snorkel

S3970RT
S3370RT
S2770RT
S3970BE
S3370BE
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CE

OPERATOR'S MANUAL

ANSI/CSA/CE/AS/NZS
Replaces April 2024

Part Number 15124-1
August 2024 Rev H
Original Instructions

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Limited Warranty

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General Specifications – S3970RT

Specifications	S3970RT		S3970BE	
Normal working height	13.5m	44.2'	13.5m	44.2'
Roll out deck size	1.2m	48"	1.2m	48"
Drive speed (below 2.4m)	0 to 4.5km/h	0 to 2.8mph	0 to 4.5km/h	0 to 2.8mph
Drive speed (full height)	0 to 0.34 km/h	0 to 0.21mph	0 to 0.34km/h	0 to 0.21mph
Safe working load - Main deck (Roll out deck not extended)	350kg	770lb	350kg	770lb
Safe working load - Main deck	230kg	510lb	230kg	510lb
Safe working load - Rollout deck extended	120kg	260lb	120kg	260lb
Platform size	2.73 x 1.65m	8' 11" x 5' 5"	2.73 x 1.65m	8' 11" x 5' 5"
Stowed height	2.93m	9' 7"	2.93m	9' 7"
Stowed height (Hand rails folded down)	2.10m	6' 11"	2.10m	6' 11"
Overall length	3.36m	11' 0"	3.36m	11' 0"
Overall width	1.80m	5' 11"	1.80m	5' 11"
Gradeability	30%		30%	
Lift time	50 seconds		50 seconds	
Turning radius (Inner)	2.7m	8' 10"	2.7m	8' 10"
Turning radius (Outer)	5.0m	16' 3"	5.0m	16; 3"
Maximum wind speed (12.5m/s)	45km/h	28mph	45km/h	28mph
Insulation rating	Nil		Nil	
Tyres - Poly filled loader lug	27" x 10.5" 15"		27" x 10.5" x 15"	
Overall weight	3790kg	8355lb	4140kg	9127lb
Ground clearance	350mm	13.8"	350mm	13.8"
Maximum sound level at platform	86db		86db	
Stabiliser maximum load	2110kg	4652lb	2285kg	5039lb
Maximum chassis inclination	4 ° sideways up to 7.8m +0.6m/-0.3m 1.5 ° sideways above 7.8m 4 ° fore & aft		4 ° sideways up to 7.8m +0.6m/-0.3m 1.5 ° sideways above 7.8m 4 ° fore & aft	
Allowable manual force	400N		400N	
Tyre contact pressure (average)	879kPa	127psi	950kPa	138psi
Tyre contact pressure (worst)	1725kPa	250psi	1868kPa	271psi

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⚠Danger

Pinch points may exist between moving components. Death or serious injury will result from becoming trapped between components, buildings, structures, or other obstacles. Make sure all personnel stand clear while operating the aerial platform.

- Controls to position the platform are located on the lower control box on the chassis and on the upper control box in the platform.
- Controls to drive the aerial platform are located on the upper control box only.

Battery Disconnect

The battery disconnect switch is at the rear of the platform, on the left side of the hydraulic cabinet (refer to Figure 6.1).



Figure 6.1 – Battery Disconnect

The battery disconnect switch removes electrical power from all electrically controlled functions when in the off position.

- Place the switch in the on position to operate any electrically controlled function.

⚠Caution

Only authorized personnel should operate the aerial platform. Unqualified personnel may cause injury to coworkers or property damage. Lock the battery disconnect switch in the off position before leaving the aerial platform unattended.

- Lock the battery disconnect switch in the off position to prevent unauthorized use of the aerial platform.

Lower Controls

The lower controls (refer to Figure 6.2) are located at the right rear of the chassis. Only platform functions can

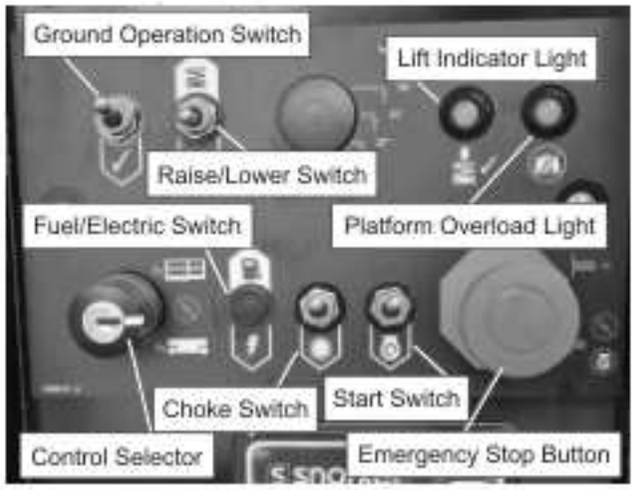


Figure 6.2 – Lower Controls

The following are located on the lower control panel:

- Emergency stop button
- Control selector
- Ground operation switch
- Platform raise/lower switch
- Platform overload protection light
- Lift Indicator light
- Choke switch
- Start switch
- Fuel/electric switch

Emergency Stop Button

The emergency stop is a two-position red push button.

