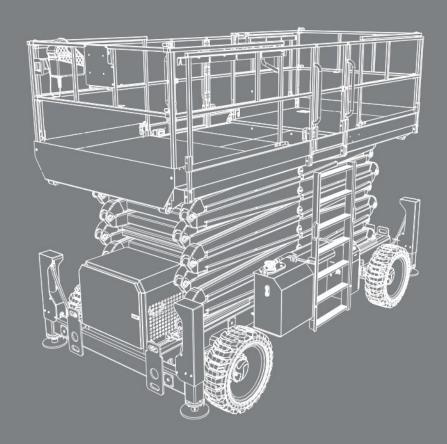


# OPERATION MANUAL

SJ9233 RT, SJ9243 RT, SJ9253 RT

**ROUGH TERRAIN SCISSORS** 



221491AAA

March 2020 ANSI/CSA

## This manual is for MEWPs with serial numbers: SJ9233 RT, SJ9243 RT, SJ9253 RT: A202 000 001 & Above

Please refer to the website (www.skyjack.com) for contact information, other Serial Numbers, most recent Technical Manuals, and USB software.

Original instructions in English.

#### THIS SAFETY ALERT SYMBOL MEANS ATTENTION!



#### **BE ALERT! YOUR SAFETY IS INVOLVED.**

The Safety Alert Symbol identifies important safety messages on MEWPs, safety signs in manuals or elsewhere. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.



#### A DANGER

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



#### **WARNING**

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

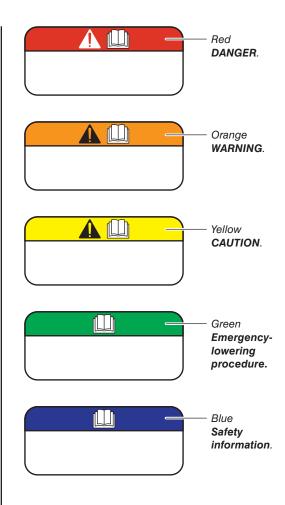


#### **A** CAUTION

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

#### **IMPORTANT**

IMPORTANT indicates a procedure essential for safe operation and which, if not followed, may result in a malfunction or damage to the MEWP.



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## Section 1 – About this Mobile Elevating Work Platform (MEWP)

#### 1.1 Read and heed

Skyjack is continuously improving and expanding product features on its equipment; therefore, specifications and dimensions are subject to change without notice.

## 1.1-1 Mobile Elevating Work Platform (MEWP) definition

A mobile machine intended for moving persons, tools, and material to working positions, consisting of a work platform with controls, an extending structure and a chassis.

#### 1.1-2 Purpose of equipment

The Skyjack Rough Terrain Scissor lifts are designed to move personnel, tools, and materials to working positions.

#### 1.1-3 Use of equipment

The MEWP is a highly maneuverable, mobile work station. Work platform elevation and elevated driving must only be done on a firm, level surface.

#### 1.1-4 Operation manual

The operation manual is an important part of the MEWP. It is important to always keep a copy of this manual in the weather-resistant manual storage box of the MEWP. The manual must be in good condition.

#### 1.1-5 Operator

The operator must read and completely understand this operation manual, the safety panel label located on the platform, the limitations, operating procedures, operator's responsibility for maintenance and all other warnings and instructions in this manual and on the MEWP.

Before you operate the MEWP, make sure you read and completely understand this information:

 The full contents of the operation manual, including the MEWP limitations and the responsibilities of the operator for the operation, applicable maintenance and safety instructions. 2. The safety panel label on the platform, the labels on the MEWP and the attachments.

Compare the labels on the MEWP with the labels in this manual. Immediately replace any labels that are damaged or missing.

Only trained and authorized personnel shall be permitted to operate a MEWP.

The operator must be familiar with the employer's work rules and related government regulations.

#### 1.1-6 Service policy and warranty

Skyjack warrants each new product to be free of defective parts and workmanship for the first 2 years or 3000 hours, whichever occurs first. Any defective part will be replaced or repaired by your local Skyjack dealer at no charge for parts or labor. In addition, all products have a 5 year structural warranty. Contact the Skyjack Service Department for warranty statement extensions or exclusions.

#### 1.1-7 Ownership of MEWP

Notify Skyjack of MEWP ownership. If you sell or transfer the ownership of a MEWP, promptly notify Skyjack of the new owner's contact information.

Skyjack needs this information to inform the owner of any updates or additional activities that are necessary to keep the machine in proper working condition.

#### 1.1-8 Optional equipment

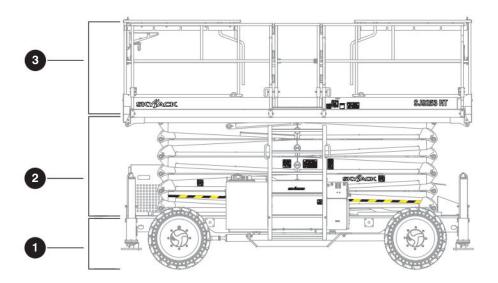
This MEWP is designed to accept a variety of optional accessories. Refer to *Section 7.1* for a list of the optional accessories. Operating instructions for these options are located in *Section 5* of this manual.

For components or systems that are not standard, speak to the Skyjack Service Department. Give the model and serial number for each applicable MEWP.

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#### 1.1-9 Scope of this manual

- **1.** This manual applies to the ANSI/CSA versions of the SJ Rough Terrain Scissor Lift series. For a list of applicable models, refer to *Section 7.1*.
  - Equipment identified with ANSI meets the ANSI SAIA-A92.20-2018 standard.
  - Equipment identified with CSA meets the CSA B354.6:2017 standard.



#### 1.2 Primary assemblies

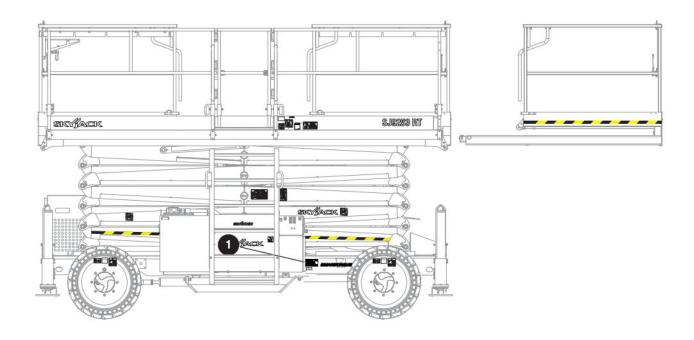
The MEWP has these primary assemblies:

- 1. Base
- 2. Lift mechanism
- 3. Platform.
- Base: The base is an assembly consisting of these components:
  - A tray on two brackets attached to the right side of the base. The tray contains these parts:
    - A fuel tank with a fuel gauge on the side of the tank
    - A ladder
    - A liquid propane gas (LPG) tank (optional equipment).
  - A tray on two brackets attached to the left side of the base. The tray contains these parts.
    - Hydraulic tank and sight gauge
    - Ladder
    - Base control console
    - 12V starter battery.
  - Two front and two rear outriggers.
  - Emergency-lowering system at the base control console.
  - Engine compartment at the front of the base.
  - Hydraulic compartment at the rear of the base.
- The front axle is steerable by a hydraulic cylinder.

- The rear axle is hydraulic motor-driven. A drive shaft connects the rear axle to the front axle. The rear axle has spring-applied, hydraulicallyreleased brakes.
- A two-section hydraulic pump that gives power to the hydraulic system is connected to the engine.
- An engine control console in the engine compartment at the front of the base.
- 2 Lift mechanism: The lift mechanism is a scissortype assembly made of formed steel or tube sections. Single-acting hydraulic-lift cylinders with holding valves move the scissor assembly and the platform up and down.
- Platform: The platform has these parts.
  - Tubular support frame.
  - Slip-resistant "diamond plate" deck surface.
  - Hinged tubular guardrails, with mid-rails, and toe boards.
  - You can enter and exit the platform from two sides through a spring-returned gate with a latch.
  - Front extension platform.
  - Rear extension platform (optional equipment).
  - AC power outlet.

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#### Serial number nameplate

The **serial number nameplate** 1 is located at the rear of the MEWP. It contains this information:

- Model number
- Type
- Group
- Serial number
- Indoor or outdoor use
- Capacity and maximum number of persons
- Voltage
- Maximum drive height
- Maximum platform height
- Maximum wind speed
- Maximum manual force
- Model year
- MEWP weight
- System pressure
- Maximum incline.

#### **Maintenance responsibility** 1.4

#### 1.4-1 Operator

Before the beginning of each shift, do all the daily inspections and function tests. Refer to Section 4.

#### 1.4-2 Maintenance and inspection schedule

Refer to the service manual for frequent, periodic, and annual inspections.

The actual operating environment of the MEWP may affect the maintenance schedule.

#### **IMPORTANT**

Only use original or manufacturer-approved parts and components for the MEWP.

#### **NOTE**

Refer to the Skyjack web site (www.skyjack.com) for machine registration and the latest service bulletins before you do frequent/periodic or annual inspections.

#### 1.4-3 Owner

The owner is responsible for maintenance inspections and repairs. Refer to the service manual for the recommended maintenance and inspection areas and intervals. Keep a record of the annual inspection on the label on the scissor assembly. Refer to Section 7.2 in this manual.



#### **WARNING**

Only trained and qualified/competent personnel, who understand the mechanical procedures, may do maintenance on the MEWP. The use of a MEWP that is not properly maintained or in the correct working condition could result in death or serious injury.

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## **Section 2 – General Safety Precautions**

#### **WARNING**

Failure to obey the instructions and precautions in this manual could result in MEWP damage, property damage, personal injury, or death.

It is mandatory that you use this MEWP correctly. Read this manual and make sure you fully understand it before you operate the MEWP.

Use personal protective equipment (PPE) when you do work on or near machinery to protect your eyes. ears, hands, feet, and body.

Any modifications to the MEWP must have written permission from Skyjack.



#### **WARNING**

Do not operate the MEWP if:

- It does not operate correctly
- It is damaged or shows worn or missing parts
- The safety devices are tampered with or disabled
- It is locked and tagged for servicing or repair
- It was modified without permission from Skyjack and the MEWP owner.

If you do not obey, there is a risk of death or serious injury.

#### 2.1 Electrocution hazards

The MEWP is not electrically insulated and does not provide protection from contact with or proximity to energized electrical conductors. Follow Section 2.1-1 for the minimum distance to keep between all parts of the MEWP, occupants, or tools, and the electrical conductors. Consider MEWP movement and electrical line sway in minimum distance calculation.

If you need to work nearer than 3 m (10ft), stop and apply control measures as determined by a qualified person with respect to electrical transmission and distribution.

Obey all the national, state/provincial/territorial and local safety rules.

#### 2.1-1 Minimum distance from electrical conductors

Voltage Range	Minimum Distance from Electrical Conductors	
≤ 50 KVA	3 m (10 ft)	
> 50 KVA, or if not known	STOP and apply control measures as determined by a qualified person with respect to electrical transmission and distribution.	



#### **DANGER**

Electrocution hazard. Keep all parts of the MEWP, occupants, or tools a safe distance away from power lines, electrical power sources, or energized sources. If you do not obey, there is a risk of death or serious injury.



Keep a minimum safe distance from sources of high-voltage power.



**DO NOT** operate the MEWP during lightning or storms.



#### **CAUTION**

**DO NOT** use the MEWP as a ground for welding. If you do not obey, there is a risk of minor or moderate injury, or malfunction or damage to the MEWP.

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#### 2.2 Safety instructions



#### **WARNING**

DO NOT operate this MEWP without proper authorization and training. Failure to avoid this hazard could result in death or serious injury.



#### **WARNING**

DO NOT operate this mewp in enclosed areas without adequate ventilation for exhaust gas and fumes. Failure to follow this warning could cause death or serious injury.



#### **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/provincial or territorial, and local rules which apply to your MEWP and worksite.

MAKE SURE all the safety and instructional labels are correctly attached on the MEWP in the correct location. Clean or replace labels that you cannot read.

DISCONNECT and lock out main power disconnect on the left side of the MEWP when leaving the MEWP unattended to prevent unauthorized use.



**DO NOT** wear jewelry or loose clothing that could become caught or entangled.



**DO NOT** allow the entanglement of ropes, cables or hoses with the MEWP, adjacent structures or objects.



Prevent falling from the platform. Always keep a firm footing on the platform floor when working thereon. Do not climb on the toe-board, mid-rail, or top-rail. Do not use planks, ladders, or any other devices on the platform for achieving additional height or reach.



**DO NOT** raise the platform or operate elevated in windy or gusty conditions that exceed the limits specified in Section 7.5.



**DO NOT** increase the surface area of the platform or carry large surface area items when exposed to wind. Increasing the area exposed to the wind will decrease the MEWP stability.



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



**DO NOT** drive elevated on a soft or uneven surface.

**DO NOT** raise the platform if it is not on a firm, level surface.

MAKE SURE the ground condition assessment considers the subsurface voids such as cellars, basements, culverts, and pipes.

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

**DO NOT** ascend or descend grades greater than the maximum inclines listed in Section 7.3. Ascending or descending slopes must only be done when fully lowered.



**DO NOT** operate a MEWP that has ladders, scaffolding, or other devices on it to increase the platform size or work height.



**DO NOT** exceed the maximum side force on the platform capacity label when elevated (refer to Section 7.5).



**DO NOT** use the MEWP as a crane.



**DO NOT** sit, stand, or climb on the guardrails.



**DO NOT** climb on the scissor arm assembly.







**DO NOT** collide or crush. Be aware of obstructions, personnel, or other possible hazards around the MEWP when elevating, lowering, or driving. Keep all body parts inside the platform when elevating or driving. Be aware of blind spots when operating the MEWP.



**DO NOT** elevate the platform when the MEWP is on a truck, forklift, or other device or vehicle.



**DO NOT** use the MEWP when the wheels or tires are damaged (refer to Section 4.2-4).

Make sure the wheel nuts are tight.

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**DO NOT** alter or disable limit switches or other safety devices.



**DO NOT** use the MEWP without guardrails, locking pins, and the entry gate(s) in place.



DO NOT use the MEWP under the influence of alcohol or drugs, or if the operator's performance is impaired by a medical condition, the influence of prescription or over the counter drugs, or fatigue.



**DO NOT** exceed the rated capacity of the MEWP.



**DO NOT** distribute the load unevenly.



**DO NOT** use the MEWP if it does not function correctly or if any parts are damaged or worn.



**DO NOT** leave the MEWP unattended with the key in the key switch.

**DO NOT** operate on slippery surfaces without sufficient traction to stop, drive, or steer the MEWP.

STUNT driving and horseplay are prohibited.

**DO NOT** position the MEWP against another object to steady the platform.

**DO NOT** place materials on the guardrails or materials that exceed the confines of the guardrails unless approved by Skyjack.

Remove all personnel from the platform before you try to free a snagged platform with the base controls.

#### **Fall-protection** 2.3

The guardrail system is the primary fall-protection system of the MEWP platform.

If personal fall-protection equipment (PFPE) is required, by an employer or the authority having jurisdiction, Skyjack recommends the use of a full body harness with a lanyard. PFPE must be attached only to approved fall-protection anchorage points in the platform.

All PFPE must be compliant with applicable government rules and must be inspected as per the manufacturer's recommendation.



#### **WARNING**

Fall hazard.

- Only enter and exit the MEWP using the three points of contact principle.
- Only use the equipped access openings.
- Only enter and exit the MEWP when the platform is fully lowered.
- Face the MEWP when entering or exiting the platform.

Failure to follow these instructions could result in death or serious injury.

Enter or exit the platform from the ground only. Use the three points of contact principle, which is when two hands and one foot, or one hand and two feet are in contact with the MEWP or the ground at all times. Face the MEWP when entering or exiting the platform.

#### 2.4 Worksite inspection

Make sure the operating environment, ambient temperature, Electromagnetic Compatibility (EMC), and Hazardous Location Rating (locations with potentially flammable gases, explosive gases or particles) are appropriate for the MEWP specifications (refer to Section 7.4).

Be sure to follow all national, state/provincial/territorial, and local rules that relate to operating the MEWP.

Perform a full worksite inspection before operating the MEWP. Identify potential hazards in the area.

Be aware of moving equipment in the area. Take the necessary precautions to prevent collisions.

It is the responsibility of the operator to perform a worksite inspection and avoid/address the following hazards:

- Holes or drop-offs
- Slopes
- Ditches or soft fills
- Floor obstructions, bumps, or debris
- Overhead obstructions
- Electrical conductors
- Hazardous locations
- Inadequate surface support to withstand all load forces imposed by the MEWP (refer to Section 7.6)
- Wind and weather conditions
- Presence of personnel
- Other mobile equipment
- Traffic hazards
- Equipment that could move and collide with the MEWP, such as overhead cranes
- Other possible unsafe conditions.

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### Section 3 - Familiarization



#### **WARNING**

Do not operate this MEWP without correct training and authorization. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

MEWP Familiarization must be given to a qualified operator. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

It is the responsibility of the operator to fully understand, and follow all instructions and warnings contained in this operation manual and on the MEWP. If you do not obey, there is a risk of death or serious injury.

Read and fully understand the operation manual, all the warnings, and the instruction labels (refer to Section 8) on the MEWP.

Do these tasks before the operation:

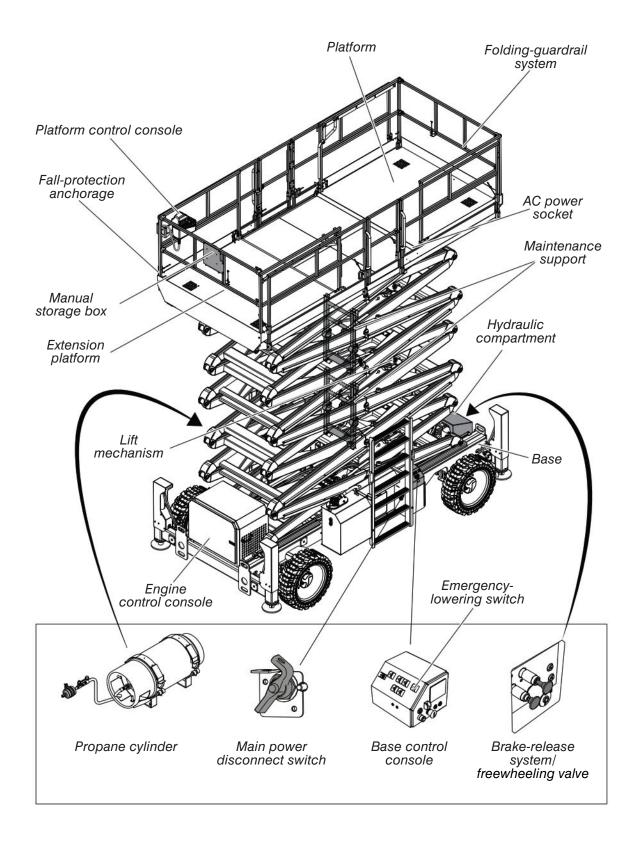
- 1. Worksite inspection. Refer to Section 2.4.
- 2. Daily visual and maintenance inspections. Refer to Section 4.2.
- 3. Function tests. Refer to Section 4.3.

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**FAMILIARIZATION** 

Section 3 – Familiarization Overview of the MEWP

#### 3.1 Overview of the MEWP

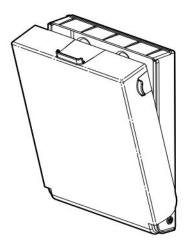


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Manual storage box Section 3 – Familiarization

#### 3.2 Manual storage box

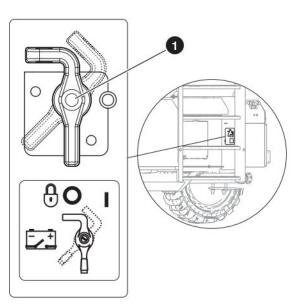
The manual storage box is weather-resistant. It contains the operation manual, ANSI Manual of Responsibilities, and the ANSI/CSA certificate. You must keep the operation manual for the make and model of this MEWP in this box. Refer to Section 3.1 for the location of the manual storage box.



#### 3.3 Control functions

#### 3.3-1 Main power disconnect switch

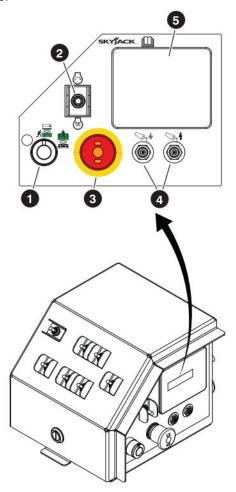
Refer to *Section 3.1* for the location of the main power disconnect switch.



