

WINTON ROTOVATOR

WRT SERIES



OWNERS MANUAL

PLEASE READ THIS MANUAL BEFORE OPERATING THE MOWER

Congratulations on purchasing your new Winton mower!

Before you get started, we have provided a helpful space to jot down a few important details about your new Winton machine.

Model Number: WRT125 / WRT150
Serial Number:
Date of purchase:
Factory Reference: IGN125 / IGN150

This manual should be considered a permanent part of this machine and should remain with it even if the machine is subsequently sold.

Winton continually seeks advancements in its product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your machine and this manual.

If you have any questions concerning this manual, please consult your local dealer.

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General Safety Information

Ensure all potential operators read this manual thoroughly before using the machine.

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Safety: Failure to follow good safety standards could result in severe injury or even death.

Misuse: This machine is designed for use with compact tractors, and should be used only for the indicated purpose. Winton does not take responsibility if the machine is used for any other purpose. Children must not operate the machine under any circumstance.

Modification: Do not modify equipment in any way. This may impair the operation and overall safety of the machine.

Tractor requirements: Use only with compact tractors within power range specified.

Misuse transport: Do not use machinery to transport personnel or livestock.

Condition: For the safety of personnel and optimum performance of the machine, you should check the condition of the machine and the tractor before starting. Before use check all nuts and bolts are tight.

Spatial awareness: Always check the operating area is safe before starting machinery.

Operator clothing: The operator should not wear loose clothing while operating machinery.

Safety wear: Always use appropriate ear protection when running a tractor and machinery. Ensure you are wearing protective gloves when servicing and using machinery.

Bystander safety: Ensure bystanders keep away from the machine when it is in use. Do not touch moving parts when the machine is at work.

Public places: When travelling on the road/public places, always keep the PTO turned off.

Maintenance: Always keep the machine maintained and in a good state. Where necessary, repair or replace any defective parts. Do not modify the machine.

Sharp objects: Pay attention to the sharp/pointed parts while servicing the machine.

Safety guards: All protective parts should be in good condition before operating machinery.

Safety signs/stickers: Keep all safety signs clean and legible. Replace any which are missing or illegible. If a component with safety sign(s) is replaced, make sure new safety sign(s) are attached in the same locations.

Operating speeds: Machinery and PTO should be operated at the recommended speed at all times.

Safety awareness: Good safety requires that you familiarise yourself with various safety signs, the type of warning and the area, or particular function related to that area.

Alertness: Never consume alcohol or drugs as these can hinder alertness/coordination. Consult your doctor about using this machine while taking prescription medications.

General Safety Information (Continued)

Machinery Pre-Use Checks

On receipt of your new Winton machine and again within the first 4 hours of use, or the 'shake in period', we always recommend checking over the machine.

- Check all bolts, nuts and screws are tight on the unit.
- Tighten/check any bolts and nuts securing blades.
- If your machine has belts check the tension and adjust if required.
- Apply grease to grease points if necessary.
- Check gear oil level and top up if needed. Do not overfill.

Tractor Pre-Use Checks

Check that the machine is properly attached to the tractor. Ensure that secure pins are used on the linkage mounting pins.

Be sure to add extra weights to the front of the tractor or add wheel weights if required.

Check that the tractor PTO shaft turns freely and that the machines PTO drive shaft can extend easily. Grease the PTO drive shaft using the grease points.

The chain on the PTO shaft should be checked and in a good condition. The universal joints installed should be in a good state, with proper protective parts.

Before installing the PTO shaft, the tractor and machine should be stopped and the key removed.

Install and secure all safety guards, doors and covers before starting.

Bystanders should leave the immediate area before connecting the drive to the tractor.

Running/Operating Checks

• Always keep the PTO output from the tractor at **540 RPM** when running machinery.

Post-Use Regular Checks

Check blades, belts and wearing parts. Be sure they are not damaged and blades swing freely in their mount. Repair or replace as required.

Clean machinery and check for/clear any entangled material which may have got stuck around the rotating parts.

