

Operator Manual

SL-26/30NBE

SERIAL NO. 13300 to Current

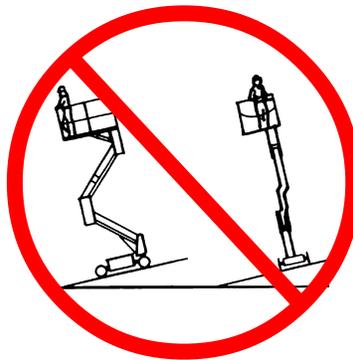
WARNING

All personnel shall carefully read, understand and follow all safety rules, operating instructions and the Scaffold Industry Association's **MANUAL OF RESPONSIBILITIES (ANSI A92.6)** before operating or performing maintenance on any UpRight aerial work platform.

SAFETY RULES



NEVER operate the machine within ten feet of power lines. **THIS MACHINE IS NOT INSULATED.**



NEVER elevate the platform or drive the machine while elevated unless the machine is on a firm level surface.



NEVER sit, stand or climb on guardrail or midrail.

NEVER operate the machine without first surveying the work area for surface hazards such as holes, drop-offs, bumps and debris before operating machine.

NEVER operate the machine if all guardrails are not properly in place and secured with all fasteners properly torqued.

SECURE gate across entrance after mounting platform.

NEVER use ladders or scaffolding on the platform.

NEVER attach overhanging loads or increase platform size.

LOOK up, down and around for overhead obstructions and electrical conductors.

CHECK all four tires for correct inflation. See Specifications.

DISTRIBUTE all loads evenly on the platform. See the back cover for maximum platform load.

NEVER use damaged equipment. (Contact UpRight for instructions, see toll free number on back cover.)

NEVER change operating or safety systems.

INSPECT the machine thoroughly for cracked welds, loose hardware, hydraulic leaks, damaged control cable, loose wire connections and wheel bolts.

NEVER climb down elevating assembly with the platform elevated.

NEVER perform service on machine while platform is elevated.

NEVER recharge batteries near sparks or open flame; batteries that are being charged emit highly explosive hydrogen gas.

AFTER USE secure the work platform against unauthorized use by turning key switch off and removing key.

NEVER replace any component or part with anything other than original UpRight replacement parts without the manufacturers consent.

Introduction

This manual covers SL26/30 Narrow Work Platforms with Bi-Energy power option. **This manual must be stored on the machine at all times.**

Pre-Operation and Safety Inspection

Read, understand and follow all safety rules and operating instructions and then perform the following steps each day before use.

1. Remove module covers and inspect for damage, oil leaks or missing parts.
2. Check the level of the hydraulic oil with the platform fully lowered. Oil should be visible in the sight gauge. Add hydraulic oil, if necessary (*see Specifications, back cover*).
3. Check that the fluid level in the batteries is correct (*see Battery Maintenance, page 6*).
4. Carefully inspect the entire work platform for damage such as cracked welds or structural members, loose or missing parts, oil leaks, damaged cables or hoses, loose connections and tire damage.
5. Check that all guardrails are securely in place with all fasteners properly torqued.
6. Place the Chassis Emergency Stop Switch to the ON position by pulling the button out.
7. Check fuel supply.
8. Check engine oil level with dipstick.
9. While the engine is cool check the radiator coolant level. **DO NOT** check coolant when the engine or radiator is hot.
10. Verify batteries are charged (*see Battery Maintenance, page 6*).
11. Check that AC extension cord has been disconnected from charger.

