SKYJACK™

# OPERATING MANUAL

## SJ1044 TH, SJ1044 THS, SJ1056 TH, SJ1056 THS,SJ1256 THS

TELEHANDLERS

Compliments of MAC Equipment
https://www.macequipmentllc.com/

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ANSI/CSA

**This manual is based on Serial Number:**

SJ1044 TH/THS 87 210 155, 87 210 176 & Above
SJ1056 TH/THS 87 311 608 & Above
SJ1256 THS 87 410 574 & 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.

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# THIS SAFETY ALERT SYMBOL MEANS ATTENTION!

# BE ALERT! YOUR SAFETY IS INVOLVED.

The Safety Alert Symbol identifies important safety messages on telehandlers, 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.

## ⚠ 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.**

## ⚠ 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 telehandler.**

***Figure 01*** *Label Legend*

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# Notes

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# Section 1 – About Your Telehandler

## 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 Telehandler Definition

A material handler designed primarily as a fork truck with a pivoting telescopic boom which enables it to pick and place loads at distances as well as various lift heights.

### 1.1-2 Purpose of Equipment

The Skyjack telehandlers are designed to lift, handle and transport agricultural or industrial products by means of specific attachments.

### 1.1-3 Use of Equipment

The telehandler is a highly maneuverable variable reach rough terrain forklift. Lifting, handling and driving must be on a flat, level, compacted surface. It can be driven over uneven terrain only when the boom is fully lowered.

### 1.1-4 Manual

The operating manual is considered a fundamental part of the telehandler. It is a very important way to communicate necessary safety information to users and operators. A complete and legible copy of this manual must be kept in the provided weather-resistant storage compartment on the telehandler at all times.

### 1.1-5 Operator

The operator must read and completely understand both this operating manual and the hazard identification label located on the telehandler and all other warnings in this manual and on the telehandler. Compare the labels on the telehandler with the labels found within this manual. If any labels are damaged or missing, replace them immediately.

Only trained and authorized personnel shall be permitted to operate the telehandler.

The operator must be familiar with employer's work rules and related government regulations and be able to demonstrate the ability to understand and operate this make and model of telehandler in the presence of a qualified person.

### 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 Machine

Notify Skyjack of machine ownership. If you have sold or transferred any machine, promptly notify Skyjack of new owner's contact information.

### 1.1-8 Optional Accessories

The Skyjack telehandler is designed to accept a variety of optional accessories. These are listed under Section 3.7. Operating instructions for these options (if equipped) are located in Section 5 – Operation of this manual.

For non-standard components or systems, contact the Skyjack Service Department at:

☎: 800 275-9522
🖷: 630 262-0006

Include the model and serial number for each applicable telehandler.

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## 1.1-9 Scope of this Manual

1. This manual applies to the ANSI/ITSDF and CSA versions of the SJ1044 TH/THS, SJ1056 TH/THS, and SJ1256 THS telehandlers.
   - Equipment identified with “ANSI” meets the ANSI/ITSDF B56.6-2016 standard.
   - Equipment identified with “CSA” meets the CSA B335-15 standard.
2. **CSA (Canada):** Operators are required to conform to national, territorial/provincial, and local health and safety regulations applicable to the operation of this telehandler.
3. **ANSI/ITSDF (United States):** Operators are required by the current ANSI standards to conform to national, territorial/provincial and local health and safety regulations applicable to the operation of this telehandler.

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## 1.2 Symbols & Nomenclature

| Symbol | Description | Symbol | Description |
|---|---|---|---|
| | Diesel Fuel<br>Fuel Tank | | Engine Oil Level |
| | Engine Air Intake | | Hydraulic Oil |
| | Engine Coolant | | Hydraulic Oil Level |
| | Engine Coolant Level | | Positive Air Shutoff (Engine high idle) |
| | Drain Water/Fuel Separator | | Transmission Oil Level |
| | Engine Oil | | DEF (Diesel Exhaust Fluid) |

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## 1.3 Forklift Hand Signals

| | | | |
|---|---|---|---|
| 1. Stop | 2. Emergency Stop | 3. Retract boom | 4. Extend boom |
| 5. Raise boom/mast | 6. Lower boom/mast | 7. Hoist load | 8. Lower load |
| 9. Tilt forks/attachment up | 10. Tilt forks/ attachment down | 11. Travel backwards | 12. Travel forwards |
| 13. Swing attachment left | 14. Swing attachment right | 15. Fork Spread - Closed | 16. Fork Spread - Open |

## 1.4 Major Assemblies

The telehandler consists of four major assemblies: the frame, boom assembly, attachment and cab.

1. **Frame:** The frame is a one-piece weldment that supports the boom assembly. The parking brake is integral with the axle and is located in the front axle.
2. **Operator's Cab:** The operator's cab is the safety structure enclosing the operator. It also furnishes the controls of the telehandler.
3. **Boom Assembly:** The boom is mounted on the frame and consists of telescoping boom sections. SJ1044 TH/THS telehandlers have three boom sections, and the SJ1056 TH/THS and SJ1256 THS telehandlers have four boom sections. The fly boom assembly is welded to the end of last section in the boom assembly and includes a lifting hook for slinging loads. The telehandler is equipped with a carriage tilt cylinder, which is mounted to the inside of the jib. The quick attachment apron is mounted to the jib and is supported by the tilt cylinder.
4. **Attachment:** The attachment is a material-handling device attached to the boom. The standard attachment is a fork-carriage attachment. See Section 3.7 for various optional attachments.

## 1.5 Serial Number Nameplate

The **serial number nameplate** 5, located at the front left side of telehandler lists the following:

- Model number
- Serial number
- Maximum capacity
- Maximum lift height
- Maximum machine weight without attachment
- Original supplied attachments
- Year of manufacture
- Voltage

***Figure 02*** *Serial Number Nameplate location*

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# 1.6 Operator's Responsibility for Maintenance

**WARNING**

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

**Death or serious injury could result from the use of a telehandler that is not properly maintained or kept in good working condition.**

The operator must ensure that the telehandler has been properly maintained and inspected before using it.

The operator must perform all the daily inspections and function tests found on the Operator's Checklist. See Section 4.4, even if the operator is not directly responsible for the maintenance of this telehandler.

## 1.6-1 Maintenance and Inspection Schedule

Refer to Service manual for quarterly (or 250 hours) and annual inspection details.

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

**WARNING**

**Use original or manufacturer-approved parts and components for the telehandler.**

**NOTE**

*Refer to Skyjack's website www.skyjack.com for the latest service bulletins prior to performing frequent/periodic or annual inspections.*

## 1.6-2 Owner's Inspections

It is the responsibility of the owner and/or operator to arrange daily, quarterly (or 250 hours) and annual inspections of the telehandler. Refer to the Service manual for recommended maintenance and inspection areas and intervals.

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# Section 2 – Operator Safety

**⚠ WARNING**

**Failure to comply with your required responsibilities in the use and operation of the telehandler can result in serious injury or even death!**

A study conducted by St. Paul Travelers showed that most accidents are caused by the failure of the operator to follow simple and fundamental safety rules and precautions.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this telehandler is mandatory. The following pages of this manual must be read and completely understood before operating the telehandler.

Common sense dictates the use of protective clothing when working on or near machinery. Use appropriate safety devices to protect your eyes, ears, hands, feet and body.

Any modifications from the original design are strictly forbidden without written permission from Skyjack.

## 2.1 Electrocution Hazard

This telehandler is not electrically insulated. Use extreme caution around high-voltage overhead power lines and parts. Maintain a Minimum Safe Approach Distance (MSAD) of 10 ft from sources of power. If the work requieres to be closer than 10 ft, stop and consult a qualified person with respect to electrical transmission and distribution to have appropriate measures taken.

Adhere to all federal/national, state/provincial, or local safety regulations for your own protection.

No part of telehandler or payload must be brought closer to any energized overhead electrical conductor with nominal phase voltage rating as specified below.

| Minimum Safe Approach Distance | |
|---|---|
| **Voltage Range** | **Minimum Safe Approach Distance** |
| ≤ 50 KVA | 10 feet |
| > 50 KVA | Stop and consult a qualified person with respect to electrical transmission and distribution to have appropriate measures taken |
| FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY | |

***Figure 03*** *Minimum Safe Approach Distance*

**⚠ DANGER**

**Never approach any power line with any part of telehandler. Use extreme caution; serious injury or even death results with contact from any power line.**

**IMPORTANT**

**Always assume electrical power sources and overhead lines are energized.**

**MAINTAIN** a Minimum Safe Approach Distance from sources of high-voltage power.

**DO NOT** operate telehandler during lightning or storms.

**⚠ WARNING**

**Do not use the telehandler as a ground for welding.**

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## 2.2 Safety Precautions

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

**⚠ WARNING**

**DO NOT operate this telehandler without proper authorization and training. Failure to avoid this hazard can result in serious injury or even death!**

**⚠ WARNING**

**Failure to heed the following safety precautions may result in tip over, falling, crushing, or other hazards leading to serious injury or even death!**

**MAKE SURE** all DANGER, WARNING, CAUTION and INSTRUCTIONAL DECALS are in place and can be read. Clean or replace decals as required.

**KNOW** all national, state/provincial and local rules which apply to your telehandler and jobsite.

**WEAR** all the protective clothing and personal safety devices issued to you or called for by job conditions.

**DO NOT** wear loose clothing, dangling neckties, scarves, rings, wristwatches or other jewelry while operating this telehandler.

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

**DO NOT** climb on this vehicle for any reason.

**DO NOT** stand on forks. Failure to heed may result in serious injury or even death!

**DO NOT** use carriage or any other portion of the boom for slinging loads unless on a manufacturer's approved attachment point that is supplied with the machine.

**DO NOT** elevate the boom in windy or gusty conditions.

**DO NOT** drive with boom elevated.

**DO NOT** operate on surfaces not capable of holding the weight of the telehandler; including the rated load (e.g., covers, drains, and trenches).

**DO NOT** maneuver a load while moving. This greatly increases the chance of spills and injury.

**DO NOT** use frame leveling when boom is elevated. Only use frame leveling when boom is retracted and in lowered position.

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**DO NOT** use the frame leveling mechanism to compensate for swinging loads.

**DO NOT** enter the danger area under or around the boom when forks are off the ground or while engine is running.

**DO NOT** lower the boom unless the area below is clear of personnel and obstruction.

**DO NOT** elevate the boom while the telehandler is on a truck, forklift or other device or vehicle.

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

**BE AWARE** of blind spots when operating the telehandler.

**ALWAYS** keep head, arms, hands, legs and all other body parts inside the operator's cab.

**AVOID** jerks and sudden stops.

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

**BE AWARE** of all obstructions while traveling.

**USE CAUTION** when boom is fully extended. The further out the boom is extended, the less load telehandler can support.

**USE CAUTION** when placing loads at high elevations and on downhill slopes.

**IF OPERATION IN AREAS WITH HOLES OR DROP-OFFS IS ABSOLUTELY NECESSARY,** ensure that all four wheels or outriggers (if equipped) have contact with firm surface. Then level the frame. Once frame is level the boom can be elevated. After elevation, the drive function must not be activated.

**TRAVEL SLOWLY** over rough terrain.

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**KNOW** the weight of the load you are transporting. Never lift more than the lifting capacity at any given extension or elevation of the boom as listed on the capacity charts.

**CHECK** for cracks and signs of stress.

**BE AWARE** of the telehandler's travel envelope, especially when turning. Keep sufficient clearance at all times between the telehandler and any obstacles or people.

**WALK AROUND** the telehandler before operation and check for any visible signs of damage or malfunction.

**ALWAYS** maintain three points of contact when entering vehicle. Use provided hand-holds and steps only.

**CHECK** for clearance before traveling between obstacles.

**ALWAYS** wear your seat belt when operating this vehicle.

**DRIVE DOWNHILL UNLOADED**. Without a load, the back end is the heaviest part of the telehandler. Driving downhill decreases potential for tip-over.

**DRIVE UPHILL LOADED**. When holding a load, driving uphill decreases potential for load to slip out.

**LEVEL FRAME ON SLOPES** before elevating the boom.

**WHEN TRANSPORTING LOADS** fully retract the boom, keep the load low to the ground and forks tilted back slightly. This is the most stable position possible for the vehicle.

**KEEP** forks close to the ground when in motion to increase telehandler stability and decrease potential for injury to others. When fully stopped, lower forks completely to the ground.

**TILT** forks backward slightly when traveling to decrease potential of load slipping off.

**SECURE** loose loads with chains or straps to decrease potential of spills or injury to others.

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**TETHER LOADS** that may swing, keeping them close to the ground. Provide ample clearance for personnel to guide the load safely.

**SLINGING LOADS** is acceptable only when the load is appropriately attached to the lifting hook, a jib boom or the heel of a tilted fork, and the precautions outlined in Section 5.14 are followed.

**KEEP OTHERS AWAY** at all times during operation.

**CHECK** lights for proper function before operating.

**ENSURE ALL** tires are in good condition and lug nuts are properly tightened.

**IT IS NOT PERMITTED** to install and utilize a platform for elevating personnel.

**DO NOT** alter or disable safety devices.

**DO NOT** burn or drill holes in forks. Modifying any part of telehandler or attachment affects its capacity and/or stability.

**DO NOT** try to start the telehandler by pushing or towing. Such operation may cause severe damage to the transmission. Refer to Section 5 – Operation.

**IF DRIVING ON ROADS OPEN TO PUBLIC TRAFFIC** respect the local regulations.

**THE OPERATOR'S CAB** provides a falling object protection structure (FOPS) and a rollover protection structure (ROPS). Do not make any modification to this structure. If damaged, the cab cannot be repaired. It must be replaced.

**STUNT** driving and horseplay are prohibited.

**ALWAYS USE FRONT** steering when traveling at high speeds; i.e., on highways and public roads.

**DO NOT** change steering mode while the telehandler is traveling. Change the steering mode only when telehandler is stopped.

**ALWAYS** look in the direction of travel. Reduce speed and be especially careful when traveling in reverse and/or turning. Bring the telehandler to a complete stop before changing the direction of travel.

**STAY CLEAR** of pinch points and rotating parts on the material handler. Getting caught in a pinch point or a moving part can cause serious injury or death. Before performing any maintenance on telehandler, follow the shutdown procedure on Section 5.10.

**DO NOT** position the telehandler against another object to steady the load.

**DO NOT** operate on slippery surfaces not capable of providing adequate traction to stop, drive or steer the telehandler.

**SHUT DOWN** by positioning the telehandler in a safe location. Lower boom to ground, apply the park brake, move all controls to neutral and allow engine to idle for 3 to 5 minutes. Stop engine and remove ignition key to prevent unauthorized use.

### ⚠ WARNING

**Always move all controls to neutral, engage parking brake and shut off engine before exiting the operator's cab.**

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## 2.3 Cab Access

**⚠ WARNING**

**Entering and exiting the telehandler should only be done using the three points of contact.**

Use three points of contact to enter and exit the cab. Face the telehandler when entering or exiting the cab.

Three points of contact means that two hands and one foot or one hand and two feet are in contact with the telehandler or the ground at all times during entering and exiting.

