

SKYJACK™

Elevating the World

www.skyjackinc.com

SKYJACK™

OPERATING MANUAL

Models SJB-40/45TB, SJB-60/65TB



SJB-TB BOOM

For Service in North America and Asia please call 800 275-9522
Skyjack Inc. Service Center 3451 Swenson Ave., St. Charles, IL. 60174 **FAX 630 262-0006**
For Parts in North America and Asia please call 800 965-4626
Skyjack Inc. Parts Center 990 Vernon Rd., Wathena, KS, 66090 ... **FAX 888 782-4825**
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Skyjack Inc. 55 Campbell Rd., Guelph, Ontario, Canada N1H 1B9 **FAX 519 837-3883**
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Skyjack Europe Communicatieweg 29, 3641 SG Mijdrecht Netherlands **FAX 31 297 256 948**

CALIFORNIA
Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the state of California to cause cancer, birth defects, and other reproductive harm.

Table 2-8. General Specifications (SJB-60/65TB)

BATTERY (Primary/Emergency)	12 Volt/850 CCA
AMBIENT NOISE LEVEL	83db
ENGINE RPM SETTINGS (Ford)	1200(idle), 2000, 2600
ENGINE RPM SETTINGS (Diesel)	1600(idle), 2600
FUEL (Standard)	Non-blended unleaded
FUEL (Diesel option)	No. 2 Diesel
GROUND CLEARANCE	14" (.36m)
TRAVEL SPEED (Elevated)	0-.8mph (0-1.29kph)
TRAVEL SPEED (Stowed)	0-3.5mph (0-5.63kph)
INSIDE TURNING RADIUS (2WD)	8' 4" (2.5m)
INSIDE TURNING RADIUS (4WD)	11' 11" (3.6m)
OUTSIDE TURNING RADIUS (2WD)	18' 4" (5.6m)
OUTSIDE TURNING RADIUS (4WD)	19' 1" (5.8m)
POWER (Ford LRG 425)	82 Horsepower
POWER-Option(Kubota Diesel)	60 Horsepower
HORIZONTAL REACH (SJB-60TB)	52' 0" (15.8m)
HORIZONTAL REACH (SJB-65TB)	57' 0" (17.4m)
TAILSWING	9' 3" (2.8m)
FLOOR LOADING	Not Available at Printing
HYDRAULIC CAPACITY	60 gallons (227.1 liter)
FUEL CAPACITY	40 gallons (150.9 liter)
PLATFORM ROTATION (SJB-60TB)	90° Right - 75° Left
PLATFORM ROTATION (SJB-65TB)	90° Right - 90° Left

Mt60-216

NOTE: For additional specifications, refer to Section 1.

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⚠ WARNING

ANSI/SIA (United States)

You are required by ANSI/SIA A92.5 -1992 to read and understand **YOUR RESPONSIBILITIES** in the Manual Of Responsibilities before you use or operate this work platform.

CSA (Canada) and CE (Europe)

You are required to conform to national health and safety regulations applicable to the operation of this work platform.

FAILURE TO COMPLY with your REQUIRED RESPONSIBILITIES in the use and operation of the work platform could result in death or serious injury.

OPERATOR SAFETY REMINDERS

The National Safety Council reminds us that most accidents are caused by the failure of some individuals to follow simple and fundamental safety rules and precautions. 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.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this work platform is mandatory. The following pages of this manual should be read and understood completely before operating the work platform. Any modifications from the original design are strictly forbidden without written permission from SKYJACK, Inc.

⚠ DANGER	VOLTAGE RANGE	MINIMUM SAFE APPROACH DISTANCE	
	(PHASE TO PHASE)	(FEET)	(METERS)
THIS MACHINE IS NOT INSULATED. MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK OR SAG. THIS WORK PLATFORM DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.	(0 TO 300V)	AVOID CONTACT	
	(Over 300V to 50KV)	10	3.05
	(Over 50KV to 200KV)	15	4.60
	(Over 200KV to 350KV)	20	6.10
	(Over 350KV to 500KV)	25	7.62
	(Over 500KV to 750KV)	35	10.67
	(Over 750KV to 1000KV)	45	13.72
FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!			

DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION AND TRAINING. DEATH OR SERIOUS INJURY COULD RESULT FROM IMPROPER USE OF THIS EQUIPMENT!

Table 2-6. Tire Specifications (SJB-60/65TB)

Model	Tire		Fill Specification	
	Size	Rating	Type	Pressure
STANDARD	40 x 15.00 x 19.5	16 Ply	Air	95 psi
RIBBED FLOTATION	40 x 19 x 19.5	14 Ply	Air	65 psi
LUGGED FLOTATION	38 x 18 x 20	12 Ply	Air	65 psi
FOAM FILLED (Option)	40 x 15.00 x 19.5	16 Ply	Solid Urethane	*

* 28 Durometer Fill installed at 55 psi.

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Table 2-7. Maximum Platform Capacities

Model	Platform Capacity (unrestricted)
SJB-60TB	600# (272kg) 3 occupants
SJB-65TB	500# (227kg) 2 occupants

NOTE: Refer to capacity label on work platform for additional information.

Mt60-213

Figure 2-18. Reach Diagram SJB-65TB

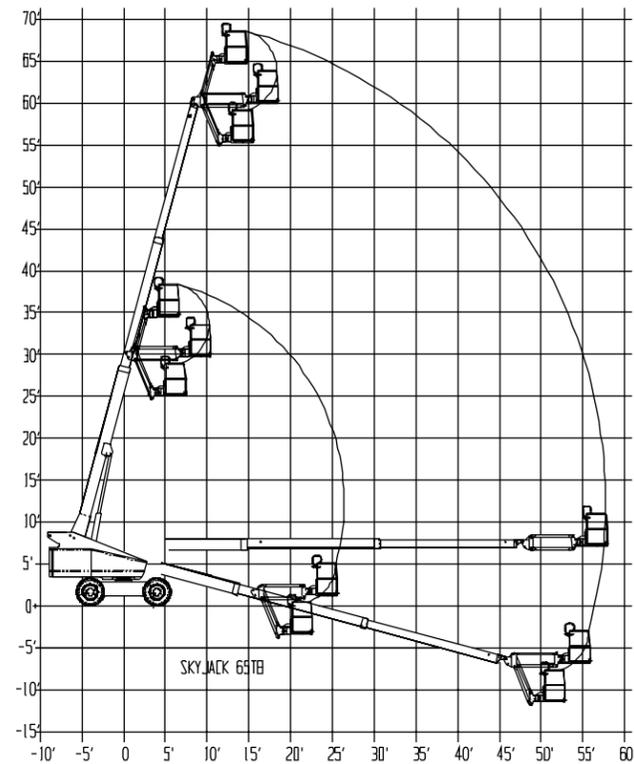
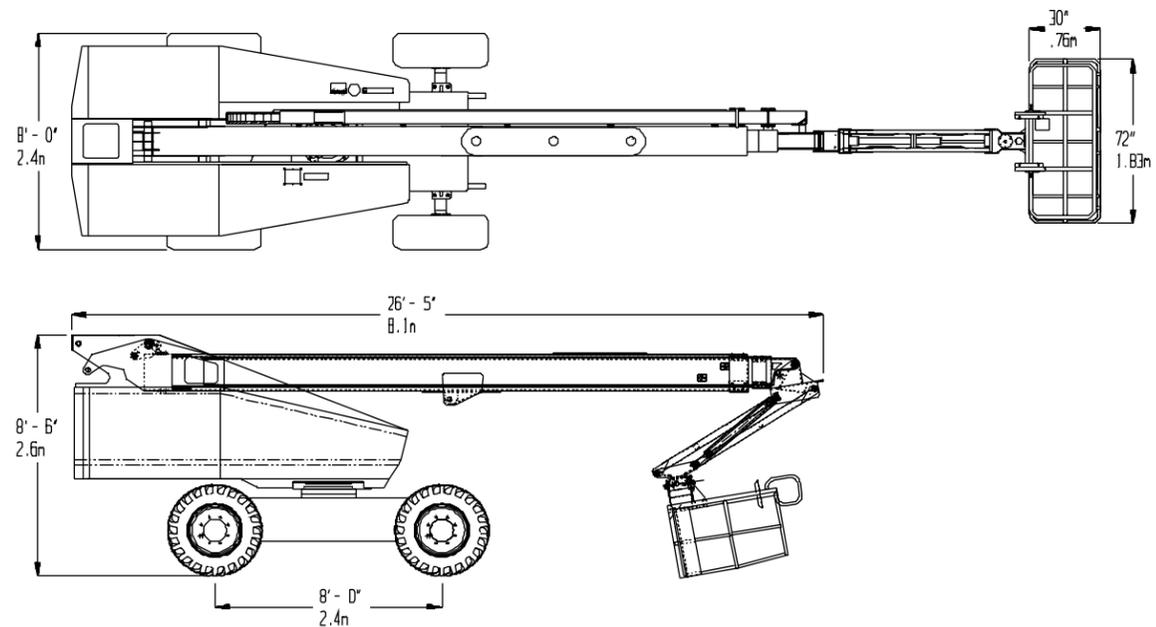


Figure 2-19. Dimensional Diagram SJB-65TB



SERVICE POLICY AND WARRANTY

SKYJACK, Inc. warrants each new work platform to be free of defective parts and workmanship during the first 12 months. Refer to Warranty Statement on Page iv for details.

NOTE

SKYJACK, Inc. is continuously improving and expanding product features on it's equipment; therefore, specifications and dimensions are subject to change without notice.



