

UpRight

POWERED ACCESS



SL26/30SL
WORK PLATFORM

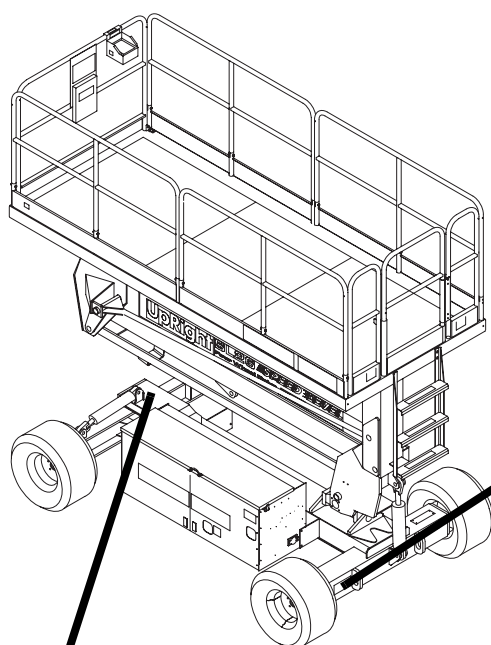
SERVICE & PARTS MANUAL

SL26/30SL Series

Serial Numbers 50001 – Current

ENGLISH

When contacting **UpRight** for service or parts information, be sure to include the MODEL and SERIAL NUMBERS from the equipment nameplate. Should the nameplate be missing, the SERIAL NUMBER is also stamped on top of the chassis above the front axle pivot.



UpRight		VIGO CENTRE WASHINGTON TYNE & WEAR, UK	
MODEL	SL 30 SL	SERIAL No.	
MAX. PLATFORM HEIGHT	9.1 m	UNLADEN WEIGHT	3350 kg
MAX. PLATFORM LOAD	590 Kg = 5 Persons + Equipment		
MAX. LATERAL FORCE	400 N		
MAX. CHASSIS INCLINATION	2°	BATTERY VOLTAGE	12V
MAX. GRADEABILITY	35%	CHARGER INPUT VOLTAGE	N/A
MAX. FORWARD SPEED	4.3Km/h		
CAUTION: ONLY TRAINED & AUTHORISED PERSONNEL MAY USE THIS MACHINE—CONSULT OPERATORS MANUAL BEFORE USE. THIS PLATFORM IS NOT ELECTRICALLY INSULATED 505563-000			

TEXT FOR ILLUSTRATION PURPOSE ONLY

Stamped Serial Number

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SL26/30SL SERVICE AND PARTS MANUAL

PART NUMBER : 505500-000 (04-07)

SERIAL NUMBER : 50000 - CURRENT

FOREWORD

HOW TO USE THIS MANUAL

This manual is divided into six sections.

SECTION 1 INTRODUCTION

General description and machine specifications.

SECTION 2 OPERATION AND SPECIFICATION

Information on how to operate the work platform and how to prepare it for operation.

SECTION 3 MAINTENANCE

Preventative maintenance and service information.

SECTION 4 TROUBLESHOOTING

Causes and solutions to typical problems.

SECTION 5 SCHEMATICS

Schematics and valve block diagram with description and location of components.

SECTION 6 ILLUSTRATED PARTS BREAKDOWN

Complete parts lists with illustrations.

SPECIAL INFORMATION

D A N G E R

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

W A R N I N G

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

C A U T I O N

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTE: Gives helpful information.

WORKSHOP PROCEDURES

All information contained in this manual is based on the latest product information available at the time of printing. We reserve the right to make changes at any time without notice. No part of this publication may be reproduced, stored in retrieval system, or transmitted, in any form by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher. This includes text, figures and tables.

C A U T I O N

*Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. Please note that this manual contains warnings and cautions against some specific service methods which could cause personal injury, or could damage a machine or make it unsafe. Please understand that these warnings cannot cover all conceivable ways in which service, whether or not recommended by **Upright**, might be carried out, or of the possible hazardous consequences of each conceivable way, nor could **Upright**, investigate all such ways.*

*Anyone using service procedures or tools, whether or not recommended by **Upright**, must satisfy themselves thoroughly that neither personal safety nor machine safety will be jeopardized.*

INTRODUCTION

1.1 INTRODUCTION

PURPOSE

The purpose of this service and parts manual is to provide instructions and illustrations for the operation and maintenance of this work platform manufactured by **UpRight**.

SCOPE

The manual includes procedures for proper operation, maintenance, adjustment, and repair of this product as well as recommended maintenance schedules and troubleshooting.

1.2 GENERAL DESCRIPTION

The work platform consists of the platform, controller, elevating assembly, power module, control module, and chassis.

! WARNING !

DO NOT use the work platform without guardrails properly assembled and in place.

Figure 1-1: SL26/30SL Work Platform

PLATFORM

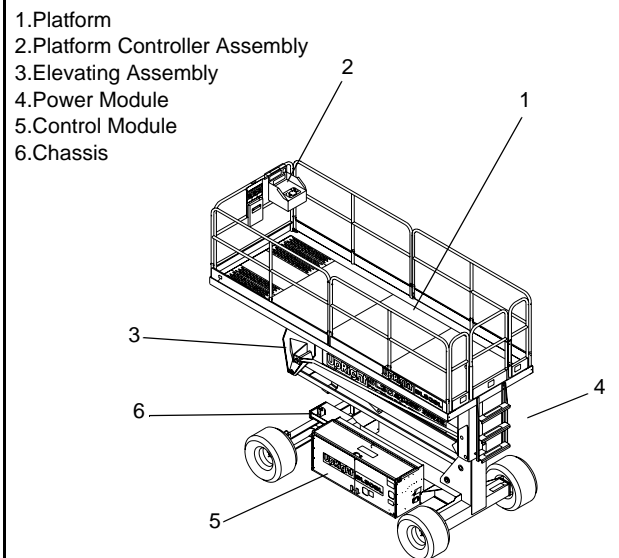
The platform has a reinforced steel floor, 1.1m (43.5 inch) high guardrails with midrail, 152 mm (6 inch) toe-boards, and an entry gate at the rear of the platform. The guardrails can be folded down for access through doors or for shipment.

PLATFORM CONTROLLER

The platform controller contains the controls to operate the machine. It is located at the front of the platform cage. A complete explanation of control functions can be found in Section 2.

ELEVATING ASSEMBLY

The platform is raised and lowered by the elevating assembly. The hydraulic pump, driven by the engine, powers the cylinder. Solenoid operated valves control raising and lowering.



Introduction

CHASSIS

The chassis is a structural frame that supports all the components of the SL26/30SL work platform.

PURPOSE OF EQUIPMENT

The objective of the work platform is to provide a quickly deployable, self-propelled, variable height work platform to elevate personnel and materials to overhead work areas.

SPECIAL LIMITATIONS

Travel with the platform raised is limited to a creep speed range.

Elevating of the work platform is limited to firm, level surfaces only. Any degree of slope greater than 3° will sound a warning alarm when the machine is elevated.



The elevating function shall ONLY be used when the work platform is level and on a firm surface. The work platform is NOT intended to be driven over uneven, rough, or soft terrain when elevated.

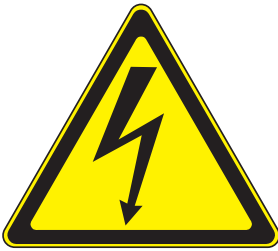
OPERATION MANUAL

WARNING

All personnel shall carefully read, understand and follow all safety rules and operating instructions before operating or performing maintenance on any UpRight aerial work platform.

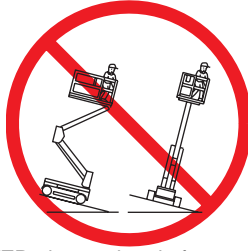
Safety Rules

Electrocution Hazard



THIS MACHINE IS NOT INSULATED!

Tip Over Hazard



NEVER elevate the platform or drive the machine while elevated unless the machine is on a firm, level surface.

Collision Hazard



NEVER position the platform without first checking for overhead obstructions or other hazards.

Fall Hazard



NEVER climb, stand, or sit on platform guardrails or midrail.

USE OF THE AERIAL WORK PLATFORM: This aerial work platform is intended to lift persons and his tools as well as the material used for the job. It is designed for repair and assembly jobs and assignments at overhead workplaces (ceilings, cranes, roof structures, buildings etc.). All other uses of the aerial work platform are prohibited!

THIS AERIAL WORK PLATFORM IS NOT INSULATED! For this reason it is imperative to keep a safe distance from live parts of electrical equipment!

Exceeding the specified permissible maximum load **is prohibited!** See "Special Limitations" on page 4 for details.

The use and operation of the aerial work platform as a lifting tool or a crane (lifting of loads from below upwards or from up high on down) **is prohibited!**

NEVER exceed the manual force allowed for this machine. See "Special Limitations" on page 4 for details.

DISTRIBUTE all platform loads evenly on the platform.

NEVER operate the machine without first surveying the work area for surface hazards such as holes, drop-offs, bumps, curbs, or debris; and avoiding them.

OPERATE machine only on surfaces capable of supporting wheel loads.

NEVER operate the machine when wind speeds exceed this machine's wind rating. See "Beaufort Scale" on page 4 for details.

IN CASE OF EMERGENCY push EMERGENCY STOP switch to deactivate all powered functions.

IF ALARM SOUNDS while platform is elevated, STOP, carefully lower platform. Move machine to a firm, level surface.

Climbing up the railing of the platform, standing on or stepping from the platform onto buildings, steel or prefab concrete structures, etc., **is prohibited!**

Dismantling the swing gate or other railing components **is prohibited!** Always make certain that the swing gate is closed and securely locked!

It is prohibited to keep the swing gate in an open position (held open with tie-straps) when the platform is raised!

To extend the height or the range by placing of ladders, scaffolds or similar devices on the platform **is prohibited!**

NEVER perform service on machine while platform is elevated without blocking elevating assembly.

INSPECT the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, loose wire connections, and damaged cables or hoses before using.

VERIFY that all labels are in place and legible before using.

NEVER use a machine that is damaged, not functioning properly, or has damaged or missing labels.

To bypass any safety equipment **is prohibited** and presents a danger for the persons on the aerial work platform and in its working range.

NEVER charge batteries near sparks or open flame. Charging batteries emit explosive hydrogen gas.

Modifications to the aerial work platform **are prohibited** or permissible only at the approval by **UpRight**.

AFTER USE, secure the work platform from unauthorized use by turning both keyswitches off and removing key.

CONTENTS

Introduction	3
General Description	3
Special Limitations	4
Platform Capacity	4
Manual Force	4
Beaufort Scale	4
Lift Overload Alarm	4
Controls and Indicators	5
Pre-Operation Safety Inspection	6
System Function Inspection	7
Operation	8
Platform Extension	8
Travel With the Platform Lowered	8
Steering	8
Elevating the Platform	8
Travel With the Platform Elevated	9
Lowering the Platform	9
Levelling the Platform	9
Emergency Lowering	10
Fold Down guardrails,	11
Fold Down Procedure	11
Erection Procedure	11
Towing or Winching	12
Parking Brake Release	12
After Use Each Day	12
Hour Meter	12
Transporting the Work Platform	13
Preparation for Shipment	13
Lifting By Crane	13
By Forklift	13
Driving or Winching onto a Truck or Trailer	13
Maintenance	14
Blocking The Elevating Assembly	14
Scissor Brace Installation	14
Scissor Brace Stowage	14
Battery Maintenance	15
Battery Charging	15
Fault Codes	16
Inspection and Maintenance Schedule	17
Daily Preventative Maintenance Checklist	17
Specifications	18

INTRODUCTION

This manual covers operation of the SL26/30 Speed Level Series Self-Propelled Work Platforms. **This manual must be stored on the machine at all times.**

GENERAL DESCRIPTION

1. Platform

⚠ WARNING ⚠

DO NOT use the maintenance platform without guardrails properly assembled and in place

2. Elevating Assembly

3. Chassis

4. Power Module

5. Control Module

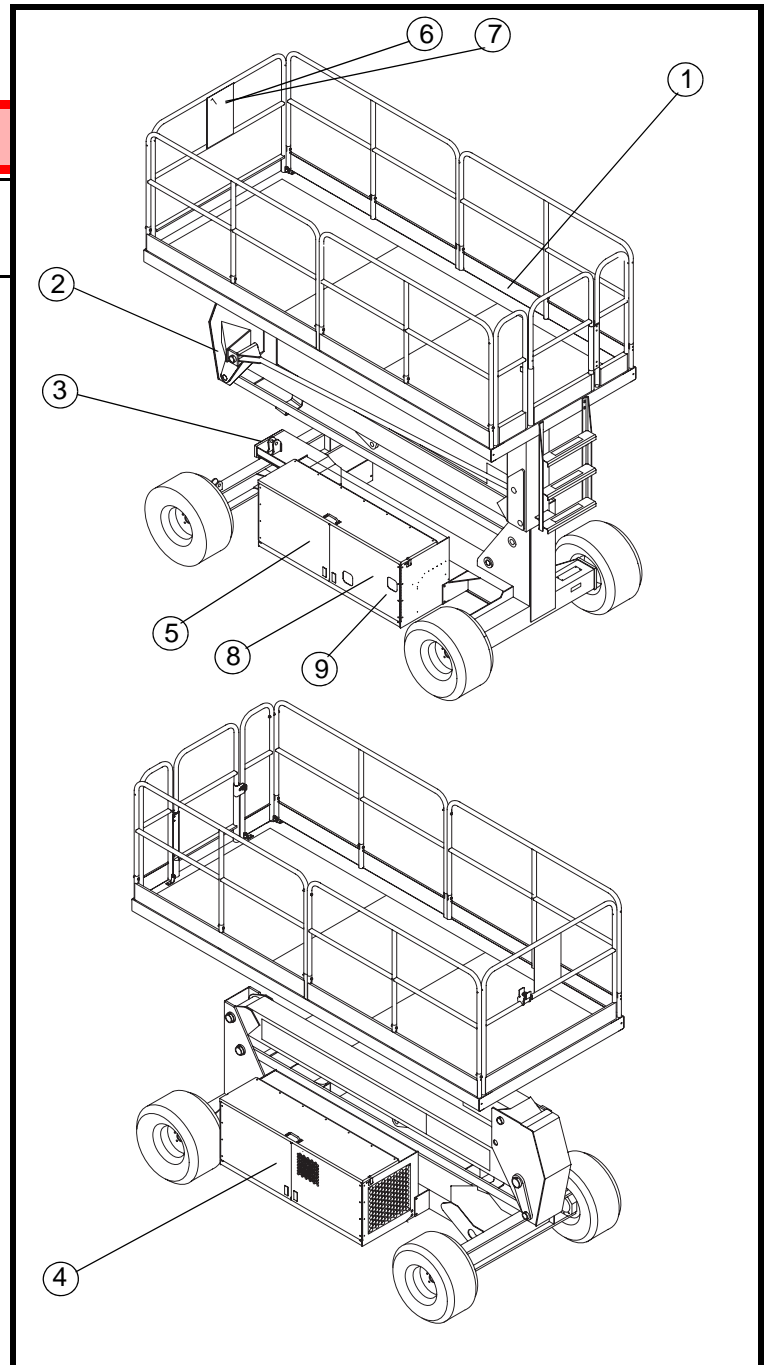
6. Platform Controls

7. Manual Case

8. Chassis Controls

9. Hydraulic Fluid Reservoir

Figure 1: SL26/30 SL Series



SPECIAL LIMITATIONS

Travel with the platform raised is limited to creep speed range.

Elevating the Work Platform is limited to firm, level surfaces only.



*The elevating function shall ONLY be used when the work platform is leveled and on a firm surface.
The work platform is NOT intended to be driven over uneven, rough, or soft terrain.*

PLATFORM CAPACITY

The maximum capacity for the MACHINE, including occupants is determined by model and options, and is listed in "Specifications" on page 18.



DO NOT exceed the maximum platform capacity or the platform occupancy limits for this machine.

MANUAL FORCE

Manual force is the force applied by the occupants to objects such as walls or other structures outside the work platform.

The maximum allowable manual force is limited to 200 N (45 lbs.) of force per occupant, with a maximum of 400 N (90 lbs.) for two or more occupants.



DO NOT exceed the maximum amount of manual force for this machine.

BEAUFORT SCALE

Never operate the machine when wind speeds exceed 12.5m/s (28 mph) [Beaufort scale 6].

BEAUFORT RATING	WIND SPEED				GROUND CONDITIONS
	m/s	km/h	ft/s	mph	
3	3,4~5,4	12,25~19,4	11,5~17,75	7,5~12,0	Papers and thin branches move, flags wave.
4	5,4~8,0	19,4~28,8	17,75~26,25	12,0~18	Dust is raised, paper whirls up, and small branches sway.
5	8,0~10,8	28,8~38,9	26,25~35,5	18~24,25	Shrubs with leaves start swaying. Wave crests are apparent in ponds or swamps.
6	10,8~13,9	38,9~50,0	35,5~45,5	24,5~31	Tree branches move. Power lines whistle. It is difficult to open an umbrella.
7	13,9~17,2	50,0~61,9	45,5~56,5	31,~38,5	Whole trees sway. It is difficult to walk against the wind.

LIFT OVERLOAD ALARM

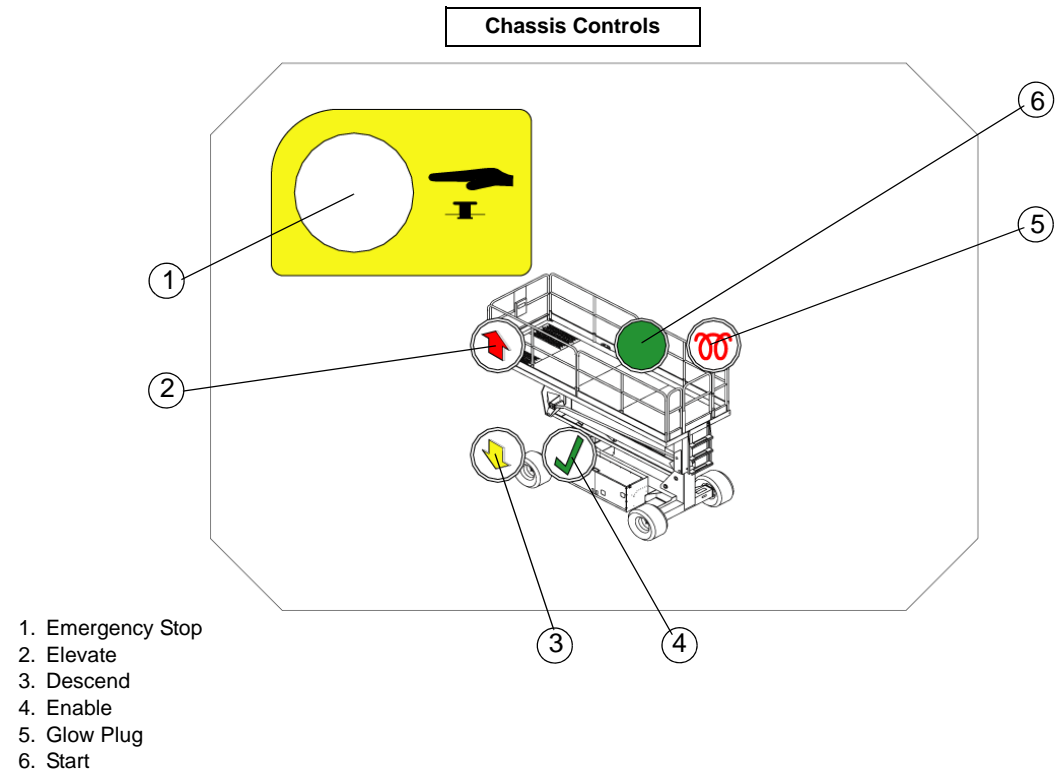
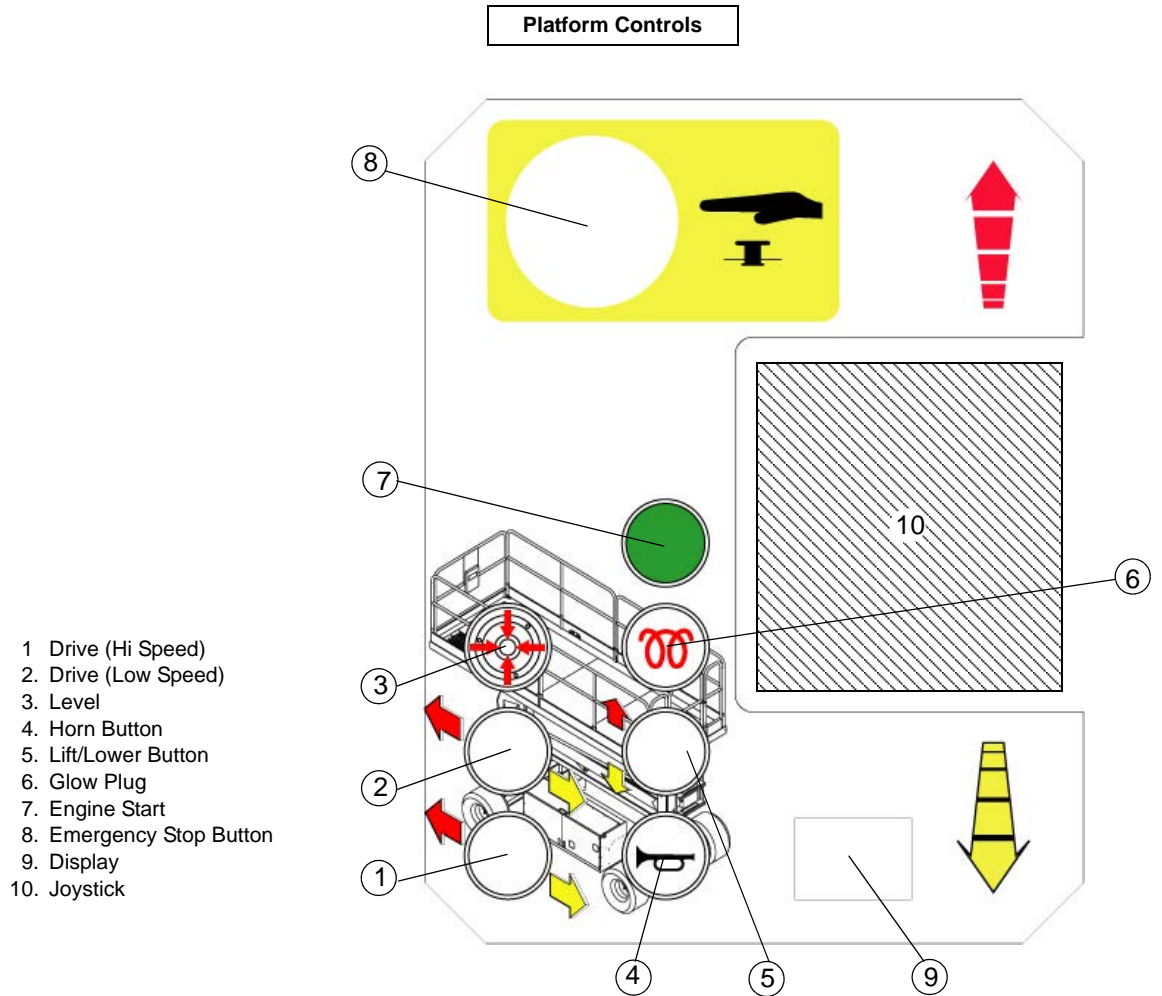
If a load equivalent to 90% of safe working load is lifted a fault code "03" will be displayed on the digital display on the platform control box. If a load which is greater than the safe working load is present in the basket all machine functions will cease to operate and an acoustic warning will sound. In order to return to normal operation a load equal to or less than the safe working load must be present in the basket and the power must be re-cycled, power can be re-cycled by pushing the emergency stop button and releasing it again.



Never operate the machine with a platform load greater than the rated capacity.

CONTROLS AND INDICATORS

Figure 2: Controls and Indicators



PRE-OPERATION SAFETY INSPECTION

NOTE: Carefully read, understand and follow all safety rules, operating instructions, labels and National Safety Instructions/Requirements. Perform the following steps each day before use.

1. Open modules and inspect for damage, fluid leaks or missing parts.

Figure 3: Hydraulic Tank

2. Check the level of the hydraulic fluid with the platform fully lowered. The hydraulic reservoir is located in the Control Module Door. The fluid level must be between the MIN and MAX lines. Add hydraulic fluid if necessary.
3. Check that fluid level in the starter battery is correct.
4. Check the level of the Diesel fuel with the engine switched off. The fuel tank is located in the Power Module. Add fuel as required.
5. Check that all guardrails are in place and all fasteners are properly tightened.
6. Inspect the machine thoroughly for cracked welds and structural damage, loose or missing hardware, hydraulic leaks, damaged control cable, loose wire connections and wheel bolts.



SYSTEM FUNCTION INSPECTION

Refer to Figure 2 (Page 5) for the locations of various controls and indicators.

WARNING

STAND CLEAR of the work platform while performing the following checks.

Before operating the work platform, survey the work area for surface hazards such as holes, drop-offs, bumps and debris.

*Check in **ALL** directions, including above the work platform, for obstructions and electrical conductors.*

Protect the control console cable from possible damage while performing checks.

1. Move the machine, if necessary, to an unobstructed area to allow for full elevation.
2. Twist Chassis Emergency Stop Switch to the ON position.
3. Twist Platform Emergency Stop Switch to the ON position.
4. Turn the Key Switch to the ON position.
5. Visually inspect the elevating assembly, lift cylinder, cables, and hoses for cracked welds and structural damage, loose hardware, hydraulic leaks, loose wire connections, and erratic operation. Check for missing or loose parts.
6. Push the Chassis ELEVATE and ENABLE buttons and fully elevate the platform.
7. Partially lower the platform by pushing Chassis DESCEND and ENABLE buttons, and check for proper operation of the audible lowering alarm.
8. Open the Emergency Lowering Valve (see Figure 4) by pulling the knob out to check for proper operation. When the platform is lowered, release the knob.
9. Push the Chassis Emergency Stop Switch to check for proper operation. All machine functions should be disabled. Twist the Chassis Emergency Stop Switch to resume.
10. Check that the route is clear of obstacles (persons, obstructions, holes, and drop-offs, bumps and debris), is level, and is capable of supporting the wheel loads.
11. Mount the platform and properly close the entrance.
12. Select DRIVE mode.

NOTE: Use both HI and LOW drive (if applicable) when performing the following step.

13. While engaging the Safety Interlock Trigger, move the Joystick to FORWARD, then REVERSE, to check for speed control.
14. Push the Steering Switch RIGHT, then LEFT, to check for steering control.
15. Select LIFT mode. Grasp the Joystick, engaging the Safety Interlock Trigger, and push it forward to check platform lift controls. Raise the platform to full elevation.
16. Pull back on the Joystick. The platform should descend and the audible lowering alarm should sound.
17. Push the Platform Emergency Stop Switch to check for proper operation. All machine functions should be disabled. Pull out the Platform Emergency Stop Switch to resume.

OPERATION

Before operating the work platform, ensure that the Pre-Operation Safety Inspection has been completed and that any deficiencies have been corrected. **Never operate a damaged or malfunctioning machine.** The operator must be thoroughly trained on this machine.

STARTING THE ENGINE

1. Mount the platform and properly close the entrance.
2. Depress and hold the GLOW PLUG button for approximately 5 seconds.
3. Press green START button.

TRAVEL WITH THE PLATFORM LOWERED

1. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and is capable of supporting the wheel loads.
2. Verify that the Engine is started and the Chassis Emergency Stop Switch is ON (pulled out).
3. Mount the platform and properly close the entrance.
4. Check clearances above, below, and to the sides of platform.
5. Twist the Platform Emergency Stop Switch out to the ON position.
6. Select DRIVE mode.

NOTE: **Choose between standard drive and extra torque depending on the gradient.**

7. Engage the Safety Interlock Trigger and move the Joystick to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Joystick is moved.

STEERING

1. Turn the Drive/Lift Switch to DRIVE.
2. While engaging the Safety Interlock Trigger, push the Steering Switch to RIGHT or LEFT to turn the wheels in the desired direction. Observe the tires while maneuvering the work platform to ensure proper direction.

