snorkel

600AJ



CE

OPERATOR'S MANUAL

ANSI/CSA/CE/AS/NZS

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Limited Warranty

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General Specifications

Aerial Platform

Working height	66' 2" (20.2 m)
Maximum platform height	60' 2" (18.3 m)
Horizontal reach	45' (18.7 m)
Main boom elevation	-28° to +74°
Main boom extension	15' (4.6 m)
Jib boom length	78" (2.0 m)
Jib boom articulation	-65° to +70°
Turntable rotation	360° continuous
Pivoting front axle	4.5° (11.4 m)
Turning radius	
Inside	10' 1" (3.1 m)
Outside	17' 1" (5.2 m)
Wheelbase	8' 2" (2.5 m)
Ground clearance	13.5" (34 cm)
Tail swing	60" (1.5 m)
Maximum wheel load	14,750 lbs (6,705 kg)
Maximum ground bearing pressure	146 psi (10.21 kg/cm²)
Maximum distributed floor load	436 psf (2,127 kg/m²)
Level sensor setting	5°
Weight, EVW approximate	30,100 lbs (13,650 kg)
Maximum allowable manual force (side pull)	90 lb (400 N)
Stowed width	8' 2" (2.5 m)
Transport width – wheels flipped	7' 4" (2.2 m)
Stowed length	29' 2" (8.9 m)
Stowed height	8' 7" (2.6 m)

Platform

Dimensions	
Standard steel	39" x 96" (1 m x 2.4 m)
Rated work load, unrestricted	600 lb (272 kg)
Rated work load, restricted	1,000 lb (454 kg)
Toeboard height	6" (15.2 cm)
Rotation	86° CW to 90° CCW
Maximum number of occupants	2 people
Optional AC generator	110/220 V, 2.5 kw
Optional AC generator	208 V, 7.5 kw

Function Speed

Turntable rotation, 360 degrees	
ANSI	61 to 71 seconds
CE/AS/NZS	120 to 30 seconds
Riser boom	
Up	24 to 28 seconds
Down	16 to 20 seconds
Main boom	
Up	26 to 30 seconds
Down	26 to 30 seconds
Extend	28 to 32 seconds
Retract	28 to 32 seconds
Jib boom	
Up	14 to 18 seconds
Down	14 to 18 seconds
Down – CE/AS/NZS	30 to 35 seconds
Platform rotation 86° CW – 90° CCW	
176° total	8 to 12 seconds

Drive	
High, booms down/retracted	3.5 mph (5.6 km/h)
Low, booms up and/or retracted	0.5 mph (0.8 km/h)

Drive System

Maximum drive height	60' 2" (18.3 m)
Standard	Four wheel drive
Gradeability	45%

Tires

Foam filled non directional	355/55D625NHS

Emergency Power Electrical System

Voltage	12 V DC negative chassis ground
Source	
Standard	Two - 12 V 675 CCA lead acid battery
Fluid recommended	distilled water

Hydraulic System

Maximum pressure	
Booms	3,000 psi (20,684 kPa)
Drive	5,000 psi (34,474 kPa)
Reservoir capacity	33.5 US gal (127 l)
System capacity	47.5 US gal (180 l)
Maximum operating temperature	180°F (82°C)
Hydraulic fluid recommended	
Above 10°F (-12°C)	ISO VG32
Below 10°F (-12°C)	ISO VG15

Engine

Diesel	Kubota V2403 Stage 5
Output	50 hp (37.4 kW)
Gas/LP dual fuel	Kubota WG1605
Output	43.7 hp (32.5 kW)

Fuel Tank Capacity

Gasoline or diesel	35 US gal (132 l)
LPG	43.5 lbs (19.7 kg)

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

Maximum	98"/sec² (2.5 m/sec²)

Sound Pressure

Maximum	97.5 dB(A)

Group Classification

Heavy duty – intended life	100,000 load cycles

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Circuit Breaker Reset Button

The lower control panel electrical system has a 25 amp circuit breaker for the main control system circuit. The reset button is on the front of the lower control panel (refer to Figure 6.2).