This Safety Alert Symbol Means Attention!

Become Alert! Your Safety Is Involved.

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

SCOPE OF THIS MANUAL

This manual applies to the ANSI/SIA, CSA and CE versions of the SJB-TB work platforms. Equipment identified with "ANSI/CSA" meets the ANSI/SIA-A92.5 -1992 standards. Equipment identified with "CSA" meets the CAN3-B354.4 M82 standards. Equipment identified with "CE" meets the requirements for the European countries, i.e. Machinery Directive 89/392/EEC and EMC Directive 89/336/EEC and the corresponding EN standards.

WARRANTY STATEMENT

SKYJACK, Inc. warrants each new work platform to be free of defective parts and workmanship. During the first full year, labor and replacement parts will be provided by the local authorized Skyjack dealer without charge. For the following 48 months, structural components found to be defective will be replaced or repaired at no charge.

A warranty registration card is supplied with each work platform. The warranty is only effective when the warranty card has been completed and returned to Skyjack within 15 days from the time of billing. When work platforms are put into stock, the warranty period does not start until the work platform has been shipped to the dealers customer. If a unit is put into service and no warranty card has been mailed to Skyjack, Inc., the warranty period will commence 15 days from the date the dealer was invoiced for the work platform.

All warranty claims are subject to approval by Skyjack's Service Department. Skyjack, Inc. reserves the right to limit or adjust claims with regard to defective parts, labor or travel time based on usual and customary guidelines. Parts purchased from sources other than Skyjack will not be covered under this warranty. Misuse or improper operation, lack of normal maintenance and inspections as outlined in this manual, alterations to original design and/or components or accidents will void all warranty. **Batteries are not covered by this warranty.**

The above mentioned warranty statement is exclusive and no other warranty whether written, oral or implied shall apply. Skyjack excludes any implied warranty of merchantability and fitness and accepted no liability for consequential damages or for other negligence.

WARRANTY PROCEDURES

The selling distributor or authorized dealer shall be responsible for the complete handling of customer claims under this warranty. Here's what to do:

1. When a customer files a claim under this warranty, contact Skyjack's Service Department to verify warranty coverage. NOTE: The complete serial number of the work platform is required to verify the claim.
2. When Skyjack's Service Department verifies warranty coverage, they will also issue an RA (Return Authorization) number for the return of any defective component(s). All items over \$25.00 in value must be returned to Skyjack, Inc.

3. Fill out a Warranty Claim Form from dealer's supply of claim forms. Then notify Skyjack's Service Department of the warranty claim number on the form used.
4. The distributor/dealer should then file a warranty claim with Skyjack, Inc. describing the nature of the defect, probable cause, work performed, travel hours, and labor hours listed separately. Warranty labor will be paid at a rate of \$42.00 per hour. The travel allowance will be paid at the same hourly rate within the dealers specified territory, limited to a maximum of four (4) hours. If a part has serviceable components, PLEASE replace the bad component. For instance, if you have a bad switch on a controller, please replace the switch. Hydraulic cylinders should be repacked, unless they are damaged beyond repair. Engine failures should be directed to your local engine distributor and covered by the manufacturers warranty. Skyjack will accommodate you and your labor. Labor rates and travel allowances are subject to change without notice.
5. Warranty claims must be received by Skyjack within 15 working days from the date of the repair. Warranty claims received with insufficient information will be returned for correction or completion.

6. Materials returned for warranty inspection must have the following procedures:

- A. Carefully packaged to prevent additional damage during shipping.
- B. Drained of all contents and all open ports capped or plugged.
- C. Shipped in a container tagged or marked with the RA number.
- D. Shipped **PREPAID**. Any item(s) returned for warranty by any other means may be refused and returned unless prior approval from Skyjack is obtained.
- E. Items shipped to the dealer will be sent freight prepaid and added to the invoice.

Failure to comply with the above procedures may delay approval and processing of the warranty claim and could result in the denial of a warranty claim. Skyjack's dealer's accounts must be kept current in order to approve and issue warranty credits. Skyjack reserves the right to withhold issuance of warranty credits to a dealer if their account is not in good standing. This is subject to change without prior notice.

Figure 2-16. Reach Diagram SJB-60TB

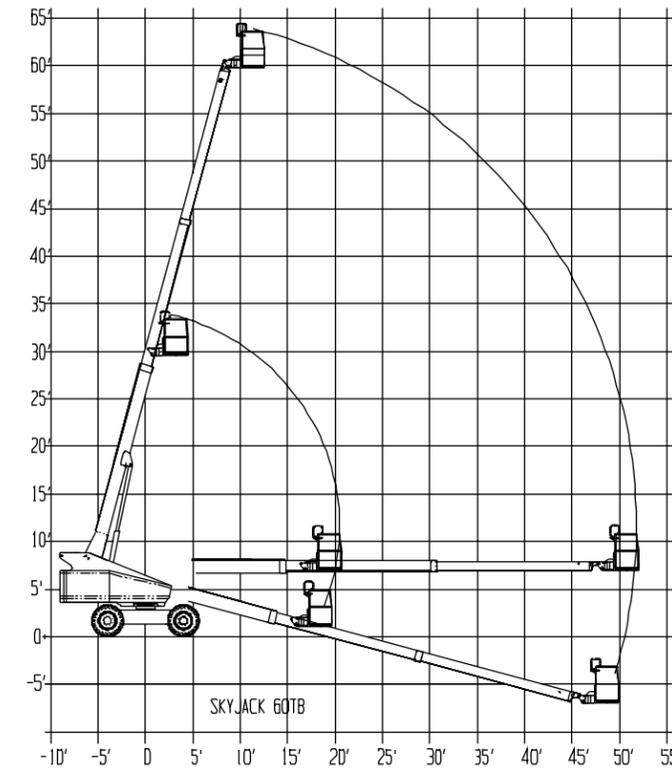
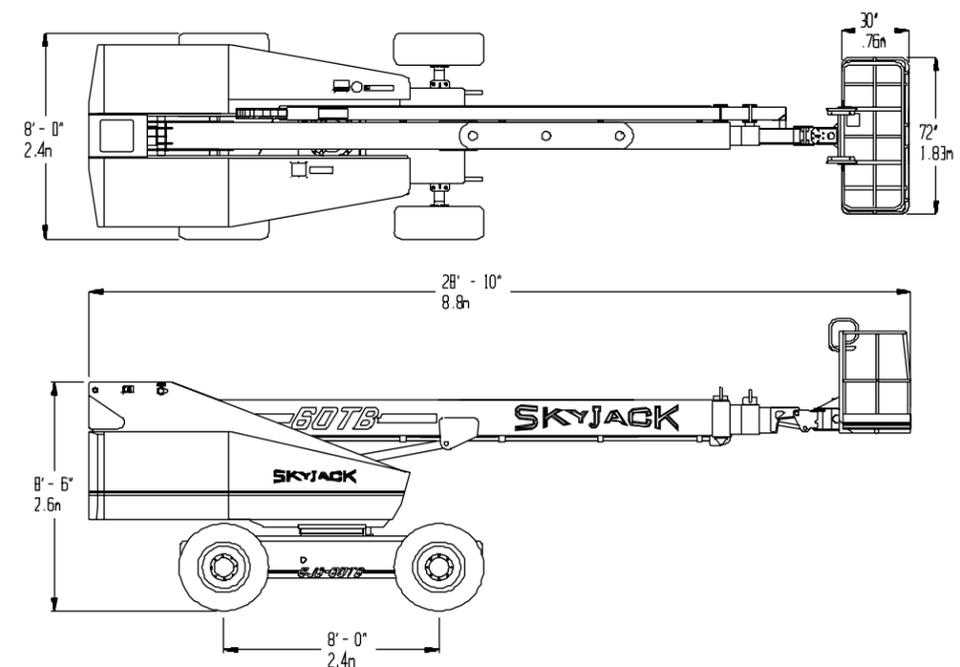


Figure 2-17. Dimensional Diagram SJB-60TB



SECTION 1 INTRODUCTION

PURPOSE OF EQUIPMENT

The SKYJACK SJB-TB Boom Work Platforms are designed to transport and raise personnel and tools to overhead work areas.

USE OF EQUIPMENT

The work platforms (Figure 1-2) are highly maneuverable work stations. The SJB-TB Models are designed for both slab-type and rough terrain construction applications. **Lifting and elevated driving these models MUST be on a flat, level, compacted surface.**

WARNINGS

The operator MUST read and completely understand the front panel labels (Figures 1-1) and ALL other warnings in this manual and on the work platform. Compare the labels on the work platform with the labels found throughout Sections 1 and 2 of this manual. If any labels are damaged or missing, replace them immediately.

DESCRIPTION

The work platform consists of four major assemblies, the platform, boom assembly, turret and drive chassis. An operator's control console is located on the platform. A foot switch on the platform enables and disables the platform controls. Auxiliary and emergency controls are located on the rotating turret and platform.

PLATFORM - The platform is constructed of a skid-resistant see-thru deck surface and a 42" high tubular steel railing system with midrails and 6" toe boards. The platform can be entered through a sliding midrail bar at the center of the railing system or optional hinged gate. The platform can be rotated in either direction. A 110 VAC GFI outlet is also located on the platform.

BOOM ASSEMBLY - The boom is mounted on the turret and consists of a telescoping fly, mid and main boom assembly. This mechanism uses double-acting hydraulic cylinders with holding valves to control vertical movement. The SJB-45TB and SJB-65 TB models are equipped with a 5' boom jib, controlled by a double acting hydraulic cylinder.

