of manufacture

Annexed documentation

As well as this handbook, the customer is provided with the instructions for use and maintenance of any optional

units that may be fitted on the work vehicle.

Assistance request procedure

All requests for technical assistance must be made to the manufacturer's Technical Assistance Service or the authorised service centres.

Whenever making requests for technical assistance concerning the work vehicle, remember to quote the data shown on the data plate and the fault encountered.

Disclaimer notice

The machine is delivered to the user under the conditions applicable at the time of purchase and specified in the sale agreement.

- Any modification which is not authorised by the manufacturer;
- use of the work vehicle by the untrained or unauthorised personnel;

- lack of maintenance;
 - the partial or total failure to comply with the instructions in this manual;
 - use of non-original spare parts or parts not designed specifically for the model concerned;
- shall result in forfeiture of the warranty and shall relieve the manufacturer of all and any liability.

Glossary of terms

Plastic mulch: strip of polyethylene commonly used to cover the ground in which the seedling will be planted.

Row: the distance between each row.

Plant spacing: this is the distance between one seedling and the next in the same row.

Drilling cup: this is the part in which the seedling is placed, which then plants it in the ground.

Plastic mulch pressing skids: part fitted on the plastic mulching machine when mulching to ensure the sheet of plastic fits tightly against the ground while the drilling cup is removed from the ground.

General description

This work vehicle is designed and built for planting seedlings of various kinds (e.g. horticultural, floral, tobacco, nursery-grown, etc.), rooted in conical, cylindrical or pyramid-shaped root balls, as well as seedlings with hardly developed leaf apparatus, those with bare roots, and also bulbs and seeds.

The work vehicle is a semi-carried device, equipped with a frame for attaching to the three-point hitch on a tractor and it is suitable for planting in fields, greenhouses and through plastic mulch.

The moving parts (dispenser with drilling cups, etc.) are driven by the work vehicle's driving wheels (when these

are touching the ground) and the movement of the tractor.

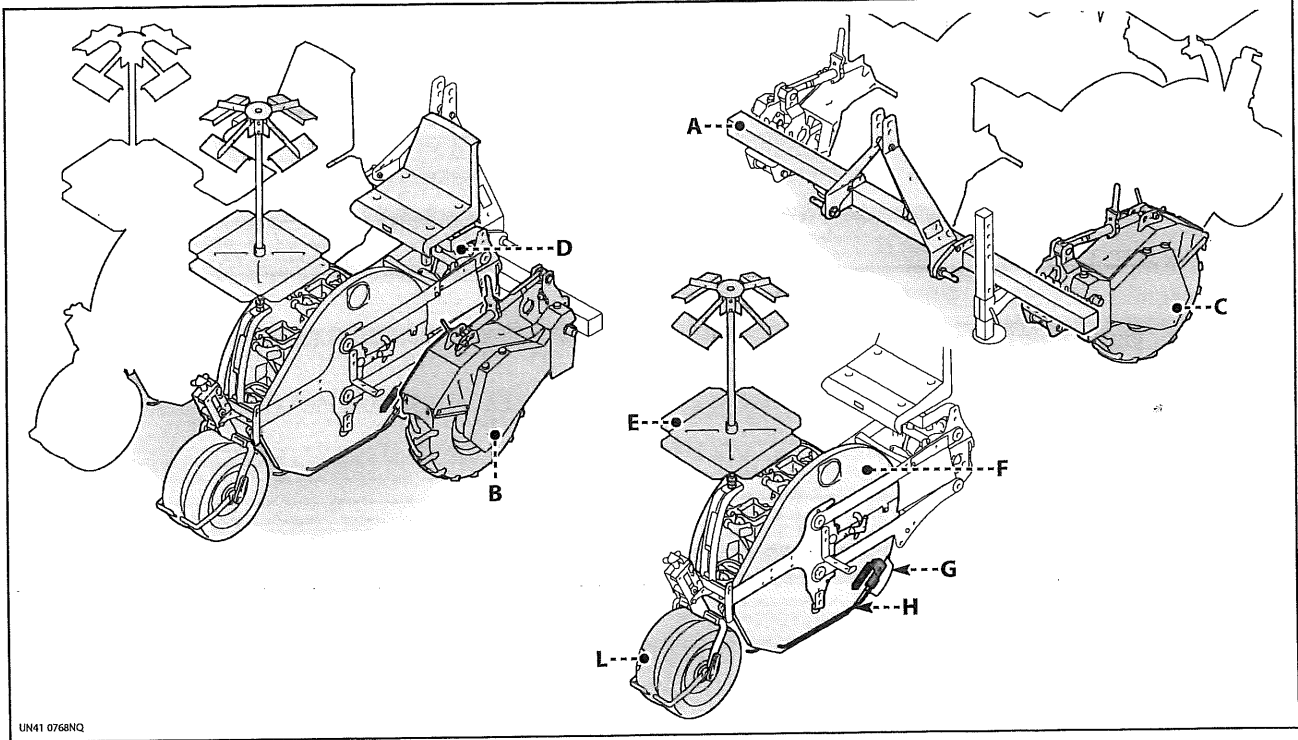
The work vehicle is manufactured in several models which differ mainly in terms of the number of planting units featured and the number of cups on the dispenser.

The (rear and left) driving wheels can both be power driven, or one can be powered while the other is idle.

The model featuring one work unit has just one driving wheel.

Main parts WOLF PRO

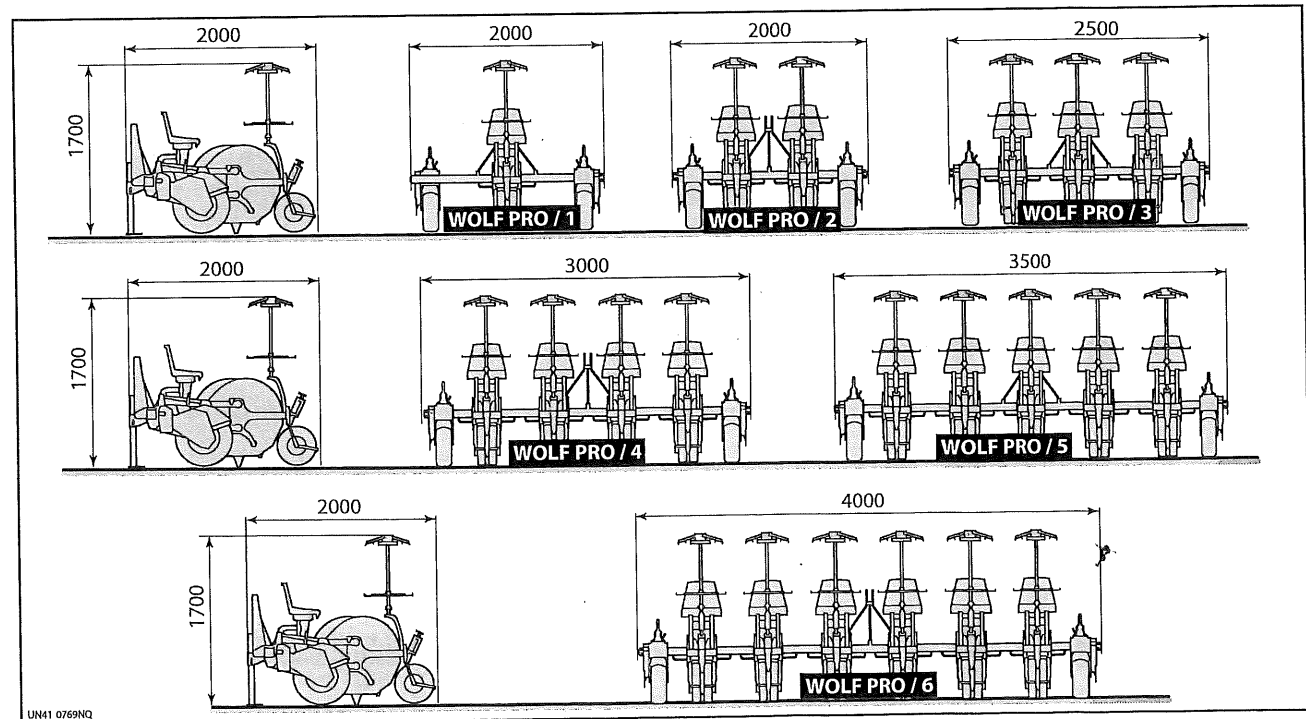
The illustration shows the work vehicle with three planting units.



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- A) Structure for attaching to the three-point hitch on a tractor
- B) RH driving wheel
- C) LH driving wheel
- D) Planting unit
- E) Tray loader
- F) Dispenser
- G) Protective skid
- H) Plastic mulch pressing skid (for planting through plastic mulch)
- L) Packing wheels

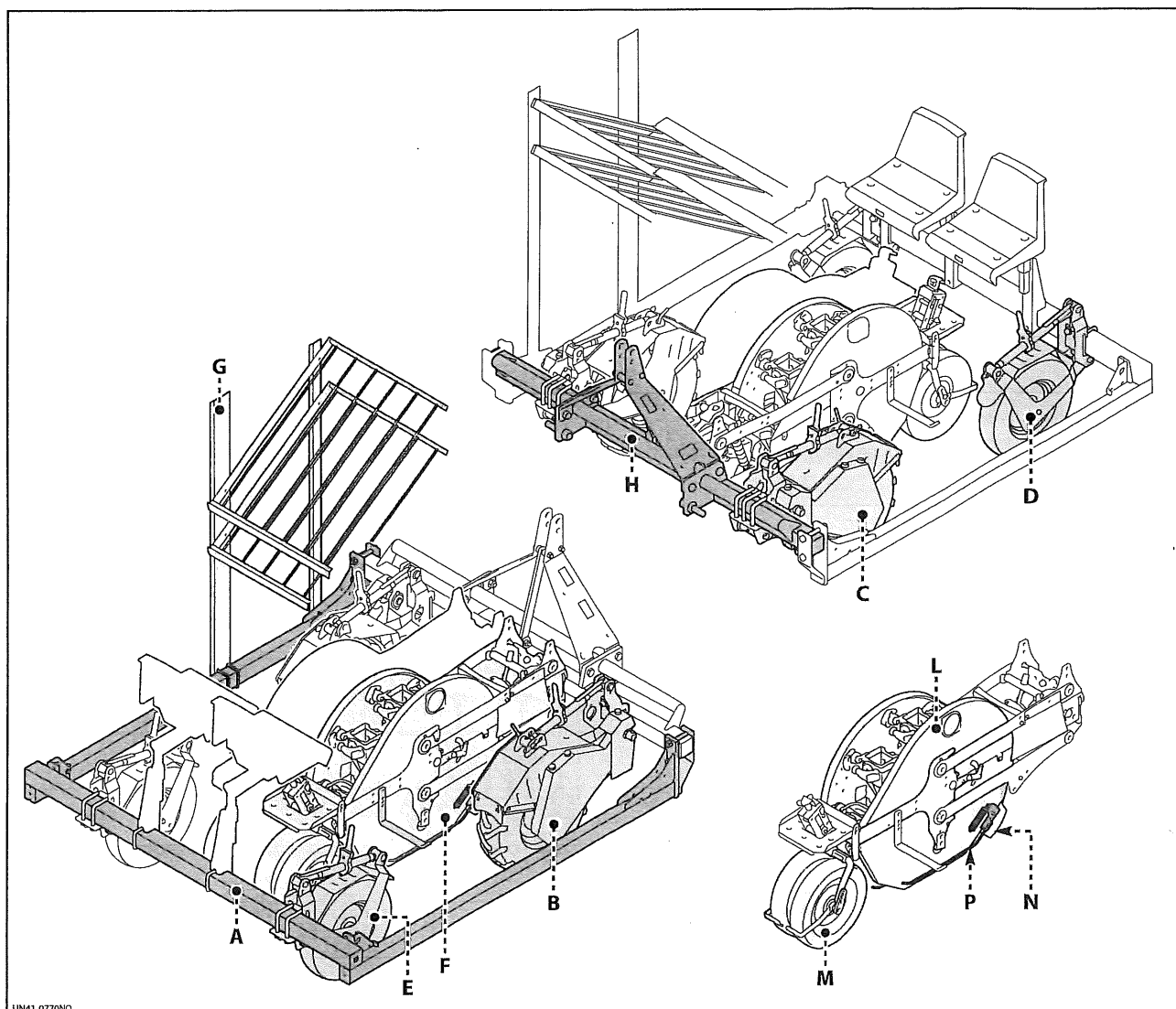
Technical characteristics (WOLF PRO)



UN41 0769NQ

		Specifications					
		WOLF PRO/1	WOLF PRO/2	WOLF PRO/3	WOLF PRO/4	WOLF PRO/5	WOLF PRO/6
Required tractor power	kW	20	25	30	40	50	60
Minimum row spacing	cm	50					
Plant spacing distance	cm	25÷200					
Planting unit	N°	1	2	3	4	5	6
Tyre pressure levels	bar	2,5					
Weight	kg	380	580	780	980	1180	1380

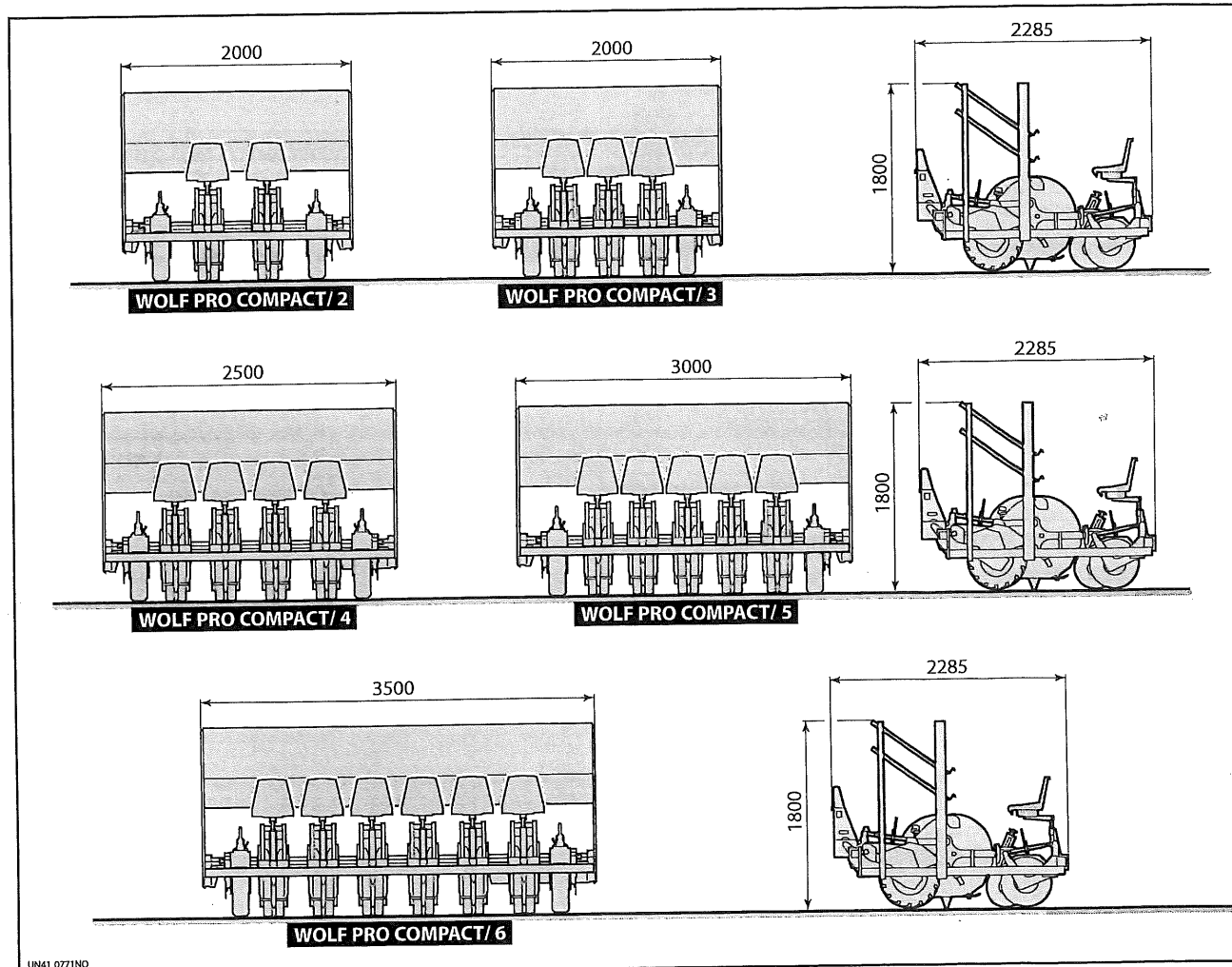
Main parts (WOLF PRO COMPACT)



