

Operator Manual

X-Series

SERIAL NO. 20000 to Current

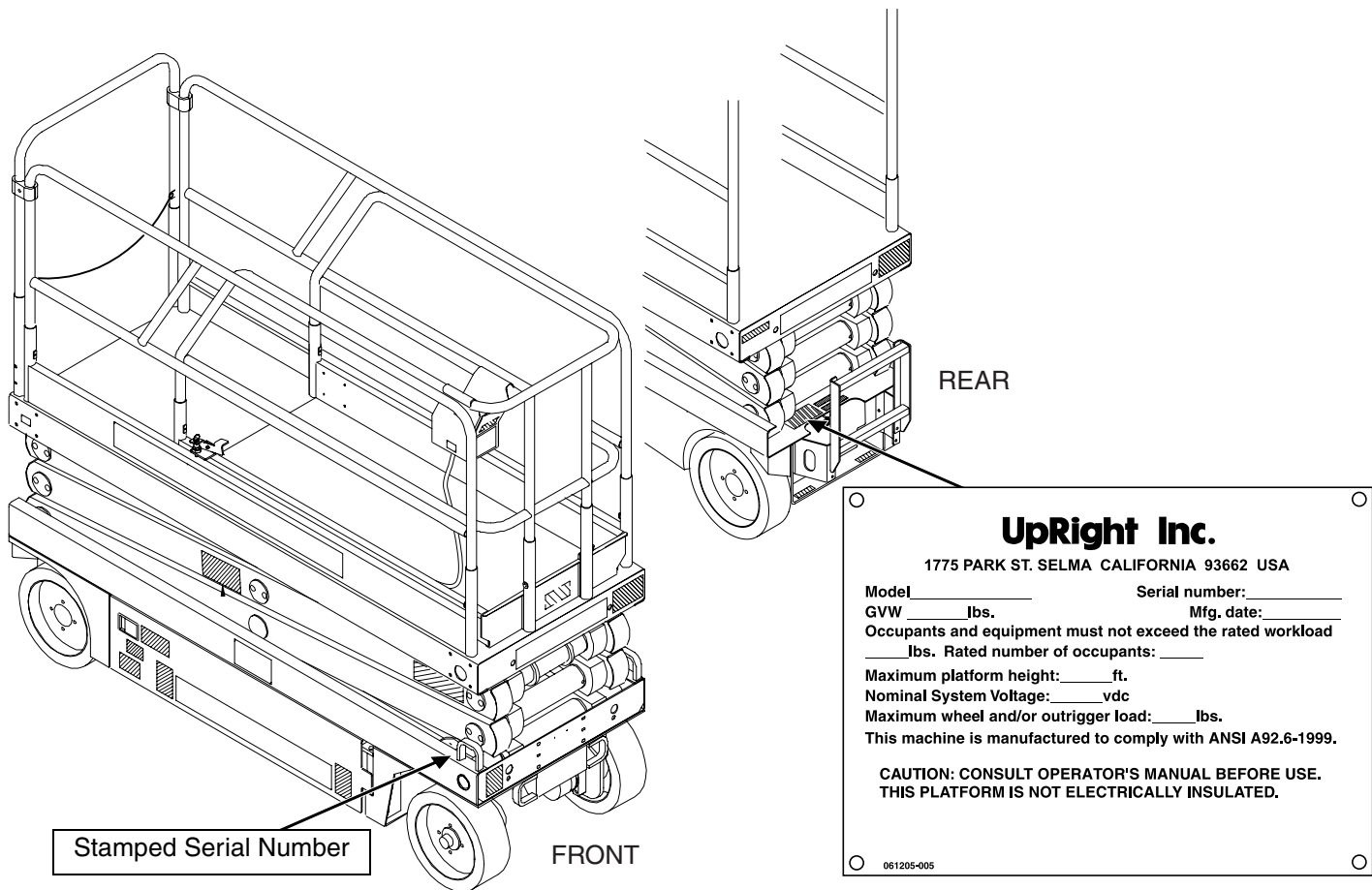
WARNING

All personnel shall carefully read, understand and follow all safety rules, operating instructions, and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES of ANSI A92.6-1999 before performing maintenance on or operating any UpRight Aerial Work Platform.

X-Series

Serial Number 20000 – Current

When contacting UpRight for service or parts information, be sure to include the MODEL and SERIAL NUMBERS from the equipment nameplate. Should the nameplate be missing, the SERIAL NUMBER is also stamped on top of the chassis above the front axle pivot.



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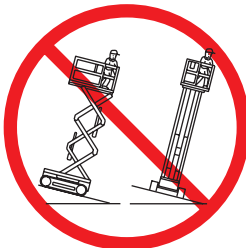


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OPERATOR MANUAL

WARNING

All personnel shall carefully read, understand and follow all safety rules, operating instructions, and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES of ANSI A92.6-1999 before performing maintenance on or operating any UpRight Aerial Work Platform.

Safety Rules

Electrocution Hazard	Tip Over Hazard	Collision Hazard	Fall Hazard
			
NEVER operate the machine within ten (10) feet of power lines. THIS MACHINE IS NOT INSULATED.	NEVER operate the boom or drive with the platform elevated unless on firm, level surface.	NEVER position the machine without first checking for overhead obstructions or other hazards.	NEVER climb, stand or sit on the platform guardrails or midrail.

- **NEVER** operate the machine without first surveying the work area for surface hazards such as holes, drop-offs, bumps, curbs, or debris.
- **NEVER** operate the machine if all guardrails are not properly in place and secured.
- **ALWAYS** close and secure the entrance after entering the platform.
- **NEVER** use ladders or scaffolding on the platform.
- **NEVER** exceed the maximum platform load. See "Specifications" on page 20.
- **NEVER** attach overhanging loads or increase platform size.
- **LOOK** up, down and around for overhead obstructions and electrical conductors.
- **DISTRIBUTE** all platform loads evenly on the platform.
- **NEVER** use damaged equipment. (Contact UpRight for instructions. See toll free phone number on inside cover.)
- **NEVER** change operating or safety systems.
- **INSPECT** the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, damaged cables or hoses, loose wire connections, and wheel bolts.
- **NEVER** climb down elevating assembly when the platform is elevated.
- **IF ALARM SOUNDS** while the platform is elevated, **STOP**, carefully lower the platform. Move the machine to a firm, level surface.
- **IN CASE OF EMERGENCY** push the Emergency Stop Switch to cut power to all machine functions.
- **NEVER** perform service on the machine while the platform is elevated without blocking the elevating assembly.
- **NEVER** recharge batteries near sparks or open flame; batteries that are being charged emit explosive hydrogen gas.
- **NEVER** replace any component or part with anything other than original UpRight replacement parts without the manufacturer's written consent.
- **VERIFY** that all labels are in place and legible before using.
- **NEVER** tow the machine. Transport by truck or trailer only.
- **AFTER USE**, secure the machine against unauthorized use by turning the Chassis Key Switch OFF and removing the key.

California Proposition 65 Warning

Battery posts, terminals and related accessories contain lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

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INTRODUCTION

This manual covers the X-Series Aerial Work Platform. **This manual must be stored on the machine at all times.**

Read, understand and follow all safety rules and operating instructions before attempting to operate the machine.

