OPERATORS MANUAL
DISC MOWER
MODEL ROTOR

gribaldi
&salvia

TRACTORTOOLS
DIRECT

TABLE OF CONTENS

TRACTORTOOLS
DIRECT

PREFACE

We are delighted to welcome you among our customers and we thank you for choosing our machine.
Our machines are the result of years of research and experience using the most up to date technology.
However, for lasting protection of the capital you have invested it is important that you carefully follow the instructions in this manual which illustrates the characteristics, the operation and the maintenance of the machine. Particular attention should be paid to safety. The following types of decals are located on the machine and particular attention should be paid to these alerts:

SAFETY ALERT SIGNS

This symbol identifies important notices in this manual and on decals located on the machine. When you see this symbol, watch for the possibility of personal injury. Alwais follow the instructions given in the safety message indicated by this symbol.

CAUTION
This message is used to draw the attention of the operator and surrounding people to situatious where accidents may occur.

WARNING
This message is used to warn the operator and surrouding people to take precautions to avoid being involved in an accident by drawing attention to hidden hazards which could result in serious injury or death.

DANGER
This message is used to warn against dangerous actions which will result in serious injury or death. This message draws attention to the high risk situations.

SAFETY INFORMATION &WARNING

WARNING: Alwais read your operators manual thoroughly before operating or performing any maintenance on your mower. Before you operate this machine, know your controls and how to stop the tractor and mower quickly in an emergency! Read and observe all safety decals on the tractor and mower.

Use extreme caution and reduce speed when operating on hillside. Use cabs equiped with ROPS (Roll Over Protection) and seat belts. Mowers are more likely to throw objects when operating on hillside and tractors can easily tip. Either could result in serious injury to operator. Never start or stop suddenly when going up or downhill. This could result in tipping of the tractor or a roll-over. If steep slopes are anticipated, adjust the wheel width, add fluid to tires or add tractor weights to compensate. Avoid steep slopes. Do not raise the cutter bar when mowing hillsides. Doing so may increase the likelihood of tipping.

Only the operator should ride on the tractor no one should ride on the mower. Persons riding on the tractor or the mower could easily fall into the path of the machine resulting in serious injury. Anyone operating this machine must be instructed in the operation and capable of safe operation of the unit. Never allow children to operate this machine!

Never use drugs or alcoholic beverages which can hinder alertness or coordination while operating. Consult your doctor about operating this machine while taking prescription drugs.

Always keep all covers, blades and guards, furnished with the machine, in place and in good condition. Failure to do so could result in the operator being struck by high speed cutter bar. Keep clear all mowing parts.

Make sure all onlookers personnel, children and pets are out of the area to be mowed. Make sure pets and small children are not under or around the machine when you start the mower.

Always wear a hard hat, safety glasses and ear protection when operating the mower to reduce the chance of injury from thrown objects and high noise levels.

Always inspect the area to be cut for foreign objects or debris before cutting. Failure to do could result in personnel being struck by loose objects thrown by rotating blades.
Thrown objects can cause serious injury or death.

Always wear proper foot protection. Never operate the mower in bare feet or while wearing sandals or sneakers.

Always operate in daylight conditions or use sufficient artificial lighting. Use extreme caution when mowing under conditions which could hinder yoour ability to see people, pets or obstructions in the mowing aerea.

Always check the drive line connections at the tractor and the gearbox before operation of the mower. Be sure the quick disconnects are locked before operation.

Always disengage the tractor PTO and shift into neutral before starting the tractor.

Never assume that the blades are not rotating while the tractor is running. Do not place hands or feet under the mower when the engine is running.

Always lower the mower to the ground and shut off the tractor before dismounting and be sure that the mowing motion has stopped
Failure to do so could result in the operator being injured by mowing tractor, mower or driveline parts.

Always stop the tractor's engine and disengage the PTO before making adjustments or cleaning the mower.

driveline and block up the machine before ɔn the mower.

Never operate the mower while in the raised of the transport position.

Disingage the PTO whenever the mower is in the transport position.

Avoid sharp turns while mowing.Remenber that a 3-point mounted mower will swing in a wide arc when the tractor is turned. Allow sufficient clearance for the mower when turning.

Always stop the mower and tractor upon hitting anobstruction.Stop the tractor engine and inspect the mower before resuming operation.

When transporting the mower on public roads, always use the tractor's safety warning lights and slow mowing vehicle emblem. Consult local regulations about the use of additional lights or flashers.

Perform preventive maintenance on a regular basis.Replace worn or damaged parts immediately. Keep all nuts and bolts tight at all times. Failure to do so could result in serious injury to personnel or machinery. Make sure all safety decals are in place and visible.
Replace decals immediately when they become illegible.

Do not use this machine in extremely rocky condition

Periodically check the condition of the hydraulic hoses.Always wear protective eye goggles and hold a piece of wood on suspected leaks.Pinhole hydraulic leaks can penetrate skin.Do not touch.

Never operate the mower with cutter bar locked in the UP position or any time the cutter bar locked in the UP position or any time the cutter bar is raised.Never allow anyone near the cutter bar when the tractor is running.

Observe minimum and maximum PTO RPM limits.Failure to do so could result in damage to equipment.Use only 540 RPM.