NOTE: **Steering is not self-centering. Wheels must be returned to the straight ahead position by operating the Steering Switch.**

ELEVATING THE PLATFORM

1. Select a firm, level surface.
2. Select LIFT mode.
3. While engaging the Safety Interlock Trigger, push the Joystick forward.
4. If the machine is not level the tilt alarm will sound and the machine will not lift or drive.
5. If the tilt alarm sounds the platform must first be fully lowered, then elevate the platform approximately 600mm (2ft), stop, press and hold the LEVEL button until the tilt alarm is silenced. Only then can you elevate fully. If the platform is not levelled correctly the tilt alarm will continue to sound and lift functions will be cut at a height of approximately 2m (6ft).

TRAVEL WITH THE PLATFORM ELEVATED

NOTE: **The machine will travel at reduced speed when the platform is elevated.**

1. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and is capable of supporting the wheel loads.
2. Check clearances above, below, and to the sides of platform.
3. Select DRIVE mode.
4. Engage the Safety Interlock Trigger on the Joystick and move to FORWARD or REVERSE to travel in the desired direction. The speed of the machine will vary depending on how far from center the Joystick is moved.
5. If the machine is not level the tilt alarm will sound and the machine will not lift or drive. If the tilt alarm sounds the platform must be lowered and the machine moved to a firm, level surface before attempting to re-elevate the platform.

LOWERING THE PLATFORM

1. Select LIFT mode.
2. Check around the base of the platform to ensure that no one is in contact with the machine. Engage the Safety Interlock Trigger and pull back on the Joystick to lower the platform.
3. The platform will stop when it reaches the PPE cutout height. Inspect around the machine to ensure no one is in contact with the machine. After a four-second time delay, lower the platform as in step 2.

LEVELLING THE PLATFORM

The AUTO LEVEL feature is designed to level the platform in a situation where the ground has no more than a 13 degree slope side to side and 9 degrees fore and aft, if the slope is greater than 13 degrees side to side and 9 degrees fore and aft the AUTO LEVEL feature will not function.

The tilt alarm will continue to sound until the platform is level

1. Check that the route is clear of obstacles (persons, obstructions, holes, drop-offs, bumps, and debris), is level, and is capable of supporting the wheel loads.
2. Check clearances above, below, and to the sides of platform.
3. Elevate the platform approximately 600mm (2ft).
4. Press and hold the AUTO LEVEL and Engage the Safety Interlock Trigger until the platform is level and the tilt alarm is silenced.
5. In this condition only the ELEVATE and DESCEND functions will work.
6. If you need to drive you must descend and return the platform to it's normal inclination.

EMERGENCY LOWERING

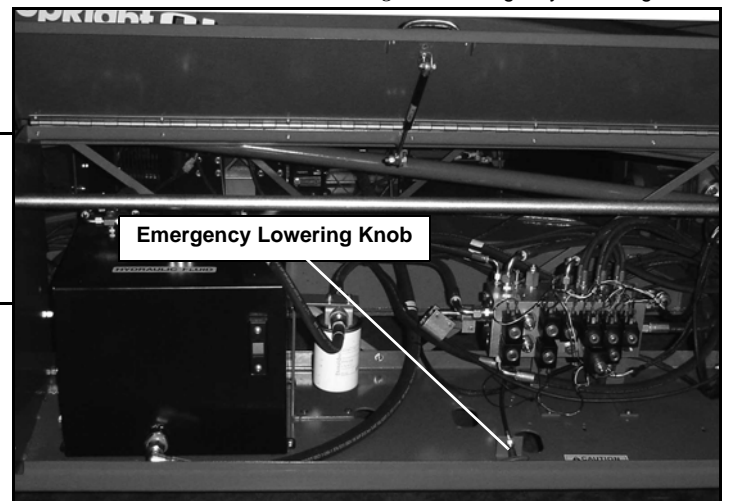
Figure 4: Emergency Lowering Valve



*If the platform should fail to lower, NEVER climb down the elevating assembly.
Stand clear of the elevating assembly while operating the Emergency Lowering Valve Knob.*

SL26/30 SPEED LEVEL

The Emergency Lowering Valve for the SL26/30 is located in the control module of the machine and is accessible through an opening in the control module door.



1. Open the Emergency Lowering Valve by pulling and holding the handle.
2. To close, release the knob. The platform will not elevate if the Emergency Lowering Valve is open.

FOLD DOWN GUARDRAILS

This procedure applies only to the SL26/30 Speed Level model for the purpose of passing through a standard double doorway. **Guardrails must be returned to proper position before using the machine.**

FOLD DOWN PROCEDURE

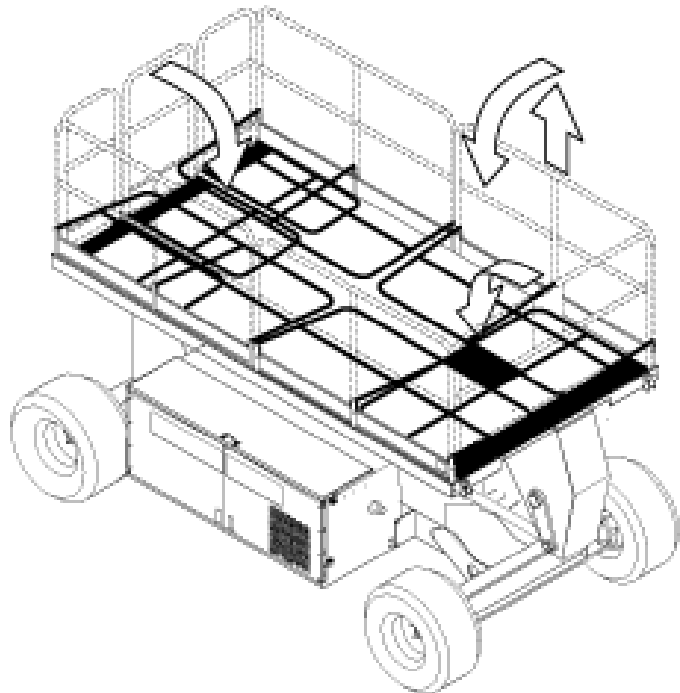
1. Unhook the controller from the side guardrail and place it on the floor of the platform.
2. Starting at the front of the platform, remove nuts, bolts and washers from the top of the front guardrail. Fold the front guardrail down onto the platform.
3. Close and latch gate.
4. Remove nuts, bolts and washers from the top of the rear guardrail. Fold the rear guardrail down onto the platform being careful to keep latched at all times.
5. Remove nuts, bolts and washers from the top of the side guardrails. Lift up and fold one side guardrail in so it rests on the deck. Repeat with other side guardrails.

ERECTION PROCEDURE

1. Raise side guardrails, making sure each is pushed down to secure the guardrail in the vertical position.
2. Install bolts, washers and nuts between the side guardrails, tighten securely.
3. Raise rear guardrail assembly, aligning holes and install bolts, washers and nuts. Tighten securely.

⚠ DANGER ⚠

Before entering platform, guardrails must be securely fastened in their proper position.



TOWING OR WINCHING

Perform the following only when the machine will not operate under its own power and it is necessary to move the machine or when winching onto a transport vehicle (see "Transporting the Work Platform" on page 13).

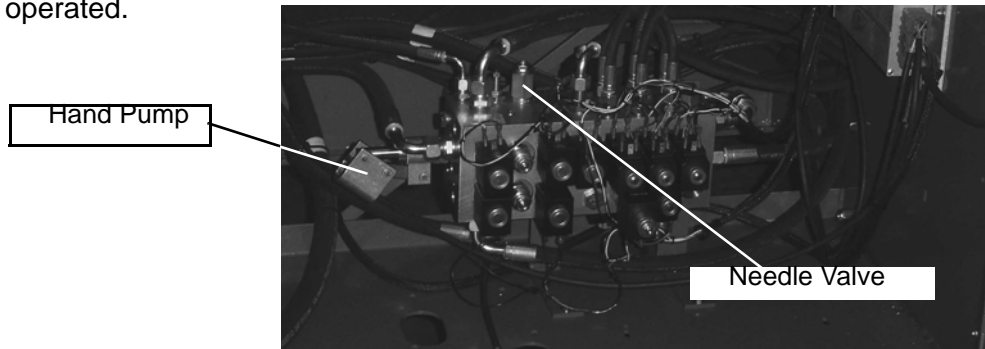
CAUTION

DO NOT tow or winch the machine faster than 0,3 m/s (1 ft./s). Faster speeds will damage drive components and void the warranty.

BRAKE RELEASE PUMP

Perform the following only when the machine will not operate under its own power and it is necessary to move the machine or when towing the machine up a grade or onto a trailer to transport.

1. Close the needle valve by turning the allen screw clockwise.
2. Pump the Brake Release Pump until the Parking Brake Cylinder Rod clears the wheel rotor.
3. The machine will now roll when pushed or pulled.
4. Be sure to open needle valve and verify that the cylinder rod has extended before the machine is operated.



⚠ WARNING ⚠

Never tow faster than 0,3 m/sec. (1 ft./sec.).

Never operate the work platform with the parking brakes released. Serious injury or damage could result.

AFTER USE EACH DAY

1. Ensure that the platform is fully lowered.
2. Park the machine on a firm level surface, preferably under cover, secure against vandals, children and unauthorized operation.
3. Turn the Chassis Key Switch to OFF and remove the key to prevent unauthorized operation.

HOUR METER

To access the hour meter function perform the following steps.

1. Climb into the basket (with the machine powered up)
2. Push the platform emergency stop button.
3. Hold down the following buttons, Horn & Lift.
4. While holding the buttons twist the emergency stop button to return power to the machine.
5. "hr" will now be displayed on the readout, Pressing the right turn button will scroll through the accumulated hours two digits at a time. For example, if pressing the right turn button once displays "20", pressing it a 2nd time displays "58", and pressing it a 3rd time displays "hr", the elapsed time of operation is 2058 hours.

TRANSPORTING THE WORK PLATFORM

PREPARATION FOR SHIPMENT

1. Fully lower the platform.
2. Disconnect the battery negative (-) lead from the battery terminal.
3. Band the controller to the front guardrail.
4. Band the elevating linkage to the frame.

LIFTING BY CRANE

1. Secure straps to chassis tie down/lifting lugs only.
2. Place the platform onto the transport vehicle in transport position.
3. Chock the wheels.
4. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the chassis tie down/lifting lugs.

BY FORKLIFT



Forklifting is for transport only.

See specifications for weight of work platform and be certain that forklift is of adequate capacity to lift the work platform.

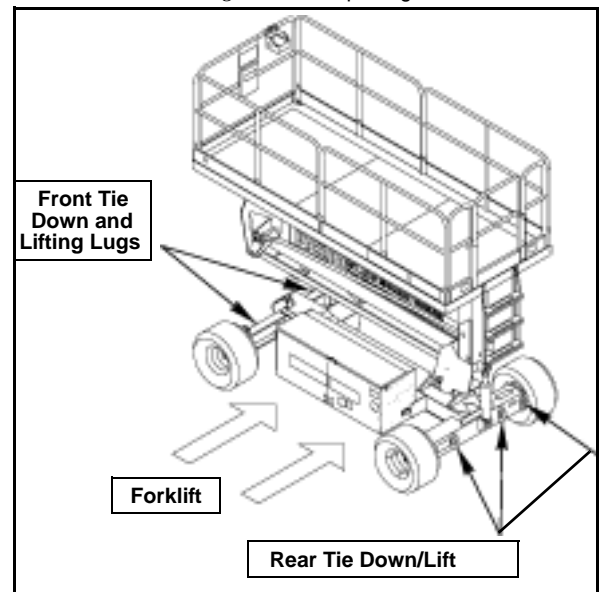
Forklift from the side by lifting under the Chassis Modules.

DRIVING OR WINCHING ONTO A TRUCK OR TRAILER

NOTE: **Do not winch faster than 0,3 m/s (1 ft/s).**

1. Move the machine onto the truck or trailer;
 - A. To **Drive** the machine onto the transport vehicle:
 - a. Move the work platform up the ramp and into transport position.
 - b. Set the wheels straight and turn off the machine.
 - c. Chock the wheels.
 - B. To **Winch** the machine onto the transport vehicle:
 - a. Move the work platform up to the ramp.
 - b. Attach the winch cable to the tie down/lifting lugs.
 - c. Release the parking brakes (refer to "Towing or Winching" on page 12).
 - d. Winch the platform into transport position
 - e. Chock the wheels.
2. Secure the work platform to the transport vehicle with chains or straps of adequate load capacity attached to the chassis tie down/lifting lugs.

Figure 5: Transporting the Work Platform



CAUTION

Overtightening of the chains or straps attached to the Tie Down/Lifting Lugs may result in damage to work platform.

MAINTENANCE

⚠ WARNING ⚠

Never perform service while the platform is elevated without first blocking the elevating assembly.
DO NOT stand in the elevating assembly area while deploying or storing the brace.

BLOCKING THE ELEVATING ASSEMBLY

INSTALLATION

1. Park the work platform on firm, level ground and leave the engine running.
2. Ensure the Chassis Emergency Stop Button is twisted to the ON position.
3. Press and hold the Chassis LIFT and ENABLE buttons to elevate the platform approximately 305 mm (12 inches).
4. Place a jackstand with a minimum rating of 1814 kg (4000 lbs.) between the lower mast and chassis, just behind the front axle.
5. Press and hold the Chassis DESCEND and ENABLE buttons to lower the platform until jackstand is secured tightly between lower mast and Chassis.

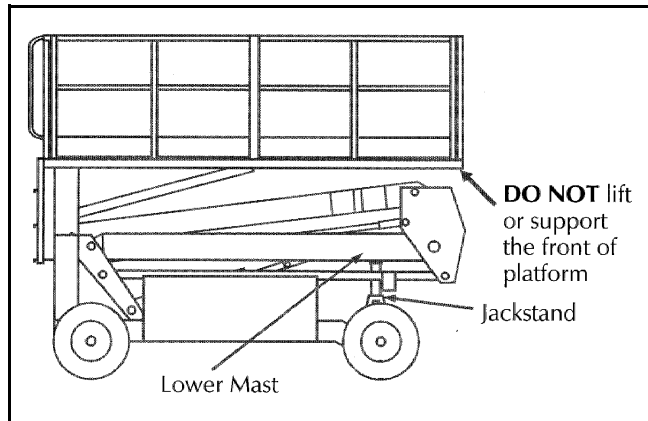


Figure 6: Scissor Brace

REMOVAL

1. Press and hold the Chassis LIFT and ENABLE buttons to elevate the platform until the jackstand can be removed.
2. Remove jackstand.
3. Press and hold the Chassis DESCEND and ENABLE buttons to completely lower the platform.

BATTERY MAINTENANCE

W A R N I N G

Hazard of explosive gas mixture. Keep sparks, flame, and smoking material away from batteries.

Always wear safety glasses when working near batteries.

Battery fluid is highly corrosive. Thoroughly rinse away any spilled fluid with clean water.

Always replace batteries with UpRight batteries or manufacturer approved replacements.

- Check the battery fluid level daily, especially if the work platform is being used in a warm, dry climate.
- If electrolyte level is lower than 10 mm ($\frac{3}{8}$ in.) above the plates add distilled water only. DO NOT use tap water with high mineral content, as it will shorten battery life.
- Keep the terminals and tops of the batteries clean.
- Refer to the Service Manual to extend battery life and for complete service instructions.

BATTERY CHARGING

The battery is charged while the engine is running.

FAULT CODES

- 01 - SYSTEM INIT ERROR
- 02 - SYSTEM PLATFORM COM ERROR
- 03 - PLATFORM OVERLOAD
- 04 - SYSTEM LOWER PANEL COM ERROR
- 05 - OIL PRESSURE LOW
- 06 - COOLANT TEMP HOT

- 21 - PLATFORM START ON
- 22 - PLATFORM LEFT TURN SW ON
- 23 - PLATFORM RIGHT TURN SW ON
- 24 - PLATFORM LIFT SW ON
- 25 - PLATFORM HISPEEDDRIVE SW ON
- 26 - PLATFORM GLOWLP SW ON
- 27 - PLATFORM LOSPEEDDRIVE SW ON
- 28 - PLATFORM AUTOLEVEL SW ON
- 29 - PLATFORM JOYSTICK ENABLE SW ON
- 31 - PLATFORM JOYSTICK NOT NEUTRAL

- 34 - GROUND PANEL ENABLE SW ON
- 37 - GROUND PANEL DOWN SW ON
- 38 - GROUND PANEL UP SW ON
- 43 - GROUND PANEL START SW ON
- 45 - GROUND PANEL GLOWLP SW ON

- 51 - Coil Fault HiSpeed1
- 52 - Coil Fault HiSpeed2
- 55 - Coil Fault LiftUp
- 56 - Coil Fault LiftDown
- 57 - Coil Fault TiltLeft
- 58 - Coil Fault TiltRight
- 59 - Coil Fault SteerRight
- 61 - Coil Fault SteerLeft
- 62 - Coil Fault TiltRear
- 63 - Coil Fault TiltForward
- 66 - Coil Fault Forward
- 67 - Coil Fault Reverse
- 71 - Coil Fault CushionValve
- 72 - Coil Fault AxleFloat
- 73 - Coil Fault SteerDump

- 68 - LOW BATTERY FAULT

INSPECTION AND MAINTENANCE SCHEDULE

The Complete Inspection consists of periodic visual and operational checks, along with periodic minor adjustments that assure proper performance. Daily inspection will prevent abnormal wear and prolong the life of all systems. The inspection and maintenance schedule should be performed at the specified intervals. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.



Before performing preventative maintenance, familiarize yourself with the operation of the machine. Always block the elevating assembly whenever it is necessary to perform maintenance while the platform is elevated.

The daily preventative maintenance checklist has been designed for machine service and maintenance. Please photocopy this page and use the checklist when inspecting the machine.

DAILY PREVENTATIVE MAINTENANCE CHECKLIST

MAINTENANCE TABLE KEY

- Y = Yes/Acceptable
- N = No/Not Acceptable
- R = Repaired/Acceptable

PREVENTATIVE MAINTENANCE REPORT

Date: _____

Owner: _____

Model No: _____

Serial No: _____

Serviced By: _____

COMPONENT	INSPECTION OR SERVICES	Y	N	R
Battery	Check electrolyte level.			
	Check battery cable condition.			
Chassis	Check hoses for pinch or rubbing points.			
	Check welds for cracks.			
Control Cable	Check the exterior of the cable for pinching, binding or wear.			
Controller	Check switch operation.			
Drive Motors	Check for operation and leaks.			
Elevating Assembly	Inspect for structural cracks.			
Emergency Lowering System	Operate the emergency lowering valve and check for serviceability.			
Entire Unit	Check for and repair collision damage.			

COMPONENT	INSPECTION OR SERVICES	Y	N	R
Hydraulic Fluid	Check fluid level.			
Hydraulic Pump	Check for hose fitting leaks.			
Hydraulic System	Check for leaks.			
Labels	Check for peeling, missing, or unreadable labels & replace.			
Platform Deck and Rails	Check welds for cracks.			
Platform Deck and Rails	Check condition of deck.			
Tires and Wheels	Check for damage.			

SPECIFICATIONS

ITEM	SL26SL	SL30SL
Platform Size (Inside Toeboards)		
Standard	1,71 m x 4,22 m [67.5 in. x 166.5 in.]	1,71 m x 4,22 m [67.5 in. x 166.5 in.]
Slide Out Deck Extended	1,71 m x 4,61 m [67.5 in. x 181.5 in.]	N/A
Max. Platform Capacity		
Standard	680kg [1,500 lbs.]	590 kg [1,300 lbs.]
w/ Extension	680kg [1,500 lbs.]	N/A
On Extension	227g [500 lbs.]	N/A
Max. No. of occupants		
Standard	5 people	5 people
on Extension	2 people	N/A
Height		
Working Height	9.75 m [32 ft.]	10.97 m [36 ft.]
Max. Platform Height	7.93m [26 ft.]	9,14 m [30 ft.]
Min. Platform Height	1.5 m [59 in.]	1.5 m [59 in.]
Max. Drive Height	7.93 m [26 ft.]	9.14 m [30 ft.]
Dimensions		
Weight	Diesel: 3,216 kg [7,090 lbs.]	Diesel: 3,216 kg [7,090 lbs.]
Overall Width, Standard	2,13 m [84 in.]	2,13 m [84 in.]
Overall Height	2,6 m [102.5 in.]	2,6 m [102.5 in.]
Overall Length, Standard	3.79 m [149 in.]	4,39 m [173 in.]
Surface Speed		
Platform Lowered	0 to 5.0 km/h [0 to 3.1 mph]	0 to 5.0 km/h [0 to 3.1 mph]
Platform Raised	0 to 0.8 km/h [0 to 0.5 mph]	0 to 0.8 km/h [0 to 0.5 mph]
System Voltage	12 Volt DC	12 Volt DC
Hydraulic Tank Capacity	74 l [19.5 US Gallons]	74 l [19.5 US Gallons]
Maximum Hydraulic System Pressure	210 bar [3000 psi]	210 bar [3000 psi]
Hydraulic Fluid		
Above 32° f [0° c])	ISO #46	ISO #46
Normal use , below 32° f [0° c])	ISO #32	ISO #32
Below 0° f [-17° c]	ISO #15	ISO #15
Lift System	One Single Stage Lift Cylinders	One Single Stage Lift Cylinders
Lift Speed	Raise, 48 sec./Lower, 40 sec.	Raise, 48 sec./Lower, 40 sec.
Platform Leveling	13° side to side, 9° Fore and Aft	13° side to side, 9° Fore and Aft
Power Source	20 HP (Diesel)	20 HP (Diesel)
Drive Control	Proportional	Proportional
Control System	Joystick Controller with Safety Interlock Trigger and Thumb Rocker Steering, Toggle Selector and Emergency Stop Switches	Joystick Controller with Safety Interlock Trigger and Thumb Rocker Steering, Toggle Selector and Emergency Stop Switches
Horizontal Drive	Four Wheel, Hydraulic Motors	Four Wheel, Hydraulic Motors
Tires (Standard)	26 x 12.00 - 12 NHs Super Terra-grip with Trac Seal	26 x 12.00 - 12 NHs Super Terra-grip with Trac Seal
Parking Brakes	Dual Spring Applied, Hydraulic Release, multi-disc	Dual Spring Applied, Hydraulic Release, multi-disc
Turning Radius (inside)	3,96 m [13 ft.]	3,96 m [13 ft.]
Maximum Gradeability	35% [19°]	35% [19°]
Wheel Base	2,54 m [100 in.]	2,54 m [100 in.]
Guardrails	1,11 m [43.5 in.] high, Fold Down with gate.	1,11 m [43.5 in.] high, Fold Down with gate.
Toeboard	152 mm [6 in.] High	152 mm [6 in.] High
Fuel Tank Capacity	45.5 l [12 US Gallons]	45.5 l [12 US Gallons]

*Specifications are subject to change without notice. Hot weather or heavy use may affect performance.

Refer to the Service Manual for complete parts and service information.

This machine meets or exceeds all applicable requirements of OSHA and ANSI A92.6-1999.

SERVICE AND REPAIR

0.1 INTRODUCTION

WARNING

Be sure to read, understand and follow all information in the Operation Section of this manual before attempting to operate or perform service on any SL26/30SL work platform.

This section contains instructions for the maintenance of the SL26/30SL Work Platform. Procedures for the operation inspection, adjustment, scheduled maintenance, and repair/removal are included.

Referring to *Section 2* will aid in understanding the operation and function of the various components and systems of the SL26/30SL work platform, and help in diagnosing and repair of the machine.

Refer to "Preventative Maintenance Check list" on page -2 for recommended maintenance intervals.

Note: Unless otherwise specified, torque all fittings according to "Torque Specifications for Fasteners" on page -24, and "Torque Specifications for Hydraulic Components" on page -24.

0.2 SPECIAL TOOLS

The following is a list of special tools which may be required to perform certain maintenance procedures on the work platform.

- 0-600 PSI (0-41 bar) Hydraulic Pressure Gauge (p/n 014124-006)
- 0-3000 PSI (0-207) Hydraulic Pressure Gauge (p/n 014124-030)
- Inclinator (p/n 010119-000)
- Tilt Sensor Adjustment Tool (p/n 030622-000)
- Quick Disconnect Gauge Port (p/n 063965-002)

0.3 PREVENTATIVE MAINTENANCE (TABLE 3-1)

The Complete inspection consists of periodic visual and operational checks, together with all necessary minor adjustments to assure proper performance. Daily inspection will prevent abnormal wear and prolong the life of all systems. The inspection and maintenance schedule is to be performed at regular intervals. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.

WARNING

Before performing preventative maintenance, familiarize yourself with the operation of the machine.

Always block the elevating assembly whenever it is necessary to enter the scissor assembly to perform maintenance while the platform is elevated. (Figure 0-1, Page 4)

The preventative maintenance table has been designed to be used primarily for machine service and maintenance repair. Please photocopy the following page and use this table as a checklist when inspecting the machine for service.

Preventative Maintenance Table Key

Interval

Daily=each shift or every day

50h/30d=every 50 hours or 30 days

250h/6m=every 250 hours or 6 months

1000h/2y=every 1000 hours or 2 years

Y=Yes/Acceptable N=No/Not Acceptable

R=Repaired/Acceptable

Preventative Maintenance Report

Date: _____

Owner: _____

Model No: _____

Serial No: _____

Serviced By: _____

Service Interval: _____

Table 3-1: Preventative Maintenance Check list

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Battery System	Check electrolyte level	Daily			
	Check specific gravity	6m			
	Clean exterior	6m			
	Check battery cable condition	Daily			
	Clean terminals	6m			
Engine Oil	Check level and condition	Daily			
	Check for leaks	Daily			
	Change oil filter	30d			
Engine Fuel System	Check fuel level	Daily			
	Check for leaks	Daily			
	Replace fuel filter	6m			
	Check air cleaner	Daily			
Engine Coolant	Check coolant level (with engine cold)	Daily			
	Replace coolant	3m			
Hydraulic Oil	Check oil level	Daily			
	Change filter	6m			
	Drain and replace oil	2y			
Hydraulic System	Check for leaks	Daily			
	Check hose connections	30d			
	Check hoses for exterior wear	30d			
Emergency Hydraulic System	Operate the emergency lowering valve and check for serviceability	Daily			
Controller	Check switch operation	Daily			
Control Cable	Check the exterior of the cable for pinching, binding or wear	Daily			
Platform Deck and Rails	Check fasteners for proper torque	Daily			
	Check welds for cracks	Daily			
	Check condition of deck	Daily			
Tires	Check for damage	Daily			
	Check lug nuts (torque to 90 ft. lbs.)	30d			
Hydraulic Pump	Wipe clean	30d			
	Check for leaks at mating surfaces	30d			
	Check for hose fitting leaks	Daily			
	Check mounting bolts for proper torque	30d			
Drive Motors	Check for operation and leaks	Daily			

COMPONENT	INSPECTION OR SERVICES	INTERVAL	Y	N	R
Steering System	Check hardware & fittings for proper torque	6m			
	Grease pivot pins	30d			
	Oil king pins	30d			
	Check steering cylinder for leaks	30d			
Elevating Assembly	Inspect for structural cracks	Daily			
	Check pivot points for wear	30d			
	Check mounting pin pivot bolts for proper torque	30d			
	Check linkage gear for wear.	6m			
	Check elevating arms for bending	6m			
	Grease linkage pins	30d			
	Grease linkage gear	30d			
Chassis	Check hoses for pinch or rubbing points	Daily			
	Check component mounting for proper torque	6m			
	Check welds for cracks	Daily			
Lift Cylinder	Check the cylinder rod for wear	30d			
	Check mounting pin pivot bolts for proper torque	30d			
	Check seals for leaks	30d			
	Inspect pivot points for wear	30d			
	Check fittings for proper torque	30d			
Fore/Aft Cylinder & Side/Side Cylinder	Check the cylinder rod for wear.	30d			
	Check mounting pin pivot bolts for proper torque	30d			
	Check seals for leaks	30d			
	Inspect pivot points for wear.	30d			
	Check fittings for proper torque	30d			
Axle Cylinder	Check the cylinder rod for wear.	30d			
	Check mounting pin pivot bolts for proper torque	30d			
	Check seals for leaks	30d			
	Inspect pivot points for wear	30d			
	Check fittings for proper torque	30d			
Entire Unit	Check for and repair collision damage	Daily			
	Check fasteners for proper torque	3m			
	Check for corrosion-remove and repaint	6m			
	Lubricate	30d			
Labels	Check for peeling, missing, or unreadable labels & replace	Daily			
Bubble Level	Check bubble level and target ring for damage	Daily			
Wheel Bearings	Check wheel assembly for play	30d			
	Repack wheel bearings (replace wheel bearings and seals at 2000 hours).	2y			

0.4 BLOCKING ELEVATING ASSEMBLY (FIGURE 0-1)

⚠ CAUTION ⚠

DO NOT support or raise the front of the platform during any maintenance operation as this may result in damage to the tension members.