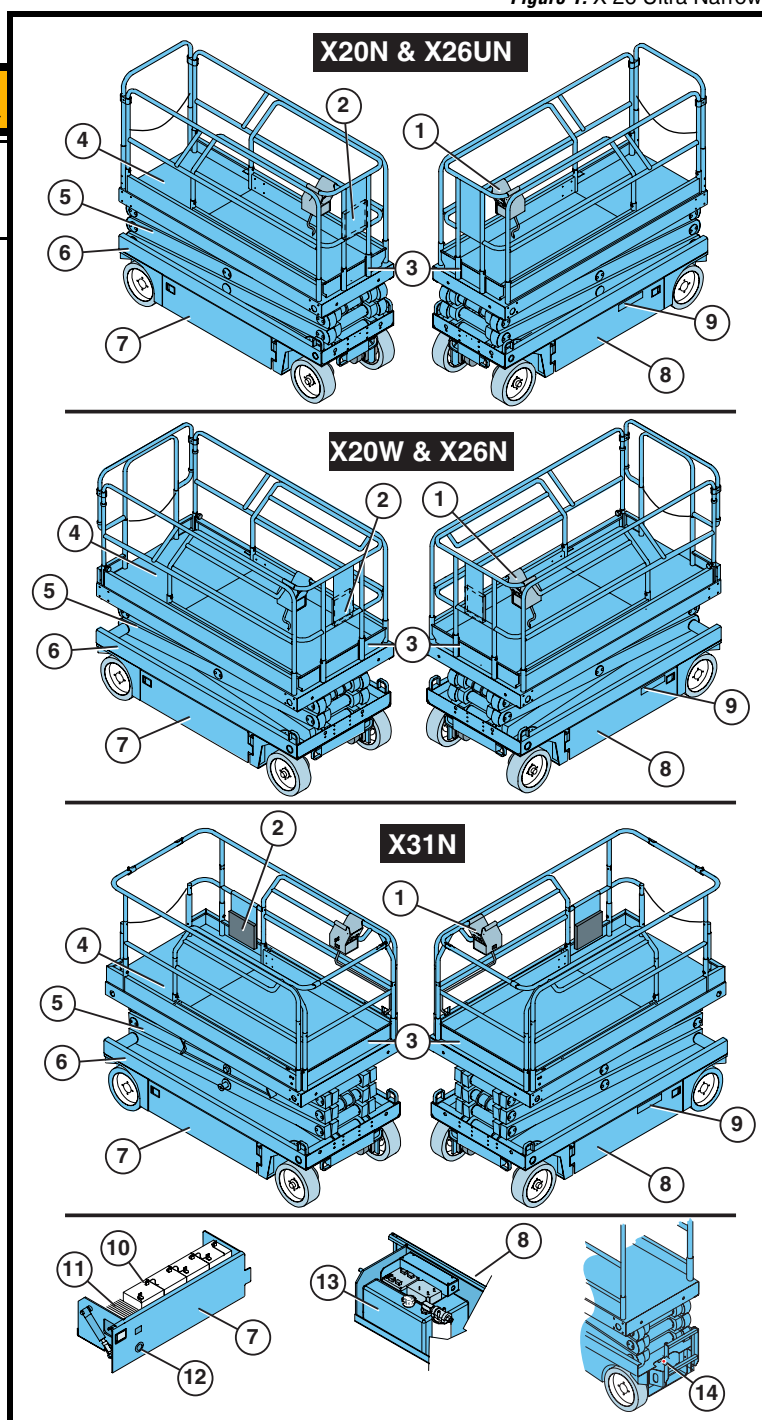
GENERAL DESCRIPTION

! WARNING !

DO NOT use the machine if all guardrails are not properly in place and secured.

1. Platform Controls
2. Manual Case
3. Platform Extension
4. Platform
5. Elevating Assembly
6. Chassis
7. Power Module
8. Control Module
9. Chassis Controls
10. Batteries
11. Battery Charger
12. Charger Outlet Plug
13. Hydraulic Fluid Reservoir
14. Emergency Lowering Valve Knob

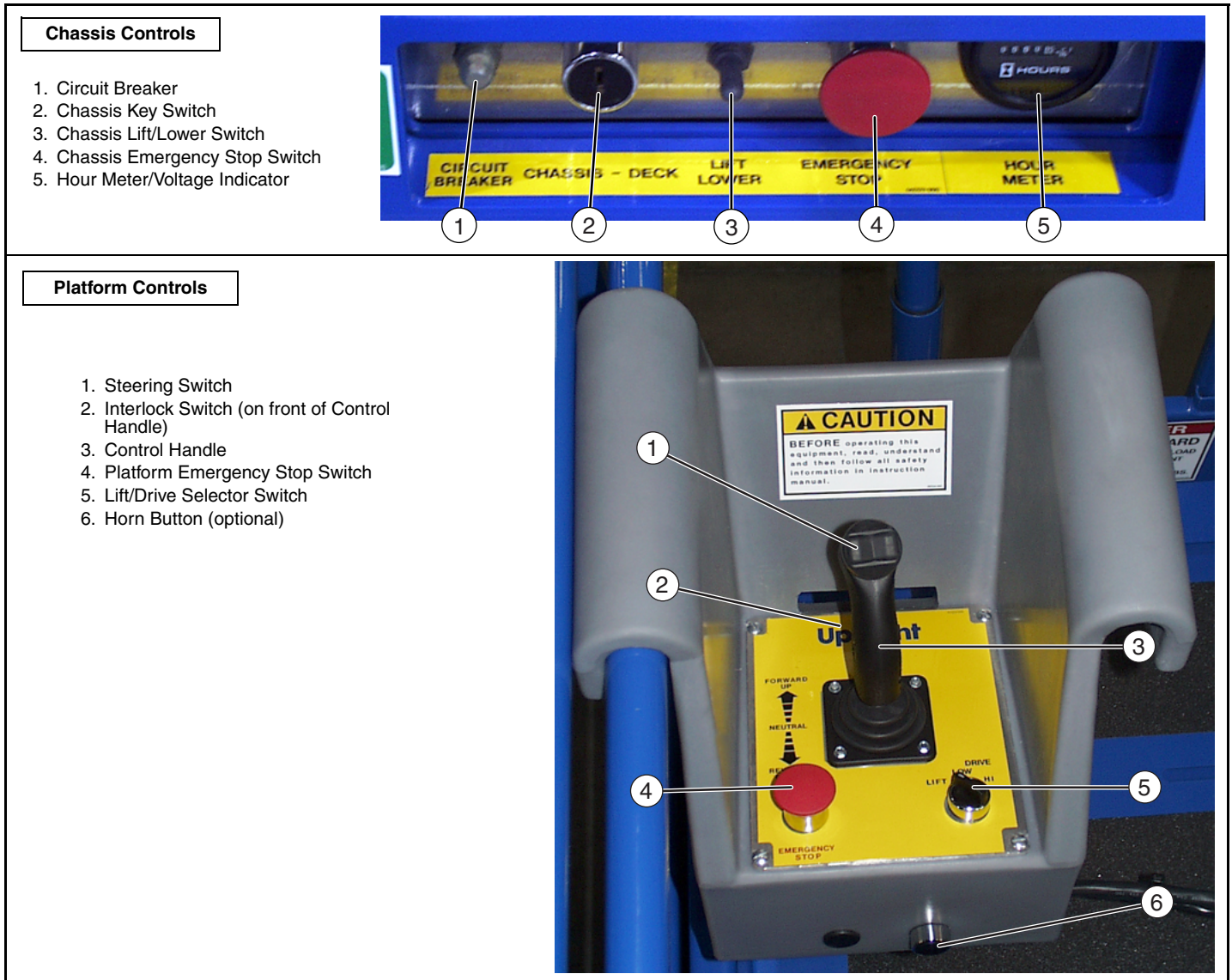
Figure 1: X 26 Ultra Narrow



CONTROLS AND INDICATORS

The operator shall know the location of each control and indicator and have a thorough knowledge of the function and operation of each before attempting to operate the unit.

Figure 2: Controls and Indicators



PRE-OPERATION SAFETY INSPECTION

NOTE: Carefully read, understand and follow all safety rules, operating instructions, labels, and the Scaffold Industry Association's MANUAL OF RESPONSIBILITIES of ANSI A92.6-1999. Perform the following steps each day before use.

1. Open modules and inspect for damage, fluid leaks or missing parts.
2. Check the level of the hydraulic fluid with the platform fully lowered. See "Hydraulic Fluid" on page 15. Add recommended hydraulic fluid if necessary. See "Specifications" on page 20.
3. Check that fluid level in the batteries is correct. See "Battery Maintenance" on page 15.
4. Verify that the batteries are charged.
5. Check that the A.C. extension cord has been disconnected from the charger plug.
6. Check that all guardrails are properly in place and secured.
7. Inspect the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, damaged cables or hoses, loose wire connections and wheel bolts.

SYSTEM FUNCTION INSPECTION

Refer to Figure 1 and Figure 2 for the locations of various controls and indicators.



STAND CLEAR of the machine while performing the following checks.

Before operating the machine, survey the work area for surface hazards such as holes, drop-offs, bumps, curbs, or debris.

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

Protect the control cable from possible damage while performing checks.