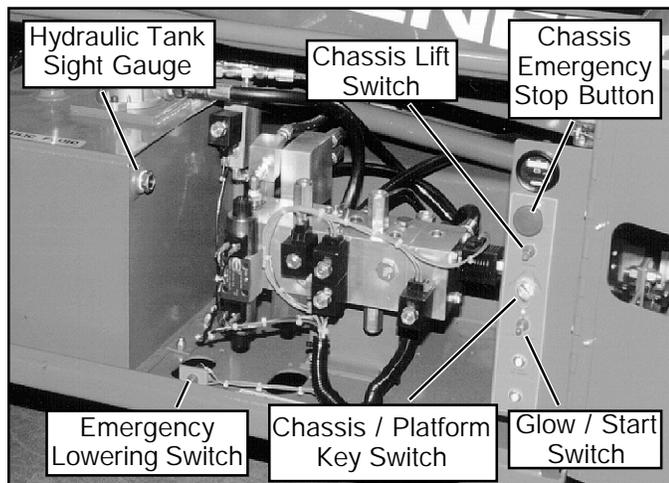


Figure 1: Control Module, Chassis Left Side

System Function Inspection

WARNING

STAND CLEAR of the work platform while performing the following checks.

Before operating the work platform survey the work area for surface hazards such as holes, drop-offs, bumps and debris.

Check in ALL directions, including above the work platform, for obstructions and electrical conductors.

Protect control console cable from possible damage while performing checks.

1. Unhook Controller from front guardrail. Firmly grasp Controller hanger in such a manner that the Interlock Lever can be depressed, while performing the following checks from the ground.
2. Pull Controller Emergency Stop Button out to ON position.
3. Select **Electric Mode** by turning Controller Key Switch clockwise to **ON**. **DO NOT START ENGINE**.
4. Turn Drive/Lift Switch to **DRIVE** position.
5. With the Speed Range Switch first in **HIGH TORQUE** and then in **HIGH SPEED** actuate the Interlock Lever and slowly push the Control Handle to **FORWARD** then **REVERSE** positions to check for speed and directional control. The farther you push or pull the Control Handle from centre the faster the machine will travel.
6. Push Steering Switch **RIGHT** then **LEFT** to check for steering control.
7. Rehook Controller on front guardrail.
8. Turn the Chassis Key Switch to **CHASSIS**, push Chassis Lift Switch to the **UP** position and elevate platform while pushing the Tilt Sensor off of level. The platform should only elevate about .3 m (1 ft.) and the Tilt Alarm should sound. If the platform continues to elevate and/or there is no alarm **STOP** and remove the machine from service until it is repaired.
9. Release the Tilt Sensor and fully elevate platform.
10. Visually inspect the elevating assembly, lift cylinder, cables and hoses for damage or erratic operation. Check for missing or loose parts.
11. Lower the platform partially by pushing Chassis Lift Switch to **DOWN**, and check operation of the audible lowering alarm.

Operation

Before operating work platform, ensure that the pre-operation and safety inspection has been completed, any deficiencies have been corrected and the operator has been thoroughly trained on this machine.

Travel With Platform Lowered

1. Verify Chassis Emergency Stop Switch is in the ON position, button pulled out.
2. After mounting platform, close and latch gate. Check that guardrails are in position and properly assembled with fasteners properly torqued.
3. Check that route is clear of persons, obstructions, holes and drop-offs and is capable of supporting the wheel loads.
4. Check clearances above, below and to the sides of the platform.
5. Pull Controller Emergency Stop Button out to ON position.
6. Set the Drive/Lift Switch to the **DRIVE** position and turn the Key Switch to **ON** to operate under Electric power, to operate under Diesel power, start the engine by turning the Key Switch fully clockwise.

Note: If the engine is cold, press and hold the Glow Plug Button on the right hand side of the Controller for 6 seconds prior to starting.

Note: If the engine does not start on the first try, the Key Switch must be returned to the OFF position before it can be engaged to start the engine again.

7. Set the Drive/Lift Speed Range Switch to **HIGH TORQUE**.
8. Grasp the Control Handle so the Interlock Lever is depressed (releasing the Interlock Lever cuts power to Controller). Slowly push or pull the Control Handle to **FORWARD** or **REVERSE** to travel in the desired direction. The farther you push or pull the Control Handle from centre the faster the machine will travel.
9. While moving, push the Drive/Lift Speed Range Switch to **HIGH SPEED** for travel on level surfaces or to **HIGH TORQUE** for climbing grades or travelling in confined areas.

