ASSEMBLY / OPERATOR'S MANUAL

GMD 801
Multidisc Mower

PLEASE READ CAREFULLY
BEFORE USING THE MACHINE

N° 95000 B.GB - 10.2000

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.

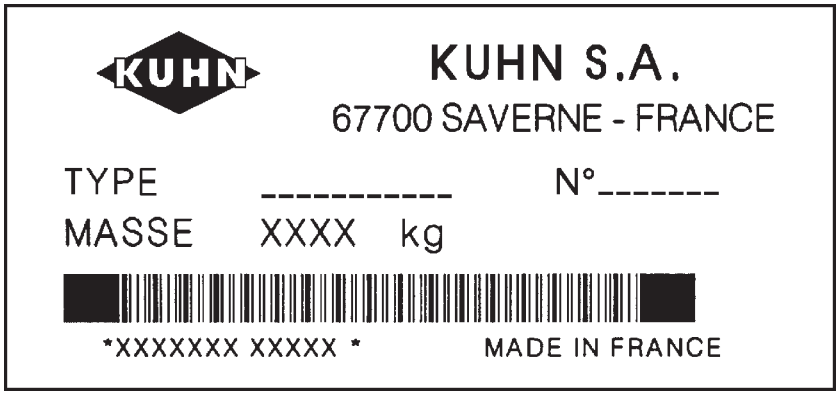
This manual contains all the necessary information for you to receive full efficiency from your machine. The performance you get from this machine is largely dependant upon how well you read and understand this manual and apply this knowledge. Please DO NOT ASSUME THAT YOU KNOW HOW TO OPERATE AND MAINTAIN 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.



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

SAFETY

The above symbol 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

GMD 801 Multidisc 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.

GMD 801 Multidisc 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. The tractor must be 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, make sure that the maximum permitted front axle weight and gross weight of the combination are not exceeded.

13. Do not exceed the maximum permitted length and width authorized by road traffic regulations.

14. Before transporting the machine on public roads, ensure that all legally required guards and indicators (lights, reflectors ...) are in place and in good operation.

15. All operating controls (cords, cables, rods ...) must be positioned so that they cannot be set off accidently, risking accident or damage.

16. Before travelling on public roads, put the machine into its transport position as instructed in this operator's manual.

17. Never leave the tractor seat while the machine is operating.

18. Drive speed must be adapted to ground conditions as well as to roads and paths.
    Always avoid abrupt changes of direction.

19. 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.

20. Be particularly cautious when turning corners, paying attention to machine overhang, length, height and weight.

21. Before operating the machine, ensure that all safety guards are firmly in place and in good condition. If worn or damaged, replace immediately.

22. Before operating the machine, check the tightness of all nuts and bolts, particularly on tool fixing elements (blades, tines, knives, spades ...). Retighten if necessary.

23. Keep clear of the machine operating area.

24. WARNING ! Danger of crushing and shearing can exist when components are operated by hydraulic or pneumatic controls.

25. Before leaving the tractor or before adjusting, maintaining or repairing the machine, turn off the engine, remove the ignition key and wait until all moving parts have come to a complete stop.

26. Do not stand between the tractor and the machine unless the hand brake is tight and/or stops have been placed under the wheels.

27. 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. WARNING ! Danger of crushing and shearing can exist in the lifting zone of the 3-point linkage !

3. Do not stand between the tractor and the machine when operating the outer control lever of the lift mechanism.

4. In transport, the machine lift mechanism should be stabilized by tractor tie rods to avoid floatation and side shifting.

5. When transporting the machine in the raised position, lock the lift control lever in place.

POWER TAKE-OFF

1. Use only the 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 *(rotational frequency)* and direction are in accordance with manufacturer's 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 the 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, place PTO shaft on the supports provided.

14. Fit the safety cap on tractor PTO.

15. Replace any worn or damaged PTO guards immediately.

Rotation speed ... rpm (American Measure) is also expressed in metric measure : *Rotational frequency ... min^{-1}*. Both units are equivalent, for example : Rotation speed 540 rpm equals *Rotational frequency 540 min^{-1}*.

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 for 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 to 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 (spring, 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 it 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.

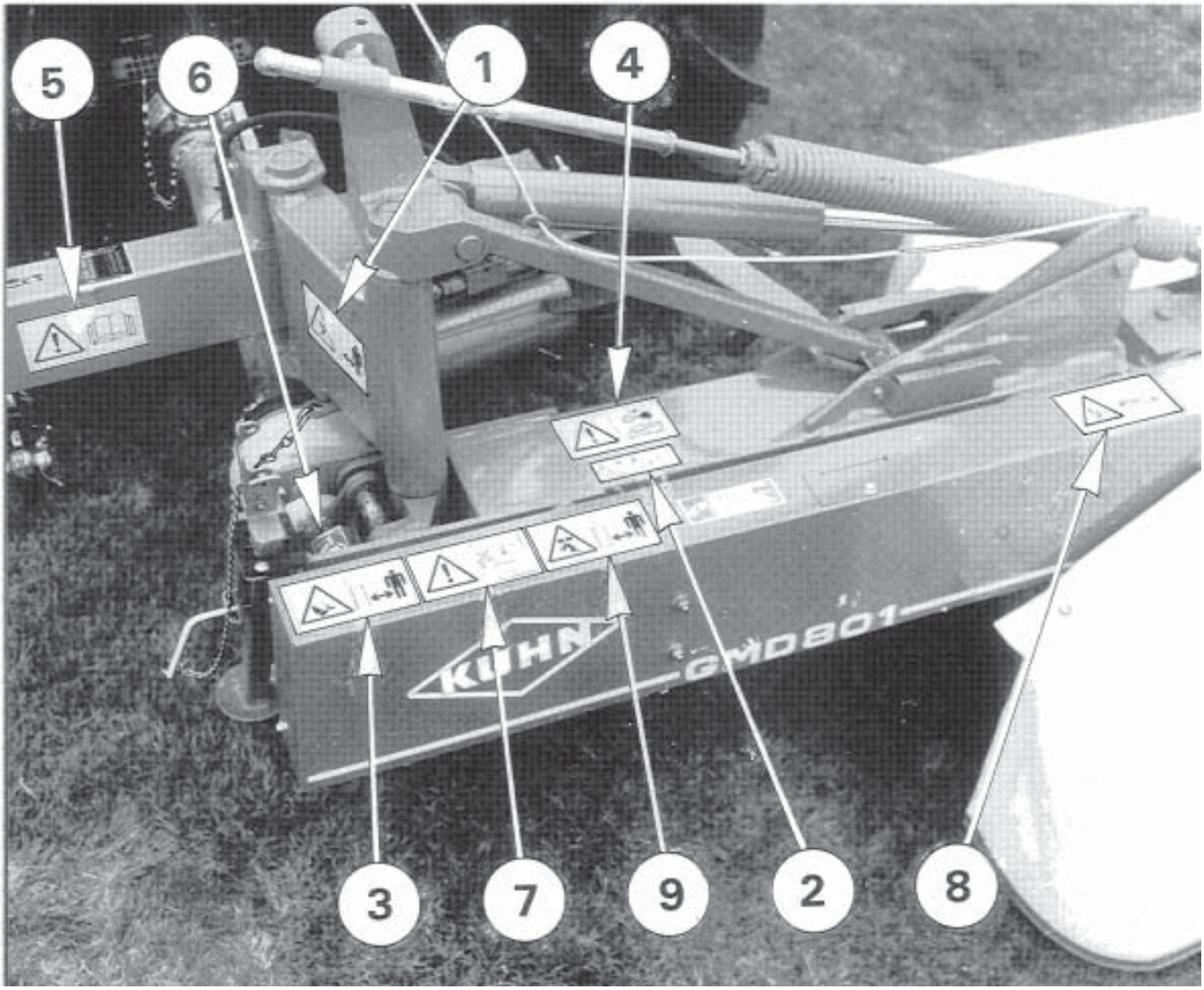
14. When disengaging the PTO drive, moving parts continue to rotate for some time. Wait for all moving parts to come to a complete stop before approaching the machine.

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. ENSURE THAT THESE PICTORIALS ARE ALWAYS LEGIBLE. IF THEY ARE NOT, REPLACE THEM.



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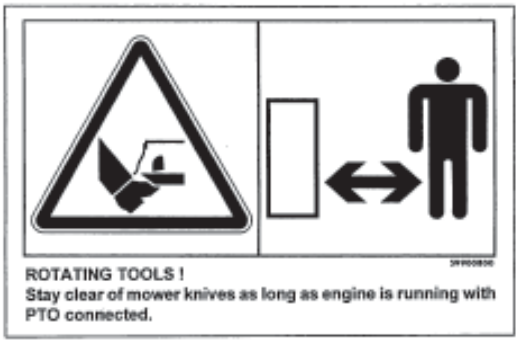
USE ONLY GENUINE KUHN SERVICE PARTS

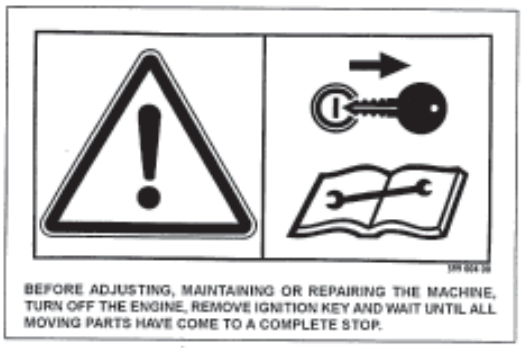

CAUTION
USE ONLY GENUINE
KUHN
SERVICE PARTS

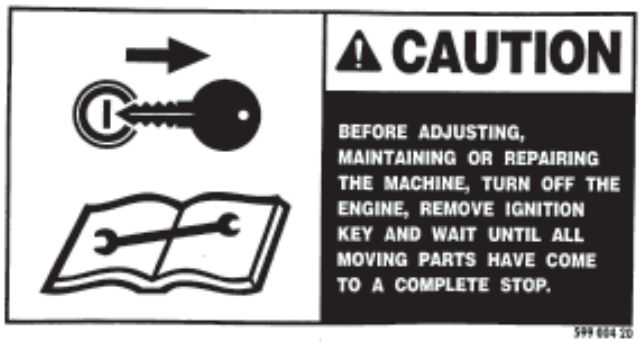
③


ROTATING TOOLS !
Stay clear of mower knives as long as engine is running with PTO connected.


WARNING
ROTATING TOOLS
STAY CLEAR OF MOWER KNIVES AS LONG AS TRACTOR ENGINE IS RUNNING WITH PTO CONNECTED

④


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.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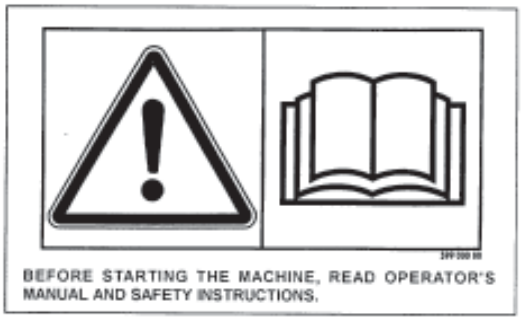
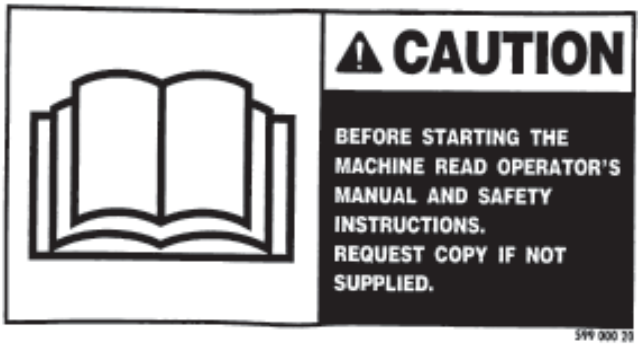

BEFORE STARTING THE MACHINE, READ OPERATOR'S MANUAL AND SAFETY INSTRUCTIONS.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BEFORE STARTING THE MACHINE READ OPERATOR'S MANUAL AND SAFETY INSTRUCTIONS.
REQUEST COPY IF NOT SUPPLIED.

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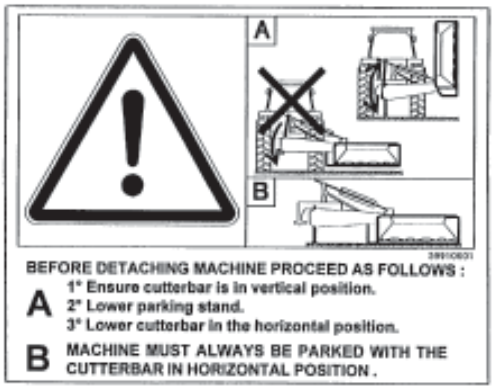
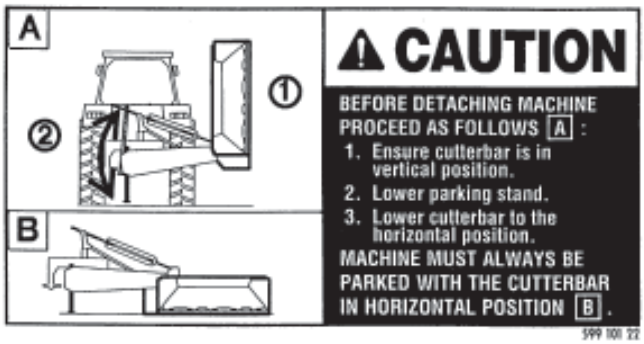

A
B
BEFORE DETACHING MACHINE PROCEED AS FOLLOWS :
A
1° Ensure cutterbar is in vertical position.
2° Lower parking stand.
3° Lower cutterbar in the horizontal position.
B
MACHINE MUST ALWAYS BE PARKED WITH THE CUTTERBAR IN HORIZONTAL POSITION .


