



An Oshkosh Corporation Company



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Operation and Safety Manual

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

Boom Lift Models

600SC

660SJC

S/N 0300236299 to Present

ANSI   **AS/NZS**

3121775

November 5, 2018 - Rev D



WARNING

Operating, servicing and maintaining this vehicle or equipment can expose you to chemicals including engine exhaust, carbon monoxide, phthalates, and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle or equipment in a well-ventilated area and wear gloves or wash your hands frequently when servicing. For more information go to www.P65Warnings.ca.gov.

FOREWORD

This manual is a very important tool! Keep it with the machine at all times.

The purpose of this manual is to provide owners, users, operators, lessors, and lessees with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.

Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.

SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS



This is the Safety Alert Symbol. It is used to alert you to the potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

DANGER

INDICATES AN IMMINENTLY HAZARDOUS SITUATION. IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE A RED BACKGROUND.

WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION. IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE AN ORANGE BACKGROUND.

CAUTION

INDICATES A POTENTIALLY HAZARDOUS SITUATION. IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS DECAL WILL HAVE A YELLOW BACKGROUND.

NOTICE

INDICATES INFORMATION OR A COMPANY POLICY THAT RELATES DIRECTLY OR INDIRECTLY TO THE SAFETY OF PERSONNEL OR PROTECTION OF PROPERTY.

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NOTICE

JLG INDUSTRIES, INC. SENDS SAFETY RELATED BULLETINS TO THE OWNER OF RECORD OF THIS MACHINE. CONTACT JLG INDUSTRIES, INC. TO ENSURE THAT THE CURRENT OWNER RECORDS ARE UPDATED AND ACCURATE.

NOTICE

JLG INDUSTRIES, INC. MUST BE NOTIFIED IMMEDIATELY IN ALL INSTANCES WHERE JLG PRODUCTS HAVE BEEN INVOLVED IN AN ACCIDENT INVOLVING BODILY INJURY OR DEATH OF PERSONNEL OR WHEN SUBSTANTIAL DAMAGE HAS OCCURRED TO PERSONAL PROPERTY OR THE JLG PRODUCT.

For:

- Accident Reporting
- Product Safety Publications
- Current Owner Updates
- Questions Regarding Product Safety
- Standards and Regulations Compliance Information
- Questions Regarding Special Product Applications
- Questions Regarding Product Modifications

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Hagerstown, MD 21742
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| SECTION - PARAGRAPH, SUBJECT | PAGE |
|---|-------------|
| SECTION - 1 - SAFETY PRECAUTIONS | |
| 1.1 GENERAL | 1-1 |
| 1.2 PRE-OPERATION | 1-1 |
| Operator Training and Knowledge | 1-1 |
| Workplace Inspection | 1-2 |
| Machine Inspection | 1-3 |
| 1.3 OPERATION | 1-3 |
| General | 1-3 |
| Trip and Fall Hazards | 1-4 |
| Electrocution Hazards | 1-5 |
| Tipping Hazards | 1-7 |
| Crushing and Collision Hazards | 1-10 |
| 1.4 TOWING, LIFTING, AND HAULING | 1-11 |
| 1.5 MAINTENANCE | 1-11 |
| Maintenance Hazards | 1-11 |
| Battery Hazards | 1-13 |
| SECTION - 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION | |
| 2.1 PERSONNEL TRAINING | 2-1 |
| Operator Training | 2-1 |
| Training Supervision | 2-1 |
| Operator Responsibility | 2-1 |
| 2.2 PREPARATION, INSPECTION, AND MAINTENANCE | 2-2 |
| Pre-Start Inspection | 2-7 |
| Walk-Around Inspection | 2-9 |

| SECTION - PARAGRAPH, SUBJECT | PAGE |
|--|-------------|
| Function Check | 2-11 |
| SkyGuard Function Test | 2-12 |
| SECTION - 3 - MACHINE CONTROLS AND INDICATORS | |
| 3.1 GENERAL | 3-1 |
| 3.2 CONTROLS AND INDICATORS | 3-1 |
| Ground Control Station | 3-2 |
| Ground Control Indicator Panel | 3-10 |
| Ground Control Console Display Gauge | 3-13 |
| Platform Console | 3-16 |
| Platform Control Indicator Panel | 3-22 |
| SECTION - 4 - MACHINE OPERATION | |
| 4.1 DESCRIPTION | 4-1 |
| 4.2 OPERATING CHARACTERISTICS AND LIMITATIONS | 4-1 |
| Capacities | 4-1 |
| Stability | 4-2 |
| 4.3 ENGINE OPERATION | 4-4 |
| Starting Procedure | 4-4 |
| Shutdown Procedure | 4-5 |
| Air Shutoff Valve (ASOV) (If Equipped) | 4-6 |
| Fuel Reserve / Shut-Off System | 4-7 |
| 4.4 TRAVELING (DRIVING) | 4-8 |
| Traveling Forward and Reverse | 4-8 |
| Traveling on a Grade | 4-13 |

TABLE OF CONTENTS

| SECTION - PARAGRAPH, SUBJECT | PAGE | SECTION - PARAGRAPH, SUBJECT | PAGE |
|--|------|--|------|
| 4.5 PLATFORM | 4-15 | 5.5 MACHINE SAFETY SYSTEM OVERRIDE (MSSO) (CE ONLY) | 5-2 |
| Platform Level Adjustment | 4-15 | | |
| Platform Rotation | 4-15 | | |
| 4.6 BOOM | 4-15 | SECTION - 6 - ACCESSORIES | |
| Swinging the Boom | 4-16 | 6.1 SKYPOWER™ | 6-3 |
| Raising and Lowering the Main Boom | 4-16 | Generator Output | 6-3 |
| Telescoping the Main Boom | 4-16 | Accessory Ratings | 6-3 |
| 4.7 SHUT DOWN AND PARK | 4-16 | Safety Precautions | 6-4 |
| 4.8 MACHINE SAFETY SYSTEM OVERRIDE (MSSO) (CE ONLY) | 4-18 | Preparation and Inspection | 6-4 |
| 4.9 SKYGUARD OPERATION | 4-18 | Operation | 6-4 |
| SkyGuard | 4-18 | 6.2 SKYWELDER™ | 6-4 |
| SkyGuard SkyLine | 4-18 | Welding Accessories | 6-4 |
| SkyGuard SkyEye | 4-19 | Accessory Ratings | 6-7 |
| SkyGuard Function Table | 4-19 | Safety Precautions | 6-7 |
| 4.10 AUXILIARY POWER | 4-20 | Preparation and Inspection | 6-8 |
| Activating from the Platform Control Station | 4-20 | Operation | 6-8 |
| Activating from the Ground Control Station | 4-20 | 6.3 SKYGLAZIER™ | 6-8 |
| 4.11 TIE DOWN AND LIFTING | 4-21 | Safety Precautions | 6-8 |
| | | Specifications | 6-9 |
| | | Preparation and Inspection | 6-10 |
| | | Operation | 6-10 |
| SECTION - 5 - EMERGENCY PROCEDURES | | | |
| 5.1 GENERAL | 5-1 | | |
| 5.2 INCIDENT NOTIFICATION | 5-1 | | |
| 5.3 EMERGENCY OPERATION | 5-1 | | |
| Operator Unable to Control Machine | 5-1 | | |
| Platform or Boom Caught Overhead | 5-2 | | |

| SECTION - PARAGRAPH, SUBJECT | PAGE | SECTION - PARAGRAPH, SUBJECT | PAGE |
|--|----------------------------------|-------------------------------------|-------------|
| SECTION - 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE | | | |
| 7.1 | INTRODUCTION | 7-1 | |
| 7.2 | OPERATING SPECIFICATIONS | 7-1 | |
| | Dimensional Data | 7-2 | |
| | Capacities | 7-3 | |
| | Engine Data | 7-3 | |
| | Hydraulic Oil | 7-4 | |
| | Critical Stability Weights | 7-8 | |
| | Serial Number Locations | 7-8 | |
| 7.3 | OPERATOR MAINTENANCE | 7-16 | |
| 7.4 | SUPPLEMENTAL INFORMATION | 7-25 | |
| SECTION - 8 - INSPECTION AND REPAIR LOG | | | |

TABLE OF CONTENTS

SECTION - PARAGRAPH, SUBJECT

PAGE

SECTION - PARAGRAPH, SUBJECT

PAGE

This Page Left Blank Intentionally

| FIGURE NUMBER - TITLE | PAGE | FIGURE NUMBER - TITLE | PAGE |
|---|-------------|---|-------------|
| 2-1. Basic Nomenclature - Upperstructure - 600SC..... | 2-4 | 4-6. Drive Function Operating Range Diagrams - Sheet 2 of 2..... | 4-11 |
| 2-2. Basic Nomenclature - Upperstructure - 660SJ..... | 2-5 | 4-7. Traveling on a Grade..... | 4-13 |
| 2-3. Basic Nomenclature - Chassis..... | 2-6 | 4-8. Grade and Sideslope..... | 4-14 |
| 2-4. Daily Walk-Around Inspection Diagram..... | 2-8 | 4-9. Boom Function Operating Range Diagram..... | 4-17 |
| 2-5. Daily Walk-Around Inspection Points - Sheet 1 of 2.... | 2-9 | 4-10. Lifting Chart..... | 4-22 |
| 2-6. Daily Walk-Around Inspection Points - Sheet 2 of 2... | 2-10 | 4-11. Decal Installation - Sheet 1 of 8..... | 4-23 |
| 3-1. Ground Control Station - 600S..... | 3-3 | 4-12. Decal Installation - Sheet 2 of 8..... | 4-24 |
| 3-2. Ground Control Station - 600S with Machine Safety System Override (MSSO)(CE Only)..... | 3-4 | 4-13. Decal Installation - Sheet 3 of 8..... | 4-25 |
| 3-3. Ground Control Station - 660SJ..... | 3-5 | 4-14. Decal Installation - Sheet 4 of 8..... | 4-26 |
| 3-4. Ground Control Station - 660SJ with Machine Safety System Override (MSSO)(CE Only)..... | 3-6 | 4-15. Decal Installation - Sheet 5 of 8..... | 4-27 |
| 3-5. Ground Control Indicator Panel..... | 3-11 | 4-16. Decal Installation - Sheet 6 of 8..... | 4-28 |
| 3-6. Splash Screen..... | 3-13 | 4-17. Decal Installation - Sheet 7 of 8..... | 4-29 |
| 3-7. Diagnostic Screen..... | 3-14 | 4-18. Decal Installation - Sheet 8 of 8..... | 4-30 |
| 3-8. Engine Diagnostic Screen..... | 3-14 | 6-1. SkyWelder™ - Sheet 1 of 2..... | 6-5 |
| 3-9. Ground Control Console Display Gauge..... | 3-15 | 6-2. SkyWelder™ - Sheet 2 of 2..... | 6-6 |
| 3-10. Platform Control Console..... | 3-17 | 7-1. Serial Number Locations..... | 7-8 |
| 3-11. Platform Control Indicator Panel..... | 3-23 | 7-2. Engine Operating Temperature Specifications - Deutz 2.9L..... | 7-10 |
| 3-12. Fuel Level Indicator..... | 3-25 | 7-3. Engine Operating Temperature Specifications - Deutz 2011..... | 7-11 |
| 4-1. Position of Least Backward Stability..... | 4-2 | 7-4. Hydraulic Oil Operation Chart - Sheet 1 of 2..... | 7-12 |
| 4-2. Position of Least Forward Stability..... | 4-3 | 7-5. Hydraulic Oil Operation Chart - Sheet 2 of 2..... | 7-13 |
| 4-3. ASOV Reset (Closed to Open Position)..... | 4-6 | 7-6. Operator Maintenance & Lubrication Diagram - Deutz 2011 Engine..... | 7-14 |
| 4-4. Machine Motion Hazard..... | 4-9 | 7-7. Operator Maintenance & Lubrication Diagram - Deutz 2.9L | |
| 4-5. Drive Function Operating Range Diagrams - Sheet 1 of 2..... | 4-10 | | |

LIST OF FIGURES

FIGURE NUMBER - TITLE

PAGE

FIGURE NUMBER - TITLE

PAGE

Engine7-15

This Page Left Blank Intentionally

| TABLE NUMBER - TITLE | PAGE | TABLE NUMBER - TITLE | PAGE |
|-----------------------------|---|-----------------------------|-------------|
| 1-1 | Minimum Approach Distances (M.A.D.) | 1-6 | |
| 1-2 | Beaufort Scale (For Reference Only)..... | 1-9 | |
| 2-1 | Inspection and Maintenance Table | 2-3 | |
| 4-1 | 600SC Decal Legend | 4-31 | |
| 4-2 | 660SJC Decal Legend | 4-35 | |
| 6-1 | Available Accessories | 6-1 | |
| 6-2 | Options/Accessories Relationship Table..... | 6-2 | |
| 6-3 | Welding Characteristics | 6-7 | |
| 6-4 | Specifications for SkyGlazier™ | 6-9 | |
| 7-1 | Operating Specifications | 7-1 | |
| 7-2 | Dimensional Data | 7-2 | |
| 7-3 | Capacities | 7-3 | |
| 7-4 | Deutz D2011L04 Specifications..... | 7-3 | |
| 7-5 | Deutz D2.9L4 | 7-4 | |
| 7-6 | Hydraulic Oil | 7-4 | |
| 7-7 | Mobilfluid 424 Specs | 7-5 | |
| 7-8 | Mobil DTE 10 Excel 32 Specs..... | 7-5 | |
| 7-9 | Quintolubric 888-46..... | 7-6 | |
| 7-10 | Mobil EAL 224H Specs | 7-6 | |
| 7-11 | Mobil EAL H 46 Specs | 7-7 | |
| 7-12 | Exxon Univis HVI 26 Specs | 7-7 | |
| 7-13 | Critical Stability Weights..... | 7-8 | |
| 7-14 | Lubrication Specifications..... | 7-16 | |
| 8-1 | Inspection and Repair Log..... | 8-1 | |

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SECTION 1. SAFETY PRECAUTIONS

1.1 GENERAL

This section outlines the necessary precautions for proper and safe machine usage and maintenance. It is mandatory that a daily routine is established based on the content of this manual to promote proper machine usage. A maintenance program, using the information provided in this manual and the Service and Maintenance Manual, must also be established by a qualified person and must be followed to ensure that the machine is safe to operate.

The owner/user/operator/lessor/lessee of the machine must not accept operating responsibility until this manual has been read, training is accomplished, and operation of the machine has been completed under the supervision of an experienced and qualified operator.

This section contains the responsibilities of the owner, user, operator, lessor, and lessee concerning safety, training, inspection, maintenance, application, and operation. If there are any questions with regard to safety, training, inspection, maintenance, application, and operation, please contact JLG Industries, Inc. ("JLG").

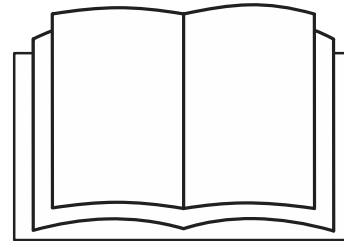
WARNING

FAILURE TO COMPLY WITH THE SAFETY PRECAUTIONS LISTED IN THIS MANUAL COULD RESULT IN MACHINE DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

1.2 PRE-OPERATION

Operator Training and Knowledge

- The Operation and Safety Manual must be read and understood in its entirety before operating the machine. For clarification, questions, or additional information regarding any portions of this manual, contact JLG Industries, Inc.



SECTION 1 - SAFETY PRECAUTIONS

- An operator must not accept operating responsibilities until adequate training has been given by competent and authorized persons.
- Allow only those authorized and qualified personnel to operate the machine who have demonstrated that they understand the safe and proper operation and maintenance of the unit.
- Read, understand, and obey all DANGERS, WARNINGS, CAUTIONS, and operating instructions on the machine and in this manual.
- Ensure that the machine is to be used in a manner which is within the scope of its intended application as determined by JLG.
- All operating personnel must be familiar with the emergency controls and emergency operation of the machine as specified in this manual.
- Read, understand, and obey all applicable employer, local, and governmental regulations as they pertain to your utilization and application of the machine.

Workplace Inspection

- Precautions to avoid all hazards in the work area must be taken by the user before and during operation of the machine.
- Do not operate or raise the platform from a position on trucks, trailers, railway cars, floating vessels, scaffolds or other equipment unless the application is approved in writing by JLG.
- Before operation, check work area for overhead hazards such as electric lines, bridge cranes, and other potential overhead obstructions.
- Check operating surfaces for holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards.
- Check the work area for hazardous locations. Do not operate the machine in hazardous environments unless approved for that purpose by JLG.
- Ensure that the ground conditions are adequate to support the maximum tire load indicated on the tire load decals located on the chassis adjacent to each wheel. Do not travel on unsupported surfaces.

Machine Inspection

- Do not operate this machine until the inspections and functional checks as specified in Section 2 of this manual have been performed.
- Do not operate this machine until it has been serviced and maintained according to the maintenance and inspection requirements as specified in the machine's Service and Maintenance Manual.
- Ensure all safety devices are operating properly. Modification of these devices is a safety violation.

⚠ WARNING

MODIFICATION OR ALTERATION OF AN AERIAL WORK PLATFORM SHALL BE MADE ONLY WITH PRIOR WRITTEN PERMISSION FROM THE MANUFACTURER.

- Do not operate any machine on which the safety or instruction placards or decals are missing or illegible.
- Check the machine for modifications to original components. Ensure that any modifications have been approved by JLG.
- Avoid accumulation of debris on platform floor. Keep mud, oil, grease, and other slippery substances from footwear and platform floor.

1.3 OPERATION

General

- Machine operation requires your full attention. Bring the machine to a full stop before using any device, i.e. cell phones, two-way radios, etc. that will distract your attention from safely operating the machine.
- Do not use the machine for any purpose other than positioning personnel, their tools, and equipment.
- Before operation, the user must be familiar with the machine capabilities and operating characteristics of all functions.
- Never operate a malfunctioning machine. If a malfunction occurs, shut down the machine. Remove the unit from service and notify the proper authorities.
- Do not remove, modify, or disable any safety devices.
- Never slam a control switch or lever through neutral to an opposite direction. Always return switch to neutral and stop before moving the switch to the next function. Operate controls with slow and even pressure.
- Do not allow personnel to tamper with or operate the machine from the ground with personnel in the platform, except in an emergency.

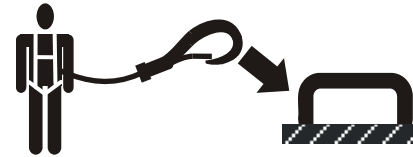
SECTION 1 - SAFETY PRECAUTIONS

- Do not carry materials directly on platform railing unless approved by JLG.
- When two or more persons are in the platform, the operator shall be responsible for all machine operations.
- Always ensure that power tools are properly stowed and never left hanging by their cord from the platform work area.
- When driving, always position boom over rear axle in line with the direction of travel. Remember, if boom is over the front axle, steer and drive functions will be reversed.
- Do not assist a stuck or disabled machine by pushing or pulling except by pulling at the chassis tie-down lugs.
- Fully lower platform and shut off all power before leaving machine.
- Remove all rings, watches, and jewelry when operating machine. Do not wear loose fitting clothing or long hair unrestrained which may become caught or entangled in equipment.
- Persons under the influence of drugs or alcohol or who are subject to seizures, dizziness or loss of physical control must not operate this machine.
- Hydraulic cylinders are subject to thermal expansion and contraction. This may result in changes to the boom and/or platform position while the machine is stationary. Factors affecting thermal movement can include the length of time

the machine will remain stationary, hydraulic oil temperature, ambient air temperature, and boom and platform position.

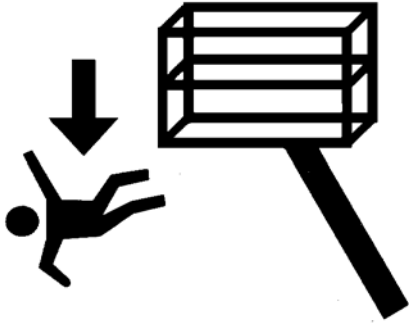
Trip and Fall Hazards

- During operation, occupants in the platform must wear a full body harness with a lanyard attached to an authorized lanyard anchorage point. Attach only one (1) lanyard per lanyard anchorage point.



- Enter and exit only through gate area. Use extreme caution when entering or leaving platform. Ensure that the platform assembly is fully lowered. Face the machine when entering or leaving the platform. Always maintain “three point contact” with the machine, using two hands and one foot or two feet and one hand at all times during entry and exit.

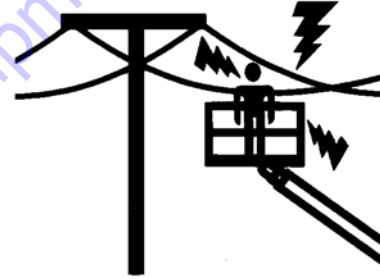
- Before operating the machine, make sure all gates are closed and fastened in their proper position.



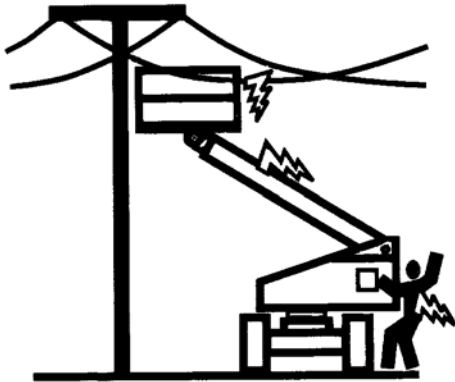
- Keep both feet firmly positioned on the platform floor at all times. Never position ladders, boxes, steps, planks, or similar items on unit to provide additional reach for any purpose.
- Keep oil, mud, and slippery substances cleaned from footwear and the platform floor.

Electrocution Hazards

- This machine is not insulated and does not provide protection from contact or proximity to electrical current.



SECTION 1 - SAFETY PRECAUTIONS



- Maintain distance from electrical lines, apparatus, or any energized (exposed or insulated) parts according to the Minimum Approach Distance (MAD) as shown in Table 1-1.
- Allow for machine movement and electrical line swaying.

Table 1-1. Minimum Approach Distances (M.A.D.)

| Voltage Range (Phase to Phase) | MINIMUM APPROACH DISTANCE in Feet (Meters) |
|---|---|
| 0 to 50 KV | 10 (3) |
| Over 50KV to 200 KV | 15 (5) |
| Over 200 KV to 350 KV | 20 (6) |
| Over 350 KV to 500 KV | 25 (8) |
| Over 500 KV to 750 KV | 35 (11) |
| Over 750 KV to 1000 KV | 45 (14) |

NOTE: *This requirement shall apply except where employer, local or governmental regulations are more stringent.*

- Maintain a clearance of at least 10 ft. (3m) between any part of the machine and its occupants, their tools, and their equipment from any electrical line or apparatus carrying up to 50,000 volts. One foot additional clearance is required for every additional 30,000 volts or less.

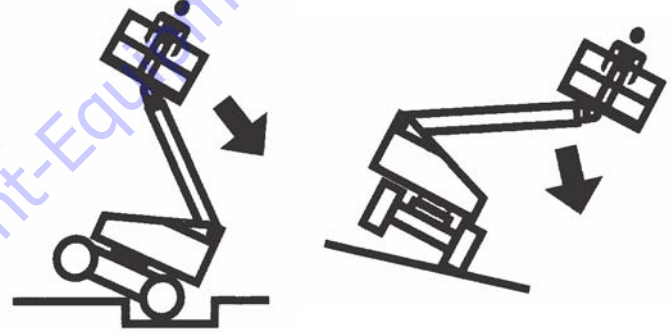
- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance 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 1 - SAFETY PRECAUTIONS

- Never exceed the maximum work load as specified on the platform. Keep all loads within the confines of the platform, unless authorized by JLG.
- Keep the chassis of the machine a minimum of 2 ft. (0.6m) from holes, bumps, drop-offs, obstructions, debris, concealed holes, and other potential hazards at the ground level.
- Do not push or pull any object with the boom.
- Never attempt to use the machine as a crane. Do not tie-off machine to any adjacent structure. Never attach wire, cable, or any similar items to platform.
- If boom assembly or platform is in a position that one or more wheels are off the ground, all persons must be removed before attempting to stabilize the machine. Use cranes, forklift trucks, or other appropriate equipment to stabilize machine.
- Do not operate the machine when wind conditions, including gusts, may exceed 28 mph (12.5 m/s). Factors affecting wind speed are; platform elevation, surrounding structures, local weather events, and approaching storms. Refer to Table 1-2, Beaufort scale (For Reference Only) or use other means to monitor wind conditions.
- Wind speed can be significantly greater at height than at ground level.
- Wind speed can change rapidly. Always consider approaching weather events, the time required to lower the platform, and methods to monitor current and potential wind conditions.
- Do not increase surface area of the platform or the load. Increased areas exposed to wind will decrease stability.
- Do not increase the platform size with unauthorized modifications or attachments.

NOTICE

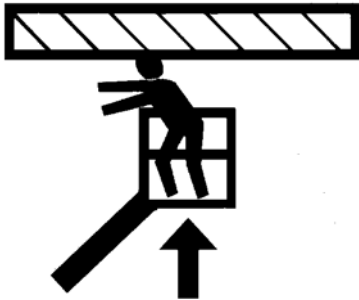
DO NOT OPERATE THE MACHINE WHEN WIND CONDITIONS EXCEED 28 MPH (12.5 M/S).

Table 1-2. Beaufort Scale (For Reference Only)

| Beaufort Number | Wind Speed | | Description | Land Conditions |
|-----------------|------------|-----------|-------------------------|---|
| | mph | m/s | | |
| 0 | 0 | 0-0.2 | Calm | Calm. Smoke rises vertically |
| 1 | 1-3 | 0.3-1.5 | Light air | Wind motion visible in smoke |
| 2 | 4-7 | 1.6-3.3 | Light breeze | Wind felt on exposed skin. Leaves rustle |
| 3 | 8-12 | 3.4-5.4 | Gentle breeze | Leaves and smaller twigs in constant motion |
| 4 | 13-18 | 5.5-7.9 | Moderate breeze | Dust and loose paper raised. Small branches begin to move. |
| 5 | 19-24 | 8.0-10.7 | Fresh breeze | Smaller trees sway. |
| 6 | 25-31 | 10.8-13.8 | Strong breeze | Large branches in motion. Flags waving near horizontal. Umbrella use becomes difficult. |
| 7 | 32-38 | 13.9-17.1 | Near Gale/Moderate Gale | Whole trees in motion. Effort needed to walk against the wind. |
| 8 | 39-46 | 17.2-20.7 | Fresh Gale | Twigs broken from trees. Cars veer on road. |
| 9 | 47-54 | 20.8-24.4 | Strong Gale | Light structure damage. |

Crushing and Collision Hazards

- Approved head gear must be worn by all operating and ground personnel.
- Check work area for clearances overhead, on sides, and bottom of platform when lifting or lowering platform, and driving.



- During operation, keep all body parts inside platform railing.
- Use the boom functions, not the drive function, to position the platform close to obstacles.
- Always post a lookout when driving in areas where vision is obstructed.

- Keep non-operating personnel at least 6 ft. (1.8m) away from machine during all driving and swing operations.
- Under all travel conditions, the operator must limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors which may cause collision or injury to personnel.
- Be aware of stopping distances in all drive speeds. When driving in high speed, switch to low speed before stopping. Travel grades in low speed only.
- Do not use high speed drive in restricted or close quarters or when driving in reverse.
- Exercise extreme caution at all times to prevent obstacles from striking or interfering with operating controls and persons in the platform.
- Be sure that operators of other overhead and floor level machines are aware of the aerial work platform's presence. Disconnect power to overhead cranes.
- Warn personnel not to work, stand, or walk under a raised boom or platform. Position barricades on floor if necessary.

1.4 TOWING, LIFTING, AND HAULING

- Never allow personnel in platform while towing, lifting, or hauling.
- This machine should not be towed, except in the event of emergency, malfunction, power failure, or loading/unloading. Refer to the Emergency Procedures section of this manual for emergency towing procedures.
- Ensure boom is in the stowed position and, if equipped, the turntable locked prior to towing, lifting or hauling. The platform must be completely empty of tools.
- When lifting machine, lift only at designated areas of the machine. Lift the unit with equipment of adequate capacity.
- Refer to the Machine Operation section of this manual for lifting information.

1.5 MAINTENANCE

This sub-section contains general safety precautions which must be observed during maintenance of this machine. Additional precautions to be observed during machine maintenance are inserted at the appropriate points in this manual and in the Service and Maintenance Manual. It is of utmost importance that maintenance personnel pay strict attention to these precautions to avoid possible injury to personnel or damage to the machine or property. A maintenance program must be established by a qualified person and must be followed to ensure that the machine is safe.