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1. Dimensions & Specifications

Model	WRT125	WRT150
Weight	285kg	320kg
Working Width	125cm	150cm
PTO Turning Speed	540 RPM	540 RPM
Number of Blades	36	42
Recommended Tractor HP	25-40 HP	30-55 HP
Width	150cm	175cm
Depth	100cm	100cm
Height	100cm	100cm
PTO Shaft Size	70-90cm	70-90cm
Max. Tilling Depth	15cm	15cm
Linkage Size	Category 1/2	Category 1/2
Blade Rotor Speed	205 RPM	205 RPM

2. Installation & Set-Up

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Safety: Make sure the PTO drive is not connected at any point until instructed to do so.

You will need:

Your tractor, tractor top link arm (adjustable), linkage pins, PTO shaft.

Attaching The Mower

Start by finding a flat piece of ground. Lower the three point linkage on your tractor to its lowest position and attach the rotovator to the tractor using the three point linkage pins and linch pins.

Adjust the top linkage arm on the tractor to line-up with the rotovator, attach using the top link pin and linch pin.

Adjust the length of the top linkage arm until the rotovator's PTO output is parallel to the ground. Start the tractor engine and lift the rotovator from the ground. Then switch off the tractor engine and remove the ignition key.

Level the rotovator so both sides are parallel to the ground by adjusting the tractor's lifting arms. The blades must be at equal distance from the ground on both sides of the rotovator.

Adjust the tractor lower link arm to prevent excessive movement to the side (we recommend a movement of 5cm each side).

Attach the PTO driveline and check it correctly meshes at both ends. If a shear bolt or slip clutch safety system is used on the PTO shaft, this must be mounted on the rotovator end. Check the PTO driveline is the correct length. The minimum overlap must be 18cm when working, and the driveline must be able to travel at least 2.5cm.

Always couple the two ends of the driveline and check they are locked in place. Completely insert the sprung lock pins into the grooves in the PTO shaft on both the tractor and rotovator sides. Check an apply grease if required to grease points on PTO shaft. Attach the PTO drive shaft, secure locking pin, and ensure chain is attached to a secure point.

Operate the flail mower the with tractor in low range gear and the PTO delivering 540 RPM.

Pre-Mowing Checklist

Before starting the machine, always check and adjust the following:

- Blades are fitted correctly. [Section 4]
- Oil level of the gearbox. [Section 5 & 6]
- Rear guard is correctly adjusted [Section 7]
- Tilling depth is correctly adjusted [Section 8]
- Tightness of all bolts, nuts and screws.
- All protective guards are in place and storage stands are removed.

3. Operating Advice

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Safety: Before attaching/detaching machinery ensure the hydraulic lift system is in a neutral position.

Lower the tractor lift arms until the blades are just above the ground's surface, and engage the PTO drive to a speed of 540 rpm. Then continue lowering the blades to gradually cut into the soil.

When the rotovator is working the soil move slowly at a speed of 1 to 3 mph in a low gear range. The recommended working depth for soft soil is 15cm, and 13cm for dense/dry soils. (To adjust the working depth see page 13). Check the results after working the soil a few metres, and make any adjustments. Keep the worked soil to the driver's right side.

When turning, always raise the rotovator from the soil (no more than 25cm when the PTO driveline is engaged, as this can cause damage). 20° is the maximum angle with the PTO driveline engaged. A greater angle can cause strong vibrations/damage to the rotovator.

The rotovator is not suitable for very stony soils, this can damage the blades/machine and void the warranty. Take care on sloped areas, work at a slow speed and upwards (or downwards) rather than across the gradient to reduce the risk of overturning. Never operate on wet, slippery grass/soil or where the tyres are struggling to grip.

4. Blade Replacement

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Note: Clearance of blades to the ground should be at least <u>50mm</u> and higher on uneven ground.

