



# MAGNUM

## FLAIL MOWER/SHREDDER

### Models 245, 270 & 300

*Pre 2008 models*

Publication 427  
November 2002  
Part No. 41570.27  
Revision: 07.02.08

## *Operation & Parts Manual*



# IMPORTANT

## VERIFICATION OF WARRANTY REGISTRATION



### DEALER WARRANTY INFORMATION & REGISTRATION VERIFICATION

It is imperative that the selling dealer registers this machine with McConnel Limited within 7 days of delivery to the end user – failure to do so may affect the validity of the machine warranty.

To register a machine go to the McConnel Limited web site at [www.mcconnel.com](http://www.mcconnel.com), log on to '**Dealer Inside**' and select the '**Machine Registration button**' which can be found in the Service Section of the site. Confirm to the customer that the machine has been registered in the section below.

Should you experience any problems registering a machine in this manner please contact the McConnel Service Department on 01584 875848.

### Registration Verification

Dealer Name: .....
Dealer Address: .....
Customer Name: .....
Date of Warranty Registration: ...../...../..... Dealer Signature: .....

### NOTE TO CUSTOMER / OWNER

*Please ensure that the above section above has been completed and signed by the selling dealer to verify that your machine has been registered with McConnel Limited.*

# EC DECLARATION OF CONFORMITY

*Conforming to EEC Machinery Directive 98/37/EC\**

We,

**McCONNEL LIMITED,**

Temeside Works, Ludlow, Shropshire SY8 1JL.

*Declare under our sole responsibility that:*

The product (*type*) ..Tractor Mounted Flail Mower / Shredder.....

.....

Product Code ..MA24, MA27, MA30.....

Serial No. & Date ..... Type .....

Manufactured by the above company/\* .....

.....

(\* *insert business name and full address if not stated above*)

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Complies with the required provisions of the Machinery Directive 98/37/EC, \* previously Directive 89/392/EEC as amended by Directives 91/368/EEC, 93/44/EEC and 93/68/EEC.

The machinery directive is supported by;

- BS EN ISO 12100:2003 Safety of Machinery. This standard is made up of two parts; Part 1 Terminology, methodology, Part 2 Technical Specifications.
- BS EN 1050 Safety of machinery - Principles of risk assessment.
- and other national standards associated with its design and construction as listed in the Technical File.

The Machinery Directive is fully implemented into UK law by means of the Supply of Machinery (Safety) Regulations 1992 (SI 1992/3073) as amended by The Supply of Machinery (Safety) (Amendment) Regulations 1994 (SI 1994/2063).

Signed .....  .....

*on behalf of McCONNEL LIMITED*

*Responsible Person*

*Status:* Chief Design Engineer

*Date:* 25<sup>th</sup> January 2005

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# 1. GENERAL INFORMATION

**1.1** This operation and maintenance manual is intended for the professional user. It is mandatory to follow these instructions in order to prevent events which could endanger the operator's and other people's safety, apart from the correct functioning of the shredder. In case of doubt, do not experiment, call McConnel after-sales service instead, or the specialized McConnel dealer.

## **1.2** Identifying the machine

Each shredder is fitted with an identification plate: both the data necessary to identify the model and the serial number to order spare parts or after-sales service are stamped on the plate.



It is strongly recommended to use genuine spare parts to avoid altering the technical features of the shredder. McConnel is not responsible for any damage or injuries to people due to unauthorized modifications or the use of non-genuine spare parts.

This machine is in conformity with the following provisions of law:

- Directive Machine 89/392/CEE and following additions: 91/368/CEE, 93/44/CEE and 93/68/CEE;
- Regulations UNI EN 292/1 and 292/2 (Machinery Safety).
- Regulation UNI EN 745 (Rotary and Flail Mowers).

## 2. TECHNICAL FEATURES

### 2.1.

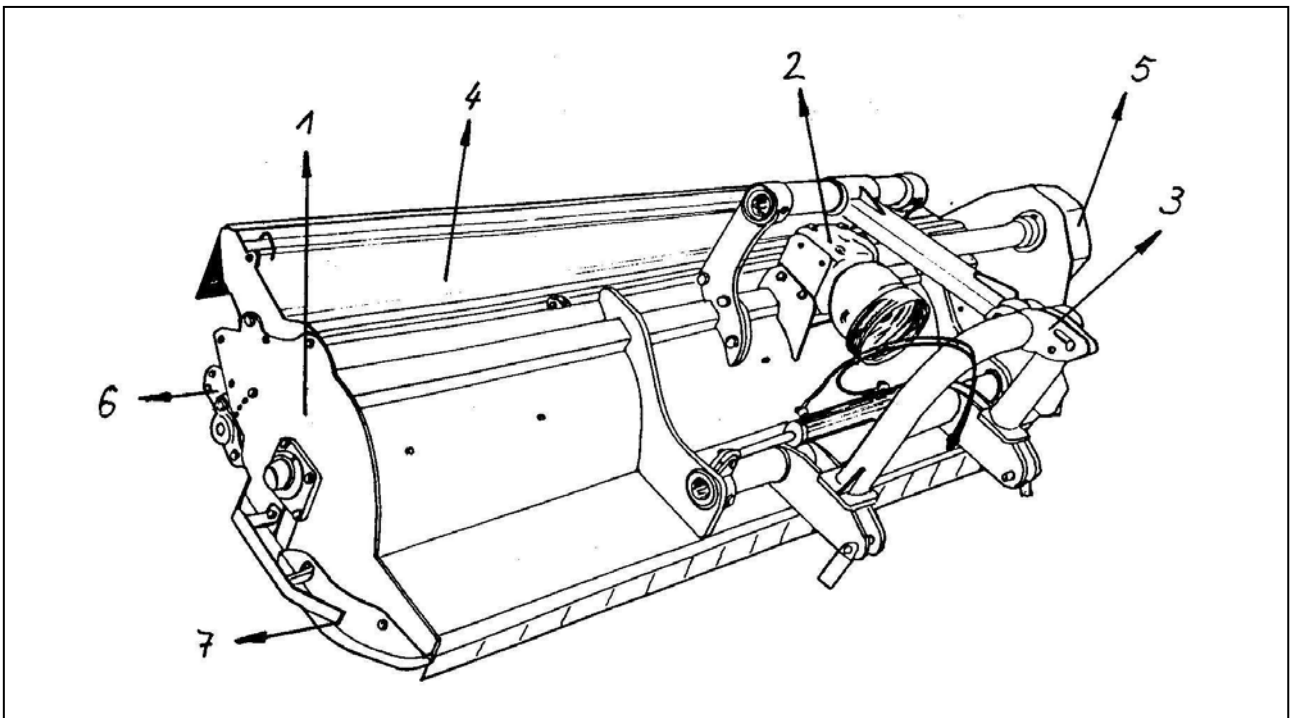
This Magnum mower, from now also called machine, has been designed for agricultural purposes, to shred materials that are growing or laying on the ground, e.g.: grass, bushes, sticks and shrubs up to 3cm (13") diameter (proper use).

Any other use is considered improper and the manufacturer disclaims all responsibility for any consequential injuries to people, or for damage to the machine.

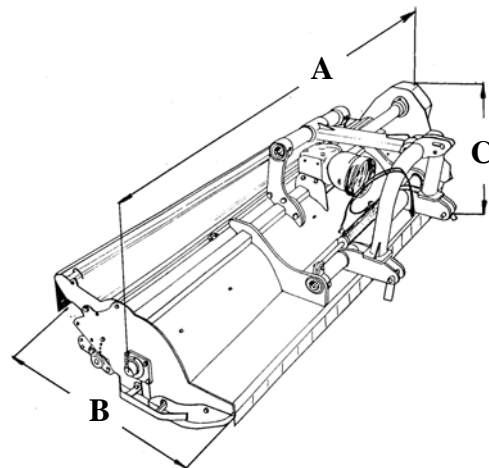
Proper use also refers to the safety and maintenance rules provided for by the manufacturer.

**Technical names** (*see diagram below*)

1. Frame
2. Gearbox
3. Connecting Bow
4. Rear Cover
5. Side Transmission
6. Rear Adjustable Roller
7. Adjustable Skids
8. Blades or Hammers



## 2.2 Technical Specifications



<b>Specification</b>		<b>245</b>	<b>270</b>	<b>300</b>
<i>Width of Cut</i>	<i>Cm</i>	245	270	300
<i>Min. Tractor Power Req'd.</i>	<i>kW</i>	55	65	75
<i>P.T.O. Speed</i>	<i>rpm</i>	540	540	540
<i>Weight</i>	<i>kg</i>	880	950	1020
<i>Tractor Attachment</i>	<i>Cat.</i>	<i>II</i>	<i>II</i>	<i>II</i>
<i>Rotor Speed</i>	<i>rpm</i>	2250	2250	2250
<i>Flails</i>	<i>No.</i>	72	84	96
<i>Hammer Blades</i>	<i>No.</i>	24	28	32
<i>Flat Blades</i>	<i>No.</i>	48	56	64
<i>Width (A)</i>	<i>Cm</i>	275	300	330
<i>Length (B)</i>	<i>Cm</i>	150	150	150
<i>Height (C)</i>	<i>Cm</i>	115	115	115
<i>Offsetting</i>	<i>Cm</i>	40	40	40

