An Oshkosh Corporation Company

Service & Maintenance Manual

Liftlux

Models
153-12
180-12

S/N 20463 to Present
including S/N 18432 & 19930

3121337

June 27, 2008

ISO9001 REGISTERED COMPANY

UKAS QUALITY MANAGEMENT 015

An Oshkosh Corporation Company

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1.5 BATTERIES

Table 1-5. Battery Specifications

Description	153-12	180-12
Voltage (each)	24V	
Amp Hours	350	

1.6 PRESSURE SETTING

Cold temperatures have a significant impact on pressure readings. JLG Industries Inc. recommends setting the pressures with the operating temperature between 15°-20°C (59° - 68°F). JLG Industries Inc. also recommends the use of a calibrated gauge. The pressures may be set with a tolerence of ± 3 bar (43.5 psi).

Table 1-6. Pressure Settings

Description	153-12	180-12
Main Pressure Relief	185 bar (2683.1 psi)	195 bar (2828.2 psi)

1.7 CRITICAL STABILITY WEIGHTS

⚠ WARNING

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.

Table 1-7. Critical Stability Weights

Description	153-12	180-12
Wheel and Tire Assembly (each)	67 kg (148 lbs)	
Wheel/Tire and Drive Assembly (each)	113 kg (249 lbs)	
Batteries - Standard (each) (2)	284 kg (626 lbs)	

1.8 MAJOR COMPONENT WEIGHTS

Table 1-8. Component Weights

Description	153-12	180-12
Platform (includes extension and rails)	746 kg (1,645 lbs)	
Chassis with Tires	2300 kg (5071 lbs)	
Arm Assembly	3900 kg (6598 lbs)	4100 kg (9039 lbs)
Lift Cylinder	270 kg (595 lbs)	

1.9 LIMIT SWITCHES

High Drive Speed Cutout

When the platform reaches and exceeds a height of 3.5 m (11.5 ft) for the 153-12 and 3.7 m (12.1 ft) for the 180-12, the high drive speed will be cut back to the low drive speed. Once the platform is completely lowered the high drive speed is possible. The LED on the platform control console will remain illuminated when the high drive speed is available.

Maximum Drive Height Cutout

Once the platform has reached a height of 7 m (23 ft), the driving function will be disabled by the maximum drive height cutout switch. Once the limit is exceeded, only lifting/lowering will be allowed. The Drive Cutout LED on the platform control console will go out when the drive function is no longer available. The platform must be lowered to enable the drive function.

Max Height Cutout

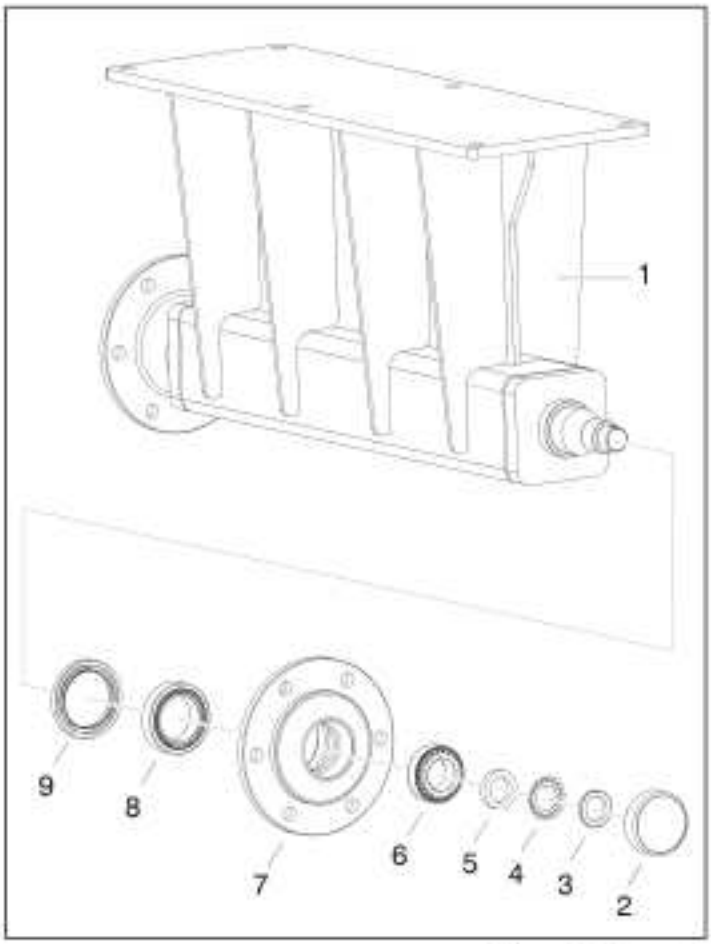
Once the platform has reached it's maximum height of 15.3 m (50 ft) for the 153-12 and 18 m (59 ft) for the 180-12, the lifting function will be cut off by the maximum height limit switch. When maximum height is reached, the Lift Cutout Indicator LED on the platform control console will no longer be illuminated.

