

# Operation Manual

## Lawn Aerator 100 cm (40")

51707



Illustration similar, may vary depending on model

Read and follow the operating instructions and safety information before using for the first time.

Technical changes reserved!

Due to further developments, illustrations, functioning steps, and technical data can differ insignificantly.

Updating the documentation

If you have suggestions for improvement or have found any irregularities, please contact us.



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Our postal address is:

WilTec Wildanger Technik GmbH  
Königsbenden 12  
52249 Eschweiler  
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Returns Department  
WilTec Wildanger Technik GmbH  
Königsbenden 28  
52249 Eschweiler

E-mail: **service@wiltec.info**

Tel: +49 2403 55592-0

Fax: +49 2403 55592-15



## Introduction

Thank you for purchasing this quality product. **To minimise the risk of injury we urge that our clients take some basic safety precautions when using this device. Please read the operation instructions carefully and make sure you have understood its content.**

Keep these operation instructions safe.

## Notes on safe operation

Remember that any electrical device may cause personal injury if operated improperly or if the user does not understand the operation of the device.



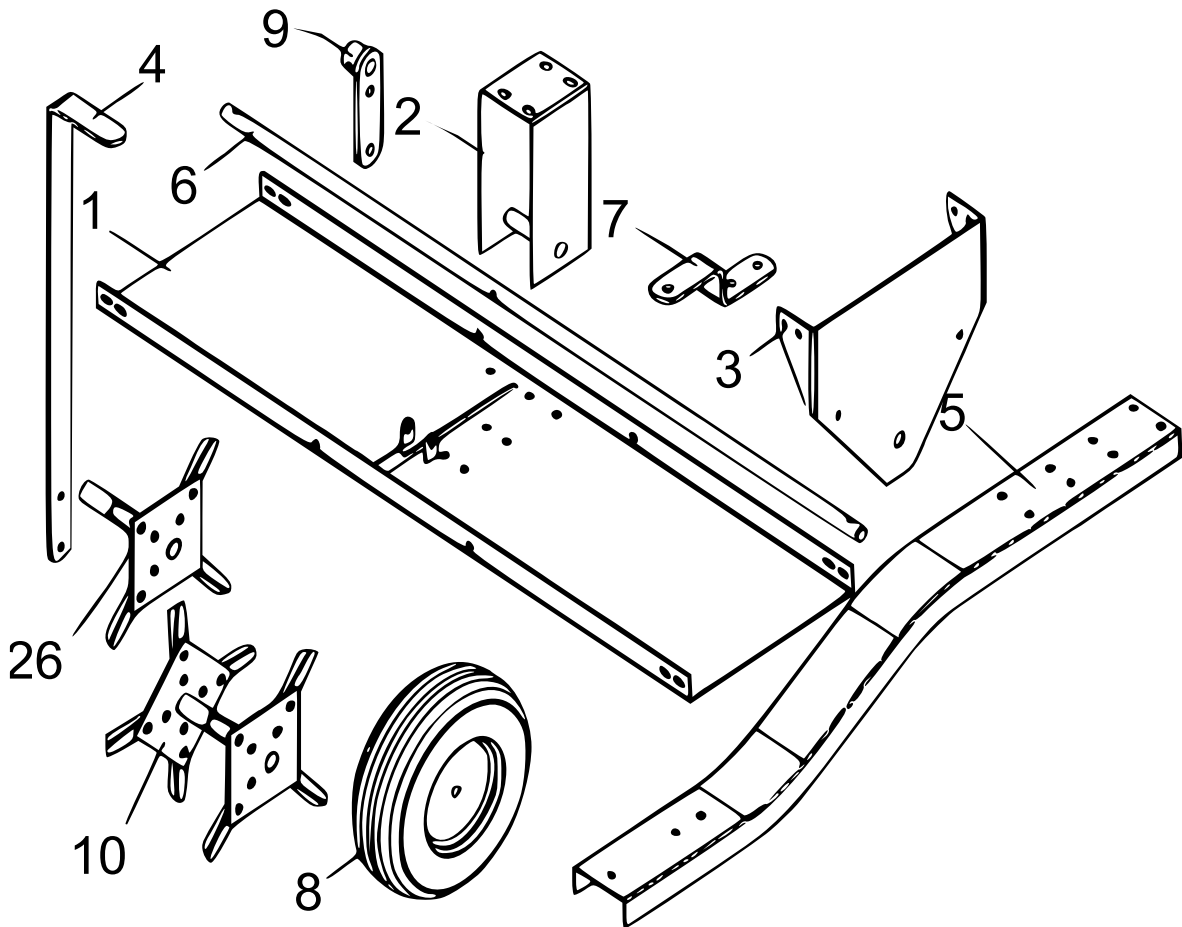
**CAUTION:**  
**VEHICLE BRAKES AND STABILITY CAN BE AFFECTED  
BY THE ADDITION OF ACCESSORIES OR ATTACHMENTS AND  
ALTER THE DRIVING CHARACTERISTICS.**

Always be careful when using an electrical device.