A
B
①
②
⚠ CAUTION
BEFORE DETACHING MACHINE PROCEED AS FOLLOWS A :
1. Ensure cutterbar is in vertical position.
2. Lower parking stand.
3. Lower cutterbar to the horizontal position.
MACHINE MUST ALWAYS BE PARKED WITH THE CUTTERBAR IN HORIZONTAL POSITION B .
599 101 22

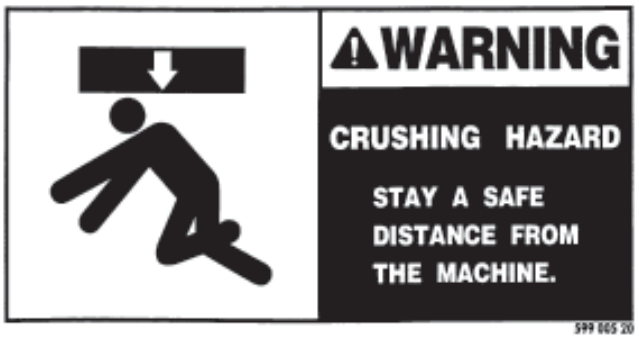
⑧


NEVER REACH INTO THE CRUSHING DANGER AREA AS LONG AS PARTS MAY MOVE.


⚠ CAUTION
NEVER REACH INTO THE CRUSHING DANGER AREA AS LONG AS PARTS MAY MOVE
599 003 20

⑨


CRUSHING HAZARD I STAY A SAFE DISTANCE FROM THE MACHINE.


⚠WARNING
CRUSHING HAZARD
STAY A SAFE DISTANCE FROM THE MACHINE.
599 005 20

TECHNICAL SPECIFICATIONS

TYPE	GMD 801
Number of discs	8
Width of cut	3.11 m / 10' 2"
Width in transport position (1)	350 mm (14") wider than tractor width
Disc speed *(rotational frequency)*	2991 rpm *(min^{-1})*
P.T.O. power requirement	(as from) 41 kW (56 hp)
P.T.O. speed *(rotational frequency)*	**1000 rpm *(min^{-1})***
Lift system	hydraulic
Tractor attachment	cat. 2
Weight (approx.)	710 kg / 1565 lbs
Bevel gearbox oil capacity Oil quality : SAE 80 W EP (GL4)	1 litre / 2 US pint / 1.75 Imp pint
Cutterbar oil capacity Oil quality : SAE 80 W EP (GL4)	2.25 litres / 4.5 US pint / 4 Imp pint

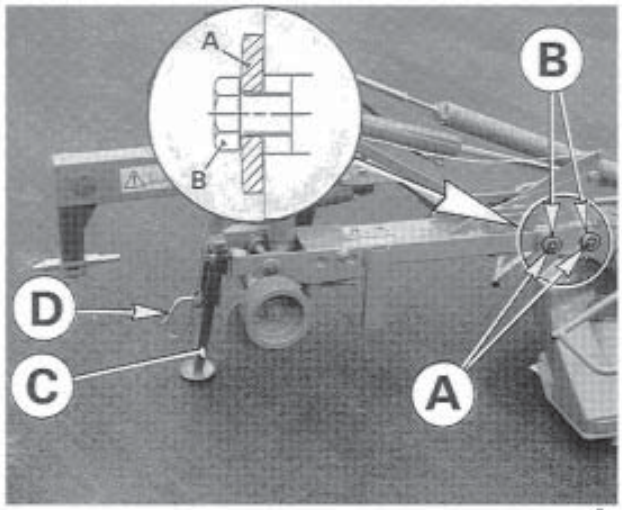
(1) Applicable if machine is attached in such a way that a 5 cm / 2" distance "A" is respected (see page 17).

ASSEMBLY INSTRUCTIONS

To facilitate shipping of the **GMD 801** certain parts or complete sub-assemblies have been disassembled in order to reduce bulk.

1. Mounting chassis to cutterbar

Make sure that the bore of nylon bushings is clean and well greased. Remove protective paint from the front cover of bevel gearbox where bushings make contact. Chock chassis. Lock the stand (C) in its lowered position with pin (D) (photo A). Attach chassis to cutterbar with 2 self-locking screws (B) (M 16 x 50) and 2 washers (A) (dia. 17 x 61 x 8) as shown in photo A. Torque : 30 daNm/220 ft.lbs.

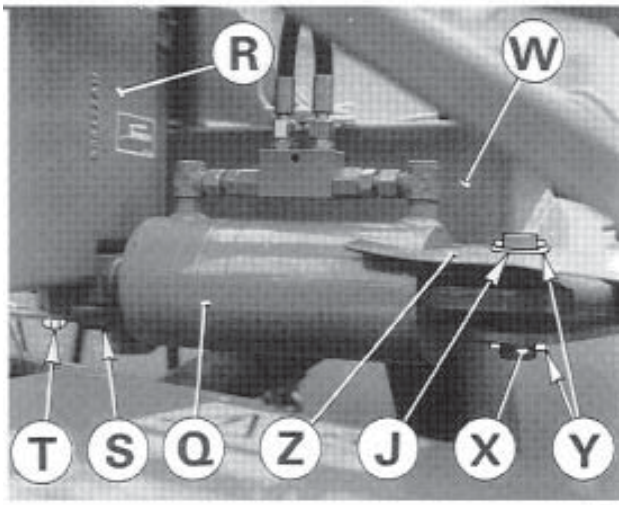


A

FOR YOUR SAFETY BE SURE TO CHOCK CHASSIS CORRECTLY.

2. Assembling the frame's pivoting cylinder (photo B)

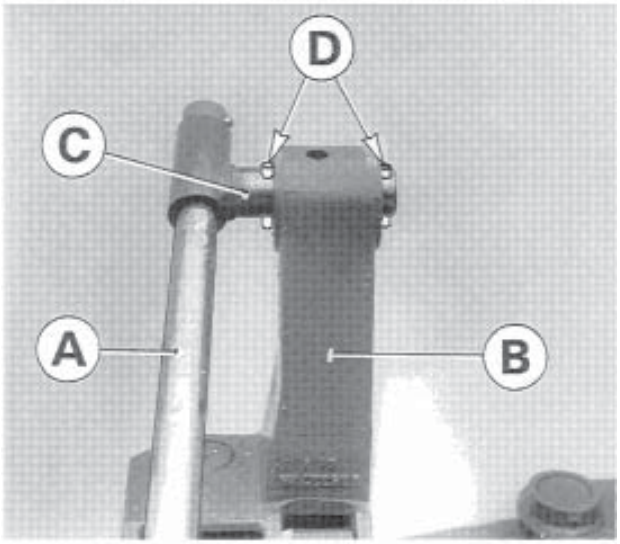
Connect the pivoting cylinder (Q) to both the oscillating arm (R) with pin (S) and a self-locking screw (T) and to the pivoting frame (W) with pin (X) and 2 roll pins (Y) (diameter 6 x 50). Ensure that the cylinder guard (Z) and plain washer (J) (diameter 30.5 x 50 x 2) are inserted between the upper roll pin (Y) and cylinder mounting yoke.



B

3. Assembling the compensating suspension rod (photo C)

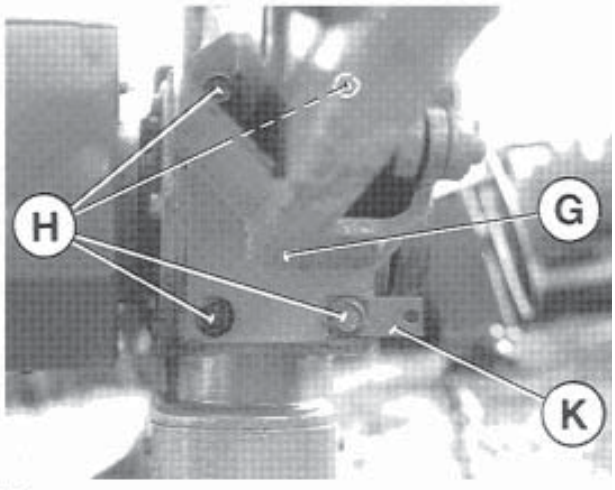
Link the rod (A) to the upper frame casting (B) using pin (C) and 2 roll pins (D) (diameter 8 x 45).



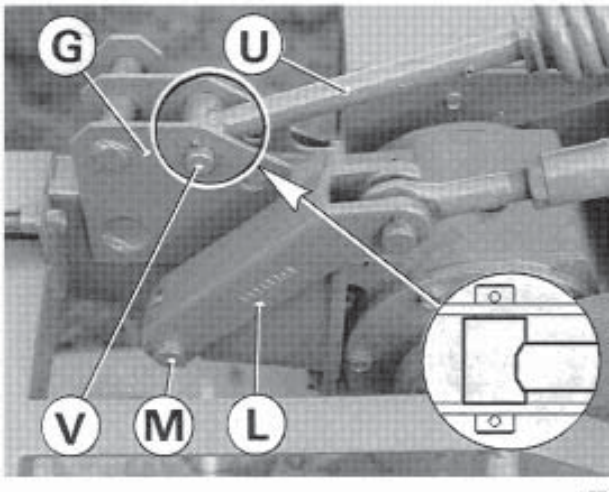
C

4. Frame pipe, lift bracket and compensating spring assembly

- Attach frame pipe (G) (photo D) to bevel gearbox with 4 screws (H) (M 16 x 40). Torque : **21 daNm** (**155 ft.lbs**). At the same time attach plate (K) (photo D).
- Attach lift bracket (L) (photo E) using axle (M) and 2 roll pins (dia. 6 x 40) provided.
- Connect compensating spring (U) (photo B) to axle (V) of frame pipe (G) and secure with 2 roll pins (dia. 6 x 40). **Take care to use the upper mounting hole and to position rod (U) correctly** (see photo E) .



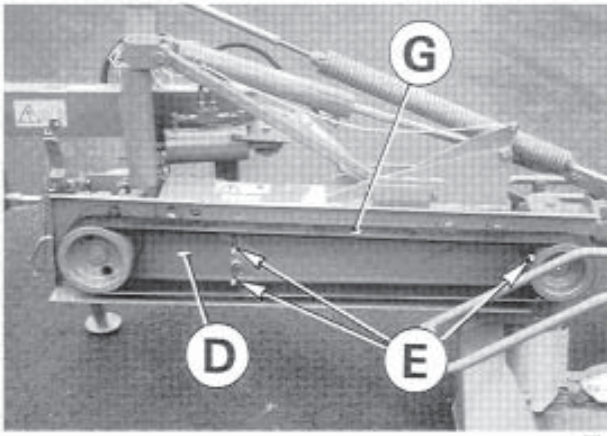
D



E

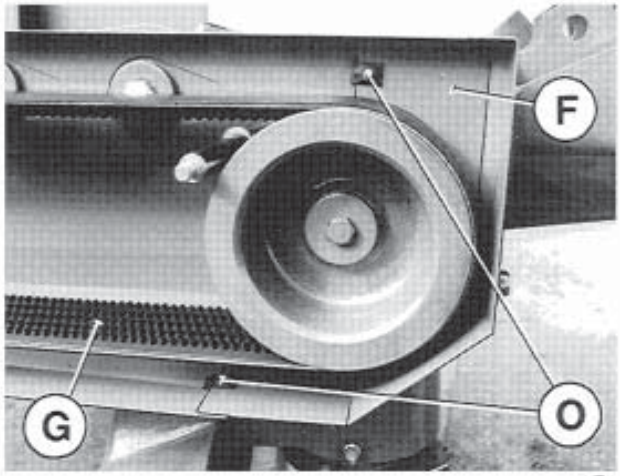
5. Assembly of belt shields and belt

- Install the inner belt shield (D) (photo F) in place and secure with the 3 spacer bolts (E). Do not forget to insert a flat washer (dia. 13 x 30 x 5) between each spacer bolt and the inner belt shield.



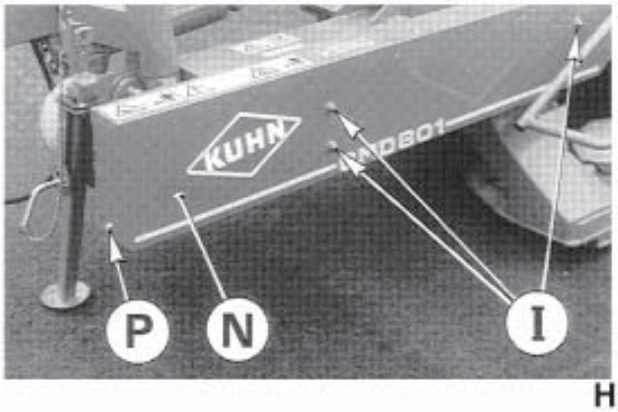
F

- Install closing cover (F) equipped with 2 clamp nuts using 2 underserrated self-locking screws (O) (M 8 x 12) as shown in photo G.
- Install belt (G) (photos F and G) on pulleys and tension it following instructions on page 31.



G

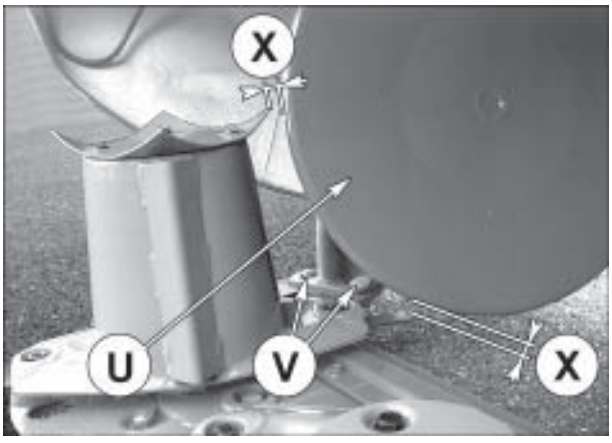
- Attach outer belt shield (N) with 3 self-locking nuts (I) (M 12) and 3 conical spring washers and install underserrated self-locking screw (P) (M 8 x 12) (photo H).



