



An Oshkosh Corporation Company

Operation and Safety Manual

Original Instructions - Keep this manual with the machine at all times.

Boom Lift Models

400S

460SJ

460SJ

Prior to S/N 0300203770*

** See inside front cover for exceptions.*

ANSI



3121216

April 3, 2018

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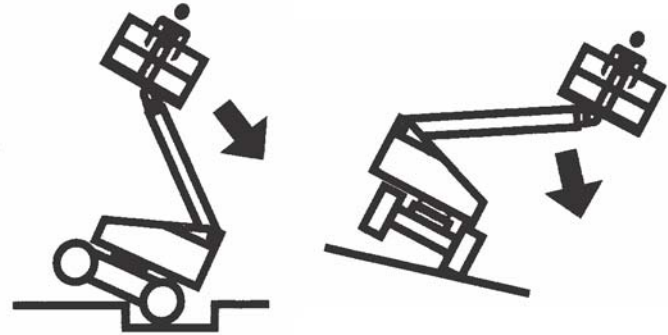
- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance within the designed working dimensions of the insulating barrier. This determination shall be made by a qualified person in accordance with the employer, local, or governmental requirements for work practices near energized equipment

⚠ DANGER

DO NOT MANEUVER MACHINE OR PERSONNEL INSIDE PROHIBITED ZONE (MAD). ASSUME ALL ELECTRICAL PARTS AND WIRING ARE ENERGIZED UNLESS KNOWN OTHERWISE.

Tipping Hazards

- The user must be familiar with the surface before driving. Do not exceed the allowable sideslope and grade while driving.



- Do not elevate platform or drive with platform elevated while on or near a sloping, uneven, or soft surface. Ensure machine is positioned on a firm, level and smooth surface before elevating platform or driving with the platform in the elevated position.
- Before driving on floors, bridges, trucks, and other surfaces, check allowable capacity of the surfaces.

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

Table 2-1. Inspection and Maintenance Table

Type	Frequency	Primary Responsibility	Service Qualification	Reference
Pre-Start Inspection	Before using each day; or whenever there's an Operator change.	User or Operator	User or Operator	Operator and Safety Manual
Pre-Delivery Inspection (See Note)	Before each sale, lease, or rental delivery.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Frequent Inspection (See Note)	In service for 3 months or 150 hours, whichever comes first; or Out of service for a period of more than 3 months; or Purchased used.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual and applicable JLG inspection form
Annual Machine Inspection (See Note)	Annually, no later than 13 months from the date of prior inspection.	Owner, Dealer, or User	Factory Trained Service Technician (Recommended)	Service and Maintenance Manual and applicable JLG inspection form
Preventative Maintenance	At intervals as specified in the Service and Maintenance Manual.	Owner, Dealer, or User	Qualified JLG Mechanic	Service and Maintenance Manual

NOTE: Inspection forms are available from JLG. Use the Service and Maintenance Manual to perform inspections.

SECTION 3. MACHINE CONTROLS AND INDICATORS

3.1 GENERAL

NOTICE

THE MANUFACTURER HAS NO DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION. THE USER AND OPERATOR ARE RESPONSIBLE FOR CONFORMING WITH GOOD SAFETY PRACTICES.

This section provides the necessary information needed to understand control functions.

3.2 CONTROLS AND INDICATORS

NOTE: All machines are equipped with control panels that use symbols to indicate control functions. On ANSI machines refer to decal located on the control box guard in front of the control box or by the ground controls for these symbols and the corresponding functions.

NOTE: The indicator panels use different shaped symbols to alert the operator to different types of operational situations that could arise. The meaning of those symbols are explained below.



Indicates a potentially hazardous situation, which if not corrected, could result in serious injury or death. This indicator will be red.



Indicates an abnormal operating condition, which if not corrected, may result in machine interruption or damage. This indicator will be yellow.



