



ASSEMBLY / OPERATOR'S MANUAL



GMD 44 / 55 / 66 MULTIDISC MOWER



PLEASE READ CAREFULLY
BEFORE USING THE MACHINE

DEAR OWNER,

In buying a **KUHN** machine you have chosen wisely. Into it have gone years of thought, research and improvements. You will find, as have thousands of owners all over the world, that you have the best that engineering skill and actual field testing can produce. You have purchased a dependable machine, but only by proper care and operation can you expect to receive the performance and long service built into it.



This manual contains all the necessary information for you to receive full efficiency from your machine. The performance you get from this machine is largely dependant upon how well you read and understand this manual and apply this knowledge. Please **DO NOT ASSUME THAT YOU KNOW HOW TO OPERATE AND MAINTAIN YOUR MACHINE** before reading this manual carefully. **KEEP THIS MANUAL AVAILABLE FOR REFERENCE.**

Your **KUHN** dealer will instruct you on the general operation of your machine. He is interested that you get the best performance possible and will be glad to answer any special questions that may arise regarding the operation of the **KUHN** machine.

Your **KUHN** dealer can offer a complete line of genuine **KUHN** service parts. These parts are manufactured and carefully inspected in the same factory that builds the machine to assure high quality and accurate fitting of any necessary replacements.

When ordering service parts it is important that you indicate the type of machine concerned and its serial number.

For this reason please complete the model identification plate diagram below with the required information. This will provide you with an easy reference for future service parts orders.

	KUHN S.A. 67700 SAVERNE - FRANCE
TYPE _____	N° _____
MASSE XXXX kg	
	
*XXXXXXXX XXXX *	MADE IN FRANCE

ABOUT IMPROVEMENTS

KUHN is continually striving to improve its products and, therefore, reserves the right to make improvements or changes when it becomes practical to do so, without incurring any obligations to make changes or additions to the equipment sold previously.

CONTENTS

	Page
Safety	2
Safety decals	9
Technical specifications	11
General information	11
Assembly	12
Adapting to the tractor	21
P.T.O. shaft	22
Transport	23
Lowering the cutterbar and adjustments for work	24
Operating the mower	26
Lubrication	28
Adjustments and maintenance	30
Inspection of knives & securing elements	32
Optional equipment	34
Storing the mower	38
Service adjustment chart	39
Limited warranty	40

SAFETY



The symbol above is used throughout this manual every time recommendations are made concerning your safety, the safety of others, or the good operation of the machine. These recommendations must be made known to all machine operators.

DESIGNATED USE OF THE MACHINE

The **GMD 44 - 55 - 66** Disc Mowers must only be used for the work which they have been designed : mowing on the ground of hay fields, grass silage fields and improved pastures for the purpose of harvesting fodder for feeding livestock.

The manufacturer is not held liable for any damage resulting from machine applications other than those specified by the manufacturer.

Any use other than the designated operation is at the risk and responsibility of the operator.

Designated use of the machine also means :

- following operation, maintenance and repair recommendations given by the manufacturer ;
- using only genuine spare parts, equipment and accessories as designated by the manufacturer.

The **GMD 44 - 55 - 66** Disc Mowers must only be operated, maintained and repaired by competent persons who are familiar with machine specifications and operation and are aware of any danger involved.

The operator must imperatively respect current legislation concerning :

- accident prevention,
- work safety,
- public traffic circulation.

All safety advice indicated on the machine must be strictly observed.

The manufacturer is not held liable for any damage resulting from machine modifications carried out by the operator himself or by a third party without previous written agreement from the manufacturer.

GENERAL SAFETY RECOMMENDATIONS

Before operating the machine, always ensure that tractor and machine are in accordance with work safety and road traffic regulations.

BASIC PRINCIPLES

1. In addition to the recommendations given in this manual, legislation on work safety and accident prevention must also be respected.
2. Advice is indicated on the machine, specifying safety recommendations in order to prevent accidents.
3. Before travelling on public roads, the operator must ensure that the machine conforms to road traffic regulations.
4. Before starting work, the operator must be familiar with all machine controls, handling devices and their functions. Once at work, it is too late to do so !
5. Do not wear loose clothing which could become caught up in moving elements.
6. Use a tractor equipped with a safety cab. Keep windows and roof hatch closed for reduced sound level while operating the PTO driven implement.
7. Before starting up the machine and beginning work, check the surrounding area (beware of children !). Make sure there is sufficient visibility. Keep all people and animals away from the danger zone of the machine (risk of projection!)
8. Carrying people or animals on the machine when working or in transport is strictly forbidden.
9. Machine must only be attached to tractor using means provided and in accordance with current safety standards.
10. When attaching or removing the machine, place the parking stand into the corresponding position.
11. Special care should be taken when attaching or removing the machine from the tractor.
12. Before attaching the machine, ensure that the front tractor axle is sufficiently ballasted. Ballast is to be placed on the supports provided in accordance with instructions of the tractor manufacturer.
13. Do not surpass the maximum axle load or the overall transport weight as prescribed by the tractor manufacturer.
14. Do not surpass the maximum transport width authorized by road traffic regulations.
15. Before transporting the machine on public roads, ensure that all legally required guards and indicators (lights, reflectors ...) are in place and in good operation.

16. All operating controls (cords, cables, rods ...) must be positioned so that they cannot be set off accidentally, risking accident or damage.
17. Before transport on public roads, locate the machine into its transport position as instructed in this operator's manual.
18. Never leave the tractor seat while the machine is operating.
19. Drive speed must be adapted to ground conditions as well as roads and paths.
Always avoid abrupt changes of direction.
20. Precision steering, tractor adherence, road holding and efficient braking are influenced by the type of implement, weight, ballast of front axle, ground or road conditions. It is therefore of utmost importance to be cautious in every given situation.
21. Be particularly cautious when turning corners, paying attention to machine overhang, length, height and weight.
22. Before operating the machine, ensure that all safety guards are firmly in place and in good condition. If worn or damaged, replace immediately.
23. Before operating the machine, check tightness of nuts and bolts, particularly on tool fixing elements (blades, tines, knives, spades ...). Retighten if necessary.
24. Keep clear of the machine operating area.
25. WARNING ! Danger of crushing and shearing can exist when components are operated by hydraulic or pneumatic controls.
26. Before leaving the tractor or before adjusting, maintaining or repairing the machine, turn off the engine, remove ignition key and wait until all moving parts have come to a complete stop.
27. Do not stand between the tractor and the machine unless the hand brake is tight and/or stops have been placed under the wheels.
28. Before any adjustments, maintenance or repairs are carried out, ensure that the machine cannot be started up accidentally.

ATTACHMENT

1. When attaching or removing the machine from the tractor, position hydraulic lift control lever in such a way that it cannot be set off accidentally.
2. When attaching the machine to tractor 3-point linkage, ensure that diameter of link pins corresponds to diameter of ball joints.
3. **WARNING !** Danger of crushing and shearing can exist in the lifting zone of the 3-point linkage !
4. Do not stand between the tractor and the machine when operating the outer control lever of the lift mechanism.
5. In transport, the machine lift mechanism should be stabilized by tractor tie rods to avoid floatation and side shifting.
6. When transporting the machine in the raised position, lock the lift control lever in place.
7. Do not operate the machine with narrow wheeltrack tractors when working or transporting on uneven or sloping terrain.

POWER TAKE-OFF

1. Only use PTO shaft supplied with the machine or recommended by the manufacturer.
2. PTO guards must always be in place and in good condition.
3. Check for correct PTO overlap when at work and in transport.
4. Before attaching or removing the PTO shaft, disengage PTO shaft, turn off engine and remove ignition key.
5. If a primary PTO shaft is equipped with a slip clutch or a free wheel, these must be fitted on the machine PTO.
6. Ensure that PTO shaft is always correctly fitted and locked into place.
7. Make sure guards are correctly in place and secured with the safety chains provided.
8. Before engaging PTO, ensure that PTO speed and direction are in accordance with manufacturers recommendations.
9. Before engaging PTO, keep all people and animals clear from the machine.
10. Never engage PTO shaft when tractor motor is turned off.

11. Never surpass PTO angle recommended by the manufacturer.
12. WARNING ! Rotating elements can continue turning momentarily after PTO is disengaged. Keep clear until all rotating elements are at a standstill.
13. When removing the machine, locate PTO shaft on the supports provided.
14. Fit safety cap on tractor PTO.
15. Replace any worn or damaged PTO guards immediately.

HYDRAULIC SYSTEM

1. WARNING ! Hydraulic system is under pressure.
2. When fitting hydraulic motors or cylinders, ensure that connections have been made correctly, as per manufacturer's instructions.
3. Before connecting hoses to the tractor hydraulics, ensure that tractor and machine circuits are not under pressure.
4. It is strongly recommended that the operator marks the hydraulic connections between tractor and machine to avoid making a wrong connection. WARNING ! Functions could be reversed (for example : lift/lower).
5. Check hydraulic hoses regularly ! Worn or damaged hoses must be replaced immediately.
Replacement parts must be in accordance with manufacturer's recommendations concerning specifications and quality.
6. Should a leak be found, take all necessary precautions to avoid accidents.
7. Any liquid under pressure (particularly oil from hydraulics) can penetrate the skin and cause severe injury. If injured, see a doctor immediately, there could be danger of infection.
8. Before any adjustments, maintenance or repairs are carried out, lower the machine, depressurize the circuit, turn off the engine and remove ignition key.

MAINTENANCE

1. Before checking any machine malfunction and before adjusting, maintaining or repairing the machine, disengage PTO, turn off engine and remove ignition key.
2. Check tightness of nuts and bolts regularly. Retighten if necessary.
3. If the machine is raised, prop it up in a stable position before carrying out any maintenance work.
4. When replacing a working part, wear protection gloves and only use standardized tools.
5. It is forbidden to discard any oil, grease or filters. These must be given to waste disposal organisations to protect the environment.
6. Disconnect power source before any work is done on the electric system.
7. Check safety guards regularly, particularly those that are subject to wear. Replace immediately if damaged.
8. Spare parts used must be in accordance with specifications and standards as defined by the manufacturer. Use only genuine KUHN parts !
9. Before any electric welding is carried out on tractor or attached machine, disconnect generator and battery terminals.
10. Repairs on elements under pressure or tension (springs, accumulators etc.) must only be carried out by competent persons with standardized equipment.

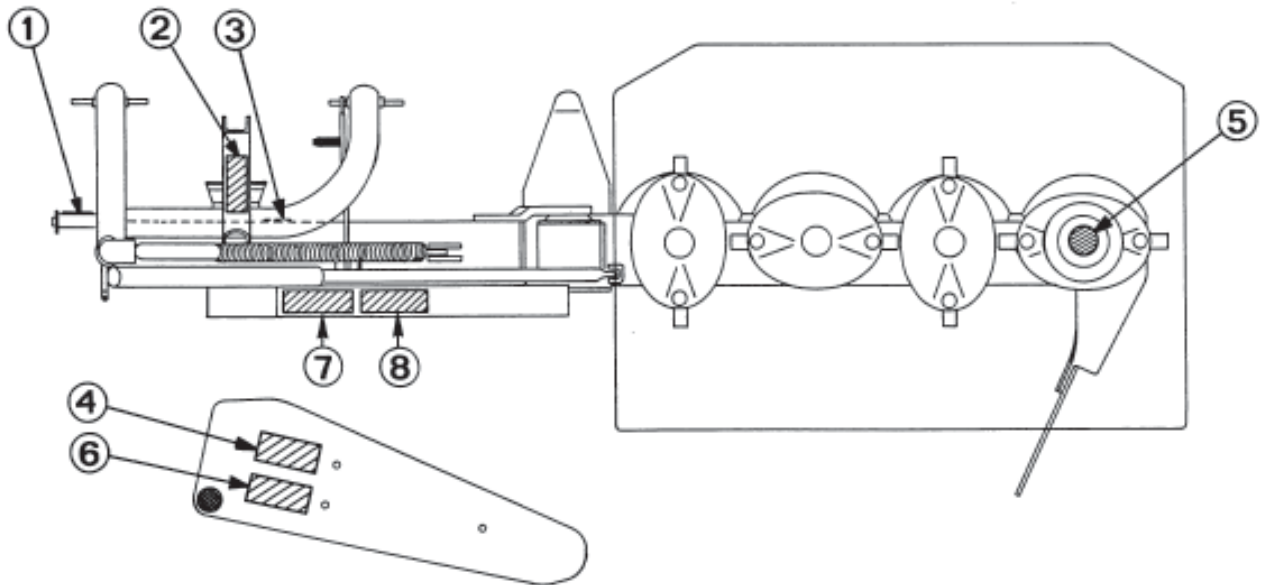
SPECIAL SAFETY RECOMMENDATIONS

1. Use a tractor equipped with an enclosed cab with windows made of safety glass and kept closed. It is recommended to fit polycarbonate screens inside the tractor safety cab's side and rear windows or to install mesh guards on the exterior of them.
2. Stay a safe distance away from the mower when discs are rotating.
3. For safe machine operation, it is imperative that cutting tools be fitted in accordance with the manufacturer's recommendations. Use only the tool outfit supplied with the machine.
4. Each time before using the mower, inspect condition of cutting elements (knives, discs). Replace any missing, worn or damaged cutting elements immediately. Use only genuine KUHN spare parts.
5. To avoid creating dangerous out of balance forces, always replace missing, damaged or worn knives in pairs.

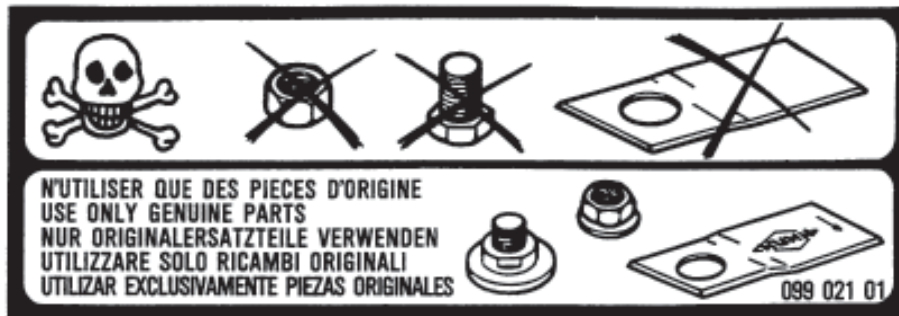
6. When replacing knives or discs, systematically inspect their securing elements as per the manufacturer's recommendations.
7. Regularly inspect the disc mower's protection cover. Worn or damaged protection covers must be replaced immediately.
8. Protection devices (such as guards, shields etc.) are intended to prevent stones, rocks or other foreign objects from being projected. They also prevent access to the machine's danger zones. Therefore, it is imperative that protection devices are put in place and properly secured each time before using the machine.
9. Crushing and shearing zones which could cause serious bodily injury when changing the machine from transport to work position and vice versa may exist. To prevent possible injury, be extra careful when maneuvering and ensure that everyone is at a safe distance away from the machine.
10. PTO drive to the mower must never be engaged unless the cutterbar skid shoes are in contact with the ground and the protective cover is folded down.
11. Ground of the pastures to be mown must be free of foreign objects.
12. Even when the machine is used in accordance with its purpose, objects may be projected. It is therefore imperative that everyone be kept away from the danger zone, that extra care is taken and that extra precaution (such as safety indicators) be taken when mowing pastures alongside roads or near public areas (parks, schools etc.).
13. Never mow in reverse.
14. When disengaging the PTO drive, moving parts continue to rotate for some time. Wait for all moving parts to come to a complete stop before approaching the machine.
15. If an obstruction is hit, stop the tractor immediately, disengage PTO drive, turn off engine, remove ignition key and wait for all moving parts to come to a complete stop.
Check the entire machine for any damage before resuming work.
16. It is strongly recommended to have your machine checked by your dealer after each season, especially blades and discs and their fixing devices (nuts, bolts etc.).

