snorkel

A46JRTE



CE

OPERATOR'S MANUAL

ANSI/CSA/CE/AS/NZS
A46JRTE-04 Serial Numbers Only

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Limited Warranty

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General Specifications

Aerial Platform	
Working height	52' 4" (15.95 m)
Maximum platform height	46' 4" (14.12 m)
Up and over height	25' 2" (7.67 m)
Maximum horizontal reach	
At 650 lb capacity	24' 9" (7.54 m)
At 750 lb capacity	22' 11" (6.98 m)
Main boom	
Articulation	0° to +72°
Extension	80" (2.0 m)
Jib	
Articulation	-70° to +70°
Extension	5' (1.5 m)
Turntable rotation	360° non-continuous
Turning radius	
Inside	4' 2" (1.27 m)
Outside	13' 9" (4.19 m)
Tail swing	0
Wheelbase	8' 6" (2.5 m)
Ground clearance	12" (304.8 mm)
Maximum wheel load	12,465 lbs (5,653 kg)
Maximum ground bearing pressure	144 psi (10.08 kg/cm²)
Maximum distributed floor load	222 psf (1,084 kg/m²)
Level sensor setting	
Standard	3.5 degrees
Optional	5 degrees
Weight, EVW Approximate	16,620 lbs (7,534 kg)
Maximum allowable manual force (side pull)	90 lb (400 N)
Width	7' 5" (2.26 m)
Stowed length	18' 8" (5.7 m)
Stowed height	7' 4" (2.23 m)

Platform	
Dimensions	
Standard Steel	30" x 72" (76 cm x 183 cm)
Rated work load unrestricted	600 lb (272 kg)
Rated work load restricted	700 lb (317 kg)
Optional Aluminum	
With swing gate	30" x 60" (76 cm x 153 cm)
Rated work load unrestricted	650 lb (295 kg)
Rated work load restricted	750 lb (340 kg)
Toeboard height	6" (15.2 cm)
Rotation	80° CW to 80° CCW
Maximum number of occupants	2 people
Optional AC generator	110 V, 2,000 W

Function Speed	
Turntable rotation	65 to 85 seconds
Total raise time	101 seconds
Total lower time	98 seconds
Riser	
Up	35 to 40 seconds
Down	20 to 25 seconds
Main boom	
Up	25 to 30 seconds
Down	20 to 25 seconds
Extend	20 to 25 seconds
Retract	22 to 27 seconds
Platform rotation	16 to 20 seconds
Jib	
Up	20 to 25 seconds
Down	30 to 35 seconds
Drive	
High, booms stowed	4.25 mph (6.8 km/h)
Low, booms raised/extended	0.8 mph (1.2 km/h)

Drive System	
Standard	4WD
Gradeability	45%
Axle	front oscillating
Maximum drive height	46' 4" (14.12 m)

Tires	
Bar lug – foam filled	355/55D625NHS, 14 ply
Width	9" (22.9 cm)
Weight	175 lb (79.4 kg)

Main Electrical System	
Voltage	48 V DC negative chassis ground
Source	Four - 48 V 100Ah 5.12 kWh LiFeP04 batteries
Drive motors	48 V
Charger input	110/240 V

Emergency Power Electrical System	
Voltage	12 V DC negative chassis ground
Source	One - 12 V 600 CCA AGM battery

Hydraulic System	
Pressure	
Drive circuit max. pressure	5,000 psi (34,473 kPa)
Boom circuit max. pressure	2,750 psi (18,960 kPa)
Reservoir capacity	25 US gal (94 l)
System capacity	43 US gal (162 l)
Maximum operating temperature	200°F (93°C)
Hydraulic fluid recommended	
Above 10°F (-12°C)	ISO VG32
Below 10°F (-12°C)	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) Beaufort scale 6
Vibration	less than 2.5 m/sec² 0.3 m/sec² (measured)
Sound Pressure Level	
At work station	below 100 dB(A)
Sound Power Level	below 107 dB(A)
Group Classification	
Heavy duty – intended life	100,000 load cycles

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Ground Operation
Hold the ground operation switch upward continually to operate the machine from the lower controls. This switch is spring returned to the off position.