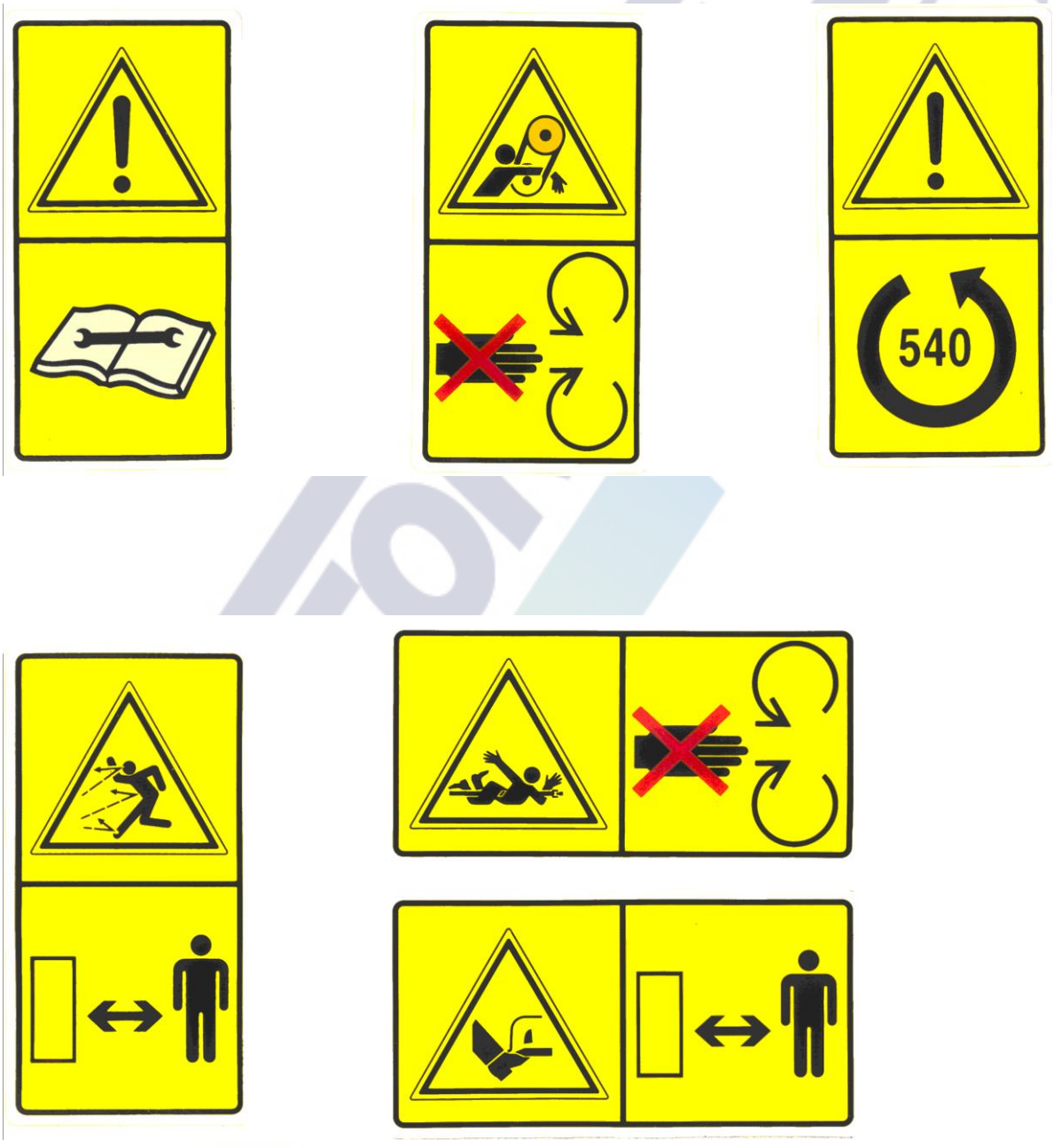
Always lock the cutter bar in the UP position for transport, whenever the cutter bar is in the UP position with no hydraulic pressure on the cutter bar cylinder or whenever the cylinder is removed. Failure to lock the cutter bar in this position could result in the cutter bar falling to the ground and causing injury.

Never allow children to operate on ride on the tractor or cutter:
Children 16 years old or older who are large enough to reach the controls safely, who are weiltrained and supervised, and who have read the operations manual and understand the potential hazards are usually capable of operating the discmower in a reasonable manner.

This mower is of metric design.USE ONLY METRIC TOOLS. Other wrenches may stip and cause bodily injury and may ruin the fastener

CAUTION
Never disconnect mower from tractor without cutter bar in the lowered (operating) position.

The following Safety and Informational Decals are located on the DISC MOWER.
Locate , read and understand these Decals.
Replace any damaged Decals. Keep all Decals clear and readable.