1. Move the machine, if necessary, to an unobstructed area to allow for full elevation.
2. Turn the Chassis and Platform Emergency Stop Switches ON by pulling the buttons out.
3. Turn and hold the Chassis Key Switch to CHASSIS.
4. Push the Chassis Lift/Lower Switch to the LIFT position and elevate the platform approximately 2,1 m (7 ft.).
5. Install the scissor brace as described on page 13.
6. Visually inspect the elevating assembly, lift cylinder, cables, and hoses for cracked welds and structural damage, loose hardware, hydraulic leaks, and loose wire connections. Check for missing or loose parts.
7. Verify that the Depression Mechanism Supports have rotated into position under the machine.
8. Check Level Sensor operation (see "Level Sensor" on page 14).
9. Remove the scissor brace as described on page 13.
10. Turn and hold the Chassis Key Switch to CHASSIS.
11. Push the Chassis Lift/Lower Switch to the LIFT position and fully elevate the platform.
 - Check for erratic operation.
12. Partially lower the platform by pushing Chassis Lift/Lower Switch to LOWER, and check for proper operation of the audible lowering alarm.
13. Check the Emergency Lowering Valve for proper operation (see "Emergency Lowering" on page 7).
14. Lower the platform.
15. Push the Chassis Emergency Stop Switch to check for proper operation. All machine functions should be disabled. Pull out the Chassis Emergency Stop Switch to resume.
16. Turn the Chassis Key Switch to DECK.
17. Check that the route is clear of surface hazards such as holes, drop-offs, bumps, curbs, or debris, and is level and capable of supporting the wheel loads.
18. Mount the platform and properly close and secure the entrance.
19. Turn the Lift/Drive Switch to DRIVE.
20. Check for speed and directional control.
 - While engaging the Interlock Switch, slowly position the Control Handle to FORWARD then REVERSE. The farther you push or pull the Control Handle from center the faster the machine will travel.
 - **X20W – X26N – X26UN – X31N:** Perform this test in both HI and LOW DRIVE.
21. Push the Steering Switch RIGHT, then LEFT, to check for steering control.
22. Check clearances above, below, and to the sides of machine.
23. Turn the Lift/Drive Switch to LIFT to check platform lift controls.
 - While engaging the Interlock Switch, move the Control Handle to UP to raise the platform.
 - While engaging the Interlock Switch, move the Control Handle to DOWN to lower the platform. The platform should descend and the audible lowering alarm should sound.
24. Push the Platform Emergency Stop Switch to check for proper operation. All machine functions should be disabled. Pull out the Platform Emergency Stop Switch to resume.

OPERATION

Before operating the work platform, ensure that the Pre-Operation Safety Inspection and System Function Inspection have been completed and that any deficiencies have been corrected. **Never operate a damaged or malfunctioning machine.** The operator must be thoroughly trained on this machine.

PLATFORM EXTENSION

1. Mount the platform and properly close and secure the entrance.
2. Depress the foot lever located at the rear of the platform extension. Push the platform extension forward until the pin engages the front stop.
3. To retract the platform extension, depress the foot lever and pull the platform extension toward the rear of the machine until the pin engages the rear stop.

TRAVEL WITH THE PLATFORM LOWERED

1. Check that the route is clear of surface hazards such as holes, drop-offs, bumps, or debris.
2. Check that the route is level, and is capable of supporting the wheel loads.
3. Verify that the Chassis Key Switch is turned to DECK and the Chassis Emergency Stop Switch is ON (pulled out).
4. Mount the platform and properly close and secure the entrance.
5. Check clearances above, below, and to the sides of machine.
6. Pull the Platform Emergency Stop Switch out to the ON position.
7. Turn the Lift/Drive Switch to DRIVE.

NOTE: Turn Lift/Drive Switch to HI for traveling on level ground, or to LOW when extra torque is required for climbing grades.

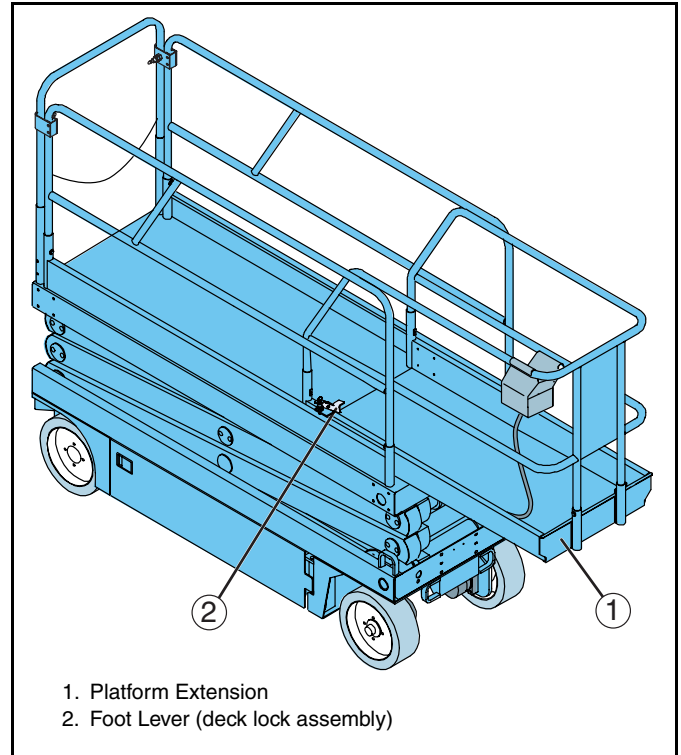
8. Engage the Interlock Switch and move the Control Handle to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Control Handle is moved.

STEERING

1. Turn the Lift/Drive Switch to DRIVE.
2. While engaging the Interlock Switch, push the Steering Switch to the RIGHT or LEFT to turn the wheels in the desired direction. Observe the tires while maneuvering the machine to ensure proper direction.

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

Figure 3: Platform Extension



ELEVATING THE PLATFORM

1. Locate a firm, level surface.
2. Check clearances above, below, and to the sides of platform.
3. Turn the Lift/Drive Switch to LIFT.
4. While engaging the Interlock Switch, push the Control Handle FORWARD.
5. If the machine is not level the level sensor alarm will sound and the machine will not lift or drive. **If the level sensor alarm sounds the platform must be lowered and the machine moved to a firm, level surface before attempting to elevate the platform.**

NOTE: The Depression Mechanism supports will deploy automatically as the platform elevates and will retract after the platform has been lowered completely and has been driven.

TRAVEL WITH WORK PLATFORM ELEVATED

NOTE: The machine will travel at reduced speed when the platform is elevated.

1. Check that the route is clear of surface hazards such as holes, drop-offs, bumps, curbs, or debris.
2. Check that the route is level, and is capable of supporting the wheel loads.
3. Check clearances above, below, and to the sides of platform.
4. Turn the Lift/Drive Switch to DRIVE.
5. Engage the Interlock Switch and move the Control Handle to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Control Handle is moved.
6. If the machine is not level the level sensor alarm will sound and the machine will not lift or drive. **If the level sensor alarm sounds the platform must be lowered and the machine moved to a firm, level surface before attempting to elevate the platform.**

LOWERING THE PLATFORM

1. Turn the Lift/Drive Switch to LIFT.
2. Check around the base of the platform to ensure that no one is in contact with the machine. Engage the Interlock Switch and pull back on the Control Handle to lower the platform.

EMERGENCY LOWERING

The Emergency Lowering Valve control is located at the rear of the machine, behind the ladder.

Figure 4: Emergency Lowering Knob



If the platform should fail to lower, NEVER climb down the elevating assembly.

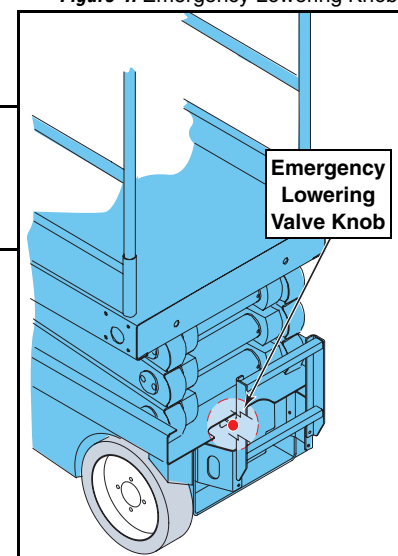
Stand clear of the elevating assembly while operating the Emergency Lowering Valve.

X20N – X20W – X26N – X26UN

1. Open the Emergency Lowering Valve by pulling and holding the knob.
2. To close, release the knob. The platform will not elevate if the Emergency Lowering Valve is open.

X31N

1. Open the Emergency Lowering Valve by pushing down on the toggle switch and holding it.
2. Once the platform is fully lowered, release the toggle switch to close the valve. The platform will not elevate if the Emergency Lowering Valve is open.



GUARDRAILS, X20N – X26UN

Figure 5: Guardrails

The guardrails may be lowered for the purpose of passing through a standard doorway. **Guardrails must be returned to proper position before using the machine.**

! WARNING !

