

# SKYJACK™

## OPERATING MAINTENANCE & PARTS MANUAL



**SJ-600 Series**

**Engine Powered**

**For Service please call ..... 800 275-9522**  
Skyjack Inc. Service Center, 3451 Swenson Ave., St. Charles, IL. 60174 .... FAX 630 262-0006

**For Parts in North America and Asia please call ..... 800 965-4626**  
Skyjack Inc. Parts Center, 3451 Swenson Ave., St. Charles, IL. 60174 ..... FAX 888 782-4825

**For Parts & Service in Europe please call ..... 31 297 255 526**  
Skyjack Europe Communicatieweg 29, 3641 SG Mijdrecht Netherlands ..... FAX 31 297 256 948

California Proposition 65

**WARNING:**

Some Materials and Fuels Used On This Equipment Are Known To The State Of California To Cause Cancer, Birth Defects and Other Reproductive Harm.

Engine Exhaust and Some Of Its Constituents Are Known To The State Of California To Cause Cancer, Birth Defects, and Other Reproductive Harm.

**SERIAL NUMBER BREAKDOWN**

<b>MODELS</b>	<b>MANUAL PART #112715</b>	<b>MANUAL PART #122891</b>	<b>MANUAL PART #122894</b>
7027	All Serial Numbers	Not Used	Not Used
71XX	Not Used	340000-340002	340003 & ABOVE

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 **WARNING**

**ANSI/SIA (United States)**

You are required by the current ANSI/SIA A92.6 standards to read and understand **YOUR RESPONSIBILITIES** in the Manual Of Responsibilities before you use or operate this work platform.

**CSA (Canada) and CE (Europe)**

You are required to conform to national health and safety regulations applicable to the operation of this elevating work platform.

**FAILURE TO COMPLY with your REQUIRED RESPONSIBILITIES in the use and operation of the work platform could result in DEATH OR SERIOUS INJURY!**

**OPERATOR SAFETY REMINDERS**

The National Safety Council reminds us that most accidents are caused by the failure of some individuals to follow simple and fundamental safety rules and precautions. Common sense dictates the use of protective clothing when working on or near machinery. Use appropriate safety devices to protect your eyes, ears, hands, feet and body.

You, as a careful operator, are the best insurance against an accident. Therefore, proper usage of this work platform is mandatory. The following pages of this manual should be read and understood completely before operating the work platform. Any modifications from the original design are strictly forbidden without written permission from SKYJACK, Inc.

 **DANGER**

**ELECTROCUTION HAZARD**

**THIS MACHINE IS NOT INSULATED. MAINTAIN SAFE CLEARANCES FROM ELECTRICAL POWER LINES AND APPARATUS. YOU MUST ALLOW FOR PLATFORM SWAY, ROCK OR SAG. THIS WORK PLATFORM DOES NOT PROVIDE PROTECTION FROM CONTACT WITH OR PROXIMITY TO AN ELECTRICALLY CHARGED CONDUCTOR.**

Minimum Safe Approach Distance

ANSI/SIA A92.6-1999 & CSA CAN3-B354.2&3-M82 Requirements			CE Guidance Note
Voltage Range (Phase to Phase)	Minimum Safe Approach Distance		"Avoidance of danger from Overhead Lines"  These machines should not operate within 15M of overhead lines suspended from steel towers.  These machines should not operate within 9M of overhead lines suspended from wooden poles.
	Feet	Meters	
0 To 300V	Avoid Contact		
Over 300V to 50KV	10	3.05	
Over 50KV to 200KV	15	4.60	
Over 200KV to 350KV	20	6.10	
Over 350KV to 500KV	25	7.62	
Over 500KV to 750KV	35	10.67	
Over 750KV to 1000KV	45	13.72	

**FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!**



**DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION AND TRAINING. DEATH OR SERIOUS INJURY COULD RESULT FROM IMPROPER USE OF THIS EQUIPMENT!**

### **SERVICE POLICY AND WARRANTY**

SKYJACK, Inc. warrants each new work platform to be free of defective parts and workmanship during the first 12 months. Refer to Warranty Statement on Page iv for details.

#### **NOTE**

SKYJACK, Inc. is continuously improving and expanding product features on it's equipment: therefore, specifications and dimensions are subject to change without notice.



**This Safety Alert Symbol Means Attention!**

**Become Alert! Your Safety Is Involved.**

The Safety Alert Symbol identifies important safety messages on machines, safety signs, in manuals, or elsewhere. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

### **SCOPE OF THIS MANUAL**

This manual applies to the ANSI/SIA, CSA and CE versions of the SJ-600 Series work platform models listed in Table 1-1. Equipment identified with "ANSI/SIA" meet the ANSI/SIA-A92.6 -1990 or ANSI/SIA-A92.6 -1999 standards. Equipment identified with "CSA" meets the CAN3-B354.2 & .3-M82 standards. Equipment identified with "CE" meets the requirements for the European countries, i.e. Machinery Directive 89/392/EEC and EMC Directive 89/336/EEC and the corresponding EN standards.

## WARRANTY STATEMENT

SKYJACK, Inc. warrants each new work platform to be free of defective parts and workmanship. During the first full year, labor and replacement parts will be provided by the local authorized Skyjack dealer without charge. For the following 48 months, structural components found to be defective will be replaced or repaired at no charge.

A warranty registration card is supplied with each work platform. The warranty is only effective when the warranty card has been completed and returned to Skyjack within 15 days from the time of billing. When work platforms are put into stock, the warranty period does not start until the personnel lift has been shipped to the dealers customer. If a unit is put into service and no warranty card has been mailed to Skyjack, Inc., the warranty period will commence 15 days from the date the dealer was invoiced for the work platform.

All warranty claims are subject to approval by Skyjack's Service Department. Skyjack, Inc. reserves the right to limit or adjust claims with regard to defective parts, labor or travel time based on usual and customary guidelines. Parts purchased from sources other than Skyjack will not be covered under this warranty. Misuse or improper operation, lack of normal maintenance and inspections as outlined in this Operating/Maintenance and Parts Manual, alterations to original design and/or components or accidents will void all warranty. **Batteries are not covered by this warranty.**

The above mentioned warranty statement is exclusive and no other warranty whether written, oral or implied shall apply. Skyjack excludes any implied warranty of merchantability and fitness and accepts no liability for consequential damages or for other negligence.

### WARRANTY PROCEDURES

The selling distributor or authorized dealer shall be responsible for the complete handling of customer claims under this warranty. Here's what to do:

1. When a customer files a claim under this warranty, contact Skyjack's Service Department to verify warranty coverage. **NOTE:** The complete serial number of the work platform is required to verify the claim.
2. When Skyjack's Service Department verifies warranty coverage, they will also issue an RA (Return Authorization) number for the return of any defective component(s). All items over \$25.00 in value must be returned to Skyjack, Inc.

3. Fill out a Warranty Claim Form from dealer's supply of claim forms. Then notify Skyjack's Service Department of the warranty claim number on the form used.

4. The distributor/dealer should then file a warranty claim with Skyjack, Inc. describing the nature of the defect, probable cause, work performed, travel hours, and labor hours listed separately. Warranty labor will be paid at a rate of \$42.00 per hour. The travel allowance will be paid at the same hourly rate within the dealers specified territory, limited to a maximum of four (4) hours. If a part has serviceable components, PLEASE replace the bad component. For instance, if you have a bad switch on a controller, please replace the switch. Hydraulic cylinders should be resealed, unless they are damaged beyond repair. Engine failures should be directed to your local engine distributor and covered by the manufacturers warranty. Skyjack will accommodate you and your labor. Labor rates and travel allowances are subject to change without notice.

5. Warranty claims must be received by Skyjack within 15 working days from the date of the repair. Warranty claims received with insufficient information will be returned for correction or completion.

6. Materials returned for warranty inspection must have the following procedures:

- A. Carefully packaged to prevent additional damage during shipping.

- B. Drained of all contents and all open ports capped or plugged.

- C. Shipped in a container tagged or marked with the RA number.

- D. Shipped **PREPAID**. Any item(s) returned for warranty by any other means may be refused and returned unless prior approval from Skyjack is obtained.

- E. Items shipped to the dealer will be sent freight prepaid and added to the invoice.

Failure to comply with the above procedures may delay approval and processing of the warranty claim and could result in the denial of a warranty claim. Skyjack's dealer's accounts must be kept current in order to approve and issue warranty credits. Skyjack reserves the right to withhold issuance of warranty credits to a dealer if their account is not in good standing. This is subject to change without prior notice.

# SECTION 1

## INTRODUCTION

### Purpose Of Equipment

The SKYJACK SJ-600 Series Work Platform is designed to transport and raise personnel, tools and materials to overhead work areas.

### Use Of Equipment

The work platform (Table 1-1) is a highly maneuverable, mobile work station. Lifting and elevated driving MUST be on a flat, level, compacted surface. The work platform can be driven over uneven terrain only when the platform is fully lowered.

### Warnings

The operator MUST read and completely understand the safety panel labels and ALL other warnings in this manual and on the work platform. Compare the labels on the work platform with the labels found throughout this manual. If any labels are damaged or missing, replace them immediately.

### Description

The work platform consists of three major assemblies, the platform, lifting mechanism and the base. An operator's control box is mounted on the platform railing. Auxiliary and emergency controls are located at the base.

**Platform** - The platform is constructed of a tubular support frame, a skid-resistant "diamond plate" deck surface, and 43-1/2" (1.10m) hinged railings with 6" (15.24cm) toe boards and mid-rails. The platform can be entered from the rear through a spring returned gate. The 600 Series can be equipped with a front extension platform.

**Lifting Mechanism** - The lifting mechanism is constructed of formed steel sections making up a scissor-type assembly. The scissor-type assembly is raised and lowered by single-acting hydraulic lift cylinders with holding valves. A two-section pump, driven by an engine provides hydraulic power to the lift cylinders. A safety bar located inside the lifting mechanism (when properly positioned) prevents the scissor-type assembly from being lowered while maintenance or repairs are being performed within the lifting mechanism.

**Base** - The base is a rigid one piece weldment which supports two component side cabinets. One cabinet contains the hydraulic components, up/down controls, electrical components and starter battery. The other cabinet contains the fuel tank and hydraulic tank. The LP tank (if equipped) is located at the rear of the platform behind the entrance ladder. The front axle has two wheels, steerable by a hydraulic cylinder and is either non-driven (2WD models) or drive shaft/gear box driven (4WD models). The rear axle is drive shaft/gear box driven and has a spring-applied hydraulically-released disc parking brake. A slide-out drawer at the front of the base, supports an engine coupled with a two-section hydraulic pump providing power to the hydraulic system. An engine control panel is also located at the front of the base.

**Operator's Control Box** - A removable control box, mounted at the right front of the platform, contains controls for engine operation, work platform motion and emergency stopping.

**Serial Number Nameplate** - The serial number nameplate, located on the rear of the machine, lists the model number, serial number, machine weight, drive height, capacities, platform height, voltage, system and lift pressures, and date manufactured. Use this information for proper operation and maintenance and when ordering service parts.

**Optional Accessories** - The SKYJACK Work Platform is designed to accept a variety of optional accessories. These are listed in Table 1-2. Standard Features and Optional Equipment. Operating instructions for these options (if required) are located in Section 2 of this manual.

## Operator Warnings



### Warning

- DO NOT** exert excessive side forces on platform while elevated.
- DO NOT** overload. The lift relief valve does not protect against overloading when the platform is elevated.
- DO NOT** alter or disable limit switches or other safety devices.
- DO NOT** exceed the rated capacity of your scissorlift and make sure the load is evenly distributed on the platform.
- DO NOT** raise your platform in windy or gusty conditions.



### Warning

#### Jobsite Hazards

- DO NOT** operate on surfaces not capable of holding weight of the work platform including the rated load, e.g. covers, drains, and trenches.
- DO NOT** elevate the work platform if it is not on firm level surfaces. Avoid pot holes, loading docks, debris, drop offs and surfaces that may affect the stability of your work platform.

**DO NOT** climb or descend a grade steeper than 35%. Elevated driving must only be done on firm level surfaces. (Ref. Table 1-1)

**BE AWARE** of overhead obstacles, and poorly lit areas in case of overhead obstacles.

**ENSURE** that there is no person(s) in the path of travel.



### Warning

#### Work Platform Conditions

##### *An Operator Should Not Use Any Work Platform That:*


- Has ladders, scaffolding or other devices mounted on it to increase its size or work height.
- Does not have a clean, uncluttered work area.
- Does not appear to be working properly.
- Has been damaged or appears to have worn or missing parts.
- Has alterations or modifications not approved by the manufacturer.
- Has safety devices which have been altered or disabled.

**Table 1-1 Specifications And Features**

<b>7027</b>		
<b>Weight*</b>		8,600 lbs. (3450 kg)
<b>Width</b>		70.0" (1.78 m)
<b>Length</b>		119.0" (3.02 m)
<b>Platform Size</b>		65" x 112.5" (1.65 x 86m)
<b>Height</b>	<b>Working</b>	33.0' (10.1m)
	<b>Platform</b>	27.0' (8.23m)
	<b>Lowered</b>	60.0" (1.52m)
	<b>Drive</b>	Full
<b>Tires</b>	Refer To Table 2-2.	
<b>Speed</b>	<b>Normal Drive</b>	3.0 mph (4.8 km/h)
	<b>Elevated Low Drive</b>	.6 mph
	<b>Raise (Rated Load)</b>	39 sec.
	<b>Lower (Rated Load)</b>	33 sec.
<b>Engine (RPM)</b>	<b>Ford Gasoline</b>	Not Applicable
	<b>Kubota Diesel</b>	900 (Low)/ 2800 (High)
	<b>Kubota Gasoline</b>	1500 (Low)/ 3900 (High)
<b>Gradability</b>		35%

\* Weights are approximate, refer to serial nameplate for specific weight. Values shown are for standard 2WD machines with a manual extension platform.