H

6. Outer swath wheel assembly (photo I)

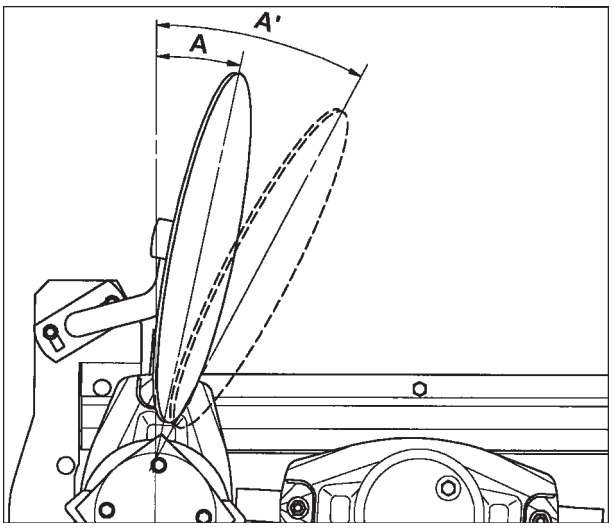
- Attach swath wheel assembly (U) to outer skid shoe with 2 cup square bolts (V) (M 12 x 35), 2 conical washers (dia. 13 mm) and 2 self-locking nuts (M 12). Torque : 8.5 daNm/65 ft.lbs.
  Before tightening the screws (V), check that the swath wheel does not touch the cone cover or the blades.
  Keep to a distance of **X = 15 to 25 mm - 3/5" - 1".**



I

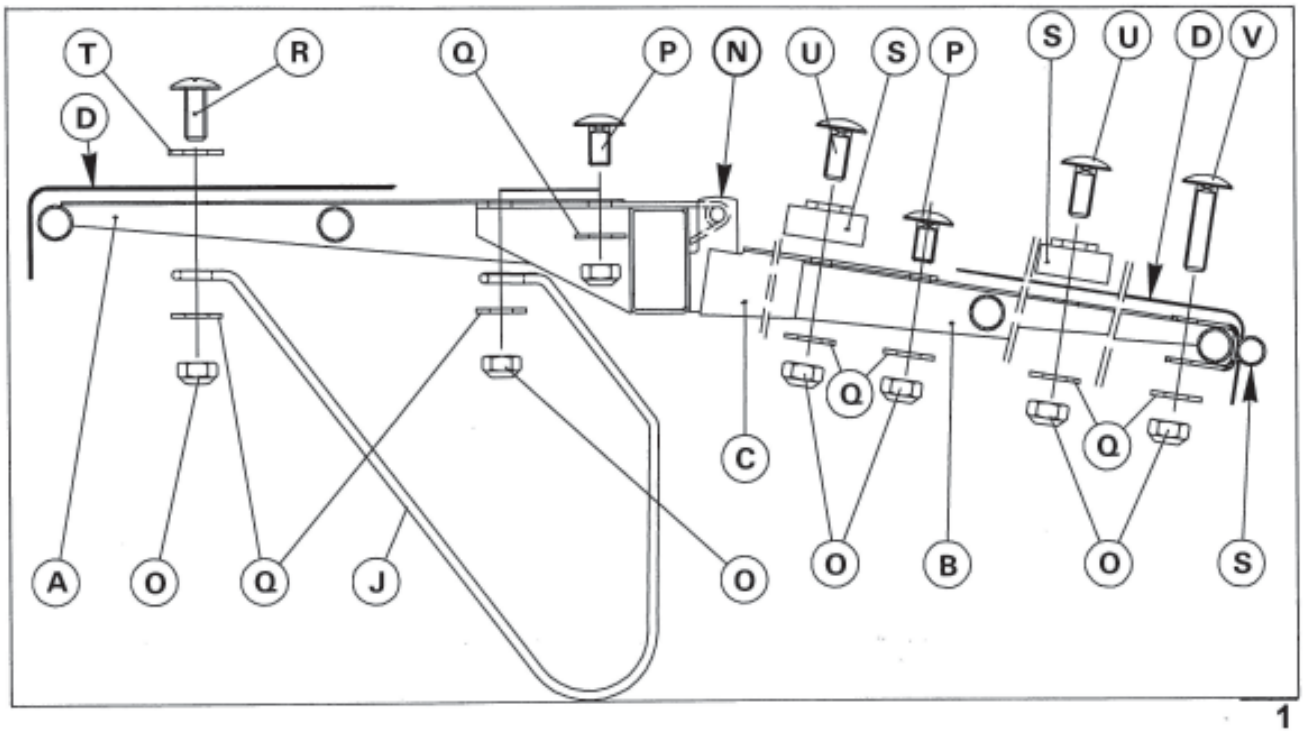
IMPORTANT

The angular position of the swath wheel compared to the cutterbar can be adapted to working conditions enabling a regular flow of the cut crop towards the rear. Position the swath wheel so that **maximum angle (A')** (fig. J) is obtained. In difficult working conditions (long, dense, bent over crops) position it towards **minimum angle (A)** (fig. J).



J

7° Safety guard assembly



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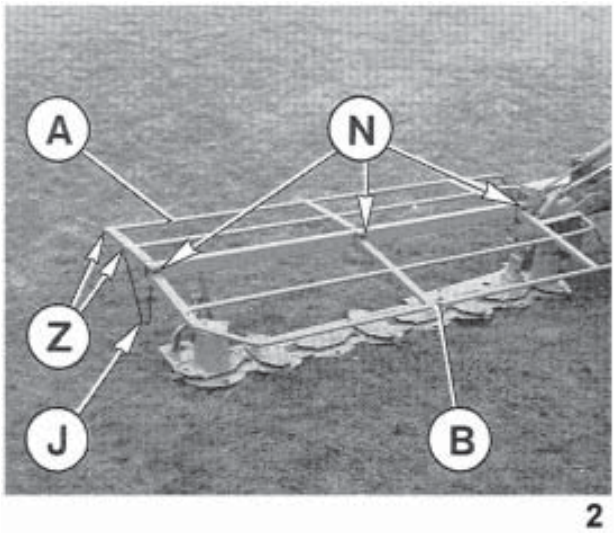
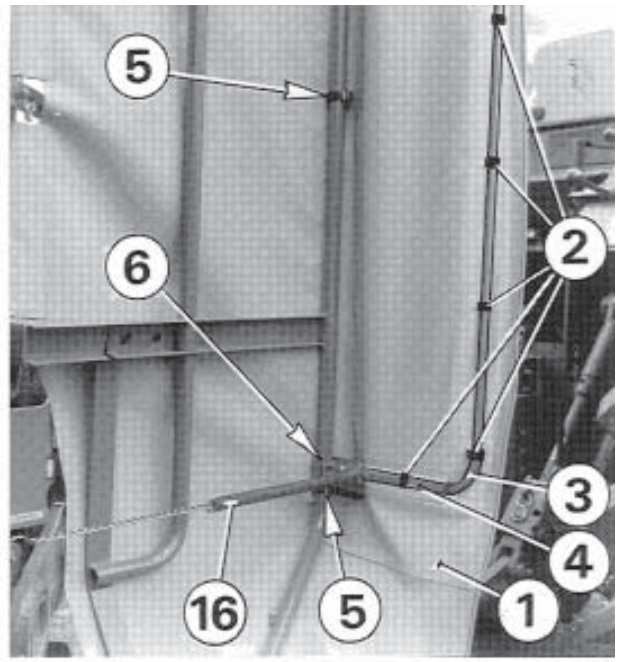


2

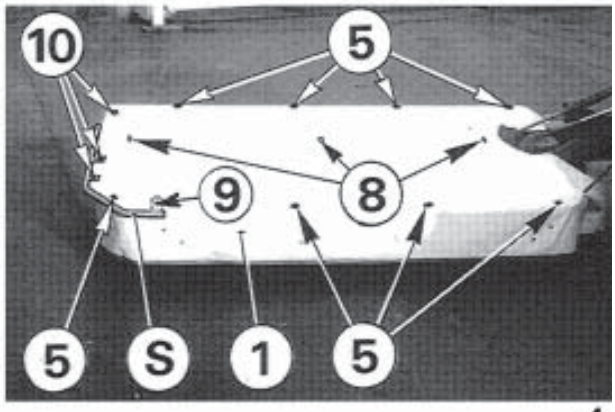
- Attach the front safety bar (B) to its 3 hinges (C) with the 5 cup square bolts (P) (M 10 x 25), 5 self-locking nuts (O) (M 10) and 5 flat washers (Q) (Ø 11 x 24 x 2) (fig. 1).
- Then attach the pre-assembled front safety bar (B) at (N) with 3 hexagonal screws (M 12 x 75) and self-locking nuts (M 12) (fig. 1 and photo 2). Do not tighten these 3 screws completely, so that the front safety bar can still pivot.
- Next attach rear safety bar (A) with 6 round head bolts (P) (M 10 x 25), 6 self locking nuts (O) (M 10) and 6 flat washers (Q) (Ø 11 x 24 x 2) (fig. 1 and photo 2). At the same time attach stop rod (J) as shown in figure 1 and photo 2, being sure to place 2 flat washers (Q) (Ø 11 x 24 x 2) 11 x 24 x 2) under the self- locking nuts (O). Fit 2 end plugs (Z) on rear safety bars.

8° Assembling safety curtain and outer safety guard

- Pre-assemble the safety curtain (1). To do this attach clamp collars (2) to curtain (1) and loosely fasten rod (3) with these clamp collars (photo 3).
- Attach both hinges (6) with cup square bolts (7) (M 10 x 20) (photo 3 and figure 5).
- Install cover (1) as shown in photo 3. Buckle straps around the pipe frame at (8).
- Buckle straps (5) around front and rear safety bar.
- All these straps are attached underneath the safety cover (photo 4).



3

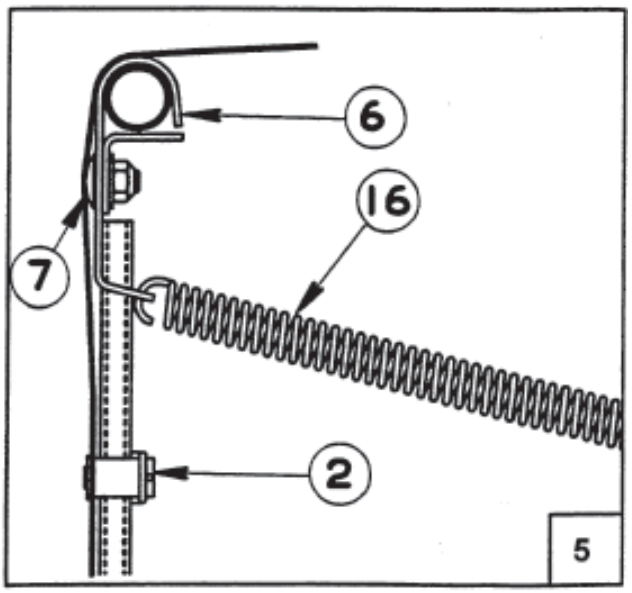


4

- Punch 3 holes in the safety cover at (10) and attach cover on the outside arms of the safety bars with round head screw (R) (M 10 x 30) of stop rod (J), 2 round head screws (U) (M 10 x 35) of outer safety guard (S), 1 plastic washer (T) (dia. 10.5 x 32 x 2.5) and 3 self-locking nuts (O) (M 10) (fig. 1 and photo 4).

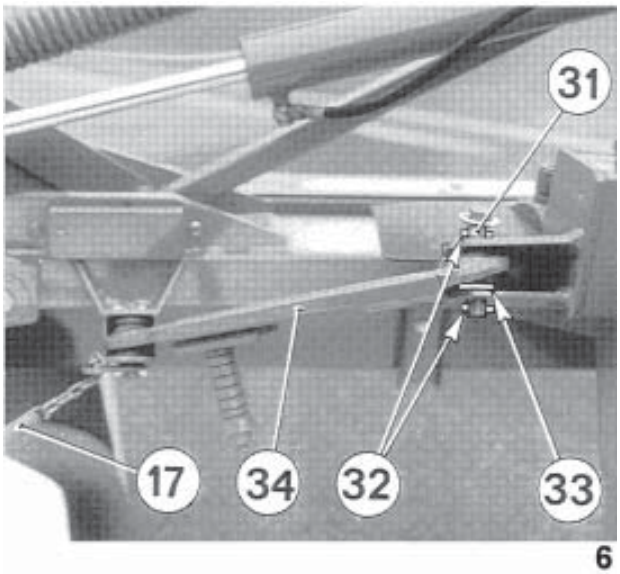
- At (9) attach the outer safety guard (S) to the front guard flap tube using a round head bolt (C) (M 10 x 50) and a self-locking nut (O) (M 10) (fig. 1 and photo 4).

- Attach springs (16 and 17) to their respective anchorage points with the small chains (photos 3, 6 and fig. 5) **and close the eyelets**.



9° Attaching break-away latch

Connect the break-away latch (34) to the yoke of 3-point frame (30) with axle (31), 2 roll pins (32) (dia. 6 x 36) and a plain washer (33) (dia. 23 x 40 x 7) as shown in photo 6.



6

The lower hitch pins should stay parallel to the ground when the machine is parked. If this is not the case the lift cylinder should be bled in extended position.

The parking stand on the GMD 801 machines has been designed to support the weight of the 3-point frame only and the following points must be respected :

1) If at any time it becomes necessary to move the machine with a fork lift or loader type vehicle it is very important that the 3-point frame is :

IMPORTANT

a) lifted from the ground first, when lifting the machine

b) lowered onto the ground last when lowering the machine.

Failure to comply with the above points will result in damage being caused to the parking stand.

2) If at any time it becomes necessary to transport the machine on a lorry or trailer then some form of support must be used i.e. a piece of wood, to take the weight of the 3-point frame, so relieving the weight on the parking stand. This action will prevent damage being caused to the parking stand when the machine is secured by load straps.

