



# John Berends Implements Pty Ltd

AGRICULTURAL ENGINEERS

## OPERATOR'S MANUAL PARTS LIST



**PRODUCT NO.**

0425  
0427

10qGrader Blade . Trailing model  
12qGrader Blade . Trailing model (no offset)

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# 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 braking, 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.

## Trailing Road Grader Blades

The Trailing Road Grader Blade is available in 10qworking width. The hardened cutting edge is fully reversible and the blade can be run forwards or backwards with full hydraulic control. The hydraulic grader can be angled up to 45 degrees both ways and can be offset manually (optional hydraulic) up to 600mm left or right. The tilt option is in excess of 30 degrees left or right. They are fitted with four Landcruiser wheels at the back for hydraulic depth control. A linkage frame is also provided for increased blade lift height.

### MACHINE SPECIFICATIONS

MODEL	TRAILING
Cutting Edge Width	10'
Mouldboard Thickness	10mm
Mouldboard Height	500mm
Tractor H.P.	100HP +
Tractor CAT connection	Cat 2
Nett Weight (kg)	1750kg

**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.

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# Safety Features

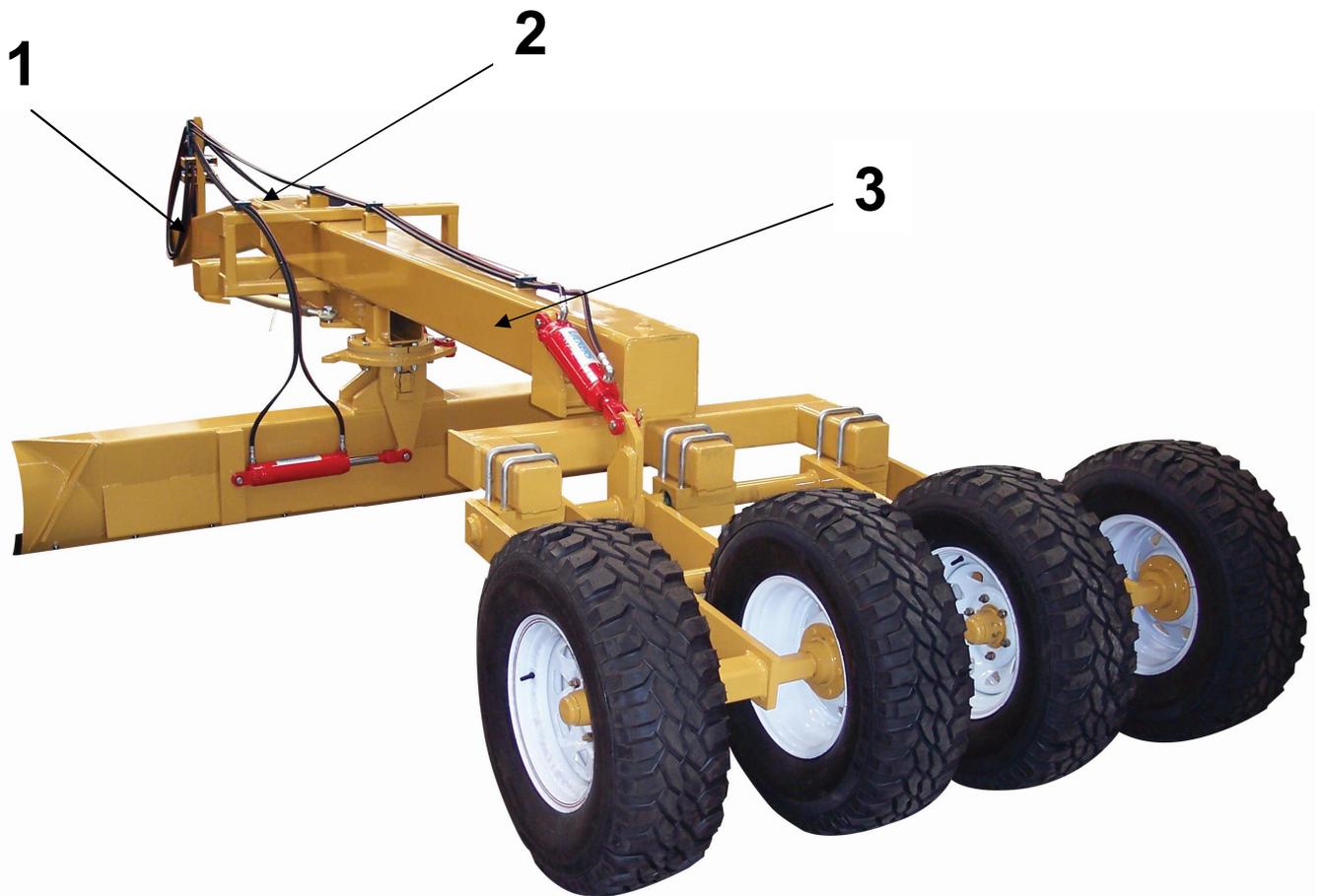
## 1. SERIAL NUMBER DECAL



## 2. WARNING DECAL



## 3. BERENDS DECAL



## **ASSEMBLY**

The trailing road grader should arrive completely assembled and ready to use.