SAFETY DECALS

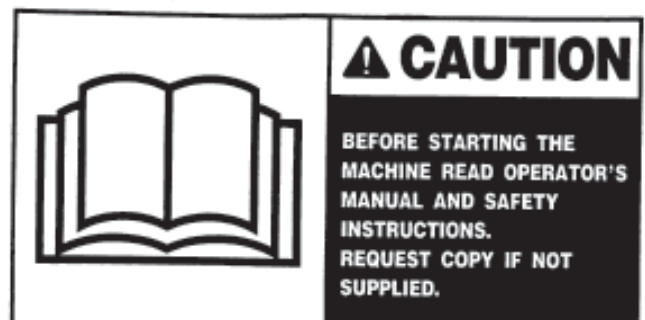
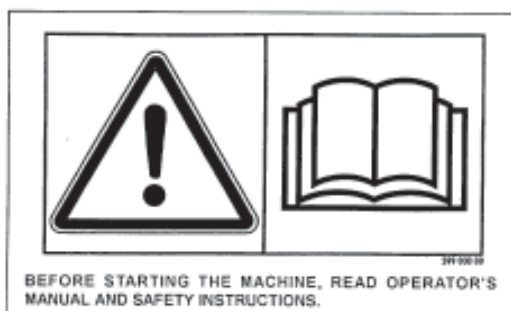
THE FOLLOWING SAFETY PICTORIALS HAVE BEEN PLACED ON YOUR MACHINE IN THE AREAS INDICATED. THEY ARE INTENDED FOR YOUR PERSONAL SAFETY AND FOR THE SAFETY OF THE PEOPLE WORKING WITH YOU. THE TEXT SHOWN ON THEM GIVES THEIR PRECISE MEANING. KEEP THE PICTORIALS LEGIBLE. IF THEY ARE NOT, REPLACE THEM.



1



2

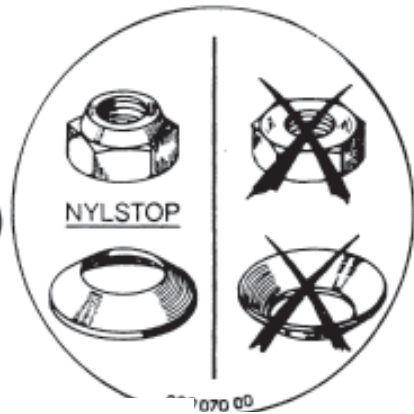


599 000 10

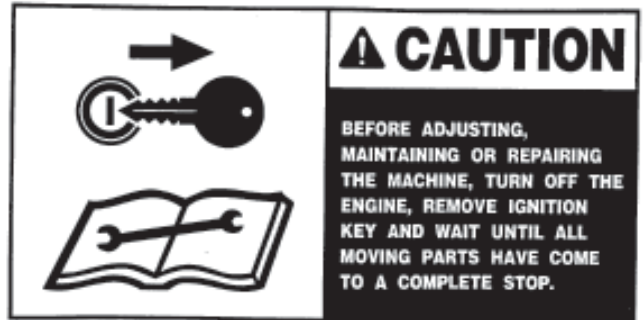
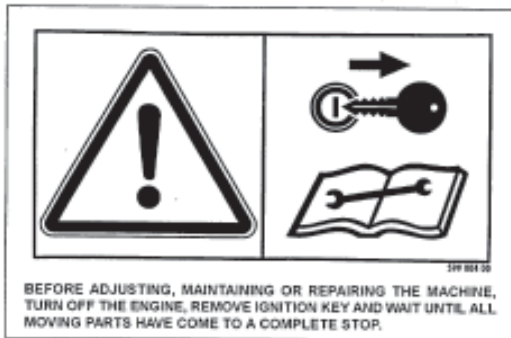
3



5



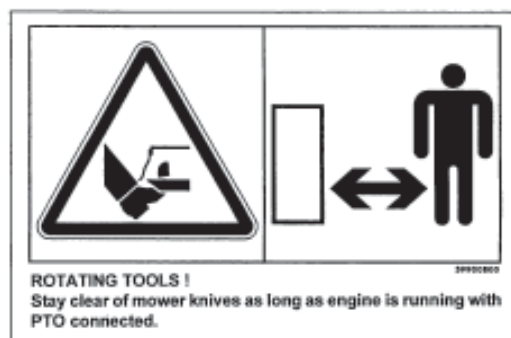
4



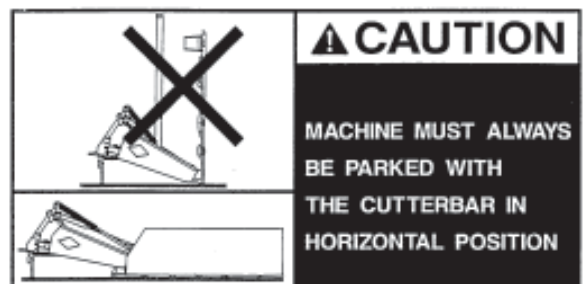
6



7



8



TECHNICAL SPECIFICATIONS

	GMD44	GMD 55	GMD 66
Number of discs	4	5	6
Width of cut	1.60 m (5' 3")	2.00 m (6' 7")	2.40 m (7' 10")
PTO power requirement	22 kW (30 HP)	30 kW (40 HP)	33 kW (45 HP)
Disc speed (at 540 rpm)	3030 rpm	3030 rpm	3030 rpm
Weight	342kg(754 lbs)	390 kg(858 lbs)	430 kg(948 lbs)
Transport width	25 cm (10") plus tractor		
Lift system	Mechanical or hydraulic	Hydraulic	Hydraulic
Hardware	Metric	Metric	Metric

GENERAL INFORMATION

The GMD multidisc mowers are designed for 540 rpm tractors only with standards ASAE Category 1 or 2 three-point hitches.

Depending on the size of the tractor and the wheel spacing, it may be necessary to use the bushings supplied for attaching the GMD 44 or to turn the linkage pins on GMD 55 and GMD 66 multidisc mowers.

The tractor should be 30 hp minimum for the GMD 44, 40 hp minimum for the GMD 55 and 45 hp minimum for the GMD 66.

Insufficient tractor horse power may cause stripping and poor cutting.

ASSEMBLY INSTRUCTIONS

In the following instructions, «left» and «right» are determined from a position facing in the direction of travel.

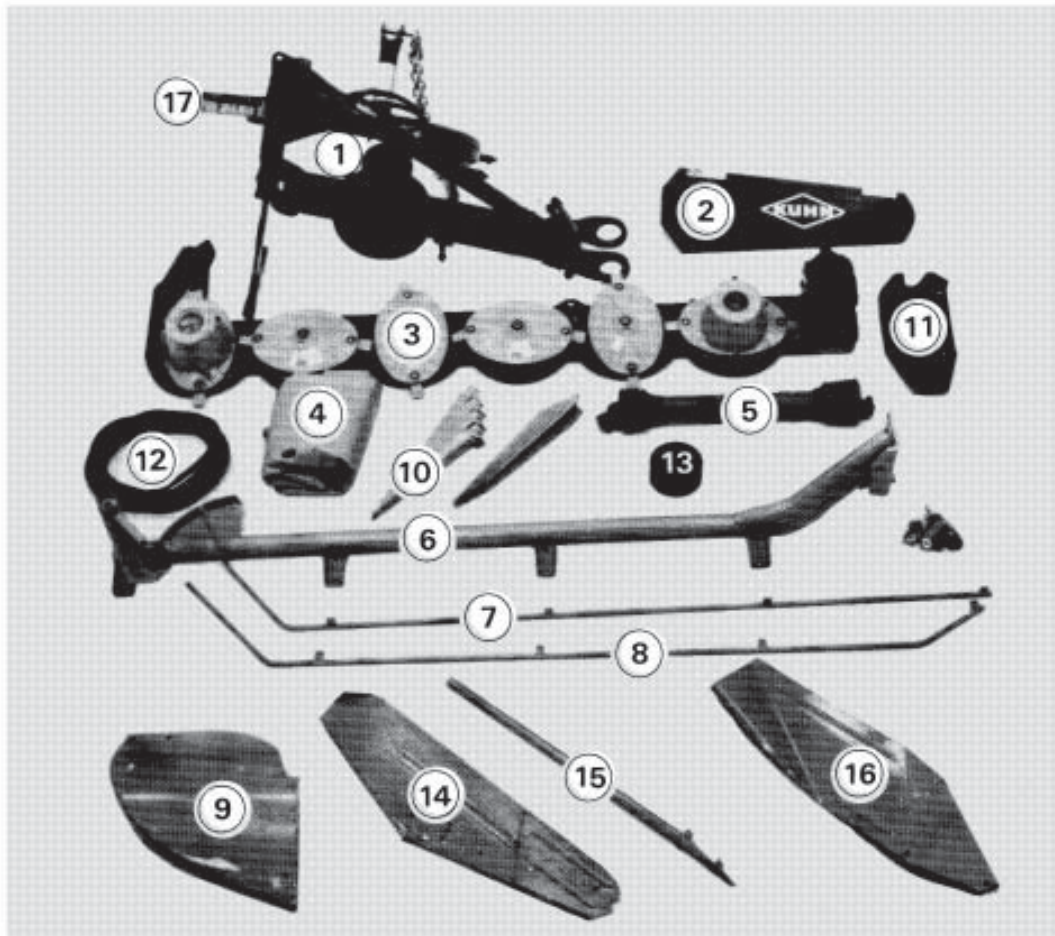
Metric hardware is used throughout the assembly. Tighten hardware as each part or assembly is installed unless otherwise specified.

Letters are used on each illustration to point out where the hardware is to be installed with the description of the hardware pointed out in the text. Please read the text carefully so the mower is properly assembled before it is delivered to the customer.

CRATED MACHINES

The GMD 44 is shipped with the cutterbar attached to the main frame, 2 units per crate. Loose components not assembled on the unit are packed in the crate similar to the GMD 55 and GMD 66.

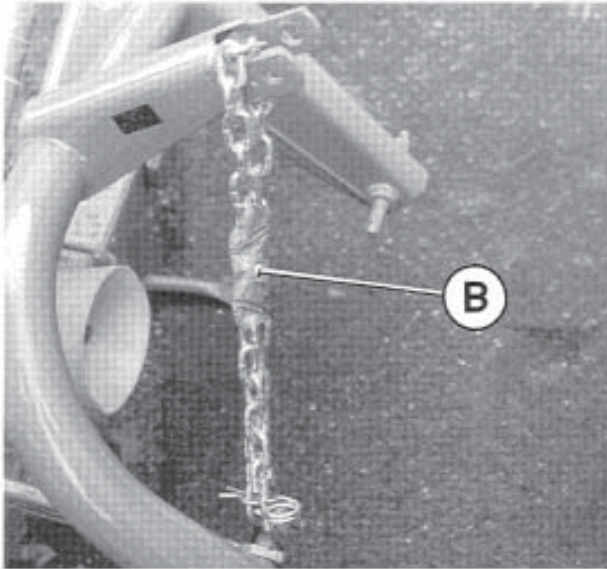
Fig. 1 shows the components for the GMD 55 and GMD 66. Units are shipped in 2 crates : one consisting of two main frames and the other two cutterbar assemblies.



1

PARTS DESCRIPTION

1. Main frame
2. Belt shields
3. Cutterbar
4. Cover
5. PTO assembly
6. Frame pipe
7. Rear frame
8. Front frame
9. Deflector
10. Supports
11. Inner shoe
12. Belts
13. Pulley
14. Outer swath board
15. Swath stick
16. Inner swath board
17. Toolbox



2

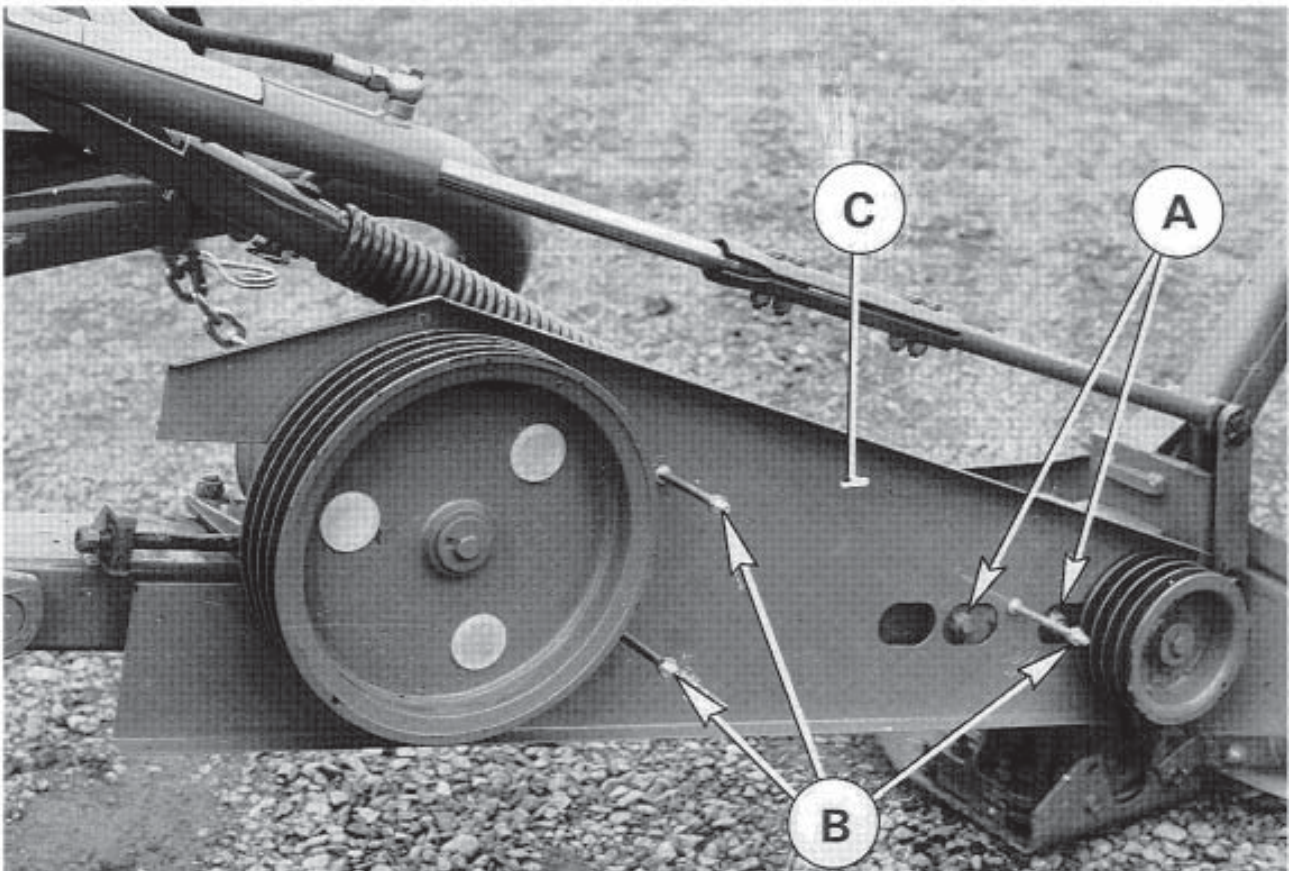
GMD 55, GMD 66 ONLY - CRATED

1. Attach main frame to cutterbar by means of 2 self locking nuts (A) (M 14) as shown on photo 3. Tighten nuts (A) to 13.5 daNm (100 ft.lbs).



