snorkel

S3019E



CE

OPERATOR'S MANUAL

Part Number 10016039
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Original Instructions

ANSI/CSA/CE/AS/NZS
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Limited Warranty

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General Specifications

Aerial Platform

Working height	25′ (7.79 m)
Maximum platform height	19′ (5.8 m)
Turning radius	
Inside	0″ (0 cm)
Outside	69.5″ (1.77 m)
Wheelbase	56.18″ (1.43 m)
Ground clearance	
Pothole protector raised	3″ (76 mm)
Pothole protector lowered	0.6″ (15 mm)
Maximum wheel load	1,100 lbs (509.94 kg)
Maximum ground bearing pressure	69 psi (48224 kg/cm²)
Maximum distributed floor load	229 psf (1120 kg/m²)
Tread contact patch	16.2 in² (0.01045m²)
Floor area	16.1 ft² (1.5m²)
Weight, EVW	
Approximate	3,590 lbs (1630 kg)
Maximum allowable manual force (side pull)	
Indoors	90 lbs (400 N)
Outdoors	45 lbs (200 N)
Stowed width	30.5″ (0.77 m)
Stowed length	75″ (1.91 m)
Stowed height	69.1″ (1.76 m)

Platform

Dimensions	24″ x 64.5″ (0.61 m x 1.69 m)
Total length with extension	100.5″ (2.6 m)
Guardrail height	43″ (1.1 m)
Toeboard height	6″ (15.2 cm)
Rated work load	
Total	550 lb (250 kg)
Maximum number of occupants	1 outdoors 2 indoors

Function Speed

Platform raise	30 seconds
Platform lower	44 seconds
High Drive – platform stowed	0 to 2.9 mph (0 to 4.7 km/h)
Low Drive – platform elevated	0 to 0.8 mph (0 to 1.3 km/h)

Drive System

Standard	Two-wheel drive
Gradeability	25%
Maximum drive height	19′ (5.8 m)

Drive/Lift Level Sensor Interlock

Side-to-side	0.5 degrees
Front-to-rear	4 degrees

Tires

Nonmarking solid rubber 12.75″ x 4″ (323 mm x 102 mm)

Electrical System

Voltage	24 V DC negative ground
Source	Four - 6 V 220 amp hour batteries
Motor	24 V
Fluid recommended	distilled water
Charger	25 amp
Input	90/240 V

Hydraulic System

Maximum pressure	3,400 psi (234 bar)
System capacity	0.9 US gal (3.5 l)
Maximum operating temperature	160°F (71°C)
Hydraulic fluid recommended	
Above -12°C (10°F)	ISO VG32
Below -12°C (10°F)	ISO VG15

Ambient Air Temperature Operating Range

Fahrenheit	0°F to 110°F
Celsius	-18°C to 43°C

Maximum Wind Speed

Gust or steady	28 mph (12.5 m/s)

Vibration

Hand/arm	less than 2.5 m/sec²
Body	less than 0.5 m/sec²

Sound Pressure Level

At work station	below 70 dB(A)

Group Classification

Heavy Duty – intended life	100,000 load cycles

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- Hold the switch upward to raise the platform.
- Hold the switch downward to lower the platform.
- An alarm will sound as the platform lowers.

Brake Release Switch

The brake release switch (refer to Figure 7.1) is used to release the brakes when it is necessary to winch or tow the machine. The switch is spring returned to the off position. Hold the brake release switch to the right for at least 15 seconds. An alarm will sound indicating the brakes have been released.

Upper Controls

The upper controls (refer to Figure 7.3) are located on the control panel in the platform. The upper control pendant is located at the right front of the platform. Platform and drive functions can be operated from the upper controls.

⚠Warning

The potential for an accident increases from improperly driving or steering the aerial platform. Death or serious injury could result from such accidents. Make sure the upper control panel is securely fastened inside the platform and facing the front of the machine.

Avoid driving the platform with the upper controls facing the rear or side of the machine. In this position the machine is difficult to control because the drive and steer control movements and their resulting machine movements will not correspond.

Only operate the upper controls when the upper control panel is securely fastened inside the platform and facing the front of the machine. Some machines may have an optional removable upper control panel. Remove the pin to remove the panel from the guardrails.