### Standard & Optional Equipment

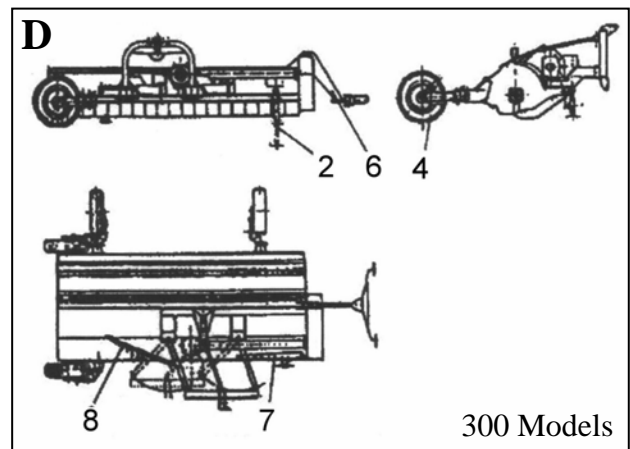
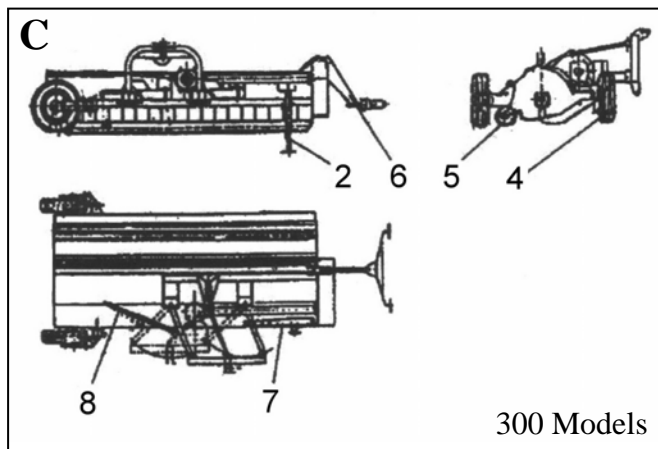
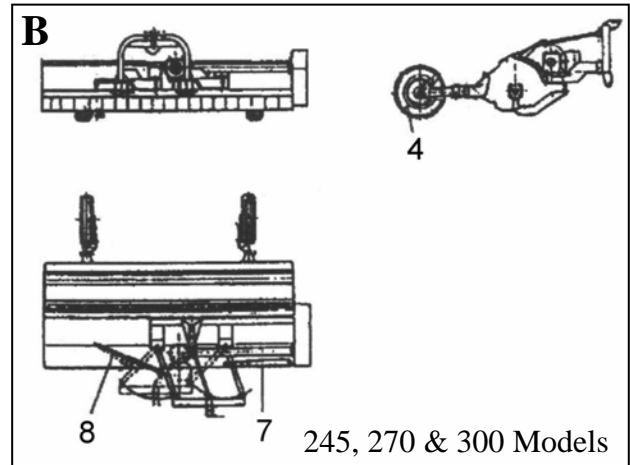
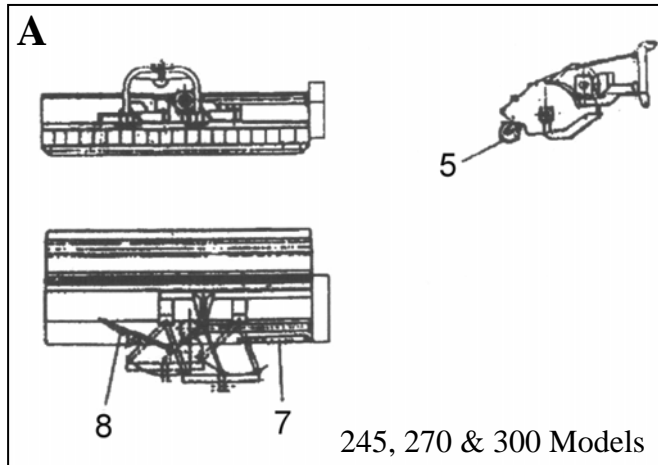
- see illustrations on following page for variant details

<b>Equipment</b>	<b>Variant</b>				<b>245</b>	<b>270</b>	<b>300</b>
<i>Hammer</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	◆	◆	◆
<i>Y-Blades</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	□	□	□
<i>Jack - for lifting machine (2)</i>	-	-	<i>C</i>	<i>D</i>	-	-	□
<i>Wheels – with mounting part (4)</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	□	□	□
<i>Rear Roller (5)</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	◆	◆	◆
<i>Pull Shaft (6)</i>	-	-	<i>C</i>	<i>D</i>	-	-	□
<i>Hydraulic Side Movement (8)</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	◆	◆	◆
<i>Combination Mounting</i>	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	□	□	□

◆ **Standard Equipment**

□ **Optional Equipment**

## 2.3 Machine Variants



**References** – Refer to *Equipment Specification table on previous page.*

2. Jack (for lifting machine)
4. Wheels (with mounting part)
5. Rear Roller
6. Pull Shaft
8. Hydraulic Side Movement



### **3. SAFETY RULES**

#### **3.1 General safety rules:**

- It is mandatory to read and follow the instructions for the use and maintenance manual before carrying out any operation or move with the shredder.
- Improper use or an incorrect move may seriously damage things and people.
- Both the operator and the maintenance fitter must know the shredder well, especially regarding dangers resulting from improper use or incorrect repairs.
- Before starting, checks on tractor and shredder, must be carried out as regards: functionality, road safety, accident prevention rules.
- Even when using the shredder correctly, stones or other objects may be thrown a long distance. Therefore nobody must stand within the danger area. Special attention must be paid when working near roads or buildings.
- Use tractor with cabs.
- The condition of flails and of all guards must be checked before beginning the daily work - they must be replaced if damaged or missing.
- During checks or repairs, make sure nobody could start the shredder by mistake,
- Never wear loose or fluttering clothes.
- Never carry passengers on the tractor.
- Never carry passengers on the shredder.
- Never connect the power takeoff with the engine running.
- Never approach the shredder until the rotor has completely stopped.
- Do not enter the working zone of the PTO shaft. It is dangerous to approach the rotating parts of the machine.
- Keep the PTO shaft guard in good order.
- Before starting check the surrounding area for the likely presence of children and/or animals.
- Do not stand in the range of the operation of the machine.
- The PTO shaft must be assembled and disassembled only with the engine stopped and the starting key removed.
- Before connecting the power takeoff, check that the speed and the rotational direction correspond to those of the shredder.
- Before leaving the tractor with the tool attached, proceed as follows:
  1. Disconnect the power takeoff,
  2. Put the machine steadily on the ground (with the hydraulic lift)
  3. Apply the hand brake and, if the ground is steeply sloping, wedge the tractor.
  4. Take out the starting key.
- Immediately replace any safety sign, or any missing or damaged decal.

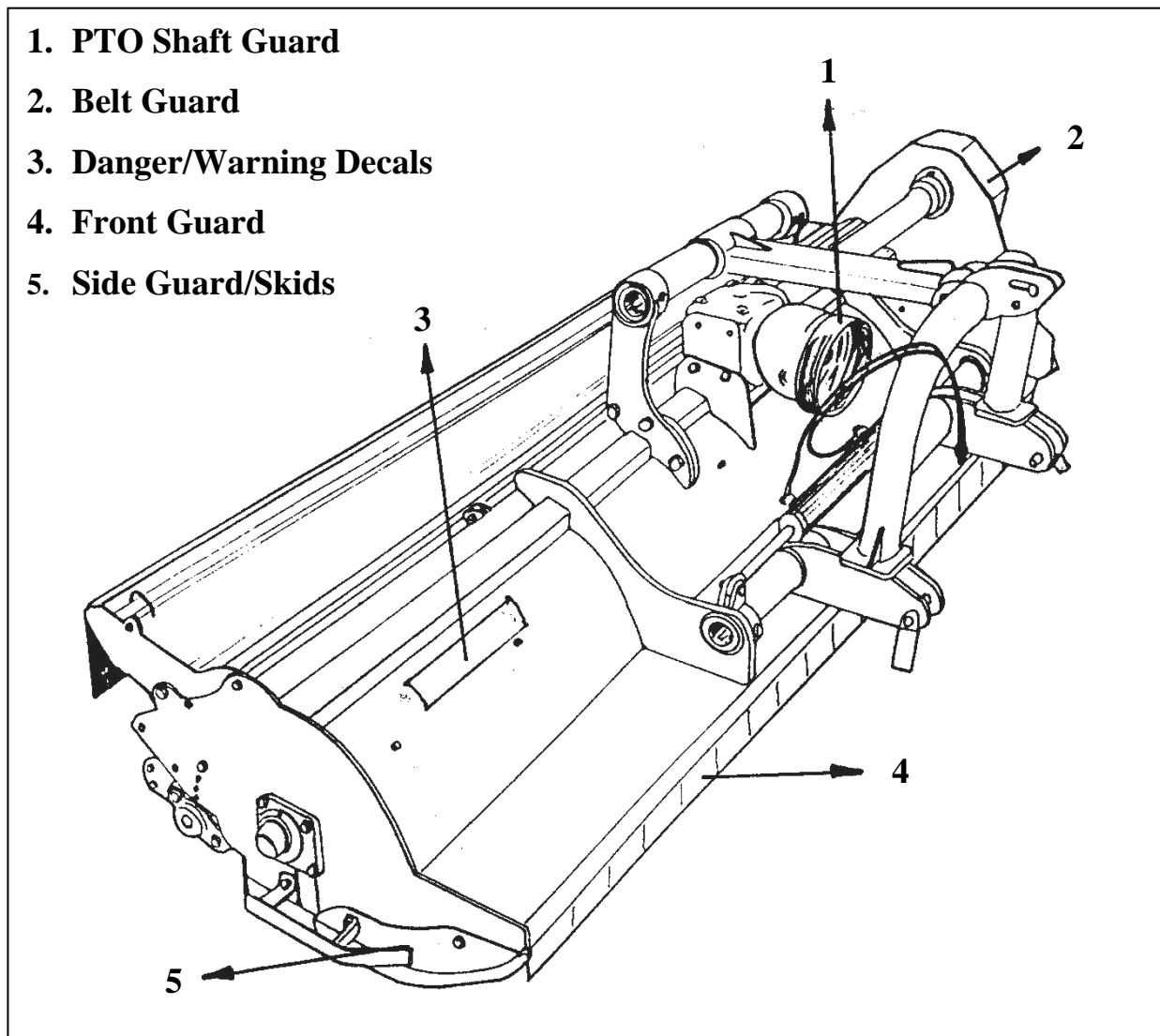
#### **3.2 Safety Rules concerning Road Traffic**

- In transport, reduce speed, especially on bumpy roads. The very weight of the shredder may render driving difficult and damage the shredder itself.
- Check moreover that the levers that operate the hydraulic lift are locked, to avoid the lowering of the machine during transport.
- When driving on public roads, respect all road rules in force.
- Never transport the shredder with the rotor moving, even for short distances.

### 3.3 Safety Rules during use

- Pay special attention when working with the machine, not to touch fixed objects, such as road drain, walls, shafts, kerbs, guard rails, tracks etc. This could cause the breakage of the flails, which would be thrown at very high speed.
- If wires, ropes or chains should become entangled in the rotor, stop immediately, to prevent damage or dangerous situations; stop the rotor and the tractor, take out the starting key. Put working gloves on; clear the rotor with the aid of pliers or shears. Do not try to disentangle by inverting the rotational direction of the rotor.
- Do not use the machine when there is vibration in the flail head, as this would cause breakage and serious damage. Find the cause of the vibration and eliminate it.

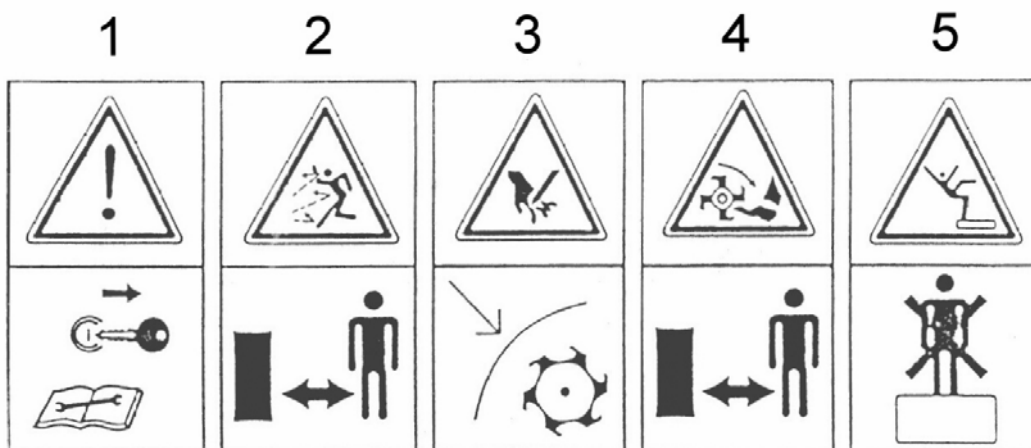
### 3.4 Machine Guards



### 3.5 Description and location of Safety decals

Carefully follow the instructions given on the decals (*see illustrations below*).