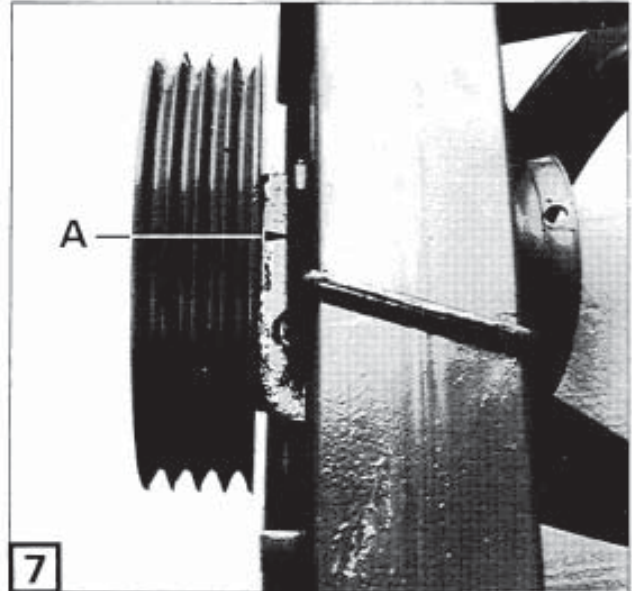
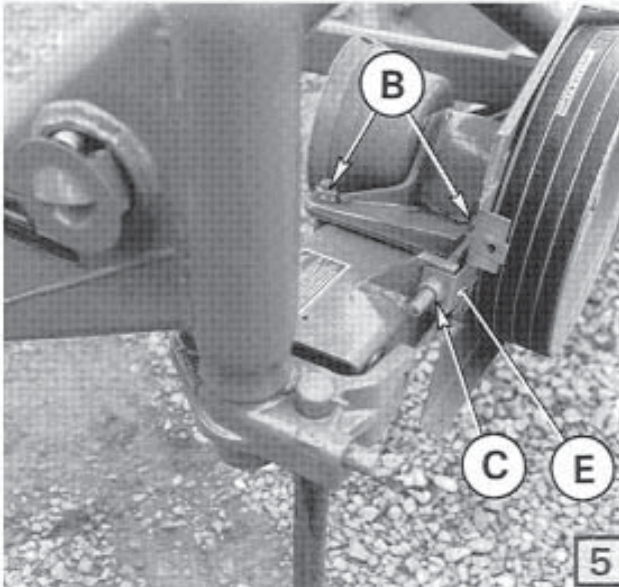
CAUTION : FOR YOUR PERSONAL SAFETY, BLOCKS SHOULD BE PLACED UNDER FRAME.

2. Install the inner belt shield (C) (photo 3) and secure with three spacer bolts (B) taped on the stop chain (photo 2).

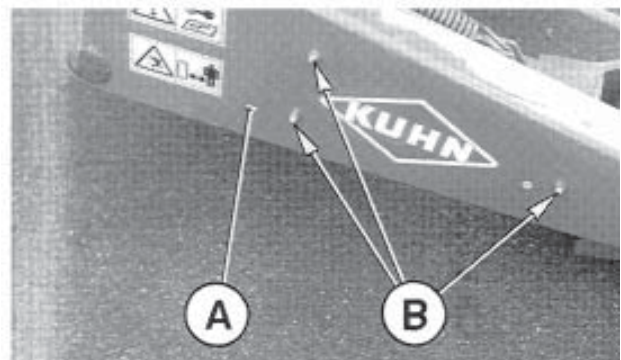


3

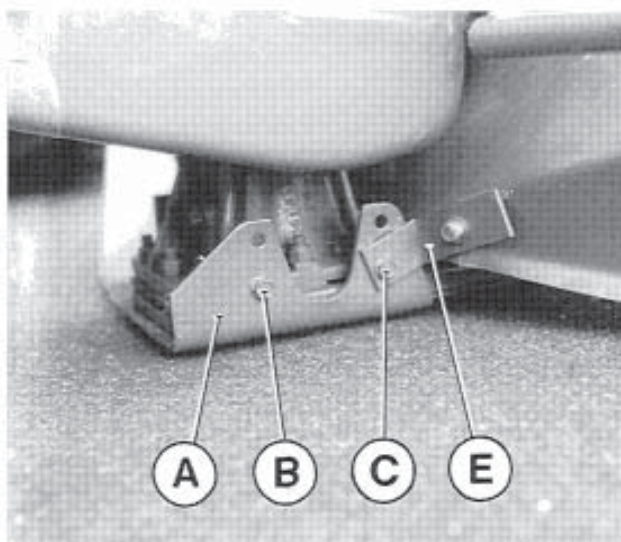
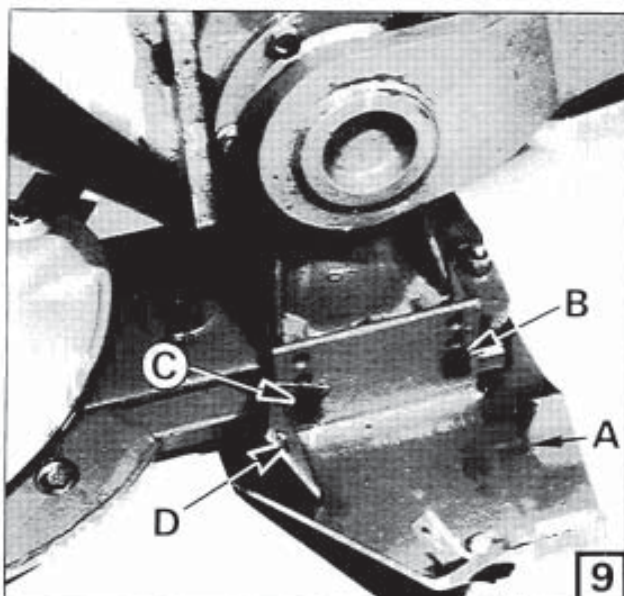
3. Unscrew nut (C), place plate (E) in proper position, add a washer (dia. 16 x 30 x 3) and refit nut (C) (photo 5).
4. Install the belts, tighten until it requires a force of 9 kg (20 lbs) to deflect belt 19 mm (3/4") by loosening nuts (B) and tightening nut (C) (photo 5).
5. Make sure that pulley housing guide (A) (photo 7) is against main frame. Tighten nuts (B) after correct tension is obtained.



6. Install outer belt shield (A) (photo 8) and secure with the 3 washers and nuts at (B).

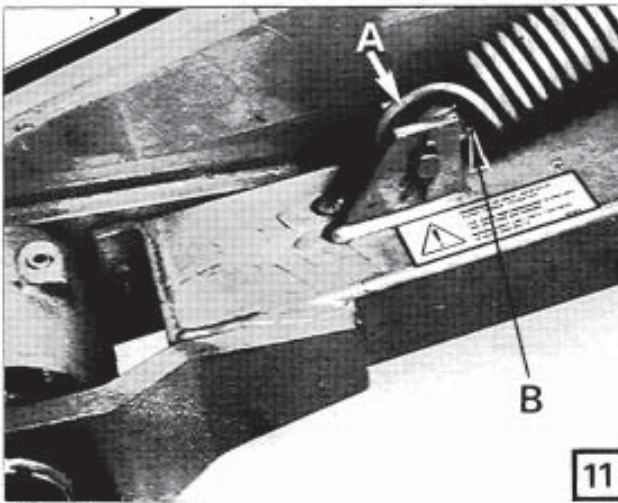


7. Attach the inner shoe (A) loosely using the lower positions with 2 bolts (B) (M 10 x 16 mm) and 2 bolts (C) (M 10 x 20 mm) (photos 9 and 10). Attach brackets (D) and (E) with bolts (C) (photos 9 and 10).



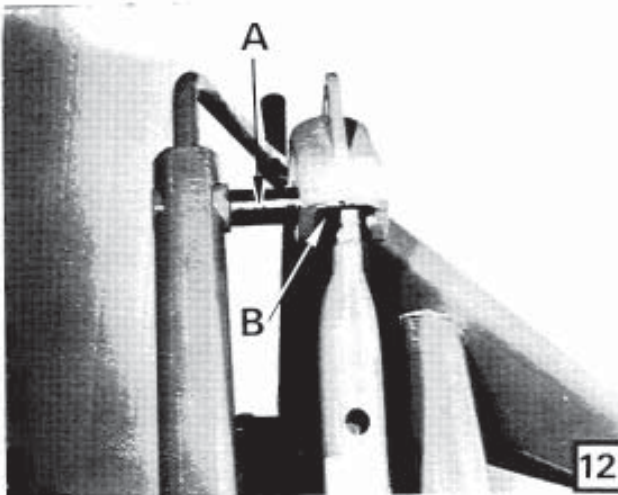
GMD 44 ONLY - CRATED

- Hook the end of the compensating spring (A) (fig. 11) around the end of the suspension rod (B) and attach to main frame with pin and split pin as shown.



GMD 44 ONLY - CRATED AND UNCRATED

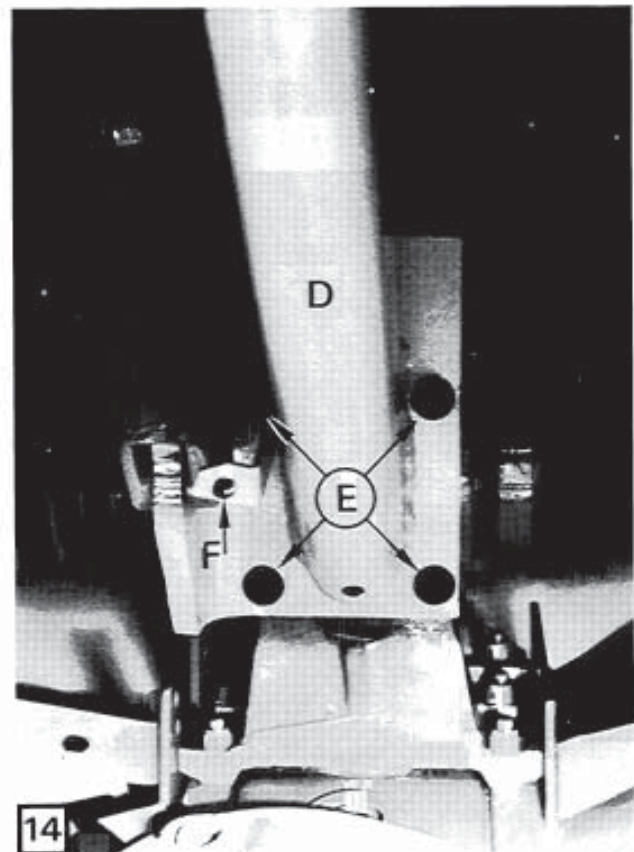
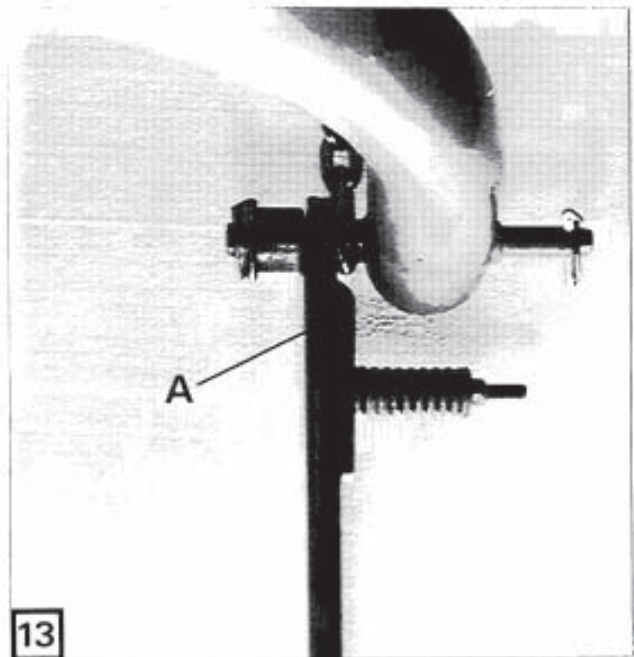
- Clean all paint from pin (A) (fig. 12) (hydraulic or mechanical lift) and drive pin through bush (B) and secure with roll pins.



ALL MODELS CRATED AND UNCRATED

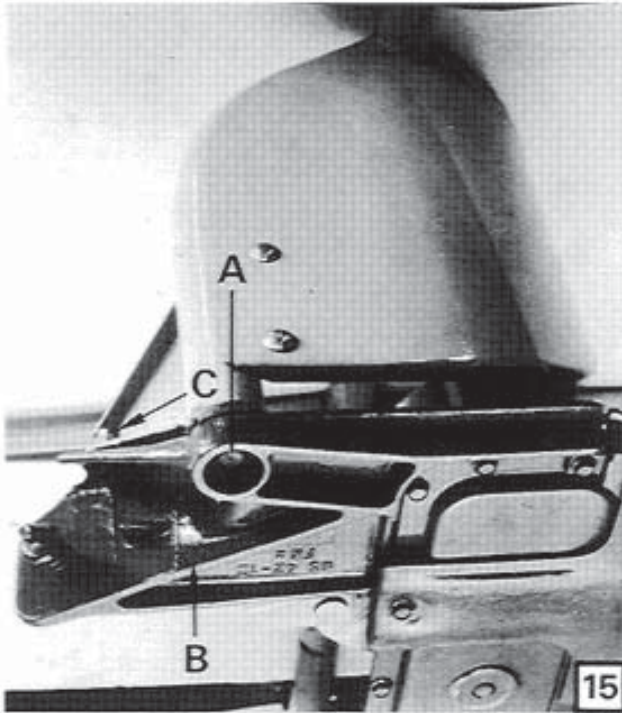
- Connect the breakaway latch (A) (fig. 13) to the 3-point frame as shown.
- Attach frame pipe (D) (fig. 14) to the gearbox with four 12 mm x 35 mm bolts at E (tighten to a torque of **14 daNm-100 ft.lbs**). Attach bracket (F) as shown.

NOTE :DO NOT YET TIGHTEN THE FOUR BOLTS AT (E) ON THE GMD 66.

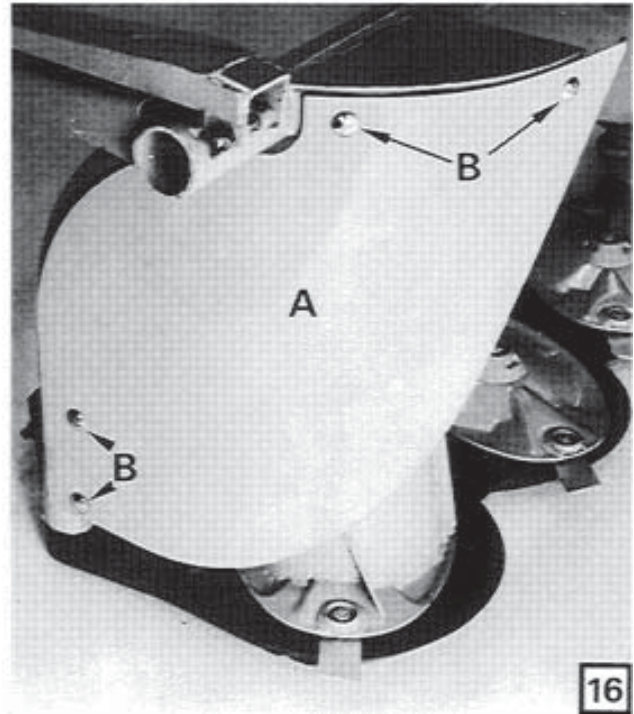


GMD 66 ONLY - CRATED AND UNCRATED

12. Clean threaded hole and attach the outer end of the frame pipe at (A) (fig. 15) with one 16 mm x 50 mm bolt. Tighten to **28 daNm / 210 ft.lbs.** Install and tighten a 12 mm x 30 mm bolt and lock nut at (C). Then tighten all bolts of the frame pipe (D) (fig. 14).