Indicates important information regarding the operating condition, i.e. procedures essential for safe operation. This indicator will be green with the exception of the capacity indicator which will be green or yellow depending upon platform position.

7. Glow Plug Wait Indicator (Diesel)

Indicates the glow plugs are on. The glow plugs are automatically turned on with the ignition circuit and remain on for approximately seven seconds. Start the engine only after the light goes out.

8. Hydraulic Filter Bypass Indicator

Indicates that the return oil filter is too restrictive and needs to be replaced.

9. Transmission Pump Oil Filter Indicator

Indicates that charge pump filter is too restrictive and needs to be replaced. This indicator has an integral temperature sensor (70 degrees F.) so that false signals are not generated when the hydraulic oil is below normal operating temperature.

10. Engine Air Filter Indicator

Indicates the air filter is too restrictive and needs to be replaced.

11. Platform Overload (CE Only)

Indicates the platform has been overloaded.

12. Drive and Steer Disable Indicator (If equipped)

Indicates the Drive and Steer Disable function has been activate

4. Fuel Level Indicator

NOTE: Refer to Fuel Reserve/Shut-Off System in Section 4 for detailed information.

Shows fuel level in tank and provides visual low fuel alarms.

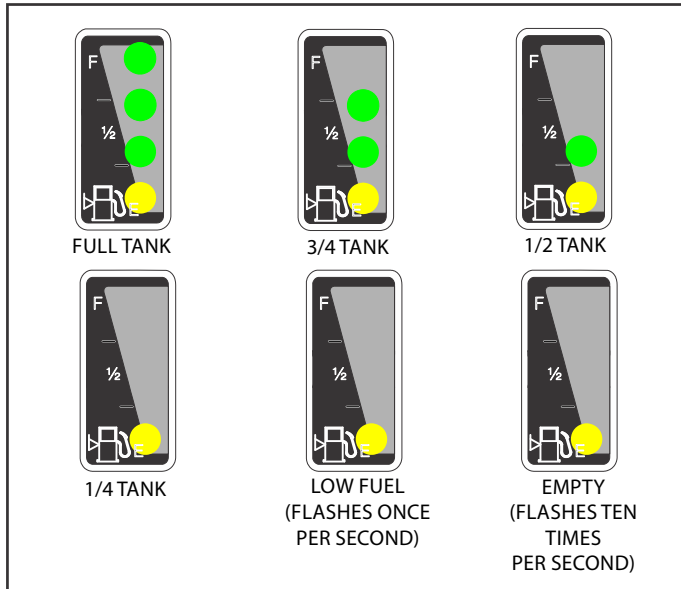


Figure 3-11. Fuel Indicator

5. Enable Indicator

Indicates that the footswitch is depressed and the platform controls are ready for use. To enable the controls, depress the footswitch and select any function within seven seconds. The controls will then remain active as long as there is not a delay of seven seconds between stopping one function and starting the next one. If the seven second interval is exceeded, the enable light will go out and the controls will not operate. To enable the controls again, remove your foot from the footswitch and depress the footswitch.

6. Glow Plug Indicator

Illuminates when the glow plugs are operating. Wait until the light goes out before cranking engine.

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Traveling Forward or Reverse

1. With engine running, depress footswitch and position DRIVE control to FORWARD and hold for the duration of forward travel desired.

NOTE: *When DRIVE or STEER functions are being operated there is an interlock which prevents operation of boom functions.*

2. Depress footswitch and position DRIVE control to REVERSE and hold for duration of reverse travel desired.
3. Depress footswitch and position STEER control to RIGHT for traveling right and LEFT for traveling left.
4. To obtain maximum travel speed, position the DRIVE controller to FAST and activate the following switches: Position DRIVE SPEED/TORQUE SELECT switch to FAST. (Forward Position)
5. Prior to stopping the machine, position switches as follows: Position DRIVE SPEED/TORQUE SELECT switch to LOW. (Backward Position)

