SKYJACK

SERVICE MANUAL

SJ12, SJ16

VERTICAL MAST

213558AFA
June 2024
ANSI/CSA, CE, AS

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Table 2.4 Maximum Platform Capacities (Evenly Distributed) ANSI/CSA

Model		Wind Rating	Total Platform Capacity		Extension Platform Capacity		Manual Side Force	Tilt Cutout Setting (side-to-side x front-to-back)
SJ12	Indoor	0 m/s (0 mph)	227 kg (500 lb)	2 person(s)	227 kg (500 lb)	2 person(s)	400 N (90 lbf)	1.5° x 3°
	Outdoor	12.5 m/s (28 mph)		1 person(s)		1 person(s)	200 N (45 lbf)	
SJ16	Indoor	0 m/s (0 mph)	227 kg (500 lb)	1 person(s)	227 kg (500 lb)	1 person(s)	200 N (45 lbf)	1.5° x 3°
	Outdoor Option	12.5 m/s (28 mph)						

2072AA

NOTE

Occupants and materials are not to exceed the rated load. Refer to the capacity label at the entrance of the platform and the mast assembly for additional information and models equipped with options.

Table2.5 Maximum Platform Capacities (Evenly Distributed) CE,AS

Model		Wind Rating	Total Platform Capacity		Extension Platform Capacity		Manual Side Force	Tilt Cutout Setting (side-to-side x front-to-back)
SJ12	Indoor	0 m/s	227 kg	2 person(s)	227 kg	2 person(s)	400 N	1.5° x 3°
	Outdoor	12.5 m/s		1 person(s)		1 person(s)	200 N	
SJ16	Indoor	0 m/s	227 kg	1 person(s)	227 kg	1 person(s)	200 N	1.5° x 3°
	Outdoor Option	12.5 m/s						

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NOTE

Occupants and materials are not to exceed the rated load. Refer to the capacity label at the entrance of the platform and the mast assembly for additional information and models equipped with options.

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4.3 Hydraulic System Troubleshooting

4.3-1 All Functions Inoperative

1. Electric Motor DCM1 not engaged.	**Refer to electrical troubleshooting.**
2. Pump P1 and/or pump coupler defective.	**Check system pressures and Pump P1 functionality. Replace if defective.**
3. System Relief valve R1 stuck open.	**Clean valve. Replace if defective.**

4.3-2 All System Sluggish

1. System relief valve R1 defective or not adjusted properly.	**Adjust valve. Replace if defective.**
2. Hydraulic pump P1 worn or strainer contaminated. .	**Check system pressure and flow from Pump P1. Replace if defective.**

4.3-3 Platform Drifts Down

1. Defective Lift cylinder seals at the gland.	**Replace if damaged.** **Note: There are no piston seals, just wear rings.**
2. Combination of stuck or defective Holding/ Emergency Lowering valves 2H-13.	**Check valve. Replace if defective.**

4.3-4 Platform Lifts Slowly

1. Defective or stuck Holding/Emergency Lowering valve 2H-13	**Check valve. Replace if defective.**
2. Lift relief valve R3 defective or is not set correctly.	**Check pressures and adjust if necessary. Replace if defective.**

4.3-5 Platform Does Not Lift

1. Defective Lift valve 4H-14A.	**Check valve. Replace if defective.**
2. Hydraulic oil level too low.	**Fully lower the platform. Fill hydraulic tank until fluid is at or slightly above the top mark on the sight glass.**
3. Lift Relief valve R3 is defective or is set incorrectly.	**Check pressures and adjust if necessary. Replace if defective.**
4. Platform weight excessive.	**Reduce platform load to maximum capacity.**

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5. Disconnect the two harness plug connectors and the mast limit switch harness.
6. Remove all clamps securing the harnesses to the mast base.

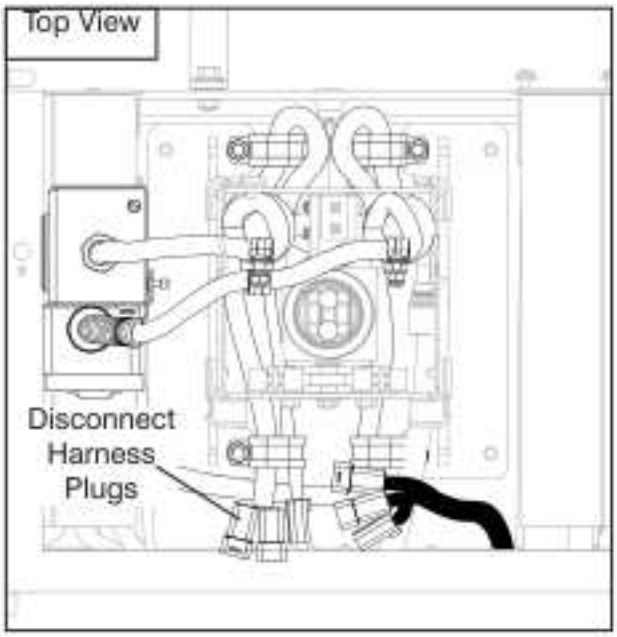


***Figure 73** Harness Disconnection*

7. Remove the rivets securing the power inlet at the base of the mast, then disconnect the wires and pull the harness through from the inside of the base so that it is clear.(ANSI/CSA Only)