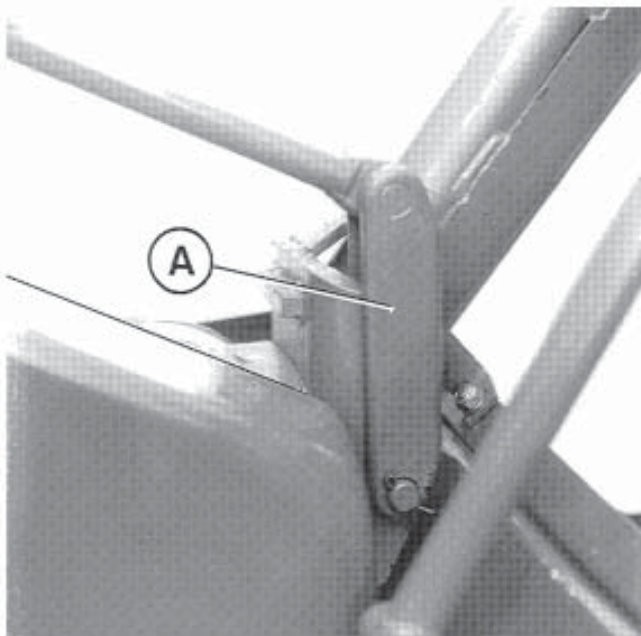


13. Attach the outer deflector (A) (fig. 16) with four 10 mm x 20 mm bolts and lock nuts at (B).



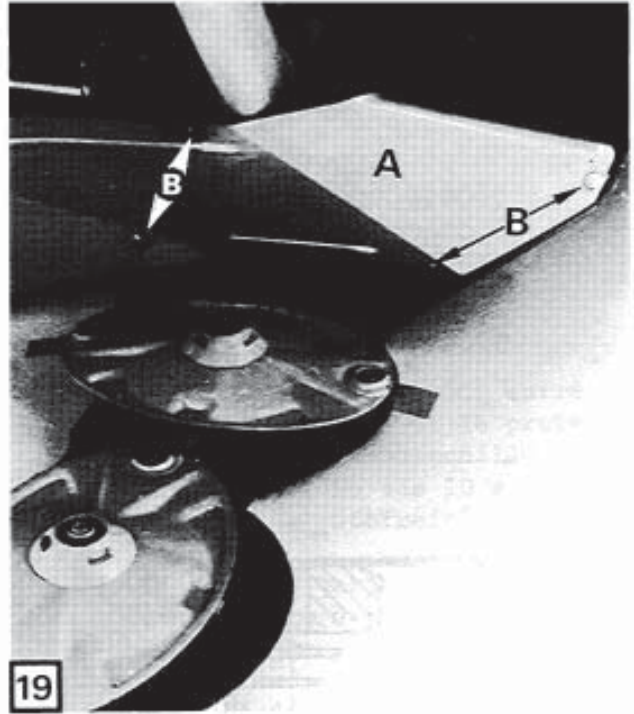
ALL MODELS - CRATED & UNCRATED

14. Attach the lift bracket (A) (photo 18) as shown with pin and cotter pin.

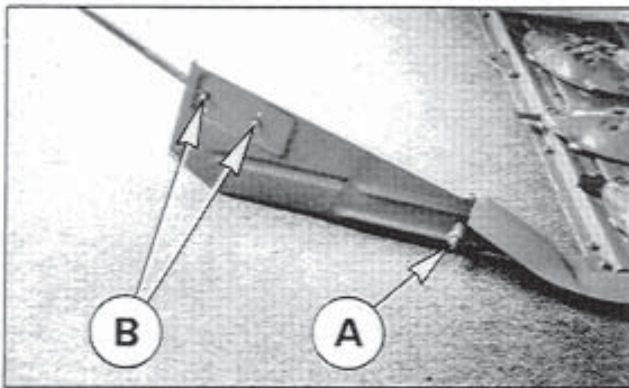


18

15. Attach the inner swath board (A) (photo 19) with four M 10 mm x 20 mm bolts, washers and nut at "B". Tighten all swath board bolts.

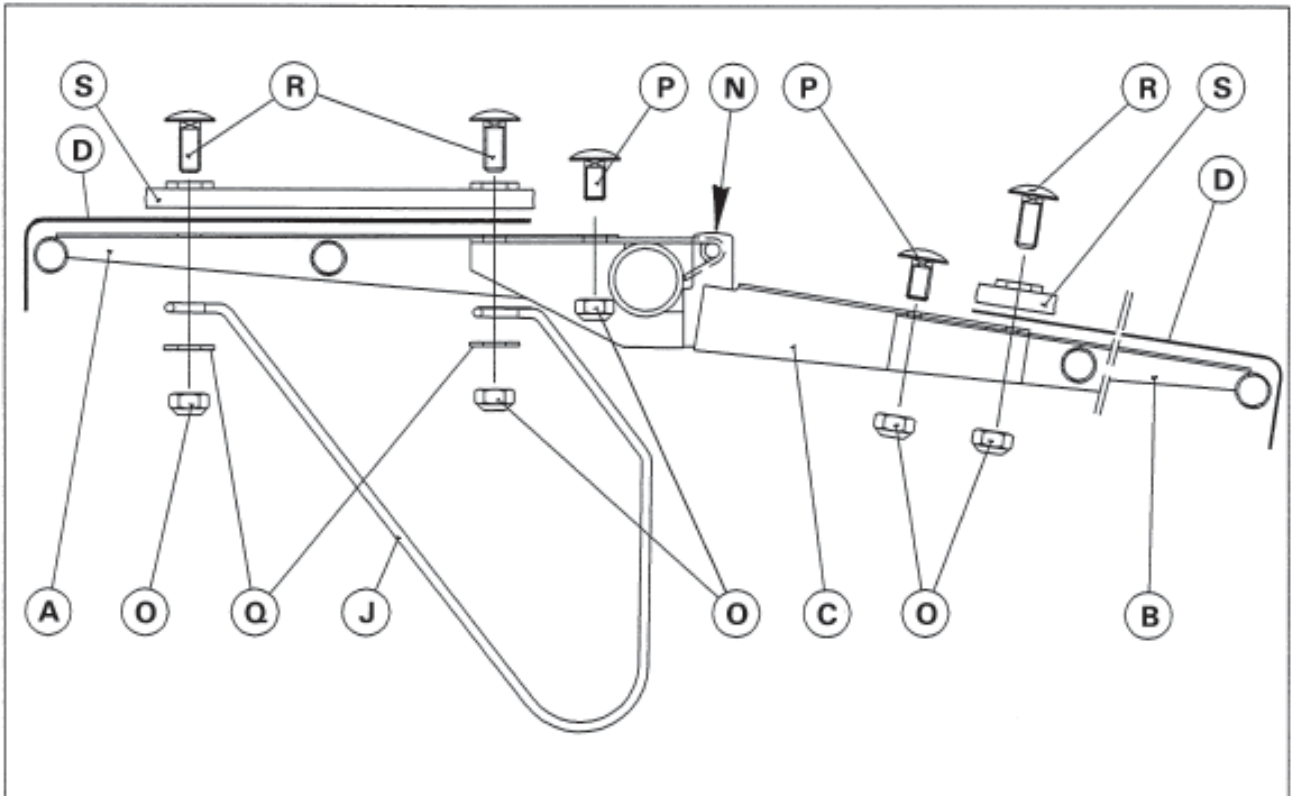


19

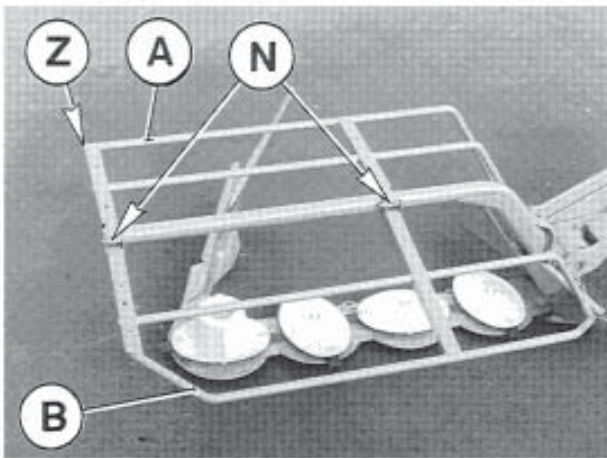


20

16. Attach the swath board assembly at "A" (fig. 20) with one M 12 mm x 80 mm carriage bolt (J), spring, washer and lock nut. Tighten nut enough so swath board can still pivot freely. Attach swath stick at "B" with self locking nuts.

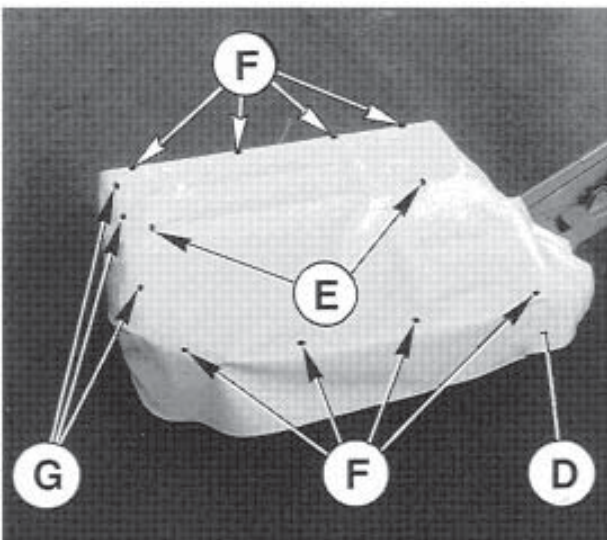


21

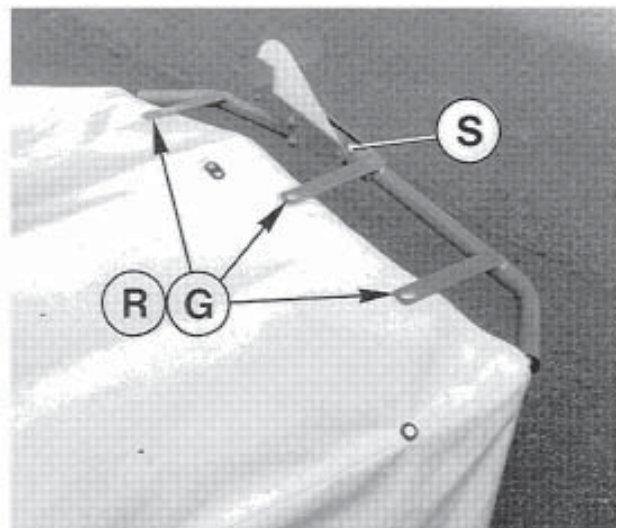


22

- Attach the front safety bar (B) to its 3 hinges (C) with the cup square bolts (P) (M 10 x 25) and self-locking nuts (O) (M 10) (fig. 21).
- Then attach the pre-assembled front safety bar (B) at (N) with hexagonal screws (M 12 x 75) and self-locking nuts (M 12) (photo 22). Do not tighten these screws completely, so that the front safety bar can still pivot.
- Next attach rear safety bar (A) with round head bolts (P) (M 10 x 25) and self-locking nuts (O) (M 10) (fig. 21 and photo 22). Fit end-plug (Z) on rear safety bar (A) (photo 22).



23



24

- Install cover (D) as shown in photo 23. Buckle straps around the pipe frame at (E). Buckle straps (F) around front and rear safety bar.
All these straps are attached to the underneath of the safety cover.
- Punch 3 holes in the safety cover at (G) and use 3 cup square bolts (R) (M 10 x 35) with self-locking nuts (O) (M 10) and plain washers (Q) (dia. 11 x 24 x 2) to attach the following components on the outside arms of the safety bars : safety guard locking device (S) ; safety cover (D) ; stop rod (J) (**only for GMD 44 and 55**) (see fig 21 and photos 23 and 24)

Note : Make sure that the pivot axis of the safety guard locking device (S) is lined up with the pivot axis (N) of the front safety bar before tightening self-locking nuts (O).



DANGER

CAUTION : ALWAYS OPERATE MOWER WITH SAFETY COVER IN PLACE AND THE FRONT END OF THE COVER LOWERED. NEVER LEAN AGAINST OR STAND ON SAFETY COVER.

NOTE : The safety guard locking device is operated with an 16mm box spanner (T) to be stored in the toolbox.

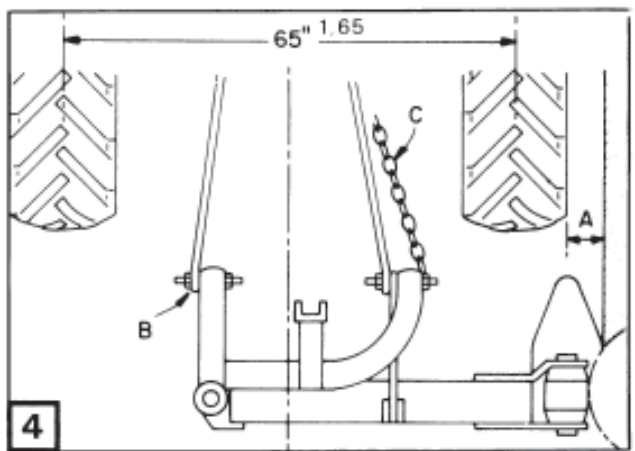
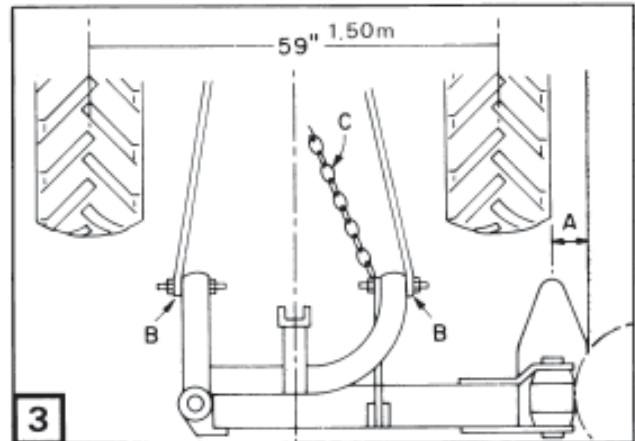
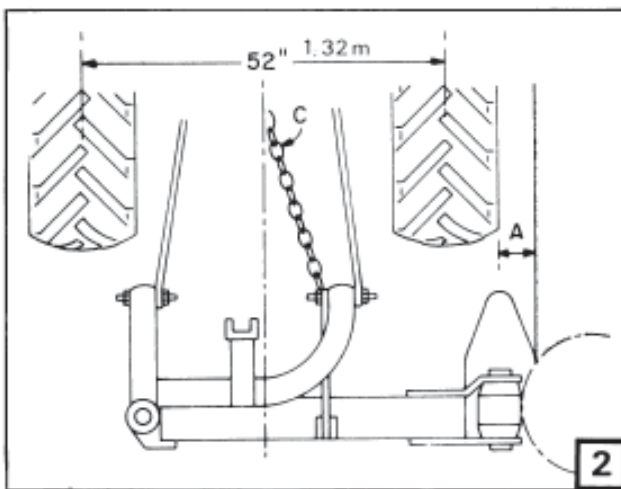
FITTING TO THE TRACTOR

If the tractor tyre centres are 1.32 m (52") the lower links should be positioned as shown in fig. 2.

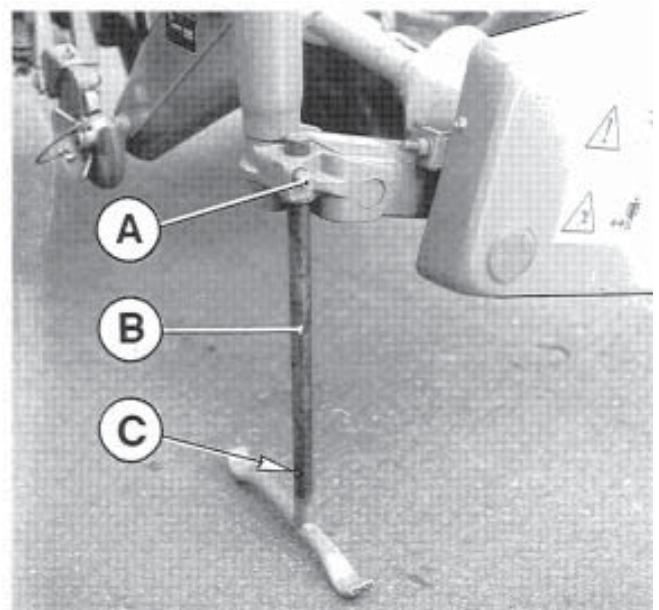
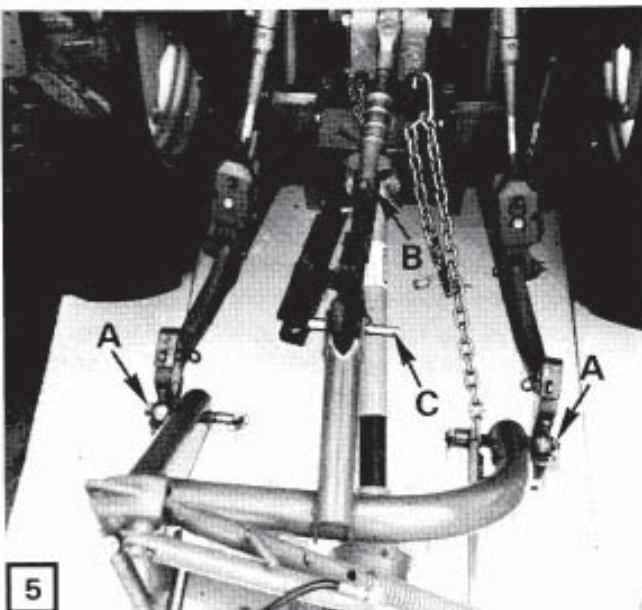
For 1.50 m (59") centres, position the lower links as shown in fig. 3.

