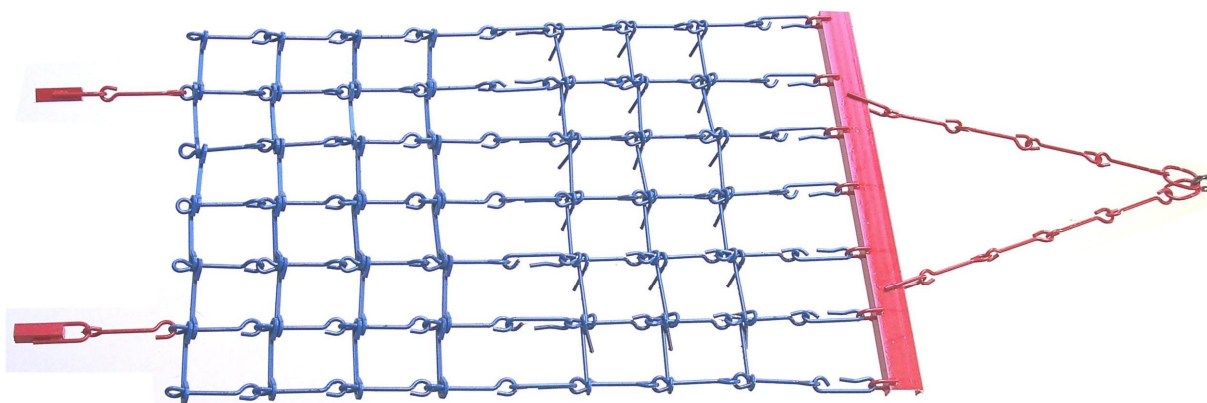




John Berends Implements Pty Ltd

AGRICULTURAL ENGINEERS

OPERATOR'S MANUAL PARTS LIST



Pasture Harrows

PRODUCT NO.

0401	4' Pasture Harrows
0402	6' Pasture Harrows
0403	8' Pasture Harrows
0404	10' Pasture Harrows
0405	12' Pasture Harrows

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TABLE OF CONTENTS

	Page No.
SAFETY INSTRUCTIONS.....	3
SAFETY FEATURES.....	6
ASSEMBLY.....	7
OPERATION.....	8
MAINTENANCE.....	9
SPARE PARTS.....	9



SAFETY



Farm machinery is dangerous if operated incorrectly so please read this manual in its entirety prior to operating the machine.



No operator, however experienced in farm machinery operation, should attempt to use any machine they have not been competently trained to use. Your local Department of Agriculture can help you with training, as can most Occupational Health and Safety offices, Agricultural schools and colleges and farm equipment dealerships.



All instructions relating to tractor safety as per the tractor operators manual should be followed. When making any machine adjustments, stop the tractor engine first and wait for all moving parts to stop. Maintain the tractor to ensure it remains safe to use. Do not operate faulty or damaged equipment.



Extreme caution should be taken when fitting equipment to the tractor's three point linkage. Avoid standing between the implement and the tractor when coupling machinery.



All machines should be mounted and retained correctly. All guards must be kept in place and correctly maintained. P.T.O. shafts must be correctly attached and secured to both the tractor and the machine. Decals must be visible and legible at all times. Keep well clear of all moving parts.



Keep all people and animals at a safe distance from all moving parts. Children must not be allowed to operate this equipment and all passengers must have the same level of protection as the operator.



Wear protective clothing where appropriate.



Never operate when tired (not alert) or in poorly lit areas and stay alert for humps and other hidden hazards. Remove all timber, rocks and foreign objects prior to operation.



Avoid operating the machine in wet conditions.



Exercise extreme caution when changing direction on hills. Avoid sudden movement, sudden breaking, high speeds, rough terrain and steep slopes.

 If machine starts to vibrate, stop tractor using method as described in the operation section

 After striking a foreign object or if there are doubts about the performance of the machine, stop the tractor as described and check if machine is making excessive noise.

 Extreme caution must be taken when working in public areas (roadsides etc). It is recommended that flaps and chains are fitted in these areas. These are available as optional extras. Rear flaps are compulsory in public areas.

 Do not modify this equipment in anyway, or use it for any other purpose than it was designed to do.

 Never work under unsupported machines or adjust unsupported machines. Do not enter the danger zone where a load being carried by a machine could fall on you, for example a round bale from a bale fork, a log from a carryall or material from a rear end loader.

These instructions should be used in conjunction with any local regulations regarding safety ie OHS.

Maintenance is essential for safe operation. Ensure maintenance is carried out regularly by people qualified to do so. This is of particular importance on P.T.O. drive machines where driven parts can fly off at high speed if wearing parts are not properly maintained.

FAILURE TO FOLLOW THESE INSTRUCTIONS AND PROCEDURES MAY RESULT IN EQUIPMENT MALFUNCTION, OR DAMAGE, SERIOUS INJURY OR EVEN DEATH.

