



An Oshkosh Corporation Company

Operation and Safety Manual

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

Boom Lift Models

400S

460SJ

S/N 0300203771* to Present

S/N 1300007289 to Present

S/N E300000100 to Present

**See inside front cover for exceptions.*

ANSI   **AS/NZS**

3121670

November 5, 2018 - Rev L

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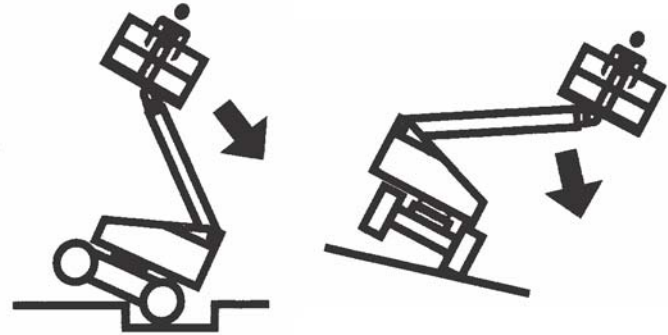
- The minimum approach distance may be reduced if insulating barriers are installed to prevent contact, and the barriers are rated for the voltage of the line being guarded. These barriers shall not be part of (or attached to) the machine. The minimum approach distance shall be reduced to a distance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