For larger tractors with a 1.65 m (65") centre, position the links as shown in fig. 4.

For all 3 attachments a clearance of 10 cm (4") should ideally be held at "A" for a full cut of the cutterbar at all times.



1. Back the tractor to the mower and attach the lower links to the hitch pins. Secure the links with lynch pins shown at A (photo 5).
2. Attach the top link (B) using the pin provided at (C) (photo 5). Two positions are available on the pin, depending on the diameter of the ball joint, to secure the link to the mower.
3. Connect the hydraulic hose to the tractor if the unit is equipped with the hydraulic lift. See optional equipment for adaptors having different threads.
4. Raise the mower with the tractor hydraulics and depress the pin (A) (photo 6) and raise the parking stand (B). Lock stand in notch (C) during transport and field operation.

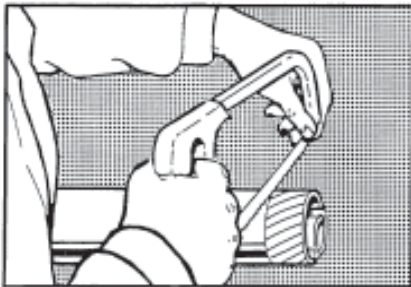


P.T.O. SHAFT

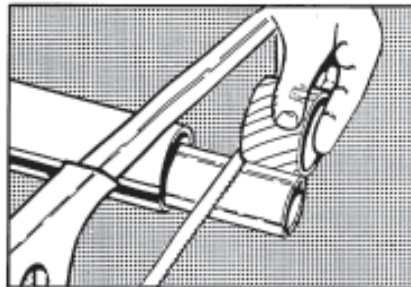
Connect the PTO shaft to the **540 rpm tractor drive** (with the free wheel fitted on the machine side).

Make sure PTO length is correct :

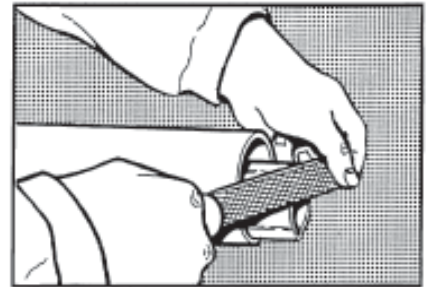
- 1° When the PTO is in its maximum extended position, a minimum tube overlap of 100 mm (4") must be maintained.
- 2° When the PTO is in its maximum overlap position (retracted), tubes should not butt against the yokes. As a safety measure a clearance of at least 1 cm (0.4") must be maintained. If this is not the case, shorten the two transmission tubes and the two guard tubes by the same length (photos 8 and 9). Bevel and clean the tubes (photo 10) and grease the inside of the outer tube (photo 11).
- 3° Never operate the PTO at too great an angle (30° maximum) (photo 13).



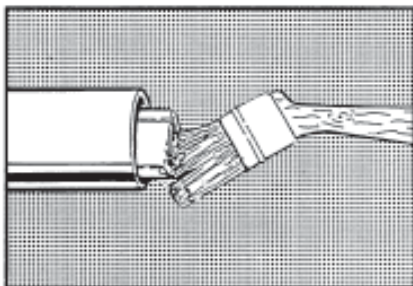
8



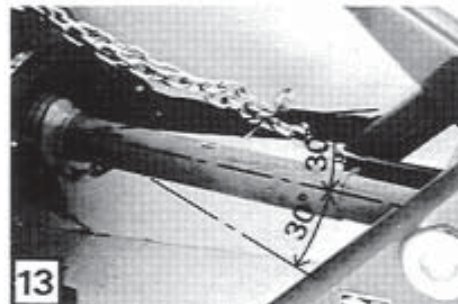
9



10



11



13



ATTENTION

These recommendations and adjustments must be respected to avoid damage or premature wear of the PTO.

Never connect the PTO to the 1000 rpm tractor drive.



DANGER

To avoid accidents which could be serious, make sure that the guards are always correctly in place and secured with the safety chains. On machine side the safety chain must be attached to the breakaway latch. Damaged guards should be replaced immediately.



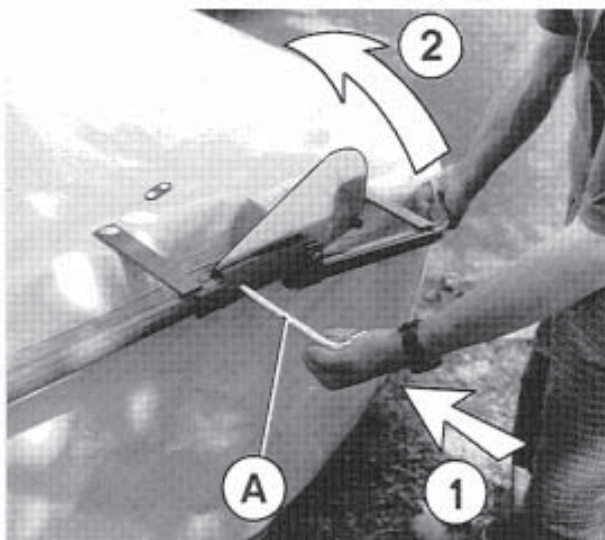
TRANSPORT

To transport the machine on public highways or from one field to another, proceed as follows :

1. Disengage the PTO drive and wait for all movement to stop.
2. Raise the machine with the tractor 3 point linkage.
3. Locate pin (A) (photo 14) into the transport position to lock the spring compensating system.



4. Release lock by applying pressure with the box spanner (A - arrow 1) supplied with the machine and fold the front safety bar upwards (arrow 2) (photo 24) till it is automatically locked in transport position.



15

5. Lift the cutterbar with the hydraulic lift or the mechanical handle.
6. Remove the chain from the tractor upper link and install it as shown at "A" (photo 16).



CAUTION : ALWAYS TRANSPORT THE MULTIDISC MOWER WITH THE CHAIN CONNECTED BETWEEN THE CUTTERBAR AND 3-POINT FRAME.



BEFORE TRANSPORTING THE MACHINE ON THE PUBLIC HIGHWAY, THE OPERATOR SHOULD MAKE SURE THAT THE MACHINE CONFORMS TO THE HIGHWAY CODE.

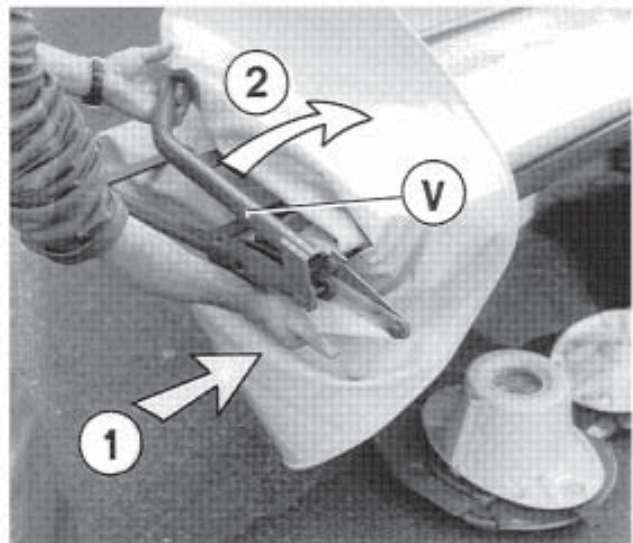
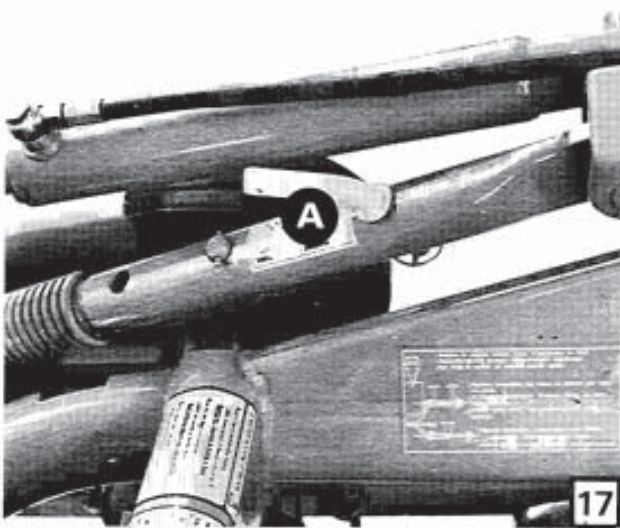
LOWERING THE CUTTERBAR AND ADJUSTMENTS FOR WORK



WARNING : BEFORE PUTTING THE MACHINE IN WORK OR TRANSPORT POSITION, ENSURE ALL PERSONS ARE WELL CLEAR OF THE CUTTERBAR PIVOTING AREA.

1. Locate pin (A) (photo 17) in the working position. This will unlock the compensating system.
NOTE : Cutterbar must be in raised or transport position.
2. Remove the chain (A) (photo 16) from the cutterbar.
3. Lower the cutterbar to the operating position with the hydraulic lift or mechanical handle.

4. Release lock by applying pressure with the hand palm (arrow 1) and fold front safety bar (V) downwards (arrow 2) (photo 18) till it is automatically locked in working position.

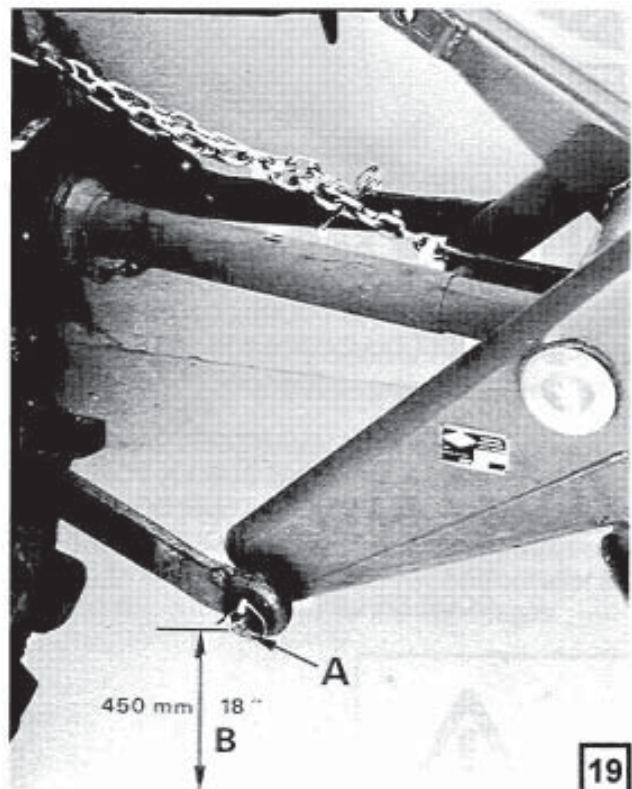


18

CUTTERBAR HEIGHT

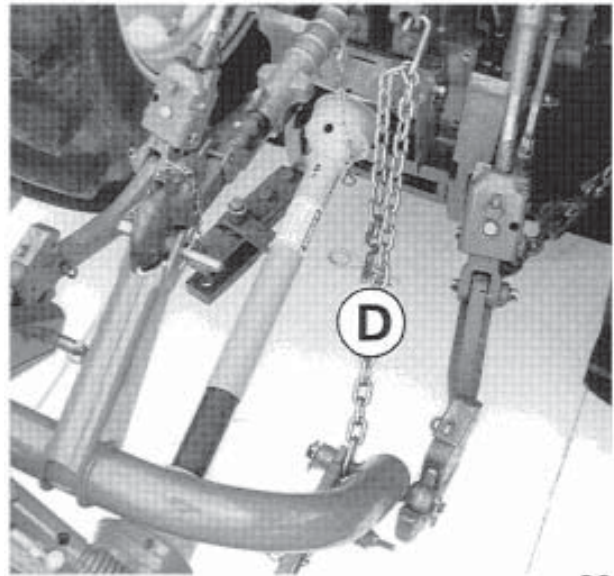
1. Adjust the mower with the tractor hydraulic lift system, to a height of 450 mm (18") at the center of the hitch pins as shown at (A).
2. Attach the chain (D) (photo 20) to the tractor clevis with the hook. If the tractor does not have a hole for the hook, a long bolt can be used to attach the top link and the hook can be attached to the bolt. Completely lower the tractor linkage, height adjustment is correct when :

- the cutterbar is resting on the ground
- the chain (D) is tight
- the distance between the hitch pins and the ground is 400 mm (16").



19

The chain must carry the weight of the mower in operation and not the hydraulic system. Recheck the height and adjust chain accordingly. After correct height is obtained the roll pin can be driven into the hook to retain hook in correct link. Attach end of chain with hairpin cotter to lift chain.



20

BREAKAWAY LATCH

In rough field conditions the ground speed should be reduced. The mower is protected with a breakaway latch and if an obstruction is hit, the cutterbar must swing back (photo 21).

IF THE LATCH RELEASES, STOP THE TRACTOR IMMEDIATELY AND DISENGAGE THE PTO.

To reset the cutterbar, back the mower until the cutterbar is in its normal position. Do not raise the cutterbar to relatch the breakaway. The latch is set at the factory and in most conditions will be satisfactory. Before using the mower the breakaway linkage must be checked to make sure the components are not rusted fast.

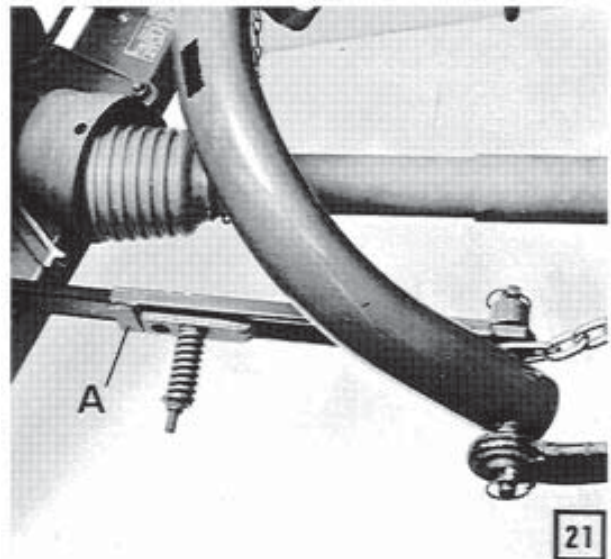
NOTE : MAKE SURE ALL SLIDING AREAS ARE WELL GREASED.

Check for any cutterbar damage if an obstruction is encountered.

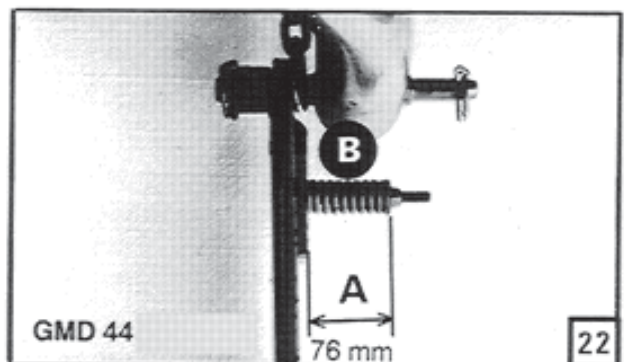
If the cutterbar continues to break away, the spring (B) (fig. 22) can be tightened to increase the breakaway pressure. Normally for the GMD 44 the overall spring length (A) should be 76 mm (3").

For the GMD 55/66, the spring washer length should be 94 mm (3 3/4") as shown at (Y) (fig. 22A).