6. For traveling up grades, position switches as follows: Position DRIVE SPEED/TORQUE SELECT switch to HIGH.

NOTE: *For smoother operation when driving with fully extended boom, place DRIVE control to SLOW before stopping.*

This machine is equipped with a Drive Orientation Indicator. The yellow light on the platform control console indicates that the boom is swung beyond the rear drive tires and the machine may Drive/Steer in the opposite direction from the movement of the controls. If the indicator is illuminated, operate the Drive function in the following manner:

1. Match the black and white direction arrows on both platform control panel and the chassis to determine the direction the machine will travel.
2. Push and release the Drive Orientation Override switch. Within 3 seconds, slowly move the Drive control toward the arrow matching the intended direction of machine travel. The indicator light will flash during the 3 second interval until the drive function is selected.

IMPORTANT

LIFTING INSTRUCTIONS

1. See the Operators and Safety Manual for approximate gross weight of machine as originally manufactured.
2. Place boom in the stowed position with turntable locked.
3. Remove all loose items from machine.
4. Properly adjust rigging to prevent damage to machine and so machine remains level.

TIE DOWN INSTRUCTIONS

1. Place boom in the stowed position with turntable locked.
2. Remove all loose items from machine.
3. Secure the chassis and the platform using straps or chains of adequate strength.

Refer to the Operators and Safety Manual for more information.

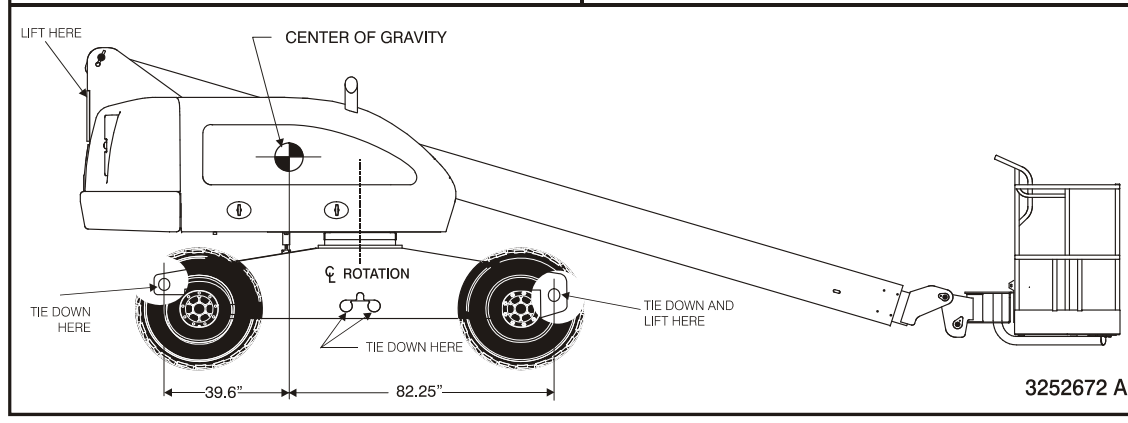


Figure 4-6. Lifting and Tie Down

Table 4-2. Decals - 400S with 500 lb (227 or 230 kg) Capacity

Item #	ANSI 0259159-C	CE/Australian 0275066-D	Portuguese/ Spanish 0259185-D	Chinese/ 0259183-D	French 0259181-D	Japanese 0259175-D	Korean 0259177-D	English/ Spanish 0259179-D
53	--	--	--	--	--	--	--	--
54	1705351	--	1705905	1705430	1705429	1705426	1705427	1705910

SECTION 5. EMERGENCY PROCEDURES

5.1 GENERAL

This section explains the steps to be taken in case of an emergency situation while operating.

5.2 INCIDENT NOTIFICATION

JLG Industries, Inc. must be notified immediately of any incident involving a JLG product. Even if no injury or property damage is evident, the factory should be contacted by telephone and provided with all necessary details.