Lift the machine to access the blades and rotor. Use rigid supports and ensure the rotovator is stable. Replace any damaged/worn/blunt blades:

1. Unscrew the 2x bolts and nuts (1) and remove the blade.

2. Insert the replacement blade (2). Ensure the blades on the same blade mounting are bolted on alternate sides (left-handed to one side then right-handed to the other) as shown in the image.

- 3. Replace bolts and nuts (1).
- 4. Check all blade bolts are secured and blades are adjusted correctly.
- 5. Run the rotovator for 5-10 minutes and re-check bolt tightness.



5. Gearbox Oil Check & Change

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Always check oil when the machine has cooled down and on a level surface. Make sure bolts are tightened correctly. The filler/level plug should be secure but not over tightened.

Do not mix old and new oils together, or mix different oil types. Always dispose of oils correctly and safely. After use, the attachment should be left to cool down for 15 minutes before checking oil levels. Ensure the gearbox is flat/level when checking oil levels. Always follow manufacturer's instructions for oils and lubricants.

Important Information

Gear Oil Grade	80w90 gear oil for all conditions (or equivalent)
Gearbox Oil Level	Approx. 1.75 litres to level plug
First Oil Change	50 hours use
Oil Change Frequency	250 hours/yearly (whichever is first)



1.Remove level plug (1) and breather/filler plug (2).

2. The oil level should be up to the edge of level plug (1) approximately half full. If required, top up with oil using filler hole (2).

3.Replace both plugs (1 & 2).

If draining and replacing oil, then remove drain plug (3) and let the oil drain out. Replace drain plug (3) then replace oil as above.

Oil Change #1		Oil Change #2		Oil Char	nge #3	Oil Char	nge #4	Oil Char	nge #5	Oil Char	nge #6
/	/	/	/	/	/	/	/	/	/	/	/

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6. Gear Reservoir Oil Change

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Always check oil when the machine has cooled down and on a level surface. Make sure bolts are tightened correctly. The filler/level plug should be secure but not over tightened.

Do not mix old and new oils together, or mix different oil types. Always dispose of oils correctly and safely. After use, the attachment should be left to cool down for 15 minutes before checking oil levels. Ensure the gearbox is flat/level when checking oil levels. Always follow manufacturer's instructions for oils and lubricants.

Gear Oil Grade	SAE140 gear oil by condition (or equivalent)
Gearbox Oil Level	Approx. 2 litres
First Oil Change	50 hours use
Oil Change Frequency	250 hours/yearly (whichever is first)





- 1. Remove breather/filler plug (4) and drain plug (5) to allow the oil to drain from the reservoir.
- 2. Replace and screw in drain plug (5), replace oil using a funnel through filler hole (4).
- 3. Replace breather/filler plug (4).

7. Rear Guard Adjustment

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

To determine how compacted the soil is after cultivating, adjust the rear guard using an adjustment rod. The rod is sprung so there is downwards force on the rear panel to aid compaction.



- 1. Remove R clips (1 & 2).
- 2. Move both R clip (1) up or down and insert into one of the holes (3).
- 3. Move R clip (2) up or down the same number of holes into (4).
- 4. Ensure the springs remain between the two R clips (1 & 2).

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8. Tilling Depth Adjustment

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

We recommend a maximum working depth of 15cm for soft soil, and 13cm for dense/dry soils.

The initial set up of the tractor's top linkage arm and the linkage set up will influence tilling. But it is also important to set up the side skids to get the correct depth when cultivating.

Moving the skids down and further away from the body will create a shallower working depth. Moving the skids upwards closer to the machine will increase the working depth achieved.



- 1.Remove bolt (5) and loosen off bolts (6).
- 2.Replace bolt (5) into the selected hole (7) and tighten.
- 3.Re-tighten bolts (6) in position.
- 4. Repeat steps (1-4) above on the other side of the machine.

9. Servicing & Maintenance

Safety: Store all lubricants away from excessive heat, dust, moisture and contaminants.

