

Foreword

This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, "Right-Hand" (RH) and "Left-Hand" (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.



7050 Bed Lister — Introduction

Product Information

Please fill out and retain this portion for your records. All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

The serial number plate is located as shown below.

Product _____

Serial Number _____

Date of Purchase _____

Dealer _____

City _____ State _____ Zip _____

Please supply this information when you have questions or when ordering repair or replacement parts. Your dealer needs this information to give you prompt, efficient service.



Vertical Fold Toolbars



Foreword .		2
Product In	nformation	2

SECTION I Safety

General Hazard Information	1-2
Safety Decals	1-3
Following Safety Instructions	1-4
Before Servicing or Operating	1-4
During Operation	1-4
Before Transporting	1-5
During Transport	1-5
Pressurized Oil	1-5
Preparing for Emergencies	1-6
Wearing Protective Equipment	

SECTION II Set Up

General Set Up Information	2-2
General Set Up Information Basic Set Up	2-3
Hydraulic System	2-3
SMV Emblem	2-3
Light and Light Bracket Set Up	2-4
Outer Lights	2-4
Outer Lights Inner Lights	2-5
Overhead Layouts	2-6
12 Row 30" Spacing Configuration	
12 Row 30" Spacing Configuration (Stack Fold)	2-6
12 Row 36" Spacing Configuration	2-7
12 Row 36" Spacing Configuration (Stack Fold)	2-7
12 Row 38" Spacing Configuration	2-8
12 Row 38" Spacing Configuration (Stack Fold)	2-8
12 Row 40" Spacing Configuration	2-9
12 Row 40" Spacing Configuration (Stack Fold)	2-9
16 Row 30" Spacing Configuration	2-10
16 Row 30" Spacing Configuration (Stack Fold) 2	2-10

SECTION III Operation

General Operation Information
Preparing Tractor
Preparing Machine
Hardware
Pins
Lubrication
Wing Folding Degree Adjustment
Adjustable Wing Rest
90 Degree Transport Lock
Field Operation
Rigid Operation
Wing Leveling
Field Adjustments
Row Unit Depth Adjustment
Down Pressure Adjustment
Shank Depth Adjustment
Listing Disc Angle Adjustment
Listing Disc Pitch Adjustment
Hitching to Tractor
Transporting and Field Positions

SECTION IV Maintenance

Lubrication	4-2
Mount and Parallel Linkage Disassembly and Assembly	4-4
Front Coulter Disassembly and Assembly	4-6
Depth Adjustment Crank Disassembly and Assembly	4-8
Tooling Shank Disassembly and Assembly	
Listing Disc Unit Disassembly and Assembly	4-11
Listing Disc and Hub Disassembly and Assembly	4-13
Vertical Fold Toolbar Internal Cylinder Disassembly and Assembly	4-15
Stack Fold Toolbar Internal Cylinder Disassembly and Assembly	
Storage Troubleshooting	4-19
Troubleshooting	4-19
Complete Torque Chart	4-20
Capscrews - Grade 5	4-20
Capscrews - Grade 8	
Hydraulic Fittings - Torque and Installation	4-22

SECTION V Parts

Decals	5-2
Hitch Components	5-4
Toolbar Components	5-5
Hitch Clamp Components	5-6
Toolbar Stand Components	5-7
180 Degree Wing Rest Components	
170 Degree Wing Rest Components	5-9
Adjustable Wing Rest Components	5-10
Toolbar Hinge Components	5-12
Double Toolbar Light Brackets and SMV Sign Components	5-14
Single Toolbar Light Brackets and SMV Sign Components	5-15
180 Degree Wing Fold Assembly Components	5-16
170 Degree Wing Fold Assembly Components	5-18
Row Unit Main Frame and Front Fork Components	5-20
Parellel Linkage and Mount Components	5-21
Depth Band Coulter Components	5-22
Depth Adjustment Assembly Components	5-24
Row Unit Shank Mount Components	5-26
Sweep and Mount Components	5-28
Bedlisting Assembly Components	5-30
Bedlisting Disc and Hub Components	5-32
Hydraulic Cylinders	5-33
Hydraulic Components	5-34
Light Kit Components	5-36

SECTION I Safety

General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it is on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, "the best kind of a safety device is a careful operator." We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.



REMEMBER: THINK SAFETY A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT!

SIGNAL WORDS



INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.

A WARNING

INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.

CAUTION

INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

IMPORTANT

Is used for instruction on operating, adjusting, or servicing a machine.



A WARNING

• REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.



Following Safety Instructions

- Read and understand this operator's manual before operating.
- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut tractor engine off and remove key before servicing.
- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.
- Never attempt to operate implement unless you are in driver's seat.

Before Servicing or Operating

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.
- Ensure that all applicable safety decals are installed and legible.
- Sharp edges on the machine can cause injury. Be careful when working around the machine.
- Do not stand between towing vehicle and implement during hitching.
- Always make certain everyone and everything is clear of the machine before beginning operation.

During Operation

- Regulate speed to working conditions. Maintain complete control at all times.
- Never service or lubricate equipment when in operation.
- Use extreme care when operating close to ditches, fences, or on hillsides.
- Do not leave towing vehicle unattended with engine running.







Before Transporting

- Install transport locks before transporting.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.

During Transport

- Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Use good judgment when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.

Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Leaks of highpressure fluids may not be visible. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids.
- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
 - End fittings damaged, displaced, or leaking.
 - Outer covering chafed/cut or wire reinforcing exposed.
 - Outer covering ballooning locally.
 - Evidence of kinking or crushing of the flexible part of a hose.

Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.
- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.

Wearing Protective Equipment Image: Second seco

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SECTION II Set Up

General Set Up Information	2-2
General Set Up Information Basic Set Up	2-3
Hydraulic System	2-3
SMV Emblem	2-3
Light and Light Bracket Set Up	2-4
Outer Lights	2-4
Inner Lights	2-5
Overhead Layouts	
12 Row 30" Spacing Configuration	
12 Row 30" Spacing Configuration (Stack Fold)	
12 Row 36" Spacing Configuration	2-7
12 Row 36" Spacing Configuration (Stack Fold)	
12 Row 38" Spacing Configuration	
12 Row 38" Spacing Configuration (Stack Fold)	2-8
12 Row 40" Spacing Configuration	2-9
12 Row 40" Spacing Configuration (Stack Fold)	2-9
16 Row 30" Spacing Configuration	2-10
16 Row 30" Spacing Configuration (Stack Fold)	2-10

General Set Up Information

This section contains all of the instructions required for the complete assembly of the machine.

For your safety, and the safety of others, use proper tools and equipment and always use safe working procedures. Refer to these instructions before starting any work on your machine.

IMPORTANT

• The procedures for assembling this unit are intended for two or more people.

For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to "Torque Chart" in MAINTENANCE section unless otherwise specified.



- KNOW AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN YOUR MANUAL IF NECESSARY.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.
- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 12,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH.
 BE SURE THE MACHINE IS SECURELY BLOCKED.
- MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.

Basic Set Up

Due to shipping requirements and various dealer-installed options, some initial implement set up will be required after it arrives from the factory. Use the following procedures as needed for initial implement set up.

