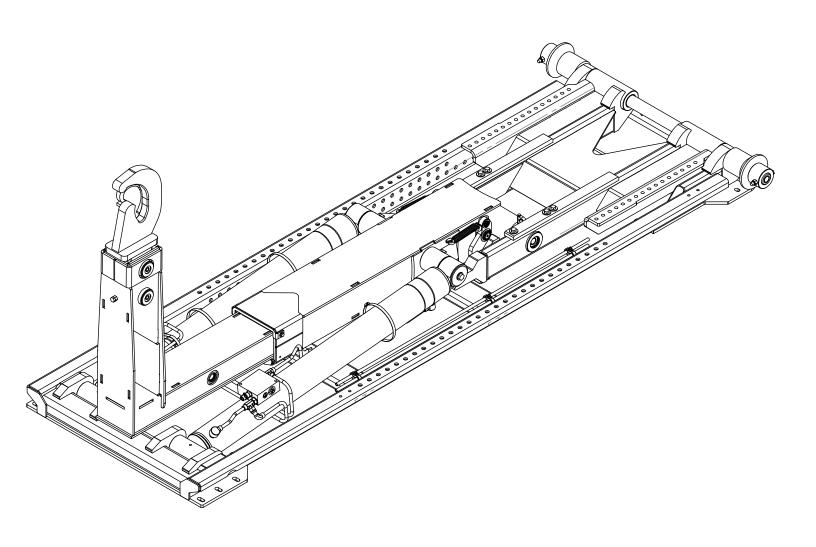


NXT18 Hooklift Owner's Manual

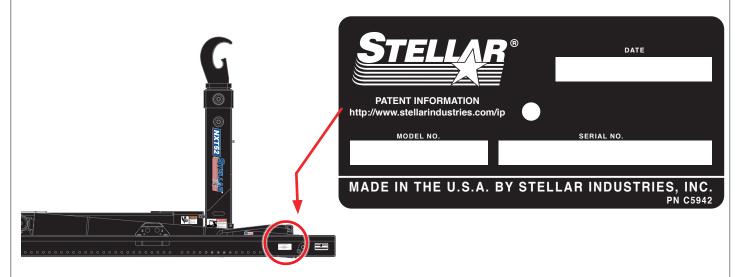
Safety • Operation • Maintenance • Troubleshooting



Stellar Industries, Inc. 190 State Street PO Box 169 Garner, IA 50438 800-321-3741 Fax: 641-923-2811

Fax: 641-923-2811 www.stellarindustries.com

The serial tag should be located on the right side (passenger side) of the base assembly:



NOTICE

Although clear data on cold weather performance from every steel manufacturer is not available for all types and thicknesses of steel, Stellar Industries is confident that the weldments on our products will operate to 100% of their intended purpose to temperatures down to -40° F / C.

It is recommended it Stellar manufactured equipment needs to be used in temperatures below - 40° F / C, the operator should pull the unit into a climate-controlled area and allow the weldments to warm up to and then maintain a temperature above this level.

WARNING

Operating, maintaining, and servicing a Stellar product may expose you to chemicals including, but not limited to, engine exhaust, carbon monoxide, phthalates, and lead. These chemicals are known to the State of California to cause cancer and birth defects (or other reproductive harm). To keep your exposure to a minimum, be sure to avoid breathing exhaust and service your Stellar product in a well-ventilated area while wearing gloves or washing your hands frequently. For more information, go to www.P65Warnings.ca.gov/passenger-vehicle.



For Technical Questions, Information, Parts, or Warranty, Call Toll-Free at 800-321-3741

Hours: Monday - Friday, 8:00 a.m. - 5:00 p.m. CST Or email at the following addresses:

| Technical Questions, and Information | service@stellarindustries.com |
|--------------------------------------|--------------------------------|
| Order Parts | parts@stellarindustries.com |
| Warranty Information | warranty@stellarindustries.com |

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Introduction

Stellar® Hooklifts are designed to provide safe and dependable service for a variety of operations. With proper use and maintenance, these cranes will operate at peak performance for many years.

To promote this longevity, carefully study the information contained in this manual before putting the equipment into service. Though it is not intended to be a training manual for beginners, this manual should provide solid guidelines for the safe and proper usage of the hooklift.

Once you feel comfortable with the material contained in this manual, strive to exercise your knowledge as you safely operate and maintain the hooklift. This process is vital to the proper use of the unit.

A copy of this manual is provided with every hooklift and can be found in the hard plastic manual case that is installed on the chassis. A copy of this manual shall remain with the hooklift at all times.

Throughout the manual, three signal words will be used to bring attention to important items: Information contained within this manual does not cover all maintenance, operating, or repair instructions pertinent to all possible situations. Please be aware that some sections of this manual contain information

NOTICE

A NOTICE signal word indicates a practice not related to physical injury.



A WARNING signal word indicates a hazardous situation which, if not avoided, could result in death or serious injury.



A DANGER signal word indicates a hazardous situation which, if not avoided, will result in death or serious injury.

pertaining to Stellar® manufactured hooklifts in general and may or may not apply to your specific model.

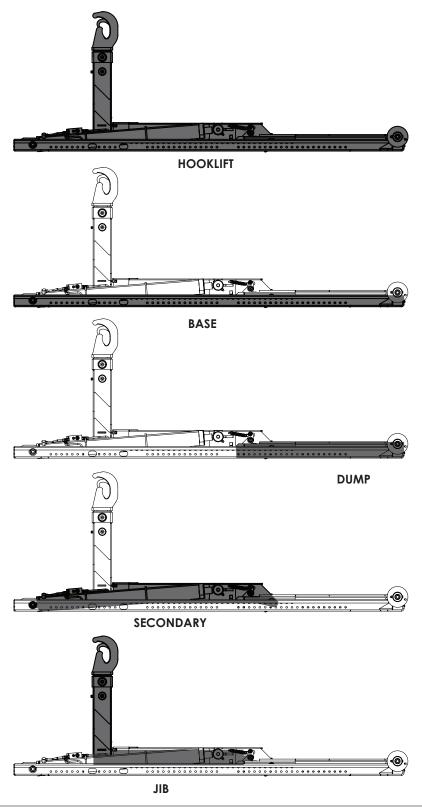
This manual is not binding. Stellar Industries, Inc. reserves the right to change, at any time, any or all of the items, components, and parts deemed necessary for product improvement or commercial/production purposes. This right is kept with no requirement or obligation for immediate mandatory updating of this manual.

If more information is required or technical assistance is needed, or if you feel that any part of this manual is unclear or incorrect, please contact the Stellar Customer Service Department by phone at 800-321-3741 or email at service@stellarindustries.com.