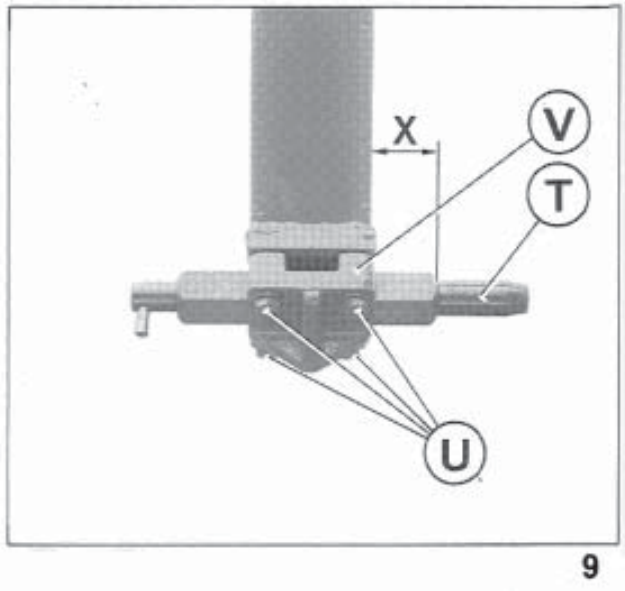
GENERAL INFORMATION

1. Minimum tractor PTO power should be 41 kW / 56 hp for the **GMD 801**. If tractor power is insufficient, quality of work will be unsatisfactory.

2. **GMD 801** mowers can be adapted to all tractors having a **PTO speed *(rotational frequency)* of 1000 rpm *(min^{-1})*** and equipped with a normalized Cat. 2 three-point hitch.

3. **GMD 801** mowers are equipped with adjustable lower hitch pins allowing the machine to be offset +/- 50 mm (2") to the left and to the right.

4. To adjust lower hitch pins (T) (photo 9), loosen the 4 hexagonal screws (U) of collar flanges (V) on each side.
   Reposition lower hitch pins respecting : 825 mm (2'8") dimension (page 17) and retighten screws (U).
   Torque : **12 daNm / 88 ft.lbs**.
   Check tightness of screws (U) after the first ten hours of use.



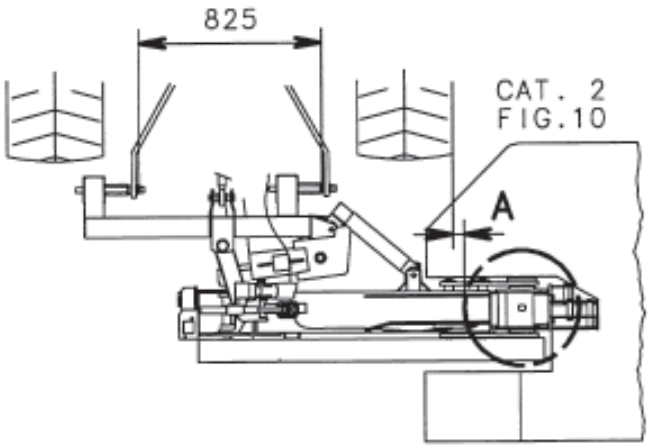
9

Note : 825 mm dimension is correct when the distance (X) is the same for the two lower hitch pins (T).

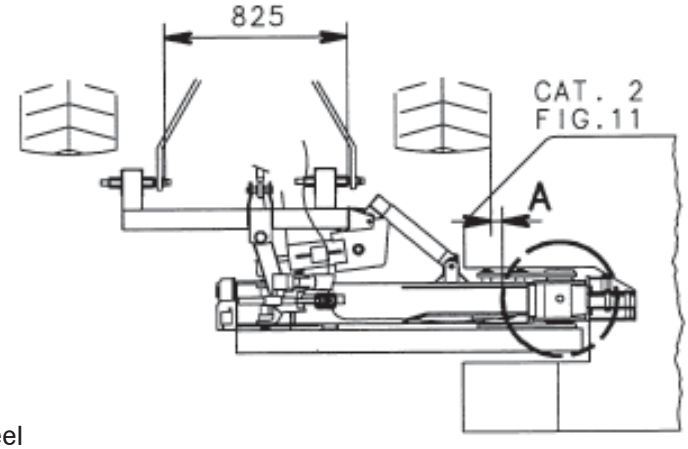
ADAPTING TO TRACTOR

A) Attachment of lower links and positioning of hitch pins :

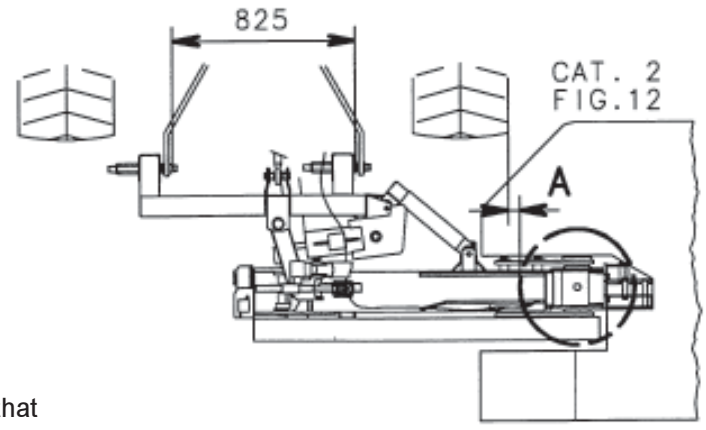
Follow fig. 10 for category 2 tractors with narrow wheel tracks.



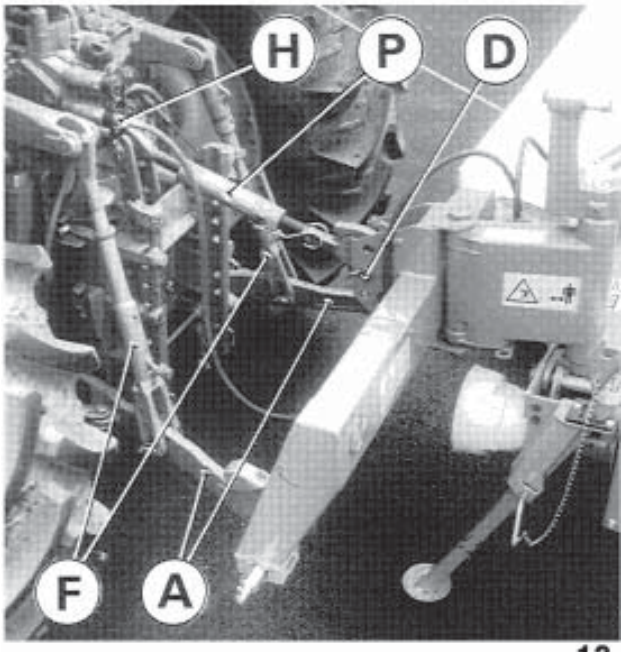
Follow fig. 11 for category 2 tractors with standard wheel tracks.



Follow fig. 12 for category 2 tractors with wide wheel tracks.



NOTE : Always attach machine in such a way that distance (**A**) is approximately **50 mm** (**2"**).



13

13A

14

B) Attaching the machine

- Attach the lower links (A) to the hitch pins and secure with linchpins (photo 13).

- Attach top link (P) using hitch pin (D) on the 3-point frame so that it is relatively parallel to the lower links (A) (photo 13).

Note : The PTO shaft must be adapted at a later stage. Correct length cannot be checked as long as the cutterbar is in horizontal position.

- Connect hydraulic hose (H) to the tractor's **single acting valve** (photo 13). First make sure that the hydraulic connection is clean ; if not, cylinders may not function correctly.

C) Adjusting cutterbar horizontal position

- Activate the tractor's hydraulic lift mechanism and check that the 3-point frame is lifted parallel to the ground (photo 13A). If necessary, adjust levelling rods (F) (photo 13).
  If, once this adjustment has been made, the cutterbar is still not parallel to the 3-point frame, level it by adjusting threaded cylinder rod (V) (photo 13A).

D) Raising cutterbar and parking stand

NOTE : ONLY OPERATE THE PARKING STAND (E) WHEN THE CUTTERBAR IS IN THE VERTICAL TRANSPORT POSITION (COMPENSATING SPRING IS RELEASED).

- Activate the machine's hydraulic cylinders to bring the cutterbar into its vertical position.
- With the machine in the transport position (cutterbar vertical), raise the stand (E) and connect it to the suspension rod (F) using pin (L) (photo 14).

P.T.O. SHAFT

IMPORTANT

THE LENGTH OF THE PTO SHAFT MUST BE ADAPTED TO THE TRACTOR BEING USED WITH THE CUTTERBAR LATCHED IN VERTICAL TRANSPORT POSITION (PRESSURE IN CUTTERBAR LIFT CYLINDER RELEASED).

Proceed as follows to check that the PTO shaft **length** is correct when coupling the machine to a tractor for the first time and when using another tractor.

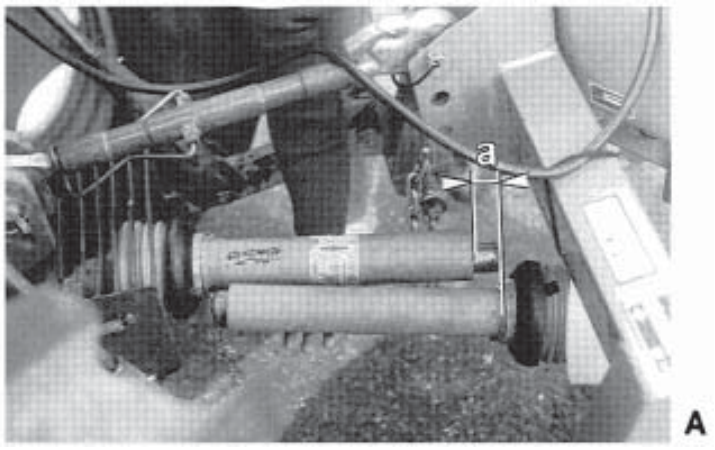
1° **Remove** the PTO shaft and **separate** the two half transmission tubes.

2° Raise the cutterbar to its **full vertical transport position, then release hydraulic pressure to engage latch (I)** (photo 21).

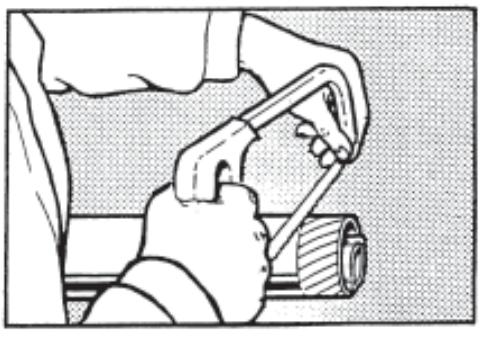
3° Set the tractor 3-point lift to the position where the **distance** between tractor and machine PTO stub is **as short as possible**.

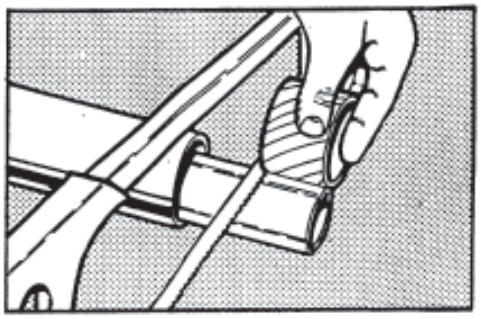
4° **Connect** the half transmission tubes to their corresponding PTO stubs **(free wheel clutch on machine side, tractor end yoke on the 1000 rpm *(min^{-1})* PTO)**. Hold both shaft halves next to one another. The outer guard tube should remain clear of the protection cone by **"a" = 40 mm (1 1/2")** (see photo A). If this is not the case, shorten the two transmission tubes and the two guard tubes by the same length (fig. 15 and 16). Deburr, bevel and clean the tubes (fig. 17). Grease the inside of the outer tube (fig. 18).

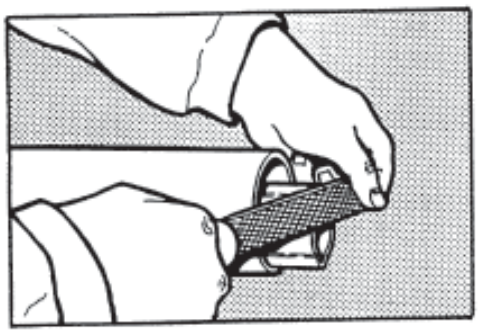
5° Lower the cutterbar to its horizontal **working position** and **check that the overlap is at least 150 mm (6")** by keeping both shaft halves next to one another. Reassemble the PTO sliding tubes and connect the PTO shaft in place while the cutterbar is in its horizontal position.

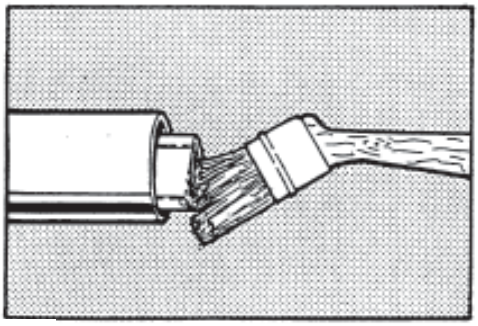


A

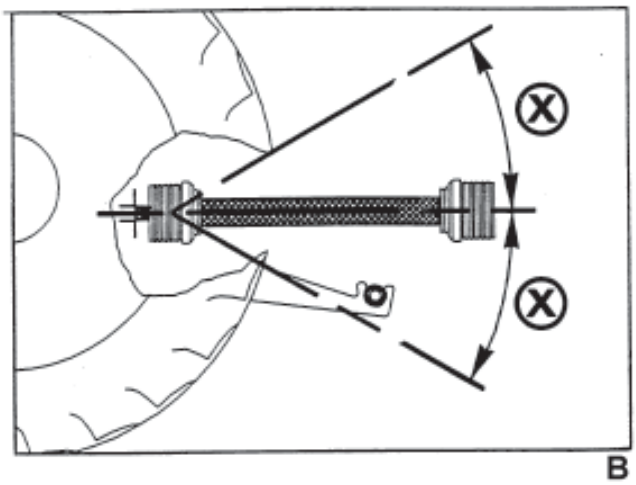

15


16

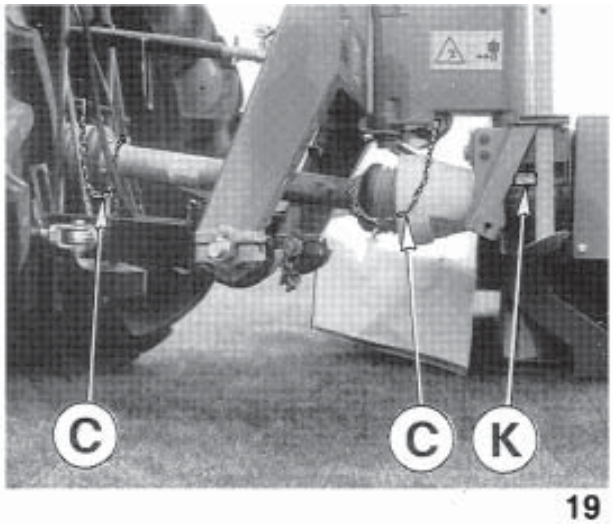

17


18

Never operate the PTO at too great an angle (X = 30° maximum) (fig. B).