- A)** Frame
- B)** RH driving wheel.
- C)** LH driving wheel
- D)** LH support wheel
- E)** RH support wheel
- F)** Planting unit
- G)** Tray loader
- H)** Structure for attaching to the three-point hitch on a tractor
- L)** Dispenser
- M)** Packing wheels
- N)** Protective skid
- P)** Plastic mulch pressing skid (for planting through plastic mulch)

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Technical characteristics (WOLF PRO COMPACT)



UN41 0771NQ

		Specifications				
		WOLF PRO COMPACT/2	WOLF PRO COMPACT/3	WOLF PRO COMPACT/4	WOLF PRO COMPACT/5	WOLF PRO COMPACT/6
Required tractor power	kW	30	40	50	60	70
Minimum row spacing	cm	30				
Plant spacing distance	cm	25÷200				
Planting unit	N°	2	3	4	5	6
Tyre pressure levels	bar	2,5				
Weight	kg	740	1020	1240	1440	1650

Drilling cups arrangement

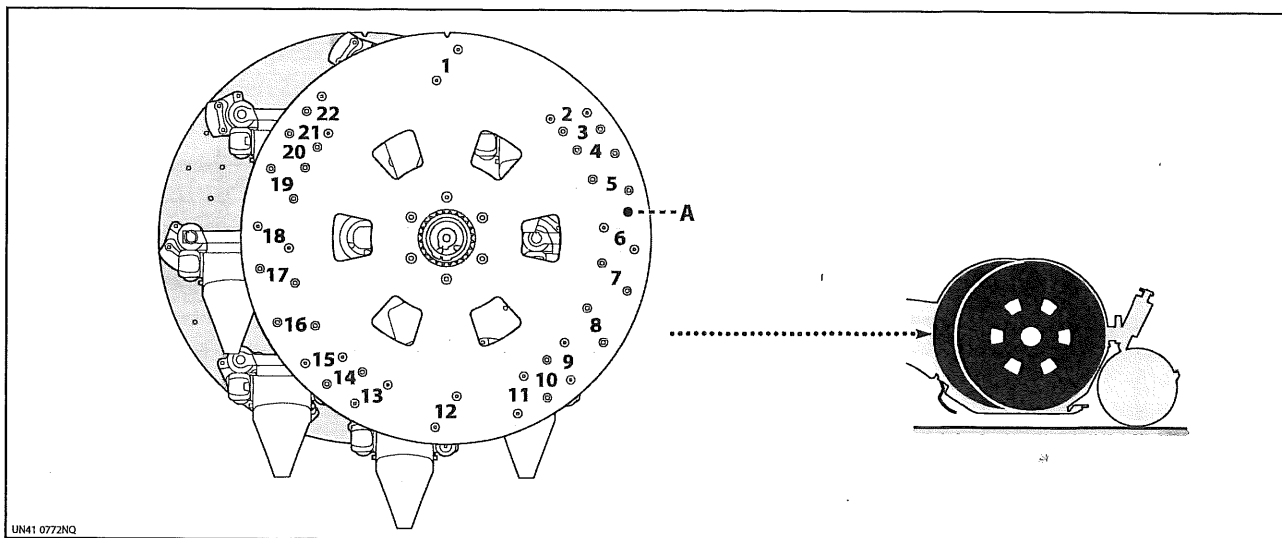
The dispenser can have up to eight drilling cups fitted on it.

Each housing on the drilling cup control disk (A) is marked with a number (1 - 22).

There must always be a drilling cup fitted in position (1) (drilling cup size is irrelevant).

The chart shows the layout of the cups and phasing units on the control disk.

The figure shows the housing references on the control disk (A).



The chart shows the layout of the cups and phasing units on the dispenser.

Number of cups	Cups housing reference								Phasing units n.		Phasing units housing reference					
	1	2	6	9	12	15	18	22								
8	1	2	6	9	12	15	18	22								
7	1	3	7	11	13	17	21									
6	1	4	8	12	16	20			-	-	-	-	-	-	-	
5	1	5	10	14	19	-			-	-	-	-	-	-	-	
4	1	6	12	18	-	-			-	-	-	-	-	-	-	
3	1	8	16	-	-	-			-	-	-	-	-	-	-	
2	1	12	-	-	-	-			2	6	18	-	-	-	-	
1	1	-	-	-	-	-			2	8	16	-	-	-	-	

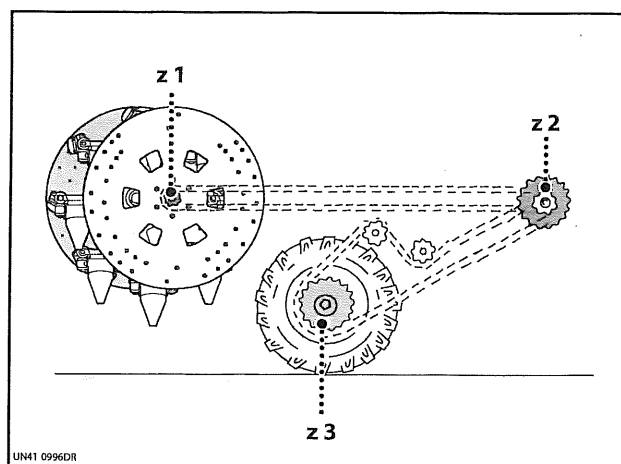
Plant spacing range

The distance between one seedling and the next one (plant spacing) depends on the number of drilling cups fitted on the dispenser.

For the arrangement of the cups and phasing units, see "Arrangement of the drilling cups".

The table shows the number of phasing units and cups to be fitted on the dispenser based on the plant spacing.

N. cups on dispenser	Planting distance (plant spacing)		N. teeth on the pinions		
	cm	inches	z 1	z 2	z 3
8	25	9 - 7/8	24	24	22
7	28	11			
6	32	12 - 5/8			
5	39	15			
4	50	19 - 3/4			
3	65	25 - 5/8			
2	100	39 - 3/8			
1	200	78 - 3/4			



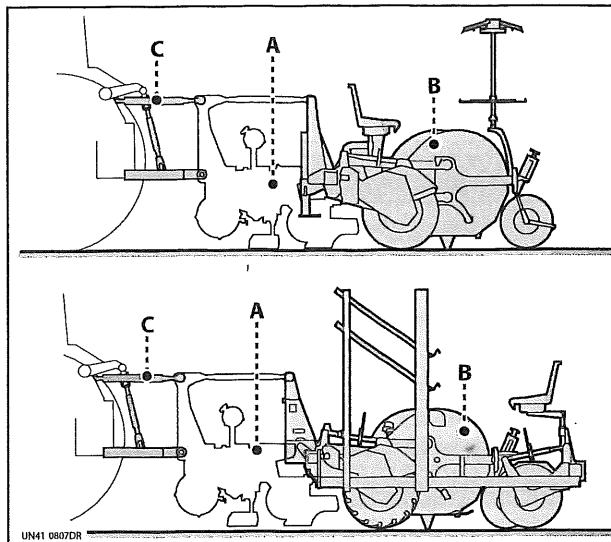
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Possible planting machine and plastic mulching machine couplings

The following work vehicle models: (**WOLF PRO/1, WOLF PRO/2, WOLF PRO/3, WOLF PRO/4 WOLF PRO COMPACT/2, WOLF PRO COMPACT/3, WOLF PRO COMPACT/4**) can be coupled to the (appropriately adapted) plastic mulching machine in order to spread out the plastic mulch and plant the seedlings in a single operation.

- A) Plastic mulching machine
- B) Planting machine
- C) Three-point hitch for tractor

The chart shows the possible work vehicle / mulching machine combinations.



Plastic mulching machine model	Planting machine model						
	WOLF/1	WOLF/2	WOLF/3	WOLF/4	WOLF COMPACT/2	WOLF COMPACT/3	WOLF COMPACT/4
PS14 - PS14 PLUS	X	X	X	-	X	X	-
PS19 - PS19 PLUS	X	X	X	X	-	-	X

Optional accessories (WOLF PRO)

The following chart shows the optional accessories available for installation. Information about the accessories (fitting, use, etc.) is provided with the said accessories.

Optional accessories WOLF PRO
Standard WOLF PRO drilling cup (A)
Long WOLF PRO drilling cup (B)
WOLF PRO (6x6) drilling cup (C)
WOLF PRO (8x8) drilling cup (D)
Root ball insert (4x4) for long cup (6x6 - 8x8)
Kit containing pair of WOLF PRO phasing units
Revolving tray holder - 4 sides - (for rigid trays)
Revolving tray holder - 4 sides - VEFI (for flexible trays)
WOLF-WOLF PRO tilted crate stand
Transversal 2-shelf tray holder (L=2000) - 200 cm
Transversal 2-shelf tray holder (L=2000) - 250 cm
Transversal 2-shelf tray holder (L=2000) - 300 cm
Transversal 2-shelf tray holder (L=2000) - 350 cm
Additional, screw-fastened transversal 2-shelf tray holder (L=2000) - 350 cm
Additional, screw-fastened transversal 2-shelf tray holder (L=2000) - 400 cm
Additional, screw-fastened transversal 2-shelf tray holder (L=2000) - 450 cm
Additional 6-shelf tray holder
Kit containing additional shelf for 6-shelf tray holder
Manual row tracers, 150 cm, with frame coupling
Manual row tracers, 150 cm, with transversal tray holder coupling
Hydraulic row tracers with discs
WOLF PRO unit watering device
Watering device for WOLF PRO 1-3-row machine
Watering device for WOLF PRO 4-6-row machine (250 cm additional, screw-fastened frame only)
Raised planting unit locking kit
WOLF PRO front compactor roller, Ø 285 x 180
Special supplementary seat padding

Optional accessories (WOLF PRO COMPACT)

Optional accessories WOLF PRO COMPACT
Standard WOLF PRO drilling cup (A)
Long WOLF PRO drilling cup (B)
WOLF PRO (6x6) drilling cup (C)
WOLF PRO (8x8) drilling cup (D)
Root ball insert (4x4) for long cup (6x6 - 8x8)
Kit containing pair of WOLF PRO phasing units
Transversal 2-shelf tray holder, COMPACT- 200 cm
Kit containing shelf for 200 cm transversal tray holder
Transversal 2-shelf tray holder, COMPACT- 250 cm
Kit containing shelf for 250 cm transversal tray holder
Transversal 2-shelf tray holder, COMPACT- 300 cm
Kit containing shelf for 300 cm transversal tray holder
Transversal 2-shelf tray holder, COMPACT- 350 cm
Kit containing shelf for 350 cm transversal tray holder
Transversal 2-shelf tray holder, COMPACT- 400 cm
Kit containing shelf for 400 cm transversal tray holder
Manual row tracers, 150 cm, with transversal tray holder coupling
Hydraulic row tracers with discs
WOLF PRO unit watering device
Watering device for WOLF PRO 1-3-row machine
Watering device for WOLF PRO 4-6-row machine (250 cm additional, screw-fastened frame only)
Raised planting unit locking kit
WOLF PRO front compactor roller, Ø 250 x 180
Special supplementary seat padding

Permitted gradients

The ground conditions (slippery, sloping, etc.) and the type of tractor used can reduced the stability of the tractor/work vehicle assembly and cause sudden, dangerous movements, especially when the work vehicle is lifted off the ground.

It is up to the tractor driver to assess the environmental conditions of the work area and not to exceed the permitted gradients established for the tractor with the equipment mounted on it (see tractor user manual).

Declaration of conformity
CHECCHI & MAGLI s.r.l.

Via Guizzardi n° 38,
40054 – BUDRIO (BOLOGNA) - ITALY

Hereby declares, under its own responsibility that the planting machine in question, i.e. models **WOLF PRO/1, WOLF PRO/2, WOLF PRO/3, WOLF PRO/4, WOLF PRO/5, WOLF PRO/6, WOLF PRO COMPACT/2, WOLF PRO COMPACT/3, WOLF PRO COMPACT/4, WOLF PRO COMPACT/5, WOLF PRO COMPACT/6**, comply with the

Essential and Health Safety Requirements provided for by Directive 2006/42/CE.

The following regulations in particular have been applied: UNI EN ISO 12100-1, UNI EN ISO 12100-2 and UNI EN 13857, on machine safety.

Budrio

CHECCHI & MAGLI s.r.l.
Legal representative
Nerio Checchi

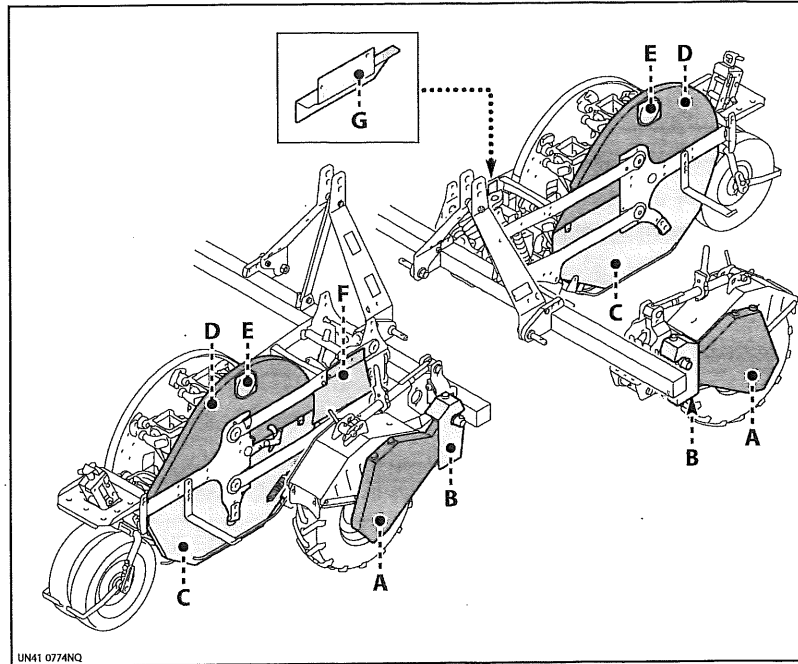
Guards

WARNING

Never use the machine without the safety guards.

The work vehicle is fitted with guards covering the transmission components to prevent accidental contact with the moving parts.

The illustration shows the safety casings (A - B - C - D - E - F - G) fitted to protect the moving parts.