Main power disconnect: This switch disconnects power to all control circuits when it is in the off position. The switch must be in the on position to operate the MEWP. The switch must be in the off position when you transport the MEWP or put it in storage. Section 3 – Familiarization Control functions

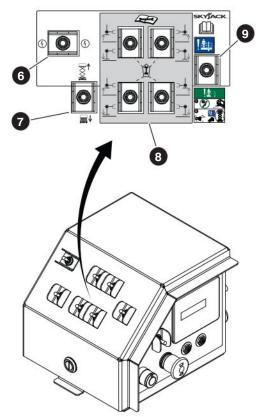
#### 3.3-2 Base control console

Refer to Section 3.1 for the location of the base control console.



- Off/base/platform key: With this three-way switch, you can:
  - Turn off the power to the MEWP controls.
  - Energize the base controls.
  - Energize the platform controls.
- Engine start/glow plug: In the start position, this switch starts the engine. In the glow plug position, it energizes the glow plugs. This helps to start a cold diesel engine. The glow plugs only operate when the switch is held.
- Emergency-stop: This button disconnects power to the control circuit. Pull to connect the power again.

- Circuit breaker: If a power overload or positive circuit grounding occurs, the circuit breaker comes out. Push the circuit breaker back into the initial position to reset the power.
- 5 Skycoded™ display panel: This display panel shows operation and parameter information. Examples are the hours of operation, tilt angle, and error codes.



- 6 Enable: This switch energizes the circuit that lets the lift, lower, emergency-lowering, and outrigger functions operate.
- **Dower/neutral/raise:** This switch controls the function to lower or raise the platform.
- Outriggers (optional equipment): This switch controls the function to manually extend or retract individual outriggers for service and maintenance purposes only. This function is to be used by a qualified service technician only.
- 9 Emergency-lowering: This switch controls the function to lower the platform if there is a failure of the primary power.

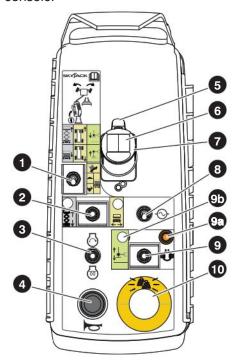
SJ9233 RT, SJ9243 RT, SJ9253 RT

Control functions Section 3 - Familiarization

#### 3.3-3 Platform control console

Use this control console to operate the MEWP from the platform or the ground. To operate the MEWP from a position on the ground, refer to Section 6.4.

Refer to Section 3.1 for the location of the platform control console.



- Inclined drive/level drive: This switch selects the inclined drive (low speed/high torque), or the level drive (high speed/low torque).
- 2 Lift/off/drive: A light next to this switch illuminates to indicate the selected mode.
  - The off position on this switch disconnects the power to both the lift and drive circuits.
  - The lift position energizes the lift circuit.
  - The drive position energizes the drive circuit.
- 3 Engine start/glow plug: In the start position, this switch starts the engine. In the glow plug position, it energizes the glow plugs. This helps to start a cold diesel engine. The glow plugs only operate when the switch is held.
- 4 Horn: This push-button makes a sound like a car horn.

- 5 Lift/drive/steer/auto-level function-enable: This switch energizes the controller handle. Squeeze and hold the switch continuously to engage the lift, drive, steer, and auto-level functions.
- 6 Steering rocker: This switch controls the left and right steering. Release the switch to return it to the neutral position.
- Lift/drive/auto-level controller: This one-hand lever controls the lift, drive, and auto-level movements. To return it to the initial neutral position, release the controller.
- B Generator (optional equipment): This switch starts the generator.
- 9 Auto-level (optional equipment)/differential lock: In the auto-level position (available only in lift mode), this switch enables the controller operation of the outrigger auto-level function. In the differential lock position (available only in drive mode), this switch makes the light 9a go on, and the differential lock engages. The differential lock is only available in the drive mode.
- Auto-level light (optional equipment)

Auto-level light	Outrigger condition		
Off	The outriggers are fully retracted. The outriggers are not active.		
Flashing slowly	Indicates the outrigger extension or retraction.		
Flashing quickly	The outriggers are extended and the MEWP is not level, or there is an outrigger or autolevel function error.		
On	The outriggers are extended and the MEWP is level. The light is on while the auto-level function is active only.		

- **D** Emergency-stop/operation light: This button, disconnects the power to the control circuit.
  - When the light is on continuously, the platform controls are available.
  - When the light flashes, there is an overload (refer to Section 3.4-8).

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#### 3.3-4 Engine control console

This control console is on a bracket on the radiator in the engine compartment.

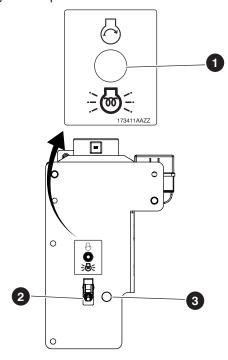


Figure 01 Engine control console - diesel fuel

- 1 Engine start/glow plug: In the start position, this switch starts the engine. In the glow plug position, it energizes the glow plugs. This helps to start a cold diesel engine. The glow plugs only operate when the switch is held.
- Positive air shut-off (optional equipment): This switch stops the air supply to the engine. This is useful if the engine does not immediately stop when the power is off.
- Positive air shut-off light (optional equipment): This light continuously illuminates when the positive air shut-off valve disengages.

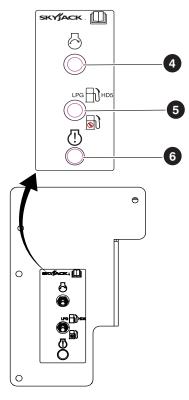


Figure 02 Engine control console - dual fuel (optional equipment)

- **4 Engine start:** In the start position, this switch starts the engine.
- **5 Fuel:** Use this switch to select liquid propane gas or gasoline as the fuel type.
- 6 MIL light: This light shows an engine malfunction.

Features and devices Section 3 – Familiarization

#### 3.4 Features and devices

## 3.4-1 Lowered travel position and elevated travel position

The available MEWP functions depend on these factors:

- MEWP configuration (lowered travel position/ elevated travel position)
- Chassis angle
- Platform load.

The MEWP is in the lowered travel position when the platform is below height "A" (refer to *Figure 03*).

The MEWP is in the elevated travel position when the platform is at or above height "A" (refer to *Figure 03*).

When the platform is above the maximum drive height, the drive function does not work (refer to *Figure 03*).

Model	A - Height	Maximum drive height
SJ9233 RT	<2.28 m (7 ft 6 in)	Full height
SJ9243 RT	<2.72 m (8 ft 11 in)	Full height
SJ9253 RT	<3.73 m (12 ft 3 in)	10.06 m (33 ft)

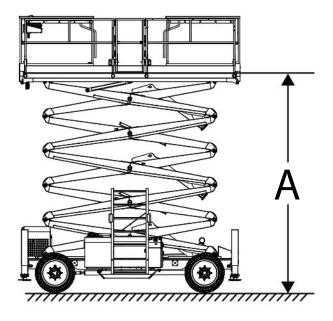


Figure 03 Lowered and elevated travel position

#### 3.4-2 Drive speed

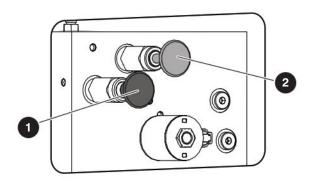
The drive speed depends on the MEWP configuration (lowered travel position/elevated travel position). When the MEWP is in the elevated travel position, the speed is slower than the speed in the lowered travel position. Refer to *Section 7.3*.

#### 3.4-3 Tilt switch

This device senses when the MEWP has passed a predetermined angle in the longitudinal (front-to-back) or lateral (side-to-side) direction. Refer to Section 7.5. When the tilt switch is on, and the MEWP is in the elevated travel position, it disables the drive and lift functions. An alarm makes a sound and an amber light on the lower cross member flashes. If the alarm makes a sound, fully lower the platform. Level the MEWP before you raise the platform.

#### 3.4-4 Brake release system

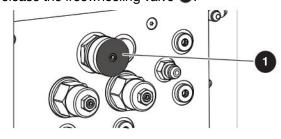
This system disengages the brakes manually before you push, winch, or tow the MEWP. Refer to *Section 6.2* for the procedure. Refer to *Section 3.1* for the location of the brake-release system.



- Brake auto-reset valve plunger
- 2 Brake hand pump

#### 3.4-5 Freewheeling valve

Refer to Section 6.2 for the procedure on how to release the freewheeling valve 1.

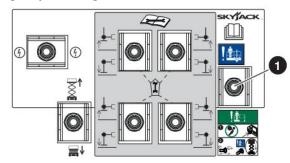


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Section 3 - Familiarization Features and devices

#### 3.4-6 Emergency-lowering system

With the emergency-lowering system, you can lower the platform if there is a failure of the primary power. Refer to Section 6.1 for the emergency-lowering procedure. Refer to Figure 04 for the location of the emergency-lowering switch.



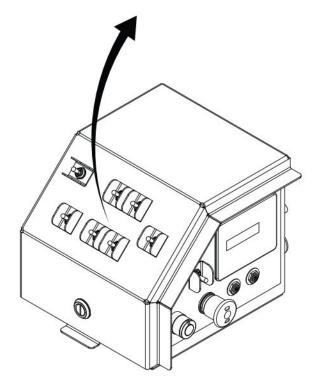
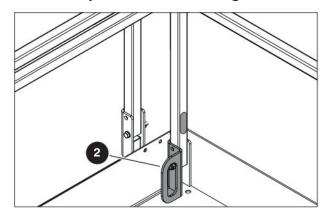


Figure 04 Emergency-lowering switch

Emergency-lowering switch

#### 3.4-7 Fall-protection anchorage



2 Fall-protection anchorage: When required, use this as a point to attach personal fall protection equipment (PFPE). Do not attach the PFPE to any other points on the platform. Do not use this anchorage to lift, anchor, attach, or hold the platform, or other apparatuses or material.

#### **WARNING**

Only use the fall-protection anchorage in the limits of the platform. Do not use the fall-protection anchorage for other than its intended function (refer to Section 2.3). If you use it incorrectly, death, serious injury, and/or MEWP damage can occur.

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Features and devices Section 3 - Familiarization

#### 3.4-8 Platform load-sensing system

The platform load-sensing system prevents normal MEWP movement when the platform is overloaded and in a stationary position. Refer to Section 7.5 for platform capacities.

Load status	Result
The platform is near the rated load. All functions are available.	The light on the emergency-stop button flashes on the platform and base control consoles.
The platform is at the rated load. All functions are available.	The alarm sounds. The light on the emergency-stop button flashes on the platform and base control consoles.
The load on the platform is more than the rated load. All normal MEWP movement functions are unavailable.	The light on the emergency- stop button continues to flash on the platform and base control consoles. The alarm continues to sound at an increased frequency.

Remove the overload from the platform to continue the normal operation.



#### **WARNING**

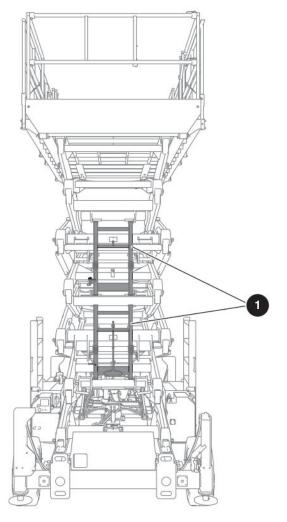
Fall hazard. Do not try to free a snagged platform with the base controls until you remove all personnel from the platform. If you do not obey, there is a risk of death or serious injury.

#### 3.4-9 Maintenance support(s)

Use the maintenance support(s) 1 when you do an inspection of the lift mechanism or do maintenance. Refer to Section 6.7 for the procedure on how to use the maintenance support(s).

#### **NOTE**

Models SJ9233 RT and SJ9243 RT only have one maintenance support, found at the bottom. Model SJ9253 RT has two maintenance supports.

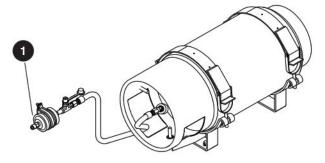


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Section 3 – Familiarization General components

## 3.4-10 Propane cylinder (optional equipment)



Propane cylinder valve: Turn the valve clockwise to close the fuel supply. Turn the valve counterclockwise to open the fuel supply. Refer to Section 3.1 for the location of the propane cylinder.

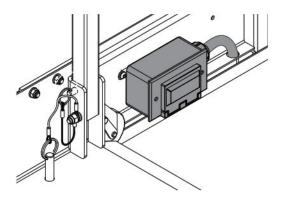
## 3.4-11 Auto-level system (optional equipment)

The auto-level system deploys and retracts all four outriggers at the same time. Use this system to level the MEWP from the platform.

#### 3.5 General components

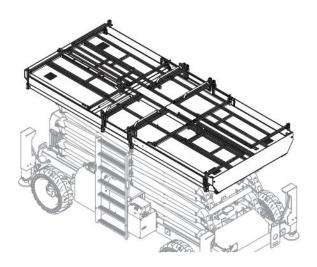
#### 3.5-1 AC power socket on the platform

The AC power socket is a source of AC power on the platform when the plug at the base is connected to a generator or an external power supply.



#### 3.5-2 Folding-guardrail system

When you fold down this system, it decreases the height of the fully-lowered MEWP to transport the MEWP and/or to drive the MEWP through doorways. Refer to *Section 6.8* for the procedure on how to fold the guardrails.



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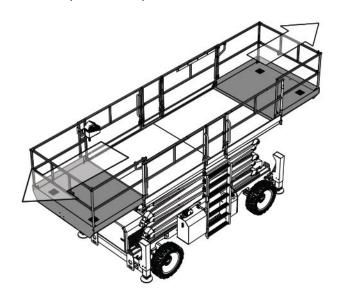
Optional equipment Section 3 - Familiarization

#### 3.5-3 Extension platform(s)

The extension platform(s) increase the length and area of the platform. Refer to Section 5.8 on how to extend and retract the extension platform(s).

#### **NOTE**

The front extension platform is standard. The rear extension platform is optional.



#### 3.5-4 Motion alarm

The alarm makes a sound when a control function operates. On some MEWPs, an amber flashing light goes with this alarm.

#### **Optional equipment**

#### **A** CAUTION

Skyjack approved modifications and attachments can change the MEWP specifications. Refer to the applicable instructions and labels.

#### **IMPORTANT**

Refer to the labels of the optional equipment for the actual weight. Include this weight to calculate the total load on the platform. Include personnel and other materials in the total load.

The weight of the attached parts, panels, occupants, and tools put together must not be more than the rated platform capacity.

#### 3.6-1 Secondary Guarding Lift Enable (SGLE) push-button



**1** SGLE: This push-button energizes the lift function. Hold the button down together with the function-enable switch to enable the raising of the platform with the lift function.

#### NOTE

The SGLE does not have an effect on these functions: lower, drive, steer, auto-level, or emergency-lowering.

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Section 3 – Familiarization Optional equipment

## 3.6-2 Elevate™ telematics - access control unit

Access control is an added function of the Elevate<sup>™</sup> Trackunit. The access control function does not have an effect on: emergency-lowering, load sensing, the horn, and when you lower the platform. These functions are always available. The access control unit does not allow the engine to operate without an approved code or card.

#### **IMPORTANT**

The owner is responsible to supply PIN codes or Smart ID cards for MEWPs that have the access control function. Skyjack does not supply or reset PIN codes or Smart ID cards. Speak to the MEWP owner to help you with PIN codes or Smart ID cards that do not function, or you cannot find.

With the access control function, the user can control access to the MEWP operation. You can get unique PIN codes or Smart ID cards to unlock and start the MEWP. For this function, an Elevate™ telematics device and an access control keypad are necessary. With the Trackunit Manager, the MEWP owner can customize the access control to the MEWP (https://www.trackunit.com/services/manager/). Speak to the MEWP owner to help you with PIN codes or Smart ID cards that do not function, or you cannot find.



Figure 05 Keypad of the access control unit

Orange indicator: This light shows that the access control unit is ON. The keypad always has power regardless of the emergency-stop, off/base/platform key switch, or main power disconnect position. @ Green/red indicator: A green light shows that the access control unit is in operation. A red light that flashes shows that the keypad received a cancel input.

#### Operation

To operate the MEWP, the light and all of these power connections must be ON before the set time expires. This set time is the time that the MEWP owner sets for the access control operation.

- The green light on the keypad of the access control unit.
- The main power disconnect switch.
- The emergency-stop button on the base control console.
- The off/base/platform key switch.

You can also set these power connections to ON before you start the access control unit.

To operate the access control unit, use the PIN code or Smart ID card.

#### With the Keypad:

#### NOTE

This touch-sensitive keypad beeps to identify a correct input.

- 1. Enter the PIN code.
- 2. Press the green checkmark to confirm.
  - Result: The green light identifies an approved ID. Start the operation.

#### NOTE

If you push an incorrect button when you enter the PIN code, push the Cancel button to start again.

#### With the Smart ID Card:

- 1. Put the card in front of the reader.
- **2.** A beep identifies that the reader read the card.
  - Result: The green light identifies an approved ID. Start the operation.

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Optional equipment Section 3 - Familiarization

#### **IMPORTANT**

If the set time of the access control unit expires, enter the PIN code or tap the Smart ID card again. If there is a failure of the access control activation, speak to the MEWP owner.

#### **IMPORTANT**

The access control unit will not operate if these power connections are not ON in the set time, or if the operator disconnects them:

- The main power disconnect switch
- The emergency-stop button on the base control console
- The off/base/platform key switch.

#### **IMPORTANT**

To start the access control unit, enter the PIN code or tap the Smart ID card. These power connections must be in the ON position in the set time:

- The main power disconnect switch
- The emergency-stop button on the base control console
- The off/base/platform key switch.

#### **Function Tests**

Do the function tests as specified in Section 4.3.

When you do the function tests, make sure that the green light on the keypad is ON. This light confirms that the access control unit is in operation. Do the function tests for these power connections in the set time:

- The main power disconnect switch
- The emergency-stop button on the base control console
- The off/base/platform key switch.

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## **Section 4 – Inspections Before Operation**

#### 4.1 Operator's responsibility

Do these tasks before each work shift and in this sequence:

1. Visual and daily maintenance inspections (refer to Section 4.2).

#### **A** WARNING

Do an inspection on the MEWP for damage or loose or missing parts. If damage is found, lock and tag the MEWP and remove it from service. If you do not obey, there is a risk of death or serious injury.

2. Function tests (refer to Section 4.3).

Refer to Section 4.4 for a checklist of the inspection items.

#### **A** WARNING

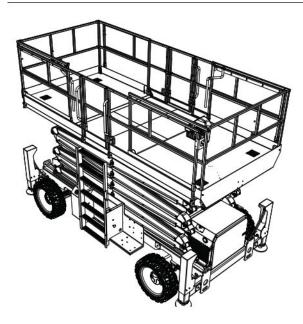
If the MEWP is damaged or has been modified from the initial factory-delivered condition, without permission from Skyjack, lock and tag the MEWP. Remove the MEWP from service. If you do not obey, there is a risk of death or serious injury.

Repairs to the MEWP are tasks only for a qualified service technician. Do the visual and daily maintenance inspections and function tests again after the repairs.

Scheduled maintenance inspections are a task only for a qualified service technician.



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#### 4.2 Visual and daily maintenance inspections

Do an inspection of the MEWP in this sequence.

#### **WARNING**

Do not operate a MEWP that does not function correctly. Lock and tag the MEWP, and remove it for servicing. Only a qualified service technician must repair the MEWP. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Turn the main power disconnect switch to the off position before you do the visual and daily maintenance inspections. If you do not obey, there is a risk of death or serious injury.



#### **CAUTION**

Make sure that the MEWP is on a firm, level surface before you do the visual and daily maintenance inspections. If you do not obey, there is a risk of machine damage.



#### 4.2-1 Labels

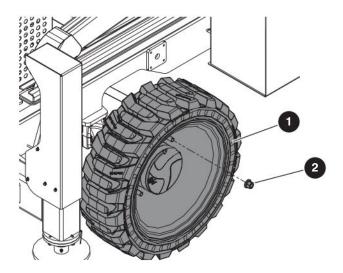
Refer to Section 8 in this manual for the labels. Make sure all the labels are in the correct location, are in good condition, and you can read them.

