

OPERATING MANUAL (ANSI)

VERTICAL MAST

MODELS SJ12 SJ16

158013AC-A July 2012

SKYJACK

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801...

Order the manual at mid-west-tech.com >

Table of Contents

Section 1 - About Your Aerial Platform 5
Reed and Heed 5
Safety Rules 6

Section 2 - Familiarization 13
2.1 Familiarization of SJ12/16 Series 13
2.2 Component Identification 14
2.3 Visual & Daily Maintenance Inspections 17
2.4 Function Tests 22
2.5 Winching and Towing Procedures 29
2.6 Emergency Lowering Procedure 30

Section 3 - Operation 31
3.1 General 31
3.2 Major Components 32
3.3 Major Assemblies 33
3.4 Serial Number Nameplate 33
3.5 Component Identification 34
3.6 Component Identification (Optional Equipment/Attachments) 36
3.7 Operator's Responsibility 37
3.8 Start Operation 38
3.9 Loading/Unloading 41
3.10 Platform Traversing 43
3.11 Accessing the Hydraulic/Electrical Compartment 43
3.12 Battery Maintenance 44

Section 4 - Tables 47
Table 4.1 Standard and Optional Features 47
Table 4.2 Owner's Annual Inspection Record 48
Table 4.3 Specifications and Features 49
Table 4.4 Maximum Platform Capacities (Evenly Distributed) 50
Table 4.5 Floor Loading Pressure 50
Table 4.6 Maintenance and Inspection Schedule 52
Table 4.7 Operator's Checklist 53

Section 5 - Labels 55

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >

3.0 Operation

This section provides the necessary information needed to operate the aerial platform. It is important that the user reads and understands this section before operating the aerial platform.

3.1 General

In order for this aerial platform to be in good working condition, it is important that the operator meets the necessary qualifications and follow the maintenance and inspection schedule referred to in this section.

3.1-1 Operator Qualifications

- Only trained and authorized personnel shall be permitted to operate an aerial platform.
- Safe use of this aerial platform requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator must understand and be familiar with this operating manual, its warnings and instructions, and all warnings and instructions on the aerial platform.
- The operator must be familiar with employer's work rules and related government regulations and be able to demonstrate the ability to understand and operate this make and model of aerial platform in the presence of a qualified person.

3.1-2 Operator's Responsibility for Maintenance

⚠ WARNING

Maintenance must be performed by trained and competent personnel who are familiar with mechanical procedures.

Death or serious injury could result from the use of an aerial platform that is not properly maintained or kept in good working condition.

- The operator must be sure that the aerial platform has been properly maintained and inspected before using it.
- The operator must perform all the daily inspections and function tests found in Table 4.6, even if the operator is not directly responsible for the maintenance of this aerial platform.

3.1-3 Maintenance and Inspection Schedule

- The inspection points covered in Table 4.6 indicate the areas of the aerial platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.
- The actual operating environment of the aerial platform may affect the maintenance schedule.

⚠ WARNING

Use original or manufacturer-approved parts and components for the aerial platform.

3.1-4 Owner's Inspections

It is the responsibility of the owner to arrange daily, quarterly (or 150 hours) and annual inspections of the aerial platform. Refer to Table 4.6 for recommended maintenance and inspection areas and intervals. A record of annual inspection is kept on a label located on the mast. Refer to Table 4.2 in this manual.

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >

3.8-3 To Activate Platform Control Console

1. Turn main power disconnect switch to "I"on position.
2. On base control console, pull out "●" emergency stop button.
3. Select base/off/platform key switch to "" platform position.

WARNING

Ensure that you maintain three points of contact to mount/dismount platform.

4. Open the gate (if equipped) and access the platform.
5. Close the gate (if equipped).
6. On platform control console, pull out "●" emergency stop button.

3.8-4 To Raise or Lower Platform Using Platform Control Console

WARNING

Be aware of overhead obstructions or other possible hazards around the aerial platform when lifting.

WARNING

Do not lower the platform unless the area below is clear of personnel and obstructions.

1. On platform control console, select lift/off/drive switch to "" lift position.
2. Activate and hold "" enable trigger switch.
3. Move controller handle forward or backward until desired height is reached.
4. Return controller to neutral center position to stop. Release "" enable trigger switch.

WARNING

To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.

NOTE

If the tilt alarm sounds and the platform does not, or only partially raises, immediately lower the platform completely and ensure that the aerial platform is on a firm level surface.

3.8-5 To Drive Forward or Backward

WARNING

Be aware of blind spots when operating the aerial platform.

WARNING

Ensure that there are no personnel or obstructions in the path of travel, including blind spots.

1. On platform control console, select lift/off/drive switch to drive "" position.
2. Activate and hold "" enable trigger switch.
3. Move controller handle "" forward/up or "" backward/down to desired speed and direction of aerial platform travel.
4. Return controller to neutral center position to stop. Release "" enable trigger switch.