⚠ WARNING ⚠

***BEFORE** performing, maintenance on work platform, while elevated, ensure that elevating assembly is properly supported.*

***DO NOT** stand in elevating assembly area while installing or removing jackstand.*

Installation

1. Park the work platform on firm, level ground and leave the engine running.
2. Select **LIFT** mode and use the **ENABLE BUTTON** to elevate platform approximately 305 mm (12 inches).
3. Place a jackstand with a minimum rating of 1814 kg (4000 lbs.) between the lower mast and chassis, just behind the front axle.
4. Select **LIFT** mode and use the **ENABLE BUTTON** to gradually lower platform until jackstand is secured tightly between lower mast and Chassis.

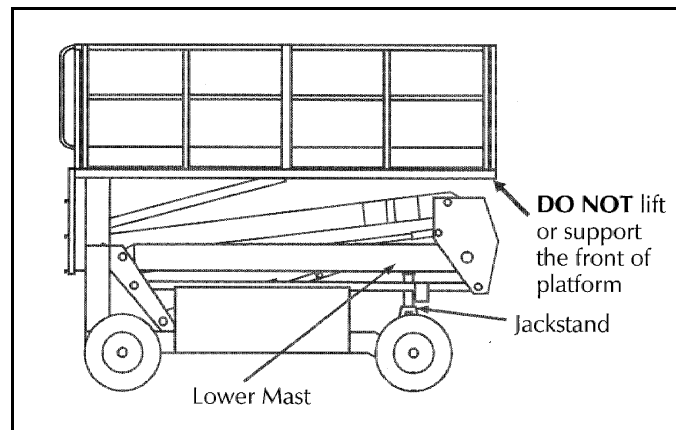




Figure 0-1: Blocking Elevating Assembly

Removal

1. Select **LIFT** mode and use the **ENABLE BUTTON** to elevate platform until jackstand can be removed.
2. Remove jackstand.
3. Select **LIFT** mode and use the **ENABLE BUTTON** to completely lower platform.

0.5 BATTERY MAINTENANCE

 W A R N I N G 
<p><i>Hazard of explosive gas mixture. Keep sparks, flame, and smoking material away from batteries.</i></p> <p><i>Always wear safety glasses when working with batteries.</i></p> <p><i>Battery fluid is highly corrosive. Thoroughly rinse away any spilled fluid with clean water.</i></p>

Battery Inspection & Cleaning



Check battery fluid level daily, especially if work platform is being used in a warm, dry climate. If required, add distilled water ONLY. Use of tap water with high mineral content will shorten battery life.

The battery and cables should be inspected regularly for signs of cracks in the case, electrolyte leakage and corrosion of the terminals. Inspect cables for worn spots or breaks in the insulation and for broken cable terminals.

Clean the battery when it shows signs of corrosion at the terminals or when electrolyte has overflowed during charging. Use a baking soda solution to clean the battery, taking care not to get the solution inside the cells. Rinse thoroughly with clean water. Clean battery and cable contact surfaces to a bright metal finish whenever a cable is removed.

Battery Charging

The battery is charged by the alternator whenever the engine is running and should not require any other charging. If the machine has not been in service or if for some other reason the battery has been discharged, perform the following:

 W A R N I N G 
<p><i>Charge the battery only in a well ventilated area.</i></p> <p><i>Do not charge the battery when the work platform is in an area containing sparks or flames.</i></p> <p><i>Always follow the charger manufacturer instructions.</i></p> <p><i>Never disconnect the cables from the batteries when the charger is operating.</i></p>

Check the battery fluid level. If the electrolyte level is lower than 10 mm (3/8 in.) above the plates, add clean, distilled water only.

Battery Specific Gravity

After charging, if necessary, the specific gravity of all cells should be checked with a hydrometer. The temperature corrected specific gravity should be 1.260. If the battery contains any cells with corrected readings below 1.230, the battery should be replaced.

Do not check the specific gravity in a cell to which water has just been added. If there is not enough electrolyte in a fully charged cell to obtain a sample for the hydrometer, add water and continue charging for 1 to 2 hours to adequately mix the water and electrolyte.

0.6 LUBRICATION

Refer to Table 3-1 for lubrication intervals and Figure 0-2 for location of items that require lubrication service. Refer to the appropriate sections for lubrication information on the hydraulic tank and filter.

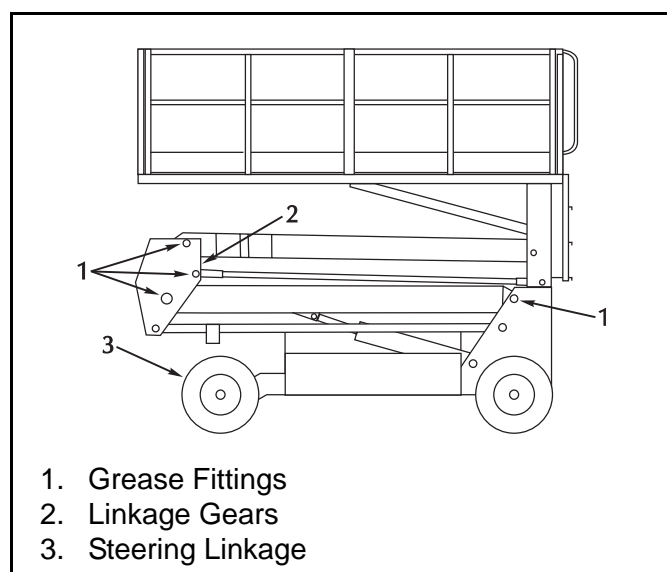


Figure 0-2: Lubrication Points

Grease Fittings

Wipe each grease fitting before and after greasing. Using multipurpose grease in a grease gun, pump the grease into the fitting until grease just begins to appear at the edges of the pivot, wipe off any excess grease.

Linkage Gears

1. Raise platform fully.
2. Using another work platform or ladder, get up high enough to comfortably reach gears.
3. Use a long handled brush to apply multipurpose grease to the face of the gears.



4. Lower the platform after greasing.

Steering Linkage

Apply one or two drops of motor oil to each pivot and king pin bearing.

Hydraulic Pump

Remove the capscrews that mount the pump to the engine. Remove the pump from the engine and apply high pressure molybdenum grease to the splines. Re-install the pump and secure with the capscrews.

Hydraulic Oil Tank & Filter (Figure 0-3)

Fluid Level

With the platform fully lowered, the oil should be visible in the sight gauge. If the oil is NOT visible, fill the tank until the oil can be seen. DO NOT fill above the sight gauge or when the platform is elevated.

Oil & Filter Replacement

1. Operate the work platform for five minutes to warm up the oil. To change filter only, go to step 5.



2. Provide a suitable container to catch the drained oil. The hydraulic tank has an oil capacity of 74 L.
3. Remove the drain plug and allow all oil to drain into the container, be sure to dispose of oil properly.
4. Reinstall the drain plug.
5. Unscrew the filter top from the filter body.
6. Lift the filter element from the filter body.
7. Remove filter cup and clean cavity, reinstall cup.
8. Insert the replacement filter into the filter body and press into position.
9. Fill the hydraulic oil tank to the level of the Sight Gauge with ISO #32 (see Table 1-1) hydraulic oil by pouring the oil into the filler breather cap. Since the oil is being strained as it is going into the tank, it may take a while to fill the tank.

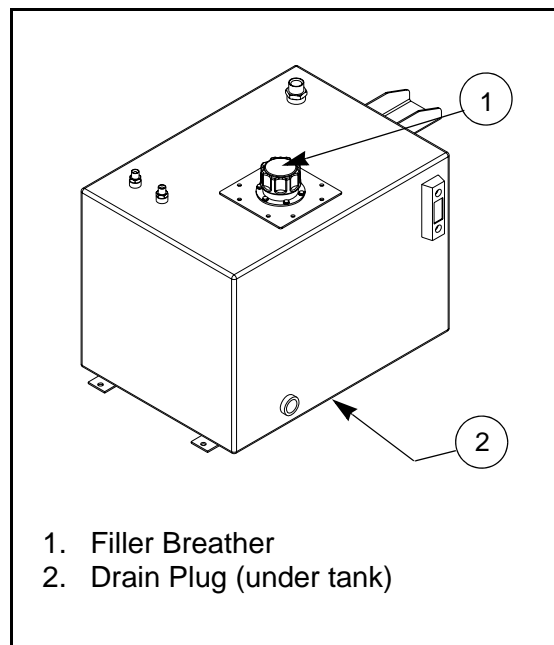


Figure 0-3: Hydraulic Oil Tank & Filter

0.7 SETTING HYDRAULIC PRESSURES

Referring to Figure 0-1 along with the other Figures will aid in the following procedures.

Note: Check the hydraulic pressures whenever the pump, manifold, or relief valve(s) have been serviced or replaced.

! WARNING !

The hydraulic oil may be of sufficient temperature to cause burns. Wear safety gloves and safety glasses when handling hot oil.

*The oil in the hydraulic system is under very high pressure which can easily cause severe cuts. Obtain medical assistance **immediately** if cut by hydraulic oil.*

Main Relief Valve (Figure 0-4)

1. Operate the hydraulic system 10 to 15 minutes to warm the oil.
2. Remove the cap or loosen the locknut on the Main Relief Valve.
3. Install a 0-250 bar (**0-3000 psi**) pressure gauge to the gauge port.
4. Select **LIFT** mode and elevate the machine fully.
5. While holding the Chassis Lift Button, adjust the Main Relief Valve until the pressure gauge reads 172 bar (**2500 psi**).
6. Release the Chassis Lift Button.
7. Replace the cap, or tighten the locknut on the Lift Relief Valve, and torque to 8N-m (**6 ft-lbs**).
8. Lower the platform.

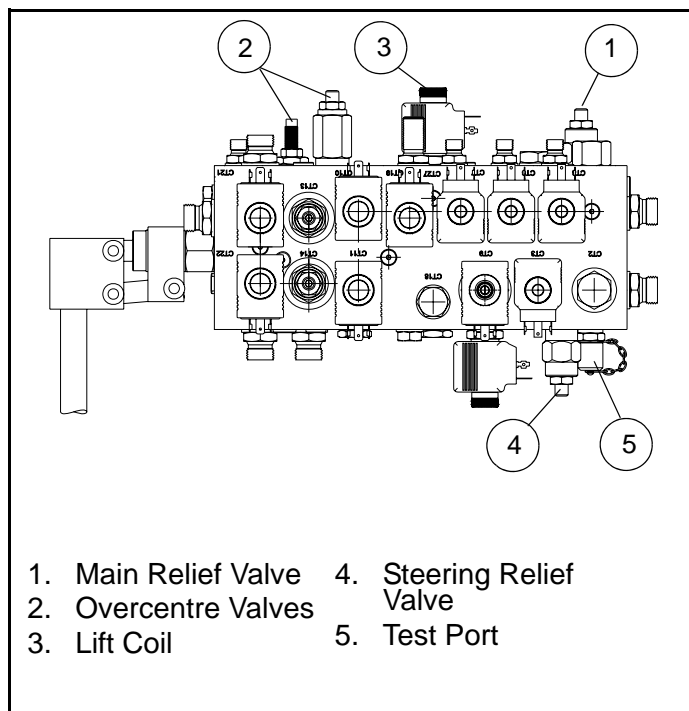


Figure 0-4: Hydraulic Manifold Assembly, Front View

Counterbalance Valves (Figure 0-4)

1. Operate the work platform for 10-15 minutes to bring the hydraulic oil up to normal operating temperature.
2. Remove the gauge port cap and install the pressure gauge assembly.
3. Using two 1-ton jack stands and a 2-ton jack, jack the work platform up to raise the rear wheels off the ground and block the machine securely.

4. Loosen the locknuts on Counterbalance Valves.
5. With the machine fully powered up depress the **DRIVE** button on the upper control box, depress the interlock lever and slowly pull the control lever to **REVERSE** to drive the wheels.
6. Adjust the Forward Counterbalance Valve by turning the adjustment screw until the pressure gauge indicates 34.5 bar (**500 psi**).
7. Slowly push the Control Lever to **FORWARD** to drive the wheels.
8. Adjust the Reverse Counterbalance Valve by turning the adjustment screw until the pressure gauge indicates 34.5 bar (**500 psi**).
9. Check the settings by slowly moving the Control Lever **FORWARD**, then **REVERSE**, checking the gauge to ensure pressures are properly set. Re-adjust as needed.
10. Tighten locknuts on valves to 8N-m (**6 ft-lbs**). Remove blocks and lower work platform to ground.
11. Remove the gauge from the gauge port and re-install cap.
12. Check for proper operation of the drive system and brake.

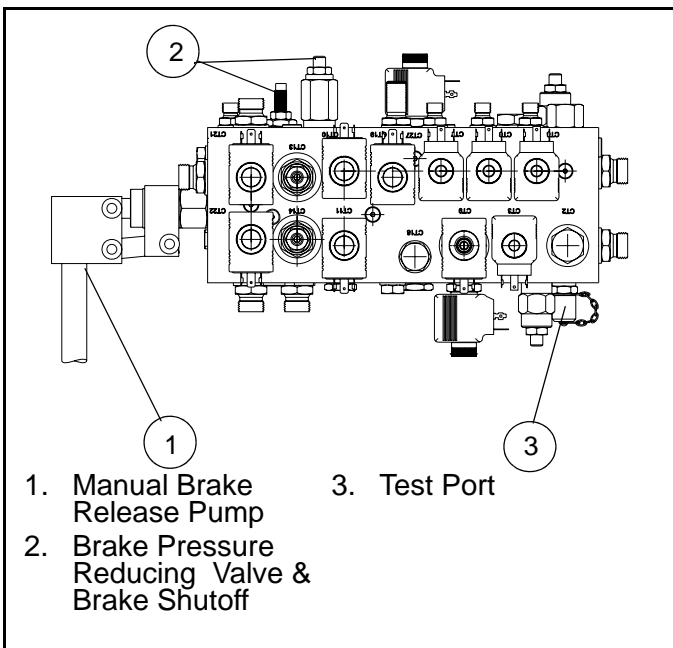


Figure 0-5: Hydraulic Manifold Assembly, Front View

Fore/Aft Tilt Cylinder Relief Valve (CT4) (Figure 0-4)

1. Operate the hydraulic system for five minutes.
2. Remove the quick disconnect plug and install a 0-100 bar (0-600 psi) pressure gauge.
3. Remove the plug from the end of the valve to expose the adjusting screw.
4. With the engine running, tilt the platform **fully forward** using the fore/aft level switch.
5. While holding the level switch forward, set the pressure to 13 bar (500 psi) maximum by slowly turning the adjusting screw, clockwise increases pressure.
6. Replace the valve plug.
7. Remove the gauge and reinstall the plug.
8. Level the platform.
- 9.

Steering Relief Valve (Figure 0-4)

1. Remove the top steering hose from back of the manifold and replace it with a 0-250 bar pressure gauge.
2. Block the end of the hose with a cap fitting.
3. Remove the plug from the end of the valve to expose the adjusting screw.

4. With the engine running, push the Steering Switch **RIGHT** and set the pressure to 80 bar (1200 psi) maximum.
5. Replace the valve plug.
6. Remove the gauge and reinstall the hose.

Axle Center Switch (Figure 0-6)

1. Check tires for proper pressure.
2. Place the work platform on a level surface with the front and rear axles parallel (on the same plane).
3. Adjust the switch so it is centered in the front axle actuator linkage. When centered, the switch will close the circuit.
4. Test the switch function by positioning the front axle off-center and raising the platform 2 m above the ground. The work platform should not drive. Retest with axle off-center in the opposite position.

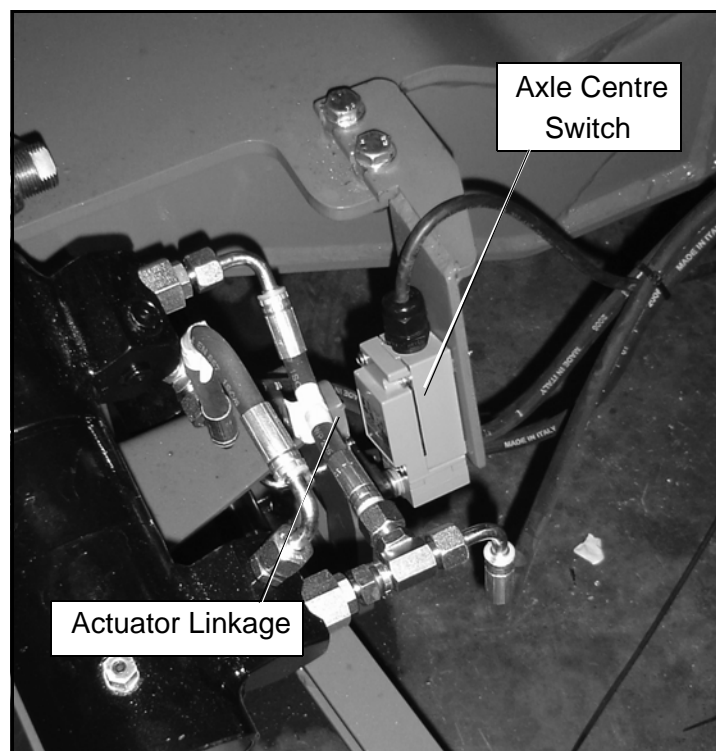


Figure 0-6: Axle Center Switch

Down Proximity Switch (Figure 0-7)

The down limit switch is a dual proximity switches which allow the machine to run at HI speed when the platform is lowered.

1. Raise the platform 30 cm (12 in.) from its' fully lowered position.
2. Disconnect the wires at the proximity switches and connect an ohmmeter or continuity tester.
3. Place a piece of steel across the receiver end to varify the switch is functioning correctly.
4. Disconnect ohmmeter and reconnect wires.
5. Lower platform.



Figure 0-7: Limit Switch Location

Tilt Sensor (Figure 0-8)

The tilt sensor has three wires; red-power (12v in), black-ground, white-output (12v out). To verify the sensor is working properly, there is one LED under the sensor; red indicates the sensor is out of level and the white wire is "hot" (12v out).

Setting the Tilt Sensor & Level

1. Level the platform with the platform controls using a digital level to ensure the platform is level $\pm 1/4^\circ$. side-to-side and front-to-back.
2. Adjust the bubble level with the three leveling screws until the bubble is centered in the circle on the bubble level.
3. The tilt Sensor is located at the rear of the 1st post weldment.
4. Adjust the three leveling locknuts on the tilt sensor until the bubble is centered in the circle.

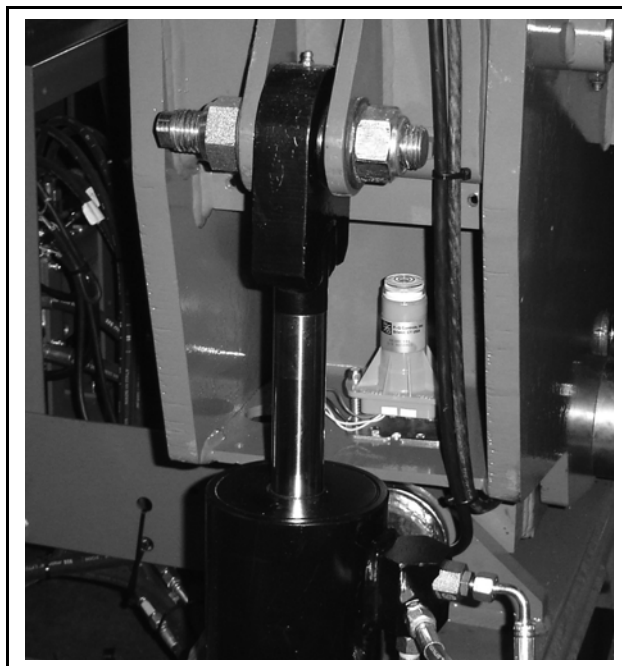


Figure 0-8: Tilt Sensor Adjustment

0.8 HYDRAULIC MANIFOLD

Though it is not always necessary to remove the manifold to perform maintenance procedures, a determination should be made prior to beginning as to whether or not the manifold should be removed before maintenance procedures begin.

Removal

1. Disconnect the battery ground cable.
2. Tag and disconnect the solenoid valve leads.
3. Tag, disconnect and plug hydraulic hoses.
4. Remove the bolts that hold the manifold to the mounting bracket.
5. Remove manifold block.

Disassembly

Note: Mark all components as they are removed so as not to confuse their location during assembly. Refer to Valve Block Drawing and Schematic often to aid in disassembly and assembly.

1. Remove coils from solenoid valves.
2. Remove spool valve covers and spool valves.
3. Remove solenoid valves, main relief valve, counterbalance valves and emergency lowering valves.
4. Remove fittings, plugs, springs, balls and orifices.

Cleaning and Inspection

1. Wash the manifold in cleaning solvent to remove built up contaminants and then blow out all passages with clean compressed air.
2. Inspect the manifold for cracks, thread damage and scoring where O-rings seal against internal and external surfaces.
3. Wash and dry each component and check for thread damage, torn or cracked O-rings and proper operation.
4. Replace parts and O-rings found unserviceable.

Assembly

Note: Lubricate all O-rings before installation to prevent damage to O-rings. Seat all balls in manifold block by lightly tapping on the ball with a brass drift.

1. Install fittings, plugs, balls and orifices. Use one drop of Loctite #242 on each screw-in orifice.
2. Install emergency lowering valve, counterbalance valves, main relief valve, brake pressure reducing valve, solenoid valves and spool valves.
3. Install coils on solenoid valves.

Installation

1. Attach manifold assembly to mounting plate with bolts.
 2. Connect solenoid leads (as previously tagged).
 3. Connect hydraulic hoses. Be certain to tighten hoses to manifold.
 4. Operate each hydraulic function and check for proper operation and leaks.
- Adjust all hydraulic pressures according to instructions in Section 3.5.

1. 1/4" BSP - C/W MALE/ MALE FITTINGS Used on : S1, S2, B1, TA, TF, TR & TL
2. 3/8" BSP - C/W MALE BULKHEAD FITTING Used on : L
3. 1/2" BSP - C/W MALE/ MALE FITTINGS Used on : RR, RF, LF,LR, T & P
4. 1/4" BSP - C/W TEST POINT Used on : PT
5. 1/4" BSP - C/W 1/4" BSP PLUG Used on PS1 & B2
6. 1/2" BSP - C/W 1/2" BSP PLUG Used on :T1

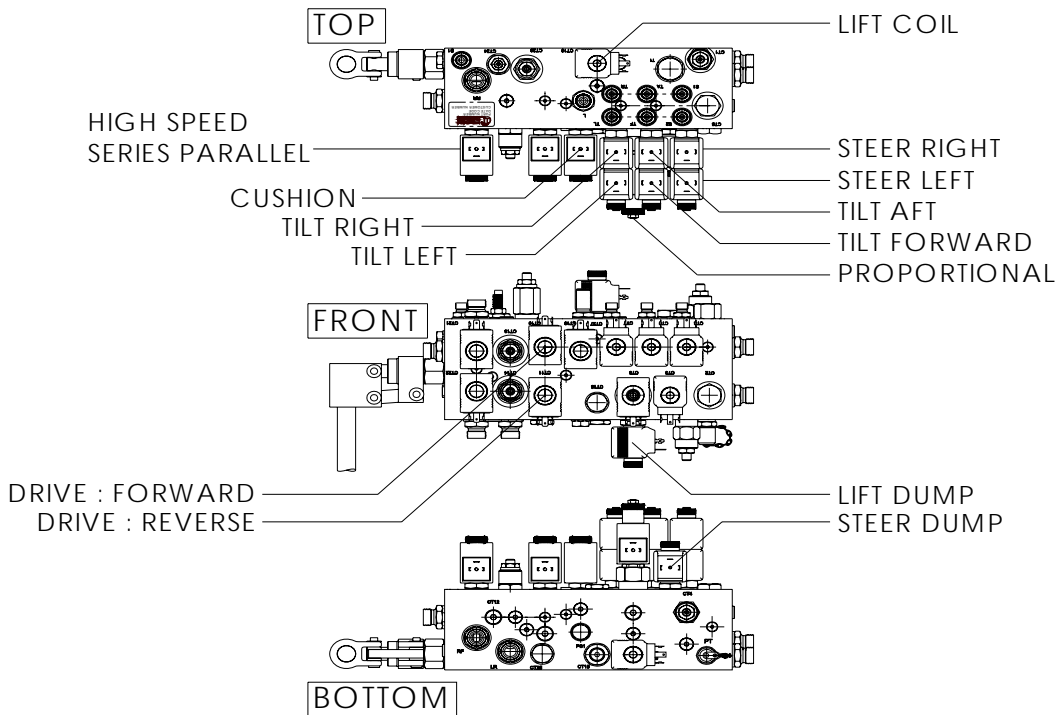
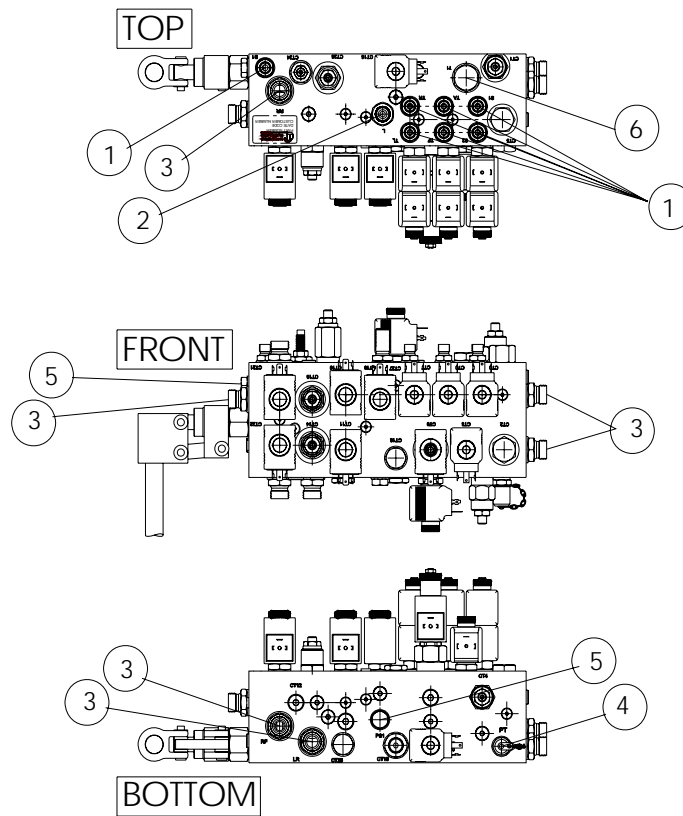


Figure 0-1: Hydraulic Manifold

0.1 REPLACING HYDRAULIC PUMP (FIGURE 0-2)

Note: If the hydraulic tank has not been drained, suitable means for plugging the hoses should be provided to prevent excessive fluid loss.

Removal

1. Mark, disconnect and plug the hose assemblies.
2. Loosen the capscrews and remove the pump assemblies from the engine.