**⚠ WARNING**

**Operator should not use any telehandler that:**

- **does not appear to be working properly.**
- **has been damaged or appears to have worn or missing parts.**
- **has alterations or modifications not approved by the manufacturer.**
- **has safety devices which have been altered or disabled.**
- **has been tagged or locked out for non-use or repair.**
- **bears an unapproved attachment.**

**Failure to avoid these hazards could result in death or serious injury.**

## 2.4 Jobsite Inspection

Be sure to follow all local, provincial/territorial/ state and national regulations related to operating variable reach rough terrain forklifts. Do not use the telehandler in hazardous locations.

Perform a thorough jobsite inspection prior to operating the telehandler to identify potential hazards in your work area.

It is the responsibility of the operator to perform a job site inspection and avoid the following hazardous situations:

- holes or drop-offs
- ditches or soft fills
- floor obstructions, bumps or debris
- overhead obstructions
- electrical cords, hoses and high voltage conductors
- hazardous locations
- inadequate surface support to withstand all load forces imposed by the telehandler
- wind and weather conditions
- the presence of unauthorized personnel
- other possible unsafe conditions

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# Section 3 – Familiarization

**⚠ WARNING**

**Do not operate this telehandler without proper authorization and training. Failure to avoid this hazard could result in death or serious injury.**

**⚠ WARNING**

**It is the responsibility of the operator to read, completely understand and follow all instructions and warnings contained in this operating manual and on the telehandler.**

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FAMILIARIZATION

# 3.1 Component Identification

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***Figure 04*** *Operator's Cab*

## 3.2 Manual Storage Box

This weather-resistant box is mounted at the back of the operator's seat ❶. It contains the operating manual and other important documentation. The operating manual for this make and model of telehandler must remain with the telehandler and should be stored in this box.

***Figure 05*** *Manual Storage Box*

## 3.3 Control Functions

### 3.3-1 Operator's Cab Controls

❷ **Steering Wheel:** Turn the steering wheel to the left or right to steer the telehandler in the corresponding direction. Three steering modes are available. Refer to Section 5.3.

❸ **Cab Heater and Air Conditioner Controls (If Equipped):** A switch and two knobs to adjust the temperature inside the cab.

❹ **Rear View Mirror:** Allows the operator to check the surrounding area behind telehandler.

❺ **Level Indicator:** Located on the upper cross member of the overhead guard. When the ball is centred in the indicator, this indicates that telehandler frame is level.

❻ **Front Dash:** Location of controls essential to the operation of the telehandler. Refer to Section 3.3-4 for details.

❼ **Multi-functional Joystick:** A control allowing the operator to control boom and attachment operation. Refer to Section 3.3-2 or Section 3.3-3 for details.

❽ **Service Brake Pedal:** The service brake is foot operated and is used to decrease speed or stop.

❾ **Accelerator Pedal:** Press pedal to increase speed and release pedal to decrease speed.

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***Standard Multi-functional Joystick***

***Figure 06*** *Standard Muti-Functional Joystick*

## 3.3-2 Standard Multi-functional Joystick

This dual-axis lever is a multi-functional control that includes the following additional controls:

1. Frame Level Enable Switch
2. Tilt Enable Button
3. Left Auxiliary Function Button
4. Right Auxiliary Function Button

These controls allow boom operation (extend or retract and up or down), frame leveling, fork tilt, and auxiliary functions such as carriage side tilt or carriage swing. The lever returns to neutral position when released.

- **Raise the boom** by moving joystick backward .
- **Lower the boom** by moving the joystick forward .
- **Extend the boom** by moving the joystick to the right . **Retract the boom** by moving the joystick to the left .
- **Tilt attachment forward** by pressing and hold attachment tilt enable button and moving joystick forward . **Tilt attachment backwards** by pressing and holding attachment tilt enable button and moving joystick backward .
- **Frame level right** by pressing and holding frame level enable switch and moving joystick to the right . **Frame level left** by pressing and holding frame level enable switch and moving joystick to the left .
- **Left auxiliary function** (if equipped) is operated by pressing and holding the left button .
- **Right auxiliary function** (if equipped) is operated by pressing and holding the right button .

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***Premium Multi-functional Joystick (If Equipped)***

***Figure 07*** *Premium Muti-Functional Joystick*

## 3.3-3 Premium Multi-functional Joystick (If Equipped)

This dual-axis lever is a multi-functional control that includes the following additional controls:

1. Frame Level Enable Switch
2. Attachment Tilt Switch
3. Auxiliary Function Switch

These controls allow boom operation (extend or retract and u p or down), frame leveling, fork tilt, and auxiliary functions such as carriage side tilt or carriage swing. The lever returns to neutral position when released.

- **Raise the boom** by moving joystick backward .
- **Lower the boom** by moving the joystick forward .
- **Extend the boom** by moving the joystick to the right . **Retract the boom** by moving the joystick to the left .
- **Tilt attachment forward** by holding attachment tilt switch up. **Tilt attachment backwards** by holding attachment tilt switch down.
- **Frame level right** by pressing and holding frame level enable switch and moving joystick to the right . **Frame level left** by pressing and holding frame level enable switch and moving joystick to the left .
- **Left auxiliary function** and **right auxiliary function** (if equipped) are operated by pressing and holding the auxiliary function switch up or down. Hold up for a “left” function, and hold down for a “right” function.

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***Figure 08*** *Operator's Cab Dash Controls*

## 3.3-4 Operator's Cab Dash Controls

1. **Fuel Gauge:** Indicates the amount of fuel in the fuel tank. Fill the tank with ultra low sulfur diesel fuel only when the indicator needle moves below the 1/4 tank mark.
2. **Transmission Range Selector (If equipped):** Located on the direction control lever. The transmission has three speeds in either direction. Rotate handle grip to select speed range.
3. **Left and Right Turn Signals Switch (If Equipped):** This rocker switch controls left and right turn signals located on both the front and rear of the telehandler.
4. **Engine Data Display Module:** Allows the operator to select the required engine data such as engine RPM, engine temperature, voltage, and visualize it in the following formats:
   - Analogue display
   - Digital data
   - Graphics
   - Multi-data (a combination of the above)
   - Current alarm messages

   Refer to Section 5.11 for details.
5. **Left and Right Outrigger Switches (If Equipped):** Select to raise left outrigger. Select to lower left outrigger. Select to raise right outrigger. Select to lower right outrigger.
6. **Hazard Warning Light Switch (If Equipped):** The hazard warning light switch activates all four turn signals to indicate an emergency situation.
7. **Transmission Oil Temperature Indicator:** This red light indicator illuminates when the transmission oil temperature is not within the normal operating range.
8. **Rear Axle Lock Indicator:** This orange light indicates frame leveling is in slow/controlled mode, or locked mode when park and/or service brakes are applied.
9. **Glow Plug Indicator:** This light illuminates until glow plugs have completed their timed cycle. When the lamp goes out, the engine is ready to be started.

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***Figure 09*** *Operator's Cab Dash Controls*

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**10 Frame Level and Boom Interlock Indicator:** Illuminates when the boom is elevated above 40° and telehandler frame is off level by more than 4° for SJ1044/1056 TH/THS, or 3° for SJ1256 THS. For more details, See Section 3.4-6. and Section 3.4-7.

**11 Positive Air Shut-off Valve Indicator (If Equipped):** Illuminates red for a few seconds when testing the functionality of positive air shut-off valve.

**12 Reserve Brake Pressure Charge Indicator (If Equipped):** This light illuminates when reserve brake accumulator pressure is low.

**13 Ignition Switch:** This is a three position, anti-restart switch.

- When in OFF position, it turns the engine off and key can be removed.
- When in ON position, it provides power to ignition and auxiliary circuits.
- When in START position, it starts the engine; when released, key returns to ON position.

**14 Horn Button:** When depressed, the horn button activates an audible warning.

**15 12 Volt Power Port:** A convenient 12 Volt power port is located on the dashboard.

**16 Hourmeter:** This gauge records accumulated operating time of the telehandler.

**17 Park Brake Switch/Indicator:** This switch controls the spring applied, hydraulically released parking brake. Apply the parking brake by pressing the switch at the end marked (P) when the engine is running. When the brake is on, the red warning light illuminates.

**18 Capacity Charts:** This set of charts indicates operating limits specific to a telehandler model and attachments. Refer to Section 5.12.

**19 Front and Top Windshield Wiper/Washer Switch (If Equipped) :** This switch activates the wiper and the washer for the front and top windshields. Press top portion to activate washer/wiper. Press bottom portion to activate wiper.

**20 Rear Windshield Wiper/Washer Switch :** This switch activates the wiper and the washer for the rear windshield. Press top portion to activate washer/wiper. Press bottom portion to activate wiper.

***Figure 10*** *Operator's Cab Dash Controls*

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21 **Positive Air Shutoff Valve Test Switch (If Equipped) :** This switch is used for testing the functionality of the positive air shut-off valve. It allows the operator to shut off the air supply to the engine if the engine continues running after the main power is shut down. Refer to Section 3.6-1.

22 **Road Lights Switch (If Equipped) :** This switch activates the front headlights and rear tail lights.

23 **Work Lights Switch (If Equipped) :** This switch activates the front and rear work lights located on top of operator's cab.

24 **Boom Lights Switch (If Equipped) :** The boom light switch controls the light at the end of the boom.

25 **Steer Mode Switch:** This switch has three positions to allow selection of four-wheel steer, front steer and crab steer.

26 **Direction Control Lever:** This lever allows forward or reverse travel. The center position is neutral. To select forward travel, lift from lock position and move the direction control lever to the FWD forward position; for reverse travel move lever to REV.

27 **SCR (Selective Catalytic Reduction) Switch:** This switch activates and deactivates the exhaust after-treatment regeneration cycle. For details about this system and when to use the SCR switch, Refer to Section 6.2.

# 3.4 Safety Features and Devices

## 3.4-1 Reverse Alarm

The alarm produces an audible sound when REV is selected on the direction control lever.

## 3.4-2 Parking Brake

This spring-applied, hydraulically-released brake is activated by pressing the parking brake switch on the dash. It must be applied when parking the machine or in an emergency. In the event of hydraulic pressure loss the parking brake will automatically activate.

## 3.4-3 Operator's Cab

***Figure 11*** *Operator's Cab*

The operator's cab allows vision from all sides and is equipped with a falling object protection structure (FOPS) and a rollover protection structure (ROPS).

**⚠ WARNING**

**Do not make any modification to FOPS or ROPS structures. If damaged, the cab cannot be repaired. It must be replaced.**

A fully-enclosed cab with windows and door is available as an option. Included in this option are the windshield wiper(s), interior light and air heater/defroster. Air conditioner is also available as an option for fully enclosed cab.

## 3.4-4 Operator's Seat

***Figure 12*** *Operator's Seat*

1. **Seat Belt:** The operator's seat is equipped with a seat belt. Use this seat belt at all times when operating telehandler.

**⚠ WARNING**

**The seat belt must be worn at all times.**

2. **Seat:** The telehandler seat is equipped with devices which allow for the adjustment of seat ride smoothness and distance from the controls. Adjust the seat so that foot pedals, steering wheel and instrument panel controls are within easy reach of the operator.
3. **Fore and Aft Lock Lever:** This lever is located on the left side of the seat. Pushing the lever to the left unlocks the seat, allowing fore and aft adjustment.
4. **Ride Control (If Equipped):** The ride control is located at the front of the seat and is operated by means of a rotary knob. Clockwise rotation decreases the firmness while counterclockwise rotation increases the firmness.

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### 3.4-5 RAS (Rear Axle Stabilization) System

When the boom is below 40˚, the rear axle pivots freely as the telehandler travels across the terrain.

When the boom is above 40˚, the RAS System increases stability of the telehandler by automatically limiting or restricting rear axle movement.

### 3.4-6 Boom Interlock

The boom interlock feature limits the telehandler's frame leveling and boom angle (see the table below for details based on the machine model).

| Model | Frame level is limited (when boom is ≥40˚) to | Boom angle is limited to <40˚ |
|---|---|---|
| SJ1044 TH/ THS | 4˚ left and right. | If the frame level is greater than 4˚ left and right. |
| SJ1056 TH/ THS | | |
| SJ1256 THS | 3˚ left and right. | If the frame level is greater than 3˚ left and right. |

***Figure 13*** *Frame Level and Boom Interlock Light*

When activated, the **Frame Level and Boom Interlock Light** ❶ illuminates on the dash in the operator's cab. See Section 3.3-4.

### 3.4-7 Frame Level

Allows the operator to laterally level the telehandler on uneven ground before elevating a load or before travelling across a slope. Leveling the frame increases stability of the telehandler.

***Figure 14*** *Frame Level Indicator*

The frame level indicator, mounted above the windshield in the operator's cab, displays the current frame level measurement. For details on how to level the frame. See Section 5.5.

## 3.5 General Components

### 3.5-1 Outriggers (If Equipped)

Outriggers are located on the front of the telehandler frame and are deployed independently with the Left and Right Outrigger switches. See Section 3.3-4. When fully deployed, the outriggers increase forward and vertical reach for heavy loads. Refer to the Capacity Charts in the Operator's Cab for attachment-specific capacities.

***Figure 15*** *Outriggers in raised position.*

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# 3.6 Optional Equipment

The following descriptions are for identification, explanation and locating purposes only.

## 3.6-1 Positive Air Shutoff Switch (If Equipped)

This system provides emergency over-speed shutdown protection for the engine. The engine will shut down and a red indicator light on the dash will illuminate for a few seconds.

When red indicator light is illuminated, telehandler will have no power and engine will not turn on.

## 3.6-2 Reserve Braking System (If Equipped)

In addition to the service brake, telehandlers equipped with this option have a secondary braking system.

When the red warning light illuminates, stop the telehandler immediately and have it serviced by a trained technician.

**⚠ WARNING**

**Do not operate telehandler when red indicator light is illuminated. Stop telehandler and have it serviced by a qualified/competent repair personnel.**

## 3.6-3 Flashing Beacon (If Equipped)

The flashing beacon is located on top of the operator's cab. This light is operational when key is in on | position.

***Figure 16*** *Flashing Beacon*

## 3.6-4 Road Lights, Boom Lights & Work Lights (If Equipped)

The boom lights are mounted at the front of the main boom section.

The work lights are mounted on the frame as well as on top of the operator's cab.

The road lights (front headlights and taillights) have two settings; high beam and low beam headlights.

## 3.6-5 Fire Extinguisher (If Equipped)

The fire extinguisher is mounted to the frame at the rear left side of the telehander, beside the engine air intake access door.

## 3.6-6 Back-up Sensor with Display Buzzer (If Equipped)

The back-up display buzzer is mounted to the dash inside the cab and warns the operator of objects behind the telehandler. When an object is detected, the buzzer beeps continuously and the **range indicator lights** ❶ illuminate. As objects become closer, beeping increases in frequency and more range indicator lights illuminate.

***Figure 17*** *Back-up Display Buzzer*

❶ **Range Indicator Lights:** These lights illuminate from left to right to indicate a relative distance to the closest detected object.

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## 3.6-7 Back-up Sensor/Camera with Monitor (If Equipped)

The back-up monitor is mounted on the dash inside the cab and operational when the key switch is in on position. When active, the monitor displays the area behind the telehandler. A green **status symbol** ❸ indicates the sensor and camera are connected and no objects are detected.

