

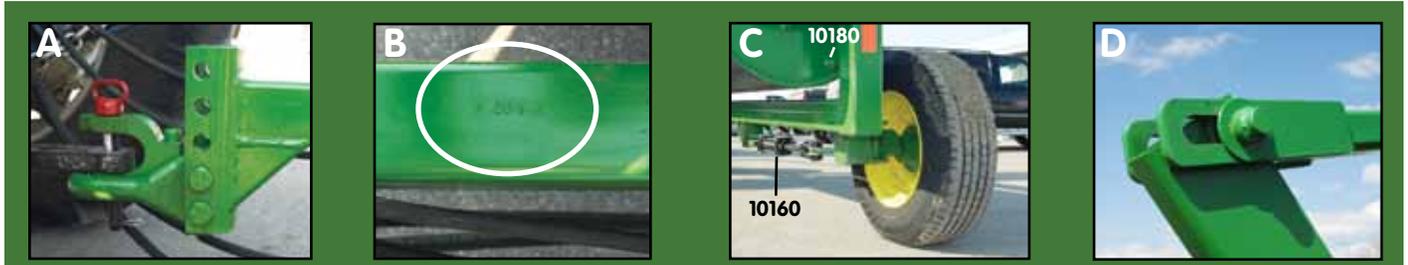
CLOSE UP VIEWS

Pintle Hitch (10020)

Serial Number

Steerable Wheel

VFS Variable Flex Slot



HARMS LANDROLLER PARTS LIST

Part #	Description	Part#	Decription
10010	Hydraulic Hose (specify length)	10150	Hydraulic Cylinder (Transport Frame)
10020	Pintle Hitch	10160	Hydraulic Cylinder (Steering Right Wing)
10030	Bulldog Jack	10180	Pipe Plug (1 per drum)
10040	VFS Vertical support arm	10190	Drum bearing (6 total)
10050	VFS Horizontal Support arm	10200	*Wing support arm (on larger units only)
10070	Main Transport Frame	10220	6 bolt hub
10080	Main Frame-Left roller wing	10230	Outside bearing for hub
10090	Main Frame-Right roller wing	10240	Inside bearing for hub
10100	Main Frame-Middle roller	10250	Seal for hub
10110	Drum-Left wing	10260	Dust cap for hub
10120	Drum-Right wing	10270	Pin for lift arm (front)
10130	Drum-Middle	10280	Pin for lift arm (rear)
10140	16" ag wheel		

IMPORTANT

PLEASE READ THESE INSTRUCTIONS BEFORE OPERATING YOUR HARMS LANDROLLER

(Failure to follow instructions will void the warranty and may cause injury or death to the operator)

BEFORE YOU BEGIN OPERATION

LUBRICATION

- BUSHINGS-grease on a daily basis
- BEARINGS-Grease every 1000 acres or annually, whichever occurs first

FILLING DRUMS WITH LIQUID

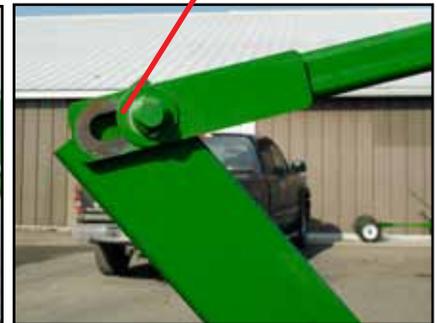
- Filling the drum cylinders with liquid is NOT necessary in order to successfully operate the Landroller. Only in certain situations will it be necessary to fill the drums. Contact your dealer or the manufacturer if you have questions on whether you need to fill your Landroller.
- To fill the cylinder rotate the drain plug to the up position. Loosen and remove plug. Fill with liquid. Replace plug when desired capacity is reached. **If you choose to fill the drums it is important to drain the fluid prior to freeze up. Failure to empty drums will cause rupturing or cracking of the cylinder wall and will void the warranty.** Use extra caution when operating a unit with filled drums as unit will be extremely heavy and will handle differently than when empty.

ALIGNING THE PINTLE HITCH/VARIABLE FLEX SLOT (VFS)

- In order to ensure proper flex and operation of your Landroller the bolt on the Variable Flex Slot must be in the center of the VFS slot while in field operating position. If adjustment is needed make sure the tractor and Landroller are parked on a level surface and adjust the Pintle Hitch (A) up or down until the bolt is located in the center of the slot. (B)



(A)



Align to center of slot

(B)

TOWING

- Inspect tires to make sure they are in good condition and check lug nuts to see that they are secure.
- Make sure a slow moving vehicle sign is attached to the rear of the Harms Landroller or that flashers are used when towing your Harms Landroller.
- MAX towing speed is 25 MPH
- When towing farm equipment please be extremely vigilant for other drivers.
- Connect hydraulic hoses to tractor. Two sets of hoses are necessary on units that have three sections.



TO RAISE AND LOWER LANDROLLER

- 1) START** with the land roller directly behind the tractor with outside wings at a 90-degree angle to the center roller. Allow ample room behind Landroller to back-up as it will be necessary to expand and lower the unit.
- 2)** Slowly back up while turning the hydraulic steer wheel located on the right wing. This will cause the wings to move outward.
- 3 - 5)** Continue to back up until the land roller is completely expanded with both wings out at the same time.
- 6-8)** Engage the hydraulics and lower the center roller until it lies flat in line on the ground and parallel to the outside wings
- 9)** The Land Roller is now ready to use.
- 10)** Reverse procedure to ready unit for transport.



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HARMS LAND ROLLER LIMITED WARRANTY

Harms Manufacturing Inc. warrants its land rollers to be free from defective workmanship and materials, and it agrees that it will either repair or replace the defective part at no charge to the purchaser for the period set forth below.

Harms Manufacturing Inc. shall be liable to correct defects in the product itself and not for any damage to the equipment and property or injury which may result from or be incidental to or a consequence of such a defect.

Warranty period of this land roller is 12 months for owner only from original date of sale. Neither sales personnel or the seller is authorized to make warranties other than those described herein, or to extend the duration of any warranties beyond the time period described therein.

Exclusions:

1. Warranty extends only to the original purchaser for exclusive personal use only.
2. Failure to properly follow operating instructions.
3. Damages resulting from misuse, neglect, vandalism, tampering, weather damage, improper installation, or unauthorized service.
4. Improper use of land roller, including failure to drain water in fall.
5. Hydraulic cylinders and hoses are covered only by their manufacturer.
6. Rental units.
7. Custom operators.

Serial # _____ **Date of purchase** _____

Owner's signature _____

*Dealers: Please send copy back to manufacturer of serial number,
date of purchase, and owners signature to:*

*Harms Mfg. Inc.
14451 430th St.
Box 146
Bertha, MN 56437*