

OPERATOR'S MANUAL

FOR THE

DETCO 101, 202, 202A, & 303

TREE PLANTERS

DETCO MFG, INC

BOX 6

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CAUTION:

Read this operator's manual before any operation.

Under all circumstances do not use the planter for any uses other than its intention of planting nursery stock. Always operate the planter in a safe and prudent manner. Be aware of any buried impediments where you are planting. Keep children and pets away for all moving parts at all times.

INTRODUCTION

Detco planters are relatively lightweight planters that are heavy enough for abuse under inclement planting conditions. The basic design is over 40 years old and has been proven in many different planting conditions. Our many options allow the planters to aid in getting a good survival in many conditions and keep you in the field during critical planting times. We are sure you will see the advantages that we have put into these units from our many years of personal planting experience throughout the Midwest. Our planters have the largest tray capacity and are the only ones with hard rubber tires that will never go flat. Our planters with their unique shoe set up return to planting depth faster than any planter on the market.

Units will leave your stock standing straight with the roots spread evenly. The heavy duty, hard rubber packing wheels will pack the ground firmly because the operator's weight is directly over the packing wheels. Our unique, 2 piece, "flex" frame allows the packing trailer to flex with the ground contours to keep the packing wheels firmly on the ground and provides a better ride for the operator. Larger stock may be planted by removing the packing wheel trailer, however trees would have to be packed manually. The operator's feet are shielded from obstructions. The open design of the planting area allows your operator an opportunity to see if obstructions such as rocks, stumps, or brush are heading their way.

Under no circumstances should the planter be abused in rocks in any way or the planter used in any other manner than planting of nursery stock. The planters should always be matched to the proper recommended horsepower tractor or severe damage can result to the planter. Detco, Inc further assumes no liability for any injuries to any planting person relating from the planting operation of this planter or to the survival of any particular planting stock. All planters can be attached to a tandem planting bar with our heavy duty conversion kit.

101 Delivery wt approx 440 lbs. Recommended hp 20-60. The narrow design allows interplanting with compact tractors yet allows for large tray capacity to handle an ample supply of stock for long rounds. The 101 will handle nursery stock up to 20". Can be put in pick up by two men if disassembled. Popular options are self leveler, herbicide bander, umbrella, tray extensions, spacer, scalper, and trailer.

202 Delivery wt approx 610 lbs. Recommended hp 30-80. For one or two operators. Plants stock to 36". Increased comfort of planting by not bending to insert stock into planting trench. Extra large planting trays. Popular options include a heavy soil closure, self leveler, herbicide bander, umbrella, tray extensions, and trailer.

202A Delivery wt approx 640 lbs. Recommended hp 30-80. Unique backwards seating allows operators to see their planting for better spacing. One or two operators. Plants stock to 36". Extra tray capacity. Popular options include a self leveler, herbicide bander, umbrella, tray extensions, and trailer.

303 Delivery wt approx 940 lbs. Recommended hp 40-100. For one or two operators. Heavy duty unit for planting husky stock or in tough conditions where a large coulter is required. Largest tray capacity in the industry. Popular options include a self leveler, herbicide bander, umbrella, tray extensions, scalper, and trailer.

SET UP

Depending on the degree of setup your distributor has required the following procedures should be followed. Looking at your planter from front to back, we have some basic terms. The coulter is the round disc in front to cut roots and protect the hardware in the ground. The tray is where you put your stock. The shank is welded on the tray and goes down to hold the planting shoe and the planting throat. The planting throat wraps around the shank above the shoe and adjusts to make your planting furrow. The trailer holds the packing wheels and seat. The scraper keeps soil from building up on the wheels.

COULTER: 101, the coulter should be tightened just enough to allow the coulter to spin freely and then grease until grease appears around hub with a good quality grease. 202 & 303 grease two sealed bearings with one shot of grease. All units, the coulter should be extended out of the frame just enough to cover the planting shoe. If a line is extended forward from the shoe straight ahead toward the tractor the coulter should be at or below this extended line so the coulter is protecting the planting shoe from rocks and other impediments.

Wheels: All units, some units have a prelubed bearing, however most have bushings. If you have a grease zerk give it 2-3 shots

of grease. Check wheel bolt to see if it is tight and wheel turns freely.

Planting trailer. All units, the trailer is what the planting operator sits on and includes the U frame, seat, packing wheels and scraper. This should be free to pivot from side to side and up and down on 101's. 202's and 303's just go up and down. With the planter new it will probably be a little more stiff to start with. As the planter is used it will get a little more flex which is fine, the more the better. Tighten all lock nuts.

OPERATION

101 and 202's are category 1, 3 point hitch. 202 and 303's are category 2. You may need to shim up the hitch with hitch sleeves to get it to work on your tractor. If you wish to put a larger pin on your planter please advise us so we can accommodate that for you. Caution should be used if you are using a tractor that is over the horsepower recommendations so that damage to the planting shoe or the shank is avoided. Under all conditions on all planters the slowest practical rpm should be used when planting so that if an impediment is hit the tractor will spin or stall before damage is done to the planter.

The 3rd arm or top link adjustment is vital for proper running depth and packing from the wheels. The more the 3rd arm is shortened the more the planting shoe will dig into the ground, and the less weight put on the packing wheels. Adjust the operation so that the shoe is digging itself into the ground adequately yet there is enough pressure on the packing wheels to get a good pack; the frame should be level with the ground. Experiment until you get the proper adjustment for each field and soil condition may require adjustment. It is critical for proper stock survival to have good compaction from the packing wheels.