Maintenance Hazards

- Shut off power to all controls and ensure that all moving parts are secured from inadvertent motion prior to performing any adjustments or repairs.
- Never work under an elevated platform until it has been fully lowered to the full down position, if possible, or otherwise supported and restrained from movement with appropriate safety props, blocking, or overhead supports.
- DO NOT attempt to repair or tighten any hydraulic hoses or fittings while the machine is powered on or when the hydraulic system is under pressure.
- Always relieve hydraulic pressure from all hydraulic circuits before loosening or removing hydraulic components.

SECTION 1 - SAFETY PRECAUTIONS

- DO NOT use your hand to check for leaks. Use a piece of cardboard or paper to search for leaks. Wear gloves to help protect hands from spraying fluid.



- Ensure replacement parts or components are identical or equivalent to original parts or components.
- Never attempt to move heavy parts without the aid of a mechanical device. Do not allow heavy objects to rest in an unstable position. Ensure adequate support is provided when raising components of the machine.

- Do not use machine as a ground for welding.
- When performing welding or metal cutting operations, precautions must be taken to protect the chassis from direct exposure to weld and metal cutting spatter.
- Do not refuel the machine with the engine running.
- Use only approved non-flammable cleaning solvents.
- Do not replace items critical to stability, such as batteries or solid tires, with items of different weight or specification. Do not modify unit in any way to affect stability.
- Refer to the Service and Maintenance Manual for the weights of critical stability items.

⚠ WARNING

MODIFICATION OR ALTERATION OF AN AERIAL WORK PLATFORM SHALL BE MADE ONLY WITH PRIOR WRITTEN PERMISSION FROM THE MANUFACTURER.

Battery Hazards

- Always disconnect batteries when servicing electrical components or when performing welding on the machine.
- Do not allow smoking, open flame, or sparks near battery during charging or servicing.
- Do not contact tools or other metal objects across the battery terminals.
- Always wear hand, eye, and face protection when servicing batteries. Ensure that battery acid does not come in contact with skin or clothing.

⚠ CAUTION

BATTERY FLUID IS HIGHLY CORROSIVE. AVOID CONTACT WITH SKIN AND CLOTHING AT ALL TIMES. IMMEDIATELY RINSE ANY CONTACTED AREA WITH CLEAN WATER AND SEEK MEDICAL ATTENTION.

- Charge batteries only in a well ventilated area.
- Avoid overfilling the battery fluid level. Add distilled water to batteries only after the batteries are fully charged.

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SECTION 2. USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

2.1 PERSONNEL TRAINING

The aerial platform is a personnel handling device; so it is necessary that it be operated and maintained only by trained personnel.

Persons under the influence of drugs or alcohol or who are subject to seizures, dizziness or loss of physical control must not operate this machine.

Operator Training

Operator training must cover:

1. Use and limitations of the controls in the platform and at the ground, emergency controls and safety systems.
2. Control labels, instructions, and warnings on the machine.
3. Rules of the employer and government regulations.
4. Use of approved fall protection device.
5. Enough knowledge of the mechanical operation of the machine to recognize a malfunction or potential malfunction.

6. The safest means to operate the machine where overhead obstructions, other moving equipment, and obstacles, depressions, holes, or drop-offs exist.
7. Means to avoid the hazards of unprotected electrical conductors.
8. Specific job requirements or machine application.

Training Supervision

Training must be done under the supervision of a qualified person in an open area free of obstructions until the trainee has developed the ability to safely control and operate the machine.

Operator Responsibility

The operator must be instructed that he/she has the responsibility and authority to shut down the machine in case of a malfunction or other unsafe condition of either the machine or the job site.

2.2 PREPARATION, INSPECTION, AND MAINTENANCE

The following table covers the periodic machine inspections and maintenance required by JLG Industries, Inc. Consult local regulations for further requirements for aerial work platforms. The frequency of inspections and maintenance must be increased as necessary when the machine is used in a harsh or hostile environment, if the machine is used with increased frequency, or if the machine is used in a severe manner.

NOTICE

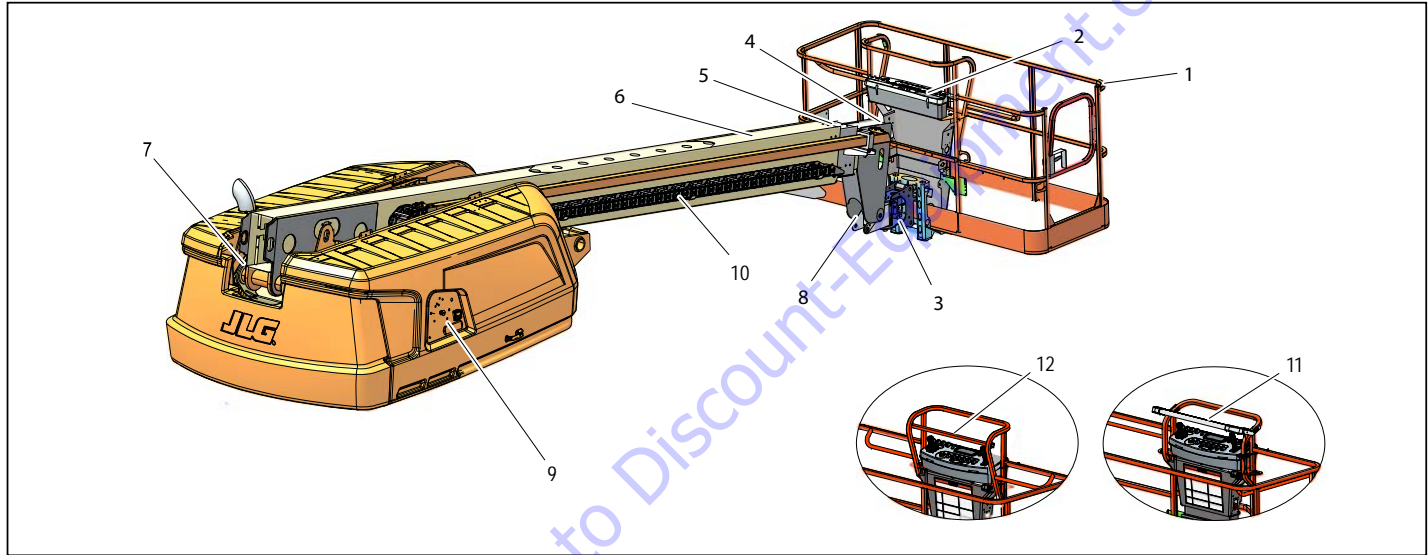
JLG INDUSTRIES, INC. RECOGNIZES A FACTORY TRAINED SERVICE TECHNICIAN AS A PERSON WHO HAS SUCCESSFULLY COMPLETED THE JLG SERVICE TRAINING SCHOOL FOR THE SPECIFIC JLG PRODUCT MODEL.

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 | Operation 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. | | | | |

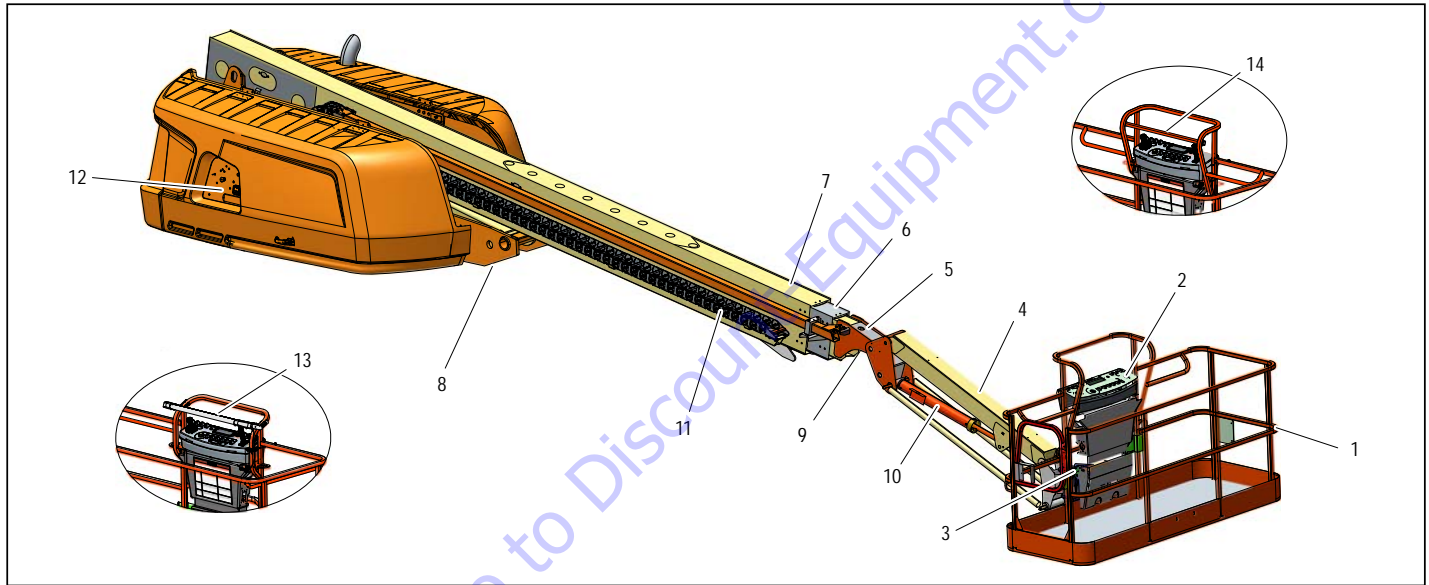
SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION



- | | | |
|-----------------------------|-------------------|------------------------------|
| 1. Platform | 5. Mid Boom | 9. Ground Control Console |
| 2. Platform Control Console | 6. Base Boom | 10. Powertrack |
| 3. Rotator | 7. Turntable | 11. SkyGuard (If Equipped) |
| 4. Fly Boom | 8. Level Cylinder | 12. Cross Rail (If Equipped) |

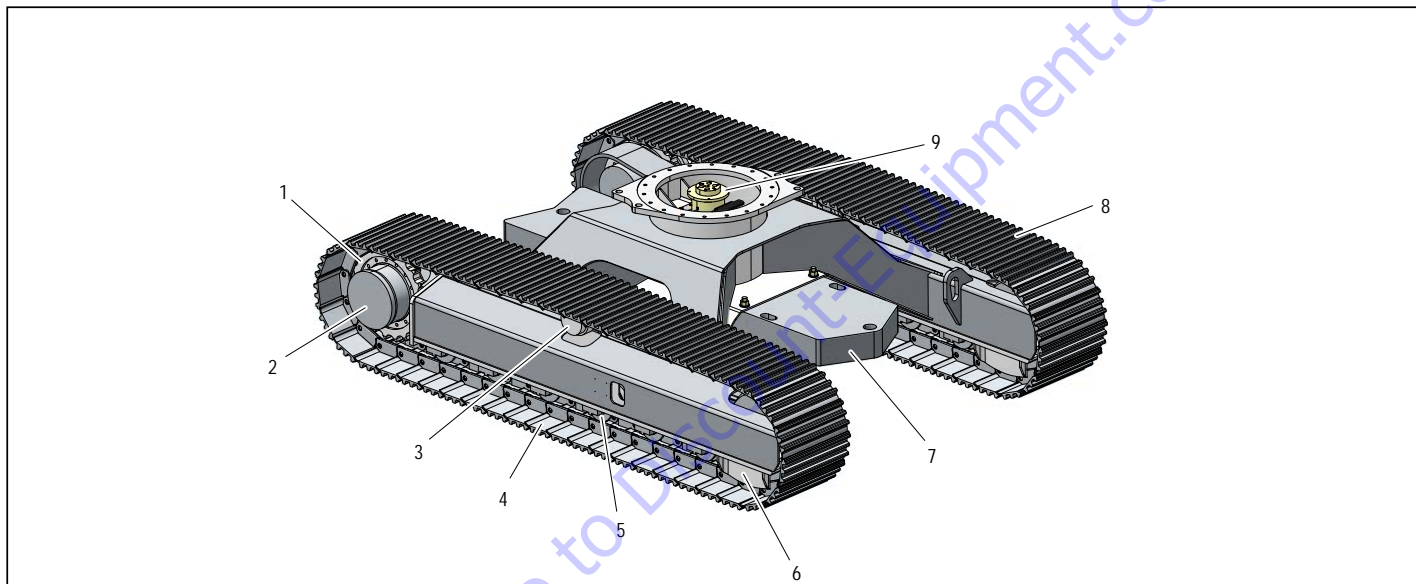
Figure 2-1. Basic Nomenclature - Upperstructure - 600SC

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION



- | | | | |
|-----------------------------|--------------|-------------------------------|------------------------------|
| 1. Platform | 5. Fly Boom | 9. Platform Leveling Cylinder | 13. SkyGuard (If Equipped) |
| 2. Platform Control Console | 6. Mid Boom | 10. Jib Lift Cylinder | 14. Cross Rail (If Equipped) |
| 3. Rotator | 7. Base Boom | 11. Powertrack | |
| 4. Jib | 8. Turntable | 12. Ground Control Console | |

Figure 2-2. Basic Nomenclature - Upperstructure - 660SJ



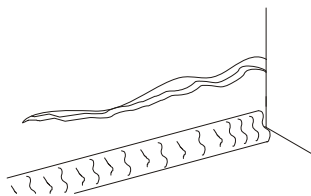
- | | | |
|-------------------------|------------------------|--------------------------------|
| 1. Drive Sprocket | 4. Left Track | 7. Counterweight (660SJC Only) |
| 2. Final Drive | 5. Bottom Track Roller | 8. Right Track |
| 3. Carrier Track Roller | 6. Idler Assembly | 9. Swivel |

Figure 2-3. Basic Nomenclature - Chassis

Pre-Start Inspection

The Pre-Start Inspection should include each of the following:

1. **Cleanliness** – Check all surfaces for leakage (oil, fuel, or battery fluid) or foreign objects. Report any leakage to the proper maintenance personnel.
2. **Structure** - Inspect the machine structure for dents, damage, weld or parent metal cracks or other discrepancies.



Parent Metal Crack



Weld Crack

3. **Decals and Placards** – Check all for cleanliness and legibility. Make sure none of the decals and placards are missing. Make sure all illegible decals and placards are cleaned or replaced.
4. **Operation and Safety Manuals** – Make sure a copy of the Operation and Safety Manual, AEM Safety Manual (ANSI markets only), and ANSI Manual of Responsibilities (ANSI markets only) is enclosed in the weather resistant storage container.

5. **“Walk-Around” Inspection** – Refer to Figure 2-4.
6. **Battery** – Charge as required.
7. **Fuel** (Combustion Engine Powered Machines) – Add the proper fuel as necessary.
8. **Engine Oil Supply** - Ensure the engine oil level is at the Full mark on the dipstick and the filler cap is secure.
9. **Hydraulic Oil** – Check the hydraulic oil level. Ensure hydraulic oil is added as required.
10. **Accessories/Attachments** - Refer to the Accessories section in this manual or accessory installed upon the machine for specific inspection, operation, and maintenance instructions.
11. **Function Check** – Once the “Walk-Around” Inspection is complete, perform a functional check of all systems in an area free of overhead and ground level obstructions. Refer to Section 4 for more specific operating instructions.

WARNING

IF THE MACHINE DOES NOT OPERATE PROPERLY, TURN OFF THE MACHINE IMMEDIATELY! REPORT THE PROBLEM TO THE PROPER MAINTENANCE PERSONNEL. DO NOT OPERATE THE MACHINE UNTIL IT IS DECLARED SAFE FOR OPERATION.

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

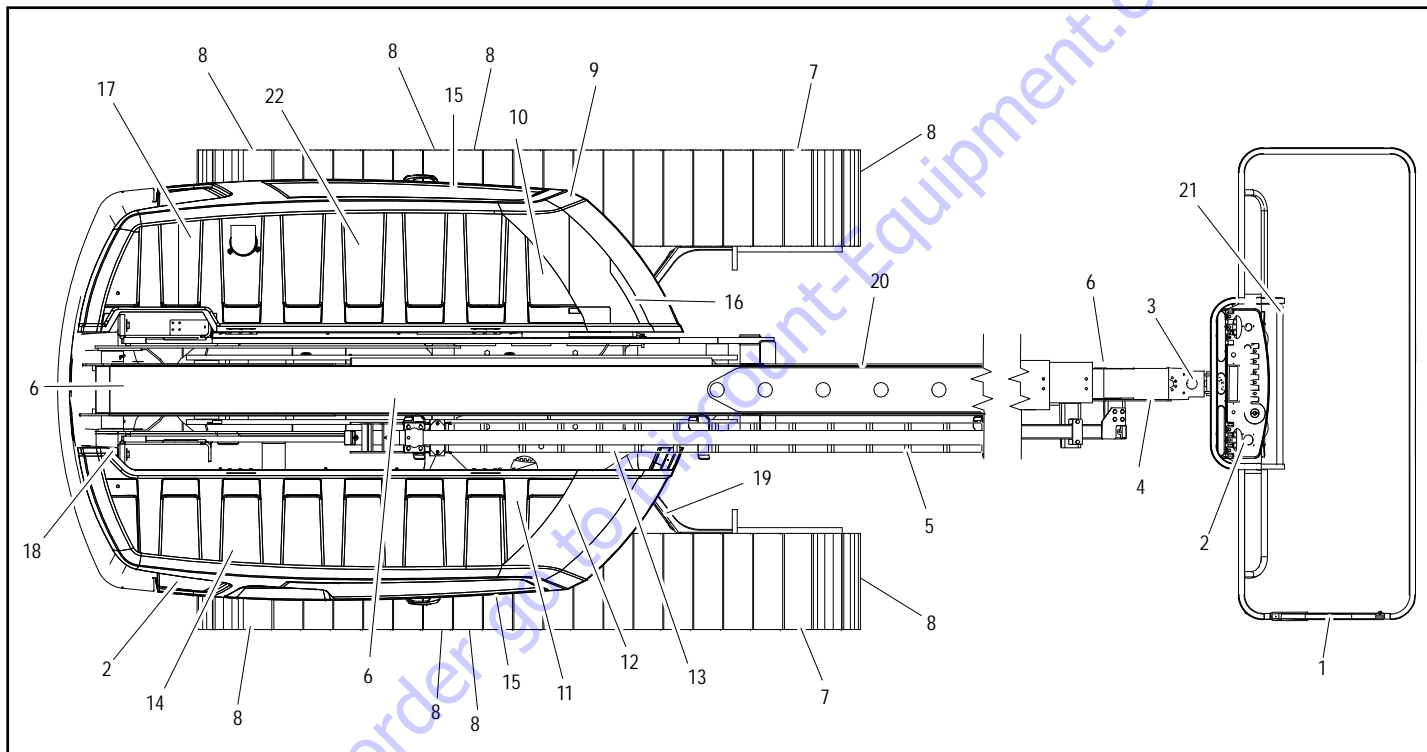


Figure 2-4. Daily Walk-Around Inspection Diagram

Walk-Around Inspection

Begin the "Walk-Around Inspection" at Item 1, as noted on the diagram. Continue checking each item in sequence for the conditions listed in the following checklist.

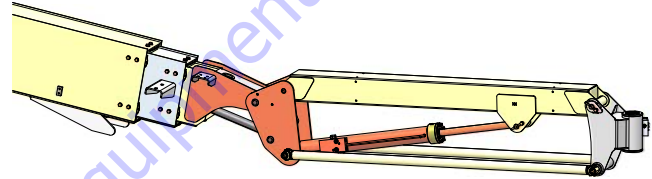
⚠ WARNING

TO AVOID POSSIBLE INJURY BE SURE MACHINE POWER IS OFF.

INSPECTION NOTE: *On all components, make sure there are no loose or missing parts, that they are securely fastened, and no visible damage, leaks or excessive wear exists in addition to any other criteria mentioned.*

- 1. Platform Assembly and Gate** - Footswitch works properly, not modified, disabled or blocked. Latch and hinges in working condition.
- 2. Platform & Ground Control Consoles** - Switches and levers return to neutral, decals/placards secure and legible, control markings legible.
- 3. Rotator** - See Inspection Note.

- 4. Jib (If Equipped)** - See Inspection Note.



- 5. Power Track** - See Inspection Note.
- 6. All Hydraulic Cylinders** - See Inspection Note.
- 7. Final Drive, Both Sides** - See Inspection Note.
- 8. Tracks, Bottom Rollers, Idler, Track Carrier Roller, Both Sides** - Properly secured plates, no loose or missing track bolts, no dislocation of the track pins. Proper tension. See Inspection Note.
- 9. Turntable Lock** - Operable.

Figure 2-5. Daily Walk-Around Inspection Points - Sheet 1 of 2

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

10. **Auxiliary Power Pump** - See Inspection Note.
11. **Swing Drive Motor and Brake** - See Inspection Note.
12. **Main Control Valve** - See Inspection Note.
13. **Turntable Bearing** - Evidence of proper lubrication. No evidence of loose bolts or looseness between bearing and structure.
14. **Fuel Tank** - See Inspection Note.
15. **Hood Assemblies** - See Inspection Note.
16. **Battery** - Proper electrolyte levels if adjustable; cables tight, no visible damage or corrosion.
17. **Hydraulic Pump** - See Inspection Note.
18. **Turntable** - See Inspection Note.
19. **Frame** - See Inspection Note.
20. **Boom Sections** - See Inspection Note.
21. **SkyGuard®** - See Inspection Note.
22. **Air Shutoff Valve (ASOV) (If Equipped)** - See Inspection Note

Figure 2-6. Daily Walk-Around Inspection Points - Sheet 2 of 2

Function Check

Perform the Function Check as follows:

1. From the ground control panel with no load in the platform:
 - a. Check that all guards protecting the switches or locks are in place;
 - b. Operate all functions and check all limiting and cut-out switches;
 - c. Check auxiliary power (or manual descent);
 - d. Ensure that all machine functions are disabled when the Emergency Stop Button is activated.
 - e. Raise main boom approximately horizontal, then extend and retract boom sections. All boom sections should extend/retract together at the same rate of speed. Any difference would indicate delayed movement and loose wire ropes.

WARNING

IF DELAYED MOVEMENT IS DETECTED IN WIRE ROPE OPERATION, LOWER PLATFORM TO STOWED POSITION, SHUT DOWN MACHINE, AND HAVE WIRE ROPES INSPECTED/SERVICED BY A QUALIFIED JLG MECHANIC. LOOSE OR MISADJUSTED WIRE ROPES COULD RESULT IN SERIOUS INJURY OR DEATH.

2. From the platform control console:

- a. Ensure that the control console is firmly secured in the proper location;
- b. Check that all guards protecting the switches or locks are in place;
- c. Operate all functions and check all limiting and cut-out switches;
- d. Ensure that all machine functions are disabled when the Emergency Stop Button is pushed in.
- e. Raise main boom approximately horizontal, then extend and retract boom sections. All boom sections should extend/retract together at the same rate of speed. Any difference would indicate delayed movement and loose wire ropes.

WARNING

IF DELAYED MOVEMENT IS DETECTED IN WIRE ROPE OPERATION, LOWER PLATFORM TO STOWED POSITION, SHUT DOWN MACHINE, AND HAVE WIRE ROPES INSPECTED/SERVICED BY A QUALIFIED JLG MECHANIC. LOOSE OR MISADJUSTED WIRE ROPES COULD RESULT IN SERIOUS INJURY OR DEATH.

3. With the platform in the transport (stowed) position:
 - a. Drive the machine on a grade, not to exceed the rated gradeability, and stop to ensure the brakes hold;
 - b. Check that the tilt indicator is illuminated to ensure proper operation.

SkyGuard Function Test

NOTE: Refer to Section 4.9 for additional information on SkyGuard operation.

From the Platform Console in an area free from obstructions:

1. Operate the telescope out function.
2. Activate the SkyGuard sensor:
 - a. **SkyGuard** - Apply approximately 50 lb (222 Nm) of force to yellow bar.
 - b. **SkyGuard SkyLine™** - Press cable to break magnetic connection between the cable and right bracket.
 - c. **SkyGuard SkyEye™** - Put arm or hand in path of sensor beam.
3. Once the sensor has been activated, verify the following conditions:
 - a. Telescope out function stops and telescope in function operates for a short duration.
 - b. The horn sounds.
 - c. If equipped with a SkyGuard beacon, the beacon illuminates.

4. Disengage the SkyGuard sensor, release controls, then recycle the footswitch. Ensure normal operation is available.

NOTE: On machines equipped with SkyLine, reattach magnetic end of the cable to the bracket.

If SkyGuard remains activated after function reversal or cutout, depress and hold the SkyGuard Override Switch to allow normal use of machine functions until the sensor is disengaged.

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 the decals near the platform and 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.

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SECTION 3 - MACHINE CONTROLS AND INDICATORS

Ground Control Station

(See Figure 3-1., Figure 3-2., Figure 3-3., and Figure 3-4.)

NOTE: Lift, Swing, Platform Level, Telescope, Jib Lift, Platform Rotator and Auxiliary control switches are spring-loaded and will automatically return to neutral (off) when released.

⚠ WARNING

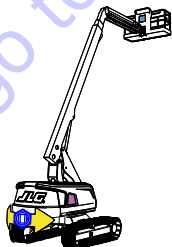
WHEN OPERATING THE BOOM ENSURE THERE ARE NO PERSONNEL AROUND OR UNDER PLATFORM.

⚠ WARNING

TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF ANY CONTROL LEVERS OR TOGGLE SWITCHES CONTROLLING PLATFORM MOVEMENT DO NOT RETURN TO THE OFF POSITION WHEN RELEASED.

1. Swing Control

Provides 360 degrees continuous turntable rotation.

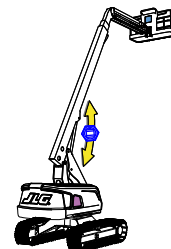


NOTE: The Function Enable switch must be held down in order to operate Telescope, Swing, Lift, Jib Lift, Platform Level Override, and Platform Rotate functions.



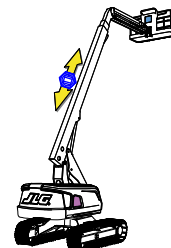
2. Lift Control

Provides raising and lowering of the boom.



3. Telescope Control

Provides extension and retraction of the boom.