Steering

Push the Steering Switch **RIGHT** or **LEFT** to turn the wheels. Observe the tyres while maneuvering to insure proper direction.

Note: Steering is not self-centering. Wheels must be returned to the straight ahead position by operating the Steering Switch.

12. Push down on the Chassis Emergency Lowering Switch to check for proper operation, a warning alarm should sound. Once the platform is fully lowered, release the switch.
13. Push the Chassis Emergency Stop Button.
14. With only one Emergency Stop Button pushed down, in the OFF position, operate any control to verify that all functions are inoperable. Repeat the test with only the other Emergency Stop Switch Button OFF. If any function operates with either Emergency Stop Switch in the OFF position **STOP** and remove the machine from service until it is repaired.
15. Select **Diesel Mode** by turning the Key Switch fully clockwise to start engine.

Note: If the engine is cold, press and hold the Glow Plug Button on the right hand side of the Controller for 6 seconds prior to starting.

Note: If the engine does not start on the first try, the Key Switch must be returned to the OFF position before it can be engaged to start the engine again.

16. Drive forward and reverse to test the machine under Diesel power.
17. Close and secure module covers.
18. Turn the Controller Key Switch counterclockwise to **OFF**.

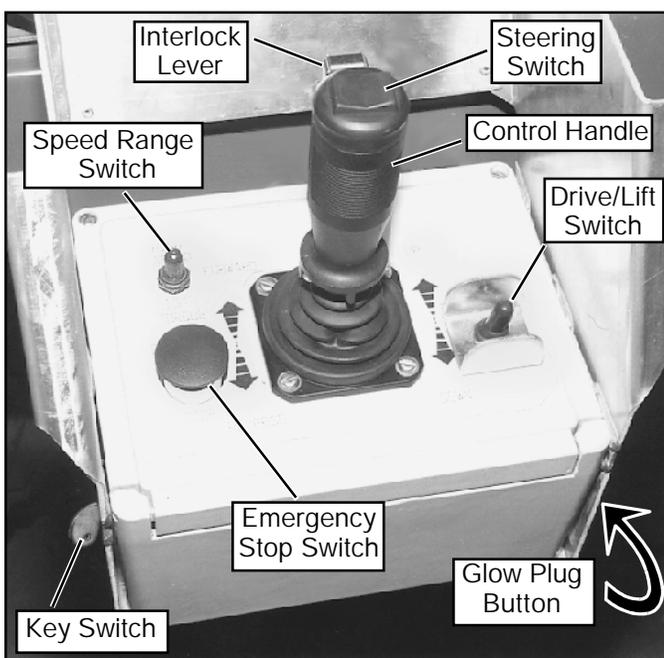


Figure 2: Controller

Raising and Lowering The Platform

1. Position the Drive/Lift Switch to **LIFT**.
2. While holding the Control Handle so the Interlock Lever is depressed, push the Control Handle slowly to **UP** to raise the platform. Pushing the Control Handle farther increases the lift speed.
3. When the work task is completed, position the Drive/Lift Switch to **LIFT** and lower the platform by pulling back on the Control Handle until the platform is fully lowered.

Travel With Work Platform Elevated

Travel with platform elevated **ONLY** on firm and level surfaces.

Note: The Work Platform will travel at reduced speed when in the elevated position. SL30 Models will only drive while elevated when the platform is below 8m (26 ft.) in height.

1. Check that the route is clear of persons, obstructions, holes and drop-offs and is capable of supporting the wheel loads.
2. Check clearances above, below and to the sides of the work platform.
3. Position the Drive/Lift Switch to the **DRIVE** position.
4. Push the Control Handle to **FORWARD** or **REVERSE** for the desired direction of travel.