Dry, hard packed, or heavy soil will need a more acute angle on the point. If you are not getting the planter into the ground with continued adjustment you can take the coulter off. With the coulter off you will have more trouble keeping the planter out of the ground than getting it in. You will not have the luxury of cutting through roots or sod, or have the protection for the shoe that the coulter ordinarily provides thus this method should only be used as a last resort.

Depth of operation is controlled by the 3 pt lever of the tractor and will have to be continually adjusted as you go across the field. The self leveling option will eliminate this requirement if your planter is so equipped. The coulter should be run at a depth so that its support arms are just out of the ground. Running the support arms in the ground will wear them out and cause excess wear on coulter bushings. **Do not** make sharp turns while the planter is in the ground or damage to the coulter or support arms will result.

The planting shoe is designed to be narrow for a reason. It gets in the ground fast and in dry conditions, it has been proven that the more soil that is disturbed the more it will dry out and result in the potential of more stock mortality. This is why we have selected this shoe size. Larger shoes can be supplied upon request. The planter is designed by its shoe placement to return to planting depth in 4-6'. This allows fast return to planting depth and reduces the need for hand planting on ends of fields and by other obstacles.

The seat may be adjusted two ways, either on the slotted plate or by removing the bolts and repositioning as needed.

The planting trench should be a constant furrow, uniformly deep and wide. If the furrow is not crisp something must be causing this. It is imperative to have a decent trench so the roots are inserted properly and the packing wheels have enough soil to compact around the roots. If the trench is not desirable the planter should be lifted to see what the problem is. Sod, roots, and brush roots can occasionally wrap around the shank decreasing trench quality. These should be removed when trench quality becomes affected or on the ends of the field. Planting in rocks or loose soil will also cause the trench to cave in. When planting in rocks slow down and do the best you can to get the roots in the ground securely. Riding the clutch of your tractor may also help protect the exposed parts but do not do this continually. If you have a problem in loose or worked soil you may need the extended planting throat that will make a wider trench and extends the opening back a little farther into the packing wheels. The throat is adjustable by loosening the bolt and applying a crescent wrench to the edge and widening out to desired width and shimming up with a plate to keep it wider. A longer bolt may then be required.

When planting the operator should have his tree bundle of 10-50 trees in one hand and place the tree in the furrow with the other. The tree should be allowed to follow the furrow for a few seconds before releasing. This allows the roots to flow into the trench and be arranged in a more natural manner. The tree should not be released until the packing wheels have it firmly

pressed. Care should be used by the operator to set the tree straight and making sure all the roots are in the ground. Some root pruning may be required on longer roots. It will not hurt a tree to trim the roots down to about the length of the upper part of the tree, although the longer you leave the root the better as long as they all get in the ground. Never jam the tree into the ground right in front of the packing wheels for this will have some of the roots turning up and not allow the roots to be pointing downward for their normal growth.

Should the operator's hand become caught up with a rock and the operator's hand winds up in the trench with the packing wheels on it, do not rip your hand back out through the packing wheels while it is moving. It is better to let your hand move through with the planting motion and remove your hand when the wheels and your body weight are off it. Gloves with the fingers cut off work good to protect most of the hand and knuckles in rough planting.

The operator can space the trees as needed by having the tractor operator maintain a constant speed and counting to himself. 1-2-3- plant. Usually after one round the operator has the rhythm and can stop counting. Checking the field previous to planting with a cultivator or other device will allow trees to be placed in a check pattern. Protect stock from sun and wind while planting so it does not dry out.

The operator should arrange his planting stock on the ends of the fields in the tray so that the upper part of the tree can be grasped from the seat. If additional space is needed to carry stock on long rounds or when dealing with large transplants, tray extensions are offered by your dealer.

A scalper is offered from your dealer to scalp away sod if you prefer not to use chemical or mechanical weed control. When using a scalper however, you will leave your field rutted, you will be scraping off some of your best planting soil, and you will be leaving a large furrow for rodents to thrive and use as a road map to find your plantings. We have tried many, including our competitor's, and none work real good, particularly in thick heavy sod, on hillsides, or in stones.

MAINTENANCE

Coulter: All units, grease after every mile of planting and tighten as necessary. Replace bushings or bearings and bolt after every 30,000 trees or as required. A scraper is available from your dealer if you get buildup on heavy soil. Do not turn with planter in ground to avoid damage to coulter or support arms.

Planting shoe: All units, tighten nuts daily and replace as necessary to prevent shoe loss. Check nuts when greasing coulter to make sure they are still secure when planting in rocky conditions. Replace shoe when it becomes bent or when it wears down to the point that the shank is also wearing down. Use only specified shoes supplied by your dealer which are designed for planting use. The only parts we carry in the field is a spare shoe and bolts for you never know what you may hit.

Seat: Check daily for bolt tightness.

Packing wheels: On bearing models check daily for tightness. On bushing models grease every one mile of planting. Under normal planting, bearings and bushings should last 30,000-50,000 trees. Check annually and repack or replace as necessary. Replace wheel bolt after extensive wear.

Under normal operation your planter should give you many years of satisfied service. Your planter carries a one year warranty on defective workmanship and normal wear and tear. If you have any problems with the planter or its adjustment, please free to contact us at 715.335.4448 during normal business hours and we will be more than happy to help you with your problem. Parts are available from your dealer or direct from the factory at the above number. Good planting!