INTRODUCTION:

This manual was developed specifically for the machine you have purchased. The information within is to assist you in preparing, operating and maintaining your machine. Please read and understand the contents of the manual completely before attempting to operate your machine, paying special attention to all safety details. With our policy of continuous improvement, products and specifications may change without notice and without incurring the obligation to install such changes on any unit previously delivered.

Pasture Harrows

The range of pasture harrows are designed for pasture renovation, landscaping, horse arenas, race tracks, sport fields and for seed/fertilizer incorporation. These are designed for tractor use only and if they are to be used behind any other products such as RTV's, ATV's or ride-on lawn mowers then it is recommended that you seek further advice from those manufacturers as to their suitability when mounted to their product.

MACHINE SPECIFICATIONS

MODEL	4'	6'	8'	10'	12'
Overall width	1200mm	1800mm	2400mm	3000mm	3600mm
Overall depth (without chain)	2000mm	2000mm	2000mm	2000mm	2000mm
Nett Weight (kg) - approx	41kg	89kg	117kg	144kg	172kg

WARRANTY

John Berends Implements P/L warrants each new product sold to be free from defects in material and workmanship, under normal use and service, as outlined in the operators manual, for a period of 12 months.

This warranty is void if any damage to the machine has been caused by misuse or non genuine parts have been used or any repairs have been made by any persons other than authorised dealer service personnel.

The manufacturer/dealer is not obligated to any transportation charges incurred in the repair or replacement of parts.

This warranty does not exclude any condition or warranty implied by the Trade Practices Act 1974 or any other legislation which implies any condition which cannot be excluded.

the written permission of John Berends Implements.

Safety Features

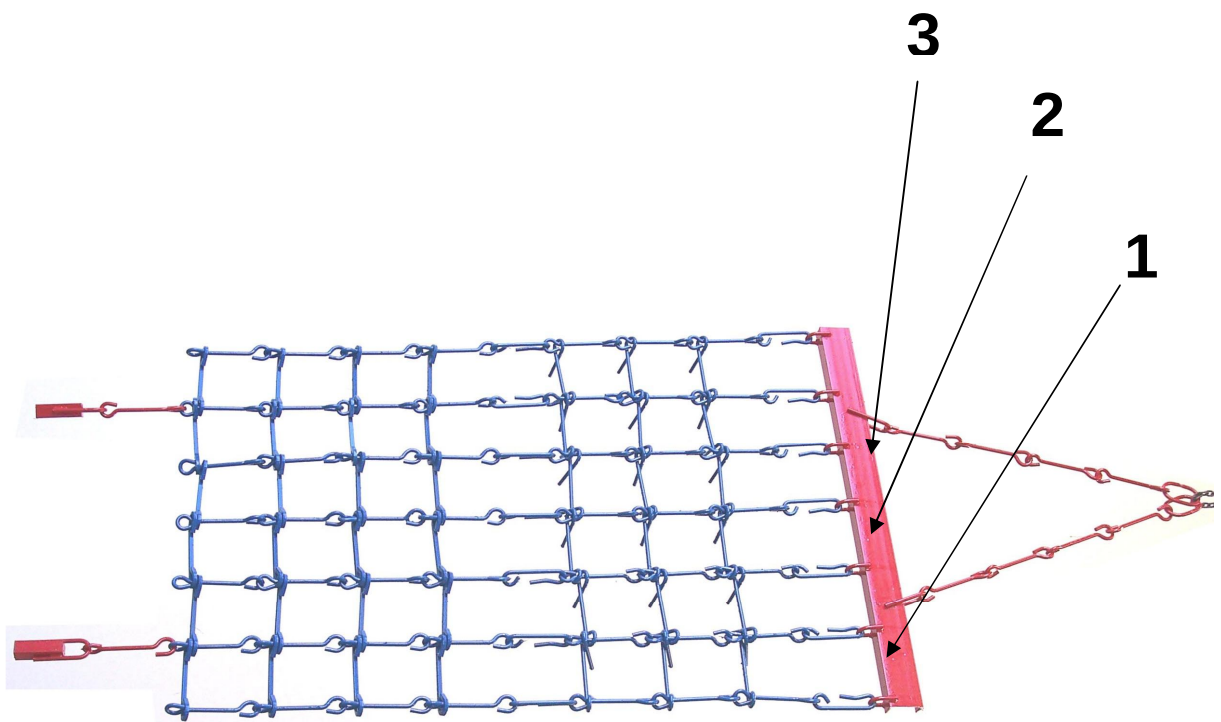
1. SERIAL NUMBER (Decal)



2. WARNING DECAL



3. BERENDS DECAL



ASSEMBLY

This product is designed to be pulled by a tractor only. Under some conditions it may be suitable to be used behind other types of vehicles however it is important that you seek advice from the manufacturer of the vehicle as to its suitability. Failure to do so may result in the vehicle becoming unstable and resulting in death or injury.