Note: If the machine stops driving and the Tilt Alarm sounds, immediately lower the platform and move the machine to a level location before re-elevating the platform.

Emergency Lowering

The Emergency Lowering Switch is located on the left hand side of the chassis through the opening in the Control Module cover.

Open the Emergency Lowering Valve by pushing down on the Emergency Lowering Switch.

After Use Each Day

1. Ensure that the platform is fully lowered.
2. Park the machine on level ground, preferably under cover, secure against vandals, children or unauthorized operation.
3. Turn the Key Switch to **OFF** and remove the key to prevent unauthorized operation.

Parking Brake Release (Figure 3)

Perform the following only when the machine will not operate under its own power and it is necessary to move the machine or when towing the machine up a grade or winching onto a trailer to transport.

1. Close the needle valve by turning the knob clockwise.
2. Pump the Brake Release Pump until the Parking Brake Cylinder Rod clears the wheel rotor.
3. The machine will now roll when pushed or pulled.
4. Be sure to open the needle valve and verify that the cylinder rod has extended before the machine is operated.

⚠ WARNING ⚠

Never operate work platform with the Parking Brake inoperative. Serious injury or damage could result.

Never tow faster than .3 m/sec (1 ft./sec.).

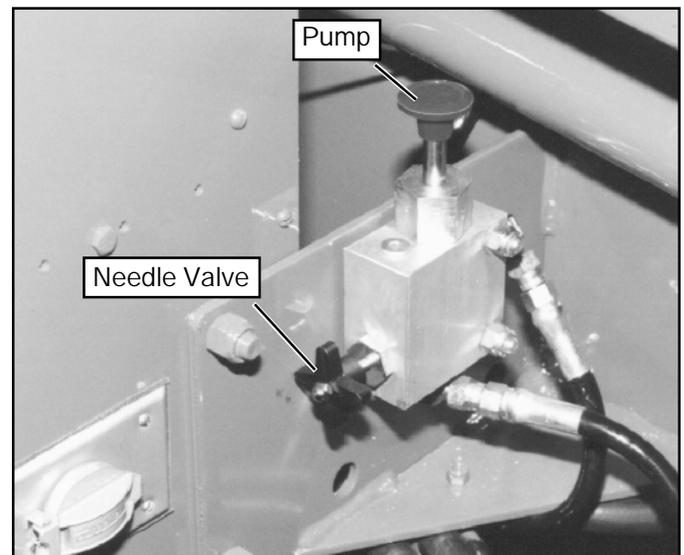


Figure 3: Brake Release Pump

Fold Down Guardrails

This procedure is only for passing through doorways. Guardrails must be returned to proper position before using the machine.

Fold Down Procedure (Figure 4)

Note: When performing the following procedures retain all fasteners.

1. Place controller on platform.
2. Starting at the front of the platform, remove nuts, bolts and washers from the top of the front guardrail. Fold the front guardrail down onto the platform.

3. Close and latch the gate.
4. Remove nuts, bolts and washers from the top of the rear guardrail. Fold the rear guardrail down onto the platform being careful to keep gate latched at all times.
5. Remove nuts, bolts and washers from the top of the side guardrails and from the slideout deck midrail. Lift up and fold one side guardrail in so it rests on the deck. Repeat with other side guardrails.

Erection Procedure

1. Raise side guardrails making sure each is pushed down to secure the guardrail in the vertical position.
2. Install bolts, washers and nuts between the side guardrails, tighten securely.
3. Raise rear guardrail assembly, aligning holes and install bolts, washers and nuts. Tighten securely.

⚠ DANGER ⚠

Before entering Platform, guardrails must be securely fastened in their proper position.