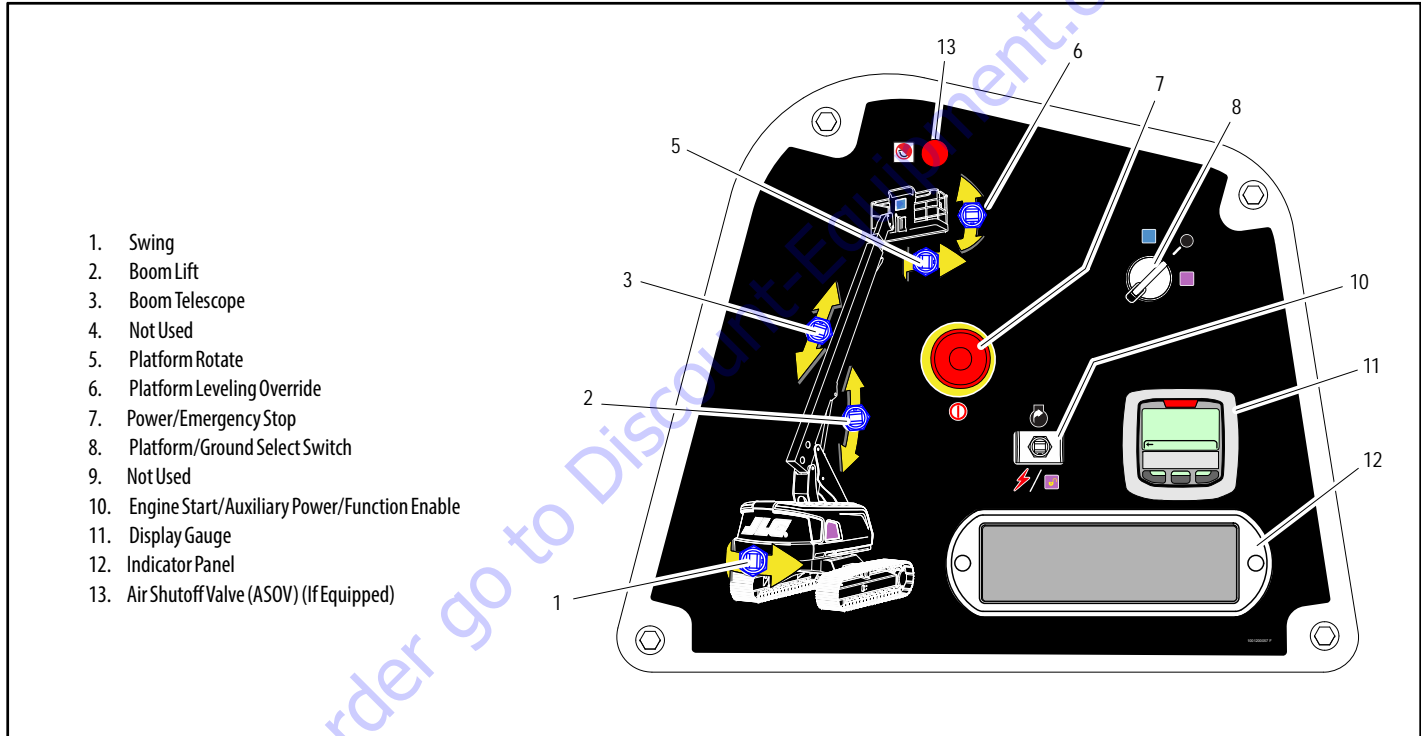


Figure 3-1. Ground Control Station - 600S

SECTION 3 - MACHINE CONTROLS AND INDICATORS

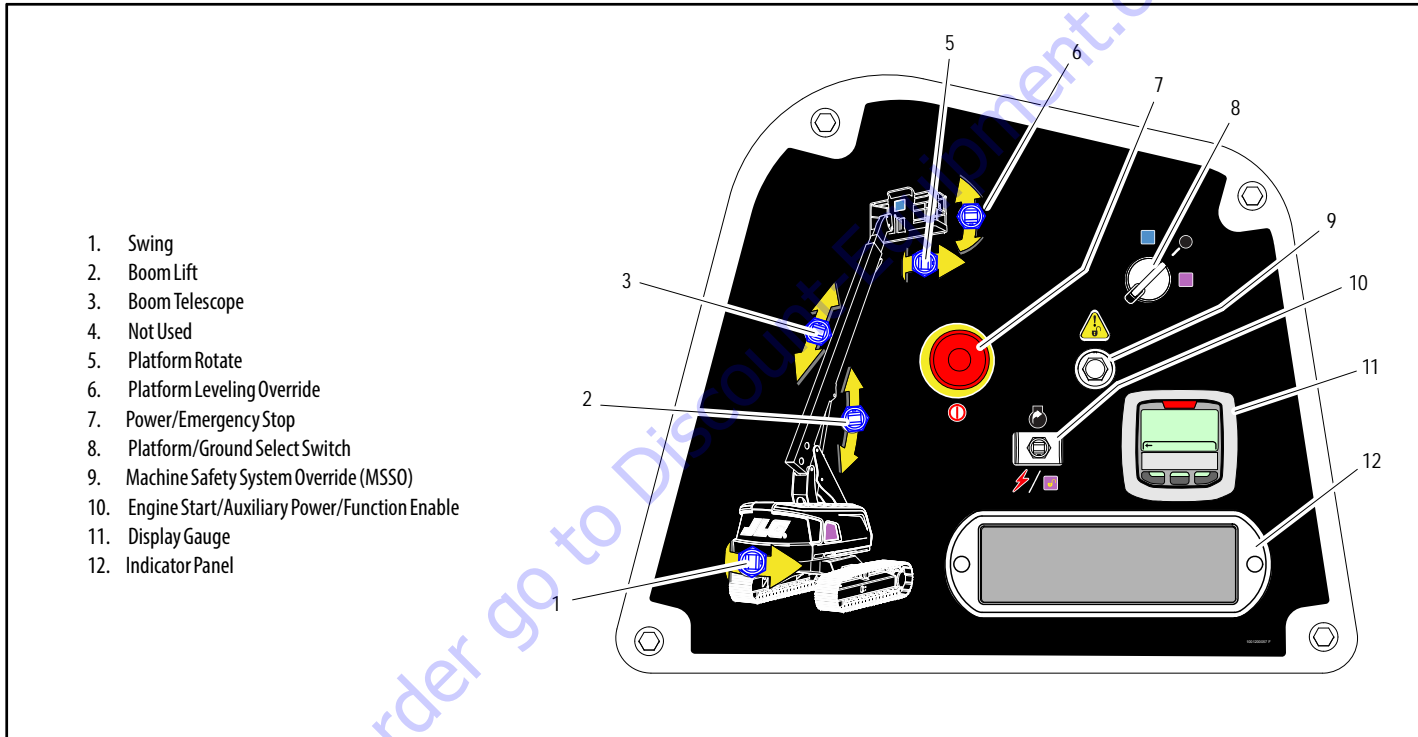
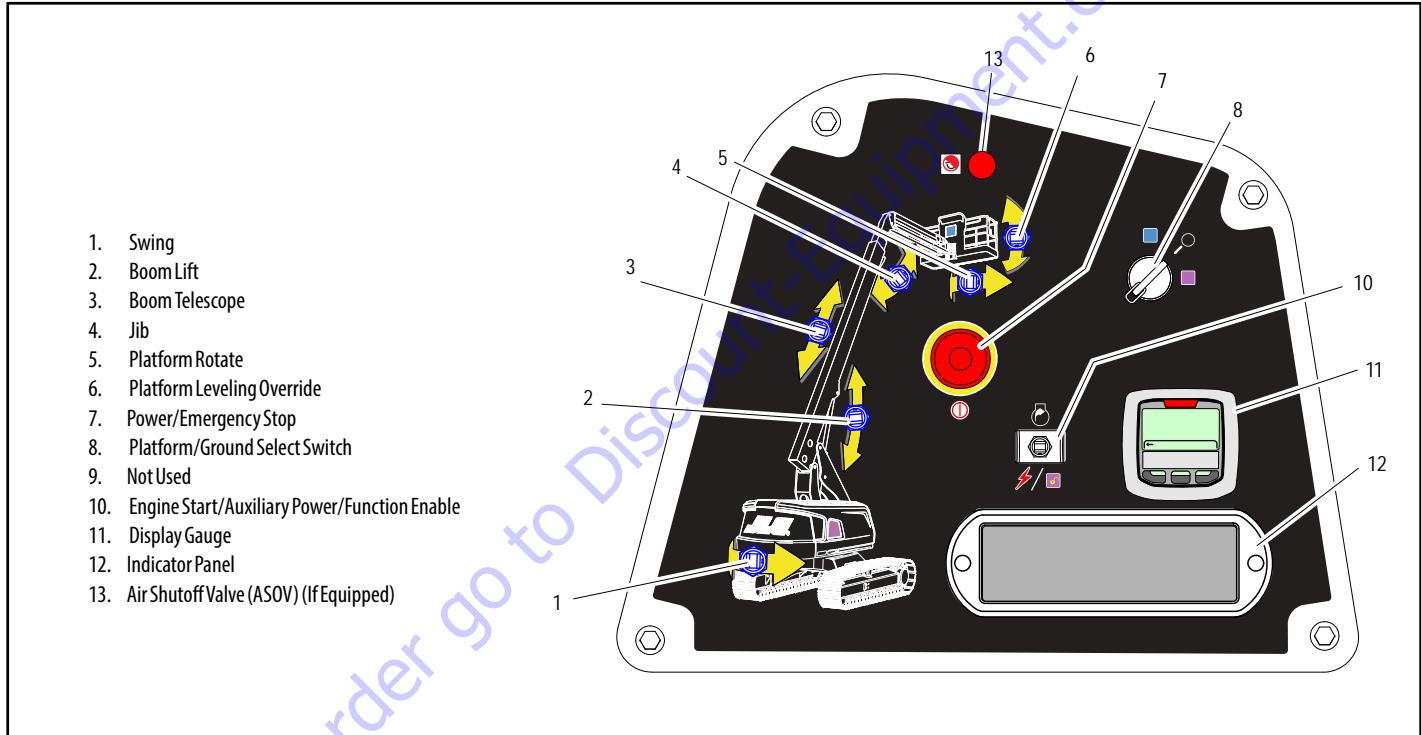


Figure 3-2. Ground Control Station - 600S with Machine Safety System Override (MSSO)(CE Only)



1. Swing
2. Boom Lift
3. Boom Telescope
4. Jib
5. Platform Rotate
6. Platform Leveling Override
7. Power/Emergency Stop
8. Platform/Ground Select Switch
9. Not Used
10. Engine Start/Auxiliary Power/Function Enable
11. Display Gauge
12. Indicator Panel
13. Air Shutoff Valve (ASOV) (If Equipped)

Figure 3-3. Ground Control Station - 660SJ

SECTION 3 - MACHINE CONTROLS AND INDICATORS

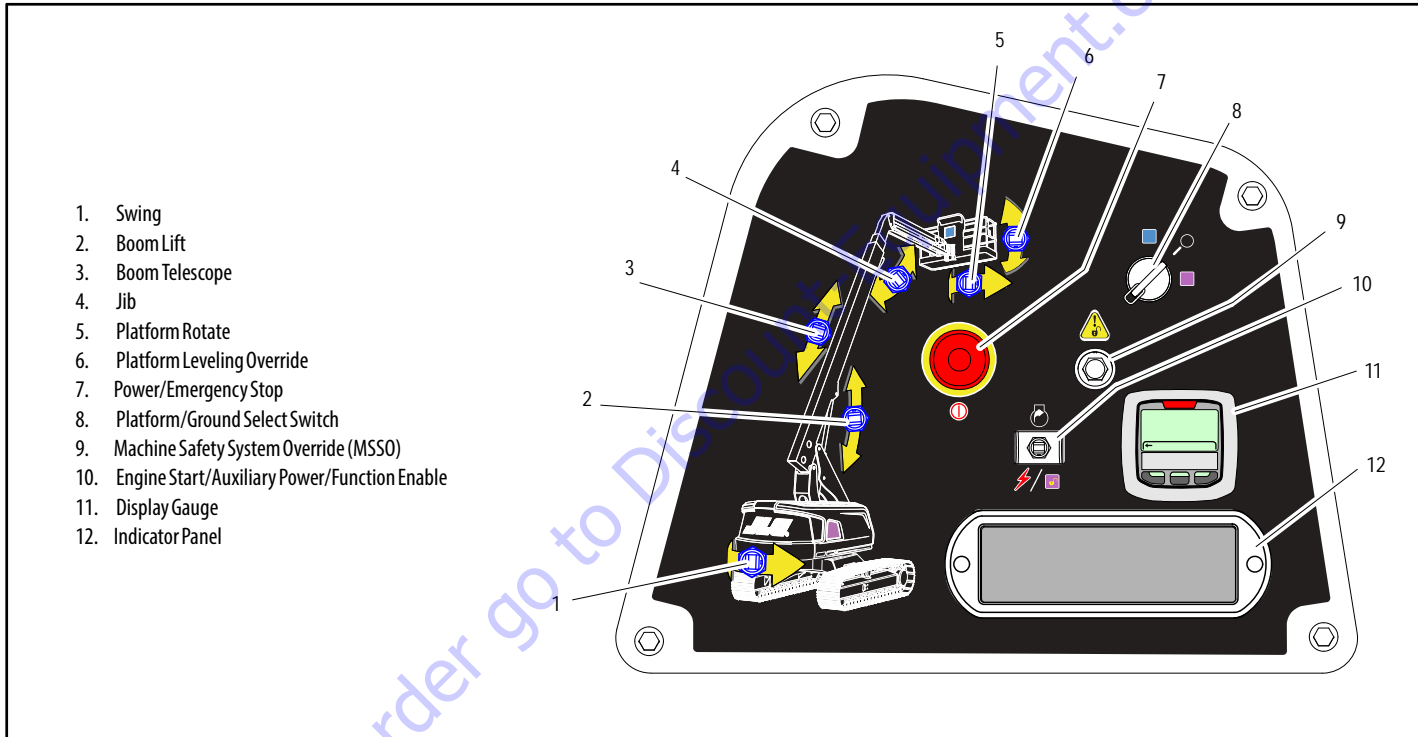
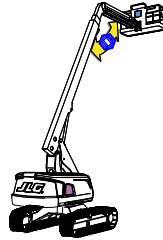


Figure 3-4. Ground Control Station - 660SJ with Machine Safety System Override (MSSO)(CE Only)

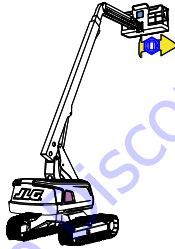
4. Jib (If Equipped)

This switch provides raising and lowering of the jib.



5. Platform Rotate

Provides rotation of the platform.

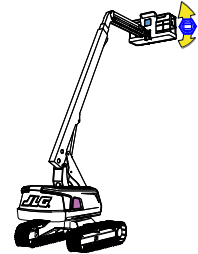


⚠ WARNING

ONLY USE THE PLATFORM LEVELING OVERRIDE FUNCTION FOR SLIGHT LEVELING OF THE PLATFORM. INCORRECT USE COULD CAUSE THE LOAD/OCCUPANT TO SHIFT OR FALL. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

6. Platform Leveling Override

A three position switch allows the operator to adjust the platform leveling system. This switch is used to adjust platform level in situations such as ascending/descending a grade.



SECTION 3 - MACHINE CONTROLS AND INDICATORS

NOTE: When Power/Emergency Stop switch is in the "On" position and engine is not running, an alarm will sound, indicating Ignition is "On".

⚠ CAUTION

WHEN THE MACHINE IS SHUT DOWN THE MASTER/EMERGENCY STOP SWITCH MUST BE POSITIONED TO THE "OFF" POSITION TO PREVENT DRAINING THE BATTERY.

7. Power/Emergency Stop Switch

A two-position red mushroom shaped switch supplies power to Platform/Ground Select switch when pulled out (on). When pushed in (off), power is shut off to the Platform/Ground Select switch.



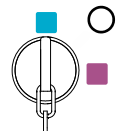
NOTE: When the Platform/Ground Select Switch is in the center position, power is shut off to the controls at both operating consoles.

8. Platform/Ground Select Switch

The three position, key operated switch supplies power to the platform control console when positioned to Platform. With the switch key turned to the Ground position only ground controls are operable.

9. Machine Safety System Override (MSSO) (CE Only)

Provides emergency override of function controls that are locked out in the event of Load Sense System activation.



SECTION 3 - MACHINE CONTROLS AND INDICATORS

NOTE: When Glow Plug Indicator is lighted (Yellow), wait until light goes out before cranking engine.

10. Engine Start/ Auxiliary Power Switch /Function Enable



To start the engine, the switch must be held "Up" until the engine starts.

To use auxiliary power, the switch must be held "Down" for duration of auxiliary pump use.



When the engine is running, the switch must be held "Down" to enable all boom controls.



CAUTION

WHEN OPERATING ON AUXILIARY POWER, DO NOT OPERATE MORE THAN ONE FUNCTION AT A TIME. (SIMULTANEOUS OPERATION CAN OVERLOAD THE AUXILIARY PUMP MOTOR.)

11. Display Gauge



Registers the amount of time the machine has been in use, with engine running. The hourmeter registers up to 16,500 hours and cannot be reset.

12. Indicator Panel

The Indicator Panel contains indicator lights that signal problem conditions or functions operating during machine operation.

13. Air Shutoff Valve (ASOV) (If Equipped)



The red LED ASOV light indicates when the valve has been actuated.

Ground Control Indicator Panel

(See Figure 3-5., Ground Control Indicator Panel)

1. Battery Malfunction Indicator

Indicates a problem in the battery or charging circuit, and service is required.



2. Engine Malfunction/Check Engine Indicator

Indicates that engine oil pressure is below normal or engine coolant temperature is abnormally high and service is required.



3. System Distress Indicator

The light indicates that the JLG Control System has detected an abnormal condition and a Diagnostic Trouble Code has been set in the system memory. Refer to the Service Manual for instructions concerning the trouble codes and trouble code retrieval.



The system distress indicator light will illuminate for 2-3 seconds when the key is positioned to the on position to act as a self test.

4. Low Fuel Level Indicator

Indicates the fuel level is low. The Fuel Reserve/Cut-Out System will shut the engine down (or allow it start and run for an additional minute, depending upon machine setup) before the fuel tank is emptied.



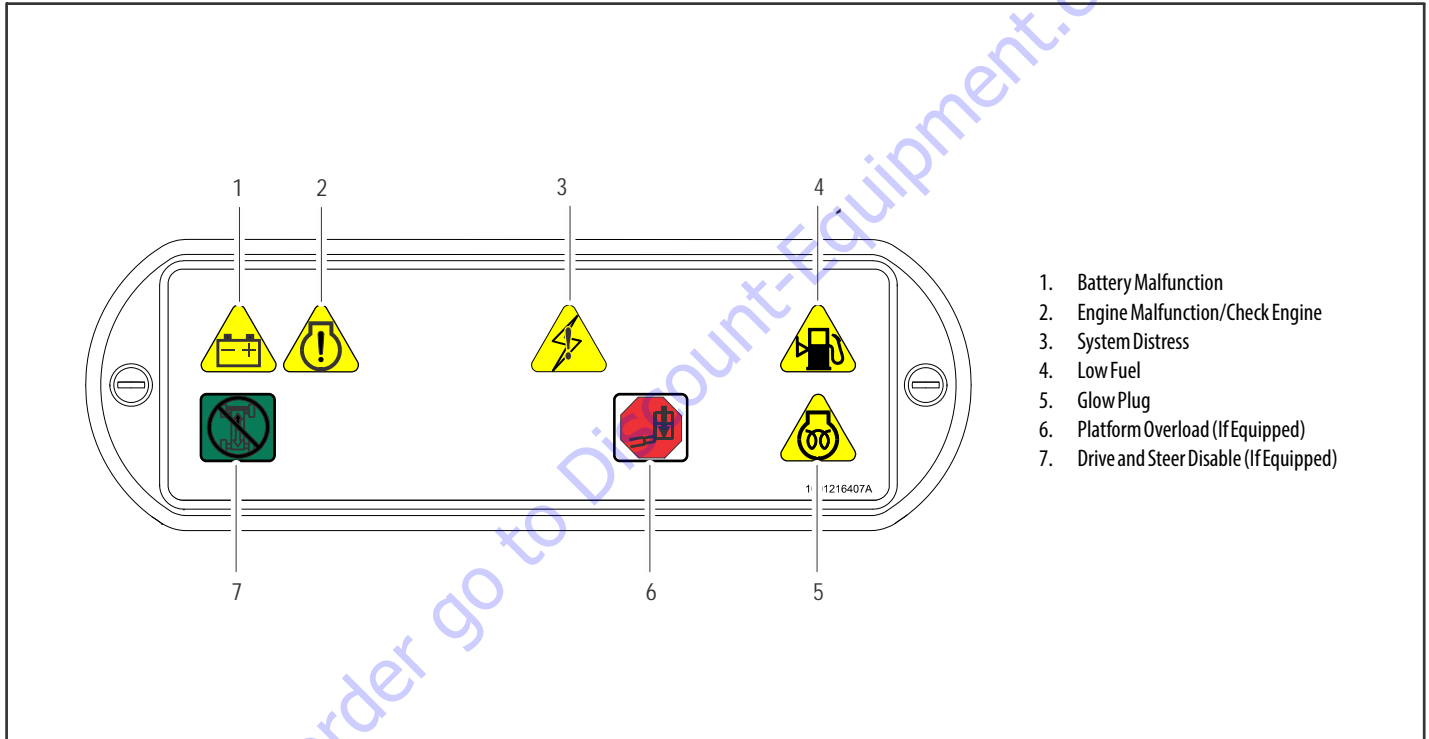


Figure 3-5. Ground Control Indicator Panel

SECTION 3 - MACHINE CONTROLS AND INDICATORS

5. Glow Plug Indicator

Indicates the glow plugs are operating. After turning on ignition, wait until light goes out before cranking engine.



6. Platform Overload Indicator (If Equipped)

Indicates the platform has been overloaded.



7. Drive and Steer Disable Indicator (If Equipped)

Indicates the Drive and Steer Disable function has been activated.



Ground Control Console Display Gauge

(See Figure 3-9., Ground Control Console Display Gauge)

The Display Gauge shows engine hours, fuel level (if applicable), and Diagnostic Trouble Codes (DTCs) from both the JLG Control System and the engine control system. During machine start up, with no active DTCs in the control system, the splash screen will show for 3 seconds and then switch to main screen. If there is an active DTC while powering up the machine, the splash screen will show for 3 seconds, and then launch the Diagnostics Screen. The indicator lamp will light when there is an active DTC in the Fault Log.



Figure 3-6. Splash Screen

SECTION 3 - MACHINE CONTROLS AND INDICATORS

The Diagnostic Screen will show active and inactive faults from the JLG Control System on the screen. An asterisk (*) will be displayed to show active faults.

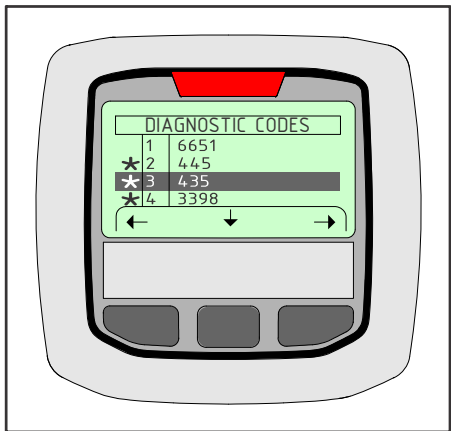


Figure 3-7. Diagnostic Screen

The Engine Diagnostics Screen will show SPN (Suspect Parameter Number), FMI (Failure Mode Identifier), and Occurrence count information. Engine SPN text is not scrollable. If there is more than one engine trouble code, the operator must exit from the Engine DTC Screen to see other SPN and FMI information.

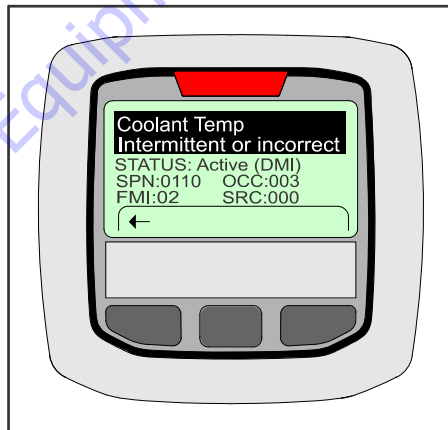


Figure 3-8. Engine Diagnostic Screen

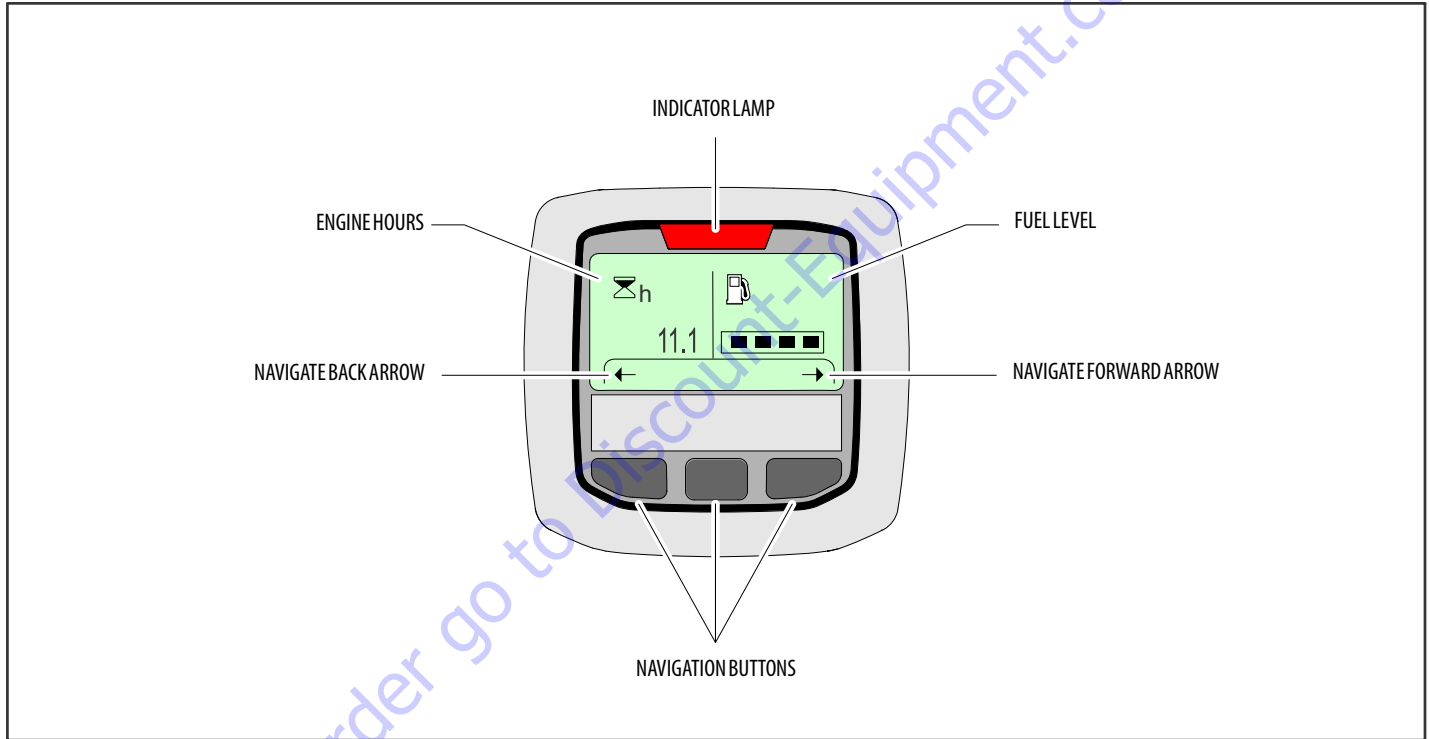


Figure 3-9. Ground Control Console Display Gauge

Platform Console

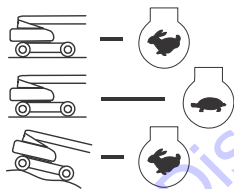
(See Figure 3-10., Platform Control Console)

⚠ WARNING

TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF ANY CONTROL LEVERS OR TOGGLE SWITCHES CONTROLLING PLATFORM MOVEMENT DO NOT RETURN TO THE OFF OR NEUTRAL POSITION WHEN RELEASED.

1. Drive Speed/Torque Select Switch

The forward position gives maximum drive speed. The back position gives maximum torque for rough terrain and climbing grades. The center position allows the machine to be driven as quietly as possible.

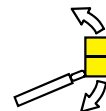


⚠ WARNING

ONLY USE THE PLATFORM LEVELING OVERRIDE FUNCTION FOR SLIGHT LEVELING OF THE PLATFORM. INCORRECT USE COULD CAUSE THE LOAD/OCCUPANTS TO SHIFT OR FALL. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

2. Platform Leveling Override

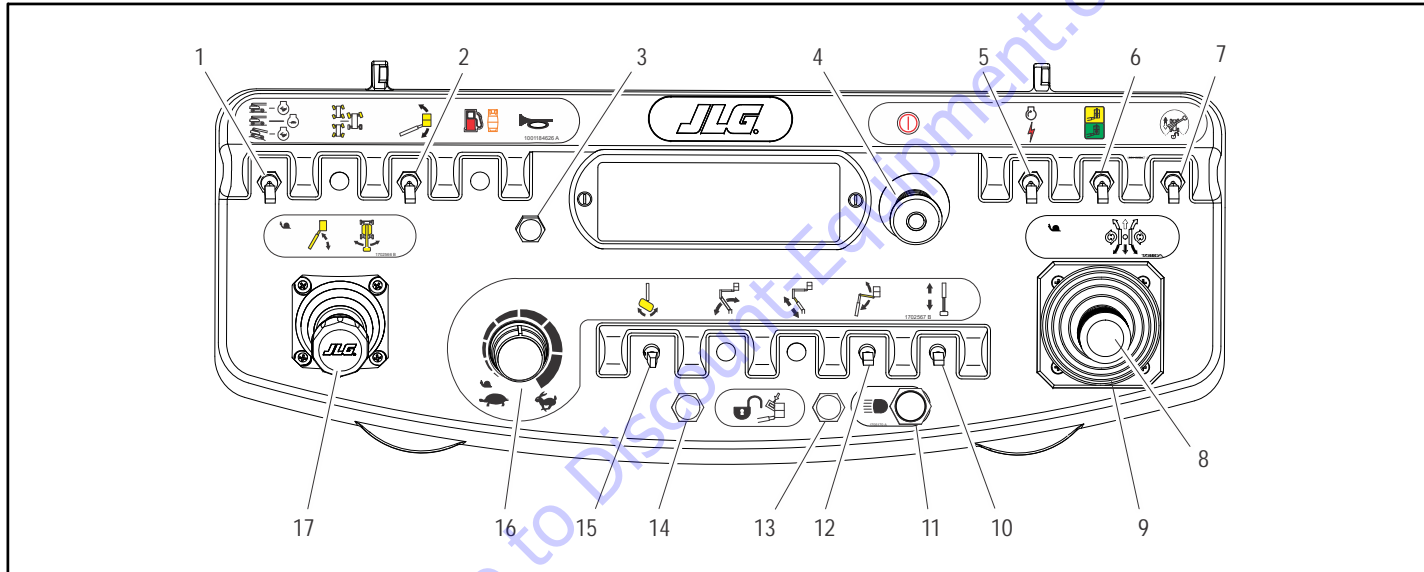
A three position switch allows the operator to adjust the platform leveling system. This switch is used to adjust platform level in situations such as ascending/descending a grade.