B



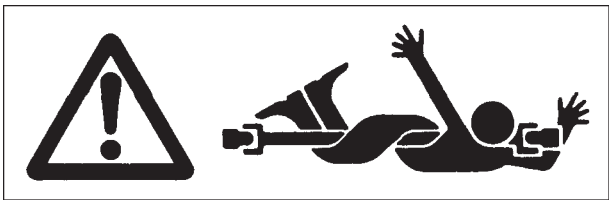
19

These recommendations and adjustments must be respected to avoid damage or premature wear of the PTO. Repeat these checks when the machine is fitted to any other tractor.

DANGER

Only operate the machine at the PTO speed *(rotational frequency)* indicated on decal (K) (photo 19). Attach the GMD 801 to the 1000 rpm *(min^{-1})* PTO.

To avoid accidents which could be serious, make sure that the guards are always correctly in place and secured with the safety chains (C) (photo 19). Warn or damaged guards must be replaced immediately.



TRANSPORT

WARNING : WAIT UNTIL DISCS COME TO A COMPLETE STOP BEFORE RAISING THE CUTTERBAR INTO THE VERTICAL POSITION.

DANGER

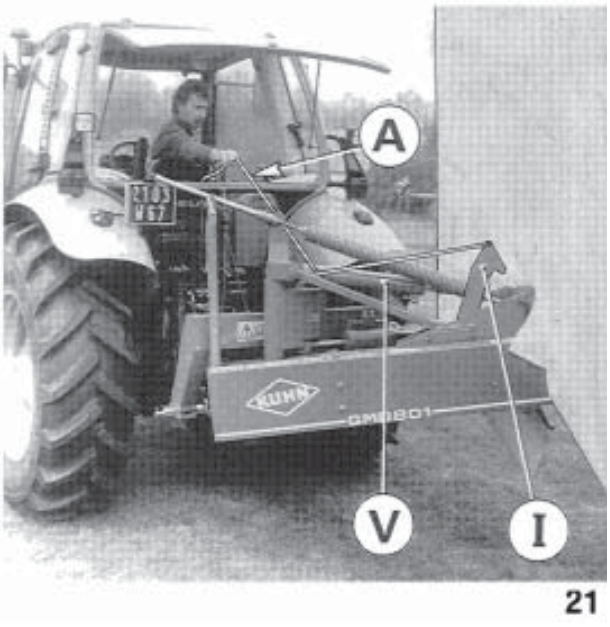
BE SURE THAT EVERYONE IS AT A SAFE DISTANCE FROM THE MOWER PIVOTING AREA.

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

To transport the machine on public roads or from one field to another, proceed as follows :
- Make sure discs have come to a complete stop.
- Lift the machine using the tractor 3-point linkage
- Pressurize the hydraulic cylinders to lift the cutterbar into its vertical position.
- The cutterbar will lift and simultaneously pivot towards the rear.
- Once the cutterbar has reached the end of its trajectory, release hydraulic pressure and the cutterbar will be automatically locked in place (photo 20).

20

WORKING POSITION AND ADJUSTMENTS

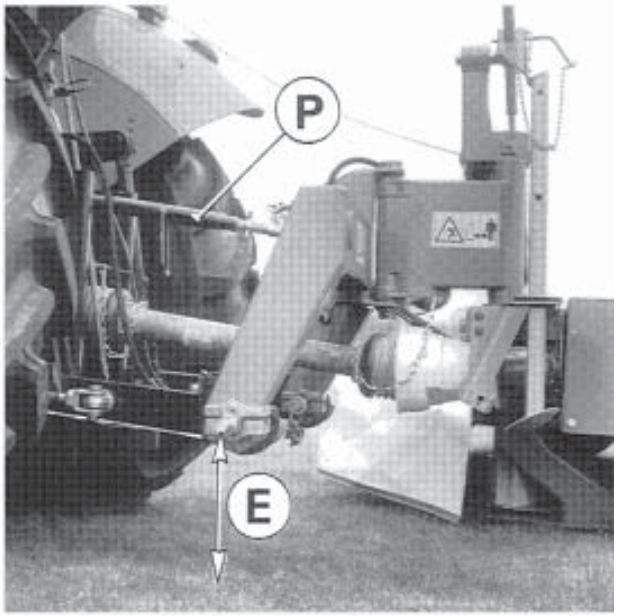


21

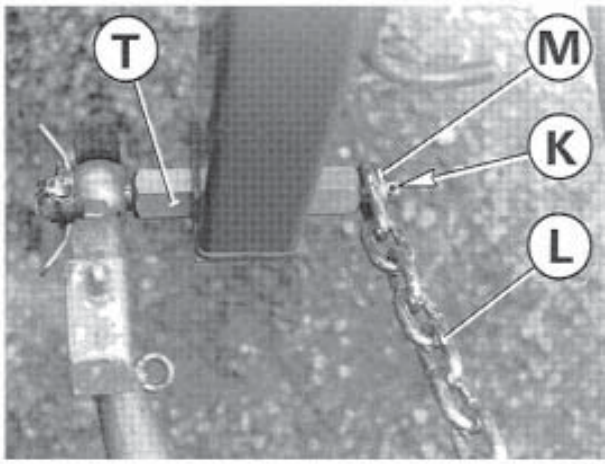
1) Pressurize hydraulic cylinders and pull cord (A) to free lock (I) (photo 21).

2) Lower cutterbar into the work position by releasing hydraulic pressure. As soon as the cutterbar starts to pivot, release pressure on the cord (A).

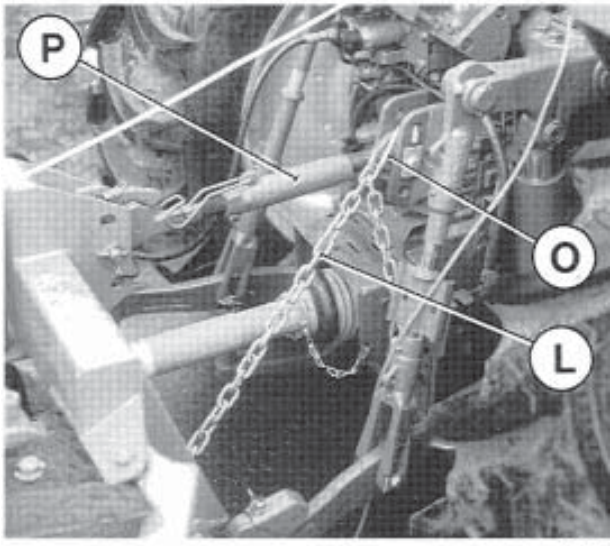
   When the cutterbar is in the horizontal position [cylinder (V) is fully extended], lower machine with the hydraulic lift until the roll pin (F) is exactly centered in its aperture (H) (photo 23).



22



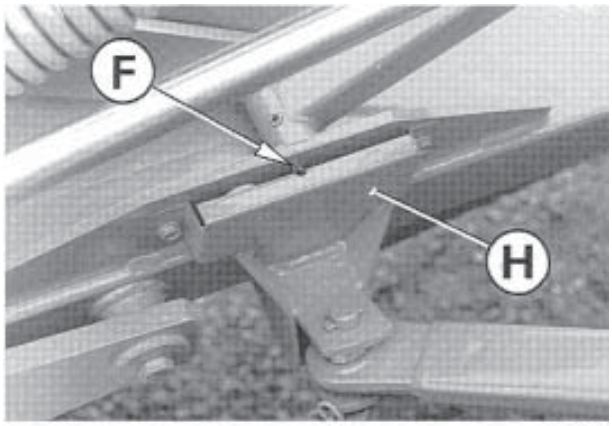
24



25

Adjustment of chassis height from the ground :

1. **For tractors equipped with hydraulic position control function** : set lower link height so that roll pin (F) is exactly centered in its aperture (H) (photo 23).
   This gives height E = 400 mm approximately (photo 22), which corresponds to a cutting height of 30 mm.



23

2. **For tractors not equipped with hydraulic position control function**, the stop-chain (L) which is delivered with the machine must be used.

   Proceed as follows to install this chain (L) (photos 24 and 25) :

   - Remove roll pin (K) from right hitch pin, attach chain (L) and washer (M) and reinstall roll pin (K).
   - Lower machine until hitch pins (T) are 400 mm (16") or slightly more from the ground [roll pin (F) is slightly excentered in regard to its aperture (H)].

   - Attach stop-chain (L) with its hook (O) to the uppermost free holes at the tractor's top link attachment clevis (photo 25).

   - Lower the machine into working position. Chassis height is correct when :

     - The cutterbar unit is resting on the ground
     - Stop-chain (L) is tight.
     - Roll pin (F) is exactly centered in its aperture (H) (photo 23).

   - To keep this adjustment permanently, close hook eyelet (O) with roll pin.

DANGER

WARNING : BEFORE LOWERING THE MACHINE IN WORK POSITION, ENSURE ALL PERSONS ARE WELL CLEAR OF THE MOWER PIVOTING AREA.

ADJUSTMENTS

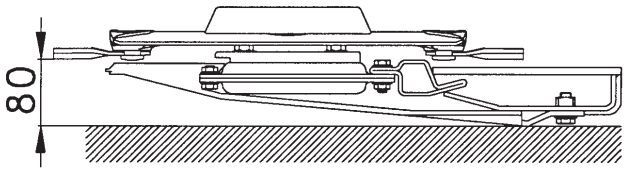
DANGER

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 TO STOP.

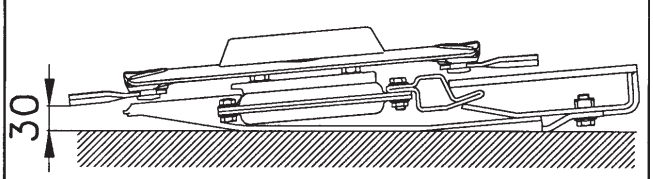
Cutting height

Maximum cutting height (80 mm / 3") (fig. 26) is achieved when the discs are parallel to the ground. Adjustment of cutting height is achieved by altering the cutterbar tilt angle. This is effected by varying top link length (P) (photo 25) until desired cutting height is achieved. To minimize blade and disc wear, improve grass regrowth and get maximum nutritive value from the crop, minimum cutting height should never be adjusted less than 30 mm / 1 1/4" (fig. 27).

MAXIMUM CUTTING HEIGHT 26



MINIMUM CUTTING HEIGHT 27



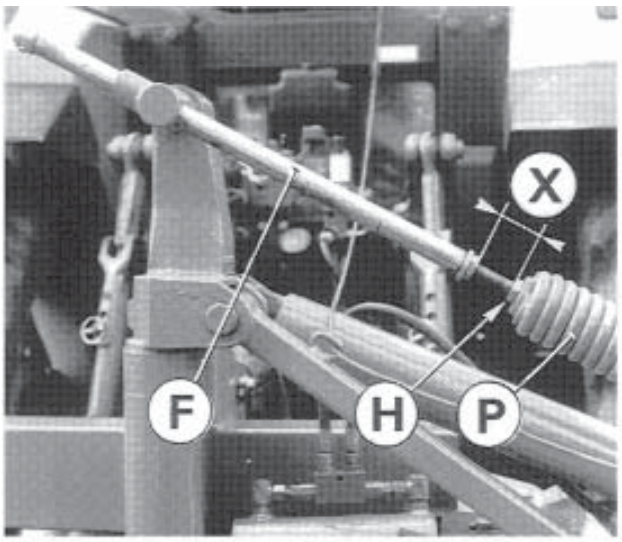
Adjustment of compensating spring tension

The compensating spring is factory adjusted so that dimension (X) (photo 32) is 105 mm (4") for the **GMD 801**.

When working conditions are difficult, adjustment can be modified as follows :

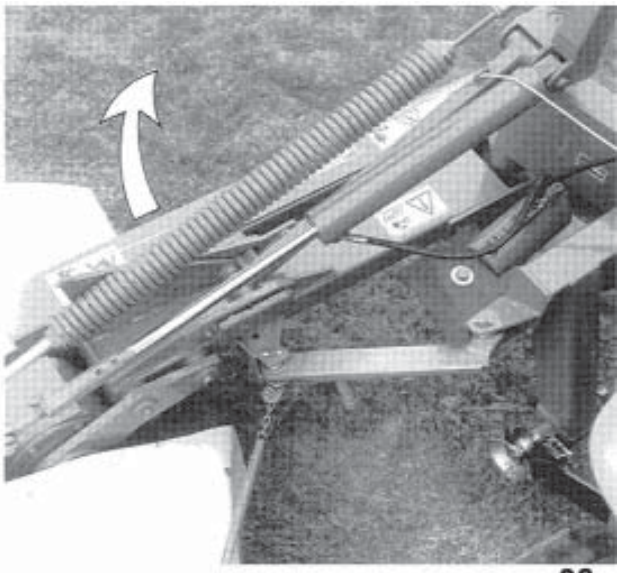
- Put machine in parking position, which releases compensating spring (P) (photo 32).
- Loosen lock nut (H) and adjust rod (F).
- After adjustments retighten lock nut (H).

Dimension (X) = **maxi** 115 mm (4"1/2).