- Push the button inward to disconnect power to all control circuits.
- Pull the button outward to restore power.

Control Selector

Insert the key into the control selector

- In the middle position, aerial platform functions will not operate from the lower or upper controls. The upper controls will not operate while the control selector is in the lower position.
- Turn the switch to the upper controls position to operate the aerial platform functions from the upper controls, or turn the switch to the lower controls position to operate the aerial platform functions from the lower controls.

Ground Operation Switch

Hold the switch downward only in the lower controls position to enable the platform raise/lower switch functions.

Platform Raise/Lower Switch

The platform raise/lower switch is used to raise or lower the platform. The switch is spring returned to the center off position.

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Annual Maintenance – Every 500 Hours

Item	Procedure	Information	P/F/R
Frequent Maintenance Checklist	Complete Frequent Maintenance		
Hydraulic System			
Hydraulic fluid condition	Drain, flush, and clean hydraulic system. Refill with new fluid.	Above 10°F (-12°C) ISO VG32 Below 10°F (-12°C) ISO VG15	
Return filter	Replace	Refer to Parts Manual for filter part number	
System pressures	Check system relief pressure	System Relief Pressure 3,200 to 3,300 psi (220 to 228 bar)	

Maintenance Table Key: P = Pass, F = Fail, R = Repaired

Performed by: _____ Date: _____

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SAFETY RULES

⚠Warning

All personnel shall carefully read, understand and follow all safety rules and operating instructions before operating or performing maintenance on any Snorkel aerial work platform.

Electrocution Hazard	Tip Over Hazard	Collision Hazard	Fall Hazard
			
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** position the platform without first checking for overhead obstructions or other hazards.	**NEVER** climb, stand, or sit on platform guardrails or midrail.

USE OF THE AERIAL WORK PLATFORM: This aerial work platform is intended to lift persons, their tools and materials used for the job. It is designed for repair, assembly, stockpicking jobs, etc., and assignments at workplaces above head height (ceilings, cranes, roof structures, buildings, shelving, etc.). All other uses of the aerial work platform are prohibited and the rules below must be adhered to!

THIS AERIAL WORK PLATFORM IS NOT INSULATED! Refer to applicable national standards for safe approach distances.

Exceeding the specified permissible maximum load **is prohibited!** See "Platform Capacity" for details.

The use and operation of the aerial work platform as a lifting tool or a crane **is prohibited!**

NEVER exceed the manual force allowed for this machine. See "Manual Force" for details.

DISTRIBUTE all platform loads evenly on the platform.

NEVER operate the machine without first surveying the work area for stationary or moving obstacles and surface hazards such as holes, drop-offs, bumps, curbs, or debris; and avoiding them. **NEVER** strike or bump into stationary or moving obstacles while driving or raising, lowering, or extending the platform.

USE THREE POINTS OF SUPPORT when entering or exiting the platform. Grasp the handrails, not the doors, with one hand on each side. Use two hands and one foot on the step when climbing into and out of the platform.

PLATFORM passengers should watch their hands and fingers for pinch points while holding on the guardrails while the platform is moving.

OPERATE machine only on surfaces capable of supporting wheel loads.

NEVER operate the machine when wind speeds exceed this machine's wind rating. See "Beaufort Scale" for details.

Do not operate the aerial platform in windy or gusty conditions. Do not add anything to or take anything into the aerial platform that will increase the wind loading such as billboards, banners, flags, etc.

IN CASE OF EMERGENCY push EMERGENCY STOP switch to deactivate all powered functions.

IF ALARM SOUNDS while platform is elevated, STOP, carefully lower platform. Move machine to a firm, level surface.

Climbing up the railing of the platform, standing on or stepping from the platform onto buildings, steel or prefab concrete structures, etc., **is prohibited! NEVER** exit or enter the platform when it is elevated.

Dismantling the entry gate or other railing components **is prohibited!** Always make certain that the entry gate is closed!

It is prohibited to keep the entry gate in an open position when the platform is raised!

To extend the height or the range by placing of ladders, scaffolds or similar devices on the platform **is prohibited!**

NEVER perform service on machine while platform is elevated without blocking elevating assembly.

INSPECT the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, loose wire connections, and damaged cables or hoses before using.

VERIFY that all labels are in place and legible before using.

NEVER use a machine that is damaged, not functioning properly, or has damaged or missing labels.

To bypass any safety equipment **is prohibited** and presents a danger for the persons on the aerial work platform and in its working range.

NEVER charge batteries near sparks or open flame. Charging batteries emit explosive hydrogen gas.