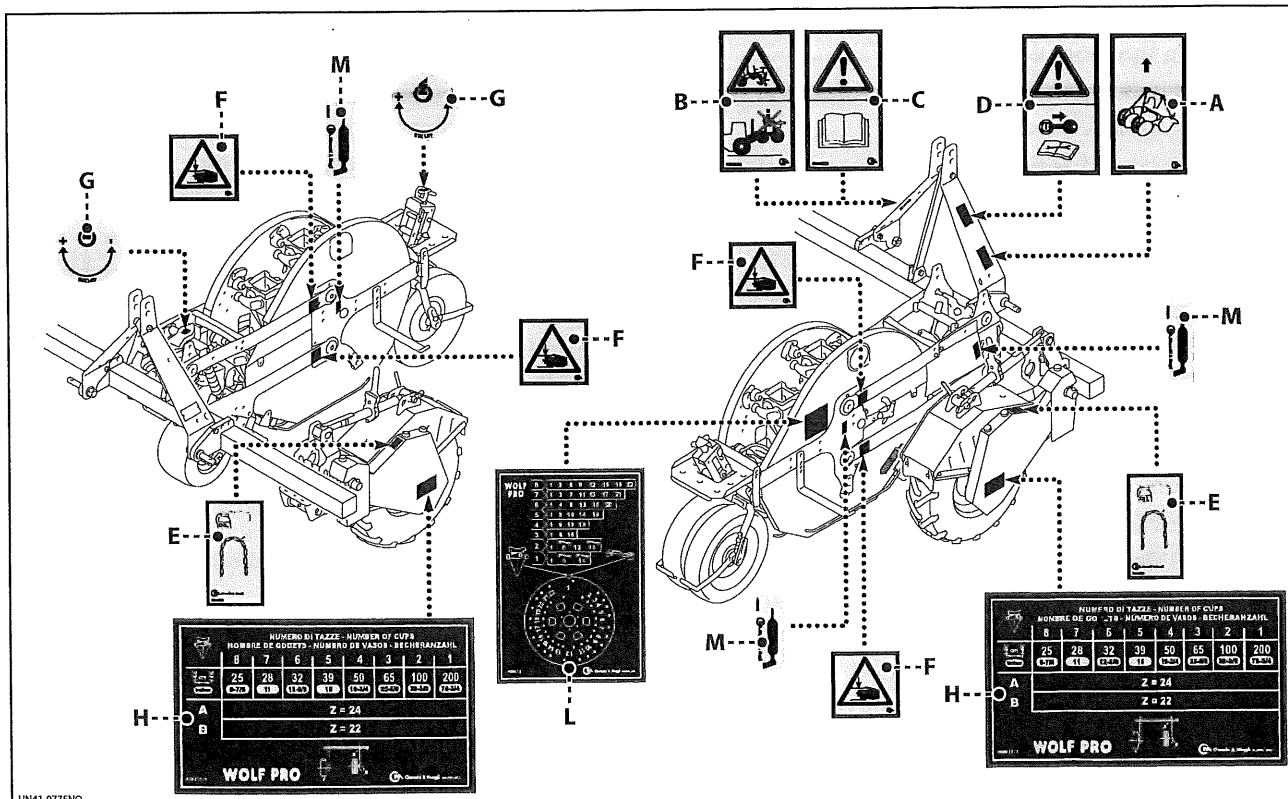
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Information and safety signs

WARNING

Check that all the plates are legible; if they are not, clean them or - if they are damaged - replace them, applying the new ones in the same place as the old ones.

The illustration shows the locations and meanings of the safety signs.



UN41 0775NQ

- A) Hazard plate:** switch off the tractor; remove the ignition key and store in a safe place before carrying out any type of work on the work vehicle.
- B) Hazard plate:** do not remain on the seat with the work vehicle lifted off the ground.
- C) Hazard plate:** read the use and maintenance manual before using the work vehicle.
- D) Hazard plate:** switch off the tractor; remove the ignition key and store in a safe place before carrying out any type of work on the work vehicle.
- E) Information plate:** lubricate the chain inside the casing to which the plate is affixed.
- F) Hazard plate:** risk of entanglement, dragging, and crushing of the upper limbs.
- G) Information plate:** this indicates rotation of the part to which the plate is applied, showing the direction required to achieve the desired effect.
- H) Plant spacing plate:** this shows the distance between one seedling and the next based on the number of cups fitted.
- L) Information plate:** this shows the number of cups and their layout on the dispenser disks.
- M) Information plate:** this shows the greasing points.

Noise

Having the planting machine coupled to the tractor does not mean a significant increase in the noise levels of the tractor.

Check the tractor manufacturer's manual to decide which PPE to adopt for hearing protection.

Residual risks

During the design and construction stages, the manufacturer has focused particular attention on safety aspects; nevertheless the risks described below remain.

- Danger of crushing due to inappropriate lifting of the machine.
- Risk of cuts and shearing (upper limbs) between the

drilling cups and the dispenser discs.

- Risk of getting caught/dragged/trapped by the moving parts of the transmission.
- Risk of slipping when getting on and off the planting unit seat.

Read this manual carefully before proceeding with any operations concerning use, maintenance or other work on the work vehicle.

Heed and comply with the symbols on the machine, especially those concerning safety.

To reduce risks of accidents as much as possible, the tractor must be driven by a trained operators who is able to coordinate the work of all the other staff involved in the work.

The machine must only be put to the uses specified by the manufacturer; misuse may cause safety and health risks and could result in damage of a financial nature.

Before using the work vehicle check that the guards are all fitted correctly.

Before hitching the work vehicle up to the tractor, make sure the tractor is in good condition.

Check that the work vehicle coupling to the tractor at the third point of the hitch is securely locked so that it cannot work loose.

During use, wear the personal protective equipment and clothing envisaged by the laws in force on safety in the workplace.

In the event of a failure, do not carry out any repairs on site unless you are certain that the area you are in is appropriate and the equipment required is available; it is more advisable to take the time needed to return the business premises rather than carry out repair work in poor safety conditions.

When driving on the roads, the driver must comply with the highway code, ensuring the tractor is road-worthy and the relative signs to signal jutting objects are affixed.

Do not carry people on the work vehicle when moving from one area to another or on the roads.

Maintenance and adjustment work must be carried out with the work vehicle on flat, compact ground, with the tractor engine off, parking brake engaged, ignition key removed.

Never leave the driver's seat when the tractor engine is running.

Before leaving the tractor, lower the work vehicle to the ground, stop the engine, engage the parking brake, and remove the ignition key from the control panel and store in a safe place.

Safety advice for handling and transportation

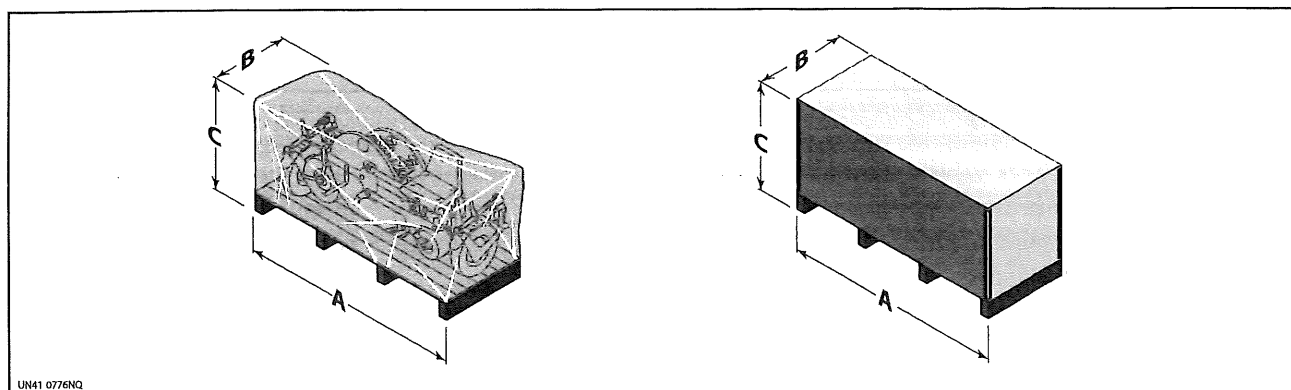
Perform handling and transportation manoeuvres in compliance with the information provided by the manufacturer and stated directly on the machine, on the packing and in the instructions for use.

The staff assigned to handling the load must have the required ability and experience and must be skilled in the use of the lifting means adopted.

Packing

The type of packing is chosen according to the selected means of transport and the destination. To contain packing as far as possible, the machine is de-

livered dismantled and in one or more parcels. The illustration shows the type of packing most commonly used.



Approximate packing dimensions										
		WOLF PRO/1	WOLF PRO/2		WOLF PRO/3	WOLF PRO/4		WOLF PRO/5	WOLF PRO/6	
Parcels	n°	1	1	1	2	2	1	3	3	1
A	cm	220	220	220	220	220	220	220	220	220
B		80	80	55	80	80	55	80	80	55
C		110	110	110	110	110	110	110	110	110

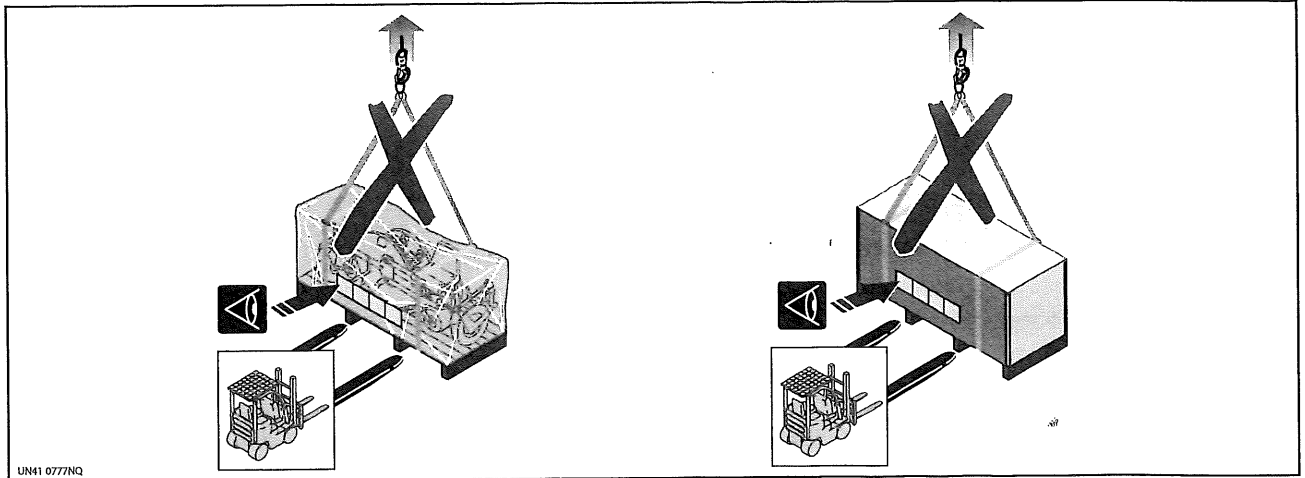
Approximate packing dimensions								
		WOLF PRO COMPACT/2	WOLF PRO COMPACT/3	WOLF PRO COMPACT/4		WOLF PRO COMPACT/5	WOLF PRO COMPACT/6	
Parcels	n°	2	2	2	1	3	3	1
A	cm	220	220	220	220	220	220	220
B		80	80	80	55	80	80	55
C		110	110	110	110	110	110	110

Handling and lifting the packed unit

WARNING
 Lift the packed machine using appropriate hoisting means for the load to lift.
 Check the parcel weight stated on the packing itself.

Authorised personnel must comply with the instructions contained on the packing, in particular those concerning security.
 Handle the packed equipment slowly, with care and caution, to prevent it swinging dangerously.

The illustration shows the harnessing points and lifting procedure.



Unpacking and assembly

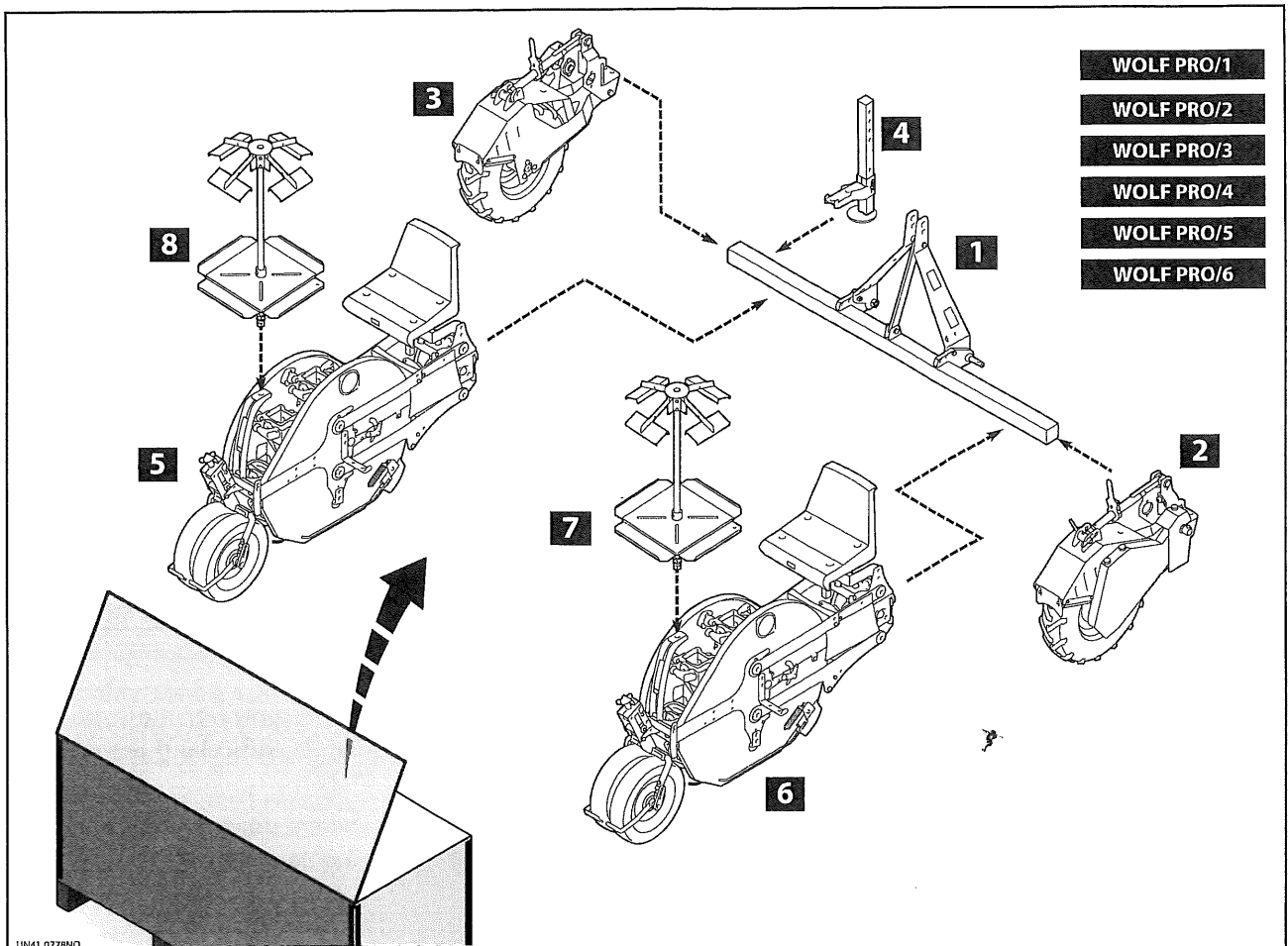
The assembly of the work vehicle must be carried out at an authorised service centre or at company facilities equipped with appropriate equipment and suitably trained personnel, in order to guarantee safety during unpacking and installation.