TECHNICAL CHARACTERISTICS

CHARACTERISTICS	u.m.	R 4 204	R 4 304	R 5 205	R 6 206	R 6 306	R 7 207
WORKING WIDTH	ft. mt.	5,5' 1,70	5,5' 1,70	7' 2,05	8' 2,40	8' 2,40	9,5'2 2,80
THEORETIC POWER P/T	hp	30	30	37	43	43	50
NUMBER OF DISCS	n°	4	4	5	6	6	7
BLADES PER DISC	n°	2	3	2	2	3	2
WORKING SPEED	Mp/h Km/h	12 19					
REQUIRED REVS P/T	rpm	500/550					
DISC ROTATION SPEED	rpm	3000					
YIELD OUT PUT PER HOUR	acre	2.5-4	2.5-4	4-5.5	5.5-7	5.5-7	7-8.5
WORKING POSSIBILITY WITH INCLINED BAR		yes					
SAFETY DEVICE		overrunning clutch release					
HYDRAULIC LIFT		yes					
DRIVE		"V" belt - gears					
INDICATIVE WEIGHT	Kg. Lb.	345 765	345 765	370 820	400 890	400 890	430 955

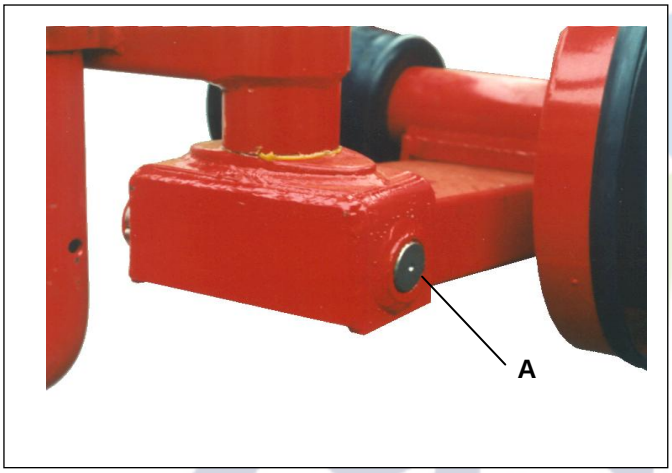
He reserve the right to change specifications without prior notice.

ASSEMBLY

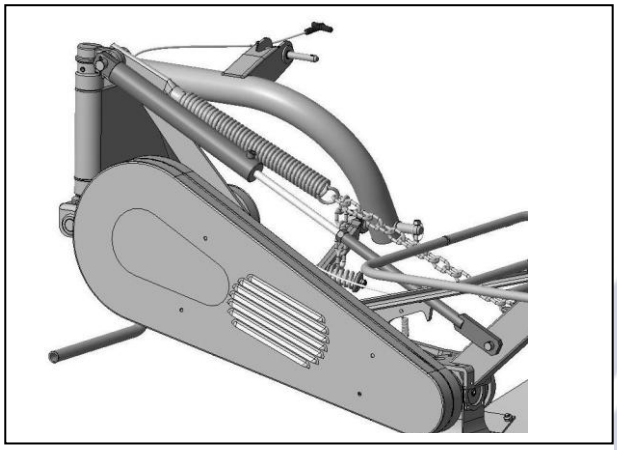
FRAME

Attach the chassis to the arm by means of the pin, and secure this last with the relative plug "**A**" (pict. 1).

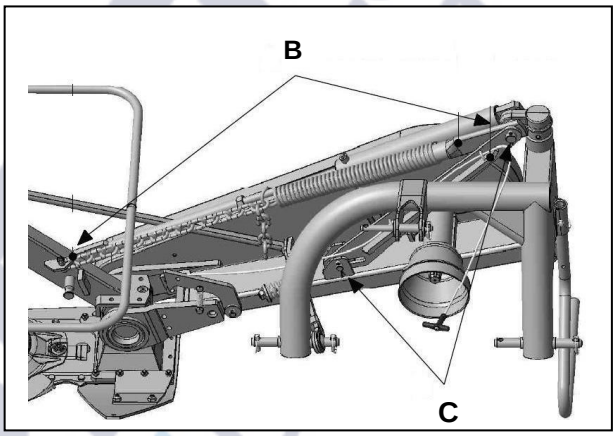
Connect the hydraulic piston as in (pict. 2), connect the lightening spring **B** device to the arm and the end of the piston to the support hose (pict. 3).