Hydraulic System

Check all hoses and cylinders for signs of leakage. Hoses should not be kinked, twisted or rubbing against sharp edges. Re-route or repair hoses as necessary. Refer to SAFETY section for additional information on safe repair and inspection of hydraulic components.

SMV Emblem

Before the implement is used the reflective surface of the SMV must face rearward. This may require removal of film protecting the reflective surface or removing and reinstallation of the SMV.

When reinstalling the SMV make sure that it is mounted with the wide part of the SMV at the bottom. (Fig. 2-1)



Light Set Up

For Outer Lights:

NOTE: The left and right light brackets should be adjusted according to toolbar fold type.

- 1. Remove the hex nut and capscrew from the adjustment holes. (Fig. 2-2)
- 2. Loosen, but do not remove the capscrew and nut on the bottom of the light bracket mount.
- 3. Pivot the light bracket to the required position pictured below (Figs. 2-3 through 2-6)
- 4. Install the capscrew and hex nut into the light bracket mount, then torque all hardware to the specification listed in the maintenance section. (Fig. 2-2)
- 5. Remove the adjustment hardware from the light bracket and adjust bracket until level.
- 6. Reinsert and torque all harware to the specification listed in the maintenance section.





Light Set Up

For Inner Lights:

Inner light brackets must each be mounted equaly from the center of the toolbar and be a distance of no greater than 72 inches from each other. The inner lights will only have a lense on one side of the light and it should be visible from the rear of the toolbar. The outer lights must be within 16" of the outer edge of the machine.













SECTION III Operation

General Operation Information	-2
General Operation Information	-2
Preparing Machine	
Hardware	-2
Pins	-2
Lubrication	-2
Wing Folding Degree Adjustment	-3
Adjustable Wing Rest	
90 Degree Transport Lock	-6
Field Operation	-7
Rigid Operation	-7
Wing Leveling	-7
Field Adjustments	-8
Row Unit Depth Adjustment	
Down Pressure Adjustment	
Shank Depth Adjustment3-1	10
Listing Disc Angle Adjustment3-1	11
Listing Disc Pitch Adjustment	11
Hitching to Tractor	
Transporting and Field Positions	14

7050 Bed Lister - Operation

General Operation Information

A WARNING

• READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.

Read this operation section thoroughly. Acquaint yourself with the adjustments required to obtain efficient and trouble-free operations.

Preparing Tractor



- TRANSPORTING THE IMPLEMENT SIGNIFICANTLY CHANGES THE WEIGHT AND BAL-ANCE OF YOUR TRACTOR. MAKE SURE THE TRACTOR IS PROPERLY BALLASTED.
- DO NOT EXCEED THE TRACTOR'S LIFT CAPACITY OR BALLAST RECOMMENDATIONS.

Before operating implement, refer to tractor operator's manual for information concerning safe methods of operation, hitch adjustment, tire inflation, wheel adjustments, and tractor weights.

Check tractor brakes and transport lights. Make sure they are in proper working order.

Preparing Machine

Perform the service checks as outlined below. Repair or replace any damaged or worn parts before operating.

Hardware

Before going to the field, check all hardware for tightness. Recheck all capscrews for tightness, after the unit has been operated for several hours.

Pins

Before going to the field, check that all pins are in place and are in good condition. Replace any worn, damaged, or missing pins.

Check that locking hardware for pins are in place and tight.

Lubrication

Lubricate unit as outlined in MAINTENANCE section.

Wing Folding Degree Adjustment

A WARNING

• MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

<u>NOTE:</u> Vertical Fold Toolbars can be folded to either 90°, 115°, 135°, or 180°. The setting may be changed to accomodate transportation, storage, and application needs for the particular operation.

<u>NOTE:</u> All Vertical Fold Toolbars come standard with cylinders in the 180 degree fold position and with 180 degree fold wing rests. If the internal cylinder is moved to allow the toolbar to fold at 115 or 135 degrees adjustable wing stops (sold seperatly) are mandatory.

<u>IMPORTANT:</u> ANY time the wing fold angle is changed, the appropriate wing stop must be installed. Failure to do so will result in damage to the machine.

Changing Position of Internal Cylinder

- 1. Park the unit on a firm level surface, then unfold the wings to the field position. Ensure the rigid lock pin is NOT installed, then releive hydrualic pressure.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Unlock wings from rigid position by removing wing lock pin, but leave the wing in the field position. Then relieve hydraulic fluid pressure by placing the tractor SCV in the float position.
- Remove the cover plate and snap rings from the cylinder pin, then remove the cylinder pin. Retain the hardware for re-assembly. (Fig. 3-1)
- Restore hydraulic pressure and use the tractor SCV to extend or retract the hydraulic cylinder to the desired pin hole. (Extend if reducing the degree of fold; retract if increasing the degree of fold) (Fig. 3-2)
- 6. Once the cylinder is in the desired position, install the cylinder pin, snap rings, and cover plate. (Fig. 3-1)

<u>NOTE:</u> After moving the internal cylinder, refer to Adjustable Wing Rest section to make the necessary adjustment to the wing rest.



7050 Bed Lister - Operation

Adjustable Wing Rest

A WARNING

• MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

<u>NOTE:</u> Vertical Fold Tillage Toolbars come standard with 180° fold configuration. If 115° or 170° fold configuration is desired, corresponding wing rests must be ordered separately (see wing rests in Parts Section).

To Mount Adjustable Wing Rest

- 1. Park the unit on a firm level surface, then unfold the wings to the field position. Ensure the rigid lock pin is NOT installed, then releive hydrualic pressure.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Remove the U-bolt, hex nuts, and lock washers securing the fixed rest to the tool bar. (Fig. 3-3)
- 4. Remove the old rest, then mount the adjustable wing rest in the same position as the standard 180 degree wing rest.

<u>NOTE:</u> Make sure that the wing rest leans toward the loutside of the toolbar, not the inside.

- 4. Use the included U-bolts, hex nuts, and lock washers to secure the adjustable wing rest onto the toolbar. (Fig. 3-4)
- 5. Torque all hardware to the specification listed in the maintenance section.



Hex Nuts

U-Bolts

Lock Washers

Adjustable Wing Rest

A WARNING

• MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

Adjusting The Wing Rest

- 1. Park the unit on a firm level surface, then unfold the wings to the field position. Ensure the rigid lock pin is NOT installed, then releive hydrualic pressure.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Before adjusting, be sure the internal hydraulic cylinder is in the correct position for the desired degree of folded wing placement. If internal hydraulic cylinder must be moved, refer to the instructions for "Changing Position of Internal Cylinder" in this section.
- 4. Raise the wing from field position to the desired degree of folded wing placement (fully extend hydraulic cylinder).
- 5. With the wing fully folded, extend the telescoping tube of the wing rest to the most extended position and replace the stop bolt and retighten. (Fig. 3-5)
- 6. Loosen the pivot hardware at the base fo the adjustable wing rest. (Fig. 3-6) Tilt the adjustable wing rest so that it aligns with the wing toolbar rest location.
- 7. Extend the telescoping tube until it contacts the toolbar wing. Torque the telescoping hardware to the specifications in the mainenance section.
- 8. Pivot the wing rest down 1/2" and torque the pivot hardware to the secification listed in the maintenance section.

<u>NOTE:</u> This will apply slight pressure to the wing rest and reduce pressure on the fold mechanism while in transport.