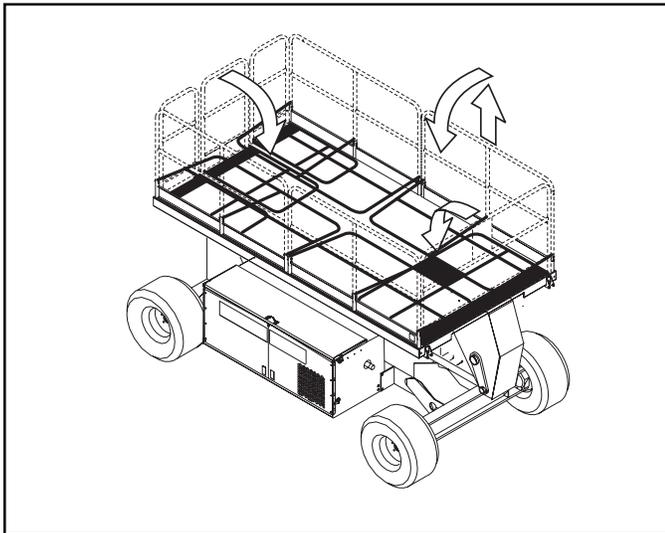


Figure 4: Fold Down Guardrails

Transporting Work Platform

By Forklift

Note: Forklifting is for transporting only.

⚠ CAUTION ⚠

See specifications for weight of work platform and be certain that forklift is of adequate capacity to lift machine.

Forklift from side of Chassis by lifting under the Chassis Modules (Figure 5).

By Crane

Secure straps to Lifting Lugs only (Figure 5).

By Truck

1. Manoeuvre the work platform into transport position and chock wheels.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the chassis tie down lugs (Figure 5).

⚠ CAUTION ⚠

Tie down lugs are not to be used to lift work platform.

Overtightening of chains or straps through tie down lugs may result in damage to work platform.

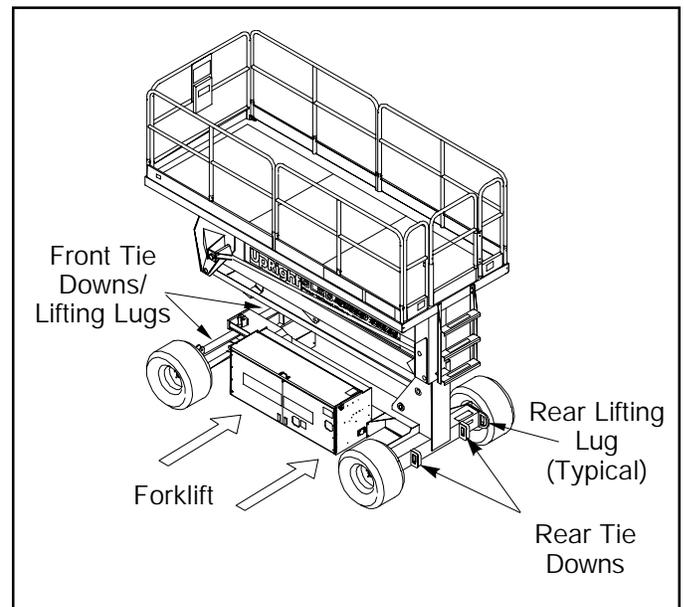


Figure 5: Transporting Work Platform

Maintenance

⚠ DANGER ⚠

Never perform service on the work platform while the platform is elevated.

Note: No normal (routine) maintenance on the SL26/30N should require the platform to be raised.

Battery Maintenance

WARNING

Hazard of explosive gas mixture. Keep sparks, flame, and smoking material away from battery(ies).

Always wear safety glasses when working with batteries.

Battery fluid is highly corrosive. Thoroughly rinse away any spilled fluid with clean water.

Battery Inspection and Cleaning

Check battery fluid level daily, especially if work platform is being used in a warm, dry climate. If required, add distilled water ONLY. Use of tap water with high mineral content will shorten battery life.

CAUTION

If battery water level is not maintained, batteries will not fully charge, creating a low discharge rate which will damage motor/pump unit and void warranty.