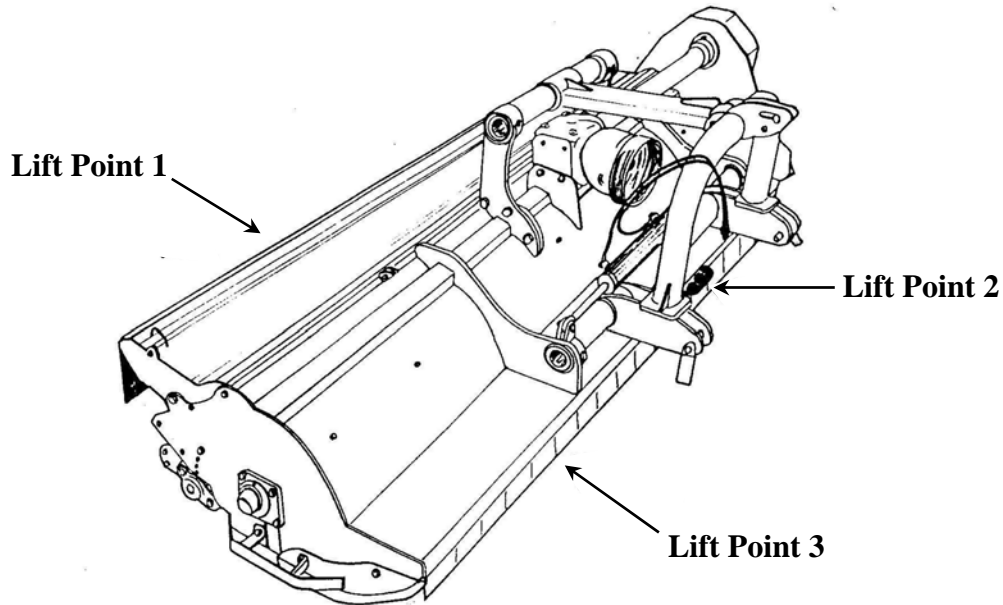
1. Always take the machine off the tractor and read the instructions carefully before starting servicing and/or lubricating operations.
2. Keep at a safety distance from the machine to avoid the risk of projection of objects.
3. Never remove the guards while the parts of machine are moving. It is dangerous and may cause injury to hands.
4. Keep at a safety distance from the machine to avoid the risk of cutting feet.
5. It is forbidden to mount on the machine because of the risk of fall.



## 4. INSTRUCTIONS FOR INSTALLATION AND HANDLING.

### 4.1 Lifting and unloading

To handle the shredder use a hoist or crane with a lifting capability suitable to the weight of the machine (*refer to Technical Specifications on page 4*). Proper approved chains and lifting hooks must be used and should be attached at the points indicated in the diagram below.



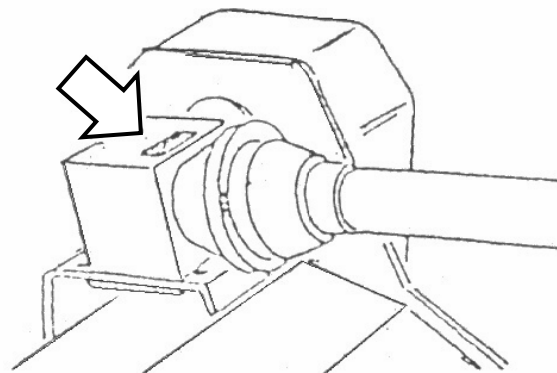
### 4.2 Unpacking

To make transport easier, the shredder may be supplied with the Rubber Flap separate. In which case use bolts, locknuts and washers enclosed to fix the Bar and the Flap on the machine.

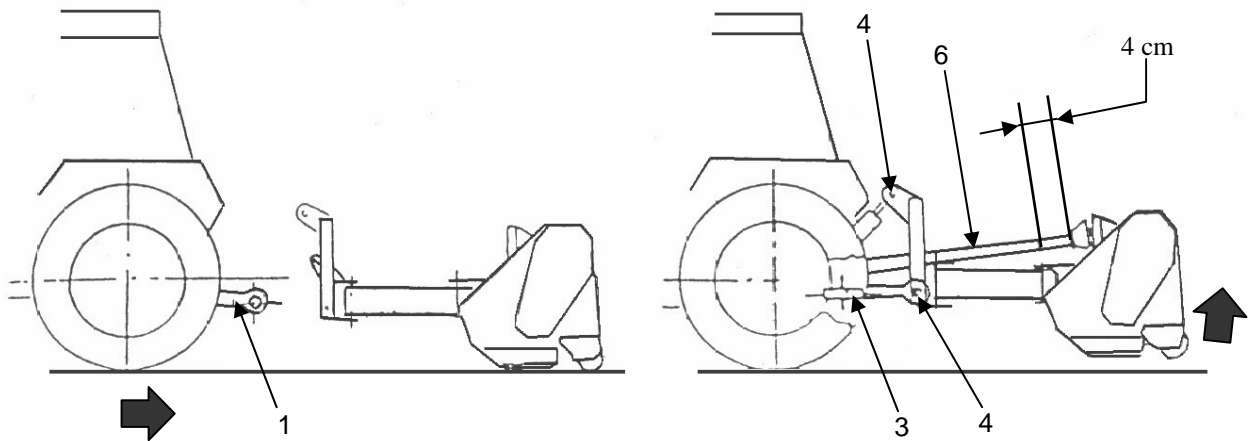
### 4.3 Attachment to and detachment from the tractor

Before carrying out this operation and whenever the shredder is used, it is mandatory to:

- Visually check the machine in general.
- Check that all guards are fitted and in good condition.
- Confirm that all flails are fitted and in good condition.
- Grease the bearings and any other part as indicated by the decal.
- Check that the number or revolutions and the rotational direction of the power takeoff correspond to those required by the machine (*see diagram below*).



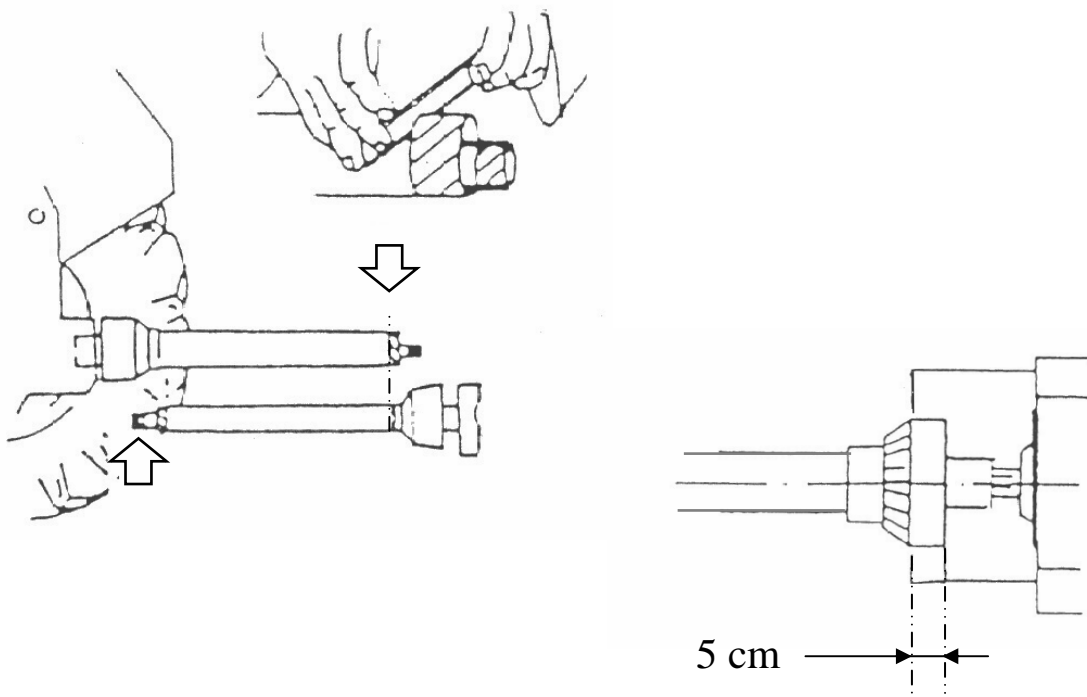
- To attach the machine to the tractor bring the tractor lower links (1) near to the machine so the points corresponding to the pins (*see illustration below*)
- Insert the pins (2) and secure them with the spring clips (3).
- Fit the top link (4) and raise the machine to a perpendicular position with the ground. Adjust the two tractor lower linkage stabilisers (3) thus fixing the machine to the tractor in a central position.



Detachment of the shredder is a reversal of the attachment instructions above.

#### 4.4 Fitting the PTO shaft

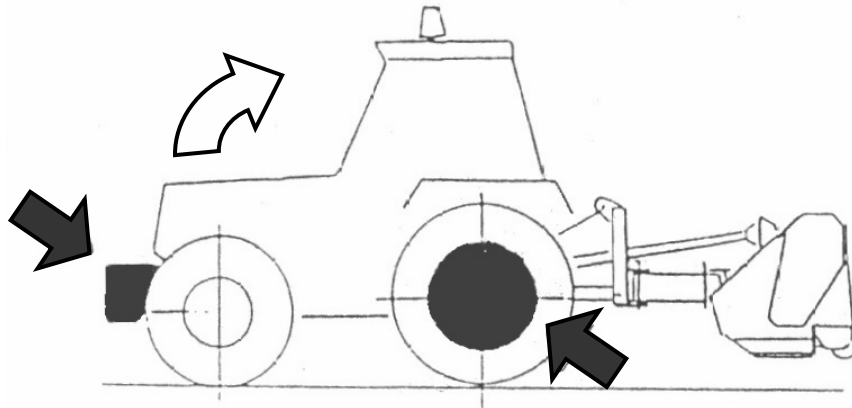
- Following the Instructions in 4.3 assemble the PTO shaft (6) and check that the overlap is not less than  $\frac{2}{3}$  of L. Be sure to keep a 4 cm backlash (*see illustration above*) if it needs shortening, proceed as shown below (*see illustration*).
- The guards of the PTO shaft must be fixed to the machine and to the tractor with chains, to prevent rotation. The minimum overlap of the guard and the PTO shaft must not be less than 5 cm. (*see illustration below*).