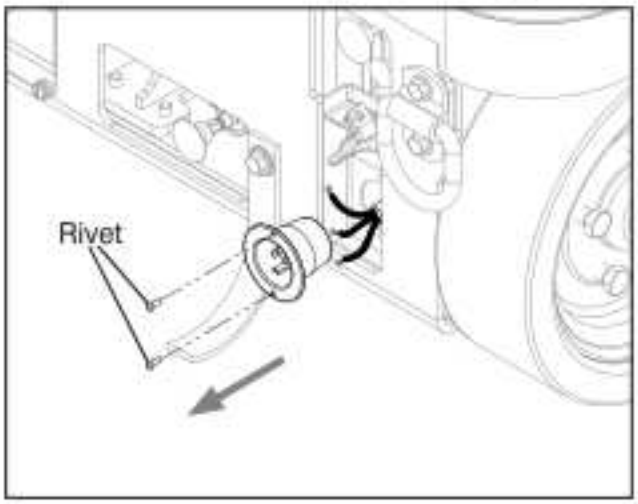


***Figure 74** Power Inlet Removal*

8. Lower the mast so that is slightly supported by the lifting straps.
9. Remove all hardware securing the mast to the base as shown.

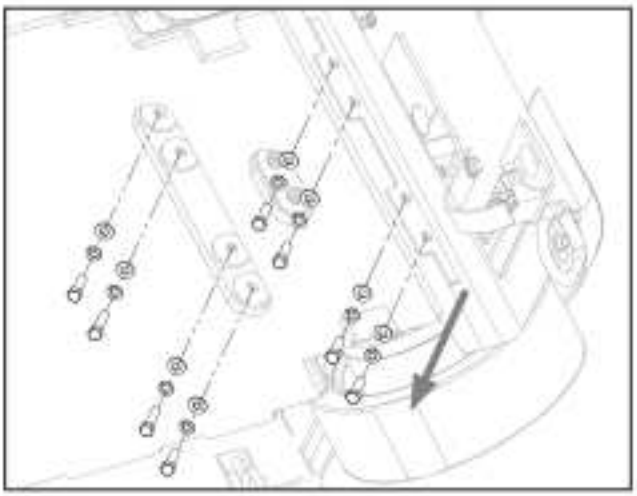


***Figure 75** Mast Hardware Removal*

10. Lift the mast assembly straight up and off the cylinder, ensuring the harnesses are clear. Set the mast aside.

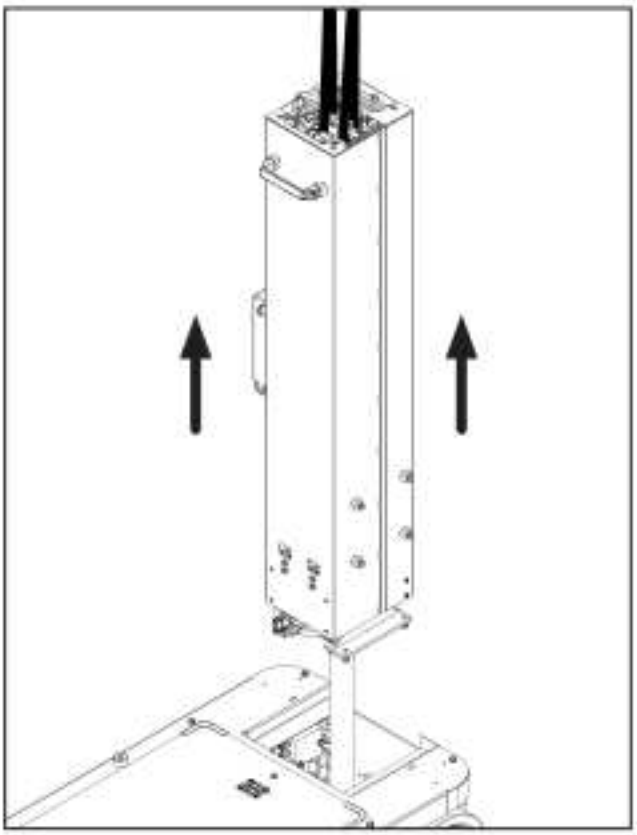


***Figure 76** Mast Removal*

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3. Locate the chain assemblies inside the mast. Lubricate the entire length of chain and anchor points using spray on industrial "Moly based" chain lubricant (for example Crown Wire Rope, Chain and Cable Lube 7043).