The following are located on the upper control panel:

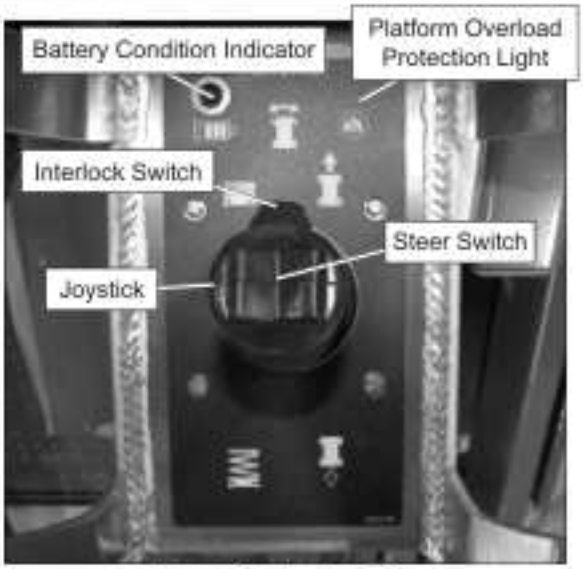
- Emergency stop button
- Drive/lift selector switch
- Joystick to control platform lift, drive, and steer
- Horn button
- Battery condition indicator
- Platform overload protection light

Emergency Stop Button

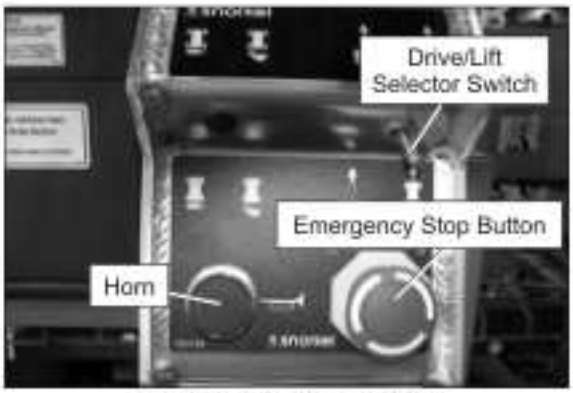
The emergency stop (refer to Figure 7.3) is a two-position, red push button on the front of the upper control panel.

- Push the button inward to disconnect power from all control circuits at the upper controls.
- Pull the button outward to restore power.
- **Push the emergency stop button inward when the upper controls are not in use to protect against unintentional operation.**

Note
On ANSI machines, the lower controls override the upper controls. If the upper control emergency stop button is engaged, the lower controls can still be used to operate the aerial platform. On CE/AS/NZS machines, if one emergency stop is engaged the machine will not operate.



Upper Controls – Top



Upper Controls – Front

Figure 7.3 – Upper Controls

Drive/Lift Selector Switch

The drive/lift selector switch (refer to Figure 7.3) is used to select either machine drive or lift functions. Both functions can not be operated at the same time.

- Place the drive/lift selector switch in the drive position to drive the aerial platform using the joystick. The platform will not raise or lower while driving.
- Place the drive/lift selector switch in the lift position to raise and lower the platform using the joystick.

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Annual Maintenance – Every 500 Hours

Item	Procedure	Information	P/F/R
Frequent Maintenance Checklist	Complete Frequent Maintenance		
Hydraulic System			
System pressure	Check system relief pressure	System Relief Pressure S3019E 3,200 to 3,300 psi (220 to 227 bar)	

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

Performed by:_____ Date:_____

Model:_____ Serial Number:_____

Every Two Years Maintenance – Every 1,000 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	

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

Performed by:_____ Date:_____

Model:_____ Serial Number:_____

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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 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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Minimum Safe Approach Distance – AS/NZS

Minimum safe approach distances to energized power lines and their associated parts must be observed while operating the aerial platform.

⚠Danger

The aerial platform is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor. Do not go closer than the minimum safe approach distance as defined by national safety regulations.

AS/NZS 2550.10:2006 define minimum distances that must be observed when working near overhead power lines on poles and overhead power lines on towers. Refer to the clearance requirements decals on the machine to determine safe approach distances (refer to Figure 1).

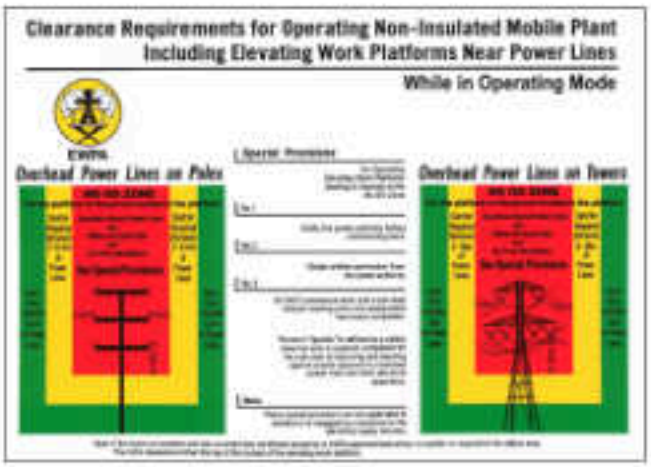


Figure 1 – Minimum Safe Approach Distance

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 8. 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.

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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