32

SAFETY BREAKAWAY



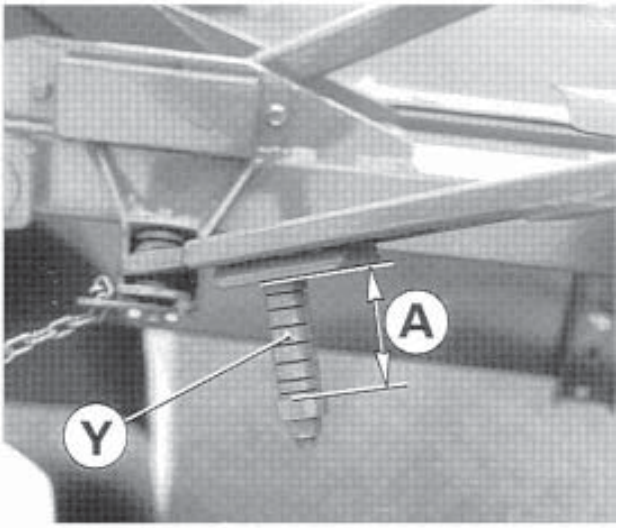
33

A breakaway latch allows the cutterbar unit to swing back if an obstruction is hit (photo 33).

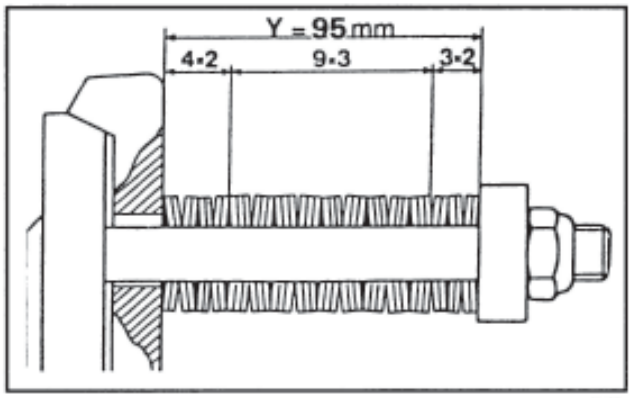
IF THE LATCH RELEASES, STOP THE TRACTOR IMMEDIATELY AND DISENGAGE THE PTO.

To reset the cutterbar, back up the mower until the cutterbar is in its normal position.
The factory setting of the latch is adapted to most working conditions.

NOTE : Before using the mower, the breakaway linkage must be checked for good operation making sure all components slide correctly and are well greased. Check for any cutterbar damage if an obstruction is encountered.



34

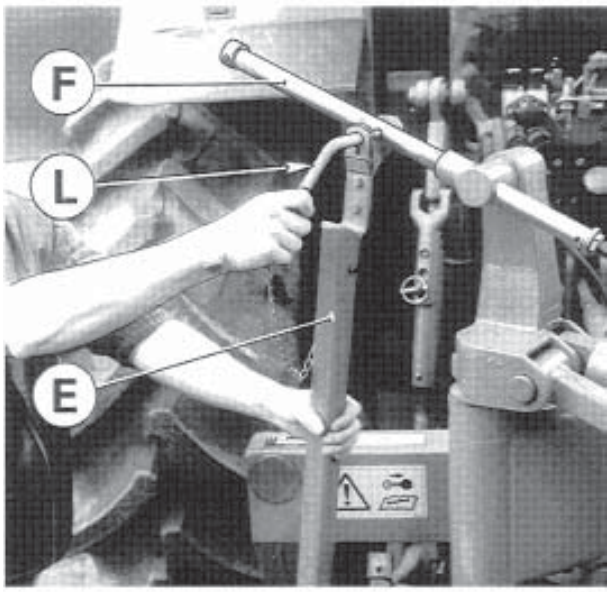


35

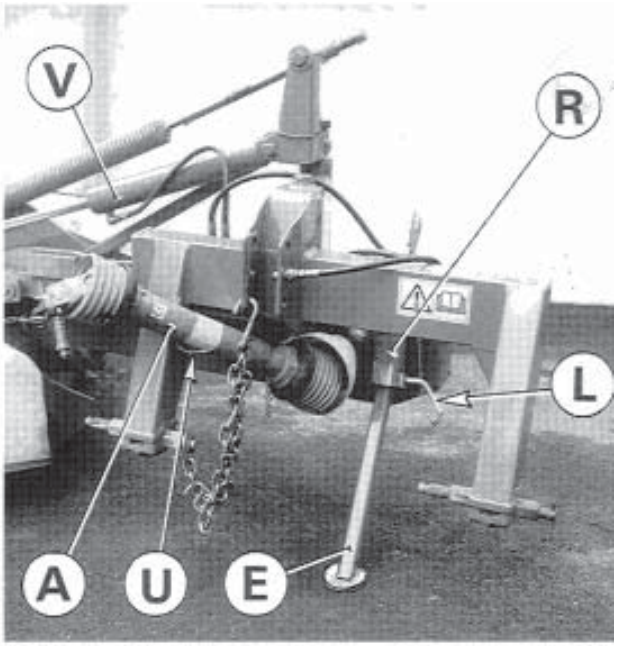
The stack (Y) of spring washers should be compressed to 95 mm (3 3/4") (fig. 35). Observe spring washer arrangement in fig. 35 carefully.

If after resetting the cutterbar continues to break away, the pressure of spring assembly (A) (photo 34) can be increased but stacking (Y) must never be less than 91 mm (3 2/3"), otherwise safety disengagement cannot function.

PARKING THE MACHINE

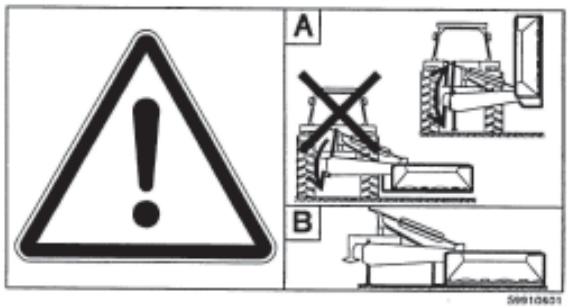


36



37

1° **THE CUTTERBAR MUST BE RAISED INTO ITS VERTICAL POSITION SO THAT THE COMPENSATING SPRING IS RELEASED.**



2° Take out pin (L) which links the stand (E) to the suspension rod (F) (photo 36). Lower and lock the stand (E) with pin (L) in its support (R) (photo 37).

3° **Release hydraulic pressure to lower cutting conditioning unit to the horizontal position [cylinder (V) is fully extended].**

4° With the hydraulic 3-point lift, lower the machine to the ground and disconnect the top link and the hydraulic hose.
Then disconnect lower links and the PTO shaft.

5° Place the PTO shaft (A) in its support (U) (photo 37).

DANGER

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

OPERATING THE MOWER

BEFORE STARTING WORK BRING THE GUARD DOWN INTO THE CORRECT POSITION.

FASTEN THE SAFETY CURTAINS USING THE STRAPS PROVIDED.

DO NOT STAND ON OR LEAN AGAINST THE GUARD.

BEFORE BEGINNING WORK, KEEP ALL PEOPLE AND ANIMALS AWAY FROM THE DANGER ZONE OF THE MACHINE (RISK OF PROJECTION).

GENERAL

Before engaging the machine into the grass, lower the cutterbar to the ground and bring the PTO shaft up to its nominal speed *(rotational frequency)* **[1000 rpm *(min^{-1})*].**
Do not allow the PTO to drop to too low a speed *(rotational frequency)* as this would reduce cutting quality.
Forward speed should be determined in accordance with work conditions.
We recommend that forward speed be reduced when working in high density crops or in difficult conditions.
Check that covers (14-15) (photos 51 and 51 A, page 33) of inner and outer cones are securely attached. Replace immediately if worn or damaged.

ADVERSE FIELD CONDITIONS

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 of the cutterbar back towards the horizontal position by turning the top link handle (P) (photo 25, page 22) 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.

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

LUBRICATION

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.

DANGER

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 BEFORE LEAVING THE TRACTOR.

IMPORTANT !

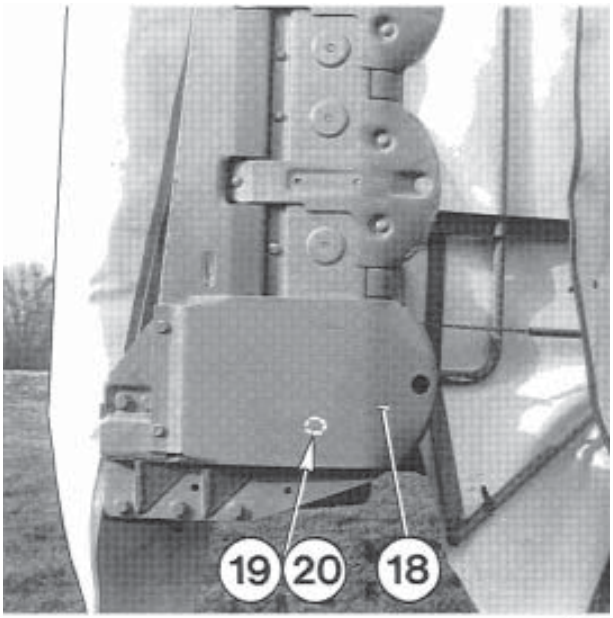
After the first 10 hours of use imperatively change oil **SAE 80 W EP (GL4)** in : - cutterbar
- rotor gearbox.

Thereafter, oil must be changed after every 200 hours of work and at least once per year.

CHANGING CUTTERBAR OIL

Before changing the oil of the cutterbar, let the machine run a few minutes so the oil gets hot.

Proceed as follows to change the cutterbar oil :
1° Lift the cutterbar into its **vertical position** by means of the hydraulic cylinders (photo 42).
2° Remove inner shoe (18) of main gearcase (photo 42).
3° Remove magnetic oil plug and its washer (19, 20) (photo 42 and fig. 43A) and let the old oil drain out **into an appropriate container.**
4° Remove inner plug (21) (fig. 43).
5° Clean magnetic plug and its washer (19, 20) and fit back into place once dripping has stopped.
6° **Fit inner shoe (18) back into place.**
7° Lower the cutterbar so that it is horizontal to the ground and pour the quantity of fresh oil prescribed below into one of the fill plug holes (21) (fig. 43).
8° Clean inner plug (21) and its washer (22) and fit back into place (fig. 43).



42

QUANTITY OF OIL IN CUTTERBAR
2.25 l / 4.5 US pint / 4 Imp pint

CHECKING OIL IN THE CUTTERBAR (fig. 43 and 43 A)

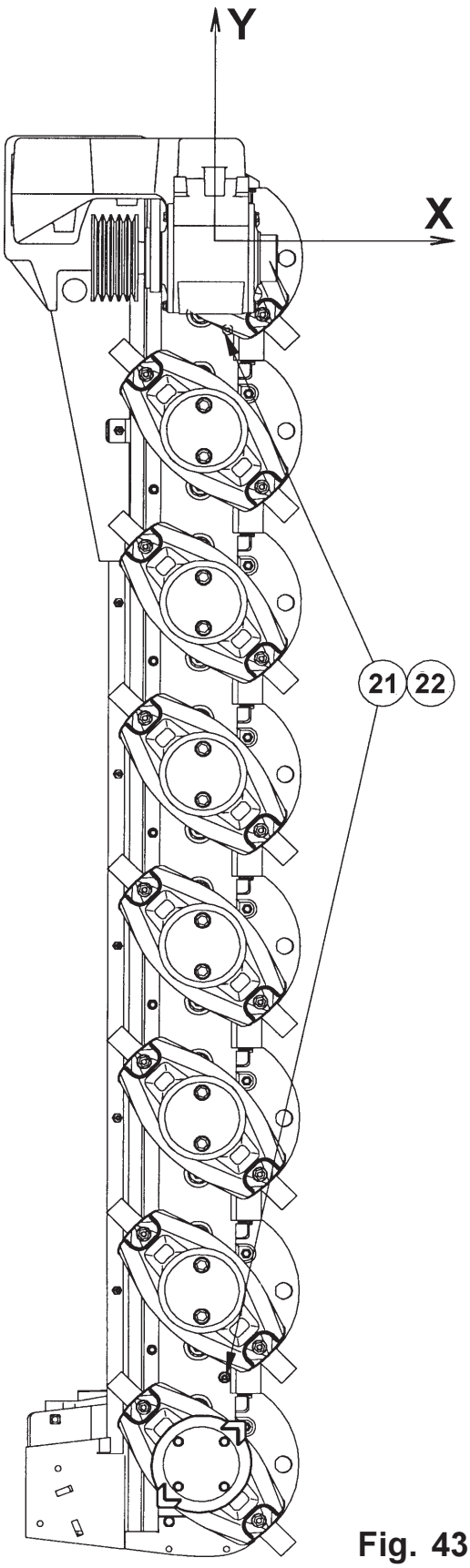
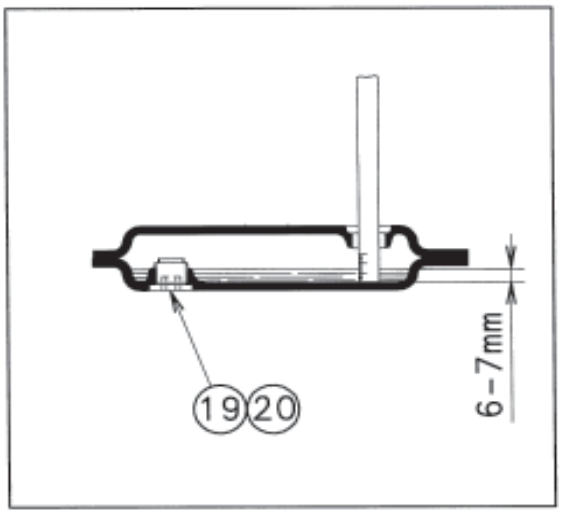


Fig. 43

Cutterbar oil level can be checked by measuring oil level through both filler plugs (21) when the cutterbar is perfectly horizontal lengthways and crosswise (X and Y).
Use a spirit level to ascertain that this is the case.
Correct oil level is 6 to 7 mm (1/4") at both filler plugs (21) (fig. 43).