- Read these operating instructions carefully before operating the device. Familiarize yourself with the proper use of this equipment.
- Read the manual and learn how to operate the unit before using it.
- Never allow children to operate the tractor or the lawn aerator, and never allow adults to work with it without proper instruction.
- This lawn aerator has sharp knife tips. Always handle the appliance with care and wear safety shoes.
- Do not let anyone ride or sit on the frame of the lawn aerator or on the hitch.
- Keep the area of use free from all persons, especially small children and pets.
- Always start with the gearbox in the first (lowest) gear and at low speed and gradually increase the speed as conditions allow.
- The braking behaviour and stability of the towing vehicle may be affected by the attachment of the lawn ventilator. Pay particular attention to the changing conditions at steep gradients. Observe the safety regulations in the operating instructions for safe operation on slopes.
- Never work across a slope, but always up and down.
- This device should be operated at reduced speed in uneven terrain, along streams and ditches, and on slopes to prevent overturning or loss of control. Do not drive too close to a stream or ditch.
- Do not tow this unit on a highway or other public road.
- Follow the maintenance instructions as described in this manual.

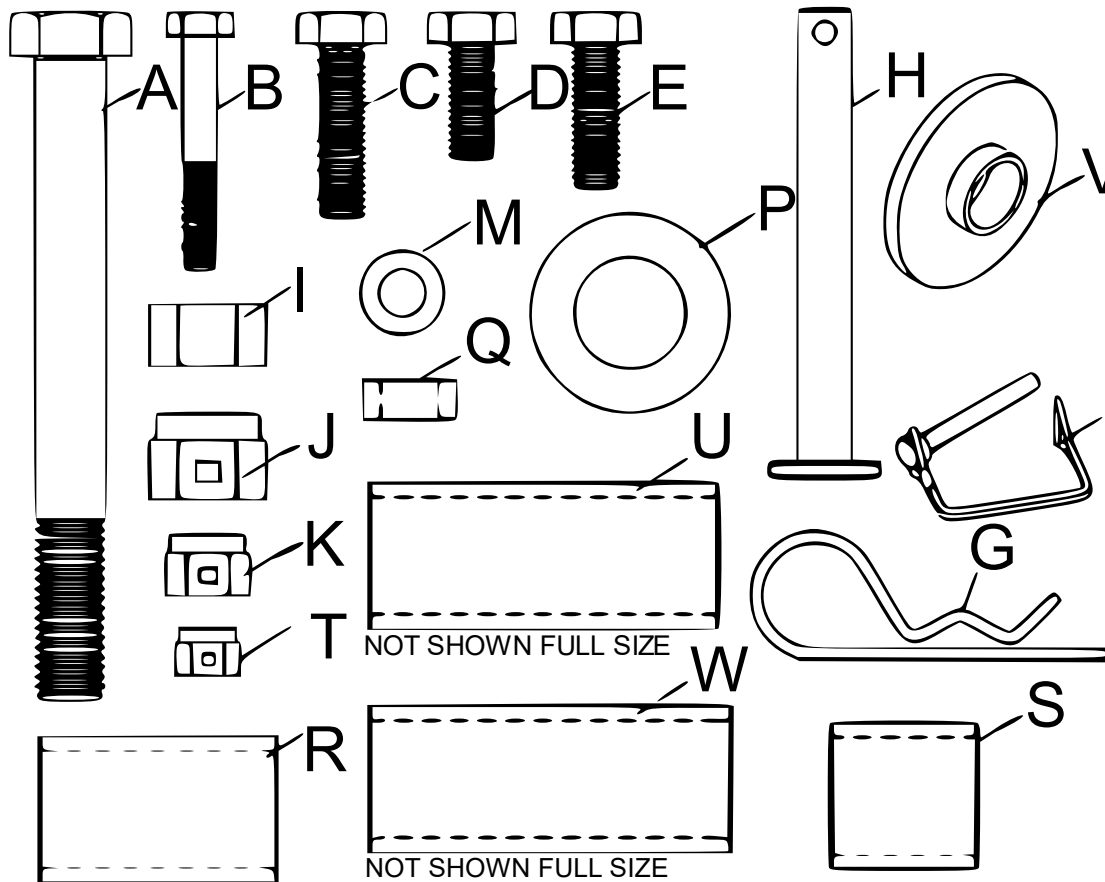
**Scope of delivery**

*Main parts*



No	Name	No	Name
1	Plate	7	Clutch
2	Central support	8	Wheel (×2)
3	Side plate (×2)	9	Wheel holder (×3)
4	Handle	10	Double coil (×2)
5	Coupling rod	26	Single coil (×2)
6	Axis		