<b>CE Kubota Diesel Models</b>	
<b>Sound Pressure &amp; Power Levels</b>	
NET INSTALLED POWER:	17.1kW
SOUND PRESSURE @ OPERATOR STATION:	79 dB
GUARANTEED SOUND POWER LEVEL:	103 dB



**Table 1-2. Standard Features and Optional Equipment**

**Optional Equipment (ANSI & CE)**

- Kubota Diesel Water-Cooled Engine (ANSI only)
- Movement Alarm
- Front Mounted 5 Ft. (1.5m) Powered Extension Platform
- 3500 Watt Hydraulic AC Generator
- 1500W AC Inverter
- 4-Wheel Drive Package
- Rotating Amber Beacon
- Type #6F Foam Filled Tires
- Type #7F Foam Filled Tires
- Type #8F Foam Filled Tires
- Type #7 Air Filled Tires
- Type #8 Air Filled Tires
- Scissor Guards (ANSI Only)
- 5 Ft. (1.5m) Slide Out Extension Platform

**Standard Features (ANSI & CE)**

- Operator Horn
- Joystick Control
- Diamond Pattern, All Steel Platform Deck Construction
- Flashing Light and Descent Alarm
- Hourmeter
- Lockable Cabinets With Swing-Out Door
- Color-Coded, Numbered Wiring System
- Tie Down Points
- Hinged Railing System With 6" (15.24cm) Toe Boards
- 23 Hp Kubota Dual Fuel- Gasoline/Propane (ANSI)
- Dual Fuel - Gasoline/Propane (ANSI)
- Kubota Diesel Water-Cooled Engine (CE only)
- Dual Range (torque/speed) Selector
- Engine Mounted on Slide-Out Tray
- Type #6 Air Filled Tires
- AC Outlet on Platform
- Scissor Guards (CE Only)
- Disc Brake System on Rear Axle
- Tilt Alarm with Lift/Drive Cut Out
- Base Key Switch Box (CE only)
- D-Rings (Lanyard Attachment Points)



# Work Platform Major Component Identification

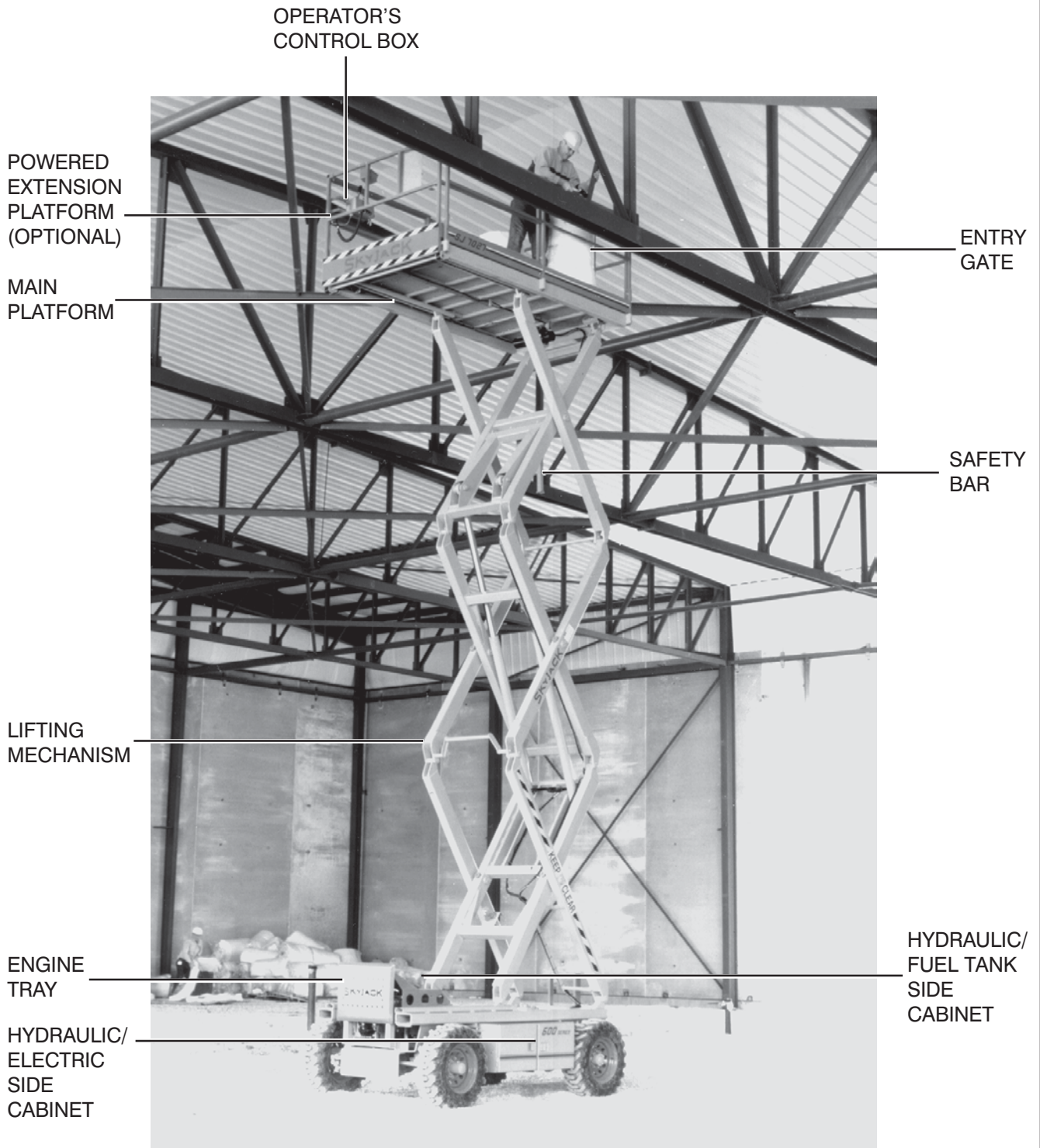


Figure 1-1. SKYJACK SJ-600 Series Work Platform  
(Model 7027 with powered extension platform option shown)

## SECTION 2 OPERATION

### Operating Controls Identification

The following descriptions are for identification, explanation and locating purposes only. A qualified operator **MUST** read and completely understand these descriptions before operating this work platform. Procedures for operating this work platform are detailed in the “**OPERATING PROCEDURES**” section. Both standard and optional controls are identified in this section. Therefore, some controls may be included that are not furnished on your work platform.

### Base Controls

#### Electrical Panel

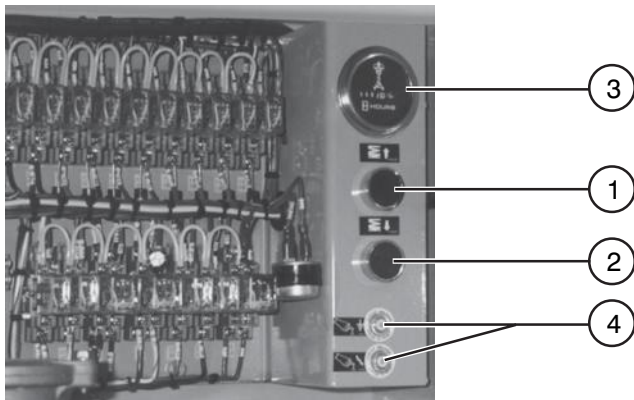


Figure 2-1. Electrical Panel

**Electrical Panel** - This control station is located in the Hydraulic/Electric Side Cabinet. It contains the following controls:

1. **Up Push-Button Switch** - This push-button switch will raise the platform to desired height.
2. **Down Push-Button Switch** - This push-button switch will lower the platform to desired height.
3. **Hour meter** - This gauge records engine running time.
4. **20 Amp Circuit Breaker Resets** - In the event of a power overload or positive circuit grounding, circuit breaker will pop out.

#### Emergency Battery Disconnect Switch

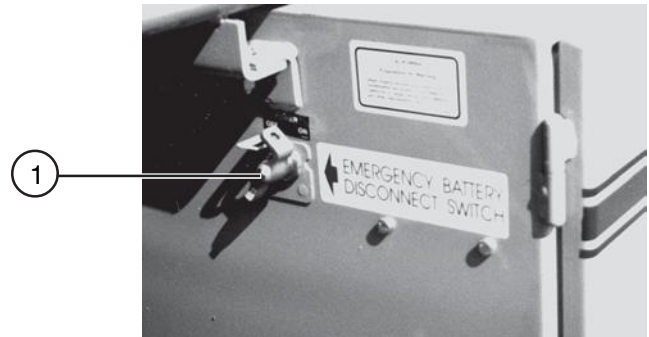


Figure 2-2. Emergency Battery Disconnect Switch

1. **Emergency Battery Disconnect Switch** Located at the front of the Hydraulic/Electric Side Cabinet, this switch when in the “OFF” position, disconnects power to all circuits. Switch **MUST** be in “ON” position to operate any circuit.

#### Base Control Box (CE)

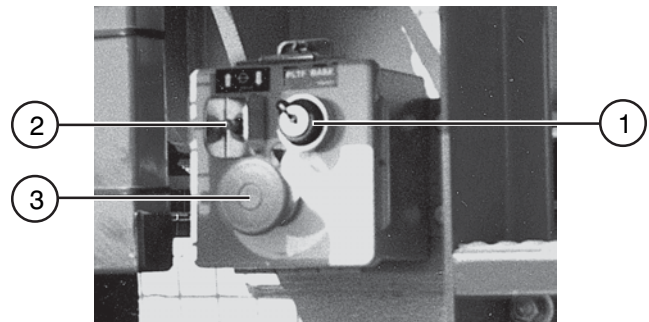


Figure 2-3. Base Control Box and Labels  
(Located at rear of hydraulic/electric side cabinet)

**Base Control Box** - This metal control station is mounted on the rear of the base . It contains the following controls:

1. **Platform/Base Select Key Switch** - Key to “PLATFORM” position directs power to the operator’s control box on the platform. Key to “BASE” position directs power to the base control box.
2. **Platform Up/Down Selector Switch** - This toggle switch raises or lowers the platform to a desired height.
3. **Emergency Stop Button** - This red “mushroom-head” shaped button switch is designed to disengage power to the platform controls.



## Engine Control Panel (Dual Fuel)

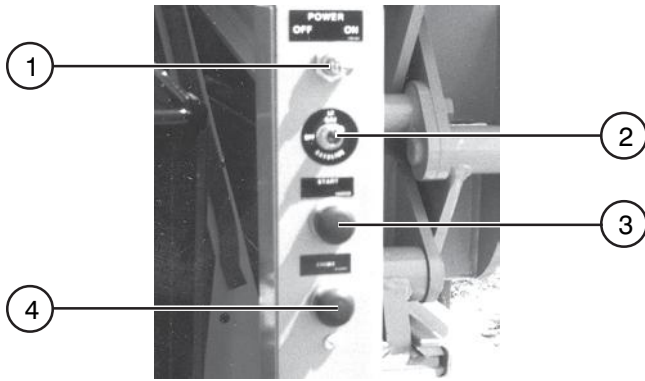


Figure 2-4A. Engine Control Panel -  
Ford Gasoline Engine  
(Shown with Dual Fuel)

**Engine Control Panel** - This control station is attached to the Engine Roll-out at the front of the base. It contains the following controls:

- 1. Engine Off/On Switch** - This plunger-type switch, when pulled out, energizes the engine circuit and the operator's control box. To stop engine, push plunger in.
- 2. Fuel Select Switch** (Machines with Dual Fuel) - Used to switch from LP GAS to gasoline
- 3. Engine Start Push-Button** - This push-button switch energizes the engine starter motor.
- 4. Engine Choke Push-Button** - This push-button switch sets the choke for starting a cold gasoline/propane engine.

## Engine Control Panel (Diesel)

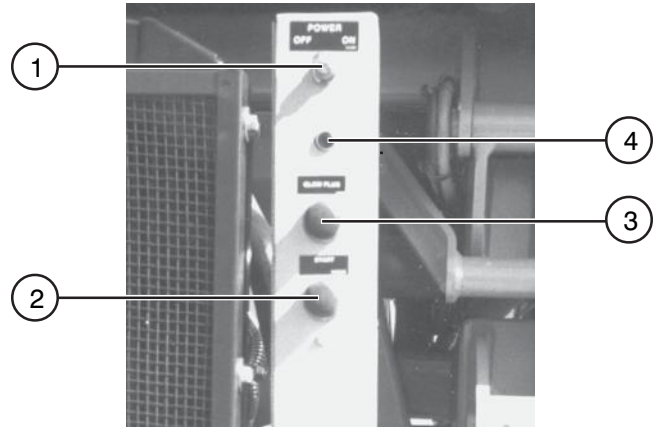


Figure 2-4B. Engine Control Panel -  
Kubota Diesel Engine

**Engine Control Panel** - This control station is attached to the Engine Roll-out at the front of the base. It contains the following controls:

- 1. Engine Off/On Switch** - This plunger-type switch, when pulled out, energizes the engine circuit and the operator's control box. To stop engine, push plunger in.
- 2. Engine Start Push-Button** - This push-button switch energizes the engine starter motor.
- 3. Engine Glow Plug Push-Button** - This push-button switch energizes the glow plug to aid in starting a cold diesel engine.
- 4. Glow Plug Indicator Light** - This red lamp illuminates until the glow plugs have completed their timed heating cycle. When the lamp goes out, the engine is ready to be started.

## Platform Controls Operator's Control Box

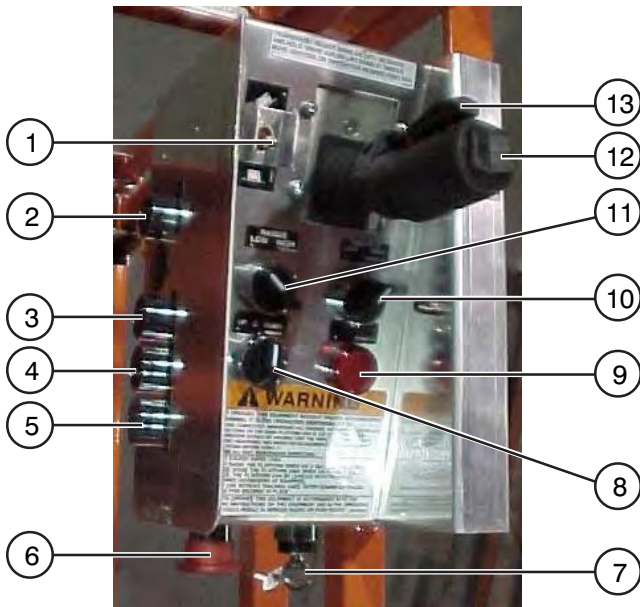




Figure 2-5. Operator's Control Box

**Operator's Control Box** - This metal control station is mounted at the right front of the platform. It contains the following controls:

- 1. Torque Toggle Switch** - This toggle switch, when in the "  " position, cuts out High Range and 3rd speed to provide maximum torque when climbing grades and in rough terrain. When in the "  " position, all three speeds are available.
- 2. Operator Horn Push-Button** - Located on the side of the Operator's Control Box, this push-button switch, when depressed, sounds an automotive-type horn.
- 3. Engine Choke Push-Button** (Dual fuel engines) - Located on the side of the control box, this push-button sets choke for starting a cold gasoline engine.  
**Glow Plug Push-Button** (Diesel Engines) - Located on the side of the control box, this push-button powers the glow plug for starting cold diesel engines.
- 4. Engine Start Push-Button** - Located on the side of the control box, this push-button energizes the engine starter motor.

**5. Enable Push-Button** - When depressed and held, this push-button switch brings power to the lift or outrigger circuits. On some models, This button must also be held depressed to energize the drive or steer functions.

**6. Emergency Stop Button** - When struck, this red push-button switch disconnects power to the control circuit.

**7. Off/Lift/Drive Select Key Switch** - Key to "OFF" position disconnects power to the control box. Key to "LIFT" position brings power to the Lift Enable Push-button. Key to "DRIVE" position brings power to the Drive/Steer Controller.

**8. Up/Down Selector Switch** - This rotating selector switch raises or lowers the platform to the desired height.

**9. Platform Power Indicator Light** - Light will glow when key switch is in "LIFT" or "DRIVE" position. Light will not glow when key switch is in "OFF" position.

**10. Low/High Throttle Select Switch** - This rotary switch allows selection between high and low engine throttle speeds.

**11. Low/High Range Select Switch** - This rotary switch selects "LOW" range (high torque) or "HIGH" range (high speed).