When in reverse and objects are detected, the monitor beeps, the status symbol turns red, and **range symbols** ❷ indicate distance to the objects. As objects become closer the range symbols increase in number and change to red. Five symbols indicate immediate proximity.

***Figure 18*** *Back-up Monitor and Symbols*

❶ **Back-up Monitor**

❷ **Range Indicator symbols**

❸ **Sensor/Camera status symbol**

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## 3.7 Optional Attachments

The Skyjack TH/THS series telehandler is designed to accept a variety of optional “Quick Attach” attachments aside from regular fork carriage attachment.

**NOTE**

*Do not elevate personnel--use of personnel work platform is not permitted.*

### 3.7-1 Side Tilt Carriage

***Figure 19*** *Side Tilt Carriage*

The side tilt carriage allows carriage to tilt to either side.

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect side tilt carriage attachment. Refer to Section 5.13-1 and Section 5.13-2.

**Operation**

1. Make sure the side tilt carriage attachment is positioned perpendicular to the load, and that the load is centered with the carriage.
2. To operate using the **Standard Multi-functional Joystick**:
   - To tilt carriage left, hold the left auxiliary function button down.
   - To tilt carriage right hold right auxiliary function button down.
3. To operate using the **Premium Multi-functional Joystick (if equipped)**:
   - To tilt carriage left, hold auxiliary function switch up.
   - To tilt carriage right, hold auxiliary function switch down.
4. Handle load the same as regular fork carriage attachment. Refer to Section 5.8 and Section 5.9.

### 3.7-2 Swing Carriage

***Figure 20*** *Swing Carriage*

Swing carriage allows forks to swing left or right, reducing the needed turn angle of telehandler when placing loads. This is used for maneuvering loads in tight locations.

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect swing carriage attachment. Refer to Section 5.13-1 and Section 5.13-2.
2. Connect auxiliary hydraulic hoses to swing carriage attachment cylinders.

**Operation**

1. Using optional attachment controller, ensure the swing carriage attachment is positioned perpendicular to the load.
2. To operate using the **Standard Multi-functional Joystick**:
   - To swing carriage left, hold left auxiliary function button down.
   - To swing carriage right hold right auxiliary function button down.
3. To operate using the **Premium Multi-functional Joystick (if equipped)**:
   - To swing carriage left, hold auxiliary function switch up.

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- To swing carriage right, hold auxiliary function switch down.

4. Handle load the same as regular fork attachment. Refer to Section 5.8 and Section 5.9.

### 3.7-3 Block Forks

***Figure 21*** *Block Forks*

The block forks are used primarily to load/unload and place cubes of concrete or cement blocks. Block forks are designed to be accepted on all carriages provided they are equidistant.

**Installation Procedure**

1. Refer to Section 5.13-4 to change the forks.

**IMPORTANT**

**Make sure the forks are equally spaced.**

**Operation**

1. Using the optional attachment controller, make sure the carriage attachment and forks are positioned perpendicular to the load, and that the load is centered with the carriage.
2. Handle the load the same as a regular fork attachment, making sure all the forks are in contact with the load at all times. Refer to Section 5.8 and Section 5.9.

### 3.7-4 Jib Boom

***Figure 22*** *Jib Boom*

A jib boom is an attachment with a hook or jib eye load connection. This connection is used for extending the forward reach and lift height of the telehandler at the expense of load capacity.

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect truss boom attachment. Refer to Section 5.13-1 and Section 5.13-2.

**Operation**

1. Using boom controller, adjust jib boom over the center of the load.
2. Attach load to the hook using sufficient chains/cables.
3. While helpers guide the load, position load at placement point.

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## 3.7-5 Loader Bucket

***Figure 23*** *Loader Bucket*

A loader bucket has a high back and straight sides for cutting into piles of low density materials. This attachment is used for light material handling such as snow removal or transporting of grains and other loose materials. Material buckets are not meant for excavation as high twisting loads can damage the boom.

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect material bucket. Refer to Section 5.13-1 and Section 5.13-2.

**Operation**

1. Raise or lower boom to appropriate height for loading material from stockpile.
2. Position telehandler so that it is perpendicular to the stockpile. Drive slowly and smoothly into pile to load bucket.
3. Tilt bucket backwards enough to retain the load and back away from pile.
4. Drive to the unloading point and keep bucket approximately 4 ft above the ground.
5. Tilt bucket forward to dump load.

## 3.7-6 Truss Boom

***Figure 24*** *Truss Boom*

A truss boom is an attachment with a hook or jib eye load connection. This connection is used for extending the forward reach and lift height of the telehandler at the expense of load capacity.

**⚠ WARNING**

**Mounting truss boom changes center of gravity of telehandler. Consult capacity charts specific to attachment before handling loads.**

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect truss boom attachment. Refer to Section 5.13-1 and Section 5.13-2.

**Operation**

1. Using boom controller, adjust truss boom over the center of the load.
2. Attach load to the pintle hook using sufficient chains/cables.
3. While helpers guide the load, position load at placement point.

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## 3.7-7 Fork Positioner

***Figure 25*** *Fork Positioner*

The fork positioner attachment allows operators to accurately and easily adjust the distance between forks to suit different size pallets.

**Installation Procedure**

1. Remove fork attachment or other attachment from boom and connect fork positioner attachment. See Section 5.13-1 and Section 5.13-2.
2. Connect auxiliary hydraulic hoses.

**Operation**

1. To operate using the **Standard Multi-functional Joystick**:
   - To move forks further apart, hold left auxiliary function button down.
   - To bring forks closer together hold right auxiliary function button down.
2. To operate using the **Premium Multi-functional Joystick (if equipped)**:
   - To move forks further apart, hold auxiliary function switch up.
   - To bring forks closer together, hold auxiliary function switch down.
3. Handle load the same as regular fork attachment. Refer to Section 5.8 and Section 5.9.

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# Section 4 – Pre-operation

## 4.1 Operator's Responsibility

It is the operator's responsibility, prior to each work shift, to perform the following:

1. **Visual and Daily Maintenance Inspections**
   - Designed to discover any damage of components before the telehandler is put into service.
   - Completed before the operator performs the function tests.

**⚠ WARNING**

**Failure to locate and repair damage, and discover loose or missing parts may result in an unsafe operating condition.**

2. **Function Tests**
   - Designed to discover any malfunctions before the telehandler is put into service.

**IMPORTANT**

**The operator must understand and follow the step-by-step instructions to test all telehandler functions.**

The operator should make a copy of the Operator's Checklist, See Section 4.4 and fill out the visual and daily maintenance inspections and the function tests sections while performing the items outlined in this section.

**IMPORTANT**

**If telehandler is damaged or any unauthorized variation from factory-delivered condition is discovered, telehandler must be tagged and removed from service.**

Repairs to the telehandler may only be made by a qualified service technician. After repairs are completed, the operator must perform visual and daily maintenance inspections and function tests again.

Scheduled maintenance inspections must only be performed by a qualified service technician.

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## 4.2 Visual & Daily Maintenance Inspections

Before performing the visual and daily maintenance inspections, ensure that the telehandler is parked on a firm level surface.

Begin the visual and daily maintenance inspections by checking each item in sequence for the conditions listed in this section.

**WARNING**

**To avoid injury, do not operate a telehandler until all malfunctions are corrected.**

**WARNING**

**To avoid possible injury, ensure telehandler power is off during your visual and daily maintenance inspections.**

**NOTE**

*While performing visual and daily inspections in different areas, be aware to also inspect all switches, electrical and hydraulic components.*

### 4.2-1 Labels

Refer to Section 8 – Labels in this manual and determine that all labels are in place and are legible.

### 4.2-2 Electrical

Maintaining the electrical components is essential to good performance and service life of the telehandler.

Ensure proper operation of all gauges.

Inspect the following areas for chafed, corroded and loose wires:

- boom wiring harnesses
- frame wiring harnesses
- cab wiring harnesses

Ensure electrical devices are properly secured with no signs of damage. Ensure there are no loose or missing parts.

### 4.2-3 Hydraulic

Maintaining the hydraulic components is essential to good performance and service life of the telehandler Perform a visual inspection and check for leaks around the following areas:

- hydraulic tank, filter(s), fittings, hoses, pump, and frame surface
- all hydraulic cylinders
- all hydraulic manifolds
- underside of the frame
- ground area under the telehandler

### 4.2-4 Cylinders

Ensure all cylinders are properly secured and there is no evidence of leakage or signs of visible damage.

Grease weekly and check pins and bushings to ensure there is no evidence of damage.

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## 4.2-5 Mirrors

Ensure **mirrors** ❶ are properly secured, and with no signs of visible damage.

## 4.2-6 Frame

❷ **Wheel/Tire Assembly:** Tire and/or wheel failure could result in a telehandler tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

- Check all tire treads and sidewalls for cuts or cracks that expose the cord plies.
- Check for punctures, holes and unusual wear.
- Check each wheel rim for damage and cracked welds.
- Check each **lug nut** ❸ for proper torque to ensure none are loose. See Section 7.3 for wheel/tire specifications.

❹ **Foam-filled Tires:** Tire condition can vary significantly depending on telehandler use, job site environment and preventative maintenance measures. Inspect tires periodically and pay extra attention to the following:

- Check for punctures or holes. Ensure they do not exceed a diameter of 1 in.

**⚠ WARNING**

**If any tire does not meet the criteria outlined above, remove telehandler from service and replace wheel/tire immediately.**

**⚠ WARNING**

**Do not use tires other than those specified for this machine. Do not mix different types of tires. Tires other than those specified can adversely affect stability. Failure to operate with matched, approved tires in good condition can result in death or serious injury. Replace tires with exact, Skyjack-approved types only.**

❺ **Drive Axles**

- Ensure drive axles are properly secured, there are no loose or missing parts, all fittings and hoses are properly tightened and there is no evidence of oil leakage.

❻ **Steer Cylinder**

- Ensure steer cylinders are properly secured, there are no loose or missing parts, all fittings and hoses are properly tightened and there is no evidence of hydraulic oil leakage.

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8 **Battery:** Proper battery condition is essential to good engine performance and operational safety. Improper fluid levels or damaged cables and connections can result in engine component damage and hazardous conditions.

**⚠ WARNING**

**Battery acid is extremely corrosive. Wear proper eye and facial protection as well as appropriate protective clothing. If contact occurs, flush with cold water and seek medical attention immediately.**

1. Check battery case for damage.
2. Clean battery terminals and cable ends thoroughly with a terminal cleaning tool or wire brush.
3. Ensure all battery connections are tight.
4. If applicable, check battery fluid level. If plates are not covered by at least 1/2 in (13 mm) of solution, add distilled or demineralized water.
5. Replace battery if damaged or incapable of holding a lasting charge.

**⚠ WARNING**

**Use original or manufacturer-approved parts and components for the telehandler.**

**⚠ WARNING**

**Explosion hazard. Keep flames and sparks away. Do not smoke near batteries.**

9 **Outriggers (If Equipped)**

- Ensure outrigger cylinders are properly secured and there are no signs of leakage.
- Ensure there are no missing parts with no signs of damage.

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**10 Engine Intake Air Filter**

- Ensure there are no loose or missing parts with no signs of damage.
- Ensure **air cleaner vaccuator valve 11** is free from dirt or dust by squeezing the valve lips.
- Check **air cleaner service indicator 12** and replace filter element if needed.

**13 Fuel Tank**

## IMPORTANT

**Before using your telehandler ensure there is enough fuel for expected use.**

- Ensure fuel filler cap is secure.
- Ensure tank shows no signs of damage and no signs of fuel leakage.

- **Fuel Leaks:** Failure to detect and correct fuel leaks results in an unsafe condition. An explosion or fuel fire may cause serious injury or even death! Perform a visual inspection around the following areas:
  - hoses and fittings
  - fuel pump
  - fuel filter
  - fuel tank

## ⚠ WARNING

**Engine fuels are combustible. Inspect the telehandler in an open, well-ventilated area away from heaters, sparks and flames. Always have an approved fire extinguisher within reach.**

**14 Diesel Exhaust Fluid (DEF) Tank (If equipped)**

- Ensure tank cap is secure.
- Ensure DEF tank shows no signs of damage and/or leakage.

## IMPORTANT

**Before using your telehandler ensure that there is enough DEF for expected use.**

**15 Hydraulic Oil Tank**

- Ensure hydraulic filler cap is secure.
- Ensure tank shows no signs of damage and/or hydraulic leakage.

**16 Hydraulic Oil**

- Be sure that the boom is in the lowered and stowed position, and then visually inspect the sight gauge located at the rear of the hydraulic oil tank.
- Add fresh, clean hydraulic oil as required. See Section 7.4 for recommended oil type.

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## 4.2-7 Engine Compartment

- Ensure compartment cover is secure and in proper working order.

**⚠ WARNING**

**Beware of hot engine components.**

❶ **Engine Oil Level on Dipstick**
Maintaining the engine components is essential to good performance and service life of the telehandler.

- Oil level should be between the “L” low and “H” high marks. Add oil as needed. See Section 7.4 for recommended oil type.

❷ **Engine Coolant .**

**⚠ WARNING**

**Pressurized fluid present in radiator. Never open radiator cap when hot.**

- Check coolant level on radiator.
- Add coolant as required.

❸ **Belts**

- Ensure belts are in good working condition and have correct tension. Replace if belts are cracked, frayed, or have chunks of material missing. Refer to service manual for proper replacement procedure.

❹ **Hydraulic Oil Pump**

- Ensure there are no loose or missing parts and there is no visible damage.
- Ensure all bolts are properly tightened.
- Ensure all fittings and hoses are properly tightened and there is no evidence of hydraulic oil leakage.

❺ **Fuel/Water Separator**

- Ensure there are no loose or missing parts and there is no visible damage.
- Ensure all fittings and hoses are properly tightened and there is no evidence of fuel leaks.
- Drain water by opening water drain plug at bottom of filter. Close tightly after inspection.

## 4.2-8 Transmission

- Ensure transmission shifter is working properly and there is no evidence of damage.

❻ **Check oil level on Transmission Oil Dipstick :**

1. Place the transmission range selector to “N” neutral and engage parking brake switch (P) .
2. Oil level must be in the “safe” zone. Add oil as needed. See Section 7.4 for recommended oil type.

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## 4.2-9 Boom

- Ensure there are no loose or missing parts and there is no visible damage.
- Ensure all bolts and pins are properly tightened.
- Ensure there are no visible cracks in welds or structure and there are no signs of deformation.
- Ensure all hoses are properly tightened and there is no evidence of hydraulic leakage.

1 **Boom Angle Switches**

- Ensure boom angle switches are properly secured with no signs of visible damage.

2 **Slide Pads**

- Ensure all bolts are tight, there is no visible damage to the slide pads and that no parts are missing.

3 **Chains**

- Ensure there are no loose or missing parts and there is no visible damage

4 **Boom Angle Indicator**

- Ensure all bolts are tight, and there is no visible damage and indicator swings freely.

## 4.2-10 Lifting Attachment

5 Ensure attachment is properly positioned and secured. See Section 5.13.

- Ensure there are no loose or missing parts and there is no visible damage.

