NEW HOLLAND
SD440A
AIR DRILL

REPAIR
MANUAL



87545777
Replaces 87354063

7/06

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777

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
- Trip Torque Specifications
- Setting the Depth Gauge
- Wing Lead Adjustment

3 - MECHANICAL SERVICE 3-1
- Troubleshooting Tables
- Servicing Safety Precautions
- General Operating Information
- Grease Locations
- Maintenance
- Tires
- Caster Wheels
- Caster Hub and Spindle Maintenance
- Walking Beam Replacement
- Caster Transport Lock Installation
- Pin Guides
- Depth Control Service
- Walking Beam Carrier Spool Replacement
- Auxiliary Tow Hitch

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
- 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
- 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
- Endmarker Operation and Ajdustment

INDEX

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 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
- Decal Locations 1-13
- Transport Lighting Assembly 1-14

UNITS OF MEASURE 1-16
- Abbreviations 1-16
- Conversion Chart 1-17

BOLT TORQUE INFORMATION 1-18

MACHINE SPECIFICATIONS 1-20
- Air Drill Dimensions 1-20
- Machine Composition 1-21
- Implement Weight 1-21
- Other Specifications 1-24

PAINT TOUCH-UP PROCEDURE 1-25

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 Order the manual at mid-west-tech.com >

MACHINE SPECIFICATIONS

AIR DRILL DIMENSIONS

Metric Dimensions (Meters)

BASE MACHINE	7.2" SPACING		10" SPACING		12" SPACING	
	# OF SHANKS	WIDTH OF CUT	# OF SHANKS	WIDTH OF CUT	# OF SHANKS	WIDTH OF CUT
8.2	45	8.2	34	8.6	28	8.5
10.1	55	10.1	40	10.2	34	10.4
11.9	65	11.9	48	12.2	40	12.2
13.7	75	13.7	56	14.2	46	14.0
15.5	85	15.5	62	25.7	52	15.9
17.4	95	17.4	70	17.8	58	17.7

BASE MACHINE	TRANSPORT WIDTH (1)	TRANSPORT HEIGHT (2)	AIR DRILL LENGTH
8.2	5.8	3.6	8.3
10.1	5.8	4.5	8.3
11.9	5.7	5.4	8.3
13.7	5.8	4.4	9.7
15.5	5.8	5.3	9.7
17.4	5.8	5.3	9.7

Imperial Dimensions (Feet)

BASE MACHINE	7.2" SPACING		10" SPACING		12" SPACING	
	# OF SHANKS	WIDTH OF CUT	# OF SHANKS	WIDTH OF CUT	# OF SHANKS	WIDTH OF CUT
27	45	27	34	28.3	28	28.0
33	55	33	40	33.3	34	34.0
39	65	39	48	40.0	40	40.0
45	75	45	56	46.7	46	46.0
51	85	51	62	51.7	52	52.0
57	95	57	70	58.3	58	58.0

BASE MACHINE	TRANSPORT WIDTH (1)	TRANSPORT HEIGHT (2)	AIR DRILL LENGTH
27	19'	11' 8"	27' 3"
33	19'	14' 8"	27' 3"
39	18' 10"	17' 9"	27' 3"
45	19'	14' 6"	31' 11"
51	19'	17' 6.5"	31' 11"
57	19'	17' 6.5"	31' 11"

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 Order the manual at mid-west-tech.com >

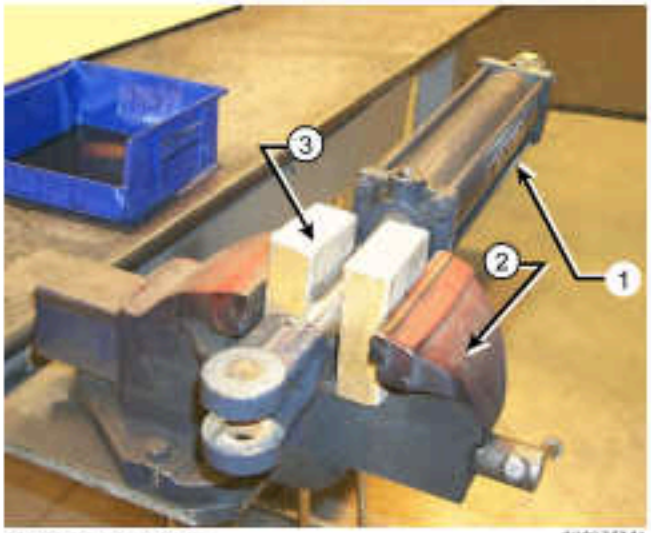
TROUBLESHOOTING TABLES

NOTE: For more information regarding air system troubleshooting refer to the air cart service or operator's manual.

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
The center manifold lines are plugged. Secondary manifold lines are plugged or hoses are pinched.	1. Not enough air velocity. 2. Fan turning too slowly. 3. Fan inlet is restricted. 4. Fan is rotating backwards. 5. Fan impeller flutes are clogged. 6. Air pack primary hoses may have too tight of a bend to center section manifold.	1. Adjust the air dampers. 2. Increase the fan RPM. 3. Keep the fan inlet clean. 4. Reverse hydraulic hoses at the fan motor. 5. Keep impeller flutes clean. 6. Check that the hoses have no restrictions.
Air is too 'thin'.	1. Air temperature is too high. 2. Operating at high elevation.	1. Reduce rate or ground speed. 2. Reduce rate or ground speed.
System capacity is exceeded.	1. Rate setting is too high. 2. Ground speed is too fast. 3. Product quality is poor.	1. Reduce application rate. 2. Reduce ground speed. 3. Use dry product.
Premature distribution system plugging.	1. Too many fines.	1. Use free flowing product.
System restricted too much.	1. Blockage downstream. 2. Restrictive boots.	1. Clear blockage or straighten kinked hoses. 2. Use larger opening on boots.
Unbalanced air flow (double shoot air system).	1. Unbalanced distribution system. 2. Air dampers not adjusted. 3. Product has collected in 'quiet zone' between valves.	1. Balance system. 2. Make proper air damper adjustments. 3. Allow some air to pass through to remove product.