⚠ DANGER

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

Tipping Hazards

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

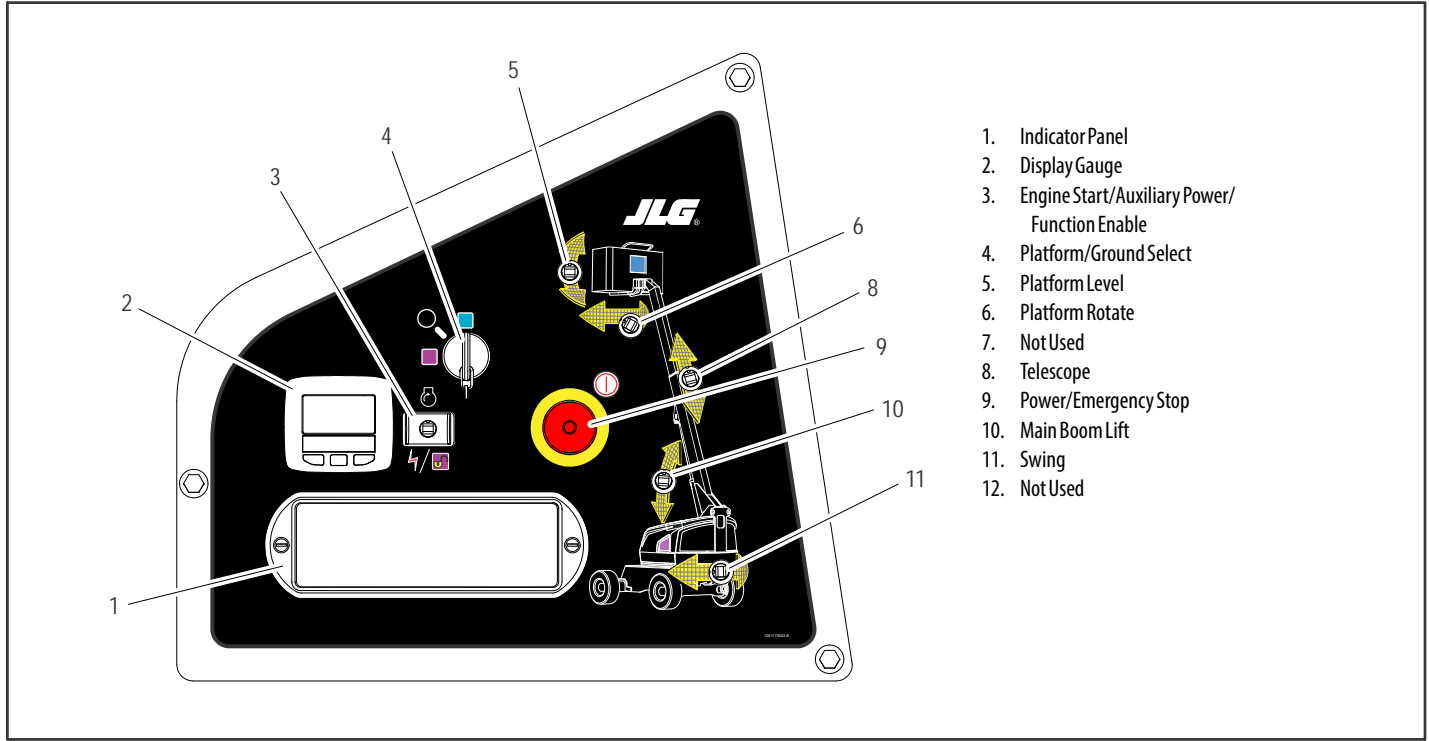


- Do not elevate platform or drive with platform elevated while on or near a sloping, uneven, or soft surface. Ensure machine is positioned on a firm, level and smooth surface before elevating platform or driving with the platform in the elevated position.
- Before driving on floors, bridges, trucks,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

SECTION 2 - USER RESPONSIBILITIES, MACHINE PREPARATION, AND INSPECTION

Table 2-1. Inspection and Maintenance Table

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



- 1. Indicator Panel
- 2. Display Gauge
- 3. Engine Start/Auxiliary Power/
Function Enable
- 4. Platform/Ground Select
- 5. Platform Level
- 6. Platform Rotate
- 7. Not Used
- 8. Telescope
- 9. Power/Emergency Stop
- 10. Main Boom Lift
- 11. Swing
- 12. Not Used

Figure 3-1. Ground Control Console - 400S

Ground Control Console Display Gauge

(See Figure 3-10., 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.

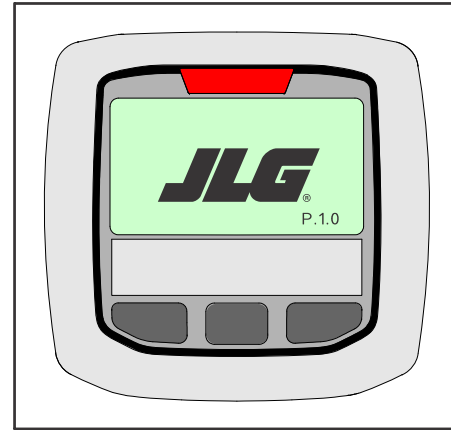
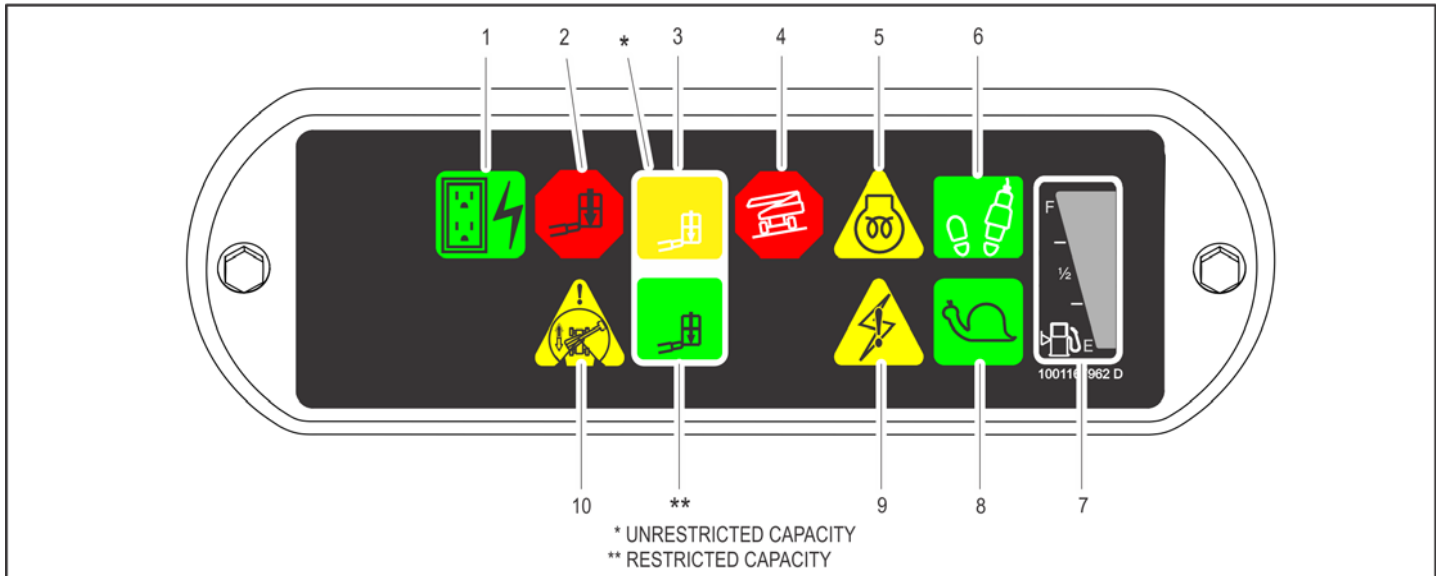