## 4.5 Tractor stability

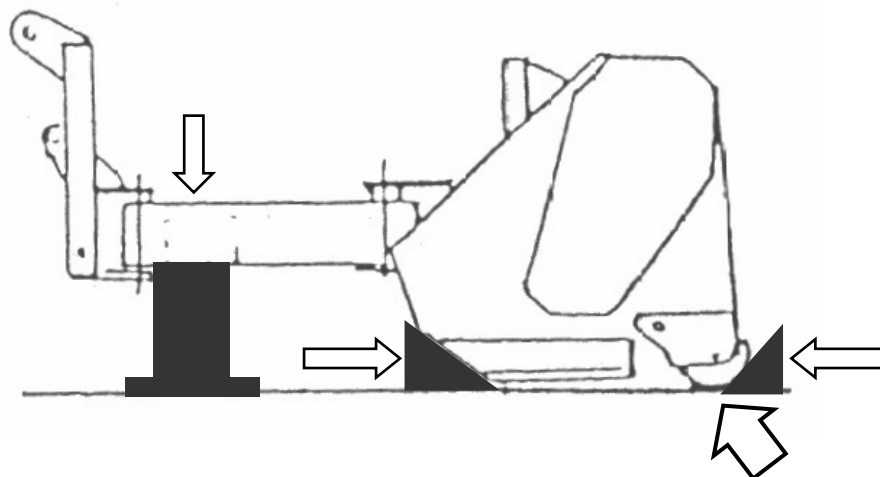
Due to the design of the mowers and the work they do, it is essential to ensure tractor stability, in order to eliminate any risk of imbalance or overturning.

- Lift the machine and check that the tractor does not mount up. In case it does, ballast the rear wheel of the tractor opposite to the extended machine and at the front of the tractor (*see illustration below*).



## 4.6 Parking

- Park the machine in a safe place, on flat and firm ground in order to prevent the risk of rolling over.
- Lower the machine to the ground using the hydraulic lift of the tractor.
- If the machine is to be left unattached to the tractor it should be 'blocked' and supported with suitable blocks and stands. (*see illustration below*).

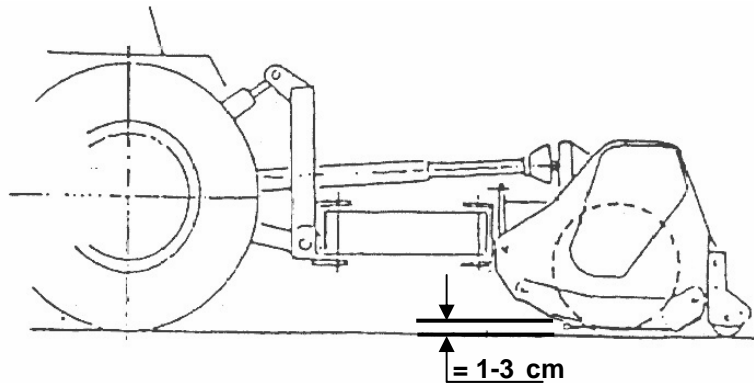


## 5. ADJUSTMENT AND SETTING UP

### 5.1 Adjustment

Adjustment of the height of cut is obtained by shifting the flail head roller in order to suit the material to be cut and the required degree of chopping (*see illustration below*).

**IMPORTANT:** *Flails must never touch the ground.*



## 6. USE AND OPERATING RULES

### 6.1 Starting

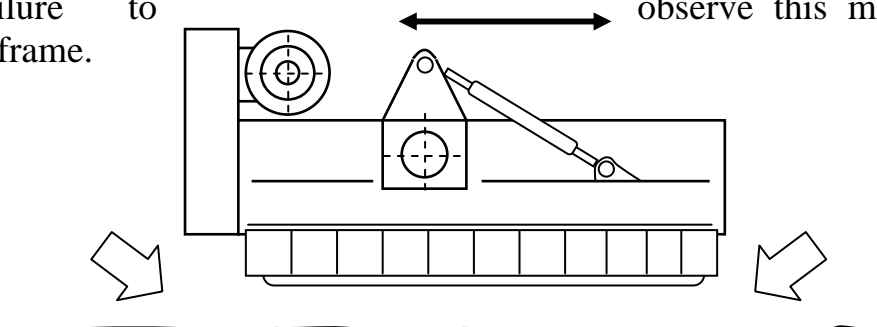
Before using the shredder, check the tightness of all bolts and the integrity of all guards. Check that the number of revolutions and the rotational direction of the power takeoff from the tractor correspond to those required by the machine - refer to the decal on the gearbox (*see page 9*). Engage the power takeoff at low engine RPM to avoid damaging the transmission gearbox and belts. **CHECK GEARBOX OIL LEVEL BEFORE STARTING.**

### 6.2 Working mode

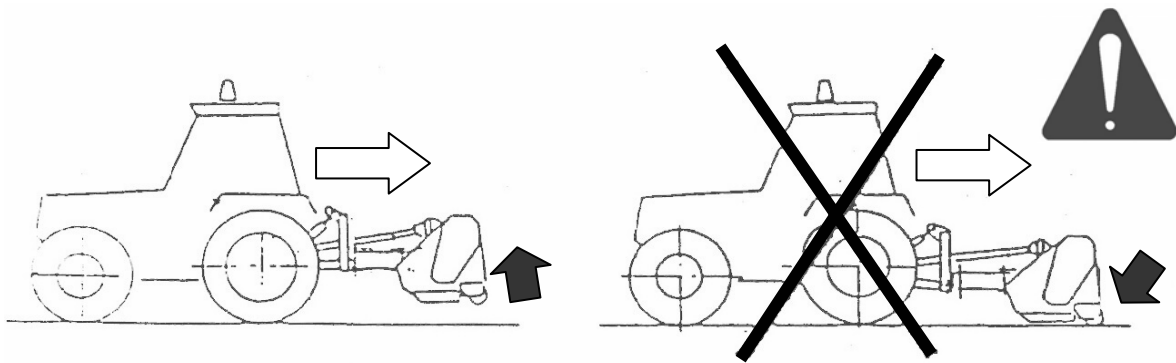
- Adjust the machine to suit the type of work to be done and the material to be cut: adjust the height of cut, as shown (*see illustration above*).
- Working speed is chosen to suit the material to be cut and the degree of chopping required. The optimum speed ranges from 3 to 8 km per hour.

### 6.3 Side shift

**IMPORTANT:** Ensure that the machine is lifted clear of the ground before side moving, failure to observe this may result in damage to the frame.



**IMPORTANT: During reverse movement lift the machine off the ground to avoid damaging the machine.**



## **6.4 Stopping**

- Centralise and lower the machine to the ground.
- Disengage the power takeoff.
- Stop the tractor, take out the starting key and apply the hand brake.
- If the ground is sloping, block the tractor wheels.

## **6.5 Transporting – Standard machines**

For transport, it is mandatory to:

- Observe all road transport requirements and display all necessary warning signs.
- Reduce speed especially on bumpy roads, The weight of the machine may render driving difficult and could damage the machine itself.
- The power take off must be disconnected.

**IMPORTANT: during transport on bumpy roads, it is mandatory to move the machine into the central position.**

## **6.6 Transporting – Machines with Pull Shaft & Wheels**

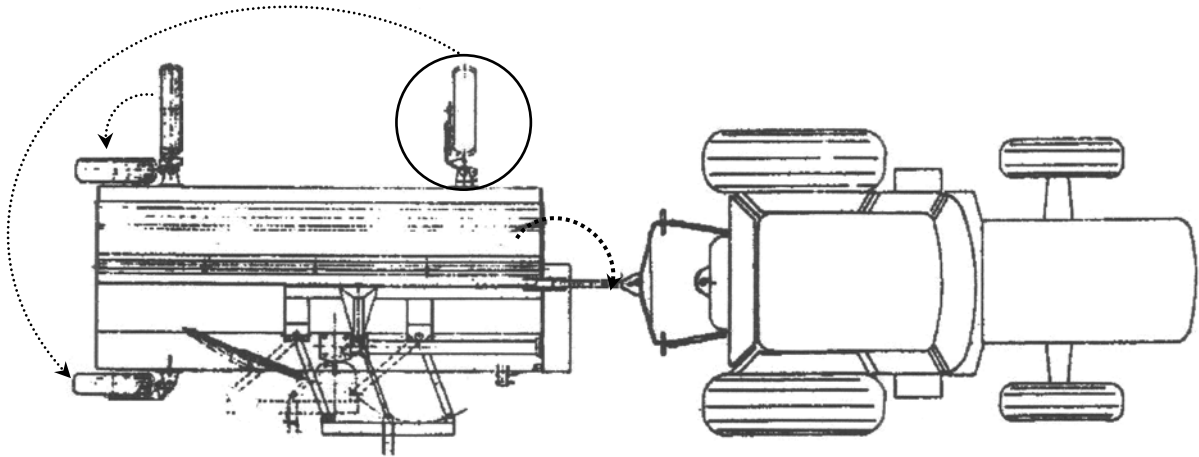
For transport, it is mandatory to:

- Move pull shaft from work to transport position.
- Move wheels from work to transport position – *see diagrams on following page.*
- Adjust the height of the wheels.
- Display all necessary warning signs.