Mounting material



Letter	Name	Qty.	Letter	Name	Qty.
A	Screw 1/2" x 4 7/16"	2	K	Locking nut 5/16"	22
B	Screw 1/4" x 1 9/16"	3	M	Washer ø8	12
C	Screw 5/16" x 1 3/16"	6	P	Washer ø20	4
D	Screw 5/16" x 7/8"	8	Q	Spacer 1/4" long	8
E	Screw 5/16" x 1"	8	R	Spacer 1.61" long	1
F	Locking pin	1	S	Spacer 0.79" long	1
G	R pin	1	T	Locking Nut 1/4"	3
H	Coupling pin	1	U	Spacer 2.36" long	1
I	Hexagon nut 1/2"	2	V	Guide disk	1
J	Locking nut 1/2"	2	W	Spacer 2.76" long	1

## Assembly instructions

### Recommended tools for assembly

- 2 × combination wrench  $\frac{7}{16}$ " /  $\frac{1}{2}$ " /  $\frac{3}{4}$ "
- 1 × medium size adjustable spanner
- 1 × medium sized pliers

Before mounting the aerator, lay out all parts as shown on the previous pages.

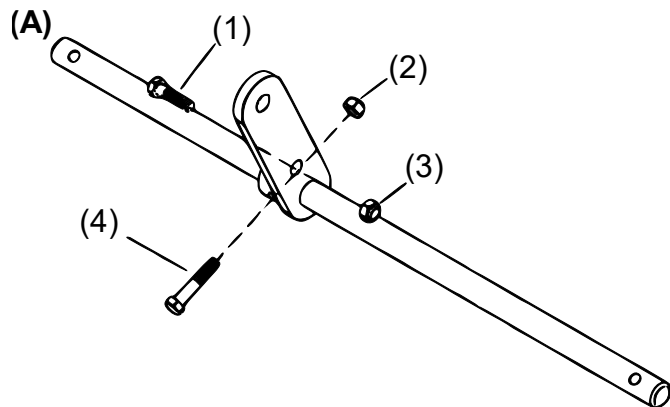


### ATTENTION:

**THE TIPS OF THE AERATOR BLADES ARE SHARP!  
BE CAREFUL WHEN INSTALLING AND USING THE LAWN AERATOR.**

### Step 1: Fastening the wheel holder to the axle shaft

1. Attach a wheel bracket to the middle opening of the axle shaft. Note that the wheel retainer ring should point to the shortest side of the axle. Fasten the wheel mount with a  $\frac{1}{4}$ " ×  $1\frac{9}{16}$ " hex bolt (4) and a  $\frac{1}{4}$ " hex lock nut (2). **Do not tighten firmly.**

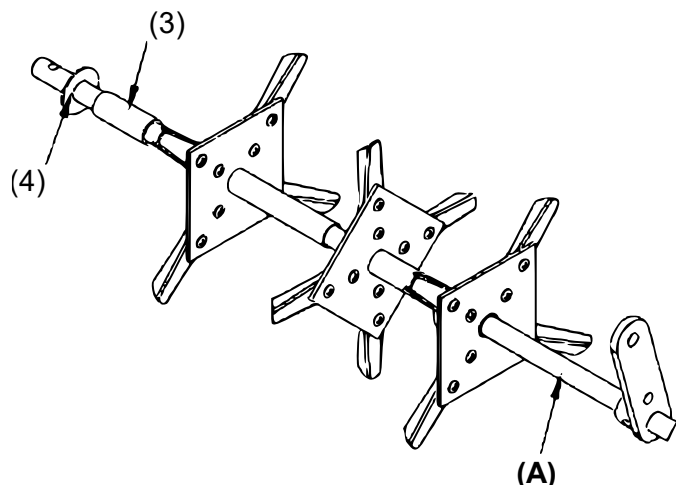


2. Next, from the short side (A) of the axle, insert a  $\frac{5}{16}$ " ×  $1\frac{3}{16}$ " (1) hexagonal bolt into the hole on the wheel bracket closest to the axle (smaller hole). Attach the  $\frac{5}{16}$ " hex lock nut (3) to the bolt. **Do not tighten screws.**

### Step 2: Mounting the short side of the axle shaft

Mount the lower parts on the short side of the axle shaft (A) in the following order. Observe the direction of the insertion knives.

1. Start with a double coil (knife to the outside)
2. Single coil (knife to the outside)
3. 2.36" spacer (long)
4.  $\varnothing 20$  washer