Installation

1. Lubricate the pump shaft with extreme high pressure molybdenum grease and attach the pumps to the engine with capscrews.
2. Using a criss-cross pattern, torque each capscrew a little at a time until all four capscrews are torqued to 27 Nm (20 ft. lbs.).
3. Unplug and reconnect the hydraulic hoses.
4. Check the oil level in the hydraulic tank before operating the work platform.

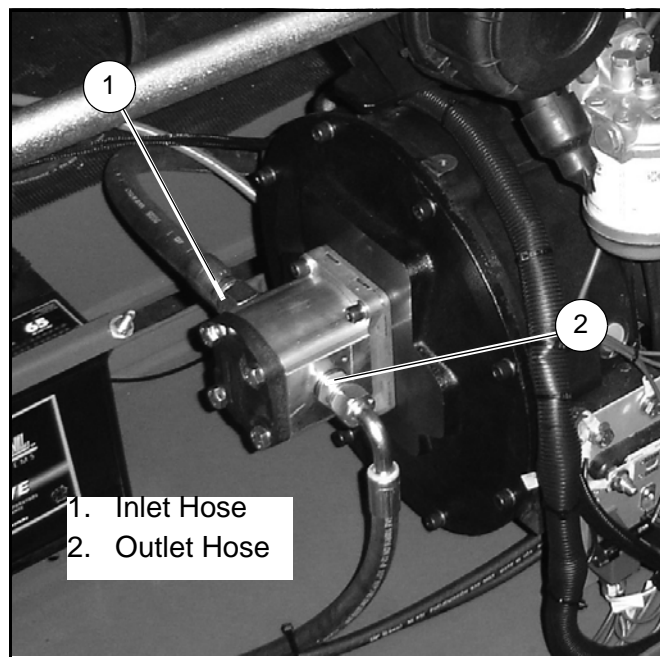


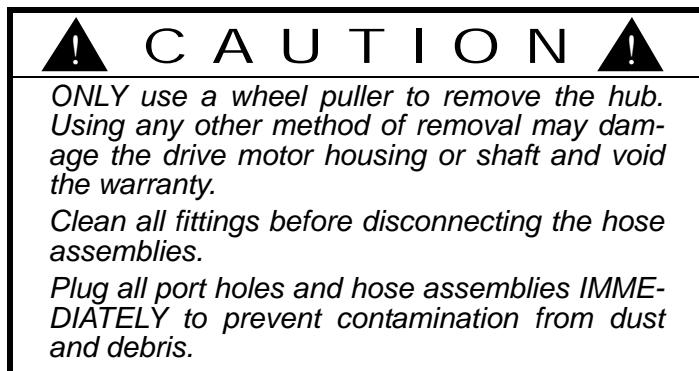
Figure 0-2: Typical Hydraulic Pump

0.2 HYDRAULIC BRAKES, DRIVE MOTORS & HUBS

Rear Axle (Figure 0-3)

Removal

1. Park the work platform on firm, level ground and block the wheels to prevent the work platform from rolling.
2. Loosen the wheel lug bolts on the motor to be removed.
3. Raise the rear of the work platform using a 2-ton jack.
4. Position 2 1-ton jack stands under the rear axle to prevent the work platform from falling if the jack fails.
5. Remove the wheel lug bolts and wheel.
6. Remove the cotter pin, nut, hub, and shaft key.



7. Tag and disconnect the hose assemblies.
8. Remove the capscrews, washers, brake and drive motor assembly from the rear axle.
9. Remove the socket screws from the drive motor and then separate the brake from the drive motor.

Installation

1. Insert the drive motor with O-ring installed into the brake and secure with socket screws using Loctite #242 retaining compound on the screw threads.
2. Position the drive motor and brake in the rear axle and secure with washers and H.H. setscrews.
3. Reinstall the adaptor and crossover block assembly to the hydraulic motor.
4. Reinstall the hose assemblies.
5. Reinstall the shaft key, hub, and nut. Torque each wheel hub nut to 475 Nm (350 ft. lbs.). Align the slot in the nut with the hole in the shaft and insert the cotter pin. DO NOT back off the nut to align.
6. Reinstall the wheel and lug on the hub. Torque the bolts to 123 Nm (90 ft. lbs.).
7. Remove the jack stands used to block the wheels. Lower the jack and remove.
8. Operate the drive system to check for leaks and proper function.

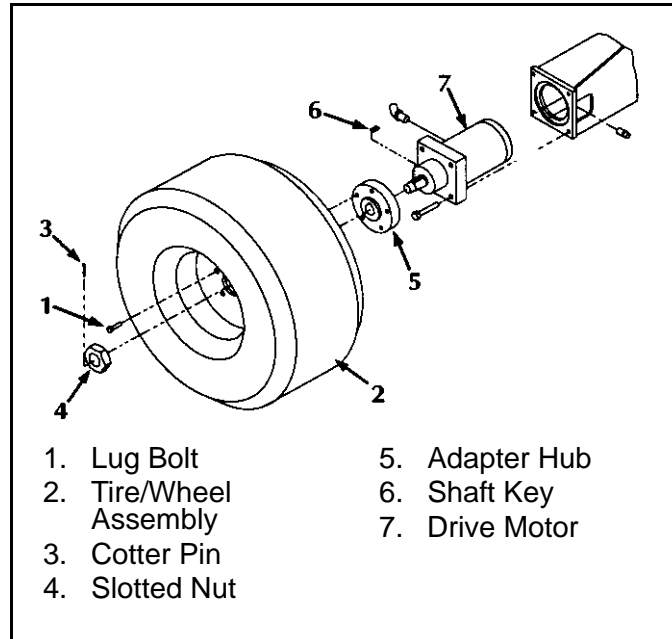


Figure 0-3: Rear Axle Assembly

Front Axle (Figure 0-4)

Removal

1. Park the work platform on firm, level ground and block the wheels to prevent the work platform from rolling.
2. Loosen the wheel lug bolts on the motor to be removed.
3. Raise the front of the chassis using a 2-ton jack.
4. Position 2 1-ton jack stands under the front axle to prevent the work platform from falling if the jack fails.
5. Remove the wheel lug bolts and wheel.
6. Remove the cotter pin, nut, hub and shaft key

! CAUTION !

ONLY use a wheel puller to remove the hub. Using any other method of removal may damage the drive motor housing and void the warranty.

Clean all fittings before disconnecting the hose assemblies.

Plug all holes assemblies IMMEDIATELY to prevent contamination from dust and debris.

7. Tag and disconnect the hose assemblies.
8. Remove the adaptor from the hydraulic motor.
9. Remove the capscrews and nuts and then remove the drive motor from the front axle steering mount.

Installation

1. Position the drive motor into the steering mount and secure with capscrews and nuts.
2. Reinstall the adaptor on the hydraulic motor.
3. Reinstall the hose assemblies.
4. Reinstall the shaft key, hub, and nut. Torque each wheel hub nut to 475 Nm (350 ft. lbs.). Align the slot in the nut with the hole in the shaft and insert the cotter pin. DO NOT back off the nut to align.
5. Reinstall the wheel and lug bolts onto the hub. Torque the lug bolts to 123 Nm (90 ft. lbs.).
6. Remove the jack stands used to block the wheels. Lower the jack and remove.

- Operate the drive system to check for leaks.

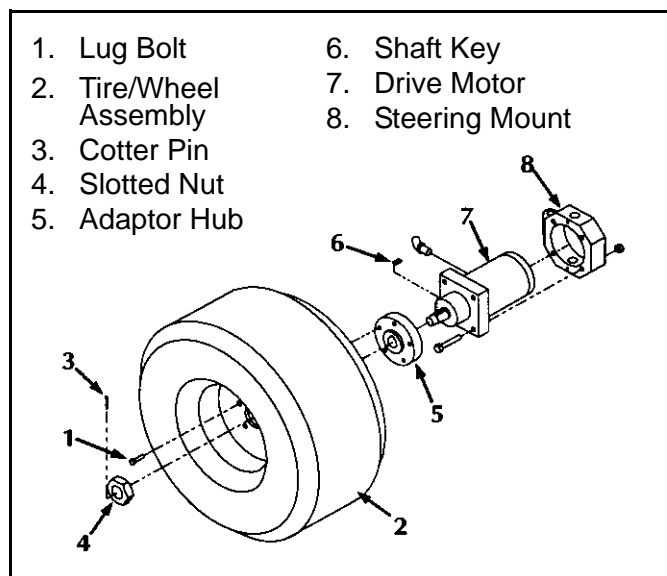


Figure 0-4: Front Axle Assembly

0.3 AXLE CYLINDER

Removal

Be sure platform is fully down and that machine is on level ground.

- Remove and cap the hoses.
- Remove the pivot pins
- Remove the cylinder.

Installation

- Completely fill both ends of cylinder with hydraulic oil.
 - Lay the cylinder on its' side on a level table with the pilot operated check valves up.
 - Remove the pilot operated check valves from the ports.
 - Pour hydraulic oil into the cylinder through the pilot operated check valve ports.
 - The opening to the cylinder is small. Be careful to ensure all air is removed and the cylinder is full of oil.
 - Reinstall the pilot operated check valves.
- Attach both ends of the cylinder to mounts with pivot pins and retaining bolts.
- Torque the retaining bolts to 203 Nm (150 ft. lbs.).
- Operate the work platform over rough terrain and check for proper function and leaks.

0.4 STEERING CYLINDER (FIGURE 0-5)

Removal

1. Mark and disconnect the hose assemblies from the fittings and immediately cap the openings to prevent foreign material from entering.
2. Remove the setscrews securing the rod ends to the steering linkage.
3. Remove the setscrews and locknuts that fasten the cylinder assembly to the chassis.
4. Remove the cylinder from the chassis.

Disassembly

1. Remove the headcaps from the barrel tube.
2. Mark which end of the barrel tube the headcap was removed from.
3. Withdraw the entire shaft assembly from either end of the barrel tube.
4. Remove the rod wipers, rod seals and static O-rings from the headcaps.
5. Discard all the seals.
6. Unscrew the No. 1 shaft from the No. 2 shaft and remove the piston.
7. Remove the piston seal and static O-ring from the piston and discard.

Cleaning and Inspection

1. Wash all the metal parts in cleaning solvent and blow dry with filtered compressed air.
2. Inspect all the threaded components for stripped or damaged threads.
3. Check the inside surface of the barrel tube for scoring or excessive wear.
4. Check the piston and head caps for scoring or excessive wear.
5. Inspect the surface of both shafts for scoring or excessive wear.

Assembly and Installation

1. Install a new piston seal and static O-rings.
2. Install the piston on the No. 1 shaft.
3. Thread the No. 2 shaft onto the No. 1 shaft and tighten securely.
4. Lubricate the piston seal with clean hydraulic fluid and install the shaft assembly in the barrel tube.
5. Lubricate and install new rod seals and static O-rings on the headcaps.
6. Lubricate and install new rod wipers in the headcaps.
7. Install headcap in the barrel tube and tighten until the mounting holes are in-line.

Note: Headcaps must be reinstalled in the same end from which they were removed.

8. Install the fittings in the ends of the cylinder.
9. Position the cylinder assembly in the chassis and install the capscrews and locknuts, but DO NOT tighten.
10. Tighten the nut and bolt in front of the cylinder that goes through the frame and then tighten the cylinder mounting capscrews.
11. Install the cylinder rod ends.
12. Set rod ends to align front wheels.
13. Connect the hose assemblies to the fittings.
14. Operate the steering circuit several times throughout its' entire range of travel to expel trapped air and check for leaks.

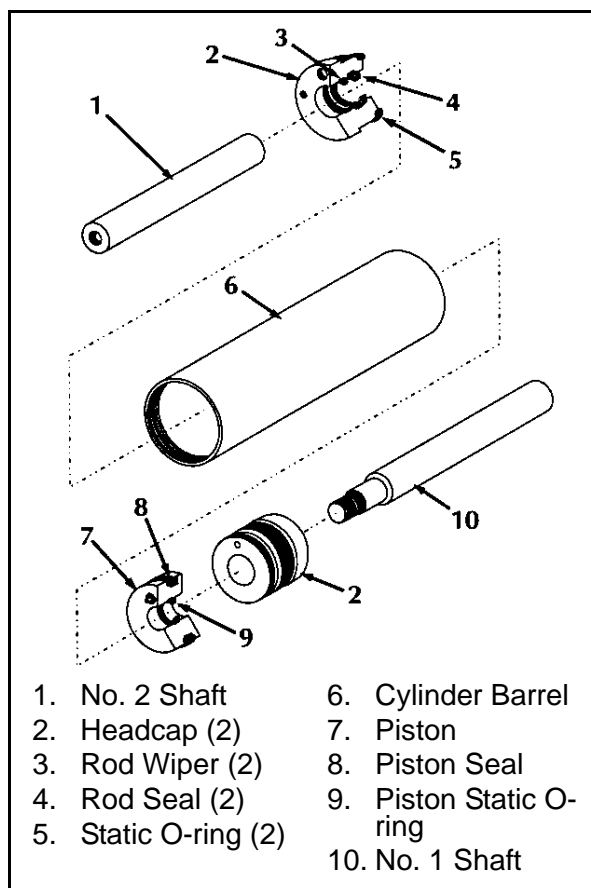


Figure 0-5: Steering Cylinder Assembly

Adjustment

1. Disconnect the cylinder rod ends (if connected).
2. Operate steering so that both ends of the cylinder rod are equal length i.e. within (.8 mm, $\pm 1/32$ inch).
3. Position both tires so they are parallel with the frame, with each other and with the rear wheels.
4. Adjust the rod ends until they align with the holes on the steering linkage bars.
5. Reinstall the bolts through the steering linkage bars and rod ends. Tighten the jam nuts on the rod ends and all hardware.
6. When properly adjusted, the wheels must turn the same amount in each direction.

0.5 LIFT CYLINDER (FIGURE 0-6)

Note: DO NOT support or raise the front of the platform during any maintenance operation as this might result in damage to the tension members.

Removal

1. Raise and block the front of the elevating assembly approximately 305 mm (12 inches) above the chassis. Support with a jackstand with a minimum rating of 1814 kg (4000 lbs.). (See Figure 0-2)
2. Open Emergency Lowering Valve to be sure all pressure is off the Lift Cylinder.
3. Remove and cap both hoses and fittings.
4. Support the Lift Cylinder to prevent falling.
5. Remove the set screw from the end of the cylinder rod.
6. Remove the retaining ring from the upper cylinder pin. Remove the upper cylinder pin by tapping out using a soft punch.
7. Remove the retaining bolt from the lower cylinder pin and remove the pin using a soft punch.
8. Remove the cylinder by sliding it out towards the front of the machine.

Disassembly

1. Unscrew the head cap from the cylinder barrel.
2. Remove the piston and rod assembly from the cylinder barrel.
3. Unscrew the piston nut and remove piston and head cap from the piston rod.
4. Remove the piston static O-ring from the cylinder rod and discard.
5. Remove the piston seal from the piston and discard.
6. Remove the static O-ring, rod seal and rod wiper.
7. Remove the rod end breather.
8. Do not remove the velocity fuse unless replacement is necessary.

Cleaning and Inspection

1. Clean all the metal parts in cleaning solvent and blow dry with filtered compressed air.
2. Check the working surfaces of the piston head cap, cylinder barrel and rod for excessive wear or scoring.
3. Replace parts found to be unserviceable.
4. Replace all seals, O-rings and wipers.

Reassembly

1. Lubricate the static O-ring, rod seal and rod wiper and then install in the head cap.
2. Install the piston seal on the piston.
3. Install the head cap, piston static seal, piston and piston nut on the cylinder rod. Torque nut to 96 Nm (70 ft. lbs.).

Note: The head cap should be installed from the piston end of the cylinder rod. Sliding the head cap over the pivot pin hole may damage the rod seal and rod wiper.

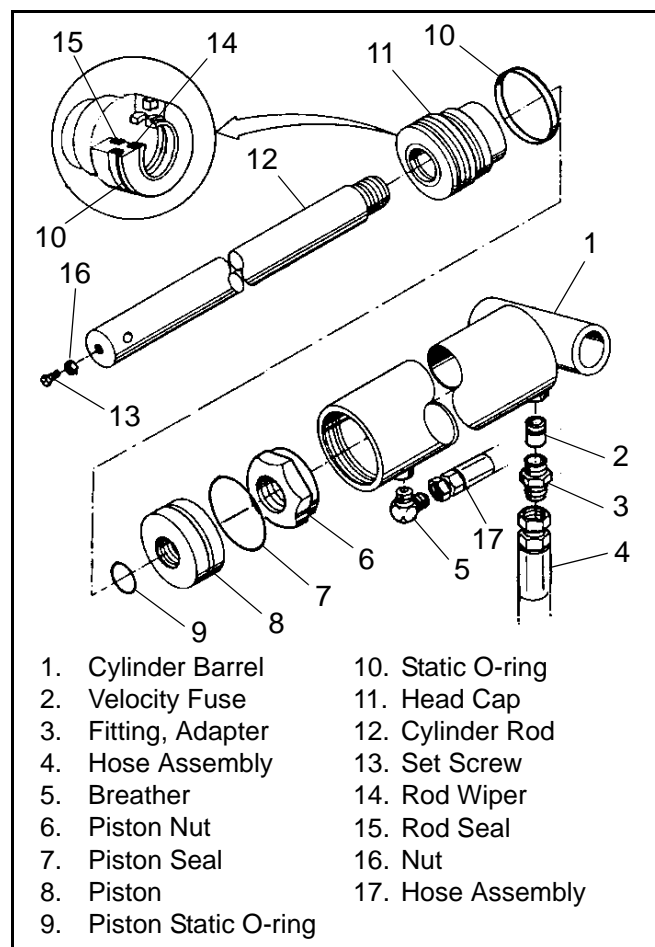


Figure 0-6: Lift Cylinder Assembly

4. Lubricate and piston seal and install the piston and rod assembly into the cylinder barrel.
5. Screw the head cap into the cylinder barrel hand tight and then turn 1/4 turn further.

Installation

Note: Before installing the cylinder, check the pins and bearings for excessive wear. Replace if necessary.

1. Place the cylinder in position taking care to support the cylinder to prevent falling.
2. Install the lower pin and retaining bolt.
3. Install the upper pin and retaining ring.
4. Install both hoses.
5. Raise the machine and check for leaks.

Note: The cylinder may need to be extended and retracted so as to align the rod end pivot hole.

0.6 TORQUE SPECIFICATIONS

Fasteners





Use the following values to torque fasteners used on UpRight Work Platforms unless a specific torque value is called out for the part being installed.

Hydraulic Components

Use the following values to torque hydraulic components used on UpRight Work Platforms.

Note: Always lubricate threads with clean hydraulic oil prior to installation

Table 0-1: Torque Specifications for Fasteners

AMERICAN STANDARD CAP SCREWS									METRIC CAP SCREWS								
SAE GRADE	5				8				METRIC GRADE	8.8				10.9			
Cap Screw Size (inches)									Cap Screw Size (millimeters)								
	TORQUE				TORQUE					TORQUE				TORQUE			
	Ft./Lbs		Nm.		Ft./Lbs.		Nm.			Ft./Lbs.		Nm.		Ft./Lbs.		Nm.	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
1/4 - 20	6.25	7.25	8.5	10	8.25	9.5	11	13	M6 x 1.00	6	8	8	11	9	11	12	15
1/4 - 28	8	9	11	12	10.5	12	14	16	M8 x 1.25	16	20	21.5	27	23	27	31	36.5
5/16 - 18	14	15	19	20	18.5	20	25	27	M10 x 1.50	29	35	39	47	42	52	57	70
5/16 - 24	17.5	19	23	26	23	25	31	34	M12 x 1.75	52	62	70	84	75	91	102	123
3/8 - 16	26	28	35	38	35	37	47.5	50	M14 x 2.00	85	103	115	139	120	146	163	198
3/8 - 24	31	34	42	46	41	45	55.5	61	M16 x 2.50	130	158	176	214	176	216	238	293
7/16 - 14	41	45	55.5	61	55	60	74.5	81	M18 x 2.50	172	210	233	284	240	294	325	398
7/16 - 20	51	55	69	74.5	68	75	92	102	M20 x 2.50	247	301	335	408	343	426	465	577
1/2 - 13	65	72	88	97.5	86	96	116	130	M22 x 2.50	332	404	450	547	472	576	639	780
1/2 - 20	76	84	103	114	102	112	138	152	M24 x 3.00	423	517	573	700	599	732	812	992
9/16 - 12	95	105	129	142	127	140	172	190	M27 x 3.00	637	779	863	1055	898	1098	1217	1488
9/16 - 18	111	123	150	167	148	164	200	222	M30 x 3.00	872	1066	1181	1444	1224	1496	1658	2027
5/8 - 11	126	139	171	188	168	185	228	251									
5/8 - 18	152	168	206	228	203	224	275	304									
3/4 - 10	238	262	322	355	318	350	431	474									
3/4 - 16	274	302	371	409	365	402	495	544									
7/8 - 9	350	386	474	523	466	515	631	698									
7/8 - 14	407	448	551	607	543	597	736	809									
1 - 8	537	592	728	802	716	790	970	1070									
1 - 14	670	740	908	1003	894	987	1211	1337									

NOTE: These values apply to fasteners as received from the supplier, dry or when lubricated with normal engine oil. They do not apply if special graphited or molydisulphide greases or other extreme pressure lubricants are used

Table 0-2: Torque Specifications for Hydraulic Components

Type: SAE Part Series	Cartridge Poppet		Fittings		Hoses	
	Ft/Lbs	Nm	Ft/Lbs	Nm	Ft/Lbs	Nm
#4	N/A	N/A	N/A	N/A	135-145	15-16
#6	N/A	N/A	10-20	14-27	215-245	24-28
#8	25-30	34-41	25-30	34-41	430-470	49-53
#10	35-40	47-54	35-40	47-54	680-750	77-85
#12	85-90	115-122	85-90	115-122	950-1050	107-119
#16	130-140	176-190	130-140	176-190	1300-1368	147-155

TROUBLESHOOTING

0.1 INTRODUCTION

The following section on troubleshooting provides guidelines on the types of problems users may encounter in the field, helps determine the cause of problems, and suggests proper corrective action.

Careful inspection and accurate analysis of the symptoms listed in the Troubleshooting Guide will localize the trouble more quickly than any other method. This manual cannot cover all possible problems that may occur. If a specific problem is not covered in this manual, call our number for service assistance.

Referring to Section 2.0 and 5.0 will aid in understanding the operation and function of the various components and systems and help in diagnosing and repair of the machine.

GENERAL PROCEDURE

Thoroughly study hydraulic and electronic schematics in **Section 5**. Check for loose connections and short circuits. Check/repair/replace each component in the Truth Table that is listed under each machine function that does not operate properly.

Use the charts on the following pages to help determine the cause of a fault.

NOTE: Spike protection diodes at components have been left out of the charts to eliminate confusion.

W A R N I N G

When troubleshooting, ensure that the work platform is resting on a firm, level surface.

When performing any service that requires the platform to be raised, ensure that the platform and booms are supported by a crane capable of supporting the load.

Unplug the machine or disconnect the battery when replacing or testing the continuity of any electrical component.

0.2 TROUBLESHOOTING

1. Verify your problem.
 - Do a full function test from both the platform and chassis controls, and note all functions that are not operating correctly.
2. Narrow the possible causes of the malfunction.
 - Use the troubleshooting guide to determine which components are common to all circuits that are not functioning correctly.
3. Identify the problem component.
 - Test components that are common to all circuits that are not functioning correctly. Remember to check wires and terminals between suspect components. Be sure to check connections to battery negative.
4. Repair or replace any component found to be faulty.
5. Verify that repair is complete.
 - Do a full function test from both the platform and chassis controls to verify that all functions are operating correctly and that the machine is performing to specified values.

SPECIAL TOOLS

Following is a list of tools which may be required to perform certain maintenance procedures on the SL-Series work platforms.

- Flow Meter with Pressure Gauge
- 0-69 bar (0-1000 psi) Hydraulic Pressure Gauge with Adapter Fittings
- 0-207 bar (0-3000 psi) Hydraulic Pressure Gauge with Adapter Fittings
- Adapter Fitting
- Inclinator
- Crimping Tool
- Terminal Removal Tool

ADJUSTMENT PROCEDURES

Hydraulic settings must be checked whenever a component is repaired or replaced.

Remove counterbalance valves and "bench test" them if they are suspect.

Connect a pressure gauge of appropriate range to the test port located on the hydraulic manifold.

Correct pressure settings are listed in the hydraulic schematic.

CHECKING PUMP PRESSURES

Remove hose from manifold pump port and connect pressure gauge.

0.3 TROUBLESHOOTING GUIDE

TROUBLE	PROBABLE CAUSE	REMEDY
All functions inoperable, engine does not start.	<ol style="list-style-type: none"> 1. Faulty battery 2. Loose or broken battery lead. 3. Emergency Stop switch(es) failed open. 	<p>After completely charging batteries, test each battery. Replace as necessary.</p> <p>Check continuity of all battery and motor leads. Replace if necessary.</p> <p>With emergency stop switch in the ON position, check continuity.</p>
Engine does start but no hydraulic power.	<ol style="list-style-type: none"> 1. Oil level in hydraulic reservoir is low. 2. Faulty hydraulic pump. 	<p>Check hydraulic fluid level, top off as required.</p> <p>Check pressure and delivery of the hydraulic oil. Replace if necessary.</p>
Engine does start, have hydraulic power but no electrical function.	<ol style="list-style-type: none"> 1. Emergency Lowering valve open. 2. Platform overloaded, alarm sounds. 3. Faulty controller at upper controls. 4. Battery level low. 	<p>Close emergency down valve.</p> <p>Observe maximum load rating. (see Operation section of this manual)</p> <p>Check functionality of controller. Replace if faulty.</p> <p>Check Battery Voltage. Charge if necessary.</p>
Platform drifts down after being elevated	<ol style="list-style-type: none"> 1. Emergency lowering valve open. 2. Leaking piston seals in lift cylinders 	<p>Ensure that emergency lowering valve is completely closed. Replace if necessary.</p> <p>Check for leakage at cylinder return line, replace seals if necessary.</p>

0.4 FAULT CODES INTRODUCTION

The SL26/30 SpeedLevel is equipped with a fault detection system, if you have a faulty component, bad electrical connection or start up error a fault code will be displayed on the read out located on the upper control box.

For fault codes 01 - 45 the following procedure should be followed.

Ensure that no selector buttons are depressed.

Ensure that the deadman switch on the joystick is not held.

Ensure that the joystick is in neutral.

Ensure that the steer rocker is not activated.

Ensure that toggle switch is in neutral.

Then re-cycle power, do this by pushing and releasing the emergency stop button. If the fault code is still displayed you may have a faulty upper or lower control box, consult the error code list to identify the problem component and replace if necessary.

For fault codes 51 - 68 the following procedure should be followed.

1. Check the fault code list to identify the problem component.
2. Ensure that the wiring harness is connected, secure, in good condition and fully intact.
3. Ensure that the problem component is receiving electrical signal, consult the schematics in section 6 of this manual to identify the ECU output and harness test points.
4. If no ECU output is present replace the ECU.
5. If ECU output is present but no signal is reaching the component replace the wiring harness.
6. If signal is reaching the component but the component is not functioning replace the component (refer to section 7 of this manual for part number information).