During unpacking, check that the components are in

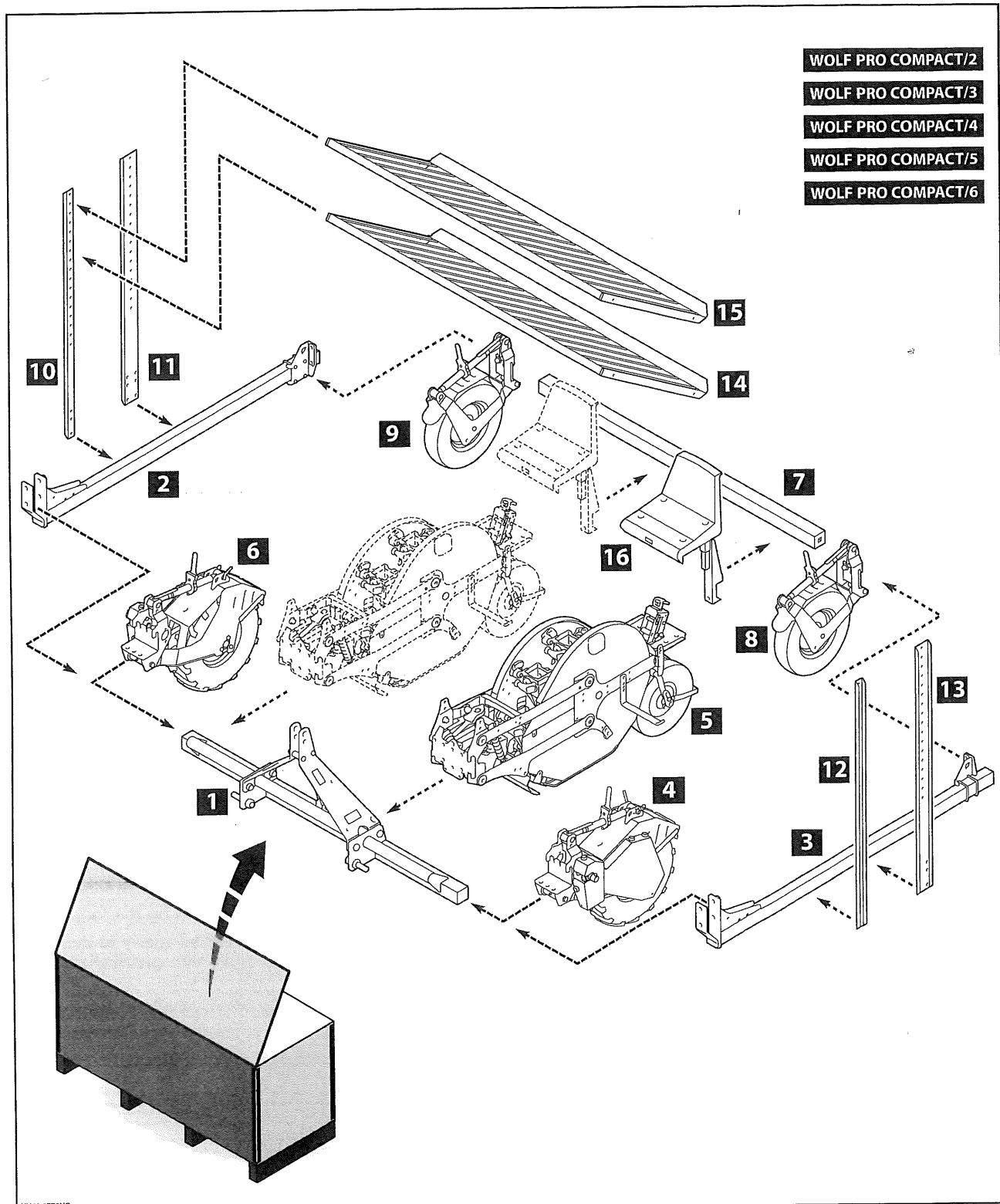
good condition and tally with the number stated; in the event of damage, report the damage to the retailer or directly to the manufacturer within 8 days of receiving the machine.

The packing materials must be appropriately disposed of or recycled in accordance with the laws in force.

The illustration shows a basic assembly diagram of the WOLF PRO work vehicle assembly.



The illustration shows a basic assembly diagram of the WOLF PRO COMPACT work vehicle assembly.



Lifting the WOLF PRO work vehicle



WARNING

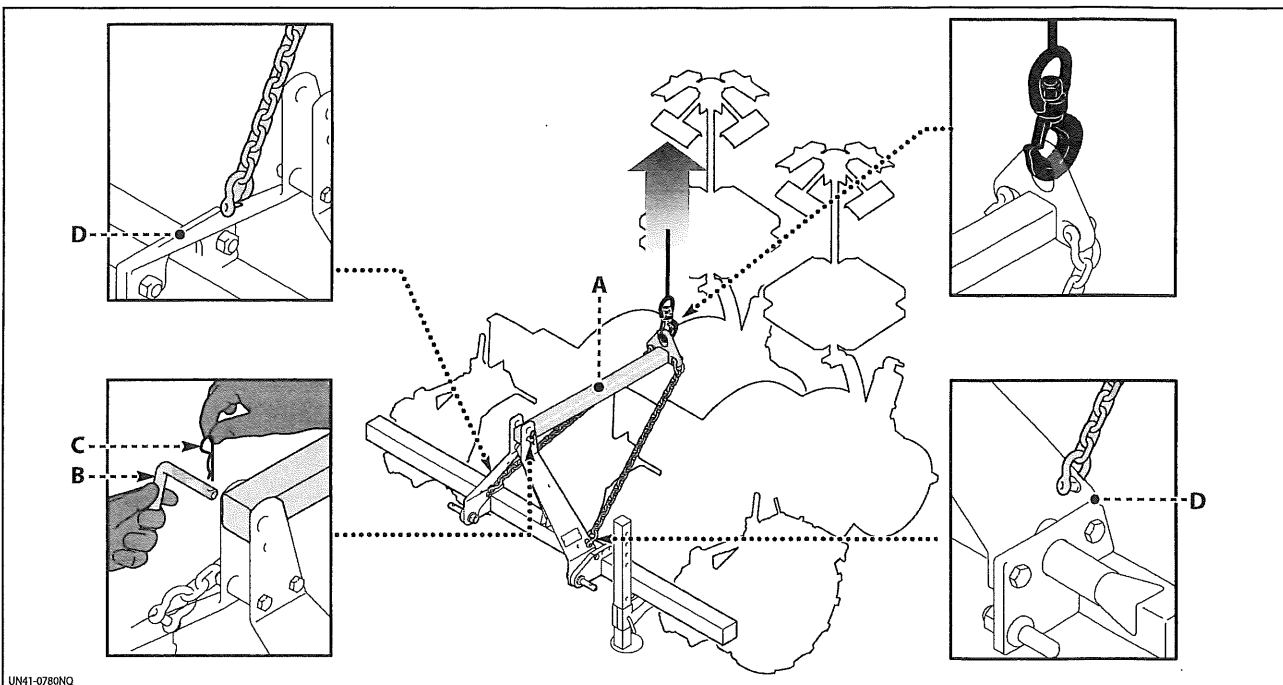
During lifting watch out for the load swinging, as the hook-up point is never perfectly at the centre of gravity.

Lifting operations must be carried out using suitable means for the load to be lifted, by qualified and authorised personnel in order to safeguard their own safety and that of the other people involved in the operations.

The illustration shows the hook-up points for lifting the work unit with two planting units fitted.

The lifting hook-up points are the same for all work units (see "Technical information").

For models WOLF PRO/1, WOLF PRO/3, WOLF PRO/5, the seat must be removed to allow the lifting means to be fitted.



Proceed as outlined below.

- 1) Use the specific tool (A) provided with the work vehicle for lifting.
- 2) Strap up the work vehicle as shown in the figure.

- 3) Check that the pin (B) is secured by the lock pin (C) and that the chains are fastened stably to the frame (D).

Lifting the WOLF COMPACT work vehicle



WARNING

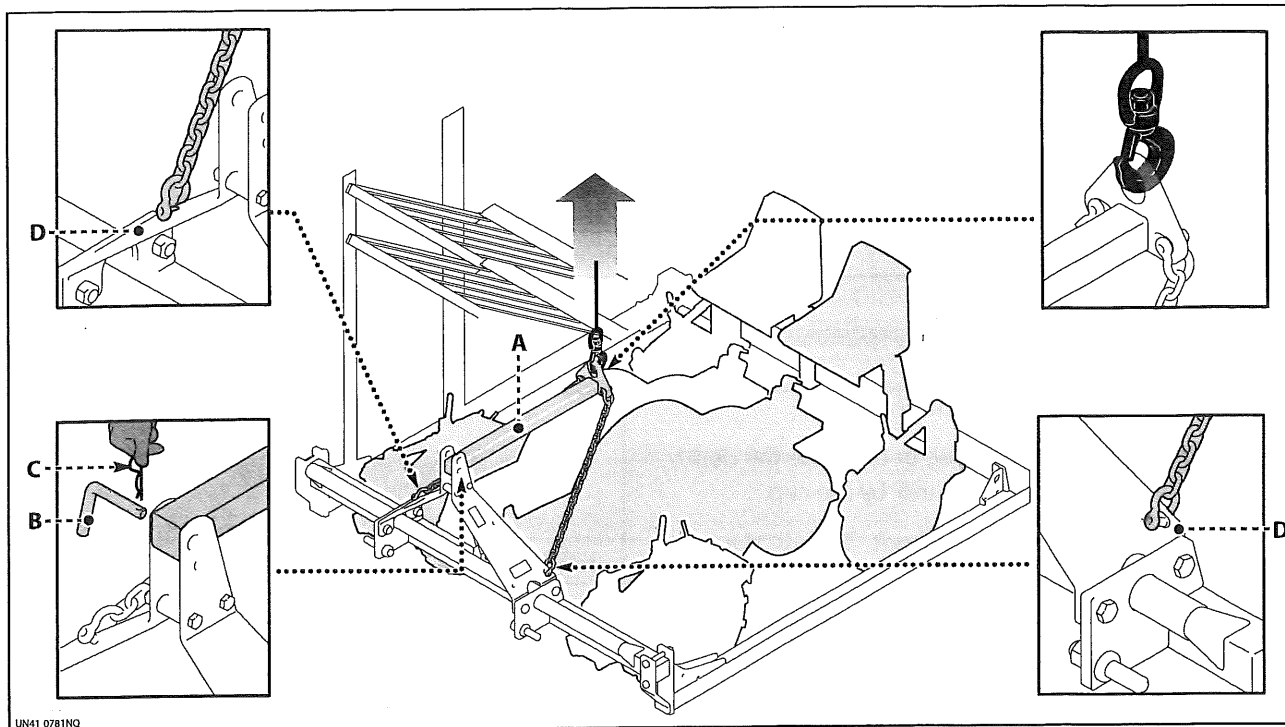
During lifting watch out for the load swinging, as the hook-up point is never perfectly at the centre of gravity.

Lifting operations must be carried out using suitable means for the load to be lifted, by qualified and authorised personnel in order to safeguard their own safety

and that of the other people involved in the operations.

The illustration shows the hook-up points for lifting the work unit with two planting units fitted.

The lifting hook-up points are the same for all work units (see "Technical information").



UN41 0781NQ

Proceed as outlined below.

- 1) Use the specific tool (A) provided with the work vehicle for lifting.
- 2) Strap up the work vehicle as shown in the figure.
- 3) Check that the pin (B) is secured by the lock pin (C) and that the chains are fastened stably to the frame (D).

Installing the plastic mulch pressing skid

The plastic mulch sheet pressure skid only needs to be fitted if you are laying plastic mulch sheets; its task is to keep the sheets fitted tightly against the ground when the drilling cup moves in and out of the soil.

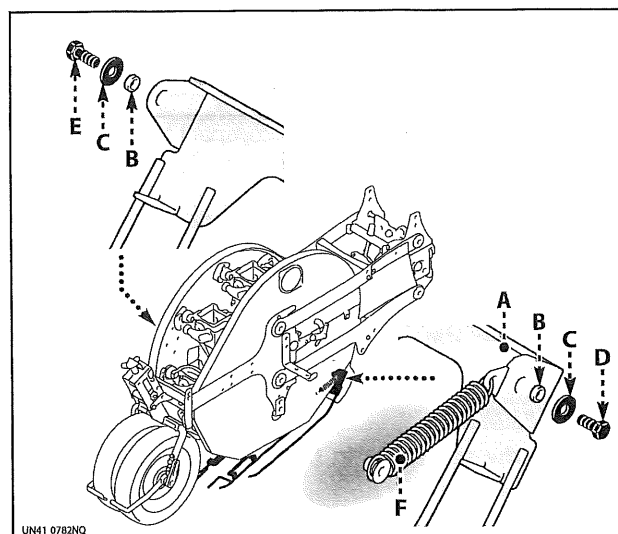


WARNING

Secure the work vehicle in position (lifted off the ground) with external means (trestles, etc.). Do not stand under the hoisted machine unless it is suitably secured in position.

Proceed as outlined below.

- 1) Lift the work vehicle off the ground.
- 2) Position the skid (A) aligned with the respective holes in the casing.
- 3) Position the bushings (B).
- 4) Position the washers (C).
- 5) Tighten the screws (D - E).
- 6) Attach the spring (F).
- 7) Repeat the same operations to install the plastic mulch sheet pressure skid on the other planting units.



UN41 0782NQ

Safety advice for the adjustments

Maintenance and adjustment work must be carried out with the work vehicle on flat and compact ground, with the tractor engine off, parking brake

engaged, ignition key removed, and adopting all the necessary safety measures required to work safely.

Planting depth adjustment

Proceed as outlined below.

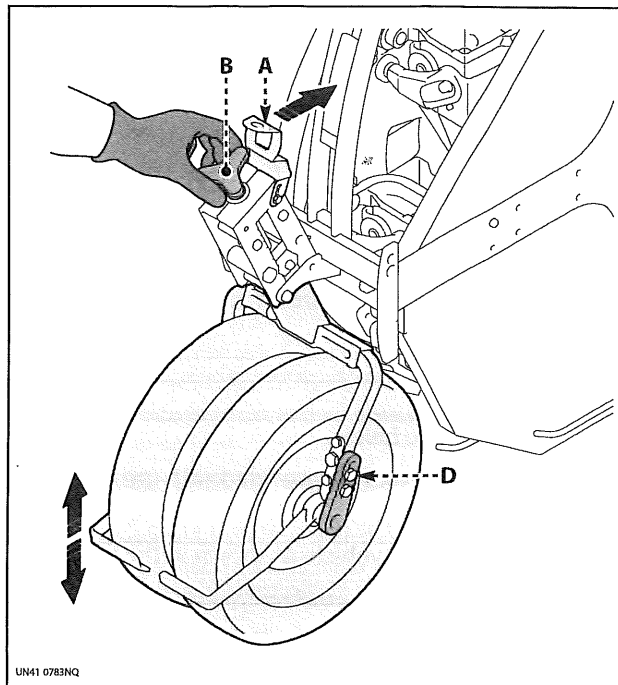
- 1) Use the lock (A) to release the knob (B).
- 2) Turn the knob (B) to increase or decrease the depth of the hole drilled in the ground by the cup.
- 3) After adjustment secure the knob (B) with the lock (A).

In special ground conditions, for example with slightly sloping ground, it may be necessary to adjust the height of the wheels separately.

For adjustments, carry out the procedure outlined.

- 1) Loosen the screws (D) and raise or lower the wheel as needed.
- 2) Tighten the screws (D).

Adjust the other wheel in the same way.



UN41 0783NQ

Adjusting the packing efficiency

The packing wheels are used to compact the soil around the planted seedlings.

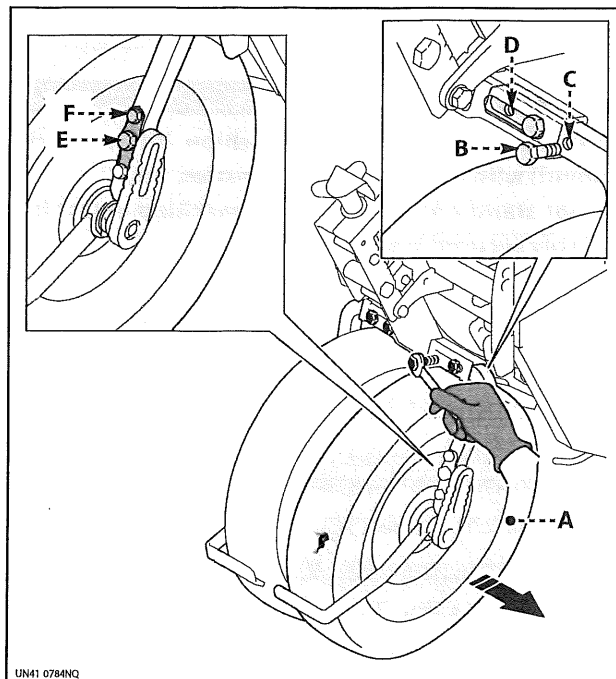
Their arrangement (spacing and tilt) determines the effectiveness of the packing.

Tilting the packing wheels will increase or decrease the compaction of the soil around the seedlings.

NOTICE

To plant the seedlings in bare soil, set the packing wheels in an upright position.

To plant the seedlings in soil with a plastic mulch sheet, tilt the packing wheels.



UN41 0784NQ

To change the distance of the packing wheels, carry out the operations described.