The batteries should be inspected regularly for signs of cracks in the cases, electrolyte leakage and corrosion of the terminals. Inspect cables for worn spots or breaks in the insulation and for broken cable terminals.

Clean the batteries when there are signs of corrosion at the terminals or when electrolyte has overflowed during charging. Use a baking soda solution to clean the battery, taking care not to get the solution inside the cells. Rinse thoroughly with clean water. Clean battery and cable contact surfaces to a bright metal finish whenever a cable is removed.

Battery Charging

Note: Batteries will charge when the engine is running. However, when Electric Mode is used primarily, batteries will require AC charging.

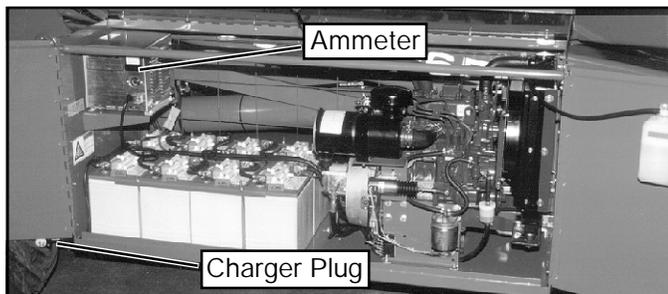


Figure 6: Power Module, Chassis Right Side

WARNING

Charge the batteries only in a well ventilated area.

Do not charge the batteries when the work platform is in an area containing sparks or flames.

Permanent damage to the batteries will result if the batteries are not immediately recharged after discharging.

Never leave the charger unattended for more than two days.

Never disconnect the cables from the batteries when the charger is operating.

Keep the charger dry.

Charge batteries as follows:

1. Check the batteries fluid level. If the electrolyte level is lower than 10 mm ($\frac{3}{8}$ in.) above the plates, add clean, distilled water only.
2. Verify charger voltage switch is set to the correct voltage.
3. Connect extension cord (1.5 mm² (12 guage) conductor minimum and 15 m (50 ft.) in length maximum) to charger plug located through cutout at the left side of the chassis (Figure 6). Connect extension cord to properly grounded outlet of proper voltage and frequency.
3. The charger turns on automatically after a short delay.
4. The charger turns off automatically when the batteries are fully charged.

Battery Cell Equalization

The specific gravity of the electrolyte in the battery cells should be equalized monthly. To do this, charge the battery as outlined in Battery Charging. After this initial charge, check the electrolyte level in all cells and add distilled water as necessary. Then, charge the batteries for an additional 8 hours. During this time, the charging current will be low (4 amps) as the cells are equalizing.

After equalization, the specific gravity of all cells should be checked with a hydrometer. The temperature corrected specific gravity should be 1.260. If the battery contains any cells with corrected readings below 1.230, the battery should be replaced.

Do not check the specific gravity in a cell to which water has just been added. If there is not enough electrolyte in a fully charged cell to obtain a sample for the hydrometer, add water and continue charging for 1 to 2 hours to adequately mix the water and electrolyte.

Routine Service

Use the following table as a guide for routine maintenance. **Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.** Refer to the Service Manual for complete service instructions.

Please copy this page and use the Routine Service table as a checklist when inspecting a machine for service.