0.5 FAULT CODES

SpeedLevel Fault Codes

1-31-05

- 01 - SYSTEM INIT ERROR
- 02 - SYSTEM PLATFORM COM ERROR
- 03 - PLATFORM OVERLOAD
- 04 - SYSTEM LOWER PANEL COM ERROR
- 05 - OIL PRESSURE LOW
- 06 - COOLANT TEMP HOT

- 21 - PLATFORM START ON
- 22 - PLATFORM LEFT TURN SW ON
- 23 - PLATFORM RIGHT TURN SW ON
- 24 - PLATFORM LIFT SW ON
- 25 - PLATFORM HISPEEDDRIVE SW ON
- 26 - PLATFORM GLOWLP SW ON
- 27 - PLATFORM LOSPEEDDRIVE SW ON
- 28 - PLATFORM AUTOLEVEL SW ON
- 29 - PLATFORM JOYSTICK ENABLE SW ON
- 31 - PLATFORM JOYSTICK NOT NEUTRAL

- 34 - GROUND PANEL ENABLE SW ON
- 37 - GROUND PANEL DOWN SW ON
- 38 - GROUND PANEL UP SW ON
- 43 - GROUND PANEL START SW ON
- 45 - GROUND PANEL GLOWLP SW ON

- 51 - Coil Fault HiSpeed1
- 52 - Coil Fault HiSpeed2
- 55 - Coil Fault LiftUp
- 56 - Coil Fault LiftDown
- 57 - Coil Fault TiltLeft
- 58 - Coil Fault TiltRight
- 59 - Coil Fault SteerRight
- 61 - Coil Fault SteerLeft
- 62 - Coil Fault TiltRear
- 63 - Coil Fault TiltForward
- 66 - Coil Fault Forward
- 67 - Coil Fault Reverse
- 71 - Coil Fault CushionValve
- 72 - Coil Fault AxleFloat
- 73 - Coil Fault SteerDump

- 68 - LOW BATTERY FAULT

Notes :

SCHEMATICS

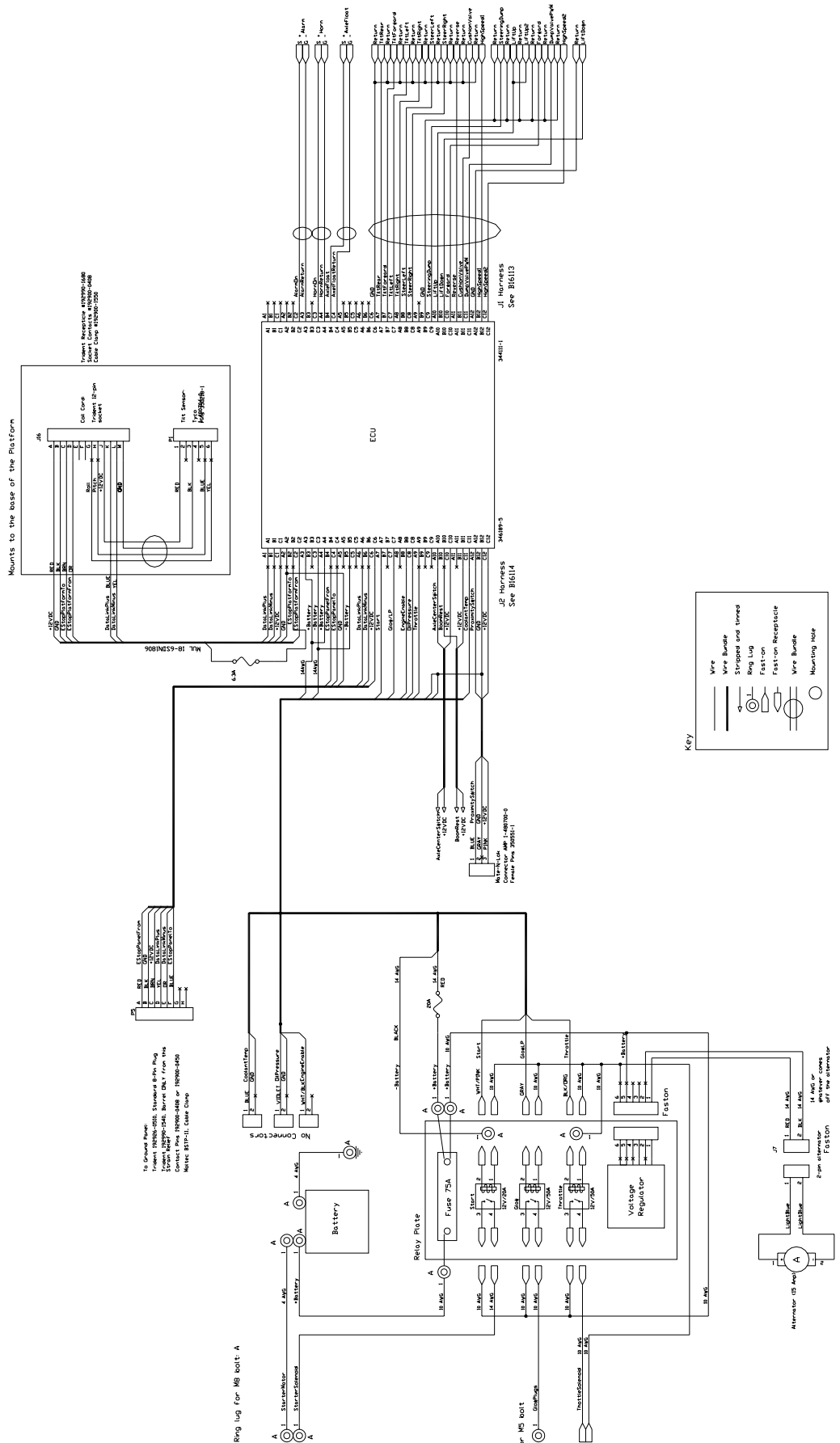
5.1 INTRODUCTION

This section contains electrical and hydraulic power schematics and associated information for maintenance purposes. The diagrams are to be used in conjunction with the information in **Section 4**. They allow understanding of the makeup and functions of the systems for checking, tracing, and faultfinding during troubleshooting analysis.

CONTENTS

Electrical Schematic.....	5-2
Cable Assembly (J1 Harness).....	5-3
Schematic (J1 Harness).....	5-4
Cable Assembly (J2 Harness).....	5-5
Schematic (J2 Harness).....	5-6
Hydraulic Schematic.....	5-7

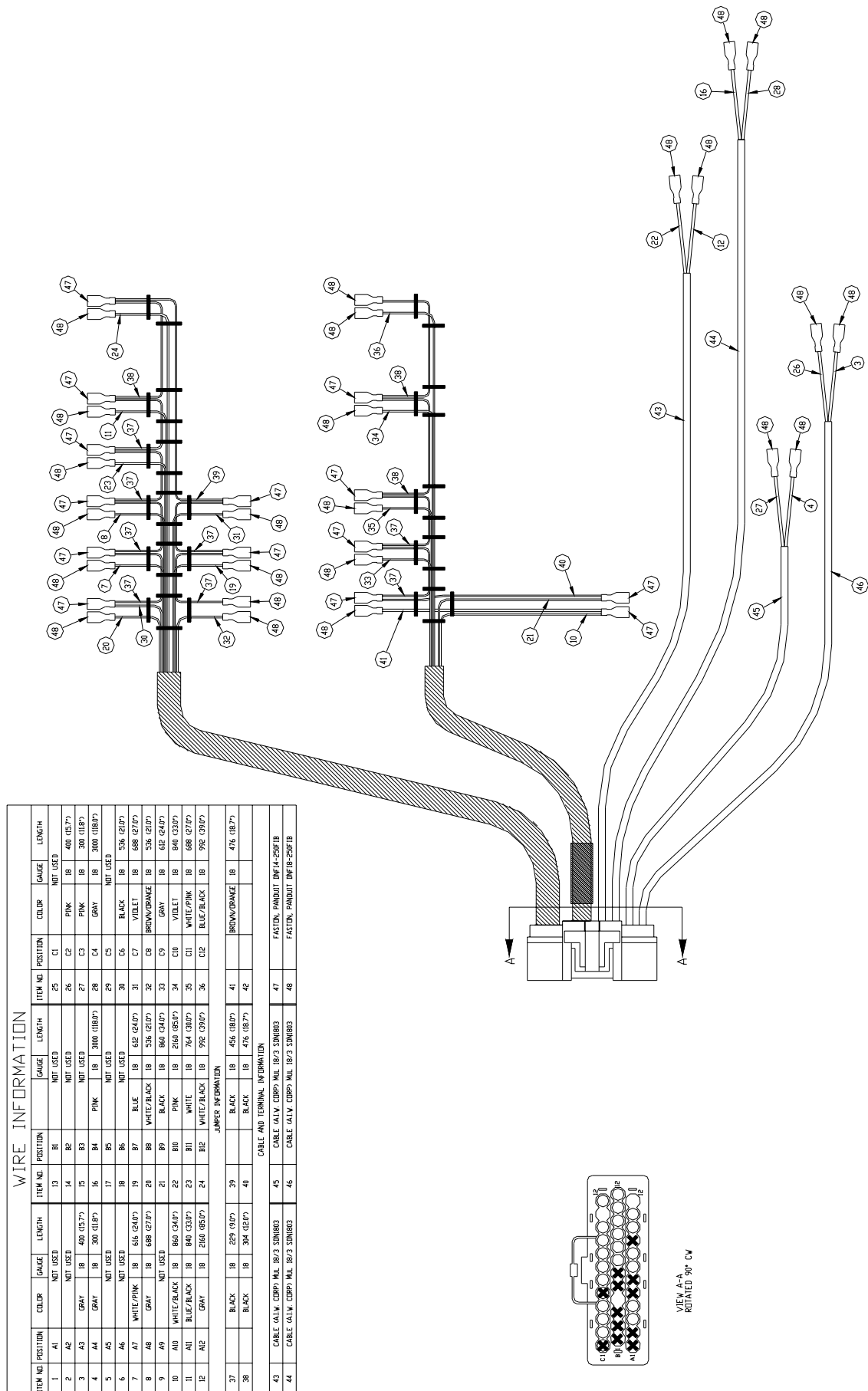
5.2 ELECTRIC



Schematic L

Engine: Perkins 403C-11

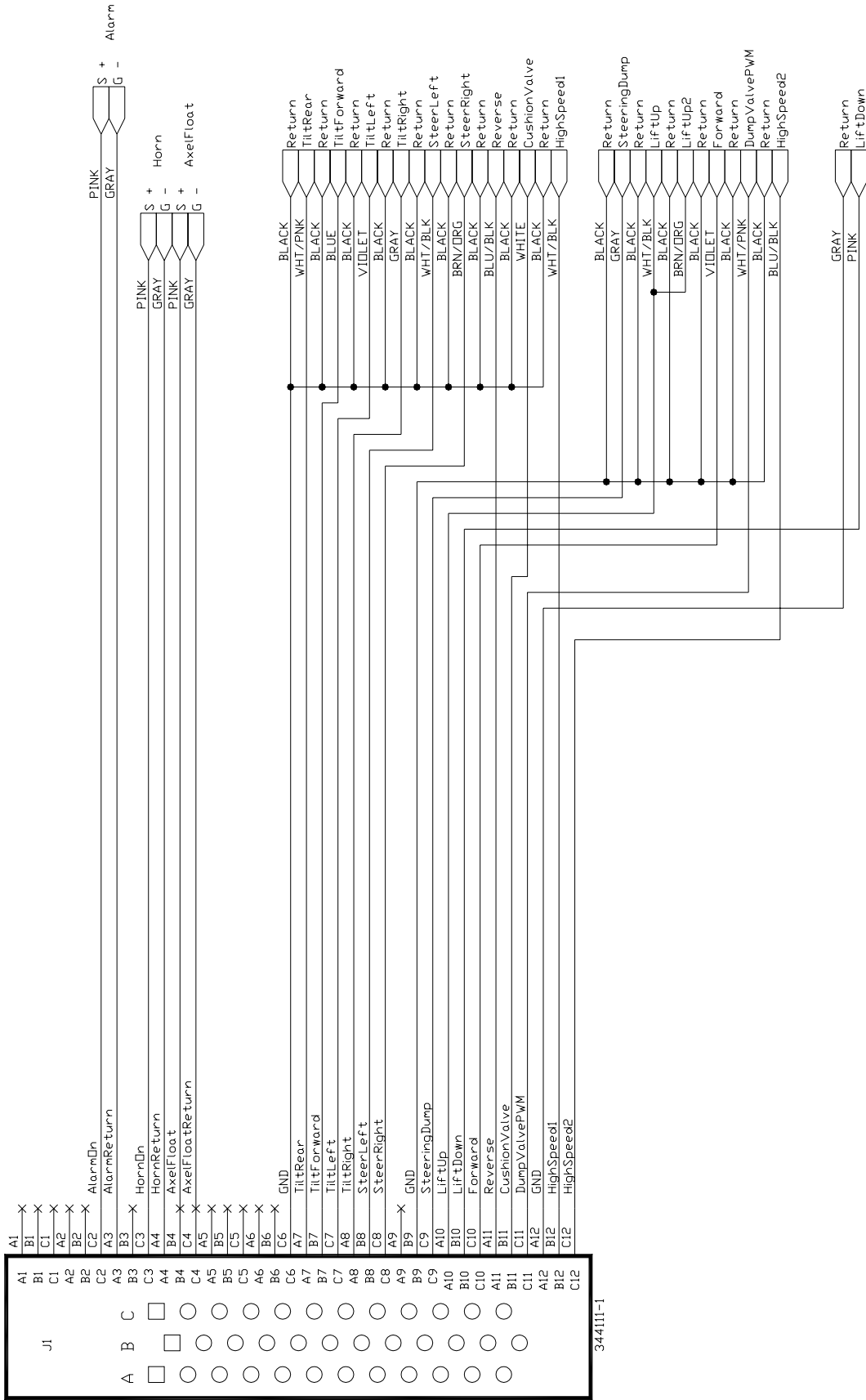
5.3 CABLE ASSEMBLY (J1)



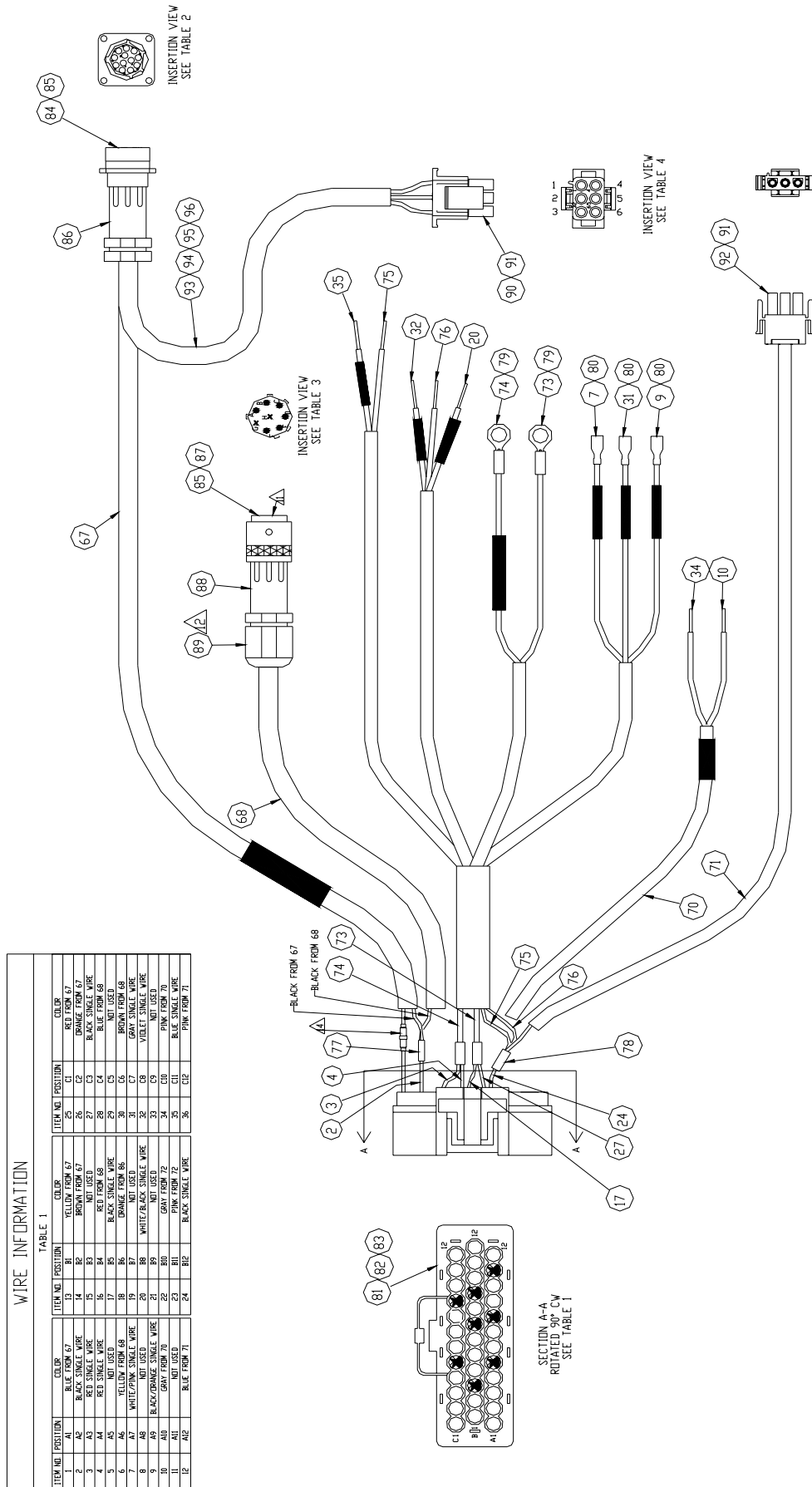
WIRE INFORMATION

ITEM NO.	POSITION	COLOR	GAUGE	LENGTH	ITEM NO.	POSITION	COLOR	GAUGE	LENGTH
1	A1		NOT USED		25	C1		NOT USED	
2	A2		NOT USED		26	C2	PINK	18	400 (15.7")
3	A3	GRAY	18	400 (15.7")	27	C3	PINK	18	300 (11.8")
4	A4	GRAY	18	300 (11.8")	28	C4	GRAY	18	3000 (118.7")
5	A5		NOT USED		29	C5		NOT USED	
6	A6	WHITE/PINK	18	616 (24.3")	30	C6	BLACK	18	536 (21.1")
7	A7	WHITE/PINK	18	616 (24.3")	31	C7	VIOLET	18	688 (27.1")
8	A8	GRAY	18	688 (27.1")	32	C8	BROWN/PURPLE	18	536 (21.1")
9	A9		NOT USED		33	C9	GRAY	18	612 (24.1")
10	A10	WHITE/BLACK	18	860 (33.4")	34	C10	VIOLET	18	840 (33.1")
11	A11	BLUE/BLACK	18	840 (33.1")	35	C11	WHITE/PINK	18	688 (27.1")
12	A12	GRAY	18	2160 (85.0")	36	C12	BLUE/BLACK	18	992 (39.0")
JAMPER INFORMATION									
37		BLACK	18	229 (9.0")	39		BLACK	18	456 (18.0")
38		BLACK	18	304 (12.0")	40		BLACK	18	476 (18.7")
CABLE AND TERMINAL INFORMATION									
43	CABLE (A1,W, C)RPP, MIL, 18/3 SDR183								
44	CABLE (A1,W, C)RPP, MIL, 18/3 SDR183								
45	CABLE (A1,W, C)RPP, MIL, 18/3 SDR183								
46	CABLE (A1,W, C)RPP, MIL, 18/3 SDR183								
47	FASTON, PANDUIT DNF14-25021B								
48	FASTON, PANDUIT DNF18-25021B								

5.4 J1 CABLE SCHEMATIC



5.5 CABLE ASSEMBLY (J2)

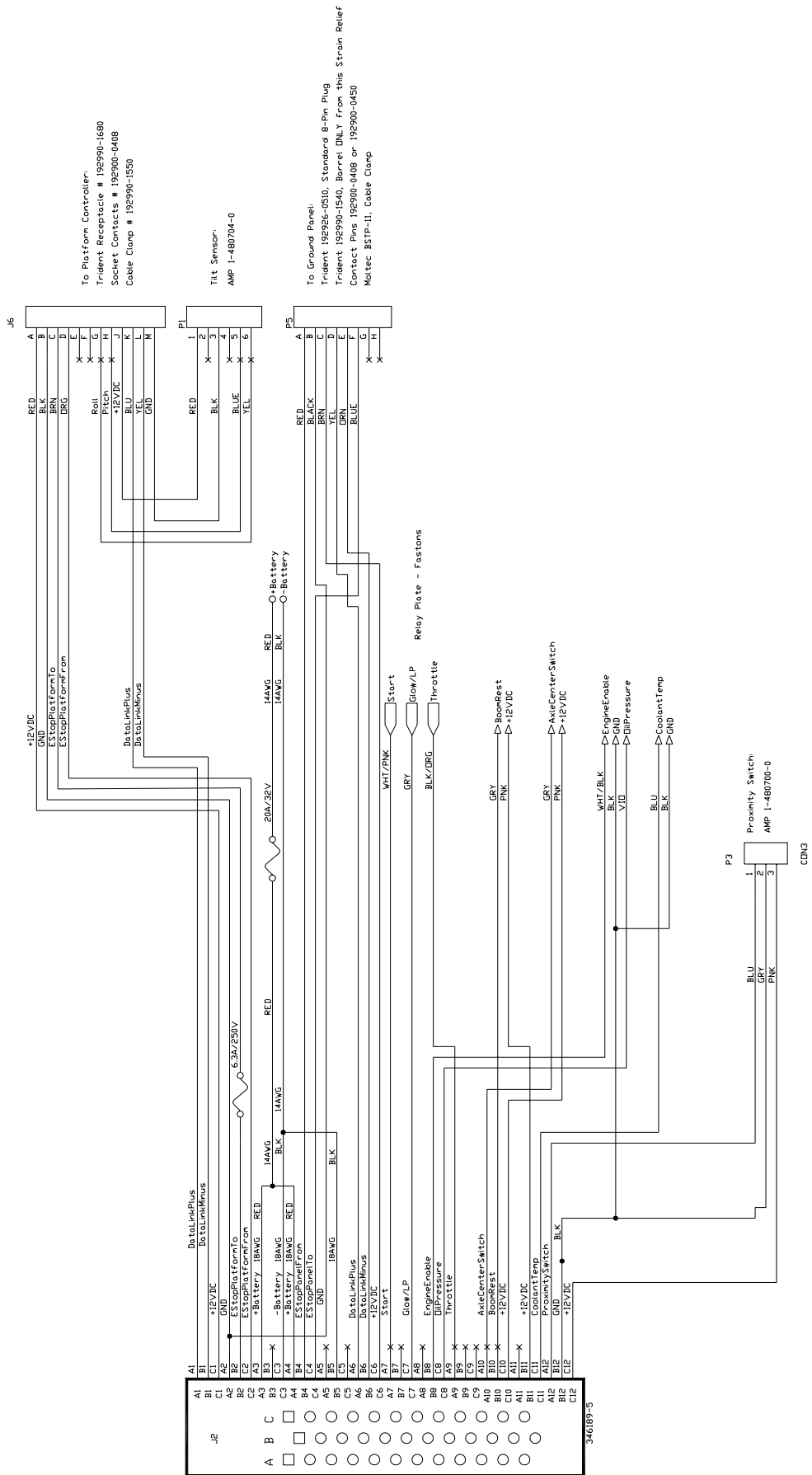


WIRES INFORMATION

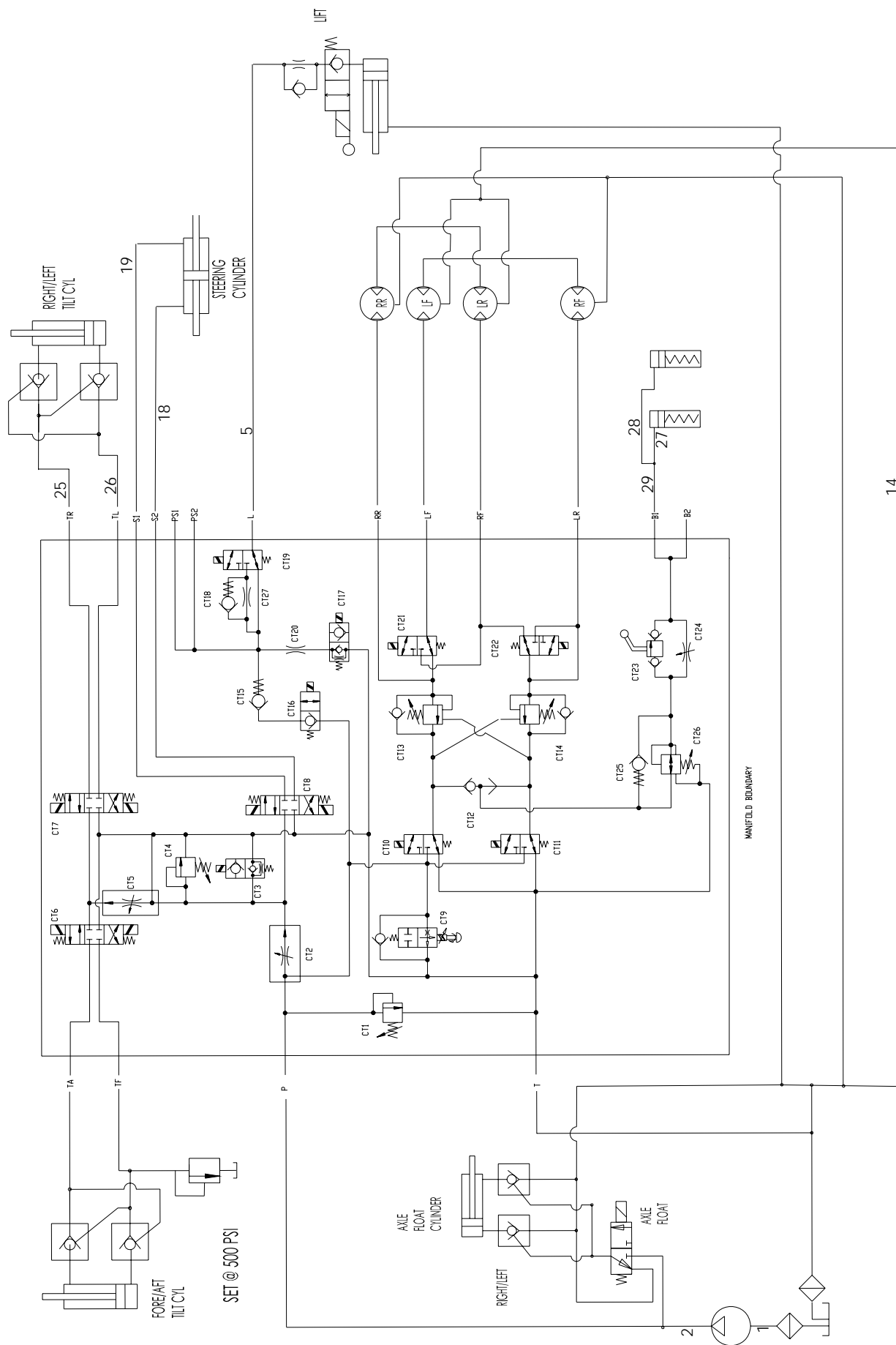
TABLE 1

ITEM NO.	POSITION	COLOR	ITEM NO.	POSITION	COLOR
1	A1	BLUE FROM 67	25	C1	RED FROM 67
2	A2	BLACK SINGLE WIRE	26	C2	ORANGE FROM 67
3	A3	RED SINGLE WIRE	27	C3	BLACK SINGLE WIRE
4	A4	RED SINGLE WIRE	28	C4	BLACK SINGLE WIRE
5	A5	RED SINGLE WIRE	29	C5	NOT USED
6	A6	YELLOW FROM 68	30	C6	BROWN FROM 68
7	A7	WHITE/PINK SINGLE WIRE	31	C7	GRAY SINGLE WIRE
8	A8	NOT USED	32	C8	VIOLET SINGLE WIRE
9	A9	BLACK/GRAY SINGLE WIRE	33	C9	NOT USED
10	A10	GRAY FROM 71	34	C10	PINK FROM 71
11	A11	NOT USED	35	C11	BLUE SINGLE WIRE
12	A12	BLUE FROM 71	36	C12	PINK FROM 71

5.6 J2 CABLE SCHEMATIC



5.5 HYDRAULIC SCHEMATIC



14

ILLUSTRATED PARTS BREAKDOWN

6.1 INTRODUCTION

This section lists and illustrates the replaceable assemblies and parts of this product, as manufactured by **Upright**.

Each parts list contains the component parts for that assembly.