TURRET - The turret rotates 360 degrees continuously. Within the turret are two main cabinets. One cabinet contains the base control box, main hydraulic manifold and function valves, and the battery. The other cabinet contains the engine, and hydraulic pumps. The hydraulic oil and fuel tanks are also mounted on the turret with access to filler neck and level gauges through the removable covers.

DRIVE CHASSIS - The base is a rigid one-piece weldment. Models equipped with dual fuel option have mounting straps for a propane tank on each side. The front axle has two non-driven wheels, steerable by a hydraulic cylinder (2WD models), or a hydraulic motor driven axle with an integrated cylinder for steering the wheels and spring-applied hydraulically-released parking brakes (4WD models). The rear axle is hydraulic motor driven (2WD models), or coupled to the front axle by a drive shaft (4WD models) and has spring-applied hydraulically-released parking brakes.

PLATFORM CONTROL CONSOLE - Located on the platform, this control station contains controls for work platform motion and emergency stopping. Also controls for engine operation and emergency pump operation.

OPTIONAL ACCESSORIES - The SKYJACK SJB Telescopic Boom Work Platform is designed to accept a variety of optional accessories. These are listed in Specifications and Features found in this section. Operating instructions for these options (if required) can be found in Section 2 of this manual.

General Work Conditions

Read and pay attention to all labels on the unit.

DO NOT exert excessive side forces on platform while elevated.

DO NOT overload, the lift relief valve does not protect against overloading when the platform is elevated.

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

DO NOT raise your platform in windy or gusty conditions.

DO NOT exceed the rated capacity of your unit. Make sure the load is evenly distributed on the platform.

Jobsite Hazards

DO NOT operate the unit on surfaces not capable of supporting the weight of the work platform, including the rated load, e.g. covers, drains and trenches.

BE AWARE of overhead obstacles, especially electrical lines. Also be aware of poorly lit areas that might hide overhead obstacles.

DO NOT elevate the work platform if the unit is not on firm level surfaces. Avoid pot holes, loading docks, debris, drop offs and surfaces that may affect the stability of your work platform.

DO NOT climb or descend a grade steeper than 30% while in travel mode. Boom elevated driving must be done only on firm surfaces. (Ref. Table 1-1)

ENSURE that there is no person(s) in the path of travel.

Work Platform Conditions

An operator should not use any work platform that:

Has ladders, scaffolding or other devices mounted on it to increase its size or work height.

Does not have a clean, uncluttered work area.

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.

Table 2-5. General Specifications (SJB-40/45TB)

BATTERY (Primary/Emergency)	12 Volt/800 CCA
AMBIENT NOISE LEVEL	83db
ENGINE RPM SETTINGS (Ford) ENGINE RPM SETTINGS (Diesel)	1200(idle), 2000, 2600 1600(idle), 2600
FUEL (Standard) FUEL (Diesel option)	Non-blended unleaded No. 2 Diesel
GROUND CLEARANCE	12" (.3m)
TRAVEL SPEED (Elevated) TRAVEL SPEED (Stowed)	0-.8mph (0-1.29kph) 0-3.5mph (0-5.63kph)
INSIDE TURNING RADIUS (2WD) INSIDE TURNING RADIUS (4WD) OUTSIDE TURNING RADIUS (2WD) OUTSIDE TURNING RADIUS (4WD)	12' 0" (3.7m) 7' 8" (2.3m) 21' 8" (6.6m) 16' 11" (5.2m)
POWER (Ford VSG413)(1.3L) POWER-Option (Kubota V1505TB-1 Diesel)	82 Horsepower 60 Horsepower
HORIZONTAL REACH (SJB-40TB) HORIZONTAL REACH (SJB-45TB)	33' 0" (10.1m) 38' 0" (11.9m)
TAILSWING	6' 9" (2.1m)
FLOOR LOADING	Not Available at Printing
HYDRAULIC CAPACITY	55 gallons (208.2 liter)
FUEL CAPACITY	40 gallons (150.9 liter)
PLATFORM ROTATION (SJB-40TB) PLATFORM ROTATION (SJB-45TB)	90° Right - 75° Left 90° Right - 90° Left

M145-1

NOTE: For additional specifications, refer to Section 1.

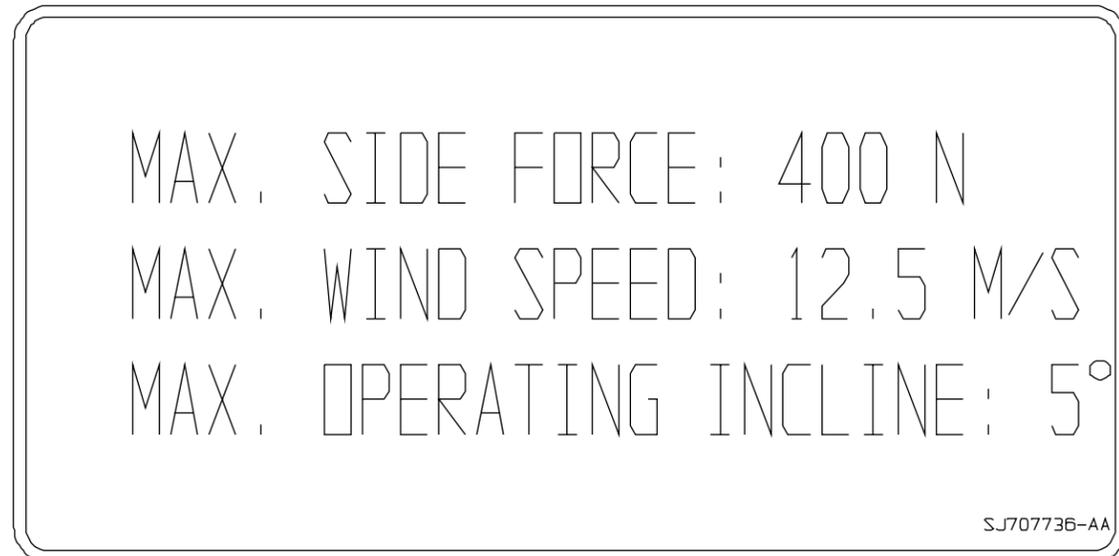


Figure 1-1. Front Panel & Platform Labels

BRAKE OPERATION AND TEST PROCEDURE

Proper operation of the parking brakes should be checked daily or at the beginning of each shift. Locate the machine in an appropriate area for testing the brakes. **IMPORTANT NOTE:** The area for testing the machine **MUST** be completely level and free of obstructions. **DO NOT** drive on an incline unless the parking brakes are working properly. With the machine fully stowed and the throttle switch in the high position (if engine powered). Drive the machine forward at full speed and remove foot from foot switch. Repeat this step driving in reverse.



Parking brakes will instantly engage causing the machine to stop immediately.

The machine should come to an instant and abrupt stop. If the machine does not stop instantly or if the machine pulls to one side while stopping, the brake adjustment **MUST** be checked before putting the machine into service.

Table 2-2. Owners Annual Inspection Record

MODEL NUMBER		SERIAL NUMBER						
RECORDING DATE								
RECORDING YEAR #	1	2	3	4	5	6	7	8
OWNERS NAME								
INSPECTED BY								

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Table 2-3. Tire Specifications (SJB-40/45TB)

Model	Tire		Fill Specification	
	Size	Rating	Type	Pressure
STANDARD	12.00 x 16.5	**	Air	55 psi
FOAM FILLED (Option)	12.00 x 16.5	**	Solid Urethane	*

Mt45-3

Table 2-4. Maximum Platform Capacities

Model	Platform Capacity (unrestricted)
SJB-40TB	600# (272g) 3 occupants
SJB-45TB	500# (227kg) 2 occupants

NOTE: Refer to capacity label on work platform for additional information.

Mt45-2

RECOMMENDED HYDRAULIC OILS

DO NOT use synthetic or fire resistant oil in this work platform. Use ATF Dexron III (ESSO) or equivalent hydraulic oil. For conditions causing oil temperatures below -31°F (-35° C) and above 122°F (50° C) consult Skyjack, Inc.

RECOMMENDED AXLE LUBRICANT

SAE 80W90 GL-5 gear oil.

TABLE 1-1. SPECIFICATIONS AND FEATURES

Specifications

	SJB-40TB	SJB-45TB	SJB-60TB	SJB-65TB
WEIGHT	12500#(5670kg)	14500#(6577kg)	23440#(10632kg)	26900#(12202kg)
WORK HEIGHT (Nominal)	46'(14.0m)	51'(15.5m)	66'(20.1m)	71'(211.6m)
RAISED PLATFORM HEIGHT (Nominal)	40'(12.2m)	45'(13.7m)	60'(18.3m)	65'(19.8m)
HORIZONTAL REACH (CL rotation)	33' 0"(10.1m)	38' 0"(11.9m)	52' 0"(15.8m)	57' 0"(17.4)
STOWED HEIGHT	7' 8"(2.3m)	7' 8"(2.3m)	8' 6"(2.6m)	8' 6"(2.6m)
STOWED LENGTH	25' 5"(7.75m)	22' 5"(6.83m)	28' 10"(8.8m)	26' 5"(8.1m)
OVERALL WIDTH	8' (2.4m)	8' (2.4m)	8' 0"(2.44m)	8' 0"(2.44m)
PLATFORM CAPACITY (Unrestricted)	600#(272kg)	500#(227kg)	600#(272kg)	500#(227kg)
PLATFORM SIZE	30"x72"(.76mx1.83m)			
ELECTRICAL SYSTEM	12 Volts DC			
GRADABILITY	30%			
TURRET ROTATION	Continuous			
TIRE SIZE	12x16.5	12x16.5	15x19.5	15x19.5