**12. Drive/Steer Controller** - A one-hand toggle type lever to control steer and three-speed drive motion. It is a "deadman" control which returns to neutral when released.

**13. Drive Enable Switch** - On later models, this momentary "Trigger" style switch energizes the drive/steer controller. It must be held depressed continuously while engaging either the drive or steer functions.

## Hydraulic Generator Control (Option)

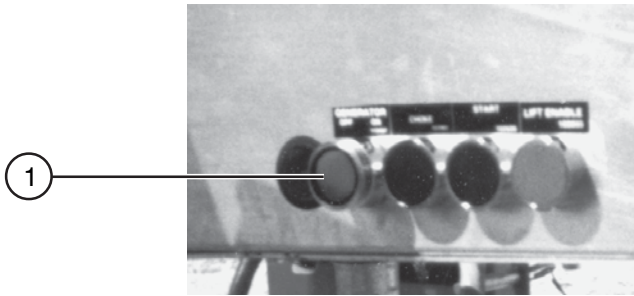


Figure 2-6. Hydraulic Generator Control

**Hydraulic Generator Control** - Located on the side of the Operator's Control Box, this push-button switch starts the hydraulic generator on the base.

1. **Hydraulic generator Off/On Push-Button Switch**  
This illuminated push-button switch starts the base mounted generator. It illuminates when the generator is activated.

## 1500W AC Inverter (Option)



Figure 2-7. 1500W AC Inverter

**Inverter** - The inverter is located on the base of the machine, it has the following controls.

1. **ON/OFF Switch** - This slide switch will activate or terminates inverter function.
2. **Status LEDs** - These LEDs indicate the operating or fault status of the inverter .
3. **15 Amp Circuit Breaker** - In the event of a power overload or circuit grounding, this circuit breaker will pop out.
4. **GFCI Outlet** - During inverter operation, this outlet provides AC power.

## Powered Extension Platform Control Box (Option)

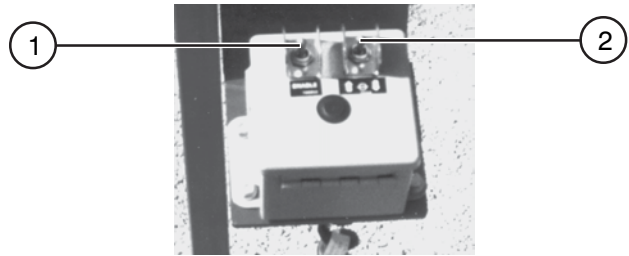


Figure 2-8. Powered Extension Platform Control Box

**Powered Platform Control Box** - This metal control station is mounted at the right front of the extension platform. It contains the following controls:

1. **Enable Switch** - This switch, when activated brings power to the Platform Extend/Retract Switch.
2. **Platform Extend/Retract Switch** - This switch, when activated extends/retracts the powered extension platform.

# Identification And Operation of Safety Devices

## Fold-Down Guardrail System

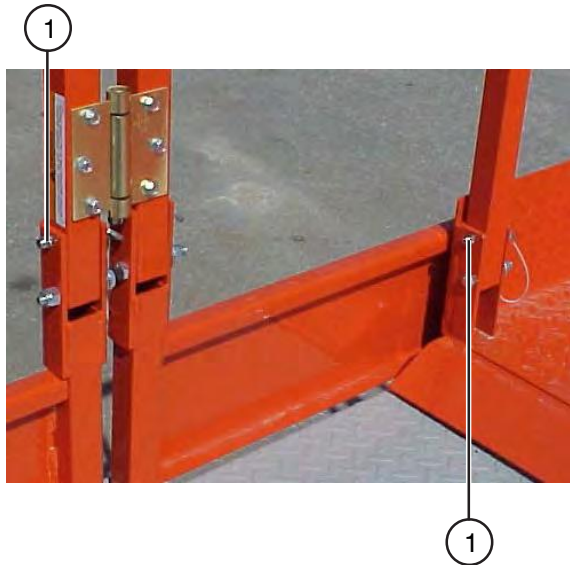


Figure 2-9. Fold-Down Guardrail System

**Fold-Down Guardrail System** - This system when folded down, reduces the shut height of the work platform for transporting and traveling through doorways.

**1. Guardrail Locking Pin W/Lanyard** - To fold the guardrail system down, remove the locking pin at each pivot point and lower each guardrail. To raise the guardrail system, swing up each guardrail and lock in place with the locking pins ensuring that the detent ball of each pin is clear of the side of the pivot brackets. (Figure 2-10.)

### **Warning**

The guardrail system **MUST** be upright and locked in place before resuming normal operation. **Check the guardrail system for loose or missing locking pins before operating this equipment!**

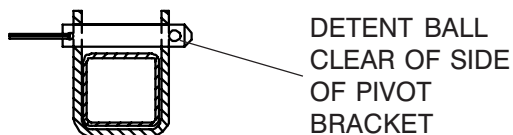


Figure 2-10. Correct Position of Locking Pin

## Base Controls - Manual Safety Bar

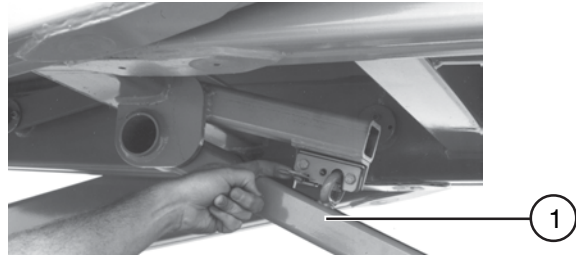


Figure 2-11. Safety Bar

**1. Safety Bar** - Designed to support the scissors assembly (when properly positioned), the safety bar **MUST** be used for inspection and performing maintenance or repairs within the scissors assembly. To lower safety bar, push lock lever rearward and the safety bar will drop. Follow procedure on safety bar decal to properly position safety bar.

### **Warning** **Crushing Hazard**

**DO NOT** reach through scissor assembly without the safety bar properly positioned. **Failure to avoid this hazard will result in death or serious injury!**

## Operating Procedures

The following descriptions are for Operating Procedures. A qualified operator **MUST** read and completely understand these descriptions before operating this work platform.

### Set-Up Procedure

1. Remove all packing materials and inspect for damage incurred during transport. This is normally required for equipment being put into service for the first time, after the equipment has been unloaded.

#### Note

Report any damage to delivery carrier immediately.

2. Inspect work platform thoroughly and remove any foreign objects.
3. Raise the side, extension platform (if so equipped), and gate railings to their upright position and lock in place with locking pins. Lock side railings to front railings with locking pins.
4. Remove the operator's control box from its shipping container and secure it to the railing at the right front of the platform. Attach the control cable and power deck extension cable (if so equipped) to the scissor's control cable.
5. Open the fuel tank side cabinet door. Fill the fuel tank to "F" level on fuel gauge with the proper fuel. (Refer to decal on fuel tank)
6. Close the fuel tank side cabinet door.
7. Machines with Dual Fuel:  
Make sure propane hose coupler is properly secured at propane cylinder and valve on propane cylinder is opened all the way.
8. Open the hydraulic tank side cabinet door. Check the hydraulic oil level (scissors must be fully lowered) in the tank. Level should be at or slightly above the top mark on the sight glass. If required, add a quality grade hydraulic oil such as ATF Dexron III (ESSO).
9. Check the battery fluid level. If fluid level is not at FULL mark on battery, add distilled or demineralized water only.



## Warning Explosion Hazard

Keep flames and sparks away. **DO NOT** smoke near batteries.

### First Aid

Immediately flush eyes with cold water if electrolytic acid is splattered into them. Seek medical attention.

10. Move the work platform to a level, firm test area where the work platform can be vertically extended to its maximum working height. If the work platform is to be pushed, towed or winched, ensure that the parking brake has been disengaged. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 kph).**

#### Using the Base Controls:

11. Turn the Emergency Power Disconnect Switch to "ON" position.

#### Using the Platform Controls:

12. Pull out the Emergency Stop Button.

#### Note

Engine will not start unless this button is in the "ON" position.

13. Insert key into Off/Lift/Drive Select Key Switch and turn to "LIFT" position.

#### Note

Start engine in low throttle position.

#### Using the Engine Controls on the Engine:

14. Pull Engine Off/On Switch plunger out.
15. Select desired fuel source with Fuel Select Switch. (Gasoline engines with dual fuel)

#### Note

Refer to label on inside of engine front guard for fuel switch sequence.

16. Depress and hold the Choke Push-Button. (Gasoline engines) Depress and hold Glow Plug Push-Button for 15 to 20 seconds. (Diesel engines)



17. Depress and hold the Engine Start Push-Button until the engine starts, then release. **DO NOT** over crank the starter. Release the Engine Choke Push-button.

**Using the Base Controls:**

18. Raise the platform with the “Up” Selector Switch on the Base Control Box until the open height between scissors center pins is approximately 18” (45.72cm).
19. Unlatch and carefully swing down the safety bar. Follow procedure on safety bar decal to properly position safety bar.



**Warning**  
**Crushing Hazard**

**DO NOT** reach through scissor assembly without the safety bar properly positioned. Failure to avoid this hazard will result in death or serious injury!

20. Slowly lower the platform with “Down” Selector Switch on the Base Control Box until the scissors assembly is firmly resting on the safety bar.
21. Inspect all hoses, fittings, wires, valves, etc. for leaks, loose or missing parts, hidden damage, and foreign material.
22. Raise the platform with the Up Switch until the open height between scissors center pins is approximately 18” (45.72cm).
23. Carefully swing up safety bar and lock in position.
24. Again, raise the platform with the Up Switch until the platform has reached maximum working height.

**Note**

Refer to Table 1-1. Specifications and Features for proper lift and lowering times.

25. Use the Down Switch to lower the platform to it's fully lowered position.
26. Your SKYJACK Model is now ready for use by an authorized, qualified operator who has read and completely understands ALL of Section 2, OPERATION in this manual.

## Operating Procedures

### Prestart Checks

1. Carefully read and completely understand ALL of Section 2, OPERATION in this manual and ALL warnings and instruction decals on the work platform.
2. Check for any obstacles around the work platform and in the path of travel such as holes, drop offs, debris, ditches and soft fill.
3. Check overhead clearances.
4. Make sure all guardrails are in place and locked in position.

### **OPERATOR'S CHECKLIST**

**INSPECT AND/OR TEST THE FOLLOWING DAILY  
OR AT BEGINNING OF EACH SHIFT**

1. OPERATING AND EMERGENCY CONTROLS.
2. SAFETY DEVICES AND LIMIT SWITCHES.
3. PERSONAL PROTECTIVE DEVICES.
4. TIRES AND WHEELS.
5. OUTRIGGERS (IF EQUIPPED) AND OTHER STRUCTURES.
6. AIR, HYDRAULIC AND FUEL SYSTEM(S) FOR LEAKS.
7. LOOSE OR MISSING PARTS.
8. CABLES AND WIRING HARNESSSES.
9. PLACARDS, WARNINGS, CONTROL MARKINGS AND OPERATING MANUALS.
10. GUARDRAIL SYSTEM, INCLUDING LOCKING PINS.
11. ENGINE OIL LEVEL (IF SO EQUIPPED).
12. BATTERY FLUID LEVEL.
13. HYDRAULIC RESERVOIR LEVEL.
14. COOLANT LEVEL (IF SO EQUIPPED).



**Warning**

**DO NOT OPERATE THIS EQUIPMENT WITHOUT PROPER AUTHORIZATION AND TRAINING. DEATH OR SERIOUS INJURY COULD RESULT FROM IMPROPER USE OF THIS EQUIPMENT!**

## Operator Qualifications

Only trained and authorized persons should use this work platform. Safe use of this work platform requires the operator to understand the limitations and warnings, operating procedures and operator's responsibility for maintenance. Accordingly, the operator **MUST** understand and be familiar with this operating manual, its warnings and instructions and **ALL** warnings and instructions on the work platform. The operator also **MUST** be familiar with employer's work rules, related government regulations and be able to demonstrate his/her ability to understand and operate THIS make and model work platform in the presence of a qualified person.

## Start and Operation

### Using the Base Controls:

1. Turn Emergency Power Disconnect Switch to "ON" position. CE units - make sure base control box emergency stop button is in the "ON" position.

### Using the Engine Controls on the Engine:

2. Pull Engine Off/On Switch plunger out.
3. Select desired fuel source with Fuel Select Switch. (Gasoline engines with Dual Fuel)

### Note

Refer to label on inside of engine front guard for fuel switch sequence.

4. Use the ladder of the work platform to access the work platform deck. Close and latch the gate.


### Using the Platform Controls:



**TO PROTECT AGAINST UNINTENDED MOVEMENT OF THE WORK PLATFORM, PUSH IN THE EMERGENCY STOP BUTTON AFTER YOU HAVE ARRIVED AT YOUR DESIRED LOCATION OR ELEVATION.**

5. Pull out the Emergency Stop Button.
6. Insert key into the Off/Lift/Drive Select Key Switch, then select "LIFT" or "DRIVE". Select "LOW" position with HI/LOW Throttle Select Switch.



7. If the engine is cold, depress and hold the Engine Choke Push-button (Gasoline engines) or depress and hold the Glow Plug Push-button for 15 to 20 seconds (Diesel engines) and release.
8. Depress and hold the Engine Start Push-Button until engine starts, then release. **DO NOT** over crank the starter.
9. Select "HIGH" position with the Low/High Throttle Select Switch.
10. **To Raise the Platform:** Ensure the emergency stop button is pulled out. Select "LIFT" position with Off/Lift/Drive Select Key Switch. Depress and hold the Enable Push-button, then select "↑" (up) position with Up/Down Selector Switch. Release switch to stop.
11. **To Lower the Platform:** Ensure the emergency stop button is pulled out. Select "LIFT" position with Off/Lift/Drive Select Key Switch. Depress and hold the Enable Push-button, then select "↓" (down) position with Up/Down Selector Switch. Release switch to stop. A warning alarm will sound while lowering.
12. **If High Torque is Desired:** Select "LOW" position with the Low/High Range Select Switch. Select "LOW" range when climbing grades, traveling in rough terrain and when loading or unloading the work platform.  
**If High Speed is Desired:** Select "HIGH" position with the Low/High Range Select Switch. Select "HIGH" range when traveling on a hard level surface with the platform fully lowered.
13. **To Drive Forward or in Reverse:**
  - 1- Ensure the emergency stop button is pulled out. Select "DRIVE" position with the Lift/Off/Drive Key Switch.
  - 2- **Earlier models:** Depress and hold the Enable push-button (if equipped), then lift the controller lock ring.  
**Later models:** Activate and hold the Enable trigger switch (by squeezing it towards the joystick)
  - 3- Push or pull the controller handle forward or backward to the desired speed and direction of platform travel.
  - 4- Return the joystick to the neutral center position to stop. Release the Enable switch (If equipped).

14. **To Steer:** Select “DRIVE” position with Off/Lift/Drive Select Key Switch. If equipped, activate and hold the Enable switch (by squeezing the trigger towards the joystick or pressing the control box side mounted push button), then press the rocker switch on top of the Drive/Steer Controller handle in the direction you wish to steer.
15. **To Climb a Grade:** Select “” position with the Torque Toggle Switch.