3. Horn

A push-type HORN switch supplies electrical power to an audible warning device when pressed.





- | | | | |
|-------------------------------|-------------------------------|--|---|
| 1. Drive Speed/Torque Select | 6. Capacity Select | 10. Telescope | 14. Soft Touch/SkyGuard Indicator (If Equipped) |
| 2. Platform Leveling Override | 7. Drive Orientation Override | 11. Lights (If Equipped) | 15. Platform Rotate |
| 3. Horn | 8. Drive/Steer Enable | 12. Jib Lift (If Equipped) | 16. Function Speed Control |
| 4. Power/Emergency Stop | 9. Drive Steer | 13. Soft Touch/SkyGuard Override (If Equipped) | 17. Main Lift/Swing Controller |
| 5. Start/Auxiliary Power | | | |

Figure 3-10. Platform Control Console

SECTION 3 - MACHINE CONTROLS AND INDICATORS

4. Power/Emergency Stop Switch

A two-position red mushroom shaped switch furnishes power to PLATFORM Controls when pulled out (on). When pushed in (off), power is shut off to the platform functions.



5. Start/Auxiliary Power

When pushed forward, the switch energizes the starter motor to start the engine.



The Auxiliary Power control switch energizes the electrically operated hydraulic pump. (Switch must be held ON for duration of auxiliary pump use.)



The auxiliary pump functions to provide sufficient oil flow to operate the basic machine functions should the main pump or engine fail. The auxiliary pump will operate main boom lift, main telescope, jib (if equipped) and swing.

6. Capacity Select

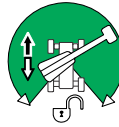
On 600SC models, this switch allows the operator to select between an operating envelope with a 600 lb. (272 kg for ANSI markets and 270 kg for CE and Australia markets) capacity restriction or a 1000 lb. (454 kg for ANSI markets and 450 kg for CE and Australia markets) capacity restriction.



On 660SJC models, the operator can select between an operating envelope with a 550 lb. (250 kg) capacity restriction or a 750 lb. (340 kg) capacity restriction.

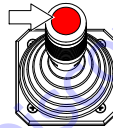
7. Drive Orientation Override

When the boom is swung over the rear or further in either direction, the Drive Orientation indicator will illuminate when the drive function is selected. Push and release the switch, and within 3 seconds move the Drive/Steer control to activate drive or steer. Before driving, locate the black/white orientation arrows on both the chassis and the platform controls. Move the drive controls in a direction matching the directional arrows for the intended direction of travel.



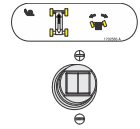
8. Drive/Steer Enable

Located on the top of the Drive Steer Joystick, the button must be pushed in for the Drive/Steer control to function. If at any time the Enable Switch is pushed in and no function is operated for a period of 3 seconds, the switch will "time-out" and the switch must be cycled again to renew normal functions.



9. Drive/Steer

Proportional dual axis joystick is provided to control drive and steer. Push forward to drive straight forward. The joystick is proportional, with the drive speed increasing as the joystick is moved further from its neutral position. Moving the joystick forward and to the side steers the machine in the direction of the side displacement of the joystick. With the joystick positioned all the way to the side and slightly forward, the machine will turn in place with one track stopped and the other one turning the machine around the center of the stopped track.



Moving the joystick to the side (no dislocation in the forward or aft direction) will turn the machine by counter-rotation around the center of the machine by powering the tracks in opposite directions.

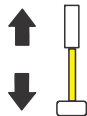
Pulling the joystick back and to the sides controls speed and direction of drive in reverse.

NOTE: Both drive and steer functions work in the opposite direction when the boom is positioned over front of the chassis (over idler wheels).

SECTION 3 - MACHINE CONTROLS AND INDICATORS

10. Telescope

Provides extension and retraction of the main boom.



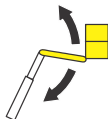
11. Lights (If Equipped)

This switch operates the chassis lights if the machine is so equipped.



12. Jib Lift (If Equipped)

Provides for raising or lowering of the jib by positioning up/down.



13. Soft Touch/SkyGuard Override Switch (If Equipped)

The machine can be equipped with one of three options. It may have Soft Touch, SkyGuard, or both Soft Touch and SkyGuard.

If equipped with Soft Touch, the switch enables the functions that were cut out by the Soft Touch system to operate again at creep speed, allowing the operator to move the platform away from the obstacle that caused the shutdown situation.



If equipped with SkyGuard, the switch enables functions cut out by the Skyguard system to be operated again, allowing the operator to resume use of machine functions.



If equipped with both Soft Touch and SkyGuard, the switch operates like described above and allows the operator to override the system that has experienced a cutout situation.



SECTION 3 - MACHINE CONTROLS AND INDICATORS

14. Soft Touch/SkyGuard Indicator (If Equipped)

Indicates the Soft Touch bumper is against an object or the SkyGuard sensor has been activated. All controls are cut out until the override button is pushed. For Soft Touch, controls are then active in the Creep Mode or for SkyGuard, controls will work normally.

When Soft Touch is active, the indicator will be on continuously and the alarm will sound. When SkyGuard is active, the indicator will flash, and the horn will sound continuously.

15. Platform Rotate

Provides rotation of the platform when positioned to the right or left.

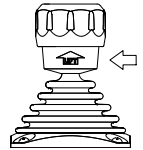


16. Function Speed Control

This control affects the speed of telescope and jib lift (if equipped). Turning the knob all the way counterclockwise until it clicks puts drive and swing into creep mode.



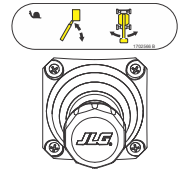
NOTE: To operate the Main Boom Lift/Swing joystick, pull up on the locking ring below the handle.



NOTE: The Main Boom Lift/Swing joystick is spring loaded and will automatically return to neutral (off) position when released.

17. Main Lift/Swing Controller

Provides main lift and swing. Push forward to lift up, pull backward to boom down. Move right to swing right, move left to swing left. Moving the joystick activates switches to provide the functions selected.



SECTION 3 - MACHINE CONTROLS AND INDICATORS

Platform Control Indicator Panel

(See Figure 3-11., Platform Control Indicator Panel)

NOTE: The indicator lights will illuminate for approximately 1 second when the key is positioned to the on position to act as a self test.

1. Level System Fault Indicator

Indicates a fault in the electronic leveling system. The fault indicator will flash and an alarm sound. All functions will default to creep if the boom is out of transport mode.



⚠ WARNING

IF THE LEVEL SYSTEM FAULT INDICATOR IS ILLUMINATED, SHUT DOWN THE MACHINE, RESET THE EMERGENCY STOP, AND RESTART THE MACHINE. IF THE FAULT PERSISTS, RETURN THE PLATFORM TO THE STOWED POSITION, USING MANUAL LEVELING AS REQUIRED, AND HAVE LEVELING SYSTEM REPAIRED.

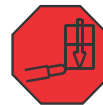
2. AC Generator (If Equipped)

Indicates the generator is in operation.



3. Platform Overload Indicator (If Equipped)

Indicates the platform has been overloaded.

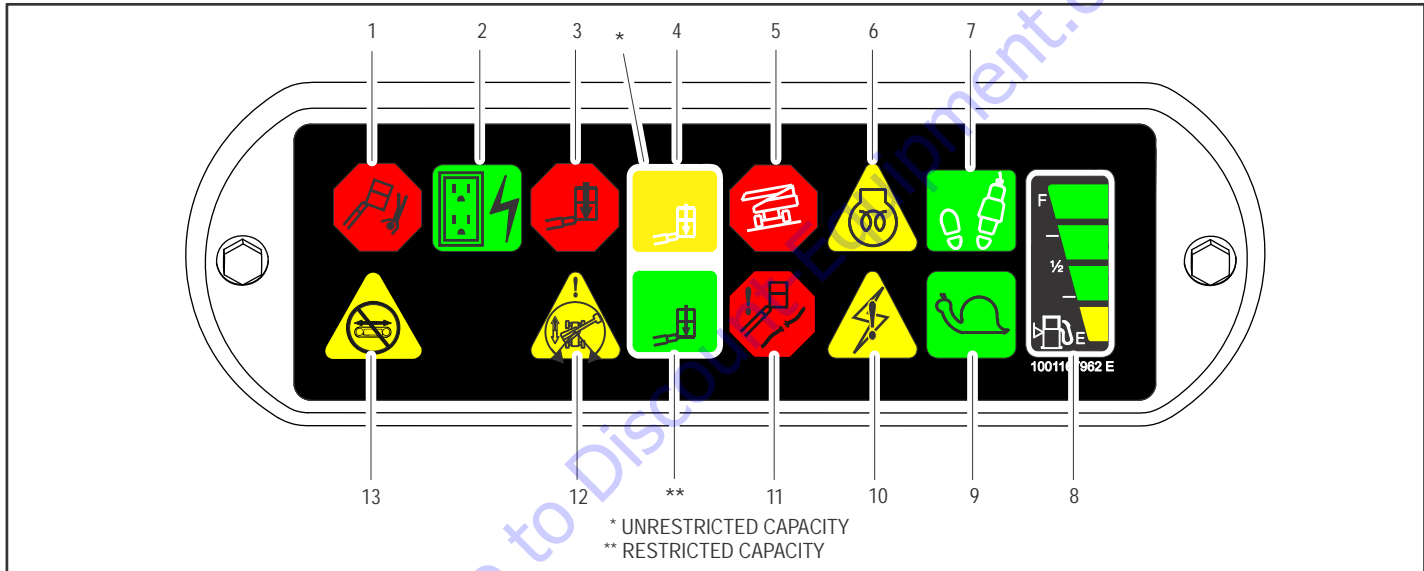


4. Capacity Indicator

Indicates the maximum platform capacity for the current position of the platform. Restricted capacities are permitted at restricted platform positions (shorter boom lengths and higher boom angles).



NOTE: Refer to the capacity decals on the machine for restricted and unrestricted platform capacities.



- | | | | |
|------------------------------------|----------------------------|---------------------|-----------------------|
| 1. Level System | 5. Tilt | 8. Fuel Level | 11. Wire Rope Service |
| 2. AC Generator (If Equipped) | 6. Glow Plug/Wait to Start | 9. Creep | 12. Drive Orientation |
| 3. Platform Overload (If Equipped) | 7. Enable/Footswitch | 10. System Distress | 13. Drive Disabled |
| 4. Capacity Indicator | | | |

Figure 3-11. Platform Control Indicator Panel

SECTION 3 - MACHINE CONTROLS AND INDICATORS

5. Tilt Alarm Warning Light and Alarm



This red illuminator indicates that the chassis is on a slope. An alarm will also sound when the chassis is on an excessive slope and the boom is out of transport position. If lit when boom is out of transport position, lower to below horizontal then reposition machine so that it is level before continuing operation. If the boom is above horizontal and the machine is on a slope, the tilt alarm warning light will illuminate and an alarm will sound and CREEP is automatically activated.

| Tilt Angle | Market |
|------------|-------------|
| 5° | All Markets |

⚠ WARNING

IF TILT WARNING LIGHT IS ILLUMINATED WHEN BOOM IS RAISED OR EXTENDED, RETRACT AND LOWER TO BELOW HORIZONTAL THEN REPOSITION MACHINE SO THAT IT IS LEVEL BEFORE EXTENDING BOOM OR RAISING BOOM ABOVE HORIZONTAL.

6. Glow Plug/Wait to Start Indicator

Indicates the glow plugs are operating. After turning on ignition, wait until light goes out before starting engine.



7. Enable Indicator/Footswitch

To operate any function, the footswitch must be depressed and the function selected within seven seconds. The enable indicator shows that the controls are enabled. If a function is not selected within seven seconds, or if a seven second lapse between ending one function and beginning the next function, the enable light will go out and the footswitch must be released and depressed again to enable the controls.



Releasing the footswitch removes power from all controls and applies the drive brakes.

⚠ WARNING

TO AVOID SERIOUS INJURY, DO NOT REMOVE, MODIFY OR DISABLE THE FOOTSWITCH BY BLOCKING OR ANY OTHER MEANS.

⚠ WARNING

FOOTSWITCH MUST BE ADJUSTED IF FUNCTIONS ACTIVATE WHEN SWITCH ONLY OPERATES WITHIN LAST 1/4" OF TRAVEL, TOP OR BOTTOM.

8. Fuel Level Indicator

Indicates the level of fuel in the tank.

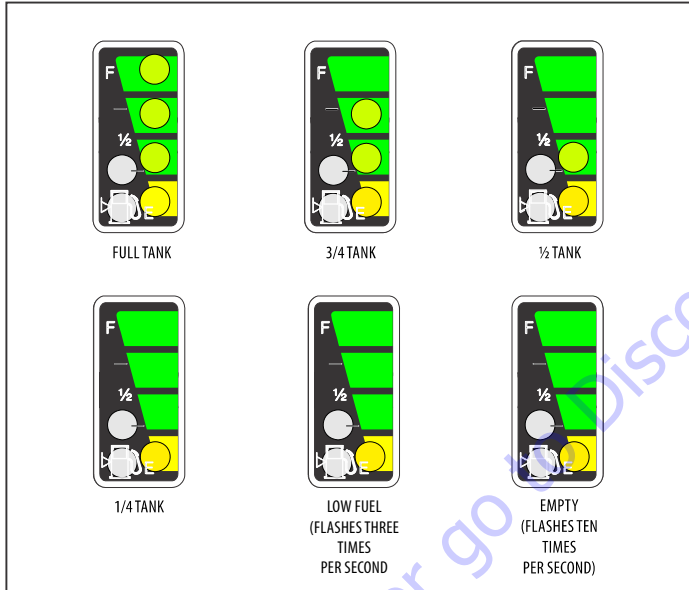


Figure 3-12. Fuel Level Indicator

9. Creep Speed Indicator



When the Function Speed Control is turned to the creep position, the indicator acts as a reminder that all functions are set to the slowest speed. The light will be on continuously if the operator selects creep speed or if the control system puts the machine into creep speed. In addition, if the control system puts one or more individual functions in creep speed, the indicator flashes when that function is selected.

10. System Distress Indicator



The light indicates that the JLG Control System has detected an abnormal condition and a Diagnostic Trouble Code has been set in the system memory. Refer to the Service Manual for instructions concerning the trouble codes and trouble code retrieval.

SECTION 3 - MACHINE CONTROLS AND INDICATORS

11. Wire Rope Service Indicator

When illuminated, the light indicates the boom wire ropes are loose or broken and must be repaired or adjusted immediately.



12. Drive Orientation Indicator

When the boom is swung beyond the rear or further in either direction, the Drive Orientation indicator will illuminate when the drive function is selected. This is a signal for the operator to verify that the drive control is being operated in the proper direction (i.e. controls reversed situations).



13. Drive Disabled Indicator

When illuminated, the drive function has been disabled. (Refer to Drive Function Operating Range Diagrams in Section 2).



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SECTION 4. MACHINE OPERATION

4.1 DESCRIPTION

This machine is a mobile elevating work platform used to position personnel, along with their necessary tools and materials at work locations.

The primary operator control station is in the platform. From this control station, the operator can drive and steer the machine in both forward and reverse directions. The operator can raise or lower the main boom or swing the boom to the left or right. Standard boom swing is 360 degree continuous left and right of the stowed position. The machine has a Ground Control Station which will override the Platform Control Station. Ground Controls operate all functions except drive and steer and are to be used in an emergency to lower the platform to the ground should the operator in the platform be unable to do so.

4.2 OPERATING CHARACTERISTICS AND LIMITATIONS

Capacities

The boom can be raised above horizontal with or without any load in platform, if:

1. Machine is positioned on a smooth, firm and level surface.
2. Load is within manufacturer's rated capacity.
3. All machine systems are functioning properly.
4. Machine is as originally equipped from JLG.

Stability

Machine stability is based on two positions which are called FORWARD and BACKWARD stability. The machines position of least FORWARD stability is shown in Figure 4-2., Position of Least Forward Stability, and its position of least BACKWARD stability is shown in Figure 4-1., Position of Least Backward Stability.

⚠ WARNING

TO AVOID FORWARD OR BACKWARD TIPPING, DO NOT OVERLOAD MACHINE OR OPERATE THE MACHINE ON AN OUT-OF-LEVEL SURFACE.

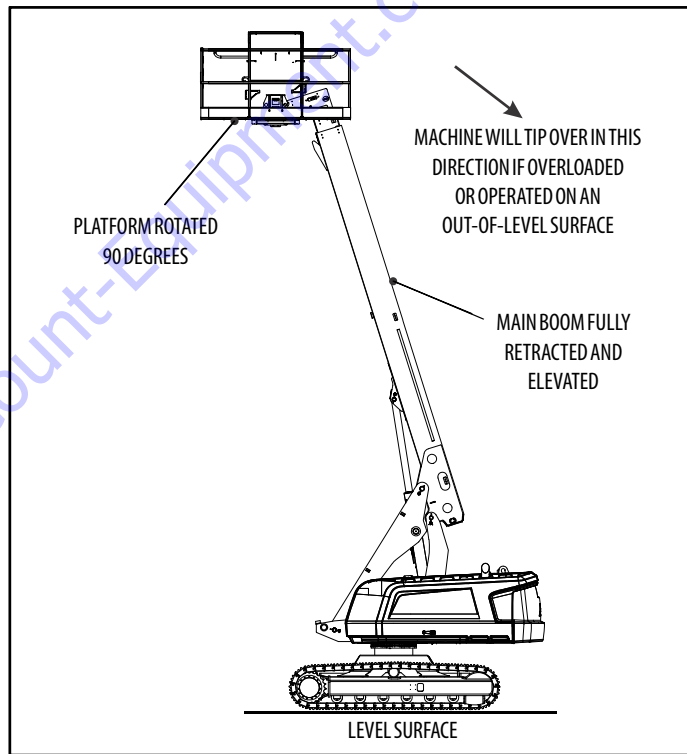


Figure 4-1. Position of Least Backward Stability

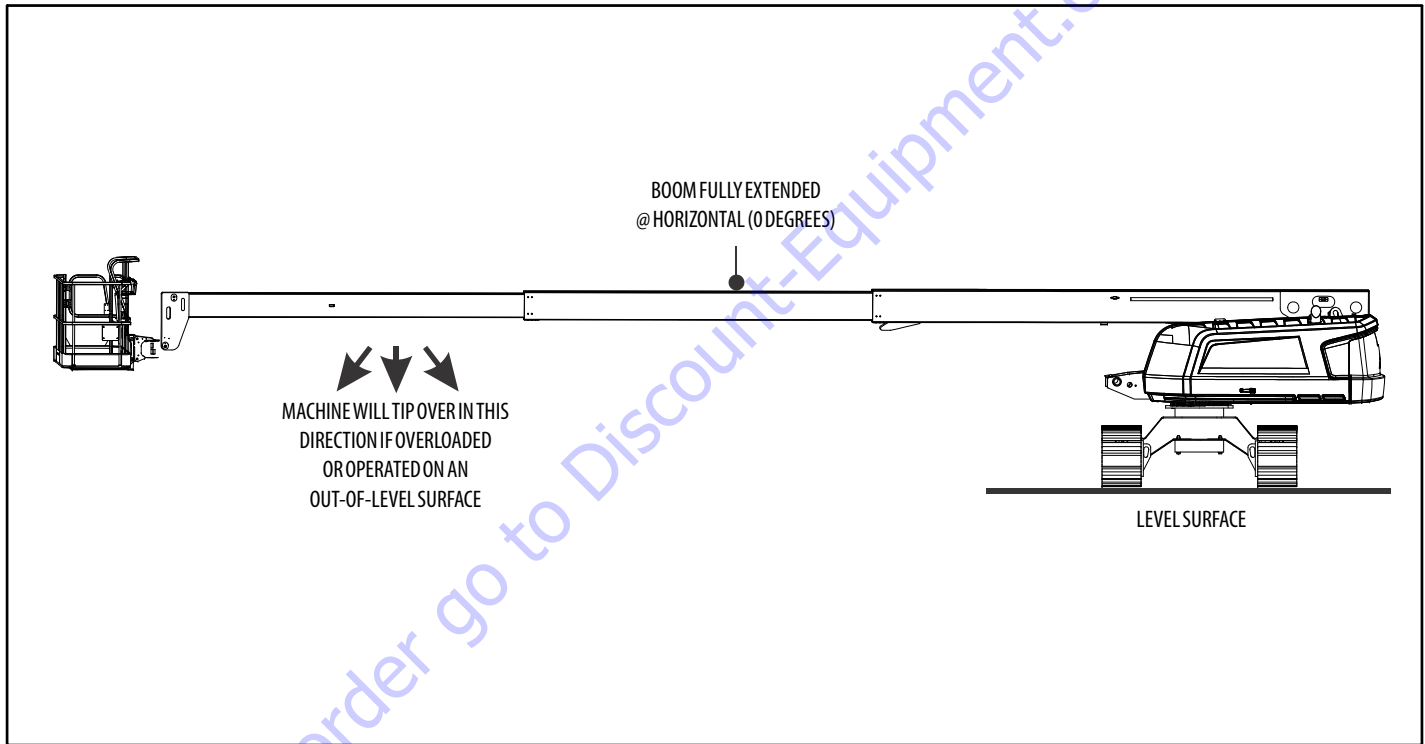


Figure 4-2. Position of Least Forward Stability

SECTION 4 - MACHINE OPERATION

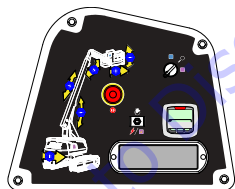
4.3 ENGINE OPERATION

NOTE: When operating a machine at high altitudes, a decrease in machine performance may occur due to a decrease in air density.

NOTE: When operating a machine at high ambient temperatures, a decrease in machine performance and an increase in engine coolant temperature may occur.

NOTE: Contact JLG Customer Service for operation under abnormal conditions.

NOTE: Initial starting should always be performed from the Ground Control station.



Starting Procedure

CAUTION

IF ENGINE FAILS TO START PROMPTLY, DO NOT CRANK FOR AN EXTENDED TIME. SHOULD ENGINE FAIL TO START AGAIN, ALLOW STARTER TO "COOL OFF" FOR 2-3 MIN-

UTES. IF ENGINE FAILS AFTER SEVERAL ATTEMPTS, REFER TO ENGINE MAINTENANCE MANUAL.

NOTE: Diesel engines only: After turning on ignition, operator must wait until glow plug indicator light goes out before cranking engine.



1. Turn key of Platform/Ground Select switch to Ground.



2. Pull the Power/Emergency Stop switch to On.



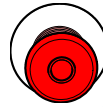
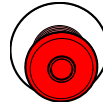
3. Push the Engine Start switch until engine starts.



CAUTION

ALLOW ENGINE TO WARM-UP FOR A FEW MINUTES AT LOW SPEED BEFORE APPLYING ANY LOAD.

4. After engine has had sufficient time to warm up, push in the Power/Emergency Stop switch and shut engine off.
5. Turn Platform/Ground Select switch to Platform.
6. From Platform, pull Power/Emergency Stop switch out.
7. Push the Engine Start switch until engine starts.



NOTE: Footswitch must be in released (up) position before starter will operate. If starter operates with footswitch in the depressed position, DO NOT OPERATE MACHINE.

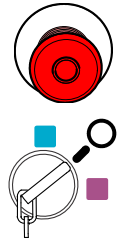
Shutdown Procedure

⚠ CAUTION

IF AN ENGINE MALFUNCTION CAUSES AN UNSCHEDULED SHUTDOWN, DETERMINE THE CAUSE AND CORRECT IT BEFORE RESTARTING THE ENGINE.

1. Remove all load and allow engine to operate at low speed for 3-5 minutes; this allows further reduction of internal engine temperature.
2. Push Power/Emergency Stop switch in.
3. Turn Platform/Ground Select switch to Off.

Refer to Engine Manufacturer's manual for detailed information.



Air Shutoff Valve (ASOV) (If Equipped)

Air Shutoff Valve (ASOV) is an overspeed protection device mounted to the engine's air intake system. When the valve is actuated, it obstructs airflow intake and stops the engine. Weekly tests are recommended to ensure the valve remains in good working condition.

1. Start the engine, running at idle.
2. Open the red switch guard on ASOV test switch, then activate toggle to test mode.

NOTE: Test switch is located under hood to the left of the ground control panel (look for test decal).



3. At the ground control panel, select any function and activate until valve actuates at test RPM of 1500. Once valve actuates, engine will stop.
4. Turn ignition to OFF.
5. Visually inspect valve to ensure it appears in good condition.
6. Reset valve by rotating valve handle to the Open position.

NOTE: The handle cannot be turned unless the machine is off. Ensure the ignition is moved to the OFF position.

⚠ WARNING

DO NOT USE ASOV AS AN ALTERNATIVE TO SHUTTING DOWN MACHINE PROPERLY.

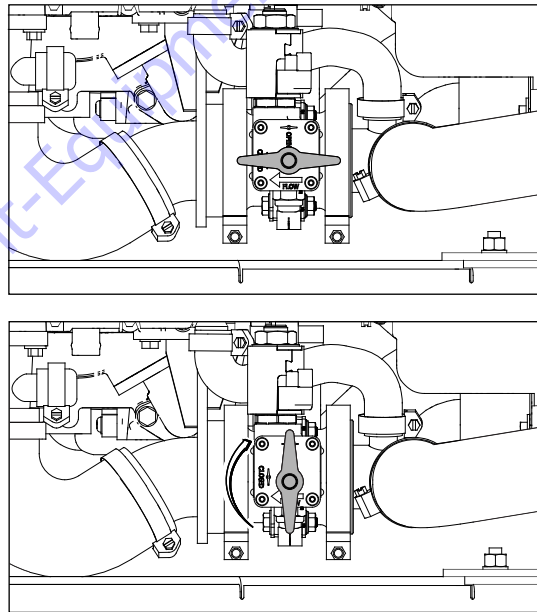


Figure 4-3. ASOV Reset (Closed to Open Position)

Fuel Reserve / Shut-Off System

NOTE: Reference the Service and Maintenance Manual along with a qualified JLG Mechanic to verify your machine setup.

The Fuel Shutoff System monitors the fuel in the tank and senses when the fuel level is getting low. The JLG Control System automatically shuts the engine down before the fuel tank is emptied unless the machine is set up for Engine Restart.

If fuel level reaches the Empty range, the Low Fuel light will begin to flash once a second and there will be approximately 60 minutes of engine run time left. If the system is in this condition and automatically shuts down the engine or if the operator manually shuts down the engine before the 60 minute run time is complete, the Low Fuel light will flash 10 times a second and the engine will react according to machine setup. Setup options are as follows:

- Engine One Restart - When the engine shuts down, the operator will be permitted to cycle power and restart the engine once with approximately 2 minutes of run time. After the 2 minute run time is complete or if the engine is shut down by the operator prior to the completion of the 2 minute run time, it cannot be restarted until fuel is added to the tank.



NOTICE

CONTACT A QUALIFIED JLG MECHANIC IF THE MACHINE NEEDS RESTARTED AFTER NO MORE FUEL IS AVAILABLE.

- Engine Restart - When the engine shuts down, the operator will be permitted to cycle power and restart the engine for approximately 2 minutes of run time. After the 2 minutes of run time is complete, the operator may cycle power and restart the engine for an additional 2 minutes of run time. The operator can repeat this process until there is no more fuel available.
- Engine Stop - When the engine shuts down, no restarts will be permitted until fuel is added to the tank.

SECTION 4 - MACHINE OPERATION

4.4 TRAVELING (DRIVING)

See Figure 4-8., Grade and Sideslope

See Figure 4-5., Drive Function Operating Range Diagrams - Sheet 1 of 2 and Figure 4-6., Drive Function Operating Range Diagrams - Sheet 2 of 2

NOTE: Refer to the Operating Specifications table for Gradeability and Sideslope ratings.