#### 4.2-2 Electrical

Do a check on these areas for chafed, corroded, and loose wires:

- Base to platform cables and wiring harness
- Engine compartment electrical panel
- Engine wiring harnesses
- Hydraulic and electrical wiring harnesses.

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#### 4.2-3 Hydraulic

Do a check on these areas and make sure there are no signs of leakage:

- Hydraulic tank, gauge, filter, fittings, hoses
- Engine compartment fittings, hoses, primary pump, and filter
- All hydraulic cylinders
- All hydraulic manifolds
- The ground area below the MEWP
- Outriggers (optional equipment).

#### 4.2-4 Wheel/tire assembly

Do the inspection that follows:

#### Wheel/tire assembly

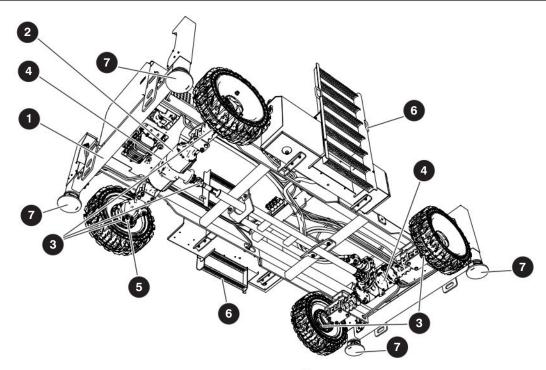
- Do a check on all the tire treads and sidewalls for cuts, cracks, and unusual wear.
- Do a check on each wheel for damage, and cracked welds.
- Make sure the wheels are correctly aligned vertically and horizontally.
- Make sure there are no loose or missing parts.
- Make sure there is no visible damage.

## **A** WARNING

Do not use tires other than the tires that Skyjack specifies for this MEWP. Do not mix different types of tires or use tires that are not in good condition. Only replace the tires with the same types that are approved by Skyjack. The use of other tires can make the MEWP less stable. If you do not obey, there is a risk of death or serious injury.

#### 2 Wheel nuts

Make sure the wheel nuts are installed and are tight.



#### 4.2-5 Base

Do the inspection that follows, and make sure:

#### Base weldment

- There are no cracks in the welds or structure.
- There are no signs of deformation.

#### 2 Steer cylinder assembly

- The steer cylinder assembly is correctly installed.
- There are no loose or missing fasteners.
- There is no visible damage.

#### Greasing points

- There is no visible damage.
- There is no dirt or obstructions.

#### Drive axles

- There are no loose or missing parts.
- All the fittings and hose connections are tight.
- There is no sign of hydraulic leakage.

#### 5 Tie rod

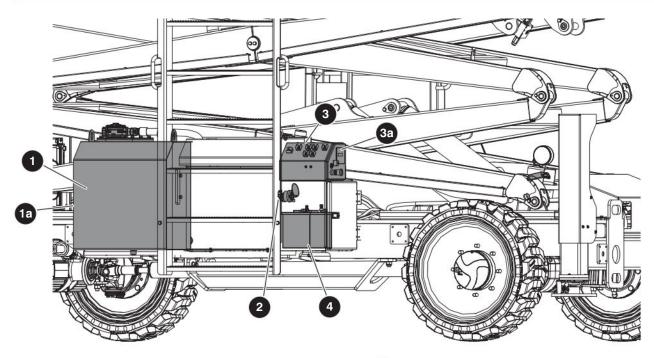
- There are no loose or missing parts.
- The tie rod end studs are attached and tight.
- There is no visible damage.

#### 6 Ladder

- There are no loose or missing parts.
- There is no visible damage on the left and right MEWP ladders.

#### Outriggers (optional equipment)

- There are no loose or missing parts.
- There is no visible damage.



#### 4.2-6 Hydraulic and base control side

Do the inspection that follows:

#### Hydraulic tank

- Make sure the hydraulic filler cap closes tightly.
- Make sure there is no visible damage or hydraulic leaks.

#### ■ Hydraulic oil level:

- **1.** Make sure the platform is fully lowered and the outriggers are retracted.
- 2. Do a check on the **gauge** (1) on the left side of the hydraulic oil tank. The hydraulic oil level must be at or a small distance above the top mark of the gauge.

#### 2 Main power disconnect switch

- Turn the main power disconnect switch to the off position.
- Make sure the switch rotates and stays in the on and off position.
- Make sure the cables are not loose.

#### Base control

- Make sure there is no visible damage, and all the switches are in their off/neutral positions.
- Make sure the Skycoded™ display panel so is correctly attached, and there is no visible damage.

#### Batteries

## **A** WARNING

Explosion hazard. Keep flames and sparks away. Do not smoke near the batteries. Batteries release explosive gas while you charge them. Charge the batteries in a well-ventilated area. If you do not obey, there is a risk of death or serious injury.

## **WARNING**

Corrosion hazard. Do not touch battery acid. Wear the correct PPE. If the battery acid touches you, immediately flush the area with cold water and get medical aid.

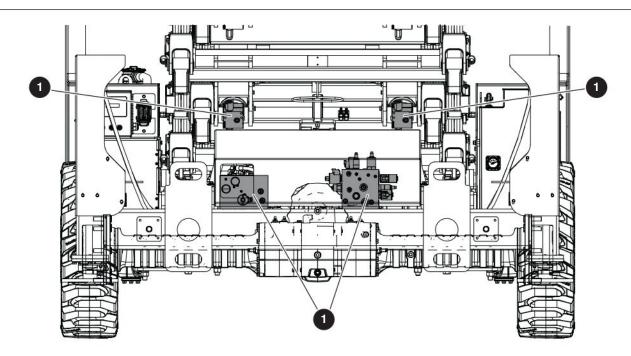
- **1.** Do an inspection of the battery case for damage.
- **2.** Make sure all the battery connections are tight.
- If applicable, check the battery fluid levels. If the plates do not have a minimum 13 mm (1/2 inch) of solution above them, add distilled or demineralized water.



Only use original or manufacturer-approved parts and components for the MEWP. If you do not obey, there is a risk of death, serious injury, or machine damage.

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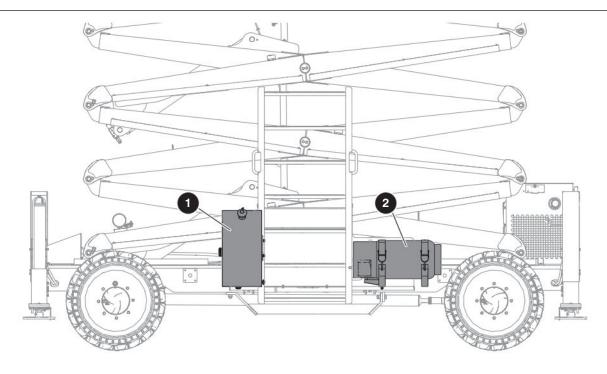




#### 4.2-7 Rear side

#### Manifolds

- Make sure all fittings and hoses are correctly tightened.
- Make sure there is no indication of hydraulic leakage.
- Make sure there are no loose wires or missing fasteners.



#### 4.2-8 Fuel tank side

Do the inspection that follows:



#### **WARNING**

Explosion or fire hazard. Do not smoke near the fuel system. If you do not obey, there is a risk of death or serious injury.

#### **IMPORTANT**

Before you use the MEWP, make sure there is sufficient fuel for the estimated task.

## Fuel tank

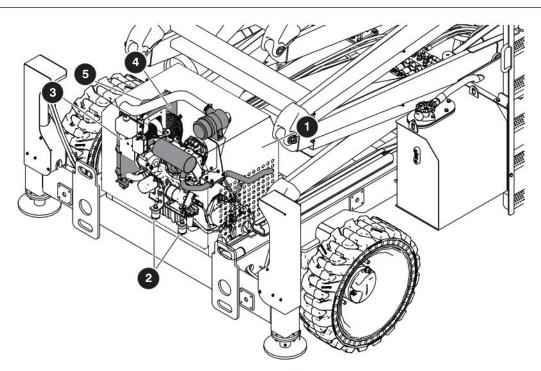
- Make sure that the fuel filler cap closes tightly.
- Make sure there is no visible damage to the tank, gauge, hoses, or fittings.
- Make sure there is no indication of fuel leakage from the tank, gauge, hoses, fittings, pump, and filter.

#### **WARNING**

Environmental hazard. Immediately remove gasoline, diesel fuel, engine oil, and hydraulic fluid spills and leaks with rags. Discard these rags in accordance with national, state/provincial/ territorial, and local regulations. Spilled fluids can damage the environment. When spilled fluids go into the water (for example, a sewage system, streams, rivers, or other surface water), they can kill aquatic life.

#### 2 Propane tank (optional equipment)

- Make sure that the propane tank is correctly installed to the mounting tray.
- Make sure there is no visible damage to the hoses and fittings.
- Make sure there is no visible damage to the propane tank and no indication of propane leakage.



#### 4.2-9 Engine side

Do the inspection that follows:

#### 1 Engine compartment cover

- Make sure that the engine access door is latched tightly and in good condition.
- Make sure that the hinges and lockable latch on the engine access door are latched tightly and in good condition.
- Make sure that the hinges have sufficient lubrication.

## **WARNING**

Burn hazard. Do not touch hot engine components without the correct PPE. Let the engine cool before you do an inspection or servicing. If you do not obey, there is a risk of death or serious injury.

#### 2 Engine and engine mounting plate

- Make sure there are no loose or missing parts.
- Make sure there is no visible damage to the engine and engine mounting plate.
- Make sure that the engine is correctly attached to the mounting plate.

#### 3 Engine control console

- Make sure that the engine control console is correctly attached. Make sure there is no visible damage to the housing or the mounting hardware.
- Make sure that all the toggle switches are in the neutral position and correctly attached. Make sure there is no visible damage on the switches.

#### A Radiator

- Make sure that the radiator is correctly installed.
- Make sure there are no loose or missing parts
- Make sure there is no visible damage.

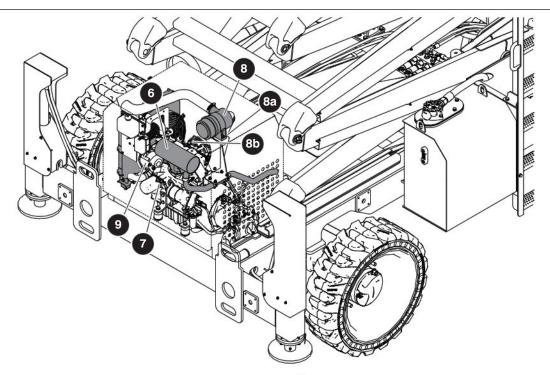
#### Engine coolant

## **MARNING**

Burn hazard. There is pressurized fluid in the radiator. Do not open the radiator cap when it is hot. Wear the correct PPE. Let the engine cool before servicing. If you do not obey, there is a risk of death or serious injury.

- Do a check of the coolant level. Add coolant if it is necessary.
- Make sure there are no coolant leaks.

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#### 6 Muffler and exhaust

Make sure that the muffler and exhaust systems are correctly attached with no visible damage.

#### Engine oil level

- Use the dipstick to check the oil level.
- The oil level must be between the marks L (low) and H (high). Add oil if it is necessary.

#### 8 Engine intake air filter

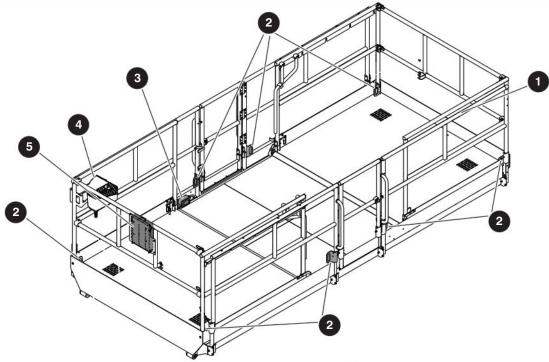
- Make sure there are no loose or missing parts.
- Make sure there is no visible damage.
- Squeeze the lips of the vacuator valve to remove the dirt and dust.
- Do an inspection of the service indicator on the air cleaner <sup>6b</sup>. Replace the filter element if necessary.

#### 9 Belts

 Make sure that the belts do not have cracks, are not frayed, and do not have chunks of material missing.

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#### 4.2-10 Platform assembly

Do the inspection that follows in sequence:



#### WARNING

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- 1. Use the MEWP ladder to enter the platform.
- 2. Close the gate.

#### Platform railings

- Make sure there are no loose or missing parts, and there is no visible damage.
- Make sure that the lock-pins and fasteners are correctly locked.
- Make sure that the platform railings ① are in the correct position and locked with lock-pins.
- Make sure that the gate is in good condition and operates correctly.

#### Pall-protection anchorages

- Make sure that the fall-protection anchorages are correctly installed.
- Make sure there is no visible damage.

#### AC power socket

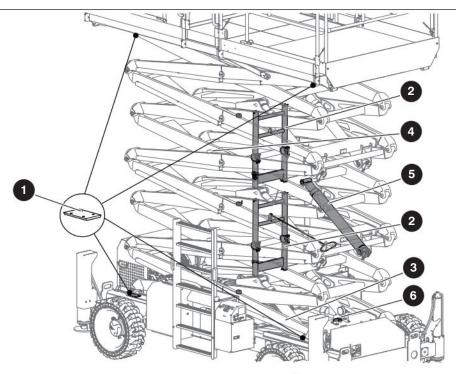
Make sure that the socket is free of dirt or blockages.

#### Platform control console

- Make sure that the control console is locked with lock-pins.
- Make sure that the platform control cable is correctly locked, and there is no visible damage.

#### Manual storage box

- Make sure that the operation manual and other important documents are in the manual storage box.
- Make sure that the documents are in good condition, and you can read them.
- Always put the manuals and other documents back in the storage box after use.
- 3. Use the MEWP ladder to exit the platform.



#### 4.2-11 Lift mechanism

Do the inspection that follows in sequence:

#### Sliders

- Make sure that the sliders on the left and right side of the MEWP are correctly attached.
- Make sure there is no visible damage.
- Make sure there is no dirt or blockages in the slider paths.
- 1. Raise the platform (refer to Section 5.4) and deploy the maintenance support(s) (refer to Section 6.7).

#### Maintenance support(s)

Make sure that the maintenance support(s) are correctly attached and show no visible damage.

#### Scissor assembly

- Make sure that the scissor assembly shows no signs of visible damage, deformation, or cracks in the weldments.
- Make sure all the pins and fasteners are correctly installed.
- Make sure that the cables and wires have the correct routing, and show no signs of wear and/or physical damage.

#### Scissor bumpers

Make sure that the bumpers are correctly attached and have no visible damage.

#### 5 Lift cylinders

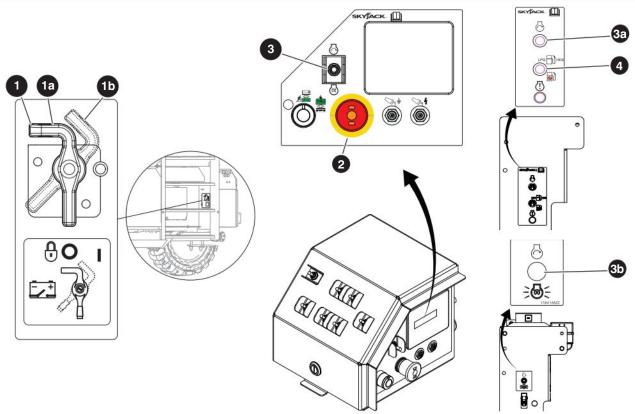
- Make sure that the lift cylinders are correctly installed.
- Make sure there are no loose or missing fasteners.
- Make sure there is no indication of leaks or damage.
- **2.** Retract the maintenance support(s) into their storage brackets. Refer to *Section 6.7.*
- 3. Fully lower the platform.

#### 6 Angle transducer

Make sure that the angle transducer is correctly attached.

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## 4.3 Function tests

Do the function tests in sequence.



Do not operate a MEWP that does not function correctly. Lock and tag the MEWP, and remove it for servicing. Only a qualified service technician must repair the MEWP. If you do not obey, there is a risk of death or serious injury.

Be sure to read *Section 5* before you do the function tests.

# 4.3-1 Do a test of the main power disconnect switch

- 1. Turn the main power disconnect switch 1 to the on position 1.
- 2. Pull the **emergency-stop** button 2 on the base control console.

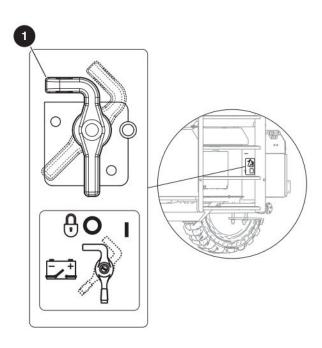
3. Start the engine at the base. Refer to Figure 06.

Engine type	Cold engine	Warm engine
Diesel	<ul> <li>a. Move the engine start/glow plug switch to the glow plug position, and hold it for 15 to 20 seconds or until the light turns off.</li> <li>b. Move the engine start/glow plug switch to the engine start position.</li> </ul>	a. Move the engine start/ glow plug switch to the engine start position.
Dual fuel	<ul> <li>a. Move the fuel switch 4 to the liquid propane gas or gasoline position.</li> <li>b. Move the engine start switch 3 to the engine start position.</li> </ul>	

**Figure 06** Start the diesel or dual fuel engines from the engine, base, or platform control consoles

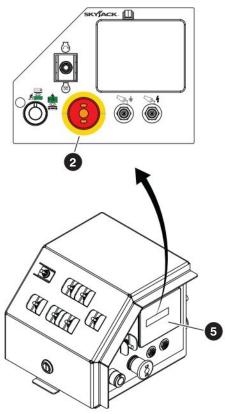
- **4.** Turn the **main power disconnect** switch **1** to the **off position 1a**.
  - Result: The engine stops.

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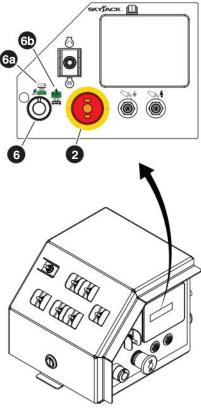
### 4.3-2 Do a test of the control module and load sensing module self-check

- 1. Push the **emergency-stop** button **2** on the base control console.
- **1.** Turn the **main power disconnect** switch **1** to the on position.
- 2. Pull the **emergency-stop** button **2** on the base control console.
  - Result: The beeper makes a sound for approximately 1 second. The light on the emergency-stop button comes on. This shows that the system is in operation, and there are no faults.
- 3. Make sure there are no error codes on the Skycoded™ display panel 5.
  - Result: If you see an error code, lock and tag the MEWP. Remove the MEWP for servicing. Speak to a qualified service technician for repairs.



#### 4.3-3 Do a test of the emergency-stop button on the base

- 1. Turn the main power disconnect switch 1 to the on position.
- 2. Pull the emergency-stop button 2.
- 3. Start the engine at the base. Refer to Figure 06.
- 4. Push the emergency-stop button 2.
  - Result: The engine stops.



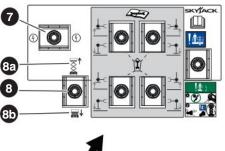
# 4.3-4 Do a test of the off/base/platform key switch

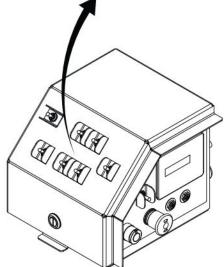
- 1. Pull the emergency-stop button 2.
- 2. Start the engine. Refer to Figure 06.

## **A** WARNING

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 3. Turn the off/base/platform key switch 6 to the platform position 6.
- **4.** Move and hold the **enable** switch **2**.
- 5. Move and hold the lower/neutral/raise switchin the raise positiona.
  - Result: You cannot raise the platform.
- 6. Turn the off/base/platform key switch 6 to the base position 6.
- 7. Move and hold the **enable** switch **2**.
- 8. Move and hold the lower/neutral/raise switch in the raise position 3.
  - Result: The platform raises.





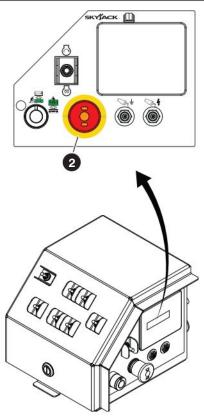
# 4.3-5 Do a test of the base lift enable switch

- 1. Start the engine. Refer to Figure 06.
- 2. Move and hold the lower/neutral/raise switch in the raise position a. Do not select the enable switch 7.
  - Result: The platform does not raise.