Tilt Alarm

The tilt switch cuts out lifting, driving, and steering once the platform reaches a tilt angle (slope) beyond 3° for the 153-12 and 2° for the 180-12, and the platform is raised above the high drive speed cutout height. At this point, the warning LED on the platform control console will illuminate and lowering is the only function possible.

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Rear Hub Assembly



1. Rear Axle Weldment
2. Hub Cap
3. Hub Nut
4. Hub Nut Lock
5. Washer
6. Outer Bearing
7. Hub
8. Inner Bearing
9. Seal

Figure 3-8. Rear Hub Assembly

Removal:

1. Remove the Hub Cap (2).
2. Remove the Hub Nut (3), Hub Nut Lock (4), Washer (4), and Outer Bearing (5).
3. At this point the Hub (6) can be removed.
4. Once the Hub is removed, the Inner Bearing (7) and Seal (8) can be removed from the inside of the Hub.

Installation:

1. Replace the Inner Bearing (7) and Seal (8) on the inside of the Hub (7).
2. Place Hub onto Rear Axle (1).
3. Replace Outer Bearing (6), Washer (5), and Hub Nut Lock (4). Secure with Hub Nut (3).
4. Place the Hub Cap (2) back onto the Hub.

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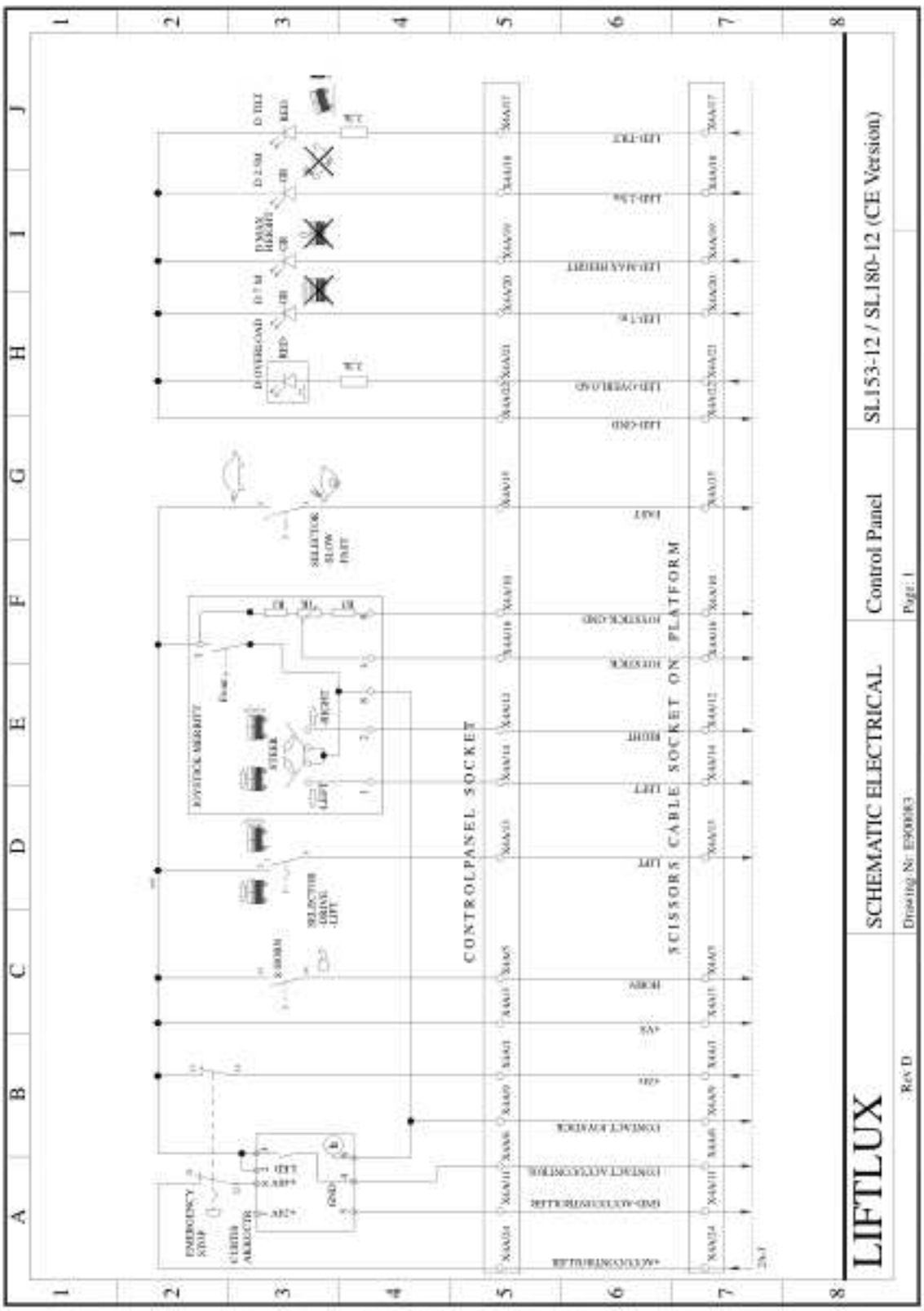


Figure 6-18. Electrical Schematic - Sheet 1 of 14

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Adjust main pressure on top of the Main Pressure Block.

- remove the cap and attach a pressure gauge to pressure test port (see Figure 4-30.)
- remove rubber plug from adjustment port on the Main Pressure Block (see Figure 4-31.)
- Operate steer function and adjust to 185 bar (2683.1 psi) (153-12)(see Figure 4-31.)
- Operate steer function and adjust to 195 bar (2828 psi) (180-12)(see Figure 4-31.)

