5000 Air Drill

Models AD.A and AD.B

Service Manual

DR-015V2 1/05

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publication DR-015V2

Order the manual at mid-west-tech.com >

TABLE OF CONTENTS

Pages listed are a table of contents for that section

Section - Title ..... Page

1 - GENERAL INFORMATION 1-1
- General Service Information
- Important Information
- Service Tools
- Safety
- Units of Measure
- Bolt Torque Information
- Machine Specifications
- Paint Touch-up Procedure

2 - ADJUSTMENTS 2-1
- Air Drill Leveling
- Floating Hoe/Shank Adjustments
- Sweep Pitch Adjustments

3 - MECHANICAL SERVICE 3-1
- Troubleshooting Tables
- Servicing Safety Precautions
- General Operating Information
- Grease Locations
- Maintenance
- Tire Pressures
- Tire Pressures and hub and Spindle Details
- Wheel Bolt Torque
- Heavy Caster Assembly
- Light Caster Assembly
- Caster Hub and Spindle Maintenance
- Walking Beam Replacement
- Wing Dual Caster Option
- Dual Wing Caster Clamp
- Auxiliary Tow Hitch
- Caster Transport Lock Installation
- Pin Guides
- Depth Control Service
- Walking Beam Carrier Spool Replacement

4 - HYDRAULICS 4-1
- Hydraulics
- Replace Seals in Cylinders
- Hydraulic Cylinders
- Depth Control
- Wing Lift Hydraulics

5 - ELECTRICAL 5-1
- Connector Service Kit
- Remote Switch Installation

6 - TRIPS, OPENERS, AND PRESS WHEEL SERVICE 6-1
- Service of Openers
- Service Guide for Offset Shank Locations
- Press Wheels and Shanks
- Ground Openers and Seed Boots
- Troubleshooting Tables
- Trip Compressor Tool Kit
- Tension Link Kit - 550 Pound Trip
- Adjustment of Trip Assemblies
- Trip/Shank Shim Installation
- Heavy Duty Bearing Kits
- Press Wheel Removal
- Packer Wheel Rest Assembly
- Shank Spacing and Trip Release Pressure
- Trip Assemblies
- Sweep Pitch Adjustment
- Trip Torque Specifications

7 - AIR SYSTEM 7-1
- Troubleshooting Tables
- Hoses
- Theory of Operation - Air System
- Determining Adequate Carrying Velocities
- Header Assemblies
- Hose Holder Brackets and Distribution Clamps

8 - ENDMARKER SERVICE 8-1
- Endmarkers
- Endmarker Replacement
- Endmarker Hydraulics

INDEX

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

SECTION 1
GENERAL INFORMATION

CONTENTS OF THIS SECTION

Page

GENERAL SERVICE INFORMATION 1-3

IMPORTANT INFORMATION 1-4

SERVICE TOOLS 1-4

SAFETY 1-5
- General Safety Practices 1-6
- Servicing Safety Precautions 1-6
- Safety During Operation 1-7
- Air and Air Hoses 1-10
- Hydraulics and Hydraulic Leaks 1-10
- Shields 1-11
- Electrical 1-11
- Tires 1-11
- Safety During Transport 1-12
- Safety Decals 1-12
- Transport Lighting Brackets 1-14
- Transport Lighting Electrical Assembly 1-18

UNITS OF MEASURE 1-22
- Abbreviations 1-22
- Conversion Chart 1-23

BOLT TORQUE INFORMATION 1-24

MACHINE SPECIFICATIONS 1-26
- Implement Dimensions 1-26
- Implement Weight 1-27
- Other Specifications 1-30