# 4.3-6 Do a test of the lower/neutral/raise switch

- 3. Move and hold the enable switch 7.
- 4. Move and hold the lower/neutral/raise switchin the raise positiona.
  - **Result**: The platform raises.
- Move and hold the enable switch .
- 6. Move and hold the lower/neutral/raise switchin the lower position.
  - **Result**: The platform lowers.

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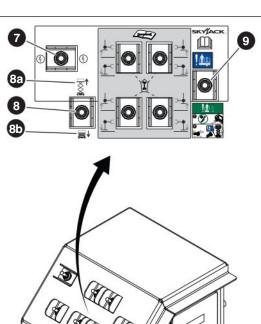


4.3-7 Do a test of the emergencylowering function

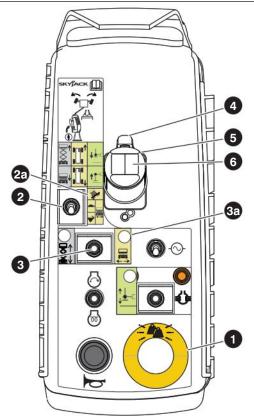
## **A** WARNING

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 1. Raise the platform.
- 2. Push the emergency-stop button 2.
- 3. Hold the enable switch 7 and the emergency-lowering switch 9 to lower the platform.
  - Result: The platform lowers.
- **4.** Move and hold the **enable** switch **7** to the left, and the **emergency-lowering** switch **9** down to fully lower the platform.
  - Result: The platform fully lowers.
- Move and hold the enable switch to the right, and the emergency-lowering switch down to fully lower the platform.
  - Result: The platform fully lowers.
- **6.** Pull the **emergency-stop** button **2** on the base control console.







# 4.3-8 Do a test of the emergency-stop button on the platform

1. Turn the off/base/platform key switch to the platform position.

## **A** WARNING

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- 2. Use the MEWP ladder to enter the platform.
- 3. Close the gate.
- **4.** Pull the **emergency-stop** button **1** on the platform control console.
- 5. Start the engine. Refer to Figure 06.
- **6.** Move the **inclined-drive/level-drive** switch **2** to the **inclined-drive position 2** .
- **7.** Push the **emergency-stop** button **1**.
- 8. Squeeze and hold the function-enable switch
- **9.** Push the **controller handle 5** to drive forward.
  - Result: The engine stops. The drive function does not operate.

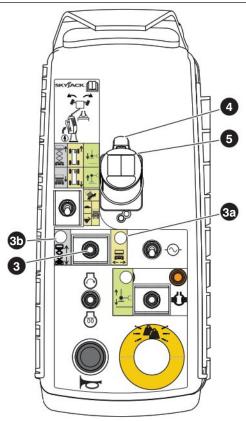
# 4.3-9 Do a test of the function-enable switch

- 1. Fully retract the outriggers. Refer to Section 5.9.
- 2. Make sure the path you plan to travel is clear.
- 3. Pull the emergency-stop button 1.
- 4. Start the engine. Refer to Figure 06.
- 5. Move the **lift/off/drive** switch 3 to the **drive** position 3.
- Do not use the function-enable switch 4, and try to drive the MEWP by moving the controller handle forward.
  - **Result:** The drive function does not operate.

#### 4.3-10 Do a test of the steer function

- 1. Move the **lift/off/drive** switch 3 to the **drive position** 3.
- Squeeze and hold the function-enable switch
   4.
- Press the steering rocker switch 6 on top of the controller handle to steer left and right.
  - **Result:** The steer wheels turn left and right.

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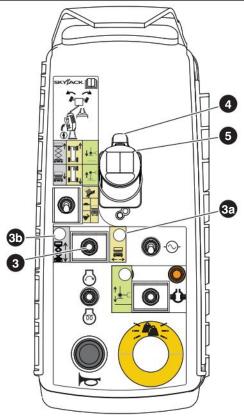
#### 4.3-11 Do a test of the drive function

- 1. Make sure the path of intended motion is clear.
- 2. Move the **lift/off/drive** switch 3 to the **drive** position 3a.
- **3.** Squeeze and hold the **function-enable** switch **4**.
- **4.** Slowly push the **controller handle 5** until the MEWP starts to move. Then, release the handle, so that it goes back to the center position.
  - Result: The MEWP moves in the forward direction and then stops.
- 5. Slowly pull the **controller handle** 5 until the MEWP starts to move. Then, release the handle, so that it goes back to the center position.
  - **Result:** The MEWP moves in the opposite direction and then stops.

# 4.3-12 Do a test of the anti-tiedown function

- 1. Make sure the path of intended motion is clear.
- 2. Move the **lift/off/drive** switch 3 to the **drive** position 3.
- Squeeze and hold the function-enable switch
   for 7 seconds.
- **4.** Slowly push the **controller handle 5** to move the MEWP in the forward direction.
  - Result: The MEWP does not move in the forward direction.

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#### 4.3-13 Do a test of the brakes

#### **IMPORTANT**

The brakes engage instantly when you release the function-enable switch. This causes the MEWP to stop immediately.

- 1. Make sure the path of intended motion is clear.
- 1. Move the lift/off/drive switch 3 to the drive position @.
- 2. Squeeze and hold the function-enable switch
- **3.** Drive the MEWP forward and then rearward. Release the **controller handle 5**.
  - Result: The MEWP stops. Do not operate the MEWP if the MEWP pulls to one side while it stops. A service technician must do a check on the brake adjustments.
- **4.** Drive the MEWP forward and then rearward. Release the **function-enable** switch **4** only.
  - Result: The MEWP comes to an instant and sudden stop. Do not operate the MEWP if it does not stop immediately, or it pulls to one side while it stops. A service technician must do a check on the brake adjustments.

#### 4.3-14 Do a test of the platform raise and lower functions

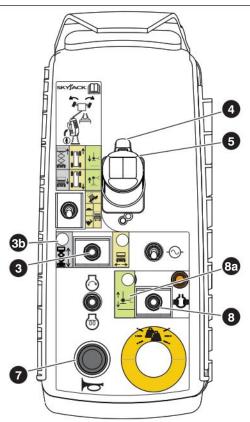


#### **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 1. Move the lift/off/drive switch to the lift position
- 2. Squeeze and hold the function-enable switch
- 3. Push the controller handle 5 to raise the platform by approximately 0.5 m (20 in).
  - Result: The platform raises.
- 4. Squeeze and hold the function-enable switch
- 5. Pull the controller handle 5 to fully lower the platform.
  - Result: The platform fully lowers.

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#### 4.3-15 Do a test of the horn

- 1. Push the horn button 2.
  - Result: The horn makes a sound.

# 4.3-16 Do a test of the elevated travel speed

## **A** WARNING

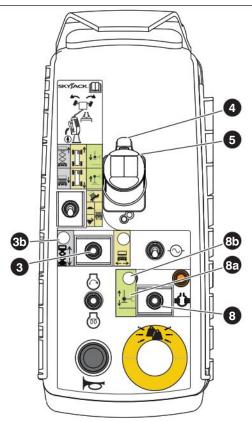
Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- **1.** Make sure the path of intended motion is clear.
- 2. Raise the platform until it is at a height of approximately 4.3 m (14 ft).
- 3. Drive the MEWP forward and then rearward.
  - Result: The MEWP drives slower than when it was in the lowered travel position.

# 4.3-17 Do a test of the outrigger interlocks (optional equipment)

- 1. Use the MEWP ladder to enter the platform.
- 2. Start the engine. Refer to Figure 06.
- 3. Move the lift/off/drive switch 3 to the lift position 6.
- 4. Move the auto-level/differential lock switch to the auto-level position 3.
- Squeeze the function-enable switch 4 and push the controller handle 5 to extend all four outriggers 10 cm (4 in).
- **6.** Move the **lift/off/drive** switch **3** to the **lift position 3b**.
- 7. Squeeze the function-enable switch 4 and push the controller handle 5 to raise the platform
  - Result: The platform does not raise.
- 8. Move the auto-level/differential lock switch 8 to the auto-level position 8a.
- Squeeze the function-enable switch 4 and pull the controller handle 5 to fully retract all four outriggers.
  - Result: All four outriggers fully retract.





- 10. Squeeze the function-enable switch 4 and push the controller handle 5 to deploy all four outriggers. When the first outrigger hits the ground (observed as the initial movement), stop lowering the outriggers, and observe all four outriggers.
  - Result: All four legs have moved more than 5 cm (2 in) and all the pads are near the ground.
- **11.** Resume the deployment of the outriggers until the platform has leveled itself.
  - Result: All four outriggers extend until they hold the MEWP weight and put the MEWP in a level position. The outriggers stop automatically when the platform is level. The outrigger light goes on <sup>(1)</sup>.

# 4.3-18 Do a test of the auto-level (optional equipment)

Refer to Section 5.9 for the auto-level operation.

#### NOTE

Make sure that you:

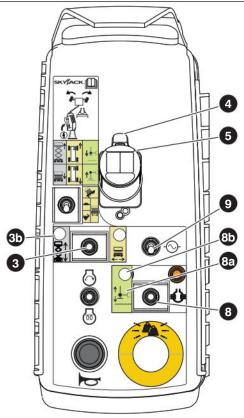
- Park the MEWP on a firm, level surface. Remove all obstructions.
- Fully lower the platform.
- Fully retract the outriggers.

## **A** WARNING

If the outrigger interlocks fail to operate correctly, lock and tag the MEWP. Remove the MEWP for servicing. Only a qualified service technician must repair the MEWP. If you do not obey, there is a risk of death or serious injury.

- 1. Use the MEWP ladder to enter the platform.
- 2. Start the engine. Refer to Figure 06.
- 3. Move the **lift/off/drive** switch 3 to the **lift** position 4.
- 4. Move the auto-level/differential lock switch 8 to the auto-level position 8a.

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## **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

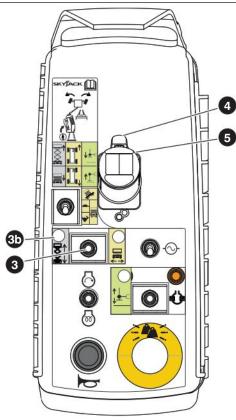
- **5.** Raise the platform by approximately 0.3 m (1 ft).
  - Result: The platform raises.
- 6. Fully lower the platform.
  - **Result:** The platform fully lowers.
- 7. Move the auto-level/differential lock switch 8 to the auto-level position 8a.
- Squeeze the function-enable switch 4 and pull the controller handle 5 to fully retract all four outriggers.
  - Result: All four outriggers fully retract.

# 4.3-19 Do a test of the generator (optional equipment)

- 1. Use the MEWP ladder to enter the platform.
- 2. Start the engine. Refer to Figure 06.
- 3. Move the **generator** switch **9** to the on position.
  - Result: The engine speed automatically changes to high throttle. The generator starts. The light goes on.
- **4.** Move the **generator** switch **9** to the off position.
  - Result: The generator stops. The light goes off. The throttle goes back to idle.

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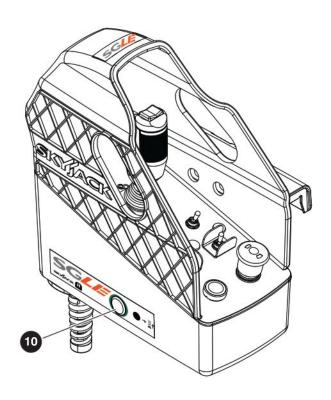


4.3-20 Do a test of the SGLE switch (optional equipment)

#### **WARNING**

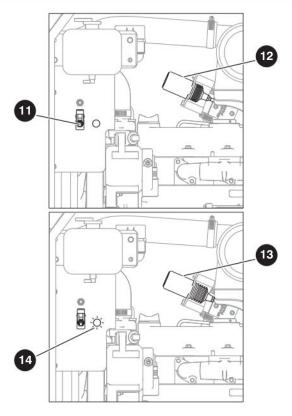
Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 1. Start the engine. Refer to Figure 06.
- 2. Move the lift/off/drive switch 3 to the lift position 4.
- 3. Do not squeeze the function-enable switch 4 or push the **SGLE** button **10**. Push and pull the controller handle 5 to raise and lower the platform.
  - Result: The platform does not raise or lower.
- 4. Push and hold the SGLE button 10 only. Do not squeeze the function-enable switch 4. Push and pull the **controller handle 5** to raise or lower the platform.
  - Result: The platform does not raise or lower.



- 5. Push and hold the SGLE button 10. Squeeze the function-enable switch 4. Push and pull the controller handle 5 to raise or lower the platform.
  - Result: The platform raises and lowers.
- **6.** Squeeze the **function-enable** switch **4** only. Do not push the **SGLE** button **10**. Push and pull the controller handle 5 to raise or lower the platform.
  - Result: The platform lowers, but does not raise.

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## 4.3-21 Do a test of the positive air shutoff (optional equipment)



#### **A** CAUTION

Do not do this function test while the engine is on.

#### **WARNING**

Burn hazard. Do not touch hot engine components without the correct PPE. Let the engine cool before you do an inspection or servicing. If you do not obey, there is a risk of death or serious injury.

- 1. Make sure these power connections are ON:
  - The main power disconnect switch
  - The emergency-stop button on the base control console
  - The off/base/platform key switch is in the base position.
- 2. Make sure the engine is off.
- 3. Open the engine compartment cover.
- 4. Lift the switch guard for the positive air shutoff on the engine control console.
- 5. Move the positive air shut-off switch 10 to the on position to engage the shutoff valve 12.

- **6.** Move the **positive air shut-off** switch **11** to the off position to disengage the shutoff valve 13. The **light 1** continuously illuminates.
  - Result: The shutoff valve disengages after 20 seconds.
- 7. Make sure the positive air shut-off switch 10 is put back to the off position, and that the switch guard is down. Push the engine compartment cover until the latch locks into position.



## 4.4 Operator's checklist (page 1 of 2)

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# SJ9233 RT, SJ9243 RT, SJ9253 RT Daily Operator's Checklist

Serial Number:  Model: Hourmeter Reading: Date: Time:	Operator's Name (Printed):  Operator's Signature:		
Each item shall be inspected using the appropriate section of the Skyjack operating manual. As each item is inspected,		PASS	N/A NOT APPLICABLE
check or complete the appropriate box.	Auu a	COIIIII	ment if the item does not pass inspection.
	P	N/A	Comment (if item does not pass inspection)
Visual and Daily Maintenance Inspections			
Labels - Do an inspection for damaged, or missing labels			
Electrical - Do an inspection for loose, damaged, or missing components			
Hydraulic - Do an inspection for loose, damaged, or missing components			
Wheel/tire assembly - Do an inspection for loose, damaged, or missing components			
Wheel/tire assembly			
Wheel nuts			
Base - Do an inspection for loose, damaged, or missing components			
Base weldment			
Steer cylinder assembly			
Greasing points			
Drive axles			
Tie rod			
Ladder			
Outriggers (optional equipment)			
Hydraulic/base control side - Do an inspection for leaks and loose, damaged, or missing components			
Hydraulic tank			
Hydraulic oil level			
Main power disconnect switch			
Base control			
Batteries			
Rear side - Do an inspection for leaks and loose, damaged, or missing components			
Manifolds			
Fuel tank side - Do an inspection for leaks and loose, damaged, or missing components	3		
Fuel tank			
Propane tank (optional equipment)			
Engine side - Do an inspection for loose, damaged, or missing components			
Engine compartment cover			
Engine and engine mounting plate			
Engine control console			
Radiator			
Engine coolant			
Muffler and exhaust			
Engine oil level			
Engine intake air filter			
Relte		1	

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# Operator's checklist (page 2 of 2)

	Р	N/A	Comment (if item does not pass inspection)
Visual and Daily Maintenance Inspections			
Platform assembly - Do an inspection for loose, damaged, or missing components			
Platform railings			
Fall-protection anchorages			
AC power socket			
Platform control console			
Manual storage box			
Lift mechanism - Do an inspection for loose, damaged, or missing components			
Sliders			
Maintenance support(s)			
Scissor assembly			
Scissor bumpers			
Lift cylinders			
Angle transducer			
Optional equipment and attachments - Do an inspection for leaks and loose, damaged, or missing components			
Function Tests			
Do a test of the main power disconnect switch			
Do a test of the control module and load sensing module self-check			
Do a test of the emergency-stop button on the base			
Do a test of the off/base/platform key switch			
Do a test of the base lift enable switch			
Do a test of the lower/neutral/raise switch			
Do a test of the emergency-lowering function			
Do a test of the emergency-stop button on the platform			
Do a test of the function-enable switch			
Do a test of the steer function			
Do a test of the drive function			
Do a test of the anti-tiedown function			
Do a test of the brakes			
Do a test of the platform raise and lower functions			
Do a test of the horn			
Do a test of the elevated travel speed			
Do a test of the outrigger interlocks (optional equipment)			
Do a test of the auto-level (optional equipment)			
Do a test of the generator (optional equipment)			
Do a test of the SGLE switch (optional equipment)			
Do a test of the positive air shutoff (optional equipment)			

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# **Section 5 – Operation**

## **WARNING**

Do not operate this MEWP without authorization and training. If you do not obey, there is a risk of death or serious injury.

Do these tasks in sequence before MEWP operation:

- 1. Visual and daily maintenance inspections. Refer to Section 4.2.
- 2. Function tests. Refer to Section 4.3.
- 3. Worksite inspection. Refer to Section 2.4.
- 4. If a risk assessment finds that a rescue plan is necessary, make sure you have a system of communication. The communication must be between the personnel on the platform and the selected support personnel. The selected support personnel must know how to use the base controls to lower the platform.

## $\Lambda$

#### WARNING

Do not operate the MEWP if:

- It does not operate correctly
- It is damaged or shows worn or missing parts
- The safety devices are tampered with or disabled
- It is locked and tagged for servicing or repair
- It was modified without permission from Skyjack and the MEWP owner.

If you do not obey, there is a risk of death or serious injury.

# 5.1 Energize the base control console

- **1.** Turn the **main power disconnect** switch to the on position.
- 2. Pull the **emergency-stop** button on the base control console.

## **A** WARNING

If you do not hear a beep, and the light does not come on, lock and tag the MEWP. Remove the MEWP for servicing. If you do not obey, there is a risk of death or serious injury.

- Move the off/base/platform key switch to the base position.
- **4.** Start the engine. Do the steps that follow for your engine fuel type and temperature.

Engine type	Cold engine	Warm engine
Diesel	<ul> <li>a. Move the engine start/glow plug switch to the glow plug position, and hold it for 15 to 20 seconds or until the light turns off.</li> <li>b. Move the engine start/glow plug switch to the engine start position.</li> </ul>	a. Move the engine start/ glow plug switch to the engine start position.
Dual fuel		

**Figure 07** Start the diesel or dual fuel engines from the engine, base, or platform control consoles

#### 5.2 Raise or lower the platform with the base control console

- 1. Energize the base control console (refer to Section 5.1).
- 2. Turn the off/base/platform key switch to the base position.
- 3. Select and hold the enable switch.

#### WARNING

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

4. Move the **lower/neutral/raise** switch to the raise or lower position and hold it to raise or lower the platform. Release the switch to stop.

#### 5.3 **Energize the platform** control console

1. Turn the main power disconnect switch to the on position.



#### **WARNING**

If you do not hear a beep, and the light does not come on, lock and tag the MEWP. Remove the MEWP for servicing. If you do not obey, there is a risk of death or serious injury.

- 2. Pull the emergency-stop button on the base control console.
- 3. Turn the off/base/platform key switch to the platform position.

#### **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- **4.** Use the MEWP ladder to enter the platform.
- 5. Close the gate.
- 6. Pull the emergency-stop button on the platform control console.
- 7. Start the engine. Refer to Figure 07.

#### 5.4 Raise or lower the platform with the platform control console



#### **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 1. Move the lift/off/drive switch to the lift position.
- 2. Squeeze and hold the function-enable switch.
- 3. Move the controller handle forward or rearward to go to the necessary height.

The lower function is not proportional.

4. Move the controller handle to the neutral central position to stop. Release the functionenable switch.



#### **WARNING**

Push the emergency-stop button when you are at the necessary location or elevation. This prevents unintended MEWP movement. If you do not obey, there is a risk of death or serious injury.



#### WARNING

If the tilt alarm makes a sound, and the platform does not raise or does not fully raise:

- 1. Fully lower the platform immediately.
- 2. Make sure the MEWP is on a firm, level surface.

#### NOTE

Some models have a restriction of 10 m (33 ft) lift height. To raise the platform higher than 10 m (33 ft), deploy the outriggers before you raise the platform from the fully lowered position. Refer to Section 5.9.