7050 Bed Lister - Operation

90 Degree Transport Lock

WARNING

• MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.

<u>NOTE:</u> The 90 degree fold transport lock (sold seperately) is mandatory for the 90 degree fold position.

<u>NOTE:</u> Be sure to follow all steps of the "Changing Position of Internal Cylinder" section before proceeding.

- 1. Raise the wing to the 90 degree position (fully extend the internal hydraulic cylinder).
- 2. Remove wing lock pin from storage position and install in the wing lock position with the 90 degree transport lock in place as shown. (Fig. 3-7 and 3-8)
- 3. Adjust outer safety light brackets accordingly.

<u>IMPORTANT:</u> Transport locks must be removed before lowering wings from the transport position.



Field Operation

Rigid Operation



- MOVING WINGS CAN CAUSE SERIOUS INJURY OR DEATH. KEEP AWAY FROM FOLDING AND UNFOLDING WINGS.
- 1. With the wings completly unfolded, move the wing lock pin from the storage position and install it into the wing lock position. (Fig. 3-9 and 3-10)

<u>NOTE:</u> This will keep the wings from moving upward and the toolbar wil not be able to fold with the wings locked.





Wing Leveling

<u>NOTE:</u> Factory setting for wing level bolts allows no downward wing position from level. If wings become out of adjustment, these bolts can be moved. Wing leveling bolts can also be adjusted so that wings will float down below factory setting.

- 1. Loosen the jam nut and adjust the leveling bolt(s) to the desired position. (Fig. 3-11)
- 2. Tighten the jam nut to the specification listed in the maintenance section. (Fig. 3-11)



Field Adjustments

Row Unit Depth Adjustment

<u>NOTE:</u> To allow maximum vertical row unit travel, the parallel linkages should generally operate parallel with the top and bottom of the toolbar in the field position.

- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.



- 3. Remove the hand crank from its storage position. (Fig. 3-12)
- 4. Adjust row unit gauge wheels with the hand crank so that parallel linkages are parallel with the top and bottom of the toolbar in the field position. Adjust each row unit gauge wheel to uniform depth with the hand crank. (Fig. 3-13)
- 5. After adjustments are complete, return hand crank to storage position. (Fig. 3-12)



Field Adjustments (Continued)

Down Pressure Adjustment

<u>NOTE:</u> Row unit down pressure springs should be adjusted to arrive at a setting where parallel linkages operate independent of the toolbar and the toolbar serves only as a towing device.

- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Loosen the jam nut on the spring plug. (Fig. 3-14)
- 4. Turn the adjustment bolt to adjust the row unit down pressure. Turning the adjustment bolt clockwise will increase down pressure, turning the adjustment bolt counter clockwise will decrease the down pressure. Ensure both springs are adjusted equally.
- 5. Tighten the jam nut against the spring plug. (Fig. 3-14)



7050 Bed Lister - Operation

Field Adjustments (Continued)

Shank Depth Adjustment

<u>NOTE:</u> Sweep standard depth is adjusted by raising or lowering the rear shank relative to the tail section.

- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Loosen the flange nuts and move the shank up or down to achieve the desired tillage depth. (Fig. 3-15)
- 4. Torque all hardware to the specification listed in the maintenance section.

<u>NOTE:</u> All adjustments must be made evenly from side to side on the machine.



Field Adjustments (Continued)

Listing Disc Angle Adjustment

<u>NOTE:</u> Both listing discs need to be adjusted equally side to side.

- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Loosen the hex nuts on the back of the listing disc assembly. (Fig. 3-16)
- 4. Tilt the listing discs in or out until the desired postion is reached.
- 5. Torque all hardware to the specification listed in the maintenance section.





Listing Disc Pitch Adjustment

<u>NOTE:</u> Both listing discs need to be adjusted equally side to side.

- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- Loosen the upper and lower hex nuts on the back of the listing disc assembly. (Fig. 3-17)
- 4. Pivot the listing discs in or out until the desired postion is reached.
- 5. Torque all hardware to the specification listed in the maintenance section.



7050 Bed Lister — Operation

Hitching to Tractor

A WARNING

• CRUSHING CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT STAND BETWEEN TOWING VEHICLE AND IMPLEMENT WHEN HITCHING. ALWAYS ENGAGE PARKING BRAKE AND STOP ENGINE BEFORE INSERTING HITCH PINS OR SECURING LATCHES.

3 Point Hitch Tractor Connection

1. Back up tractor to the implement hitch. Place the tractor in park, turn off the engine, and remove the key before connecting the implement. Injury or death can result from being trapped between the tractor and implement.



- 2. Set tractor's three-point hitch lift links. Hitch lift links should be adjusted to the operating depth dimensions indicated in the tractor operator's manual.
- 3. Set tractor's three-point hitch lateral float pins. Lateral float pins should be placed in the lower holes to allow machine to "float" and follow the ground surface.
- 4. Connect the tractor's lower three-point hitch points to the lower hitch tug pins on the implement. (Fig. 3-18)
- 5. Adjust the tractor's upper three-point hitch point as necessary to connect the hitch point to the upper hitch pin on the implement. (Fig. 3-18)



7050 Bed Lister - Operation

Hitching to Tractor (Continued)

Quick Hitch Tractor Connection

- 1. Back up tractor to the implement hitch. Place the tractor in park, turn off the engine, and remove the key before connecting the implement. Injury or death can result from being trapped between the tractor and implement.
- 2. Raise quick hitch latch handles. (Fig. 3-19)
- 3. Lower the rockshaft until the center link hook and quick-hitch hooks are lower than the implement hitch pins.
- 4. Slowly back the tractor towards the toolbar until the quick-hitch hooks are aligned with the implement hitch pins.
- 5. Raise the rockshaft until the center link hook and quick-hitch hooks engage with the implement hitch pins. (Fig. 3-20)
- 6. Push latch handles down to lock the quickhitch to the implement.


7050 Bed Lister — Operation

Transport and Field Positions

A WARNING

- USE TRANSPORT LIGHTS AS REQUIRED BY ALL LAWS TO ADEQUATELY WARN OPERATORS OF OTHER VEHICLES.
- REGULATE SPEED TO ROAD CONDITIONS AND MAINTAIN COMPLETE CONTROL.

Transport Position:

Regulate speed to road conditions and maintain complete control.

Be aware of obstructions above, below, and around the implement when in operation or transport.

Connect the implement to the tractor hitch.

Raise the tractor hitch to it's highest point.

Toolbar Height:

<u>NOTE:</u> When setting toolbar height, disregard row unit performance. In order for tooling options to be adjusted and work efficiently, toolbar height and orientation must be set first.

The top and bottom of the toolbar must be parallel with the ground. Adjustment of the tractors third link, lift assist wheels, and/or toolbar gauge wheels (if equipped) will allow the toolbar to run parallel to the ground.

The bottom of the toolbar should be approximatly 30 - 32 inches above the ground level. Use the tractor's lower hitch stop, lift assist wheels, and/or toolbar gauge wheels (if equipped) to set desired height.