PAINT TOUCH-UP PROCEDURE 1-31

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

Implement Weight in Kilograms and Pounds

BASE MACHINE WIDTH	# of SHANKS 9" SPC	WITH HOE/TRIP SHANK	WITH 350 POUND TRIPS	WITH 550 POUND TRIPS
		2 1/4" STEEL PRESS WHEELS		
27	37	6412 kg (14135 lbs)	6814 kg (15023 lbs)	6932 kg (15282 lbs)
33	45	7173 kg (15813 lbs)	7663 kg (16893 lbs)	7805 kg (17208 lbs)
39	53	8011 kg (17661 lbs)	8588 kg (18933 lbs)	8756 kg (19304 lbs)
45	61	10026 kg (22103 lbs)	10690 kg (23567 lbs)	10884 kg (23994 lbs)
51	68	10810 kg (23833 lbs)	11551 kg (25465 lbs)	12137 kg (26757 lbs)
57	77	11493 kg (25337 lbs)	12331 kg (27185 lbs)	12576 kg (27724 lbs)
		3 1/2" STEEL PRESS WHEELS		
27	37	6245 kg (13768 lbs)	6648 kg (14656 lbs)	6765 kg (14915 lbs)
33	45	7004 kg (15441 lbs)	7494 kg (16521 lbs)	7637 kg (16836 lbs)
39	53	7869 kg (17348 lbs)	8446 kg (18620 lbs)	8614 kg (18991 lbs)
45	61	9936 kg (21906 lbs)	10601 kg (23370 lbs)	10794 kg (23797 lbs)
51	68	10828 kg (23871 lbs)	11568 kg (25503 lbs)	12154 kg (26795 lbs)
57	77	11514 kg (25384 lbs)	12352 kg (27232 lbs)	12597 kg (27771 lbs)
		3" RUBBER PRESS WHEELS		
27	37	6339 kg (13976 lbs)	6742 kg (14864 lbs)	6860 kg (15123 lbs)
33	45	7119 kg (15695 lbs)	7609 kg (16775 lbs)	7752 kg (17090 lbs)
39	53	8004 kg (17646 lbs)	8581 kg (18918 lbs)	8749 kg (19289 lbs)
45	61	10093 kg (22250 lbs)	10757 kg (23714 lbs)	10950 kg (24141 lbs)
51	68	11004 kg (24259 lbs)	11744 kg (25891 lbs)	12330 kg (27183 lbs)
57	77	11711 kg (25818 lbs)	12549 kg (27666 lbs)	12794 kg (28205 lbs)
		4" RUBBER PRESS WHEELS		
27	37	6339 kg (13976 lbs)	6742 kg (14864 lbs)	6860 kg (15123 lbs)
33	45	7119 kg (15695 lbs)	7609 kg (16775 lbs)	7752 kg (17090 lbs)
39	53	8004 kg (17646 lbs)	8581 kg (18918 lbs)	8749 kg (19289 lbs)
45	61	10093 kg (22250 lbs)	10757 kg (23714 lbs)	10950 kg (24141lbs)
51	68	11050 kg (24361 lbs)	11790 kg (25993 lbs)	12376 kg (27285 lbs)
57	77	11711 kg (25818 lbs)	12549 kg (27666 lbs)	12794 kg (28205 lbs)

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

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

TROUBLESHOOTING TABLES

NOTE: For troubleshooting problems with your specific opener, refer to the operator's manual for that opener.

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Shovels behind tractor wheels not entering ground.	1. Soil has been compressed so the sweep does not enter the same amount of soil.	1. Lower the shank to enter the suitable amount of soil. Optional spacer blocks are available which will lower the shanks. Contact the parts department.
On 5-section machines with harrows mounted, the harrows interfere with each other when winging up.	1. Harrows are locked in the raised position.	1. Harrows may interfere with each other if locked in the raised position on some 5-section machines. When winging up, place the harrows in the lowered position.
Front shovels not cutting as deep as rear shovels.	1. Drill is not level. 2. Incorrect tire pressures.	1. Refer to Adjustments Section to level drill. 2. Inflate tires to correct pressure.
Drill not cutting evenly from side to side.	1. Cultivator is not level. 2. Incorrect tire pressures. 3. Incorrect sweep pitch. 4. Trips fastened to frame incorrectly. 5. Mud buildup on tires.	1. Refer to Adjustments Section to level drill. 2. Inflate tires to correct pressure. 3. Refer to Adjustments Section to adjust sweep pitch. 4. Ensure trip is square on frame and entire trip mount face contacts frame. 5. Mud scrapers are required for seeding. See your dealer.

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

WING LIFT ISOLATOR VALVE REPLACEMENT - 51' AND 57' AIR DRILLS

IMPORTANT: Ensure pressure in hydraulic circuit has been relieved before removing fittings.