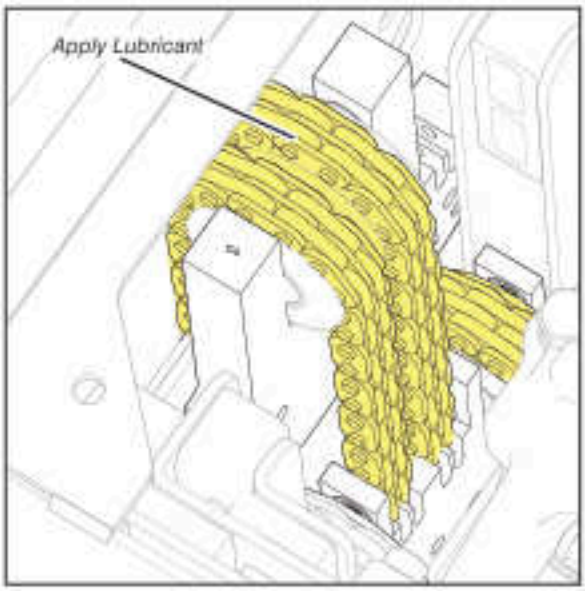


Figure 10 *Chain lubrication*

4. Exit the work platform.
5. From the base controls, fully raise and lower the platform three times to distribute the lubricant.
6. Install the mast cover at the top.

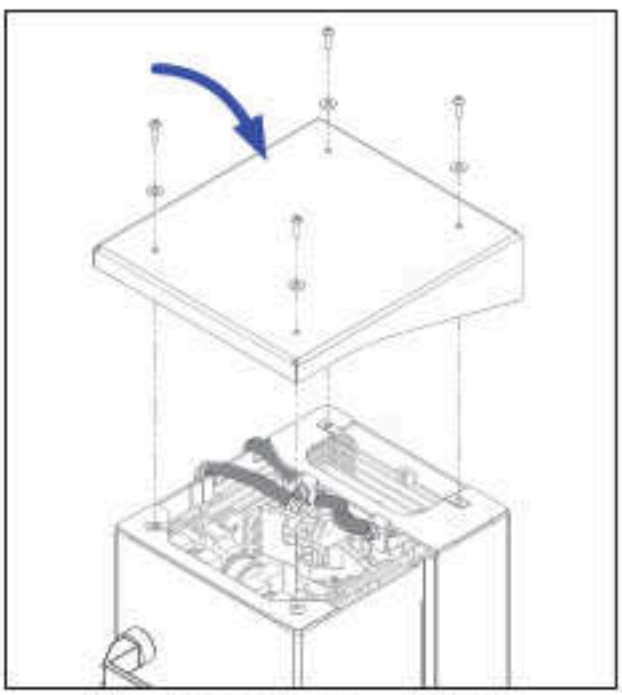


Figure 11 *Mast Top Cover Installation.*

5.9 Mast Roller Inspection/ Maintenance

5.9-1 Roller Operation Inspection

1. Using the base controls, fully retract the mast.

⚠ WARNING

Crushing/entrapment hazard due to moving chains/rollers and mast components. Keep all hands, other body parts and clothing away from moving parts.

2. Enter the platform and remove top mast cover.

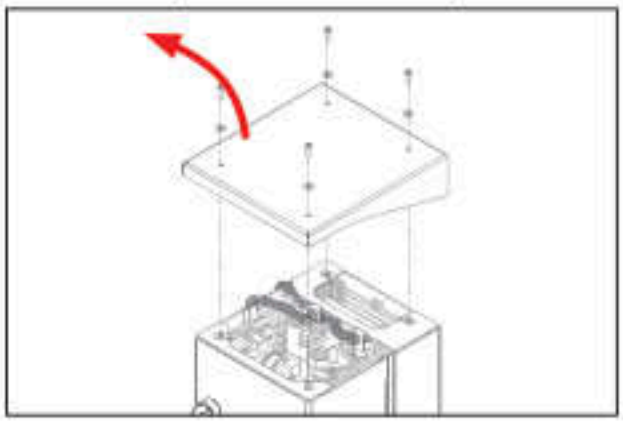
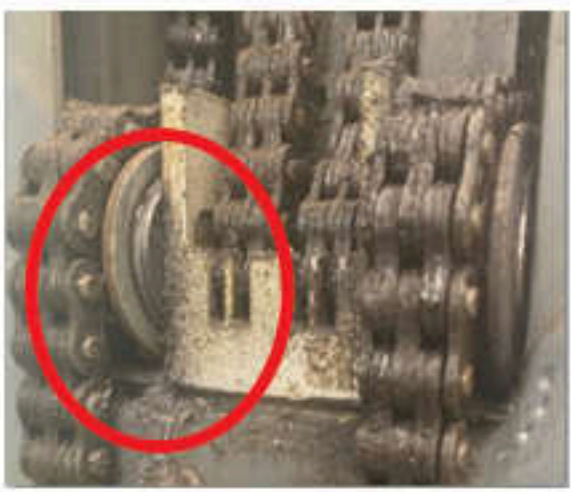