43A

If in doubt as to the amount of oil contained in the cutterbar, do not add oil. Drain the oil completely and refill with the prescribed quantity.

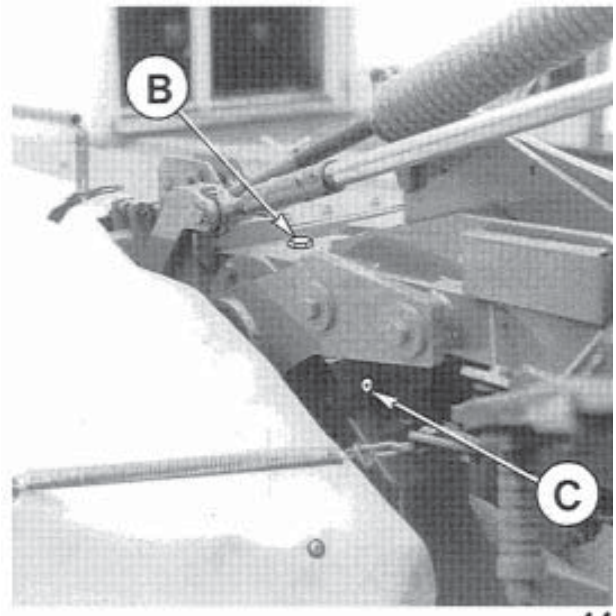
NOTE: Provided above instructions are strictly observed, there is no cause for alarm if it is found that the transmission case is very hot to touch, provided that the discs turn freely by hand.
Attention : Make sure that the tractor engine is shut off, ignition key removed and PTO shaft disconnected before carrying out this operation.

CHANGING GEARBOX OIL

Check gearbox oil level daily. Top up with SHELL SPIRAX SAE 80 W EP (GL4) oil if necessary by filling up through plug (B) (photo 44).

MAXIMUM AMOUNT OF OIL IN GEARBOX :
1 l / 2 US pint / 1.75 Imp pint
NEVER EXCEED THIS QUANTITY.

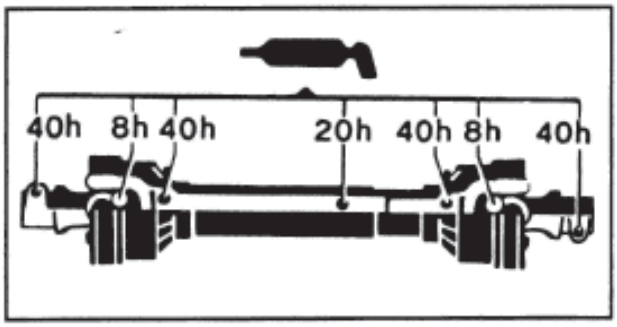
Check oil level through plug (C) (photo 44) when the cutterbar is horizontal to the ground. Oil level is correct when oil reaches the edge of the hole. When the cutterbar is in the vertical position, oil can be drained through plug (C).



44

P.T.O. SHAFTS

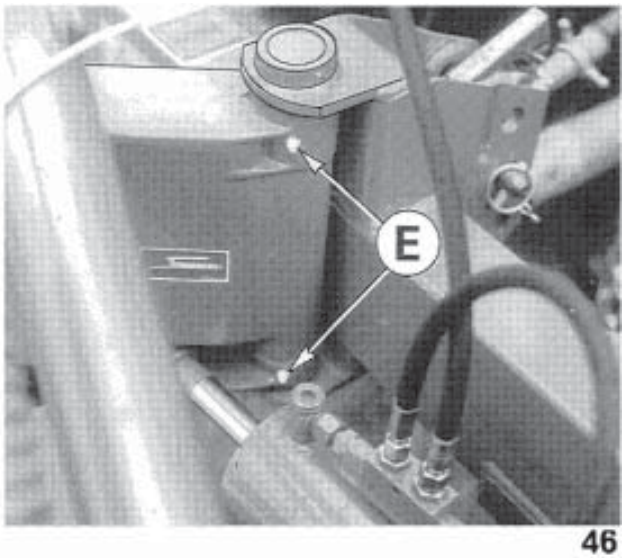
Lubricate all PTO shafts with SHELL Multi-Purpose grease NLGI grade 2 at the hourly intervals indicated in the fig. opposite.



45

GREASE FITTING

- Clean fittings before applying grease.
- Grease breakaway sliding components as required.
- Regularly lubricate 3-point frame pivot (E) (photo 46)
- After every 50 hours of operation, oil all moving parts and pivot points.



46

IMPORTANT

THE RECOMMENDED GREASE AND OIL CHANGE PERIODS ARE BASED ON NORMAL FIELD AND WORK CONDITIONS.
SEVERE OR UNUSUAL CONDITIONS MAY REQUIRE MORE FREQUENT LUBRICATION OR OIL CHANGES.

RESPECT SPECIFIED OIL QUANTITIES AND GRADES : SHELL SPIRAX SAE 80 W EP (GL4) OIL ONLY.

(In certain countries SHELL SPIRAX SAE 80 W EP (GL4) oil may not be available. In this case a GL4 or GL5 grade SAE 80 W 90 oil is an acceptable substitute. Never use a straight EP 90 oil in the cutterbar).

MAINTENANCE

DANGER

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.

BELT

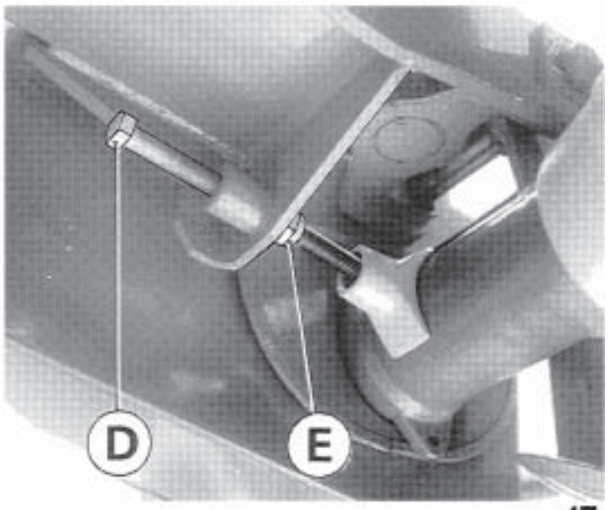
Belt must be properly tensioned at all times to prevent excessive slipping and flopping. A loose belt will cause poor cutting and premature failures.

Check powerband tension as follows :
- Remove belt guard.
- Unlock counter-nut (E) (photo 47) and loosen belt (C) (photo 48).
- Draw two marks on the belt (A), 1000 mm (39 1/3") apart (photo 48).
- Tighten adjustment screw (D) (photo 47). Belt tension is correct when distance between marks (A) is 1007 mm (39 2/3").
- Retighten counter-nut (E) (photo 47) after the adjustment has been made and refit the belt guard.

This precise adjustment should be made when a belt is replaced and also when retensioning a belt loosened for storage purposes.

A brief belt tension check should be made after the first 3 hours of use and periodically throughout the season. To do so it is not necessary to remove the belt guard. This check is made through the opening (F) located above the guard after having removed the cover plate (photo 48A).
Tension is correct when the belt does not deflect more than 21 mm (4/5") when a force of 33 daN (71 lbs) is applied mid-way between pulleys onto the whole width of the belt.
Do not forget to replace the cover plate after having made this check.

Note : If damaged, replace the belt :
Part No. 831 116 79.



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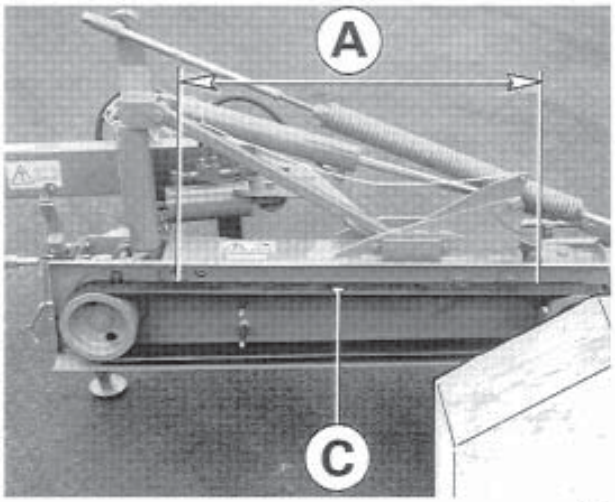

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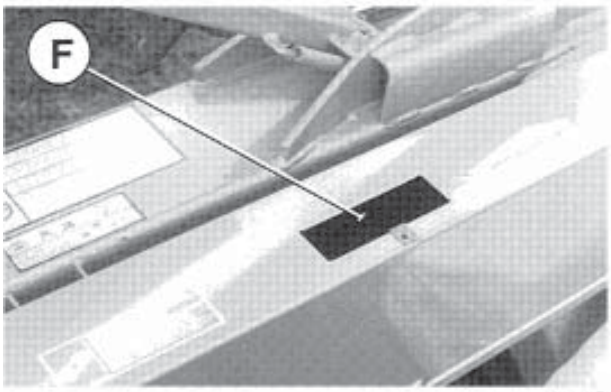
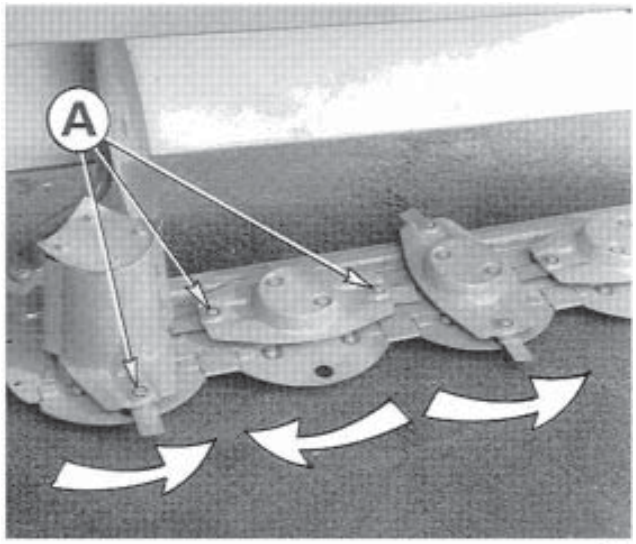


48A

MAKE SURE BELT GUARD IS ALWAYS KEPT IN PLACE.

DISCS AND KNIVES

Discs, knives and securing elements are manufactured from high quality steel and have been subjected to a heat-treatment to assure a high resistance to wear. Worn or damaged items must immediately be replaced with genuine KUHN parts as otherwise warranty will be withdrawn.

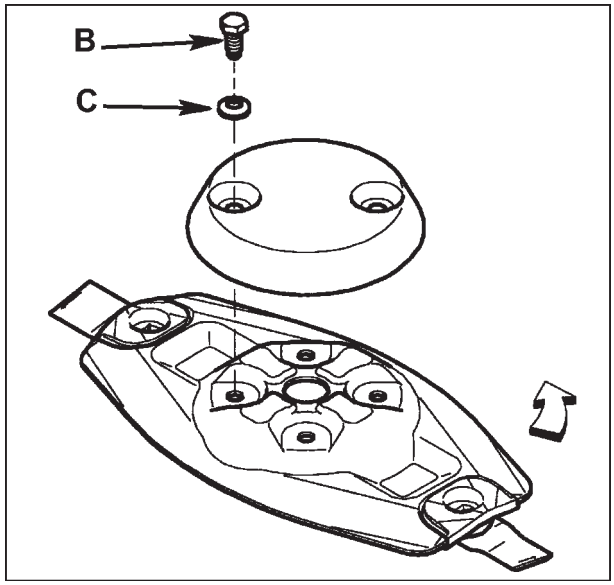


49

CAUTION : ONLY USE GENUINE KUHN SPARE PARTS.

DANGER

Worn knives should either be turned over on the same disc to use the other cutting edge, or replaced. When turning or replacing the knifes, make sure there is a 1 mm minimum gap between the knives or their mounting bolts and the cutterbar wear plates. If otherwise, insert one (maximum two) distance spacer(s) (code 568 071 00) between the discs and the disc bearing stations (see fig. 50 A, page 33). Dull knives require more horse power to cut the crop and will leave an uneven stubble.
To replace or turn over knives, first clean the area around nut (A) (photo 49) and remove nut with the box spanner supplied with the machine. Ensure securing elements are in good condition and fit knives so that the arrow on their upper face is pointing in the direction of rotation of the disc it is fitted to.
Torque locknut to **12 daNm (90 ft.lbs).**



50

IMPORTANT : ALWAYS REPLACE SECURING ELEMENTS (LOCKNUTS AND BOLTS) WHEN THEY HAVE BEEN REMOVED 5 TIMES.

DANGER

CAUTION : 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.

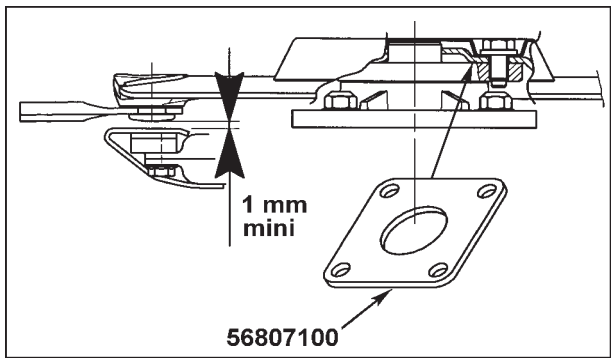
DANGER

Discs are secured by 4 nipple screws (B) and 4 conical spring washers (C) on a hub (fig. 50).
Two of these diametrically opposite bolts are also used to secure the conical covers on top of the discs. Tighten all 4 bolts to a torque of **12 daNm (90 ft.lbs)**.

The discs must have their largest diameters positioned at right angles to each other (see photo 49). This positioning must be scrupulously respected so as to avoid interference between the knives. Take extra care when fitting the conical spring washers (C) (fig. 50), which must be positioned with the conical centre at the top.