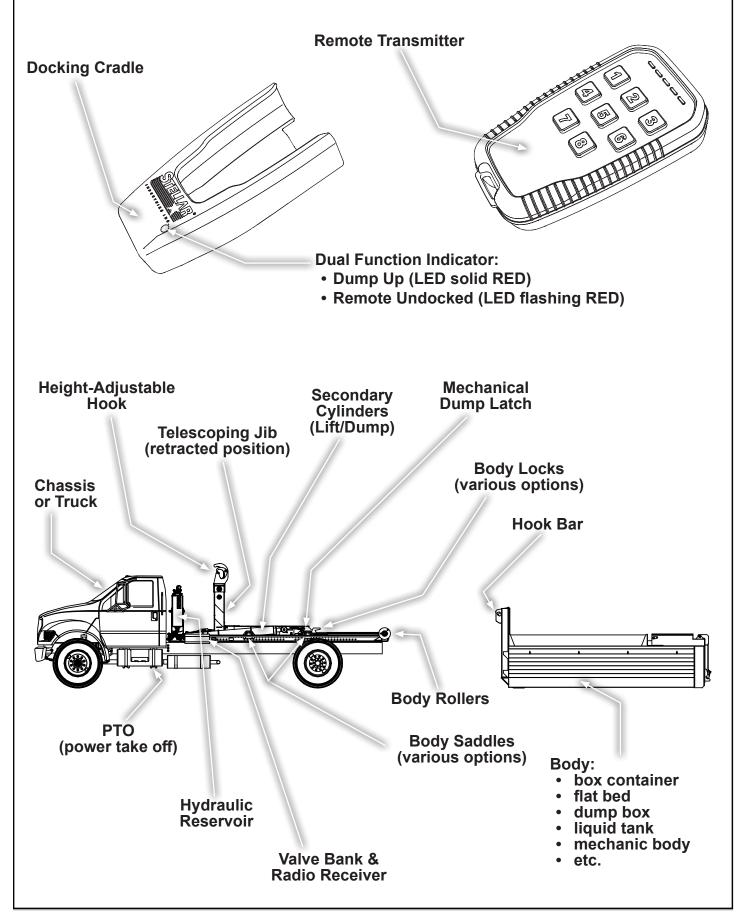
Hooklift Sections

The Stellar® NXT Hooklift is a hydraulic, body-loading device when mounted on a truck chassis. It can handle a multitude of bodies.

The NXT Hooklift consists of four basic parts: the base, dump, secondary, and jib sections. Please take the time to familiarize yourself with the various components. Knowing the proper terminology is necessary to get the full benefit of this manual.



Hooklift System Components and Terms



Chapter 1 - Operations

Chapter Contents

| General Operation | ∠ |
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General Operation

Safety should be the number one thought on every operator's mind. Three factors should exist for safe operation: a qualified operator, well-maintained equipment, and the proper use of this equipment.

This chapter contains information regarding the safety and operation of Stellar® manufactured Hooklifts and should be read and understood completely by everyone working with or near the hooklift before putting the unit into operation.



Failure to follow operating, maintenance, or safety instructions can result in death or serious injury.

It is the responsibility of the owner to instruct the operator in the safe operation of the equipment and to provide the operator with properly maintained equipment.

AWARNING

sons.

Stellar® Hooklift operators must conform to the qualifications specified in this manual. Trainees or untrained persons shall be under the direct supervision of qualified per-

Operators shall consult with the owner of the equipment regarding current safety regulations and required personal protective equipment.

Operators should never operate the hooklift while under the adverse influence of alcohol, drugs, or medication.

Please take note that Stellar Industries, Inc. is not liable for accidents incurred by the hooklift because of non-fulfillment from the operator's side of current rules, laws, and regulations.

Operator Requirements

Operation is limited to the following people:

- Qualified individual.
- 2. Trainees under direct supervision of the qualified individual.
- 3. Test or maintenance individual.
- 4. Hooklift Inspector.

Qualified individuals must:

- 1. Demonstrate the ability to understand all decals, the owner's manual, and any other information required for safe operation of the hooklift.
- 2. Be able to demonstrate the ability to safely control the hooklift.
- 3. Know all pertinent safety regulations.
- 4. Be responsible for maintenance requirements.
- 5. Understand and be fully capable of implementing all emergency procedures.
- 6. Understand all operating procedures as outlined by this manual.

Pre-Operation Inspection

Before operating the equipment, make sure all regular maintenance has been performed. Each day, inspect the hooklift for all of the following:

- · Hydraulic reservoir oil level.
- Hydraulic hoses and tubing for evidence of damage Presence of this owner's manual such as blistering, crushing, or abrasion.
- All safety covers for proper installation.
- · Equipment for missing, illegible, or defaced operating decals and safety signs.
- Structural weldments for bends, cracks, or breaks

- All pins and keepers for proper installation
- · All pins, bushings, shafts, and gears for wear, cracks, or distortion to include all pivot points, and bushings
- Replace/repair as necessary prior to operation.

Suggested PPE While Operating Hooklift











Operating Stellar® NXT Hooklift

NXT Hooklift Radio Remote Control Functions

(P) PARKING BRAKE INDICATOR

To operate the hooklift with the remote undocked from the cradle, you will have to set the parking brake. When set, the Parking Brake Indicator will illuminate YELLOW.

→ LOW HYDRAULIC FLOW INDICATOR

The YELLOW indicator under the turtle will illuminate if the hydraulic system is in low flow mode.

ACC1

STOP

STELLAR

HIGH HYDRAULIC FLOW INDICATOR

The YELLOW indicator under the rabbit will illuminate if the hydraulic system is in high flow mode.

PRADIO LINK INDICATOR

While the remote transmitter is linked to the radio receiver, the GREEN indicator under the linked icon will be illuminated.

DISCRIPTION LOW BATTERY INDICATOR

When battery capacity drops too low the RED low battery indicator will illuminate. Install new batteries as soon as possible.

<u>i←</u> JIB EXTEND BUTTON

Position jib forward for travel or to begin dumping procedure.

ACC1ACCESSORY 1 BUTTON

User-installed accessory option such as horn, work lights, remote body locks, etc. See page 19 for more info.

!__ SECONDARY RETRACT BUTTON

If the jib is in the extended position and dump latches are engaged, the secondary retract button will lower the body after finishing a dump cycle. If the jib is retracted and dump latches disengaged, it will load the body the hook is hooked to or return the empty hook/secondary after unloading a body.

! SECONDARY EXTEND BUTTON

If the jib is in the extended position and dump latches are engaged, the secondary extend button will operate as a dump function. If the jib is retracted and dump latches disengaged, it will position the hook to grab a body.

<u>→</u> JIB RETRACT BUTTON

Position jib completely rearward before extending secondary for deploying hook to drop off or pick up a body.

ACC2 ACCESSORY 2 BUTTON

User-installed accessory option such as horn, work lights, remote body locks, etc. See page 19 for more info.

DOWER UP (LINK) BUTTON

To wake up and link the radio system, press the GRAY power button and hold it until the GREEN linked indicator illuminates.

STOP - ALL SYSTEM QUICK STOP

Press the RED STOP button to disengage the remote and cease all hooklift functions. This can be in an emergency shutdown situation or after finishing a desired hooklift operation.

Fn FUNCTION (SPEED) BUTTON

After remote is actively linked (A), you can change the rate of hydraulic flow by pressing the gray button to cycle between high and low (B & C).

- Be familiar with the sequence and operation of the hooklift controls.
- Be constantly aware of the hooklift position when operating the controls.
- In extreme cold, allow hydraulic system to warm up completely before use to avoid jumpy cylinder movement from viscosity changes in oil.
- **NOTICE** If transmitter sits idle for 5 minutes, it will shut down and have to be rewoken and linked with the GRAY power button (\diamondsuit) .