Pict. 1

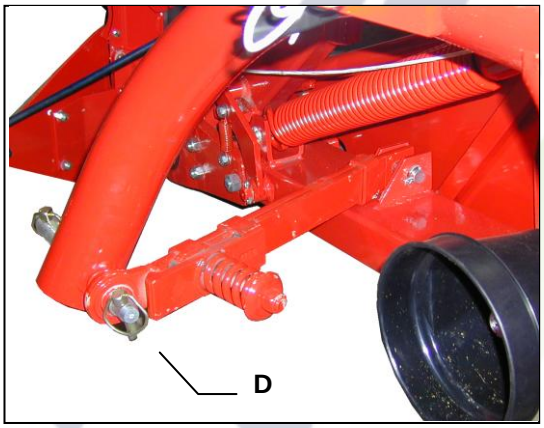


Pict. 2

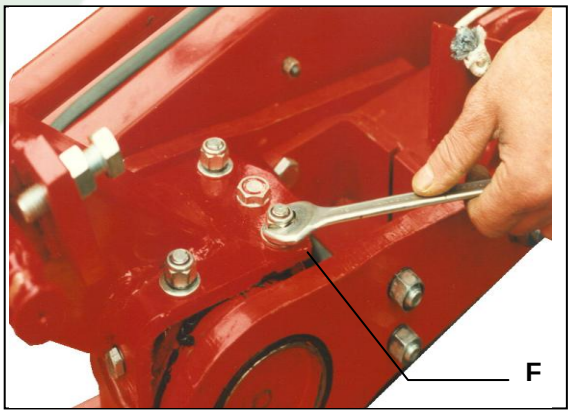


Pict. 3

Secure the tip of the release (clutch side) to the frame by means of the relative pin positioning it with the spring turned outwards "**D**" (pict. 4), then connect the other tip to the arm inserting it in the relative pin "**E**" (pict. 4).



Pict. 4



Pict. 5

PROTECTION

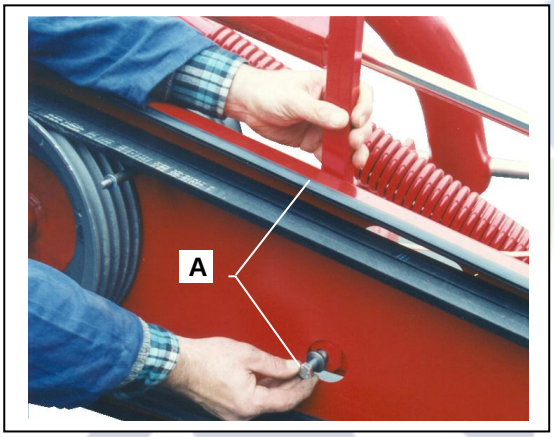
The support hose of the protective element is mounted on the transfer case by means of two M10 screws and four M12 self-locking nuts "**F**" (pict. 5).

PROTECTION (continued)

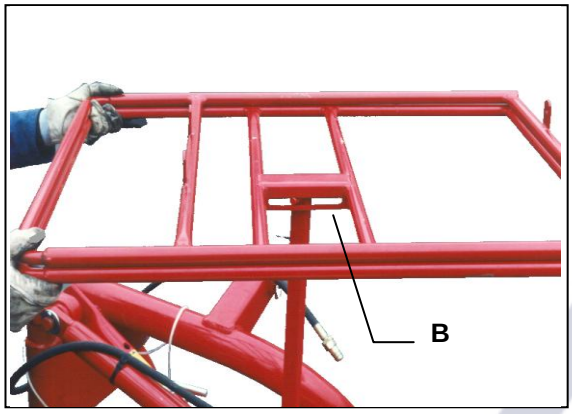
Screw the hoist rod to the arm after having removed the casing cover "**A**" (pict. 6).

Assemble the safety plastic cover inserting the rod into the relative eyelet "**B**" (pict. 7).

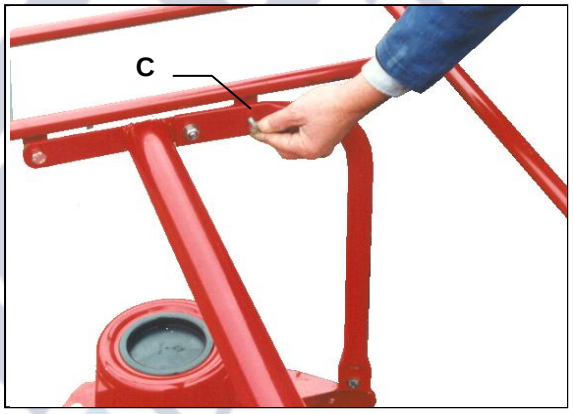
Connect the support tube to the ground by means of the reinforcement arm, using the M10 bolts "**C**" (pict. 8).



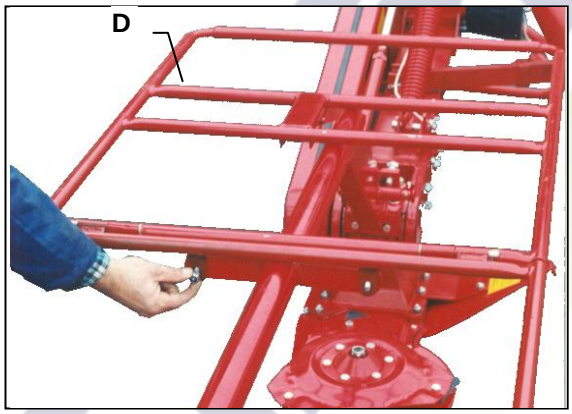
Pict. 6



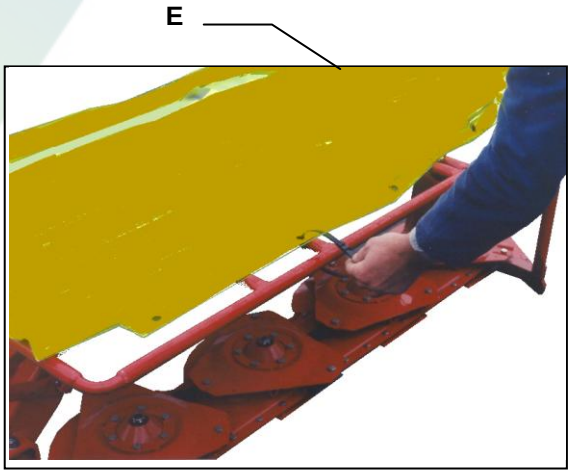
Pict. 7



Fix protective frames by M10 screws "**D**" (pict. 9), and the sheet cover using the tapes supplied "**E**" (pict. 10).