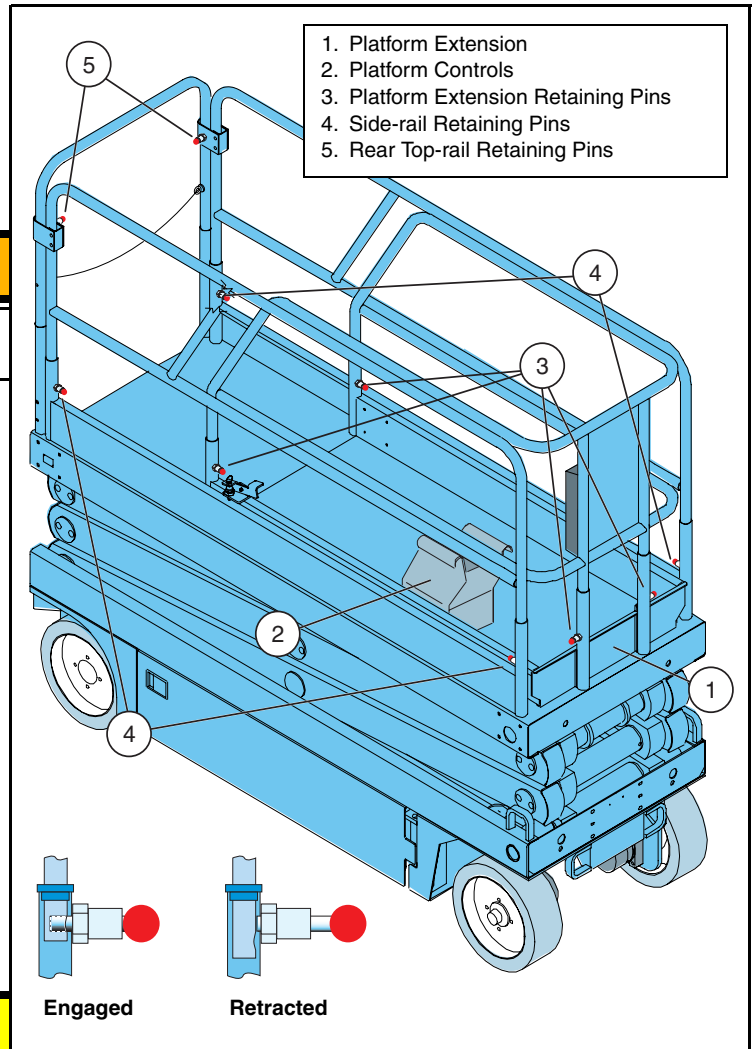
DO NOT use the machine if all guardrails are not properly in place and secured.

LOWERING PROCEDURE

1. Ensure that the platform extension is fully retracted and the deck lock pin is engaged (see "Platform Extension" on page 6).
2. Place the Platform Controls on the deck of the platform extension.
3. Lower the platform extension guardrail;
 - a. Pull to retract the retaining pins.
 - As the retaining pin is pulled, the rail will drop slightly and hold the pin in the retracted position.
 - b. Hold the midrail with one hand as you retract the final retaining pin.

! CAUTION !

The guardrail could drop suddenly when the final retaining pin is retracted. Keep hands away from the slide tubes to prevent injury.



- c. Push down on the platform extension guardrail to lower it completely.
 - The retaining pins will remain in the retracted position.
4. Lower the side guardrails and rear guardrail as a single unit;
 - Repeat steps 3a through 3c.
5. Lower the rear top-rail;
 - Pull the two retaining pins and lower the rear top-rail completely.

RAISING PROCEDURE

1. Raise the side guardrails and rear guardrail as one unit;
 - Pull up on the side guardrails and raise them until all the retaining pins engage.
2. Raise the rear top-rail;
 - Pull up on the rear top-rail until the retaining pins engage.
3. Raise the platform extension guardrail;
 - Pull up on the platform extension guardrail and raise it until all the retaining pins engage.
4. Hang the controller on the platform extension guardrail.

GUARDRAILS, X20W – X26N

The guardrails may be lowered for the purpose of passing through a standard doorway. Guardrails must be returned to proper position before using the machine.

LOWERING PROCEDURE

1. Ensure that the slide-out deck extension is fully retracted and the deck pin is locked. Place the Platform Controls on the floor of the platform.
2. Remove and retain the set screws from the side guardrails and the slide-out deck guardrails.
3. Lower the slide-out deck guardrail completely.
4. Lower the rear guardrail until it rests on the stop screws.
5. Lower the side guardrails completely.
6. Raise the rear guardrail until the retaining pins engage. Remove and retain the stop screws and nuts from the rear guardrail.
7. Pull the two retaining pins and lower the rear guardrail completely.

RAISING PROCEDURE

1. Raise the rear guardrail until the retaining pins engage.
2. Install the stop screws and nuts on the rear guardrail and torque to 20 N-m (15 ft. lbs.).
3. Pull the two retaining pins and lower the rear guardrail until it rests on the stop screws.
4. Raise the side guardrails until the tops are level with the rear guardrail.
 - Install the set screws
5. Raise the slide-out deck guardrail until the top is level with the side guardrails.
 - Install the set screws
6. Hang the controller on the slide-out deck guardrail.
7. Torque all set screws to 20 N-m (15 ft. lbs.).



DO NOT use the machine if all guardrails are not properly in place and secured.

FOLD DOWN GUARDRAILS, X31N

The guardrails may be lowered for the purpose of passing through a standard doorway. Guardrails must be returned to proper position before using the machine.

FOLD DOWN PROCEDURE

1. Unhook the controller from the side guardrail and place it on the floor of the platform.
2. Pull the retaining pin on the front guardrail and rotate inwards.
3. Pull the retaining pin on the rear guardrail and rotate inwards.
4. Starting with the slide-out deck guardrails and then the outer guardrails, lift up on each guardrail and fold inward.

ERECTION PROCEDURE

1. Starting with the outer guardrails and then the slide-out deck guardrails, raise each guardrail and drop it down, securing it in the vertical position.
2. Rotate the front and rear upper guardrails outward and secure them to the opposite side guardrails, using the retaining pins.
3. Hang the controller on the side guardrail.

PARKING BRAKE RELEASE

Perform the following only when the machine will not operate under its own power and it is necessary to move the machine or when winching onto a transport vehicle (see “Transporting the Machine” on page 11).

IMPORTANT: *Do Not* release the parking brakes if the machine is on a slope.

⚠ WARNING ⚠

Never winch or move the machine faster than 0,3 m/sec. (1 ft./sec.).

Never operate the machine with the parking brakes released. Serious injury or damage could result.

The parking brakes are integral to the drive motors. Each drive motor has two brake release nuts. Release and engage the parking brakes one wheel at a time. Turn the brake release nuts in stages ($\frac{1}{2}$ turn at a time) to prevent possible binding of the brake mechanism.

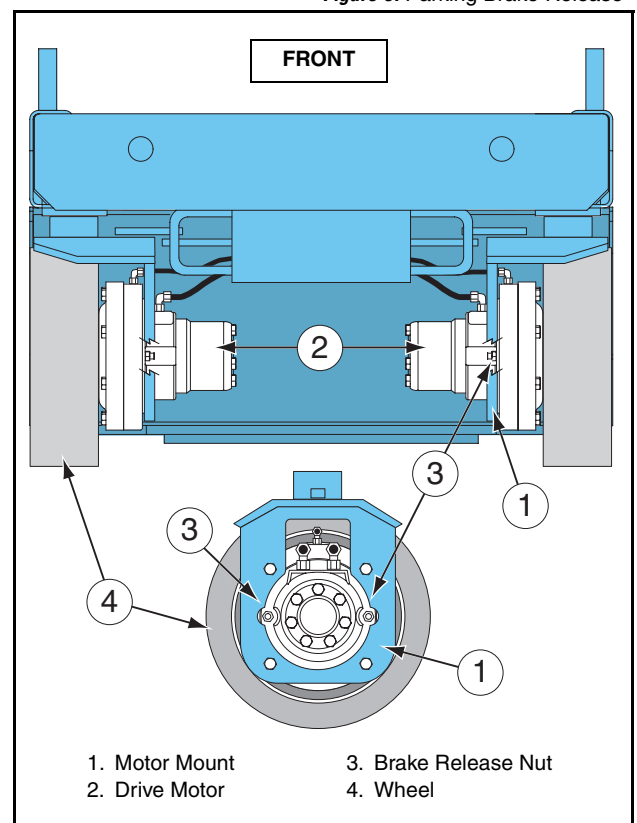
Figure 6: Parking Brake Release

RELEASE THE PARKING BRAKE

The front wheel motors each have two brake release nuts.