The circuit breaker protects the electrical wiring and components from electrical overload in case of a short circuit or other fault.

⚠Caution

A tripped circuit breaker indicates a malfunction in the electrical system. Component damage may result if the cause of the malfunction is not corrected. Do not operate the aerial platform if the circuit breaker trips repeatedly.

Push the button to reset the circuit breaker.

Upper Controls

The upper controls are located on the control panel at the platform. Boom, platform, and drive functions can be operated from the upper controls. The following controls are located on the upper control panel.

- Start/emergency power switch
- Emergency stop button
- Drive joystick
- Drive range switch
- Jib/platform rotation/riser joystick
- Boom joystick
- Platform level switch
- Override switch
- Horn switch
- Driving lights switch (option)
- Platform work lights switch (option)
- AC generator switch (option)
- Fuel switch (dual fuel machines)

Start/Emergency Power Switch

The engine can be started from the platform using the start/emergency power switch (refer to Figure 6.3).

This switch is similar to an automobile ignition switch.

An alarm sounds when the switch is turned on to warn others that the machine engine is being started.

- Before starting the engine, check the amber engine warning light. The amber light will be flashing if the engine is cold and the engine heater is on. The amber light may flash for 1 to 12 seconds, depending on the engine and ambient air temperature.
- Do not start the engine until the amber light has stopped flashing.
- If the engine turns over but does not start while the amber light is flashing, place the start switch in the off position and back to the on position. Do not start the engine until the amber light stops flashing.