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Grease Type	Multi-purpose lithium based grease
Grease Frequency	Check every 4-8 hours (top up if required)

Greasing & Lubrication Points

- 1. Bearings on the blade rotor x2
- 2. Bearings on the rear roller x2
- 3. PTO shaft x2
- 4. Body arm x4

Wipe grease nipples with a clean cloth before greasing to avoid injecting any dirt or grit. Press grease into each grease nipple three to five times. We recommend using a hand-held grease gun for best results.

If grease nipples will not take grease, remove and clean thoroughly. Also clean lubricant passageway. If you notice any grease points are broken replace or repair them immediately.

Other Maintenance

Blades: Check condition of the blades and replace if worn/broken. Always take care when handling blades, wear gloves and use suitable tools for changing blades. If blades are replaced check they are balanced in order to avoid any excessive vibration.

Oils: Ensure oil levels are checked and topped up when needed. Replace any oils per the schedule.

PTO Shaft: Check the condition of your PTO shaft and replace if worn or damaged immediately.

Cleaning: Ensure the mower deck and blades are cleaned of mud/grass. Remove debris is from moving parts to prevent entanglement. Do not spray bearings with a high pressure washer when cleaning.

Bearings: Check the bearings on the blade rotor and the rear roller. If the oil seals are damaged debris may enter the bearings. Clean and replace with new bearings if necessary. Run the mower without a load for 3-5 minutes to check bearings are operating smoothly.

Paintwork: Re-coat any damaged paintwork to prevent corrosion.

Store the machine in a dry, level area and ensure it is stable and unable to move or overturn.

Skids: Check the condition of the side skids and replace if worn.

*The periods recommended are based on normal operating conditions. Severe or unusual conditions may require more frequent maintenance.

10. Parts Diagram 1



11. Parts List 1

Dia No.	Number	Part Number	Part Description	Qty
1-4	803170002	1G-125.01.001	125 gear box and transmission	1
1-6	803190150	1G-150.01.001	150 gear box and transmission	1
2	703190207	1G150.04-03	Top gear	1
3	703190206	1G150.04-02-1	Intermediate middle gear	1
4	703190205	1G150.04-01	Lower gear	1
5	703190183	1G-150.01.102	Rubber gear guard gasket	1
6	803190159	1G-150.01.012-1	Gear guard cover	1
7	703190235	1G-150.01.131	Nut M30x1.5	3
8	506050068	GB858-30	Round nut lock washer M30	3
9	511022614	GB276-6208	Deep groove bearing	2
10	506060191	GB893.1-80	Check ring	1
11	510013218	GB3452.1-G-28X3.55	O ring seal	1
12-4	803170004	1G-125.00.011-2	Blade rotor shaft 125	1
12-6	803190006	1G-150.00.011-2	Blade rotor shaft 150	1
13	803190120	1G-150.00.018	Stand support leg/bracing bar	1
14	703140007	ZL-25.103	Right angle pin	1
15-1	803190102	1G-150.00.016	A frame plate right 125/150	1
16-1	703190139	1G-150.00.106	A frame cover plate	1
17	703400179	FTL.125.124A	Lower linkage pin	2
18	501011113	GB5783-M10X30	Bolt half thread M10	25
19	501010763	GB5782-M12X100	Bolt half thread M12	1
20	501010778	GB5782-M16X55	Bolt half thread M16	6
21-1	803190111	1G-150.00.017	A frame plate left 125/150	1
22	506010059	GB97.1-16	Plain washer M16	6
23	506030039	GB93-16	Spring washer M16	6
24	503010049	GB6170-M16	Hex nut M16	6
25	703140006	MZ105.130	Spacer bush	1
26	501011126	GB5783-M12X30	Bolt M12	9
27	703140005	MZ105.115	Locking shim	1
28	511022652	GB276-6306	Deep groove bearing	1
29	501011858	GB5785-M12x1.25x35	Bolt half thread M12	12
30	510020427	GB13871-FB-35x62x12	Oil seal	1
31-3	703190126	1G-150.00.103	125 left blade	18
31-4	703190126	1G-150.00.103	150 left blade	21