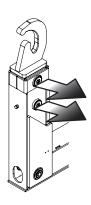
Understand the Area and Plan the Lift or Drop

Thoroughly plan the lift by understanding the work site area and your loads before positioning the vehicle. Consider the following:

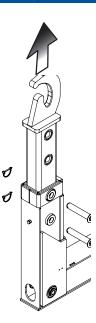
- Know the weight of your load to avoid overloading the equipment. Deduct the weight of the body from the maximum load rating to determine how much weight can be lifted.
- Only use the hooklift to lift Stellar approved skids, bodies, or containers.
- **WARNING** Do not overload the hooklift. Never exceed manufacturer's load ratings. These ratings are based on the machine's hydraulic, mechanical, and structural design rather than stability. Know the hooklift components and their capabilities and limitations. Overloading the hooklift may result in serious damage of self, others, equipment or the surroundings.
- **WARNING** Do not allow unauthorized personnel or equipment to enter within 10 feet of hooklift operating area. The vehicle should be positioned in an area free from bystanders and overhead obstructions. Use a signal person if necessary.
- Always maintain safe clearance from high voltage power lines. Death or serious injury will result from inadequate clearance if hooklift, load, or vehicle becomes electrically charged.
- Make certain that the vehicle is parked on stable, flat ground as close to the job as possible. The surface
 under the service truck must be able to support the weight of the machine and its load. Take care when
 operating in areas supported by vehicle tires, because of the cushioning effect of springs and tires.
- **AWARNING** Do not operate the hooklift during electrical storms.
- In dusty work areas, every effort must be taken to keep dust and sand out of the moving parts of the machinery.
- In high humidity work areas, keep parts as dry as possible and well lubricated.
- * Hooklift hook and hook bar heights must match. See the following page for hook height adjustment.
- **AWARNING** Do not use the hooklift to move personnel.
- **NOTICE** Do not push on fixed objects or bodies without rollers with the hooklift.

Manual Hook Height Adjustment

Raising Hook Height

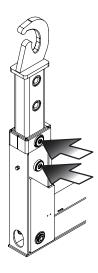


Step 1Attach overhead hoist or lifting device to the hook.



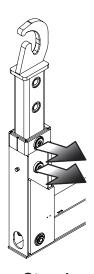
Step 2Remove small keeper pins and large pins. Raise hook.

NOTE: Inspect pins for wear or damage. Replace if necessary.

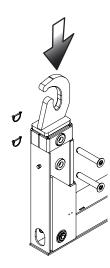


Step 3Reinstall large pins and small keeper pins. Remove overhead hoist or lifting device.

Lowering Hook Height



Step 1Attach overhead hoist or lifting device to the hook.



Step 2
Remove small keeper pins and large pins. Lower hook.

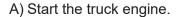
NOTE: Inspect pins for wear or damage. Replace if necessary.



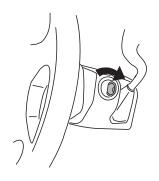
Step 3Reinstall large pins and small keeper pins. Remove overhead hoist or lifting device.

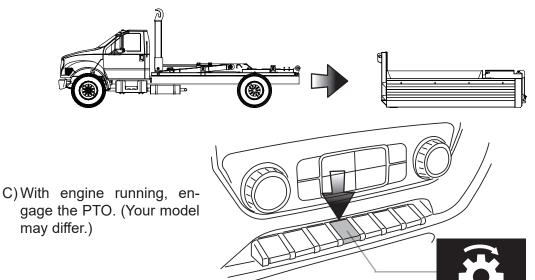
Loading Body (docked controller)

Step 1: Align the Truck and Activate Hooklift System



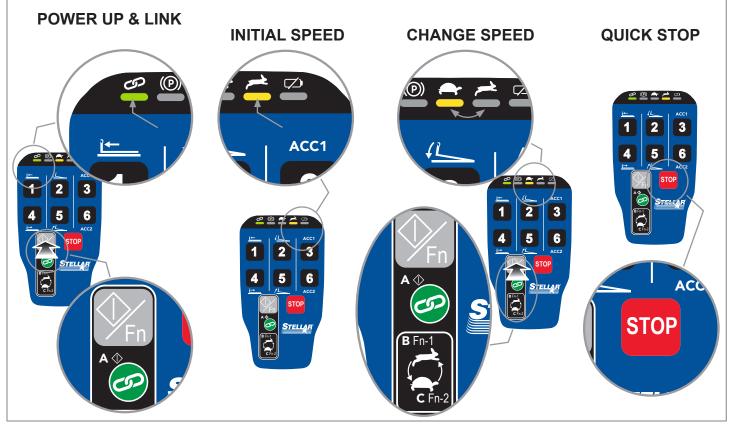
B) Maneuver the truck into a position to load the body.



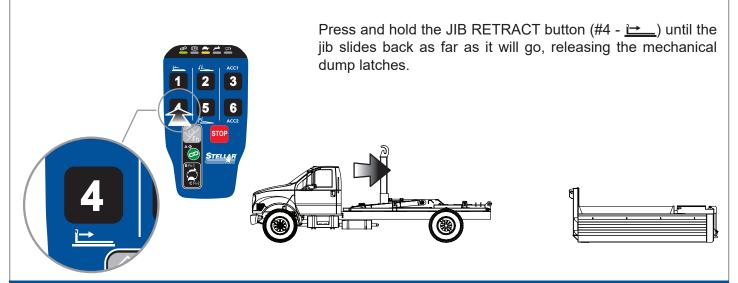




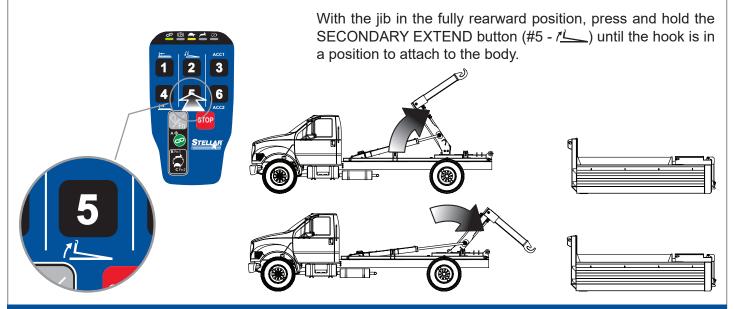
D) With the radio remote transmitter docked in the tethered cradle, press and hold the GRAY power button (♠) one second to wake up the controls and link it to the radio receiver. Hold the button until the LED indicator under the LINKED icon (๗) blinks GREEN. The default hydraulic flow will be indicated by the YELLOW LED under the RABBIT icon (៧). To change hydraulic flow or learn more about remote functions, refer to "NXT Hooklift Radio Remote Control Functions" on page 4.



Step 2: Fully Retract Jib and Release Dump Latches



Step 3: Extend Secondary



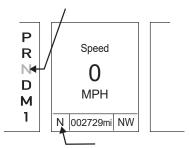
Step 4: Approach the Body and Attach the Hook



Loading Body (docked controller) continued...

Step 5: Load the Body

Put the truck in neutral.



Once the hook is fully attached to the hook bar, put the transmission in neutral and press and hold the SECONDARY RETRACT button (#2 - (L___)) to load the body. With the transmission in neutral the chassis will roll toward the body as it is lifted.



Truck will roll toward the body.





Make sure the body is lining up with the rear rollers while loading. Refrain from using the brake while loading a body. Likewise, do not engage the transmission to use the drivetrain to assist the hydraulics during the loading process.

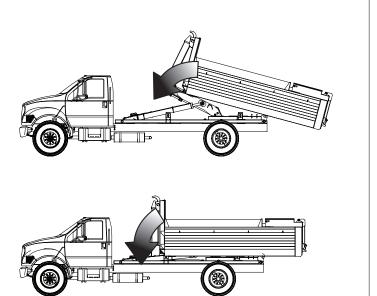


AWARNING

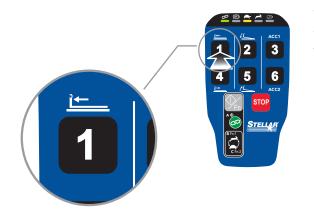
pended load.

Do not stop mid-lift and leave hooklift unattended with sus-

While it is recommended that the body loading process be performed from inside the cab with the remote docked in its cradle, you can undock the remote to perform some processes like picking up protective boards, tarping your load or operating the container gate. See page 18 for detailed instructions on Undocked Remote Operation.