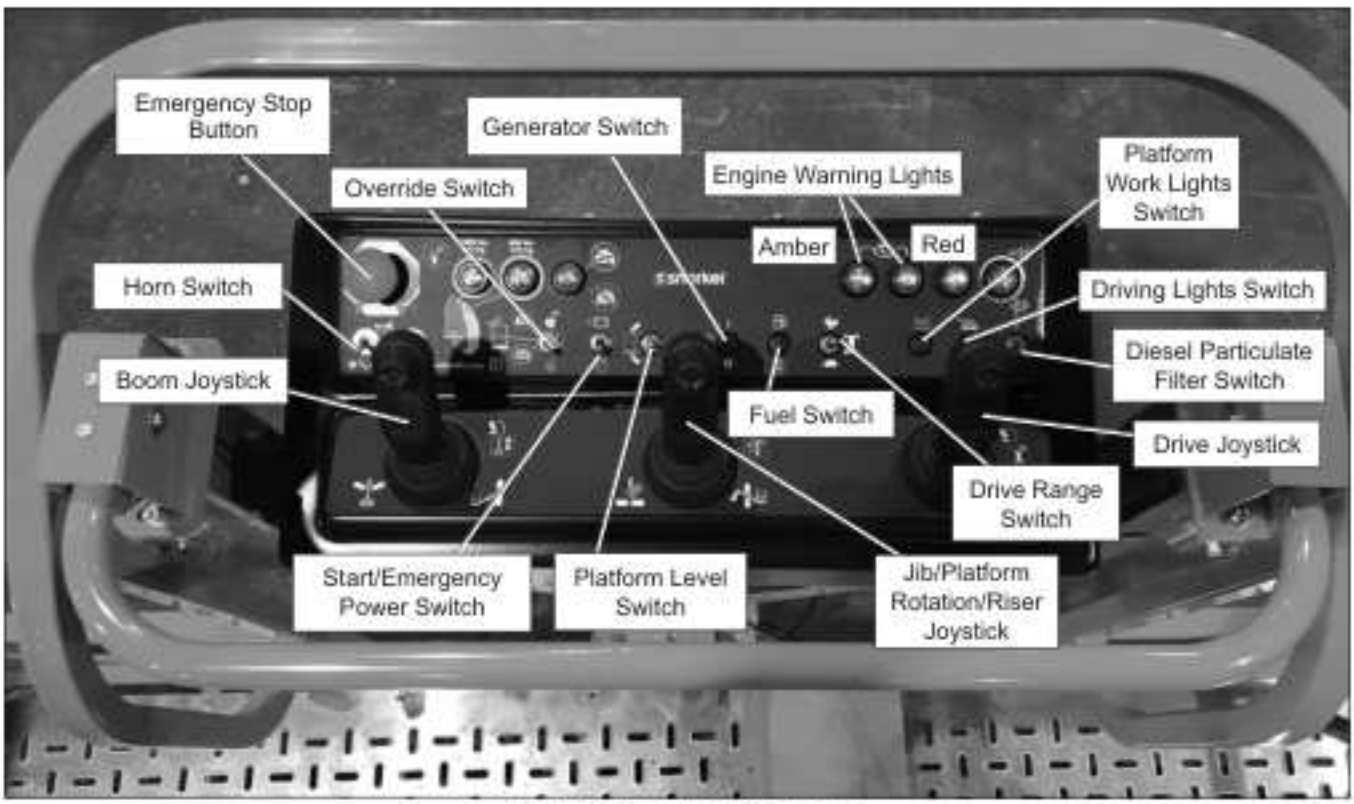


Figure 6.3 – Upper Controls

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Annual Maintenance – Every 500 Hours

Item	Procedure	Information	P/F/R
90 day or 150 hour maintenance	Perform maintenance per schedule	Retain copy of checklist	
Hydraulic oil reservoir	Clean and replace fluid	Above 10° F (-13° C) ISO VG32 Below 10° F (-13° C) ISO VG15	
Hydraulic return filter	Replace	After first 50 hours, then at recommended interval	
Hydraulic high pressure filter	Clean and reinstall		
Hydraulic pressures	Pump setting	Standby pressure: 300 psi	
	Function pressures	Riser up: 2,900 – 3,000 psi	
		Boom up: 2,900 – 3,000 psi	
		Extend: 2,200 – 2,300 psi	
		Jib up/down 2,500 – 2,600 psi	
		Steer: 2,900 – 3,000 psi	
		Level: 3,100 – 3,200 psi	
		Swing: 2,900 – 3,000 psi	
		Drive: 4,900 – 5,000 psi	
Gear hubs	Replace fluid	SAE Grade 80W-90	
Swing drive	Replace fluid	Sae Grade 80W-90	
Engine coolant	Check condition	See engine owner's manual	

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

Performed by: _____ Date: _____

Model Number: _____ 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 and his tools as well as the material used for the job. It is designed for repair and assembly jobs and assignments at overhead workplaces (ceilings, cranes, roof structures, buildings etc.). Uses or alterations to the aerial work platform must be approved by **Snorkel**.

THIS AERIAL WORK PLATFORM IS NOT INSULATED! For this reason it is imperative to keep a safe distance from live parts of electrical equipment!

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 surface hazards such as holes, drop-offs, bumps, curbs, or debris; and avoiding them.

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!**

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.

Harness attachment points are provided in the platform and the manufacturer recommends the usage of a fall restraint harness, especially where required by national safety regulations.

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 Operation." 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).

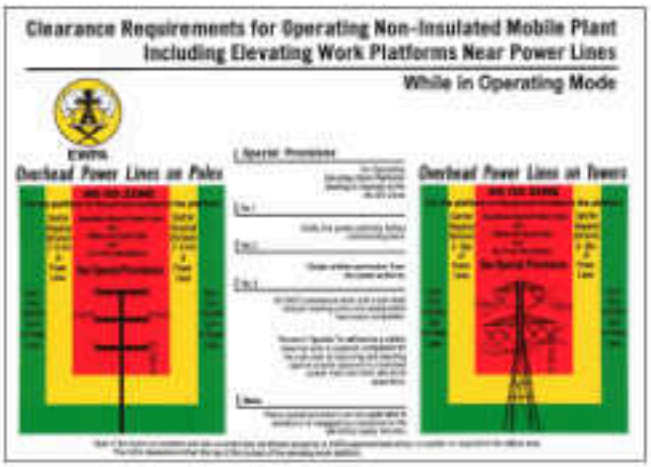


Figure 1 – Minimum Safe Approach Distance

Platform Capacity

Two people and their work materials may occupy the 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 capacity values indicated on the machine decals, placards, and in the machine specifications in this manual.

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.

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 150 lb (667 N) of force.

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.

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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