SECTION IV Maintenance

Lubrication	
Mount and Parallel Linkage Disassembly and Assembly	
Front Coulter Disassembly and Assembly	
Depth Adjustment Crank Disassembly and Assembly	
Shank Disassembly and Assembly	
Listing Disc Unit Disassembly and Assembly	4-11
Listing Disc and Hub Disassembly and Assembly	4-13
Vertical Fold Toolbar Internal Cylinder Disassembly and Assembly	4-15
Stack Fold Toolbar Internal Cylinder Disassembly and Assembly	4-17
Storage	4-19
Troubleshooting	4-19
Complete Torque Chart	4-20
Capscrews - Grade 5	
Capscrews - Grade 8	4-21
Hydraulic Fittings - Torque and Installation	4-22

Lubrication

Grease all zerks on the 7050 Bed Lister using a high-quality, multi-purpose grease such as NLGI #2 EP. Follow the recommended hourly service intervals illustrated below.

Lubrication Service Intervals						
	# of Grease Points Interval (Hours)					
Parallel Linkages (Front)	2	10				
Parallel Linkages (Rear)	2	10				
Gauge Wheel Height Adjustment Screw	1	50				
Gauge Wheel Bushing	1	50				
Wing Hinge (Single Toolbar)	2	50				
Wing Hinge (Double Toolbar)	4	50				
Wing Cylinder Links (Single Toolbar)	6	50				
Wing Cylinder Links (Double Toolbar)	12	50				
Stack Fold Toolbar Hinge	4	50				

Parallel Linkages (Front)



Gauge Wheel Height Adjustment Screw



Parallel Linkages (Rear)



Gauge Wheel Bushing





Mount and Parallel Linkage Disassembly and Assembly

WARNING

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 1,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Using a safe lifting device rated for a minimum of 1,000 lbs, support the row unit.
- 4. loosen the wedge capscrew. (Fig. 4-8)
- 5. Remove the flange nuts and u-bolts from the mounting plate. (Fig. 4-8)

<u>NOTE:</u> Take note of the position of the tension springs before disassembling.

 Loosen jam nuts then remove the tension capscrews, washers, and jam nuts from the tension springs. Repeat on the bottom side. (Fig. 4-9)







Mount and Parallel Linkage Disassembly and Assembly

- 5. Remove the flange nuts and capscrews from the rear of the parallel linkages, then separate the row unit from the parallel linkages. (Fig. 4-10)
- Remove the flange nuts and capscrews from the front side of the parallel linkages, then separate the mount plate from the linkages. (Fig. 4-11)
- 7. Remove the bushings from the mounting plate. (Fig. 4-12)
- 8. Inspect parts for wear or damage and replace if neccesary.
- 9. Install the bushings into the mounting plate. (Fig. 4-12)
- 10. Install the capscrews through the mounting plate and parallel linkages. Secure with the flange nuts. (Fig. 4-11)
- 11. Install the capscrews through the parallel linkages and row unit. (Fig. 4-10)
- 12. Install the row unit onto the toolbar using the u-bolts and flange nuts through the mounting plate, then tighten the wedge capscrew. (Fig. 4-9)
- 13. Attach the tension springs, jam nuts, washers, and capscrews into the row unit and adjust as needed. (Fig. 4-8)
- 14. Torque all hardware to the specification listed in the maintenance section.



Front Coulter Disassembly and Assembly

CAUTION

- SHARP EDGES ON COULTER BLADES CAN CAUSE INJURY. BE CAREFUL WHEN WORK-ING AROUND COULTER BLADES.
- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- Remove the cotter pin, washer, and lower pin from the height adjustment assembly. (Fig. 4-13)
- 4. Remove the carriage bolts, washers, and nuts from the scraper, then remove the scraper from the wheel assembly. (Fig. 4-14)



Front Coulter Disassembly and Assembly (Continued)

- Remove the capscrew and flange nut, then remove the coulter assembly from the row unit. (Fig. 4-15)
- 6. Remove capscrew and flange nut, then remove the coulter and hub from the forks. (Fig. 4-16)
- 7. Remove the capscrews and flange nuts to remove the hub from the coulter. (Fig. 4-17)
- 8. Inspect parts for wear or damage and replace if neccesary.
- 9. Slide the hub into the coulter, then install the capscrews and flange nuts. (Fig. 4-17)
- 10. Install the coulter and hub into the fork, then install the capscrew and flange nut. (Fig. 4-16)
- 11. Install the scraper, carriage bolts, washers, and nuts. (Fig. 4-15)
- 12. Install the coulter assembly onto the row unit, then the capscrew and flange nut. (Fig. 4-14)
- 13. Install the pin, washer, and cotter pin into the height adjuster assembly. (Fig. 4-13)
- 14. Torque all hardware to the specification listed in the maintenance section.



Depth Adjusment Crank Disassembly and Assembly

A WARNING

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
- 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Remove the cotter pin, washer and lower pin from the bottom side of the depth adjustment assembly. (Fig. 4-18)
- 4. Remove the capscrew, lock washer, spring, and detent ball. (Fig. 4-19)
- 5. Remove the roll pin, adjustment nut, and washer, then remove the depth adjustment assembly from the row unit. (Fig. 4-20)
- 6. Inspect parts for wear or damage and replace if neccesary.
- 7. Install the depth adjustment assembly into the row unit, then install the washer, adjustment nut, and roll pin. (Fig. 4-20)
- 8. Install the detent ball, spring, washer, and capscrew. (Fig. 4-19)
- 9. Install the pin, washer, and cotter pin into the lower side of the depth adjustment assembly. (Fig. 4-18)
- 10. Torque all hardware to the specification listed in the maintenance section.



Shank Disassembly and Assembly WARNING **KEEP HANDS CLEAR OF PINCH POINT AREAS.** EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT. • CRUSH HAZARD - BE SURE SHANK IS SUPPORTED BEFORE REMOVING TOGGLE ASSEMBLY. REMOVE ALL SHANK ATTACHMENTS BEFORE PROCEEEDING. 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground. 2. Lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key. 3. Remove the capscrew, lock washer, and FIG. 4-21 hex nut from the top of the tooling shank (Fig. 4-21) Capscrew 4. Remove the cotter pin, flat washers, and Hex Nut locking pin from the tail assembly of the row unit. (Fig. 4-22) Lock Washer IV FIG. 4-22 Cotter Pin Tat Washer Locking Pin

Flat Washer

Shank Disassembly and Assembly (Continued)

- 5. Remove the carriage bolts and flange nuts from the tooling shank, then remove the tooling shank assembly from the row unit. (Fig. 4-23)
- 6. Remove the capscrews, lock washers, and hex nuts from the tooling shank, then remove the listing disc assembly from the tooling shank. (Fig. 4-24)
- 7. Inspect parts for wear or damage and replace if neccesary.
- 8. Install the listing disc assembly onto the tooling shank, then install the capscrews, lock washers, and hex nuts. (Fig. 4-24)
- 9. Install the tooling shank assembly into the row unit using the carriage bolts and flange nuts. (Fig. 4-23)
- 10. Install the locking pin, flat washers, and cotter pin onto the row unit (Fig. 4-22)
- 11. Install the capscrew, lock washer, and hex nut into the top of the tooling shank. (Fig. 4-21)
- 12. Torque all hardware to the specification listed in the maintenance section.