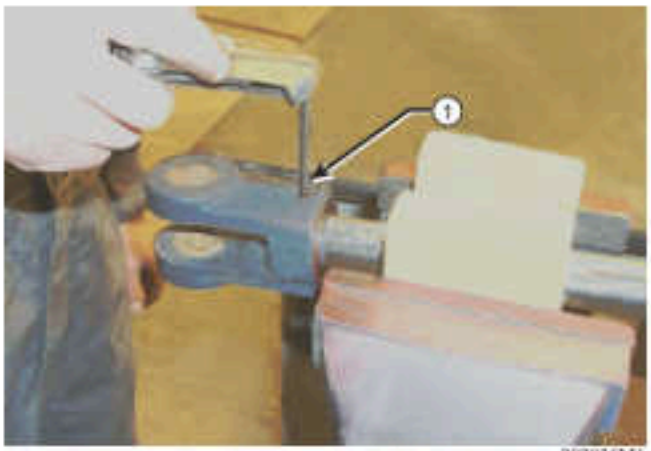
MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 Order the manual at mid-west-tech.com >

2. Block the cylinder (1) in a vise (2) using wooden blocks (3) or other material to protect the cylinder rod from damage.



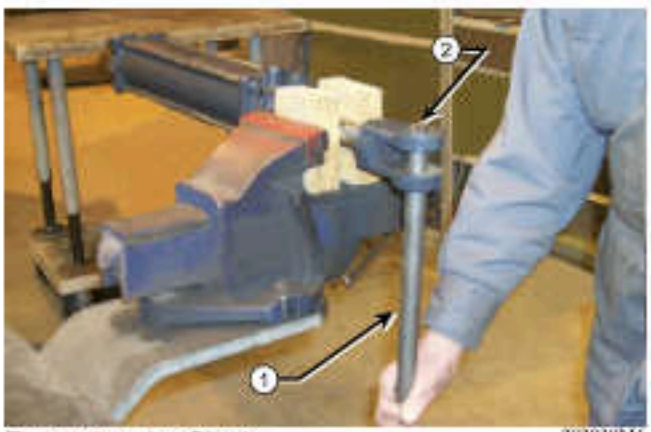
Cylinder in Vise 202035M1

3. Remove the clevis end (1) by loosening the set screw.



Loosening Clevis Set Screw 202036M1

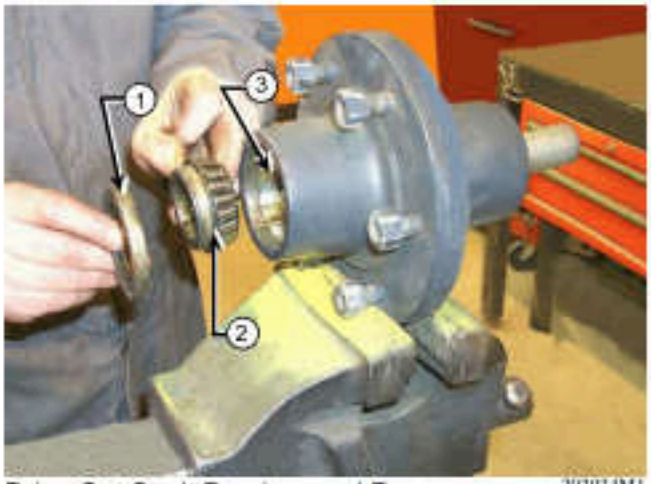
4. Use a rod (1) inserted in the clevis (2) to unscrew the clevis end off of the shaft.



Removing the Clevis 202039M1

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 Order the manual at mid-west-tech.com >

6. Remove the seal (1), bearing (2), and race (3).

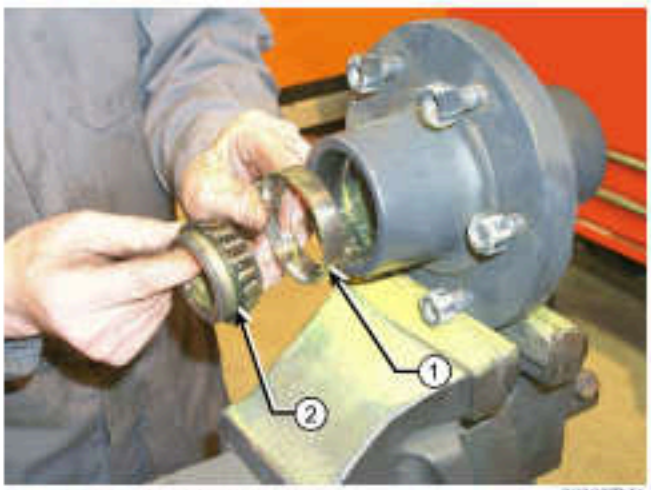


Drive Out Seal, Bearing, and Race 20D24M1

7. Re-pack the bearing. Use your thumb to work new grease into the bearing.


Repack the Bearing 20D26M1

8. Replace the race (1) and bearing (2).



Replacing Bearing and Race 20D27M1

MidWestTech | New Holland SD440A Air Drill Service Manual | Publication 87545777 Order the manual at mid-west-tech.com >