### Warning

**MACHINE MUST BE IN FULLY RETRACTED POSITION**

16. **To extend/retract a manual extension platform:**  
To extend the platform remove the retaining locking pins and push/pull the extension platform using the push bar until the desired extension is reached. Reinsert the locking pins to prevent accidental movement of the extension deck during travel or transport.
17. **To extend/retract a hydraulic powered extension platform:** To extend the platform, turn key to “LIFT” position with Off/Lift/Drive Select Key Switch, activate the Enable Switch, then push the extension/retraction toggle switch to the “” position until desired extension is reached. Release switch to stop. To retract the platform, turn key to “LIFT” position with Off/Lift/Drive Select Key Switch, activate the Enable Switch, then push the extension/retraction toggle switch to the “” (retract) position until desired retraction is reached. Release switch to stop.
18. **To switch from LP GAS to gasoline:** Move fuel selector switch on engine control panel to the “GASOLINE” position. To shut off fuel, move switch to “OFF” position.  
**To switch from gasoline to LP GAS:** With the engine running, move switch to “OFF” position and let engine run until gasoline is exhausted from carburetor. When engine stops, move switch to “LP GAS” position and restart engine. Make sure LP GAS valve is ON when switching from gasoline to LP GAS and valve is OFF when switching from LP GAS to gasoline.

## Shutdown Procedure

1. Completely lower the platform.
2. Turn key to “OFF” position and remove key from Off/Lift/Drive Select Key Switch in control box.
3. Push Emergency Stop Button(s) in.
4. Turn Emergency Power Disconnect Switch to “OFF” position. CE units - remove key then push in Emergency Stop Button on the base control box.



## Emergency Lowering System

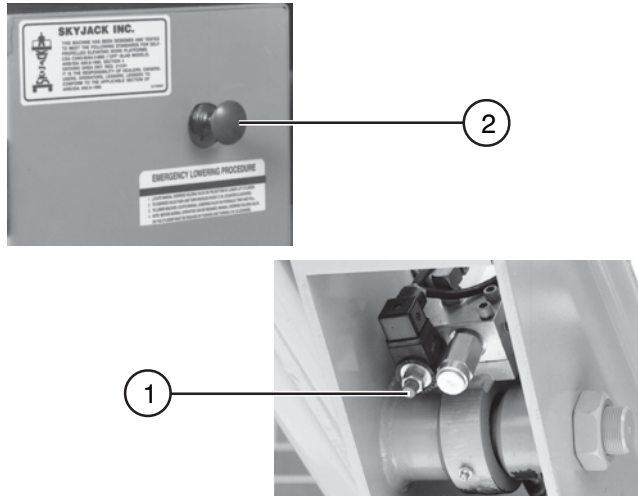


Figure 2-12. Emergency Lowering System

**Emergency Lowering System** - This system allows platform lowering in the event of an emergency or an electrical system failure.

**1. Holding Valve Manual Override Knob** - Located on the holding valve at the bottom of each lift cylinder, these red knurled knobs when depressed and turned counter-clockwise allow hydraulic oil to bypass each holding valve. The red knurled knobs on each holding valve **MUST** be depressed and turned clockwise to restore normal operation. **An access rod for reaching the elevated manual override knob shall be provided for CE units only.**

**2. Emergency Lowering Valve** - Pull out and hold the Emergency Lowering Valve plunger, and the platform will gradually lower. Located at the rear of the hydraulic/electric side cabinet, this pull-type valve when used in conjunction with the holding valve manual overrides, allows platform lowering in the event of an emergency or electrical system failure. Activate all holding valve manual override knobs, then pull and hold the plunger out to lower platform. Release to stop.

 **Warning**  
**Crushing Hazard**

**Keep clear of scissors mechanism when using emergency lowering valve!** After emergency lowering is completed, the red knurled knobs on each holding valve **MUST** be depressed and turned clockwise to restore normal operation.

## Hydraulic Generator (Option)

1. To start the hydraulic generator, Ensure the engine is on high throttle by selecting “HIGH” on the “Low/High Throttle Select” switch. Select the “LIFT” position with the “Off/Lift/Drive” key switch, then depress hydraulic generator push-button on the side of the operator’s control box. The push-button will illuminate and generator on base will start. To restore normal operation, depress push-button again. The light in push-button will go out and the generator will turn off.

### Note

While hydraulic generator push-button switch light is illuminated, the lift and drive circuits in the Operator’s Control Box are cut out.

## Electrical Inverter (Option)

1. Turn the main disconnect switch to the “ON” Position.
2. Turn the “ON/OFF” switch located on the front face of the inverter to the “ON” Position.
3. Start the machine and turn the throttle switch to the high idle setting.
4. Inverter activation is indicated by a glowing green LED on the front face of the inverter.
5. To turn off the inverter, shut down the platform engine and/or slide the “ON/OFF” switch on the inverter to the “OFF” position.

### Note

The inverter will only supply power to the platform when the engine is running and the throttle switch is set to the HIGH idle position. Deselecting the high idle throttle setting or stopping the engine will turn the inverter off.

## Winching And Towing Procedures

### Warning

When Towing, **DO NOT** drive onto a downward slope or brake the towing vehicle rapidly.

### Parking Brake System

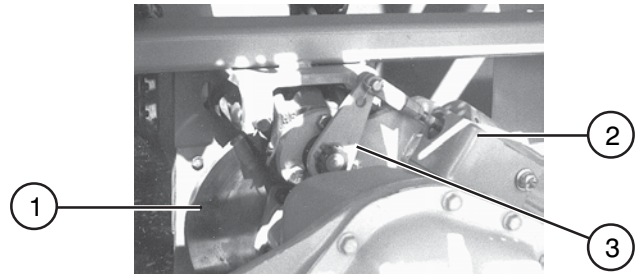


Figure 2-13. Disc Parking Brake

**1 - 3. Parking Brake Disc** -This device disengages the **brake disc(1)** when driving forward or in reverse. A **hydraulic brake cylinder(2)**, linked to a **disc caliper(3)**, engages and disengages a brake disc on the rear axle drive shaft yoke. The brake **MUST** be manually disengaged for pushing, towing or winching. **DO NOT push or tow the work platform onto a downward slope or pull the platform down an incline towards the winch.** The special procedure for manually disengaging the parking brake is as follows:

### Warning

**DO NOT** manually disengage the parking brakes if the work platform is on a slope.

### Later Models:

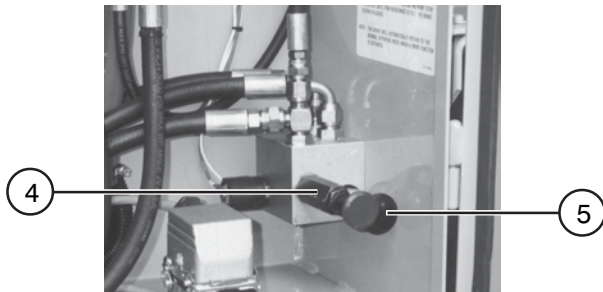


Figure 2-14A. Parking Brake Release Hand Pump and Brake Valve Plunger (Machines With Serial Number 30167 and Above)

**4 - 5. Parking Brake Release Hand Pump(4) and Brake Valve Plunger(5)** - Located on the brake manifold in the hydraulic electric side cabinet, this hand operated pump **MUST** be used when pushing, towing or winching the work platform. To release the parking brake:

1. Make sure that the work platform is on level ground. Chock or block the wheels to keep work platform from rolling.
2. Turn Emergency Power Disconnect Switch to "OFF" position.
3. Depress the black plunger on the Brake Valve until the plunger stays in.
4. Grasp the red hand pump plunger and rapidly depress 60 to 80 times until firm resistance is felt. The brake is now released.
5. Remove the wheel chocks or blocks, then push, tow or winch the work platform to the desired location. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 km/h). DO NOT push or tow the platform onto a downward slope or pull the platform down an incline towards the winch.**
6. Position machine on a firm and level surface. Chock or block the wheels to prevent the platform from rolling or re-engage the parking brake by momentarily activating the drive function.

### Note

The parking brake will reset automatically when the work platform is put back into service.

### Earlier Models:

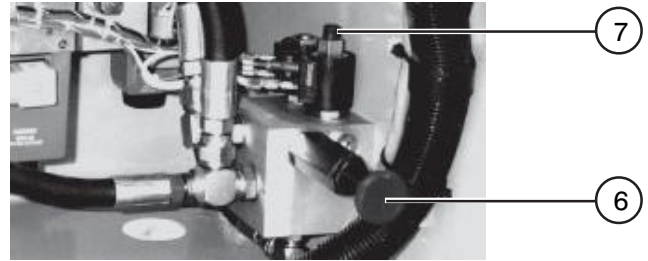


Figure 2-14B. Parking Brake Release Hand Pump and Quick Brake Valve (Machines With Serial Number 30166 and Below)

**6 - 7. Parking Brake Release Hand Pump (6) and Brake Valve Knob (7)** - Located on the brake manifold in the hydraulic electric side cabinet, this hand operated pump **MUST** be used when pushing or winching the work platform. To release the parking brake:

1. Make sure that the work platform is on level ground. Chock or block the wheels to keep work platform from rolling.
2. Turn Emergency Power Disconnect Switch to "OFF" position.
3. Depress and turn the red knurled knob on the quick brake valve counterclockwise to a fully closed position.
4. Grasp the red hand pump plunger and rapidly depress 60 to 80 times until firm resistance is felt. The brake is now released.
5. Remove the wheel chocks or blocks, then push, tow or winch the work platform to the desired location. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 km/h). DO NOT push or tow the platform onto a downward slope or pull the platform down an incline towards the winch.**
6. Position machine on a firm and level surface. Chock or block the wheels to prevent the platform from rolling. Re-engage the parking brake. Open the quick brake valve by depressing, then turning the red knurled knob on the brake valve clockwise to a fully open position.




### Warning

The quick brake valve **MUST** be open to restore normal operation. **Failure to follow the procedure discussed above could result in death or serious injury!**

**Table 2-1. Owner's Annual Inspection Record**

MODEL NUMBER _____				SERIAL NUMBER _____				
RECORDING DATE								
RECORDING YEAR #	1	2	3	4	5	6	7	8
OWNER'S NAME								
INSPECTED BY								

**Table 2-2. Tire Specifications**

 <b>WARNING</b> <b>Air Pressure Can Affect Stability. Temperature Changes Can Affect Air Pressure. It Is Important To Check Tire Pressures Prior To Use On A Daily Basis In The Operating Conditions Experienced By End User. If The Measured PSI Reading Is Less Than The Specification And Tolerance, Re-inflate To The Proper Specification Within The Tolerance Range Specified. Tires Shall Also Not Be Subject To Over-Inflation Above The Recommended Specification And Tolerance Range.</b>				
Tire*			Fill Specification	
Size	Fill Type	Ply Rating	Pressure Psi (kPa)	
			Factory	Listed Sidewall Maximum
#6 30-10-16.5 NHS	Air	8	50 (344.7)*	65 (448.2)
#6 32.3-10-16.5 HD Stabilizer		10	70 (482.6)*	75 (517.1)
#6 30-10-16.5 OTR Outrigger		10	70 (482.6)*	75 (517.1)
#7 31-15.5-15 NHS		8	50 (344.7)*	Not Available
#8 31-13.5-15 NHS		Consult Skyjack Inc.		
#6F 30-10-16.5 NHS	Solid Urethane	8	**	
#7F 31-15.5-15 NHS		8	**	
#8F 31-13.5-15 NHS		Consult Skyjack Inc.		
* Factory preset @ 20°C, Check pressures regularly as tires can lose pressure over time and over different ambient temperatures even under normal conditions.				
** Urethane used for filling #6F and #7F tires <b>MUST</b> be 50-55 durometer.				

**Table 2-3. Maximum Platform Capacities (600 Series)(Evenly Distributed)**

MODEL	Main Platform		First Extension		Second Extension		Total Platform Capacity
	Capacity	Number Of Occupants	Capacity	Number Of Occupants	Capacity	Number Of Occupants	
7027	No extension Platform	1500 lbs. (680 kg)	5	-	-	-	1500 lbs. (680 kg)
	One Extension Platform	1000 lbs. (454 kg)	3	500 lbs. (227 kg)	2	-	1500 lbs. (680 kg)

**NOTE:** Occupants **AND** materials are not to exceed rated load.  
 Capacities listed are for standard machines equipped with #6 pneumatic tires.  
 Refer to capacity label at sides of platform for additional information.

**Table 2-4. Maintenance And Inspection Schedule**

	Daily	Weekly	Monthly	3 Months	6 Months	12 Months*
<b>Engine</b>						
Fuel leaks	A					A
Engine oils	H & I					H & I
Engine RPM			G			G
Fuel filter					F	F
Belts/Hoses			A & C			A & C
Muffler				B, C & J		B, C & J
Air cleaner			A		I	A & I
Fuel tank cap	B & C					B & C
Coolant level	A & L					A & L
<b>Mechanical</b>						
Structural damage/welds	A					A
Locking Pins/Retainers	A & B			C		A, B & C
Parking brake	B					B
Tires/wheels & fasteners	A, B, C & R	O				A, B, C & O
Guides/ rollers & slider pads	A, B & N					A, B & N
Railings/Entry chains/gates	A, B & C					A, B & C
Bolts and fasteners	A	C				A & C
Safety Bar		B				B
Gear Oil**			A & H			A, H & F
Rust			A			A
Wheel Bearings & King pins	A			B & E		A, B & E
Steering cylinder & tie rod	A			B & E		A, B & E
<b>Electrical</b>						
Battery fluid level	A					A
Control switches/Indicator Lights	A & B					A & B
Cords & wiring	A					A
Battery terminals			A & C			A & C
Generator/receptacle	A	B				A & B
Terminals & plugs			C			C
Limit Switches	B					B
Tilt Switch	A & B	B				A & B
<b>Hydraulic</b>						
Hydraulic oil	H					H & Q
Hydraulic hoses/fittings	A & P		C			A, C & P
Lift/lowering speeds		G				G
Cylinders		A & B				A & B
Emergency lowering		B				B
Lift capacity			D			D
Hydraulic oil & oil filter			F			F
<b>Miscellaneous</b>						
Labels and manual	A, K & M					A, K & M
Lanyard Attachments	A & C					A & C
<b>Notes</b>						
<p>A. Visually Inspect.</p> <p>B. Check operation.</p> <p>C. Check tightness.</p> <p>D. Check relief valve setting. Refer to serial number nameplate</p> <p>E. Lubricate.</p> <p>F. Replace.</p> <p>G. Refer to Table 1-1 specifications and features.</p> <p>H. Check oil level.</p> <p>I. Refer to engine manual.</p> <p>J. Check noise level.</p> <p>K. Replace if missing or illegible.</p> <p>L. Check only when cooled.</p> <p>M. Proper manual must be in box</p> <p>N. Ensure there is no metal to metal contact with slider, slider side or running surface. Check for free movement of surface. Also check for free movement of the slider pin through the slider and pad.</p> <p>O. Ensure proper torquing procedure and sequence is followed.</p> <p>P. Check for leaks.</p> <p>Q. Have oil sample tested.</p> <p>R. Check tire pressure prior to use. (Refer To Table 2-2.)</p> <p>* Record inspection date and signature</p> <p>** Gear Oil Requirements: Axle: ESSO GX 85W-140 Center Drive: ESSO GX 85W-140</p>						