Pict. 8



Pict. 9

The plastic cover is a very important safety feature, it is must therefore be promptly replaced when it shows signs of wear.

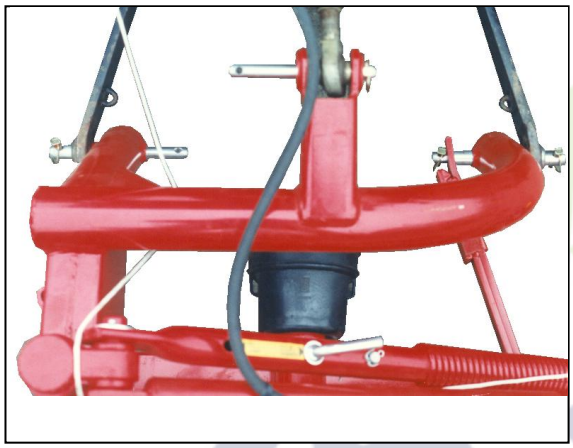
STARTING UP

FRAME

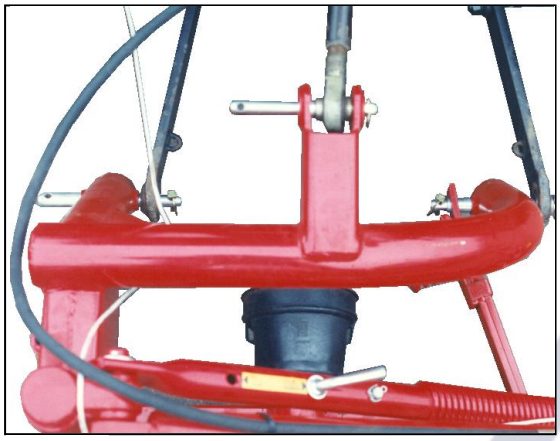
Couple the mower to the tractor 3-point linkage using the pins inside and outside the frame so as to adapt the machine to the tractor track in the best possible way.

The pins are tapped and can be overturned, always use the part with the greatest diameter if possible.

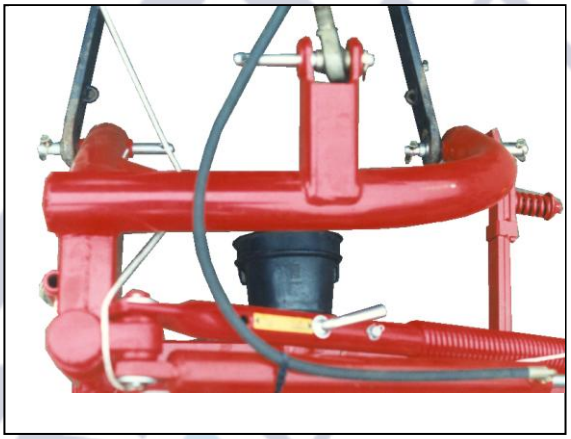
The diagram on the opposite page illustrates the multiple coupling possibilities (pict. 11-12-13).



pict.11

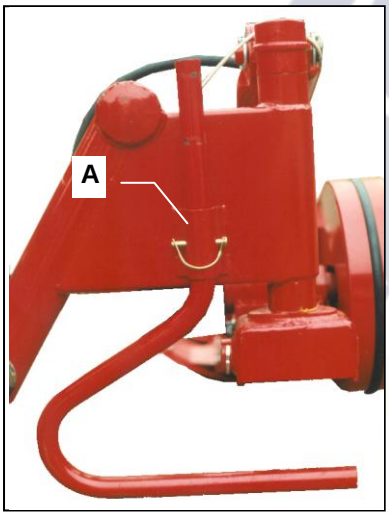


pict.12

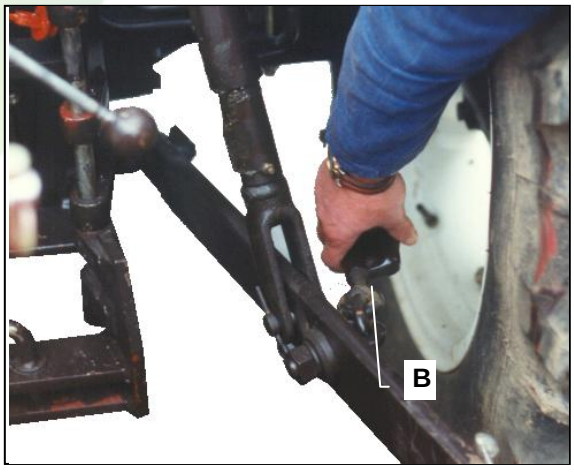


pict. 13

Lift the prop and block it in the working position and secure it with the relative pin "**A**" (pict 14).
Bring the end of the cable inside the tractor cabin so as to facilitate the release of the bar.
Adjust the stabilizing tie-rods of the tractor so as to position the mower in the most suitable position "**B**" (pict. 15).