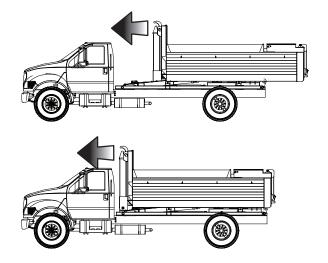


Step 6: Extend Jib and Engage Body Latches



With the secondary in the retracted position, press and hold the JIB EXTEND button (#1 - <u>*</u>) until the body latches fully engage.

While it is recommended that "sliding" a loaded body forward with the JIB EXTEND button (#1 - 100 from inside the cab and the remote docked in its cradle, you can undock the remote to observe sliding a shorter body forward and prevent it from rolling off the rear rollers. See page 18 for detailed instructions on Undocked Remote Operation.

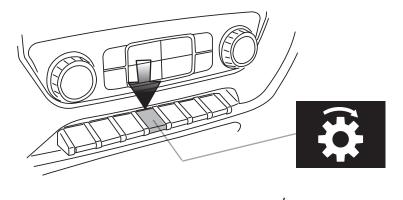


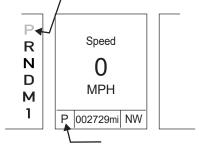
Step 7: Deactivate Remote and Disengage PTO



When the body is completely loaded, press the red STOP button to deactivate the remote.

Disengage the PTO and return transmission to PARK.





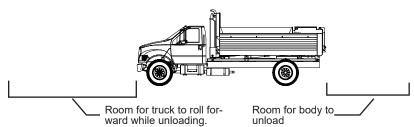
Unloading Body (docked controller)

Step 1: Verify Safe Unloading Zone and Activate Hooklift System

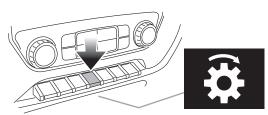
A) Start the truck engine.



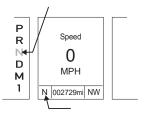
B) Maneuver the truck into unloading zone. Make sure there is adequate room for the body to unload and also for the truck to roll forward.



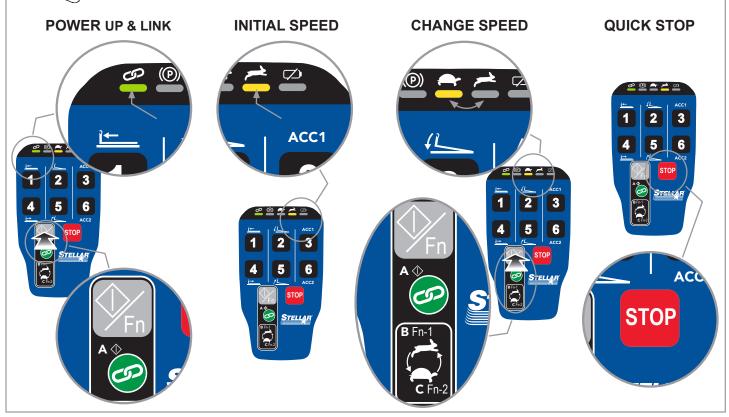
C) With engine running, engage the PTO. (Your model may differ.)



D) Put the truck in neutral.



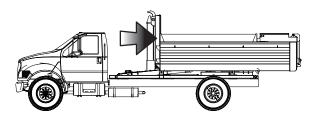
E) With the radio remote transmitter docked in the tethered cradle, press and hold the GRAY power button (�) one second to wake up the controls and link it to the radio receiver. Hold the button until the LED indicator under the LINKED icon (�) blinks GREEN. The default hydraulic flow will be indicated by the YELLOW LED under the RABBIT icon (♣). To change hydraulic flow or learn more about remote functions, refer to "NXT Hooklift Radio Remote Control Functions" on page 4.



Step 2: Fully Retract Jib and Release Dump Latches



Press and hold the JIB RETRACT button (#4 - <u>\rightarrow</u>) until the jib slides back as far as it will go, disengaging the body locks and releasing the mechanical dump latches.



Step 3: Extend Secondary Section



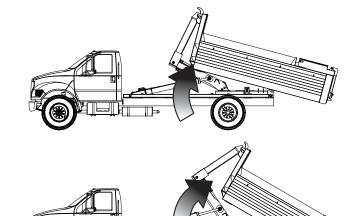
With the jib in the fully rearward position, press and hold the SECONDARY EXTEND button (#5 - ½) as the chassis rolls forward. Continue holding the SECONDARY EXTEND button until the body is completely on the ground.

NOTICE

The JIB RETRACT button (#4 - <u>→</u>) and JIB EXTEND button (#1 - <u>→</u>) will be disabled during secondary operation.

AWARNING Do not stop mid-lift and leave hooklift unattended with suspended load.

While it is recommended that the body unloading process be performed from inside the cab with the remote docked in its cradle, you can undock the remote to perform some processes like placing protective boards, untarping your load or operating the container gate. See page 18 for detailed instructions on Undocked Remote Operation.

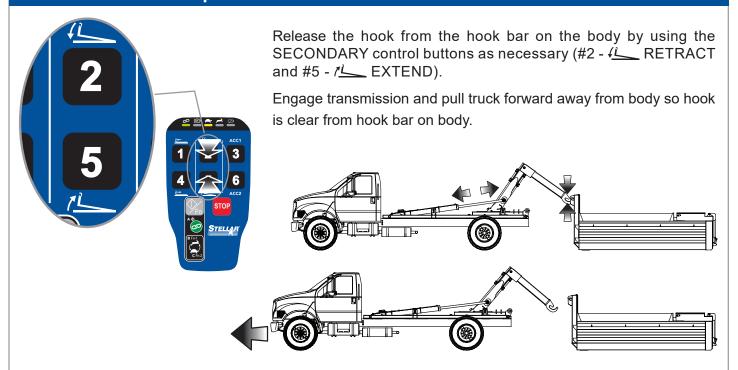




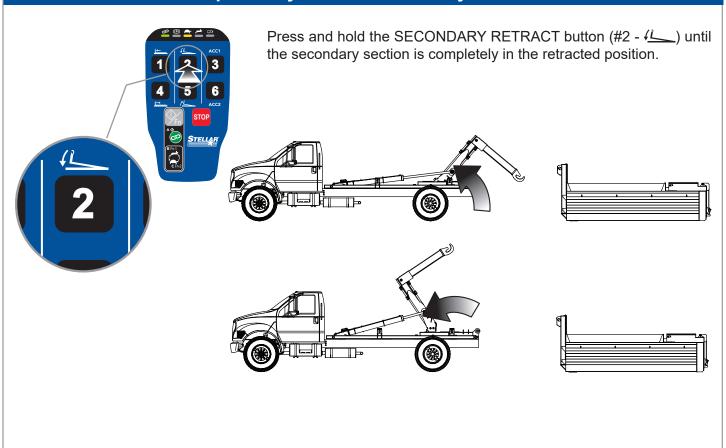


Unloading Body (docked controller) continued...