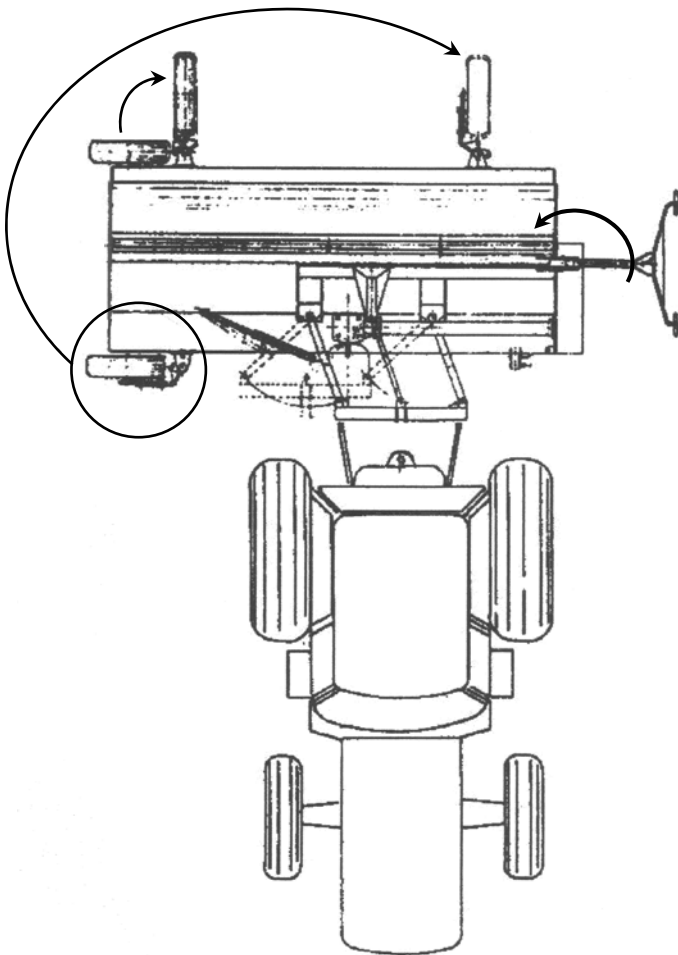


## 6.7 Wheels & Pull Shaft positions – Transportation & Work

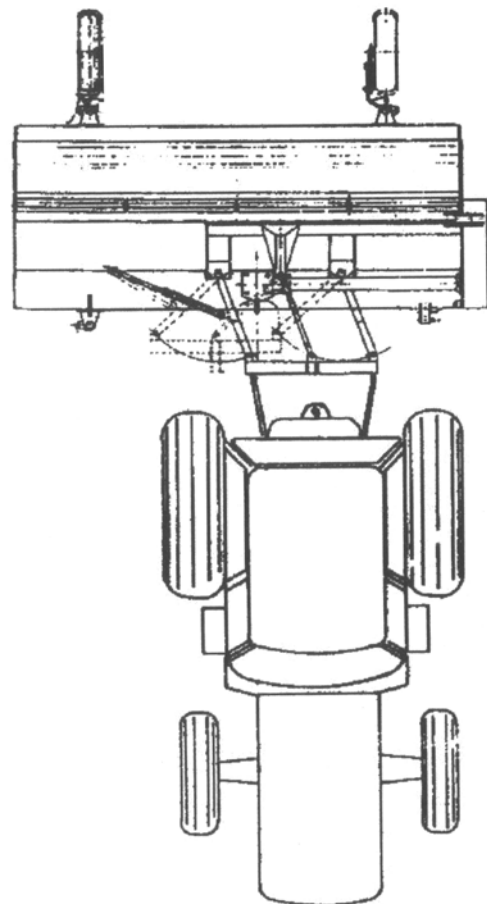
Work to Transport position



Transport to Work position



Work position



## 7 MACHINE MAINTENANCE

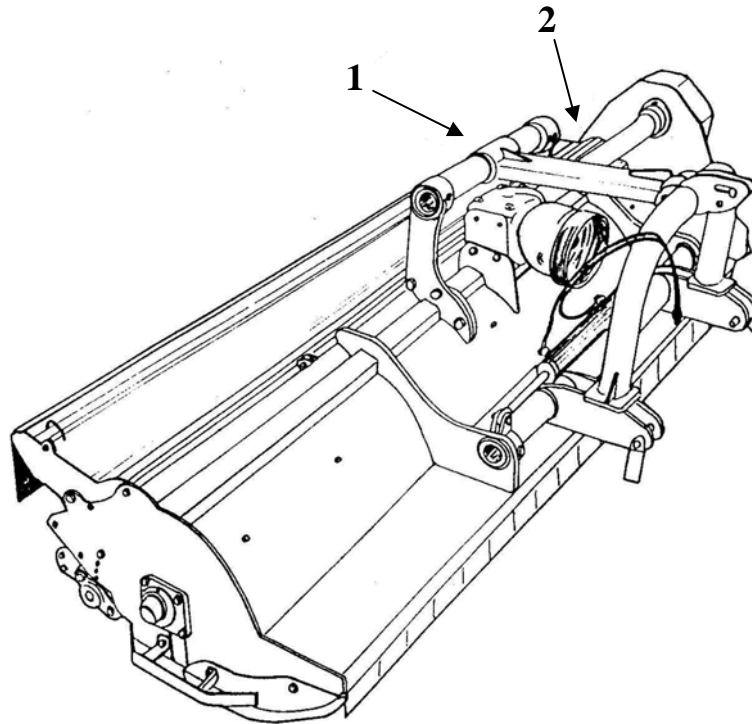
All maintenance, cleaning and repair operations must be carried out with the shredder firmly lowered to the ground and either detached from the tractor, or with disconnected PTO, and the tractor engine switched off and starting key removed.

### Belt Maintenance

- After the first two hours of operation from new or after fitting new belts check the belt tension and adjust as necessary.

### Regularly and after every 8 hours of machine operation

- Tighten bolts and nuts.
- Check wear and condition of flails.
- Check the safety guards.
- Check belt condition.
- Visually check the frame to detect possible damage caused by earlier work.
- Check gearbox and extension lubricating levels.
- Grease the parts indicated on the appropriate decal. (*see below*).



Greasing maintenance should be carried out at the end of each working day, at which time a wise precaution would be to remove mud, dirt, or other material build up, that may exist on moving parts thus avoiding rusting and possible seizure.

### Every 100 hours of machine operation

- Grease the moving parts of the PTO Shaft extracting the two parts of the shaft.
  - *After long periods of inactivity repeat the operation before re-using the machine.*

### Lubricants:

- Use grease classification DIN 51825 (KP 2 K)
- For Gearbox use compatible oils – classification ISO VG 220

## 8 TROUBLE SHOOTING

<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDIES</b>
Irregular cut	<ul style="list-style-type: none"> <li>- worn, bent or broken flails</li> <li>- machine not level with ground</li> <li>- clogged material due to excessive working speed</li> </ul>	<ul style="list-style-type: none"> <li>- <i>replace</i></li> <li>- <i>set machine level</i></li> <li>- <i>reduce working speed</i></li> </ul>
Noisy machine	<ul style="list-style-type: none"> <li>- loose bolts</li> <li>- cracked or damaged flailhead</li> </ul>	<ul style="list-style-type: none"> <li>- <i>tighten bolts</i></li> <li>- <i>repair in specialised workshop</i></li> </ul>
Noisy gearbox	<ul style="list-style-type: none"> <li>- lack of oil</li> <li>- worn gears</li> <li>- worn bearings</li> </ul>	<ul style="list-style-type: none"> <li>- <i>fill to correct level</i></li> <li>- <i>replace gears</i></li> <li>- <i>replace bearings</i></li> </ul>
Vibration	<ul style="list-style-type: none"> <li>- broken or worn flails</li> <li>- rotor out of balance</li> <li>- worn rotor bearings</li> </ul>	<ul style="list-style-type: none"> <li>- <i>replace flails</i></li> <li>- <i>replace in authorised workshop</i></li> </ul>
Premature flail wear	<ul style="list-style-type: none"> <li>- flails touching ground</li> </ul>	<ul style="list-style-type: none"> <li>- <i>adjust cutting height</i></li> </ul>
Excessive backlash in joints	<ul style="list-style-type: none"> <li>- worn pins</li> </ul>	<ul style="list-style-type: none"> <li>- <i>replace</i></li> </ul>
Breakage of roller bearings	<ul style="list-style-type: none"> <li>- violent impact with the ground when lowering the machine</li> <li>- Dirty or under greased bearings</li> </ul>	<ul style="list-style-type: none"> <li>- <i>lower machine gently</i></li> <li>- <i>clean and grease</i></li> </ul>
Belts overheating	<ul style="list-style-type: none"> <li>- flails contacting the ground</li> <li>- working speed unsuitable to the materials being cut</li> </ul>	<ul style="list-style-type: none"> <li>- <i>adjust cutting height</i></li> <li>- <i>reduce speed</i></li> </ul>

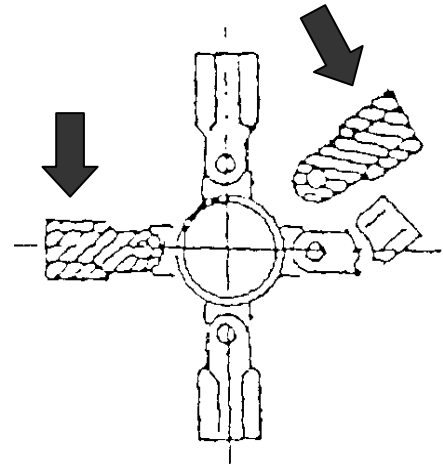
## 9 REPLACING PARTS

Before carrying out any maintenance operations on the machine, it is mandatory to:

- Lower the machine to rest on the ground.
- Disengage the power take off, stop the tractor and remove the starting key.
- Wear working gloves and suitable personal protection.

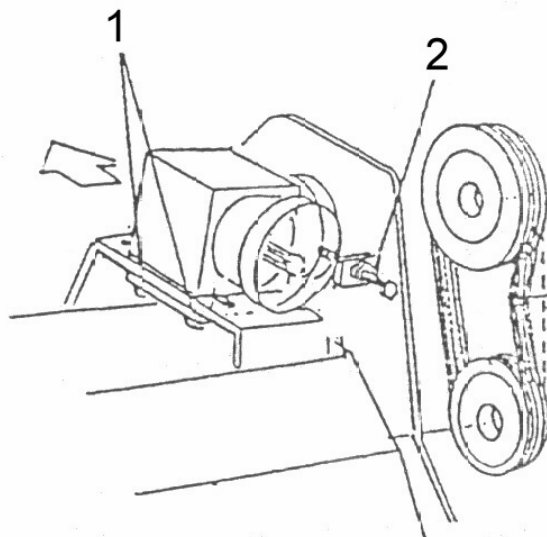
### 9.1 Flail Replacement

Worn flails must be replaced – in the case of a partially broken flail it is advisable to replace the broken one and the one that is diametrically opposite in order to maintain the balance – *see illustration opposite*.



### 9.2 Belt replacement

- This operation must be carried out with the machine touching the ground, the power take-off disconnected and the starting key out.
- Remove the belt guard, slacken the screws (1) (*see diagram below*), unscrew the tightener (2), remove the belts and replace them with the same ones (dimension and type).