IMPORTANT: Turn the nuts alternately in $\frac{1}{2}$ turn increments to insure uniform adjustment and prevent binding.

1. Chock the rear wheels to prevent the machine from rolling.
2. Using a 13 mm socket wrench, turn the brake release nuts clockwise until they contact the motor body.
3. Alternately turn each nut clockwise in $\frac{1}{2}$ turn increments until resistance is felt (approximately two turns).
4. The brake is released.



ENGAGE THE PARKING BRAKE

1. Chock the rear wheels to prevent the machine from rolling.
2. Using a 13 mm socket wrench, alternately turn the brake release nuts counter-clockwise in $\frac{1}{2}$ turn increments.
 - Repeat until there is approximately 3.2 mm ($\frac{1}{8}$ in.) between the brake release nuts and the drive motor body.
3. Verify that the brakes have fully engaged before operating the machine by testing their ability to hold the machine on a 14.5° (26%) grade.

AFTER USE EACH DAY

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

TRANSPORTING THE MACHINE

Always use a transport vehicle when moving a machine to a work site. Towing the machine over long distances will damage the machine and void the warranty.

LIFTING BY CRANE

⚠ DANGER ⚠

See specifications for the weight of the machine and be certain that the crane is of adequate capacity to lift the machine.

Secure straps to chassis tie down/lifting points only (see Figure 7).

MOVING BY FORKLIFT

⚠ DANGER ⚠

Forklifting is for transport only.

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

Forklift from the rear of the machine using the forklift pockets provided. If necessary, the machine may be forklifted from the side by lifting under the Chassis Modules (refer to Figure 8).

Figure 7: Secure Crane Straps

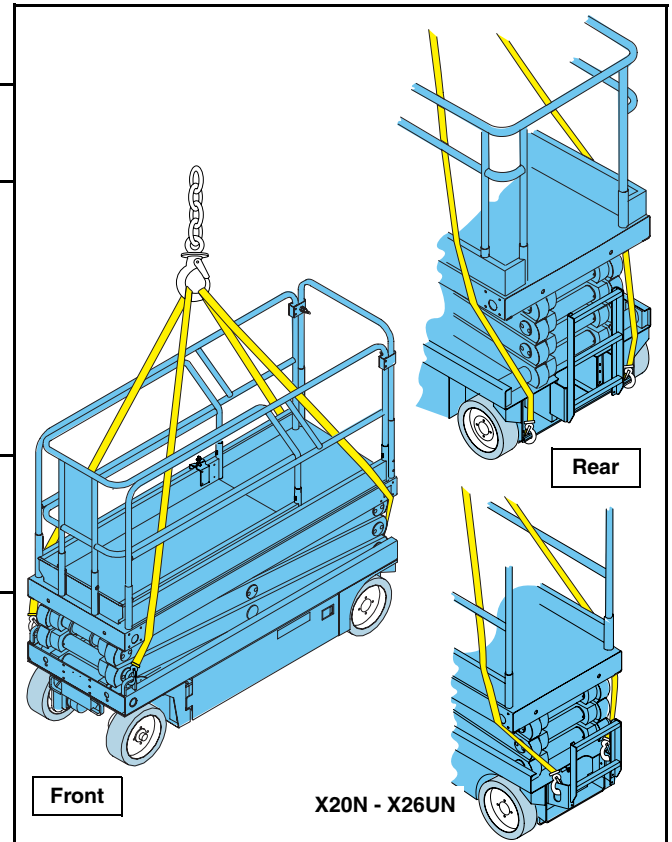
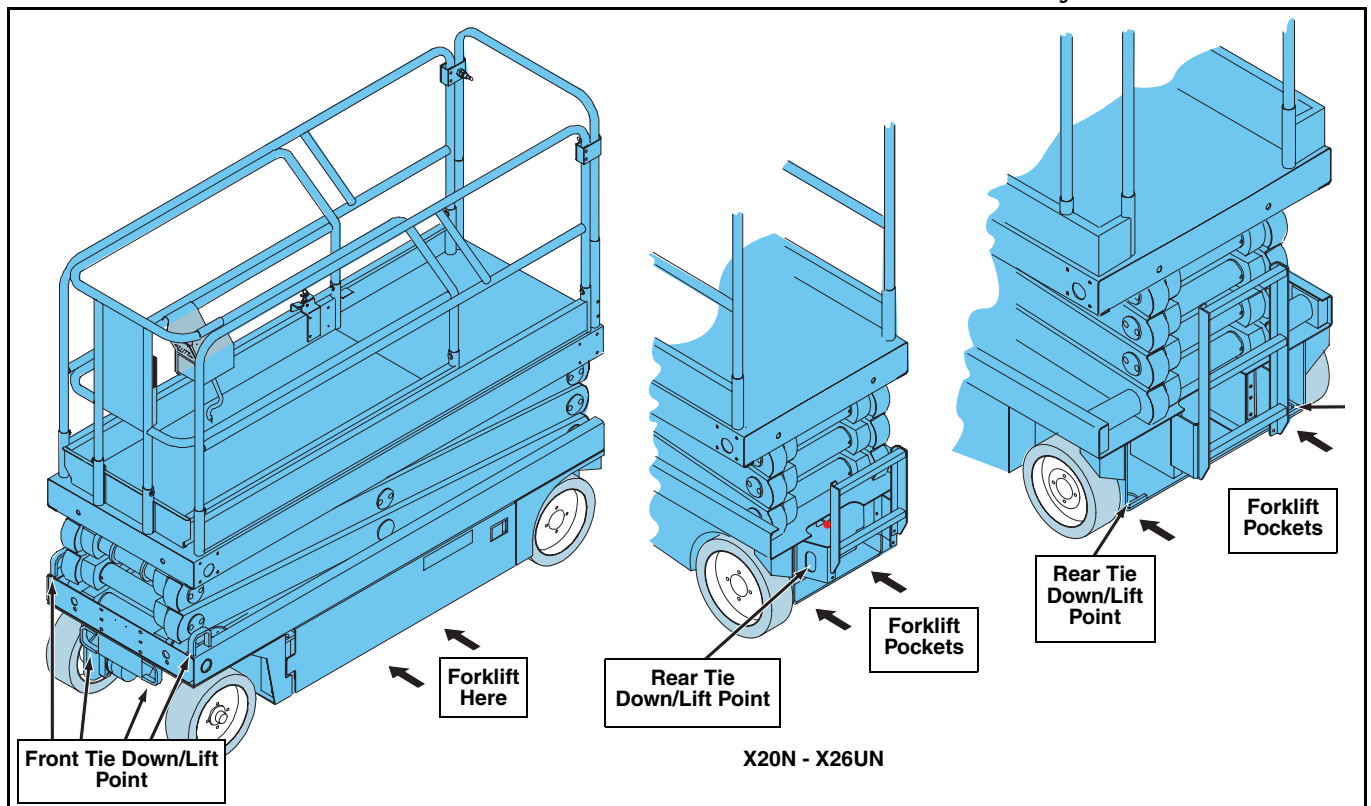


Figure 8: Tie Down and Lift Points



DRIVING OR WINCHING ONTO A TRUCK OR TRAILER

W A R N I N G

Never winch faster than 0,3 m/sec. (1 ft./sec.).

Never operate the machine with the parking brakes released. Serious injury or damage could result.

1. Loading the machine onto the truck or trailer;
 - A. To **Drive** the machine onto the transport vehicle:
 - a. Turn the Lift/Drive Switch to DRIVE LOW (hi-torque mode) and drive the machine up the ramp and into transport position.
 - b. Set the wheels straight and turn off the machine.
 - c. Chock the wheels.
 - B. To **Winch** the machine onto the transport vehicle:
 - a. Drive the machine up to the ramp.
 - b. Attach the winch cable to the tie down/lifting points.
 - c. Release the parking brakes (refer to "Parking Brake Release" on page 10).
 - d. Winch the machine into transport position
 - e. Chock the wheels.
 - f. Re-engage the parking brakes.
2. Secure the machine to the transport vehicle with chains or straps of adequate load capacity attached to the chassis tie down/lifting points (refer to Figure 8).

C A U T I O N

Overtightening chains or straps attached to the Tie Down points may result in damage to the machine

MAINTENANCE

⚠ WARNING ⚠

Never perform service while the platform is elevated without first blocking the elevating assembly.
DO NOT stand in the elevating assembly area while deploying or storing the brace.