11. Parts List 1 (Continued)

Dia. No	Number	Part Number	Part Description	Qty
32-3	703190125	1G-150.00.102	125 right blade	18
32-4	703190125	1G-150.00.102	150 right blade	21
33-2	803190051	1G-150.00.014	right-side plate	1
34	803190127	1G-150.00.104	Bearing cover plate	1
35	503010047	GB6170-M12	Nut M12	15
36	506030037	GB93-12	Spring washer M12	27
37	501011125	GB5783-M12X25	Bolt M12	4
38	803190048	1G-150.00.013	Skid/sliding board	2
39	501011128	GB5783-M12X40	Bolt M12	4
40	703190124	1G-150.00.101	Adjusting plate for skid	2
41	506010056	GB97.1-10	Plain washer M10	4
42	501011141	GB5783-M14X35	Bolt M14	10
43	506010058	GB97.1-14	Plain washer M14	12
44	506030038	GB93-14	Springwasher M14	13
45	503010048	GB6170-M14	Nut M14	9
46	501011111	GB5783-M10X20	Bolt M10	18
47	506030036	GB93-10	Spring washer M10	42
48	803190201	1G-150.01.136	End cap gearbox shaft	1
49	703190230	1G-150.00.130A	V lower gearbox mounting plate	2
50	703190143	1G-150.00.109A	V upper gearbox press plate	2
51	501011143	GB5783-M14X45	Bolt M14	4
52	506010057	GB97.1-12	Plain washer M12	6
53	508050061	GB91-3X28	Split/cotter pin	3
54-4	703170133	1G-125.00.105	Back rod/rail (L1310) 125	1
54-6	703190135	1G-150.00.105	Back rod/rail (L1560) 150	1
55-4	803170025	1G-125-012-2	Back shield 125	1
55-6	803190027	1G-150-012-2	Back shield 150	1
56	703190232	1G-150.00.147	Hexagonal steel rod	1
57	703340017	ZL-25.104	Big R pin	2
58	503010763	DIN985-M12	Nut M12	2
59	703190231	1G-150.00.145	Adjusting rod bracket	1
60	506010062	GB97.1-22	Plain washer	4
61	703190234	1G-150.00.149A	Spring φ35X100	2
62	703190233	1G-150.00.148	Adjustment rod/tube	1
63	503010046	GB6170-M10	Hex nut M10	24
64-4	803170060	1G-125.00.015	Body plate 125	1
64-6	803190062	1G-150.00.015	Body plate 150	1

Notes

12. Parts Diagram 2



13. Parts List 2

Dia. No.	Number	Part Number	Part Description	Qty
1			Transmission gearbox	1
2-4	703170191	1G-125.01.109	Drive shaft (L620.5) 125	1
2-6	703190193	1G-150.01.109	Drive shaft(L706) 150	1
3-4	803170167	1G-125.01.013A	Shaft sleeve (L432.5) 125	1
3-6	803190169	1G-150.01.013A	Shaft sleeve (L518) 150	1
4	503010047	GB6170-M12	Hex nut M12	8
5	506030037	GB93-12	Spring washer M12	12
6	506010057	GB97.1-12	Plain washer M12	4
7	510020383	CFW-40X70X12	Oil seal top gear	1
8	511016490	GB297-30308	Bearing top gear	1
9-2	803190153	1G-150.01.011	Left side plate	1
10	501011127	GB5783-M12X35	Bolt M12	8
11	703190186	1G-150.01.106-2	Intermediate middle gear shaft	1
12	506060199	GB893.1-100	Ring	1
13	511022656	GB276-6309	Bearing lower gear	1
14	510020417	GB13871-FB-55x80x8	Oil seal lower gear	1
15	703190184	1G-150.01.104	Lower gear axle	1
16	501011126	GB5783-M12X30	Bolt M12	4

PTO Shaft Resizing

Safety: Ensure tractor & machine is stationary and keys out of ignition before carrying out any work. If you are not confident in carrying out the work consult your local supplier or mechanic.