# SECTION 3 SYSTEM COMPONENT IDENTIFICATION AND SCHEMATICS

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### ELECTRICAL DIAGRAMS

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### CONTROL BOXES

**CONTROL BOX REFERENCE TABLE**

Serial Range		Model	Engine	Options	Diagram Location	
From	To				Figure	Page
Below	32097	ANSI/SIA & CSA W/Ford Dual Fuel And CE W/Kubota Diesel		No Options	<a href="#">Figure 3.3-1A.</a>	10
				All Options	<a href="#">Figure 3.3-2A.</a>	18
32098	33047			No Options	<a href="#">Figure 3.3-1B.</a>	12
				All Options	<a href="#">Figure 3.3-2B.</a>	20
33048	33188			No Options	<a href="#">Figure 3.3-1C.</a>	14
				All Options	<a href="#">Figure 3.3-2C.</a>	22
33189	Above			No Options	<a href="#">Figure 3.3-1D.</a>	16
				All Options	<a href="#">Figure 3.3-2D.</a>	24

### ELECTRICAL PANEL DIAGRAMS

**PANEL DIAGRAM REFERENCE TABLE**

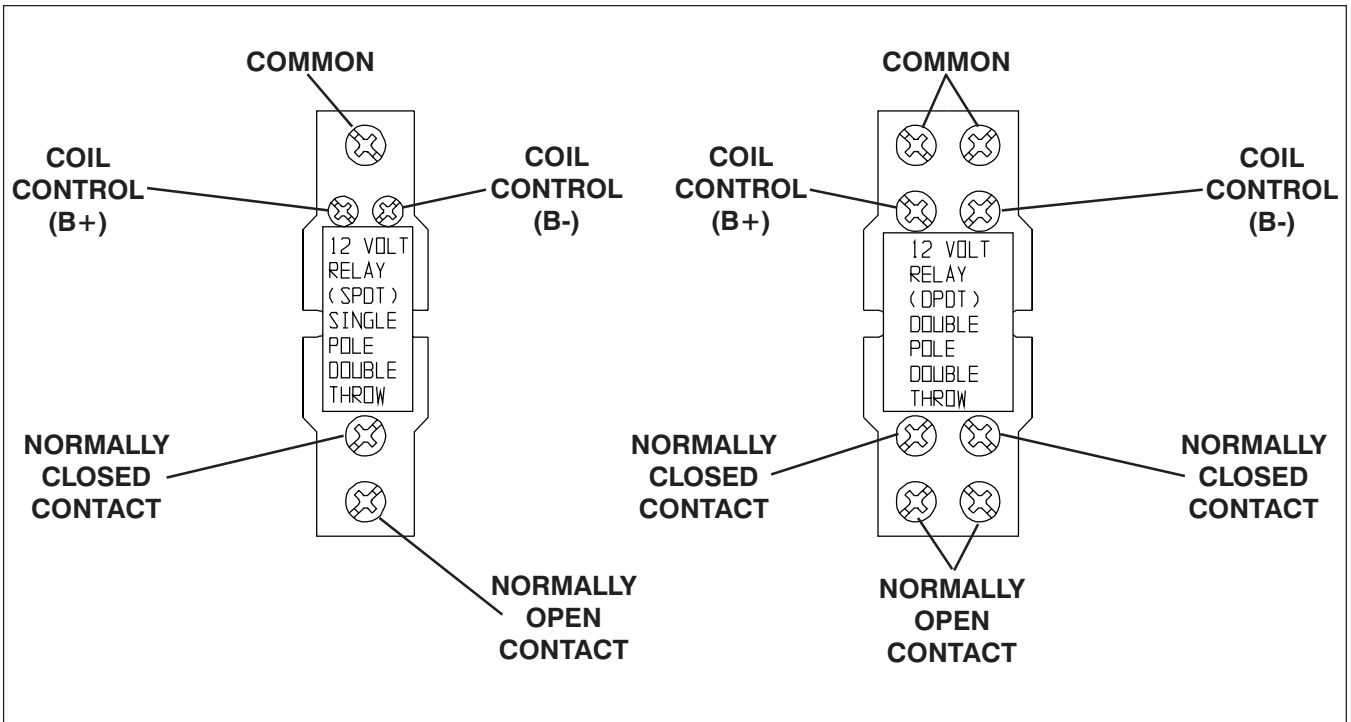
Serial Range		Model	Engine	Options	Diagram Location	
From	To				Figure	Page
Below	30985	ANSI & CSA	Kubota Dual Fuel	All Options	<a href="#">Figure 3.4-2.</a>	31
30986	32097				<a href="#">Figure 3.4-3.</a>	32
32098	Above				<a href="#">Figure 3.4-4.</a>	33
Below	30985	CE	Kubota Diesel		<a href="#">Figure 3.4-5.</a>	34
30986	32097				<a href="#">Figure 3.4-6.</a>	35
32098	Above				<a href="#">Figure 3.4-7.</a>	36
Current Production		ANSI, CSA & CE	Both		Electrical Inverter	<a href="#">Figure 3.4-8.</a>

### LARGE PULL-OUT ELECTRICAL SCHEMATICS

**ELECTRICAL SCHEMATIC REFERENCE TABLE**













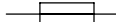














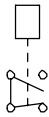

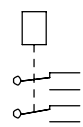
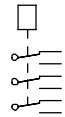


Serial Range	Model	Engine	Options	Schematic Location
31801 & Below	ANSI/SIA & CSA	Kubota Dual Fuel	All Options	<a href="#">Figure 3.5-1.</a>
31802 to 33047				<a href="#">Figure 3.5-2.</a>
33048 to 33467				<a href="#">Figure 3.5-5.</a>
33468 & Above				<a href="#">Figure 3.5-7.</a>
33047 & Below	CE	Kubota Diesel		<a href="#">Figure 3.5-3.</a>
33048 to 33467				<a href="#">Figure 3.5-6.</a>
33468 & Above				<a href="#">Figure 3.5-8.</a>

**FIGURE 3.1-1. RELAY TERMINAL AND FUNCTION CHART**






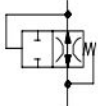

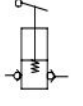



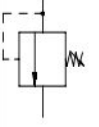


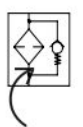
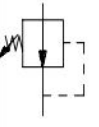




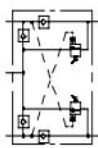



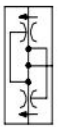



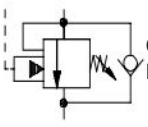

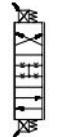
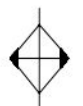


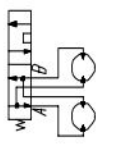
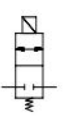


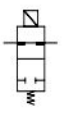
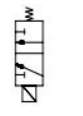
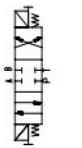

RELAY NO.	RELAY FUNCTION	RELAY NO.	RELAY FUNCTION
10BCR1	Engine On (DPDT)	20CR	Series/Parallel Drive (SPDT)
10BCR2	Engine Protection (DPDT)	23CR	Right Steer (SPDT)
13CR	Down (SPDT)	24CR	Left Steer (SPDT)
14CR	Up (SPDT)	28CR	Tilt Switch (DPDT)
15CR	Reverse Drive (DPDT)	30CR	Brake (SPDT)
16CR	Forward Drive (DPDT)	31CR	Choke/Glow Plug (SPDT)
17CR	2nd Speed (SPDT)	32CR	Engine Start (DPDT)
17ACR	Small Pump	32BCR	Low/High Throttle (SPDT)
18CR	3rd Speed (SPDT)	35CR	Tilt Override (DPDT)
		49CR	Horn (SPDT)

**FIGURE 3.1-2. ELECTRICAL SYMBOL CHART**

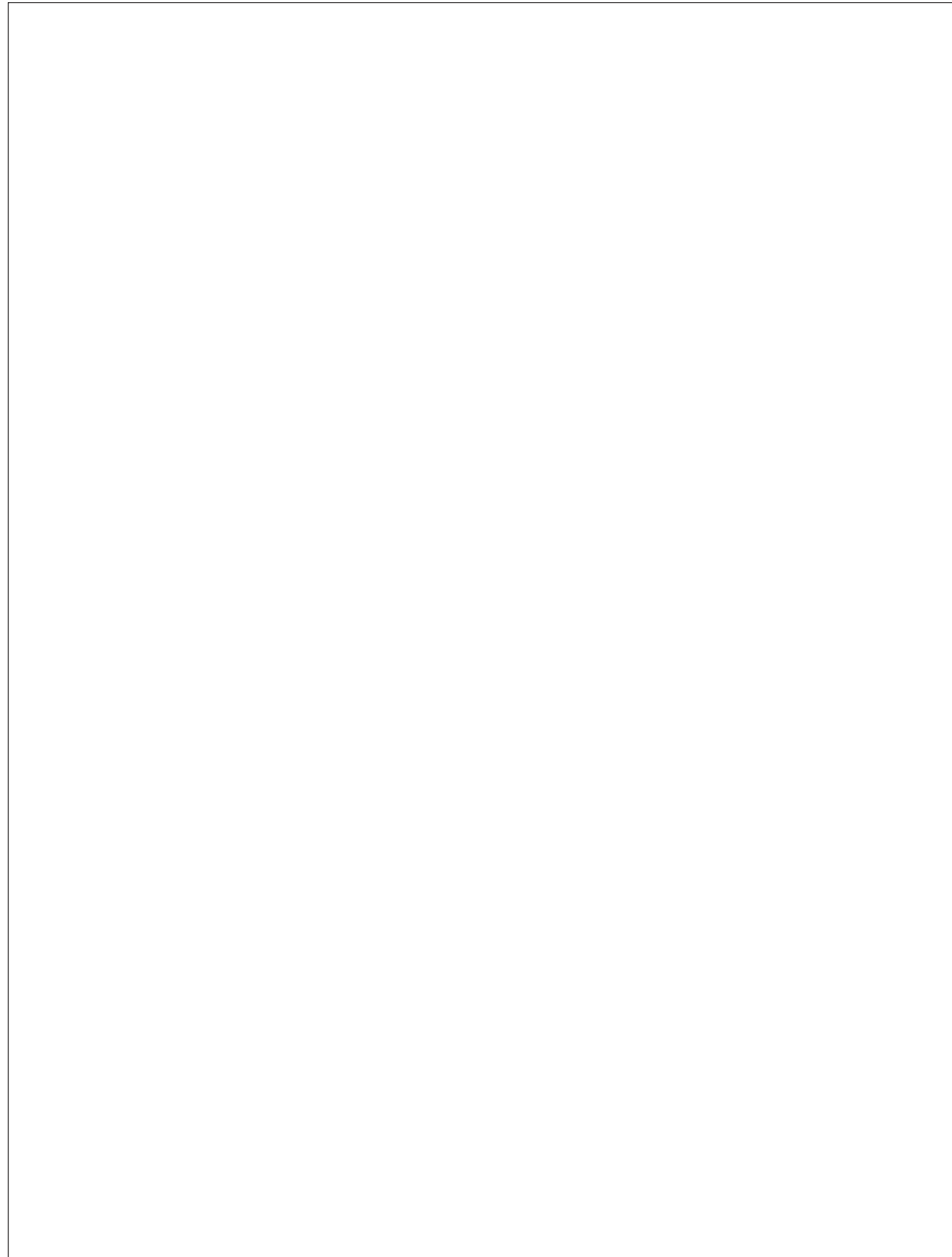
 WIRE CROSSING	 HOURMETER	 KEY SWITCH
 WIRES JOINED	 LIGHT	 FOOT SWITCH
 BATTERY	 HYDRAULIC VALVE COIL	 TOGGLE SWITCH
 GROUND	 PROPORTIONAL HYDRAULIC VALVE COIL	 PUSH BUTTON
 FUSE	 ELECTRIC MOTOR	 ROTARY SWITCH
 CIRCUIT BREAKER	 HORN	 LIMIT SWITCH
 BATTERY CHARGE INDICATOR	 EMERGENCY STOP BUTTON	 CAM OPERATED LIMIT SWITCH
 CAPACITOR	 RESISTOR	 TILT SWITCH
 POTENTIOMETER	 LEVEL SENSOR	 SINGLE POLE SINGLE THROW RELAY
 SINGLE POLE DOUBLE THROW RELAY	 DOUBLE POLE SINGLE THROW RELAY	 DOUBLE POLE DOUBLE THROW RELAY
 TRIPLE POLE DOUBLE THROW RELAY	 DIODE	 TRANSISTOR



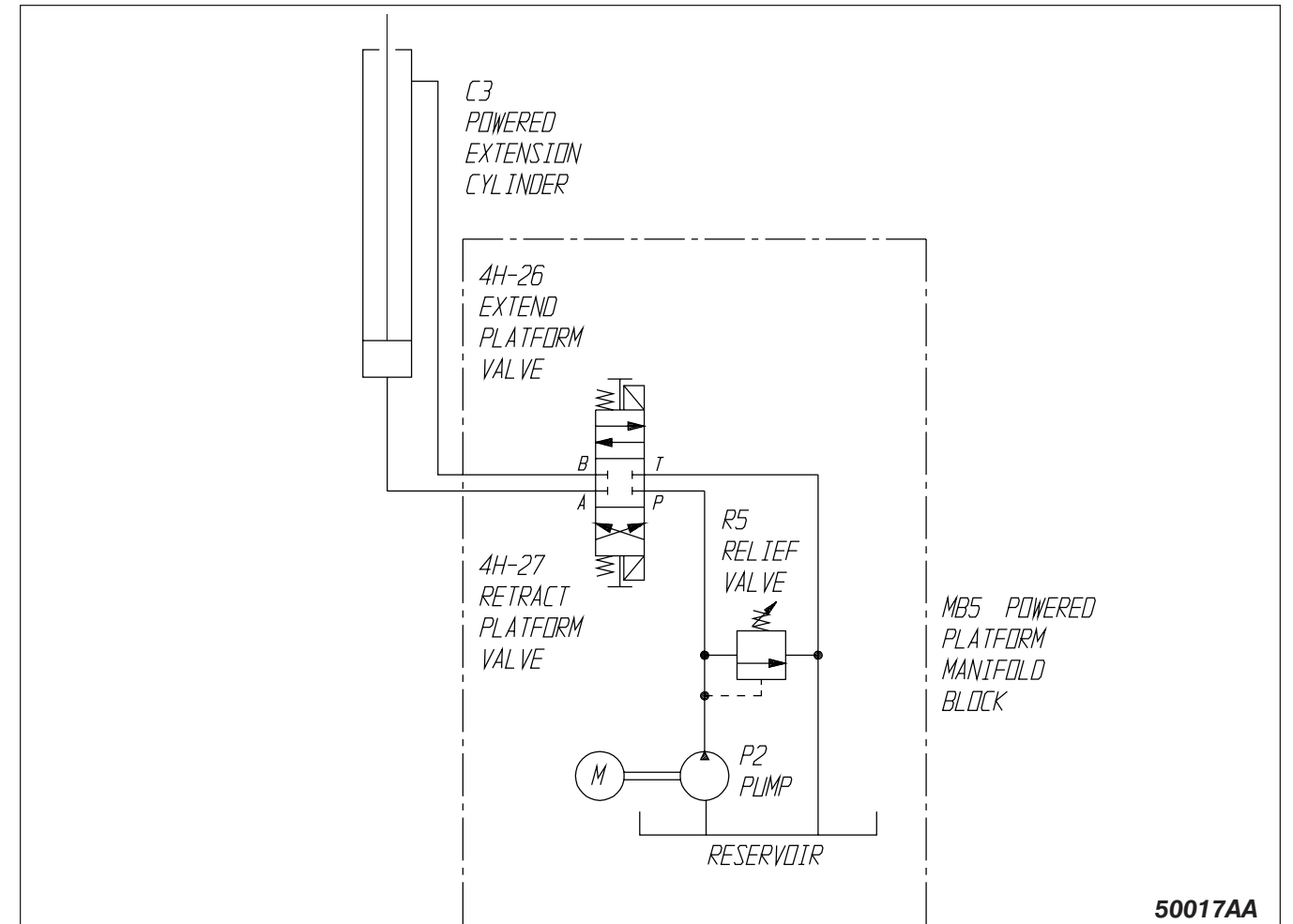
**FIGURE 3.1-3. HYDRAULIC SYMBOL CHART**