Features

STANDARD EQUIPMENT

Variable Speed Drive and Function Controls
 Continuous Drive and Steer Directional Sensing
 12 Volt DC Emergency Power
 Engine Anti-restart Protection
 Spring-Applied Hyd-Released Parking Brakes
 ANSI and CSA Standards Compliance
 110V Outlet on Platform with GFI
 Ford LRG 425-EFI (2.5L) Gasoline Engine

OPTIONAL EQUIPMENT

Kubota Diesel Engine
 Dual Fuel (Gas/Propane)
 Operator Horn
 All Function Motion Alarm
 Travel Alarm
 Descent Alarm
 Flashing Amber Light
 Platform or Chassis Work Lights
 Spring-Loaded Half Gate
 Spring-Loaded Full Gate
 Air or Hydraulic Line to Platform
 Cold Weather Start
 High Flotation Tires
 Foam Filled Tires
 Four Wheel Drive
 30"x96" Platform

WORK PLATFORM MAJOR COMPONENT IDENTIFICATION

NOTES

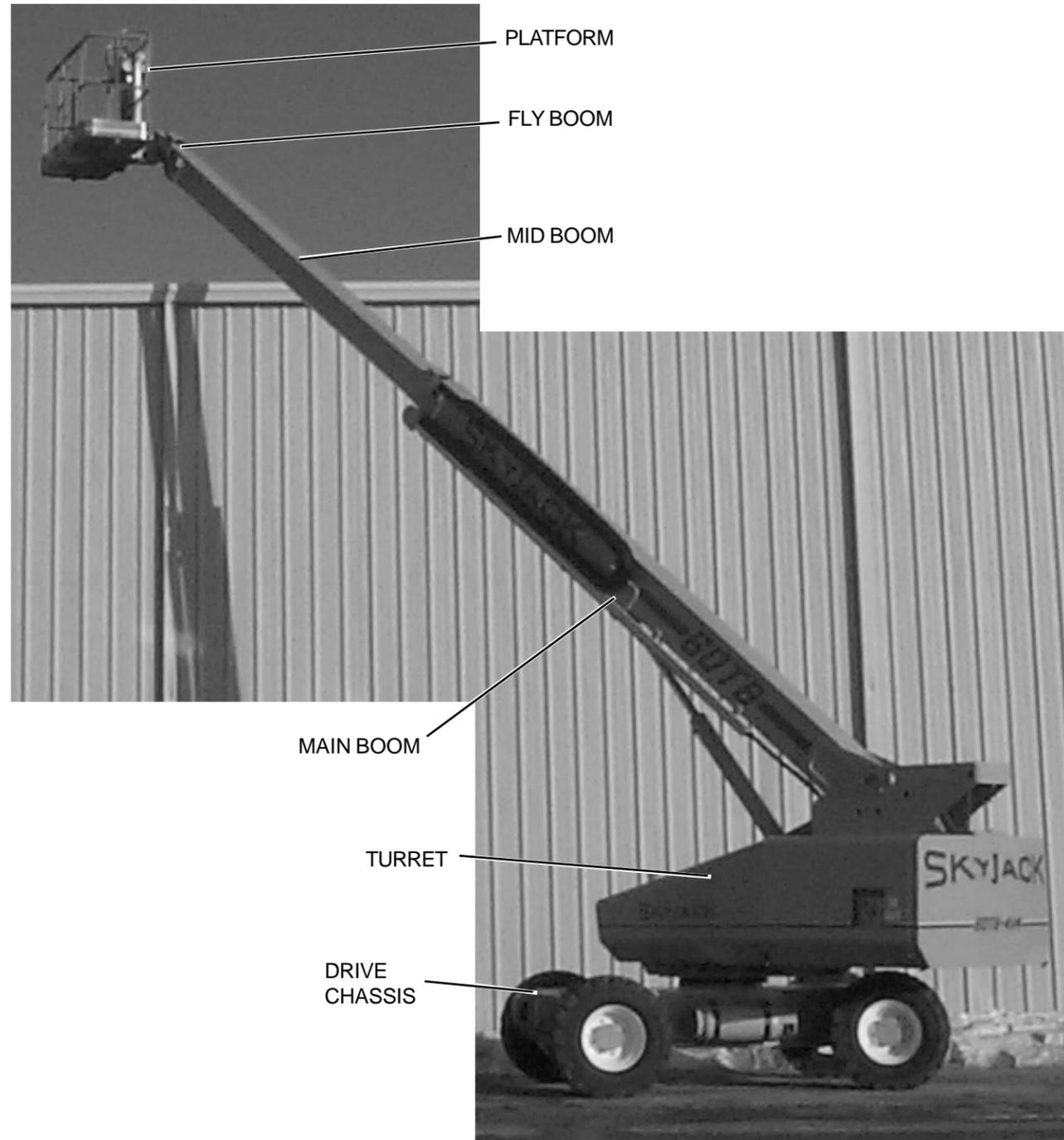


Figure 1-2. SKYJACK SJB Telescopic Boom Work Platform

Table 2-1. Maintenance and Inspection Schedule

	Daily	Weekly	Monthly	3 Months	6 Months	* Yearly
Engine (11)						
Fuel leaks (1)	✓					✓
Engine oil (4)	✓					✓
Engine RPM (8)			✓			✓
Fuel filter (7)					✓	✓
Muffler (2)(3)(11)				✓		✓
Air cleaner (1)(7)			✓			✓
Fuel tank cap (2)(3)	✓					✓
Coolant level (1)(12)	✓					✓
Mechanical						
Struct. damage/welds (1)	✓					✓
Parking brakes (2)	✓					✓
Tires and wheels (1)(2)(3)	✓					✓
Guides and wear pads (1)(2)(3)	✓					✓
Railings and gate (2)(3)		✓				✓
Bolts and fasteners (3)	✓					✓
Rust (1)			✓			✓
Whl brgs (2) King pins (1)(6)				✓	✓	✓
Turret gear (1)(2)(3)(6)		✓				✓
Turret gear box (1)(2)(3)(4)		✓				✓
Pivot pins (1)	✓					✓
Steer cylinders/tie rod ends(6)				✓		✓
Axle gear oil (13)						✓
Electrical						
Battery fluid level (1)	✓					✓
Joysticks and control switches (1)(2)(3)	✓					✓
Cords and wiring (1)(3)	✓					✓
Battery terminals (1)(3)	✓					✓
Terminals and plugs (1)(3)	✓					✓
Generator and receptacle (2)	✓					✓
Limit switches (2)	✓					✓
Tilt sensors (2)	✓					✓
Directional sensing (2)	✓					✓
Emergency pump (2)		✓				✓
Hydraulic						
Hydraulic oil level (1)(4)	✓					✓
Hydraulic leaks/hoses (1)(3)	✓					✓
Lift/lowering time (8)				✓		✓
Hydraulic cylinders (1)(2)(3)		✓				✓
Emergency lowering (2)	✓					✓
Lift capacity (5)			✓			✓
Hydraulic oil/filter (7)					✓	✓
Miscellaneous						
Labels (1)(9) Manuals (10)	✓					✓
NOTES: (1) Visually inspect (2) Check operation (3) Check tightness (4) Check oil level (5) Check relief valve setting. Refer to (6) Lubricate (7) Replace (8) See Table 5-7. General Specification Serial Number nameplate (9) Replace if missing or illegible (10) Proper Operating Manual MUST be in the manual tube (11) Refer to engine manual (12) Check only when cooled (13) Change oil. * Record inspection						

SECTION 2 OPERATOR CONTROLS/INSPECTIONS

OPERATOR QUALIFICATIONS

Only trained and authorized persons should use this work platform. Safe use of this work platform requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator MUST understand and be familiar with this operating manual, its warnings and instructions and ALL warnings and instructions on the work platform. Operator also MUST be familiar with employer's work rules and related government regulations and be able to demonstrate his/her ability to understand and operate THIS make and model work platform in the presence of a qualified person.

OPERATOR'S RESPONSIBILITY FOR MAINTENANCE

Death or injury can result if the work platform is not kept in good working order. Inspection and maintenance should be performed by competent personnel who are familiar with mechanical procedures.

The operator should be assured that the work platform has been properly maintained and inspected before using it. Even if the operator is not directly responsible for the maintenance of this work platform, the operator should perform ALL the daily inspections found in Table 2-1. Maintenance and Inspection Schedule.

NOTE

Replace all worn or damaged parts or labels discovered during this inspection.

MAINTENANCE AND INSPECTION SCHEDULE

The actual operating environment of the work platform governs the use of the maintenance schedule. The inspection points covered in Table 2-1. Maintenance and Inspection Schedule indicates the areas of the work platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.

OWNER'S ANNUAL INSPECTION RECORD

It is the responsibility of the owner to arrange daily, weekly, monthly and annual inspections of the work platform. (Refer to Table 2-2 in this manual.)

GENERAL MAINTENANCE HINTS

- Before attempting any repair work, disconnect the battery by turning the Battery Disconnect Switch to the "OFF" position.
- Preventative maintenance is the easiest and least expensive type of maintenance.

OPERATING CONTROL IDENTIFICATION

The following descriptions are for identification, explanation and locating purposes only. A qualified operator MUST read and completely understand these descriptions before operating this work platform. Procedures for operating this work platform are detailed in the "OPERATING PROCEDURES" section on Pages 7 through 9 in this manual.