Capscrews

Hex Nuts

a

Listing Disc Unit Disassembly and Assembly

- 6. Remove the width adjust carriage bolts, lock washers, and hex nuts. (Fig. 4-28)
- 7. Remove the capscrews and lock nuts for the assembly body, then remove the listing discs from the assembly body. (Fig. 4-29)
- 8. Remove the carriage bolts, flat washers, lock washers, and hex nuts from the listing discs then remove the listing discs from the adjustment wings. (Fig. 4-30)
- 9. Inspect parts for wear or damage and replace if neccesary.
- 10. Attach the adjustment wings to the listing discs with the capscrews, lock washers, flat washers, and hex nuts. (Fig. 4-30)
- 11. Install the listing discs onto the assembly body using the capscrews and lock nuts. (Fig. 4-29)
- 12. Insert the adjustment carriage bolts through wings and mount to attach listing disc assembly. (Fig. 4-28)
- 13. Install the foot piece with the capscrews, lock washers and hex nuts. (Fig. 4-27)
- 14. Reattach the shovel and trash shield with the plow bolt, carriage bolt, lock washers, and hex nuts. (Fig. 4-26)
- 15. Install the shank onto the listing assembly with the capscrews, lock washers, and hex nuts. (Fig. 4-25)
- 16. Install the listing disc assembly onto the row unit, then torque all hardware to the specification listed in the maintenance section.





Listing Disc and Hub Disassembly and Assembly

- 6. Remove the washers and snap rings from the hub, then remove the bearings. (Fig. 4-33)
- 7. Inspect parts for wear or damage and replace if neccesary.
- 8. Install the bearings into the hub, then install the snap rings and washers. (Fig. 4-33)
- 9. Attach the hub to the listing disc assembly, then install the capscrew, washer, and hex nut. (Fig. 4-32) Torque all hardware to the specifications listed in the maintenance section.
- 10. Install the hub cap and snap ring. (Fig. 4-32)
- 11. Install the listing disc, carriage bolts and lock nuts. (Fig. 4-31)
- 12. Torque all hardware to the specifications listed in the maintenance section.





Vertical Fold Toolbar Internal Cylinder Removal (Continued)

- 9. Remove the capscrew, lock washer and flat washer from the cylinder pin, then remove the link pin from the assembly. (Fig. 4-36)
- 10. Remove the snap ring and cylinder pin, then remove the cylinder from the toolbar. (Fig. 4-37 and 4-38)

<u>NOTE:</u> Depending on configuration the rear cylinder pin may be hidden behind a row unit.

- 11. Inspect parts for wear or damage and replace if neccesary.
- 12. Route the hydraulic lines and slide the wing cylinder into the toolbar, then install the rear cylinder pin and snap ring. (Fig. 4-38 and 4-37)
- 13. Install the wing pin and the retaining hardware. (Fig. 4-36) Torque the hardware to the specification listed in the maintenance section.

<u>NOTE:</u> If wing fold position has changed, ensure that the wing stops are also changed to match the new fold position.

- 14. Reattach the hydraulic lines onto the T fittings or elbow fittings. (Fig. 4-35 and 4-34)
- 15. Torque all fittings to the specification listed in the maintenance section. Purge the hydraulic system and test for proper function. See "Purging Hydraulic System" in this section.



Stack Fold Toolbar Cylinder Removal



- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- 1. Leave the unit attached to the tractor, raise the unit, then lower the support stands to the ground.
- 2. Unfold the wings completly, then lower the unit until it is supported by the stands, then set the tractor's parking brake and remove the key.
- 3. Relieve hydraulic pressure from the lines, then store the hydraulic lines on the courtesy plaque.
- 4. Remove the hydraulic hoses from the elbow fittings, then remove the fittings from the hydraulic cylinders. (Fig. 4-39)
- 5. Remove the cotter pins from the hydraulic cylinder pins. (Fig. 4-40)



Stack Fold Toolbar Cylinder Removal (Continued)

- 6. Attach a suitable lifting device rated for a minimum of 500lbs, then remove the cylinder pins and the hydraulic cylinders from the toolbar. (Fig. 4-41)
- 7. Inspect parts for wear or damage and replace if neccesary.
- Install the cylinders onto the toolbar, then install the cylinder pins and cotter pins. (Fig, 4-41 and 4-40)
- 9. Install the hydraulic fittings onto the cylinders, then install the hydraulic hoses onto the hydraulic fittings. (Fig. 4-39)
- 10. Torque all hardware and fittings to the specification listed in the maintenance section.



Storage

- Do the following before placing the implement in storage:
- 1. Remove dirt and trash which could cause rusting.
- 2. Repaint any chipped or scraped areas.
- 3. Coat all earth moving surfaces with grease or suitable rust preventative.
- 4. Inspect for damage or worn parts, replace before next season.
- 5. Store implement inside, away from livestock.
- 6. Block up implement to keep tires and ground tools off ground.
- 7. Replace all worn, torn or faded decals and reflectors.

Troubleshooting

Problem Possible Cause		Corrective Action	
	Toolbar is running too high	Adjust tractor hitch until toolbar is running 30-32 inches above ground level	
Row Unit Tooling	Row unit down pressure is too low	is Increase row unit down pressure	
Does Not Penetrate Soil	Center coulter depth is too shallow	Adjust center coulter depth to be lower	
	Row unit depth is too shallow	Increase row unit depth	
Implement Does Not Trail Straight	Gauge wheel and tooling adjustments not uniform		

Complete Torque Chart

Capscrews - Grade 5

NOTE:

- Grade 5 capscrews can be identified by three radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS
1/4-20	8-10	11-13
1/4-28	9-11	12-15
5/16-18	15-17	20-23
5/16-24	17-19	23-26
3/8-16	25-28	34-38
3/8-24	28-31	38-42
7/16-14	40-45	54-61
7/16-20	45-50	61-68
1/2-13	62-68	84-92
1/2-20	68-75	92-102
9/16-12	90-98	122-133
9/16-18	100-110	134-148
5/8-11	120-135	162-183
5/8-18	124-137	168-186
3/4-10	200-220	270-300
3/4-16	210-230	285-310
7/8-9	330-350	425-475
7/8-14	360-380	460-515
1-8	500-525	675-710
1-14	540-560	730-760
1 1/8-7	600-635	815-860
1 1/8-12	665-700	920-950
1 1/4-7	850-895	1150-1215
1 1/4-12	940-990	1275-1340
1 3/8-6	1125-1175	1525-1590
1 3/8-12	1280-1335	1735-1810
1 1/2-6	1500-1560	2035-2115
1 1/2-12	1685-1755	2285-2380

IMPORTANT

• Follow these torque recommendations except when specified in text.

Complete Torque Chart (Continued)

Capscrews - Grade 8

NOTE:

- Grade 8 capscrews can be identified by six radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.

SIZE	FOOT POUNDS	NEWTON METERS
5/16-18	20-22	27-30
5/16-24	21-23	28-31
3/8-16	35-39	47-53
3/8-24	36-41	49-55
7/16-14	54-58	73-78
7/16-20	55-60	75-80
1/2-13	82-88	110-120
1/2-20	94-99	125-135
9/16-12	127-134	170-180
9/16-18	147-155	199-210
5/8-11	160-170	215-230
5/8-18	165-175	225-235
3/4-10	280-295	380-400
3/4-16	330-365	445-495
7/8-9	410-430	555-580
7/8-14	420-440	570-595
1-8	630-650	850-880
1-14	680-700	920-950
1 1/8-7	900-930	1220-1260
1 1/8-12	930-950	1260-1290
1 1/4-7	1250-1300	1695-1760
1 1/4-12	1280-1320	1735-1790

IMPORTANT

• Follow these torque recommendations except when specified in text.