Figure 3-7. Splash Screen



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

Figure 3-12. Platform Control Indicator Panel

4.4 TRAVELING (DRIVING)

See Figure 4-3., Grade and Side Slopes

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 OUT OF TRANSPORT MODE 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 IN THE OPERATING SPECIFICATIONS SECTION OF THIS MANUAL.

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, 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

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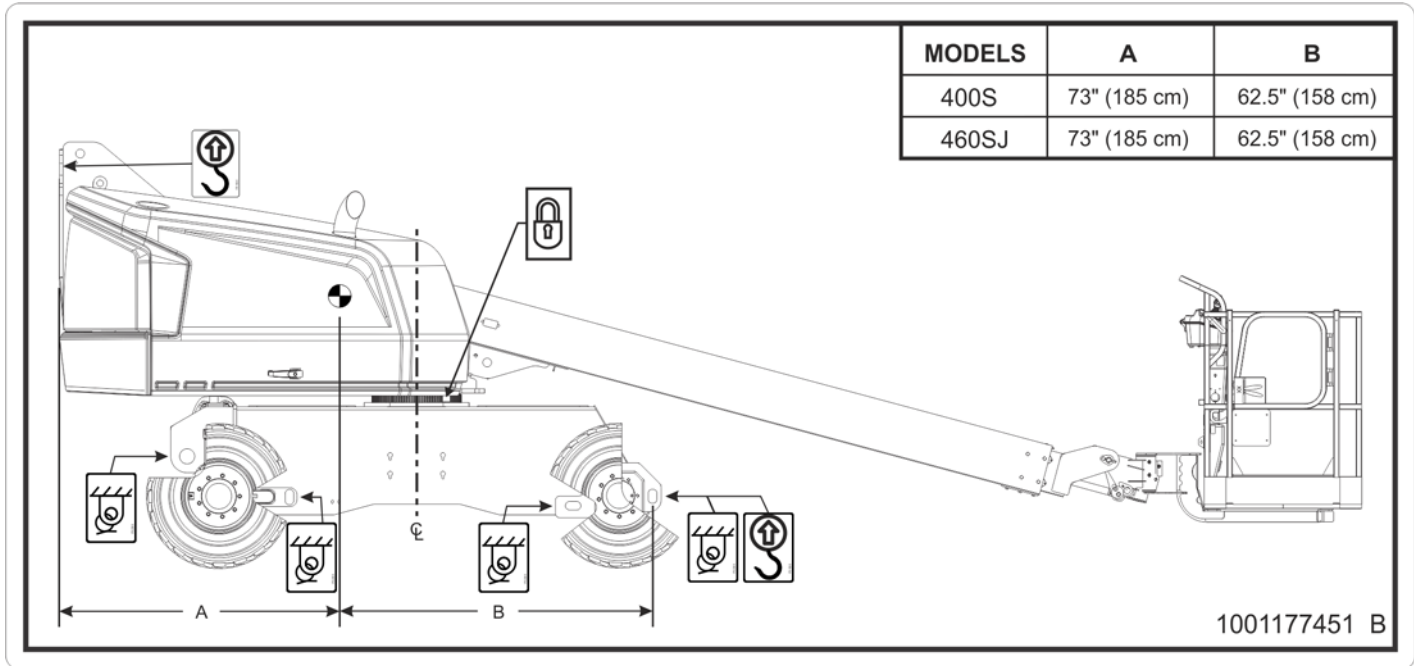