pict. 14



pict. 15

DRIVELINE LENGTH

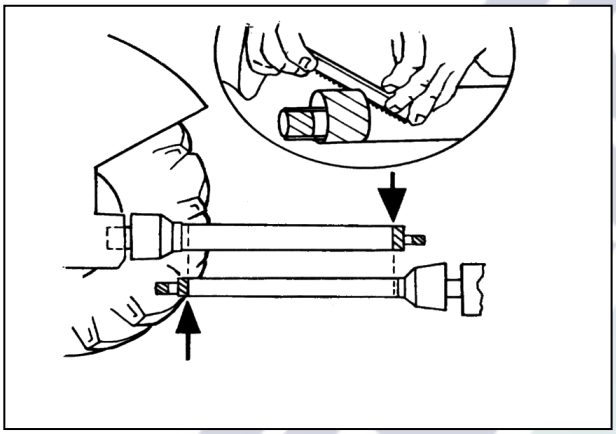
Before operating the mower the driveline length must be checked. With the mower attached to the tractor check the Driveline length as follows.

1) Separate the two halves of the Driveline and connect one half to the Tractor and the other half to the Mower.

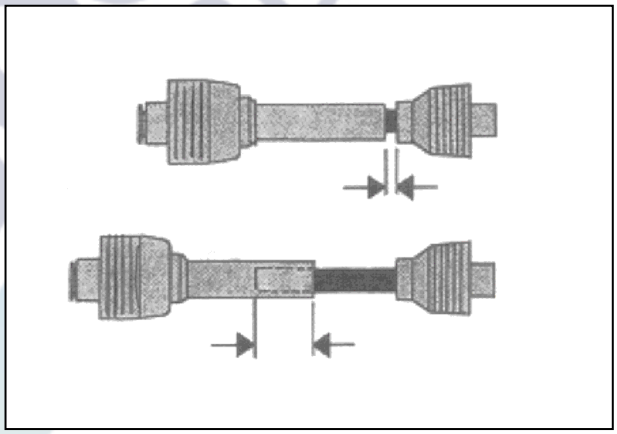
2) Lower the Mower to the operating position.

3) Bring the two Driveline halves together (pict. 16). There should be 1 1/2" (pict.17) or more clearance from the tubes bottoming out at this maximum compressed length. If necessary shorten the Driveline to obtain the proper clearance. Do not shorten more than necessary. Shorten the metal tubes and guards by the same amount and round off all sharp edges and remove burr. Grease the metal tubes before assembling.

4) Raise the Mower to the transport position and check the Driveline length at this maximum extension to make sure the metal tubes are always engaged at least 8 inches (pict.17).



Pict. 16



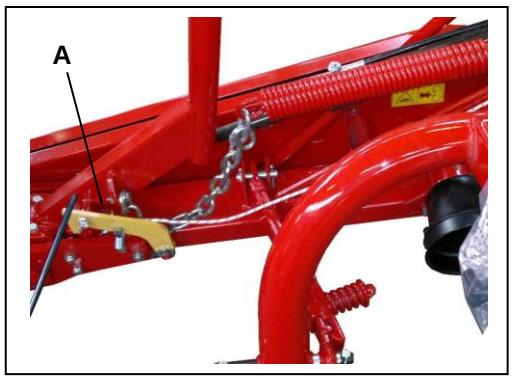
Pict. 17

HYDRAULIC HOIST

All the **ROTOR** mowers are equipped with hydraulic hoist, that operates by means of a single-action cylinder, therefore it is necessary to use a tractor complete with oleodynamic drive and distributor, to which the cylinder hose will be connected.

WORKING POSITION

Make sure there are no people or animals near the machine.
Remove the security latch (A) to lower the cutting bar (pict. 18).

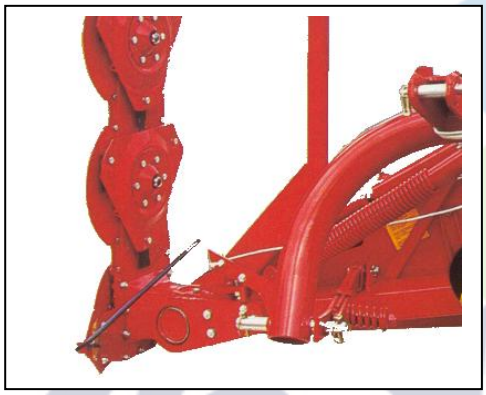


Pict. 18

WORKING POSITION (continued)

3) Release the safety hitch bar by means of the cable and lower the bar until it touches the ground "**A**" (pict. 19). By vertically re-positioning the bar, it will automatically re-hitch itself.

4) Lower the hoist by about 2"-4" and insert the hoist command lock in this position.