Hydraulic Fittings - Torque and Installation

Tightening O-Ring Fittings

- 1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
- 2. For adjustable fittings, insure the jam nut and washer are fully backed up.
- 3. Lubricate the O-ring and threads on the fitting.
- 4. Turn the fitting into the port until it is finger tight.
- 5. For adjustable fittings, set in the desired position, then snug the jam nut.
- 6. Using a wrench, torque the fitting to the value in the below table. For adjustable fittings the jam nut will be tightened.

Note: Never use a power tool to install a fitting.

Dash Size	Thread Size	Straight Stud Torque (Ft-Lbs)	Adjustable Stud Torque (Ft-Lbs)
-5	1/2-20	14-19	10-14
-6	9/16-18	18-24	12-16
-8	3/4-16	27-43	20-30
-10	7/8-14	36-48	30-36
-12	1-1/16-12	65-75	44-54
-14	1-3/16-12	75-99	53-70
-16	1-5/16-12	85-123	59-80
-20	1-5/8"-12	115-161	75-100
-24	1-7/8"-12	125-170	105-125



Hydraulic Fittings - Torque and Installation

Tightening JIC Fittings

- 1. Inspect all components for damage or contamination. Do not connect any other type of fitting to a JIC fitting.
- 2. Lubricate the threads.
- 3. Turn the fitting into the port until it bottoms out.
- Use one wrench on the fixed hex on the hose to prevent twisting and a second on the swivel. Tighten the fitting another 60 degrees (or one flat)

Note: Never use a power tool to install a fitting





SECTION V Parts

Decals	5-2
Hitch Components	5-4
Toolbar Components	5-5
Hitch Clamp Components	5-6
Toolbar Stand Components	5-7
180 Degree Wing Rest Components	
170 Degree Wing Rest Components	5-9
Adjustable Wing Rest Components	5-10
Toolbar Hinge Components	5-12
Double Toolbar Light Brackets and SMV Sign Components	5-14
Single Toolbar Light Brackets and SMV Sign Components	5-15
180 Degree Wing Fold Assembly Components	5-16
170 Degree Wing Fold Assembly Components	5-18
Row Unit Main Frame and Front Fork Components	5-20
Parellel Linkage and Mount Components	5-21
Depth Band Coulter Components	5-22
Depth Adjustment Assembly Components	5-24
Row Unit Shank Mount Components	5-26
Sweep and Mount Components	5-28
Bedlisting Assembly Components	5-30
Bedlisting Disc and Hub Components	5-32
Hydraulic Cylinders	5-33
Hydraulic Components	5-34
Light Kit Components	5-36

Decals



Decals

				-
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L153-430	Orthman by Unverferth Decal	2	
2	L153-1001	Bed Lister, 7050 Decal	2	
3	L153-171	Orange Reflective Decal	6	
4	L153-172	Yellow Reflective Decal	6	
5	L153-173	Red Reflective Decal	8	
6	L153-109	SMV Sign	1	
7	L153-044	Operation Checklist Decal	2	
8	L153-013	Wing Hinge Warning Decal	2	
9	L153-256	Operator Manual Decal	1	
10	L153-180	Cylinder Pin Caution Decal	2	
11	95737	Serial Number Tag	2	
12	L153-029	Grease Interval Decal	2	
13	L152-164	Touch Up Paint	1	Not Shown

Hitch Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L601-973	Hitch Package, 12R30 Vertical Fold		
1	L601-176	Hitch Package, 12R36 Vertical Fold, 12R38 Stack Fold, 12R40 Stack Fold, 16R30 Stack Fold	1	Includes Items 2-9
	L601-141	Hitch Package, 12R30 Stack Fold		
	L601-153	Hitch Package, 12R36 Stack Fold		
2	L302-592	Lower Hitch Pin	2	
3	L302-591	Upper Hitch Pin	1	
4	L104-036	Lynch Pin, 7/16" x 2"	2	
5	L104-022	Cotter Pin, 1/4" x 2 1/2"	2	
6	L104-102	Roll Pin, 1/2" x 2 1/2"	2	
7	L100-164	Capscrew, 3/4"-10UNC x 4 1/2" Grade 5	1	
8	L108-022	Lock Washer, 3/4"	1	
9	L102-009	Hex Nut, 3/4"-10UNC Grade 5	1	

Toolbar Components



Hitch Clamp Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L601-380	Clamp Assembly, Heavy Duty - Medium	1	
2	L601-360	Clamp Assembly, Regular Duty - Medium	1	
3	L302-571	Clamp, Heavy Duty	2	
4	L302-595	Clamp, Regular Duty	2	
5	L100-199	Capscrew, 1"-8UNC x 10" Grade 8	3	
6	L100-274	Capscrew, 3/4"-10UNC x 9 1/2" Grade 8	3	
7	L108-025	Lock Washer, 1"	3	
8	L108-022	Lock Washer, 3/4"	3	
9	L102-111	Hex Nut, 1"-8UNC Grade 5	3	
10	L102-009	Hex Nut, 3/4"-10UNC Grade 5	3	

Toolbar Stand Components





180 Degree Wing Rest Components



170 Degree Wing Fold Assembly Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-524	170 Degree Wing Rest	1	
2	L146-008	Rubber Bumper	2	
3	L315-031	U-Bolt, 3/4"-10UNC x 7" x 7"	1	
4	L100-107	Capscrew, 3/8"-16UNC x 1"	2	
5	L108-022	Lock Washer, 3/4"	2	
6	L108-007	Flat Washer, 3/8"	2	
7	L108-018	Lock Washer, 3/8"	2	
8	L102-009	Hex Nut, 3/4"-10UNC	2	

Adjustable Wing Rest Components



Adjustable Wing Rest Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L600-074	Adjustbale Wing Rest Kit	1	
	L600-101	Adjustable Wing Rest Kit (Short)		
1	L300-065	Mount Bracket	1	
2	L300-071	Reciever Tube	1	
3	L300-067	Extension Tube	1	
4	L300-068	Rest Plate	1	
5	L300-066	Pivot Rest Bushing	1	
6	L315-030	U-Bolt, 5/8"-11UNC x 7" x 7"	2	
7	L100-290	Capscrew, 1"-8UNC x 6" Grade 5	1	
8	L100-154	Capcsrew, 5/8"-11UNC x 6" Grade 5	1	
9	L100-219	Capscrew, 5/8"-11UNC x 4" Grade 5	2	
10	L108-004	Flat Washer, 1"	2	
11	L108-002	Flat Washer, 5/8"	2	
12	L108-021	Lock Washer, 5/8"	3	
13	L108-025	Lock Washer, 1"	1	
14	L102-008	Hex Nut, 5/8"-11UNC	7	
15	L102-111	Hex Nut, 1"-8UNC	1	