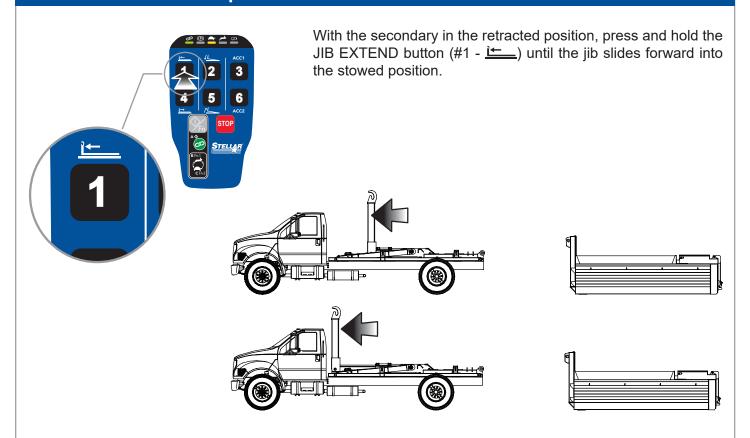
Step 4: Release the Hook from the Hook Bar



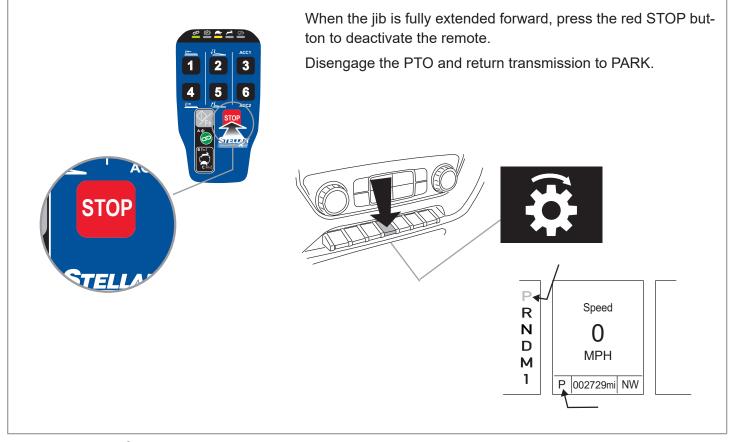
Step 5: Fully Retract Secondary Section



Step 6: Extend Jib into Stowed Position



Step 7: Deactivate Remote and Disengage PTO



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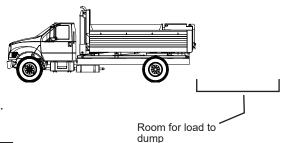
Dumping Body Load (docked controller)

Step 1: Verify Safe Dumping Zone and Activate Hooklift System

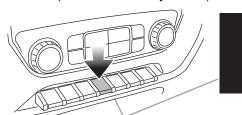
A) Start the truck engine.



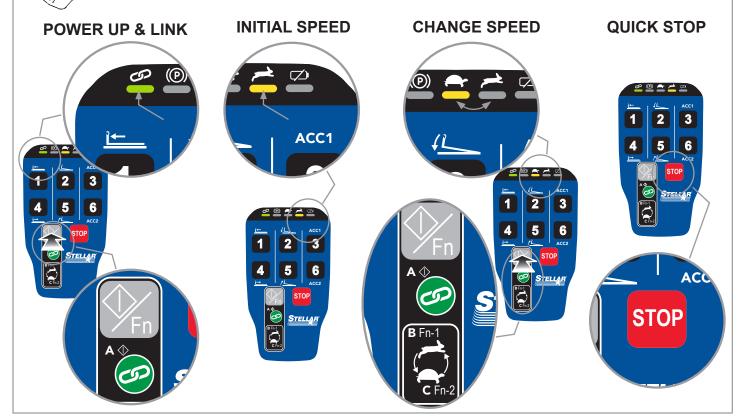
B) Maneuver the truck into dumping zone. Be aware of and avoid any overhead obstructions. Make sure there is adequate room for the load to dump and for the truck to maneuver forward if needed.



C) With engine running, engage the PTO. (Your model may differ.)



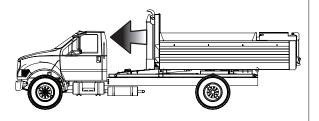
D) With the radio remote transmitter docked in the tethered cradle, press and hold the GRAY power button (⋄) one second to wake up the controls and link it to the radio receiver. Hold the button until the LED indicator under the LINKED icon (๗) blinks GREEN. The default hydraulic flow will be indicated by the YELLOW LED under the RABBIT icon (♣). To change hydraulic flow or learn more about remote functions, refer to "NXT Hooklift Radio Remote Control Functions" on page 4.



Step 2: Ensure Dump Latches are Engaged



Press and hold the JIB EXTEND button (#1 - <u>*---</u>) until the jib slides forward enough to engage the mechanical dump latches.



Step 3: Extend Secondary and Begin Dumping

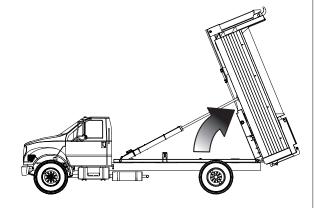


Press and hold the SECONDARY EXTEND button (#5 - r) to dump the load. Be aware and avoid any overhead obstructions during the entire dump procedure.

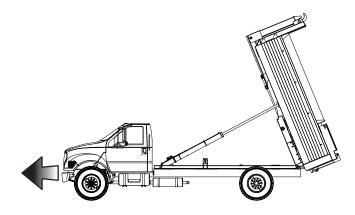
AWARNING Do not stop mid-dump and leave hooklift unattended with suspended load.

Do not take full rated capacity to full dump angle without some unloading of weight. Full rated dump capacity assumes load will decrease as dump angle increases.

While it is recommended that the load dumping process be performed from inside the cab with the remote docked in its cradle, you can undock the remote to perform some processes like untarping your load or operating the container gate. See page 18 for detailed instructions on Undocked Remote Operation.



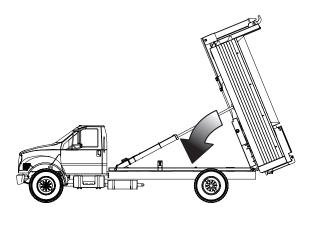
If necessary to finish dumping the load, place the truck in gear and creep forward slowly as the load has new space to unload.

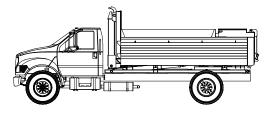


Step 4: Retract Secondary Section

After the load is completely dumped, press and hold the SECOND-ARY RETRACT button (#2 - $\frac{1}{2}$) until the secondary section is completely in the retracted position.





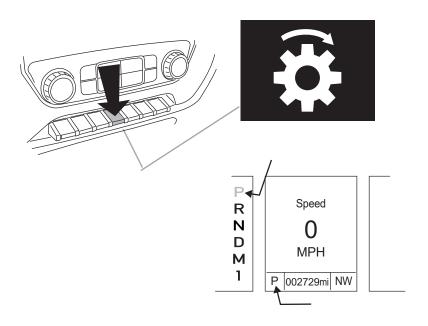


Step 5: Deactivate Remote and Disengage PTO

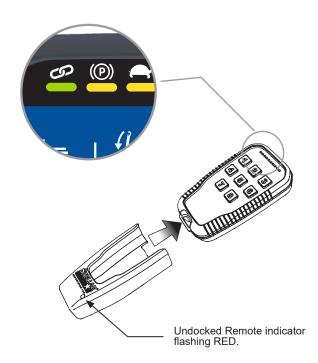


When the secondary section is fully lowered, press the red STOP button to deactivate the remote.

Disengage the PTO and return transmission to PARK.



Undocking Controller for Remote Operation



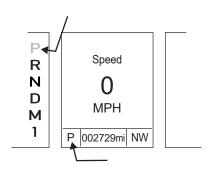
When you remove the controller from the docking cradle the warning LED on the docking cradle will begin flashing RED.

If the transmission is automatic place it in PARK. Apply parking brake according your the chassis manufacturer's instructions. When the parking brake is set the parking brake indicator [(P)] on the remote will illuminate YELLOW.