WARNING

To protect against unintended movement of the aerial platform, push in the emergency stop button after you have arrived at your desired location or elevation.

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >

Table 4.3 Specifications and Features

MODEL	SJ12	SJ16
Weight *	1720 lb.	2130 lb.
Overall Width	30 in.	30 in.
Overall Length	53.5 in.	53.5 in.
Platform Size (Inside)	27.0 in. x 36.8 in.	27.0 in. x 36.8 in.
Platform Traversing	20 in.	20 in.
Height		
Working Height	18 ft.	21.7 ft.
Platform Elevated Height	12 ft.	15.7 ft.
Stowed Height	70.3 in.	70.3 in.
Drive Height	Full	Full
Lowered Platform Height	18 in.	18 in.
Standard Operating Times		
Lift Time (Rated Load)	16 s	20 s
Lower Time (Rated Load)	14 s	18 s
Chassis		
Normal Drive Speed	2.5 mph	2.5 mph
Elevated Drive Speed	0.5 mph	0.5 mph
Gradeability (Ramp Angle)**	30% / 25%	30% / 25%
Tires (Solid Rubber)	12 x 4 in.	12 x 4 in.
Hydraulic Oil		
Type	ATF Dexron III	ATF Dexron III
Tank Capacity	1.3 gal.	1.3 gal.

28VAC_ANSI

* Weights are approximate; refer to serial nameplate for specific weight.
** Refer to Section 3.9 Loading/Unloading for more details.

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >

Safety Precautions

Know and understand the safety precautions before going on to next section.

WARNING

Failure to heed the following safety precautions could result in tip over, falling, crushing, or other hazards leading to death or serious injury.

- **KNOW** all national, state or territorial/provincial and local rules which apply to your aerial platform and job site.
- **TURN** main power disconnect switch "◯" off when leaving the aerial platform unattended. Remove the key to prevent unauthorized use of the aerial platform.
- **WEAR** all the protective clothing and personal safety devices issued to you or called for by job conditions.
- **DO NOT** wear loose clothing, dangling neckties, scarves, rings, wristwatches or other jewelry while operating this lift.



- **AVOID** entanglement with ropes, cords or hoses.



- **AVOID** falling. Stay within the boundaries of the guardrails.



- **DO NOT** raise the aerial platform in windy or gusty conditions.



- **DO NOT** increase the lateral surface area of the platform. Increasing the area exposed to the wind will decrease aeiral platform stability. Avoid tenting.



- **DO NOT** drive elevated near depressions or holes of any type,loading docks, debris, drop-offs or surfaces that may affect the stability of the aerial platform.



- **IF OPERATION IN AREAS WITH HOLES OR DROP-OFFS IS ABSOLUTELY NECESSARY,** elevated driving shall not be allowed. Position the aerial platform horizontally only with the platform fully-lowered. After ensuring that all 4 wheels or outriggers (if equipped) have contact with a firm, level surface, the aerial platform can be elevated. After elevation, the drive function must not be activated.



- **DO NOT** elevate or drive elevated on a slope. Elevated driving must be done on a firm, level surface.



- **DO NOT** ascend or descend a grade when elevated. When fully lowered, ascending or descending grades up to maximum rated inclines listed in Table 4.3.



MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >

Table 4.1 Standard and Optional Features

Models	SJ12	SJ16
STANDARD EQUIPMENT		
Maximum drive height	Full Height	Full Height
Variable speed, front two wheel hydraulic drive	•	•
Zero inside turn radius	•	•
Dual holding brakes	•	•
Proportional controls	•	•
24V DC power source	•	•
Low voltage battery protection	•	•
Solid rubber, non-marking tires	•	•
Pothole protection system	•	•
110V AC outlet at platform with GFI	•	•
Tilt alarm with drive & lift cut-out	•	•
All motion audible alarm	•	•
Lanyard attachment points	•	•
Operator horn	•	•
Lift lugs/tie downs	•	•
Relay based control system	•	•
Color coded and numbered wiring system	•	•
Platform traversing	•	•
Chain entrance	•	•
White nonmarking tires	•	•
OPTIONAL EQUIPMENT		
Flashing light	•	•
AC inverter	•	•
Full height spring hinged gate	•	•
Saloon spring hinged gate	•	•
Half height spring hinged gate	•	•
Bio oil	•	•
Grey nonmarking tires	•	•
Lowering only alarm	•	•
ATTACHMENTS		
Light duty pipe rack/steel stud rack	•	•
Tool tray	•	•
Fluorescent tube carrier	•	•

265AB_ANSI

4

MidWestTech | Skyjack SJ12, SJ16 Vertical Mast Lift Operating Manual | Publication 15801... Order the manual at mid-west-tech.com >