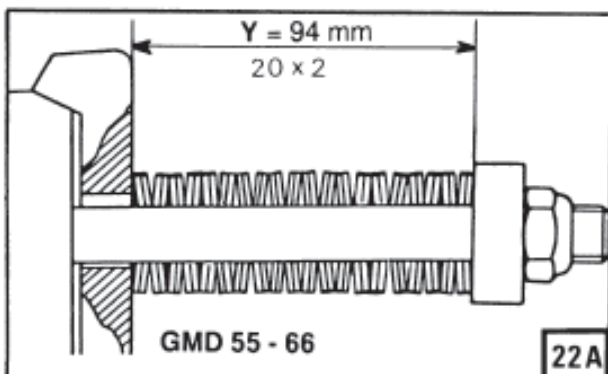
NOTE : DO NOT OVERTIGHTEN.



21



22



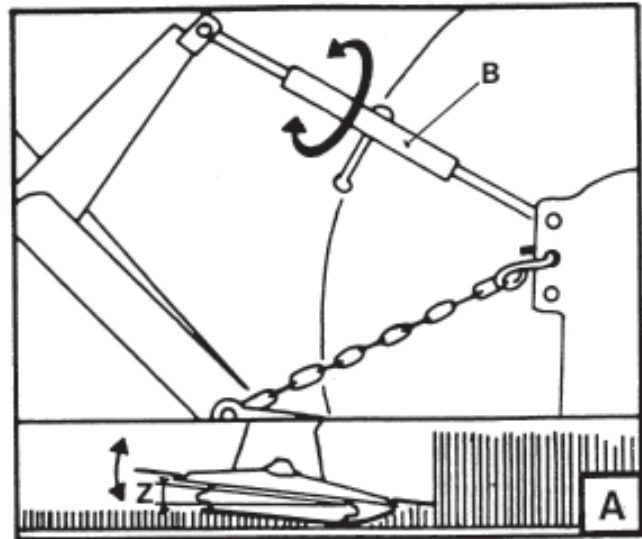
CUTTING HEIGHT

The cutting height can be changed by tilting the angle (Z) (fig. A) of the cutterbar. To change the angle, turn the top link handle (B) (fig. A) until the desired cutting height is obtained.

For most conditions the skid shoes should be parallel to the ground. Cutting too close to the ground will cause excessive wear on the discs and knives.

SWATH STICK

The wooden swath stick can be adjusted into 6 positions for when working in varying crop conditions.



OPERATING THE MOWER

Release lock by applying pressure with the hand palm (arrow 1) and fold front safety bar (V) downwards (arrow 2) (photo 23) till it is automatically locked in working position.



DANGER

ENSURE THAT THE SAFETY CURTAIN IS COMPLETELY IN PLACE AROUND THE CUTTERBAR.

Safety curtain will avoid projection of most foreign objects.

Always allow a few minutes for oil to spread in the cutterbar before engaging PTO when changing cutterbar from transport to operating position.

Before cutting, engage tractor PTO and slowly increase speed up to 540 rpm.

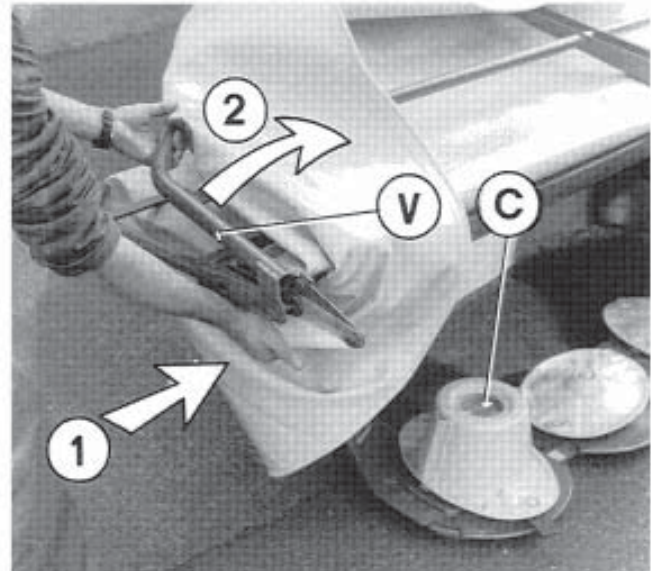
Do not be disturbed by the high pitched whine of the discs. This will be reduced to some extent when cutting.

Forward speed must be adapted to working conditions and should be reduced when mowing dense crops.

A slower ground speed may have to be used in heavy down crops.

Check correct fixation of plugs (C) (photo 23) on the outer and inner disc cone.

Replace lost or worn plugs immediately.



23

ADVERSE FIELD CONDITIONS



DANGER

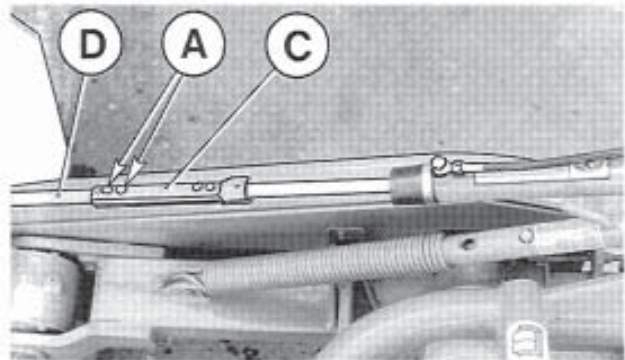
NEVER MOW IN STONY OR ROCKY GROUNDS.

Extra care and precautions should be taken in rough or debris-ridden fields. The following adjustments should be made to the mower in these conditions to minimize the possibility of foreign objects being deflected by the cutting knives.

1° Tilt the angle (Z) of the cutterbar back towards the horizontal position by turning the top link handle (B) (photo A) to raise the cutting height of the knives.

- 2° Reduce the forward speed.
- 3° Make sure the cutting knives can pivot if an obstruction is hit.
- 4° Use straight blades 561 500 00 (see optional equipment).

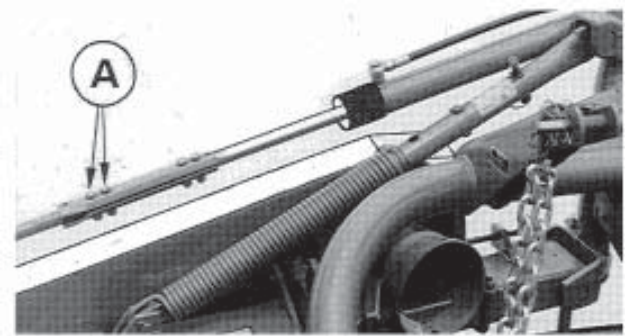
In order to work on slopes of more than 10° below horizontal with the GMD when equipped with hydraulic cylinder, remove two bolts (A) (photo 24), lengthen the lift rod (D) and turn the two connecting plates (C) over as shown in photos 24 A and 25.



24



24A



25



ATTENTION

NEVER OPERATE THE MOWER WITHOUT THE PLASTIC COVER IN PLACE. DO NOT LEAN AGAINST OR STAND ON THE GUARD COVER.



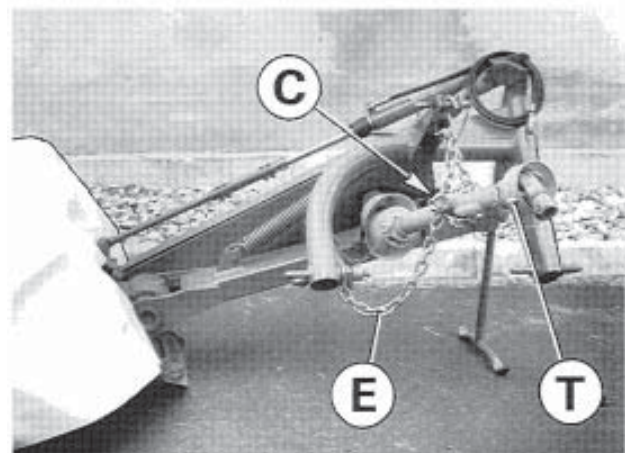
DANGER

BEFORE STARTING UP THE MACHINE AND DURING WORK, KEEP ALL PERSONS AND ANIMALS FROM THE DANGER ZONE OF THE MACHINE (RISK OF PROJECTION !).

PARKING THE MACHINE

To park the machine proceed as follows :

- Be sure the cutterbar is in its vertical transport position.
- Disconnect stop chain on tractor side.
- Pull out the stand (D) and bring it down.
- Lower the cutterbar down to the horizontal position.
- With the hydraulic 3 point lift, lower the machine to the ground and disconnect the top link, the lower links and then the hydraulic hose.
- Disconnect the PTO shaft (T), support it with the stop chain (E) and secure with spring cotter pin (C) as shown in photo opposite.



FOR YOUR SAFETY ONLY PARK THE MACHINE WITH THE CUTTERBAR IN THE HORIZONTAL POSITION.

LUBRICATION

IMPORTANT : It is very important that the oil in the bevel gearbox and the cutterbar is changed after the first ten hours' use with SHELL E.P. SAE 80 GL4 OIL ONLY. Thereafter, it should be changed every 100 ha (250 acres) or at least once per year.

The pressure relief valve (A) (fig. 26) located on the side of the bevel gearbox must also be unscrewed and cleaned after the first ten hours and thereafter should be checked and cleaned regularly. The ball detent must be free to relieve pressure.

BEVEL GEARBOX

Check the oil in the gearbox daily and add EP SAE 80 GL4 oil as required through the fill plug (B) (fig. 26). The maximum oil capacity of this gearbox is as shown in the table below and it is important not to exceed this quantity.

GEARBOX OIL CAPACITY

Litres	U.S. Pints	Imp. Pints
0,25	0.5	0.5

Plug (C) serves as a check plug when the bar is horizontal. Remove plug (C). When oil level is correct, it will just begin to flow out of the hole. Plug is also used as a drain plug when the cutterbar is in the vertical transport position. Let old oil drain into an appropriate container.

CUTTERBAR

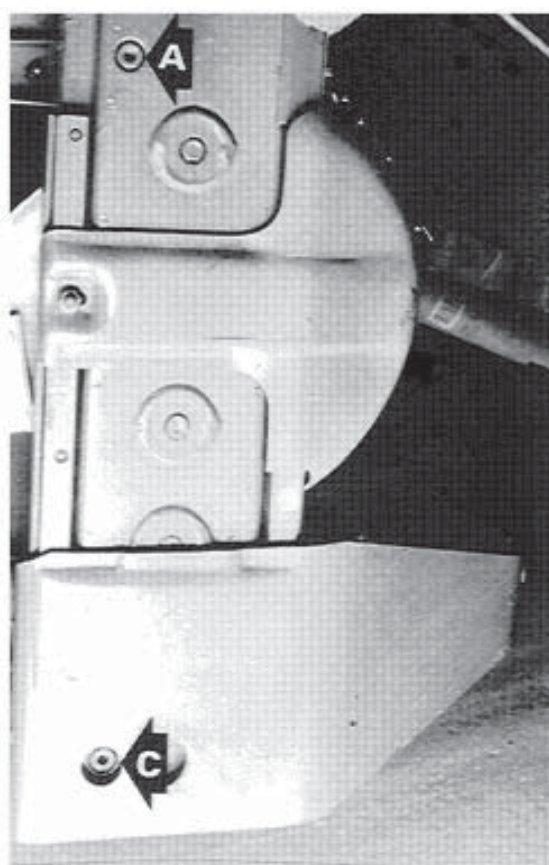
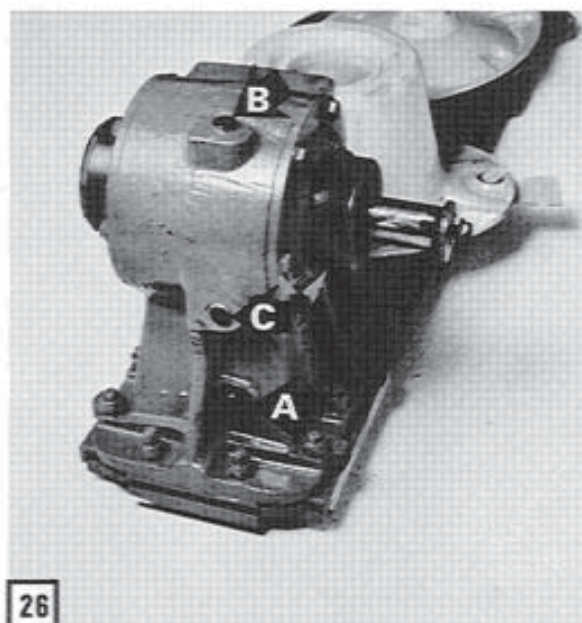
Add EP SAE 80 GL4 oil to the cutterbar at fill plug (A) (fig. 27). The oil level is correct when oil flows out of the fill plug hole.

NOTE : Make sure the cutterbar is in the vertical or transport position when checking or adding oil.

CUTTERBAR OIL CAPACITY

	Litres	U.S. Pints	Imp. Pints
GMD 44	1,75	3,75	3,00
GMD 55	2,00	4,25	3,50
GMD 66	2,25	4,75	4,00

NOTE : Provided above instructions are strictly observed, there is no cause for alarm if it is found that the transmission case is very hot to touch by hand, provided that the discs turn freely by hand. The normal operating temperature can be up to 90°C.



To drain oil, remove magnetic drain plug (C) (fig. 27) located underneath the cutterbar below the level gearbox. Oil should be drained immediately after use while still warm. Let old oil drain into an appropriate container. Clean all metal particals off the magnetic drain plug before refitting.

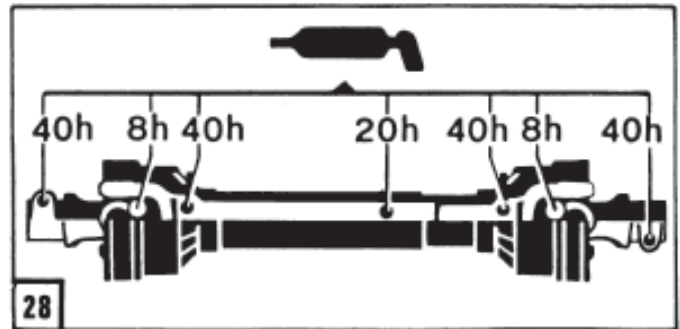
NOTE : Should the cutterbar be operated at angles in excess of +/- 20° from the horizontal for long periods of time, it is recommended that the oil quantity in the cutterbar is reduced by 25 %

It is also recommended that the bar is placed in the horizontal position for a few minutes every 1/2 hour.

GREASE FITTINGS

Lubricate the following areas with a grease gun containing a good grade of SHELL RETINAX A grease every eight hours of use. Wipe dirt from fittings before applying grease. Oil all pivot and linkage points every fifty hours. Grease break-away sliding components as required.

Lubricate the PTO shaft at the hourly intervals indicated in fig. 28.



LUBRICATE ALL PIVOT & LINKAGE POINTS ON THE MACHINE.

ATTENTION : ON NO ACCOUNT SHOULD THESE SPECIFIED QUANTITIES BE EXCEEDED OR ALTERNATIVE OIL GRADES USED, OTHERWISE PERMANENT DAMAGE TO THE MACHINE WILL BE INCURRED !

E.P. SAE 80 GL4 OIL ONLY !

(In certain countries SAE 80 GL4 may not be available. In this case a GL4 or GL5 grade SAE 80 W 90 oil may be used as a replacement).

TO ENSURE TROUBLE FREE OPERATION OF YOUR MACHINE WE RECOMMEND SHELL LUBRICANTS.



It is forbidden to discard oil, grease or filters of any type. These must be given to specialised waste disposal organisations to protect the environment.

ADJUSTMENTS AND MAINTENANCE



BEFORE CARRYING OUT ANY OPERATION SUCH AS MAINTENANCE OR ADJUSTMENT ON THE MACHINE, STOP THE TRACTOR ENGINE, REMOVE IGNITION KEY AND WAIT FOR ROTATING DISCS AND ROTOR TO STOP COMPLETELY BEFORE LEAVING THE TRACTOR.

DISCS AND KNIVES

Discs, knives and bolts are fabricated from high quality steel and undergo a special heat treatment process to ensure a tough wear resistance and hence a longer life.

WORN OR DAMAGED ITEMS MUST BE REPLACED IMMEDIATELY WITH GENUINE KUHN SPARE PARTS OTHERWISE ALL WARRANTY IS RENDERED NULL AND VOID.

Whenever the cutting knives become worn or dull, they should either be changed to use the other cutting edge or be replaced. Dull knives will require more horse power to cut the material and will leave a ragged stubble.