**IMPORTANT:** operations that are more complex must be done in authorised workshops.

## **10. DEMOLITION, DIFFERENTIATED DIVISION OF THE MATERIALS AND DISPOSAL**

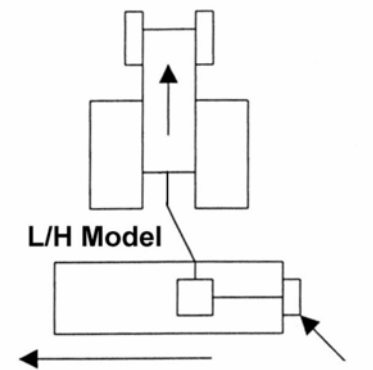
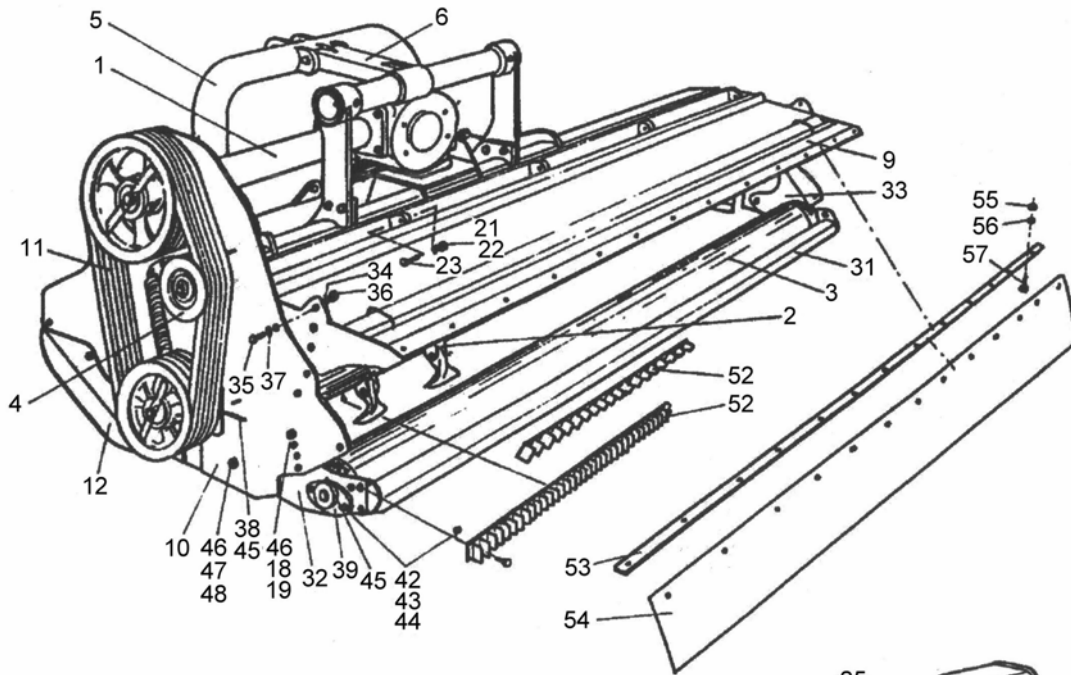
If the machine is out of order and requires disposal, all its parts that may cause danger have to be made inoffensive. The materials forming the machine that have to undergo a differentiated division are:

- Steel
- Mineral oil
- Rubber
- Plastic

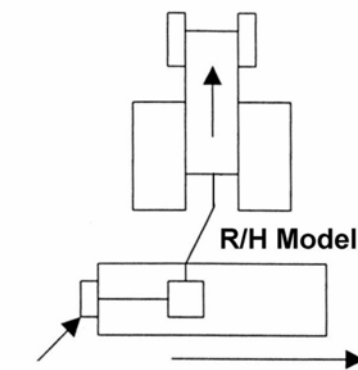
All the above mentioned operations and the disposal have to be carried out in total respect of the present provisions of law on the subject.

*We reserve right to modify the technical data and characteristics of the machines at any time without prior notice.*

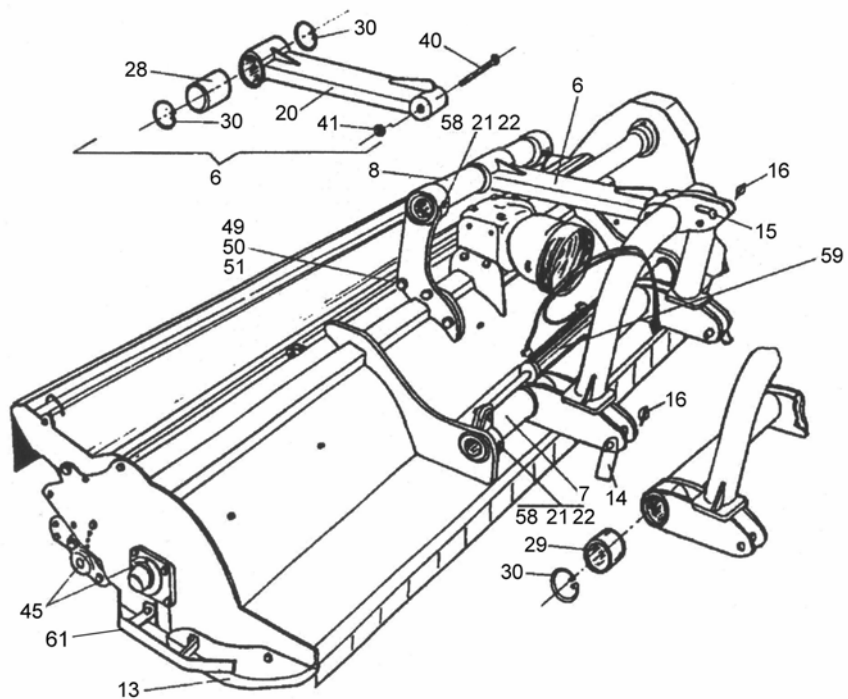
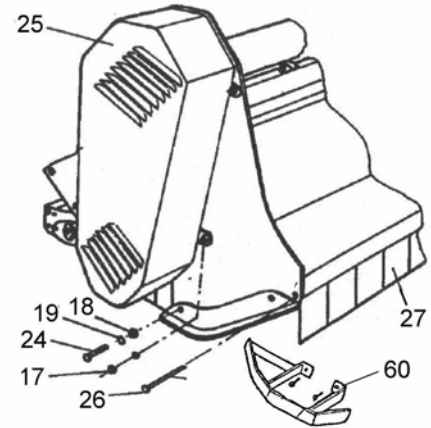
**MAGNUM**  
**245 / 270 /300 Models**  
**Parts Manual**



Belt Shield Part No. 1061352



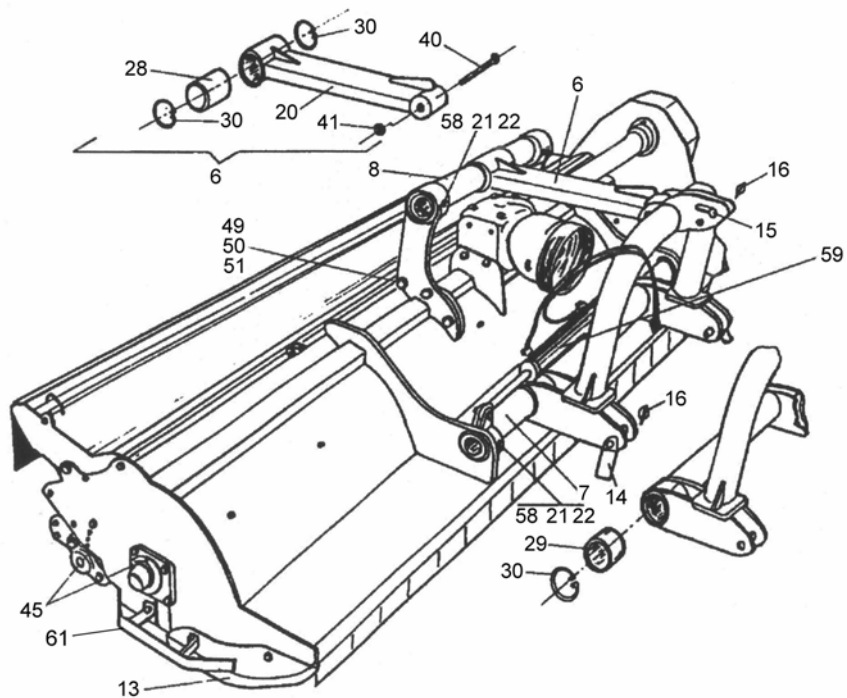
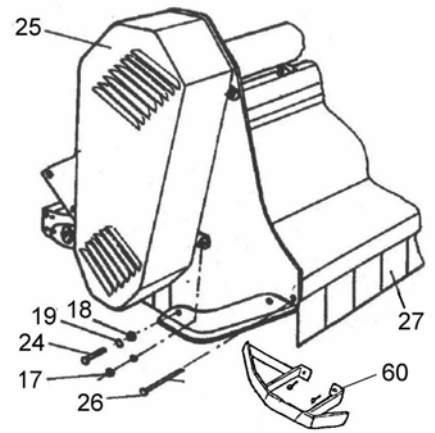
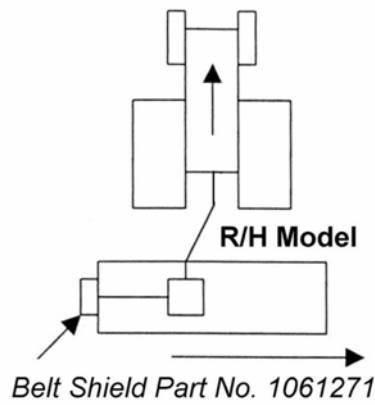
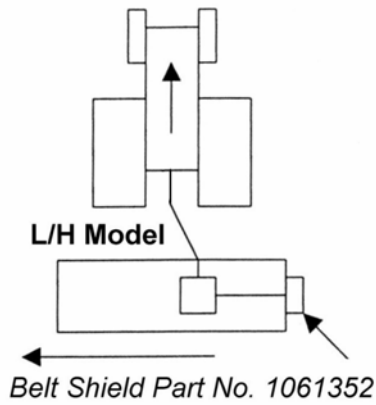
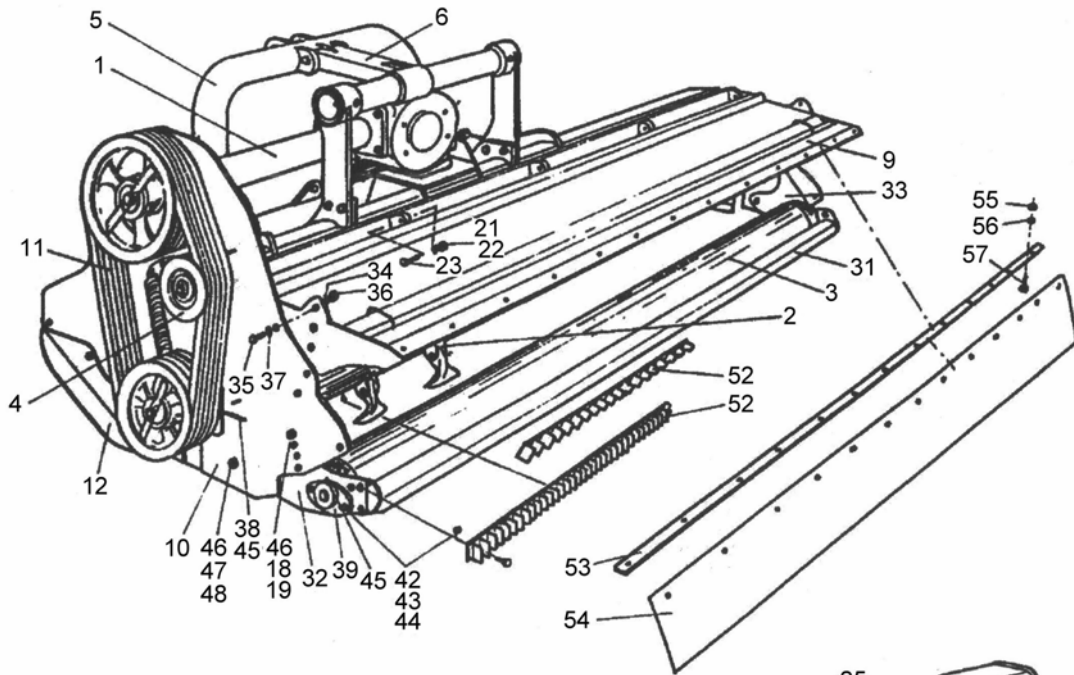
Belt Shield Part No. 1061271