- 1) Loosen the screws (B).
- 2) Move the packing wheel (A).

NOTICE

To open out the compactor wheel further, remove screw (B) from hole (C) and screw into hole (D).

- 3) Repeat the same procedure to move the other packing wheel.
- 4) Tighten the screws (B).

To change the tilt of the packing wheels, carry out the operations described.

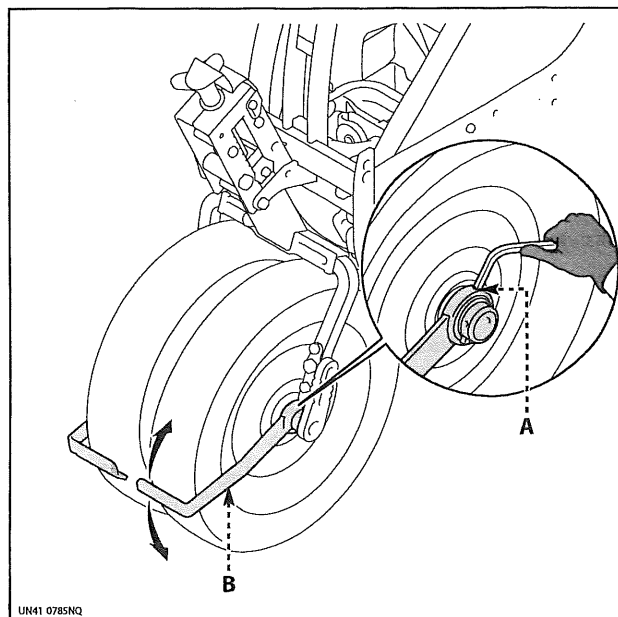
- 1) Loosen the screws (E - F).
- 2) Tilt the packing wheel as needed.
- 3) Tighten the screws (E - F).
- 4) Repeat the same procedure to tilt the other packing wheel.

Adjusting the packing wheel scraper

The scraper is used to clean the packing wheels, removing any soil and debris that has built up.

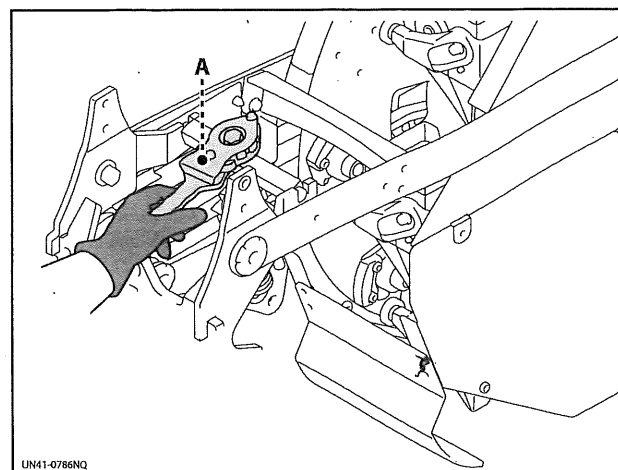
Proceed as outlined below.

- 1) Loosen the screw (A).
- 2) Turn the scraper (B) until it reaches the desired position.
- 3) Tighten the screw (A).
- 4) Repeat the same procedure for the other scraper.

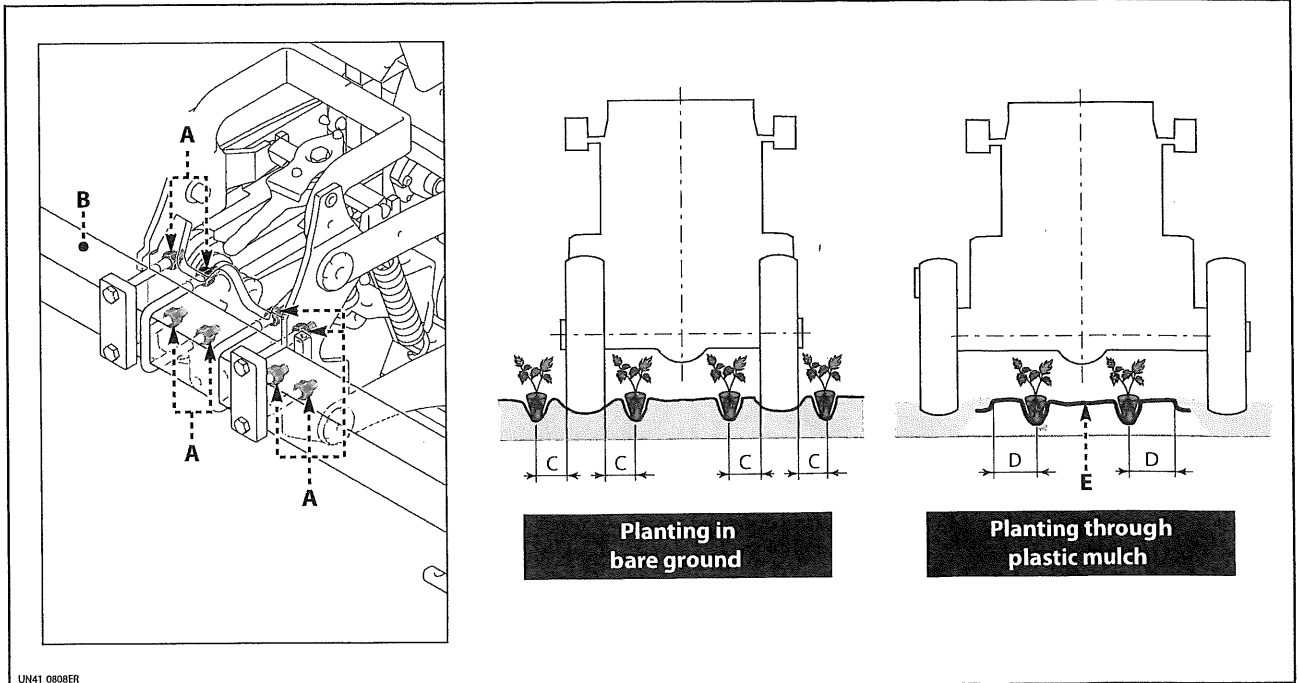


Adjusting the planting force (load applied to ground)

Use the ratchet lever (A) to increase or decrease the weight on the packing wheels.



Adjusting the row spacing



UN41 0808ER



WARNING

Secure the work vehicle in position (lifted off the ground) with external means (trestles, etc.). Do not stand under the hoisted machine unless it is suitably secured in position.

Adjust the gap between the planting units to obtain the row spacing required (for distances envisaged, see "Technical characteristics" for model concerned).

Proceed as outlined below.

- 1) Lift the work vehicle slightly off the ground.
- 2) Loosen the nuts (A).
- 3) Slide the planting unit along the frame (B) until the required planting spacing is obtained.
- 4) Tighten the nuts (A).

- To plant the seedlings in bare ground, adjust the planting units so that the seedlings are kept "C" cm 10 - 12 away from tractor wheel.
- To plant the seedlings under plastic mulch, adjust the planting units so that the seedlings are kept a distance "D" of cm 15 away from the soil ridging the sides of the plastic mulch (E).
- The manufacturer recommends you position the work vehicle's wheels aligned with the tractor's wheels.

Cup opening adjustment

Adjust the cup opening according to the size of the seedling.

The numbering on the plate (C) shows the six different cup opening options.

The cam in position "1" means maximum opening.

The cam in position "6" means minimum opening.

The cam position is shown by the hole which can be seen via the slot in the plate (C) in correspondence with the number.

The table shows the standard position of the cams based on the cup type.

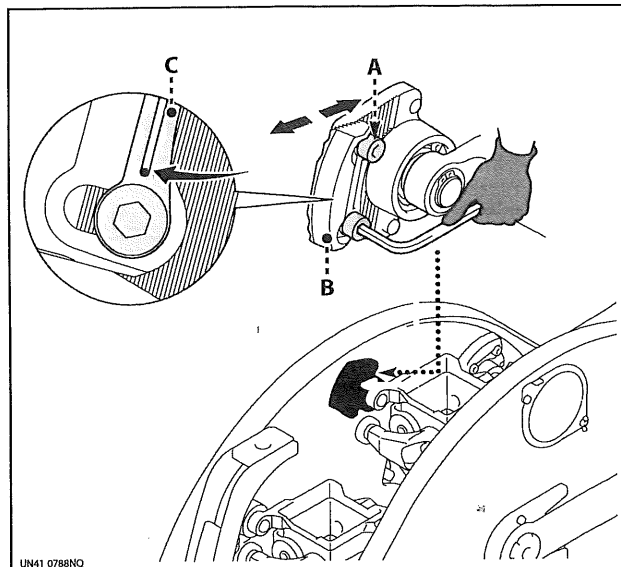
Cup type	Standard cam position
Standard cup	1
Long cup	4
6 x 6 cup	4
8 x 8 cup	4

Proceed as outlined below.

- 1) Loosen the screws (A).
- 2) Move the cam (B) to the required position.
- 3) Tighten the screws (A).
- 4) Carry out the same procedures to adjust the other cams.

NOTICE

All cams must be set in the same position.



Protection skid adjustment

The protection skid serves to prevent any root balls from causing irregularities when planting the seedlings.

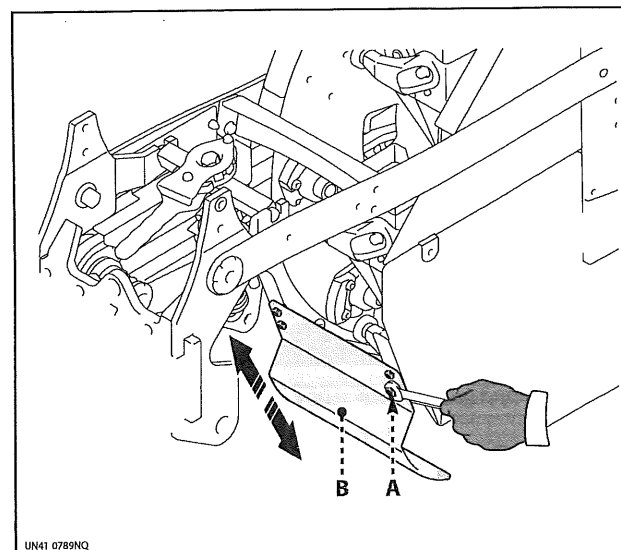
NOTICE

Use the protective skid when planting seedlings in bare soil.

When planting seedlings with the plastic mulching sheet, the protection skid must be raised to the maximum limit.

Proceed as outlined below.

- 1) Loosen the screws (A).
- 2) Remove the skid (B) from the ground.
- 3) Tighten the screws (A).
- 4) Carry out the same procedures to adjust the other protection skids.



Adjusting the automatic safety release function

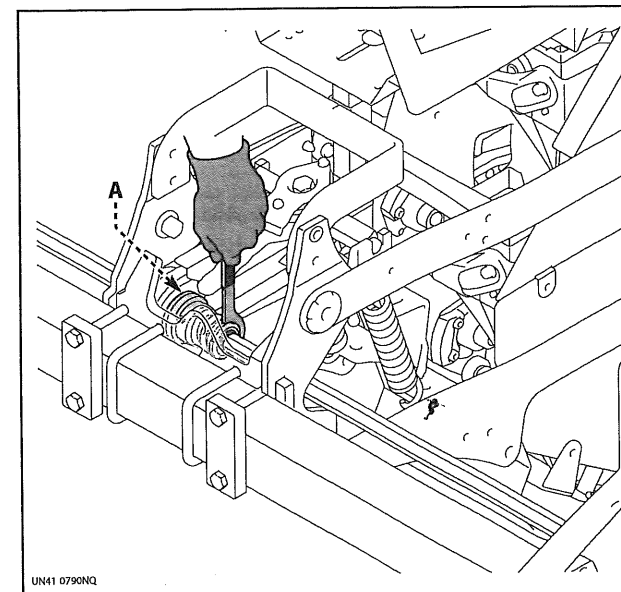
The automatic release is designed to protect the transmission components from overloads (e.g. if the dispenser jams, etc.).

The device is already set by the manufacturer during the testing stage, but can be adjusted by the user according to requirements.

For ploughshare adjustments, proceed as outlined below.

Turn the ring nut (A) clockwise to increase the release resistance (i.e. less sensitive).

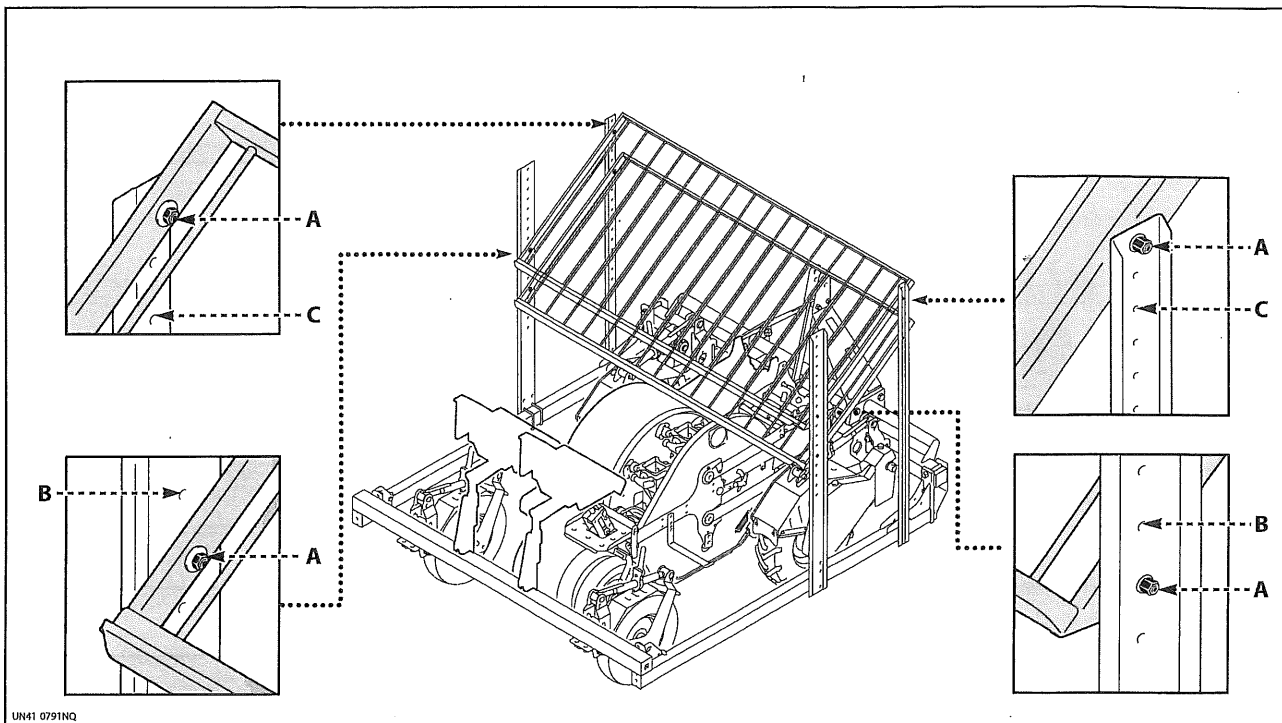
Turn the ring nut (A) anticlockwise to decrease the release resistance (i.e. more sensitive).



Adjusting the tray loader shelves

The shelves can be adjusted heightwise, they can be moved either farther apart or closer together, and the tilt angle can also be altered.

Adjust the shelves according to the size of seedlings, positioning them so that the operator is as comfortable as possible when picking up the seedlings from the trays.



WARNING

Before unscrewing the nuts and bolts, prop up the shelves to prevent any sudden movements causing an accident.

Proceed as outlined below.

- 1) Unscrew the bolts (A).
- 2) The shelves at the required height so that the existing holes in the uprights (B) and (C) can be used for fastening purposes.
- 3) Tighten the bolts (A).

Safety advice concerning use

This ensures the machine can only be used by fit and healthy personnel, who are suitably trained and authorised, and hold the appropriate category driving licence for a tractor.

Make sure there are no persons (including children) or animals in the machine work and manoeuvring area.