Drive forward or rearward Section 5 - Operation

#### Drive forward or rearward 5.5



#### **WARNING**

Make sure there are no personnel or obstructions in the path of travel. Acquaint yourself with the blind spots of the MEWP. If you do not obey, there is a risk of death or severe injury.

- 1. Energize the platform control console (refer to Section 5.3).
- 2. Move the lift/off/drive switch to the drive position.
- 3. Squeeze and hold the function-enable switch.
- 4. Move the controller handle forward or rearward to drive at and in the necessary speed and direction.
- 5. Move the controller handle to the neutral central position to stop. Release the functionenable switch.



#### WARNING

Push the emergency-stop button when you are at the necessary location or elevation. This prevents unintended MEWP movement. If you do not obey, there is a risk of death or serious injury.

#### 5.6 Steer

- 1. Energize the platform control console (refer to Section 5.3).
- 2. Move the lift/off/drive switch to the drive position.
- **3.** Squeeze and hold the **function-enable** switch.
- 4. Push the steering rocker switch on top of the controller handle in one of the two directions to steer.

#### NOTE

The steer function is not proportional. Drive and steer functions can be active at the same time.

#### 5.7 Select the level-drive or inclined-drive mode

- Select the level-drive mode when you drive on a level surface.
  - 1. To use the level drive mode, move the inclined-drive/level-drive switch to the leveldrive (high speed/low torque) position.

#### WARNING

Do not drive the MEWP in the elevated position on a slope. Fully retract the MEWP before you operate it on a slope. If you do not obey, there is a risk of death or severe injury.

- Select the inclined-drive mode in these situations:
  - When you drive up or down slopes
  - When you drive on rough ground
  - When you drive the MEWP on to or remove it from a transport vehicle.
  - 1. To use the inclined-drive, move the inclineddrive/level-drive switch to the inclined-drive (low speed/high torque) position.



#### **WARNING**

Push the emergency-stop button when you are at the necessary location or elevation. This prevents unintended MEWP movement. If you do not obey, there is a risk of death or serious injury.

#### Extend/retract the 5.8 extension platform(s)

#### **WARNING**

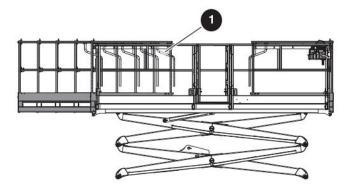
Crush hazard. Do not retract the extension platform(s) from the ground. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Push the emergency-stop button when you are at the necessary location or elevation. This prevents unintended MEWP movement. If you do not obey, there is a risk of death or serious injury.

- 1. Remove the lock-pin on the floor of the extension platform(s).
- 2. Deploy the extension handle.
- 3. Push or pull the extension handle 1 to extend or retract the extension platform(s).
- 4. Retract the extension handle to lock the extension platform(s) in position.



#### 5.9 Use the auto-level (optional equipment)

#### **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

#### **WARNING**

Tip-over hazard. Make sure the surface below the tires and outrigger pads is firm and can hold the MEWP and the rated load. Do not put the outrigger pads on street drains, manhole covers, or other unsupported surfaces. If you do not obey, there is a risk of death or serious injury.

#### Level the MEWP

- 1. Fully lower the platform. Refer to Section 5.3 and Section 5.4.
- 2. Move the auto-level/differential lock switch to the auto-level position.
- 3. Squeeze the function-enable switch and push the controller handle to deploy all four outriggers. The light of the level indicator shows the auto-level outrigger condition. Refer to Figure 08.

Auto-level light	Outrigger condition		
Off	The outriggers are fully retracted. The outriggers are not active.		
Flashing slowly	Indicates the outrigger extension or retraction.		
Flashing quickly	The outriggers are extended and the MEWP is not level, or there is an outrigger or autolevel function error.		
On	The outriggers are extended and the MEWP is level. The light is on while the auto-level function is active only.		

Figure 08 Auto-level outrigger condition

4. Ensure each outrigger pad is in firm contact over its entire surface area, with a suitable supporting surface.

#### NOTE

The drive functions are disabled if the outriggers are not fully retracted.

#### **CAUTION**

If the outrigger alarm makes a sound during operation, immediately lower the platform and put the MEWP on a firm surface. The MEWP must be on a firm surface for you to operate it.

#### Retract the outriggers

- 1. Fully lower the platform.
- 2. Move the auto-level/differential lock switch to the auto-level position.
- 3. Squeeze the function-enable switch and pull the controller handle to retract all four outriggers. The light of the level indicator shows the auto-level outrigger condition. Refer to Figure 08.

#### **IMPORTANT**

Limit switches prevent outrigger damage. If the drive functions are not available, do a visual inspection of the outriggers to make sure they are all fully retracted.

## 5.10 Start and stop the generator (optional equipment)

- 1. Start the engine. Refer to Figure 07.
- 2. Move the lift/off/drive switch to the lift position.
- 3. Move the generator switch to the on position to start the generator.
- 4. Move the generator switch to the off position to stop the generator.

#### NOTE

The generator stops in these situations:

- You start the drive, lift, or auto-level functions
- You push the emergency-stop button
- You change the off/base/platform key switch position
- The engine stalls.

The generator stays on while you lower the platform.

## 5.11 Raise and lower with the SGLE platform control console (optional equipment)

- 1. Energize the platform control console.
- 2. Move the lift/off/drive switch to the lift position.

#### **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 3. Push and hold the SGLE push-button and squeeze the function-enable switch.
- 4. Push the controller handle until you are at the necessary height.
- 5. Squeeze the function-enable switch.
- **6.** Pull the **controller handle** to lower the platform.

#### NOTE

The SGLE does not have an effect on these functions: lower, drive, steer, auto-level, or emergency-lowering.

7. Release the controller handle until it goes back to the center position to stop. Release the function-enable switch.

## 5.12 Engage or disengage the differential lock

- 1. Move the auto-level/differential lock switch to the differential lock position.
- 2. Drive the MEWP.

#### 5.13 MEWP shutdown

#### **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 1. Select a reasonably well-protected location to park the MEWP. This location must have a firm, level surface, clear of obstructions, and traffic.
- 2. Fully lower the platform.
- 3. Push the emergency-stop button.



#### **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- 4. Use the MEWP ladder to exit the platform.
- 5. Turn the off/base/platform key switch to the off position on the base control console and remove the key.
- 6. Push the emergency-stop button.
- 7. Turn the main power disconnect switch to the off position.

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# Section 6 – Additional Procedures

#### Use the emergency-6.1 lowering function

With the emergency-lowering system, you can lower the platform if there is a failure of the primary power.

#### **WARNING**

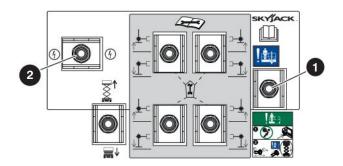
Crush hazard. Keep clear of the lift mechanism when you use the emergency-lowering function. If you do not obey, there is a risk of death or serious injury.

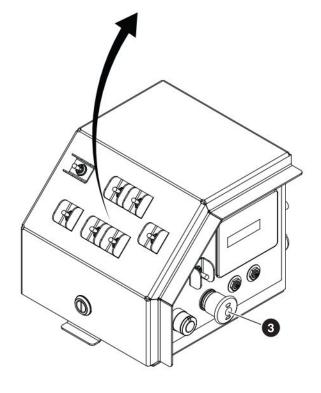
- 1. Remove obstructions before you lower the platform.
- 2. If necessary, retract the extension platform(s) or move the MEWP to clear an obstruction.
- 3. Make sure the main power disconnect switch is in the on position.

#### WARNING

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 4. Push the emergency-stop button 3 on the base control console.
- 5. Hold the enable switch 2 to the left or right and hold down the emergency-lowering switch 10 on the base control console to fully lower the platform.



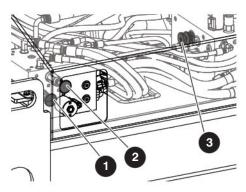


#### 6.2 Release the brakes manually

#### **WARNING**

Do not manually disengage the brakes if the MEWP is on a slope. If you do not obey, there is a risk of death or serious injury.

- 1. Make sure that the MEWP is on firm, level ground. Use wheel chocks or blocks at the front and rear of the wheels to prevent MEWP movement.
- 2. Turn the main power disconnect switch to the off position.
- **3.** Push the **plunger 1** of the brake auto-reset valve on the drive manifold at the rear side of the base.



#### NOTE

If the MEWP does not have a pressure gauge, refer to the service manual for the installation procedure.

- 4. Continuously push and release the **knob** 2 of the hand pump until firm resistance is felt or until the pressure gauge (optional equipment) shows 300 - 350 psi (21 - 24 bar). The brake is now released to permit wheel rolling.
- 5. Turn the freewheeling valve knob 3 counterclockwise to a fully open position.

#### 6.3 Winch and tow the MEWP



#### WARNING

Tip-over hazard. Make sure that platform is fully lowered before you push, winch or tow. Sudden movement can cause the MEWP to become unstable. If you do not obey, there is a risk of death or serious injury.

#### **WARNING**

Tip-over hazard. In emergency situations, where the MEWP functions are unavailable, and an obstruction prevents the platform lower function, carefully move the MEWP. Move the MEWP sufficiently far away to clear the obstruction. Do not move at a speed faster than 50 mm/sec (2 in/ sec). If you do not obey, there is a risk of death, serious injury, and/or MEWP damage.



#### WARNING

When you push, winch or tow, do not move the MEWP at a speed faster than 3.2 km/h (2.0 mph). If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Do not push, winch, or tow the MEWP onto a slope. Only brake the tow vehicle slowly. Do not pull the MEWP down a slope to a winch. Make sure that there are no personnel in the path you plan to travel. If you do not obey, there is a risk of death, serious injury, and/or MEWP damage.



#### **WARNING**

Do not manually disengage the brakes if the MEWP is on a slope. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Tip-over hazard. Disengage the brakes manually before you push, winch, or tow the MEWP. If you do not obey, there is a risk of death or serious injury.

1. Release the brakes manually. Refer to Section 6.2.

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- 2. Remove the wheel chocks or blocks.
- 3. Push, winch, or tow the MEWP to the necessary
- 4. Put the MEWP on a firm, level surface.
- 5. Use wheel chocks or blocks at the front and rear of the wheels to prevent MEWP movement.
- 6. Pull out the plunger of the brake auto-reset valve to re-engage the brakes.



#### **WARNING**

Engage the brakes immediately after the MEWP is at the necessary location. If you do not obey, there is a risk of death or serious injury.

7. Turn the freewheeling valve knob clockwise to a fully close position.

## 6.4 Use the platform control console from the ground

#### **WARNING**

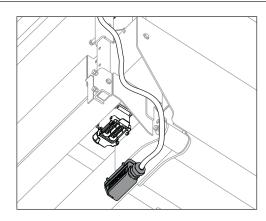
The correct operator location is with the platform control console attached to the right-front side of the platform. Only operate the MEWP from the ground in these conditions:

- To do maintenance
- When you cannot do work safely from the position of the operator on the platform because of an obstruction
- To fold the quardrails.

If you do not obey, there is a risk of death or serious injury.

### 6.4-1 Disconnect and remove the platform control console

1. Disconnect the platform control console cable from the **electrical plug** under the platform.

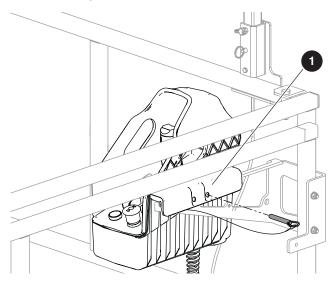


#### **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

2. Use the MEWP ladder to enter the platform.

- 3. Remove the control console mounting bracket **lock-pin 1** from the mounting bracket. Remove the platform control console from the mounting bracket.
- 4. Remove the control cable lock-pin from the railing clamp. Remove the **control cable** from the clamp.



5. Use the MEWP ladder to exit the platform.

#### 6.4-2 Operate the MEWP from the ground

#### WARNING

Make sure the operator and the control console point in the same direction as the front of the MEWP.

Do not drive the MEWP toward yourself.

Keep away from crush hazards. Stay clear of the MEWP and out of the direction of travel.

When you use a ramp to drive the MEWP on to or remove it from a transport vehicle, make sure all personnel, which includes the operator:

- Stay away from the direction of a possible tipover of the MEWP.
- Stay out of the path of movement of the MEWP down the ramp.

If you do not obey these instructions, there is a risk of death or serious injury.



#### **A** CAUTION

Make sure the control console cable does not become entangled with the MEWP or objects that surround the MEWP. If you do not obey, there is a risk of MEWP damage.

- 1. Before you operate the MEWP, do a full worksite inspection to identify possible hazards in your work area. Refer to Section 2.4.
- 2. Cordon-off the pathway you plan to travel.

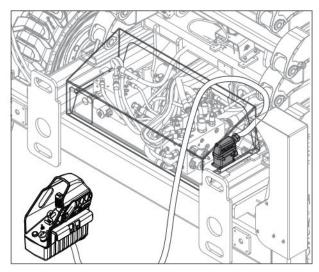


#### **WARNING**

Crush hazard. Make sure that there are no personnel in the path you will travel. Tell personnel around the path before you move the MEWP. Use a second person to monitor the movement of the MEWP. Make sure that person stays at a safe distance. If you do not obey, there is a risk of death or serious injury.

3. Stay behind or to the side of the MEWP.

4. Connect the platform control console cable to the **electrical connector** at the rear side of the MEWP.



- 5. Move the inclined-drive/level-drive switch to the inclined-drive position.
- 6. Use as low a speed as practical to drive the MEWP forward to the necessary location.
- 7. Push the emergency-stop button when the MEWP is at the necessary location.
- 8. Turn the main power disconnect switch to the off position.

#### **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

**9.** Use the MEWP ladder to enter the platform.



#### **CAUTION**

Make sure each lock-pin is correctly installed with the detent ball of each lock-pin fully through the hole.

10. Install the platform control console onto the mounting bracket. Install the lock-pin in the mounting bracket.

11. Install the control cable into the railing clamp and install the lock-pin.



#### **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- 12. Use the MEWP ladder to exit the platform.
- 13. Connect the platform control console cable to the electrical connector below the platform.

Section 6 - Additional Procedures Refuel

#### Refuel 6.5



#### **WARNING**

Do not start the MEWP if you smell gas. Lock and tag the MEWP, and remove it for servicing. If you do not obey, there is a risk of death or serious injury.



#### WARNING

Do not operate a MEWP that does not function correctly. Lock and tag the MEWP, and remove it for servicing. Only a qualified service technician must repair the MEWP. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Explosion hazard. Only refuel the MEWP in a wellventilated area, away from open flame and other sources of ignition, approved by your employer and/or supervisor. Always have an approved fire extinguisher that you can easily access. If you do not obey, there is a risk of death or serious injury.



#### **WARNING**

Explosion hazard. Do not smoke in an area where MEWPs are kept or refueled. If you do not obey, there is a risk of death or serious injury.

#### **IMPORTANT**

Before you use the MEWP, make sure that there is sufficient fuel for the estimated task.

#### 6.5-1 Refuel the MEWP with diesel or gasoline

#### **IMPORTANT**

For gasoline engines, use unleaded gasoline with an octane rating of 87 or higher. For diesel engines, use ultra-low sulfur diesel. Refer to the information on the fuel tank.

- 1. Put all the power connections in the off position. This includes the engine.
- 2. Push all the **emergency-stop** buttons, and turn the main power disconnect switch to the off position.



#### **WARNING**

Environmental hazard. Immediately remove gasoline, diesel fuel, engine oil, and hydraulic fluid spills and leaks with rags. Discard these rags in accordance with national, state/provincial/ territorial, and local regulations. Spilled fluids can damage the environment. When spilled fluids go into the water (for example, a sewage system, streams, rivers, or other surface water), they can kill aquatic life.

- 3. Remove the fuel cap.
- 4. Carefully fill the fuel tank. Make sure that there are no spills. At the same time, look at the fuel gauge on the side of the tank. The fuel gauge indicator must not go above the F (full) mark.
- 5. Put the fuel cap back on and make sure it closes tightly.
- 6. Do an inspection of the fuel system for leaks. Clean away the spilled fuel.
- 7. Discard the wipes or rags in an approved container.

# 6.5-2 Replace the propane cylinder (optional equipment)

# **WARNING**

Obey all national, state/provincial/territorial, and local health and safety rules for propane handling. If you do not obey, there is a risk of death or serious injury.

# **WARNING**

When you replace a liquid propane gas cylinder, do an inspection of all the connections for damage or missing parts. If you do not obey, there is a risk of death or serious injury.

# **WARNING**

Explosion hazard. Do not start the MEWP if you smell liquid propane gas. Liquid propane gas is heavier than air. It collects in low areas. A flame or spark can cause a fire or explosion. Lock and tag the MEWP for servicing or repair. If you do not obey, there is a risk of death or serious injury.

# Remove the propane cylinder

- **1.** Stop the engine.
- 2. Push the emergency-stop button on the base control console.
- 3. Turn the propane cylinder valve clockwise to stop the fuel supply to the engine.
- 4. Pull the **emergency-stop** button. Start the engine (refer to Figure 07) and let it stop by itself.
- 5. Move the **fuel** switch to the liquid propane gas position.
- 6. Start the engine again to make sure the fuel lines are empty.
- 7. Push the **emergency-stop** button.
- 8. Turn the propane tank hose fitting counterclockwise to detach the coupling. Disconnect the hose from the empty propane cylinder.
- 9. Pull on the metal clips to loosen the two propane cylinder straps. Disconnect the straps from the hooks.
- 10. Remove the empty propane cylinder.

# Install the propane cylinder:

- 1. Push the emergency-stop button on the base control console.
- 2. Put the new propane cylinder on the mounting bracket.
- 3. Put the propane cylinder on the propane mounting bracket. Make sure the metal peg goes through the hole on the propane cylinder rim.
- 4. Reconnect the propane cylinder straps to the hooks and fasten them tightly.
- 5. Attach the hose to the new propane cylinder. Turn the fitting clockwise to tighten it.
- 6. Apply mild soapy water to the propane hose connection.
- 7. Open the valve one quarter-turn counterclockwise. Do an inspection for gas
- 8. If there are no gas leaks, fully open the propane cylinder valve.
- 9. Wipe off the soapy water after the inspection is complete.

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# 6.6 Move the MEWP for transport

When you drive a MEWP onto or remove it from a transport vehicle, on a public road, give protection to the person(s) involved. Protection can include:

- Warning cones
- Road signs and signaling devices
- Applicable personal protective equipment, such as reflective clothing
- Flag personnel to warn other vehicles of the MEWP and other related vehicles
- Other applicable control measures.

Obey all the national, state/provincial/territorial, and local safety rules when you move the MEWP for transport. Only qualified personnel with authorization must drive the MEWP on to or remove it from a transport vehicle.

Be sure the vehicle capacity and load equipment, hoists, chains, straps, and other related items are sufficient to withstand the maximum MEWP weight.

Park the transport vehicle on a level surface. Use wheel chocks or blocks to prevent unintended vehicle movement during this operation.

# 6.6-1 Hoist the MEWP

# **A** WARNING

Only qualified riggers must operate the machinery during a lift.

When you hoist the MEWP, you must:

- Turn the main power disconnect switch to the off position.
- Close and tightly latch the engine compartment door.
- Retract the extension platform(s). Correctly insert the lock-pin(s).
- Attach the platform control console to the mounting bracket, or remove the platform control console
- Remove all personnel, tools, and materials from the platform.
- Attach the rigging to all four lift points ①. Refer to Figure 09 and Figure 10.

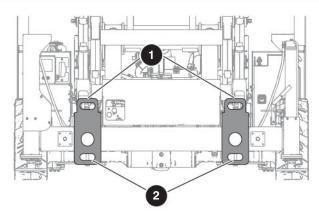


Figure 09 Lift and tie-down points

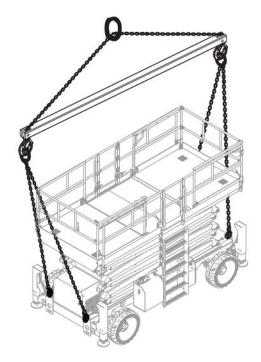
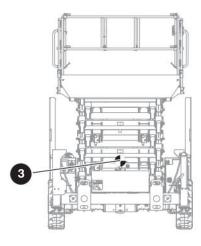


Figure 10 Appropriate method to hoist

## NOTE

For the weight of the MEWP, refer to Section 7.3. Horizontally, the center of gravity 3 is approximately in the middle of the MEWP, front to back and side to side. Refer to Figure 11. Vertically, the center of gravity is approximately a small distance above the chassis.