Figure 4-5. Lifting and Tie Down Chart

Table 4-1. Decal Legend - 400S

Item #	ANSI 1001171366-E	Japan 1001171370-E	Korea 1001171372-E	Spanish 1001171374-E	French 1001171376-E	Chinese 1001171378-E	Portuguese/ Spanish 1001171380-E	CE 1001171369-I
36	--	--	--	--	--	--	--	--
37	--	--	--	--	--	--	--	--
38	1701499	1701499	1701499	1701499	1701499	1701499	1701499	1701499
39	--	--	--	--	--	--	--	--
40	1704412	1704412	1704412	1704412	1704412	1704412	1704412	1704412
41	1701691	1701691	1701691	1701691	1701691	1701691	1701691	1701691
42	--	--	--	--	--	--	--	--
43	--	--	--	--	--	--	--	--
44	1705351	1705426	1705427	--	1705429	1705430	1705905	--
45	--	--	--	1704007	1704006	--	1704008	--
46	--	--	--	--	--	--	--	1001197408
47	--	--	--	--	--	--	--	--
48	--	--	--	--	--	--	--	--
49	--	--	--	--	--	--	--	--
50	--	--	--	--	--	--	--	--
51	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--
53	--	--	--	--	--	--	--	--

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 INCIDENT, 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.

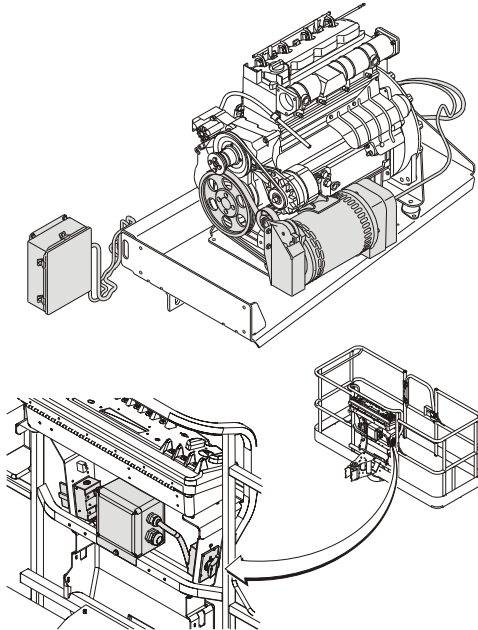
5.3 EMERGENCY OPERATION

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 stabilize motion of the machine.

6.4 SKYPOWER™



The SkyPower™ system supplies AC power to the platform through an AC receptacle to run tools, lights, 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 Specifications:

- 3-phase: 240 V, 60 Hz, 7.5 kW
- 1-phase: 240 V/120 V, 60 Hz, 6 kW

CE Specifications:

- 3-phase: 240 V, 7.5 kW, 18.3 A, 1.0-pf
- 1-phase: 240 V, 6.0 kW, 26 A, 1.0-pf
- 1-phase: 120 V, 6.0 kW, 50 A, 1.0-pf

Peak:

- 3-phase: 8.5 kW
- 1-phase: 6.0 kW

Accessory Ratings

- 3000 rpm (50 Hz)
- 3600 rpm (60 Hz)

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

Table 7-2. Operating Specifications - 460SJ

Gross Machine Weight	16,370 lbs. (7,425 kg)
Maximum System Voltage	12V
Max. Hydraulic System Operating Pressure	3000 psi (207 Bar)
Manual Force	
CE	90 lbs. (400 N)
ANSI	100 lbs. (445 N)
Maximum Wind Speed	28 mph (12.5 m/s)

Capacities

Table 7-3. Capacities

Fuel Tank	22 gal. (83.3 L)
Hydraulic Tank	32.5 Gal (123 L)
Hydraulic System (Including Tank)	40 Gal. (151.4 L)
Drive Hub	24 oz. (0.7 L)
Drive Brake	27 oz. (0.8 L)
Engine Coolant	
Deutz 2.9L	2.9 gal. (11.3L)
GM 3.0L	2.4 gal. (9.1L)
Kubota	2.25 gal. (8.5 L)