Toolbar Hinge Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-146	Toolbar Pivot Pin	1	
2	L301-156	Toolbar Locking Pin	1	
3	L134-005	Toolbar Pivot Bushing	2	
4	L134-040	Toolbar Cylindser Bushing	2	
5	L110-001	Grease Fitting	2	
6	L104-080	Roll Pin	1	
7	L134-023	Spacer Washer	2	
8	L104-065	Lynch Pin	1	
9	L100-471	Wing Level Adjustment Bolt 1 1/4"-12UNF x 3"	1	
10	L102-077	Jam Nut, 1 1/4"-12UNF	1	
Notes

Double Toolbar Light Mounts and SMV Sign Components



<u> </u>				
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L341-822	Outer Light Mount (Left)	1	
	L341-821	Outer Light Mount (Right)	1	
2	L341-825	Inner Light Mount (Left)	1	
2	L341-824	Inner Light Mount (Right)	1	
3	L153-109	SMV Sign	1	
4	L333-499	Inner Light Mount Strap	2	
5	L341-828	SMV Sign Mount	1	
6	L100-582	Carriage Bolt, 1/4"-20UNC x 6" Grade 2	4	
7	L100-001	Carriage Bolt, 1/4-20UNC x 1" Grade 8	4	
8	L100-107	Capscrew, 3/8"-16UNC x 1" Grade 5	2	
9	L106-077	Capscrew, 1/4"-20 x 1"	2	
10	L102-227	Flange Nut, 1/4"-20UNC Grade 5	4	
11	L102-060	Flange Nut, 3/8"-16UNC Grade 5	2	
12	L102-085	Flange Nut, 1/4"-20UNC Grade 2	2	

Single Toolbar Light Mounts and SMV Sign Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L301-567	Adjustable Light Bracket, Right	1	
2	L301-568	Adjustable Light Bracket, Left	1	
3	L301-563	Adjustable Light Bracket Arm	2	
4	L301-562	Adjustable Light Bracket Mount	2	
5	L301-574	Inner Light Mount	2	
6	L153-109	SMV Sign	1	
7	L385-183	SMV Sign Mount	1	
8	L333-499	SMV Mount Strap	1	
9	L315-026	U-Bolt, 3/8"-16UNC x 7' x 7"	2	
10	L100-113	Capscrew, 3/8"-16UNC x 2 3/4" Grade 5	10	
11	L100-575	Carriage Bolt, 1/4"-20UNC x 8"	2	
12	L106-077	Capscrew, 1/4"-20UNC x 1"	2	
13	L108-018	Lock Washer, 3/8"	4	
14	L108-027	Lock Washer, 1/4"	2	
15	L102-056	Lock Nut, 3/8"-16UNC	8	
16	L102-002	Hex Nut, 1/4"-20UNC	2	
17	L102-085	Flange Nut, 1/4"-20UNC	2	
18	L102-005	Hex Nut, 3/8"-16UNC	4	



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L194-499	Cylinder, 4" x 24"	1	
2	L301-980	Connecting Strap	2	
3	L301-548	Linkage Pin	1	
4	L301-982	Guide Wheel	2	
5	L301-512	Friction Plate	2	
6	L301-948	Cylinder Pin	1	
7	L312-082	Spacer	2	
8	L134-040	Split Bushing	4	
9	L134-041	Flat Washer, 2 1/4" x 1 1/2"	4	
10	L104-052	Snap Ring, 1 1/2" External	2	
11	L301-500	Cylinder Pin	1	
12	L340-078	Adapter, 9/16" MB x 9/16" MJICC	2	
13	L340-057	Restrictor, 3/8" x 3/8" x .055	2	
14	L104-053	Snap Ring, 1" External	2	
15	L100-098	Capscrew, 3/8"-16UNC x 3" Grade 5	1	
16	L106-107	Flat Head Screw, 3/8" x 3/4"	8	
17	L100-115	Capscrew, 1/2"-13UNC x 1 1/4" Grade 5	1	
18	L100-125	Capscrew, 1/2"-13UNC x 4 1/4" Grade 5	2	
19	L108-001	Flat Washer, 1/2"	1	
20	L108-020	Lock Washer, 1/2"	1	
21	L102-007	Hex Nut, 1/2"-13UNC	2	
22	L102-027	Lock Nut, 3/8"-16UNC	1	



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L194-499	Hydraulic Cylinder, 4" x 24"	1	
2	L301-502	Connecting Strap	2	
3	L301-548	Linkage Pin	1	
4	L301-802	Guide Wheel	2	
5	L134-047	Split Bushing	2	
6	L321-151	Cylinder Pin	1	
7	L301-800	Cylinder Pin	1	
8	L317-714	Spacer	2	
9	L340-078	Adapter, 9/16" MB x 9/16" MJ	2	
10	L340-057	Restrictor, 3/8" x 3/8" x .055"	2	
11	L104-052	Snap Ring, 1" Extrernal	2	
12	L110-008	Grease Fitting, 1/4" x 90 Degrees	2	
13	L100-125	Capscrew, 1/2"-13UNC x 4 414" Grade 5	2	
14	L100-115	Capscrew, 1/2"-13UNC x 1 1/4" Grade 5	1	
15	L100-098	Capscrew, 3/8"-16UNC x 3" Grade 5	1	
16	L134-041	Flat Washer, 2 1/4" x 1 1/2"	2	
17	L108-001	Flat Washer, 1/2"	1	
18	L108-020	Lock Washer, 1/2"	1	
19	L102-027	Lock Nut, 3/8"-16UNC	1	
20	L102-007	Hex Nut, 1/2"-13UNC		

7050 Bed Lister - Parts

Row Unit Main Frame and Front Fork Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L385-358	Main Frame	1	
2	L385-136	Fork Assmebly	1	
3	L385-168	Scraper	1	
4	L385-327	Brace LH	1	
5	L385-326	Brace, RH	1	
6	L134-067	Bushing	4	
7	L385-132	Bushing	1	
8	L110-001	Grease Fitting, 1/4" NPT	4	
9	L100-150	Capscrew 5/8"-11UNC x 9" Grade 5	1	
10	L100-148	Capscrew 5/8"-11UNC x 8" Grade 5	1	
11	L100-176	Capscrew 3/4"-10UNC x 10 1/2" Grade 8	2	
12	L100-054	Carriage Bolt 1/2"-13UNC x 1"	4	
13	L100-003	Carriage Bolt 5/16"-18UNC x 1"	2	
14	L108-006	Flat Washer 5/16"	2	
15	L108-017	Lock washer 5/16"	2	
16	L102-104	Flange Nut 5/8"-11UNC	2	
17	L102-004	Hex Nut 5/16"-18UNC	2	
18	L102-112	Flange Nut 1/2"-13UNC	4	
19	L102-121	Flanged Lock Nut 3/4"-10UNC	2	