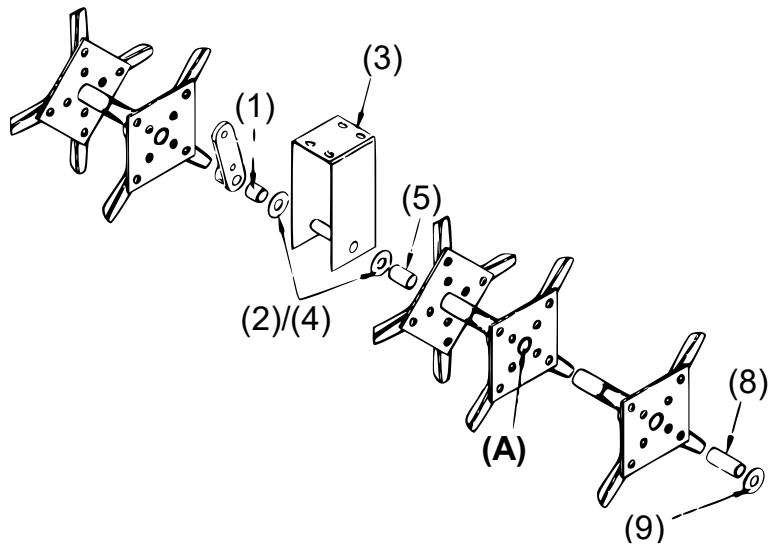


**Step 3: Mounting the long side of the axle shaft**

Mount these parts in the following order on the long side of the axle shaft. Observe the direction of the insertion knives.

**!** **IMPORTANT:** Make sure that the upper bracket of the centre support faces the short end of the axle (A = long end)!

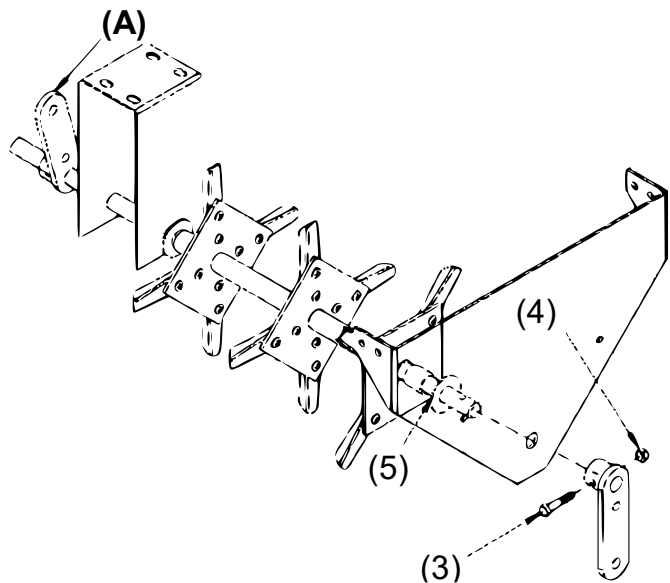
1. Start with a 0.79" spacer
2.  $\varnothing 20$  washer
3. Central support
4.  $\varnothing 20$  washer
5. 1.61" spacer
6. Double coil (knives point inwards)
7. Single coil
8. 2.76" spacer
9.  $\varnothing 20$  washer



**Step 4: Fastening the end plates and the wheel holder**

Start by turning the wheel holder in the middle of the axle shaft so that it points upwards **(A)**. Next, attach a side plate to one side, followed by a  $\varnothing 20$  washer **(5)** and a wheel holder. Note that the wheel carrier ring is facing inwards. Fasten the wheel bracket to the axle shaft with  $\frac{1}{4} \times \frac{19}{16}$ " hexagonal bolt and  $\frac{1}{4}$ " locking nut. **Tighten the connection firmly.** Repeat for the other side.

1. Side plate
2. Wheel holder
3. Screws  $\frac{1}{4} \times \frac{19}{16}$ "
4. Locking nut  $\frac{1}{4}$ "
5. Flat washer  $\frac{7}{8}$ "

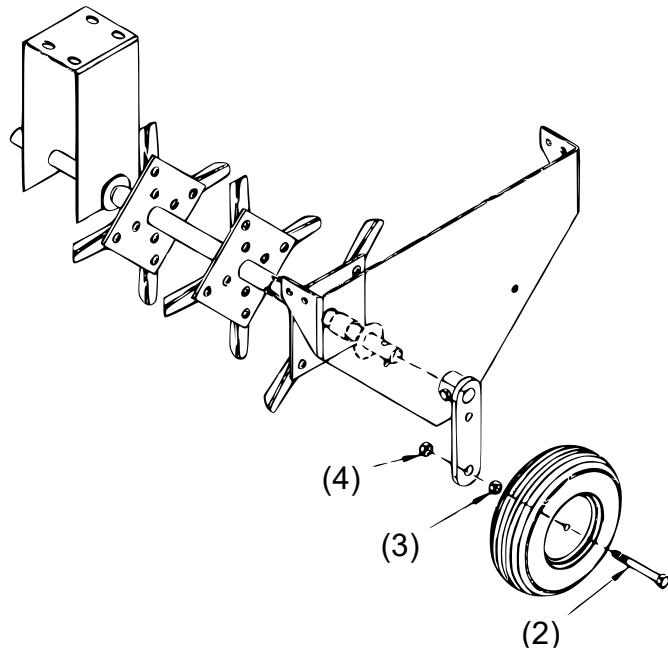


*Step 5: Attaching the wheel assembly*

Insert a  $\frac{1}{2}$ " $\times$  $4\frac{7}{16}$ " hex bolt through the wheel assembly, install the  $\frac{1}{2}$ " hex nut onto the  $\frac{1}{2}$ " $\times$  $4\frac{7}{16}$ " hex bolt and hand-tighten. Then loosen the hex nut half a turn. Attach the mounted wheel and screw the  $\frac{1}{2}$ " $\times$  $4\frac{7}{16}$ " hex to the wheel bracket and secure with a  $\frac{1}{2}$ " lock nut. Repeat for the other side.