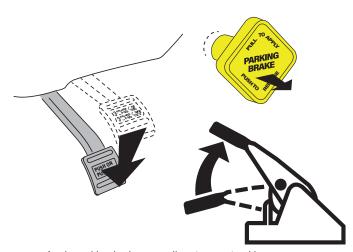
NOTICE

With the chassis now parked in place the body will be forced

to roll back or forward during the loading/unloading process. If the body might experience significant resistance to free-rolling movement during loading or unloading, undocked operation is not recommended. Place the controller back in the cradle, release parking brake, place transmission in neutral and allow the truck to roll toward or away from the body.



Place automatic transmission in PARK.



Apply parking brake according to your truck's Operator's Manual.

Accessory Option Control

Operating Accessory Options in High Hydraulic Flow



When hydraulic system is in HIGH flow, the Accessory buttons are momentary switches. Press and hold to continuously activate the option while the button is pressed. Release the button to turn the option OFF. Suggested use could be for horn operation.



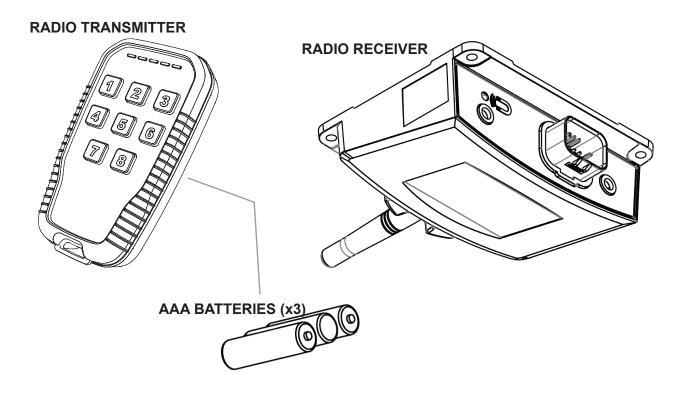
Operating Accessory Options in Low Hydraulic Flow



When hydraulic system is in LOW flow, the Accessory buttons are latching switches. Press the button once to turn the option ON and press again to turn the option OFF. Suggested use could be for work light operation.



Radio System Components

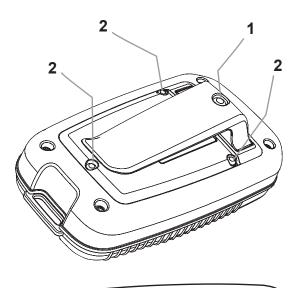


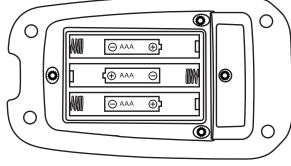
Radio Remote Battery Replacement

When the RED low battery indicator illuminates, the batteries in the handheld transmitter will need to be replaced. Three AAA alkaline batteries are accessible from the back side of the radio transmitter.

Battery orientation is displayed under each battery. Follow the instructions below to correctly change the batteries.

- 1. Remove the belt clip by unscrewing the top middle screw (item 1).
- 2. Unscrew the three short screws holding the cover (items 2).
- 3. Remove the cover.
- 4. Check the gasket for dirt and/or damage. Always clean a dirty gasket or replace it if it is damaged.
- 5. Change the batteries.
- 6. Make sure the gasket is tightly and correctly fitted before putting the cover back on.
- 7. Reassemble the cover and belt clip.
- 8. Tighten the screws.

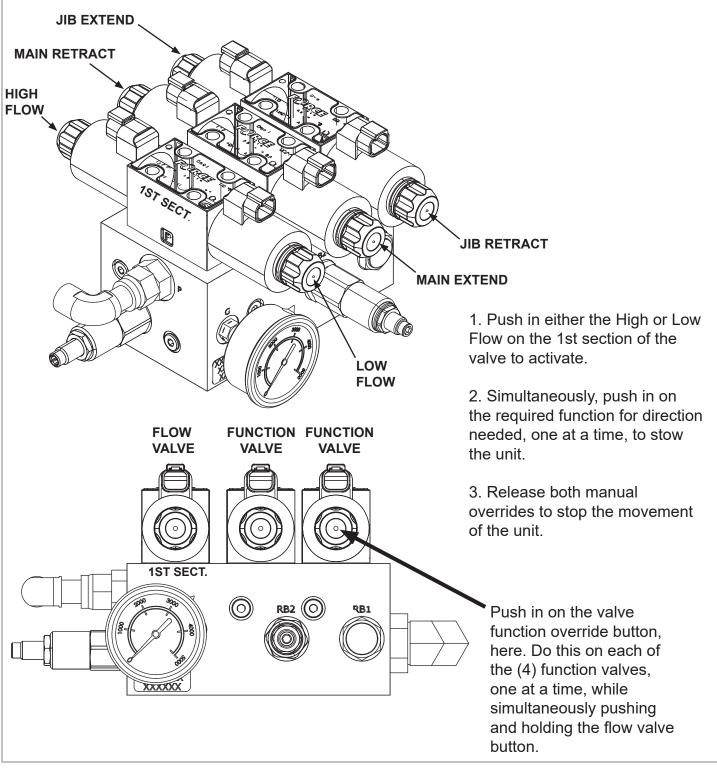




Emergency Stowing - Manual Override Instructions

Emergency Operations

If the radio stops working, or the unit has an electrical issue, the NXT18 can be returned to its stowed position by using the manual controls on the hydraulic valve bank. **Note:** Small screwdrivers (2) or similar tools will be needed to push on the valve overrides. The valve function override button is rather rigid and requires effort to push it into the bottom of the function valve.



Safety Decals of Note

Safety decals serve to inform the viewer of the hazard type, how to avoid the hazard, and the consequences of not avoiding the hazard.

Decals are considered safety equipment. They must be maintained, as would other safety devices. All safety instruction plates, notices, load charts and any other decal applied to the hooklift or vehicle must be kept legible and in good condition. Replace any decals that are missing, damaged, or illegible.

Detailed below are a number of key safety decals related to this equipment. Use the decal placement drawing in this manual to note the actual location of the safety decals on the equipment.

Front of Jib



Decal Part Number: 45955

Decal Location: Front of jib

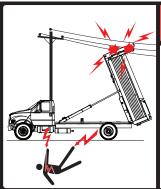
Hazard Type: Misuse Hazard

Consequences: Can result in death or serious

injury.

Avoidance: Do not attempt to load container un-

less hook and bail heights match.



A DANGER

Electrocution Hazard

Death or serious injury will result from inadequate clearance if hooklift, load, or vehicle becomes electrically charged.

- Maintain safe clearance from high voltage power sources.
- Never approach vehicle or load if equipment is near a high voltage power source.

55832 - Rev A

Decal Part Number: 55832

Decal Location: Side of jib

Hazard Type: Electrocution Hazard

Consequences: Will result in death or serious

injury.

Avoidance: Maintain safe clearance from high voltage power sources. Never approach vehicle or load if equipment is near a high voltage power

source.



AWARNING

Crush Hazard

Moving parts can crush and cut.

Keep hands and arms clear when operating equipment.

25627 - Rev B

Decal Part Number: 25627

Decal Location: Side of jib

Hazard Type: Crush Hazard

Consequences: Can result in death or serious

injury.

Avoidance: Keep hands and arms clear when

operating equipment



AWARNING

Untrained Operator Hazard

Read and understand all manuals and safety signs before operating or servicing this equipment.

Failure to follow operating, maintenance, or safety instructions can result in death or serious injury.

Decal Part Number: 68024

Decal Location: Side of jib

Hazard Type: Untrained Operator Hazard

Consequences: Can result in death or serious

injury.

Avoidance: Read and understand all manuals and safety signs before operating or servicing

equipment.