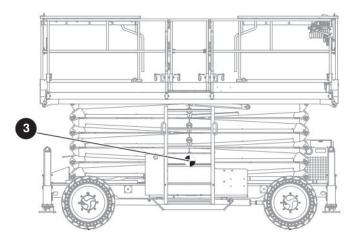


Figure 11 Approximate center of gravity

# 6.6-2 Drive and tie-down the MEWP

Before you drive the MEWP:

- The ramp or dock capacity must be able to hold the maximum MEWP weight.
- Use side guards (if available) to prevent a fall from the ramp.
- The incline of the ramp must not exceed the MEWP gradeability. Refer to Section 7.3.
- Do a test of the MEWP brakes to make sure they operate correctly.
- Move the inclined-drive/level-drive switch to the inclined-drive (low speed/high torque) position.

# **WARNING**

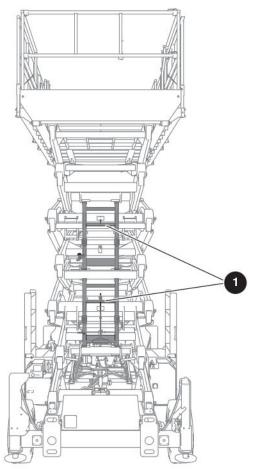
When you transport the MEWP, it must be attached to a truck or trailer deck. Use the available tie-down points 2 to attach the MEWP. Refer to Figure 09 If you do not obey, there is a risk of death or serious injury.

 Tie-down the MEWP to the transport vehicle using the four tie-down points 2. Refer to Figure 09.

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# 6.7 Use the maintenance support(s)

Maintenance support(s) 1 are a mechanism on the scissor assembly. When they are in the correct position, they can hold the scissor assembly and an empty platform.



# WARNING

Use the maintenance support(s) when you do an inspection and/or maintenance or repairs in the confines of the lift mechanism. If you do not use the support(s), there is a risk of death or serious injury.



# **WARNING**

Crush hazard. Do not put parts of your body through the scissor assembly unless the maintenance support(s) are correctly deployed. If you do not obey, there is a risk of death or serious injury.

# 6.7-1 Deploy the maintenance support(s)

1. Remove all personnel and material from the platform.

# WARNING

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

- 2. Raise the platform until there is adequate clearance to deploy the maintenance support(s) 1.
- **3.** Deploy the lower maintenance support:
  - a. Remove the maintenance support rod from the keyhole at the rear side of the MEWP.
  - **b.** Push the **rod** handle so that the maintenance support is in a vertical position. Align the lower maintenance support with the pipes on the cross member.
  - **c.** Put the **rod** back into the keyhole at the rear side of the MEWP.
- 4. For models SJ9233 RT and SJ9243 RT:

Lower the platform until the pipes on the cross members fully touch the maintenance support, and the platform stops. Go to step 6.

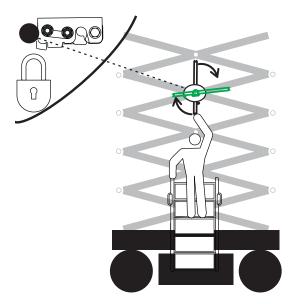
## For model SJ9253 RT:

Lower the platform until the top of the support is just below or at the blue mark found on the top cylinder mount. Continue to step 5.

# **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder. If you do not obey, there is a risk of death or serious injury.

- **5.** Deploy the top maintenance support (only for model SJ9253 RT):
  - **a.** Go up the MEWP ladder. Maintain three points of contact on the ladder at all times. Refer to *Figure 12*.



**Figure 12** Position to release or retract the top maintenance support (only for model SJ9253 RT)

- **b.** Turn the latch on the scissor assembly to deploy the top maintenance support. Make sure that it is in a vertical position. Align the top maintenance support with the pipes on the cross member.
- c. Go down the MEWP ladder.
- **d.** Lower the platform until the pipes on the cross members fully touch the maintenance supports, and the platform stops.
- **6.** Turn the **main power disconnect** switch to the off position.

# 6.7-2 Store the maintenance support(s)

**1.** Turn the **main power disconnect** switch to the on position.



# **WARNING**

Look for overhead obstructions or other possible hazards around the MEWP when you raise the platform. Do not lower the platform unless the area below is clear of personnel and obstructions. If you do not obey, there is a risk of death or serious injury.

# 2. For model SJ9253 RT:

Raise the platform until the top of the lower maintenance support is just below or at the blue mark on the top cylinder mount.

For models SJ9233 RT and SJ9243 RT:

Raise the platform until there is adequate clearance to retract the lower maintenance support.



# **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder. If you do not obey, there is a risk of death or serious injury.

- **3.** Retract the top maintenance support (only for model SJ9253 RT):
  - a. Go up the MEWP ladder. Maintain three points of contact on the ladder at all times. Refer to *Figure 12*.
  - b. Swing the top maintenance support up until it locks back into the latch on the scissor assembly.
  - c. Go down the MEWP ladder.
- **4.** For all models, retract the lower maintenance support:
  - **a.** Remove the rod from the keyhole at the rear side of the MEWP.
  - **b.** Pull the **rod** handle to retract the lower maintenance support.
  - c. Put the rod back into the keyhole at the rear side of the MEWP.

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**5.** Fully lower the platform.

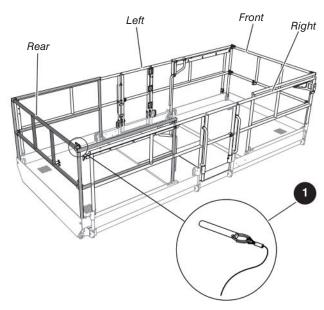
SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 

### Fold the guardrail 6.8

When folded down, the guardrail system decreases the total height of the retracted MEWP for transport.

# **WARNING**

Fall hazard. To prevent a fall, keep away from the sides of the platform when you fold or unfold the guardrails. If you do not obey, there is a risk of death or serious injury.



• Guardrail lock-pin with lanyard: Use this pin to lock the guardrails.



# **WARNING**

Fall hazard. Fully lower the platform before you fold or unfold the guardrails. If you do not obey, there is a risk of death or serious injury.



# WARNING

Before you operate this MEWP, make sure that the quardrail system does not have loose or missing lock-pins. The guardrail system must be in the vertical position. Lock all pins correctly. An incorrectly locked guardrail can cause a fall, which can result in death or serious injury.

# 6.8-1 Fold the guardrail system down

- 1. Make sure the MEWP is on firm, level ground.
- 2. Make sure you fully lower the platform.
- 3. Push the emergency-stop button on the base control console.
- 4. Turn the main power disconnect switch to the off position.



# **WARNING**

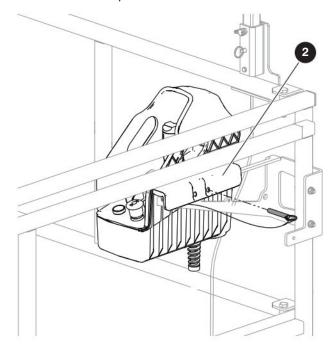
Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- **5.** Use the MEWP ladder to enter the platform.
- 6. Close the gate.
- 7. Make sure you fully retract the extension platform(s).

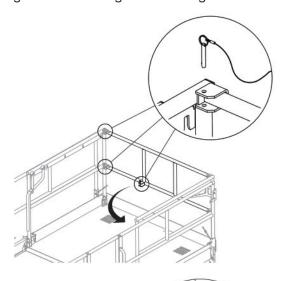
# **CAUTION**

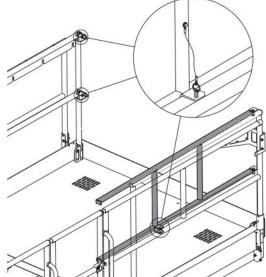
Install each lock-pin correctly with the detent ball of each lock-pin fully through the bracket or railing clamp. If you do not obey, there is a risk of machine damage

8. Remove the **lock-pins** from the control console mounting bracket 2. Put the control console down on the platform floor.

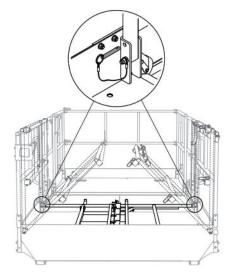


 Remove all the lock-pins on the front guardrail and swing it to the right extension guardrail. Install the mid-rail lock-pin to lock the front guardrail to the right extension guardrail.

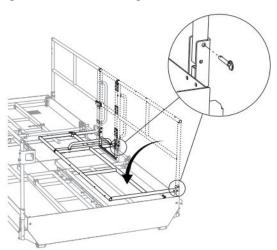




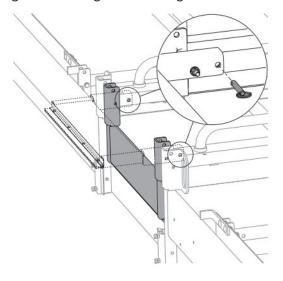
- **10.** Remove all the **lock-pins** from the rear guardrail and swing it to the left extension guardrail. Install the mid-rail lock-pin to lock the rear guardrail to the left extension guardrail.
- **11.** Remove all the **lock-pins** on the front-left extension guardrail and fold it down.
- **12.** Remove all the **lock-pins** on the rear-left extension guardrail and fold it down.
- **13.** Remove all the **lock-pins** on the front-right extension guardrail and fold it down.
- **14.** Remove all the **lock-pins** on the rear-right extension guardrail and fold it down.



**15.** Remove all the **lock-pins** on the front-left guardrail and the left gate.



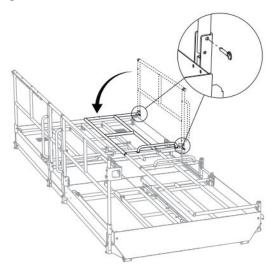
**16.** Pull the gate latch, and fold down the front-left guardrail along with the left gate.



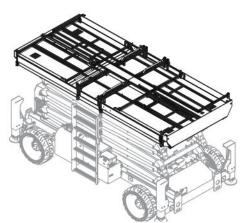
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- 17. Remove the lock-pins from the rear-left guardrail and fold it down.
- 18. Install the lock-pins to lock the rear-left guardrail.



- 19. Remove all the lock-pins on the rear-right guardrail and the right gate.
- 20. Pull the gate latch, and fold down the rear-right guardrail along with the right gate.
- 21. Remove the lock-pins from the front-right guardrail and fold it down.
- 22. Install the lock-pins to lock the front-right guardrail.



23. Use the MEWP ladder to exit the platform.

# 6.8-2 Unfold the guardrail system

- 1. Make sure the MEWP is on firm, level ground.
- 2. Make sure you fully lower the platform.
- 3. Push the emergency-stop button on the base control console.
- 4. Turn the main power disconnect switch to the off position.



# **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

- **5.** Use the MEWP ladder to enter the platform.
- 6. Close the gate.



# **WARNING**

Fall hazard. To prevent a fall, keep away from the sides of the platform when you fold or unfold the guardrails. If you do not obey, there is a risk of death or serious injury.



# **WARNING**

Fall hazard. Install each lock-pin correctly with the detent ball of each lock-pin fully through the guardrail. The guardrail system must be in the vertical position. An incorrectly locked guardrail can cause a fall, which can cause death or serious

- 7. Unfold the front-right guardrail, and install all the lock-pins.
- 8. Unfold the rear-right guardrail and the right gate, and install all the lock-pins. Push the right gate back into the gate latch.
- 9. Unfold the rear-left guardrail, and install all the lock-pins.
- 10. Unfold the front-left guardrail and the left gate, and install all the lock-pins. Push the left gate back into the gate latch.
- 11. Unfold the rear-right extension guardrail and install all the lock-pins.
- 12. Unfold the front-right extension guardrail and install all the lock-pins.

- 13. Unfold the front-left extension guardrail and install all the lock-pins.
- 14. Unfold the rear-left extension guardrail and install all the lock-pins.
- 15. Remove the lock-pin from the rear-left midrail. Swing the rear guardrail towards the right extension guardrail. Install all the lock-pins.
- 16. Remove the lock-pin from the front-right midrail. Swing the front guardrail towards the left extension guardrail. Install all the lock-pins.
- 17. Mount the platform control console at the front right of the platform and install all the lock-pins.

# **WARNING**

Before you operate this MEWP, make sure that the guardrail system does not have loose or missing lock-pins. The guardrail system must be in the vertical position. Lock all pins correctly. An incorrectly locked guardrail can cause a fall, which can result in death or serious injury.

# 6.9 Move the MEWP through a doorway



# **WARNING**

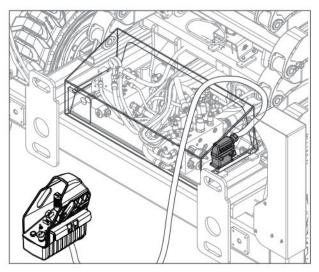
Only do this procedure on level ground. If you do not obey, there is a risk of death or serious injury.

- 1. Make sure the height/width of the doorway is sufficient to let the MEWP drive through.
- 2. Before you operate the MEWP, do a full inspection of the site (refer to Section 2.4). Identify hazards in your work area.
- 3. Make sure the platform is fully lowered.
- 4. Follow Section 6.4-1 to disconnect and remove the platform control console.
- 5. Fold the guardrails if it is necessary. Refer to Section 6.8 for the procedure on how to fold the guardrails.

# WARNING

Crush hazard. Make sure that there are no personnel in the path you will travel. Tell personnel around the path before you move the MEWP. Use a second person to monitor the movement of the MEWP. Make sure that person stays at a safe distance. If you do not obey, there is a risk of death or serious injury.

6. Connect the platform control console cable to the electrical plug at the rear side of the MEWP.



- 7. Stay behind the MEWP.
- 8. Make sure the platform control console points in the same direction as the front of the MEWP.
- 9. Turn the main power disconnect switch to the on position.
- 10. Pull the emergency-stop button on the base control console.
- 11. Turn the off/base/platform key switch to the platform position.
- **12.** Pull the **emergency-stop** button on the platform control console.
- 13. Start the engine. Refer to Figure 07.
- 14. Move the inclined drive/level drive switch to the inclined drive (low speed/high torque) position for reduced speed.
- 15. Move the lift/off/drive switch to the drive position.

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- 16. Use as low a speed as practical to drive the MEWP forward drive forward through the doorway.
- 17. Push the emergency-stop button when the MEWP is safely through the doorway.
- 18. Turn the main power disconnect switch to the off position.
- 19. Disconnect the platform control console from the rear side of the base.



# **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

20. Use the MEWP ladder to enter the platform.



# **WARNING**

Before you operate this MEWP, make sure that the guardrail system does not have loose or missing lock-pins. The guardrail system must be in the vertical position. Lock all pins correctly. An incorrectly locked quardrail can cause a fall, which can result in death or serious injury.

21. Return the guardrails to the vertical position if folded. Refer to Section 6.8 for the procedure on how to fold the guardrails.



# **WARNING**

Fall hazard. Make sure each lock-pin is correctly installed with the detent ball of each lock-pin fully through the hole. Failure to avoid this hazard could result in death or serious injury.

- 22. Put the platform control console back onto the mounting bracket. Install the lock-pin in the mounting bracket.
- 23. Put the control cable into the railing clamp and install the lock-pin.

# **WARNING**

Fall Hazard. Use the three points of contact principle when you use the MEWP ladder to enter or exit the platform. If you do not obey, there is a risk of death or serious injury.

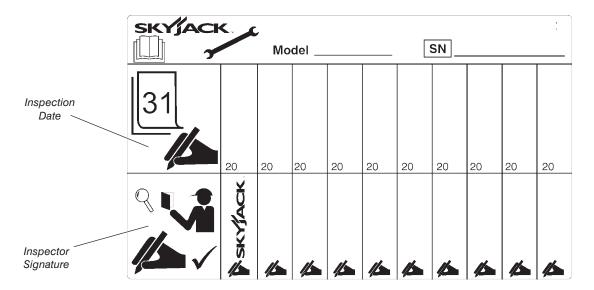
- 24. Use the MEWP ladder to exit the platform.
- 25. Connect the platform control console cable to the **electrical connector** below the platform.

# **Section 7 – Specifications**

# 7.1 Standard and optional equipment

Model	SJ9233 RT	SJ9243 RT	SJ9253 RT
Standard Equip	oment		
Base controls	*	*	*
Platform controls	*	*	*
Dual range (torque/speed) selector	*	*	*
	*	*	*
Operator horn	*	*	*
Diamond pattern, all steel platform deck construction	*	*	*
Hinged guardrail system	*	*	*
Fall-protection anchorages	*	*	*
Front manual extension platform			*
Access ladders and gates at both sides of the platform	*	*	
AC socket on platform	*	*	*
Self-centering scissors design	*	*	*
Flashing amber beacon	*	*	*
Motion alarm	*	*	*
Cabinets with lockable doors	*	*	*
Hour meter	*	*	*
Tilt alarm with drive/lift cut out	*	*	*
Color-coded, numbered wiring system	*	*	*
Mounted engine tray	*	*	*
Diesel engine	*	*	*
Tie-down points	*	*	*
Grip lug foam-filled tires	*	*	*
4-wheel drive	*	*	*
Spring-applied hydraulically released disc brake system	*	*	*
Dual-applied hydraulically released disc brake system	*	*	*
Outriggers			*
Optional Equip	ment		
Outriggers	*	*	
Non-marking tires	*	*	*
Rear manual extension platform	*	*	*
Dual fuel engine - gasoline/propane	*	*	*
Positive air shutoff	*	*	*
Cold weather start kit	*	*	*
Arctic weather package	*	*	*
Scissor guards assembly	*	*	*
Generator Generator	*	*	*
	*	*	*
Heavy duty pipe rack Tool caddy	*	*	*
•	*	*	*
Material handling stand	*	*	*
Storage box (not available with dual fuel engine)			
Non-destructive testing	*	*	*
Block heater	*	*	*
2-wheel drive	*	*	*
Elevate telematics	*	*	*
Secondary guard lift enable	*	*	*
Dual propane tank	*	*	*
			1
Brake pressure gauge	*	*	*

# 7.2 Owner's annual inspection record



# **A** WARNING

Do not use the MEWP if there is no inspection recorded in the last 13 months. If you do not obey, there is a risk of death or serious injury.

# **IMPORTANT**

The Owner's Annual Inspection Record on the scissor assembly must be filled out after an annual inspection is completed.

# 7.3 Specifications

Model	SJ9233 RT	SJ9243 RT	SJ9253 RT						
Weight *	6 463 kg (14 250 lb)	7 338 kg (16 180 lb)	8 254 kg (18 200 lb)						
Overall Width	2.30 m (7.55')								
Overall Length (Platform Retracted)	4.43 m (14.53')								
Overall Length (Platform Extended - Single)		5.81 m (19.06')							
Overall Length (Platform Extended - Dual)		7.21 m (23.65')							
Platform Size, Inside (Platform Retracted)	1.82 m (5.97') x 4.28 m (14.04')	1.92 m (6.30') x 4.25 m (13.94')	1.92 m (6.30') x 4.25 m (13.94')						
Platform Size Inside (Platform Extended - Single)	1.82 m (5.97') x 5.65 m (18.54')	1.92 m (6.30') x 5.65 m (18.54')	1.92 m (6.30') x 5.65 m (18.54')						
Platform Size Inside (Platform Extended - Dual)	1.82 m (5.97') x 7.12 m (23.36')	1.92 m (6.30') x 7.12 m (23.36')	1.92 m (6.30') x 7.12 m (23.36')						
	Heigh	t							
Working Height	12.06 m (39.57')	15.11 m (49.57')	18.15 m (59.55')						
Platform Elevated Height	10.06 m (33')	13.11 m (43')	16.15 m (53')						
Stowed Height (Railings Down)	1.96 m (6.43')	2.16 m (7.09')	2.16 m (7.09')						
Stowed Height (Railings Up)	2.77 m (9.09')	2.96 m (9.71')							
Drive Height (Maximum)	10.06 m (33')	10.06 m (33')							
	Standard Opera	ting Times							
Raise Time (No Load)	52 s	65 s	77 s						
Lower Time (No Load)	34 s	38 s	41 s						
Raise Time (Rated Load)	76 s	101 s							
Lower Time (Rated Load)	59 s	63 s	66 s						
	Chass	is							
Travel Speed (Lowered Travel Position)	5.6 km/h (3.5 mph)								
Travel Speed (Elevated Travel Position)	≤ 0.80 km/h (≤ 0.5 mph)								
Maximum Gradeability	40% 35%								
Tires (Solid Rubber)	33 x 12 x 20								
	Hydraulic Oil								
Туре	ATF								
туре	Bio Oil								
Tank Capacity	87 L (23 gal)								

<sup>\*</sup> Weights are approximate; refer to MEWP nameplate for specific weight.