**Make sure that the wheels can turn freely after assembly.**

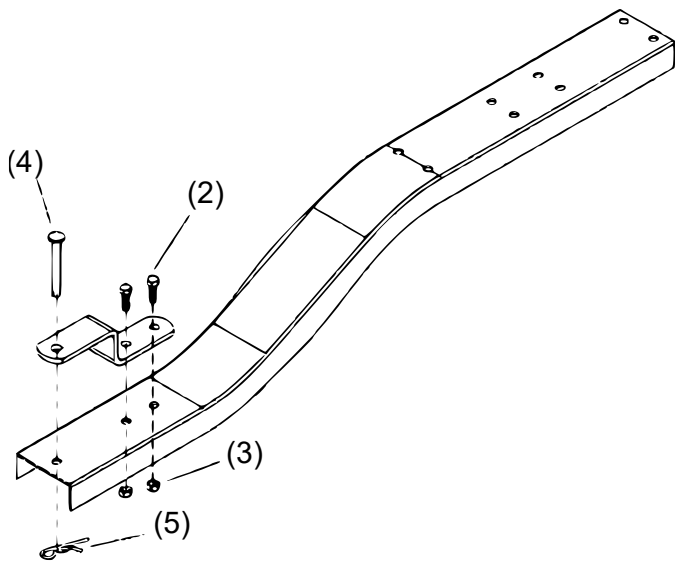
1. Wheel mounting
2. Hexagon head screw  $\frac{1}{2}$ " $\times$  $4\frac{7}{16}$ "
3. Hexagon nut  $\frac{1}{2}$ "
4. Locking nut  $\frac{1}{2}$ "



*Step 6: Mounting the coupling rod and hook*

Attach the coupling bracket to the tongue using the  $\frac{5}{16}$ " $\times$ 1" hexagonal bolt and  $\frac{5}{16}$ " hexagonal lock nut. Next, insert the coupling pin through the coupling holder and secure the tongue with the R pin. **Tighten the connections tightly.**

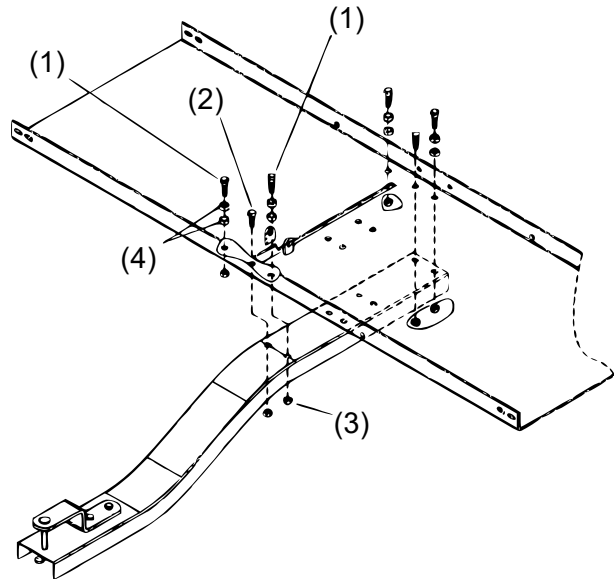
1. Coupling rod
2. Hexagon head screw  $\frac{5}{16}$ " $\times$ 1"
3. Locking nut  $\frac{5}{16}$ "
4. Coupling hook
5. R pin





*Step 7: Fastening the coupling rod to the support*

Attach the coupling rod to the shelf with the large opening of the compartment slot facing forward. Tighten the rod with the upper shaft holes on the right side of the slot (seen from the front). For the right-side spring connection holes (front view) use a  $\frac{5}{16}$ " $\times$  $\frac{13}{16}$ " screw, two  $\frac{1}{4}$ " spacers per screw, and a  $\frac{5}{16}$ " hex lock nut. For the left side of the connection, use a  $\frac{5}{16}$ " $\times$ 1" bolt and a  $\frac{5}{16}$ " hex lock nut, not spacers. For holes to the left of the storage slot (front view), use the  $\frac{5}{16}$ " $\times$  $\frac{13}{16}$ " hex bolt, two  $\frac{1}{4}$ " spacers per bolt, and the  $\frac{5}{16}$ " hex lock nut.