To replace a knife, remove the dirt around the nut shown at (A) (fig. 29) and remove nut with a socket wrench.

Two types of knives are fitted on the multidisc mower, for clockwise and anti-clockwise rotating discs. When fitting blades, make sure that they are fitted to their correct disc. The arrow on the upper face of the blade should be pointing in the direction of rotation of the disc it is to be fitted to (fig. 29). Make sure that the nut and blade bolt are in good condition and replace if worn or damaged.



IMPORTANT : REPLACE FIXING NUTS AND BOLTS AFTER HAVING BEEN REUSED A MAXIMUM OF 5 TIMES.

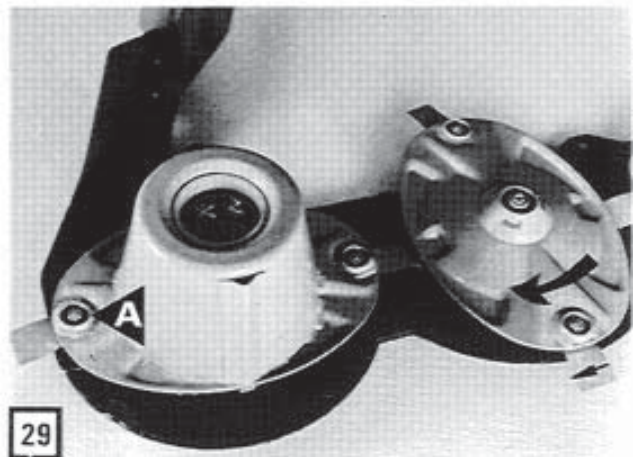
ATTENTION : ALWAYS REPLACE DAMAGED KNIVES. NEVER STRAIGHTEN A BENT KNIFE. NEVER REPLACE ONE KNIFE ONLY PER DISC, ALWAYS REPLACE BOTH OF THEM TO AVOID CREATING AN OUT-OF-BALANCE FORCE.

The oval discs are fitted on splined shafts and must be positioned at right angles to each other (fig. 29). In this position, contact between the discs is avoided. Should the ribbed faces on the disc become excessively worn simply fit the disc to an opposite rotating pinion gear to utilise the second face. Do not weld as this will lead to out-of-balance forces.

Take extra care when fitting the convex spring washers (R) (fig. 30) in the disc centres, these must be positioned with the convex or high centre upper-most. Tighten self-locking nuts (Q) (fig. 30) to the correct torques. It is important that the dust seal washers (P) (fig. 30) fitted underneath the discs, are correctly positioned on GMD 44 / 55 / 66.



CAUTION : WHEN CARRYING OUT SERVICE OR ADJUSTMENTS TO THIS MACHINE, TURN OFF THE TRACTOR ENGINE AND DISCONNECT THE PTO SHAFT BETWEEN THE TRACTOR AND MACHINE.

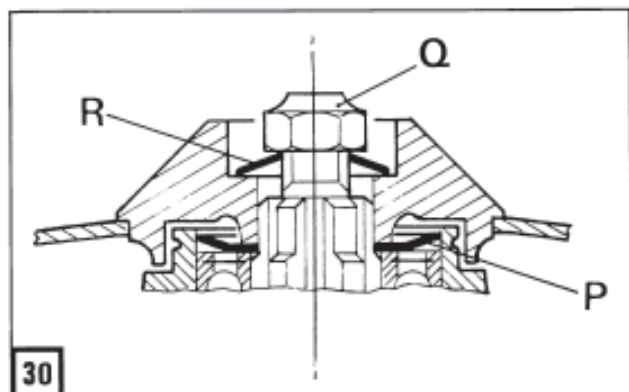


TIGHTENING TORQUE OF KNIFE FIXATION HARDWARE :

- GMD 44 / 55 / 66 : 7,5 daNm / 55 ft.lbs.

TIGHTENING TORQUE OF A DISC FIXATION NUT :

- GMD 44 / 55 / 66 : 18 daNm / 130 ft.lbs.

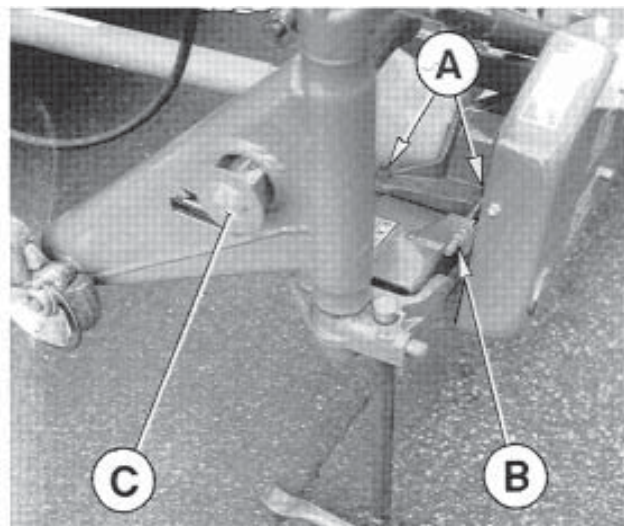


BELTS

The belts must be properly tensioned at all times to prevent excessive slipping and flopping. Loose belts will also cause poor cutting and premature failures. To tighten the belts, loosen the two nuts (A) (fig. 32). Tighten nut (B) until it requires a force of 9 kg (20 lbs) to deflect belts 19 mm (3/4") mid-way between pulleys. Make sure guide on housing is against main frame.

Belt tension is correct if deflection does not exceed 10 mm (2/5") when belts are pressed upon with a force of 3,5 daN (8 lbs).

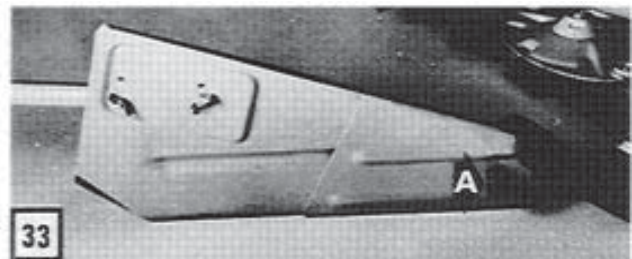
Belt tension must regularly be checked, especially during the first few hours of use. Only replace belts as a complete set.



32

TOOLBOX

A toolbox (C) is fitted into the side of each main frame (fig. 32) and contains one set of standard replacement knives, a quantity of blade bolts, nuts one 8 mm allen key and one 16 mm box spanner.



33

CROP DIVIDER

Tighten the compressing spring (A) (fig. 33) so the divider can move freely if an obstruction is hit.



CAUTION : REGULARLY CHECK ALL NUTS AND BOLTS FOR TIGHTNESS PARTICULARLY THOSE SECURING THE DISCS AND BLADES



1. KEEP ALL SHIELDS IN PLACE AND REPLACE IMMEDIATELY USING GENUINE KUHN SPARE PARTS IF WORN OR DAMAGED.
2. TO CARRY OUT SUCH OPERATIONS AS LUBRICATION, CLEANING, UNBLOCKING OR ANY ADJUSTMENTS, STOP THE TRACTOR ENGINE, REMOVE IGNITION KEY AND DISCONNECT THE PTO SHAFT, UNLESS OTHERWISE STATED IN THIS OPERATORS MANUAL.
3. WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING THE MACHINE.
4. KEEP HANDS, FEET AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
5. KEEP OFF EQUIPMENT UNLESS SEAT FOR OPERATION IS PROVIDED.
6. BEFORE STARTING UP THE MACHINE AND BEGINNING WORK, KEEP ALL PERSONS AND ANIMALS AWAY FROM THE DANGER ZONE OF THE MACHINE (RISK OF PROJECTION!).

INSPECTION OF KNIVES AND SECURING ELEMENTS

A. **KNIVES** : Should be inspected systematically each time before the machine is operated.

The quality of cut as well as safe operation depend on the regular inspection and care you give to the knives. Knives should be replaced in the following cases :

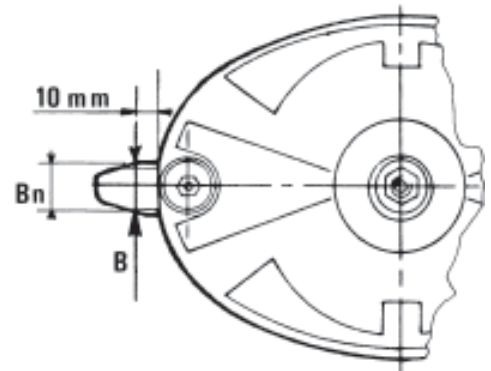
1. Damaged knives

Very rough conditions can cause your knives to crack and become deformed leading to :

- an increase in the risk of accidents ;
- a deterioration in the quality of cut ;
- a risk of damage to the cutterbar.

2. Worn knives

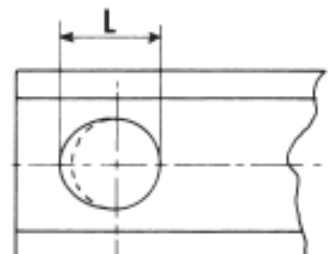
The width (B) of a knife, measured at a distance of 10 mm away from the edge of the disc should be greater than $\frac{3}{4}$ the nominal width of the knife.



The hole (L) for the securing bolt must not become oval by more than :

20 mm for a hole of 18 mm

18 mm for a hole of 16 mm



B. **SECURING ELEMENTS** : To be inspected regularly !

(particularly the tightening torque of the nut).

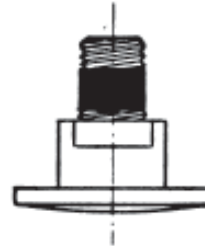
- Inspect immediately after hitting an obstruction.
- Inspect when replacing knives.
To avoid creating an out-of-balance force, the two KUHN knives fitted per disc must always be the same type.
- Check at the beginning of each season.

1. The securing bolt must be replaced :

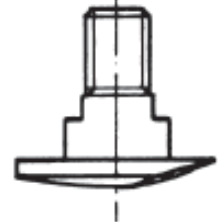
- When a visible deformation is found.



- When the locking compound on the threads has worn away or if the locking compound has become inoperational due to inclusion of water, oil or dirt.



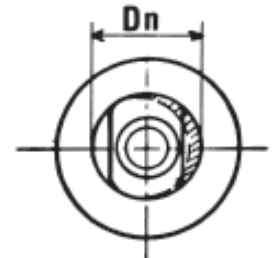
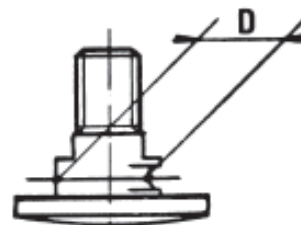
- When wear on the head reaches the contact area of the knife.



- When the diameter (D) of the bolt is less than :

15 mm for a hole of 18 mm

13 mm for a hole of 16 mm



2. The nuts must be replaced :

- When the contact washer has lost its elasticity or when it becomes loose from the nut,



- When wear on the nut reaches $a=H/2$



FOR THE CORRECT OPERATION OF YOUR MACHINE
ALWAYS USE GENUINE KUHN SPARE PARTS.

OPTIONAL EQUIPMENT

BLADES (For GMD 44 / 55 / 66)

For working in very light dry crops. The straight blades (561 500 00) or the reinforced straight blades (561 500 10) can be fitted to reduce wind turbulences (fig. 34).

Should working conditions be of the type that do not promote rapid wear on the knife then it is possible, if so desired, to use the previously standard blades (561 512 00 and 561 513 00) (fig. 35).



DISCS

For operating in extremely difficult conditions, a reinforced disc and knife kit is available for the 4, 5 and 6 disc multidisc mowers.

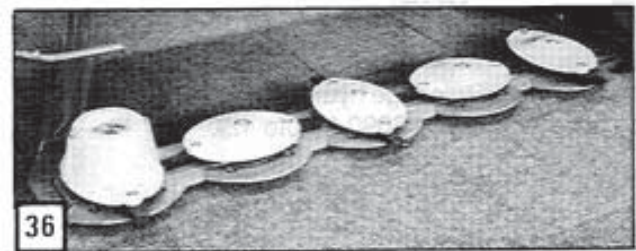
None of the items making up the sets are interchangeable with standard knives or discs.

When securing the disc, tighten to a torque of 18 daNm (130 ft/lbs) and for the knife 9 daNm (65 ft/lbs).

GMD 44 reinforced disc and knife kit : 101 6070

GMD 55 reinforced disc and knife kit : 102 6000

GMD 66 reinforced disc and knife kit : 103 6040



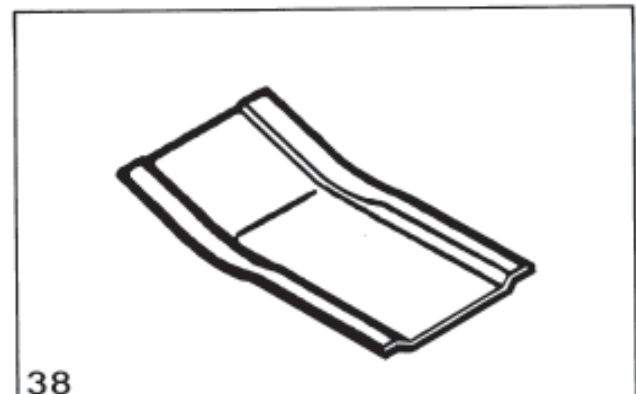
CUTTING HORN (062 023 00)

A cutting horn assembly can be fitted to the top of the GMD 44 / 55 outer cone disc should clogging occur in the area when mowing in certain difficult conditions (photo 37).



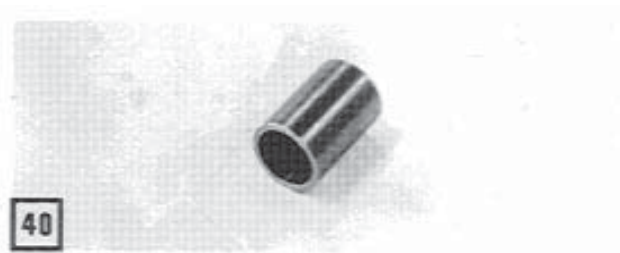
WEAR PLATE (563 302 10)

To prolong the life of worn disc guards when working in very difficult and abrasive conditions, wear plates are available through our spare parts department for welding to the underside of each individual disc guard (fig. 38).



CATEGORIE 2 BUSHES (590 010 00)

Category 2 lower link bushes are available for mounting the GMD 44 multidisc mower to tractors with category 2 linkage (photo 40).



LOWER LINK PINS - CAT. 2 (photo 41)

When GMD 55 / 66 are attached to tractors with category 2 linkages only, the two lower link pins can be replaced by two category 2 link pins : 562 040 00.



HYDRAULIC CYLINDER

The mechanical lift of GMD 44 multidisc mowers can be converted to hydraulic lift by fitting hydraulic cylinder assembly (101 6090) (photo 42).



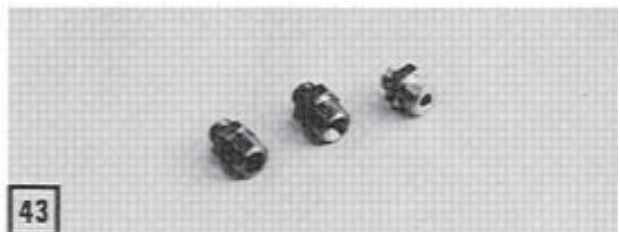
HYDRAULIC ADAPTATORS (fig. 43)

For fitting to different types of hydraulic connectors, three adaptators are available :

M16 x 1,5 / 1/2 GAZ - CON 22 (823 012 05)

M16 x 1,5 / 1/2 NPT - 24 (823 012 06)

M16 x 1,5 / 3/4 UNF - JIC (823 019 02)

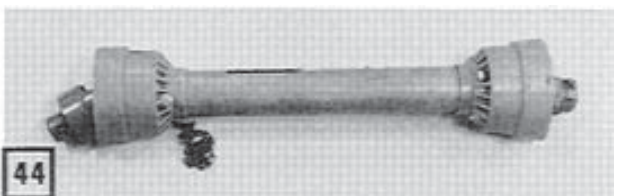


SPECIAL PTO SHAFT (fig. 44) (For GMD 44 / 55 / 66)

A reinforced PTO shaft including a free-wheel (4500 560) is available for the following cases :

- Where the standard PTO shaft is too short.
- When the tractor is equipped with a hydraulic PTO.
- When the angle of the PTO shaft is in excess of 25° when working.