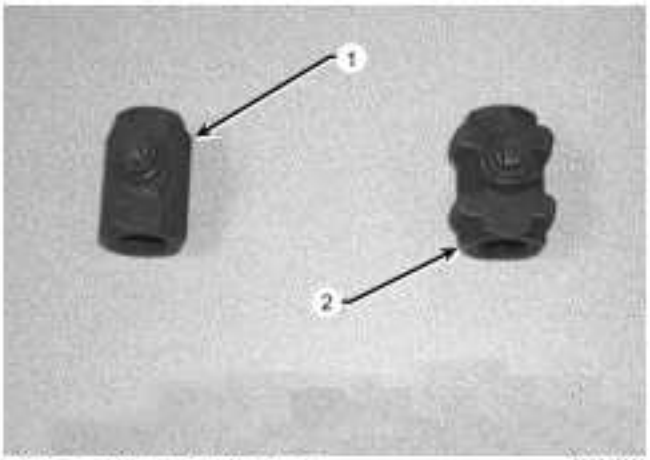
1. Locate the wing lift isolator valve (1) (below) on the 12' inner wing of the air drill.

NOTE: The existing valve (1) (figure at right) is different from the replacement valve (2) (part #6633K).

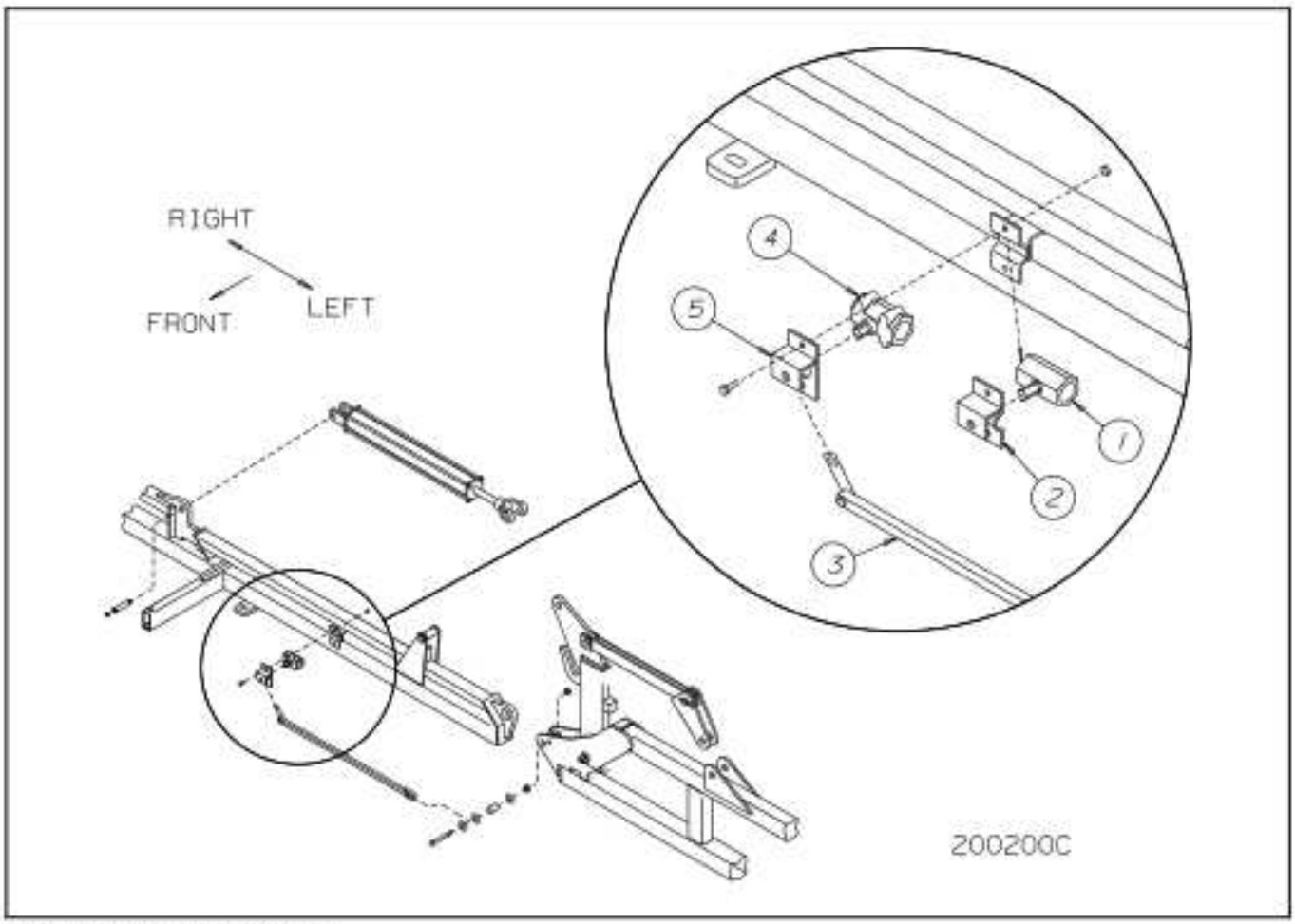
2. Remove the existing ball valve cover plate (2) (below) and the 3/8" x 1" bolts and locknuts. Unhook the control arm (3).