## 4.2-11 Grease Fittings

Maintaining properly greased components is essential for good performance and service life of the telehandler. If components are improperly greased, it could result in component damage.

6 Greased component locations

**⚠ WARNING**

**Ensure that there are no personnel or obstructions in maintenance area.**

Greasing intervals are based on average telehandler usage. Use of telehandler may vary significantly and greasing frequency must be adjusted to obtain maximum service life.

Refer to the Daily and Weekly Maintenance Chart located inside operator's cab for grease points location and service intervals.

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## 4.2-12 Operator's Cab

**1 Rollover and Falling Object Protective Structure (ROPS/FOPS)**

- Ensure there is no visible damage.

**⚠ WARNING**

**Do not modify, drill or alter the operator's cab in any way.**

**2 Seat**

- Ensure seat is properly secured with no sign of visible damage.
- Ensure seat belt is working properly with no sign of visible damage.

**3 Pedals**

- Ensure brake and accelerator pedals are secure, no loose or missing parts, no sign of visible damage and movements are not obstructed.

**4 Manual**

- Ensure that the manual storage box is present and in good condition.
- Ensure a copy of operating manual, and other important documentation are enclosed in manual storage box.
- Ensure manual is legible and in good condition.
- Always return manual to the manual storage box after use.

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## 4.2-13 Operator's Cab Controls

**WARNING**

**Ensure that you maintain three points of contact to mount/dismount the cab.**

- Use the steps of telehandler to access operator's cab.
- Ensure door and windows (if equipped) are secure and in proper working order.
- Ensure **operator's cab controls** ❶ (refer to Section 3.3-1) are secured with no sign of visible damage.
- Ensure **multi-function joystick** ❷ (refer to Section 3.3-2 or Section 3.3-3) is secured, movements are not obstructed and, with no sign of visible damage.
- Ensure **operator's dash controls** (refer to Section 3.3-4) ❸ are properly secured, returned to their neutral position, with no sign of visible damage.
- Ensure **capacity charts** ❹ are in place and are legible.

**WARNING**

**Do not operate the telehandler if capacity charts are missing or not legible.**

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## 4.3 Function Tests

Function tests are designed to discover any malfunctions before telehandler is put into service. The operator must understand and follow step-by-step instructions to test all telehandler functions.

Prior to performing function tests, be sure to read and understand Section 5 – Operation.

**IMPORTANT**

**Never use a malfunctioning telehandler. If malfunctions are discovered, telehandler must be tagged and placed out of service. Repairs to telehandler may only be made by a qualified service technician. After repairs are completed, the operator must perform visual and daily maintenance inspections & function tests again.**

**⚠ WARNING**

**Ensure that there are no personnel or obstructions in test area and that there is sufficient room to test all telehandler functions.**

### 4.3-1 Test Starter Operation

**⚠ WARNING**

**Ensure that you maintain three points of contact to mount/dismount the cab.**

1. Enter cab and close door (if equipped).

**⚠ WARNING**

**The seat belt must be worn at all times.**

2. Sit in the driver's seat and fasten seat belt.
3. Using a spotter, adjust the mirrors.
4. Ensure parking brake is engaged and shift lever is in neutral. Ensure all controls/switches are in neutral position
5. Insert key into **ignition switch** ❶ and select on | position.
   - **Result: Engine data display module** ❷ and **glow plug indicator light** ❸ should turn on.
6. Wait until glow plug indicator light turns off then turn the key to start position until engine starts then return key to on | position.

**⚠ WARNING**

**DO NOT over crank the starter. Do not crank for more than 15 seconds. Wait for 15 minutes before attempting to start engine again. If engine fails to start after multiple attempts, contact qualified/competent repair personnel.**

**IMPORTANT**

**If the DEUTZ Engine Display Module displays an error message when engine is running, immediately shut down the telehandler and have it serviced.**

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## 4.3-2 Test Horn

1. Push horn on steering wheel.
   - **Result:** Horn should sound.

## 4.3-3 Test Lights (If Equipped)

1. Use a spotter to check if all lights are working well. The spotter should maintain a safe distance from telehandler.
2. Turn **parking brake switch** ❶ to off position.
   - **Result:** Rear brake lights should turn off.
3. Depress service brake pedal.
   - **Result:** Rear brake lights should turn on.
4. Select **boom lights switch** ❷ (if equipped) to on position.
   - **Result:** Boom lights should turn on.
5. Select the **front work lights switch** ❸ (if equipped) to on position.
   - **Result:** Front work lights should turn on.
6. Select the **front/rear work lights switch** ❹ (if equipped) to on position.
   - **Result:** Front/rear work lights should turn on.
7. Select **low beam headlights switch** ❺ to on position.
   - **Result:** low beam headlights and tail light should turn on.
8. Select **high beam headlights switch** ❻ to on position.
   - **Result:** High beam headlights & taillights should turn on.

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*Standard Multi-functional Joystick*

*Premium Multi-functional Joystick (If Equipped)*

## 4.3-4 Test Boom Functions

**WARNING**

**Ensure there are no personnel or obstructions in test area and there is sufficient room to test all telehandler functions.**

1. Ensure the park brake is engaged.
2. Raise the boom by moving the **joystick** ❶ backward.
   - **Result:** Boom should raise and boom angle indicator should be functioning.
3. Extend the boom by moving the joystick to the right.
   - **Result:** Boom should extend and boom extension indicators are visible.
4. Retract the boom by moving the joystick to the left.
   - **Result:** Boom should retract.
5. Lower the boom by moving the joystick forward.
   - **Result:** Boom should lower.
6. Lower the boom until attachment is approximately 2 feet above the ground.

## 4.3-5 Test Attachment Functions

**Standard Multi-functional Joystick:**

1. Tilt attachment forward by pressing and holding the **carriage tilt enable button** ❷ while moving the joystick forward.
   - **Result:** Attachment should tilt forward.
2. Tilt attachment backward by pressing and holding the carriage tilt enable button while moving the joystick backward.
   - **Result:** Attachment should tilt backward.

**Premium Multi-functional Joystick (If Equipped):**

1. Tilt attachment forward by pressing and holding the **attachment tilt switch** ❸ up.
   - **Result:** Attachment should tilt forward.
2. Tilt attachment backward by pressing and holding the attachment tilt switch down.
   - **Result:** Attachment should tilt backward.

**NOTE**

*Ensure to test all attachment functions if telehandler is equipped with optional attachments. Refer to Section 3.7 and Section 5.13 for details about each attachment and installation/operation.*

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***Standard Multi-functional Joystick***

***Premium Multi-functional Joystick (If Equipped)***

## 4.3-6 Test Frame Leveling and Level Indicator

1. Ensure park brake is engaged, boom fully retracted and below 40°.
2. Tilt the frame to the right by pressing and holding **frame level enable switch** ❹ and moving the joystick to the right.
   - **Result:** Frame should tilt to the right, and frame level indicator should indicate movement to the right.
3. Tilt frame to the left by pressing and holding frame level enable switch and move the joystick to the left.
   - **Result:** Frame should tilt to the left, and frame level indicator should indicate movement to the left.
4. Level the machine by pressing and holding frame level enable switch and moving the joystick to the right. Frame level indicator should be at 0°.

## 4.3-7 Test Boom Interlock & Rear Axle Stabilization (RAS) System

1. Ensure park brake is engaged, transmission shifter in neutral, boom fully retracted and below 30°.
2. Frame level left and stop when the frame level indicator (see Figure 26) reads:
   - Over 5° and less than 6° for SJ1044/1056 TH/THS.

     OR
   - Over 4° and less than 5° for SJ1256 THS.

***Figure 26*** *Frame Level Indicator*

3. Raise the boom.
   - **Result:** boom should raise then stop raising at 40° and the interlock light should illuminate.
4. Frame level left.
   - **Result:** Frame should NOT tilt to the left.
5. Frame level right.
   - **Result:** Frame should tilt to the right in slow mode, interlock light should go out, then frame level function should stop before 5° (for SJ1044/1056 TH/THS) or 4° (for SJ1256 THS) and the interlock light should re-illuminate.
6. Level the machine until frame level indicator reads 0°.
   - **Result:** Frame should tilt to the left and interlock light should go out.
7. Raise the boom above 40°.
   - **Result:** Boom should raise fully.
8. Lower the boom while carefully observing the frame level indicator.
   - **Result:** Boom should lower and as boom passes below 40°, operator should observe the frame level indicator angle shift by 0.5° to 1.5°.

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## 4.3-8 Test Accelerator Pedal

1. Ensure parking brake is engaged and **transmission range selector** ❶ is in neutral.
2. Press **accelerator pedal** ❷ slowly.
   - **Result:** The engine RPM should increase.
3. Release the accelerator pedal.
   - **Result:** The engine RPM should decrease.

## 4.3-9 Test Reverse Alarm, Driving, and Service Brake

1. Ensure park brake is engaged and transmission is in neutral.
2. Depress **service brake pedal** ❸ and ensure path of intended motion is clear.
3. Release parking brake.
   - **Result:** Parking brake indicator light should turn off.
4. Move transmission lever to REV reverse position and release the service brake pedal slowly.
   - **Result:** Telehandler should move backward and reverse alarm should sound.
5. Depress service brake pedal slowly.
   - **Result:** Telehandler should stop.
6. Move transmission shifter to FWD (1st gear for powershift transmission) and slowly release the service brake pedal.
   - **Result:** Telehandler should slowly move forward.
7. Depress service brake pedal slowly.
   - **Result:** Telehandler should stop.
8. Return transmission lever to neutral position and engage parking brake.

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## 4.3-10 Test Parking Brake

**WARNING**

**The seat belt must be worn at all times.**

1. Ensure telehandler is on a firm, level surface.
2. Ensure the path of intended travel is clear and area around telehandler is clear of any personnel or obstructions.
3. Depress service brake, move **parking brake switch** ❶ to off position.
   - **Result:** Parking brake indicator light should turn off.
4. Move transmission lever to FWD, (1st gear for powershift transmission) and gradually release service brake pedal.
   - **Result:** Telehandler should roll forward.
5. Move parking brake switch to on position.
   - **Result:** Parking brake should engage, telehandler should stop immediately (less than two seconds), and parking brake indicator light should illuminate.

## 4.3-11 Test Steering

**CAUTION**

**Before changing steering modes, bring all four wheels into alignment (i.e., in the straight-ahead position).**

**WARNING**

**Before driving on public roads and highways check the alignment of the wheels and drive with FRONT steering only.**

**WARNING**

**Do not change steer mode while telehandler is traveling.**

**NOTE**

*Avoid steering the wheels while telehandler is stationary.*

1. **Four-wheel Steering. See** Figure 2727**.**
   1. Ensure path of intended motion is clear.
   2. Ensure all four wheels are aligned straight ahead.
   3. Depress and hold service brake pedal. Release parking brake.
   4. Press the upper portion of the **steering mode selector switch** ❷ for four-wheel steering.
   5. Turn the steering wheel to the left or right and drive forward.

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***Figure 27*** *Four-wheel Steering*

***Figure 28*** *Front Steering*

***Figure 29*** *Crab Steering*

- **Result**: Telehandler moves in the chosen direction, producing a turning circle, with front wheels pointing in the opposite direction to the rear wheels.

6. Steer telehandler straight ahead until all four wheels are aligned.
7. Press service brakes pedal until the telehandler stops.

## ⚠ WARNING

**Do not use four wheel steering mode when driving on public roads and highways.**

**Do not travel at high speeds (3rd gear, for powershift transmission) when using four wheel steering mode.**

2. **Front Steering. See Figure 28.**
   1. Select steering mode selector switch to middle position for front steering.
   2. Turn steering wheel to the left or right and drive forward.
   - **Result:** Only telehandler front wheels turn in the chosen direction.
   3. Steer telehandler straight ahead until all four wheels are aligned.
   4. Press service brakes pedal until the telehandler stops.
3. **Crab Steering. See Figure 29.**
   1. Press the lower portion of the steering mode selector switch to backward for crab steering.
   2. Turn the steering wheel left or right and drive forward.
   - **Result:** Telehandler should move in chosen direction with both front and rear wheels in the same direction.
   3. Steer telehandler straight ahead until all four wheels are aligned.
   4. Depress service brake pedal until telehandler stops.
   5. Engage park brake.

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## 4.3-12 Test Outriggers (If Equipped)

**⚠ WARNING**

**Ensure that there are no personnel or obstructions in test area and that there is sufficient room to test all telehandler functions.**

1. Ensure parking brake is engaged and transmission is in neutral.
2. Lower outriggers by pressing and holding **left and right outriggers switches** ❶ down.
   - **Result:** Outriggers lower.
3. Raise outriggers by pressing and holding left and right outriggers switches up.
   - **Result:** Outriggers raise.

## 4.3-13 Test Back-up Sensor with Display Buzzer (If Equipped)

1. Ensure engine is running and key is in on position I.
2. Ensure parking brake is engaged and transmission is in reverse.
3. Depress and hold service brake pedal. Release parking brake.
   - **Result:** Range indicator lights on the back-up sensor should illuminate and beep if an object is detected behind telehandler.
4. Engage parking brake.

## 4.3-14 Test Back-up Sensor/Camera with Monitor (If Equipped)

1. Ensure engine is running and key is in on position I.
   - **Result:** Monitor is active and displays area behind telehandler.
2. Ensure parking brake is engaged and transmission is in reverse.
3. Depress and hold service brake pedal. Release parking brake.
   - **Result:** Range symbols should appear on the monitor and beep if an object is detected behind telehandler.
4. Engage parking brake.

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## 4.4 Operator's Checklist

SKYJACK

# 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, check the appropriate box.

**P** PASS
**F** FAIL
**R** REPAIRED
**N/A** NOT APPLICABLE

| | N/A | P | F | R |
|---|---|---|---|---|
| **Visual and Daily Maintenance Inspections** | | | | |
| Labels | | | | |
| Electrical | | | | |
| Hydraulic | | | | |
| Cylinders | | | | |
| Mirrors | | | | |
| Frame | | | | |
| Wheel/Tire Assembly | | | | |
| Foam-filled Tires | | | | |
| Drive Axles | | | | |
| Steer Cylinder | | | | |
| Battery | | | | |
| Outriggers (If Equipped) | | | | |
| Engine Intake Air Filter | | | | |
| Fuel Tank | | | | |
| Fuel Leaks | | | | |
| DEF Tank | | | | |
| Hydraulic Oil Tank | | | | |
| Hydraulic Oil | | | | |
| Engine Compartment | | | | |
| Engine Oil Level on Dipstick | | | | |
| Engine Coolant | | | | |
| Belts | | | | |
| Hydraulic Oil Pump | | | | |
| Fuel/Water Separator | | | | |
| Transmission | | | | |
| Oil Level on Transmission Oil Dipstick | | | | |
| Boom | | | | |
| Boom Angle Switch | | | | |
| Slide Pads | | | | |
| Chains | | | | |
| Boom Angle Indicator | | | | |

| | N/A | P | F | R |
|---|---|---|---|---|
| Lifting Attachment | | | | |
| Grease Fittings | | | | |
| Operator's Cab | | | | |
| ROPS/FOPS | | | | |
| Seat | | | | |
| Pedals | | | | |
| Manual | | | | |
| Operator's Cab Controls | | | | |
| **Function Tests** | | | | |
| Test Starter Operation | | | | |
| Test Horn | | | | |
| Test Lights (If Equipped) | | | | |
| Test Boom Functions | | | | |
| Test Attachment Functions | | | | |
| Test Frame Leveling and Level Indicator | | | | |
| Test Boom Interlock and RAS System | | | | |
| Test Accelerator Pedal | | | | |
| Test Reverse Alarm, Driving, and Service Brake | | | | |
| Test Parking Brake | | | | |
| Test Steering | | | | |
| Test Outriggers (If Equipped) | | | | |
| Test Back-up Sensor with Display Buzzer (If Equipped) | | | | |
| Test Back-up Sensor/Camera with Monitor (If Equipped) | | | | |

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**NOTE:** *Make a copy of this page or visit the Skyjack website at www.skyjack.com for a printable copy.*

# Section 5 – Operation

This section provides the necessary information needed to operate the telehandler. Read and completely understand the operating manual and all warnings and instruction labels. See Section 8 – Labelson the telehandler.