All ratings for Gradeability and Sideslope are based upon the machine's boom being in the stowed position, fully lowered, and retracted.

Traveling is limited by two factors:

1. Gradeability, which is the percent of grade of the incline the machine can climb.
2. Sideslope, which is the angle of the slope the machine can be driven across.

⚠ WARNING

DO NOT DRIVE WITH BOOM ABOVE HORIZONTAL EXCEPT ON A SMOOTH, FIRM AND LEVEL SURFACE.

TO AVOID LOSS OF TRAVEL CONTROL OR "TIP OVER", DO NOT DRIVE MACHINE ON GRADES EXCEEDING THOSE SPECIFIED ON THE SERIAL NUMBER PLATE.

BE SURE THE TURNTABLE LOCK IS ENGAGED BEFORE ANY EXTENDED TRAVELING.

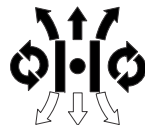
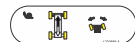
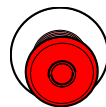
DO NOT DRIVE ON SIDESLOPES WHICH EXCEED 5 DEGREES.

USE EXTREME CAUTION WHEN DRIVING IN REVERSE AND AT ALL TIMES WHEN THE PLATFORM IS ELEVATED.

BEFORE DRIVING, MAKE SURE BOOM IS POSITIONED OVER REAR. IF BOOM IS OVER FRONT WHEELS, STEER AND DRIVE CONTROLS WILL BE REVERSED.

Traveling Forward and Reverse

1. At Platform Controls, pull out Emergency Stop switch, start engine, and activate footswitch.
2. Position Drive control to Forward or Reverse as desired.
3. Depress footswitch, move joystick (Drive/Steer Control) to select desired direction of travel (forward or reverse), move Drive/Steer control to Right for smooth turn to right and Left for smooth turn to left.



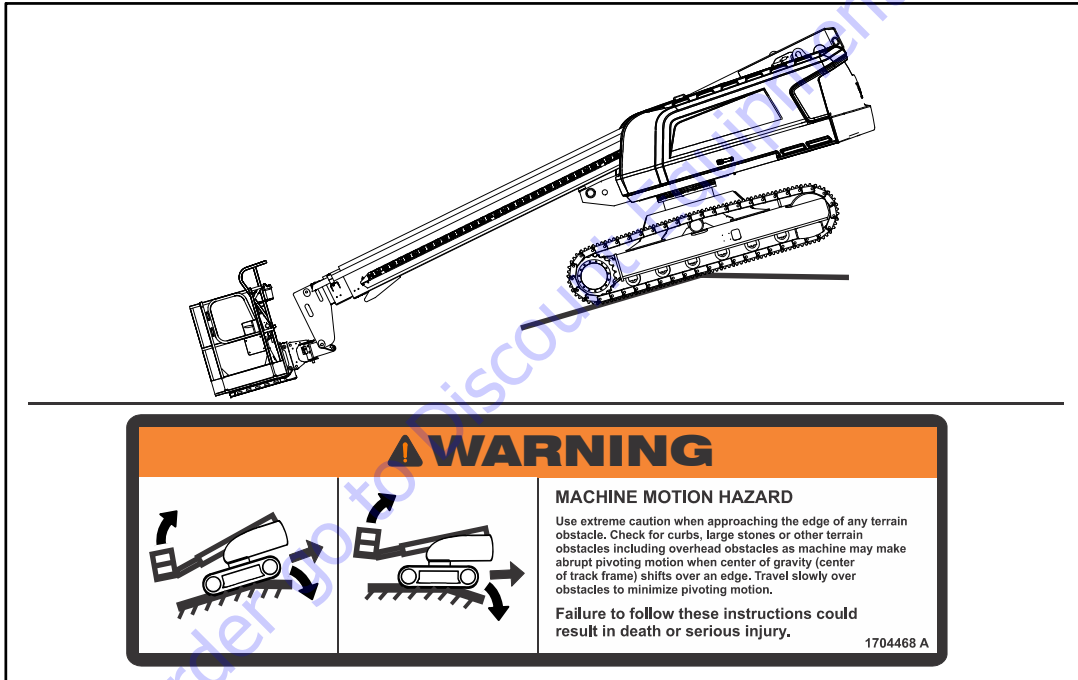
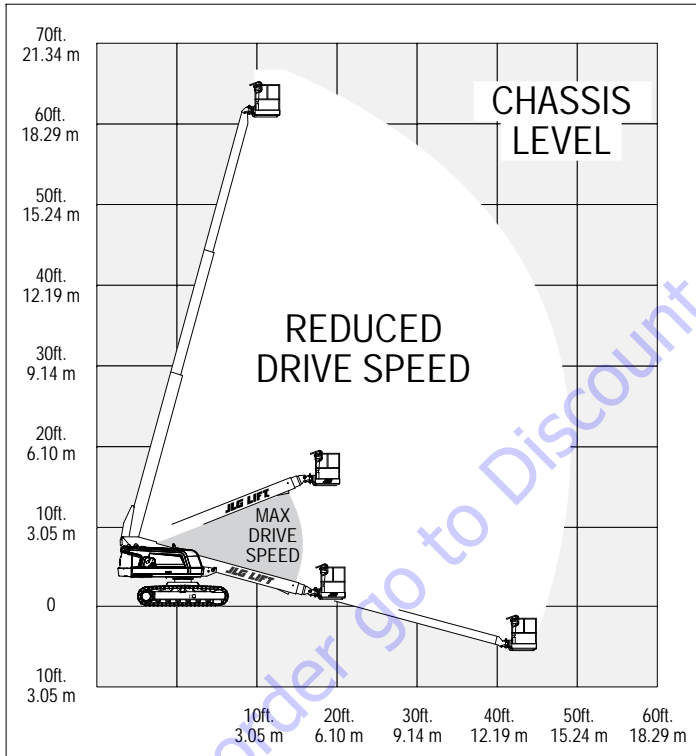


Figure 4-4. Machine Motion Hazard

SECTION 4 - MACHINE OPERATION



NOTE: Max Drive Speed will be disabled above 5° elevation or past 3 feet (1 m) of boom extension.

Figure 4-5. Drive Function Operating Range Diagrams - Sheet 1 of 2

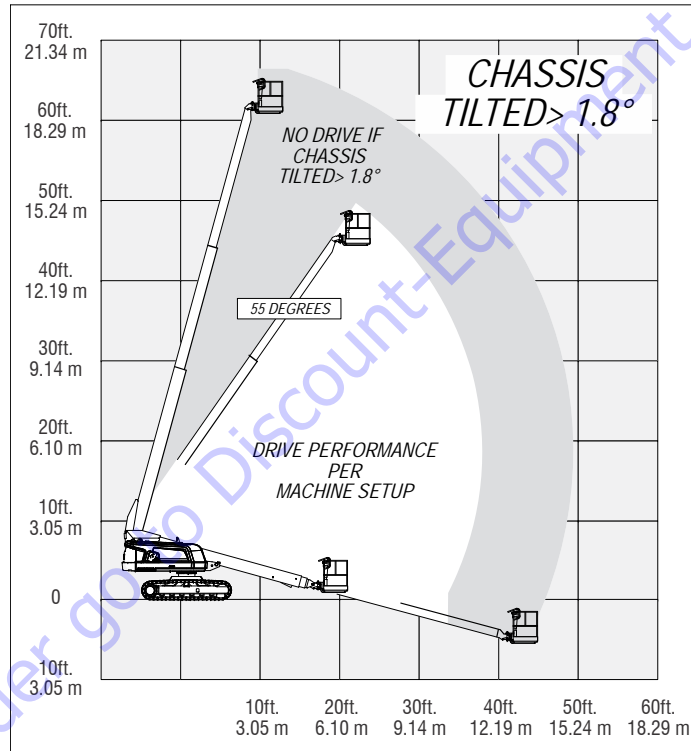
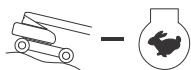


Figure 4-6. Drive Function Operating Range Diagrams - Sheet 2 of 2

SECTION 4 - MACHINE OPERATION

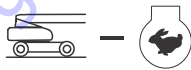
4. To obtain sharp turns, move Drive Speed/Torque Select switch to the back position, slow down the travel speed and move the Drive control lever to Right for a turn to the right and to Left for a turn to the left. The sharpest possible turn is achieved when the joystick is in the position to command one track to stop and the other to move slowly.



⚠ CAUTION

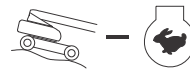
TURN IN PLACE ONLY IN AN AREA FREE OF OBSTACLES AND ONLY WITH THE BOOM FULLY RETRACTED. USE SLOW, GENTLE CONTROL MOVEMENTS AND DO NOT OPERATE ANY OTHER FUNCTIONS DURING COUNTER-ROTATION.

5. To obtain counter-rotation (turn in place), stop the machine, move the Drive/Steer control lever directly to Right to get clockwise rotation and to Left to get counterclockwise rotation.
6. To obtain maximum travel speed, position the Drive controller to Fast and activate the following switches:
- a. Position Drive Speed/Torque Select switch to Fast. (Forward Position)



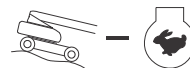
7. Prior to stopping the machine, position switches as follows:

- a. Position Drive Speed/Torque Select switch to Low. (Backward Position)



8. For traveling up grades, position switches as follows:

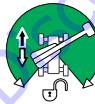
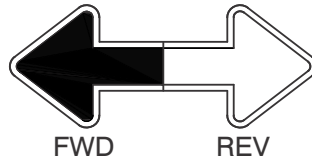
- a. Position Drive Speed/Torque Select switch to High. (Backward position)



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 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.



Traveling on a Grade

When traveling a grade, maximum braking and traction are obtained with the boom stowed, in position over the rear drive, and in line with the direction of travel. Drive the machine forward when climbing a grade, and in reverse when descending a grade. Do not exceed the machine's maximum rated gradability.

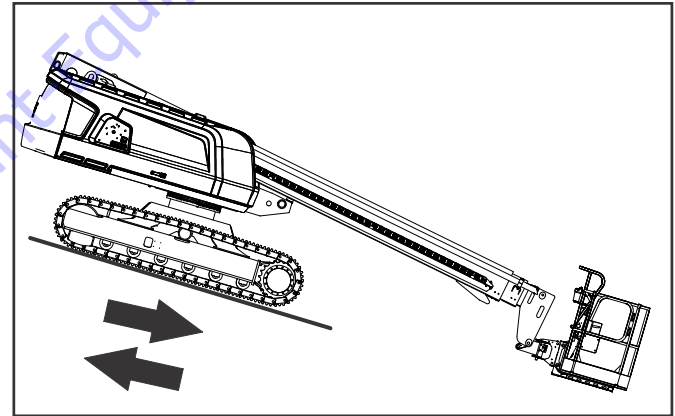


Figure 4-7. Traveling on a Grade

NOTICE

IF THE BOOM IS OVER THE FRONT, DIRECTION OF STEER AND DRIVE MOVEMENT WILL BE OPPOSITE FROM THE MOVEMENT OF THE CONTROLS.

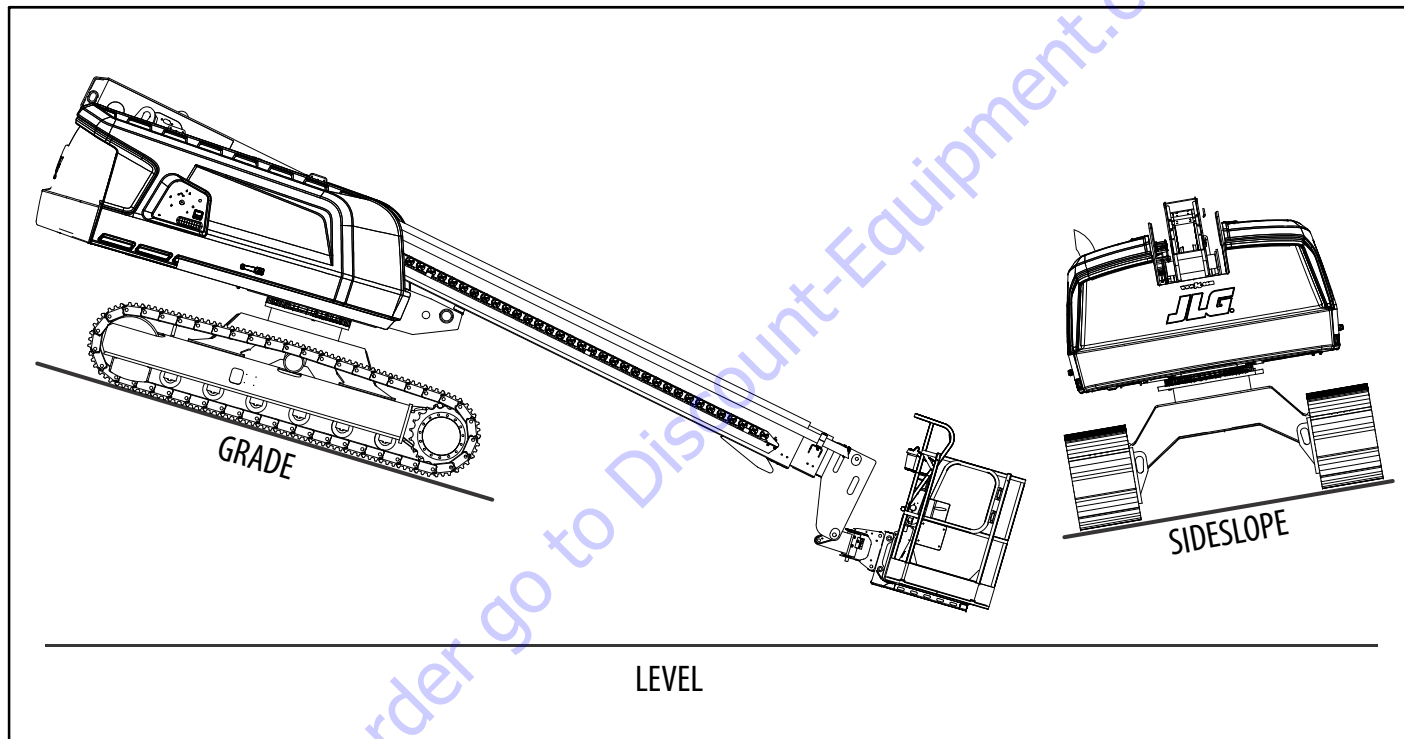


Figure 4-8. Grade and Sideslope

4.5 PLATFORM

Platform Level Adjustment

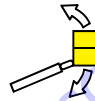
⚠ WARNING

ONLY USE THE PLATFORM LEVELING OVERRIDE FUNCTION FOR SLIGHT LEVELING OF THE PLATFORM. INCORRECT USE COULD CAUSE THE LOAD/OCCUPANTS TO SHIFT OR FALL. FAILURE TO DO SO COULD RESULT IN DEATH OR SERIOUS INJURY.

To Level Up or Down - Position the Platform/Level control switch Up or Down and hold until the platform is level.

Platform Rotation

To rotate the platform to the left or right, use the Platform Rotate control switch to select the direction and hold until desired position is reached.



4.6 BOOM

See Figure 4-9., Boom Function Operating Range Diagram.

⚠ WARNING

DO NOT SWING OR RAISE BOOM ABOVE HORIZONTAL WHEN MACHINE IS OUT OF LEVEL.

DO NOT DEPEND ON TILT ALARM AS A LEVEL INDICATOR FOR THE CHASSIS.

TO AVOID TIP OVER, LOWER PLATFORM TO GROUND LEVEL. THEN DRIVE MACHINE TO A LEVEL SURFACE BEFORE RAISING BOOM.

TO AVOID SERIOUS INJURY, DO NOT OPERATE MACHINE IF ANY CONTROL LEVER OR TOGGLE SWITCH CONTROLLING PLATFORM MOVEMENT DOES NOT RETURN TO THE 'OFF' OR NEUTRAL POSITION WHEN RELEASED.

IF THE PLATFORM DOES NOT STOP WHEN A CONTROL SWITCH OR LEVER IS RELEASED, REMOVE FOOT FROM FOOTSWITCH OR USE EMERGENCY STOP SWITCH TO STOP THE MACHINE.

Swinging the Boom

To swing boom, use Swing control switch to select Right or Left direction.



NOTICE

WHEN SWINGING THE BOOM MAKE SURE THERE IS AMPLE ROOM FOR THE BOOM TO CLEAR SURROUNDING WALLS, PARTITIONS AND EQUIPMENT.

NOTE: On CE Market machines, when boom functions are being operated there is an interlock that prevents the use of Drive and Steer functions.

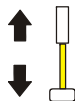
Raising and Lowering the Main Boom

To raise or lower the Main Boom, position the Main Boom Lift switch to Up or Down until the desired height is reached.



Telescoping the Main Boom

To extend or retract the main boom, use the Main Telescope Control Switch to select In or Out movement.



4.7 SHUT DOWN AND PARK

1. Drive machine to a protected area.
2. Assure boom is fully retracted and lowered over rear (Drive) axle; all access panels and doors closed and secured.
3. Remove all load and allow engine to operate 3-5 minutes at idle to permit reduction of engine internal temperatures.
4. At Ground Controls, turn Key Select switch to (center) Off Position, Power/Emergency Stop switch (down) to Off. Remove key.
5. Cover Platform Control console to protect instruction placards, warning decals and operating controls from hostile environment.

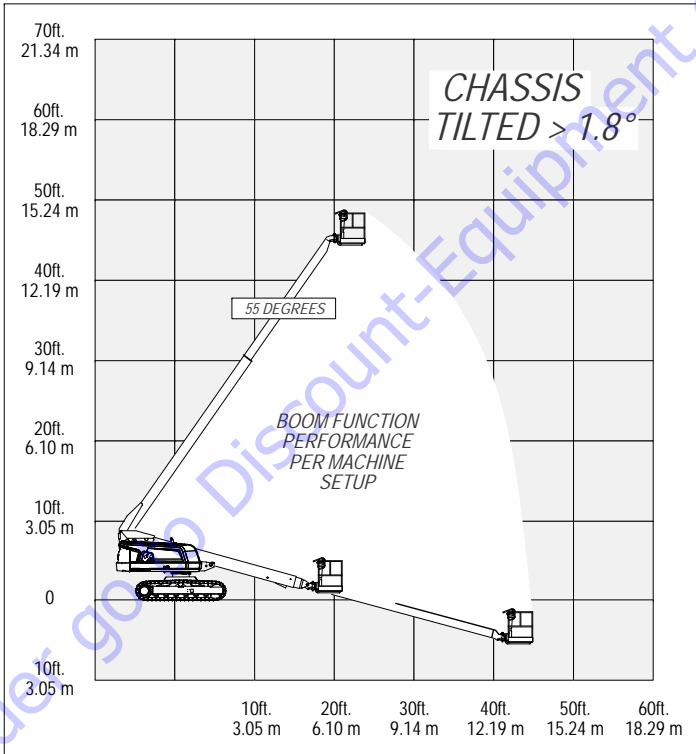


Figure 4-9. Boom Function Operating Range Diagram

4.8 MACHINE SAFETY SYSTEM OVERRIDE (MSSO)(CE ONLY)

The Machine Safety System Override (MSSO) is used to override function controls for Emergency Platform Retrieval only. Refer to Section 5.5, Machine Safety System Override (MSSO)(CE Only) for operating procedures.



4.9 SKYGUARD OPERATION

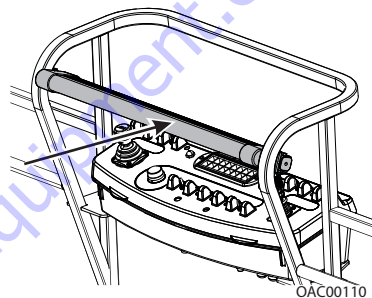
SkyGuard provides enhanced control panel protection. When the SkyGuard sensor is activated, functions in use at the time of activation will reverse or cutout. The SkyGuard Function Table provides more details on these functions.

During activation, the horn will sound and, if equipped with a SkyGuard beacon, the beacon will illuminate until sensor and footswitch are disengaged.

If the SkyGuard sensor remains activated after function reversal or cutout, depress and hold the SkyGuard Override Switch to allow normal functions until the sensor is disengaged.

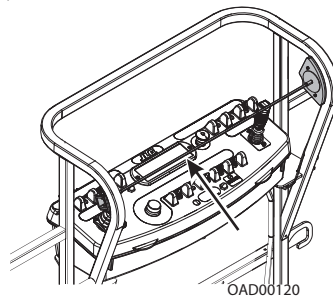
Consult the following illustrations to determine which type of SkyGuard the machine has. Regardless of type, SkyGuard function according to the SkyGuard Function Table does not change.

SkyGuard



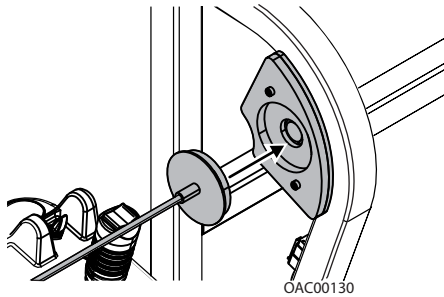
Approximately 50 lb (222 Nm) of force is applied to yellow bar.

SkyGuard SkyLine



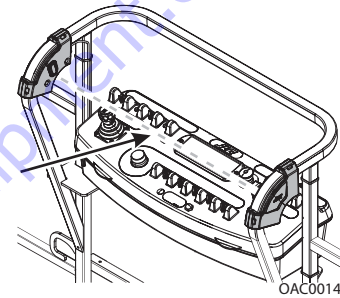
Cable is pressed, breaking the magnetic connection between the cable and right bracket.

SkyGuard SkyEye



OAC00130

Reattach magnetic end of cable to bracket if it becomes disconnected.



OAC00140

Operator passes through path of sensor beam.

SkyGuard Function Table

| Drive Forward | Drive Reverse | Steer | Swing | Boom Lift Up | Boom Lift Down | Boom Tele Out | Boom Tele In | Jib Lift | Basket Level | Basket Rotate |
|------------------------------------|---------------|-------|-------|--------------|----------------|---------------|--------------|----------|--------------|---------------|
| C | C | C | R | R | R | R | C | C | C | C |
| R= Indicates Reversal is Activated | | | | | | | | | | |
| C= Indicates Cutout is Activated | | | | | | | | | | |

4.10 AUXILIARY POWER

⚠ CAUTION

WHEN OPERATING ON AUXILIARY POWER, DO NOT OPERATE MORE THAN ONE FUNCTION AT A TIME. (SIMULTANEOUS OPERATION CAN OVERLOAD THE 12-VOLT AUXILIARY PUMP MOTOR.)

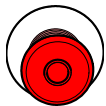
A toggle type auxiliary power control switch is located on the platform control station and another is located on the ground control station. Operation of either switch turns on the electrically driven auxiliary hydraulic pump. This should be used in case of failure of the main power plant. The auxiliary pump will operate boom lift, telescope, jib (if equipped) and swing. To activate auxiliary power:

Activating from the Platform Control Station

1. Position Platform/Ground Select Key Switch to Platform.



2. Position Power/Emergency Stop switch to On.

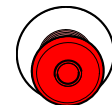


Activating from the Ground Control Station

1. Position Platform/Ground Select Key Switch to Ground.



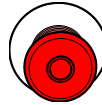
2. Position Power/Emergency Stop switch to On.



3. Depress and hold footswitch.
4. Position Auxiliary Power switch to On and hold.
5. Operate appropriate control switch, lever or controller for desired function and hold.
6. Release Auxiliary Power switch, selected control switch, lever or controller, and footswitch.
7. Position Power/Emergency Stop switch to Off.



3. Position Auxiliary Power switch to On and hold.
4. Operate appropriate control switch or controller for desired function and hold.
5. Release Auxiliary Power switch, and appropriate control switch or controller.
6. Position Power/Emergency Stop switch to Off.



4.11 TIE DOWN AND LIFTING

When transporting machine, boom must be in the stowed mode with turntable lock pin engaged and machine securely tied down to truck or trailer deck. Four tie down eyes are provided in the frame slab, one at each corner of the machine. (See Figure 4-3. Machine Tie Down.)

If it becomes necessary to lift the machine using an overhead or mobile crane, it is very important that the lifting devices are attached only to the designated lifting eyes, and that the turntable lock pin is engaged. (See Figure 4-4. Lifting Chart.)

NOTE: *Lifting eyes are provided at the rear in the frame slab and at the top of the turntable near the boom pivot. Each of the four chains or slings used for lifting machine must be adjusted individually so machine remains level when elevated.*

NOTICE

SECURE TURNTABLE WITH TURNTABLE LOCK BEFORE TRAVELING LONG DISTANCES OR HAULING MACHINE ON TRUCK/TRAILER.