Rotation Switch
The rotation switch (refer to Figure 7.2) is used to rotate the turntable in a clockwise or counterclockwise direction. The switch is spring returned to the center off position.

- Hold the switch to the right to rotate the turntable counterclockwise.
- Hold the switch to the left to rotate the turntable clockwise.

Riser Switch
The riser switch (refer to Figure 7.2) is used to raise or lower the riser booms. The switch is spring returned to the center off position.

- Hold the switch upward to raise the riser booms.
- Hold the switch downward to lower the riser booms.

Boom Elevation Switch
The boom elevation switch (refer to Figure 7.2) is used to raise or lower the main boom. The switch is spring returned to the center off position.

- Hold the switch upward to raise the main boom.
- Hold the switch downward to lower the main boom.

Boom Extension Switch
The boom extension switch (refer to Figure 7.2) is used to extend or retract the booms. The switch is spring returned to the center off position.

- Hold the switch to the right to extend the booms.
- Hold the switch to the left to retract the booms.

Jib Articulation Switch
The jib switch (refer to Figure 7.2) is used to raise or lower the jib. The switch is spring returned to the center off position.

- Hold the switch upward to raise the jib.
- Hold the switch downward to lower the jib.

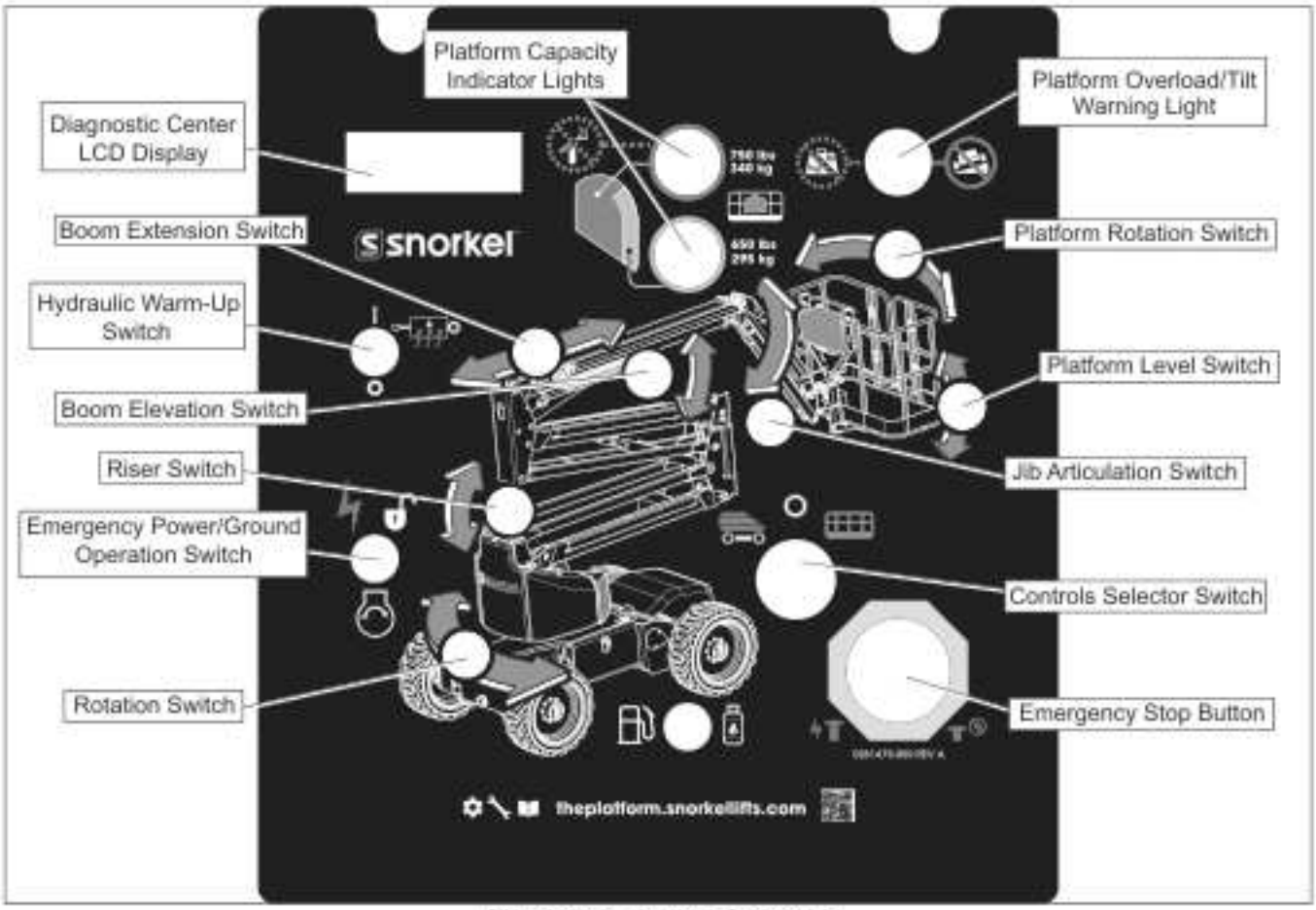