3. Remove the existing ball valve (1) and replace it with the new valve (4). Use a suitable thread sealant when assembling the new valve.

4. Attach the new cover plate (5). Reattach the control arm (3) and tighten in place with the 3/8" x 1 1/2" bolts and locknuts supplied.



Old and New Ball Valves



Isolator Valve Replacement

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

7. Remove the clevis cap (1).



Remove Clevis End Cap 202042M1

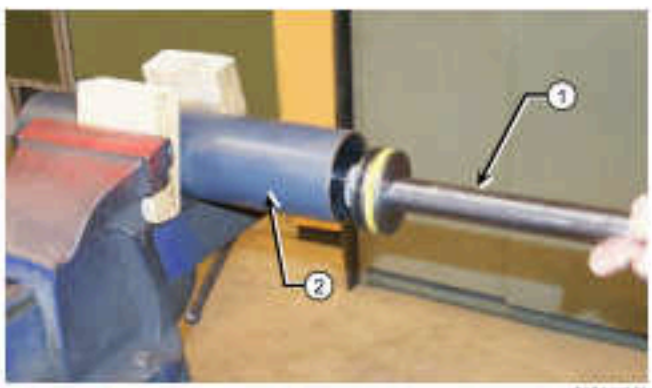
8. Remove the rod cap (1) by sliding it off of the shaft.


Remove Rod Cap 202043M1

9. Remove the shaft (1) and check the piston for any damage.

10. Use a light to check the cylinder barrel (2) for scoring, pits, scratches, or dents. If the deformities cannot be fixed, replace the cylinder.

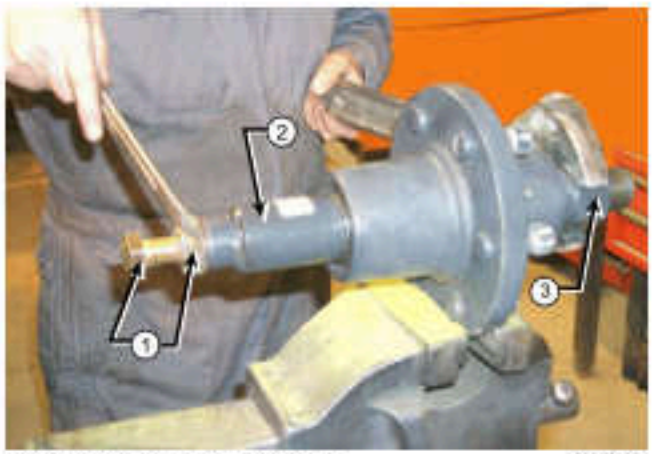
NOTE: Avoid hitting the rods against edges of the work bench while handling the cylinder in an extended position.



Remove Shaft 202044M1

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >

3. Screw a bolt and nut (1) onto one end of the spindle (2) to use as a locking system to remove the adjusting nut (3) from the spindle.



Removing Nut from Spindle 202021M1

4. Remove the shaft (1) from the hub.



Removing Shaft from Hub 202022M1

5. Drive the seals from the hub.



Removing Seals 202023M1

MidWestTech | New Holland Flexicoil 5000 AD.A, AD.B Air Drill Service Manual | Publicatio... Order the manual at mid-west-tech.com >