BLOCKING THE ELEVATING ASSEMBLY

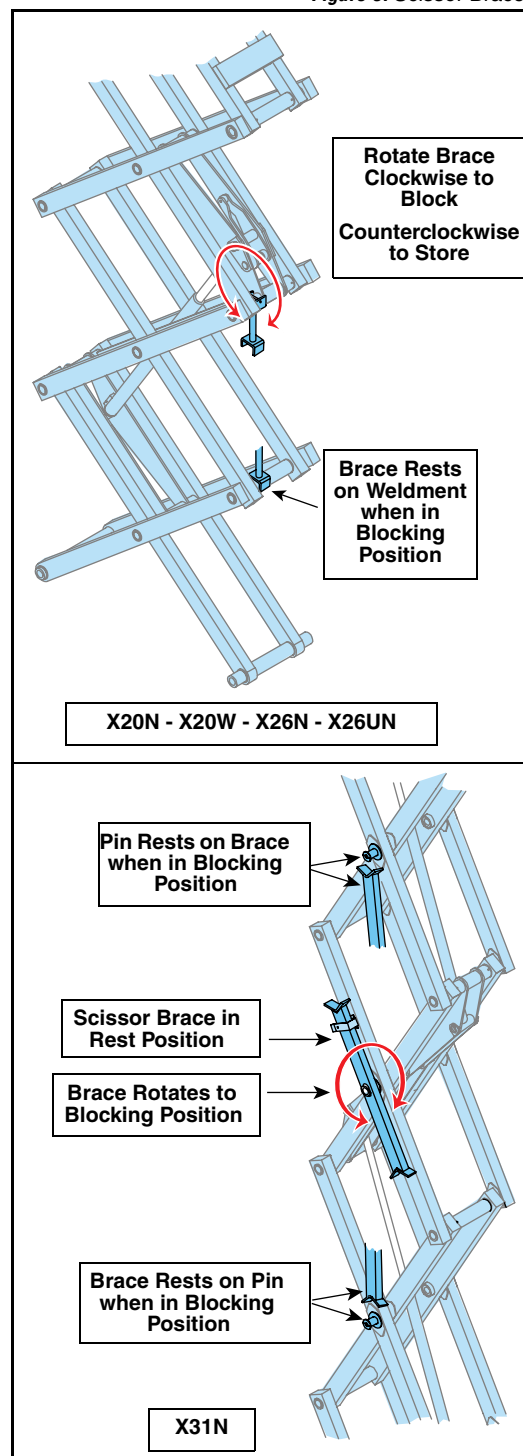
SCISSOR BRACE INSTALLATION

1. Park the machine on a firm, level surface.
2. Pull Chassis Emergency Stop Switch to the ON position.
3. Pull Platform Emergency Stop Switch to the ON position.
4. Turn and hold the Chassis Key Switch to CHASSIS.
5. Push the Chassis Lift/Lower Switch to LIFT to elevate the platform until the scissor brace can be rotated to the vertical position.
6. **X20N, X20W, X26N and X26UN** – From the rear of the machine, lift the scissor brace from its stowed position. Rotate upward and outward, then down until it is hanging vertically below its attachment point.
7. **X31N** – From the left side of the machine, pull the locking pin securing the brace. Rotate the scissor brace counterclockwise until it is in the vertical position.
8. Lower the platform by pushing the Chassis Lift/Lower Switch to LOWER and gradually lower the platform until the scissor brace is supporting the platform.

SCISSOR BRACE STORAGE

1. Using the Chassis Controls, gradually elevate the platform until the scissor brace is clear.
2. **X20N, X20W, X26N and X26UN** – Rotate the scissor brace outward and upward over its mounting point until it rests in the stowed position.
3. **X31N** – Rotate the scissor brace clockwise until the locking pin engages.
4. Lower the platform by pushing the Chassis Lift/Lower Switch to LOWER to completely lower the platform.

Figure 9: Scissor Brace



LEVEL SENSOR

! WARNING !

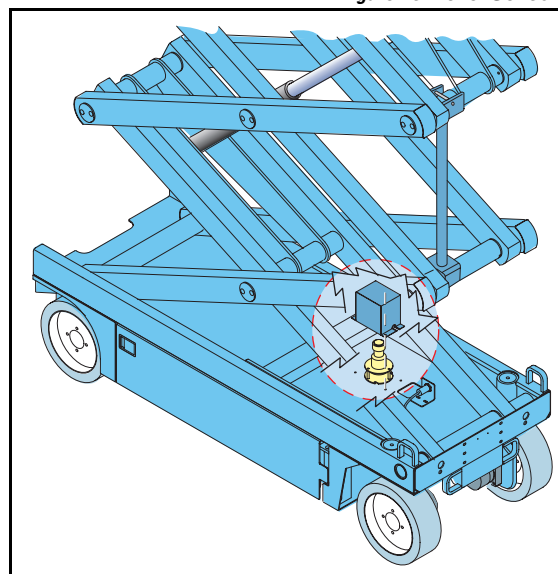
*Never perform service while the platform is elevated without first blocking the elevating assembly.
DO NOT stand in the elevating assembly area while deploying or storing the brace.*

The Level Sensor is located on the chassis between the scissor sections and is covered with a protective metal box. To verify the sensor is working properly there are two LED's under the sensor; green indicates the sensor is ON (has power), red indicates the sensor is LEVEL.

TESTING THE LEVEL SENSOR

1. Place machine on firm level surface.
2. Use the Chassis Controls to raise the platform to approximately 2,1 m (7 ft.).
3. Install the scissor brace (see "Blocking The Elevating Assembly" on page 13).
4. Remove the Level Sensor electrical box cover near the front of machine.
5. Push the Level Sensor off of level.
6. The alarm should sound, and the red LED should turn OFF.
 - If the alarm does not sound, take the machine out of service until the Level Sensor has been adjusted or repaired.
7. Replace the Level Sensor electrical box cover.
8. Store the scissor brace and lower the Platform.

Figure 10: Level Sensor



HYDRAULIC FLUID

The hydraulic fluid reservoir is located in the control module door.

Figure 11: Hydraulic Fluid Reservoir and Dipstick

NOTE: Never add fluid if the platform is elevated.

CHECK HYDRAULIC FLUID

1. Make sure that the platform is fully lowered.
2. Open the chassis door.
3. Remove the filler cap from the hydraulic fluid reservoir.
4. Check the fluid level on the dipstick on the filler cap.
5. Add the appropriate fluid to bring the level to the FULL mark. See "Specifications" on page 20.



BATTERY MAINTENANCE



Hazard of explosive gas mixture. Keep sparks, flame, and smoking material away from batteries.

Always wear safety glasses when working near batteries.

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

Always replace batteries with UpRight batteries or manufacturer approved replacements weighing [X20N - X20W - X26N] 26,3 kg (58 lbs.) — [X26UN - X31N] 30 kg (66 lbs.) each.

- Check the battery fluid level daily, especially if the machine is being used in a warm, dry climate.
- If electrolyte level is lower than 10 mm ($\frac{3}{8}$ in.) above the plates add distilled water only. DO NOT use tap water with high mineral content, as it will shorten battery life.
- Inspect the battery regularly for signs of cracks in the case, electrolyte leakage and corrosion of the terminals.
- Inspect cables regularly for worn spots or breaks in the insulation and for broken cable terminals.
- Keep the terminals and tops of the batteries clean.
- Refer to the Service Manual to extend battery life and for complete service instructions.

BATTERY CHARGING

Charge the batteries at the end of each work shift or sooner if the batteries have been discharged.

WARNING

Charge the batteries in a well ventilated area.

Do not charge the batteries when the machine is near a source of sparks or flames.

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

Never leave the battery charger operating for more than two days.

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

Keep the charger dry.

1. Check the battery fluid level. If the battery fluid level is lower than 10 mm ($\frac{3}{8}$ in.) above the plates add distilled water only.
2. Connect an extension cord (1,5 mm² [12 gauge] minimum conductor diameter; 15 m (50 ft.) maximum length) to the charger plug located at the left side of the chassis.
3. The charger turns on automatically after a short delay. Look through the charge indicator cutout to check the state of charge.
 - 0 - 50% charge:
 - First Light -BLINKING-
 - Second and Third Light -OFF-
 - 50% - 75% Charge:
 - First Light -ON-
 - Second Light -BLINKING-
 - Third Light -OFF-
 - 75% - 100% Charge:
 - First and Second Light -ON-
 - Third Light - BLINKING-
 - Charge Complete
 - All Lights -ON-
 - The charger automatically shuts down to low current after charging is complete and all lights turn ON.
 - The charger continues at low current (equalizing charge) for 3-4 hours, then charging current shuts off completely.
 - Lights remain ON until the AC power supply is disconnected.