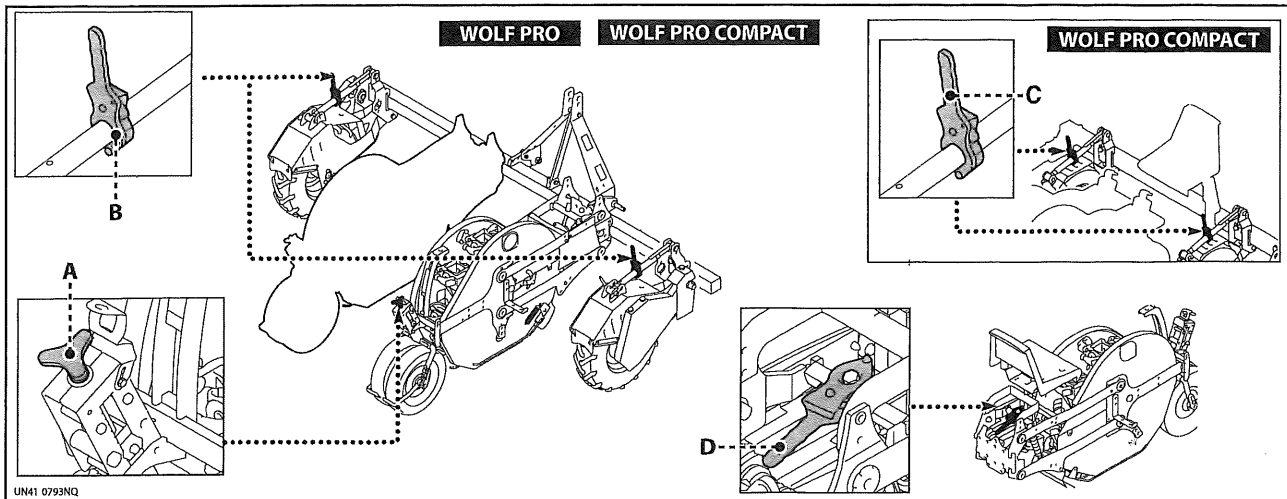
It is up to the tractor driver to establish whether the environmental conditions of the work area are hazardous and to work safely.

Do not exceed the permitted gradients established for the tractor with the equipment mounted on it (see tractor user manual).

Keep the parts where operators tread clean to prevent loss of balance when getting on and off the work vehicle.

Before transiting on public roads, check that the tractor/work vehicle assembly complies with highway code regulations.

Description of the controls



- A) Knob:** this is used to adjust the planting depth (see page 16).
- B) Lever:** this is used to adjust the set-up of the dispenser(s) so that the seedlings are planted in the ground upright (see "Planting procedure" on page 23).

- C) Lever:** this is used to change the position of the support wheel in relation to the soil and to help maintain correct work vehicle positioning during work.
- D) Lever:** this adjusts the weight of the packing wheels on the ground (see page 17).

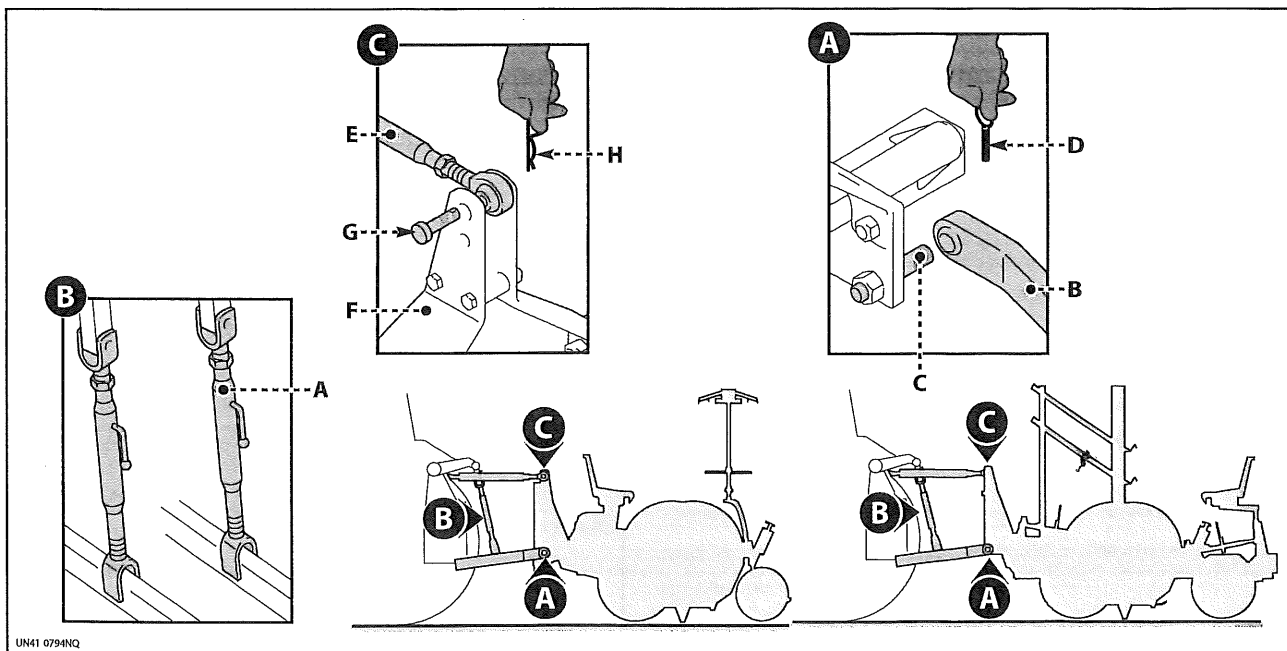
Hitching and unhitching the work vehicle to and from the tractor

WARNING

Hitching the work vehicle up to the tractor is one of the riskiest moments as it could required the involvement of several people at once, carrying out synchronised manoeuvres between the tractor driver and the operators on the ground, which - if badly organised - could result in accidents.

WARNING

The work vehicle must only ever be coupled to a tractor with an appropriate power rating which is equipped with a lift that complies with the regulations in force, observing the maximum weight limit on the rear axle and the gross vehicle weight (see tractor user manual).
Check that the work vehicle coupling to the tractor at the third point of the hitch is securely locked so that it cannot work loose.



For hitching, proceed as outlined below.

- 1) Position the work vehicle on flat, solid ground in a risk-free area.
- 2) Move the tractor so that it is positioned near the work vehicle lift frame.
- 3) Align the arms of the lifting unit with the coupling points on the work vehicle.
- 4) Switch off the tractor engine and remove the ignition key.
- 5) Turn the tie rods (A) to adjust the height of the lift arms (B) (see tractor instruction manual).
- 6) Insert the pins (C) into the lift arms and fit in the lock pins (D).
- 7) Turn the tie-rod (E) to adjust the space between the tie-rod and the upper coupling (F) on the support frame.

8) Insert the pin (G) and the lock pin (H).

9) Adjust the tie-rod (E) so that the work vehicle is parallel with the ground.

For unhitching, proceed as outlined below.

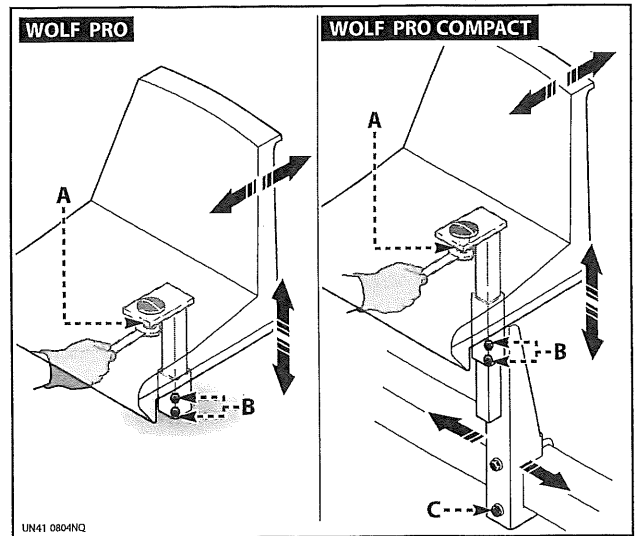
- 1) Select an area with flat, solid ground to park the work vehicle - tractor.
- 2) Using the tractor's controls, lower the work vehicle to the ground.
- 3) Switch off the tractor engine and remove the ignition key from the dashboard.
- 4) Take out the lock pin (H) and remove the pin (G).
- 5) Slide out the lock pins (D) and remove the lift arms (B) from the work vehicle's coupling points.

Seat positioning

Poor work posture will tire the operator and could lead to mistakes being made; therefore, before starting work, adjust the seat and secure it in the position that offers maximum comfort.

Proceed as outlined below.

- 1) Loosen the screws (B) and adjust the seat height.
- 2) Tighten the screws to secure the seat in the right position.
- 3) Loosen the nut (A) to move the seat lengthways in relation to the vehicle.
- 4) Tighten the nut to secure the seat in the right position.
- 5) Loosen the screws (C) to move the seat at right angles to the vehicle.
- 6) Tighten the screws to secure the seat in the right position.

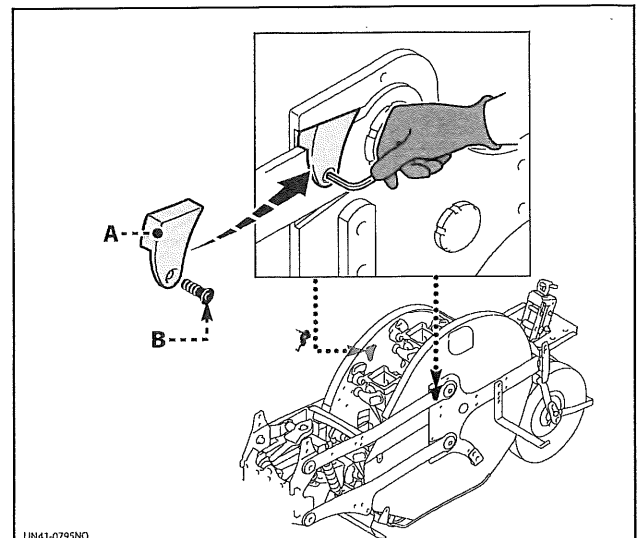


Disabling the planting unit

The operation is used (during planting) to suspend planting in one or more planting units.

Proceed as outlined below.

- 1) Lift the planting unit.
- 2) Insert the locking element (A) as shown in the figure.
- 3) Tighten the screw (B).
- 4) Repeat the same operations to insert the locking element on the opposite side of the planting unit.



Plant changeover

Configure the dispenser based on the plant spacing required (see "Plant spacing range" and "Arrangement of the drilling cups").

NOTICE

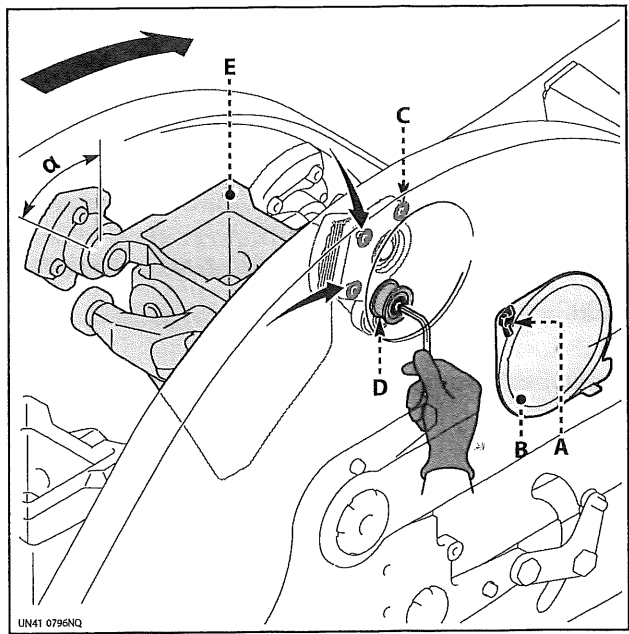
To prevent damage to the transplant unit transmission, use the driving wheel to rotate the dispenser.

Proceed as outlined below.

- 1) Lift the work vehicle slightly off the ground.
- 2) Loosen the screw (A).
- 3) Turn the casing (B).
- 4) Rotate the dispenser until the cup fastening screws are visible.
- 5) Undo the screws (C).
- 6) Repeat the same operations on the opposite side of the dispenser.
- 7) Remove the roll (D).
- 8) Remove the cup (E).

To remove any phasing units, carry out the same operations as described for removing the drilling cup.

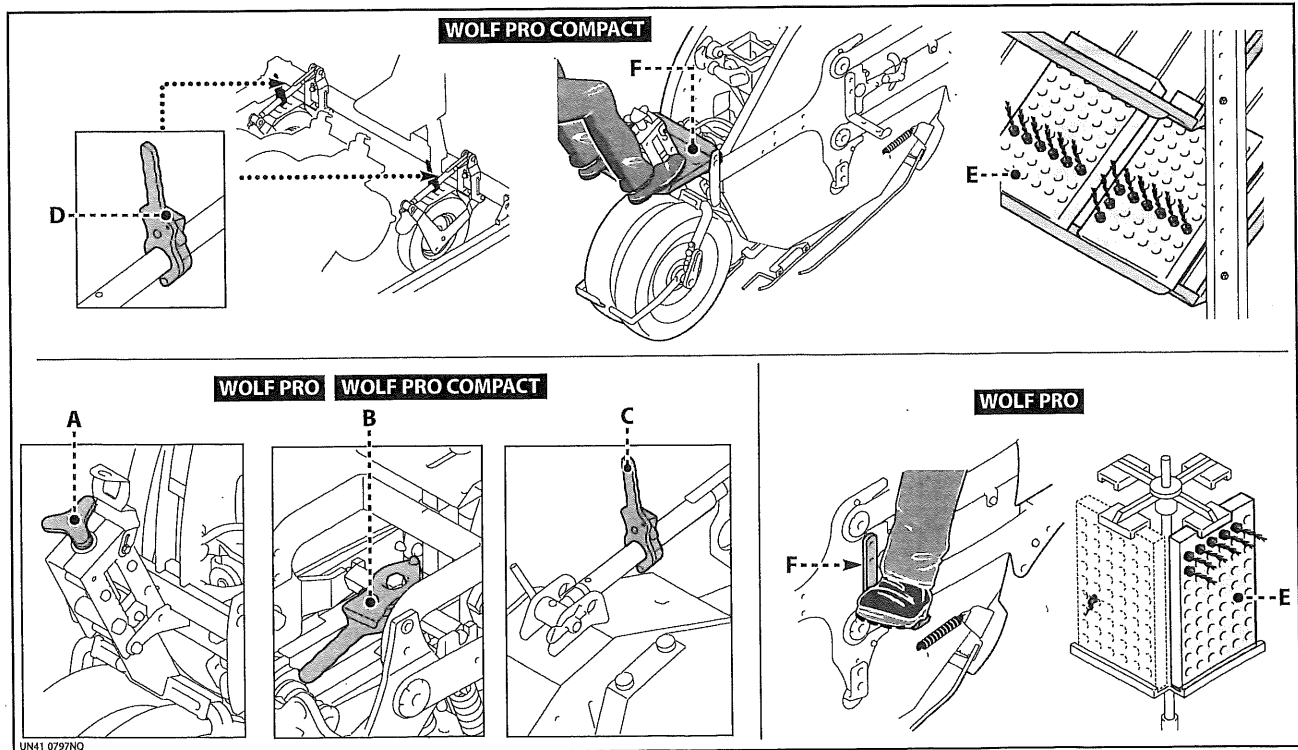
For the assembly, carry out the same operations as for disassembly but proceeding in reverse order.



NOTICE

When assembling maintain the position of the roll and the tilt (α) of the drilling cup holders with respect to the dispenser rotation direction. Always fit the first cup in the position on the dispenser marked with (1).

Planting procedure



The seedlings must be planted in soil which has been finely tilled with a harrow or hoeing machine and lightly compacted on the surface.

Do not work on extremely spongy spoil, or extremely compact soil, nor on very wet ground, as these conditions would all affect planting quality negatively.