**Base Controls - Electrical
Base Control Panel**

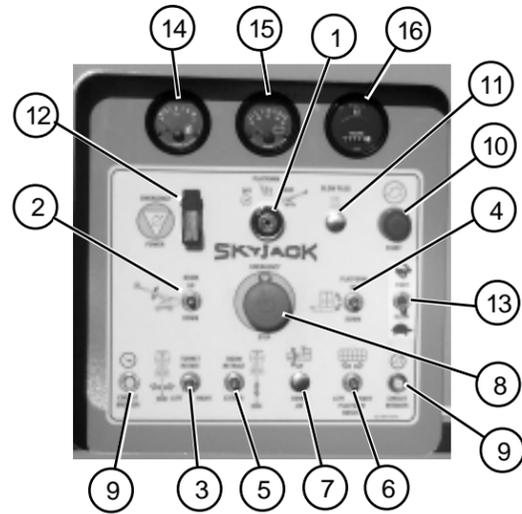


Figure 2-1. Base Control Panel and Label

1. OFF/PLATFORM/BASE SELECT KEY SWITCH
2. BOOM UP/DOWN TOGGLE SWITCH
3. TURRET ROTATION TOGGLE SWITCH
4. PLATFORM LEVELING TOGGLE SWITCH
5. BOOM RETRACT/EXTEND TOGGLE SWITCH
6. PLATFORM ROTATION TOGGLE SWITCH
7. JIB UP/DOWN TOGGLE SWITCH (SJB-65TB)
8. EMERGENCY STOP BUTTON
9. CIRCUIT BREAKERS
10. ENGINE IGNITION PUSH-BUTTON SWITCH
11. ENGINE GLOW PLUG SWITCH (Diesel)
12. EMERGENCY PUMP ENABLE SWITCH
13. THROTTLE SPEED SWITCH
14. FUEL GAUGE
15. VOLT METER
16. HOUR METER

BASE CONTROL PANEL - This control station is located in the main electrical enclosure on the rotating turret. It contains the following controls:

1. OFF/PLATFORM/BASE SELECT KEY SWITCH - Turning the key to the "⊗" (off) position disconnects power from the control circuit. When the "🏠" (platform) position is selected, power is directed to the control station on the platform. When the "🏢" (base) position is selected power is directed to the control station on the turret.

2. BOOM UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the boom section. To raise the boom section, push and hold this toggle switch to the "↑" (up) position. Release switch to stop. To lower the boom section, push and hold this toggle switch to the "↓" (down) position. Release switch to stop.

3. TURRET ROTATION TOGGLE SWITCH - This switch controls clockwise and counterclockwise turret rotation. To rotate the turret clockwise, push and hold this toggle switch to the "↻" (cw) position. Release switch to stop. To rotate the turret counterclockwise, push and hold this toggle switch to the "↺" (ccw) position. Release switch to stop.

4. PLATFORM LEVELING TOGGLE SWITCH - This switch controls the leveling of the platform if adjustment is necessary. If the platform is tilted down away from the boom, push and hold this toggle switch to the "↑" (up) position. Release switch when level. If the platform is tilted up toward the boom, push and hold this toggle switch to the "↓" (down) position. Release switch when level.

5. BOOM RETRACT/EXTEND TOGGLE SWITCH - This switch controls the retraction and extension of the telescoping boom arm. To retract the boom arm, push and hold this toggle switch to the "↑" (retract) position. Release switch to stop. To extend the boom arm, push and hold this toggle switch to the "↓" (extend) position. Release switch to stop.

6. PLATFORM LEFT/RIGHT ROTATION TOGGLE SWITCH - This switch controls left and right rotation of the platform. To rotate the platform to the left, push and hold this toggle switch to the "↶" (left) position. Release switch to stop. To rotate the platform to the right, push and hold this toggle switch to the "↷" (right) position.

7. JIB UP/DOWN TOGGLE SWITCH (SJB-45/65TB) - This switch controls the up/down movement of the jib. To move the jib upward, push and hold this toggle switch to the "↑" (up) position. Release switch to stop. To move the jib downward, push and hold this toggle switch to the "↓" (down) position. Release switch to stop.

8. EMERGENCY STOP BUTTON - When struck, this red push-button switch disconnects power to the control circuit. In the event of an emergency or at work platform shut down, push button in. To restore power, simply pull button out.

9. CIRCUIT BREAKERS - In the event of a power overload or positive circuit grounding, the circuit breaker will pop out. Make the necessary corrections, then depress the push-button to reset.

10. ENGINE IGNITION PUSH-BUTTON SWITCH - Pressing this switch will engage the starter, once the engine starts, release the button. To stop the engine turn the key switch to the "⊗" (off) position. The engine must be running before any functions can be operated.