It can be fitted directly to the drawbar or to the separate linkage frame provided. If connecting to the linkage frame, connect the frame to the tractor before attaching the drawbar hitch. It is heavy, so ensure that it is adequately supported when doing this.

Line the lower linkage arms between the lower linkage plates of the frame, slide the linkage pins through the holes and secure with lynch pins. Attach the top link to the grader. Sway chains or bars should be used to prevent the machine swinging around in use. You now have the added benefit of raising/lowering the linkage frame to connect up to the drawbar mount on the trailing unit.

Note: some vertical adjustment to the tow hitch mounting position maybe required, depending on the lift height of the tractor. Remove the two bolts and alter the tow hitch accordingly. The lower this hitch is mounted the higher the mouldboard will be able to raise off the ground. This may be particularly important when travelling through drains/channels or when mounted to a tractor with low linkage or drawbar positioning.

Ensure all 6 hoses are connected properly into the tractor remotes and that all fittings are tight.

## **OPERATION**

Once all safety procedures have been followed, start the tractor and raise the grader off the ground.

On the Hydraulic model ensure the angle adjustment circular plate is secure. The circular plate bolts must be secured tightly and the blade must be able to be swivelled by hand when the rams are disconnected. However the angle adjustment must not be able to move too freely as this may cause wear of the plate. Angle is controlled through the remotes on the tractor.

Offset is controlled by either hydraulics (optional model) or via the manual adjustment arm (standard model). The manual adjustment arm consists of tractor top link with screw type adjustment. To adjust this, level the machine so it will not swing around under its own weight. Tilt is controlled through the remotes on the tractor

### **Wheel kit**

The wheel is adjusted by using the appropriate hydraulic controls at the tractor. When using for the first time, slowly operate hydraulics to ensure that all componants are correctly assembled and that hoses are all functioning correctly and not interfering with the machine during ram travel.

When grading, only lift the wheels at the height at which you wish to grade. By raising them all the way up, you are allowing the grader to dig as deep as possible which may not be required. For example, for finer finishing work, you may only require the cutting edge to dig in 50-100mm and therefore you would begin by only raising the wheels off the ground by a similar amount

### **General grading**

Take care when grading. Ensure that the tractor is the right configuration for the job. Too small a tractor can result in tipping the tractor and too large a tractor can result in damage to the blade. Be extremely careful when operating in uneven or unstable ground.

Always remove foreign objects before grading. Graders are not designed for pulling out rocks, stumps and roots so always access the job beforehand to see if the blade and tractor are suitable for the job.

### **Stopping**

Lower the grader blade, stop the tractor engine (removing the ignition key) and apply the park brake. Ensure that the grader blade is well supported when not in use. Do not leave the linkage frame attached to the drawbar when not connected to the tractor. It will pivot and is therefore not stable.

## **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.

The grader blade must be adequately supported under its body (Make certain it cannot fall).

### **Cutting Edge**

Ensure that the cutting edge is not worn past the bottom of the supporting mouldboard. Before it reaches this point, you must remove the cutting edge and turn it upside down or replace with a new one. Failure to do so may result in unnecessary wear to the mouldboard.

### **Wheel kit**

Check tyre pressure. Wheel hubs must run freely on axle and must be adequately lubricated. Note: Bearings are replaceable if necessary.

### **Hydraulic Fittings and Hoses**

Before doing any maintenance on the hydraulic system, release the oil pressure. Be careful when searching for oil leaks as oil escaping under pressure can be invisible and may penetrate the skin.

If leaving the grader blade outside for an extended time it is advisable that the chrome cylinder rods be lubricated with an appropriate lubricant to prevent corrosion.

Clean all dirt and foreign matter away from the rods prior to using so that seals do not become contaminated.

### **Lubrication**

The trailing graders has greasable points. It is essential that the machine is greased daily whilst working. Any parts not kept lubricated can seize up over time particularly if they are not regularly used.

The Hydraulic grader blade angle adjustment assembly must be kept lubricated. Underneath the turntable is a grease nipple. If the machine is not kept lubricated, it may be possible that the swivel bearing assembly may bind to the circular plate. You can not over-lubricate this area