During planting, the work vehicle's driving wheels must grip the ground at all times, the support wheels (for the WOLF PRO COMPACT machines) must be touching the ground and the tractor lift must be fully lowered.

Preliminary operations

Before starting planting, position the machine on flat ground and carry out the following operations.

- 1) Check that the plant spacing is correct.
- 2) The plant spacing depends on the number of cups fitted on the dispenser (see "Plant spacing range" - page 6).
- 3) Check that the row spacing is correct (see "Adjusting the row spacing" - page 18).
- 4) Assess the consistency of the ground and decided on the tilt of the compacting wheels depending on whether you are planting seedlings in bare ground or with plastic mulching sheets.
- 5) Adjust the protection skid position according to whether you are planting seedlings in bare ground or with plastic mulching sheets (see "Adjusting the protection skid" - page 19).
- 6) Decide whether to disable one or more planting units (see "Disabling a planting unit" page 22).
- 7) Move the levers (C) in the same way to set the dispenser(s) parallel to the ground.

- For WOLF PRO COMPACT machines only.

- 8) Use the levers (D) to position the support wheels so that they are touching the ground.
Make sure the support wheels are not applying pressure to the ground.

We recommend you dampen the root ball well (but without causing dripping) to help the dispenser plant the seedling and ensure the plant is more likely to take root.

- 9) Use the handwheel (A) to adjust the planting depth (see "Planting depth adjustment" - page 16).
- 10) Use the lever (B) to adjust the planting force to apply to the ground (see "Adjusting the planting force (load applied to the ground)", on page 17).
- 11) Position the trays (E) safely in the tray holder.

Planting operations

- 1) To prevent overloads the operator on the tractor must lower the work vehicle with the tractor moving forwards at low speed.

Do not reverse the tractor with the work vehicle on the ground as this could damage the drilling cups and the motion transmission to the dispenser.

- 2) Stop the tractor and let the operators get on the work vehicle.

In the planting stage, the operators on the work vehicle must adopt a correct posture (with their feet resting on the footboard (F) and must agree - together with the tractor driver - on the most effective speed of travel.

- 3) Move forwards with the tractor before starting the planting.
- 4) The operators must take the seedlings from the trays and place them in the drilling cups which, alternatively, will be positioned at the top of the dispenser.
- 5) The operators on the work vehicle must check the planting quality constantly. In the event of anomalies, stop the tractor moving forwards and adopt corrective measures (see "Information on adjustments" and "Troubleshooting" - pages 16 and 27).

Night-time work or poor visibility conditions

Working at night or in poor visibility conditions increases the risks arising from machine use; in these conditions,

proper lighting must be provided to ensure safe work.

Transporting the work vehicle

! WARNING

For work vehicle loading/unloading, use lifting equipment with a suitable capacity for the load to be lifted.

Use all possible caution when lifting to avoid damaging the work vehicle and causing injuries to persons involved in operations.

Strap up the unit at the lifting points envisaged by the manufacturer.

See the strap-up points and lifting procedures in the sections titled "Lifting the work unit" on page 14.

Anchor the work unit to the means of transport with ropes and secure the wheels with wedges.

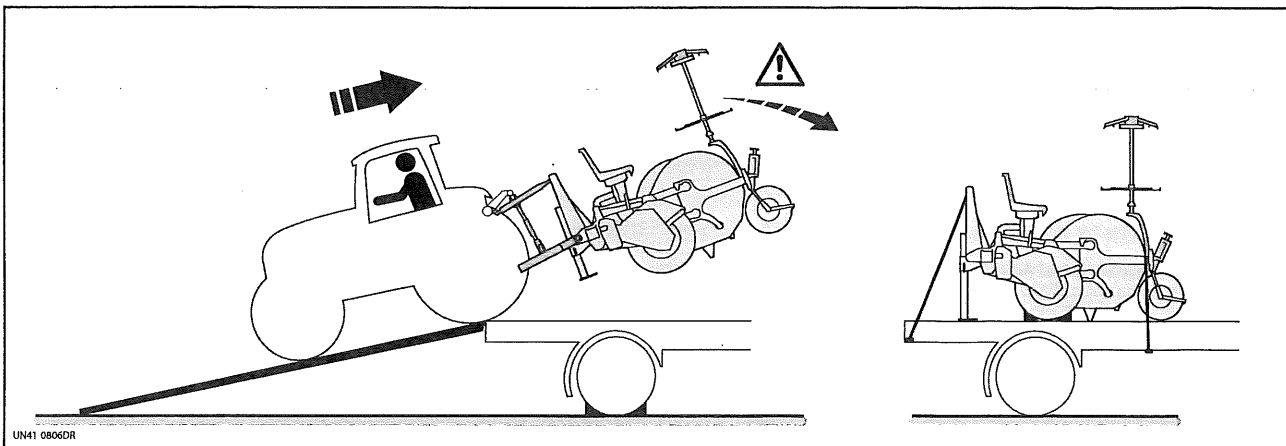
Units which are narrower than the maximum width allowed by the Highway Code can be loaded, coupled to the tractor, onto suitable means of transport using loading ramps.

! WARNING

Thoroughly clean the ramps and loading platform before boarding the vehicle.

Position the ramps on the transport means and fix them in a stable way to the truck bed using the fastening devices (pins, screws, chain etc.).

Where the ramps meet the truck bed there is a dangerous bump so move the machine very carefully over this point.



To load the work vehicle onto the means of transport, proceed as follows.

- 1) Start the tractor and lift the work vehicle as far off the ground as is permitted.
- 2) Move up onto the transport means with minimum forward speed.
- 3) Lower the work vehicle onto the truck bed.
- 4) Lower the support foot onto the vehicle floor (where

- featured).
- 5) Off the tractor engine and engage the parking brake.
- 6) Unhitch the work vehicle from the tractor.
- 7) Anchor the work unit to the means of transport with ropes and secure the wheels with wedges.
- 8) Affix the relative signalling signs to any parts jutting out from the means of transport.

Transit on public roads

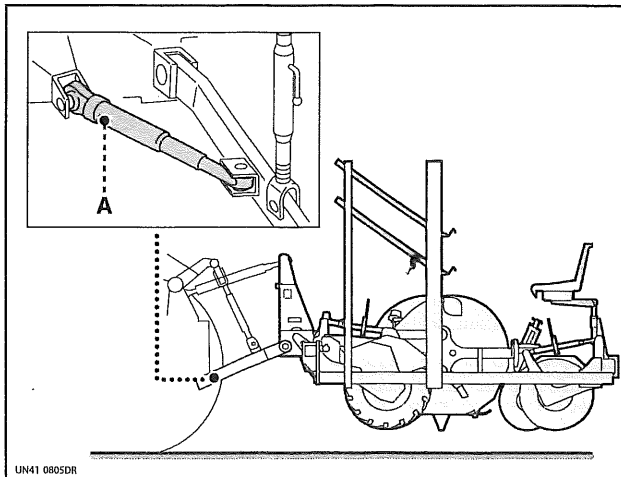
! WARNING

It is prohibited to carry people and/or things on the work vehicle.

Before any on-the-road driving remove all the trays from the tray holder and clean the working parts and the tires to remove any soil residues.

When transporting the work vehicle/tractor assembly, the regulations of the highway code must always be complied with.

Obligatorily, the three-point hitch must be secured with the relative bars (A) to prevent the work vehicle swinging against the tractor and the speed of travel must be adjusted to prevent loss of control of the tractor.



Prolonged disuse of the work vehicle

If the work vehicle is not due to be used for long periods, proceed as follows.

- 1) The machine thoroughly, taking care to remove any chemical or fertiliser residues (see "Machine cleaning").
- 2) Check the condition of the all the machine's parts and replace any that are worn or damaged.
- 3) Check that the screws are correctly tightened.
- 4) Grease to all the unpainted parts.
- 5) Grease the parts that require lubrication (see "Lubrication points diagram").
- 6) Park the machine carefully on flat ground in a dry area protected from the weather.
- 7) Leave enough room around the work vehicle for the hitching up and unhitching manoeuvres.

Safety advice for maintenance

Maintenance work must be carried out with the work vehicle on flat, compact ground, with the tractor engine off, parking brake engaged, and ignition key removed, and adopting all the necessary safety measures required to work safely.

Any maintenance operations that can be carried out on the business premises come under the ordinary

maintenance envisaged in the instruction manual. Special maintenance operations require a specialised workshop on the premises which meets the requirements specified by the relative laws in force (appropriate equipment suitably trained staff etc.); if you do not have a compliant workshop, contact an authorised one.

Maintenance interval schedule

To guarantee constant, efficient and safe machine operation, ensure all the maintenance envisaged by the

manufacturer is carried out.

Interval	Component	Type of work	Manual reference
Every work day	Drilling cups	Cleaning	Drilling cup cleaning
	Lift frame	Integrity check	
	Guards	Integrity check	Guards
	Warning and hazard plates	Inspection	Information and safety signs
Every 50 hours of work	Machine components	Greasing	Lubrication diagram
	Nuts and bolts	Tightening inspection	Nuts and bolts tightening torques chart
Every 150 hours of work	Tyres	Check	Tyre check

Drilling cup cleaning

Clean the moving parts of the drilling cups to remove

any product residues so that the cups can move freely.

Tyre check

Check the tyres for wear and if they feature tears or signs of ageing, they must be replaced.

Check tyre pressure and restore if necessary (see "Specifications" schedule).

The pressure must be checked with the weight of the work vehicle entirely on the ground and with nothing and nobody on the work vehicle (people or things).

Check of nuts and bolts tightening torque

Check that the main fixing nuts and bolts are tight. torque (see the "Nuts and bolts tightening torques chart").
 If the bolts are loose tighten them to the prescribed

Cleaning the work vehicle

Clean the work vehicle with a high-pressure water jet and, if necessary, with approved detergents. wastewater; dispose of it in suitable areas equipped with separation devices for the pollutants.
 The liquid used for washing could be hazardous for the environment due to the presence of pollutants such as detergents, oils, etc., therefore do not simply dump the Dry with compressed air and lubricate the components shown (see "Lubrication diagram").

Troubleshooting

The following list contains a number of common problems that may arise during work, together with the ways to solve them.

Problem	Likely cause	Solution
The seedling planted is too close to the surface or too deep	Incorrect planting depth	Make the relative adjustment (see "Adjusting the planting depth")
The hole made by the drilling cup in the ground and/or the plastic mulch is too big	The cam is in the wrong position	Adjust (see "Cup opening adjustment")
	Incorrect planting depth	Make the relative adjustment (see "Adjusting the planting depth")
The soil has not been properly compacted on top of the seedlings	Packing wheels not set correctly	Adjust the packing wheels (see "Adjusting the packing efficiency")
	Incorrect load on packing wheels	Adjust (see "Adjusting the planting force (load applied to ground)")
The plastic mulch is being damaged	Packing wheels not set correctly	Adjust the packing wheels (see "Adjusting the packing efficiency")
	Protection skid not set properly	Adjust (see "Adjusting the protection skid")
	Incorrect load on packing wheels	Adjust (see "Adjusting the planting force (load applied to ground)")
The seedling overturns onto the ground or is not planted	Packing wheels not set correctly	Adjust the packing wheels (see "Adjusting the packing efficiency")
	Incorrect planting depth	Make the relative adjustment (see "Adjusting the planting depth")
	Incorrect load on packing wheels	Adjust (see "Adjusting the planting force (load applied to ground)")

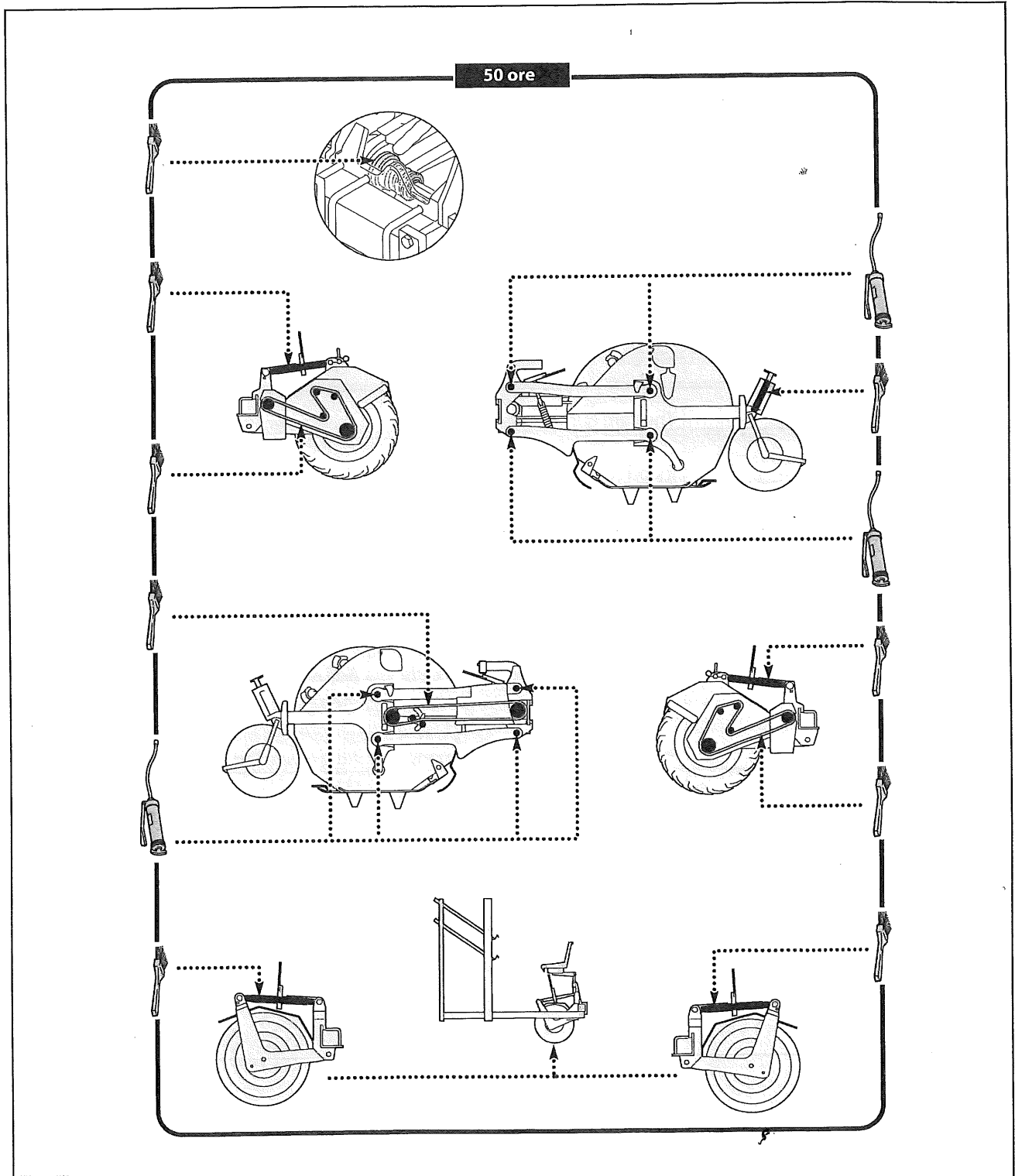
Lubrication diagram

Lubricate the parts shown at the times and in the ways specified.




Before lubricating, clean the components concerned and the greasing nipples to prevent contamination of

the lubricant.

Use universal grease for traction in farming and industrial machinery, which is water-repellent with a 180° drop point.



UN41 0800N2

 Grease	 Grease	 Oil
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UN41 0102HA

Nuts and bolts tightening torques chart

Nuts and bolts tightening torques				
Thread diameter	Thread pitch (mm)	Resistance class 8.8 (Nm)	Resistance class 10.9 (Nm)	Resistance class 12.9 (Nm)
M 4	0,7	2.7	3.8	4.6
M 5	0,8	5.5	8.0	9.5
M 6	1	9.5	13.0	16.0
M 8	1,25	23.0	32.0	39.0
M 10	1,5	46.0	64.0	77.0
M 12	1,75	80.0	110.0	135.0
M 14	2	125.0	180.0	215.0
M 16	2	195.0	275.0	330.0
M 18	2,5	270.0	390.0	455.0
M 20	2,5	385.0	540.0	650.0
M 22	2,5	510.0	720.0	870.0
M 24	3	660.0	930.0	1100.0
M 27	3	980.0	1400.0	1650.0



INFORMATION CONCERNING REPLACEMENTS

8

Safety advice in case of replacements

Worn or damaged components must be replaced with original spare parts. Special maintenance operations (non included in this handbook) require a specialised workshop on

the premises which meets the requirements specified by the relative laws in force (appropriate equipment suitably trained staff etc.); if you do not have a compliant workshop, contact an authorised one.