Figure 12 *Top Cover Removal.*

3. Inspect for metal shavings and dusty residue around the roller mounts and on the chain. This could indicate roller and/or chain erosion. Monitor for visible (magnetic) dusting and feel rollers for any grooving.

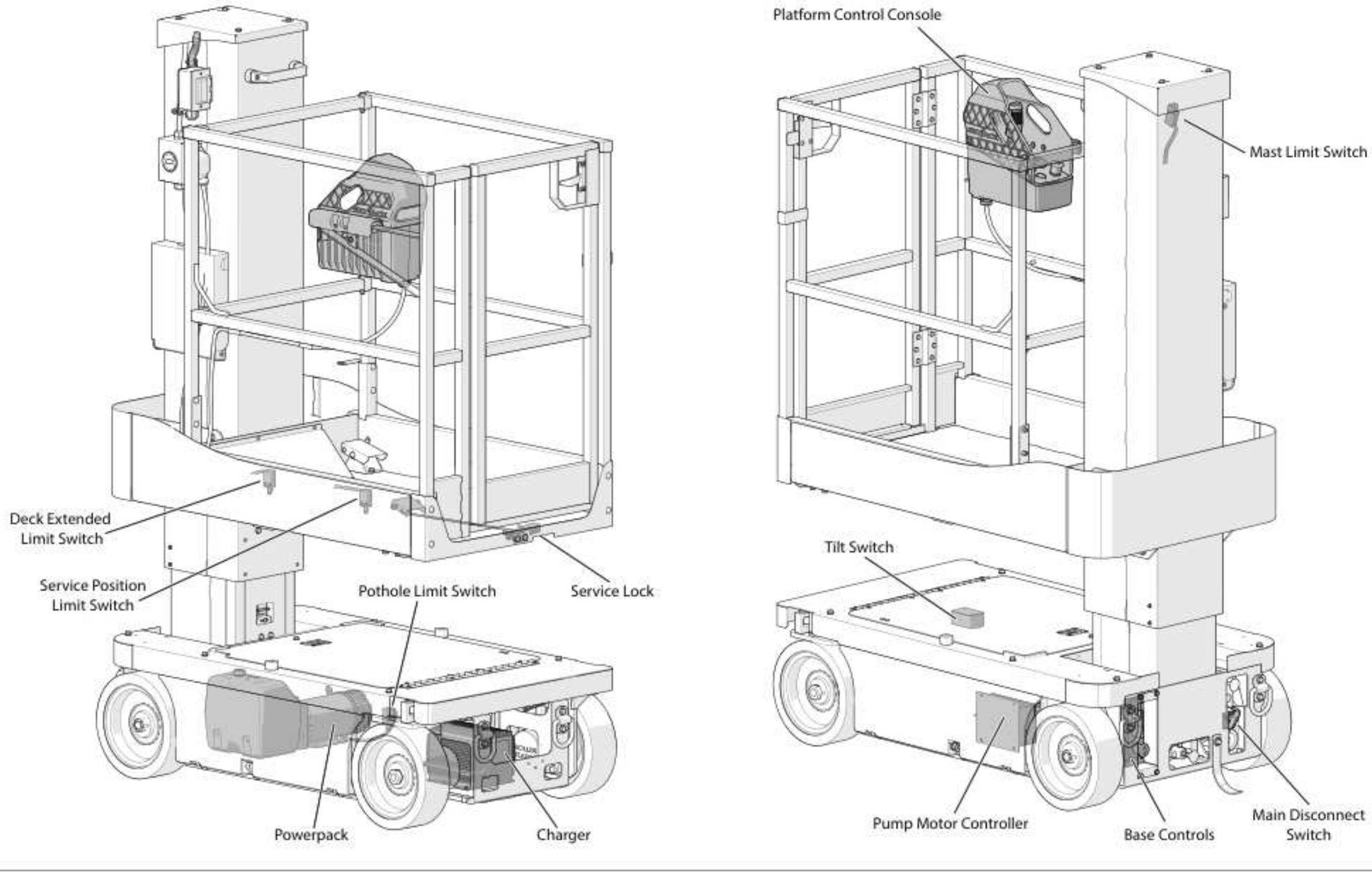


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3.14 Major Components



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