	LINE CROSSING		VARIABLE DISPLACEMENT PUMP		SHUTTLE VALVE		VELOCITY FUSE
	LINE JOINED		HAND PUMP		ACCUMULATOR, GAS CHARGED		SINGLE ACTING CYLINDER
	HYDRAULIC TANK		RELIEF VALVE		CUSHION CYLINDER		DOUBLE ACTING CYLINDER
	HYDRAULIC FILTER WITH BYPASS		PRESSURE REDUCING VALVE		PRESSURE SWITCH		DOUBLE ACTING DOUBLE RODDED
	ELECTRIC MOTOR		FIXED ORIFICE		MOTION CONTROL VALVE		SPRING APPLIED HYDRAULIC RELEASED BRAKE
	ENGINE		ADJUSTABLE FLOW CONTROL		FLOW DIVIDER COMBINER		BRAKE CYLINDER
	FIXED DISPLACEMENT PUMP		CHECK VALVE		COUNTER BALANCE VALVE		ROTARY ACTUATOR
	THREE POSITION FOUR WAY PROPORTIONAL		OIL COOLER		VALVE COIL		BI DIRECTIONAL HYDRAULIC MOTOR
	SERIES PARALLEL HYDRAULIC MOTOR		TWO POSITION TWO WAY NORMALLY CLOSED		TWO POSITION THREE WAY		THREE POSITION FOUR WAY CLOSED CENTER OPEN PORT
	TWO POSITION TWO WAY NORMALLY OPEN		TWO POSITION THREE WAY		THREE POSITION FOUR WAY CLOSED CENTER CLOSED PORT		THREE POSITION FOUR WAY PROPORTIONAL

**NOTES**



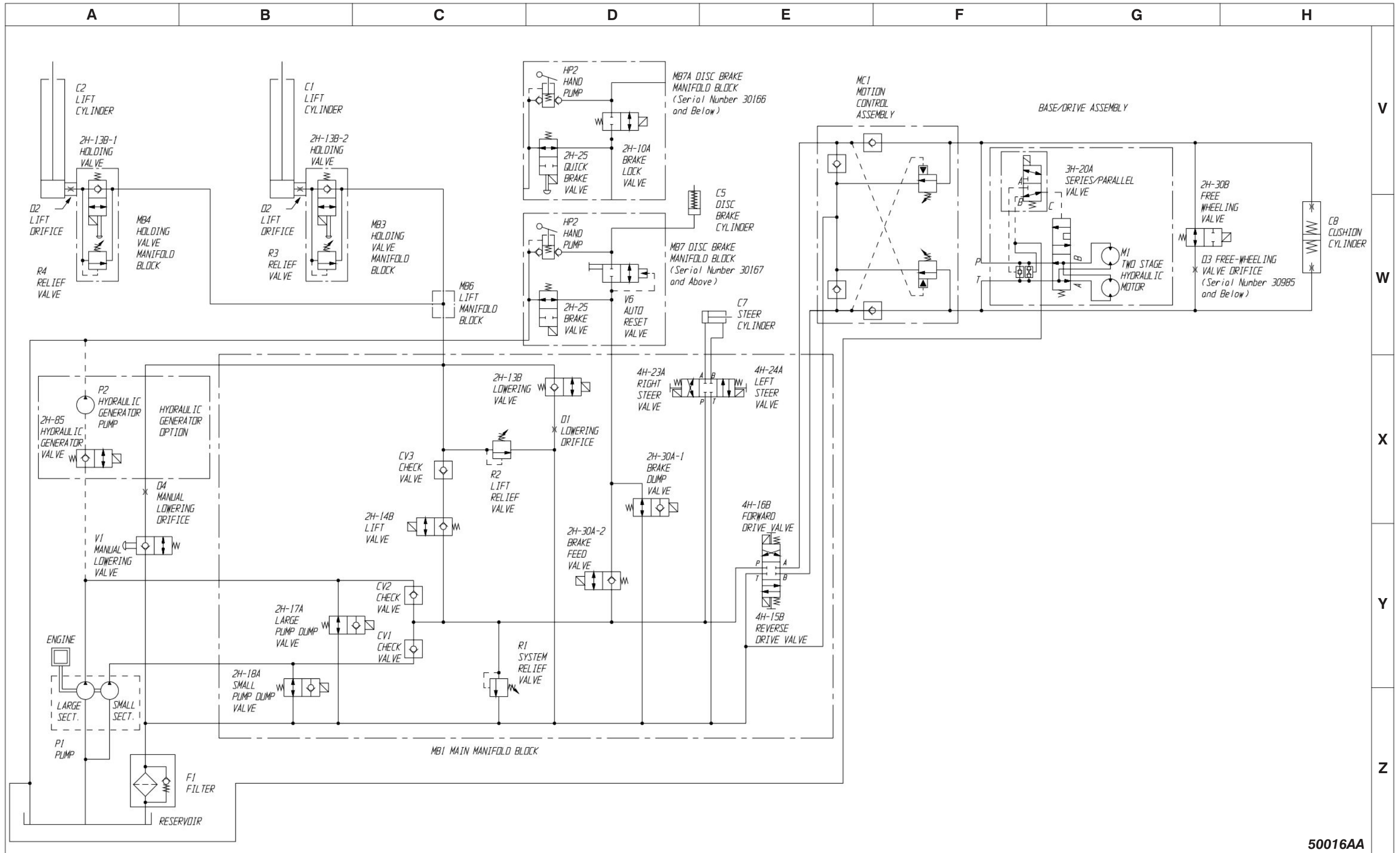
**FIGURE 3.2-1. HYDRAULIC SCHEMATIC - Powered Extension Platform**



**50017AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
C3	(Ref.)	CYLINDER ASSEMBLY, Powered extension platform (Refer to Figure 6-5.)	1
	107396	• KIT, Seal repair	AR
4H-26	103397	VALVE, "Vickers" Platform extend (Earlier models - replace with Hytos)	1
	128797	VALVE, Platform extend (Later models - replacement for Vickers)	1
4H-27	103397	VALVE, Platform retract (Earlier models - replace with Hytos)	1
	128797	VALVE, Platform retract (Later models - replacement for Vickers)	1
MB5	111290	MANIFOLD BLOCK, Powered extension platform	1
P2	113173	PUMP, Hydraulic 1.2gpm powered extension platform	1
R5	113289	RELIEF VALVE, Powered extension platform (500 psi)	1

FIGURE 3.2-2. HYDRAULIC SCHEMATIC



50016AA

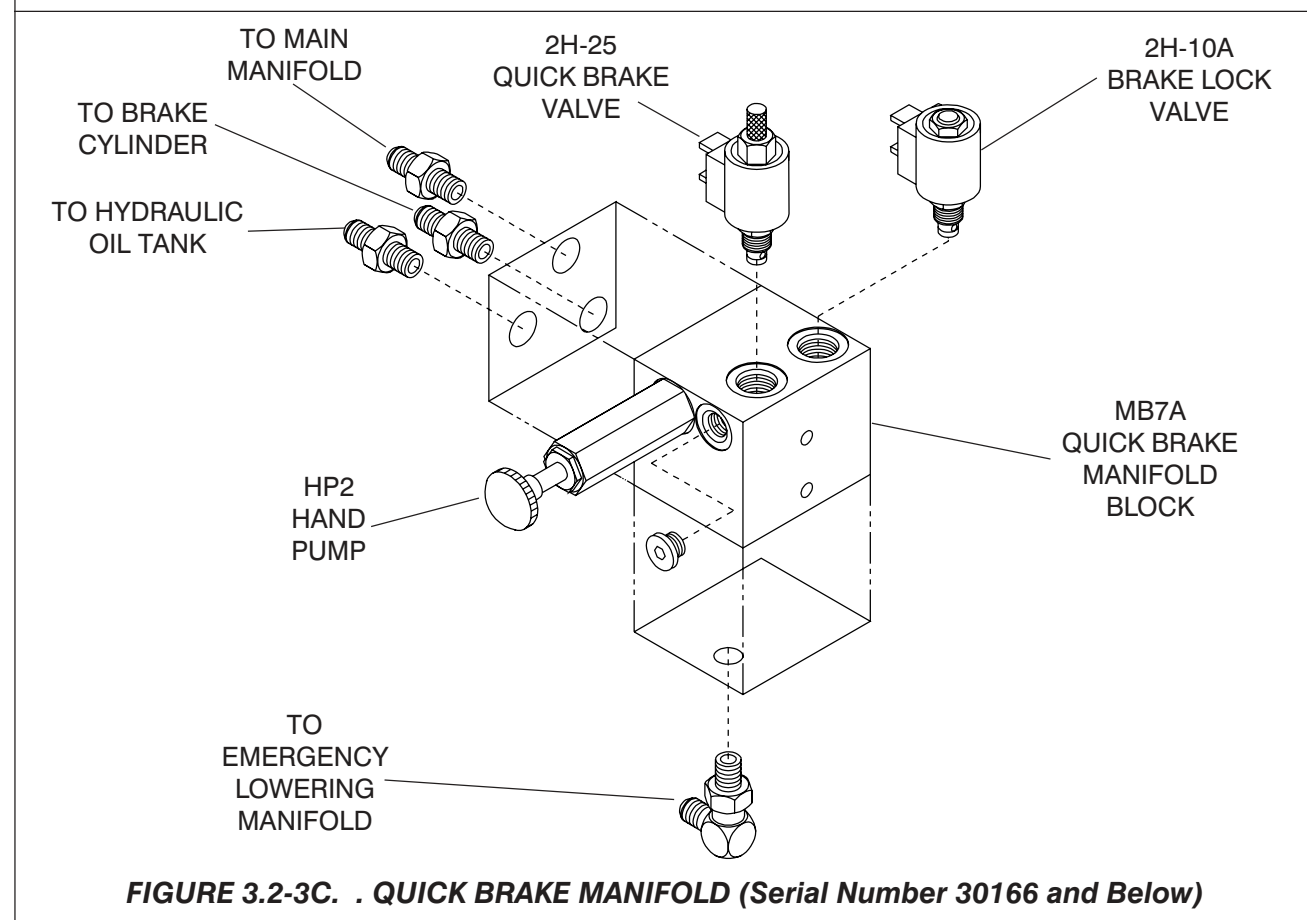
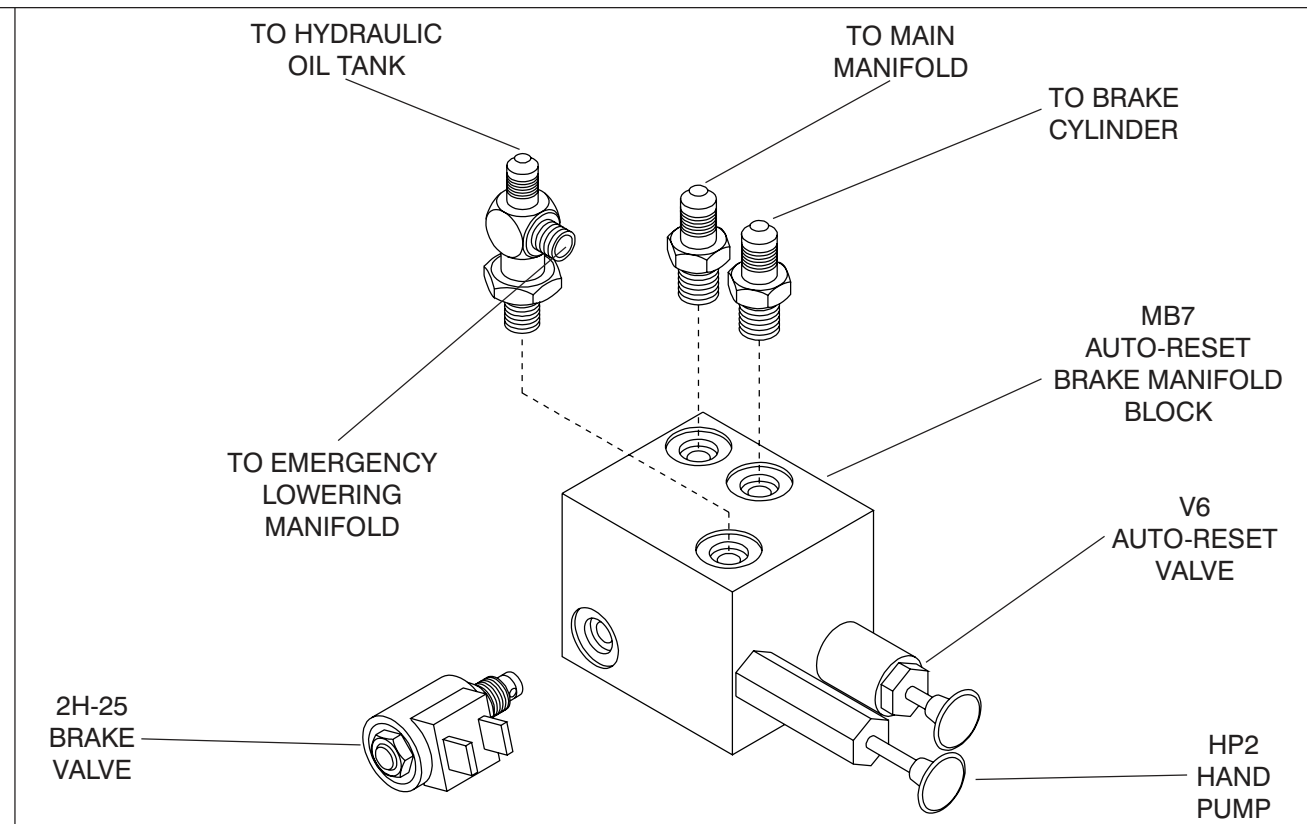
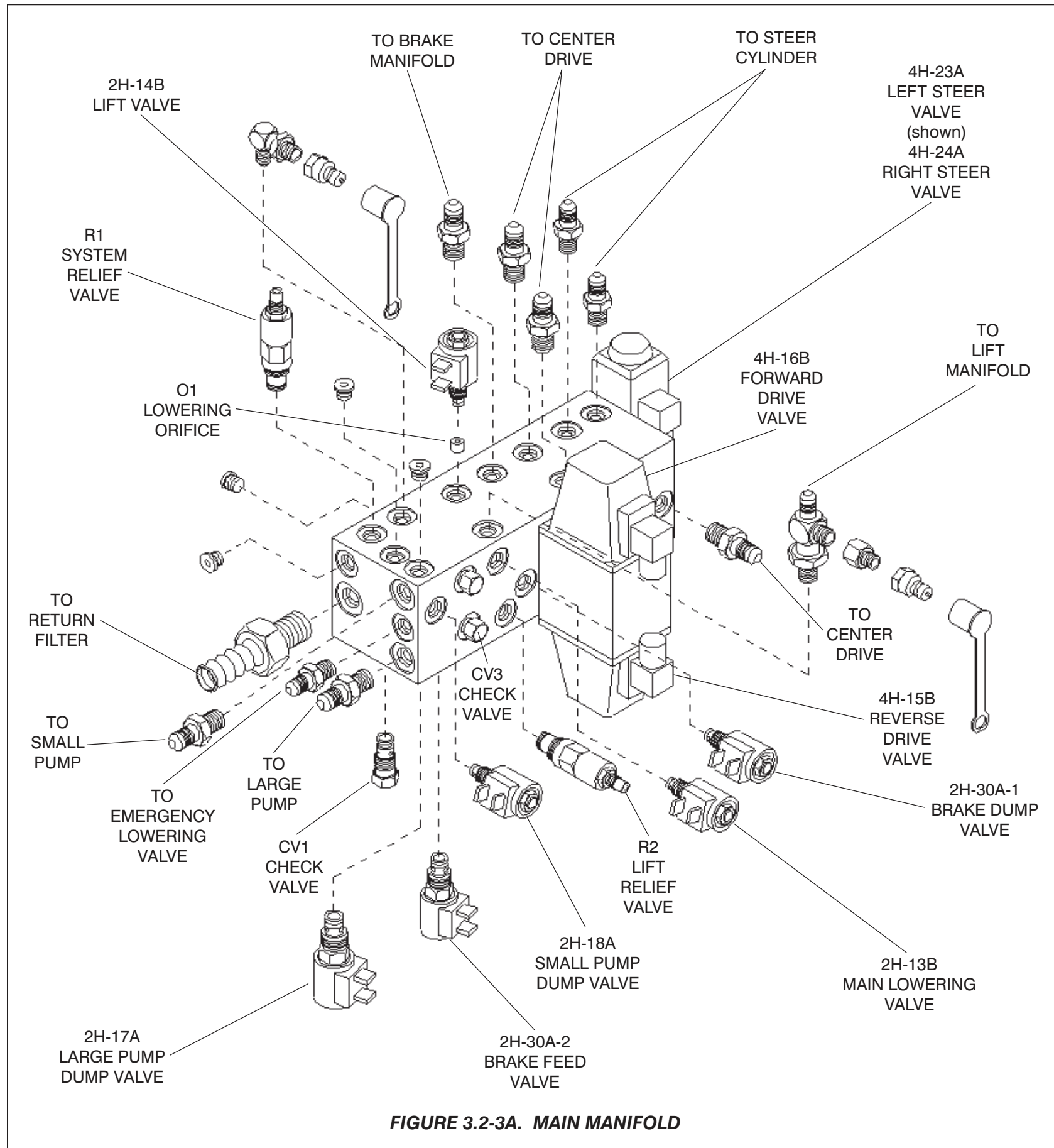
**FIGURE 3.2-2. HYDRAULIC SCHEMATIC PARTS LIST**