**⚠ WARNING**

**DO NOT operate this telehandler without proper authorization and training. Doing so could result in death or serious injury.**

Before operating this telehandler, perform the following tasks:

1. Visual and daily maintenance inspections, See Section 4.2
2. Function tests, See Section 4.3.
3. Jobsite inspection, See Section 2.4.
4. If, as a result of the risk assessment, the need for rescue planning is identified, a system of communication shall be established between people working on the platform and nominated support personnel trained in the use of ground controls for platform retrieval.

**⚠ WARNING**

**An operator should not use any telehandler that:**

- **does not appear to be working properly.**
- **has been damaged or appears to have worn or missing parts.**
- **has alterations or modifications not approved by the manufacturer.**
- **has safety devices which have been altered or disabled.**
- **has been tagged or blocked out for non-use or repair.**

**Failure to avoid these hazards could result in death or serious injury.**

**⚠ WARNING**

**DO NOT operate telehandler under engine power in an enclosed space. Use only in an open or well-ventilated area.**

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# 5.1 Starting the Engine

**⚠ WARNING**

**Ensure that you maintain three points of contact to mount/dismount the cab.**

1. Enter cab and close door (if equipped).
2. Sit in the driver's seat and fasten seat belt.

**⚠ WARNING**

**The seat belt must be worn at all times.**

3. Ensure parking brake is on and gear selector in neutral position.
4. To start the engine, turn the ignition switch to on position. Turn the key to start position.

# 5.2 Driving the Telehandler

## 5.2-1 Driving on Level Terrain

**⚠ WARNING**

- **Be aware of blind spots when operating the telehandler.**
- **Ensure that there are no personnel or obstructions in the path of travel, including blind spots.**
- **When traveling at high rate of speed, use front wheel steering mode.**
- **Slow the telehandler prior to turning.**
- **Always look at the direction of travel.**
- **Travel in reverse only at slow rate of speed. Drive only as fast as conditions allow.**
- **Keep attachment or load low (18 - 24 in) to the ground which gives the best visibility and stability.**
- **Ensure outriggers (if equipped) are fully raised before driving.**

The telehandler is equipped with a powershift transmission or a continuously variable transmission. The transmissions have forward and reverse gears and the powershft transmission has speed ranges available in both directions.

1. Depress service brake pedal then lift and move transmission control lever to the desired direction of travel.
2. Release parking brake.
3. Select first gear (if equipped).
4. Slowly release service brakes pedal.
5. Press accelerator pedal slowly to increase speed.
6. **If equipped with the Powershift transmission:** Select appropriate gear for the task being performed. Select lower gear when transporting load, traveling through deep mud, rough terrain, or slopes. Select higher gears only when traveling long distances on smooth terrain without a load.
7. Always bring the telehandler to a complete stop before changing the direction of travel.

## 5.2-2 Driving on Slopes

**⚠ WARNING**

**Driving on slopes or inclines can be dangerous and result in forklift tip-over or loss of load.**

- **Avoid excessively steep slopes or unstable surfaces. Do not drive across excessively steep slopes under any circumstances.**
- **Avoid turning on slopes, if at all possible.**

1. Keep load low and proceed with caution.
2. Reduce travel speed and downshift to a lower gear (if available) before reaching a slope.
3. Ascend and descend slopes with the "heavy end" of the telehandler pointing up the slope.
   - **Without Load:** When the telehandler has no load, the rear is considered the "heavy end." Travel with the attachment pointed downhill.
   - **With Load:** When the telehandler is carrying a load, the front is considered the "heavy end." Travel with the attachment pointed uphill.

***Figure 30*** *Driving on a Slope*

4. When driving across a slope, keep frame level.

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# 5.3 Steering the Telehandler

Steering is controlled by means of the steering wheel in conjunction with the steering mode selector rocker switch for the type of steering desired.

## 5.3-1 Four-wheel Steering

This steer mode is most commonly used on the job site and will give the smallest turn radius available.

**WARNING**

**Do not use four wheel steering mode when driving on public roads and highways.**

**Do not travel at high speeds (3rd gear for powershift transmission) when using four wheel steering mode.**

***Figure 31*** *Four-wheel Steering*

## 5.3-2 Front Steering (Two-Wheel)

Two-wheel steer is used during road travel in order to reduce the risk of possible overturn due to over-steering.

**NOTE**

*Loss of electrical power will allow front steering only.*

***Figure 32*** *Front Steering*

## 5.3-3 Crab Steering

The crab steer is used for maneuvering into tight spots.

***Figure 33*** *Crab Steering*

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# 5.4 Operating the Boom

## 5.4-1 Raising or Lowering Boom

**WARNING**

**Ensure that there are no personnel or obstructions and there is sufficient room to perform all telehandler functions.**

1. To raise the boom, move the joystick backward.
2. To lower the boom, move the joystick forward.
3. Release the joystick to stop.

## 5.4-2 Extending or Retracting Boom

**WARNING**

**Ensure that there are no personnel or obstructions and there is sufficient room to perform all telehandler functions.**

1. To extend the boom, move the joystick to the right. To retract the boom, move the joystick to the left.
2. Release the joystick to stop.

# 5.5 Leveling the Telehandler

1. Tilt the frame to the right by pressing and holding the frame level enable switch and move the joystick to the right.
2. Tilt the frame to the left by pressing and holding frame level enable switch and move the joystick to the left.
3. Release the joystick to stop.

# 5.6 Tilting the Attachment

**Standard Multi-functional Joystick:**

1. Tilt attachment forward by pressing and holding the tilt enable button while moving the joystick forward.
   - **Result:** Attachment tilts forward.
2. Tilt attachment backward by pressing and holding the carriage tilt enable button while moving the joystick backward.
   - **Result:** Attachment tilts backward.

**Premium Multi-functional Joystick (If Equipped):**

1. Tilt attachment forward by pressing and holding the attachment tilt switch up.
   - **Result:** Attachment should tilt forward.
2. Tilt attachment backward by pressing and holding the attachment tilt switch down.
   - **Result:** Attachment should tilt backward.

**NOTE**

*See Section 3.7 for details about optional attachment operation.*

# 5.7 Handling Loads

**WARNING**

- **Before commencing operation, familiarize yourself with the capacity charts specific to telehandler model and attachment.**
- **Know the weight of the load and the most extreme height and distance required to pick or place the load.**
- **Do not lift load on a gradient steeper than 5%.**
- **Never position the load behind front face of the tires.**
- **Never drive the telehandler with the boom raised.**
- **Ensure not to exceed telehandler lift capacity (refer to capacity charts). Exceeding lift capacity could cause tip-over resulting in death or serious injury.**
- **When performing lift operation where the operator cannot see load at all times, the operator has to be assisted by a spotter using approved hand signals (refer to Section 1.3).**

1. Drive as close as possible to load pickup/placement site.
2. Place transmission shifter into neutral position and engage parking brake.
3. Level the frame before lifting the load.
4. Use attachment to pickup/place the load. Refer to procedures outlined in Section 3.7 for specific attachment uses.
5. If using fork attachment, tilt forks backward to stabilize the load.

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# 5.8 Handling Loads at Ground Level

**WARNING**

- **Handle only loads within the rated capacity as shown on the capacity charts mounted on the telehandler.**
- **Ensure the capacity chart used corresponds to the attachment fitted to the telehandler.**
- **Use only manufacturer's approved attachments. The use of non-approved attachments may cause telehandler instability and tip-over, which may result in sever injury or death to operators or bystanders.**
- **Ensure that the load center for the load is at or within 24 in of forks (see Figure 34).**
- **Deploy outriggers (if equipped) to stabilize the telehandler during operations involving heavy loads.**
- **Use a spotter when possible to assist in handling the load (refer to Section 1.3).**

***Figure 34*** *Load Center*

## 5.8-1 Picking up a Load

1. Move the transmission lever to neutral and apply parking brake.
2. Check that the telehandler is level using the level indicator. Adjust frame level if necessary.
3. Ensure the forks are as far apart as possible for the width of the load. This increases the stability of the load and the lift.
4. Approach load slowly with forks straight ahead and perpendicular to the load.
5. Deploy outriggers (if equipped) for maximum stability and insert forks under the load; making sure not to extend forks past the load so that any loads or equipment behind the load being lifted are not damaged, then raise it 5 to 10 in.
6. Tilt forks backwards and fully retract boom
7. Raise outriggers (if equipped), then check telehandler stability before transporting the load.

**NOTE**

*If the forks are longer than the load, move the forks under the load so that the tips of the forks do not extend beyond the load. Lift the load from the surface. Move backward a few centimeters (inches), then lower the load onto the surface and move forward to engage the load against the carriage. Tilt the forks backward just far enough to lift the load from the surface. When the boom is raised from the surface level, the tips of the forks move in an arc.*

## 5.8-2 Transporting a Load

**WARNING**

**When transporting a load, always travel according to jobsite and weather conditions.**

1. Travel with caution to the placement site with the load kept as low to the ground as possible and the attachment centered to the sub-carriage. For specific attachment uses, refer to Section 3.67.
2. Keep load against carriage and forks tilted backward. This position keeps the load on the forks and provides better forward and side stability.
3. Apply brakes smoothly to bring telehandler to a complete stop before applying parking brakes.

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### 5.8-3 Placing a Load

1. Move the transmission lever to neutral and apply parking brake.
2. Deploy outriggers (if equipped) and check that the telehandler is level using the level indicator. Adjust frame level if necessary.
3. Extend boom to the desired reach and tilt forks forward in a horizontal position.
4. Place load in a horizontal position then lower boom until load is completely off the forks. Do not apply downward force with the forks.
5. Free the forks gradually by lowering and retracting the boom alternately.
6. When forks are clear of the load, fully retract the boom.
7. Raise outriggers (if equipped) and return to transport position.

## 5.9 Handling Loads at Variable Heights

**⚠ WARNING**

- **Handle only loads within the rated capacity as shown on the capacity charts mounted on the telehandler.**
- **Ensure the capacity chart used corresponds to the attachment fitted to the telehandler.**
- **Use only manufacturer's approved attachments. The use of non-approved attachments may cause telehandler instability and tip-over, which may result in severe injury or death to operators or bystanders.**
- **Ensure that the load center for the load is at or within 24 in of forks (see Figure 34).**
- **Deploy outriggers (if equipped) to stabilize the telehandler during operations involving heavy loads.**
- **Use a spotter when possible to assist in handling the load (refer to Section 1.3).**

### 5.9-1 Picking up a Load

1. Move transmission lever to neutral and apply parking brake.
2. Check that telehandler is level using the level indicator. Adjust frame level if necessary.
3. Ensure the forks are as far apart as possible for the width of the load. This increases the stability of the load and the lift.
4. Approach load slowly, raise and extend the boom until the forks are perpendicular to the load.
5. Deploy outriggers (if equipped) for maximum stability of telehandler.
6. Extend and lower the boom to insert the forks under load; making sure not to extend forks past the load so that any loads or equipment behind the load being lifted are not damaged, then raise it 5 to 10 in.
7. Tilt forks backwards. Fully retract the boom and raise outriggers (if equipped), then check telehandler stability before transporting the load. See Section 5.8-2.

### 5.9-2 Placing a Load

1. Move transmission lever to neutral and apply parking brake.
2. Deploy outriggers (if equipped) and check that the telehandler is level using the level indicator. Adjust frame level if necessary.
3. Raise and extend boom until the load is perpendicular over placement point.
4. Place the load in a horizontal position and lower boom until the load is completely off the forks. Do not apply downward force with the forks.
5. Free the forks gradually by lowering and retracting the boom alternately.
6. When forks are clear of the load, fully retract the boom and raise outriggers (if equipped), then return to transport position.

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# 5.10 Parking and Shutting Down the Telehandler

**CAUTION**

**Operator should observe the following when parking the telehandler.**

- **Avoid parking on slopes or near excavation, ditches or soft fills. If parking on slopes cannot be avoided, ensure frame is leveled and telehandler is positioned at a right angle across the slope.**
- **Avoid parking on roads or highways. If it cannot be avoided, ensure to display warning flags during the day and flares or flashing lights at night.**

1. Position telehandler on a firm and level surface.

**WARNING**

**Always engage parking brake before leaving the cab.**

2. Bring telehandler to a full stop.
3. With foot on service brakes, engage parking brake.
4. Move transmission shift lever to neutral position.
5. Release service brake and ensure machine doesn't roll.
6. Retract boom fully and position attachment on ground.
7. Allow engine to idle for 3 to 5 minutes.
8. Shut off engine and remove key.

**WARNING**

**Ensure that you maintain three points of contact to mount/dismount the cab.**

9. Dismount from telehandler.
10. Chock or block wheels to prevent telehandler from rolling.

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# 5.11 DEUTZ Engine Data Display Module

The DEUTZ Display combines a graphic LCD display with five function buttons at the bottom of the screen. See Figure 35.

***Figure 35*** *Engine Data Display Module*

## 5.11-1 Function Buttons

1. Pressing any button calls up the main buttons menu.
2. The positioning of the symbols above the relevant button allows the button function to be changed. The buttons correspond to the following functions:

***Figure 36*** *Main Buttons Menu*

1. Engine Main Display
2. Quad Display
3. Graphic Display
4. Error Messages
5. Exit

## 5.11-2 Contrast & Illumination Settings

1. Pressing **button 5** calls up the Contrast and Illumination menu when the menu symbols are not displayed.
2. Adjust illumination using **button 1** for dimming or **button 2** for brightening the illumination.

***Figure 37*** *Setting Screen Illumination*

3. Adjust contrast by using **button 3** to decrease contrast and **button 4** to increase the contrast.

***Figure 38*** *Setting Screen Contrast*

## 5.11-3 Engine Main Display

1. To show the engine main display, press any button to display the menu symbols, then press **button 1**.

***Figure 39*** *Main Screen*

2. The top window shows two scales: engine RPM and coolant level. The bottom left window shows the instantaneous fuel consumption while the right window shows the coolant temperature.
3. Pressing **button 1** repeatedly, will display various parameters such as; fuel consumption, average fuel consumption per route and operating hours per route travelled.