CONTENTS

General Assembly.....	6 - 2	Hydraulic Tank Assembly.....	6 - 16
Chassis Assembly.....	6 - 4	Hydraulic Assembly.....	6 - 17
Elevating Assembly.....	6 - 6	Hydraulic Cylinder Assembly.....	6 - 19
Platform Assembly.....	6 - 8	Electrical Assembly	6 - 21
Power Module Assembly.....	6 - 10	Decal Assembly	6 - 23
Control Module Assembly.....	6 - 11		
Valve Block Assembly.....	6 - 12		
Engine Assembly.....	6 - 13		
Lower Controls Assembly.....	6 - 14		
Upper Controls Assembly	6 - 15		

Illustrated Parts Breakdown - *General Assembly*

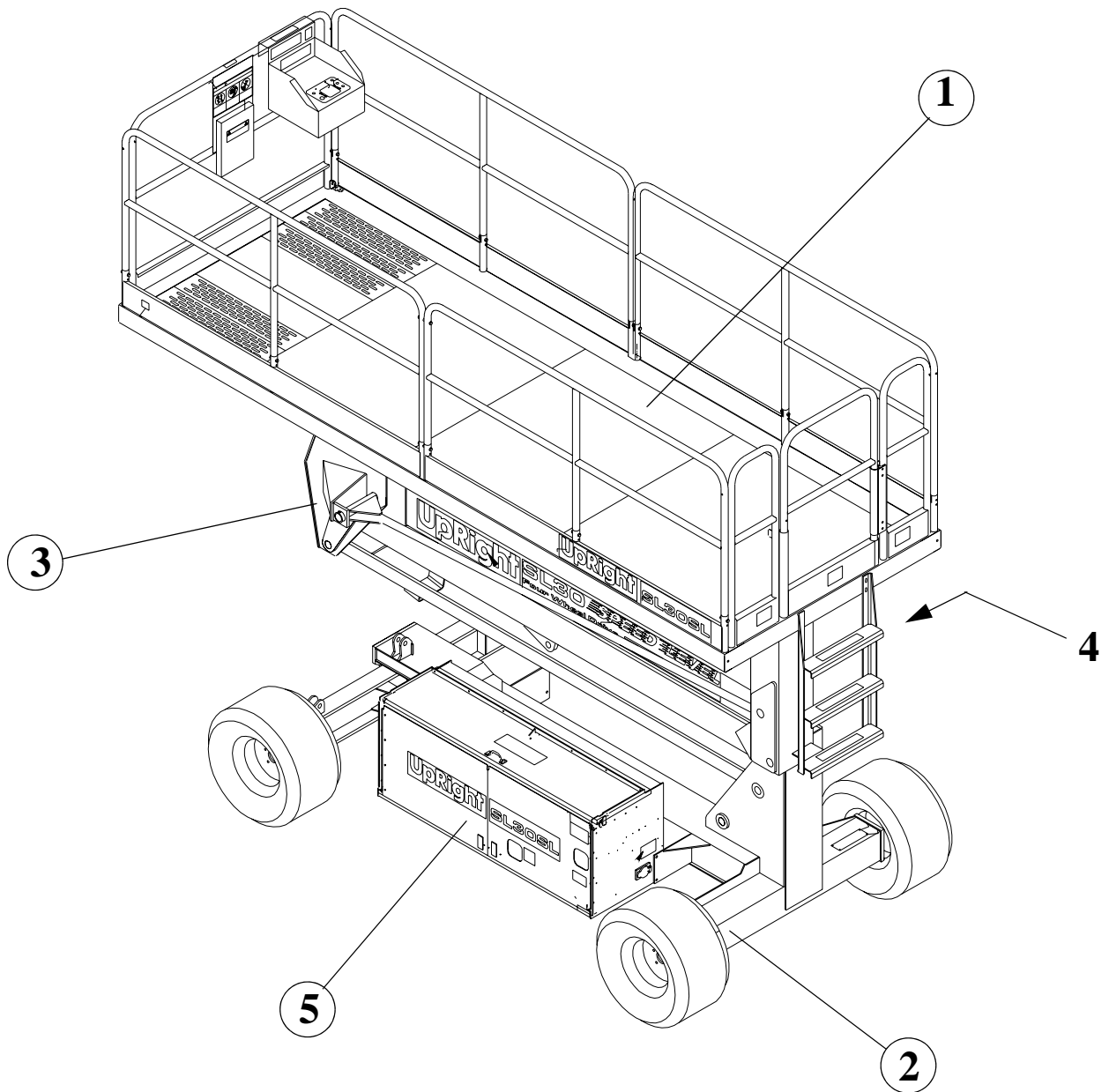
General Assembly

SL30SL ~ 505500-000

Item	Part	Description	QTY.
1	505503-000	PLATFORM ASSEMBLY	1
2	505501-000	CHASSIS ASSEMBLY	1
3	505502-000	ELEVATING ASSEMBLY	1
4	505504-000	POWER MODULE	1
5	505505-000	CONTROL MODULE	1

SL26SL ~ 505600-000

Item	Part	Description	QTY.
1	505603-000	PLATFORM ASSEMBLY	1
2	505501-000	CHASSIS ASSEMBLY	1
3	505602-000	ELEVATING ASSEMBLY	1
4	505504-000	POWER MODULE	1
5	505505-000	CONTROL MODULE	1



Chassis Assembly

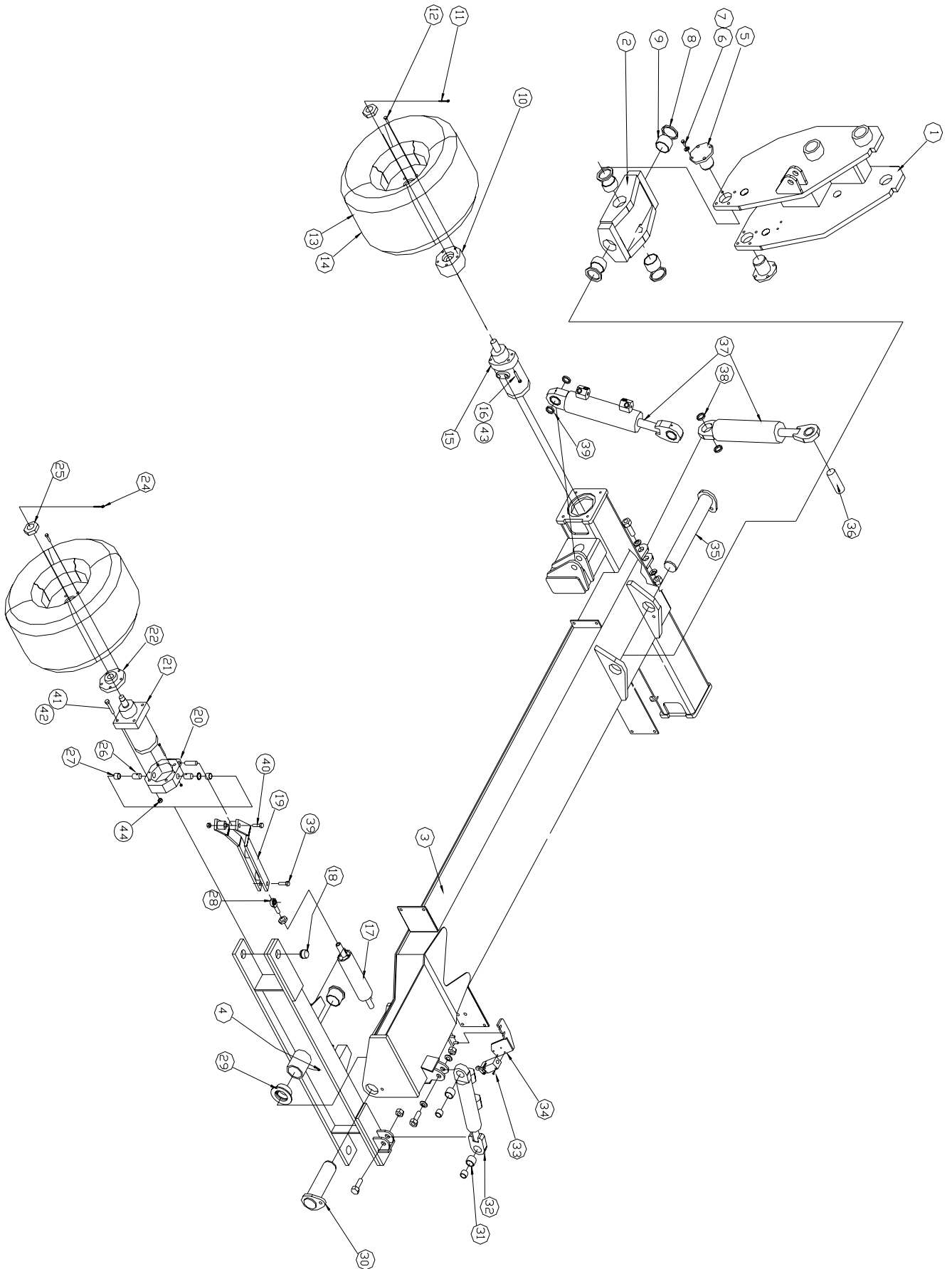
505501-000

ITEM	PART NUMBER	DESCRIPTION	QTY
1	064320-001	WELDMENT, 1ST POST	1
2	064331-001	WELDMENT, LEVEL PIVOT	1
3	064300-002	WELDMENT, CHASSIS	1
4	064324-002	WELDMENT, FRONT AXLE	1
5	064343-001	TRUNION	2
6	011256-014	SCREW, TRUNION	8
7	011238-008	WASHER	8
8	064383-000	THRUST BEARING, LEVEL PIVOT	4
9	062642-030	BUSHING, LEVEL PIVOT	4
10	064811-000	HUB, REAR	2
11	011754-012	SPLIT PIN	4
12	014122-001	WHEEL BOLT	20
13	069129-000	WHEEL, RIGHT HAND	2
14	069129-001	WHEEL, LEFT HAND	2
15	505201-000	DRIVE MOTOR, REAR	2
16	011257-014	BOLT, DRIVE MOTOR, REAR	8
17	063905-101	CYLINDER, STEER	1
18	067606-013	BUSHING, AXLE / MOTOR MOUNT	2
19	505565-000	STEER LINK ARM	2
20	505564-000	MOTOR MOUNT	2
21	505202-000	DRIVE MOTOR, FRONT	2
22	064812-000	HUB, FRONT	2

ITEM	PART NUMBER	DESCRIPTION	QTY
23	-	-	-
24	011754-012	SPLIT PIN	4
25	-	-	-
26	064034-001	PIN, MOTOR MOUNT	4
27	062642-001	BUSHING, MOTOR MOUNT	4
28	063927-001	ROSE BEARING, STEERING CYL	2
29	062642-030	BUSHING, AXLE TO CHASSIS	
30	064336-000	PIVOT PIN, FRONT AXLE	1
31	508020-000	PIVOT PIN, FLOAT CYL - AXLE	2
32	064642-100	CYLINDER, CHASSIS - AXLE	
33	064296-002	LIMIT SWITCH, FLOAT, BODY	1
34	064367-001	BRACKET, LIMIT SWITCH MOUNT	1
35	064339-001	PIN, 1ST POST / LEVEL PIVOT / CHASSIS	1
36	508021-000	PIN, LEVEL CYLINDER - 1ST POST	4
37	064345-100	CYLINDER, FLOAT	1
38	064349-000	SPACER	1
39	-	M16 BOLT, ROSE BEARING	1
40	-	M16 BOLT, STEERING LINKAGE	1
41	011256-040	BOLT, FRONT MOTOR MOUNT	4
42	011239-008	WASHER, FRONT MOTOR	4
43	011240-000	WASHER, REAR MOTOR	4
44	011248-008	NUT, REAR MOTOR	4

Chassis Assembly

505001-000



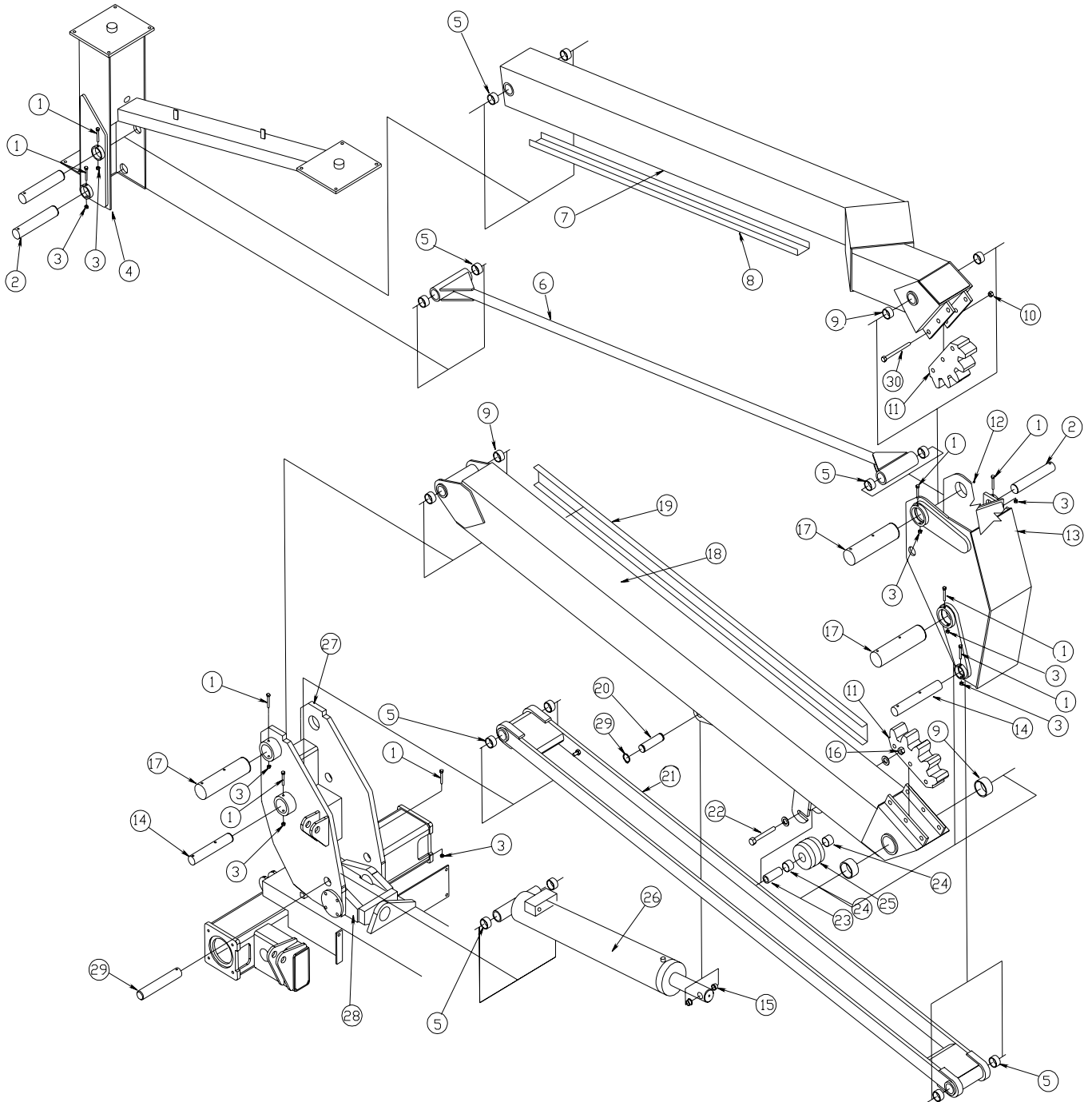
Elevating Assembly

SL30SL ~ 505502-000

Item	Part	Description	QTY.
1	011254-024	BOLT, PIN LOCK 3/8'	9
2	064090-000	PIVOT PIN, UPPER T-BAR & UP BOOM - PED	3
3	011248-006	NUT, PIN LOCK 3/8'	9
4	064111-002	WELDMENT, PEDESTAL (PLATFORM SUP)	1
5	062649-020	BUSHING, ALL 1.75" PINS	12
6	064536-000	UPPER TENSION BAR	1
7	064521-000	UPPER BOOM	1
8	064538-000	CHANNEL, WIRE COVER (UPPER BOOM)	1
9	062642-030	BUSHING, ALL 2.75 PINS	6
10	011248-016	LOCKNUT 1'	6
11	064089-000	GEAR SEGMENT	2
12	013336-001	GREASE NIPPLE (1/8 BSP)	10
13	064070-002	2nd POST WELDMENT	1
14	064094-000	PIVOT PIN, LOWER T-BAR	2
15	062649-010	BUSHING, LIFT CYLINDER ROD - BOOM	2
16	011253-008	NUT (ROLLER)	1
17	064095-000	PIVOT PIN, LOWER BOOM & UP BOOM - 2nd	3
18	064530-000	LOWER BOOM	1
19	064542-000	CHANNEL, WIRE COVER (LOWER BOOM)	1
20	064093-000	PIVOT PIN, CYL ROD - LOWER BOOM	1
21	064531-001	LOWER TENSION BAR	1
22	114918-048	BOLT (ROLLER, BOOM REST)	1
23	064356-000	ROLLER PIN	1
24	027931-057	BUSHING, ROLLER	2
25	064354-000	ROLLER	1
26	063904-101	CYLINDER, MAIN LIFT	1
27	064320-001	1st POST WELDMENT	1
28	064331-001	LEVELLER WELDMENT	1
29	064092-000	PIVOT PIN, CYL BODY - 1st POST	1

SL26SL ~ 505602-000

Item	Part	Description	QTY.
1	011254-024	BOLT, PIN LOCK 3/8'	9
2	064090-000	PIVOT PIN, UPPER T-BAR & UP BOOM - PED	3
3	011248-006	NUT, PIN LOCK 3/8'	9
4	064111-001	WELDMENT, PEDESTAL (PLATFORM SUP)	1
5	062649-020	BUSHING, ALL 1.75" PINS	12
6	064087-000	UPPER TENSION BAR	1
7	064078-002	UPPER BOOM	1
8	064451-000	CHANNEL, WIRE COVER (UPPER BOOM)	1
9	062642-030	BUSHING, ALL 2.75 PINS	6
10	011248-016	LOCKNUT 1'	6
11	064089-000	GEAR SEGMENT	2
12	013336-001	GREASE NIPPLE (1/8 BSP)	10
13	064070-002	2nd POST WELDMENT	1
14	064094-000	PIVOT PIN, LOWER T-BAR	2
15	062649-010	BUSHING, LIFT CYLINDER ROD - BOOM	2
16	011253-008	NUT (ROLLER)	1
17	064095-000	PIVOT PIN, LOWER BOOM & UP BOOM - 2nd	3
18	064060-003	LOWER BOOM	1
19	064450-000	CHANNEL, WIRE COVER (LOWER BOOM)	1
20	064093-000	PIVOT PIN, CYL ROD - LOWER BOOM	1
21	064084-001	LOWER TENSION BAR	1
22	114918-048	BOLT (ROLLER, BOOM REST)	1
23	064356-000	ROLLER PIN	1
24	027931-057	BUSHING, ROLLER	2
25	064354-000	ROLLER	1
26	063904-101	CYLINDER, MAIN LIFT	1
27	064320-001	1st POST WELDMENT	1
28	064331-001	LEVELLER WELDMENT	1
29	064092-000	PIVOT PIN, CYL BODY - 1st POST	1



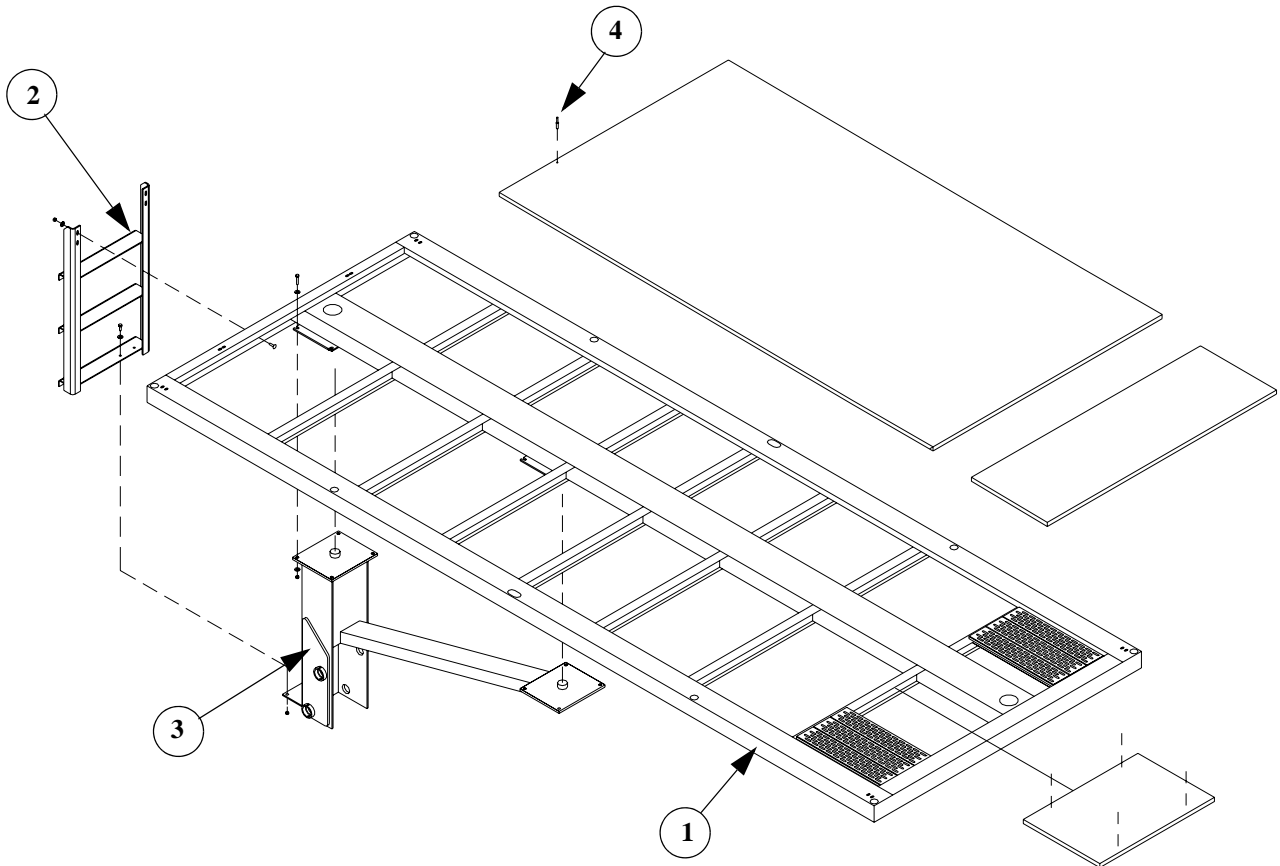
Platform Assembly

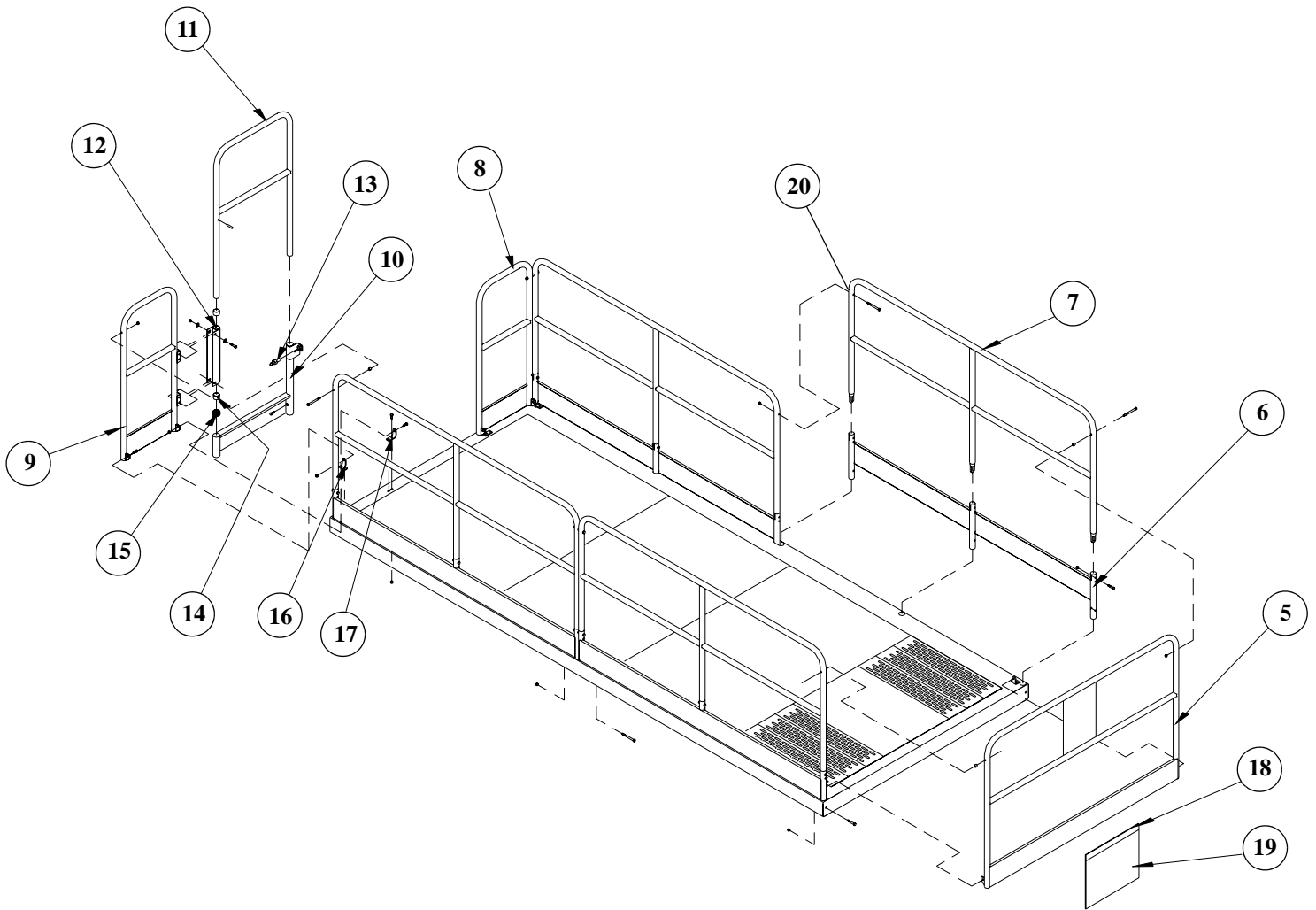
SL30SL ~ 505503-000

Item	Part	Description	QTY.
1	064540-011	DECK WELDMENT	1
2	064119-000	LADDER WELDMENT	1
3	064111-002	PEDESTAL WELDMENT	1
4	026554-002	RIVET (MAIN DECK)	24
5	064700-000	GUARDRAIL, FRONT	1
6	064696-000	KICKPLATE, SIDE	4
7	064698-000	GUARDRAIL, SIDE	4
8	064702-002	GUARDRAIL, END LEFT HAND SIDE	1
9	064702-001	GUARDRAIL, END RIGHT HAND SIDE	1
10	067764-001	KICKPLATE, GATE	1
11	067883-000	GATE WELDMENT	1
12	067712-000	GATE PIVOT TUBE	1
13	003570-005	PLUNGER ASSEMBLY	1
14	062642-026	BUSHING, GATE PIVOT	2
15	066526-004	GATE SPRING	1
16	064688-001	PIVOT BRACKET RH	2
17	064688-002	PIVOT BRACKET LH	2
18	064447-000	SKIRT PLATE (RUBBER SKIRT)	1
19	064448-000	RUBBER SKIRT	1
20	067695-000	SPACER, GUARDRAIL	6