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Engine Oil	Check level and condition	Daily			
	Check for leaks	Daily			
	Change oil & filter (Dual Fuel)	30D			
	Change oil & filter (Diesel)	100HOURS			
Engine Fuel System	Check fuel level	Daily			
	Check for leaks	Daily			
	Replace fuel filter	6M			
	Check air cleaner	Daily			
Engine Battery System	Check electrolyte level	Daily			
	Check specific gravity	30D			
	Clean exterior	6M			
	Check battery cable condition	Daily			
Engine Coolant (Kubota)	Clean terminals	6M			
	Check coolant level (with engine cold)	Daily			
Hydraulic Oil	Replace coolant	3M			
	Check oil level	Daily			
	Change filter	6M			
Hydraulic System	Drain and replace oil	2Y			
	Check for leaks	Daily			
	Check hose connections	30D			
Emergency Hydraulic System	Check hoses for exterior wear	30D			
	Open the emergency lowering valve and check for serviceability	Daily			
Controller	Check switch operation	Daily			
Control Cable	Check the exterior of the cable for pinching, binding or wear	Daily			
Platform Deck and Rails	Check fasteners for proper torque	Daily			
	Check welds for cracks	Daily			
	Check condition of deck	Daily			
Tires	Check for damage	Daily			
	Check air pressure (50psi-26x12.00-12NHS)	Daily			
	Check lug nuts (torque to 90 ft. lbs. [123 Nm])	30D			
Hydraulic Pump	Wipe clean	30D			
	Check for leaks at mating surfaces	30D			
	Check for hose fitting leaks	Daily			
	Check mounting bolts for proper torque	30D			
	Check the drive coupling for proper alignment and lubricate	1Y			
Drive Motors	Lubricate pump splines (Kohler engine)	6M			
	Check for operation and leaks	Daily			
Steering System	Check hardware & fittings for proper torque	6M			
	Grease pivot pins	30D			
	Oil king pins	30D			
	Check steering cylinder for leaks & mounting bolts for proper torque	30D			

Routine Service Table Key

Interval

Daily=each shift (every day) or every eight hours

30d=every month (30 days) or every 50 hours

3m=every 3 months or 125 hours

6m=every 6 months or 250 hours

1y=every year or 500 hours

2y=every 2 years or 1000 hours

Y=Yes/Acceptable

N=No/Not Acceptable

R=Repaired/Acceptable

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Elevating Assembly	Inspect for structural cracks	Daily			
	Check pivot points for wear	30D			
	Check mounting pin pivot bolts for proper torque	30D			
	Check linkage gear for wear	6M			
	Check elevating arms for bending	6M			
	Grease linkage pins	30D			
Chassis	Grease linkage gear	30D			
	Check hoses for pinch or rubbing points	Daily			
	Check component mounting for proper torque	6M			
Lift Cylinder	Check welds for cracks	Daily			
	Check the cylinder rod for wear	30D			
	Check mounting pin pivot bolts for proper torque	30D			
	Check pivot pin snap rings	30D			
	Check seals for leaks	30D			
	Inspect pivot points for wear	30D			
Axle Cylinder	Check fittings for proper torque	30D			
	Check the cylinder rod for wear	30D			
	Check mounting pin pivot bolts for proper torque	30D			
	Check seals for leaks	30D			
Entire Unit	Inspect pivot points for wear	30D			
	Check fittings for proper torque	30D			
	Check for and repair collision damage	Daily			
Labels	Check fasteners for proper torque	3M			
	Check for corrosion-remove and repaint	6M			
	Lubricate	30D			
Labels	Check for peeling, missing, or unreadable labels & replace	Daily			

