

AG Spring Tine Harrow

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Product Manual and Specifications

Harrow2000/3000/5000/6000



To effect the correct application of the safety requirements stated in the EEC Directives and the British Standards, the following standards and/ or technical specification have been used.

- **BS EN ISO 4254-1:2005** - Agricultural machinery - Safety and General Requirements.
- **BS ISO14269-1:1997** - Tractors and self-propelled machines for agriculture Operator enclosure environment.
- **BS EN 292-1:1991** - Safety of machinery and the Basic concepts and general principles for design - Basic terminology, methodology.
- **BS EN 292-2:1991** - Safety of machinery - Basic concepts, general principles for design- Technical principles and specifications.
- **BS EN 294:1992** - Safety of machinery - Safety distances to prevent danger zones being reached by the upper limbs.
- **BS 5401:1990** - Guide to information content and presentation of operators' manuals provided for tractors and machinery for agriculture and forestry.

Serial No. _____

Date: _____

Spring Harrow PDI

| | Checked O.K. | Checked & Adjusted |
|--|-----------------|-----------------------|
| Wheels | | |
| a. Check Wheel Nuts Tightness | | |
| b. Check tyres and tyre pressures | | |
| Hydraulics | | |
| a. Check operation of the ram | | |
| b. Check for oil leaks in fittings and hoses | | |
| Frame | | |
| a. Check all nuts and bolts are tight | | |
| b. Check operation of tine angle adjustment | | |
| c. Check operation of wheel height adjustment | | |
| d. Check operation of height adjustment support stands | | |
| e. Make sure extra tine is fitted on each section | | |
| General | | |
| a. Check all nuts and bolts are tight | | |
| b. Check all paint work & finish | | |
| c. Check operators/parts manual supplied | | |
| d. Grease/lubricate appropriate points | | |

Dear Customer

Thank you for purchasing an AG Spring Tine Harrow

Garnett Farm Engineering has produced this Product Manual to ensure relevant Health and Safety regulations to help you achieve the very best from your machine without harm to yourself or any other operator. You should ensure any other operator should have been given adequate guidance and information on using the machine.

The up most effort has been put in to the AG spring Tine Harrow which conforms to Garnett Farm Engineering's policy of quality, the machine cannot be expected to withstand abuse caused by misuse and negligence by the operator.

Introduction

The AG Harrow is a robust, high-performance, time-saving implement with maximum impact across flat or undulated ground conditions. It is mounted on the tractor by the three point linkage. It can be supplied in for different specification:-

Contents

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| Model | Working Width | Weight | Tines | Sections | Transport Height | Transport Width | HP Req |
|-------------|---------------|--------|-------|-------------------------------------|------------------|-----------------|--------|
| Harrow 2000 | 2 Metre | 306 | 78 | 1 x 2 metre section | | 2m | 15 |
| Harrow 3000 | 3 Metre | 400 | 104 | 2 x 1.5 metre section | | 3m | 18 |
| HARROW 5000 | 5 Metre | 700 | 180 | Hydraulic Folding 3 x 2m | 2.8m | 2m | 45 |
| HARROW 6000 | 6 Metre | 650 | 234 | Hydraulic Folding 1x2m ,2 x 1.5m | 2.35m | 2m | 55 |

Specifications

Safety rules and Pictogram / label identification

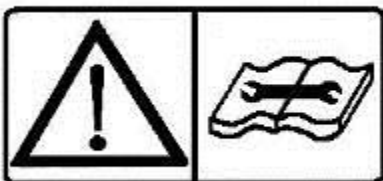
Wherever possible, warning pictograms (labels with no words), or warning labels are used on the machine near the area of danger and / or in the product manual near the relevant instructions.



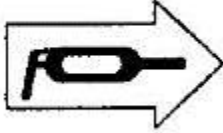
Pictogram to indicate 'Alert warning'.



Pictogram to indicate 'Lifting Hook location'



Pictogram to indicate 'Read Product Manual'



Pictogram to indicate 'Grease Lubrication points'

- 1. Always comply with safety rules as set out in the pictograms, and detailed in this product manual.**
- 2. No Bystanders allowed in the working area.**
- 3. Whatever the type of maintenance that needs to be done on the AG Spring Tine Harrow, the tractor Engine must be stopped, the hand brake applied, and all residual hydraulic pressure released.**
- 4. Only the operator must operate the AG Spring Tine Harrow and must remain in the cab during the complete working cycle.**
- 5. Do not attempt to use the AG Spring Tine Harrow if any of the Safety guards have been removed, are damaged or missing.**

Handling of AG Spring Tine Harrow when lifting



1. Always lift machine from lifting points marked by pictograms

Preparation for Work

Fitting Machine to Tractor

1. Ensure the pair of chains are attached to the arms of the harrow (only on hydraulic folding models) to ensure arms cannot move.
2. Attach tractor lower link arms to the harrow lower link attachment points
3. Having attached lower link arms, attach top link
4. Adjust top link and lower link stabilisers so that the machine is held stable and rigid
5. Attach oil pipes to tractor
6. Lift the machine clear of the ground and lift the back support leg up into its top hole so the leg is as far up as it can be

Unfolding (if wings are fitted)

1. Remove road transport chains prior to unfolding wings
2. Operate tractor spool valve to unfolding wings, lower fully to the ground .

IMPORTANT: Safety chains must always be removed prior to unfolding or serious damage will be caused to the machine



CARE: Ensure that the immediate area is clear from personnel

NOTE : The wings may not fold down at the same time; this is the normal operation of the arms unfolding

Folding(if wings fitted)

1. Operate tractor spool valve until wings are in upright position
2. Attach chains to transport safety chains to wings

NOTE : The wings may not fold up at the same time; this is the normal operation of the arms folding

IMPORTANT: Ensure safety chains are connected. DO NOT TRANSPORT THE MACHINE WITHOUT SAFETY CHAINS ATTACHED

Adjustment of the Spring Harrow

Tine Angle

1. Raise the machine clear of the ground
2. Adjust the tine angle to the required position by removing the pin and moving the handle to the required position.
3. Lower the machine to the ground until tines start to touch



Height

1. Adjust the top link to ensure all the tines are even contact with the ground
2. Adjust the guide wheels accordingly to how ever aggressive you would like the harrow to work but don't over do it. This is done by removing the pin and sliding the legs up and down
3. Repeat this to each section

Safe use of the Spring Tine Harrow

1. Fully lower machine to the ground
2. Start driving forward. Excessive operational speed will cause rapid wear on the spring tines and therefore reduce the lift of the spring tines.
3. Maximum operational speed should be 7 m.p.h
4. When turning the Spring Tine Harrow must be lifted clear of the ground.
5. Adjust wheel pressure to suit ground conditions

NOTE: Failure to lift the spring tine harrow when turning could result in damage to the machine

Maintenance of the Spring Tine Harrow

Daily

1. Check that all frame and wheel nuts and bolts are tight
2. Check Hydraulic hoses and fittings for damage
3. Check tines condition and breakages
4. Ensure all clips are in the correct places

Weekly

1. Grease/Lubricate all points illustrated by this pictogram

Long Term Storage

1. Ensure that the tines are lifted off the floor and there is no pressure applied to them
2. Clean machine thoroughly and paint any bare metal work
3. Check all hydraulic hoses and couplings
4. Grease thoroughly
5. Checks sections for wear breakages