SL26SL ~ 505603-00

Item	Part	Description	QTY.
1	064100-011	DECK WELDMENT	1
2	064119-000	LADDER WELDMENT	1
3	064111-001	PEDESTAL WELDMENT	1
4	026554-002	RIVET (MAIN DECK)	24
5	064700-000	GUARDRAIL, FRONT	1
6	064695-000	KICKPLATE, SIDE	4
7	064697-000	GUARDRAIL, SIDE	4
8	064702-002	GUARDRAIL, END LEFT HAND SIDE	1
9	064702-001	GUARDRAIL, END RIGHT HAND SIDE	1
10	067764-001	KICKPLATE, GATE	1
11	067883-000	GATE WELDMENT	1
12	067712-000	GATE PIVOT TUBE	1
13	003570-005	PLUNGER ASSEMBLY	1
14	062642-026	BUSHING, GATE PIVOT	2
15	064526-004	GATE SPRING	1
16	064688-001	PIVOT BRACKET RH	2
17	064688-002	PIVOT BRACKET LH	2
18	064447-000	SKIRT PLATE (RUBBER SKIRT)	1
19	064448-000	RUBBER SKIRT	1
20	067695-000	SPACER, GUARDRAIL	6

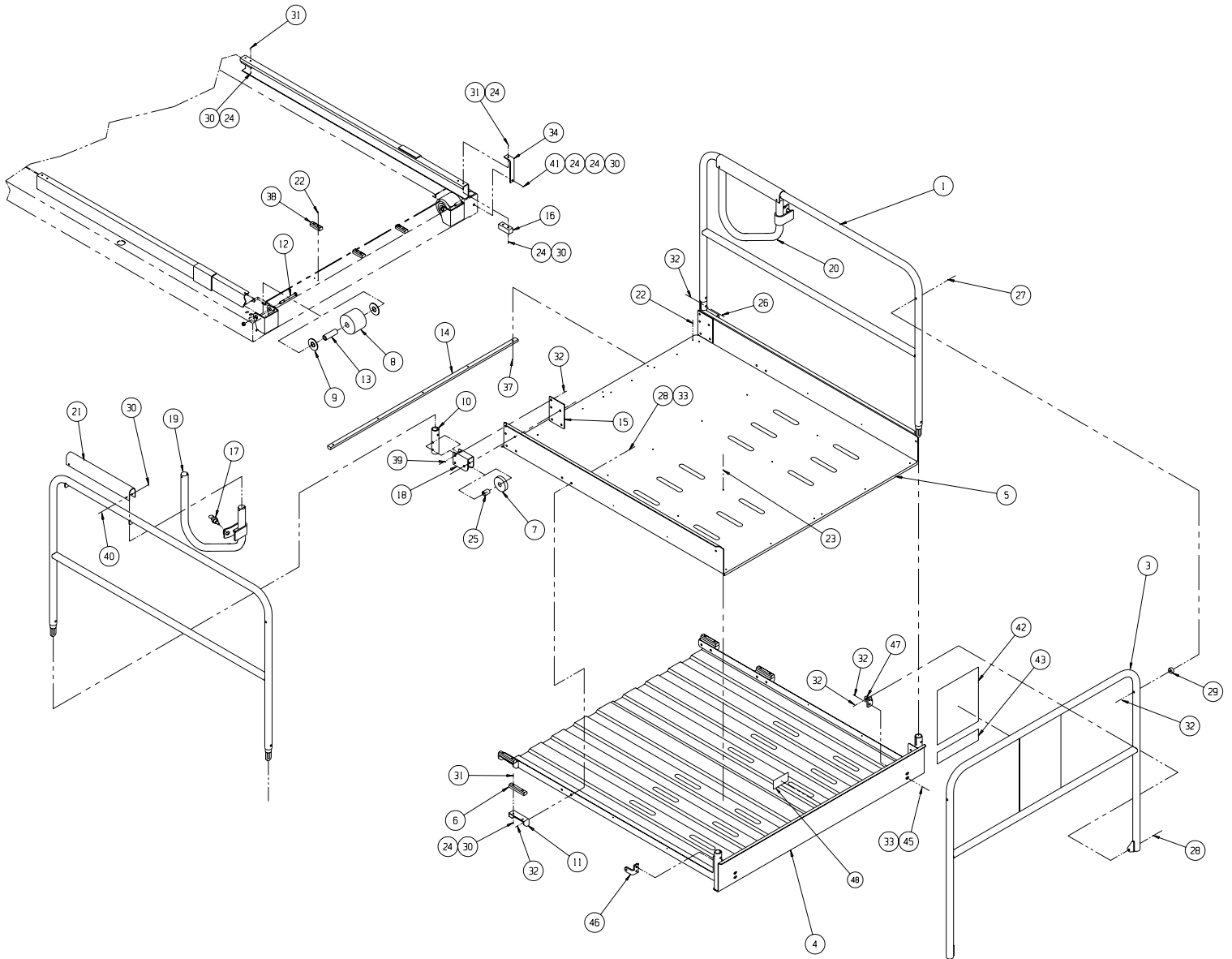




Illustrated Parts Breakdown - Platform Assembly

SL26SL ~ 064617-002 (SLIDE OUT SECTION)

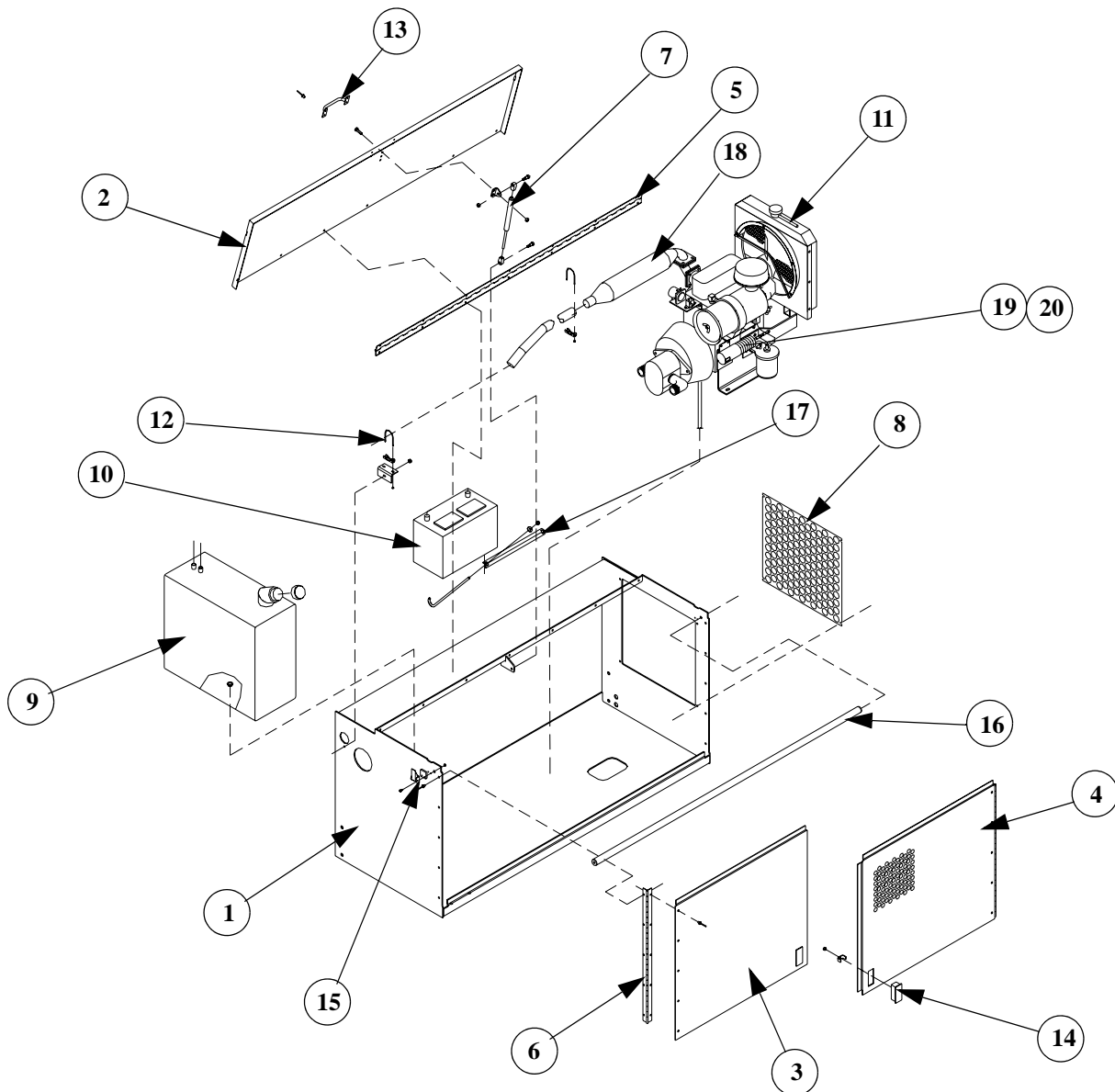
Item	Part	Description	QTY.
1	06785-000	SIDE RAIL	2
2	~	~	~
3	064778-000	FRONT RAIL	1
4	064763-000	DECK WELDMENT	1
5	064761-000	FLOOR (ALUMINIUM)	1
6	063727-000	BLOCK	4
7	064233-000	WHEEL (narrow)	4
8	064234-000	WHEEL (wide)	2
9	064235-000	WASHER	4
10	064776-000	TUBE, RAIL SUPPORT	2
11	064425-000	SLIDE BRACKET	4
12	063990-003	AXLE	2
13	064249-000	BUSHING (spanner)	2
14	064256-000	BEARING STRIP	1
15	064795-000	GUSSET PLATE	2
16	064267-000	BUMPER PAD	4
17	003570-001	RETAINING PIN ASSEMBLY	2
18	064774-000	ROLLER BRACKET	2
19	064769-001	R.H HANDLE	1
20	064769-002	L.H HANDLE	1
21	064773-000	HANDLE BRACKET	2
22	026553-008	POP RIVET - 3/16DIA 1/2-5/8 GRIP	12
23	026553-002	POP RIVET - 3/16DIA 1/8-1/4 GRIP	30
24	011240-004	FLAT WASHER 1/4 STD	22
25	064240-001	BUSHING	2
26	011254-018	SCREW - CAP 3/8-16 X 2 1/4	4
27	011254-032	SCREW - CAP 3/8-16 X 4	2
28	011254-010	SCREW - CAP 3/8-16 X 1 1/4	10
29	067685-000	SPACER	2
30	011248-004	LOCKNUT - 1/4-20	22
31	011252-014	SCREW - 1/4-20 UNC HEX HD X 1 3/4	10
32	011248-006	LOCKNUT - 3/8-16	26
33	011240-006	FLAT WASHER 3/8 STD	12
34	064775-000	FRONT ANGLE	2
35	~	~	~
36	~	~	~
37	011240-002	WASHER #8	6
38	064247-000	GUIDE SLIDE	3
39	011254-020	SCREW - CAP 3/8-16 X 2 1/2	6
40	011252-016	SCREW - CAP 1/4-20 X 2	4
41	011252-006	SCREW - CAP 1/4-20 HEX HD X 3/4	2
42	066550-004	DECAL - DANGER	1
43	066551-003	DECAL - DANGER	1
44	~	~	~
45	011254-008	SCREW - 3/8-16 HEX HD X 1	4
46	064688-001	BRACKET - TOEBOARD PIVOT RH	1
47	064688-002	BRACKET - TOEBOARD PIVOT LH	1
48	101251-001	DECAL - DANGER TIP OVER	1



Power Module Assembly

505504-000

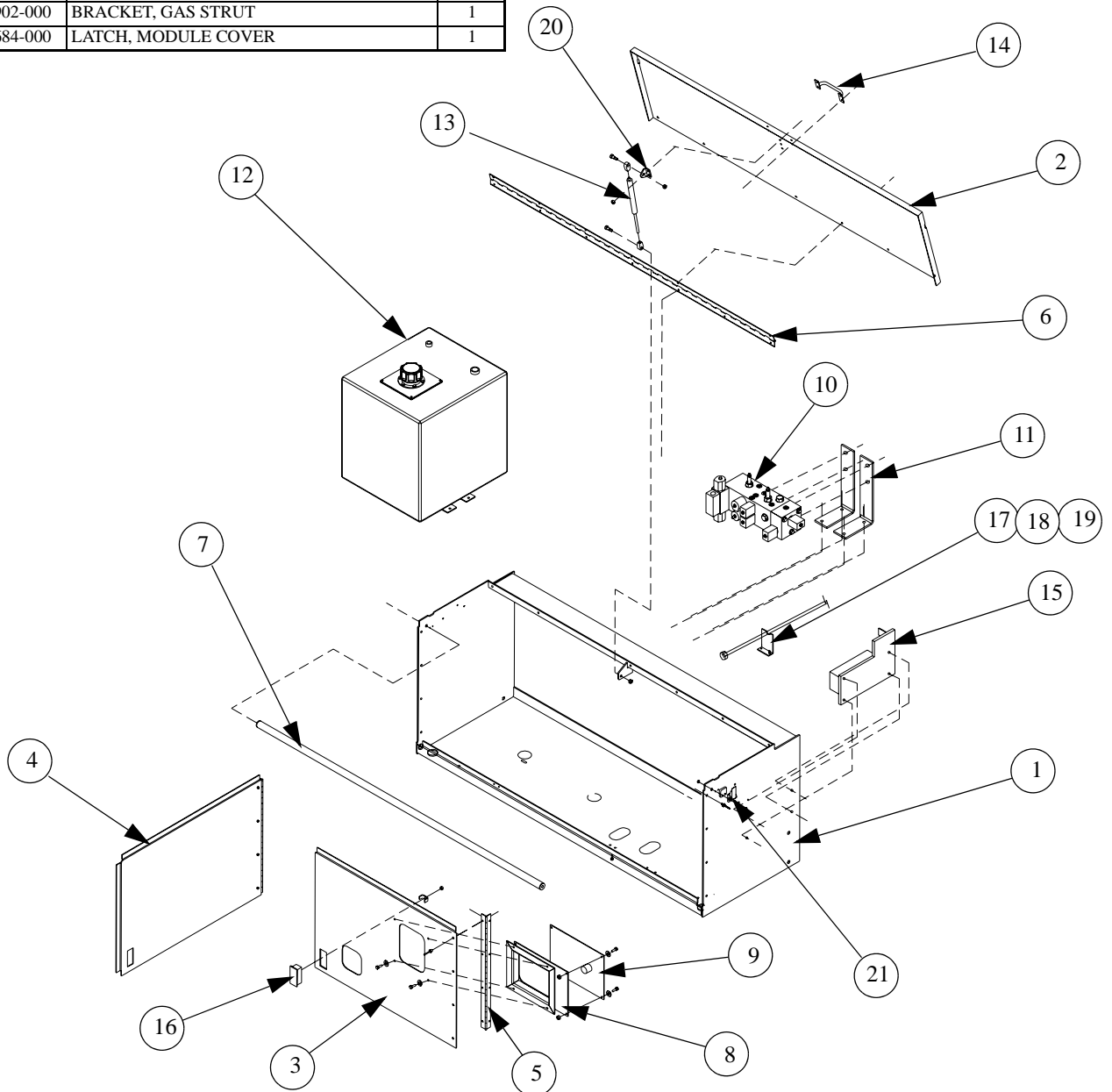
Item	Part	Description	QTY.
1	064724-000	POWER MODULE WELDMENT	1
2	064732-000	COVER, POWER MODULE WELDMENT	1
3	064736-000	DOOR, LEFT HAND	1
4	064752-000	DOOR, RIGHT HAND	1
5	064731-000	HINGE, MODULE COVER	1
6	064740-000	HINGE, DOOR	2
7	063650-012	GAS STRUT	1
8	065918-000	RADIATOR GRILL	1
9	503992-000	DIESEL TANK	1
10	062299-002	BATTERY 12V	1
11	505558-000	ENGINE	1
12	503934-000	EXHAUST BRACKET	2
13	500052-000	HANDLE	1
14	500465-001	DOOR LATCH	2
15	503684-000	COVER LATCH	2
16	064725-000	STIFFENER BAR	1
17	064040-000	BATTERY RETAINING ANGLE	1
18	503991-000	EXHAUST	1
19	067559-000	SOLENOID, THROTTLE	1
20	500032-000	SPRING, THROTTLE	1



Control Module Assembly

505505-000

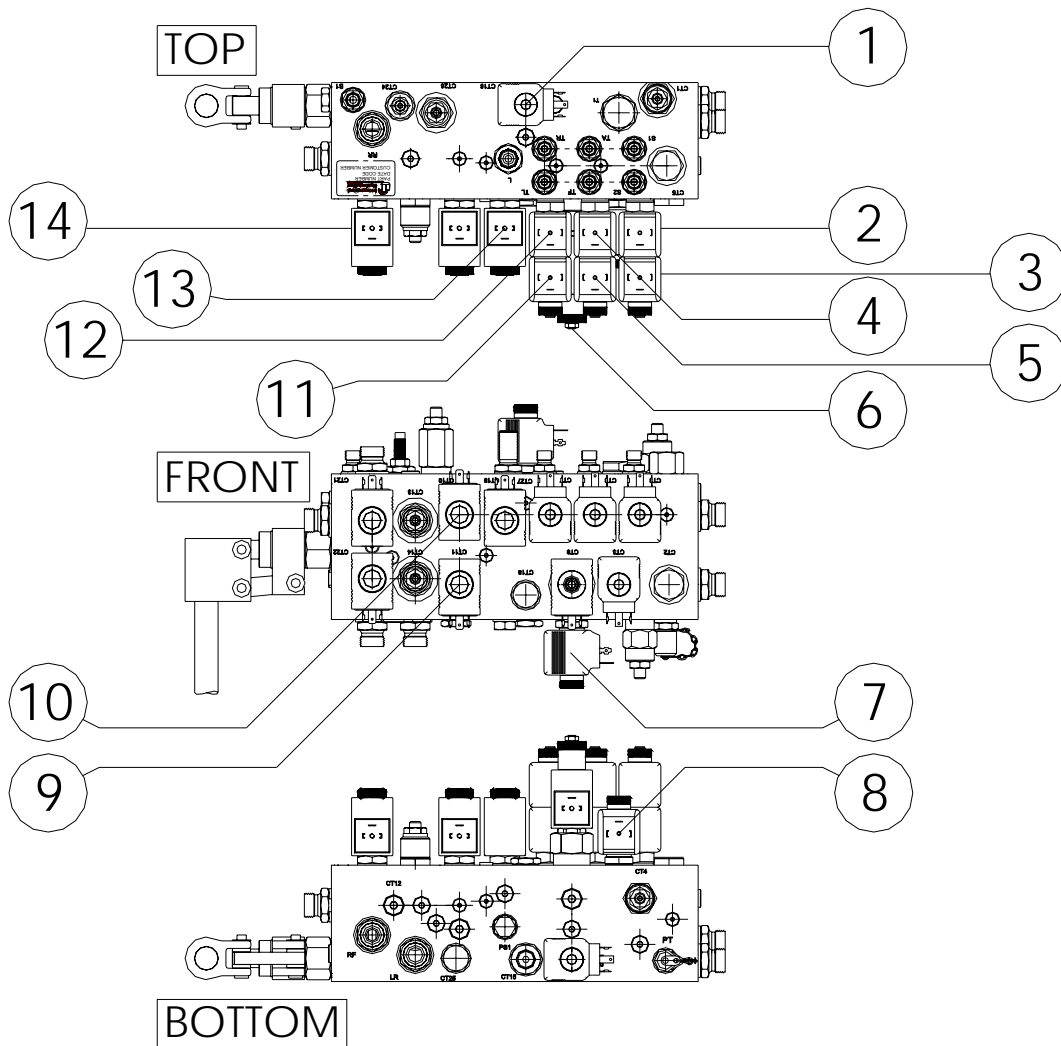
Item	Part	Description	QTY.
1	064721-001	CONTROL MODULE WELDMENT	1
2	064732-000	COVER, CONTROL MODULE	1
3	064735-002	DOOR, RIGHT HAND	1
4	064734-000	DOOR, LEFT HAND	1
5	064730-000	HINGE, DOOR	2
6	064731-000	HINGE, MODULE COVER	1
7	064725-000	STIFFENER BAR	1
8	503935-000	LCP MOUNTING BRACKET	1
9	502607-000	LOWER CONTROL PANEL	1
10	505555-000	MANIFOLD BLOCK	1
11	503994-000	MOUNTING BRACKET, MANIFOLD	2
12	064642-000	TANK, HYDRAULIC OIL	1
13	063650-012	GAS STRUT	1
14	025427-002	HANDLE	1
15	502608-000	ECU	1
16	500465-001	DOOR LATCH	2
17	064378-001	EMERGENCY DOWN BRACKET	1
18	067659-001	EMERGENCY DOWN CABLE	1
19	067877-000	EMERGENCY DOWN COUPLER	1
20	067902-000	BRACKET, GAS STRUT	1
21	503684-000	LATCH, MODULE COVER	1



Hydraulic Valve Block

505555-000

Item	Part	Description	QTY.
1	505801-000	VALVE, LIFT	1
2	505802-000	VALVE, STEER RIGHT	1
3	505803-000	VALVE, STEER LEFT	1
4	505804-000	VALVE, TILT AFT	1
5	505805-000	VALVE, TILT FORWARD	1
6	505806-000	VALVE, PROPORTIONAL	1
7	505807-000	VALVE, LIFT DUMP	1
8	505808-000	VALVE, STEER DUMP	1
9	505809-000	VALVE, DRIVE : REVERSE	1
10	505810-000	VALVE, DRIVE : FORWARD	1
11	505811-000	VALVE, TILT LEFT	1
12	505812-000	VALVE, TILT RIGHT	1
13	505813-000	VALVE, CUSHION	1
14	505814-000	VALVE, HIGH SPEED SERIES / PARA	1

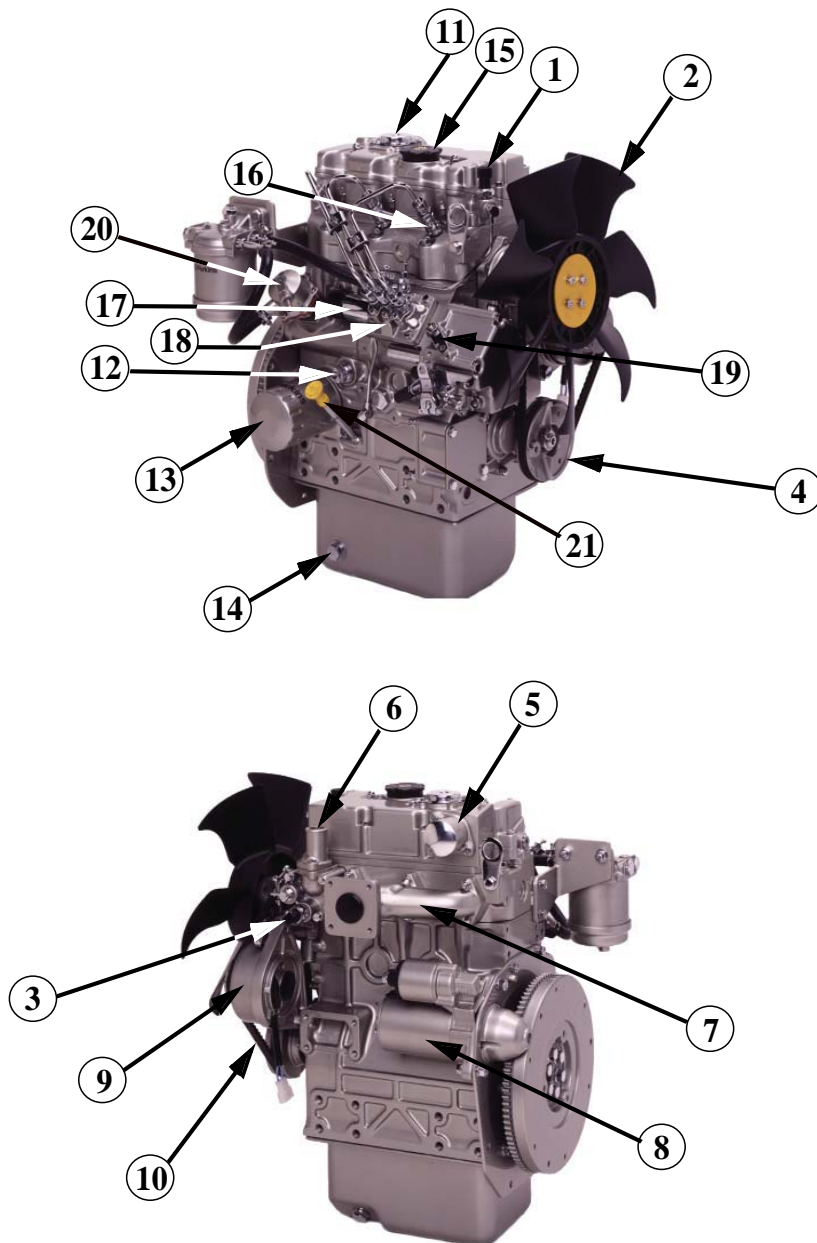


Engine Assembly

505558-000

Item	Part	Description	QTY.
1	505558-007	PRESSURE SWITCH	1
2	505558-008	FAN	1
3	505558-009	COOLANT TEMP SWITCH	1
4	505558-010	CRANKSHAFT PULLEY	1
5	505558-011	INDUCTION MANIFOLD	1
6	505558-012	COOLANT OUTLET	1
7	505558-013	EXHAUST MANIFOLD	1
8	505558-014	STARTER MOTOR	1
9	505558-015	ALTERNATOR	1
10	505558-005	DRIVE BELT	1
11	505558-016	ENGINE BREATHER	1
12	505558-017	COOLANT DRAIN PLUG	1
13	505558-018	LUBRICATING OIL FILTER	1
14	505558-019	LUBRICATING OIL DRAIN PLUG	1

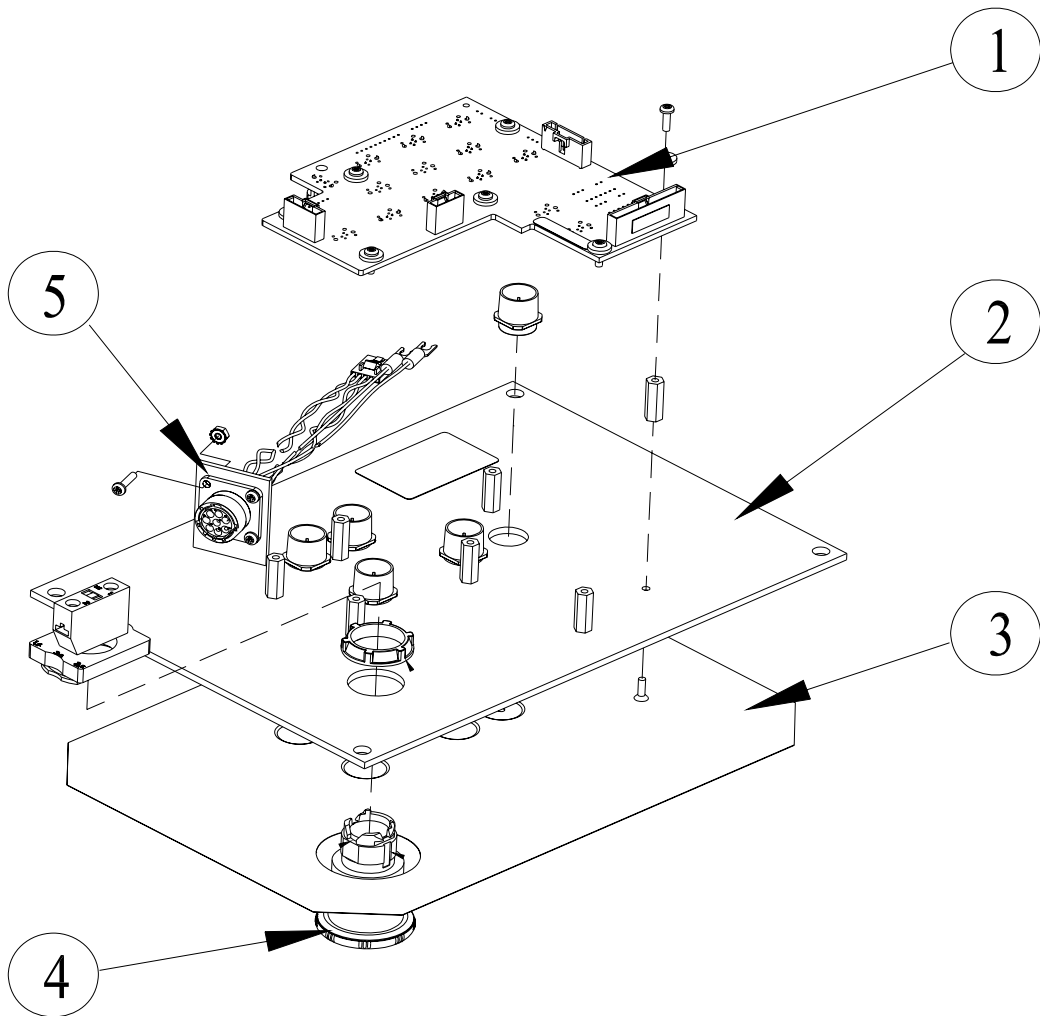
Item	Part	Description	QTY.
15	505558-020	LUBRICATING OIL FILLER CAP	1
16	505558-021	ATOMISER	1
17	505558-022	MECHANICAL STOP CONTROL	1
18	505558-023	FUEL PUMP	1
19	505558-024	SPEED CONTROL LEVER	1
20	505558-025	FUEL LIFT PUMP	1
21	505558-026	LUBRICATING OIL DIPSTICK	1
22	505558-006	VOLTAGE REGULAOR (NOT SHOWN)	1
23	505558-001	SOLENOID, ELECTRIC STOP (NOT SHOWN)	1
24	505554-000	PUMP (NOT SHOWN)	1