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## 5.11-4 Quad Display

This display gives the user rapid access to four displays, each of which can show four instruments. Information can be shown in either digital or analog format.

1. To select the quad display, press any button to display the menu symbols and then press **button 2**.

***Figure 40*** *Digital and Analog Quad Display*

2. The screens are displayed in sequence as a response to repeatedly pressing **button 2**.
3. Using the setting mode allows the user to set every instrument shown on the screen in order to be able to display various engine parameters from a long list.
4. The setting mode is activated by pressing **button 5** when the menu is visible.
5. The menu, as shown in Figure 35, appears in the setting mode.

***Figure 41*** *Quad Display Settings*

6. Pressing **button 1** causes the top left display to roam through all available engine parameters.
7. Pressing **button 2** roams through the top right display, etc.
8. To exit the display, press **button 5**.

## 5.11-5 Graphic Display

The graphic display shows data trends in a large window and functions like an analog data recorder.

1. To access the graphic display, press any button to display the main menu symbols, then press **button 3**.

***Figure 42*** *Example of Graphic Display*

**Showing Coolant Temperature**

- The required time grid can be set in the configuration menu from 2, 10 or 30 minutes to 1, 2, 4 or 8 hours.
- The maximum and minimum values of the Y-axis that define the range of the display are automatically adapted to give an optimal overview of the visible data.
- The data to be displayed can be selected by repeatedly pressing **button 3** when in graphic display mode.

## 5.11-6 Error Messages

If a new error message is received, the DEUTZ display will beep and a flashing popup window will open with the latest error messages and details.

***Figure 43*** *Error Message Popup*

1. The error list is displayed by pressing any button. The errors that have been read appear in black text on a grey background. New messages that have not been read appear as emphasized grey text on a black background.

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The most recent error is automatically displayed when the error list is called up.

2. If the list is longer than the screen section, you can browse through the list using **buttons 1** and **2**.

***Figure 44*** *Error Message*

3. The error list cannot be exited until all alarms have been acknowledged by pressing **button 3**. The error list display can be viewed at any time by pressing **button 4**.

## 5.11-7 Display Configuration

Configuration mode allows the user to set various operating parameters and modes of the DEUTZ Display. This includes setting the units (metric or US customary), measuring range settings or engine service intervals.

1. The configuration menu can be called up by pressing and holding down **button 5** for at least 3 seconds.
2. To secure the configuration display, the display prompts you to enter a PIN number before accessing the configuration menu. The default PIN is 1111.

***Figure 45*** *PIN Pop-up*

3. Press **buttons 1, 2, 3, 4,** and finally press **button 5** to confirm the information.

***Figure 46*** *PIN Number Entry*

4. The configuration menu is displayed once the pin number has been entered.
5. **Buttons 1** and **2** allow scrolling up and down the menu, while **button 4** calls up the highlighted selection.
6. Use **button 5** to exit configuration menu or browse back a level.

**NOTE**

*Refer to the service manual of this telehandler for a list of error codes.*

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## 5.12 Use of the Capacity Charts

The capacity charts are located in the operator's cab. They are used to determine maximum load capacity for telehandler equipped with different attachment combinations.

To properly use a particular capacity chart, the operator must first determine the following:

1. Ensure the capacity chart is for the specific telehandler model and the attachment.
2. Determine the weight of the load to be lifted.
3. Ensure that the load center for the load is at or within the load center specified for the attachment.
4. Determine the height where the load is to be picked or placed.
5. Determine the reach where the load is to be picked or placed
6. The maximum capacity is determined by the intersection lines between height and reach on the capacity chart. If the intersection of the lines occurs at a division between capacity zones, the smaller of the two capacity values must be used.

**NOTE**

*The weight of the load must be equal to or less than the number in the capacity zone.*

**WARNING**

**When handling loads, ensure that boom extension indicator and boom angle indicator remain within previously determined/calculated capacity zone.**

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## 5.12-1 Examples on Reading the Capacity Chart

The Operator must verify that the capacity chart corresponds with both telehandler and attachment model number.

The following scenarios show various conditions the operator may encounter:

SAMPLE ONLY - USE CHART IN CAB

| Examples | Load Weight | Forward Reach | Lift Height | Boom Angle | Boom | Capacity | OK to Lift |
|---|---|---|---|---|---|---|---|
| 1 | 2500 lb (1 134 kg) | 21 ft (6.4 m) | 32 ft (9.7 m) | 43° | G | 3000 lb (1 361 kg) | YES |
| 2 | 2000 lb (907 kg) | 28 ft (8.5 m) | 24 ft (7.3 m) | 28° | H | 1500 lb (680 kg) | NO |
| 3 | 600 lb (272 kg) | 35 ft (10.7 m) | 8 ft (2.4 m) | 7° | I | 400 lb (181 kg) | NO |
| 4 | 3500 lb (1 588 kg) | 8 ft (2.4 m) | 52 ft (15.8 m) | 69° | I | 4000 lb (1 814 kg) | YES |
| 5 | 6500 lb (2 948 kg) | 18 ft (5.5 m) | 24 ft (7.3 m) | 36° | E | 4000 lb (1814 kg) | NO |
| 6 | 9700 lb (4 400 kg) | 7 ft (2.1 m) | 16 ft (4.9 m) | 39° | A | 10000 lb (4535 kg) | YES |

**NOTE**

*This is a sample capacity chart only! DO NOT use this capacity chart. Use chart inside cab.*

**NOTE**

*If the intersection occurs on a bold line separating the capacity regions, the smaller of the two capacity values must be used.*

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# 5.13 Attachments Installation and Adjustment

Several attachments aside from the frequently used attachment/fork combination are available for use with the telehandler. Installation and operation of other approved attachments are covered in this section.

## 5.13-1 Installing Attachments Using the Quick Attach Feature

1. Fasten the tethered pin assemblies to the apron using the pins, washers, and cotter pins. See Figure 47.
2. Ensure the apron is in the tilted forward position with the quick attach pins hanging from the tether.
3. Position the attachment on level ground.
4. Locate the boom so that the apron upper bar can be raised and tilted backwards to engage the attachment and lift it clear of the ground.
5. Engage the attachment as described in step 4, aligning the holes in the attachment for the installation of the quick attach pins at a working height.
6. Install the quick attach pins and secure them with lynch pins to the outside of the attachment.

## 5.13-2 Removing Attachments Using the Quick Attach Feature

1. Position the boom so the attachment is just above level ground.
2. Shut down engine.
3. Move the quick attach pins and lynch pins from the apron and attachment and leave them in a hanging position.
4. Start engine.
5. Lower boom and tilt the apron forward (while retracting the boom) to clear the attachment.

**⚠ WARNING**

**Visually check the attachment is correctly coupled and secured to the boom before operating the telehandler.**

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***Figure 47*** *Quick Attach Feature*

## 5.13-3 Adjusting Forks

1. Adjust the location of both forks manually to suit a pallet pocket spacing as follows:
2. Raise the boom until fork eye is approximately shoulder high.
3. Tilt the attachment forward until the fork pivots on the bar, and no longer rests on the carriage's bottom rail (see Figure 488). This prevents binding on the bar, thus aiding its repositioning.

***Figure 48*** *Fork Pivoting on the Bar*

**⚠ CAUTION**

**Be careful not to pinch fingers between the fork and any portion of the attachment.**

4. Grasping the fork near its eye, push the fork along the bar until it is in the desired position.
5. Before traveling, make sure the forks are centered with the carriage and are equally spaced.

## 5.13-4 Changing Forks

The carriage/fork combination is the most frequently used combination. Different loads may require changing forks with different ratings.

***Figure 49*** *Changing Forks*

1. Lower the boom with fork contacting the ground until approximately half of the fork float is used up.
2. Remove fork bar collars from fork bar.
3. Draw the bar out of the fork eye, being careful that the fork does not fall over, causing possible injury. See Figure 499.
4. Reverse Steps 1 to 3 to install the replacement fork.

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## 5.14 Slinging Loads

**⚠ WARNING**

**Sling loads from appropriate attachment or lifting hook to the jib boom or a tilted fork ONLY.**

***Figure 50*** *Lifting Hook*

1. Slinging of loads must only be performed following a complete risk assessment by a qualified person regarding the rigging and guiding of any such load.
2. The rated capacity of the unit and attachment at the sling position must not be exceeded. The sling must be in good repair and restrained from movement at all times.
3. Retract the boom as far as is practical during pick and carry operations.
4. Perform all boom and traveling operations slowly and smoothly to prevent the load from swinging. Avoid turning if possible.
5. Only lift the load vertically and never drag it horizontally.
6. Transport the load with the bottom of the load and the mast as low as possible.
7. Use guide lines to restrain load swing whenever possible.

## 5.15 Third-Party Attachments

Skyjack's variable reach Rough Terrain Forklifts (RTFL), are designed to lift and/or handle industrial products by means of various attachments. Skyjack does not certify the design of third-party attachments. Skyjack does not assume any responsibility or liability for damages resulting from the use of third-party attachments on any of its TH/THS RTFLs.

It is permissible to install and utilize third-party attachments provided they do not elevate personnel as the use of a personnel work platform is not permitted, and the following conditions are met:

**⚠ WARNING**

**Be sure to follow all conditions, regulations and instructions outlined below and all requirements of the local authorities. Failure to do so may result in serious injury or death.**

- The combined mass of the attachment and load must not exceed that of the RTFL load chart for the applicable load center. The rated capacity of the attachment must not be exceeded.
- In addition to the RTFL operating instructions, all instructions provided by the manufacturer of the attachment must be followed and any additional requirements of local authorities should also be followed.
- Attachments shall be designed and constructed according to ANSI/ITSDF B56.6-2016 and CSA B335, including markings identifying the combined RTFL and attachment weight, and the RTFL capacity with the attachment at maximum elevation and load laterally centered.
- The attachment must be securely attached to the RTFL, per the attachment manufacturer's instructions.
- Prior to using the attachment on each shift, the RTFL operator must visually examine the attachment for structural integrity and perform the daily inspection and function tests on the RTFL. Any equipment defects must be repaired before the attachment or RTFL can be used.

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# Notes

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# Section 6 – Additional Procedures

## 6.1 Refueling Procedure

### 6.1-1 Diesel Fuel

This section provides the operator with a procedure on how to refuel telehandler with diesel fuel.

**IMPORTANT**

**Before using your telehandler ensure there is enough fuel for expected use.**

- **Fill diesel tank with ultra low sulfur diesel only.**
- **Use extreme caution while refueling telehandler.**
- **Ensure that engine and all systems are turned off before refueling.**
- **Refuel the telehandler only in a well ventilated area away from open flame and other sources of ignition, authorized by your employer and supervisor.**
- **To minimize possible static electricity fires, ensure filler nozzle touches rim of filler opening to aid the dissipation of static electricity.**
- **Never try to start telehandler if you smell diesel.**

**⚠ WARNING**

**Do not smoke in an area where telehandlers are stored or refueled.**

1. Ensure engine and all systems are turned off.
2. Open fuel cap.
3. Carefully pour diesel fuel into the tank, ensuring no spillage occurs.
4. Close and secure fuel cap.
5. Ensure there are no leaks in fuel system.
6. Wipe up any spilled fuel.
7. Dispose of rags in an approved container.

### 6.1-2 Diesel Exhaust Fluid (DEF) (If equipped)

Diesel Exhaust Fluid is an organic urea solution needed to operate the Selective Catalytic Reduction (SCR) system.

When DEF level falls below 15% of tank capacity, an error message will pop up on the Engine Data Display Module as shown below to warn the operator of diminishing DEF level.

When DEF level falls below 10%, the error message will start flashing. Shut down engine and refill DEF tank immediately.

**IMPORTANT**

**Before using your telehandler ensure there is enough DEF for expected use.**

- **Fill DEF tank with approved urea solution only.**
- **Never fill DEF system with water or diesel.**

1. Ensure engine and all systems are turned off.
2. Open DEF tank fill cap.
3. Carefully pour diesel exhaust fluid into the tank, ensuring no spillage occurs. Refer to Section 7.4 for recommended DEF type.
4. Close and secure fill cap.
5. Ensure there are no leaks in the system.
6. Wipe up any spilled DEF.

**⚠ WARNING**

**To avoid engine and SCR system malfunction, NEVER let DEF level fall below 5% tank capacity.**

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# 6.2 Selective Catalytic Reduction (SCR) and Standstill

The SCR system is monitored for possible formation and build up of crystals (crystallization). Crystallization can occur when the engine's workload is low, or it's operating times are too short.

As soon as crystallization is detected a standstill regeneration request is issued and displayed on the screen of the DEUTZ engine data display module. See Figure 5151.

It is recommended that the operator initiate the standstill process as soon as possible after the standstill request is issued and displayed.

***Figure 51*** *Standstill Request symbol.*

## IMPORTANT

**If standstill is not performed, the engine control unit may activate Support Mode. Engine sound may change, available torque is reduced and engine speed may be limited. It is recommended to perform standstill as soon as possible once the Standstill Request is issued and displayed.**

### 6.2-1 Standstill

Perform the following steps to complete standstill regeneration:

1. Allow the engine to warm up. Coolant temperature must be at least 75˚ C.
2. Move the telehandler to an open area, away from any flammable material.

## ⚠ WARNING

**During standstill the exhaust pipe may reach very high temperatures. Hot exhaust parts can cause serious injury or ignite nearby material. Avoid contact with the exhaust pipe and park telehandler at a safe distance from flammable objects.**

3. Ensure the transmission is in neutral and the parking brake is applied.
4. Activate standstill by pressing the **SCR switch** ❶ on the dash controls.

## NOTE

*The DEUTZ engine display module displays the Standstill Ongoing symbol (see Figure 53). The engine speed may change.*

***Figure 52*** *SCR Switch on dash*

***Figure 53*** *Standstill Ongoing symbol*

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5. Standstill usually takes 35 to 40 minutes. During this time, the machine cannot be used.

## IMPORTANT

**In order to successfully complete standstill, a specific engine operating state is required and the telehandler cannot be used during the standstill process. If standstill is interrupted by operating the telehandler or turning the SCR switch off, the error message will continue to be displayed and standstill will need to be completed fully.**

6. When standstill is completed, the Standstill Ongoing symbol disappears from the display and engine speed returns to normal. The telehandler may now be used normally.

## NOTE

*Short intervals between standstill errors may be an indication of a defect . Have the engine be serviced by a trained technician as soon as possible.*

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## 6.3 Lifting SJ1044 TH/THS, SJ1056 TH/THS, & SJ1256 THS

1. Fully retract and lower boom and raise the outriggers (if equipped).
2. Turn ignition switch to the off ◯ position. Remove the key.
3. Block the rear axle by placing wood between the frame and the axle.

**⚠ WARNING**

**Use rigging with load capacity sufficient to withstand telehandler weight. Refer to the serial plate of the telehandler for specific weight.**

4. Properly adjust rigging to ensure telehandler remains level during lifting. See Center of gravity location.

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***Figure 54*** *Center of gravity*

***Figure 55*** *Lifting points*

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## 6.4 Loading, Tie-downs and Transporting

Know all national, state/provincial and local rules which apply to transporting of telehandlers.