In USA:

JLG Phone: 877-JLG-SAFE (554-7233)
(8am till 4:45pm EST)

Outside USA:

240-420-2661

E-mail:

ProductSafety@JLG.com

Failure to notify the manufacturer of an incident involving a JLG Industries product within 48 hours of such an occurrence may void any warranty consideration on that particular machine.

NOTICE

FOLLOWING ANY ACCIDENT, THOROUGHLY INSPECT THE MACHINE AND TEST ALL FUNCTIONS FIRST FROM THE GROUND CONTROLS, THEN FROM THE PLATFORM CONTROLS. DO NOT LIFT ABOVE 10 FT (3 M) UNTIL YOU ARE SURE THAT ALL DAMAGE HAS BEEN REPAIRED, IF REQUIRED, AND THAT ALL CONTROLS ARE OPERATING CORRECTLY.

5.3 EMERGENCY OPERATION

Operator Unable to Control Machine

IF THE PLATFORM OPERATOR IS PINNED, TRAPPED OR UNABLE TO OPERATE OR CONTROL MACHINE:

1. Other personnel should operate the machine from ground controls only as required.
2. Other qualified personnel on the platform may use the platform controls. DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION PROPERLY.
3. Cranes, forklift trucks or other equipment can be used to remove platform occupants and stabilize motion of the machine.

Tires

Table 6-13. Tires

Size	Type	Pressure	Weight
12x16.5	Pneumatic	90 psi (6.2 bar)	128 lb (58 kg)
12x16.5	Foam-filled	N/A	328 lb (149 kg)
14x17.5	Pneumatic	90 psi (6 bar)	128 lb (58 kg)
14x17.5	Foam-filled	N/A	440 lb (200 kg)
33/16LLx16.1-Sand	Pneumatic	90 psi (2.75 bar)	119.5 lb (54 kg)
33/16LLx16.1-Sand	Foam Filled	N/A	426 lb (193 kg)
33x6x11	Solid	N/A	280 lb (127 kg)
Semitrack Tires			
24x12x 12	Pneumatic	20 psi (1.4 bar)	20.7 lb (9.38 kg)