Lower Control Panel Assembly

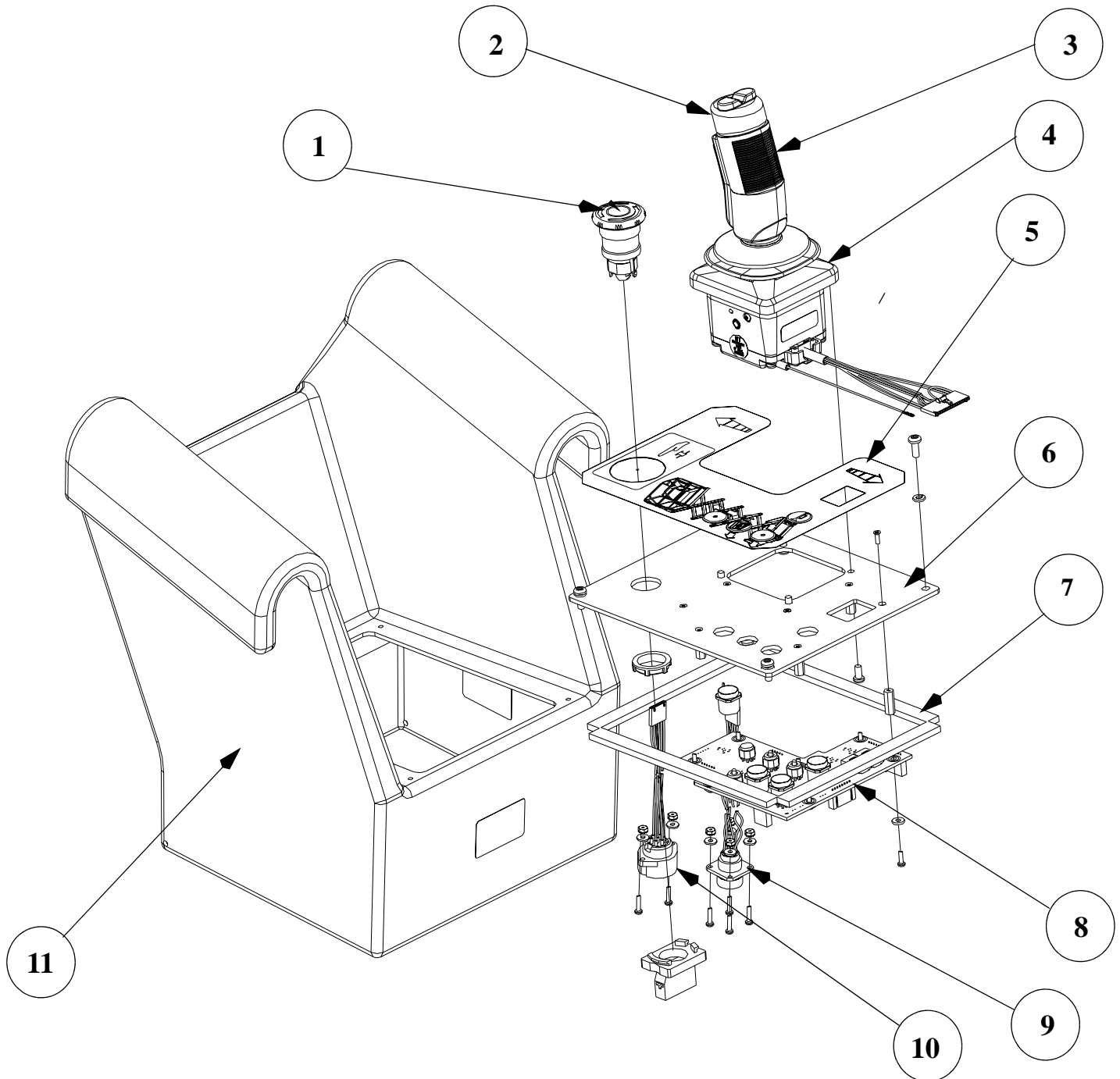
502607-000

Item	Part	Description	QTY.
1	502457-000	CIRCUIT BOARD	1
2	502610-000	MOUNTING PLATE	1
3	502611-000	DECAL	1
4	501867-000	EMERGENCY STOP	1
5	501880-000	PLUG	1



Upper Control Box Assembly

Item	Part	Description	QTY.
1	501867-000	EMERGENCY STOP BUTTON	1
2	501882-002	RUBBER BOOT, STEERING	1
3	501882-000	JOYSTICK	1
4	501882-001	RUBBER BOOT, JOYSTICK	1
5	502612-000	DECAL	1
6	501592-000	MOUNTING PLATE	1
7	502591-000	SEAL	1
8	502453-000	CIRCUIT BOARD	1
9	502587-001	SOCKET, MAIN HARNESS	1
10	502605-000	SOCKET, OVERLOAD	1
11	502496-000	UCB, BOX ONLY	1

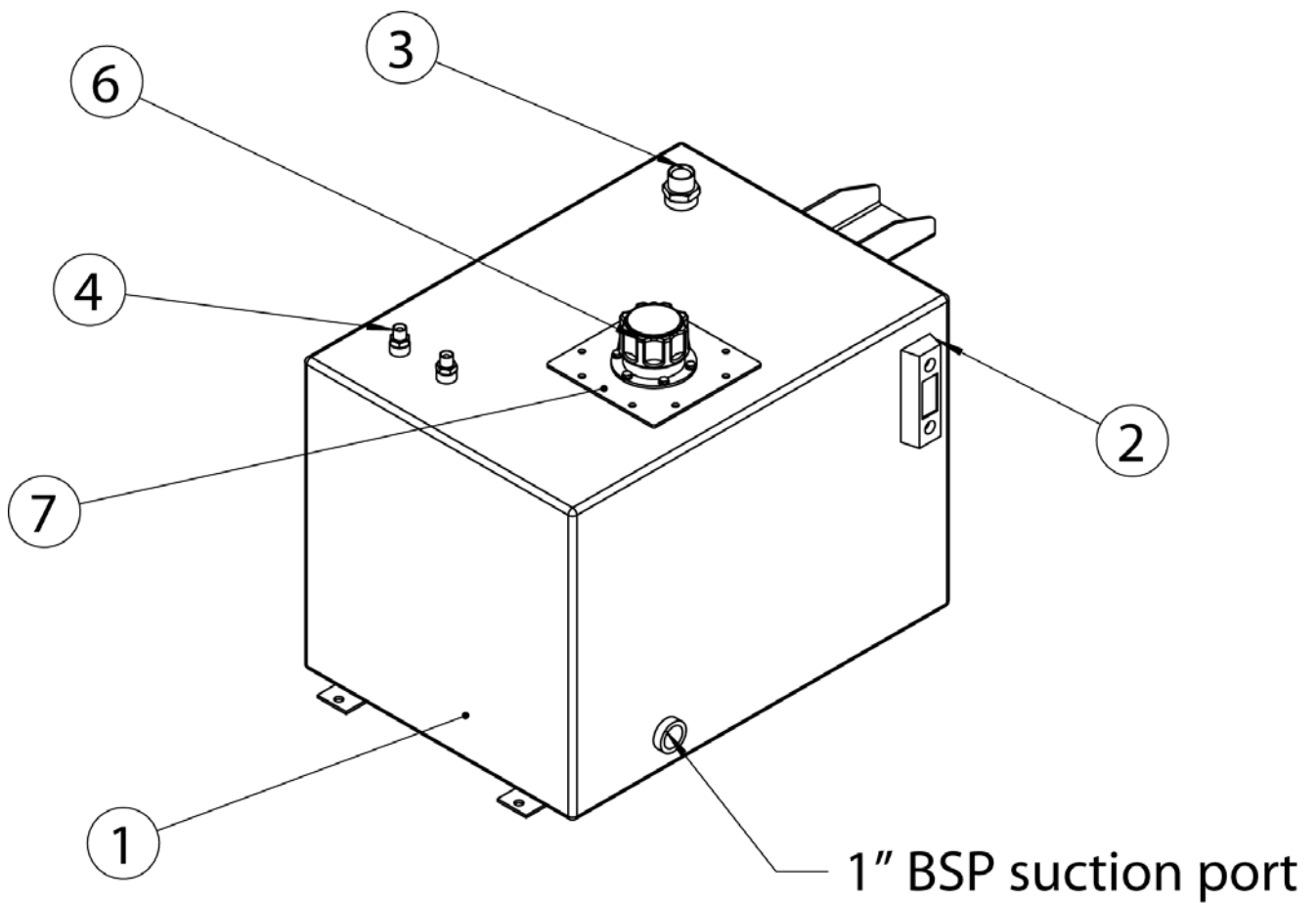


Illustrated Parts Breakdown - Tank Assembly

Tank Assembly

503990-000

Item	Part	Description	QTY.
1	503993-000	TANK	1
2	064642-030	LEVEL INDICATOR	1
3	057377-000	ADAPTOR 3/8" M/M BSP	1
4	057358-000	ADAPTOR 1/4" M/M BSP	2
5	057108-000	DRAIN PLUG 3/8" (NOT SHOWN)	1
6	057534-000	FILLER, BREATHER & DIPSTICK CAP	1
7	503991-001	INSPECTION COVER	1



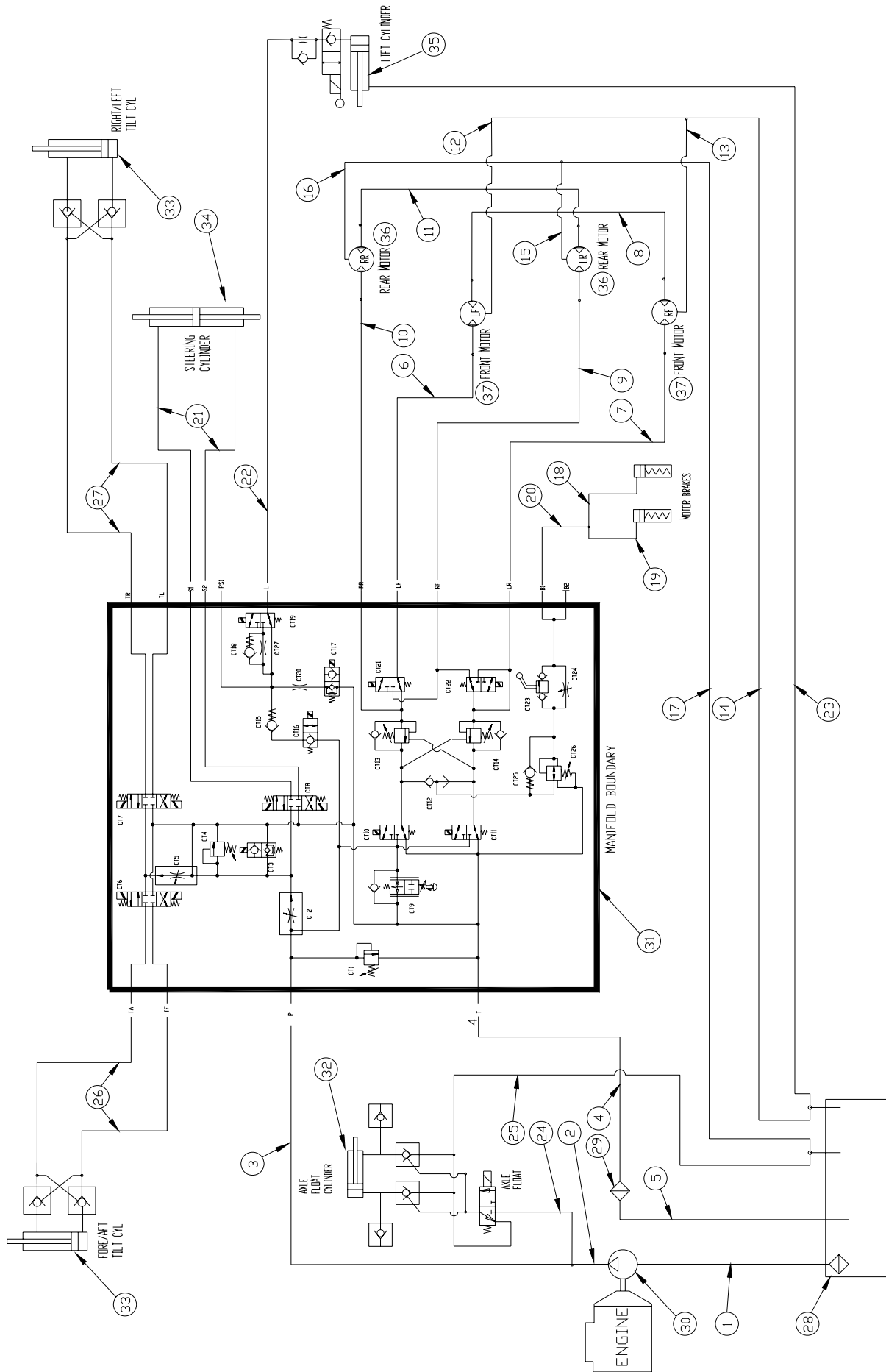
Hydraulic Assembly

505507-000

Item	Part	Description	QTY.
1	503954-000	HOSE, SUCTION	1
2	503955-000	HOSE, PUMP - PUMP TEE	1
3	503956-000	HOSE, PUMP TEE - MANIFOLD	1
4	503957-000	HOSE, RETURN (MANIFOLD - FILTER)	1
5	503958-000	HOSE, RETURN (FILTER - TANK)	1
6	503959-000	HOSE, MANIFOLD - FR TOP LH MOTOR	1
7	503960-000	HOSE, MANIFOLD - FR BOT RH MOTOR	1
8	503961-000	HOSE, FR LH MOTOR - FR RH MOTOR	1
9	503962-000	HOSE, MANIFOLD - REAR TOP LH MOTOR	1
10	503963-000	HOSE, MANIFOLD - REAR BOT RH MOTOR	1
11	503964-000	HOSE, R LH MOTOR - R RH MOTOR	1
12	503965-000	HOSE, FR LH MOTOR DRAIN - TEE	1
13	503966-000	HOSE, FR RH MOTOR DRAIN - TEE	1
14	503967-000	HOSE, FR MOTOR DRAIN TEE - TANK	1
15	503968-000	HOSE, R LH MOTOR DRAIN - TEE	1
16	503969-000	HOSE, R RH MOTOR DRAIN - TEE	1
17	503970-000	HOSE, R MOTOR DRAIN TEE - TANK	1
18	503977-000	HOSE, LH BRAKE - TEE (REAR MOTOR)	1
19	503978-000	HOSE, RH BRAKE - TEE (REAR MOTOR)	1
20	503797-000	HOSE, BRAKE TEE - MANIFOLD	1
21	503971-000	HOSE, MANIFOLD - STEERING CYL	2
22	503972-000	HOSE, MANIFOLD - LIFT CYL	1
23	503973-000	HOSE, LIFT CYL - TANK (RETURN)	1
24	503974-000	HOSE, PUMP TEE - AXLE FLOAT	1
25	503975-000	HOSE, AXLE FLOAT - TANK (RETURN)	1
26	503976-000	HOSE, MANIFOLD TO TILT (FORE / AFT)	2
27	503976-000	HOSE, MANIFOLD TO TILT (LEFT / RIGHT)	2
28	503990-000	HYDRAULIC TANK	1
29	057107-001	FILTER & HEAD	1
30	503953-000	PUMP (PTO DRIVEN) FOR PERKINS 403c11	1
31	505555-000	MANIFOLD BLOCK	1
32	064346-100	CYLINDER, AXLE FLOAT	1
33	064345-100	CYLINDER, TILT	2
34	063905-101	CYLINDER, STEER	1
35	063904-101	CYLINDER, LIFT	1
36	505201-000	REAR MOTORS	2
37	505202-000	FRONT MOTORS	2

Complete Hose Kit : 503951-000

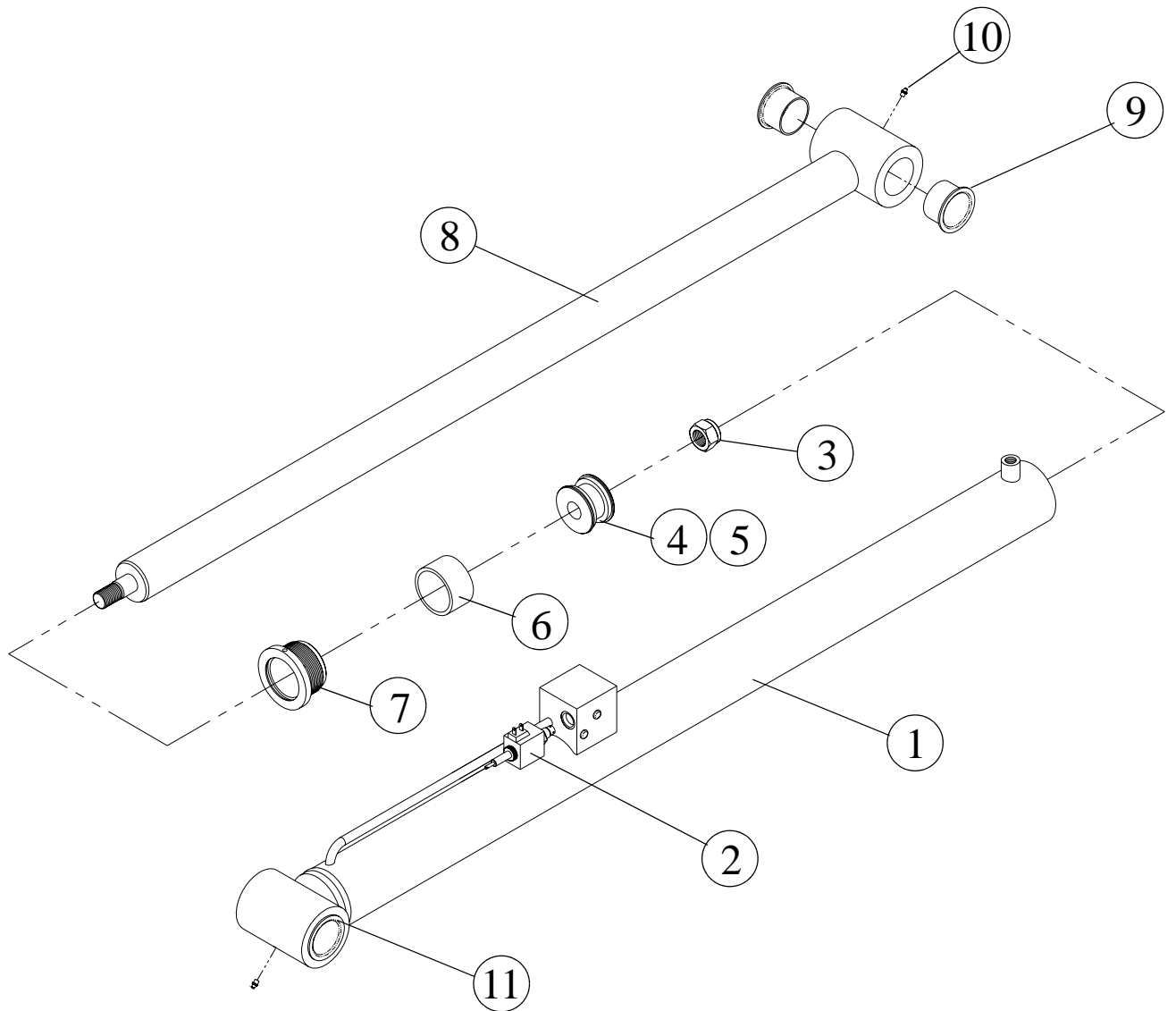
Illustrated Parts Breakdown - Hydraulic Assembly



Hydraulic Cylinder Assembly (Main Lift)

063904-101

Item	Part	Description	QTY.
1	-	CYLINDER BODY	1
2	062649-010	SOLENOID VALVE (EM DOWN) 12V	1
3	-	LOCK NUT	1
4	-	PISTON HEAD	1
5	063904-010	SEAL KIT	1
6	-	SPACING SLEEVE	1
7	-	CAP, BODY END	1
8	-	CYLINDER ROD	1
9	062649-010	FLANGED BUSHING	2
10	058819-000	M6 GREASE NIPPLE	2
11	-	CYLINDER BODY	1
12	062649-020	BUSHING	2

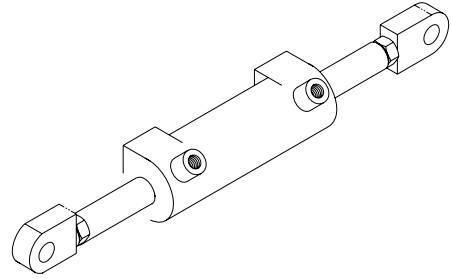


Hydraulic Cylinders : Steer, Axle Float, Tilt

Steer Cylinder

063905-101

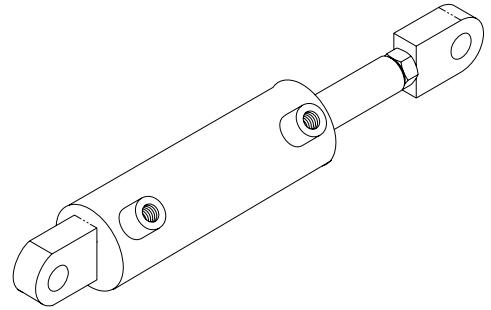
Item	Part	Description	QTY.
1	063905-010	SEAL KIT	1



Tilt Cylinder

064345-100

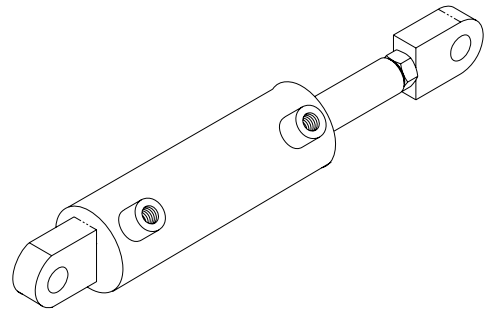
Item	Part	Description	QTY.
1	064345-010	SEAL KIT	1



Axle Float Cylinder

064642-100

Item	Part	Description	QTY.
1	066642-010	SEAL KIT	1



Electrical Assembly

505508-000

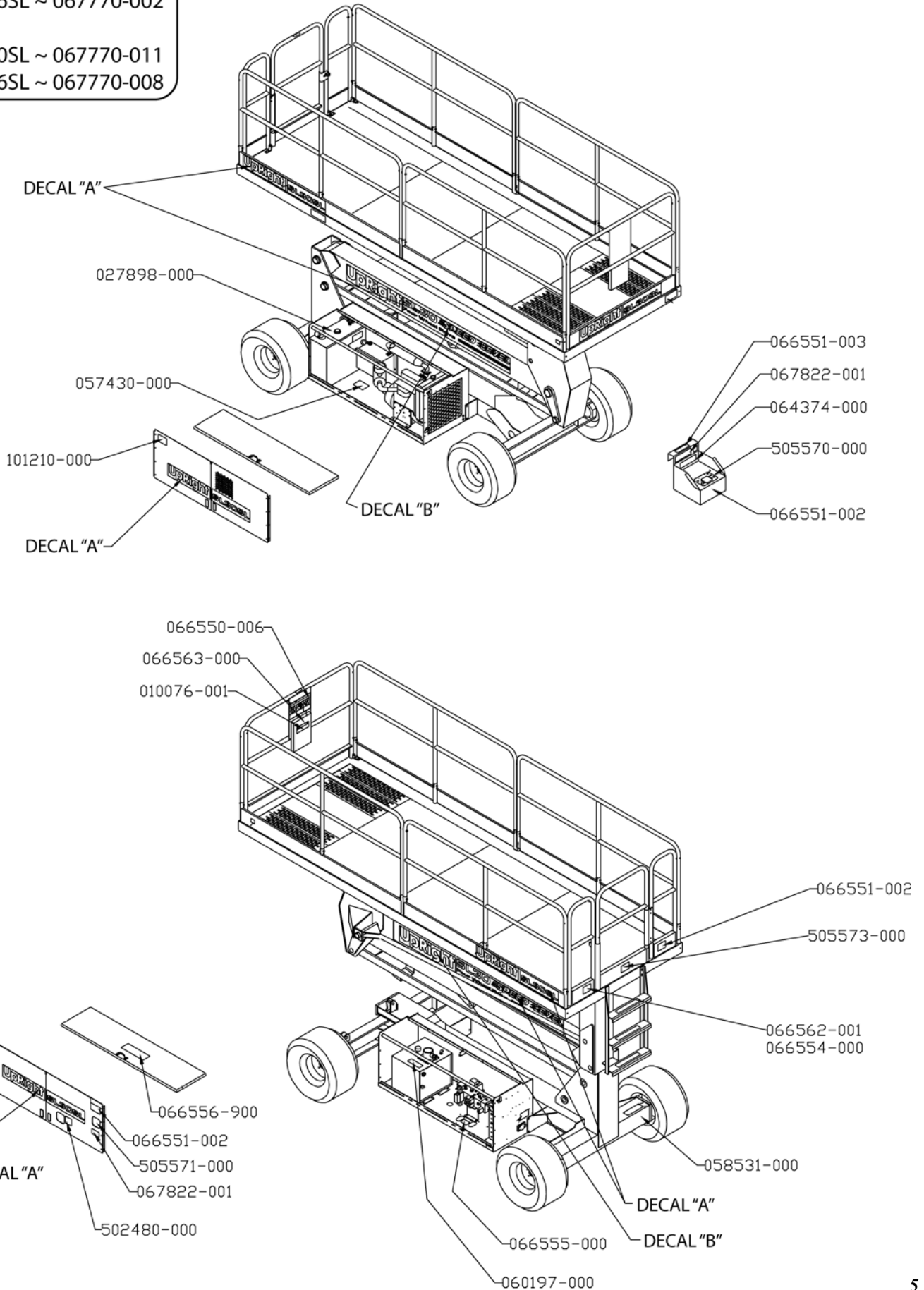
Item	Part	Description	QTY.
1	505559-005	ELECTRICAL HARNESS, J2	1
2	505559-002	LEVEL SENSOR	1
3	064296-004	LIMIT SWITCH	1
4	505558-015	ALTERNATOR	1
5	505559-004	ELECTRICAL HARNESS, J1	1
6	501868-000	HORN	1

Item	Part	Description	QTY.
7	067193-001	PROXIMITY SWITCH	1
8	062299-002	BATTERY	1
9	505558-014	STARTER	1
10	502607-000	LOWER CONTROL PANEL	1
11	501559-002	UPPER CONTROL BOX (COMPLETE)	1
12	501559-001	ECU	1

Decal Assembly

"A" = SL30SL ~ 067770-005
 SL26SL ~ 067770-002

"B" = SL30SL ~ 067770-011
 SL26SL ~ 067770-008



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