NEW HOLLAND ST830

REPAIR MANUAL



87012593

04/03

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IMPLEMENT WEIGHT

	Base Model Width (Meters)	Number of Shanks			Total Weight (kg)		
					160 kg trips	250 kg trips	295 kg trips
		183 mm Shank Spacing	229 mm and 229 mm alternate Shank Spacing	305 mm Shank Spacing	183 mm Shank Spacing	229 mm and 229 mm alternate Shank Spacing	305 mm Shank Spacing
3-Section Models	7.9	43	-	-	5,433	-	-
	8	-	35 / 35	-	-	5,283	-
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	14.3	-	-	47	-	-	8,035
	14.4	-	63 / 63	-	-	8,558	-
	15	82	-	-	9,431	-	-
	15.2	-	-	50	-	-	8,350
	15.3	-	67 / 67	-	-	8,896	-
	16.8	92	-	-	10,284	-	-
	17.1	-	-	56	-	-	9,045
	17.2	-	75 / 75	-	-	9,703	-
	18.7	102	-	-	11, 004	-	-
	18.9	-	-	62	-	-	9,658
	19	-	83 / 83	-	-	10, 357	-

NOTE: Weights provided do not include ground engaging tools or harrows.

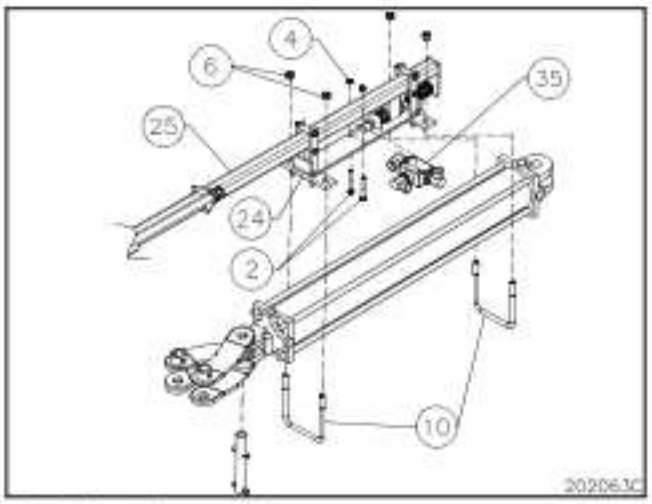
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MOUNTING RAM MOUNT DEPTH STOP ASSEMBLY TO THE HYDRAULIC CYLINDER

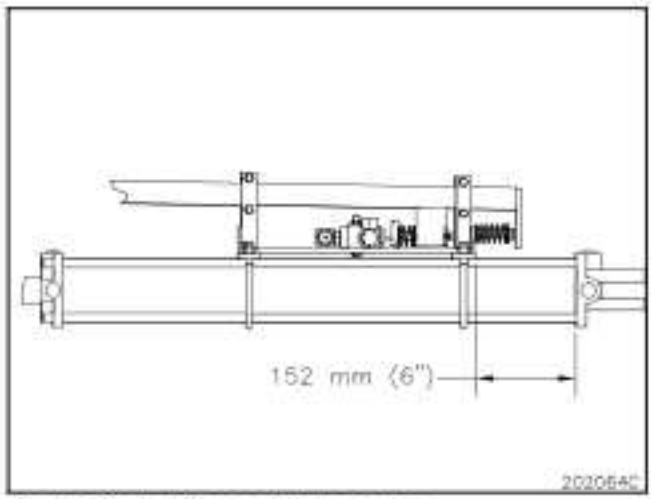
NOTES: Refer to Section 4 - Hydraulics for the schematics for the depth stop valve connections.

Assemble the fittings into the depth stop valve before assembling the depth stop onto the depth stop assembly valve.

Mount the depth control assembly as far back on the cylinder as possible (about 152 mm (6") from the rear of the bracket to the edge of the cylinder clevis).



Depth Stop Assembly



Depth Control Assembly Location

REF	DESCRIPTION	REF	DESCRIPTION
2	BOLT .313 X 2.5 GR. 5	24	SADDLE, 4" CYLINDER
4	LOCKNUT .313" UNC	25	ARM, RAM MOUNT DEPTH STOP
6	LOCKNUT .5" UNC	35	VALVE DEPTH, SECONDARY STOP
10	U-BOLT SQ. .5" X 4.625"W X 5.5"D		