Index No.	Skyjack Part No.	Description	Units per Assy.
C1	121091	CYLINDER ASSEMBLY, Lift <b>Use Part # 110530 for Machines with Serial # 32328 and below.</b>	1
C2	121091	CYLINDER ASSEMBLY, Lift <b>Use Part # 110530 for Machines with Serial # 32328 and below.</b>	1
	121095	• KIT, Seal repair <b>Use Part # 105888 for Machines with Serial # 32328 and below.</b>	AR
C5	112448	CYLINDER ASSEMBLY, Disc brake	1
	112274	• KIT, Seal repair	AR
C7	121086	CYLINDER ASSEMBLY, Steer (2WD/4WD) <b>Use Part # 113356 for Machines with Serial # 32328 and below.</b> (Replaces 105325 for 2WD and 105335 for 4WD)	-
	121108	• KIT, Seal repair (For cylinder, 121086)	AR
	113443	• KIT, Seal repair (For cylinder, 113356)	AR
	103762	• KIT, Seal repair (For cylinders, 105325 or 105335)	AR
C8	107752	CYLINDER, Cushion	1
CV1	104624	CHECK VALVE, Small pump	1
CV2	104624	CHECK VALVE, Large pump	1
CV3	104624	CHECK VALVE, Lift	1
F1	109568	FILTER ASSEMBLY, Return	1
	104254	• ELEMENT, Filter	AR
HP2	110652	HAND PUMP, Brake release	1
M1	109311	MOTOR, Center drive hydraulic	1
M2	113875	MOTOR/PUMP with flow control (hydraulic generator option)	1
MB1	114178	MANIFOLD BLOCK, Main (Machines with serial number 30208 and above)	1
	108009	MANIFOLD BLOCK, Main (Machines with serial number 30207 and below)	1
MB2	103137	MANIFOLD BLOCK, Emergency lowering	1
MB3	106688	MANIFOLD BLOCK, Holding valve	1
MB4	106688	MANIFOLD BLOCK, Holding block	1
MB6	110666	MANIFOLD BLOCK, Lift	1
MB7	111943	MANIFOLD BLOCK, Auto reset brake (Machines with serial number 30167 and above)	1
MB7A	110643	MANIFOLD BLOCK, Quick brake (Machines with serial number 30166 and below)	1
MB9	103137	MANIFOLD BLOCK, Hydraulic generator valve (option)	1
MC1	110434	MOTION CONTROL ASSEMBLY	1
O1	104630	ORIFICE, Main lowering .096 diameter	1
O2	105501	ORIFICE, Lift cylinder .094 diameter	2
O3	113343	ORIFICE, Free-wheeling valve .104 diameter	1
O4	104435	ORIFICE, Manual lowering .067 diameter	1
OC1	114284	OIL COOLER ASSEMBLY (hyd. generator option)	1

**FIGURE 3.2-2. HYDRAULIC SCHEMATIC PARTS LIST**

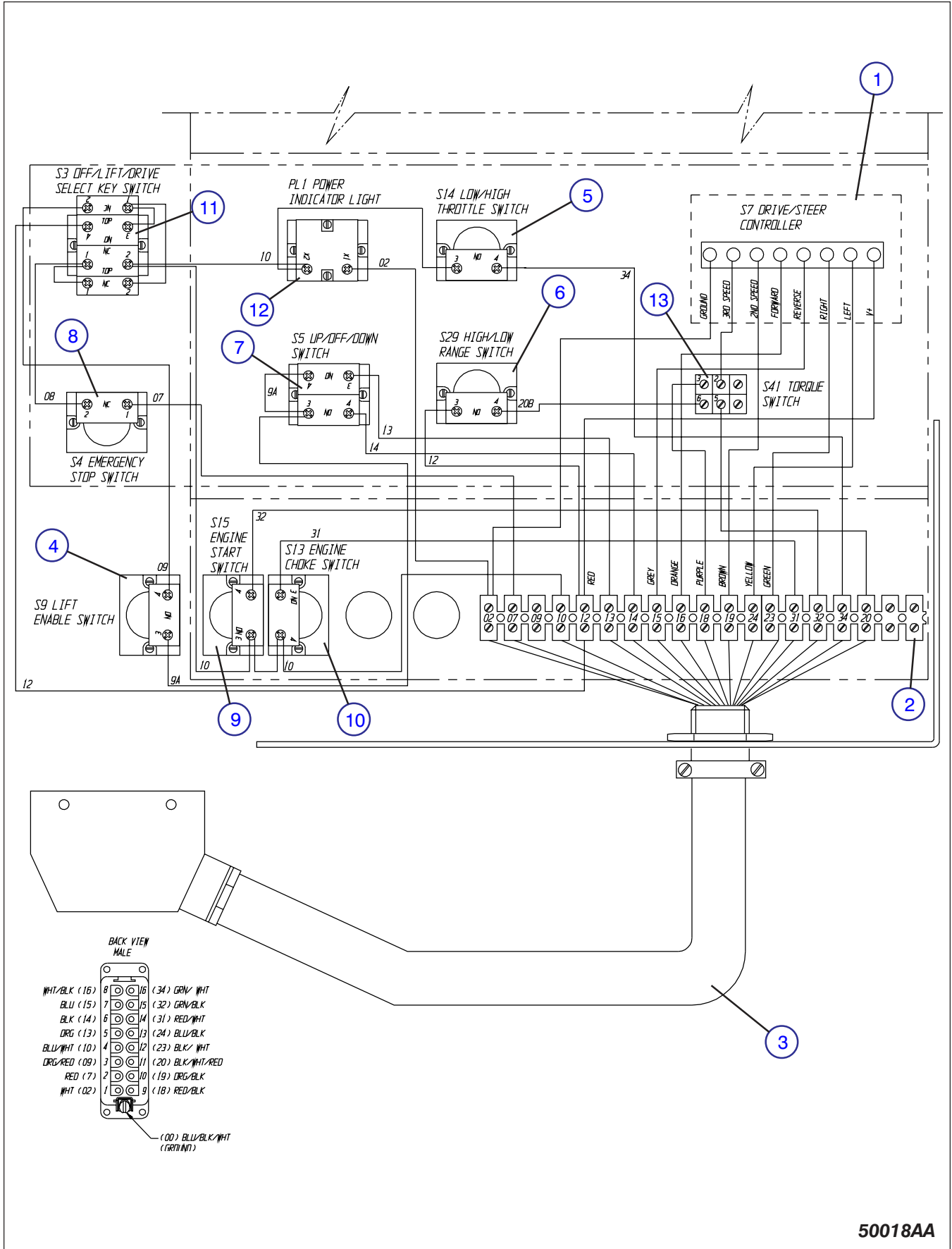
Index No.	Skyjack Part No.	Description	Units per Assy.
P1	110460	PUMP, Dual inlet hydraulic .488/.854 (Machines with Kubota diesel engine)	1
	114201	PUMP, Dual inlet hydraulic .366/.671 (Machines with Kubota gas engine) NOTE: For service replacement of single inlet pump, order dual inlet and conversion kit)	1
R1	104534	RELIEF VALVE, System	1
R2	104534	RELIEF VALVE, Lift	1
R3	106557	RELIEF VALVE, Lift cylinder	1
R4	106557	RELIEF VALVE, Lift cylinder	1
V1	107271	VALVE, Manual lowering	1
V6	113752	VALVE, Auto reset brake (Machines with serial number 30167 and above)	1
2H-10A	104132	VALVE, Brake lock (Machines with serial number 30166 and below)	1
2H-13B	103655	VALVE, Main lowering	1
2H-13B-1	107269	VALVE, Lift cylinder holding	1
2H-13B-2	107269	VALVE, Lift cylinder holding	1
2H-14B	103655	VALVE, Lift	1
2H-17A	114365	VALVE, Large pump dump (Machines with serial number 30208 and above)	1
	103656	VALVE, Large pump dump (Machines with serial number 30207 and below)	1
2H-18A	103356	VALVE, Small pump dump	1
2H-25	102626	VALVE, Brake (Machines with serial number 30167 and above)	1
	110655	VALVE W/OVERRIDE, Quick brake (Machines with serial number 30166 and below)	1
2H-30A-1	103656	VALVE, Brake dump	1
2H-30A-2	103656	VALVE, Brake feed	1
2H-30B	112218	VALVE, Free-wheeling	1
2H-86	104412	VALVE, Hydraulic generator (option)	1
3H-20A	103623	VALVE, Series/parallel	1
4H-15B	103396	VALVE, Reverse drive (includes 4H-16B)(Vickers)	1
	128796	VALVE, Reverse drive (includes 4H-16B)(Hytos)	1
4H-16B	103396	VALVE, Forward drive (includes 4H-15B)(Vickers)	1
	128796	VALVE, Forward drive (includes 4H-15B)(Hytos)	1
4H-23A	103397	VALVE, Right steer (includes 4H-24A)(Vickers)	1
	128797	VALVE, Right steer (includes 4H-24A)(Hytos)	1
4H-24A	103397	VALVE, Left steer (includes 4H-23A)(Vickers)	1
	128797	VALVE, Left steer (includes 4H-23A)(Hytos)	1

**FIGURE 3.2-3. HYDRAULIC MANIFOLD COMPONENT AND PORT IDENTIFICATION**





**FIGURE 3.3-1A. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Number 32097 and Below)**

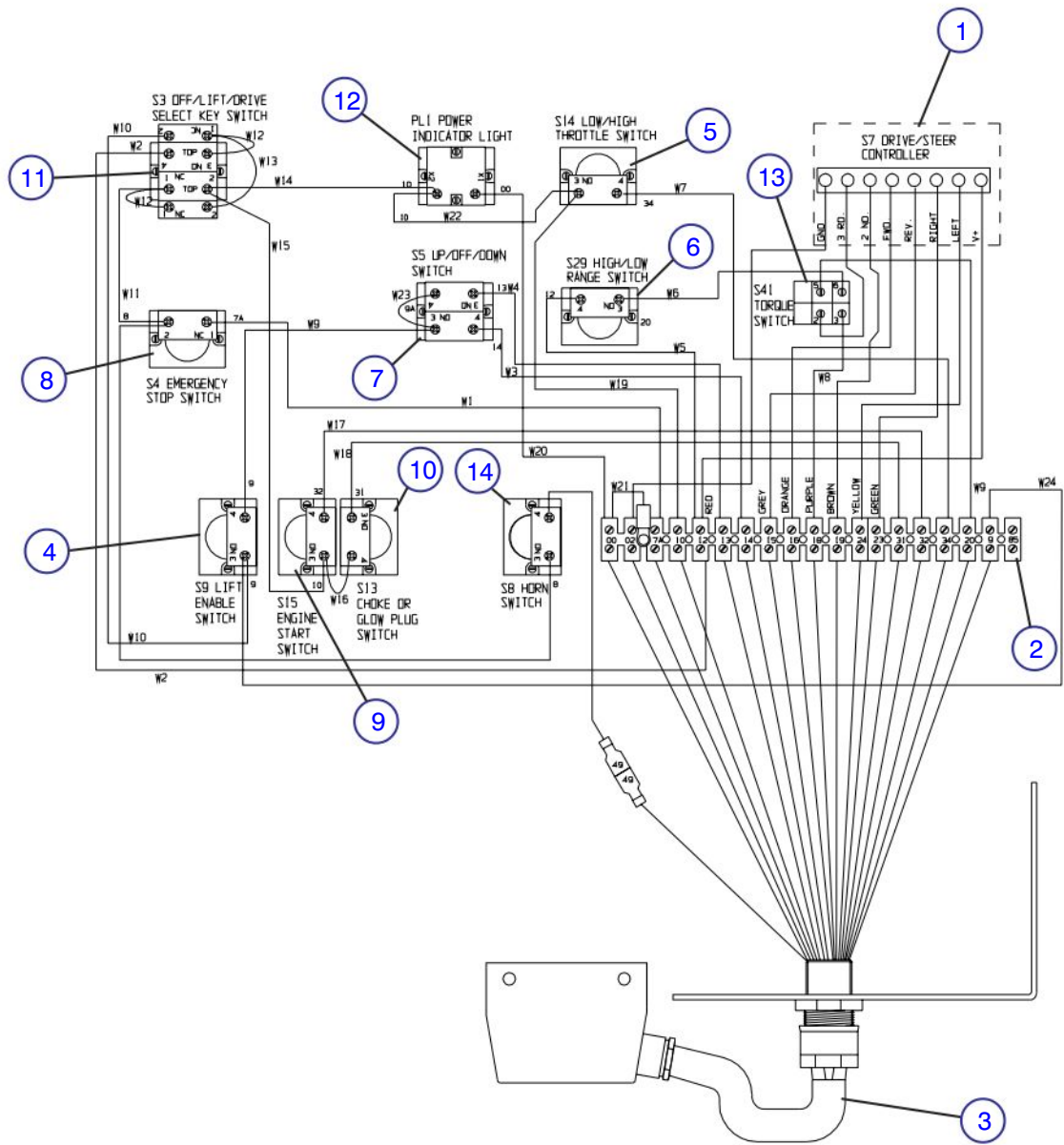


**FIGURE 3.3-1A. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Number 32097 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 16 pole (Replaces cable with 28 pole round connector by also ordering (1) CONNECTOR, 114477)	1
4	(Ref.)	SWITCH ASSEMBLY, Lift enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41) (Later models)	1