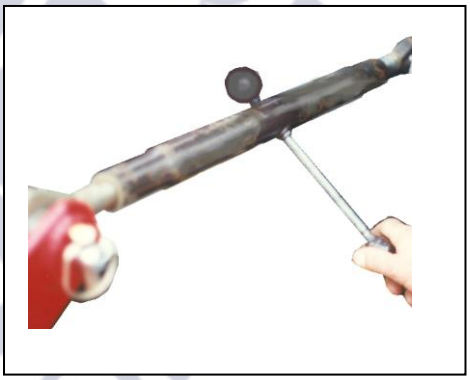


Pict. 19

CUTTING HEIGHT

The cutting height is regulated by the tractor third-point linkage, which permits the downwards lowering of the front part of the bar.

We however advise not to mow too near the ground in order to avoid the risk of any blows to the blades by any foreign objects.

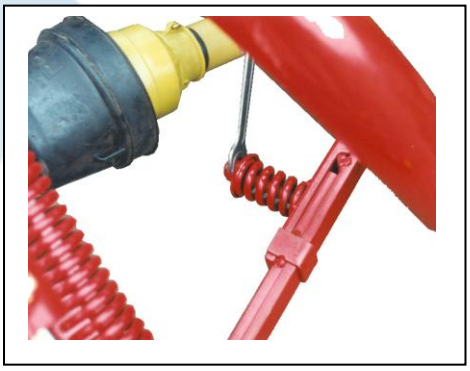


Pict. 20

SAFETY RELEASE

The **ROTOR** mower is equipped with a safety release element that allows the bar to rotate backwards in the event of blows.

It is not possible to give an optimum original calibration due to the diversity of the various ground conditions, therefore the spring pressure should be regulated by means of the special self-locking nut (pict. 21).



Pict. 21

BELT TENSION

It is important to the check the belt tension especially in the first hours of working. To check the tension, it is necessary to exert upon each belt a pressure of nearly lb. 8/9 if the flexion is over 1/2" "**A**" (pict. 22), proceed as follows:

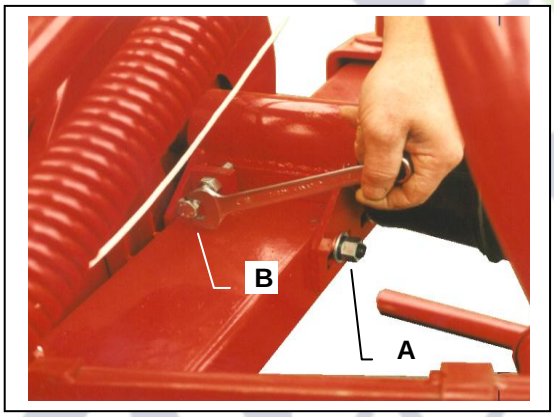
BELT TENSION (continued)

1) Loosen the two M14 bolts of the pulley support "**A**" (pict. 23).

2) Stretch the belt by means of the relative M12 screw after having loosened the lock-nut "**B**" (pict. 22).

3) Check that the tension is correct and then tighten the M14 bolts "**A**" (PICT. 23).

Pict. 22



Pict. 23

When the belts are worn always replace them in complete series (4 belts).

USE

To begin the mowing work, after positioning the bar on the ground, insert the PTO and gradually accelerate until a speed of 540-600 revs per minute is reached.
The loud noise caused by the discs should give no cause for alarm it will be reduced considerably when the mowing operation begins.

Make sure that the engine does not lose revs during working, as it might cause clogging under the discs.

DISC AND BLADE SUBSTITUTION

The **ROTOR** mowers are equipped with either oval or triangular discs, these are mounted on the grooved pin of the pinion in regular sequence so that there is no risk that they knock together. Therefore in the event of substitution the initial position must be maintained.
The blades are fixed to disc by means of a special block and a M10 screw.

Pict. 24

Pict. 25

CAUTION: The blades can be of helicoidal shape, in which case the cut will be right and left and they are to be positioned in relation to the direction of rotation of the disc.

MOWER TRANSPORTATION AND STORAGE

Lift the tractor hoist and operate the mower piston, the protective element will fold and the machine will automatically hitch itself to the safety hook. Shift the pin so as to block the limit device. The mower is ready for transportation.

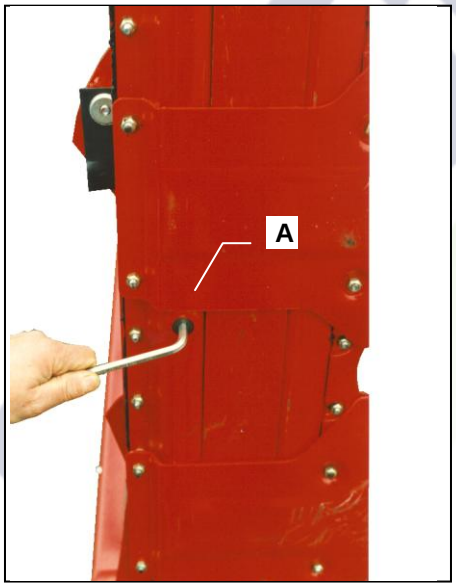
For storage, lower the prop, lower the hoist and unhitch the machine from the tractor. Wash the mower before storing away for the winter, and we recommend that it be positioned with the bar horizontal to avoid the risk of accidental overturning.

LUBRICATION

The **DM 200/300** mowers come supplied with oil. However it is advisable to check the levels; it is necessary to replace the oil after the first 10 hours of work.