Only qualified personnel shall operate machinery during loading and transporting.

Ensure vehicle capacity and loading equipment hoists, chains, straps, etc., are sufficient to withstand maximum telehandler weight.

The transport vehicle must be parked on a level surface and must be secured to prevent rolling while telehandler is being loaded or unloaded.

### IMPORTANT

**All turbo-engine air cleaner and exhaust must be sealed during transport.**

1. Ensure telehandler is level prior to loading.
2. Fully lower and retract boom.
3. Raise outriggers (if equipped).
4. Ensure ramps are correctly positioned.
5. Using a spotter, carefully drive telehandler onto the transporting vehicle.
6. Once telehandler is loaded, apply parking brake and rest the attachment flat on the vehicle.
7. Move all controls to neutral position.
8. Turn key switch to off position and remove key before transporting.
9. Chock telehandler wheels (if necessary).
10. Remove all loose items.
11. Anchor down telehandler to transport surface using tie-down points. See Figure 57 and secure the forks to the platform using sufficient straps. See Figure 56.

### ⚠ WARNING

**Inspect telehandler for loose or unsecured items.**

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***Figure 56*** *Tie-down points*

## 6.5 Towing the Telehandler

### IMPORTANT

- **Use this procedure only to remove telehandler from mud or other places where it cannot move under its own power. When possible, repair telehandler on site.**
- **Always chock wheels of the disabled telehandler to prevent accidental movement while preparing for towing. This is especially important if the failure occurs on an incline.**
- **Before towing, ensure there are no obstructions around or between telehandler and towing vehicle.**
- **The spotter must maintain a safe distance and must always be visible to the operator inside telehandler's cab.**
- **Ensure the towing vehicle, chains, tow bar, etc., are suitable for the job. The telehandler weight is stamped on the serial number nameplate (see Section 1.5).**

1. Lower or raise boom and outriggers (if equipped) enough so that front tie-down points are fully accessible.
2. Carefully fasten tow chains to tie-down points on either front or rear of telehandler frame.
3. Remove chocks from wheels.
4. Enter cab and fasten seat belt.
5. Ensure transmission gear selector is in neutral and the transmission lever neutral lock switch is in the "N" neutral position.
6. Start the engine.
7. Release park brake.
8. Start towing the telehandler while operating the steering and brakes.
9. Move telehandler to a compact level surface.
10. Apply park brake.
11. Turn off engine and remove key from ignition switch.

### ⚠ WARNING

**Ensure that you maintain three points of contact to mount/dismount the cab.**

12. Dismount from telehandler.
13. Chock or block wheels to prevent telehandler from rolling.

### ⚠ WARNING

**Poor traction can cause telehandler or towing vehicle to slide. Grades can require additional distance to stop the telehandler. Be careful if traction conditions are poor or the machine is on an incline.**

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***Figure 57*** *Front and rear tie-down point locations*

***Figure 58*** *Towing the telehandler from front tie-down points*

# 6.6 Using the Telehandler as a Tow Vehicle

**⚠ WARNING**

**Do not exceed rated towing capacity. Failure to do so may result in death or serious injury.**

**⚠ WARNING**

**Maximum towing capacity of the telehandler is determined with NO LOAD ON BOOM. Never attempt to operate the boom or lift any load while telehandler is being utilized as a tow vehicle.**

## 6.6-1 Towing Pin

The **towing pin** ❶ utilizes the telehandler as a towing vehicle and is located at the rear of the telehandler as shown in Figure 57.

***Figure 59*** *Towing Pin*

## 6.6-2 Pintle Hitch (If Equipped)

The **pintle hitch** ❷ utilizes the telehandler as a towing vehicle and is mounted and connected to a tapped plate located at the rear of the telehandler as shown below.

***Figure 60*** *Pintle Hitch at rear of telehandler*

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# Section 7 – Specifications

## 7.1 Standard and Optional Equipment

| MODELS | SJ1044 TH/THS | SJ1056 TH/THS |
|---|---|---|
| **Standerd Equipment** | | |
| 48" / 60" / 72" QA 12K Fork Carriages | * | * |
| Foam-Filled Tires | * | * |
| Diesel Engine | * | * |
| Engine Block Heater | * | * |
| Four-wheel drive | * | * |
| Frame Leveling System | * | * |
| Lifting Hook | * | * |
| Open Operator's Cab | * | * |
| Operator horn | * | * |
| Outriggers | - | * |
| Rear Axle Stabilization System (RAS) | * | * |
| Reverse/Backup Alarm | * | * |
| Spring-applied Hydraulically Released Parking Brake | * | * |
| Three-Speed Transmisson | * | * |
| Three-Mode Steering | * | * |
| **Optional Equipment** | | |
| SCR System | * | * |
| 1.75 Cu. Yd. Bucket Loader Attachment | * | * |
| 12 ft. Truss Boom | * | * |
| 15 ft. Truss Boom | * | * |
| 2 ft. Jib Boom | * | * |
| 48" / 60" / 72" Side-Tilt Fork Carriages | * | * |
| 72" Swing Carriage | * | * |
| Back-up Sensor/ Back-up Camera and Sensor | * | * |
| Enclosed Operator's Cab | * | * |
| Enclosed Operator's Cab with A/C | * | * |
| Fire Extinguisher | * | * |
| Flashing Beacon | * | * |
| Solid-Filled Tires | * | * |
| Fork Positioner | * | * |
| Four-Wheel Fenders | * | * |
| Pintle Hitch | * | * |
| Positive Air Shut-off System | * | * |
| Premium Multi-function Joystick | * | * |
| Reserve Brake System | * | * |
| Road/Work/Boom Lights | * | * |
| Continuously Variable Transmission (CVT) | * | * |

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| Model | SJ1256 THS |
|---|---|
| **Standard Equipment** | |
| 48" / 60" / 72" QA 12K Fork Carriages | * |
| Foam-Filled Tires | * |
| Diesel Engine | * |
| Engine Block Heater | * |
| Four-wheel drive | * |
| Frame Leveling System | * |
| Lifting Hook | * |
| Open Operator's Cab | * |
| Operator horn | * |
| Outriggers | * |
| Rear Axle Stabilization System (RAS) | * |
| Reverse/Backup Alarm | * |
| SCR System | * |
| Spring-applied Hydraulically Released Parking Brake | * |
| Three-Speed Transmisson | * |
| Three-Mode Steering | * |
| **Optional Equipment** | |
| 1.75 Cu. Yd. Bucket Loader Attachment | * |
| 12 ft. Truss Boom | * |
| 15 ft. Truss Boom | * |
| 2 ft. Jib Boom | * |
| 48" / 60" / 72" Side-Tilt Fork Carriages | * |
| 72" Swing Carriage | * |
| Back-up Sensor/ Back-up Camera and Sensor | * |
| Enclosed Operator's Cab | * |
| Enclosed Operator's Cab with A/C | * |
| Fire Extinguisher | * |
| Flashing Beacon | * |
| Solid-Filled Tires | * |
| Fork Positioner | * |
| Four-Wheel Fenders | * |
| Pintle Hitch | * |
| Positive Air Shut-off System | * |
| Premium Multi-function Joystick | * |
| Reserve Brake System | * |
| Road/Work/Boom Lights | * |
| Continuously Variable Transmission (CVT) | * |

*1776AA*

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# 7.2 Specifications and Features

| MODEL | | SJ1044 TH/THS | SJ1056 TH/THS |
|---|---|---|---|
| **Standard Engine** | | | |
| Type | | Deutz 3.6L Tier 4 Final | |
| Cylinders | | 4 | |
| Horsepower @ 2300 RPM | | 74 HP | |
| Capacity | | 219 cu.in. (3600 cm3) | |
| Torque @ 1300 RPM | | 286 lb. ft (387 N-m) | |
| Idle Speed* | | 1100 - 1150 RPM | |
| Fuel type | | Diesel | |
| **Optional Engine** | | | |
| Type | | Deutz 3.6L Tier 4 Final | |
| Cylinders | | 4 | |
| Horsepower @ 2300 RPM | | 107 HP | |
| Capacity | | 219 cu.in. (3600 cm3) | |
| Torque @ 1300 RPM | | 288 lb. ft (390 N-m) | |
| Idle Speed* | | 1100 - 1150 RPM | |
| Fuel type | | Diesel | |
| **Transmission** | | | |
| Powershift | Type | Powershift with soft shift | |
| | Speeds forward | 3 | |
| | Speeds reverse | 3 | |
| CVT | Type | Continuously Variable Transmission - Two Range Powershift | |
| | Speeds forward | 2 | |
| | Speeds reverse | 1 | |
| **Travel Speeds** | | | |
| Powershift | Range 1 | 0-4 mph (1-7 km/h) | |
| | Range 2 | 5-8 mph (8-13 km/h) | |
| | Range 3 | 9-15 mph (14-24 km/h) | |
| CVT | Range | 0-14 mph (0-23 km/h) | |
| **Electrical** | | | |
| Negative ground | | 12 Volts | |
| Alternator | | 60 Amps | |
| Battery | | 900 Amps | |
| Backup Alarm | | 107 DBM | |
| **Dimensions** | | | |
| Wheelbase | | 133 in. (337.82 cm) | |
| Overall width | | 8 ft. 6 in. (259.1 cm) | |
| Overall height | | 8 ft. 3 in. (246.84 cm) | 8 ft. 5 in. (248.8 cm) |
| Overall length (less forks) | | 20 ft. 9 in. (632.7 cm) | 22 ft. 6 in. (685.6 cm) |
| Ground clearance | | 19 in. (48.26 cm) | |
| Maximum weight without attachment | | 27,570 lb (12,506 kg) | 32,680 lb (14,823 kg) |
| Turn radius (inside) | | 73 in. (185.4 cm) | |
| Turn radius (outside) | | 173 in (439.4 cm) | |
| **Boom** | | | |
| Number of sections | | 3 | 4 |
| Maximum lift height | | 44 ft. 3 in. (13.48 m) | 56 ft. 3 in. (17.15 m) |
| Maximum forward reach | | 29 ft. 4 in. (8.94 m) | 42 ft. 2 in. (12.85 m) |
| Standard Forks (Standard Tapered Forks) | | "2.25 in. x 5 in. x 48 in. | |
| Carriage rollback | | 20° | |
| Carriage forward tilt | | 92.5° | |

** Engine Idle Speed is measured with 5% droop when in gear.* *1341AC*
*** Add 400 lb (181.437 kg) to the maximum weight for machines with CVT*

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| Model | | SJ1256 THS |
|---|---|---|
| **Standard Engine** | | |
| Type | | Deutz 3.6 L Tier 4 Final |
| Cylinders | | 4 |
| Horsepower @ 2300 RPM | | 107 HP |
| Capacity | | 219 cu in (3600 $cm^3$) |
| Torque @ 1300 RPM | | 288 lb ft (390 N-m) |
| Idle Speed* | | 1100 – 1150 RPM |
| Fuel type | | Diesel |
| **Transmission** | | |
| Powershift | Type | Powershift with soft shift |
| | Speeds forward | 3 |
| | Speeds reverse | 3 |
| CVT | Type | Continuously Variable Transmission - Two Range Powershift |
| | Speeds forward | 2 |
| | Speeds reverse | 1 |
| **Travel Speeds** | | |
| Powershift | Range 1 | 0–4 mph (1–7 km/h) |
| | Range 2 | 5–8 mph (8–13 km/h) |
| | Range 3 | 9–15 mph (14–24 km/h) |
| CVT | Range | 0-14 mph (1-23 km/h) |
| **Electrical** | | |
| Negative ground | | 12 Volts |
| Alternator | | 60 Amps |
| Battery | | 900 Amps |
| Backup Alarm | | 107 DBM |
| **Dimensions** | | |
| Wheelbase | | 133 in (337.8 cm) |
| Overall width | | 8 ft 6 in (259.1 cm) |
| Overall height | | 8 ft 7 in (261.6 cm) |
| Overall length (less forks) | | 22 ft 10 in (697 cm) |
| Ground clearance | | 19 in (48.3 cm) |
| Maximum weight without attachment | | 35,700 lb (16,193 kg) |
| Turn radius (inside) | | 73 in (185.4 cm) |
| Turn radius (outside) | | 173 in (439.4 cm) |
| **Boom** | | |
| Number of sections | | 4 |
| Maximum lift height | | 56 ft 3 in (17.15 m) |
| Maximum forward reach | | 42 ft 4 in (12.90 m) |
| Standard Forks | | 2.25 in x 5 in x 48 in (standard tapered forks) |
| Carriage rollback | | 20° |
| Carriage forward tilt | | 92.5° |

** Engine idle speed is measured with 5% droop when in gear.* *1777AB*
*** Add 400 lb (181.437 kg) to the maximum weight for machines with CVT*

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# 7.3 Tire/Wheel Specifications

| Models SJ1044 TH/THS & SJ1056 TH/THS | | | | |
|---|---|---|---|---|
| | Fill | Size | Ply Rating | Wheel Nuts Torque |
| PRIMEX G3000 | Foam | 14.00 X 24 TG G-2 | 16 | "442 ft.-lb. (600 Nm)" |
| GALAXY GIRAFFE XLW | Foam | | | |
| PRIMEX DNRZ II | Foam | | | |
| SOLIDAIR | - | 50.787 X 8.5 X 13.00 X 24 | - | |
| SOLIDBOSS | - | 50 X 13.00 X 24 | - | |
| BLACKSTONE | Foam | 14.000 X 24 | 16 | |

*1767AA*

| Model SJ1256 THS | | | | |
|---|---|---|---|---|
| | **Fill** | **Size** | **Ply Rating** | **Wheel Nuts Torque** |
| Galaxy Giraffe XLW | Foam | 14.00 × 24 TG G-2 | 16 | 442 ft-lb (600 Nm) |
| SOLIDBOSS | - | 14.00 × 24 | - | |
| BLACKSTONE | Foam | 14.00 × 24 | 16 | |

*1778AA*

**⚠ WARNING**

**Do not use tires other than those specified for this machine. Do not mix different types of tires. Tires other than those specified can adversely affect stability. Failure to operate with matched, approved tires in good condition can result in serious injury or even death! Replace tires with the exact, Skyjack-approved types only.**

**IMPORTANT**

**For proper function of each axle differential, all four wheels must have same tire size installed at all times. Failure to comply with this requirement reduces the life of the differentials and reduces overall mobility of telehandler.**