NOTE: The battery charger circuit must be used with a GFI (Ground Fault Interrupt) outlet.

NOTE: DO NOT operate the machine while the charger is plugged in.

Figure 12: Battery Charger

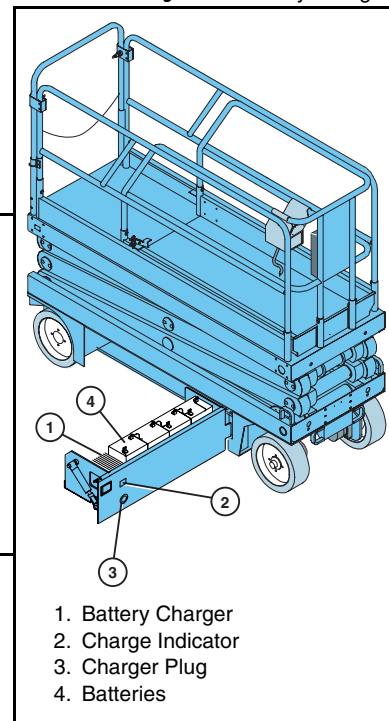
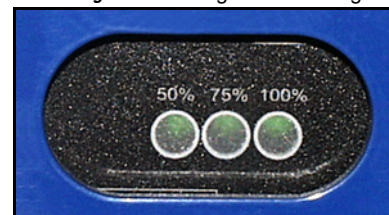


Figure 13: Charge Indicator Lights



DAILY INSPECTION AND MAINTENANCE SCHEDULE

The Complete Inspection consists of periodic visual and operational checks, along with periodic minor adjustments that assure proper performance. Daily inspection will prevent abnormal wear and prolong the life of all systems. Perform the inspection and maintenance items daily. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.

! WARNING !

Before performing preventative maintenance, familiarize yourself with the operation of the machine.

Always block the elevating assembly whenever it is necessary to perform maintenance while the platform is elevated.

The daily preventative maintenance checklist has been designed for machine service and maintenance. Please photocopy the Daily Preventative Maintenance Checklist and use the checklist when inspecting the machine.

DAILY PREVENTATIVE MAINTENANCE CHECK LIST

MAINTENANCE TABLE KEY

Y = Yes/Acceptable

N = No/Not Acceptable

R = Repaired/Acceptable

MAINTENANCE REPORT

Date: _____

Owner: _____

Model No: _____

Serial No: _____

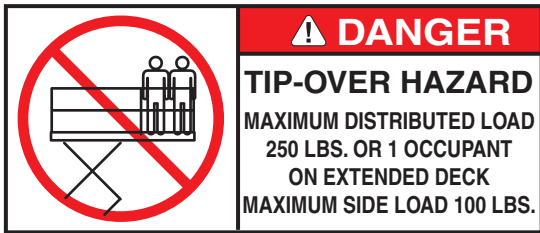
Serviced By: _____

COMPONENT	INSPECTION OR SERVICES	Y	N	R
Battery	Check electrolyte level			
	Check battery cable condition			
Chassis	Check hoses for pinch or rubbing points			
	Check welds for cracks			
Control Cable	Check the exterior of the cable for pinching, binding or wear			
Controller	Check switch operation			
Drive Motors	Check for operation and leaks			
Elevating Assembly	Inspect for structural cracks			
Emergency Hydraulic System	Operate the emergency lowering valve and check for serviceability			

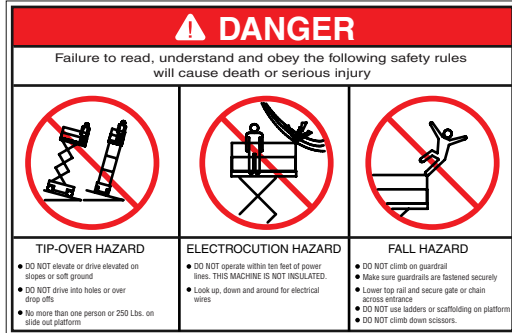
COMPONENT	INSPECTION OR SERVICES	Y	N	R
Entire Unit	Check for and repair collision damage			
Hydraulic fluid	Check fluid level			
Hydraulic Pump	Check for hose fitting leaks			
Hydraulic System	Check for leaks			
Labels	Check for peeling, missing, or unreadable labels & replace			
Platform Deck and Rails	Check welds for cracks			
	Check condition of platform			
Tires and Wheels	Check for damage			

LABELS

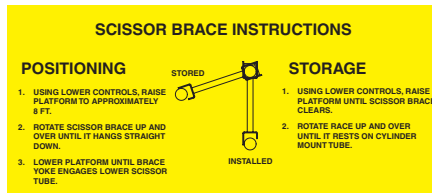
These labels shall be present and in good condition before operating the machine. Be sure to read, understand and follow these labels when operating the machine.