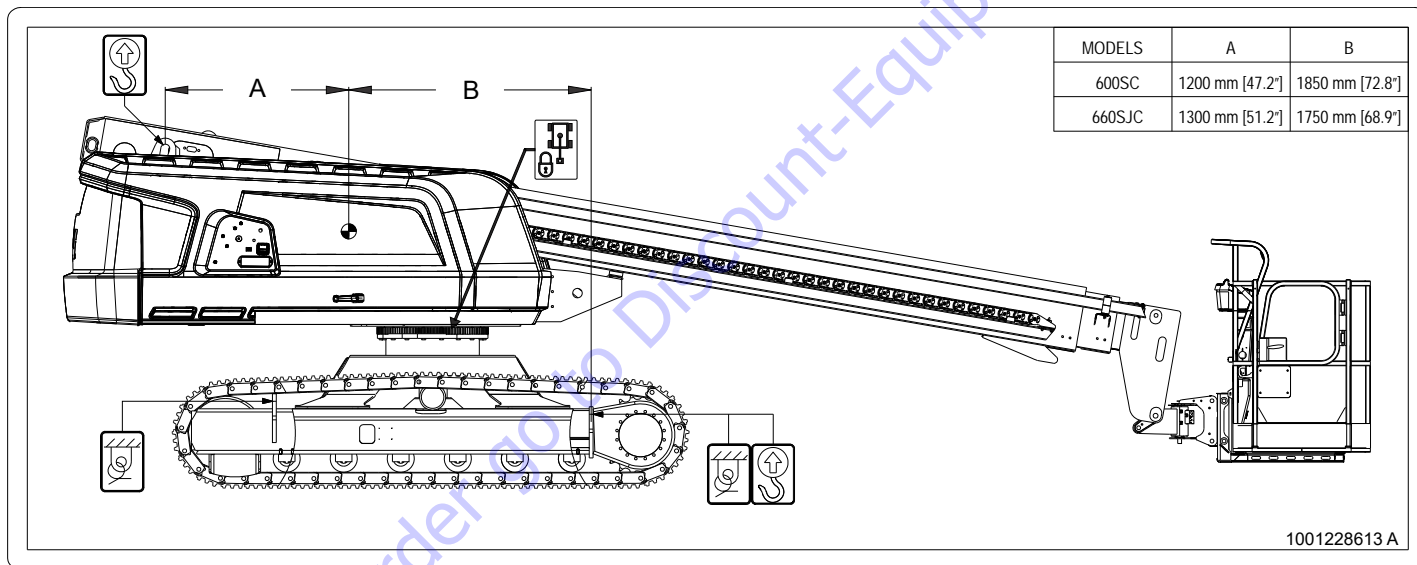


Figure 4-10. Lifting Chart

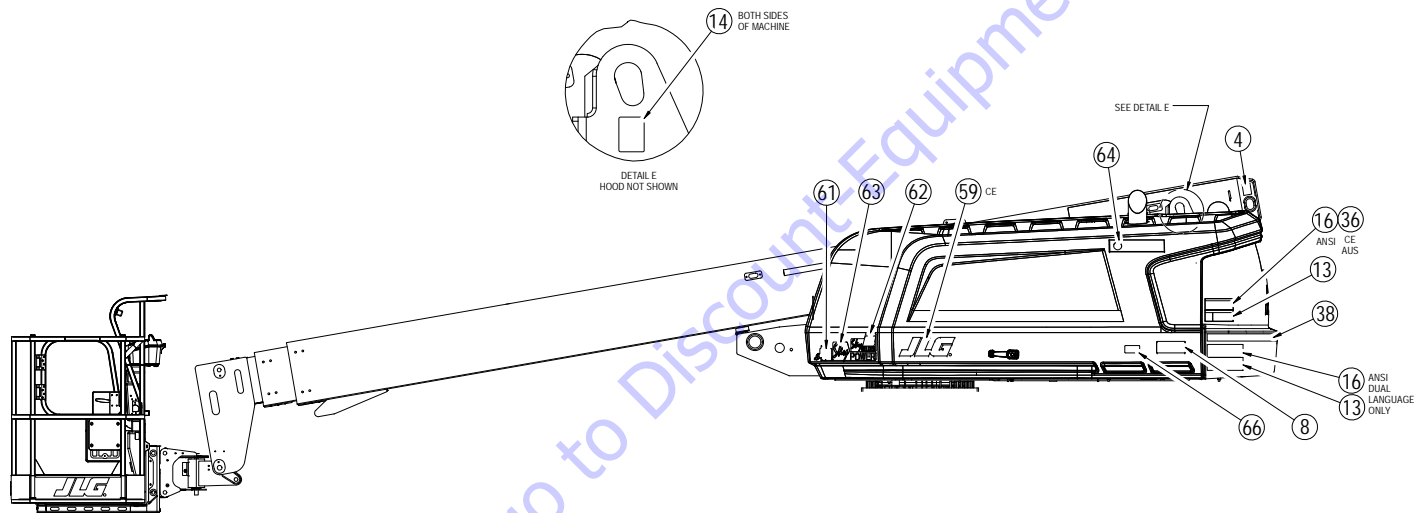


Figure 4-12. Decal Installation - Sheet 2 of 8

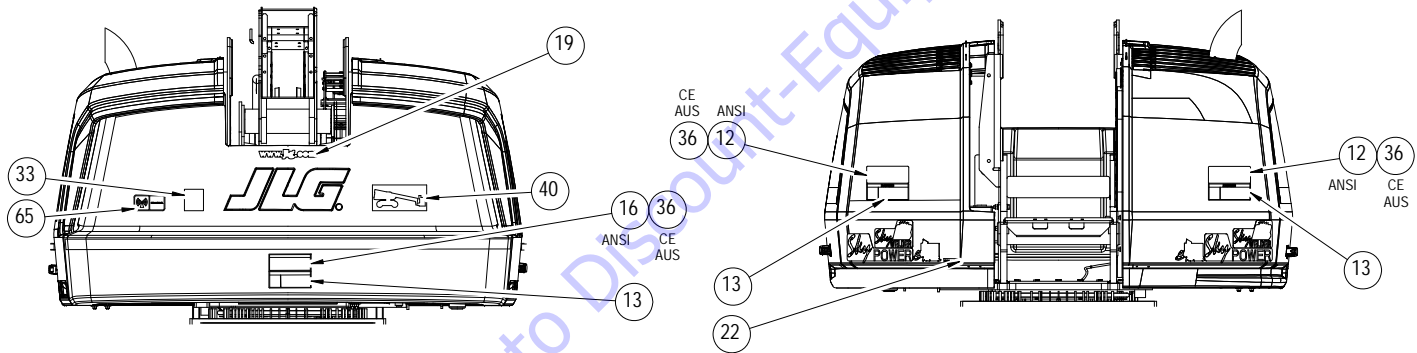


Figure 4-13. Decal Installation - Sheet 3 of 8

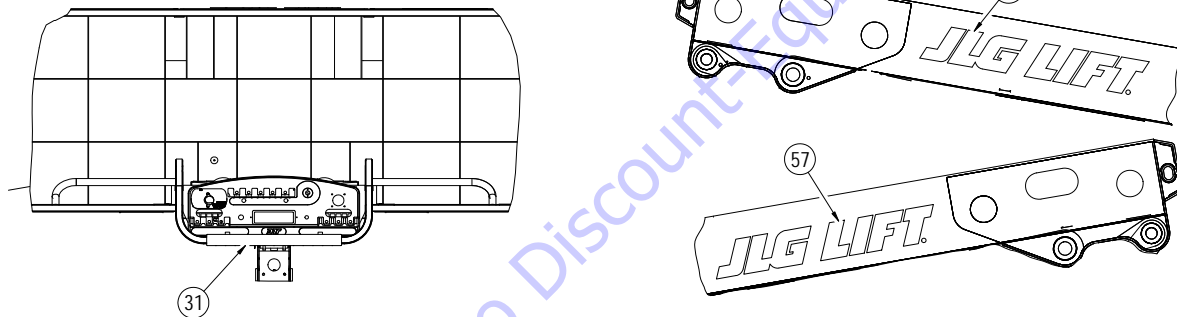


Figure 4-14. Decal Installation - Sheet 4 of 8

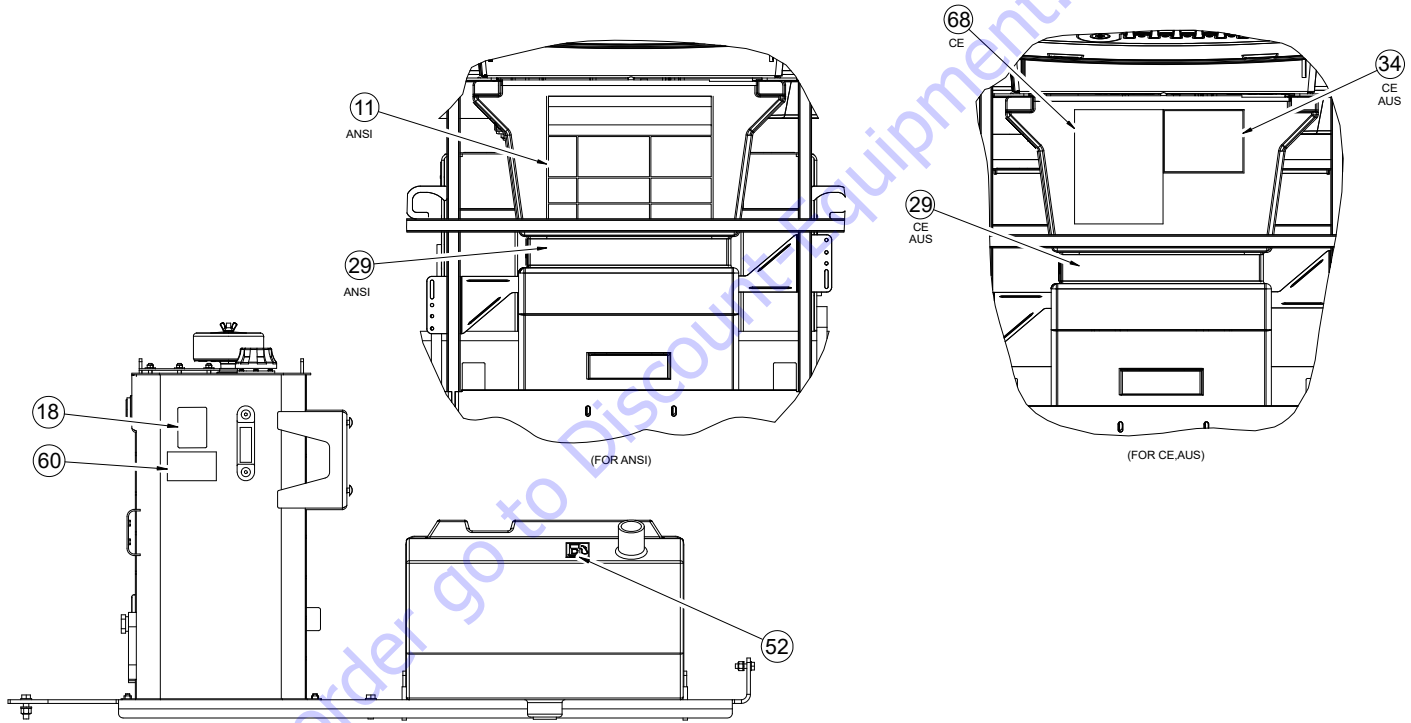


Figure 4-15. Decal Installation - Sheet 5 of 8

SECTION 4 - MACHINE OPERATION

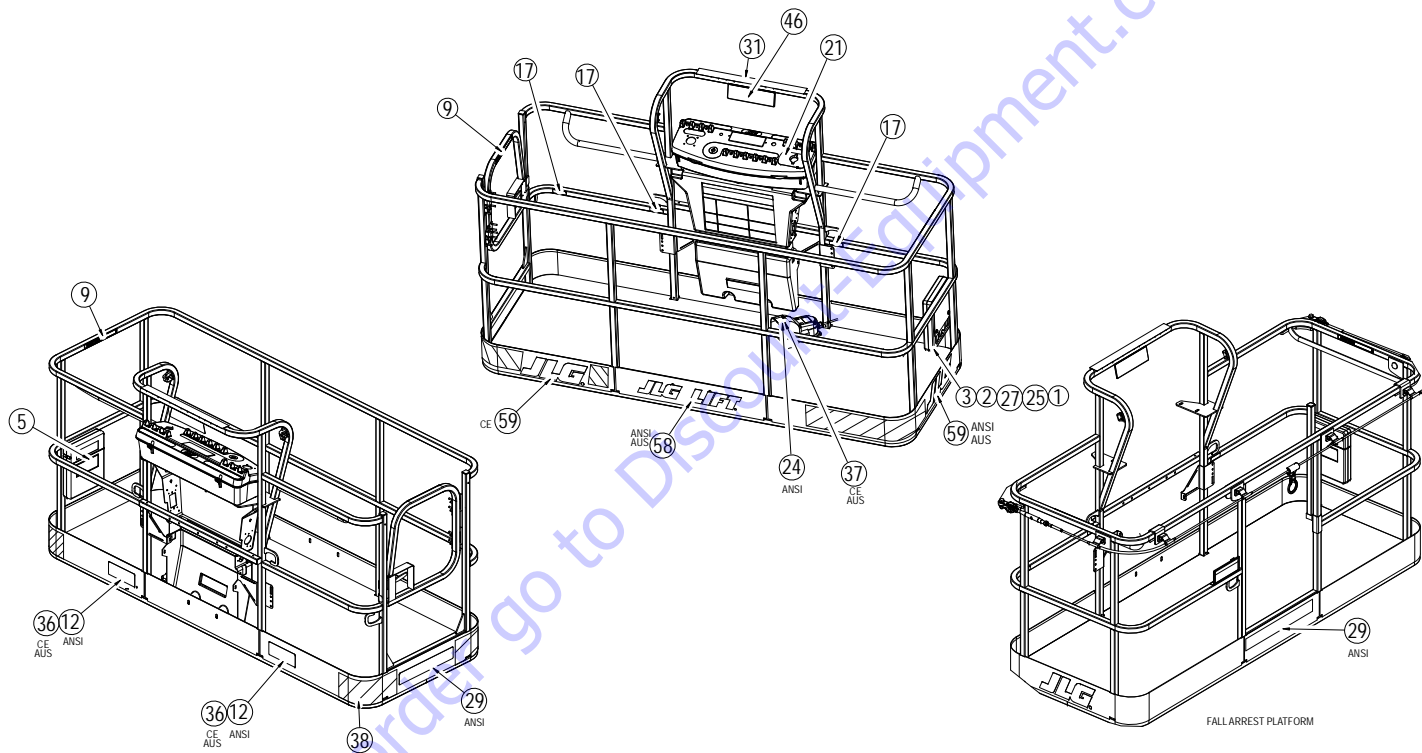


Figure 4-16. Decal Installation - Sheet 6 of 8

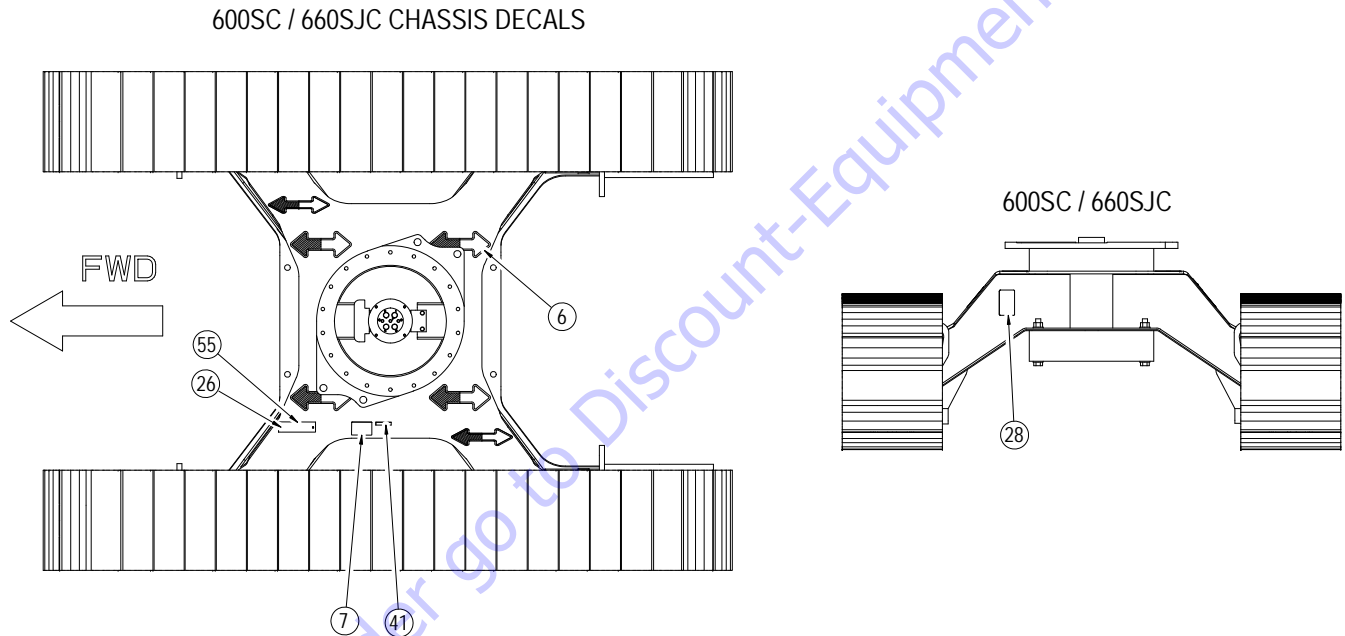


Figure 4-17. Decal Installation - Sheet 7 of 8

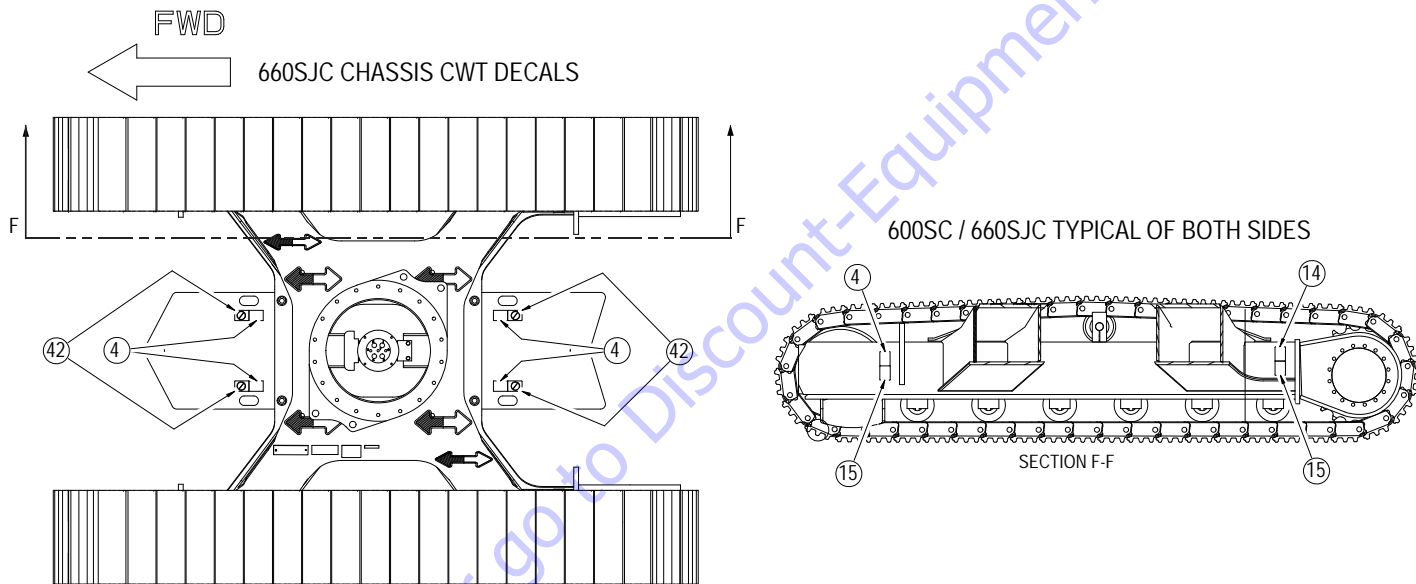


Figure 4-18. Decal Installation - Sheet 8 of 8

Table 4-1. 600SC Decal Legend

| Item # | ANSI 1001202663-D | French 1001202665-D | CE 1001202667-E | Australian 1001202670-D | Portuguese 1001202671-D | Traditional Chinese 1001202673-D | Simplified Chinese 1001218058-D | Japanese 1001229929-B | Korean 1001229931-B | Spanish 1001229933-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 |
| 5 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 |
| 6 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 |
| 7 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 |
| 8 | 1704434 | 1704434 | 1704434 | 1703165 | 1704434 | 1704434 | 1704434 | 1704434 | 1704434 | 1704434 |
| 9 | 1702868 | 1704000 | -- | -- | 1704002 | 1001116846 | 1705968 | -- | 1705969 | 1704001 |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1703797 | 1703924 | -- | -- | 1703928 | 1703925 | 1001116847 | 1703926 | 1703927 | 1703923 |
| 12 | 1703804 | 1703948 | -- | -- | 1703952 | 1703949 | 1001116850 | 1703950 | 1703951 | 1703947 |
| 13 | 1703805 | 1703936 | 1705961 | 1705961 | 1703940 | 1001116851 | 1703937 | 1703938 | 1703939 | 1703935 |
| 14 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 |
| 15 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 |
| 16 | 1703953 | 1703942 | -- | -- | 1703946 | 1703943 | 1001116845 | 1703944 | 1703945 | 1703941 |
| 17 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 |

SECTION 4 - MACHINE OPERATION

Table 4-1. 600SC Decal Legend

| Item # | ANSI 1001202663-D | French 1001202665-D | CE 1001202667-E | Australian 1001202670-D | Portuguese 1001202671-D | Traditional Chinese 1001202673-D | Simplified Chinese 1001218058-D | Japanese 1001229929-B | Korean 1001229931-B | Spanish 1001229933-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 18 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 |
| 19 | 1704885 | 1704885 | -- | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 |
| 20 | 1705336 | 1705347 | -- | -- | 1705349 | 1001116849 | 1001116848 | 1705344 | 1705345 | 1705917 |
| 21 | 1705351 | 1705429 | -- | -- | 1001113680 | 1001116863 | 1705430 | 1705426 | 1705427 | 1705910 |
| 22 | 3251243 | 3251243 | -- | -- | 3251243 | 3251243 | 3251243 | 3251243 | -- | 3251243 |
| 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24 | -- | 1703984 | -- | -- | 1703985 | 1703982 | 1001116852 | 1703980 | 1703981 | 1703983 |
| 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1001131269 | 1001131269 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29 | 1001171335 | 1001171351 | 1001194236 | 1001194236 | 1001171359 | 1001171355 | 1001216739 | 1001171341 | 1001171345 | 1001171349 |
| 30 | 1001171336 | 1001171352 | 1001194236 | 1001194236 | 1001171360 | 1001171356 | 1001216740 | 1001171342 | 1001171346 | 1001171350 |
| 31 | 1001225647 | 1001225647 | -- | -- | 1001225647 | 1001225647 | 1001225647 | 1001225647 | 1001225647 | 1001225647 |
| 32 | 1001174313 | 1001174313 | -- | -- | 1001174313 | 1001174313 | 1001174313 | 1001174313 | 1001174313 | 1001174313 |
| 33 | -- | -- | 1705084 | 1705084 | -- | -- | -- | -- | -- | -- |
| 34 | -- | -- | 1705921 | 1705921 | -- | -- | -- | -- | -- | -- |
| 35 | -- | -- | 1705822 | 1705822 | -- | -- | -- | -- | -- | -- |

Table 4-1. 600SC Decal Legend

| Item # | ANSI 1001202663-D | French 1001202665-D | CE 1001202667-E | Australian 1001202670-D | Portuguese 1001202671-D | Traditional Chinese 1001202673-D | Simplified Chinese 1001218058-D | Japanese 1001229929-B | Korean 1001229931-B | Spanish 1001229933-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 36 | -- | -- | 1701518 | 1701518 | -- | -- | -- | -- | -- | -- |
| 37 | -- | -- | 1705828 | 1705828 | -- | -- | -- | -- | -- | -- |
| 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 39 | -- | -- | -- | 1001112551 | -- | -- | -- | -- | -- | -- |
| 40 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 |
| 41 | 1705514 | 1705514 | -- | -- | -- | -- | -- | -- | -- | -- |
| 42 | -- | -- | -- | 1704461 | -- | -- | -- | -- | -- | -- |
| 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 46 | 1704468 | 1001093684 | -- | -- | 1001233313 | 1001116964 | 1001116963 | 1001215285 | 1001215286 | 1001233312 |
| 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

SECTION 4 - MACHINE OPERATION

Table 4-1. 600SC Decal Legend

| Item # | ANSI 1001202663-D | French 1001202665-D | CE 1001202667-E | Australian 1001202670-D | Portuguese 1001202671-D | Traditional Chinese 1001202673-D | Simplified Chinese 1001218058-D | Japanese 1001229929-B | Korean 1001229931-B | Spanish 1001229933-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 57 | -- | -- | 1001159323 | -- | -- | -- | -- | -- | -- | -- |
| 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 59 | -- | -- | 1702773 | -- | -- | -- | -- | -- | -- | -- |

Table 4-2. 660SJC Decal Legend

| Item # | ANSI 1001202664-D | French 1001202666-D | CE 1001202668-E | Australian 1001202670-D | Portuguese 1001202672-D | Traditional Chinese 1001202674-D | Simplified Chinese 1001218059-D | Japanese 1001229930-B | Korean 1001229932-B | Spanish 1001229934-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 4 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 | 1701499 |
| 5 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 | 1701509 |
| 6 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 | 1701529 |
| 7 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 | 1702631 |
| 8 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 | 1703165 |
| 9 | 1702868 | 1704000 | -- | -- | 1704002 | 1001116846 | 1705968 | -- | 1705969 | 1704001 |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11 | 1703797 | 1703924 | -- | -- | 1703928 | 1703925 | 1001116847 | 1703926 | 1703927 | 1703923 |
| 12 | 1703804 | 1703948 | -- | -- | 1703952 | 1703949 | 1001116850 | 1703950 | 1703951 | 1703947 |
| 13 | 1703805 | 1703936 | 1705961 | 1705961 | 1703940 | 1001116851 | 1703937 | 1703938 | 1703939 | 1703935 |
| 14 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 | 1703811 |
| 15 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 | 1703814 |
| 16 | 1703953 | 1703942 | -- | -- | 1703946 | 1703943 | 1001116845 | 1703944 | 1703945 | 1703941 |
| 17 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 | 1704277 |

SECTION 4 - MACHINE OPERATION

Table 4-2. 660SJC Decal Legend

| Item # | ANSI 1001202664-D | French 1001202666-D | CE 1001202668-E | Australian 1001202670-D | Portuguese 1001202672-D | Traditional Chinese 1001202674-D | Simplified Chinese 1001218059-D | Japanese 1001229930-B | Korean 1001229932-B | Spanish 1001229934-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 18 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 | 1704412 |
| 19 | 1704885 | 1704885 | -- | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 | 1704885 |
| 20 | 1705336 | 1705347 | -- | -- | 1705349 | 1001116849 | 1001116848 | 1705344 | 1705345 | 1705917 |
| 21 | 1705351 | 1705429 | -- | -- | 1001113680 | 1001116863 | 1705430 | 1705426 | 1705427 | 1705910 |
| 22 | 3251243 | 3251243 | -- | -- | 3251243 | 3251243 | 3251243 | 3251243 | -- | 3251243 |
| 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 24 | -- | 1703984 | -- | -- | 1703985 | 1703982 | 1001116852 | 1703980 | 1703981 | 1703983 |
| 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 26 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 27 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 28 | 1001131269 | 1001131269 | -- | -- | -- | -- | -- | -- | -- | -- |
| 29 | 1001194234 | 1001216749 | 1001194236 | 1001194236 | 1001216745 | 1001216736 | 1001216741 | 1001216751 | 1001216734 | 1001216747 |
| 30 | 1001194235 | 1001216750 | 1001194237 | 1001194236 | 1001216746 | 1001216737 | 1001216742 | 1001216752 | 1001216735 | 1001216748 |
| 31 | 1001225647 | 1001225647 | -- | -- | 1001225647 | 1001225647 | 1001225647 | 1001225647 | 1001225647 | 1001225647 |
| 32 | 1001174313 | 1001174313 | -- | -- | 1001174313 | 1001174313 | 1001174313 | 1001174313 | 1001174313 | 1001174313 |
| 33 | -- | -- | 1705084 | 1705084 | -- | -- | -- | -- | -- | -- |
| 34 | -- | -- | 1705921 | 1705921 | -- | -- | -- | -- | -- | -- |
| 35 | -- | -- | 1705822 | 1705822 | -- | -- | -- | -- | -- | -- |

Table 4-2. 660SJC Decal Legend

| Item # | ANSI 1001202664-D | French 1001202666-D | CE 1001202668-E | Australian 1001202670-D | Portuguese 1001202672-D | Traditional Chinese 1001202674-D | Simplified Chinese 1001218059-D | Japanese 1001229930-B | Korean 1001229932-B | Spanish 1001229934-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 36 | -- | -- | 1701518 | 1701518 | -- | -- | -- | -- | -- | -- |
| 37 | -- | -- | 1705828 | 1705828 | -- | -- | -- | -- | -- | -- |
| 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 39 | -- | -- | -- | 1001112551 | -- | -- | -- | -- | -- | -- |
| 40 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 | 1001228613 |
| 41 | 1705514 | 1705514 | -- | -- | -- | -- | -- | -- | -- | -- |
| 42 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 | 1704461 |
| 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 46 | 1704468 | 1001093684 | -- | -- | 1001233313 | 1001116964 | 1001116963 | 1001215285 | 1001215286 | 1001233312 |
| 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

SECTION 4 - MACHINE OPERATION

Table 4-2. 660SJC Decal Legend

| Item # | ANSI 1001202664-D | French 1001202666-D | CE 1001202668-E | Australian 1001202670-D | Portuguese 1001202672-D | Traditional Chinese 1001202674-D | Simplified Chinese 1001218059-D | Japanese 1001229930-B | Korean 1001229932-B | Spanish 1001229934-B |
|--------|----------------------|------------------------|--------------------|----------------------------|----------------------------|--|---------------------------------------|--------------------------|------------------------|-------------------------|
| 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 57 | -- | -- | 1001159323 | -- | -- | -- | -- | -- | -- | -- |
| 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 59 | -- | -- | 1702773 | -- | -- | -- | -- | -- | -- | -- |

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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.

- USA: 877-JLG-SAFE (554-7233)
- EUROPE: (32) 0 89 84 82 20
- AUSTRALIA: (61) 2 65 811111
- 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 3 M (10 FT.) 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.

Platform or Boom Caught Overhead

If the platform or boom becomes jammed or snagged in overhead structures or equipment, do the following:

1. Shut off the machine.
2. Rescue all people in the platform before freeing the machine. Personnel must be out of the platform before operating any controls on the machine.
3. Use cranes, forklifts, or other equipment to stabilize motion of the machine to prevent a tip over as required.
4. From the ground controls, use the Auxiliary Power System (if equipped) to carefully free the platform or boom from the object.
5. Once clear, restart the machine and return the platform to a safe position.
6. Inspect the machine for damage. If the machine is damaged or does not operate properly, turn off the machine immediately. Report the problem to the proper maintenance personnel. Do not operate the machine until it is declared safe for operation.

5.5 MACHINE SAFETY SYSTEM OVERRIDE (MSSO)(CE ONLY)

The Machine Safety System Override (MSSO) is only to be used to retrieve an operator that is pinned, trapped, or unable to operate the machine and function controls are locked out from the platform due to a platform overload situation.



NOTE: If the MSSO functionality is used, the fault indicator will flash and a fault code is set in the JLG Control System which must be reset by a qualified JLG Service Technician.

NOTE: No functional checks of the MSSO system are necessary. The JLG Control system will set a Diagnostic Trouble Code if the control switch is faulty.

To operate the MSSO:

1. From the ground control console, place the Platform/ Ground Select switch in the Ground position.
2. Pull out the Power/Emergency Stop control.
3. Start the engine.
4. Press and hold the MSSO switch and the control switch for the desired function.