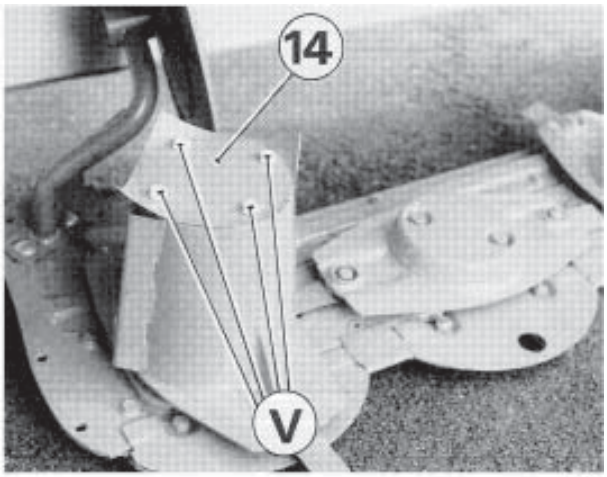
IMPORTANT

DISCS SUPPLIED THROUGH OUR SPARE PARTS DEPARTMENT COME WITH A 1 MM SPACER (PART no. 568 071 00) (fig. 50 A) ATTACHED TO THEM. WHEN INSTALLING A NEW DISC CHECK IF THE GAP BETWEEN THE BLADES OR THEIR MOUNTING BOLTS AND THE CUTTERBAR PROTECTION SHIELDS IS AT LEAST 1 MM. IF THIS IS NOT THE CASE FIT THE 1 MM SPACER BETWEEN THE DISC AND ITS MOUNTING HUB FOR INCREASED CLEARANCE (fig. 50 A).

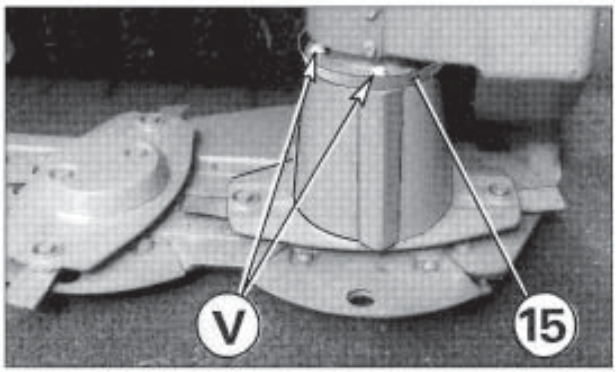


50A

Make sure cone lids (14 - 15) are properly secured in place (photos 51 and 51 A). Tightening torque of bolts (V) is **8 daNm (60 ft.lbs)**.



51



51A

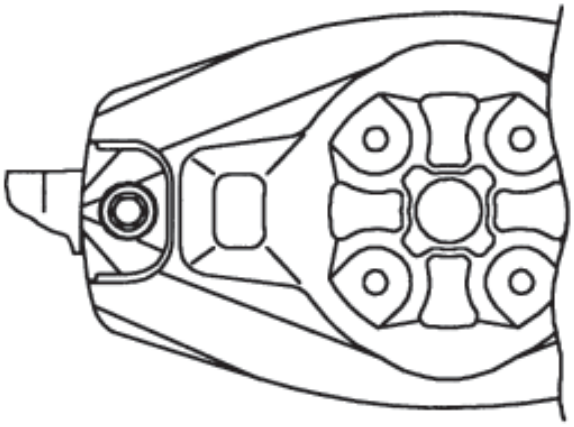
DANGER

REGULARLY CKECK ALL NUTS AND BOLTS FOR CORRECT TIGHTNESS, PARTICULARLY THOSE SECURING DISCS AND BLADES.

INSPECTION OF KNIVES AND SECURING ELEMENTS

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

Cutting quality as well as safe operation depend on the regular inspection and care given to the knives. Knives should be replaced in the following cases :

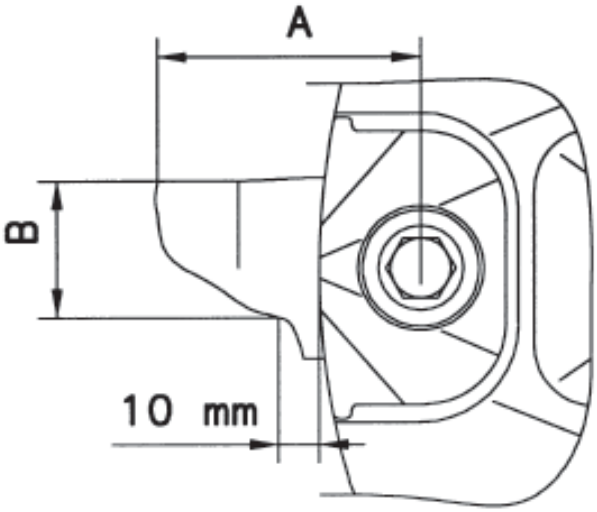


1. Damaged knives

Very rough conditions can cause knives to crack and become deformed leading to :
- increased risk of accidents ;
- deterioration of cutting quality ;
- risk of damage to the cutterbar.

2. Worn knives

Length (A) of a knife should be greater than 65 mm. The width (B) of a knife, measured at a distance of 10 mm away from the edge of the disc should be greater than 34 mm

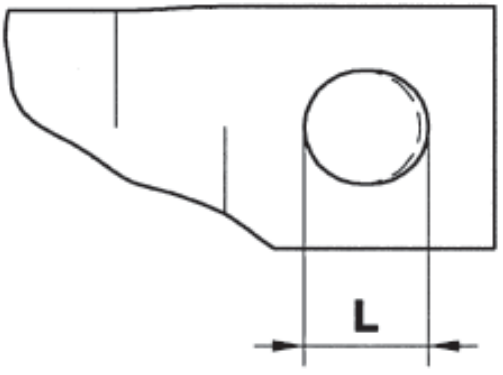


The hole (L) for the securing bolt must not become oval by more than 20 mm for an 18 mm hole.

B. SECURING ELEMENTS : To be inspected regularly !

(particularly the tightening torque of the nut: **12 daNm / 90 ft.lbs**).

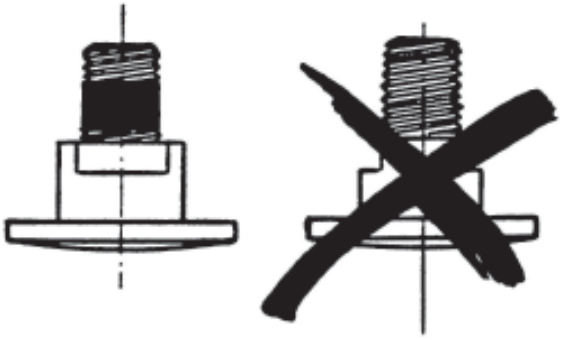
- Inspect immediately after hitting an obstruction.
- Inspect when replacing knives.
- Check at the beginning of each season.



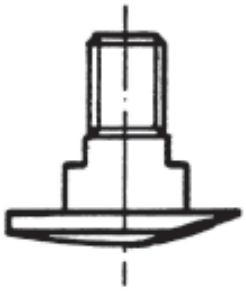
1. The securing bolt must be replaced:

- When a visible deformation is found.

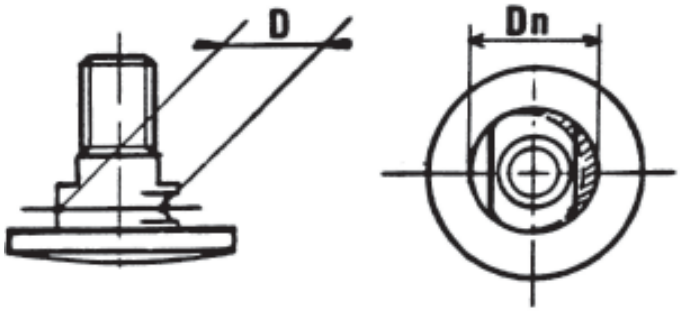
- When the locking compound on the threads has worn away or if the locking compound has become inoperational due to infiltration of water, oil or dirt.



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



- When the diameter (D) of the bolt shoulder is less than 15 mm (5/8 ").



2. The nuts must be replaced :

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

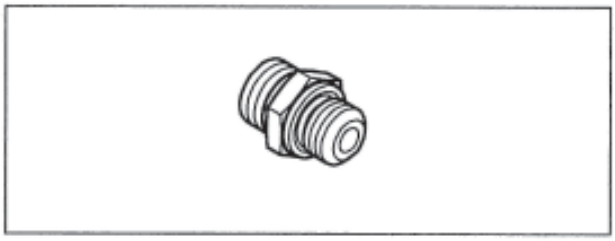
- When wear on the nut reaches a = 5 mm

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

OPTIONAL EQUIPMENT

1. HYDRAULIC ADAPTATOR (fig. 53)
Part No. 823 012 06

An adaptator M16 x 1.5 / 1/2 NPT - 24 is available.



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2. PTO SHAFT 1 3/8" - 21 SPLINES
Part No. 4600 413

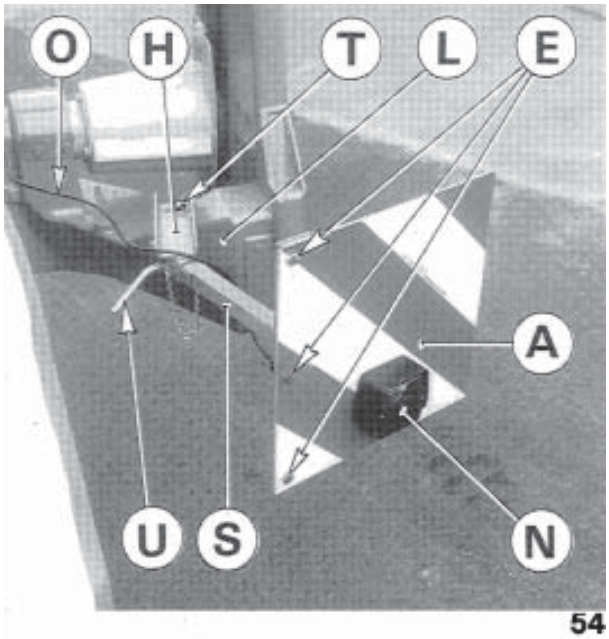
This PTO shaft is available for tractors with 1 3/8" - 21 spline PTO shafts (standard equipment for North America).

3. SIGNALLING ELEMENTS (photo 54)
Kit No. 106 6000

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 bottom of gearbox (L) with 1 hexagon screw (T) (M 12 x 20) and 1 spring washer (M 12) as shown on photo 54.
- 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 (O) at the rear of the tractor.

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

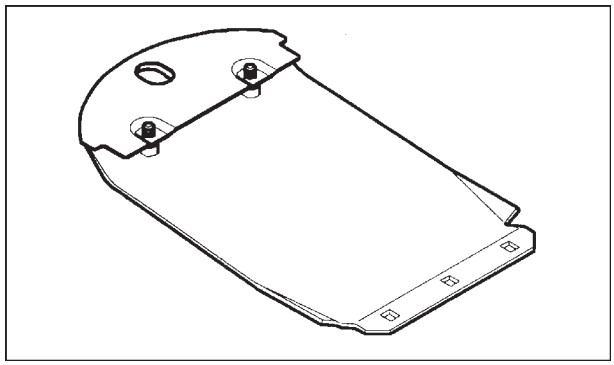


54

4. RAISED SKIDS (fig. 55)
Kit No. 107 6180

A raised skid shoe kit comprising 2 raised skids is available as an optional equipment. This kit serves 2 purposes :
- providing a cutting height adjustable between 60 mm and 120 mm (2.5" and 5"),
- operating on sticky grounds.

This 2 raised skids are installed instead of the 2 regular end skids.



55

TROUBLE SHOOTING GUIDE

PROBLEM	CAUSE	REMEDY
Uneven stubble	Too much tilt on cutterbar	Reduce tilt (see page 23)
	Low PTO speed *(rotational frequency)*	Increase engine speed *(rotational frequency)* to run PTO at 1000 rpm *(min^{-1})*
	Knives not installed correctly	Make sure that the arrow on the knife upper face is pointing in the direction of rotation of the disc (see page 32)
	Low disc speed *(rotational frequency)*	Check belt for correct tension (see page 31)
	Dull or broken knives	Replace knives (see page 32)
Stubble too long	Incorrect angle on cutterbar	Change cutterbar angle using tractor top link (see page 23)
	Insufficient cutterbar down pressure	Adjust compensating spring tension (see page 24)
Soil build up in front of cutterbar	Very wet conditions	Adjust main frame height by shortening chain as necessary (see pages 21 - 22)
	Too much cutterbar down pressure	Adjust compensating spring tension (see page 24)
Cutterbar not floating	Main frame setting incorrect	Adjust main frame as described on pages 21 and 22
Machine breaking back too easily	Insufficient tension on breakaway spring washers	Tighten breakaway spring washers (see page 25)
Machine does not lower into its work position	The hydraulic hose coupler connecting the machine to the tractor is worn	Replace coupler
Cutting height difficult to adjust	Excessive pressure on top link	Rest the machine on its parking stand (see page 26 for correct procedure)
Machine cannot be coupled or uncoupled easily	The 3-point frame is not horizontal in detached position	- Check the cutterbar horizontal position (page 18) - Use the correct procedure for detaching machine (page 26)

STORING THE MOWER

1. Thoroughly clean the mower.

2. Drain oil from gearbox and cutterbar and refill with new oil to correct level.

3. Inspect and replace worn knives and their fixation hardware.

4. Repaint rusted parts and all areas from which the paint has worn.

5. Loosen the set of V-belts.

6. Park the mower in the horizontal position.

7. Store the machine in a dry place.

SOUND LEVELS

Sound levels given out by : GMD 801 Multidisc Mower

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 90,5 kW.

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

Tractor only	:	75.7 dB (A)
Tractor + machine	:	79.5 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.

- N O T E S -

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
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