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Section 7 – Specifications Environment

# 7.4 Environment

Model	SJ9233 RT	SJ9243 RT	SJ9253 RT					
Electromagnetic Compatibility (EMC)	Meets requirements of ISO 13766-1:2018 and CAN/CSA CISPR 12-10							
Hazardous Location Rating	MEWP not rated for hazardous locations with potentially flammable gases, explosive gases or particles							
Sound Pressure Level (ISO 3744)	72 dB							
Guaranteed Maximum Sound Power Level (ISO 4871)	100 dB							
Whole-body Vibration on Platform	≤ 0.5 m/s²							
	Operating Temperatures							
Standard	-20°C (-4°F) to +40°C (+104°F)							
Cold Weather Package	Below -10°C (+14°F)							
Arctic Weather Package	Below -18°C (0°F)							

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# 7.5 Maximum platform capacities (evenly distributed)

Model	Wind Rating		latform acity	Extension Platform Capacity		Manual Side Force	Tilt Cutout Setting (side- to-side x front- to-back)	Outrigger Tilt Cutout Setting						
SJ9233 RT		1247 kg (2 750 lb)	7 people											
SJ9243 RT	12.5 m/s (28 mph)	907 kg (2 000 lb)	6 people	227 kg (500 lb)		-			_	_	2 people	400 N (90 lbf)	2.5° x 4.5°	1° x 1°
SJ9253 RT		681 kg (1 500 lb) 5 people												

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# NOTE

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

SJ9233 RT, SJ9243 RT, SJ9253 RT SKYJACK Floor loading pressure Section 7 – Specifications

# 7.6 Floor loading pressure

Weights					Pressures				
Model		MEWP Weight		Max Weight per Wheel/Outrigger**		LCP***		OFL***	
		kg	lb	kg	lb	kPa	psi	kPa	psf
003200111 011	Min*	6463	14250	1860	4100	857	124	6.1	128
	Max*	7710	17000	2630	5800	930	135	7.3	153
009200 111 011	Min*	6463	14250	1860	4100	360	52	6.1	128
	Max*	7710	17000	2630	5800	516	74	7.3	153
SJ9243 RT on Min	Min*	7338	16180	1950	4300	853	124	7.0	145
Wheels	Max*	8246	18180	2585	5700	920	133	7.8	163
SJ9243 RT on	Min*	7338	16180	1950	4300	377	55	7.0	145
Outrigger Pads	Max*	8246	18180	2585	5700	500	73	7.8	163
SJ9253 RT on	Min*	8254	18200	2268	5000	867	126	7.8	163
Wheels	Max*	8936	19700	2790	6150	971	141	8.5	177
SJ9253 RT on	Min*	8254	18200	2268	5000	440	64	7.8	163
Outrigger Pads	Max*	8936	19700	2790	6150	540	78	8.5	177

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- Min: Minimum MEWP weight (Unloaded platform, no options/attachments)
   Max: Maximum MEWP weight (Platform loaded to capacity with options/attachments)
- \*\* Wheel/Outrigger Load is the weight that can be experienced on one wheel/outrigger.

  Note: This is more than 25% of the machine weight due to possible weight distribution over the machine and platform.
- \*\*\* **LCP:** Local Concentrated Pressure is a measure of how hard the MEWP presses on the area in direct contact with the floor/tire/outrigger.

**OFL:** Overall Floor Load (Pressure) is a measure of the average load the MEWP imparts on the whole surface directly underneath the chassis. This has been calculated by dividing the MEWP weight by the overall floor area occupied by the MEWP (on wheels/outriggers).

**Note:** The floor covering (e.g., tile, carpet, etc.) or the structure (e.g., beams) of the operating surface must be able to withstand more than the values indicated above.

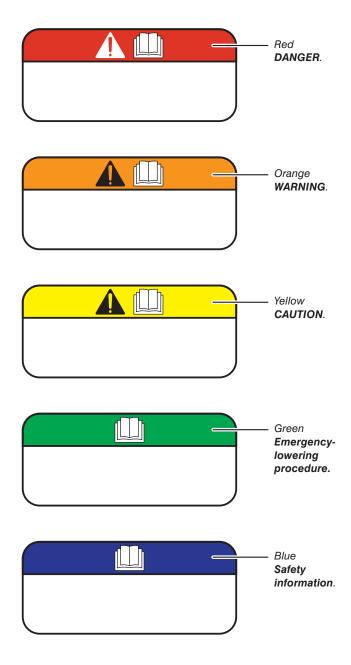
**Note:** The **LCP** or **OFL** that an individual surface can withstand varies from structure to structure and is generally determined by the engineer or architect for that particular structure.

SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 





# **Section 8 - Labels**

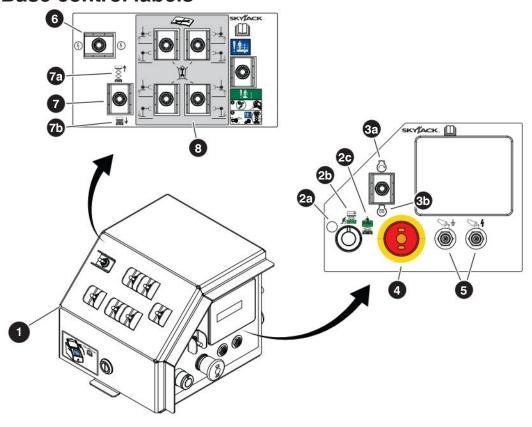


SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 

Section 8 – Labels

Base control labels

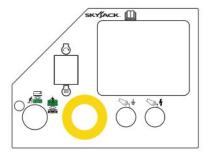
# 8.1 Base control labels

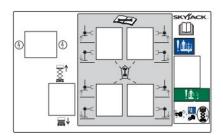


Description Label Pictorial

# Base controls

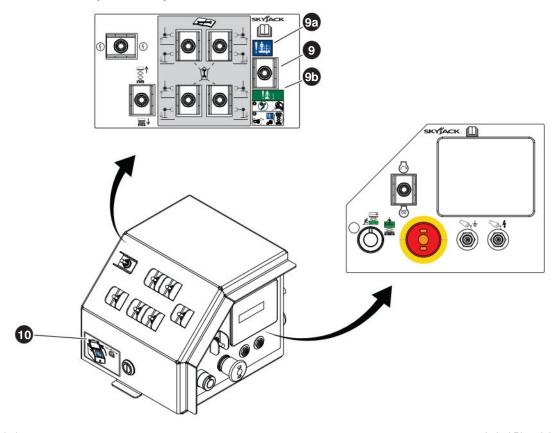
- Select the off position ② to turn off power to the MEWP, the base position ② to energize the base controls, or the platform position ② to energize the platform controls. Select the engine start position ③ to start the engine, or select the glow plug position ⑤ to energize the glow plugs to start a cold diesel engine.
- Push the emergency-stop button 4 to disconnect power to the control circuit. Pull the emergency-stop button to connect the power again.
- Push the circuit breakers 5 to reset the power if a power overload or positive circuit grounding occurs.
- Select the enable switch 6 to energize the raise, lower, emergency lowering, and outrigger functions.
- Select the lower/neutral/raise switch 7 to raise 7 or lower 7 the platform.
- Select the outrigger switches 6 to manually extend or retract the outriggers.





Base control labels Section 8 – Labels

# Base control labels (continued)



Description Label Pictorial

# 9 Emergency-lowering identification



# **9** Emergency-lowering procedure

Refer to the operation manual.

The **main power disconnect** switch must be in the on position.

- **1.** Push the **emergency-stop** button on the base control console.
- 2. Hold the **enable** switch to the left or right and hold down the **emergency-lowering** switch on the base control console to fully lower the platform.



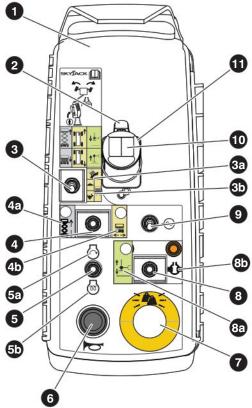
# Emergency-lowering identification

Found below the base control console cover.



Section 8 – Labels Platform control labels

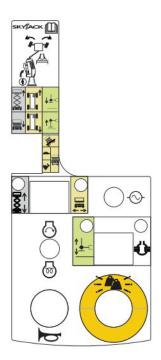
# 8.2 Platform control labels



Description Label Pictorial

### Platform controls

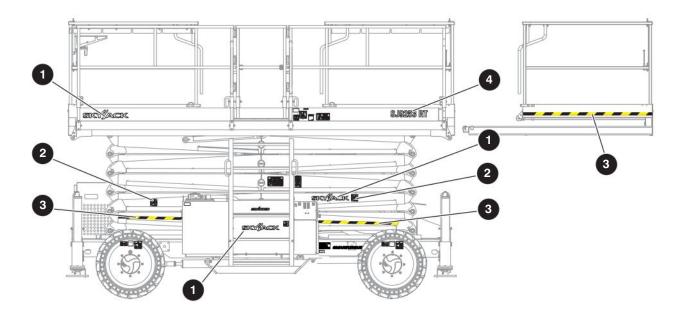
- Squeeze and hold the function-enable switch 2 to energize the lift, drive, steer, and auto-level functions.
- Select the inclined drive (low speed/high torque) or level drive (high speed/low torque) mode.
- Select the lift 49, off 4, or drive 4b mode.
- Select the engine start position 50 to start the engine, or select the glow plug position 50 to energize the glow plugs to start a cold diesel engine.
- Push the **horn** button **6** to make a sound like a car horn.
- Push the emergency-stop button 7 to disconnect power to the control circuit. Pull the emergency-stop button to connect the power again.
- Select the auto-level position at to extend and retract the outriggers and make the MEWP level, or the differential lock position to engage the differential lock.
- Select the generator switch of to start the generator.
- Operate the steering rocker switch 10 to steer.
- Move the controller handle 10 to control the lift, drive, and outrigger/auto-level movements.



SKYJACK

## SJ9233 RT, SJ9243 RT, & SJ9253 RT labels 8.3

# 8.3-1 Left side



Label Pictorial Description

Skyjack logo



2 Stay away Stay away from the MEWP when it is in operation.



3 Caution tape stripe



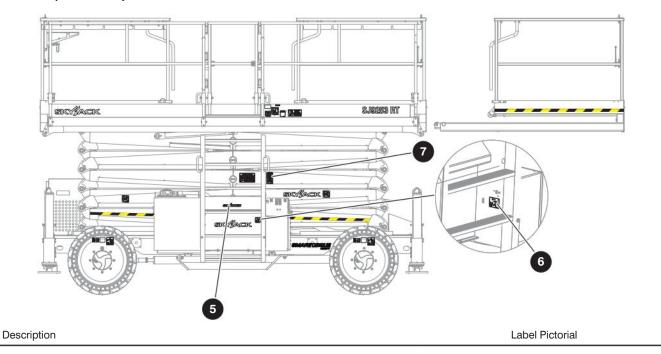
Model number\*

Product identifier.

\*The model number can be different from the one you see.

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5 Skycoded™ logo



# 6 Main power disconnect switch

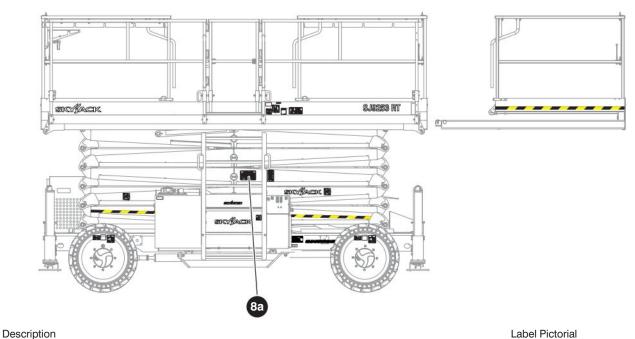
Turn the switch clockwise to turn the power on. Turn the switch counterclockwise to turn the power off. Use a padlock to lock the switch in position.



# Warning - deploy maintenance support(s)

Do not do maintenance or inspections in the scissor assembly unless the maintenance support(s) are deployed. Refer to *Section 6.7*.





# Maintenance support procedure (SJ9233 RT, SJ9243 RT)

Refer to the operation manual.

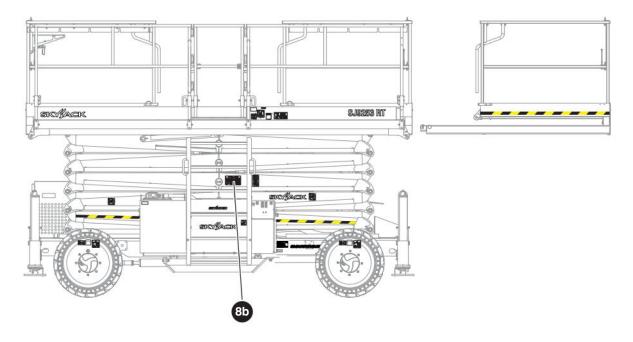
- 1. Remove all personnel and material from the platform.
- **2.** Raise the platform until there is adequate clearance to deploy the maintenance support.
- 3. Deploy the maintenance support:
  - **a.** Remove the **maintenance support rod** from the keyhole at the rear side of the MEWP.
  - **b.** Push the **rod** handle so that the maintenance support is in a vertical position. Align the maintenance support with the pipes on the cross member.
  - c. Put the rod back into the keyhole.
- **4.** Lower the platform until the pipes on the cross members fully touch the maintenance support, and the platform stops.
- **5.** Turn the **main power disconnect** switch to the off position. Do maintenance on the MEWP. Refer to the service manual.
- **6.** Turn the **main power disconnect** switch to the on position.
- **7.** Raise the platform until there is adequate clearance to retract the maintenance support.
- 8. Retract the maintenance support:
  - a. Remove the rod from the keyhole at the rear side of the MEWP.
  - **b.** Pull the **rod** handle to retract the maintenance support.
  - c. Put the rod back into the keyhole.
- 9. Fully lower the platform.



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SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 





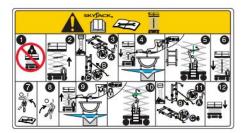
Description Label Pictorial

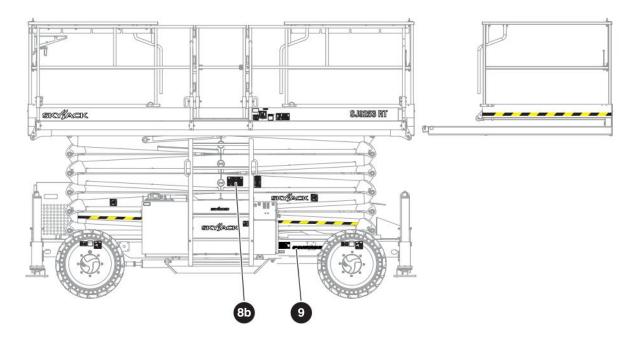
# **®** Maintenance supports procedure (SJ9253 RT)

Refer to the operation manual.

- 1. Remove all personnel and material from the platform.
- **2.** Raise the platform until there is adequate clearance to deploy the **maintenance supports**.
- 3. Deploy the lower maintenance support:
  - **a.** Remove the **maintenance support rod** from the keyhole at the rear side of the MEWP.
  - **b.** Push the **rod** handle so that the maintenance support is in a vertical position. Align the lower maintenance support with the pipes on the cross member.
  - c. Put the rod back into the keyhole.
- **4.** Lower the platform until the top of the support is just below or at the blue mark found on the top cylinder mount.
- 5. Deploy the top maintenance support:
  - Go up the MEWP ladder.
  - Turn the latch on the scissor assembly to deploy the top maintenance support. Make sure that it is in a vertical position. Align the top maintenance support with the pipes on the cross member.
  - Go down the MEWP ladder.

Continue to next page.

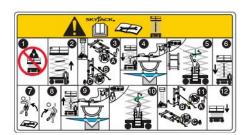




Description Label Pictorial

# Maintenance supports procedure continued (SJ9253 RT)

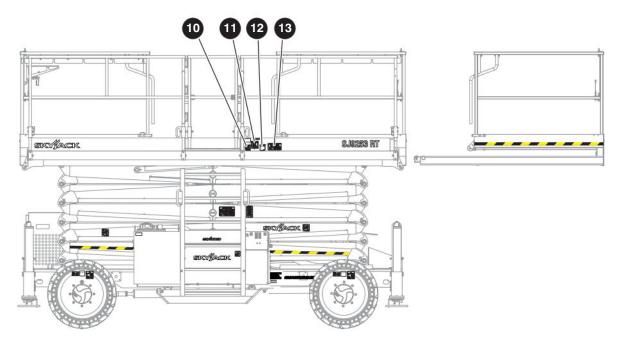
- **6.** Lower the platform until the pipes on the top and bottom cross members fully touch the maintenance supports, and the platform stops.
- 7. Turn the **main power disconnect** switch to the off position. Do maintenance on the MEWP. Refer to the service manual.
- 8. Turn the main power disconnect switch to the on position.
- **9.** Raise the platform until the top of the lower support is just below or at the blue mark on the top cylinder mount.
- **10.** Retract the top maintenance support:
  - Go up the MEWP ladder.
  - Swing the top maintenance support up until it locks back into the latch on the scissor assembly.
  - Go down the MEWP ladder.
- 11. Retract the lower maintenance support:
  - a. Remove the rod from the keyhole at the rear side of the MEWP.
  - **b.** Pull the **rod** handle to retract the lower maintenance support.
  - **c.** Put the **rod** back into the keyhole.
- 12. Fully lower the platform.



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SKYJACK



Description Label Pictorial

# No jewelry

Caution. Do not wear jewelry or loose clothing that could become caught or entangled.



## Mo insulation

This MEWP is not electrically insulated and does not provide protection from contact with or proximity to energized electrical conductors. Follow *Section 2.1-1* for the minimum distance to keep between all parts of the MEWP, occupants, or tools, and the electrical conductors.



# Operator daily inspection

Refer to the operation manual. Do the visual inspections and function tests before you start each work shift.

Refer to Section 4.4.



# Platform capacity\*

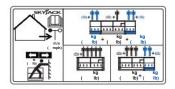
Shows the rated work load in each configuration.

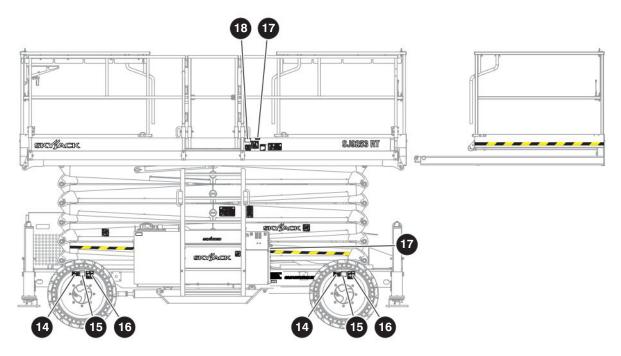
\*Each model has different platform capacities.

# Horizontal load rating\*\*

Do not apply more than the specified side load. Operate the MEWP when the wind speed, which includes wind gusts, is less than the specified speed for this model.

\*\*The rating changes between different units.





Description Label Pictorial

# 1 Wheel specifications

Refer to the service manual for wheel type and torque.



# 15 Wheel load\*

Shows the maximum load applied to the ground by the specified wheel.

\*Each model has different wheel loads.



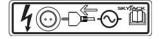
# 15 Tip-over hazard

Use Skyjack approved, matched solid tires only. Do not use air or foam-filled tires.



# **1** AC power plug

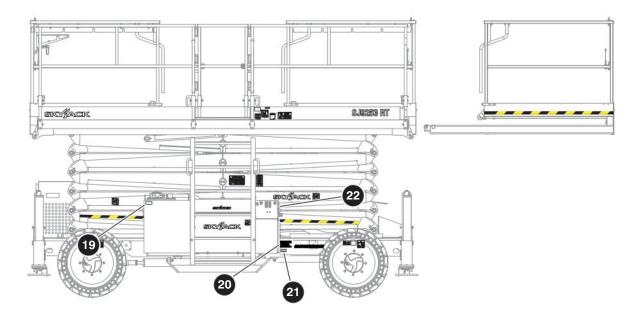
Connect the AC supply here.