SECTION 6. ACCESSORIES

Table 6-1. Available Accessories

| Accessory | Market | | | | | | |
|-------------------|--------------------|------|-----|----|-----|-------|-------|
| | ANSI (USA Only) | ANSI | CSA | CE | AUS | Japan | China |
| SkyPower™ (7500W) | √ | √ | √ | √ | √ | √ | √ |
| SkyPower™ (4000W) | √ | √ | √ | √ | √ | √ | √ |
| SkyWelder™ | √ | √ | √ | √ | √ | √ | √ |
| SkyGlazier™ | √ | √ | √ | √ | √ | | |

SECTION 6 - ACCESSORIES

Table 6-2. Options/Accessories Relationship Table

| ACCESSORY | REQUIRED ITEM | COMPATIBLE WITH (note 1) | INCOMPATIBLE WITH | INTERCHANGABLE WITH (note 2) |
|---|----------------------|--------------------------------------|--|---|
| SkyPower (7500 watt generator and Air line to platform) | | SkyGlazier, SkyWelder, SkyCutter | | |
| SkyWelder (Stick welder) | SkyPower | SkyCutter | Soft Touch, Pipe Jacks/Racks, Platfm MTR, 4' Platfm | SkyGlazier |
| SkyGlazier (Glass panel tray) | | SkyPower | Pipe Jacks/Racks, Soft Touch, Platfm Mesh to Top Rail, 4' Platfm | SkyWelder , SkyCutter |
| Pipe Jacks/ Racks | | SkyPower | Platfm MMR, Platfm MTR, Soft Touch | SkyWelder, SkyCutter, SkyGlazier |
| Note 1: Any non "Sky" accessory, not listed under "INCOMPATIBLE WITH", are compatible | | | | |
| Note 2: Can be used on same unit but not simultaneously. | | | | |

4150459L

⚠ WARNING

INSTALLING OR REMOVING APPROVED ACCESSORIES OR CHANGING PLATFORM SIZE REQUIRES RECALIBRATION OF THE BOOM CONTROL SYSTEM (SEE SERVICE AND MAINTENANCE MANUAL).

6.1 SKYPOWER™

The generator supplies AC power through an AC receptacle in the platform to run tools, lights, and cutting and welding equipment . All power regulation components are located in a watertight box connected by cable to the generator. The generator supplies power when running at the specified speed with the power switch on (switch is located on platform). A three-pole, 30 Amp circuit breaker protects the generator from overload.

Generator Output**ANSI Specs:**

240V;60Hz; 3-Phase; 7.5kW and 240V/120V:60Hz; Single Phase:6kW.

CE Specs:

3-phase, 240-volt, 7.5kw, 18.3-amps, 1.0-pf

1-phase, 240 volt, 6.0kw, 26-amps, 1.0-pf

1-phase, 120 volt, 6.0kw, 50-amps, 1.0-pf

Peak:

3-phase 8.5kw

1-phase 6.0kw

Accessory Ratings

| Drive-Type | Generator Speed |
|-------------------|-------------------------------------|
| Belt-Drive/Pulley | 3000rpm (50 Hz) 3600 rpm (60 Hz) |

Safety Precautions

- Do not over load platform.
- Make sure no personnel are beneath platform.
- Keep lanyard attached at all times.
- Do not use electrical tools in extremely wet conditions.
- Use correct voltage for tool being used.
- Do not over load circuit.

Preparation and Inspection

- Ensure generator is secure, check condition of belt and wiring.

Operation

Start engine, turn on generator, begin using.

6.2 SKYWELDER™

The welder is capable of TIG and Stick welding and is capable at producing 200 Amps at 100% duty cycle or 250 Amps at 50% duty cycle.

Welding Accessories

The platform will provide provisions for storing 12 ft. welding leads consisting of a clamp and a stinger. A fire extinguisher will also be provided.



Figure 6-1. SkyWelder™ - Sheet 1 of 2

SECTION 6 - ACCESSORIES

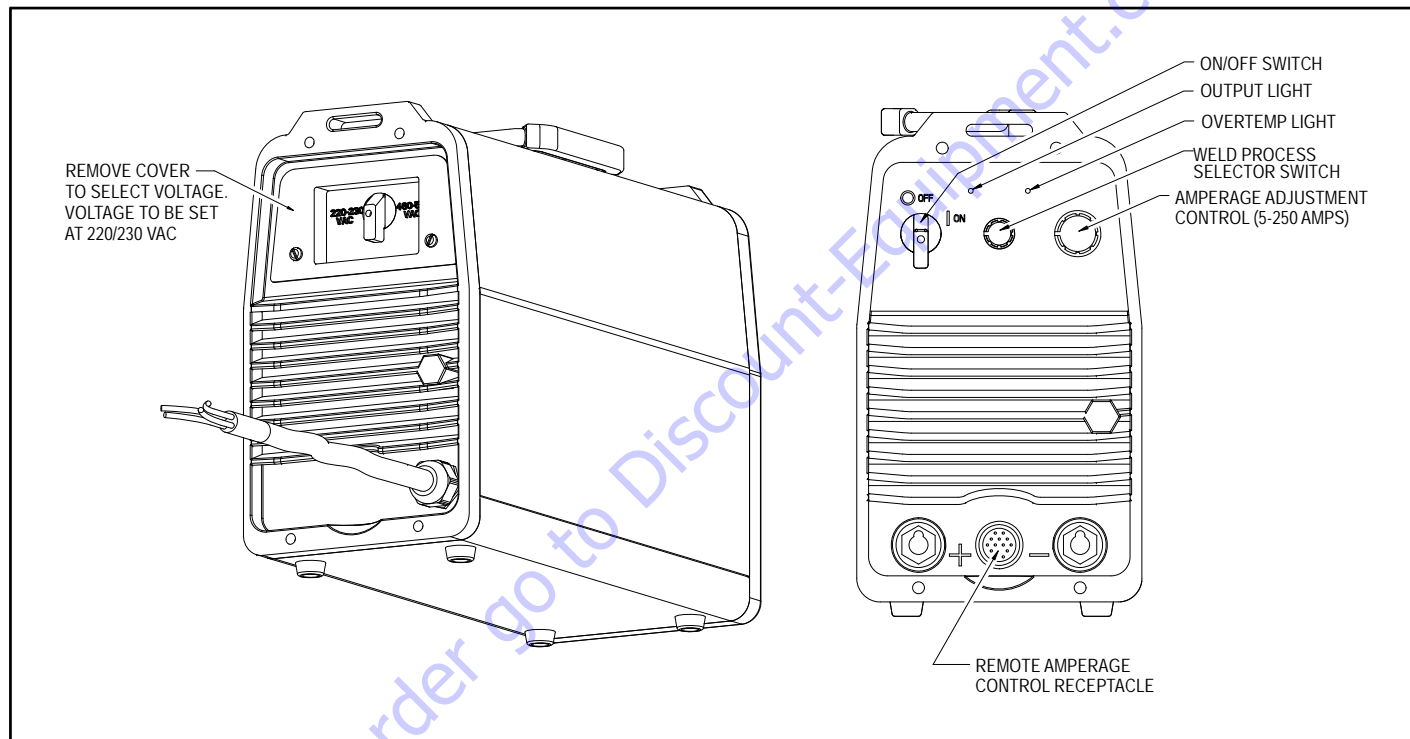


Figure 6-2. SkyWelder™ - Sheet 2 of 2

Accessory Ratings

Table 6-3. Welding Characteristics

| Welding Mode | Input Power | Rated Output | Welding Amperage Range | Maximum Open Circuit Voltage | Amps Input At Rated Load Output. 50/60 Hz | | | | |
|----------------------------|-------------|-------------------------------------|------------------------|------------------------------|---|-------|-------|------|-----|
| | | | | | 230 V | 460 V | 575 V | KVA | KW |
| Stick (SMAW) TIG (GTAW) | 3-Phase | 280 Amp at 31.2V. 35% Duty Cycle | 5-250A | 79VDC | 30.5 | 17 | 13 | 15.7 | 10 |
| | | 200 Amp at 28V. 100% Duty Cycle | | | 20 | 11 | 8 | 10.3 | 6.4 |
| | 1-Phase | 200 Amp at 28V. 50% Duty Cycle | 5-200A | 70VDC | 35 | ----- | ----- | 9.8 | 6.5 |
| | | 150 Amp at 28V. 100% Duty Cycle | | | 34 | ----- | ----- | 6.9 | 4.4 |

Safety Precautions

- Do not over load platform.
- De-rate the platform by 70lbs/32kg when welder is installed IN the platform.
- Check for cracked welds and damage to welder supports.
- Check for proper and secure installation of welder and bracket.
- Be certain no personnel are beneath platform.
- Do not exit platform over rails or stand on rails.
- Keep lanyard attached at all times.
- Ensure correct polarity of leads.
- Use proper welding apparel.
- Use correct rod size and current settings.
- Do not use electrical cords without ground.
- Do not use electrical tools in water.

SECTION 6 - ACCESSORIES

- Do not weld to platform.
- Do not ground through the platform.
- Do not use a high frequency arc starter with TIG welder.

Preparation and Inspection

Connect ground clamp to metal being welded, make sure there is a good ground connection and observe proper polarity, begin welding.

Operation

Start engine turn on generator then turn on welder.

Wear proper welding apparel. Set welder to proper amperage and voltage settings for thickness and type of metal being welded. Begin welding.

Refer to Miller Welder Operators Manual.

Generator will not start under an electrical load.

6.3 SKYGLAZIER™

The SkyGlazier™ allows glaziers to efficiently position panels. The glazier package consists of a tray that extends from the bottom of the platform. The panel rests on the tray and against top-rail of the platform, which is padded to prevent damage to the panel. The SkyGlazier™ includes a strap to secure the panel to the platform rail.

Safety Precautions

 **WARNING**

ENSURE LOAD IS SECURED WITH LOAD STRAP.

 **WARNING**

DO NOT OVERLOAD TRAY OR PLATFORM. TOTAL MACHINE CAPACITY IS REDUCED WHEN TRAY IS INSTALLED.

⚠ WARNING

WITH THE SKYGLAZIER INSTALLED, THE ORIGINAL PLATFORM CAPACITY RATINGS ARE REDUCED AS SHOWN IN TABLE 6-4, SPECIFICATIONS FOR SKYGLAZIER™. DO NOT EXCEED THE NEW PLATFORM CAPACITY RATING. REFER TO CAPACITY DECAL LOCATED ON TRAY.

⚠ WARNING

AN INCREASE OF THE AREA EXPOSED TO THE WIND WILL DECREASE STABILITY. LIMIT PANEL AREA TO 32 SQ.FT. (3 SQ.M)

1. Ensure no personnel are beneath platform.
2. Do not exit platform over rails or stand on rails.
3. Remove tray when not in use.

Specifications**Table 6-4. Specifications for SkyGlazier™**

| Capacity Zone | Rated Capacity Platform | Rated Capacity SkyGlazier™ | Manual Force | Wind Rating |
|---------------|-------------------------|----------------------------|--------------|---------------|
| 1000lb/454kg | 500lb 227kg | 250lb 113kg | 90lb 400N | 20mph 9m/s |
| 750lb/340kg | 440lb 200kg | 150lb 68kg | 90lb 400N | 20mph 9m/s |
| 600lb/272kg | 250lb 113kg | 150lb 68kg | 45lb 200N | 20mph 9m/s |
| 550lb/250 | 250lb 113kg | 150lb 68kg | 45lb 200N | 20mph 9m/s |
| 500lb/230 | 250lb 113kg | 150lb 68kg | 45lb 200N | 20mph 9m/s |

Max. Dimensions of panel

3 m² / 32 sq ft

*Total Platform Capacity is defined as platform capacity + tray capacity.

⚠ WARNING

INSTALLING OR REMOVING APPROVED ACCESSORIES OR CHANGING PLATFORM SIZE REQUIRES RECALIBRATION OF THE BOOM CONTROL SYSTEM. (REFER TO SERVICE AND MAINTENANCE MANUAL).

SECTION 6 - ACCESSORIES

Preparation and Inspection

Check for cracked welds and damage to tray. Make sure tray is properly secured to platform.

Check to ensure strap is not torn or frayed.

Operation

Load SkyGlazier™ with panel and secure with strap. Position panel to its desired location.

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SECTION 7. GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

7.1 INTRODUCTION

This section of the manual provides additional necessary information to the operator for proper operation and maintenance of this machine.

The maintenance portion of this section is intended as information to assist the machine operator to perform daily maintenance tasks only, and does not replace the more thorough Preventive Maintenance and Inspection Schedule included in the Service and Maintenance Manual.

Other Publications Available:

Service and Maintenance Manual - Global Spec
(s/n 0300236299 to Present).....3121776

Illustrated Parts Manual - Global Spec
(s/n 0300236299 to Present).....3121777

7.2 OPERATING SPECIFICATIONS

Table 7-1. Operating Specifications

| | |
|---------------------------------------|--------------------------------------|
| Maximum Work Load (Capacity) -600SC* | |
| Unrestricted: | 600 lb (272 kg) |
| Restricted: | 1000 lb (454 kg) |
| Maximum Work Load (Capacity) -660SJC* | |
| Unrestricted: | 550 lb (250 kg) |
| Restricted: | 750 lb (340 kg) |
| Maximum Travel Grade (Gradeability) | 55% |
| Maximum Travel Grade (Side Slope) | 5° |
| Maximum Manual Force (600SC) | 90 lbs. (400 N) |
| Maximum Manual Force (660SJC) | 100 lbs. (445 N) |
| Maximum Wind Speed | 28 mph (12.5 m/s) |
| Ground Bearing Pressure | |
| 600SC | 9.45 psi (0.66 kg/cm ²) |
| 660SJC | 11.28 psi (0.79 kg/cm ²) |
| Maximum Drive Speed | 1.6 mph (2.57 Km/hr.) |
| Electrical System | 12VDC |

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Table 7-1. Operating Specifications

| | |
|---|------------------------|
| Gross Machine Weight (Approximate) | |
| 600SC | 25,942 lbs. (11767 kg) |
| 660SJC | 29,339 lbs. (13308 kg) |
| *Maximum Work Load (Capacity) can be affected by the addition of the Soft Touch option. If equipped with Soft Touch, refer to Section 6 and the decal on your machine for these values. | |

Dimensional Data

Table 7-2. Dimensional Data

| | |
|-------------------------|--------------------------|
| Machine Height (Stowed) | 8 ft. 2.4 in. (2.5 m) |
| Machine Length (Stowed) | |
| 600SC | 28 ft. 7 in. (8.71 m) |
| 660SJC | 35 ft. 4.7 in. (10.79 m) |
| Machine Width | 8 ft. 2 in. (2.49 m) |
| Wheelbase | 9 ft. 0.7 in. (2.76 m) |
| Ground Clearance | |
| 600SC | 1 ft. 11.2 in. (0.59 m) |
| 600SJC | 1 ft. 4.3 in. (0.42 m) |
| Platform Height | |
| 600SC | 59 ft. 5 in. (18.11 m) |
| 660SJC | 65 ft. 7 in. (19.99 m) |
| Horizontal Reach | |
| 600SC | 50 ft. 3 in. (15.32 m) |
| 660SJC | 57 ft. 0.6 in. (17.39 m) |
| Tail Swing | 4 ft. 0 in. (1.22 m) |
| Track Width | 1 ft. 7.7 in. (0.5 m) |

Capacities

Table 7-3. Capacities

| | |
|--|---------------------------------------|
| Fuel Tank | 31 Gallons (117L) |
| Hydraulic Oil Tank | 25 Gallons (94.5L) |
| Hydraulic System (Including Tank) | 40 Gallons (151.4L) |
| Final Drive | 2.1 gal.(7.9L) |
| Engine Crankcase Deutz D2011L04 Deutz 2.9L | 10 quarts (9.4L) 9.6 quarts (9.1L) |
| Coolant System (Deutz 2.9) | 13.2 quarts (12.5L) |

Engine Data

Table 7-4. Deutz D2011L04 Specifications

| | |
|------------------|---|
| Fuel | Diesel |
| Oil Capacity | |
| Cooling System | 5 Quarts (4.5L) |
| Crankcase | 11 Quarts (10.5L) w/Filter |
| Total Capacity | 16 Quarts (15L) |
| Idle RPM | 1000 |
| Low RPM | 1800 |
| High RPM | 2500 |
| Alternator | 60 Amp, belt drive |
| Battery | 950 Cold Cranking Amps, 205 Minutes Reserve Capacity, 12VDC |
| Fuel Consumption | 1.93 gph (7.32 Lph) |
| Horsepower | 49 |

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Table 7-5. Deutz D2.9L4

| | |
|---------------------------|------------------------------------|
| Type | Liquid Cooled |
| Number of Cylinders | 4 |
| Bore | 3.6 in (92 mm) |
| Stroke | 4.3 in (110 mm) |
| Total Displacement | 178 cu. in (2925 cm ³) |
| Firing Order | 1-3-4-2 |
| Output | 67 hp (50 kW) |
| Oil Capacity | 2.4 gal (8.9 L) |
| Coolant Capacity (System) | 3.2 gal (12.1 L) |
| Average Fuel Consumption | 2.7gph (10.24 Lph) |
| Min. Low Engine RPM | 1200 |
| Mid Engine RPM | 1800 |
| Max. High Engine RPM | 2600 |

Hydraulic Oil

Table 7-6. Hydraulic Oil

| HYDRAULIC SYSTEM OPERATING TEMPERATURE RANGE | SAE VISCOSITY GRADE |
|--|---------------------|
| +0° to +180°F (-18°C to +83°C) | 10W |
| +0°F to +210°F (-18°C to +99°C) | 10W-20, 10W-30 |
| +50°F to +210°F (+10°C to +210°C) | 20W-20 |

NOTE: Hydraulic oils must have anti-wear qualities at least to API Service Classification GL-3, and sufficient chemical stability for mobile hydraulic system service. JLG Industries recommends Mobilfluid 424 hydraulic oil, which has an SAE viscosity index of 152.

NOTE: When temperatures remain below 20° F (-7 degrees C), JLG Industries recommends the use of Mobil DTE 10.

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

NOTE: *Aside from JLG recommendations, it is not advisable to mix oils of different brands or types, as they may not contain the same required additives or be of comparable viscosities.*

Table 7-7. Mobilfluid 424 Specs

| | |
|-------------------------|---------------|
| SAE Grade | 10W30 |
| ISO | 55 |
| Gravity, API | 29.0 |
| Density, Lb/Gal. 60°F | 7.35 |
| Pour Point, Max | -46°F (-43°C) |
| Flash Point, Min. | 442°F (228°C) |
| Viscosity | |
| Brookfield, cP at -18°C | 2700 |
| at 40°C | 55 cSt |
| at 100°C | 9.3 cSt |
| Viscosity Index | 152 |

Table 7-8. Mobil DTE 10 Excel 32 Specs

| | |
|---------------------|---------------|
| ISO Viscosity Grade | #32 |
| Specific Gravity | 0.877 |
| Pour Point, Max | -40°F (-40°C) |
| Flash Point, Min. | 330°F (166°C) |
| Viscosity | |
| at 40°C | 33cSt |
| at 100°C | 6.6 cSt |
| at 100°F | 169 SUS |
| at 210°F | 48 SUS |
| cp at -20°F | 6,200 |
| Viscosity Index | 140 |

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Table 7-9. Quintolubric 888-46

| | |
|--------------------------|--------------------|
| Density | 0.91 @ 15°C (59°F) |
| Pour Point | <-20°C (<-4°F) |
| Flash Point | 275°C (527°F) |
| Fire Point | 325°C (617°F) |
| Autoignition Temperature | 450°C (842°F) |
| Viscosity | |
| at 0°C (32°F) | 360 cSt |
| at 20°C (68°F) | 102 cSt |
| at 40°C (104°F) | 46 cSt |
| at 100°C (212°F) | 10 cSt |
| Viscosity Index | 220 |

Table 7-10. Mobil EAL 224H Specs

| | |
|---|---|
| Type | Synthetic Biodegradable |
| ISO Viscosity Grade | 32/46 |
| Specific Gravity | .922 |
| Pour Point, Max | -25°F (-32°C) |
| Flash Point, Min. | 428°F (220°C) |
| Operating Temp. | 0 to 180°F (-17 to 162°C) |
| Weight | 7.64 lb. per gal. (0.9 kg per liter) |
| Viscosity | |
| at 40°C | 37 cSt |
| at 100°C | 8.4 cSt |
| Viscosity Index | 213 |
| NOTE: Must be stored above 32°F (14°C) | |

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Table 7-11. Mobil EAL H 46 Specs

| | |
|---------------------|---------------------------|
| Type | Synthetic Biodegradable |
| ISO Viscosity Grade | 46 |
| Specific Gravity | .910 |
| Pour Point | -44°F (-42°C) |
| Flash Point | 500°F (260°C) |
| Operating Temp. | 0 to 180°F (-17 to 162°C) |
| Weight | 7.64 lb/gal (0.9 kg/L) |
| Viscosity | |
| at 40°C | 45 cSt |
| at 100°C | 8.0 cSt |
| Viscosity Index | 153 |

Table 7-12. Exxon Univis HVI 26 Specs

| | |
|---|---------------|
| Specific Gravity | 32.1 |
| Pour Point | -76°F (-60°C) |
| Flash Point | 217°F (103°C) |
| Viscosity | |
| at 40°C | 25.8 cSt |
| at 100°C | 9.3 cSt |
| Viscosity Index | 376 |
| NOTE: Mobil/Exxon recommends that this oil be checked on a yearly basis for viscosity. | |

Critical Stability Weights

⚠ WARNING

DO NOT REPLACE ITEMS CRITICAL TO STABILITY WITH ITEMS OF DIFFERENT WEIGHT OR SPECIFICATION (FOR EXAMPLE: BATTERIES, COUNTERWEIGHT, ENGINE & PLATFORM) DO NOT MODIFY UNIT IN ANY WAY TO AFFECT STABILITY.

Table 7-13. Critical Stability Weights

| | | LB. | KG. |
|---|---------------------------|-------|------|
| Engine (complete tray) | Deutz TD 2.9L | 1433 | 650 |
| | D2011 L04 | 983 | 445 |
| Counterweight | Chassis (660SJC) | 3175 | 1440 |
| | Turntable | 4910 | 2227 |
| Platform Only (No Control Box or Footswitch) | 4 ft. (M) Swing Gate | 132 | 60 |
| | 5 ft. (M) Swing Gate | 145.5 | 66 |
| | 6 ft. (M) Swing Gate | 159 | 72 |
| | 8 ft. (2.44 M) Swing Gate | 230 | 104 |
| | 6 ft. (M) Shipyard Option | 247 | 112 |

Serial Number Locations

A serial number plate is affixed to the left side of the frame. If the serial number plate is damaged or missing, the machine serial number is stamped on the left side of the frame.

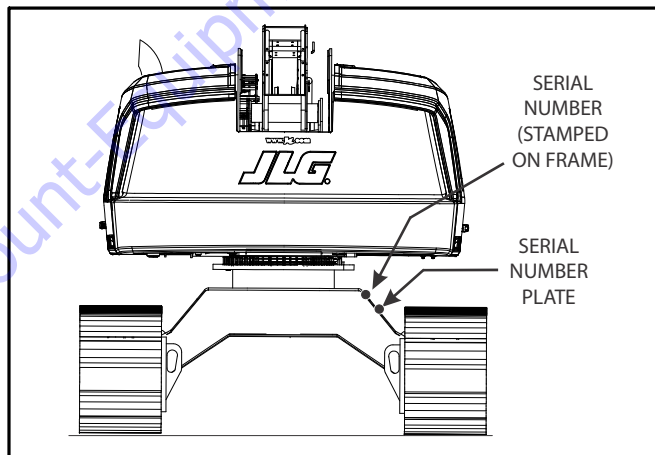
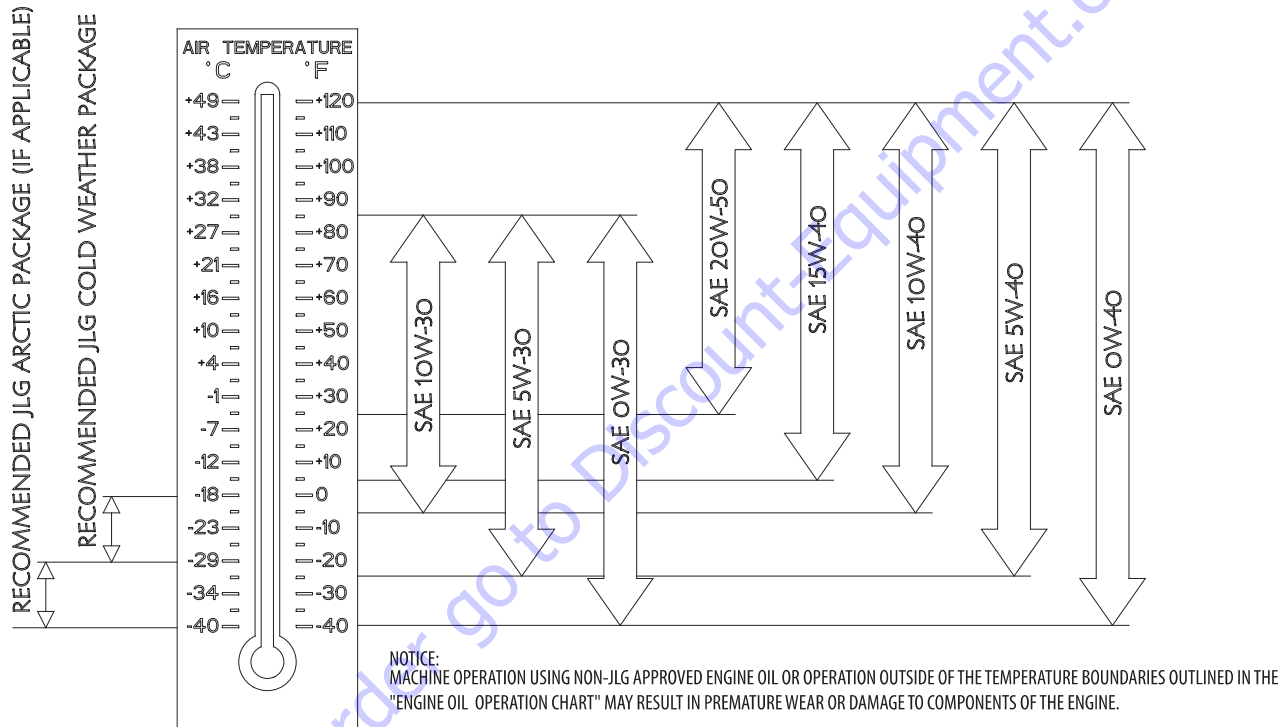


Figure 7-1. Serial Number Locations

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SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE



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Figure 7-2. Engine Operating Temperature Specifications - Deutz 2.9L

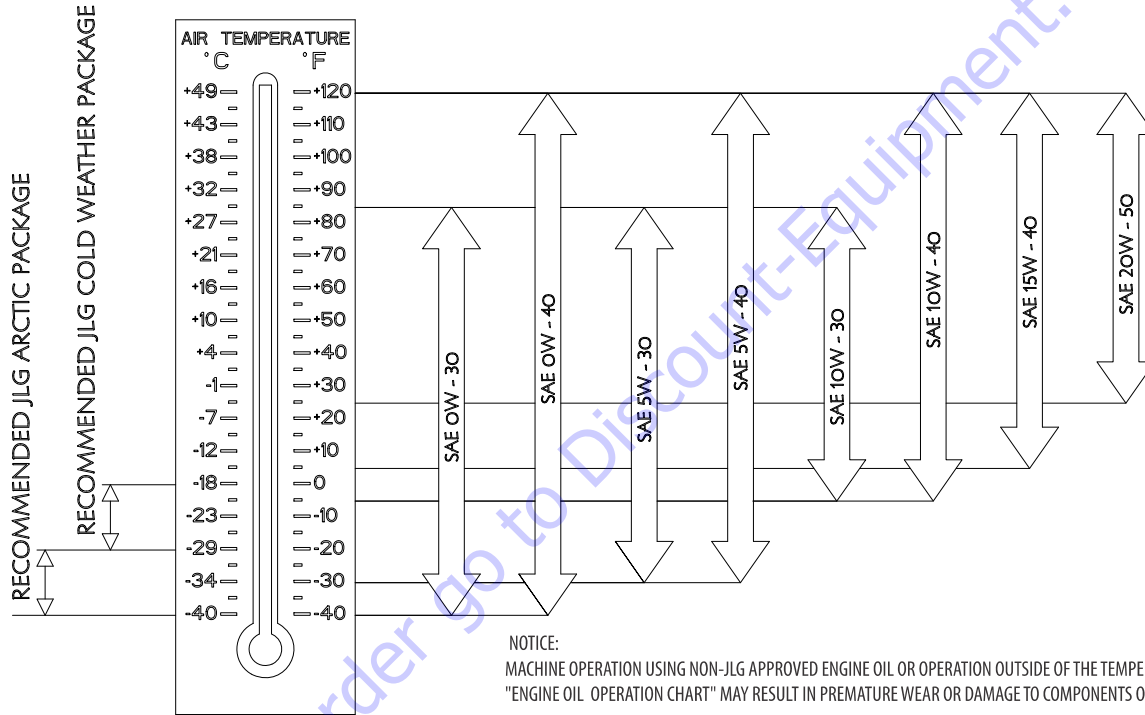


Figure 7-3. Engine Operating Temperature Specifications - Deutz 2011

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SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