If you are using the harrows as a drag behind set only, then you need to be prepared for the fact that they will be dragged from the place you assemble them to the place you use them. Alternatively, you can lift them via a front end loader or lifting jib or in the case of the smaller units (4' and 6' models) you may be able to lift them by hand. All assembly should be done on solid level ground, leaving enough room for the entire harrows.

Lay out the front drawbar (red 100 x 50 channel) and attach the red drawbar chain using the two D-shackles provided to the two loops at the front. Secure tightly. Position the front set of the harrows behind the draw bar with the tines facing down and the hooks facing the front. Spread this tine section out so that it is not tangled and all components are positioned correctly. Fit one hook on each corresponding "weld-on loop" on the draw bar. It is advised that you close the loop up to prevent the front section from coming apart. This is easily done by placing something hard and flat (eg timber) underneath the loop and then hitting it with a hammer 2-3 times until it is closed. Safety glasses should be worn when doing this.

Position the smudger section behind the front set with the hooks facing forward and the square smudger bars facing downwards. Spread this section out so that it is not tangled and all components are positioned correctly. Fit one hook on each corresponding loop on the rear of the front tine section. It is suggested you also close these hooks up as done on the front. Place the red weights evenly across the back. It is very important that these parts are closed up (using a hammer) as they are more likely to work loose than the two main sections.

Connect the harrows to the tractor drawbar via the main loop on the end of the chain. Ensure an approved drawbar pin is fitted correctly to the tractor drawbar.

Optional Lifting Frame

Ensure that the harrows are completely assembled as per the instructions above. Connect the main linkage frame to the tractor linkage arms and secure with linch pins.



Before you connect the linkage frame to the harrows you need to connect the red drawbar chain to the tractor draw bar and take out the slack by pulling the harrows back or driving the tractor slightly forwards. This prevents the chain from dragging on the ground whilst providing some support to the main channel.

Connect the two pipe sections to the under side of the lifting frame. They are identical however you should ensure that the front pipe (closest to the tractor) is fitted so that the angled brackets are at the back of the pipe. The rear pipe should have the angled brackets facing forwards. Secure with the four bolts provided.

Lower the linkage frame so that the pipes are sitting just above the harrows. Adjust the tractor top link so that frame is sitting level to the ground. Normally, you would expect that the front pipe section will sit above the front channel section however this can vary from tractor to tractor depending on the length of the linkage arms and the drawbar. If the pipe section is sitting too far forward of the channel then you may find that the back of the harrows will not lift high enough later on. In this case, we suggest you shorten the drawbar chain using the connecting D-shackles. If the front pipe sits behind the channel then it shouldn't be a problem. Connect the pipe to the channel (preferable) or to the harrow section using the connecting rings and D-shackles provided. Connect the rear pipe to the closest section of the harrow using the rings and D-shackles. The rings slide over the pipe at each end and are evenly spread across the two pipes with the same quantity on the front and back rows. Secure tightly.

The harrow should have enough play underneath the frame to move around when operating but enough tension so that when it is lifted, it clears the ground and holds its position. If the back section does not clear the ground then it may be necessary to move the harrow further forward in relation to the lift frame.

OPERATION

This is a light harrow designed for levelling and harrowing paddocks. The working speed does depend on the terrain and amount of vegetation however approximately 10kph is generally a good range to work within. Operating too slow does not work as well however too fast can also result in the harrows jumping around excessively. Harrowing always works best when there is some moisture in the ground but not too wet. If the ground is too wet then you will make a mess of it with the tractor wheels. Clods of soil and manure tend to break up better when they are moist. In the southern states of Australia, Autumn and early Winter are usually the best times for harrowing as it prepares the ground for the warmer spring weather.

Turning

Avoid turning too sharply with the harrows as this can cause them to become entangled within itself or possibly even touch the tractor wheels.

Reversing

Never reverse with the harrows on the ground.

Stopping

If your harrows are fitted with the optional lifting frame then ensure it is lowered before getting off the tractor. Do not leave it raised in the air when not in use. Avoid leaving the harrows in the paddock as they usually end up lost or run over.

MAINTENANCE

When doing any type of maintenance on this machine, always follow the safety steps described in this manual. Use only authorised genuine parts for replacement.

Check all parts are intact. If any parts are excessively worn then have them replaced. This is easily done with a hammer.

Ensure all parts are secure. If any links have moved apart then close them back up using a hammer. Check all D-shackles are secure.

Regularly remove debris, grass or foreign objects that get stuck in the harrows as this will affect overall harrowing performance.

SPARE PARTS

ORDER SPARE PARTS THROUGH YOUR ORIGINAL SUPPLIER OR YOUR LOCAL JOHN BERENDS IMPLEMENTS DEALER.

Always quote the machine serial number or product number, spare part number and its part name as stated in the operator's manual.

Pasture harrows (0401-0405)

Key No.	Part No.	Quantity	Description
1	1284	ar	Harrow weights
2	1285	ar	JB26 scarifier
3	1286	ar	JB24 smudger
4	1287	ar	JB27 hook
5	1288	ar	JB25 joiner