Modifications to the aerial work platform **are prohibited** or permissible only at the approval by **Snorkel**.

AFTER USE, secure the work platform from unauthorized use by turning the keyswitch off and removing key.

The driving of MEWP's on the public highway is subject to national traffic regulations.

Certain inherent risks remain in the operation of this machine despite utilizing proper design practices and safeguarding.

Care must be taken to ensure that the machines meets the requirements of stability during use, transportation, assembly, dismantling when out of service, testing, or foreseeable breakdowns.

In the event of an accident or breakdown see "Emergency Lowering." Do not operate the aerial platform if it is damaged or not functioning properly. Qualified maintenance personnel must correct the problem before putting the aerial platform back into service.

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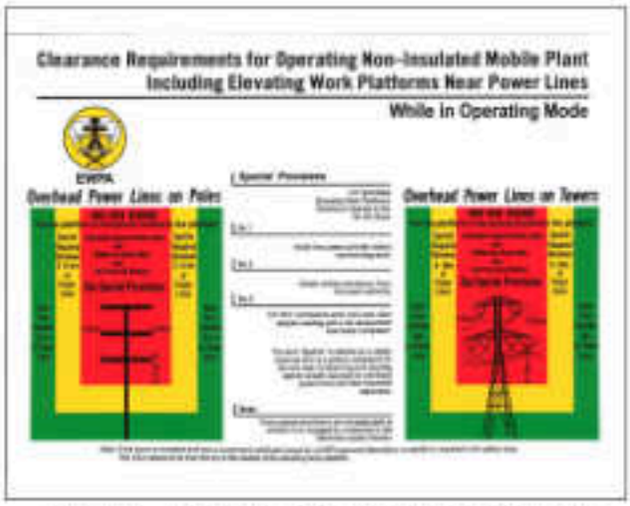


Figure 1 – Minimum Safe Approach Distance

Platform Capacity

The maximum unrestricted rated load capacity and the maximum number of occupants for the aerial platform are stated on machine decals, placards, and in the machine specifications in this manual.

⚠Danger

The aerial platform can tip over if it becomes unstable. Death or serious injury will result from a tip-over accident. Do not exceed the capacity values indicated on the machine decals, placards, and in the machine specifications in this manual.

Manual Force

Manual force is the force applied by the occupants to objects such as walls or other structures outside the work platform.

⚠Danger

The aerial platform can tip over if it becomes unstable. Death or serious injury will result from a tip-over accident. Do not exceed the maximum allowable manual force indicated on the machine decals, placards, and in the machine specifications in this manual.

The maximum allowable manual force is limited to 45 lbs (200 N) of force per occupant, with a maximum of 90 lbs (400 N) for all occupants.

Wind Speeds

Do not add anything to the aerial platform that will increase the wind loading such as billboards, banners, flags, etc.

⚠Danger

The aerial platform can tip over if it becomes unstable. Death or serious injury will result from a tip-over accident. Do not operate the machine in wind speeds of 28 mph (12.5 m/s) or greater.

Do not operate the aerial platform in windy conditions with wind gusts or steady wind speeds of 28 mph (12.5 m/s) or greater. Refer to Figure 2.

Prestart Inspection

Perform a prestart inspection before each shift as described in Chapter 7. Do not use the aerial platform on the job unless you are trained and authorized to do so.

Work Place Inspection and Practices

Do not use the aerial platform as a ground connection when welding.

- The welding ground clamp must be attached to the same structure that is being welded.
- Electrical current flow can be very intense, causing serious internal damage to some components.

Inspect the area before and during aerial platform use. The following are some potential hazards that may be in the work place:

- Debris
- Slopes
- Drop-offs or holes
- Bumps and floor obstructions
- Overhead obstructions
- Unauthorized persons
- High voltage conductors
- Wind and weather conditions
- Inadequate surface and support to withstand load forces applied by the aerial platform in all operating configurations

Before using the aerial platform in any hazardous (classified) location, make certain it is approved and of the type required by ANSI/NFPA 505 for use in that particular location.

BEAUFORT RATING	WIND SPEED				GROUND CONDITIONS
	m/s	km/h	ft/s	mph	
3	3,4~5,4	12,25~19,4	11.5~17.75	7.5~12.0	Papers and thin branches move, flags wave.
4	5,4~8,0	19,4~28,8	17.75~26.25	12.0~18	Dust is raised, paper whirls up, and small branches sway.
5	8,0~10,8	28,8~38,9	26.25~35.5	18~24.25	Shrubs with leaves start swaying. Wave crests are apparent in ponds or swamps.
6	10,8~13,9	38,9~50,0	35.5~45.5	24.5~31	Tree branches move. Power lines whistle. It is difficult to open an umbrella.
7	13,9~17,2	50,0~61,9	45.5~56.5	31.~38.5	Whole trees sway. It is difficult to walk against the wind.

Figure 2 – Beaufort Scale

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