BAR

Check and top up with bar in vertical position. The plug is both for filling up and for level gauge "**A**" (pict. 26).



pict. 26

DM 204/304 = 3 L.
DM 205 = 3.5 L.
DM 206/306 = 4 L.
DM 207 = 4.5 L.

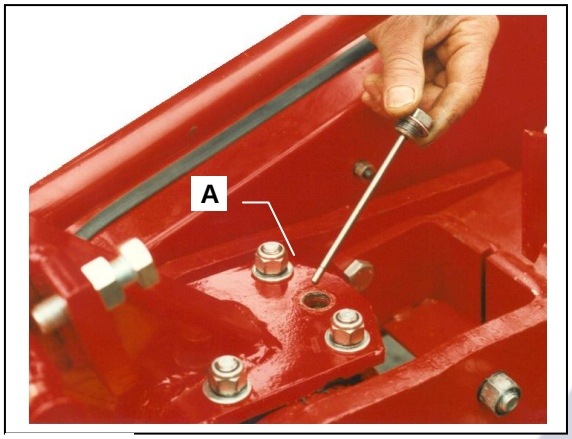
SAE 80W/90 OIL

AS THE PLUG IS MAGNETIC IT MUST BE THOROUGHLY CLEANED BEFORE BEING SCREWED BACK.

LUBRICATION (continued)

TRANSFER CASE

Check and top up with the bar in horizontal position. The plug with rod is both for filling up and for level gauge "**A**" (pict. 27).

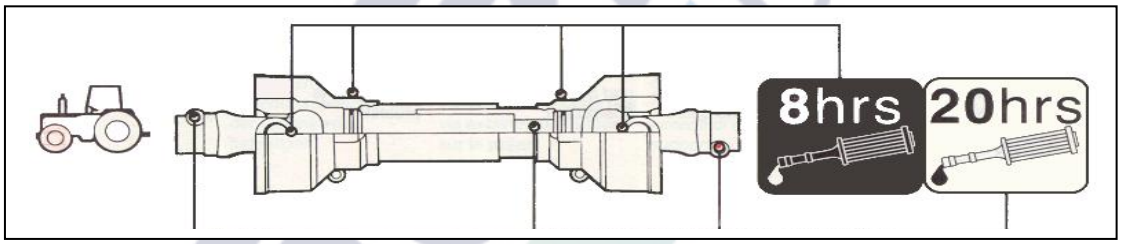


pict. 27

ALL TYPES = 0.3 L. SAE 80W/90

DRIVELINE

Grease Fitting are located on the Cross Assembly of each U Joint and on the Telescoping Tubes.
Do not force grease through the Needle Cup Assemblies.
Use quality grease to lubricate each part after the number of hours shown in the chart (pict 28).
Consult the shaft operation and maintenance manual.



pict. 28

WARNINGS

- **Always replace the blades whenever they are damaged so as not to jeopardize the effectiveness of the mowing operation.**
- **Do not continue operations should strange noises or vibrations be felt, and check the tightening elements.**
- **Carefully read and conserve this manual.**

GRIBALDI & SALVIA S.P.A. DECLINES ANY RESPONSIBILITY FOR ANY ACCIDENTS THAT MIGHT OCCUR AS THE RESULT OF THE IMPROPER OR INCOMPETENT USE OF THE MACHINE.

OPERATION

TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
NOT CUTTING CLEAN	1. Blades dull. 2. RPM too slow. 3. Ground speed too fast. 4. Incorrect blade rotation 5. Blades locked back	-Sharpen or replace. -Use correct rotation. -Reduce ground speed. -Use correct blade for disc -Free blades
STREAKING	1. Crop too wet. 2. Dull blades. 3. Mud or debris built up between skid shoes.	-Allow crop to dry. Slow ground speed. -Sharpen or replace blades. -Clean area between skids.
NOISY GEARBOX	1. Rough gears 2. Worn bearing	-Run in or change -Replace bearing
GEARBOX LEAKING	1. Seal leaking 2. Bent shaft 3. Oil level too high 4. Gasket damaged 5. Bolts loose	-Replace seal -Replace shaft and seal -Drain oil too proper level -Replace Gasket -Tighten bolts
UNEVEN STUBBLE	1. Too much tilt on cutterbar 2. Slow PTO speed 3. Blades not installed properly 4. Slow disc speed 5. Dull or broken blades	-Reduce tilt -Operate PTO at 540 RPM -Check blade installation -Check belts for correct tension -Replace blades
STUBBLE TOO LONG	1. Angle on cutter bar incorrect.	-Change angle using the top link.
SOIL BUILD UP IN FRONT OF CUTTERBAR	1. Wet conditions 2.Too much cutterbar down pressure	-Allow to dry. -Reduce cutterbar down pressure
MOWER BREAKS BACK TOO EASILY	1. Insufficient tension on break away spring.	-Tighten breakaway spring

TRACTORTOOLS
DIRECT

GRIBALDI & SALVIA S.P.A.
VIA ORCO 43 FR. VESIGNANO
10086 RIVAROLO CANAVESE TO
Tel. 012429046 r.a. Fax 012425862
E-mail: info@gribaldisalvia.com
http://www.gribaldisalvia.com