SECTION 6 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

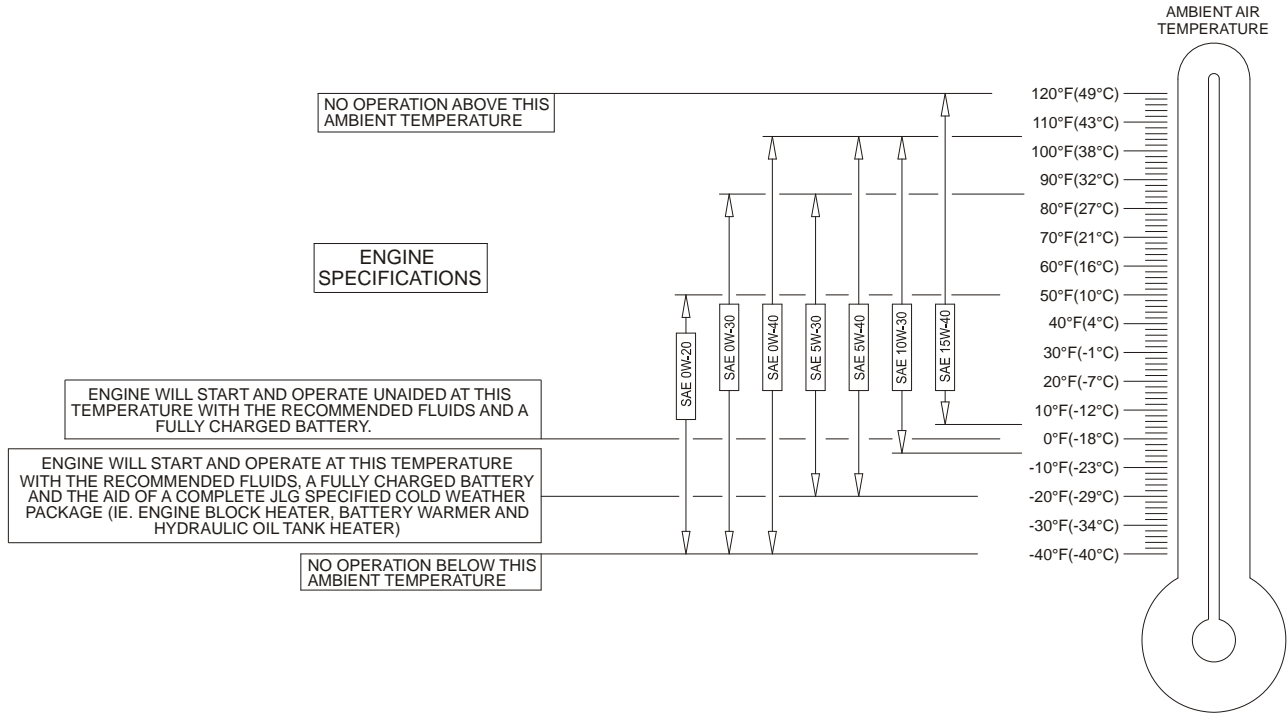


Figure 6-6. Engine Operating Temperature Specifications - Caterpillar - Sheet 1 of 2

SECTION 6 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

3. Wheel Drive Hub

Lube Point(s) - Level/Fill Plug

Capacity - 17 oz (0.5 L) - 1/2 Full

Lube - EPGL

Interval - Check level every 3 months or 150 hours of operation; change every 2 years or 1200 hours of operation

4. Hydraulic Return Filter



Interval - Change after first 50 hours and every 6 months or 300 hours thereafter or whenever Charge Filter is replaced

5. Hydraulic Charge Filter



Interval - Change after first 50 hours and every 6 months or 300 hours thereafter or as indicated by Condition Indicator

6. Hydraulic Tank

Lube Point(s) - Fill Cap

Capacity - 40.0 gal tank (151L) 52.0 gal system (196.8L)

Lube - HO

Interval - Check Level daily; Change every 2 years or 1200 hours of operation

6.4 TIRES & WHEELS

Tire Inflation

The air pressure for pneumatic tires must be equal to the air pressure that is stenciled on the side of the JLG product or rim decal for safe and proper operational characteristics.

Tire Damage

For pneumatic tires, JLG Industries, Inc. recommends that when any cut, rip, or tear is discovered that exposes sidewall or tread area cords in the tire, measures must be taken to remove the JLG product from service immediately. Arrangements must be made for replacement of the tire or tire assembly.

For polyurethane foam filled tires, JLG Industries, Inc. recommends that when any of the following are discovered, measures must be taken to remove the JLG product from service immediately and arrangements must be made for replacement of the tire or tire assembly.

- a smooth, even cut through the cord plies which exceeds 3 inches (7.5 cm) in total length
- any tears or rips (ragged edges) in the cord plies which exceeds 1 inch (2.5 cm) in any direction
- any punctures which exceed 1 inch in diameter
- any damage to the bead area cords of the tire

If a tire is damaged but is within the above noted criteria, the tire must be inspected on a daily basis to insure the damage has not propagated beyond the allowable criteria.

Tire Replacement

JLG recommends a replacement tire be the same size, ply and brand as originally installed on the machine. Please refer to the JLG Parts Manual for the part number of the approved tires for a particular machine model. If not using a JLG approved replacement tire, we recommend that replacement tires have the following characteristics:

- Equal or greater ply/load rating and size of original
- Tire tread contact width equal or greater than original
- Wheel diameter, width, and offset dimensions equal to the original
- Approved for the application by the tire manufacturer (including inflation pressure and maximum tire load)

Unless specifically approved by JLG Industries Inc. do not replace a foam filled or ballast filled tire assembly with a pneumatic tire. When selecting and installing a replacement tire, ensure that all tires are inflated to the pressure recommended by JLG. Due to size variations between tire brands, both tires on the same axle should be the same.

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