Service Report

Date: _____

Owner: _____

Model No: _____ Serial No: _____

Serviced By: _____

Service Interval: _____

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Specifications*

ITEM	SL26N	SL30N
Platform Size (Inside Toeboards)		
Standard	1.46 m x 3.59 m [57.5 in. x 141.5 in.]	1.46 m x 4.22 m [57.5 in. x 166.25 in.]
w/ Extension	1.46 m x 4.61 m [57.5 in. x 181.5 in.]	N/A
Max. Platform Capacity		
Standard	567 kg [1250 lbs.]	453 kg [1000 lbs.]
w/ Extension	567 kg [1250 lbs.]	N/A
on Extension	227 kg [500 lbs.]	N/A
Max. No. Of occupants		
Standard	5 people	4 people
on Extension	2 person	N/A
Height		
Working Height	9.75 m [32 ft.]	10.97 m [36 ft.]
Max. Platform Height	7.93 m [26 ft.]	9.14 m [30 ft.]
Min. Platform Height	1.5 m [59 in.]	1.5 m [59 in.]
Dimensions		
Weight	2871 kg	3013 kg
Overall Width	1.83 m [72 in.], with standard tyres	1.83 m [72 in.], with standard tyres
Overall Height	2.40 m [94.5 in.]	2.40 m [94.5 in.]
Overall Length	3.79 m [149 in.]	4.39 m [173 in.]
Driveable Height	7.93 m [26 ft.]	10.97 m [30 ft.]
Surface Speed		
Platform Lowered: Diesel	0 to 5.9 km/h [0 to 3.7 mph]	0 to 5.9 km/h [0 to 3.7 mph]
Electric	0 to 4.3 km/h [0 to 2.7 mph]	0 to 4.3 km/h [0 to 2.7 mph]
Platform Raised: Diesel	0 to .8 km/h [0 to .5 mph]	0 to .8 km/h [0 to .5 mph]
Electric	0 to .6 km/h [0 to .4 mph]	0 to .6 km/h [0 to .4 mph]
System Voltage	24 Volt DC	24 Volt DC
Battery Charging	40 Amp 110/220 V 50 Hz Charger, 42 Amp Alternator	40 Amp 110/220 V 50 Hz Charger, 42 Amp Alternator
Hydraulic Tank Capacity	45.5 L [12 gal.]	45.5 L [12 gal.]
Maximum Hydraulic System Pressure	172 bar [2500 psi]	172 bar [2500 psi]
Hydraulic Fluid		
Normal Use (>32 °F [0 °C])	ISO #46	ISO #46
Low Temp. Use (-10 to 32 °F [-23 to 0 °C])	5W-20 Motor Oil	5W-20 Motor Oil
Lift System	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder
Fuel Tank Capacity	36 L (9.5gal.)	36 L (9.5gal.)
Lift Speed		
Diesel	Raise, 20 sec./Lower, 35 sec.	Raise, 23 sec./Lower, 35 sec.
Electric	Raise, 33 sec./Lower, 35 sec.	Raise, 33 sec./Lower, 35 sec.
Power Source	20 HP Kubota Diesel, 3 Cylinder, water Cooled Engine, Two 24V Electric Motors, Eight 6V 220 Amp/Hr Batteries	20 HP Kubota Diesel, 3 Cylinder, water Cooled Engine, Two 24V Electric Motors, Eight 6V 220 Amp/Hr Batteries
Drive Control	Proportional	Proportional
Control System	Joystick Controller with Interlock Lever and Thumb Rocker Steering, Toggle Selector and Emergency Stop Switches	Joystick Controller with Interlock Lever and Thumb Rocker Steering, Toggle Selector and Emergency Stop Switches
Horizontal Drive	Dual Rear Wheel, Hydraulic Motors	Dual Rear Wheel, Hydraulic Motors
Tyres	26x12 - 12NHS Super Terra-Grip, With Trac-Seal	26x12 - 12NHS Super Terra-Grip, With Trac-Seal
Parking Brake	Spring Applied, Hydraulic Release	Spring Applied, Hydraulic Release
Turning Radius (inside)	2.97 m [9 ft. 9 in.]	2.97 m [9 ft. 9 in.]
Maximum Gradeability	Diesel: 12° [21%] Electric: 11° [20%]	Diesel: 12° [21%] Electric: 11° [20%]
Wheel Base	2.54 m [100 in.]	2.54 m [100 in.]
Guardrails	1.11 m [43.5 in.] high, Fold Down with Gate	1.11 m [43.5 in.] high, Fold Down with Gate
Toeboard	152 mm [6 in.] High	152 mm [6 in.] High

* Specifications subject to change without notice.

Meets or exceeds all applicable requirements of OSHA and ANSI A92.6-1999

Hot weather or heavy use may reduce performance.

Refer to Service Manual for complete parts and service information.

FOR MORE INFORMATION

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