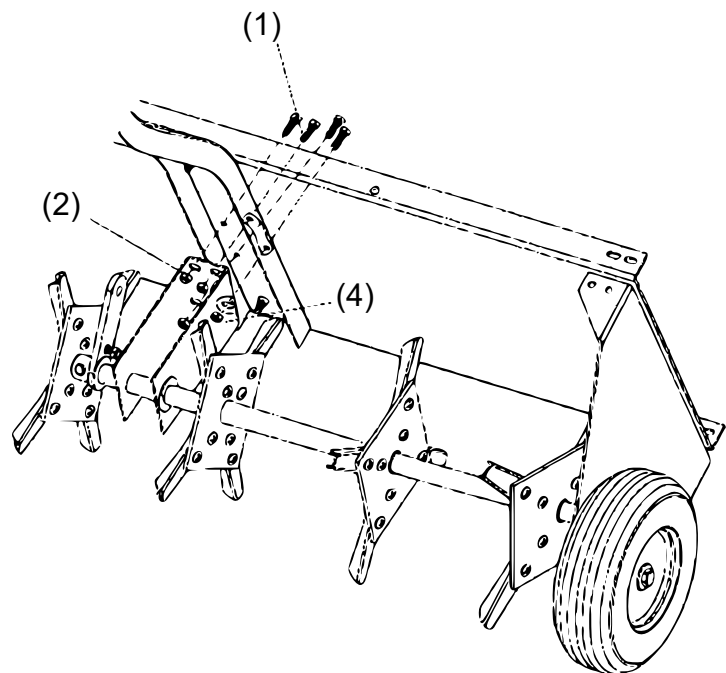


**Tighten all connections.**

1. Hexagon head screw  $\frac{5}{16}$ " $\times$  $\frac{13}{16}$ "
2. Hexagon nut  $\frac{5}{16}$ " $\times$ 1"
3. Locking nut  $\frac{5}{16}$ "
4.  $\frac{1}{4}$ " spacer

*Step 8: Fastening the centre support*

Position the tray between the side plates by hanging them into the plates. Temporarily attach the right end plate to the top plate with two  $\frac{5}{16}$ " $\times$  $\frac{7}{8}$ " screws (see fig.). Swing the middle strut into position and secure with  $\frac{5}{16}$ " $\times$ 1" screws,  $\varnothing$ 8 washer and  $\frac{5}{16}$ " hex lock nut. **Do not tighten firmly.**



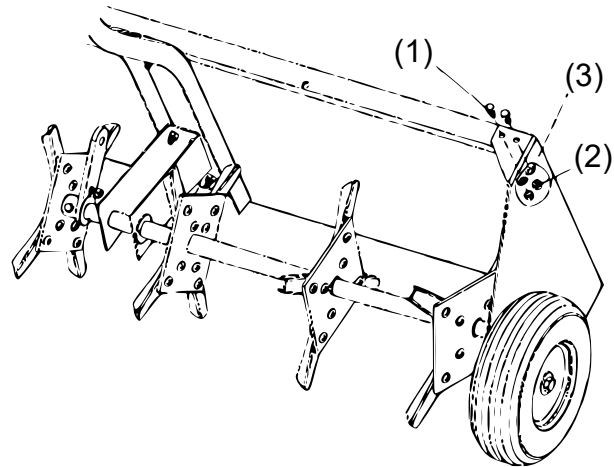
1. Hexagon head screw  $\frac{5}{16}$ " $\times$ 1"
2. Locking nut  $\frac{5}{16}$ "
3. Central support
4. Spacer  $\varnothing$ 8

*Step 9: Attaching the top compartment*

Fasten both end plates to the top plate with  $\frac{5}{16}$ " $\times$  $\frac{7}{8}$ " hex bolts,  $\varnothing 8$  washers and  $\frac{5}{16}$ " hex nuts for each corner (2 connections per corner). Repeat these steps for each corner.

**Do not tighten screws completely.**

1. Hexagon head screw  $\frac{5}{16}$ " $\times$  $\frac{7}{8}$ "
2. Locking nut  $\frac{5}{16}$ "
3. Spacer  $\varnothing 8$