Parallel Linkage and Mount Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES Inlcudes Items 1, 7, 8,
	L387-522	Mount Assembly	1	11, 13, and 16-18
1	L387-525	Mounting Bracket	1	
2	L385-095	Lower Linkage	1	
3	L385-093	Upper Linkage	1	
4	L311-401	Linkage Spring	2	
5	L385-360	Spring Assmebly Trunnion	2	
6	L340-029	Spring Plug	4	
7	L387-521	Wedge	1	
8	L134-067	Bushing	2	
9	L285-140	Bushing	2	
10	L104-030	Cotter Pin	4	
	L104 030		4	
11	L100-220	Capscrew 1/2"-13UNC x 3 3/4" Grade 5	2	
11 12				
	L100-220	Capscrew 1/2"-13UNC x 3 3/4" Grade 5	2	
12	L100-220 L100-288	Capscrew 1/2"-13UNC x 3 3/4" Grade 5 Capscrew 1/2"-13UNC x 3 1/2" Grade 5	2 2	
12 13	L100-220 L100-288 L100-490	Capscrew 1/2"-13UNC x 3 3/4" Grade 5 Capscrew 1/2"-13UNC x 3 1/2" Grade 5 Capscrew 3/4"-10UNC x 4" Full Thread	2 2 1	
12 13 14	L100-220 L100-288 L100-490 L100-176	Capscrew 1/2"-13UNC x 3 3/4" Grade 5 Capscrew 1/2"-13UNC x 3 1/2" Grade 5 Capscrew 3/4"-10UNC x 4" Full Thread Capscrew 3/4"-10UNC x 10 1/2" Grade 8	2 2 1 2	
12 13 14 15	L100-220 L100-288 L100-490 L100-176 L108-001	Capscrew 1/2"-13UNC x 3 3/4" Grade 5 Capscrew 1/2"-13UNC x 3 1/2" Grade 5 Capscrew 3/4"-10UNC x 4" Full Thread Capscrew 3/4"-10UNC x 10 1/2" Grade 8 Flat Washer 1/2" SAE	2 2 1 2 4	

Depth Band Coulter Components



Notes

Depth Adjustment Assembly Components



Depth Adjustment Assembly Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	L385-001	Adjustment Crank Assembly	1	
1	L385-003	Upper Adjustment Crank	1	
2	L385-007	Lower Adjustment Crank	1	
3	L385-011	Adjustming Crank Screw	1	
4	L385-002	Indicator Strap	1	
5	L153-152	Depth Indicator Decal	1	
6	L313-279	Adjustment Screw Nut	1	
7	L110-004	Grease Fitting	1	
8	L152-400	Ball Bearing 5/16" Dia.	1	
9	L148-055	Spring	1	
10	L104-088	Clevis Pin 1/2" x 2 3/4"	1	
11	L104-047	Cotter Pin 1/8" x 1"	1	
12	L104-198	Grooved Pin 1/4" x 1 1/4"	1	
13	L319-127	Adjustment Screw Bushing	2	
14	L108-001	Flat Washer 1/2" SAE	1	
15	L313-302	Adjustment Screw Washer	1	
16	L102-029	Lock Nut 5/8"-11UNC Grade 2	2	
17	L108-051	Lock Washer, Internal Tooth 3/8"	1	
18	L100-279	Capscrew 3/8"-16UNC x 1/2" Grade 5	1	
19	L100-037	Carriage Bolt 5/8"-11UNC x 1 1/2" Grade 5	2	
20	L313-767	Depth Adjustment Crank Holder	1	
21	L313-770	Depth Adjustment Crank	1	
22	L104-104	Lynch Pin 1/4" x 1 1/4"	1	

Row Unit Shank Mount Components



Row Unit Shank Mount Components

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ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L385-260	Shank Clamp Assembly	1	
2	L385-203	LH Saddle	1	
3	L385-202	RH Saddle	1	
4	L311-024	Tooling Shank	1	
5	L100-026	Carriage Bolt, 5/8"-11UNC x 3" Grade 5	2	
6	L100-014	Carriage Bolt, 1/2"-13UNC x 1 3/4" Grade 5	6	
7	L100-013	Carriage Bolt, 1/2"-13UNC x 1 1/2" Grade 5	4	
8	L100-120	Capscrew, 1/2"-13UNC x 2 1/2" Grade 5	2	
9	L100-117	Capscrew, 1/2"-13UNC x 1 3/4" Grade 5	1	
10	L108-020	Lock Washer, 1/2"	3	
11	L102-109	Flange Nut, 1/2"-13UNC Grade 5	10	
12	L102-108	Flange Nut, 5/8"-11UNC Grade 5	2	
13	L102-007	Hex Nut, 1/2"-13UNC Grade 5	3	

Sweep and Sweep Mount Components



Notes

Bedlisting Assembly Components



Bedlisting Assembly Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L308-284	Bedlister Mount Beam	1	
2	L308-295	Bedlister Mounting Bracket	2	
3	L308-280	Bedlister Mounting Bracket Width Adjuster	2	
4	L308-291	Bedlister Mount Shaft, 12"	2	
5	L100-013	Carriage Bolt, 1/2"-13UNC x 1 1/2" Grade 5	8	
6	L108-020	Lock Washer, 1/2"	8	
7	L108-009	Flat Washer, 1/2"	4	
8	L102-007	Hex Nut, 1/2"-13UNC	7	
9	L102-028	Lock Nut, 1/2"-13UNC	2	

Bedlisting Disc and Hub Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L312-337	Hub Assembly	1	Includes items 3 and 4
2	L166-005	Listing Disc	1	
3	L120-070	Bearing, 3/4" Bore	2	
4	L104-061	Snap Ring, Internal 2 3/8"	2	
5	L104-105	Snap Ring, Internal 2 3/8" Plated	1	
6	L319-126	Hub Cap	1	
7	L150-018	0-Ring, 2 1/2" x 2 1/8" ID	1	
8	L100-202	Capscrew, 3/4"-10UNC x 3 3/4" Grade 5	1	
9	L100-008	Carriage Bolt, 3/8"-16UNC x 3/4" Grade 5	6	
10	L108-003	Flat Washer, 3/4" SAE	2	
11	L108-022	Lock Washer, 3/4"	1	
12	L102-009	Hex Nut, 3/4"-10UNC Grade 5	1	
13	L102-027	Lock Nut, 3/8"-16UNC Grade 2	6	

Hydraulic Cylinders



Hydraulic Components



Hydraulic Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	L198-221	Hydrraulic Hose Grip	2	
2	L198-313	Hydraulic Hose Tip Adapter	2	
3	L140-029	Hydraulic Hose Tip, 3/4" O-Ring	2	
4	L152-710	Hydraulic Hose Tip Cover	2	
5	L198-203	T Fitting, 9/16" x 9/16" x 9/16" FJX	2	
6	L196-563	Hydraulic Hose, 60"	2	1/4" - 9/16" FJX x 9/16" FJX
	L302-897	Hydrauliuc Hose, 36"	4	1/4" - 9/16" FJX x 9/16" FJX
	L301-464	Hydrauliuc Hose, 48"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-111	Hydrauliuc Hose, 60"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-112	Hydrauliuc Hose, 72"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-140	Hydrauliuc Hose, 84"	4	1/4" - 9/16" FJX x 9/16" FJX
7	L196-113	Hydrauliuc Hose, 96"	4	1/4" - 9/16" FJX x 9/16" FJX
1	L196-141	Hydrauliuc Hose, 108"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-114	Hydrauliuc Hose, 120"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-118	Hydrauliuc Hose, 132"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-119	Hydrauliuc Hose, 144"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-454	Hydrauliuc Hose, 156"	4	1/4" - 9/16" FJX x 9/16" FJX
	L196-165	Hydrauliuc Hose, 168"	4	1/4" - 9/16" FJX x 9/16" FJX

Light Kit Components







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