Chapter 2 - Maintenance

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| Basic Hooklift Inspection Schedule | 27 |
| Maintenance Procedures | 28 |

General Maintenance Guidelines

Maintenance is an important part of extending the life of any Stellar[®] Hooklift. Performing key maintenance items on a scheduled program will prevent unnecessary downtime. Before performing any maintenance to the hooklift, consider the following:

GENERAL MAINTENANCE GUIDELINES

▲WARNING

ONLY QUALIFIED SERVICE PERSONNEL ARE TO PERFORM MAINTENANCE ON THE HOOKLIFT. NEVER MODIFY OR ALTER ANY OF THE EQUIPMENT, WHETHER MECHANICAL, ELECTRICAL, OR HYDRAULIC, WITHOUT EXPLICIT APPROVAL FROM STELLAR INDUSTRIES

- POSITION THE HOOKLIFT WHERE IT WILL BE OUT OF THE WAY OF OTHER OPERATIONS OR VEHICLES IN THE AREA.
- MAKE CERTAIN THAT THE HOOKLIFT IS IN THE FULLY STOWED POSITION TO PREVENT UNCONTROLLED MOVEMENT.
- PLACE ALL CONTROLS IN THE OFF POSITION AND SECURE OPERATING FEATURES FROM INADVERTENT MOTION.
- WHEN CHECKING HYDRAULIC OIL LEVEL, MAKE CERTAIN THAT ALL SYSTEM CYLINDERS ARE FULLY RETRACTED.
- GREASE ZERK LOCATIONS CAN BE FOUND IN THE INSTALLATION, ASSEMBLY DRAWINGS, PARTS MANUAL.
- BEFORE ANY SERVICE OR REPAIR IS PERFORMED, DISENGAGE THE PTO AND SHUT OFF THE ENGINE.
- BEFORE PERFORMING ANY MAINTENANCE ON ELECTRICAL COMPONENTS, DISCONNECT THE POWER SOURCE.
- BEFORE PERFORMING ANY MAINTENANCE ON HYDRAULIC COMPONENTS, RELIEVE HYDRAULIC OIL PRESSURE FROM ALL HYDRAULIC CIRCUITS. MOVE CONTROL LEVERS REPEATEDLY THROUGH THEIR OPERATING POSITIONS TO RELIEVE ALL PRESSURES.

▲WARNING

DO NOT DISCONNECT HYDRAULIC HOSES WHILE THERE IS STILL PRESSURE IN THOSE COMPONENTS.

▲WARNING

DO NOT TOUCH OR GRAB ANY HOSES THAT COULD BE UNDER PRESSURE.

- REPLACE PARTS WITH STELLAR® APPROVED PARTS ONLY.
- KEEP THE HOOKLIFT CLEAN AND FREE FROM GREASE BUILD-UP, OIL AND DIRT TO PREVENT SLIPPERY CONDITIONS.
- LABEL OR TAG PARTS WHEN DISASSEMBLING.
- IMMEDIATELY REPAIR OR HAVE REPAIRED ANY COMPONENTS FOUND TO BE INADEQUATE.

Basic Hooklift Inspection Schedule

| AT THE PROPER INTERVAL, INSPECT THE FLOLLWOING ITEMS: | DAILY | MONTHLY | YEARLY |
|--|-------|---------|--------|
| HYDRAULIC RESERVOIR OIL LEVEL | Х | | |
| HYDRAULIC HOSES AND TUBING FOR EVIDENCE OF DAMAGE SUCH AS BLISTERING, CRUSHING, OR ABRASION | Х | | |
| ALL SAFETY COVERS FOR PROPER INSTALLATION | Х | | |
| EQUIPMENT FOR MISSING, ILLEGIBLE, OR DEFACED OPERATING DECALS AND SAFETY SIGNS | X | | |
| STRUCTURAL WELDMENTS FOR BENDS, CRACKS, OR BREAKS | Х | | |
| ALL PINS AND KEEPERS FOR PROPER INSTALLATION | Х | | |
| PRESENCE OF THIS OWNER'S MANUAL | Х | | |
| ALL PINS, BUSHINGS, SHAFTS, AND GEARS FOR WEAR, CRACKS, OR DISTORTION TO INCLUDE ALL PIVOT POINTS, AND BUSHINGS | Х | | |
| PARKING BRAKE OPERATION | Х | | |
| DUMP UP SWITCH AND LIGHT OPERATION | Х | | |
| CYLINDER MOVEMENT DUE TO LEAKAGE | | Х | |
| CONTROLS FOR MALFUNCTION OR ADJUSTMENT | | Х | |
| HYDRAULIC SYSTEMS FOR PROPER OPERATING PRESSURE | | X | |
| CYLINDERS FOR DAMAGED RODS, DENTED BARRELS, DRIFT FROM OIL LEAKING INTERNALLY, LEAKS AT ROD SEALS OR HOLDING VALVE. | | Х | |
| PTO AND PUMP FOR LEAKS | | Х | |
| JIB ASSEMBLY FOR EXCESSIVE SIDE-TO-SIDE PLAY OR CHATTERING. | | X | |
| FRAME BOLT TIGHTNESS - TURN BARREL NUTS AND MOUNTING BOLTS DURING THE FIRST MONTH OF OPERATION ON NEW MACHINES AND THEN QUARTERLY THEREAFTER | | х | |
| INSPECT ALL ELECTRICAL WIRES AND CONNECTIONS FOR WORN, CUT, OR DETERIORATED INSULATION AND BARE WIRE | | Х | |
| LUBRICATION OF ALL ROLLERS | | X | |
| INSPECT MANUAL HOOK HEIGHT SET PINS FOR WEAR OR DAMAGE. REPLACE IF NECESSARY. | | | Х |

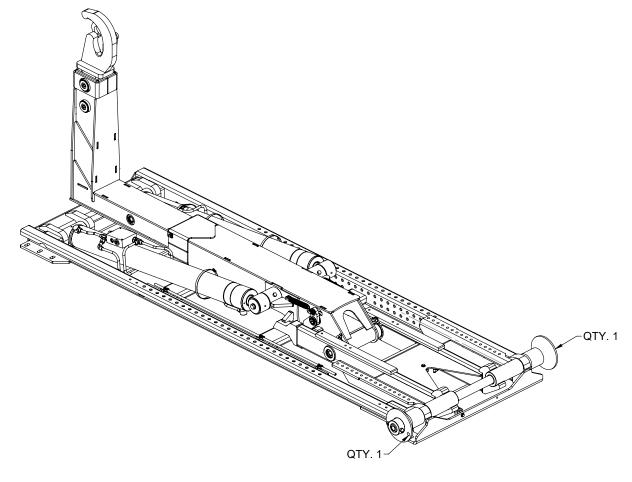
Maintenance Procedures

Stellar Industries recommends the first filter change to occur after the first 250 hours of service. The second, and every subsequent change, should occur after every 1,000 hours of service. By following these guidelines, the hydraulic oil should last up to 6,500 hours.

These recommendations are based on normal working parameters. If operating in less than favorable conditions excessive dust, moisture, etc.), be sure to check the filter gauge often for filter change notice.

Every six (6) months, remove the hydraulic pump from the PTO and lubricate the splines using Chelsea Lubricant #379831 or Stellar PN 20885 lube. Failure to lubricate shaft splines will eventually cause damage to the PTO and Hydraulic pump.

The rear rollers (and optional body saddle rollers) on the Stellar® NXT Hooklift will need to be greased monthly to clean out dirt and prevent them from wearing out. Grease more frequently if the hooklift is used 7 days a week. Use an Extreme Pressure Grease (EP2). It should be a Lithium Complex type NLGI 2 grease.