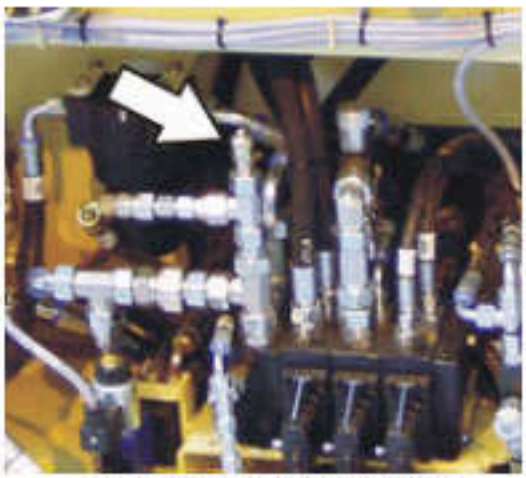


Figure 4-30. Pressure Test Port

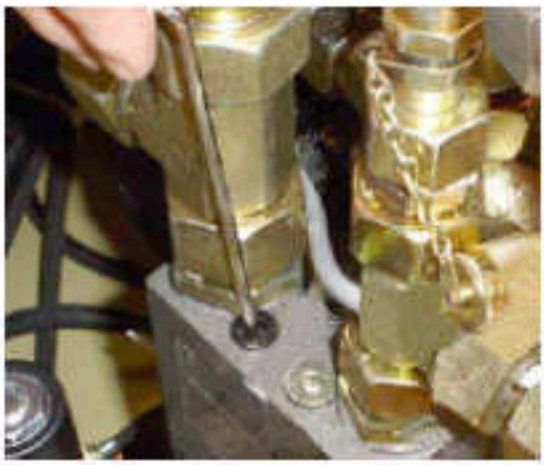


Figure 4-31. Main Valve Pressure Adjustment

Platform Lower Flow Valve

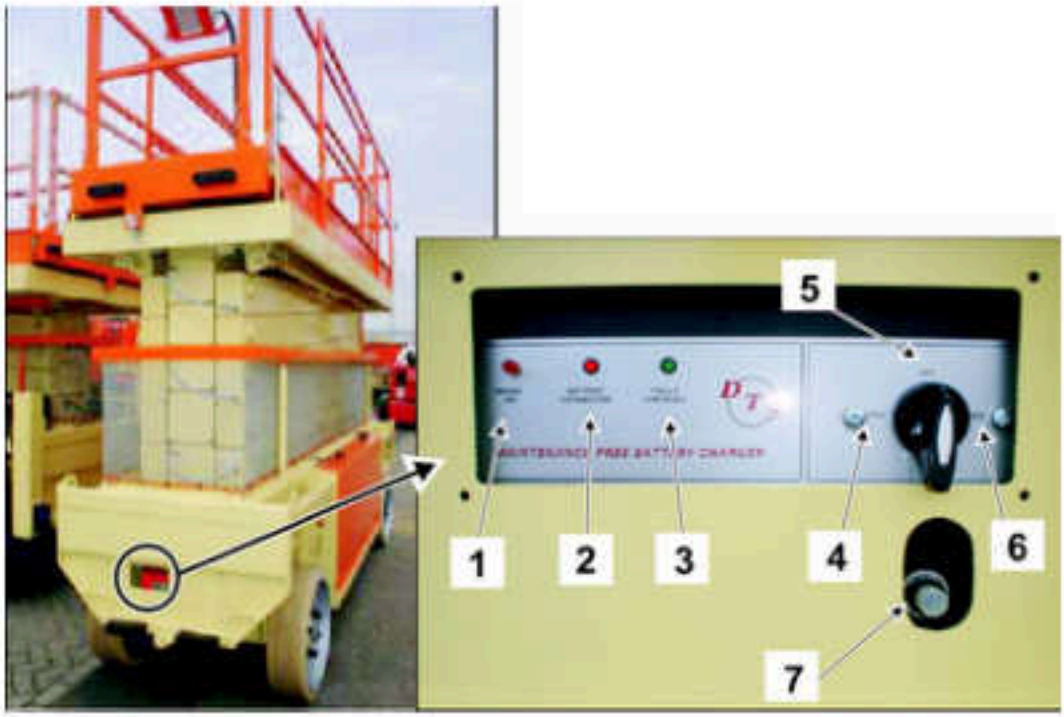


Figure 4-32. Platform Lower Flow Valve

- With the rated load on the platform (see Table 1-1), adjust the knob shown to the left to obtain the lowering speed as specified in (Table 1-1).

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Dual Voltage Charger



1. Mains Connected
2. Battery Connected
3. Charge Complete
4. Select 115v
5. Charger Off
6. Select 220v
7. Circuit Breaker

Figure 3-19. Dual Voltage Charger Control

Table 3-7. Dual Voltage Charger Specs

Description	Dual Voltage Charger
Type	48V DC 40amp output - 105/230V AC Input
Rating	3300W - 50Hz
Compliance	EU Directives 93/69/EEC and 92/31/EEC
Interlock	Internal N.C. Interlock Relay. Open under AC power in
Cables	Fitted with separate 115 and 230 power plugs

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