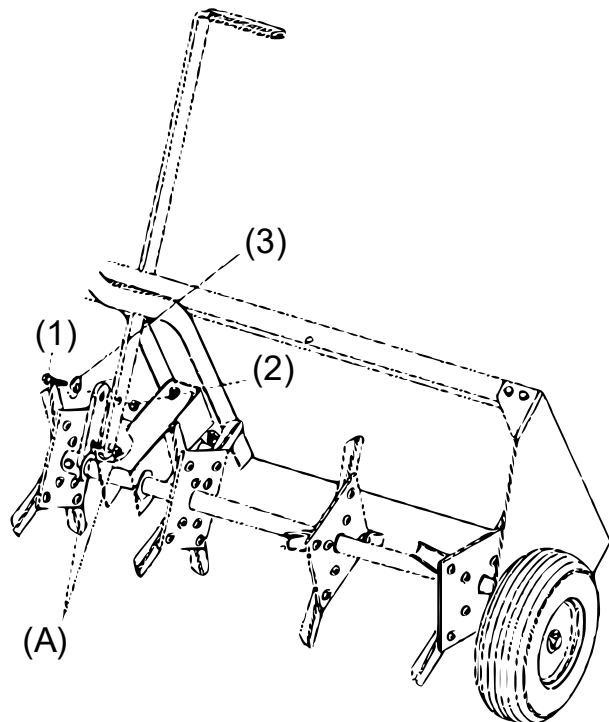


*Step 10: Attaching the lifting handle*

Place the lifting handle through the large opening in the storage slot. Attach the lifting handle to the smaller opening in the wheel holder using the  $\frac{5}{16}$ " $\times$  $1\frac{3}{16}$ " screw and the  $\frac{5}{16}$ " lock nut that you pre-assembled in step 2 (A). Attach the lifting handle to a larger hole using a  $\frac{5}{16}$ " $\times$  $1\frac{3}{16}$ " hexagonal bolt, spacer, and  $\frac{5}{16}$ " hexagonal lock nut.

**Tighten the connections firmly.**

1. Hexagon head screw  $\frac{5}{16}$ " $\times$  $1\frac{3}{16}$ "
2. Locking nut  $\frac{5}{16}$ "
3. Spacer

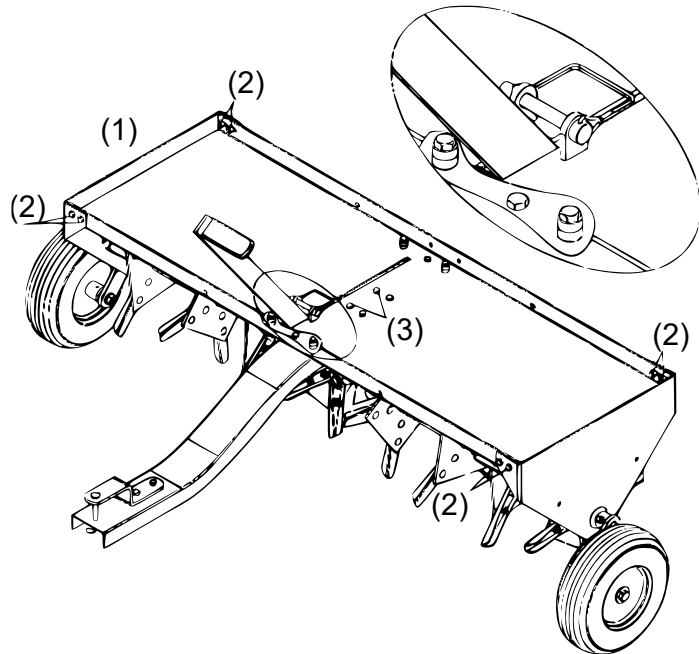


### Step 11: Adjusting the handle and tightening the connections

Place the lawn aerator right side up on the wheels and lock the lifting handle into the offset at the front of the storage slot. Perform the following steps to ensure correct alignment of the lifting handle with the slot.

1. Adjust the compartment from side to side so that the lifting handle rests on the right side (seen from behind) of the offset on the front of the slot.
2. Align the side plates and then tighten the eight screws at the corners of the compartment. Make sure that the lifting handle is still on the right side of the slot offset.
3. Align the middle rail and tighten the two screws that secure it to the tongue.

Make sure that the lifting handle is still on the right side of the slot offset. You should bring the handle into alignment with the slot when lowering the lawn aerator. The locking device is designed to help prevent the handle from slipping out when the lawn aerator is in use. But if you feel that this part does not fit correctly, simply remove the pin.



### Operation

Aeration involves pulling small cones, up to three centimetres long, out of the ground to create small reservoirs that bring oxygen, fertiliser, and water to the roots. For optimum performance, the following lawn preparations and operating procedures are recommended.

**ATTENTION: THE TIPS OF THE FAN BLADES ARE SHARP. CAUTION DURING USE.**

1. Mow your lawn and remove loose cuttings before using the lawn aerator.
2. Start the engine with the gearbox in neutral position and set the engine speed to a low value.
3. Lower the gear lever to the lowest possible speed and the fan so that the fan blades can penetrate the ground. Increase the speed only if conditions allow.
4. Drive on the lawn in straight, overlapping lanes to increase the ventilation capacity.
5. Avoid extremely sharp bends with blades embedded in the ground to avoid damage to the lawn.
6. Do **NOT** cross paths or roads without first switching the lawn aerator to the transport position.
7. Always drive on slopes and inclines from above or below. Do **NOT** try to drive along the slope.
8. To increase the penetration depth of the fan blades, up to 220 kg of weight such as sand bags or concrete blocks can be placed on the tray. The weight can be attached to the shelf with cable ties or straps attached to the front and back of the shelf. Fasten the straps or ropes so that they cannot get caught in the rotating parts.
9. If the soil is extremely hard and dry, it is recommended that it is watered for up to two hours before aeration.
10. Do **NOT** try to ventilate if the ground is too wet (muddy).
11. Small stones and pebbles that come to the surface through ventilation should then be collected so that other equipment, such as lawn mowers are not damaged.