Figure 2-14. Reach Diagram SJB-45TB

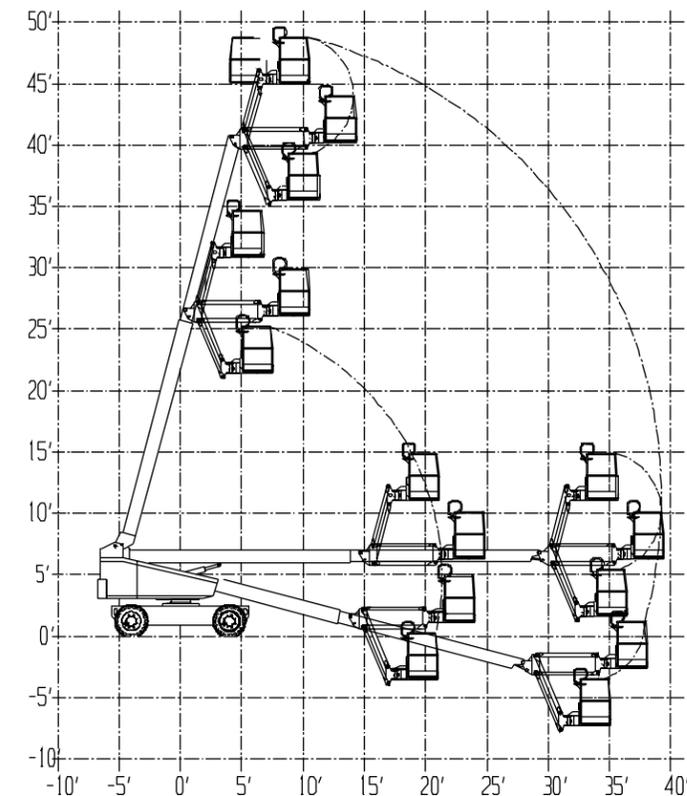


Figure 2-15. Dimensional Diagram SJB-45TB

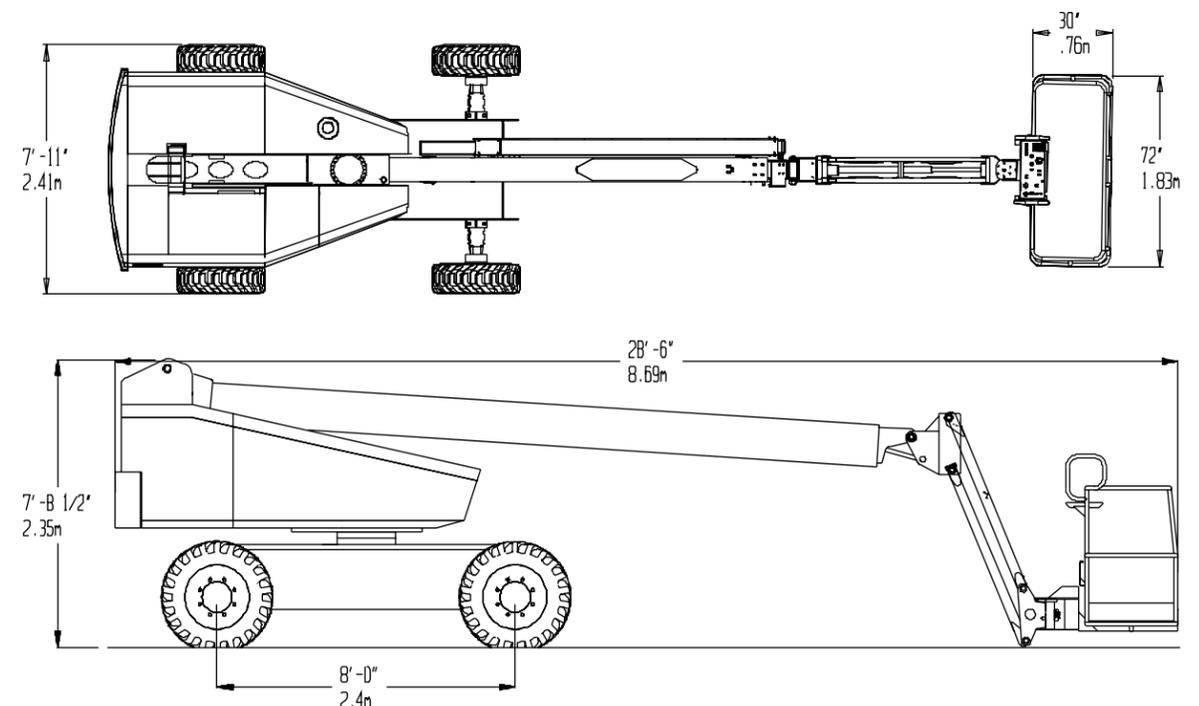


Figure 2-12. Reach Diagram SJB-40TB

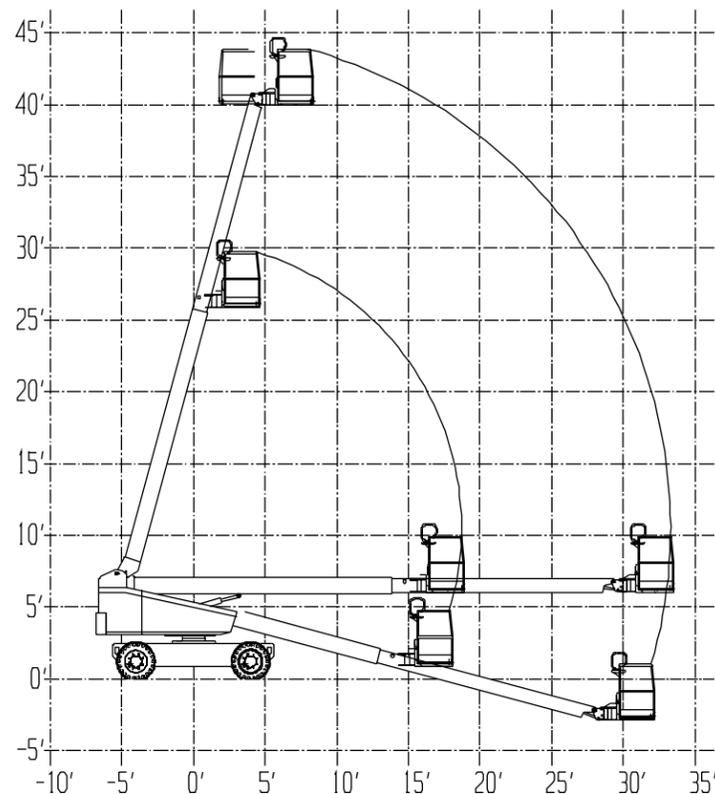
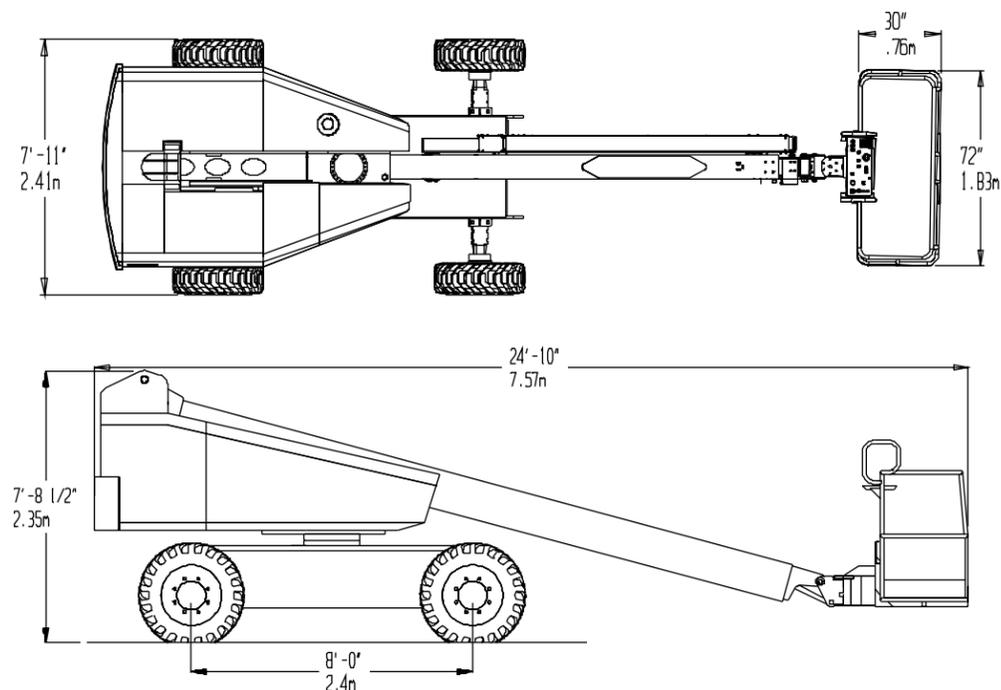


Figure 2-13. Dimensional Diagram SJB-40TB



11. ENGINE GLOW PLUG SWITCH (Diesel) - This switch when held in the “↑” (up) position, activates the glow plugs on machines equipped with the diesel engine option.

12. EMERGENCY PUMP SELECT TOGGLE SWITCH - In the event of an emergency, moving this toggle switch to the “↑” up position kills the engine, enables the 12 volt emergency pump and allows all functions to be operated. To resume normal operation, move the switch to the down position by closing the switch cover.

13. THROTTLE SPEED CONTROL SWITCH - This switch is used to control the engine running speed, to operate with the engine at high speed this switch must be held in the “↑” up position. Once the switch is released the engine will drop down to low speed.

14. FUEL GAUGE - Electronic fuel level gauge.

15. VOLT METER - This meter displays battery voltage.

16. HOUR METER - Activated by the ignition system, this gauge measures engine running time.

Battery Disconnect Switch



Figure 2-2. Battery Disconnect Switch

1. BATTERY DISCONNECT SWITCH

1. BATTERY DISCONNECT SWITCH - This switch, located on the rotating turret at the rear of the hydraulic tank cover, disconnects power to both control stations in the event of an emergency and for work platform shut down. This switch **MUST** be turned to “ON” position to start the engine or operate any control on either of these control stations.



DO NOT disconnect power while engine is running, DO NOT use this switch to turn engine off. Damage to engine may occur.

Base Controls - Mechanical Manual Fuel Shut-Off Valve

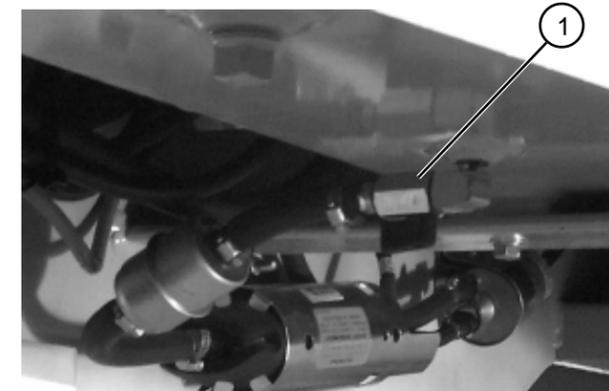


Figure 2-3. Fuel Shut-Off Valve

1. FUEL SHUT OFF VALVE

1. FUEL SHUT OFF VALVE - This valve located in the fuel supply line near the bottom of the fuel tank turns off the supply of fuel to the fuel pump.

Manual Hydraulic Fluid Shut-Off Valve



Figure 2-4. Hydraulic Fluid Shut-Off Valve

1. HYDRAULIC FLUID SHUT OFF VALVE

1. HYDRAULIC FLUID SHUT OFF VALVE - This valve located in the hydraulic fluid supply line on the hydraulic tank turns off the supply of hydraulic fluid to the pumps. **DO NOT** start or run the engine with this valve closed.

Turret Transportation Lock

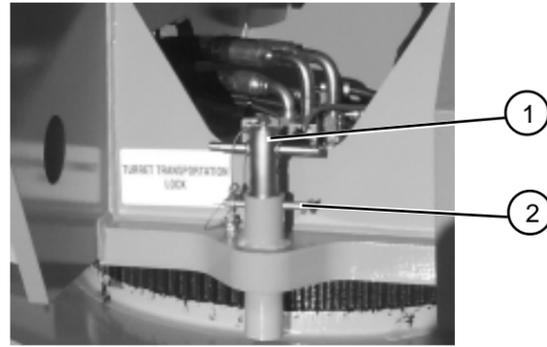


Figure 2-5. Turret Transportation Lock

1. TURRET TRANSPORTATION LOCK
2. TURRET TRANSPORTATION LOCK RETAINING PIN

1. TURRET TRANSPORTATION LOCK - This locking device, located on the turret base plate near the rotation gear, is used to lock the turret in place during shipping only.

2. TURRET TRANSPORTATION LOCK RETAINING PIN - This retaining pin is used to hold the transportation lock in either the locked or unlocked position.

Swing-out Engine Tray (SJB-40/45TB)

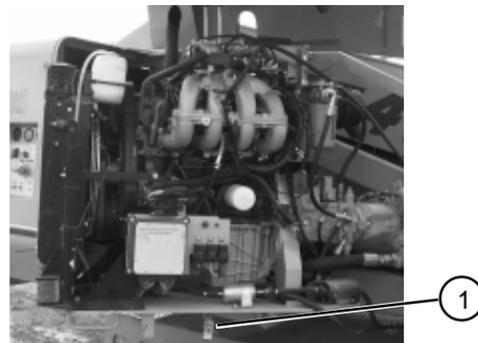


Figure 2-6a. Swing-out Engine Tray

1. ENGINE TRAY LATCH

1. ENGINE TRAY LATCH - This latch is used to securely hold the engine tray and must be released prior to swinging the engine out for servicing. This latch also acts to hold the engine in the "out" position and must be released in order to return the engine tray to its normal position.



CAUTION

This latch should only be released for service or repair to the engine.
DO NOT operate this machine without the engine tray securely latched.



WARNING

DO NOT swing the engine out unless the machine is on a level surface.