Note : This PTO shaft is fitted as standard on the GMD 66 HD/77 HD model.

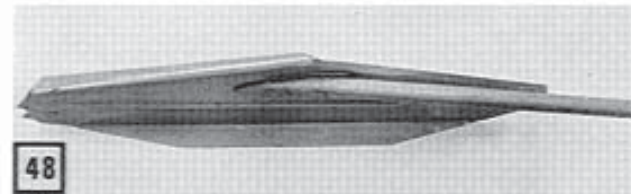


SWATH BOARD (Photos 47 and 48)

A narrower swath width can be achieved on GMD 55 / 66 multidisc mowers by fitting an inner swathboard assembly. This will bring the swath width down to about 1066 mm (42") on the GMD 55 and 1500 mm (59") on the GMD 66, depending on crop density.

A further reduction in swath width can be obtained by fitting, in addition, the longer outer swathboard which will reduce the width down to about 890 mm (35") on the GMD 55 and 1300 mm (51") on the GMD 66, depending on crop density.

Kit No. 103 6010.

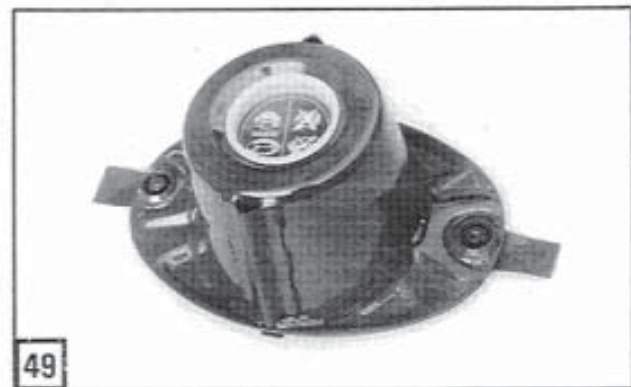


DISC WITH CONE (Photo 49)

Kit No. 104 6050 for GMD 55

In order to reduce swath width on the GMD 55, the first disc or the first and second discs can be replaced by one to two discs with cones (No. 104 6050) (photo 49).

When replacing disc, tighten correctly self-locking nut (Q) (fig. 30) : 18 daNm / 130 ft.lbs.



SIGNALLING ELEMENTS (photo 51)

Kit No. 102 6100

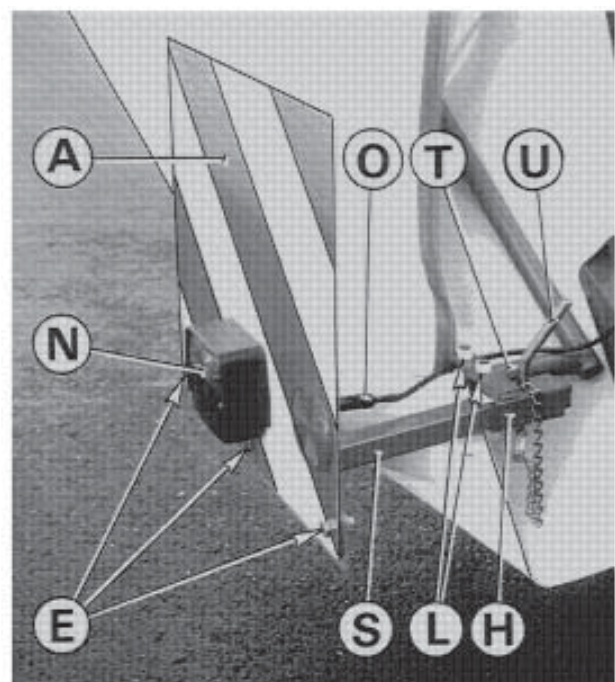
Signalling elements can be ordered as an optional extra. To install this kit proceed as follows :

- Attach tail lamp (N) to panel (A).
- Bolt panel (A) to support (S) with 3 hexagon screws (E) (M 10 x 20), 3 plain washers (dia. 11 x 24 x 2) and 3 self-locking nuts (M 10).
- Attach guide (H) to the rear guard tube (T) with an U-bolt and 2 self-locking nuts (L) (M 10).
- Plug electric cable (O) into the lamp terminal (N).

In transport position mount the panel (A) with its support (S) in the guide (H) with lock (U) and plug electric cable at the rear of the tractor.



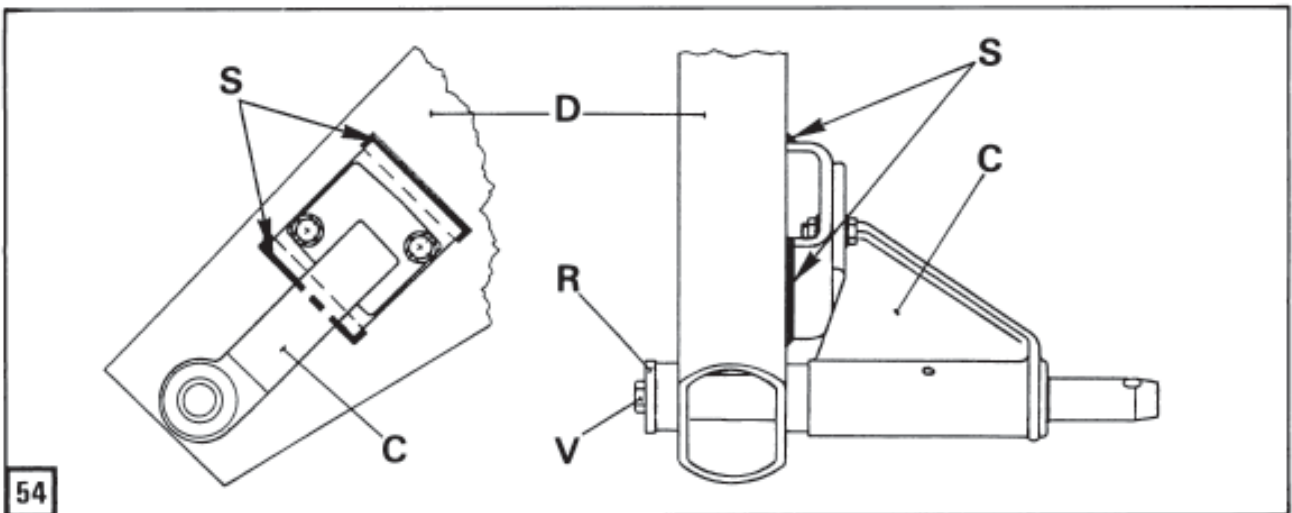
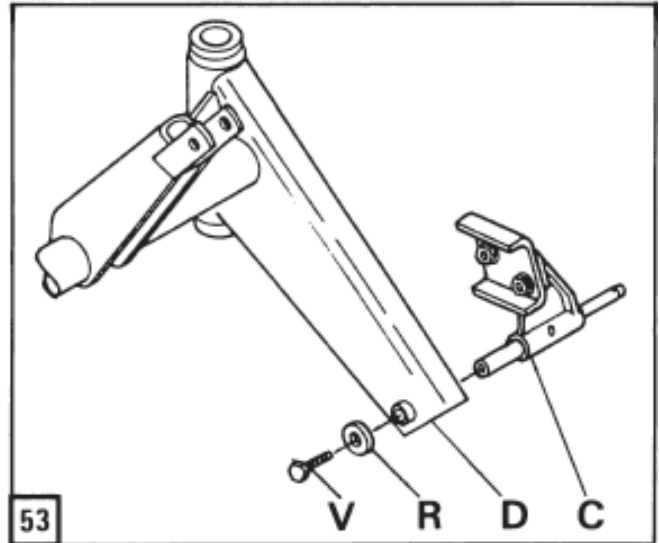
Before putting the machine in work position, don't forget to unbolt the panel.



DISPLACEMENT BRACKET GMD 55 / 66 (Kit No. 103 6110)

To enable GMD 55 / 66 disc mowers to be attached to cat. 2 hitches on tractors with wheel track width over 2 meters, a displacement bracket (C) is available as optional equipment.

To install displacement bracket, remove lower left-hand link pin and position displacement bracket (C) on the left hand upright (D) of the 3-point frame. Fasten the displacement bracket lower end with bolt (V) (M 12 x 30) and washer (R) and weld upper end at (S) (fig. 53 and 54).



STORING THE MOWER

Do the following to prepare the mower for storage :

1. Clean mower.
2. Drain oil from gearbox and cutterbar and refill with clean oil to correct level.
3. Store cutterbar in operating position.
4. Remove drive belts and store them in a dry place.
5. Clean bar or rusted areas and touch-up with paint.

SERVICE ADJUSTMENT CHART

PROBLEM	POSSIBLE CAUSE	CORRECTION
Vibration	Crop divider cap missing or crop divider damaged.	Replace cap or divider immediately.
Cutterbar not floating.	Main frame setting incorrect. Cutterbar pivot points binding	Adjust main frame to 400 mm (16") from ground and parallel. Clean and lubricate pivot points.
Machine breaking back too easily.	Insufficient tension on break-away spring.	Tighten break-away spring.
Difficulty in obtaining correct angle on cutterbar	Lack of adjustment on top link.	Reposition pivot bolt in top link.
Poor division between cut and uncut crop.	Tangled and down crops	Check swathboard retaining spring tension.
Uneven stubble.	Too much tilt on cutterbar Low PTO speed. Excessive forward speed. Knives dull or broken.	Reduce tilt. Run PTO at 540 rpm. Reduce forward speed. Install new knives.
Stubble too long.	Incorrect angle on cutterbar	Change cutterbar angle.
Crop being pushed forward before being cut.	Wind turbulence created by blades when working in very light crop	Fit straight knives (see Optional Equipment). Reduce PTO speed, increase forward speed.
Swath too wide.	Very heavy crop.	Fit longer outer swath board or/and inner swath board assembly (see Optional Equip.)
Soil build-up on front of cutterbar	Very wet conditions.	Adjust main frame height by shortening chain as necessary.
Excessive wear on blades and discs.	Working in difficult conditions and knives	Fit set of reinforced discs (see Optional Equipment).

SOUND LEVELS

Sound levels given out by : **GMD 44 - 55 - 66** Multidisc Mowers

Sound levels have been measured in accordance with the measuring methods as defined in :

HM Agricultural Inspectorate
AGRICULTURAL MACHINERY NOISE
Legislation and guidance on methods of testing
(Annex to AIC 1896/117 REV)
February 1988
Health and Safety Executive

The method employed corresponds to the method No. 4 in this document. Unspecified testing conditions comply with ISO 5131 standard.

Measuring equipment conforms to NF S 31-009 standard. The tractor used has a power of 59 kW.

A-weighted emission sound pressure level L (A) eq inside tractor cab (with closed windows) :

	GMD 44	GMD 55	GMD 66
Tractor only	80,7 dB (A)	81,1 dB (A)	79,3 dB (A)
Tractor + machine	80,7 dB (A)	81,9 db (A)	81,5 dB (A)

LIMITED WARRANTY

KUHN S.A. of 4 Impasse des Fabriques, 67706 SAVERNE CEDEX, France (hereinafter called the «Company») warrants, in accordance with the provisions below, to each original retail purchaser of KUHN new equipment of its own manufacture, from an authorized KUHN dealer, that such equipment is, at the time of delivery to such purchaser, free from defects in material and workmanship and that such equipment will be warranted for a period of one year starting from the date the goods are delivered to the end user and during this period up to a limit of 500 hours use, providing the machine is used and serviced in accordance with the recommendations in the Operator's Manual.

THESE CONDITIONS ARE SUBJECT TO THE FOLLOWING EXCEPTIONS :

1. Parts of machines which are not of our manufacture i.e. tyres, belts, P.T.O. shafts, clutches etc., are not covered by this Limited Warranty but are subject to the warranty of the original manufacturer. Any claim falling into this category will be taken up with the manufacturer concerned.
2. Warranty claims applying to these types of parts must be handled in the same way as if they were parts manufactured by KUHN. However, compensation will be paid in accordance with the warranty agreement of the manufacturer concerned in as much as the latter justifies such a claim.
3. This Limited Warranty will be withdrawn if any equipment has been used for purposes other than for which it was intended or if it has been misused, neglected or damaged by accident or let out on hire. Nor can claims be accepted if parts other than those manufactured by us have been incorporated in any of our equipment. Furthermore, the Company shall not be responsible for damage in transit or handling by any common carrier and under no circumstances within or without the warranty period will the Company be liable for damages for loss of use or damages resulting from delay or any consequential damage.

We cannot be held responsible for loss of earnings caused by a breakdown or for injuries either to the owner or to a third party, nor can we be called upon to be responsible for labor charges, other than originally agreed, incurred in the removal or replacements of components.

THE CUSTOMER WILL BE RESPONSIBLE FOR AND BEAR THE COSTS OF:

1. Normal maintenance such as greasing, maintenance of oil levels, minor adjustments, etc.
2. Transportation of any kind of any KUHN product to and from the place the warranty work is performed.
3. Dealer travel time to and from the machine or to deliver and return the machine from the workshop for repair.
4. Dealer travelling costs.

Parts defined as normal wearing items are listed as follows and are not in any way covered under this Limited Warranty :

V belts, discs, knives, wear plates, disc guards, tires, torque limiters, hydraulic hoses, pitman shafts, swath sticks, blades, tines and tine holders.

KUHN Limited Warranty will not apply to any product which is altered or modified without the expressed permission of the Company and/or repaired by anyone other than Authorized Service Distributors or Authorized Service Dealers.

LIMITED WARRANTY IS DEPENDENT UPON THE STRICT OBSERVANCE BY THE PURCHASER OF THE FOLLOWING PROVISIONS :

- That this Limited Warranty shall not be assigned or transferred to anyone unless the Company's consent in writing has first been obtained.
- The warranty/product registration form has been correctly completed by dealer and purchaser with their names and addresses, dated, signed and returned to the appropriate address as given on the warranty/product registration form.
- The claim form sent to KUHN has been correctly completed stating:
 - * dealer's name and address
 - * owner's name and address
 - * type of machine
 - * machine serial number
 - * delivery date to buyer
 - * date of failure
 - * tractor make and type
 - * description of the failure and its cause
 - * quantity, reference number and name of the damaged parts
 - * reference number, quantity and date of the invoice for the replacement parts.
- The judgement of the Company in all cases of claims under this Limited Warranty shall be final and conclusive and the purchaser agrees to accept its decisions on all questions as to defect and to the exchange of any part or parts.
- That all safety instructions in the Operator's Manual shall be followed and all safety guards regularly inspected and replaced where necessary.

No warranty is given on second-hand products and none is to be implied. Persons dealing in the Company's products are in no way legal agents of the Company and have no right or authority to assume any obligation on their behalf, express implied, or to bind them in any way.

KUHN S.A. reserves the right to incorporate any change in design in its products without obligation to make such changes on units previously manufactured.

Moreover, because of the constant progress in technology, no guarantee is given to the descriptions of equipment published in any document by the company.

DISCLAIMER OF FURTHER WARRANTY

There are no warranties, expressed or implied, except as set forth above. There is no warranty of merchantability. There are no warranties which extend beyond the description of the product contained herein. In no event shall the company be liable for indirect, special or consequential damages (such as loss of anticipated profits) in connection with the retail purchaser's use of the product.

- NOTES -



This machine complies with the safety requirements of the European machinery directive.



The Operator should respect all Health and Safety regulations as well as the Highway Code. For your own safety, use only genuine KUHN spare parts. The manufacturer disclaims all responsibilities due to incorrect use or non-compliance with the recommendations given in this manual.



**For your safety
and to get the best from your machine,
use only genuine KUHN parts**

KUHN S.A. 4 Impasse des Fabriques F - 67706 SAVERNE CEDEX (FRANCE)
Tél. : + 33 (0) 3 88 01 81 00 - Fax : + 33 (0) 3 88 01 81 03
www.kuhnsa.com - E-mail : info@kuhnsa.com
Société Anonyme au Capital de 19 488 000 Euros

Printed in France by KUHN