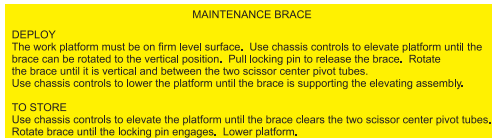
1) 101251-000



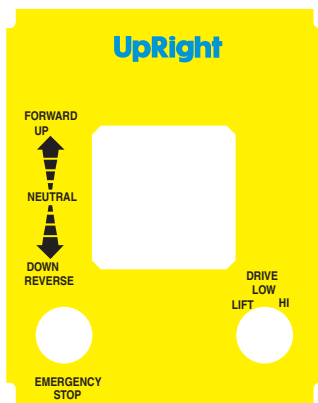
2) 066550-000



3) 066561-000



3) 066561-002 - X31N



4) 101222-005



5) 066559-000



6) 060197-000



7) 101250-000 - X26UN



7) 101250-002 - X20N



7) 101250-003 - X20W



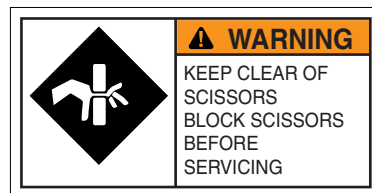
7) 101250-004 - X26N



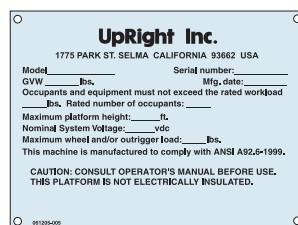
7) 101250-005 - X31N



8) 014222-003-99



9) 066553-000



10) 061205-005



11) 061787-001



12) 066558-000



12) 066558-002 X31N



13) 101252-004 X20W



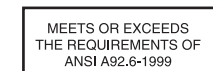
13) 101252-005 X20N-X26N&UN



13) 101252-006 X31N



14) 068639-000



15) 061220-002



16) 066556-000



17) 066554-000



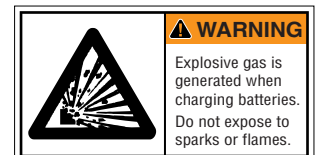
18) 066561-003



19) 107051-000



20) 010076-001



21) 066552-000



22) 062562-001 X20N-X20W-X26N



22) 062562-001 X26UN-X31N



23) 005221-000



24) 066522-000

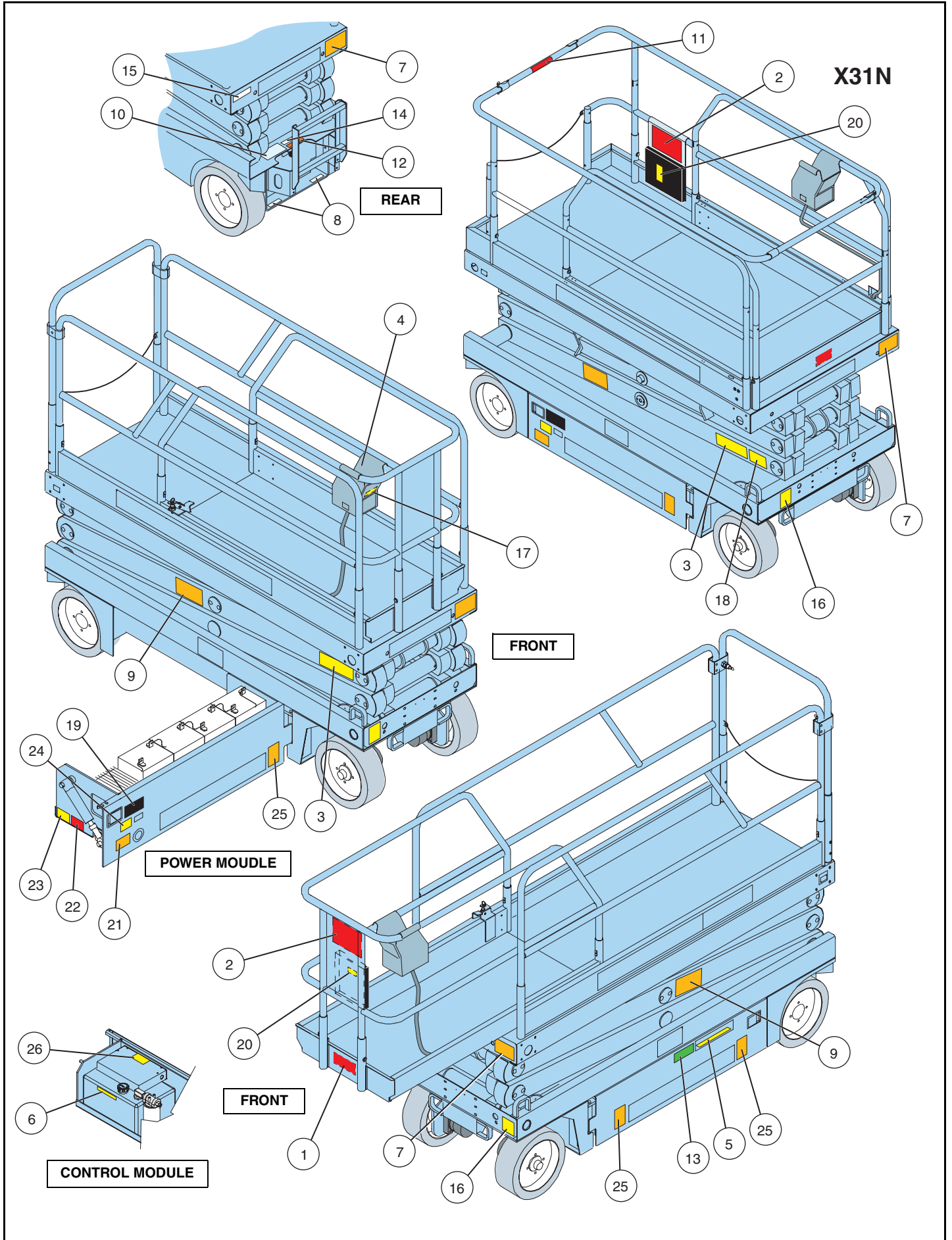


25) 066556-001



26) 066555-000

Figure 14: Safety Labels Locations



SPECIFICATIONS

ITEM	X20N	X20W	X26N	X26UN	X31N
Platform Size					
Platform Extension In	0,71 m x 2,21 m [28 in. x 87 in.]	1,17 m x 2,21 m [46.25 in. x 87 in.]	1,17 m x 2,21 m [46.25 in. x 87 in.]	0,71 m x 2,21 m [28 in. x 87 in.]	1,17 m x 2,21 m [46.25 in. x 87 in.]
Platform Extension Out	0,71 m x 3,2 m [28 in. x 126 in.]	1,17 m x 3,2 m [46.25 in. x 126 in.]	1,17 m x 3,2 m [46.25 in. x 126 in.]	0,71 m x 3,2 m [28 in. x 126 in.]	1,17 m x 3,2 m [46.25 in. x 126 in.]
Max. Platform Capacity					
Standard	340 kg [750 lbs.]	455 kg [1000 lbs.]	455 kg [1000 lbs.]	227 kg [500 lbs.]	318 kg [700 lbs.]
on Extension	110 kg [250 lbs.]	110 kg [250 lbs.]	110 kg [250 lbs.]	110 kg [250 lbs.]	110 kg [250 lbs.]
Max. No. of occupants					
Standard (total)	2 people	4 people	3 people	2 people	3 people
on Extension	1 person	1 person	1 person	1 person	1 person
Height					
Working Height	7,9 m [26 ft.]	7,9 m [26 ft.]	9,8 m [32 ft.]	9,7 m [31 ft. 10 in.]	11 m [36 ft.]
Max. Platform Height	6,1 m [20 ft.]	6,1 m [20 ft.]	7,9 m [26 ft.]	7,87 m [25 ft. 10 in.]	9,4 m [30 ft. 7 in.]
Min. Platform Height	0,96 m [38 in.]	0,96 m [38 in.]	1,09 m [43 in.]	1,09 m [43 in.]	1,22 m [48 in.]
Dimensions					
Weight	1736 kg [3828 lbs.]	1938 kg [4273 lbs.]	2153 kg [4747 lbs.]	2358,7 kg [5200 lbs.]	2486 kg [5480 lbs.]
Overall Width	0,82 m [32.5 in.]	1,22 m [48 in.]	1,22 m [48 in.]	0,82 m [32.5 in.]	1,22 m [48 in.]
Overall Height	2,06 m [78.5 in.]	2,06 m [78.5 in.]	2,19 m [83.5 in.]	2,19 m [86 in.]	2,25 m [88.5 in.]
Overall Height, Rails Lowered	N/A	N/A	N/A	1,99 m [78.25 in.]	1,88 m [74 in.]
Overall Length, Extension In	2,35 m [92.5 in.]	2,35 m [92.5 in.]	2,35 m [92.5 in.]	2,35 m [92.5 in.]	2,35 m [92.5 in.]
Overall Length, Extension Out	3,26 m [128.5 in.]	3,26 m [128.5 in.]	3,26 m [128.5 in.]	3,26 m [128.5 in.]	3,26 m [128.5 in.]
Drivable Height	6,1 m [20 ft.]	6,1 m [20 ft.]	7,9 m [26 ft.]	7,87 m [25 ft. 10 in.]	9,4 m [30 ft. 7 in.]
Drive Speed					
Platform Lowered	0 to 3,2 km/h [0 to 2.0 mph]	0 to 3,2 km/h [0 to 2.0 mph]	0 to 3,2 km/h [0 to 2.0 mph]	0 to 3,2 km/h [0 to 2.0 mph]	0 to 3,2 km/h [0 to 2.0 mph]
Platform Raised	0 to 1,0 km/h [0 to 0.62 mph]	0 to 1,0 km/h [0 to 0.62 mph]	0 to 1,0 km/h [0 to 0.62 mph]	0 to 0,8 km/h [0 to 0.50 mph]	0 to 1,0 km/h [0 to 0.62 mph]
Energy Source	24 Volt Battery Pack (4-235 A Hour, 6 Volt Batteries, min. wt. 30 kg [66 lbs.] each)				
Motor	24 Volt 4 Horse Power DC Electric Motor				
System Voltage	24 Volt DC				
Battery Charger	25 A, 110/220 VAC				
Hydraulic Reservoir Capacity	15 L [4 US Gallons]	15 L [4 US Gallons]	15 L [4 US Gallons]	15 L [4 US Gallons]	18,9 L [5 US Gallons]
Maximum Hydraulic Pressure	207 bar [3000 psi]				
Hydraulic Fluid					
Normal Temperature (0° C [>32° F])	ISO #32				
Low Temperature (0° C [<32° F])	ISO #32				
Extreme Temperature (-17° C [<0° F])	ISO #15				
Lift System	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder	One Single Stage Lift Cylinder	Two Single Stage Lift Cylinders
Lift Speed	Lift, 30 sec. Lower 30 sec.	Lift, 40 sec. Lower 30 sec.	Lift, 45 sec. Lower 40 sec.	Lift, 42 sec. Lower 40 sec.	Lift, 65 sec. Lower 40 sec.
Control System	Proportional Control Handle with Interlock Switch, Rotary Lift/Drive Switch, and Red Mushroom Emergency Stop Switch				
Drive System	Dual Front Wheel Hydraulic Motors				
Tires	381 mm [15 in.] Diameter Solid Rubber, non-marking				
Parking Brake	Dual Spring Applied, Hydraulic Release				
Turning Radius	203 mm [8 in.] Inside				
Maximum Gradeability	14° [25%]	15,5° [28%]	15° [27%]	14,5° [26%]	14° [25%]
Wheel Base	1,9 m [74.75 in.]				
Guardrails	1,1 m [43.25 in.] High				
Toe Boards	15,2 cm [6 in.]				
Ground Clearance	89 mm [3.5 in.]				

Specifications are subject to change without notice. Hot weather or heavy use may affect performance.

Refer to the Service Manual for complete parts and service information.

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