22. **TO TURN THE WORK LIGHTS ON OR OFF (Option):** To turn the work lights on move the Work Light Toggle Switch to the "↑" (on) position. To turn the work lights off move the Work Light Toggle Switch to the "↓" (off) position.
23. **TO ROTATE THE PLATFORM TO THE LEFT:** Press and hold the Turret Rotate Toggle Switch to the "←" (left) position. Release the switch to stop.
24. **TO ROTATE THE PLATFORM TO THE RIGHT:** Press and hold the Turret Rotate Toggle Switch to the "→" (right) position. Release the switch to stop.
25. **TO LEVEL THE PLATFORM (Platform is tilted away from the boom):** Press and hold the Platform Leveling Toggle Switch to the "↑" (up) position. To stop, release the switch.
26. **TO LEVEL THE PLATFORM (Platform is tilted toward the boom):** Press and hold the Platform Leveling Toggle Switch to the "↓" (down) position. To stop, release the switch.

NOTE

Platform leveling from platform control console is not available on European models.

27. **TO OPERATE THE 110 VOLT HYDRAULIC GENERATOR:** Move the Hydraulic Generator Toggle Switch to the "↑" (on) position. With the hydraulic generator on, all drive, boom and rotate functions are disabled. To turn the generator off simply move the toggle switch to the "↓" (off) position.
28. **TO OPERATE USING THE EMERGENCY PUMP:** Raise the cover on the Emergency Pump Select Toggle Switch. Press and hold the switch to the "↑" (up) position. When the switch is released, power to the emergency pump will be disconnected. This function is intended to be used in the event of an engine failure to lower the work platform or move the machine to an appropriate location for repairs to be made. This function is not intended to be used for an extended period of time.

Shutdown Procedure

1. Fully lower the platform.
2. Push in the Emergency Stop Buttons.
3. Rotate the Off/Platform/Base Key Switch to the "⊗" (off) position. Remove the key.
4. Rotate the Battery Disconnect Switch to the "OFF" position.

Loading and Tie Down Procedure

1. With the telescopic boom fully retracted and trailer on firm level ground. Align the tires of the boom with the back end of the trailer.
2. Slightly raise the boom for ground clearance while loading. Slowly and carefully drive the machine on to the trailer. In the event of an engine failure the Emergency Pump can be used to raise the boom, and steer the work platform while winch loading.

NOTE

For loading and unloading using a winch line, see the drive relief override and brake release procedures in this section.

3. With machine loaded on trailer, tie down as recommended. (Refer to Figure 2-11.)
4. Remove turret lock retaining pin. Lower turret lock into locked position and reinstall turret lock retaining pin.

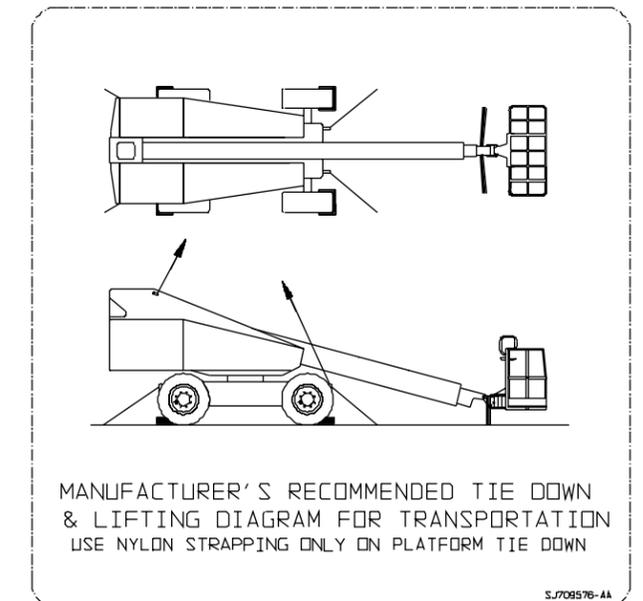


Figure 2-11. Recommended Tie Down Locations

Start and Operation

At the base control panel:

1. Turn the Battery Disconnect Switch to the "ON" position.
2. Pull out the Emergency Stop Button on the Base Control Panel.
3. Select " " (platform) with Off/Platform/Base Select Key Switch.
4. Enter the platform by sliding the entry bar at the center of the platform upward. Make sure the entry midrail returns to midrail position. Close the gate (if so equipped).

Using the platform controls:



WARNING

DO NOT operate any control on the operator's control console without your safety devise fastened and properly securing the safety devise lanyard to the platform lanyard rings. **Failure to avoid this hazard could result in death or serious injury!**

5. Attach the safety belt lanyards of each occupant to the platform lanyard rings.
6. Pull out the Emergency Stop Button.
7. Select desired fuel source using the Fuel Source Select Switch. (Machines with dual fuel option) Press and hold Glow Plug Switch for 15 to 20 seconds, then release. (Machines with diesel engine option)
8. Press the Engine Ignition Push-Button until engine starts, then release. **DO NOT** over crank the starter. (If engine fails to start after multiple attempts, consult the TROUBLE SHOOTING section in the Operational Maintenance and Parts Manual). **NOTE: Engine will not start if foot switch is depressed.**
9. To operate any functions at high engine RPM, the Engine Speed Select Toggle Switch must be held in the " " fast position. Releasing this switch will drop the engine back to slow engine RPM.

REMEMBER

The following controls on the Operator's Control Console **WILL NOT** operate unless the Foot Switch is depressed and held.

NOTE

When the operator is positioned over an axle, the direction the operator is facing will be **FORWARD!**

10. **TO DRIVE FORWARD:** Slowly move the Drive/Steer Controller handle to the " " (forward) position. Release controller handle to stop.
11. **TO DRIVE IN REVERSE:** Slowly move the Drive/Steer Controller handle to the " " (reverse) position. Release controller handle to stop.
12. **TO STEER:** Move the Drive/Steer Controller handle in the direction you wish to steer.
13. **TO MOVE THE BOOM UPWARD:** Slowly move the Boom Up/Down, Turret Rotate Controller to the " " (up) position. Release the controller to stop.
14. **TO MOVE THE BOOM DOWNWARD:** Slowly move the Boom Up/Down, Turret Rotate Controller to the " " (down) position. Release the controller to stop.
15. **TO ROTATE THE TURRET CLOCKWISE:** Slowly move the Boom Up/Down, Turret Rotate Controller to the " " (clockwise) position. Release the controller to stop.
16. **TO ROTATE THE TURRET COUNTER-CLOCKWISE:** Slowly move the Boom Up/Down, Turret Rotate Controller to the " " (counter-clockwise) position. Release the controller to stop.
17. **TO EXTEND THE BOOM ARM:** Slowly move the Boom Extend/Retract Controller to the " " (extend) position. Release the controller to stop.
18. **TO RETRACT THE BOOM ARM:** Slowly move the Boom Extend/Retract Controller to the " " (retract) position. Release the controller to stop. (This function is not sequenced and either boom section may retract first.)
19. **TO MOVE THE JIB UPWARD (SJB-45/65TB):** Slowly move the Jib Up/Down Controller to the " " (up) position. Release the controller to stop.
20. **TO MOVE THE JIB DOWNWARD (SJB-45/65TB):** Slowly move the Jib Up/Down, Platform Rotate Controller to the " " (down) position. Release the controller to stop.
21. **TO SOUND THE HORN (Option):** Press the horn push-button. Release the button to stop.

Base Controls - Hydraulic Drive Relief Valve Overrides

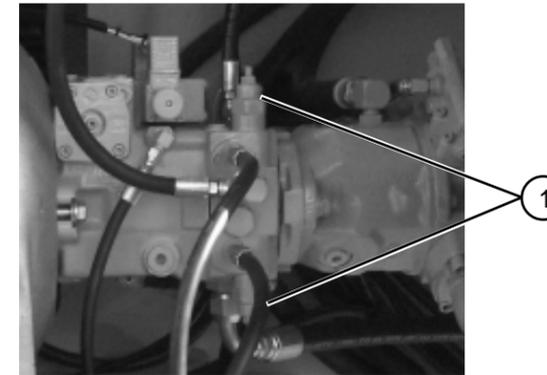


Figure 2-7. Drive Pump

1. DRIVE RELIEF VALVE WITH OVERRIDE STEM

1. DRIVE RELIEF VALVE WITH OVERRIDE STEM. The relief override stems, located on the top and bottom of the Drive Pump, are used to override the drive relief valves allowing the machine to be loaded or unloaded from a trailer using a winch line. To override the drive relief valve the procedure below **MUST** be followed:



DANGER

DO NOT attempt to override the relief valves without the wheels chocked.

- Step 1. Place the machine on a flat level surface and chock the wheels to prevent from rolling.
- Step 2. Loosen the retaining nut on the relief valve override stem. Screw in the override stem (clockwise) until it stops. Repeat this step for both relief valves.
- Step 3. Release the parking brake (see Brake Manifold in this section). The machine is now ready to be loaded or unloaded using a winch line.
- Step 4. Once the machine has been loaded or unloaded unscrew the override stem (counter-clockwise) until it stops and reset the retaining nut.



CAUTION

DO NOT tow. This procedure is intended for loading and unloading the machine using a winch line and should not be used to tow the machine.

Brake Manifold and Parking Brake Release Procedure

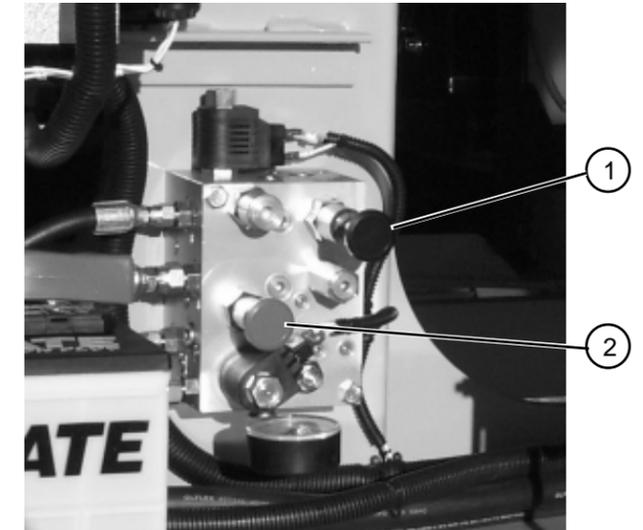


Figure 2-8. Brake Manifold

BRAKE MANIFOLD - This manifold is located near the Base Control Panel on the rotating turret, and accessed by opening the hydraulic/electric cabinet door. It contains the following controls:

1. PARKING BRAKE OVERRIDE VALVE PLUNGER
2. PARKING BRAKE RELEASE HAND PUMP



DANGER

DO NOT release the brakes on an incline without the wheels chocked.