Figure 7.2 – Lower Controls

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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 (-12°C) ISO VG32 Below 10°F (-12°C) ISO VG15	
Hydraulic return filter	Replace	After first 50 hours, then at recommended interval	
Hydraulic reservoir suction filter	Clean and reinstall		
Hydraulic pressures	Drive pump setting	Differential pressure: 450-500 psi	
		Maximum pressure: 5,000-5,100 psi	
	Boom pump setting	Maximum pressure: 2,750-2,800 psi	
	Function pressures: check at manifold, except level	Steer right/left: 2,700-2,800 psi	
		Riser boom down: 3,300-3,400 psi	
		Main boom down: 1,400-1,500 psi	
		Extend: 1,900-2,000 psi	
		Jib up/down: 2,700-2,800 psi	
		Rotate: 1,200 psi max on level	
		Pressure reducing valve: 2,700-2,800 psi	
		Drive/boom relief: 3,000 psi	
	Level Pressure: install gauge between valve and slave cylinder	Level: 2,000-2,050 psi	
Gear hubs	Replace fluid	Gear lubricant SAE Grade 80W-90	
Swing drive	Replace fluid	Gear lubricant SAE Grade 80W-90	

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).

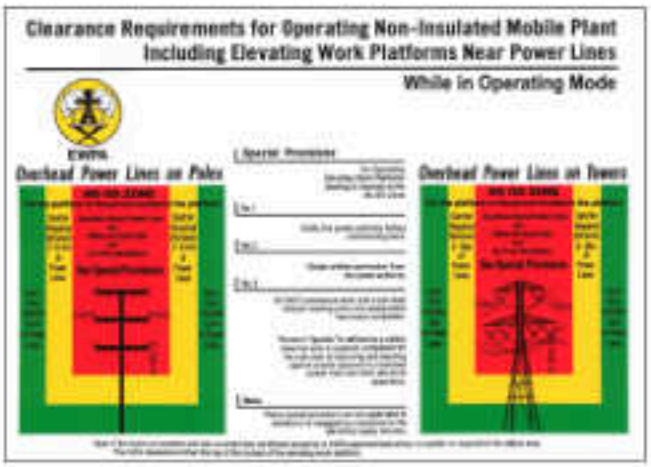


Figure 1 – Minimum Safe Approach Distance

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 90 lb (400 N).

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.

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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