Replacing the drilling cups

NOTICE

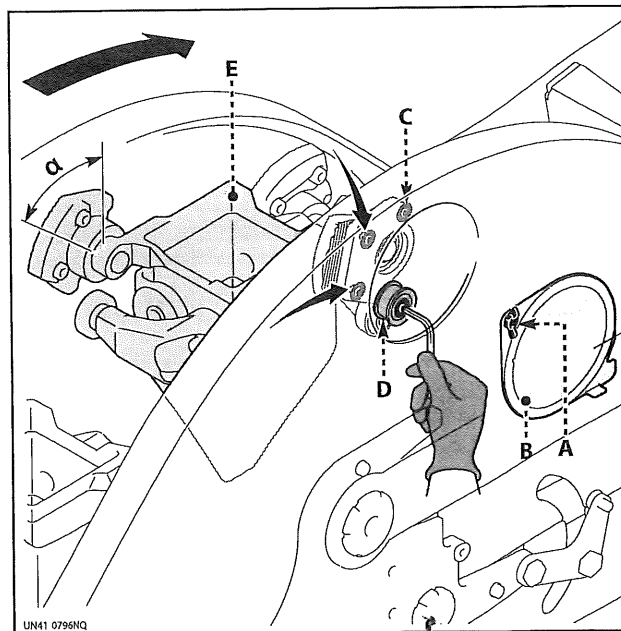
To prevent damage to the transplant unit transmission, use the driving wheel to rotate the dispenser.

Proceed as outlined below.

- 1) Lift the work vehicle slightly off the ground.
- 2) Loosen the screw (A).
- 3) Turn the casing (B).
- 4) Rotate the dispenser until the cup fastening screws are visible.
- 5) Undo the screws (C).
- 6) Repeat the same operations on the opposite side of the dispenser.
- 7) Remove the roll (D).
- 8) Remove the cup (E).

To fit the new cup, carry out the same operations as for disassembly but proceeding in reverse order.

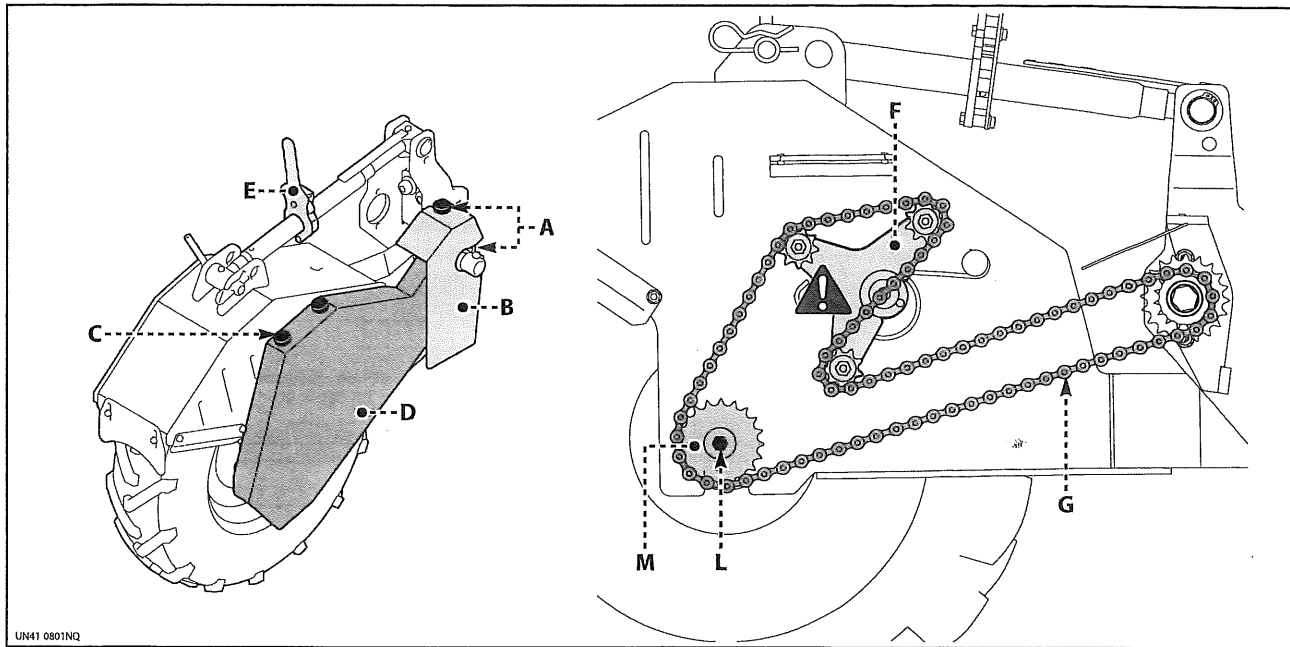
To replace any phasing units, carry out the same operations as described for replacing the drilling cup.



NOTICE

When assembling maintain the position of the roll and the tilt (α) of the drilling cup holders with respect to the dispenser rotation direction.

Replacing the driving wheels pinion



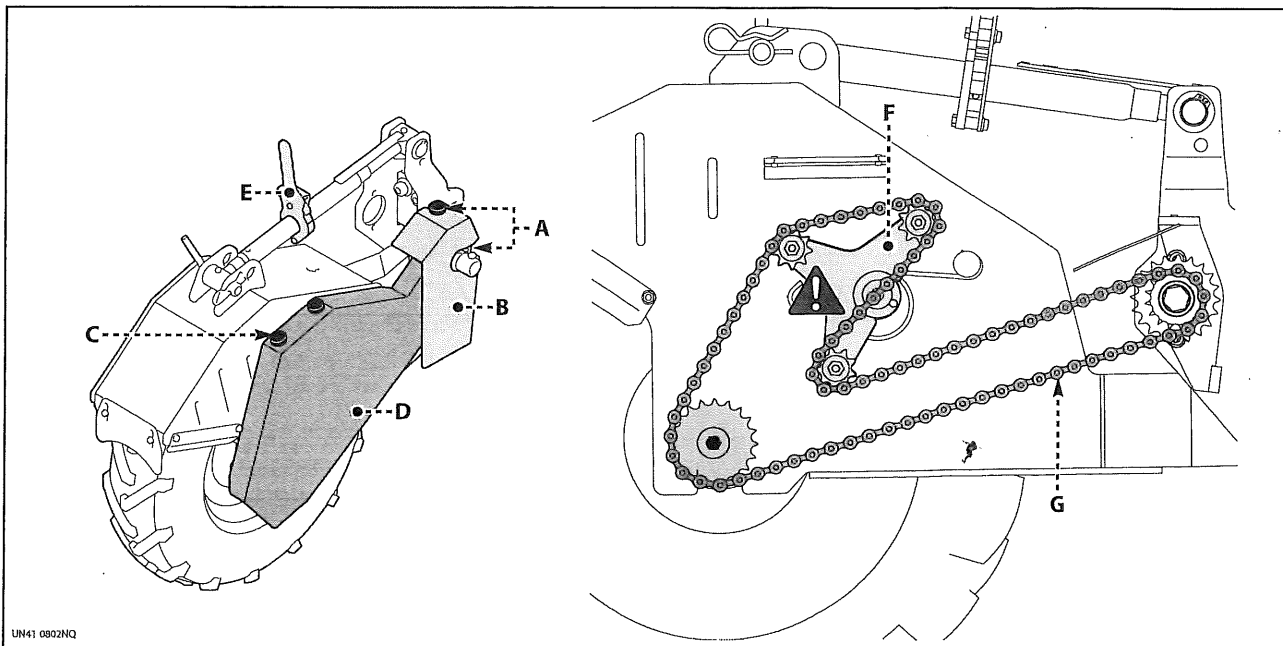
Proceed as outlined below.

- | | |
|---|---|
| <ol style="list-style-type: none"> 1) Move the lever (E) to lift the wheel in order to slacken off the chain. 2) Loosen the knobs (A). 3) Remove the casing (B). 4) Loosen the knobs (C). 5) Remove the casing (D). 6) Move the tensioner (F) and remove the chain (G) from the pinion. | <ol style="list-style-type: none"> 7) Unscrew the screw (L). 8) Remove the pinion (M). 9) Fit the new pinion and tighten the screw (L). 10) Fit a new chain on the pinions and the tensioner. 11) Position the casing (D). 12) Tighten the knobs (C). 13) Position the casing (B). 14) Tighten the knobs (A). |
|---|---|

CAUTION

The tensioner could move unexpectedly, causing injury to the hands.
Proceed with the utmost caution.

Replacing the driving wheels chain



Proceed as outlined below.

- 1) Move the lever (E) to lift the wheel in order to slacken off the chain.
- 2) Loosen the knobs (A).
- 3) Remove the casing (B).
- 4) Loosen the knobs (C).
- 5) Remove the casing (D).
- 6) Move the tensioner (F) and remove the chain (G).



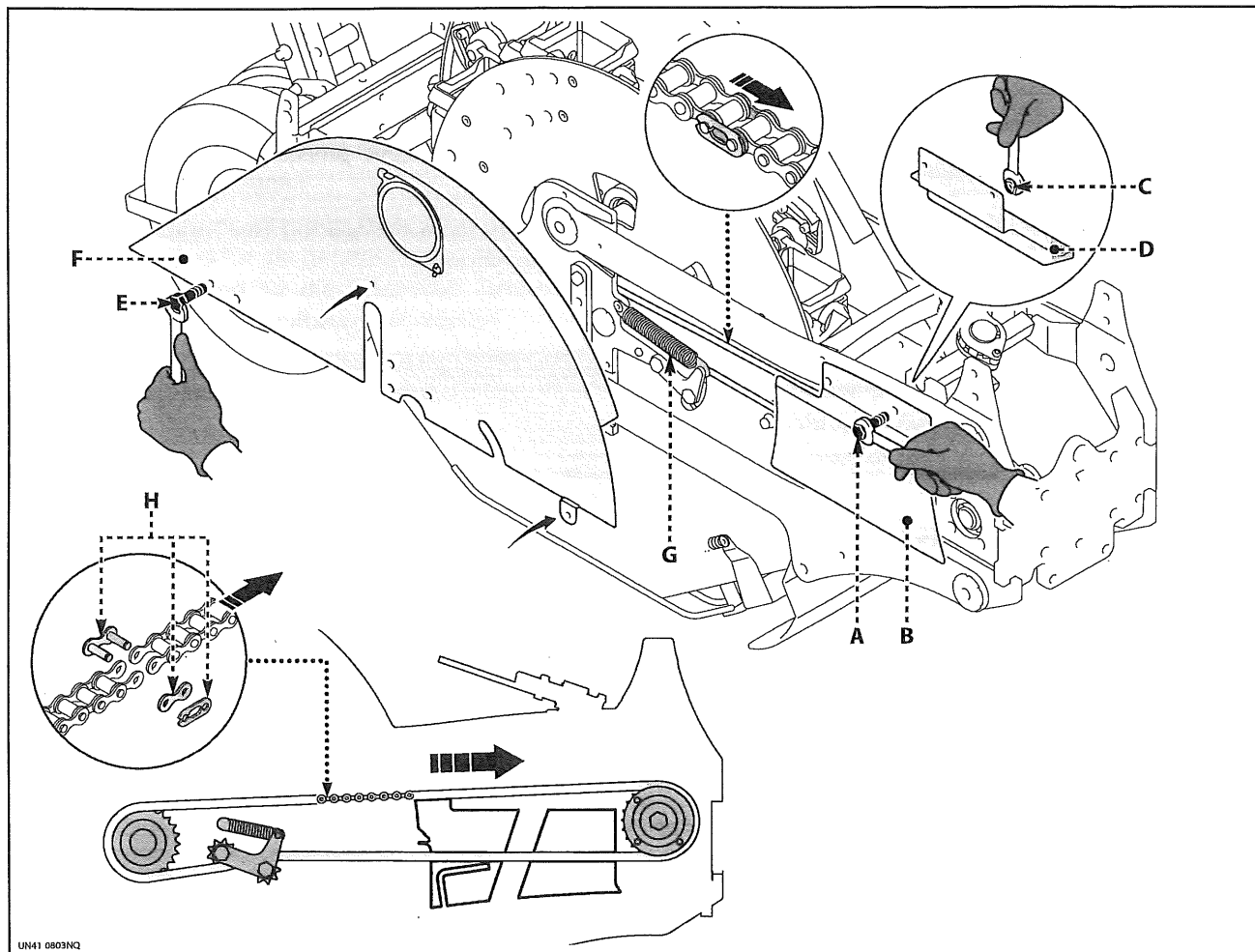
CAUTION

The tensioner could move unexpectedly, causing injury to the hands.

Proceed with the utmost caution.

- 7) Fit a new chain on the pinions and the tensioner.
- 8) Position the casing (D).
- 9) Tighten the knobs (C).
- 10) Position the casing (B).
- 11) Tighten the knobs (A).

Replacing the planting unit chain



Proceed as outlined below.

- 1) Undo the screws (A).
- 2) Remove the casing (B).
- 3) Unscrew the nuts (C).
- 4) Remove the casing (D).
- 5) Undo the screws (E).
- 6) Remove the casing (F).
- 7) Release the spring (G).
- 8) Remove the joining link (H).
- 9) Remove the chain from the pinions and the tensioner.
- 10) Place the new chain on the tensioner and pinions.

- 11) Fit the joining link (H).

NOTICE

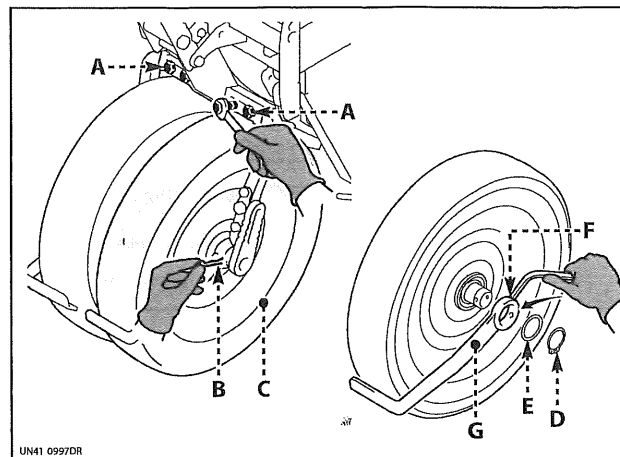
Take special care to fit the link correctly and in the direction indicated in the figure.

- 12) Attach the spring (G).
- 13) Position the casing (F).
- 14) Tighten the screws (E).
- 15) Position the casing (D).
- 16) Tighten the nuts (C).
- 17) Position the casing (B).
- 18) Tighten the screws (A).

Replacing the packing wheel scraper

Proceed as outlined below.

- 1) Loosen the screws (A).
- 2) Open out the packing wheels so that the wheel can be removed.
- 3) Tighten the screws (A).
- 4) Take out the lock pin (B).
- 5) Remove the packing wheel (C).
- 6) Remove the circlip (D).
- 7) Remove the washer (E).
- 8) Loosen the screws (F).
- 9) Remove the scraper (G).
- 10) Position the new scraper.



- 11) For the assembly, carry out the same operations as for disassembly but proceeding in reverse order.
- 12) Repeat the same procedure to replace the other scraper.
- 13) Adjust the wheel spacing (see "Adjusting the packing efficiency").

Scrapping the work vehicle

Scrapping operations must be handled by specialised personnel with suitable skills for the job.

The components removed must be sorted according to the type of materials they contain and in compliance

with the laws in force concerning "waste collection, sorting and disposal".