1. PARKING BRAKE OVERRIDE VALVE PLUNGER - When this red plunger is pulled out, the brake hydraulic circuit is isolated allowing use of the parking brake hand pump.

2. PARKING BRAKE RELEASE HAND PUMP - The hand pump **MUST** be used to disengage the parking brakes. To release the parking brakes the procedure below **MUST** be followed:

- Step 1. Firmly pull out the red plunger on the Brake Manifold until the knob remains out.
- Step 2. Grasp the black hand pump plunger and pump rapidly until firm resistance is felt and the brake pressure gauge reaches 700 psi. The brakes are now release. (Although the gauge reading may decrease the brakes will remain released until pressure drops below 300 psi.)

NOTE

To return brakes to normal operation depress red plunger or operate any hydraulic function other than steering.

Platform Controls - Electrical Foot Switch

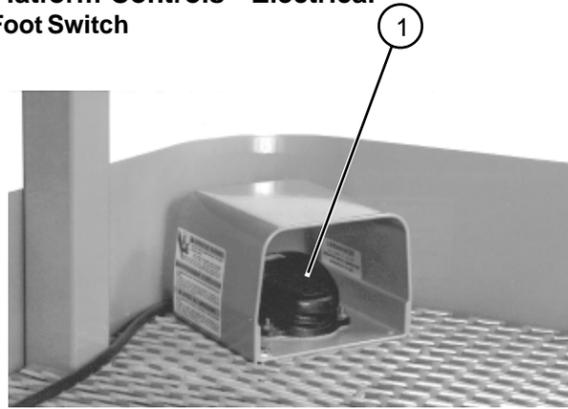


Figure 2-9. Foot Switch

1. FOOT SWITCH

1. FOOT SWITCH - The foot switch is located on the platform. When the foot switch is depressed and held, power is brought to the controls on the operator's control console. When the foot switch is released, the controls on the operator's control console are cut out.

IMPORTANT NOTE

The foot switch **MUST** be depressed and held to use any control on the operator's control console.



WARNING

Before releasing the foot switch, the controllers should be returned to the neutral position. **Work platform motion will stop when the foot switch is released.**

Operator's Control Console

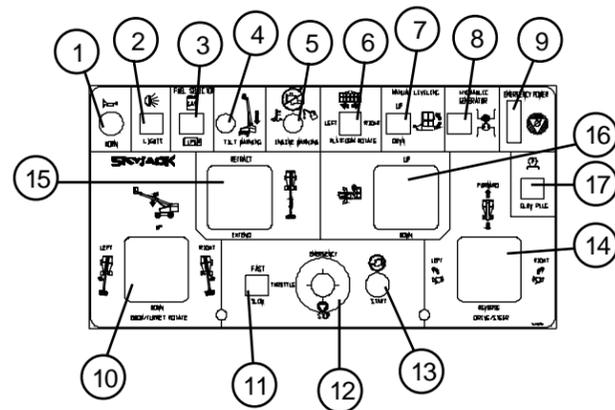


Figure 2-10. Operator's Control Console and Label

1. HORN PUSH-BUTTON (Option)
2. WORK LIGHT TOGGLE SWITCH (Option)
3. FUEL SELECT SWITCH (Dual Fuel)
4. TILT SENSOR INDICATOR LIGHT
5. ENGINE WARNING LIGHT
6. PLATFORM ROTATE TOGGLE SWITCH
7. PLATFORM LEVELING TOGGLE SWITCH
8. HYDRAULIC GENERATOR TOGGLE SWITCH (Option)
9. EMERGENCY PUMP ENABLE SWITCH
10. BOOM UP/DOWN TURRET ROTATE CONTROLLER
11. ENGINE SPEED SELECT TOGGLE SWITCH
12. EMERGENCY STOP BUTTON
13. ENGINE IGNITION PUSH-BUTTON
14. DRIVE/STEER CONTROLLER
15. BOOM EXTEND/RETRACT CONTROLLER
16. JIB UP/DOWN CONTROLLER (SJB-45TB)
17. GLOW PLUG TOGGLE SWITCH

OPERATOR'S CONTROL CONSOLE - This metal control station is located at the front of the platform. It contains the following controls:

IMPORTANT NOTE

The foot switch **MUST** be depressed and held to use any control on the operator's control console. Refer to Operating Procedures for detailed instructions on operating these controls.

1. HORN PUSH BUTTON (Option) - If equipped with the horn option, the horn is sounded by depressing this button.

2. WORK LIGHT TOGGLE SWITCH (Option) - This switch controls power to the platform and/or chassis work lights.

3. FUEL SELECT - For machines equipped with the dual fuel option, this switch allows the operator to select the desired fuel source.

4. TILT SENSOR INDICATOR LIGHT - This red indicator light warns the operator that the work platform is on a slope which exceeds the limits for safe operation. A warning buzzer will also sound.

5. ENGINE WARNING LIGHT - This red indicator light notifies the operator that the engine oil pressure is low or the engine is overheating and should be shut off.

6. PLATFORM ROTATE TOGGLE SWITCH - This switch controls left and right rotation of the platform. To rotate the platform to the left, push and hold this toggle switch to the "←" (left) position. Release switch to stop. To rotate the platform to the right, push and hold this toggle switch to the "→" (right) position.

7. PLATFORM LEVELING TOGGLE SWITCH - This switch controls the leveling of the platform if adjustment is necessary. If the platform is tilted down away from the boom, push and hold this toggle switch to the "↑" (up) position. Release switch when level. If the platform is tilted up toward the boom, push and hold this toggle switch to the "↓" (down) position. Release switch when level. **NOTE: This function is not available from the platform on European models.**

8. HYDRAULIC GENERATOR TOGGLE SWITCH (Option) - This switch operates the optional hydraulic 110 volt generator to supply power to the platform mounted 110 volt outlet.

9. EMERGENCY PUMP SELECT TOGGLE SWITCH - In the event of an emergency, moving this toggle switch to the "↑" (up) position kills the engine, enables the 12 volt emergency pump and allows all functions to be operated. To resume normal operation, move the switch to the right position by closing the switch cover.

10. BOOM UP/DOWN TURRET ROTATE CONTROLLER - This lever-type controller allows the operator to choose the direction and vary the speed for boom up/down movement or turret right/left rotation.

11. ENGINE SPEED SELECT TOGGLE SWITCH - This switch allows the operator to select from low or high engine speed.

12. EMERGENCY STOP BUTTON - When struck, this red push-button switch disconnects power to the control circuit. In the event of an emergency or at work platform shut down, push button in. To restore power, simply pull button out.



WARNING

Depressing the Emergency Stop Button instantly engages parking brakes.

13. ENGINE IGNITION PUSH-BUTTON SWITCH - Pressing this switch will engage the starter, once the engine starts, release the button. To stop the engine depress the emergency stop button. The engine must be running before any functions can be operated.

14. DRIVE/STEER CONTROLLER - This lever-type controller allows the operator to drive in forward and reverse and steer left and right.

15. BOOM EXTEND/RETRACT CONTROLLER - This lever-type controller allows the operator to extend or retract the boom and vary the speed of the function.

16. JIB UP/DOWN CONTROLLER - This lever-type controller allows the operator to choose the direction and vary the speed for jib up/down movement.

17. GLOW PLUG TOGGLE SWITCH - For machines equipped with the diesel option, this switch activates the diesel engine glow plugs.

OPERATING PROCEDURES

Before operating any control, read and completely understand ALL Dangers, Warnings and Cautions on the work platform and in this operator's manual.

OPERATORS CHECK LIST

INSPECT AND/OR TEST THE FOLLOWING DAILY OR AT THE BEGINNING OF EACH SHIFT

1. OPERATING AND EMERGENCY CONTROLS.
2. SAFETY DEVICES.
3. PERSONAL PROTECTIVE DEVICES.
4. TIRES AND WHEELS.
5. OUTRIGGERS (IF EQUIPPED) AND OTHER STRUCTURES.
6. AIR, HYDRAULIC AND FUEL SYSTEM FOR LEAKS.
7. LOOSE OR MISSING PARTS OR HARDWARE.
8. CABLES OR WIRING HARNESS.
9. PLACARDS, WARNINGS, CONTROL MARKINGS AND OPERATING MANUAL(S).
10. GUARDRAIL SYSTEM.
11. ENGINE OIL SYSTEM (IF SO EQUIPPED).
12. BATTERY FLUID LEVEL.
13. HYDRAULIC AND BRAKE FLUID RESERVOIR LEVEL.
14. COOLANT LEVEL (IF SO EQUIPPED).

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Prestart Checks

1. Check for obstacles around the work platform and in the path of travel such as holes, drop offs, debris, ditches and soft fill.
2. Check overhead clearances.
3. Check fuel level. Make sure the valve on the propane tank is in the open position (Dual Fuel Option only).