Depth Stop Assembly

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PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Lines are plugged - outside (longest) lines only.	1. Line length differences are too great.	1. Remove excess length, or add length to shortest lines.
	2. Hoses make too many sharp turns.	2. Reroute to minimize corners.
	3. Hoses attached to weak supply on manifold.	3. Connect longest hoses toward center of manifold.
	4. Unbalanced air flow (double shoot system).	4. See items above.
Final lines are plugged - just outside of headers.	1. Insufficient product velocity because lines are level or sloping upwards.	1. Hoses from header should slope downward.
Restriction in the header.	1. Product buildup.	1. Inspect frequently. Clean as required.
	2. Lumps lodged in the header.	2. Dislodge. Use clean product. Use debris screens.
	3. Header assembly inserts rotated.	3. Service and readjust the secondary header.
	4. Header assembly air hoses inserted too far.	4. Service and readjust the secondary header.
Insufficient air velocity.	1. Discharge is blocked.	1. Clear lines at the seed boot. Boots too restrictive.
Uneven product division.	1. Header ring loose or worn.	1. Service and readjust the secondary header.
	2. Riser tube not vertical.	2. Service and readjust the secondary header.
Final line is plugged - between header and boot.	1. Boot is plugged.	1. Clear blockage in the seed boot.
	2. Hose is crimped.	2. Repair damaged hose.
Seed boots are plugging.	1. Lumps of product are lodging in the boot.	1. Clear all product buildup in the seed boot.
Dirt or mud entering the boot.	1. Backing or turning with boots in the ground.	1. Lift seeding tool out of the ground when turning.
	2. Wet clay wrapping up behind soil opener.	2. Change openers; or operate in drier conditions.

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REASSEMBLY OF CYLINDER

Reassemble the end cap onto the shaft:

11. The wiper seal on the rod cap makes it difficult to slide the rod cap back onto the shaft the way it was removed. To reassemble the rod cap, first remove the nut from the piston shaft.

- Thread two locking nuts (1 and 2) on the threaded clevis end of the piston shaft.

- Place the nut (1) into the vise and use an air tool and socket (3) to loosen the nut on the piston end of the shaft
- Place the nut (1) into the vise and use an air tool and socket (3) to loosen the nut on the piston end of the shaft.

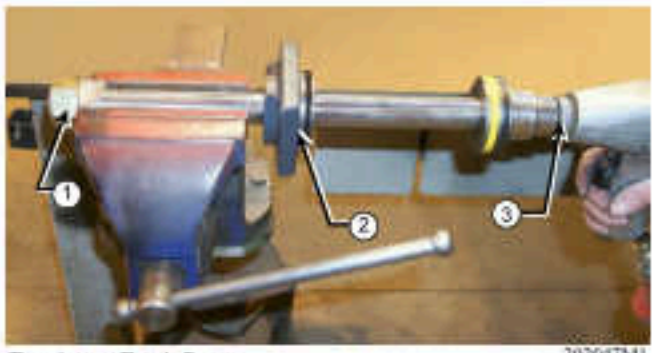
12. Replace the cap (2) onto the shaft. Move the shaft so the opposite locking nut (1) is in the vise. Apply Loctite to the piston nut and tighten using an air tool and socket (3).

13. Replace the piston (1) into the cylinder barrel (2). Piston inserted into the cylinder barrel (below).

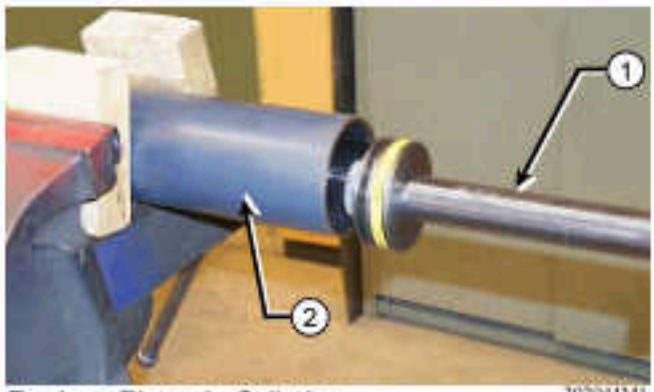
14. Inserting piston rod cap assembly into the cylinder.



Shaft in Vise 202046M1



Replace Rod Cap 202047M1



Replace Piston in Cylinder 202044M1


Replace End Cap 202043M1

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2. Remove nut and washer from the bolt (1). The bolt (1) should be easy to remove.

3. To gain access to the ball joint, reposition the sleeve so it is still in the second tab and in the center frame. The sleeve is difficult to hammer out because the three sections of the frame have a tendency to move in different directions.

   - In order to remove the tension or compression between the sections use a long jack and adjust the frame height. If the frame tends to push together use pry bars to pry the wings apart.



Removing Bolt 201308M1

   - In this case we needed to bring the frames together so we used a chain winch (1) and a long stroke jack (2). Aligning the sections made it easier to reposition the sleeve.



Aligning the Sections 202002M1

4. Using the driving tool (1) and a hammer, drive the sleeve (2) through the one tab on the hinge and through the ball joint. **Do not drive the sleeve past the second tab on the hinge. Keep the sleeve inserted through the center section** (3) **and through the rear tab of the hinge. This will maintain the alignment between one wing and the center section.** (Refer to the next figure.)

NOTE: A driving tool is a steel shaft that is approximately the correct diameter to drive the sleeve out of the frame sections. Note the location of any washers that are disassembled.



Driving the Sleeve 202003M1

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