 **ATTENTION: TO AVOID INJURY, DISCONNECT THE AERATOR FROM THE TRACTOR WHEN LIFTING OR LOWERING THE FAN BLADES.**

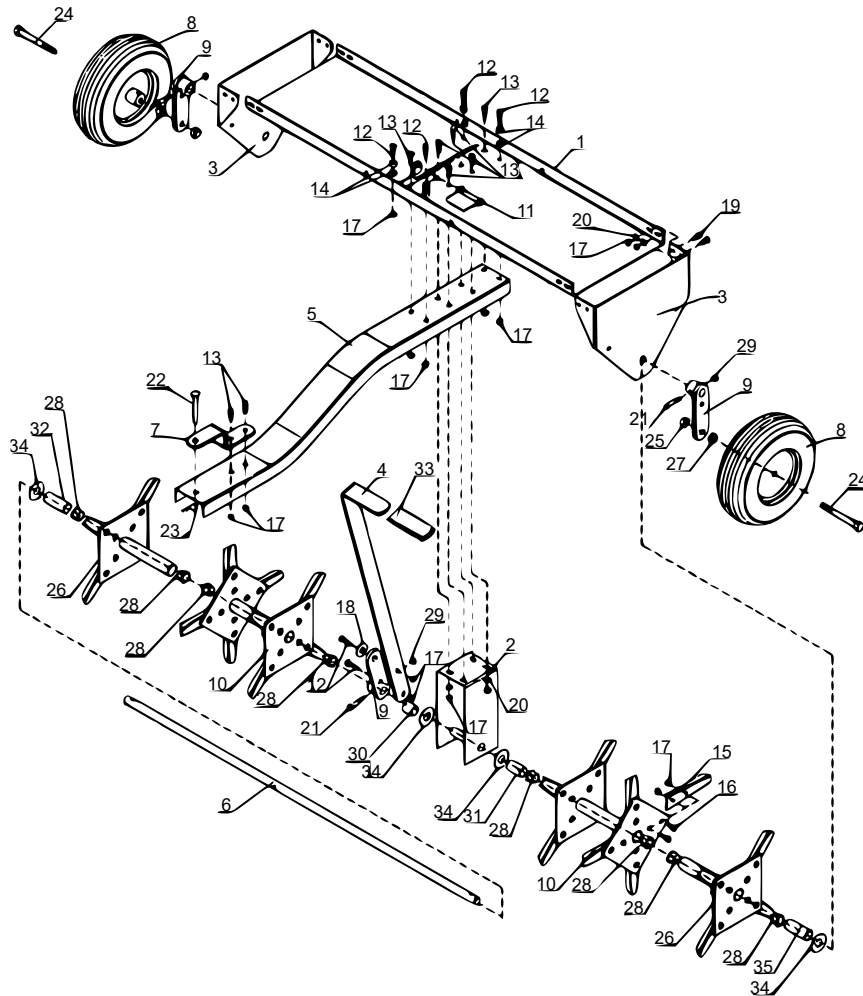
### **Maintenance**

1. Knife tips can be sharpened regularly with a small grinder to maintain good penetration. Tips should be removed to sharpen them. Follow the original angle and contour of the tips as you grind.
2. Before storage, clean the aerator and lightly oil exposed metal parts to prevent rusting.

### **Lubrication**

1. Oil the coil units and the shaft as required.
2. Oil the wheel as required.

### Explosion view and parts list



No	Name	Qty.	No	Name	Qty.
1	Filing	1	19	Hexagon bolt $\frac{5}{16}$ " $\times$ $\frac{7}{8}$ "	8
2	Central support	1	20	Washer $\varnothing 8$	12
3	Side plate	2	21	Hexagon bolt $\frac{1}{4}$ " $\times$ $\frac{19}{16}$ "	3
4	Lifting bracket	1	22	Coupling hook	1
5	Coupling rod	1	23	R pin	1
6	Axis	1	24	Hexagon bolt $\frac{1}{2}$ " $\times$ $\frac{47}{16}$ "	2
7	Coupling hook	1	25	Lock nut $\frac{1}{2}$ "	2
8	Wheel	2	26	Single coil	2
9	Wheel suspension	3	27	Hexagon nut $\frac{1}{2}$ "	2
10	Double coil	2	28	Wheel suspension	8
11	Safety hook	1	29	Hexagon lock nut $\frac{1}{4}$ "	3
12	Hexagon bolt $\frac{5}{16}$ " $\times$ $\frac{13}{16}$ "	6	30	0.79" spacers	1
13	Hexagon bolt $\frac{5}{16}$ " $\times$ 1"	8	31	1.61" spacers	1
14	$\frac{1}{4}$ " spacers	8	32	2.36" spacers	1
15	Point of a knife	24	33	Grip cap	1
16	Carriage screw $\frac{5}{16}$ " $\times$ $\frac{7}{8}$ "	48	34	Washer $\varnothing 20$	4
17	Hexagon lock nut $\frac{5}{16}$ "	70	35	2.76" spacers	1
18	Spacers	1			

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