## MAIN ASSEMBLY

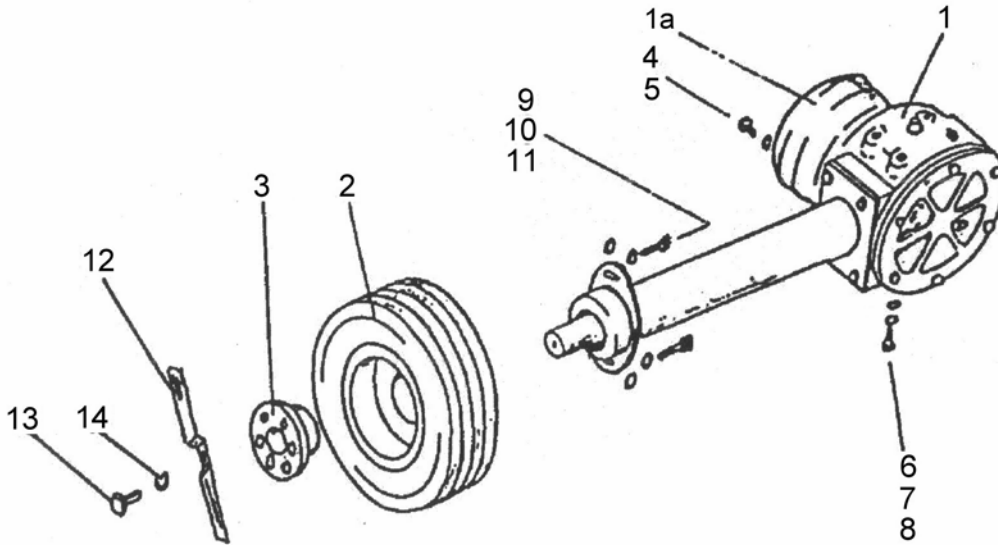
Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Gearbox 990 - L/H Build	1061250	1	1	n/a
	Gearbox 990 - R/H Build	1061619	1	1	n/a
1	Gearbox 1400 - L/H Build	1061251	n/a	n/a	1
2	Rotor 245	1061358	1	n/a	n/a
2	Rotor 270	1061252	n/a	1	n/a
2	Rotor 300	1061253	n/a	n/a	1
3	Roller rear 245	1061146	1	n/a	n/a
3	Roller rear 270	1061254	n/a	1	n/a
3	Roller rear 300	1061255	n/a	n/a	1
4	Strain pulley cpl	1061359	1	n/a	n/a
4	Strain pulley cpl	1061256	n/a	1	1
5	Connecting bow	1061257	1	1	1
6	Connecting bar cpl	1061258	1	1	1
7	Guidance 1600	1061259	1	1	1
8	Guidance 800	1061260	1	1	1
9	Flap rear 245	1061147	1	n/a	n/a
9	Flap rear 270	1061261	n/a	1	n/a
9	Flap rear 300	1061262	n/a	n/a	1
10	Frame 245	1061360	1	n/a	n/a
10	Frame 270 - L/H Build	1061361	n/a	1	n/a
	Frame 270 - R/H Build	1061263	n/a	1	n/a
10	Frame 300	1061362	n/a	n/a	1
11	Belt SPB 1800	1061265	4	5	5
12	Skid left	1061266	1	1	1
13	Skid right	1061267	1	1	1
14	Pivot pin 28	1061268	2	2	2
15	Pivot pin 19/25	1061168	1	1	1
16	Safety pin 10	1061269	3	3	3
17	Locknut M10	9143005	4	4	4
18	Nut M16	9113007	6	6	6
19	Spring washer 16	9100207	6	6	6
20	Connecting bar	1061270	1	1	1
21	Locknut M12	9143006	9	9	9
22	Washer 12	9100106	9	9	9
23	Bolt M12x55	9213116	5	5	5
24	Bolt M16x40	1061047	4	4	4
25	Belt shield ( <i>for L/H Machines</i> )	1061352	1	1	1
	Belt shield ( <i>for R/H Machines</i> )	1061271	1	1	1
26	Flap rod 245	1061148	1	n/a	n/a
26	Flap rod 270	1061272	n/a	1	n/a
26	Flap rod 300	1061273	n/a	n/a	1
27	Flap 140	1061274	16	18	20
27	Flap 55	1061275	n/a	1	n/a



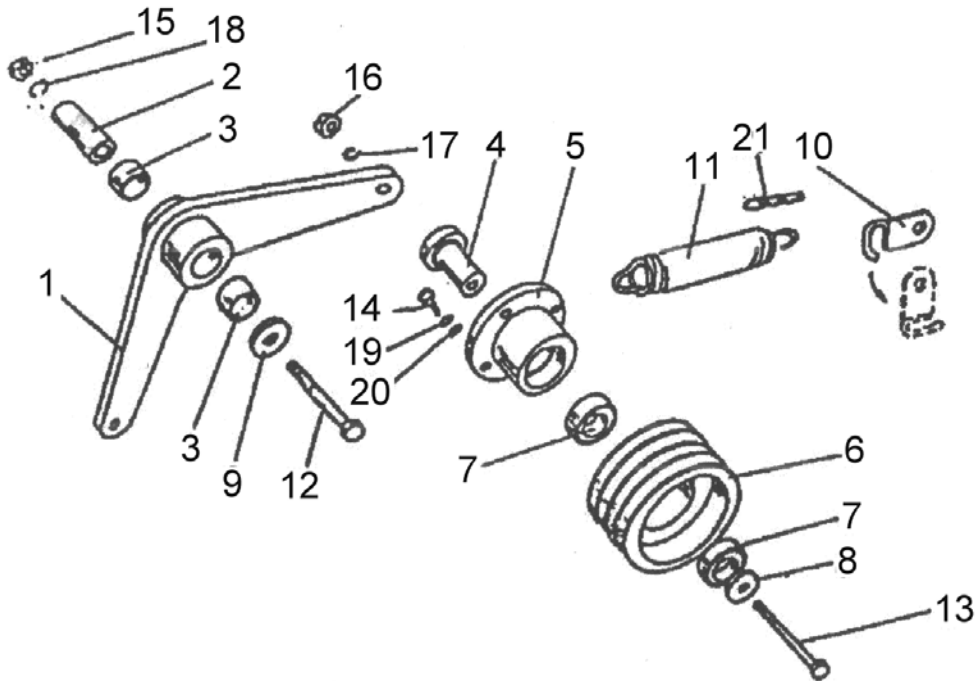


## MAIN ASSEMBLY

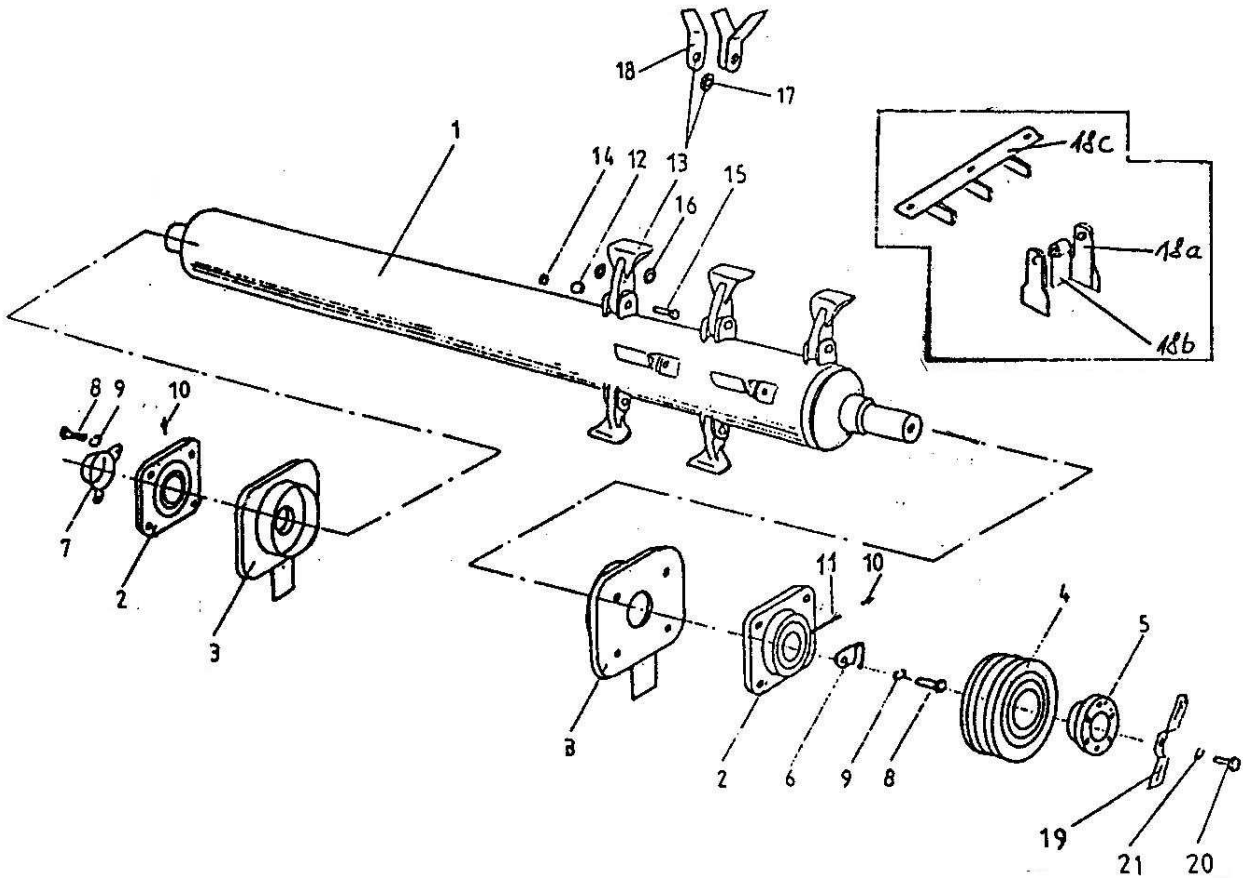
Ref.	Description	Part No.	Model/Quantity		
			245	270	300
28	Bushing 45	1061276	2	2	2
29	Bushing 100	1061277	2	2	2
30	Slide piece 100	1061175	4	4	4
31	Scraper 245	1061149	1	n/a	n/a
31	Scraper 270	1061278	n/a	1	n/a
31	Scraper 300	1061279	n/a	n/a	1
32	Roller bracket left	1061280	1	1	1
33	Roller bracket right	1061281	1	1	1
34	Spring washer 14	05.282.08	2	2	2
35	Bolt M14x35	9300163	2	2	2
36	Nut M14	1061121	2	2	2
37	Washer 14	05.281.14	2	2	2
38	Grease tube	1061282	1	1	1
39	Roller bearing 16208	1061283	2	2	2
40	Bolt M24x190	9213389	1	1	1
41	Locknut M24	9143009	1	1	1
42	Bolt M12x40	9213086	8	8	8
43	Nut M12	9113006	8	8	8
44	Spring washer 12	9100206	8	8	8
45	Grease nipple	0901161	4	4	4
46	Bolt M16x45	9313097	4	4	4
47	Locknut M16	9143007	2	2	2
48	Washer 16	9100107	2	2	2
49	Bolt M20x75	9213158	6	6	6
50	Locknut M20	9143008	6	6	6
51	Washer 20	9100108	6	6	6
52	Counter blades 245	1061284	2	n/a	n/a
52	Counter blades 270	1061285	n/a	2	n/a
52	Counter blades 300	1061286	n/a	n/a	2
53	Bar 245	1061287	1	n/a	n/a
53	Bar 270	1061288	n/a	1	n/a
53	Bar 300	1061289	n/a	n/a	1
54	Rubber flap 245	1061290	1	n/a	n/a
54	Rubber flap 270	1061291	n/a	1	n/a
54	Rubber flap 300	1061292	n/a	n/a	1
55	Locknut M8	9143004	9	9	9
56	Washer 8	9100104	9	9	9
57	Bolt M8x40	9213084	9	9	9
58	Bolt M12x1402	1061293	2	2	2
59	Hydraulic Ram	1061294	1	1	1
60	Side guard - (Drive end)	1061353	1	1	1
61	Side Guard - (Non Drive end)	1061354	1	1	1



Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Gearbox 990 - L/H Build	1061250	1	1	n/a
1	Gearbox 990 - R/H Build	1061619	1	1	n/a
1	Gearbox 1400	1061251	n/a	n/a	1
1a	PTO Shaft shield	1061046	1	1	1
2	Pulley 300-4	1061045	1	n/a	n/a
2	Pulley 300-5	1061348	n/a	1	1
3	Elve clutch 80/45	1061163	1	1	1
4	Bolt	1061090	4	4	4
5	Washer	9100104	4	4	4
6	Washer	1000106	2	2	2
7	Spring washer	05.282.08	2	2	2
8	Bolt	1061047	2	2	2
9	Bolt	1061239	2	2	2
10	Spring washer	05.282.08	2	2	2
11	Washer	05.281.14	2	2	2
12	Propeller blade	1061349	1	1	1
13	Bolt	1061048	1	1	1
14	Spring washer	9100206	3	3	3

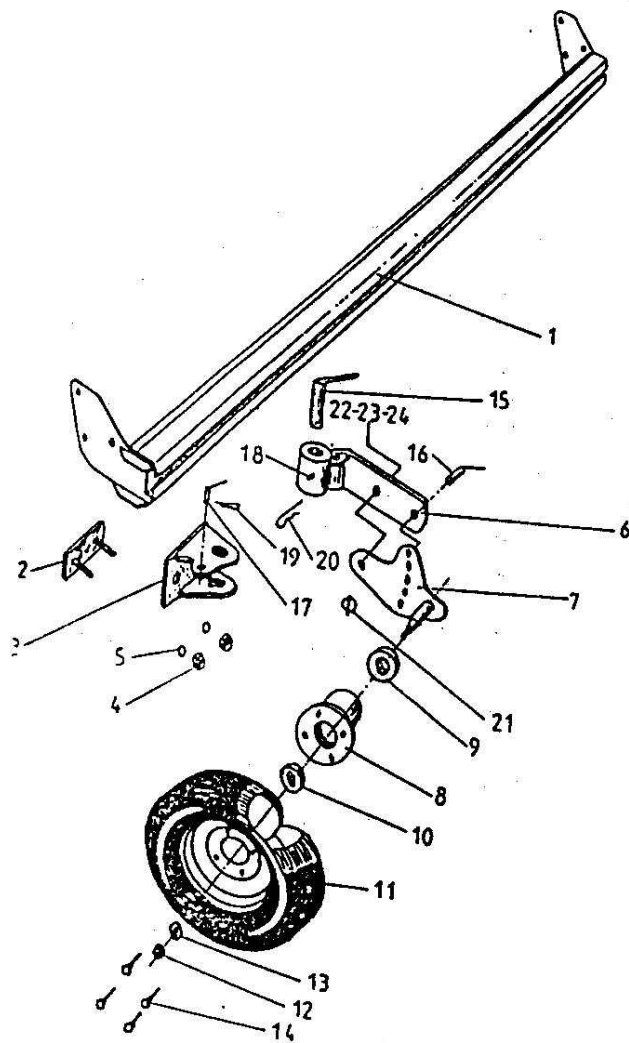
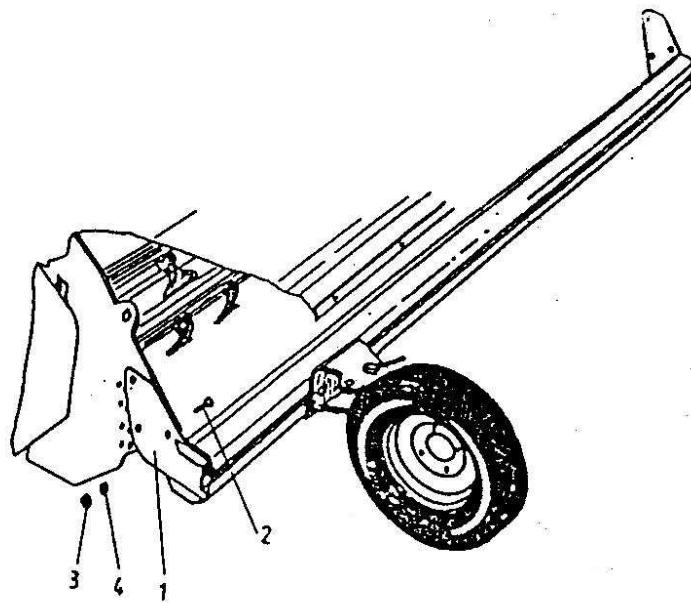


Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Lever	1061330	1	1	1
2	Bushing	1061331	1	1	1
3	Bearing sleeve	1061332	2	2	2
4	Pivot	1061333	1	1	1
5	Bearing casing	1061334	1	1	1
6	Pulley 130/4	1061049	1	n/a	n/a
6	Pulley 130/5	1061335	n/a	1	1
7	Bearing 6006 2RS	1061336	2	2	2
8	Washer	1061337	1	1	1
9	Washer	1061338	1	1	1
10	Hook	1061339	1	1	1
11	Spring	1061340	1	1	1
12	Bolt M16x80	9313167	1	1	1
13	Bolt M12x110	9213226	1	1	1
14	Bolt M8x20	9313044	1	1	1
15	Nut M16	9113007	1	1	1
16	Nut M12	9113006	1	1	1
17	Spring washer M12	9100206	1	1	1
18	Spring washer M16	9100207	1	1	1
19	Spring washer M8	9100204	1	1	1
20	Washer M8	9100104	1	1	1
21	Chain	1061341	1	1	1



**ROTOR ASSEMBLY**

Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Rotor shaft (hammer blades)	1061358	1	n/a	n/a
1	Rotor shaft (hammer blades)	1061252	n/a	1	n/a
1	Rotor shaft (hammer blades)	1061253	n/a	n/a	1
1	Rotor shaft	1061355	1	n/a	n/a
1	Rotor shaft	1061356	n/a	1	n/a
1	Rotor shaft	1061357	n/a	n/a	1
2	Bearing SKF FY 55W	1061315	2	2	2
3	Bearing plate	1061316	2	2	2
4	Pulley 300-4	1061045	1	n/a	n/a
4	Pulley 300-5	1061348	n/a	1	1
5	Elve clutch 80/45	1061163	1	1	1
6	Hook	1061319	1	1	1
7	Bearing lid	1061320	1	1	1
8	Bolt M16x50	9213107	1	1	1
8a	Bolt M16x45	9213097	7	7	7
9	Spring washer M16	9100207	8	8	8
10	Grease nipple	1061079	1	1	1
10	Grease nipple (for bearing)	1061321	1	1	1
11	Grease nipple extension	1061282	1	1	1
12	Bushing	1061323	24	28	32
13	Hammer	1061324	24	28	32
14	Locknut M20	9143008	24	28	32
15	Bolt M20x90	1061342	24	28	32
16	Hammer distant sleeve	1061036	72	84	96
17	Y - washer	9100108	24	28	32
18	Y - blades	1061325	72	84	96
18a	Flat blades	1061326	48	56	64
18b	Ventilation pallet blades	1061327	24	28	32
18c	Counter blades for cereals	1061328	1	1	1
19	Propeller blade	1061329	1	1	1
20	Bolt M 12x20	9313046	1	1	1
21	Spring washer 12	9100206	1	1	1



## WHEEL ASSEMBLY

Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Wheel support	595600	1	1	1
2	Bolt M16x50	9213107	6	6	6
3	Locknut	9143007	6	6	6
4	Spring washer	9100207	6	6	6

Ref.	Description	Part No.	Model/Quantity		
			245	270	300
1	Support bar	1061295	1	1	1
2	Fixing plate	1061296	2	2	2
3	Rear fork - left and right	1061297	1+1	1+1	1+1
4	Locknut M 20	9143008	4	4	4
5	Washer fi 20	9100108	4	4	4
6	Bracket right	1061298	1	1	1
6	Bracket left	1061299	1	1	1
7	Wheel bracket - left and right	1061300	1+1	1+1	1+1
8	Wheel sleeve	1061301	2	2	2
9	Bearing 6207 2RS	1061302	2	2	2
10	Bearing 6205 2RS	1061303	2	2	2
11	Wheel	1061304	2	2	2
12	Locknut M 16	9143007	2	2	2
13	Ring fi 16/fi 52	1061305	2	2	2
14	Bolt M 12x1,25	1061306	8	8	8
15	Pivot pin fi 36	1061307	2	2	2
16	Pivot pin fi 25	1061308	2	2	2
17	Pivot pin fi 16	1061309	2	2	2
18	Grease nipple M 8x1	1061310	2	2	2
19	Safety pin R3	1061076	2	2	2
20	Safety pin R5	1061311	2	2	2
21	Safety pin fi 7	1061312	2	2	2
22	Bolt M 12x20	9313046	2	2	2
23	Ring fi 20/fi 30	1061313	2	2	2
24	Spring washer M 12	9100206	2	2	2





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