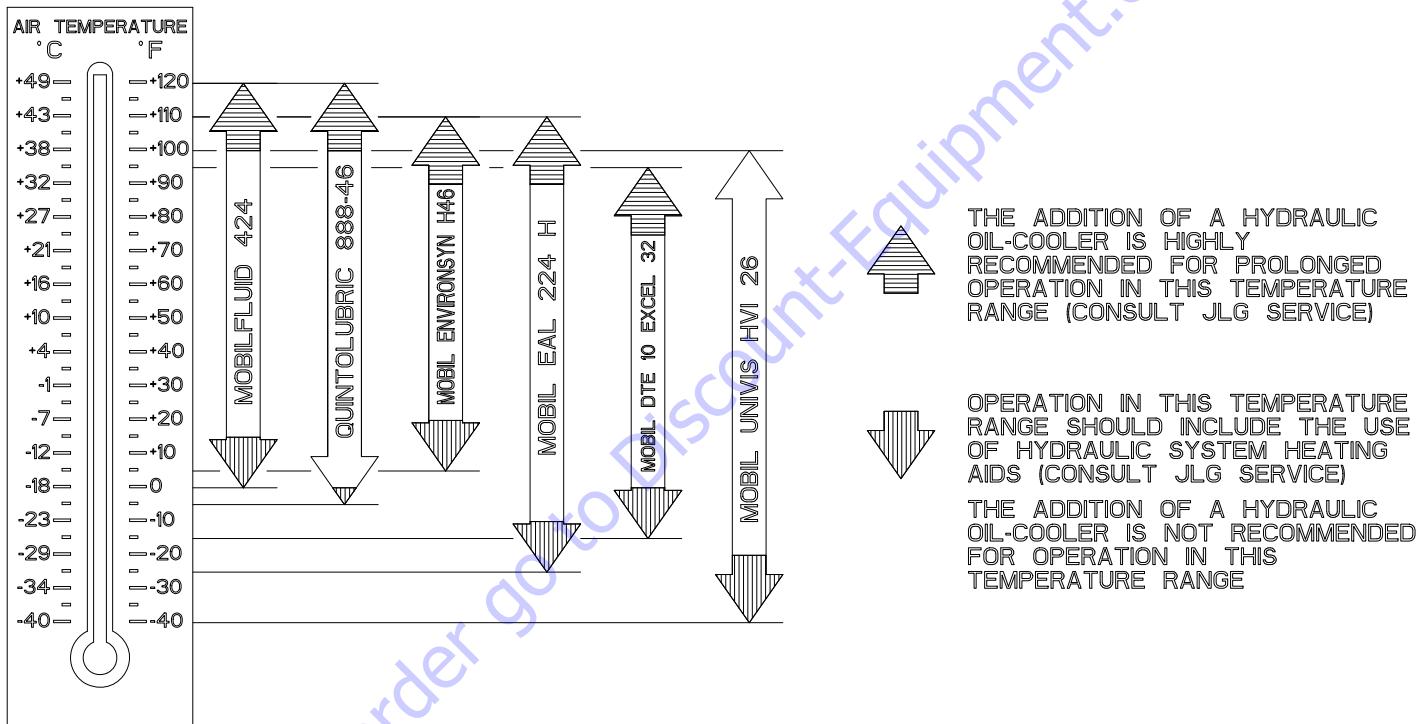


Figure 7-4. Hydraulic Oil Operation Chart - Sheet 1 of 2

1001206353 A

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

| Fluid | Properties | | Base | | | | Classification | | |
|-----------------------|-------------------------------------|------------|--------------|----------------|-----------|-------------------------|------------------------|-----------------------|-------------------|
| | Viscosity @ 40° C (Cst, Typical) | Visc Index | Mineral Oils | Vegetable Oils | Synthetic | Synthetic Polyol Esters | Readily Biodegradable* | Virtually Non-toxic** | Fire Resistant*** |
| Mobilfluid 424 | 55 | 145 | X | | | | | | |
| Mobil DTE 10 Excel 32 | 32 | 141 | X | | | | | | |
| UNIVIS HVI 26 | 26 | 376 | X | | | | | | |
| Mobil EAL 224 H | 36 | 212 | | X | | | X | X | |
| Mobil EnviroSyn H 46 | 49 | 145 | | | X | | X | X | |
| Quintolubric 888-46 | 50 | 185 | | | | X | X | X | X |

- * Readily biodegradable classification indicates one of the following:
CO2 Conversion > 60% per EPA 560/6-82-003
CO2 Conversion > 80% per CEC-L-33-A-93
- ** Virtually Non-toxic classification indicates an LC50 > 5000 ppm per OECD 203
- *** Fire Resistant classification indicates Factory Mutual Research Corp. (FMRC) Approval

NOTICE:
MACHINE OPERATION USING NON-JLG APPROVED HYDRAULIC FLUIDS OR OPERATION OUTSIDE OF THE TEMPERATURE BOUNDARIES OUTLINED IN THE "HYDRAULIC FLUID OPERATION CHART" MAY RESULT IN PREMATURE WEAR OR DAMAGE TO COMPONENTS OF THE HYDRAULIC SYSTEM.

Figure 7-5. Hydraulic Oil Operation Chart - Sheet 2 of 2

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

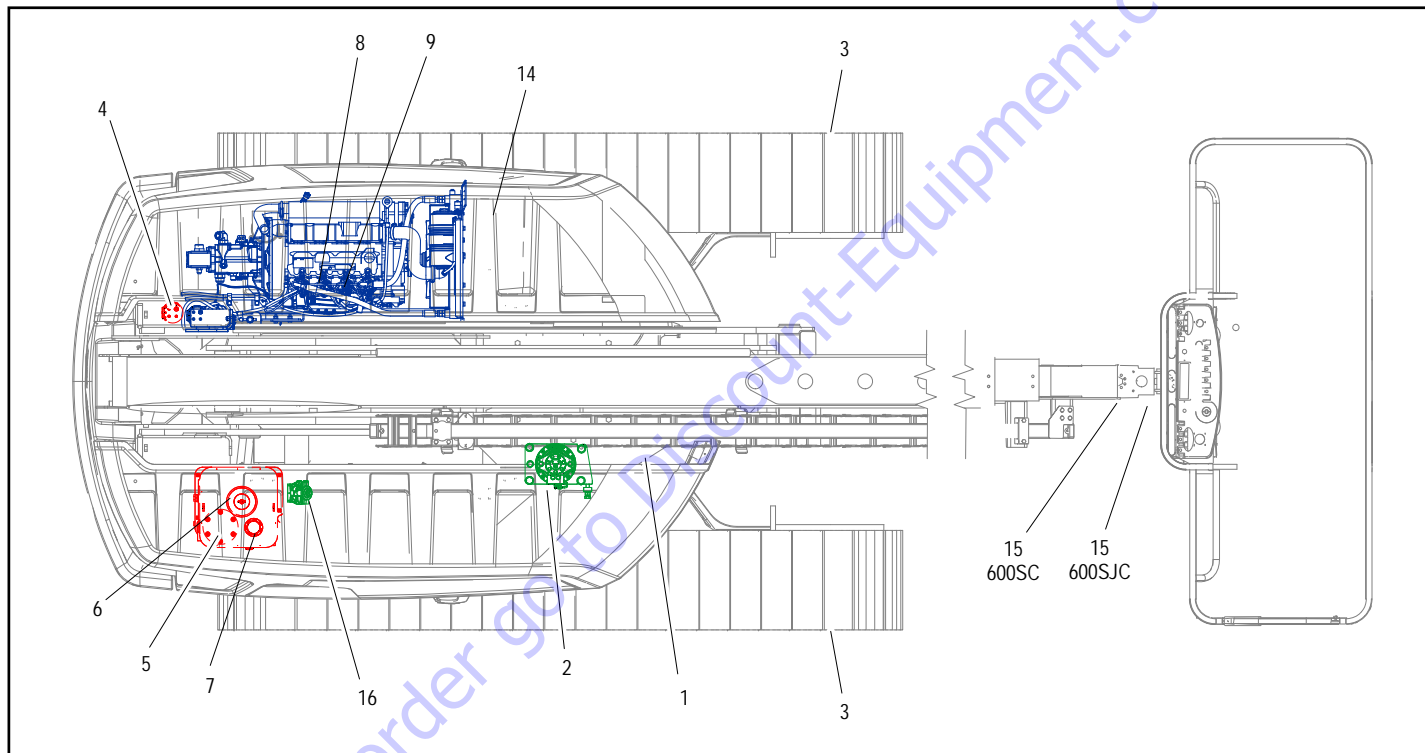


Figure 7-6. Operator Maintenance & Lubrication Diagram - Deutz 2011 Engine

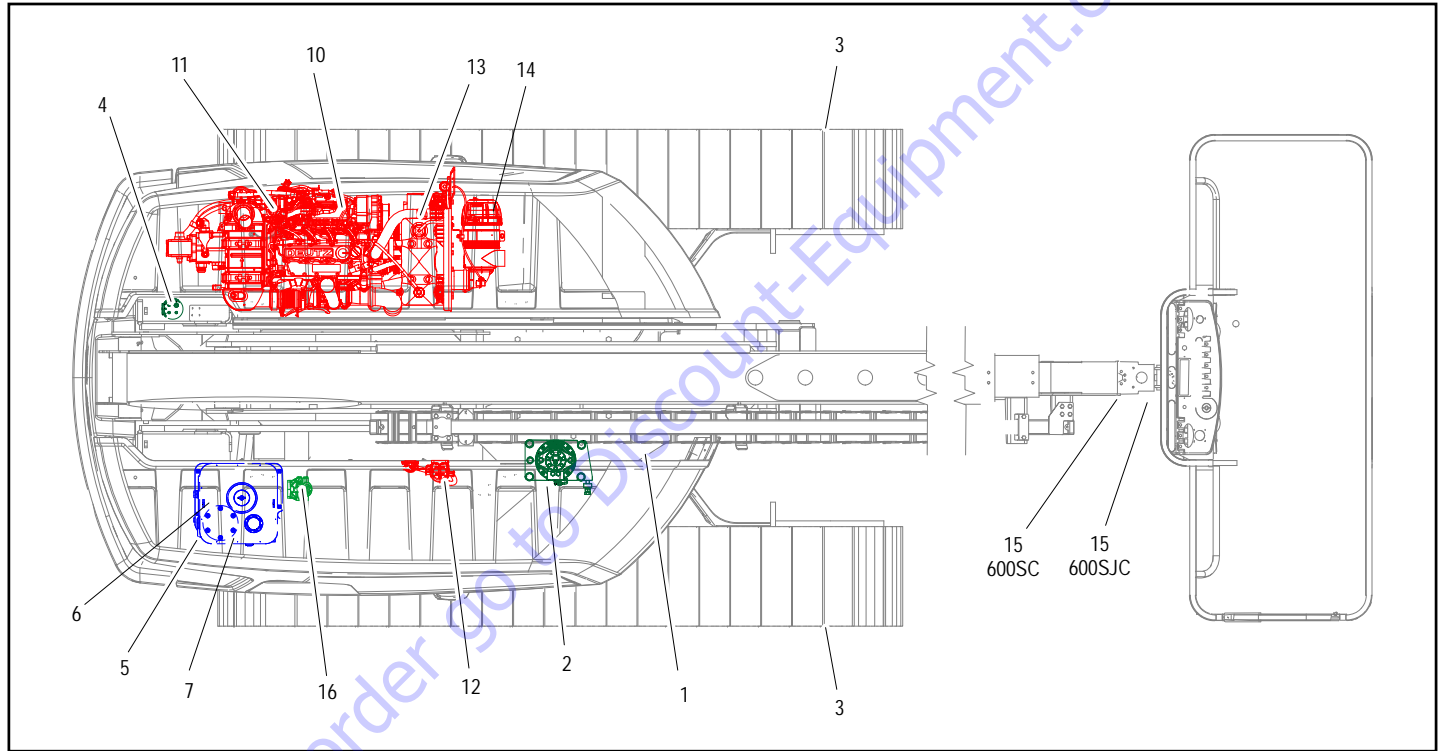


Figure 7-7. Operator Maintenance & Lubrication Diagram - Deutz 2.9L Engine

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

7.3 OPERATOR MAINTENANCE

NOTE: The following numbers correspond to those in Figure 7-6., Operator Maintenance & Lubrication Diagram - Deutz 2011 Engine.

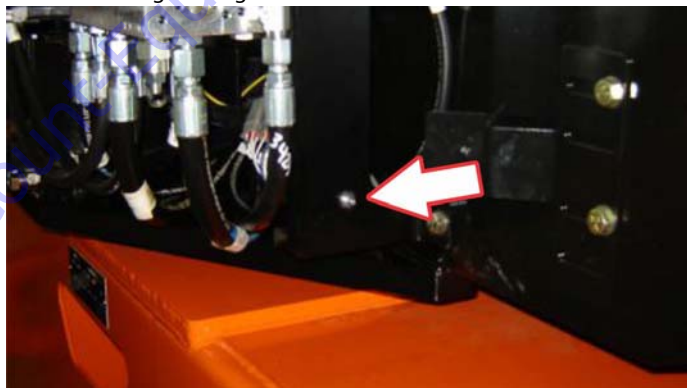
Table 7-14. Lubrication Specifications.

| KEY | SPECIFICATIONS |
|--|---|
| BG* | Bearing Grease (JLG Part No. 3020029) Mobilith SHC 460. |
| HO | Hydraulic Oil. API service classification GL-4, e.g. Mobilfluid 424. |
| EPGL | Extreme Pressure Gear Lube (oil) meeting API Service Classification GL-5 or Mil-Spec Mil-L-2105. |
| MPG | Multipurpose Grease having a minimum dripping point of 350°F (177°C). Excellent water resistance and adhesive qualities, and being of extreme pressure type. (Timken OK 40 pounds minimum.) |
| EO | Engine (crankcase). Gas (5W30) - API SN, -Arctic ACEA A1/BI, A5/B5 - API SM, SL, SJ, EC, CF, CD - ILSAC GF-4. Diesel (15W40, 5W30 Arctic) - API CJ-4. |
| *MPG may be substituted for these lubricants, if necessary, but service intervals will be reduced. | |

NOTICE

LUBRICATION INTERVALS ARE BASED ON MACHINE OPERATION UNDER NORMAL CONDITIONS. FOR MACHINES USED IN MULTI-SHIFT OPERATIONS AND/OR EXPOSED TO HOSTILE ENVIRONMENTS OR CONDITIONS, LUBRICATION FREQUENCIES MUST BE INCREASED ACCORDINGLY.

1. Swing Bearing



Lube Point(s) - 1 Grease Fittings

Capacity - A/R

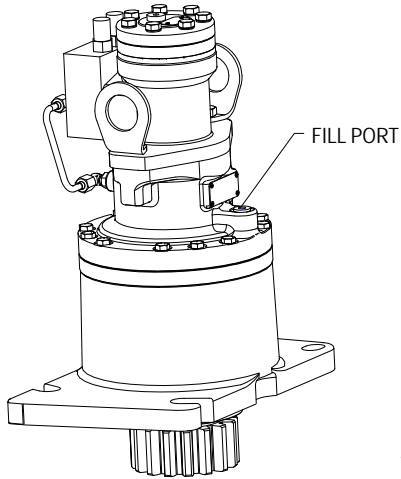
Lube - MPG

Interval - Every 3 months or 150 hrs of operation

Comments - Remote Access. Apply grease and rotate in 90 degree intervals until bearing is completely lubricated.

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

2. Swing Drive Hub



Lube Point(s) - Level/Fill Plug
Capacity - 32 oz. (0.95 L)
Lube - 80w90 Gear Oil
Interval - Check level every 3 months or 150 hrs of operation;
change every 2 years or 1200 hours of operation

3. Final Drive Hub

Lube Point(s) - Level/Fill Plug
Capacity - 2.1 gal.(7.9 L); 1/2 Full
Lube - EPGL
Interval - Check level every 3 months or 150 hrs of operation;
change every 2 years or 1200 hours of operation

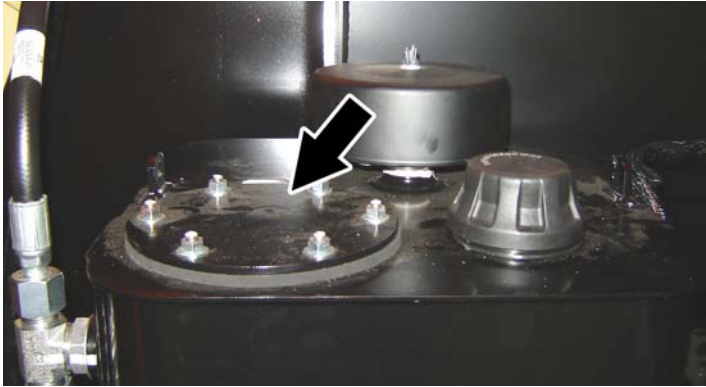
4. Hydraulic Charge Filter



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

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

5. Hydraulic Return Filter



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

6. Hydraulic Tank Breather

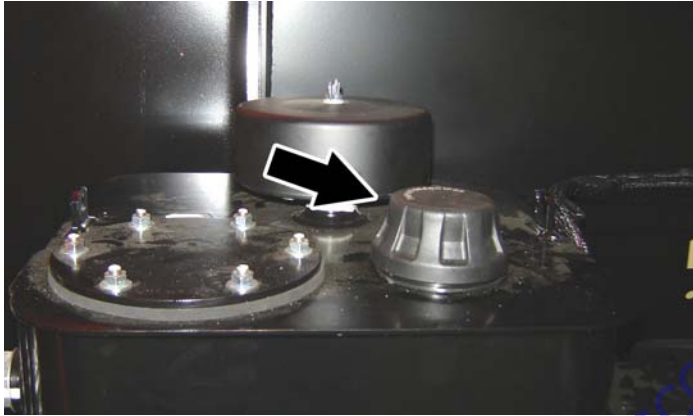


Interval - Change after first 50 hrs. and every 6 months or 300 hrs. thereafter.

Comments - Remove wing nut and cover to replace. Under certain conditions, it may be necessary to replace on a more frequent basis.

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

7. Hydraulic Tank



Lube Point(s) - Fill Cap

Capacity - 34 gal tank (129 L) 40.0 gal system (151 L)

Lube - HO

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

Comments - On new machines, those recently overhauled, or after changing hydraulic oil, operate all systems a minimum of two complete cycles and recheck oil level in reservoir.

8. Oil Change w/Filter - Deutz 2011



Lube Point(s) - Fill Cap/Spin-on Element

Capacity - 10 Quarts (9.4 L) Crankcase; 5 Quarts (4.8L)

Cooler

Lube - EO

Interval - Every Year or 1200 hours of operation

Comments - Check level daily/Change in accordance with engine manual.

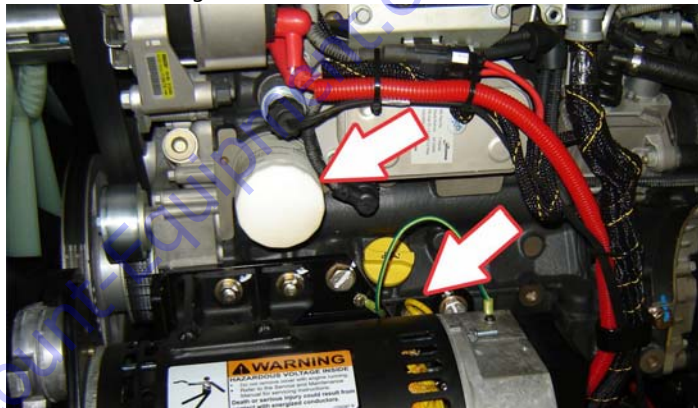
SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

9. Fuel Filter - Deutz 2011



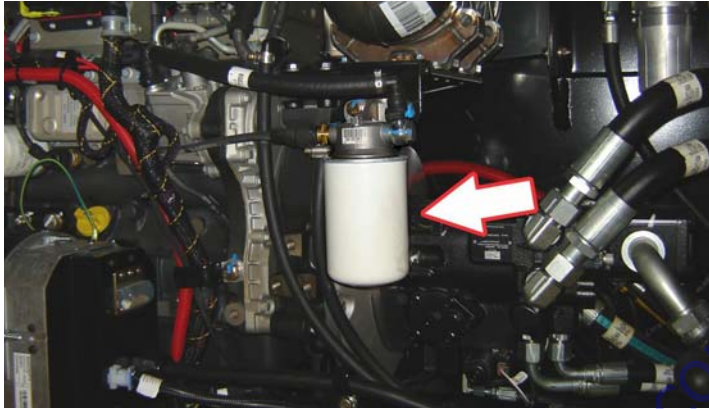
Lube Point(s) - Replaceable Element
Interval - Every Year or 600 hours of operation

10. Oil Change w/Filter - Deutz 2.9



Lube Point(s) - Fill Cap/Spin-on Element
Capacity - 10 Quarts (9.4 L) Crankcase; 5 Quarts (4.8L) Cooler
Lube - EO
Interval - Every Year or 1200 hours of operation
Comments - Check level daily/Change in accordance with engine manual.

11. Fuel Filter - Deutz 2.9



Lube Point(s) - Replaceable Element
Interval - Every Year or 600 hours of operation

12. Fuel Pre-Filter - Deutz D2.9



Lube Point(s) - Replaceable Element
Interval - Drain water daily; Every year or 600 hours of operation

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

13. Engine Coolant - Deutz D2.9

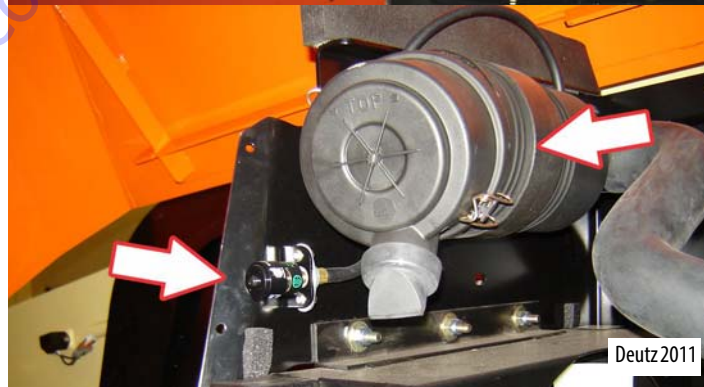
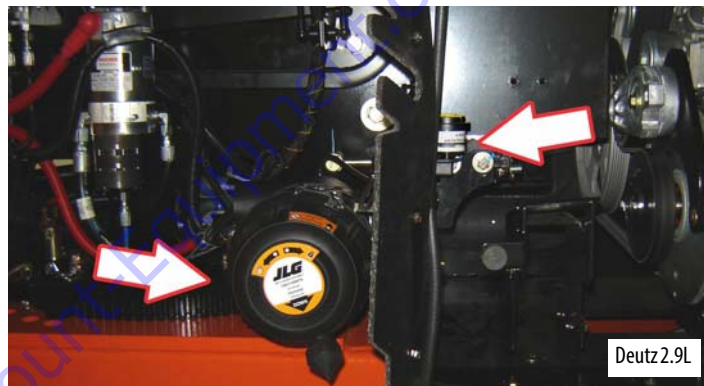
Lube Point(s) - Fill Cap

Capacity (Deutz 2.9L)- 13.2 quart (12.5 L)

Lube - Anti-Freeze

Interval - Check level daily; change every 1000 hours or two years, whichever comes first.

14. Air Filter

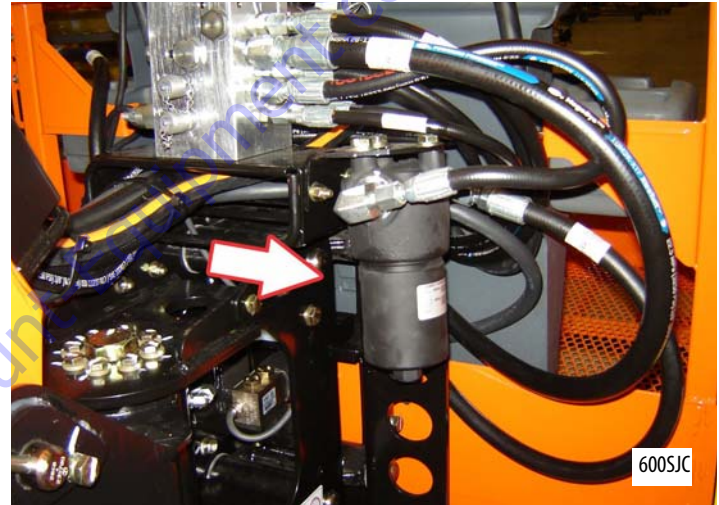


SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Lube Point(s) - Replaceable Element

Interval - Every 6 months or 300 hours of operation or as indicated by the condition indicator

15. Platform Filter

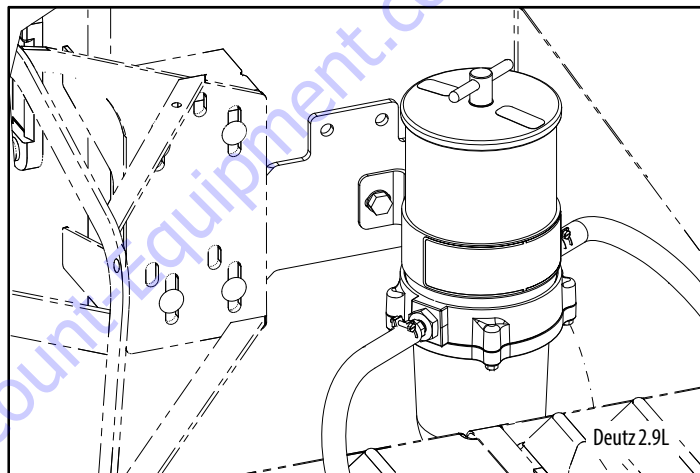
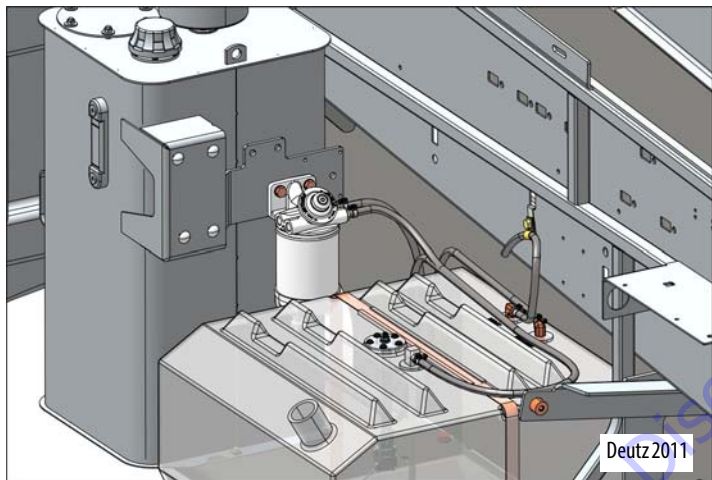


Lube Point - Replaceable Element

Interval - Change after first 50 hours and then every year or 600 hours of operation, whichever comes first

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

16. Optional Fuel Filter - China Market



Lube Point(s) - Replaceable Element

Interval - Drain water daily; Every year or 600 hours of operation

7.4 SUPPLEMENTAL INFORMATION

The following information is provided in accordance with the requirements of the European Machinery Directive 2006/42/EC and is only applicable to CE machines.

For electric powered machines, the equivalent continuous A-Weighted sound pressure level at the work platform is less than 70dB(A)

For combustion engine powered machines, guaranteed Sound Power Level (LWA) per European Directive 2000/14/EC (Noise Emission in the Environment by Equipment for Use Outdoors) based on test methods in accordance with Annex III, Part B, Method 1 and 0 of the directive, is 104 dB.

The vibration total value to which the hand-arm system is subjected does not exceed 2,5 m/s². The highest root mean square value of weighted acceleration to which the whole body is subjected does not exceed 0,5 m/s².

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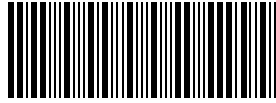
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