# 18 Warning - California proposition 65

Cancer and reproductive harm - https://www.p65warnings.ca.gov/.





Description Label Pictorial

Battery warmer/hydraulic oil heater (optional)

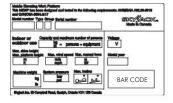
Do not use heaters if the temperature is above 0°C (32°F).



Serial plate\*

MEWP identification and specifications.

\*The serial plate information changes with different MEWPs.



2 Skyjack manufactured date

Shows the month and year of manufacture for this MEWP.

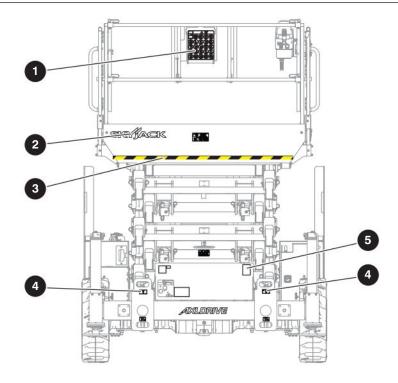


② Elevate™ Trackunit (optional)

This MEWP has added functionality.



# 8.3-2 Rear side



Description Label Pictorial

# Hazard identification

Read and understand the specified hazards with this MEWP before operation. Refer to *Section 2*.

# Manual storage box

Shows the location of the operation manual.

Note: This label is inside the platform.



2 Skyjack logo



3 Caution tape stripe



4 Lift points

Only use these points to lift the MEWP.

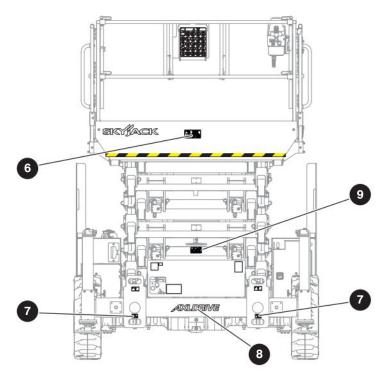


**5** Control box connection

Shows the location of the control box connection on the base.



# Rear side (continued)



Description Label Pictorial

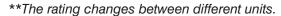
# 6 Platform capacity\*

Shows the rated work load in each configuration.

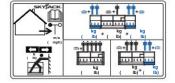
\*Each model has different platform capacities.

# Horizontal load rating\*\*

Do not apply more than the specified side load. Operate the MEWP when the wind speed, which includes wind gusts, is less than the specified speed for this model.



Note: This label is inside the platform.



# Tie-down points

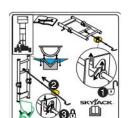
Only use these points to tie-down the MEWP.



# 8 AxIdrive™ logo

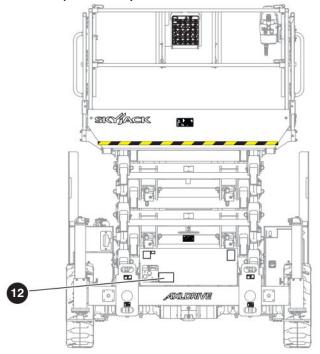


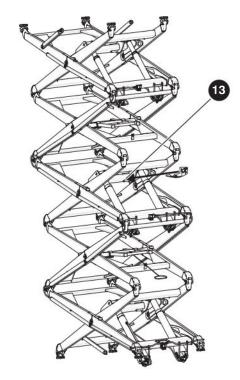
- **1.** Remove the **maintenance support rod** from the keyhole at the rear side of the MEWP.
- 2. Push the **rod** handle so that the maintenance support is in a vertical position. Align the lower maintenance support with the pipes on the cross member.
- 3. Put the rod back into the keyhole.



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# Rear side (continued)





Description Label Pictorial

# Winch and tow procedure

Refer to the operation manual.

- 1. Use wheel chocks or blocks at the front of the wheels and behind them to prevent MEWP movement.
- 2. Turn the main power disconnect switch to the off position.
- **3.** Find the **freewheeling valve** and the **drive manifold** at the rear of the base.
- 4. Push the plunger of the brake auto-reset valve.
- 5. Continuously push and release the knob of the hand pump until firm resistance is felt or until the pressure gauge (optional equipment) shows 300 350 psi (21 24 bar). The brake is now released to permit wheel rolling.
- **6.** Turn the freewheeling valve counterclockwise to the fully open position.
- 7. Push, winch, or tow the MEWP to the necessary location.
- **8.** Use wheel chocks or blocks at the front of the wheels and behind them to prevent MEWP movement.
- **9.** Pull out the **plunger** of the brake auto-reset valve to reengage the brakes.
- **10.** Turn the **freewheeling valve** knob clockwise to a fully close position.

# Distance mark for the lower maintenance support (SJ9253 RT)

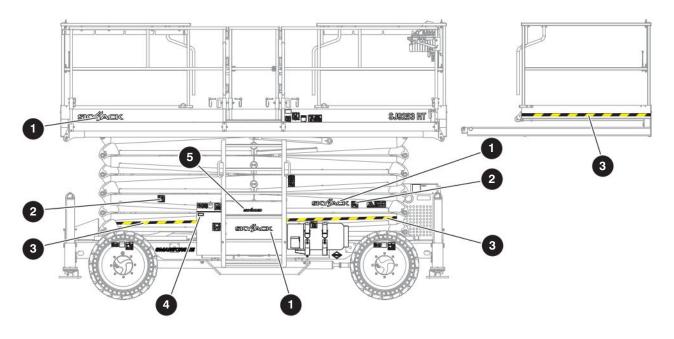
Make sure the top of the lower maintenance support is below the blue mark found on the cylinder mount.



SKYJACK

SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 

# 8.3-3 Right side



Description Label Pictorial

Skyjack logo



2 Stay away
Stay away from the MEWP when it is in operation.



3 Caution tape stripe



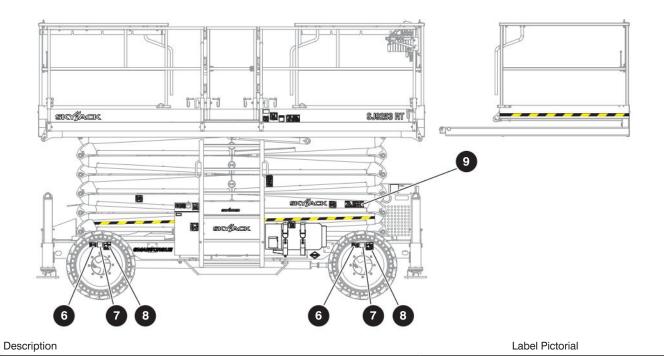
**4** Battery warmer/hydraulic oil heater (optional)

Do not use heaters if the temperature is above 0°C (32°F).



**5** Skycoded<sup>™</sup> logo





**6** Wheel specifications

Refer to the service manual for the wheel type and torque.



**☑** Wheel load\*

Shows the maximum load applied to the ground by the specified wheel.

\*Each model has different wheel loads.



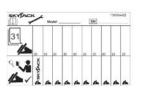
8 Tip-over hazard

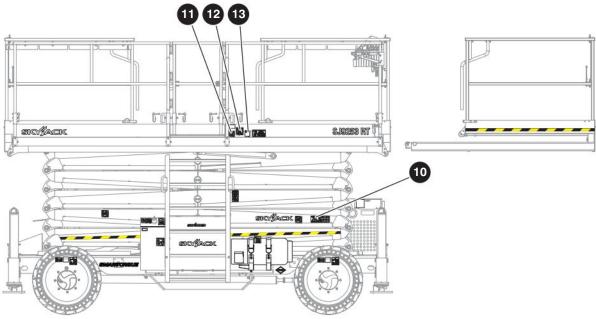
Use Skyjack approved, matched solid tires only. Do not use air or foam-filled tires.



Annual inspection

Make sure the MEWP has received an annual inspection before operation.





Description Label Pictorial

# 10 Warning - annual inspection

Refer to the operation manual. Make sure the annual and daily inspections are done.



# 1 No jewelry

Caution. Do not wear jewelry or loose clothing that could become caught or entangled.



# No insulation

This MEWP is not electrically insulated and does not provide protection from contact with or proximity to energized electrical conductors. Follow *Section 2.1-1* for the minimum distance to keep between all parts of the MEWP, occupants, or tools, and the electrical conductors.

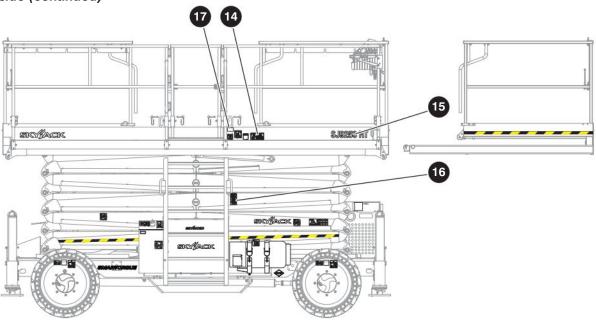


# Operator daily inspection

Refer to the operation manual. Do the visual inspections and function tests before you start each work shift.

Refer to Section 4.4.





Description Label Pictorial

# Platform capacity\*

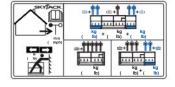
Shows the rated work load in each configuration.

\*Each model has different platform capacities.

# Horizontal load rating\*\*

Do not apply more than the specified side load. Operate the MEWP when the wind speed, which includes wind gusts, is less than the specified speed for this model.

\*\*The rating changes between different units.



# **15** Model number\*

Product identifier.

\*The model number can be different from the one you see.

# SJ9253 RT

# Warning - deploy maintenance support(s)

Do not do maintenance or inspections in the scissor assembly unless the maintenance support(s) are deployed. Refer to *Section 6.7*.

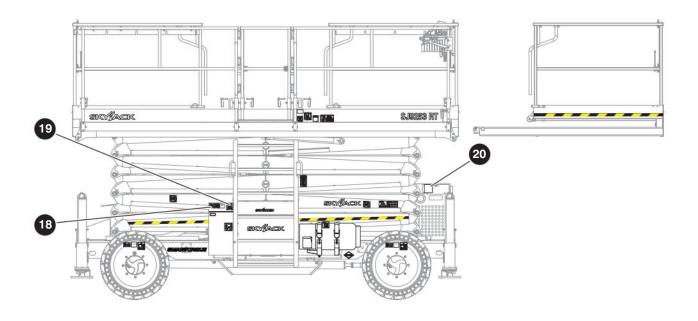


# Warning - California proposition 65

Cancer and reproductive harm - https://www.p65warnings.ca.gov/.



SKYJACK



Description Label Pictorial

# Slowly open the fuel cap

Refer to the operation manual.

Slowly open the fuel cap to prevent fuel spray from the fuel tank.



# 19 Unleaded fuel

Only use unleaded gasoline.

OR

## Diesel ultra-low sulfur

Only use ultra-low sulfur diesel.

OR

# **Diesel**

Only use low or ultra-low sulfur diesel.



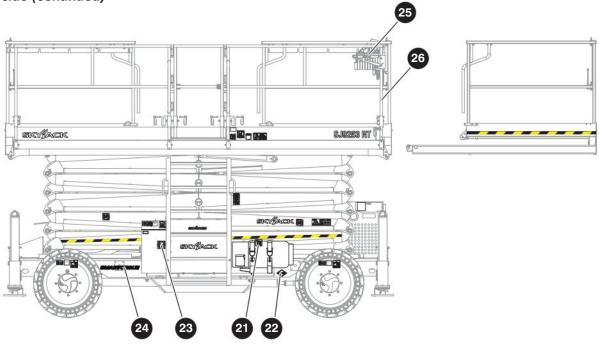


## 20 Caution - coolant fill

There is pressurized fluid in the radiator. Do not open the radiator cap when it is hot. Wear the correct PPE. Let the engine cool before you service it.



#### Right side (continued)



Description Label Pictorial

2 Liquid propane gas (optional)

Only use liquid propane gas.



2 Propane (optional)

Shows the propane storage location.



2 Do not smoke

Do not smoke near this location.



Smartorque<sup>™</sup> logo



25 Location of the platform control console

Shows the location of the platform control console.

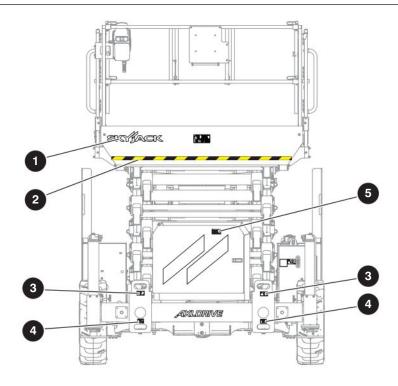


26 Platform control cable

Insert the platform control console cable in the bracket and lock it with the lock-pin.



#### 8.3-4 Front side



Description Label Pictorial

Skyjack logo



2 Caution tape stripe



3 Lift points

Only use these points to lift the MEWP.



**4** Tie-down points

Only use these points to tie-down the MEWP.



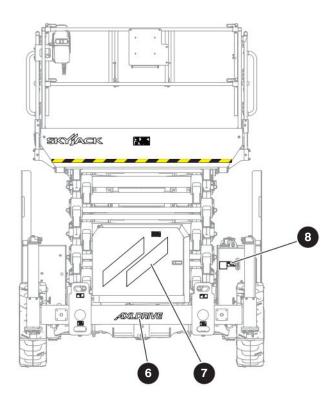
5 California construction equipment (optional)

"This MEWP falls within the scope of preemption in S209(e)(1) of 42 U.S.C 7543(e)(1) for use within the state of California as construction equipment."

Note: This label is found in the engine compartment.

"This machine falls within the scope of preemption provided in S209(e)(1) of 42 U.S.C 7543(e)(1) for use within state of California as construction equipment"

### Front side (continued)



Description Label Pictorial

6 Axldrive™ logo



Talon logo



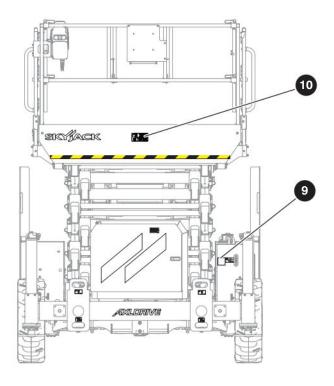
8 Hydraulic oil level

SJ9233 RT, SJ9243 RT, SJ9253 RT

Shows the minimum and maximum hydraulic oil level.



#### Front side (continued)



Description Label Pictorial

## Hydraulic oil ATF Dexron III

Only replace the hydraulic fluid with ATF Dexron III.



#### Platform capacity\*

Shows the rated work load in each configuration.

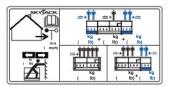
\*Each model has different platform capacities.

#### Horizontal load rating\*\*

Do not apply more than the specified side load. Operate the MEWP when the wind speed, which includes wind gusts, is less than the specified speed for this model.

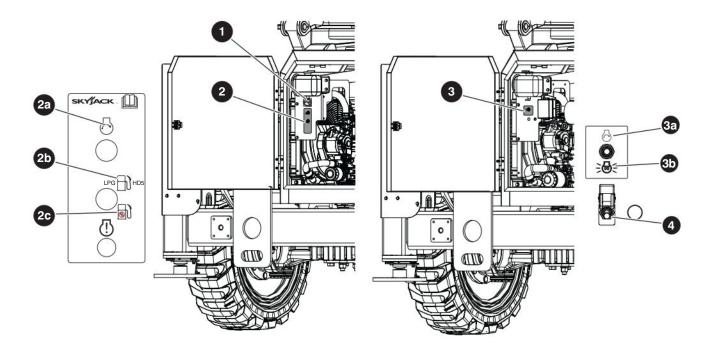
\*\*The rating changes between different units.

Note: This label is on the toe-board inside the platform.



SJ9233 RT, SJ9243 RT, SJ9253 RT

#### 8.3-5 Engine compartment



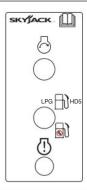
Description Label Pictorial

1 No pressure washer (dual fuel engine)

Do not use a pressure washer.



- 2 Engine controls dual fuel (optional)
  - Select the engine start position 20 to start the engine.
  - Select the liquid propane gas a or gasoline as the fuel type.



- 3 Engine controls diesel
  - Select the engine start position 3 to start the engine, or select the glow plug position to energize the glow plugs to start a cold diesel engine.
  - Select the positive air shut-off switch (optional) to stop the air supply to the engine.



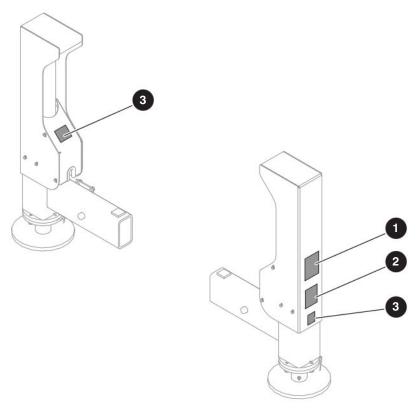


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SJ9233 RT, SJ9243 RT, SJ9253 RT **221491AAA** 



## 8.3-6 Outriggers



Description Label Pictorial

## 1 Stay away

Stay away from the MEWP when it is in operation.



2 Warning - crush hazard

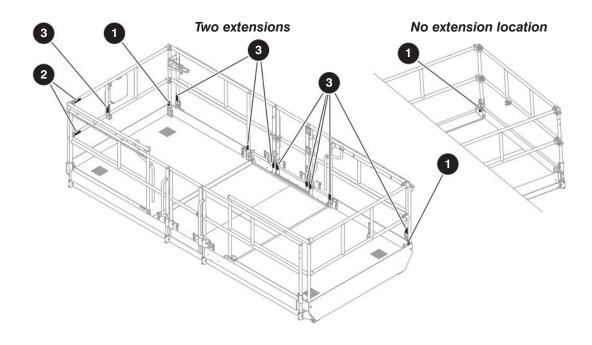


## 3 Warning - do not alter

Do not tamper with or disable the limit switches or other safety devices.



## 8.3-7 Fall-protection anchorages



Description Label Pictorial

## Fall-protection anchorages

When required, attach the body-harness lanyards of each occupant to the fall-protection anchorage points.

Rated for one (1) person for each anchorage point.



### 2 Warning - fall hazard (horizontal)

Make sure the hinged railing is locked with lock-pins.



#### Warning - fall hazard (vertical)

Make sure the hinged railing is locked with lock-pins.



SJ9233 RT, SJ9243 RT, SJ9253 RT



# Section 9 – Unique Skyjack Features

Your Skyjack MEWP may be equipped with the following unique features:



At the heart of every Skyjack machine is our proven and simplistic control system. Skyjack's color-coded and numbered wiring system make our machines the easiest to troubleshoot and repair, translating into less maintenance and lower costs for our customers. The control system on Skyjack's Full-Size Rough Terrain Scissor Lifts pairs the simplistic reliability of the color-coded and numbered wires with a single control module that manages machine functions, while a visual display module at the base control box provides an easy to navigate interface – outputting plain text and easily understood codes.



Skyjack's mechanical "axle based" drive system gives positive traction and excellent rough ground "terrain-ability". This is achieved using an automatic or manual (model dependent) locking differential on the rear axle and limited slip differential on the front axle. This means MEWPs can climb grades of up to 30% in the case of Rough Terrain Scissor Lifts, and 50% in the case of Boom Lifts. This industry-leading terrain capability means one can use the Skyjack Rough Terrain Scissor Lifts and Boom Lifts in the most challenging of conditions.



Having equipment with features and functionality that allow you and your customers to do more is a vital part of the utilization equation. Skyjack offers a range of accessory products to further expand a given product's adaptability and your power to offer a truly flexible rental choice.

## **SMARIFORQUE**

Skyjack's new Full-Size Rough Terrain Scissor Lifts feature an optimized balance of engine horsepower, torque, and hydraulic performance. By adjusting axle gear ratios and maximizing hydraulic output, the new models are able to provide excellent performance with less engine horsepower. An optimized lower horsepower engine not only benefits performance but keeps the cost down - both upfront acquisition and maintenance. Less emission controlling components avoids the cost associated with their complexity, as well as the time and inconvenience required in maintaining them. SMARTORQUE™ means no diesel particulate filter (DPF), no diesel exhaust fluid (DEF)/AdBlue, and no other active exhaust after treatment.

SJ9233 RT. SJ9243 RT. SJ9253 RT 221491AAA





Cancer and Reproductive Harm-https://www.p65warnings.ca.gov/.