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# 7.4 Recommended Fluids/Lubrications

| Models SJ1044 TH/THS & SJ1056 TH/THS | | | |
|---|---|---|---|
| **Engine** | | | |
| Fuel Type | | Ultra Low Sulfur Diesel (EN 590, ASTM D975) or Biodiesel B20 | |
| Fuel Tank Capacity | | 35 gal (132 L) | |
| Recommended Oil Type | | SAE 15W40 | |
| Engine Oil Capacity | | 9.5 Quart (9.0 L) | |
| Coolant Type (Standard) | | COOLANT-ANTIFREEZE 50/50 PREMIX * | |
| Coolant Type(Cold Weather Option) | | COOLANT-ANTIFREEZE 60/40 PREMIX * | |
| Coolant Tank Capacity | | 4.2 gal (16 L) | |
| DEF (if equipped) | | Diesel Exhaust Fluid (DEF) | |
| DEF Tank Capacity | | 2.4 gal (9.4 L) | |
| **Transmission** | | | |
| Powershift | Oil Type | Multipurpose ATF | |
| | Capacity | 14.2 Quart (13.5 L) | |
| CVT | Oil Type | **CVT Case:** VALVOLINE INVARITORC 205 | **Dropcase:** ATF DEXRON 3 |
| | Capacity | 18 L | 0.90 L |
| **Axles** | | | |
| Differential | | API GL5 LS | |
| Front Axle Capacity | | 13.7 Quart (13 L) | |
| Rear Axle Capacity | | 8.2 Quart (7.8 L) | |
| Planetary Wheel Ends | | API GL5 LS | |
| Capacity | | 2 Quart (1.89 L) | |
| **Hydraulic Oil** | | | |
| Standard Factory Fill | | ATF Dexron III | |
| Type | | ATF Dexron III or Equivalent | |
| Tank Capacity | | 43.85 gal (166 L) | |
| **Grease Points** | | | |
| Type | | EP2 Grease | |

** Refer to engine manufacturer's manual* *1348AD*

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**⚠ WARNING**

**Do not mix hydraulic oil of different types or use oils of types other than those originally supplied with this equipment. Doing so can severely damage hydraulic components. A full hydraulic oil system flush must be performed prior to adding a new type of hydraulic oil. Consult Skyjack service department.**

| Model SJ1256 THS | | | |
|---|---|---|---|
| **Engine** | | | |
| Fuel Type | | Ultra Low Sulfur Diesel (EN 590, ASTM D975) or Biodiesel B20 | |
| Fuel Tank Capacity | | 35 gal (132 L) | |
| Recommended Oil Type | | SAE 15W40 | |
| Engine Oil Capacity | | 9.5 quart (9.0 L) | |
| Coolant Type (Standard) | | COOLANT-ANTIFREEZE 50/50 PREMIX * | |
| Coolant Type (Cold Weather Option) | | COOLANT-ANTIFREEZE 60/40 PREMIX * | |
| Coolant Tank Capacity | | 4.2 gal (16 L) | |
| DEF | | Diesel Exhaust Fluid (DEF) | |
| DEF Tank Capacity | | 2.4 gal (9.4 L) | |
| **Transmission** | | | |
| Powershift | Oil Type | Multipurpose ATF | |
| | Capacity | 14.2 quart (13.5 L) | |
| CVT | Oil Type | **CVT Case:** VALVOLINE INVARITORC 205 | **Dropcase:** ATF DEXRON 3 |
| | Capacity | 18 L | 0.90 L |
| **Axles** | | | |
| Differential | | API GL5 LS | |
| Front Axle Capacity | | 14.8 quart (14 L) | |
| Rear Axle Capacity | | 14.8 quart (14 L) | |
| Planetary Wheel Ends | | API GL5 LS | |
| Capacity | | 2 quart (1.89 L) | |
| **Hydraulic Oil** | | | |
| Standard Factory Fill | | ATF Dexron 3 | |
| Type | | Multipurpose ATF | |
| Tank Capacity | | 43.85 gal (166 L) | |
| **Grease Points** | | | |
| Type | | EP2 Grease | |

** Refer to manufacturer's manual.* *1779AA*

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**⚠ WARNING**

**Do not mix hydraulic oil of different types or use oils of types other than those originally supplied with this equipment. Doing so can severely damage hydraulic components. A full hydraulic oil system flush must be performed prior to adding a new type of hydraulic oil. Consult Skyjack service department.**

# Notes

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# Section 8 – Labels

***Figure 61*** *Label legend*

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# 8.1 Model SJ1044 TH/THS, SJ1056 TH/THS, SJ1256 THS

### *Operator's Cab Controls*

| Description | Label Pictorial |
|---|---|

**1 Left Side Dash Panel**

SCR (Secondary Catalytic Reduction) Switch (If Equipped)

- Select to start regeneration cycle.
- Select to finish regeneration cycle.

Turn Signals Switch (If Equipped)

- Select to signal left.
- Select to signal right.

Outriggers Switches (If Equipped)

- Select to raise left outrigger.
- Select to lower left outrigger.
- Select to raise right outrigger.
- Select to lower right outrigger.

Hazard Warning Light Switch (If Equipped).

Always wear seat belt.

Absolutely no riders.

This vehicle is equipped with a backup alarm sound.

**2 Transmission Range Selector**

Transmission gear selector

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### *Operator's Cab Controls (continued)*

| Description | Label Pictorial |
|---|---|

**3 Right Side Dash Panel**

Boom Lights Switch (if equipped)

- Select to turn on boom lights.

Front and Rear Work Lights Switch (if equipped)

- Select to turn on front work lights.
- Select to turn on front and rear work lights.

High/Low Headlights and Taillights Switch (if equipped)

- Select to turn on high beam headlights and tail lights.
- Select to turn on low beam headlights and tail lights.

Positive Air Shutoff Switch (if equipped)

- Select to trigger the positive air shutoff valve.

Steering Mode Switch

- Select for four wheel steering.
- Select for front steering.
- Select for crab steering.

Rear Windshield Washer/Wiper Switch

- Select to turn on. Select to turn on wiper.

Front and Top Windshield Wiper Switch

- Select to turn on. Select to turn on wiper.

Park Brake Switch

- Select (P) to engage park brake.

**4 Horn**

Horn label

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https://www.macequipment.com/

### *Operator's Cab Controls (continued)*

| Description | Label Pictorial |
|---|---|

**5 Standard Multi-function Joystick**

The multi-function single controls boom operation, frame leveling, fork tilt, and auxiliary functions.

- Move joystick forward or backward to raise or lower the boom.
- Move joystick right or left to extend or retract the boom.
- Press and hold middle button and move joystick forward to tilt attachment forward.
- Press and hold middle button and move joystick rearward to tilt attachment backward.
- Press and hold frame level enable switch and move joystick to the left to level the frame to the left.
- Press and hold frame level enable switch and move joystick to the right to level the frame to the right.
- Use optional attachment function switches to control the auxiliary functions of optional attachments.

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### *Operator's Cab Controls (continued)*

| Description | Label Pictorial |
|---|---|

**6 Premium Multi-function Joystick (If Equipped)**

The multi-function single controls boom operation, frame leveling, fork tilt, and auxiliary functions.

- Move joystick forward or backward to raise or lower the boom.
- Move joystick right or left to extend or retract the boom.
- Hold left switch up to tilt attachment forward.
- Hold left switch down to tilt attachment backward.
- Press and hold frame level enable switch and move joystick to the left to level the frame to the left.
- Press and hold frame level enable switch and move joystick to the right to level the frame to the right.
- Hold right switch up or down to control the auxiliary functions of optional attachments. Refer to Section 3.7 for details for each optional attachment.

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### *Operator's Cab*

| Description | Label Pictorial |
|---|---|
| **7 Transportation Reminder**<br>Ensure engine air cleaner, and exhaust are sealed during transportation. | |
| **8 Hazard Identification**<br>Read and understand outlined risks associated with this telehandler prior to operation. | |
| **9 Windshield Washer Fluid Container**<br>Windshield Washer fluid | |
| **10 Manual Storage Box**<br>Indicates location of operating manual and other important documentation. | |
| **11 Open Door (If Equipped)**<br>Squeeze to open cab door. | |
| **12 Daily & Weekly Maintenance Chart**<br>Grease points and lubrication intervals chart | |
| **13 Emergency Exit Procedure** | |

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### *Left Side*

| Description | Label Pictorial |
|---|---|
| ❶ **Keep Chains Tight**<br>Ensure chains are tight. | |
| ❷ **Extension Letters**<br>Boom extension labels | A B C D |
| ❸ **Grease**<br>Grease point | |
| ❹ **Rotation Angle**<br>Boom rotation angle label | |
| ❺ **Skyjack Logo**<br>Skyjack logo - 51” White | SKYJACK |
| ❻ **Skyjack Logo**<br>Skyjack logo - 25” White | SKYJACK |

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### *Left Side (continued)*

| Description | Label Pictorial |
|---|---|
| ❼ **Model Number**<br>Product identifier - 38” White | SJ1044 TH<br>SJ1044 THS |
| ❽ **Warning - Do Not Alter**<br>Do not alter or disable limit switches or other safety devices. | |
| ❾ **Keep Clear**<br>Keep clear.v | |
| ❿ **Body Crushing Hazard**<br>Warning - Body crushing hazard | |
| ⓫ **Wheel Specifications**<br>Refer to manual for wheel type, offset, pressure and torque. | |

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### *Left Side (continued)*

| Description | Label Pictorial |
|---|---|
| **12 Tip-Over Hazard**<br>Do not use air-filled tires. Use approved, matching foam-filled tires only. | |
| **13 Unpinned Attachment**<br>Unpinned attachment warning | |
| **14 Tie-down Points**<br>Only use these points for tying down. | |
| **15 Model Number**<br>Product identifier - 25” White | SJ1044 TH<br>SJ1044 THS |
| **16 Ultra-low Sulfur Diesel Fuel Only**<br>Refill fuel tank with ultra-low sulfur diesel fuel only. | |



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***Rear***

***Lifting Hook on Jib***

| Description | Label Pictorial |
|---|---|
| ❶ **No Smoking**<br>Do not smoke near this location. | |
| ❷ **Grease**<br>Grease point | |
| ❸ **Towing Capacity**<br>Telehandler's maximum towing capacity and tongue weight | |
| ❹ **Warning – No Step**<br>No step warning | |
| ❺ **Lifting Hook Capacity Warning**<br>Refer to operator's manual and capacity chart inside cab. | |

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https://www.macequipmentllc.com

### *Right Side*

| Description | Label Pictorial |
|---|---|
| ❶ **Warning - Do Not Alter**<br>Do not alter or disable limit switches or other safety devices. | |
| ❷ **Model Number**<br>Product identifier - 38” White | SJ1044 TH<br>SJ1044 THS |
| ❸ **Skyjack Logo**<br>Skyjack logo - 51” White | SKYJACK |
| ❹ **Grease**<br>Grease point | |
| ❺ **Keep Chains Tight**<br>Ensure chains are tight. | |
| ❻ **Unpinned Attachment**<br>Unpinned attachment warning | |

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### *Right Side (continued)*

| Description | Label Pictorial |
|---|---|
| **7 Tie-down Points**<br>Only use these points for tying down. | |
| **8 Keep Clear**<br>Keep clear. | |
| **9 Body Crushing Hazard**<br>Warning - Body crushing hazard | |
| **10 Wheel Specifications**<br>Refer to manual for wheel type, offset, pressure and torque. | |
| **11 Tip-Over Hazard**<br>Do not use air-filled tires. Use approved, matching foam-filled tires only. | |
| **12 Model Number**<br>Product identifier - 17” White | SJ1044 TH<br>SJ1044 THS |

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### *Right Side (continued)*

| Description | Label Pictorial |
|---|---|
| **13 Crushing Hazard**<br>Warning - Crushing hazard | |
| **14 Warning – No Step**<br>No step warning | |
| **15 Skyjack Logo**<br>Skyjack logo - 17” White | SKYJACK |

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### *Right Side (continued)*

| Description | Label Pictorial |
|---|---|
| **16 Hot Surface**<br>Caution - Hot Surface | |

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https://www.macequipmentllc.com/

***Engine Compartment and Frame***

| Description | Label Pictorial |
|---|---|
| ❶ **Hydraulic Oil ATF Dexron III**<br>Refill Hydraulic oil tank with ATF Dexron III hydraulic oil. | |
| ❷ **Hydraulic Oil Level**<br>Indicates minimum/maximum oil level. | |



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***Engine Compartment and Frame***

***Frame***

***DEF Tank***

| Description | Label Pictorial |
|---|---|
| **3 Caution - Coolant Fill Point**<br>Refer to service manual for coolant fill instructions. | |
| **4 Main Power Disconnect Switch**<br>For use during maintenance only.<br>Rotate clockwise to turn on main power, rotate counterclockwise to turn off main power, insert padlock into position. | |
| **5 DEF Tank**<br>Diesel exhaust fluid tank | |

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## *Outriggers (If Equipped))*

### *Outrigger (Left Side)*

### *Outrigger (Right Side)*

| Description | Label Pictorial |
|---|---|
| ❶ **Body Crushing Hazard**<br>Warning - Body crushing hazard | |
| ❷ **Crushing Hazard**<br>Warning - Crushing hazard. | |

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https://www.macequipmentllc.com/

### *California Proposition*

| Description | Label Pictorial |
|---|---|
| ❶ **Warning - California Proposition 65**<br>Cancer and Reproductive Harm<br>https://www.p65warnings.ca.gov/. | |

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https://www.macequipmentllc.com/

### *CVT Transmission (If Equipped)*

| Description | Label Pictorial |
|---|---|
| **1 EcoShift Logo**<br>CVT Transmission identifier - 25'' | ECOSHIFT |

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### *CVT Transmission (If Equipped)*

| Description | Label Pictorial |
|---|---|
| ❷ **EcoShift Logo**<br>CVT Transmission identifier - 17'' | ECOSHIFT |
| ❸ **CVT Transmission Oil**<br>Refill Transmission oil with VALVOLINE INVARITORC 205 oil. | |

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# Section 9 – Unique Skyjack Features

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

## ACCESSORYZERS™

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 products adaptability and your power to offer a truly flexible rental choice.

## AXLDRIVE™

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 machines can climb grades of up to 30% in the case of Rough Terrain Scissors 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.

## FLEXCAB™

Skyjack's TH series telehandlers feature an innovative cab design that allows fleet operators to easily convert between open and enclosed cabs with simple hand tools, providing increased flexibility for fleet movement and fast response to customer demands. Easily sourced flat glass panels with no custom curved profiles and a bolt-on/bolt-off window retention system ensures minimal downtime and incurred costs for repairing damaged glass in the field.

## READYHOOK™

Skyjack's yoke mounted lifting hook is fitted as standard on TH series telehandlers. With capacities that match the maximum lift capability of the telehandler the hook allows the safe under-slinging of loads and avoids the practice of using the forks as an underslung lifting device.

## SKYCODED™

At the heart of every Skyjack machine, proven and simplistic control systems using Skyjack's color coded and numbered wiring system make our machines the easiest to trouble shoot and repair. – Black #14 is for the lift function on a 3219, and it is lift on a 63AJ. Using an analog based control system allows Skyjack AWPs to operate using a simplified system with fewer and less expensive components – less maintenance and lower costs.

## SMARTORQUE™

Skyjack's TH series of telehandlers use a low horse power, high torque engine that has been engineered to provide the necessary torque and hydraulic performance found in higher horse power engines. This provides the benefit of lower acquisition costs and the employment of minimal emission controlling modules that otherwise are both expensive and complicated. SMARTORQUE™ means no diesel particulate filter (DPF), no diesel exhaust fluid (DEF) and no other active exhaust after treatment on standard engines for Tier IV Final.

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# Notes

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# WARNING

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

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https://www.macequipmentllc.com/

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https://www.macequipmentllc.com/

SKYJACK™

www.skyjack.com