New Paint Care and Cleaning Procedures during Initial Ownership and Beyond

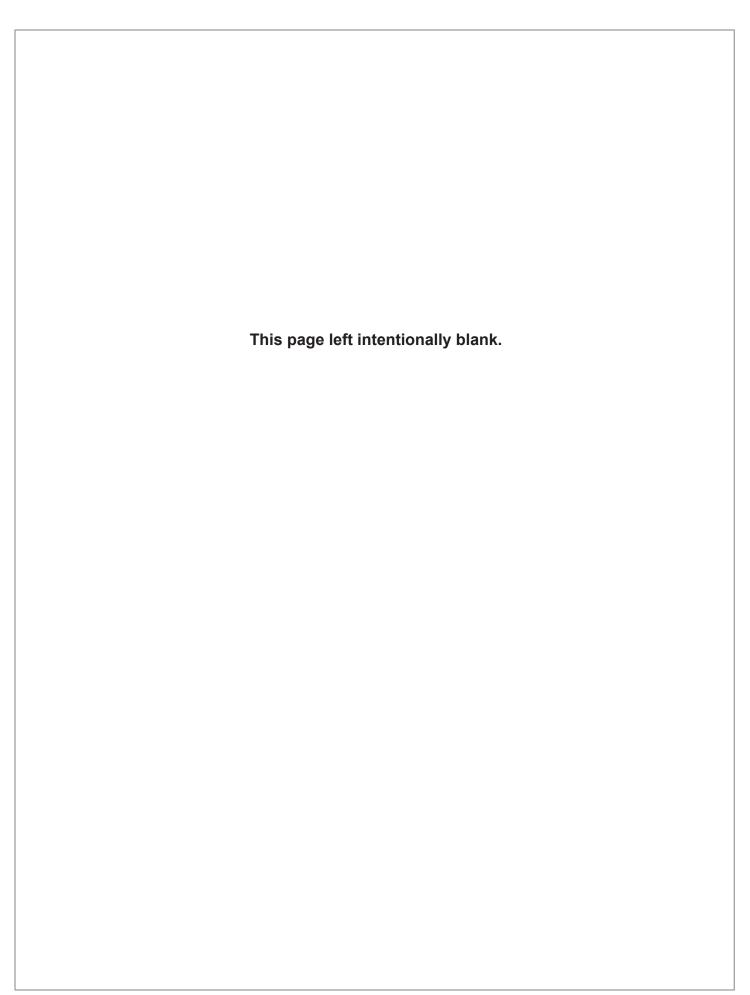
| | 0 to 30 days past manu- facturing date | 30 to 60 days past manufacturing date | After 60 days past manufacturing date | Any day paint surface is hot due to exposure to daylight |
|--------------------------------|---|---------------------------------------|--|--|
| Water-only Rinse to Clean | low pressure no soap | | | |
| Wax | | | | × |
| Handheld Pressure Washer | | | distance > 4 inches pressure < 1700 psi water temp < 120° F neutral pH detergent | × |
| Automated Wash System | | | pressure < 1700 psi water temp < 120° F neutral pH detergent non-abrassive brushes | × |

General Hooklift Washing Instructions

Follow the parameters above while washing the hooklift at least once per week, especially when exposed to a dusty, acidic, or alkaline environment. This will maximize durability of the paint, wiring, and rubber material by removing corrosive substances collected from roads or job sites. When washing the hooklift, avoid direct water spray toward electrical components such as floodlights, radio remote receivers, and areas of the body which may have rock chips. Avoid the use of stiff bristles. Use of a soft cloth or felt brush is recommended.

Although contact with anti-freeze, gasoline, hydraulic fluid, oil, or windshield washer fluid is expected with this type of equipment, washing these products from your paint surface in a timely manner will greatly enhance the life of your paint finish. Some compounds could be especially damaging to the paint finish and should be removed as soon as possible by rinsing with warm water at a minimum.

NOTICE Exposure time causing potential paint damage by hydraulic fluid and oil is reduced if the paint surface is hot.



Chapter 3 - Troubleshooting

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| Choice Lubricants for DX Bearings | |

General Troubleshooting

This chapter will list a number of potential problems that may occur while operating the Hooklift. Most problems are easily solved using the solutions portion of this chapter. If problems persist, please contact **Customer Service at Stellar Industries: 1-800-321-3741.**

Problem: Hooklift will not operate or operates slow.

Solutions:

- Make sure the PTO is engaged.
- Make sure that there is 12V power going to the radio receiver. If there is no power going to the receiver, trace back to the power source and check for a blown fuse or loose ground connection.
- Make sure that the transmitter batteries have sufficient charge.
- Check the level of hydraulic fluid in the reservoir. Add fluid as needed.
- Check hydraulic fluid temperature.
- Make sure that the hydraulic pump is operating at its rated flow or GPMs under load. Check the flow by
 using a flow meter to determine the GPMs. To find the proper flow the equipment is to operate at, see
 your specific hooklift model's *Installation*, *Assembly Drawings*, *Parts Manual*.
- Check to see if the valve bank orifice is plugged. If so, replace the orifice. Call Stellar Customer Service for instructions.
- Make sure the relief pressure is properly set per the specifications page of the hooklift owners manual.
- Make sure the spool valves on the valve bank are adjusted and operating smoothly.

Problem: Hydraulic system gets extremely hot.

Solutions:

- Make sure the hydraulic filter has been changed per the maintenance page of the Hooklift Owner's Manual.
- Make sure the filter strainer of the hydraulic reservoir is not plugged.
- Make sure that the hydraulic pump is operating at its rated flow or GPMs.
- Make sure the relief pressure is set properly. See the Table in the installation chapter of your specific hooklift model's Installation, Assembly Drawings, Parts Manual.

Problem: Hooklift will not lift or pickup a loaded container.

Solutions:

- Make sure the container contents are evenly distributed.
- Make sure the container and its load does not exceed the rated capacity.
- Make sure the relief pressure is properly set per the Table on in the installation chapter of your specific hooklift model's Installation, Assembly Drawings, Parts Manual.
- Make sure the hydraulic pump is operating at its rated flow or GPMs. See the specifications page in your specific hooklift model's Installation, Assembly Drawings, Parts Manual.
- Make sure that the container is not fixed to the ground or frozen down.

Problem: Cylinders drift upward or downward while hydraulics are disengaged.

Solutions:

- Check to see if there is air in the hydraulic system. Operate all cylinders connected to the hydraulic system. Start with the extension cylinder, then operate the main boom, winch, rotation, and ending with the hydraulic stabilizers, if installed. When operating, extend each cylinder halfway out, retract all the way in, and then extend until the cylinder rod is at the end of its stroke. Operate cylinders slowly so air is pushed through the system to the reservoir. Repeat this cycle 2-3 times.
- Make sure the holding valves are operating properly. Note: Before performing any maintenance on

General Troubleshooting continued...

hydraulic components, relieve hydraulic oil pressure from all hydraulic circuits. Remove, clean, and then inspect each holding valve. When removing a holding valve, always relieve the pressure inside the cylinder by loosening jam nut of the holding valve and turning set screw inward/clockwise. Count the number of turns until the set screw is seated. When reinstalling the holding valve, make sure the valve is reset by turning the set screw the number of turns it took to relieve the pressure. Finish by tightening the jam nut.

- Check the cylinder rod for scratches. If a scratch is located on the cylinder rod, hydraulic fluid can pass through and cause a loss of pressure. Replace cylinder rod or cylinder.
- Check to see if the piston seals are damaged. If they show signs of damage, install a new cylinder seal kit.
- Possible internal piston seals rolled or damaged.

Problem: Hooklift binds at pivot points.

Solutions:

- Make sure pivot pins are not seized to the bushing.
- Make sure the weldments or pins are not misaligned or bent.

Contact Stellar® Customer Service: 1-800-321-3741



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