Most PTO driven implements are supplied with a standard sized PTO shaft. As all tractors vary this often means cutting it down to size. Always replace worn or damaged PTO shafts.

Attach the machine to the tractor without the PTO shaft, raise the linkage so the PTO shaft is level/ horizontal. Measure the length between tractor PTO and the machine's shaft. If the compressed (closed) PTO shaft length exceeds the one measured here then the driveline will need to be cut.

1. PTO length adjustment, first remove PTO shaft shielding.



2. Shorten the driveline tubes to proper equal lengths.



3. Tidy edges of the drive tube with a file and clean all fillings from the tubes.



4. Shorten the equally long guard tubes to the same length as the driveline tubes.



5. Grease the internal driveline tube.



6. Fit the guard on the shaft.



7. Make sure that the length allows for at least 16cm (6 inches) of overlap.



Winton Product Warranty

We always strive to create great products, but when something does go wrong we have a strong network of resellers on hand throughout the UK to help out.

Warranty Claims

Before you get in touch here are 5 pieces of information your Winton reseller will need to progress your claim:

- Your invoice/order details to include date of purchase
- Machine model number
- Machine serial number
- Details of the fault
- Images/videos of the fault

The Terms & Conditions

All products purchased as new are covered under our 12 month warranty from the date of purchase. During this period Winton will repair or replace defective parts free of charge. This warranty is given on the proviso that the product has been used and maintained according to the Owner's Manual.

Warranty is carried out on a return to reseller / manufacturer basis and excludes any labour or delivery / collection costs.

Exclusions

- Wearing parts are excluded; including but not limited to blades, belts and bearings.
- Modification of the product in any way will cease the manufacturers warranty.
- The machine is warranted for one year to the original purchaser, resale within the period will cease the warranty.
- Damage in transit is not covered. Claims will need to be made through the courier or your Winton reseller directly.
- Compensation for down-time, labour or loss of earnings is not covered by the warranty.
- No warranty extension will be granted for replacement parts fitted.
- Damage caused by continued use of a faulty machine will not be covered.

Your **Winton** reseller will provide their own terms and conditions upon purchase, consult this for any additional queries.

Trouble-Shooting

Safety: Ensure tractor and machine is stationary and keys out of ignition before set-up/maintenance.

Issue	Solution
	Check all nuts and bolts are tightened.
	Check the oil level in gear guard and top up if required.
Noisy attachment	Add grease to rotor bearing through grease point.
	Run at PTO speed 540 RPM.
	Check the gears.
	Run at PTO speed 540 rpm.
	Remove any foreign objects from the rotor area.
Excessive vibration	Check blades are in good condition and replace if broken.
	Ensure blades are mounted correctly and bolts are tight.
	Check rotor spins freely and is not warped or damaged.
	Wait until soil has dried up if wet.
Blades clogged	Lower the working speed of tractor.
	Cut any grass before working the ground.
	Remove any foreign objects from the blade rotor area.
Overheated bearings	Ensure nothing is entangled in moving parts.
	Run at PTO speed 540 RPM.
	Lower the working speed of tractor.
Insufficient working depth	Lower the gear of the tractor if struggling with engine power.
	Make several runs on harder soil at a shallower depth.
	Adjust the tractor linkage to level the machine.
Uneven working depth	Adjust the height of the skids.
	Increase the working speed of tractor
Soil excessively crumbled	Increase the working depth using the skids
	Lower the working croad of tractor
Soil insufficiently crumbled	Lower the working speed of tractor.
	Remove any foreign objects from the rotor area.
Blade rotor jammed	Check blades are in good condition and replace if broken.
	Check rotor is not warped or damaged.
Gearbox getting excessively bot	Check oil type is correct and at the correct level in the gearbox
Gearbox getting excessively hot	and gear reservoir.

Always consult your **Winton** dealer if you have any questions about your machine.

Notes





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