SECTION 7 - GENERAL SPECIFICATIONS & OPERATOR MAINTENANCE

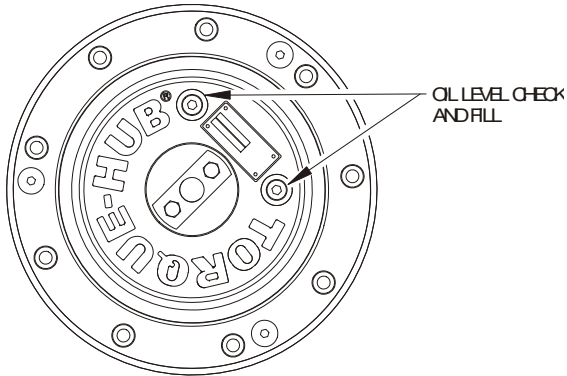
Fluid	Properties		Base				Classification		
	Viscosity @ 40° C (Cst, Typical)	Visc Index	Mineral Oils	Vegetable Oils	Synthetic	Synthetic Polyol Esters	Readily Biodegradable*	Virtually Non-toxic**	Fire Resistant***
Mobilfluid 424	55	145	X						
Mobil DTE 10 Excel 32	32	141	X						
UNIVIS HVI 26	26	376	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 7-3. Hydraulic Oil Operation Chart - Sheet 2 of 2

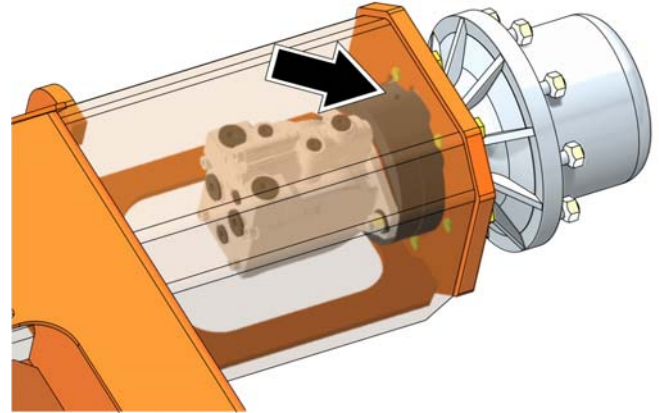
2. Wheel Drive Hub



Lube Point(s) - Level/Fill Plug
Capacity - 24 oz. (0.8 L)(1/2 Full)
Lube - EPGL

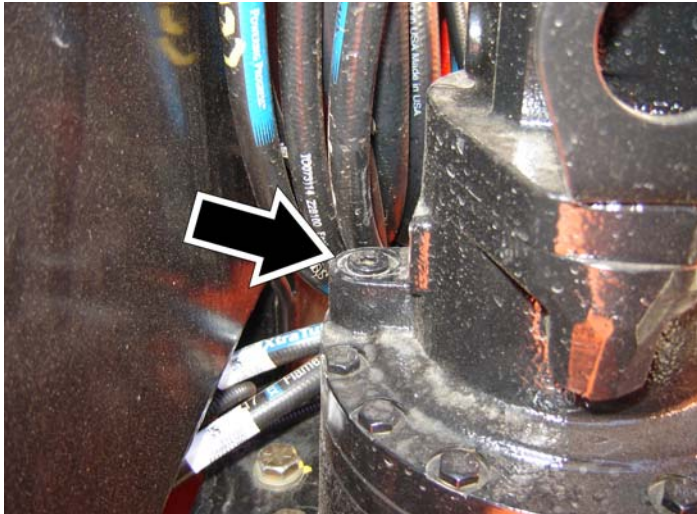
Interval - Check level every 3 months or 150 hrs of operation;
change every 2 years or 1200 hours of operation

3. Drive Brake



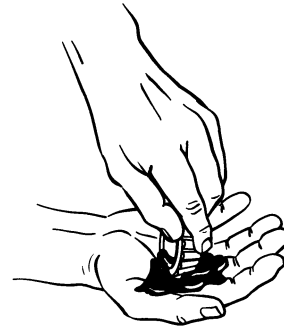
Lube Point(s) - Fill Plug
Capacity - 2.7 oz. (89 mL)
Lube - DTE-10 Excel 32
Interval - Change as necessary

19. Swing Drive Hub



Lube Point - Level/Fill Plug
Capacity - 40 oz. (1.2 L)
Lube - 90w80 Gear Oil
Interval - Check level every 3 months or 150 hours of operation; change after first 50 hours and every 2 years or 1200 hours of operation thereafter

20. Wheel Bearings



Lube Point(s) - Repack
Capacity - A/R
Lube - MPG
Interval - Every 2 years or 1200 hours of operation

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