**FIGURE 3.3-1B. OPERATOR'S CONTROL BOX DIAGRAM - No Options**  
**(Machines With Serial Number 32098 To 33047)**

W1	RED
W2	BROWN/RED
W3	BLACK
W4	ORANGE
W5	BROWN/RED
W6	BLACK/RED
W7	GREEN/WHITE
W8	PURPLE
W9	BLUE/RED
W10	RED/BLUE
W11	BLUE
W12	WHITE/RED
W13	WHITE/RED
W14	BLUE/WHITE
W15	BLUE/WHITE
W16	WHITE/RED
W17	GREEN/BLACK
W18	RED/WHITE
W19	BLUE/WHITE
W20	WHITE
W21	WHITE
W22	BLUE/WHITE
W23	WHITE/RED
W24	ORANGE/RED



BACK VIEW

32	GREEN BLACK WHITE (77)
31	RED GREEN (76)
30	WHITE RED (75)
(NOT USED)	RED BLACK GREEN
29	BLACK RED (74)
(NOT USED)	WHITE RED GREEN
28	ORANGE GREEN (73)
(NOT USED)	BLACK RED GREEN
27	WHITE BLACK RED (72)
26	BLUE RED (71)
(85)	ORANGE BLACK WHITE
(78)	RED BLACK WHITE

BACK VIEW

(16)	WHITE BLACK
(15)	BLUE
(14)	BLACK
(13)	ORANGE
(10)	BLUE WHITE
(09)	ORANGE RED
(7A)	RED
(02)	WHITE
8	GREEN WHITE (34)
7	GREEN BLACK (32)
6	RED WHITE (31)
5	BLUE BLACK (24)
4	BLACK WHITE (23)
3	BLACK WHITE RED (20)
2	ORANGE BLACK (19)
1	RED BLACK (18)

00 GROUND (BLUE/BLACK/WHITE)  
 BLUE BLACK WHITE (GROUND) TO TERMINAL STRIP

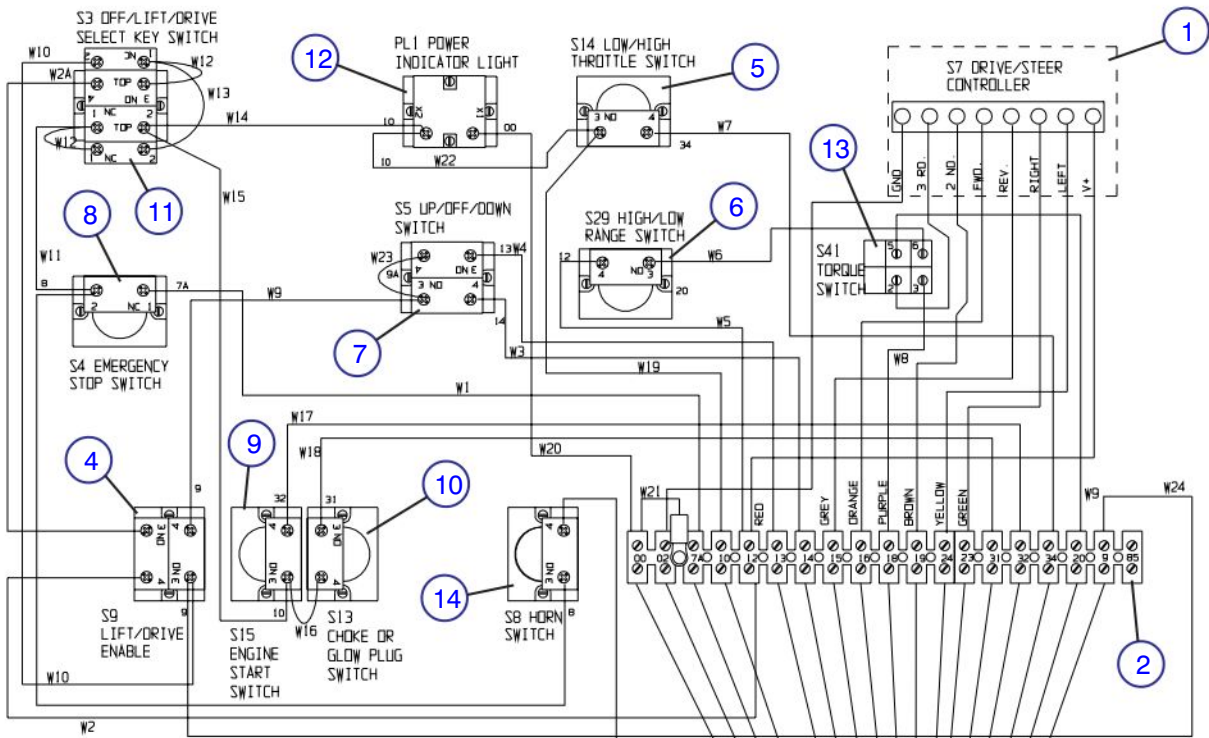
50019AA



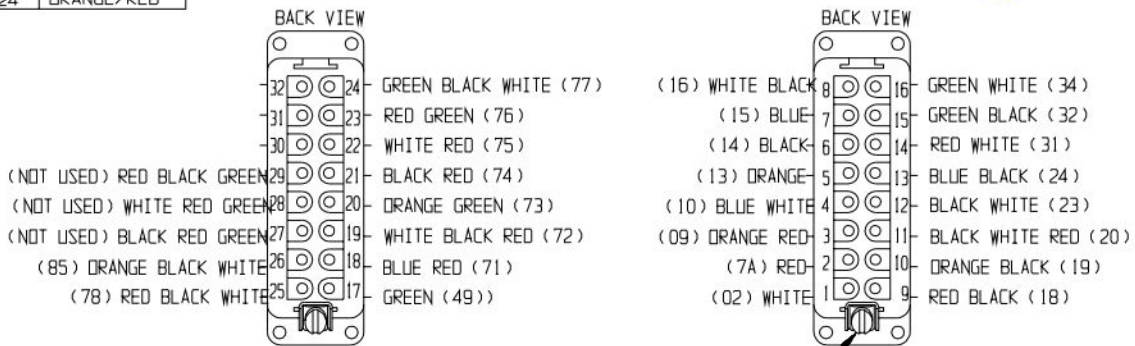
**FIGURE 3.3-1B. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Number 32098 To 33047)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Lift enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1

**FIGURE 3.3-1C. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Numbers From 32048 To 33188)**



W1	RED
W2	BROWN/RED
W2A	BROWN/RED
W3	BLACK
W4	DRANGE
W5	BROWN/RED
W6	BLACK/RED
W7	GREEN/WHITE
W8	PURPLE
W9	BLUE/RED
W10	RED/BLUE
W11	BLUE
W12	WHITE/RED
W13	WHITE/RED
W14	BLUE/WHITE
W15	BLUE/WHITE
W16	WHITE/RED
W17	GREEN/BLACK
W18	RED/WHITE
W19	BLUE/WHITE
W20	WHITE
W21	WHITE
W22	BLUE/WHITE
W23	WHITE/RED
W24	DRANGE/RED



00 GROUND (BLUE/BLACK/WHITE)  
BLUE BLACK WHITE (GROUND) TO TERMINAL STRIP

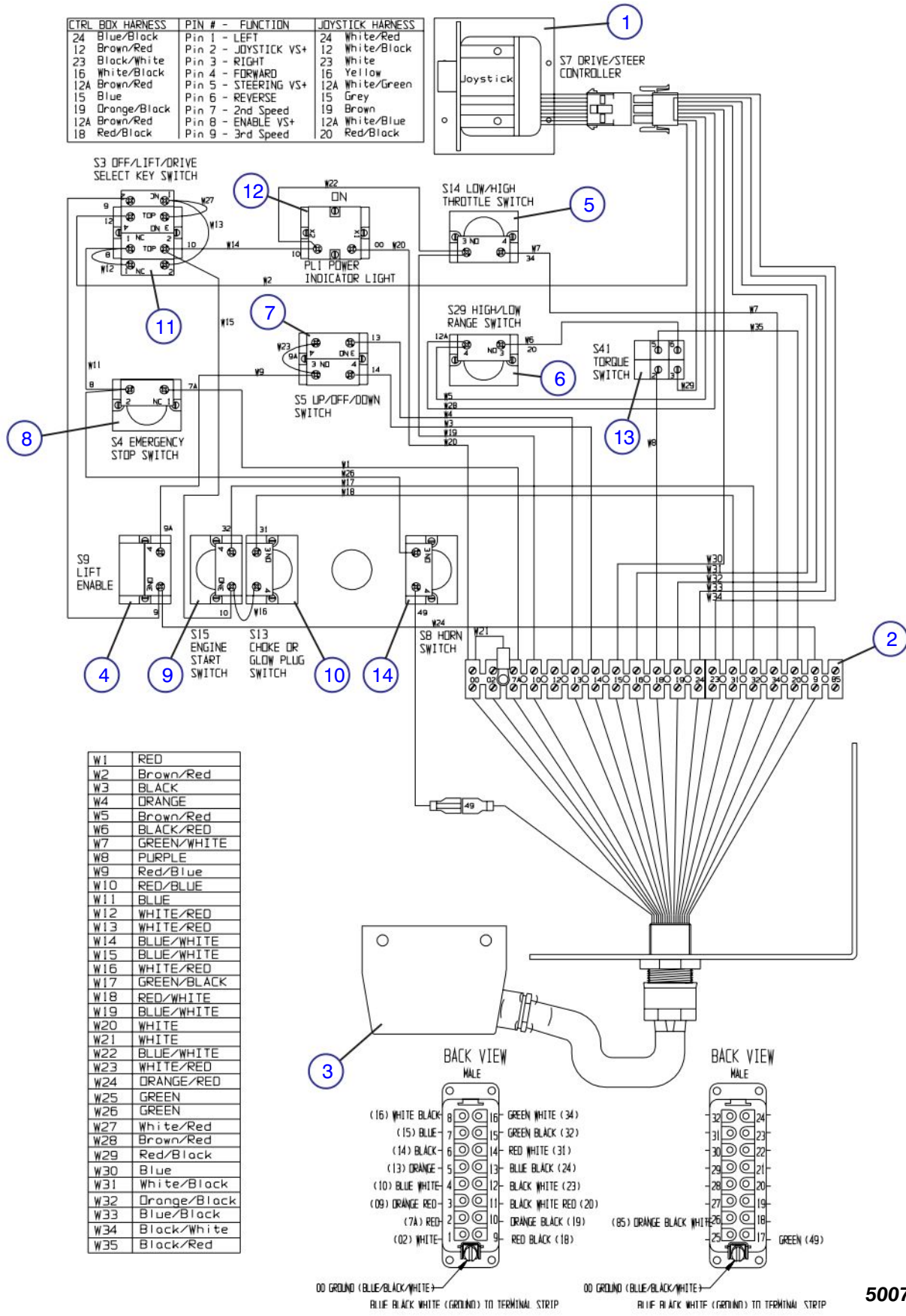
**50020AA**

**FIGURE 3.3-1C. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Numbers From 32048 To 33188)**

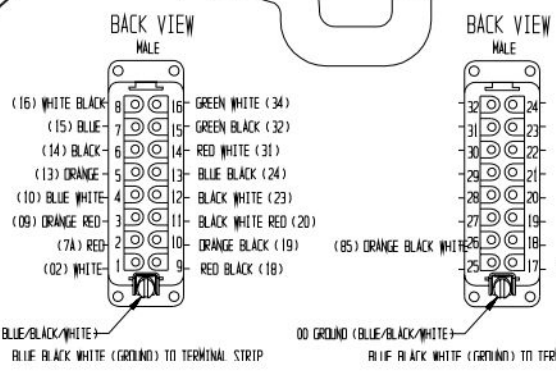
Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1

**FIGURE 3.3-1D. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Number 33189 And Above)**

CTRL BOX HARNESS	PIN # - FUNCTION	JOYSTICK HARNESS	
24	Blue/Black Pin 1 - LEFT	24	White/Red
12	Brown/Red Pin 2 - JOYSTICK VS+	12	White/Black
23	Black/White Pin 3 - RIGHT	23	White
16	White/Black Pin 4 - FORWARD	16	Yellow
12A	Brown/Red Pin 5 - STEERING VS+	12A	White/Green
15	Blue Pin 6 - REVERSE	15	Grey
19	Orange/Black Pin 7 - 2nd Speed	19	Brown
12A	Brown/Red Pin 8 - ENABLE VS+	12A	White/Blue
18	Red/Black Pin 9 - 3rd Speed	20	Red/Black



W1	RED
W2	Brown/Red
W3	BLACK
W4	ORANGE
W5	Brown/Red
W6	BLACK/RED
W7	GREEN/WHITE
W8	PURPLE
W9	Red/Blue
W10	RED/BLUE
W11	BLUE
W12	WHITE/RED
W13	WHITE/RED
W14	BLUE/WHITE
W15	BLUE/WHITE
W16	WHITE/RED
W17	GREEN/BLACK
W18	RED/WHITE
W19	BLUE/WHITE
W20	WHITE
W21	WHITE
W22	BLUE/WHITE
W23	WHITE/RED
W24	ORANGE/RED
W25	GREEN
W26	GREEN
W27	White/Red
W28	Brown/Red
W29	Red/Black
W30	Blue
W31	White/Black
W32	Orange/Black
W33	Blue/Black
W34	Black/White
W35	Black/Red



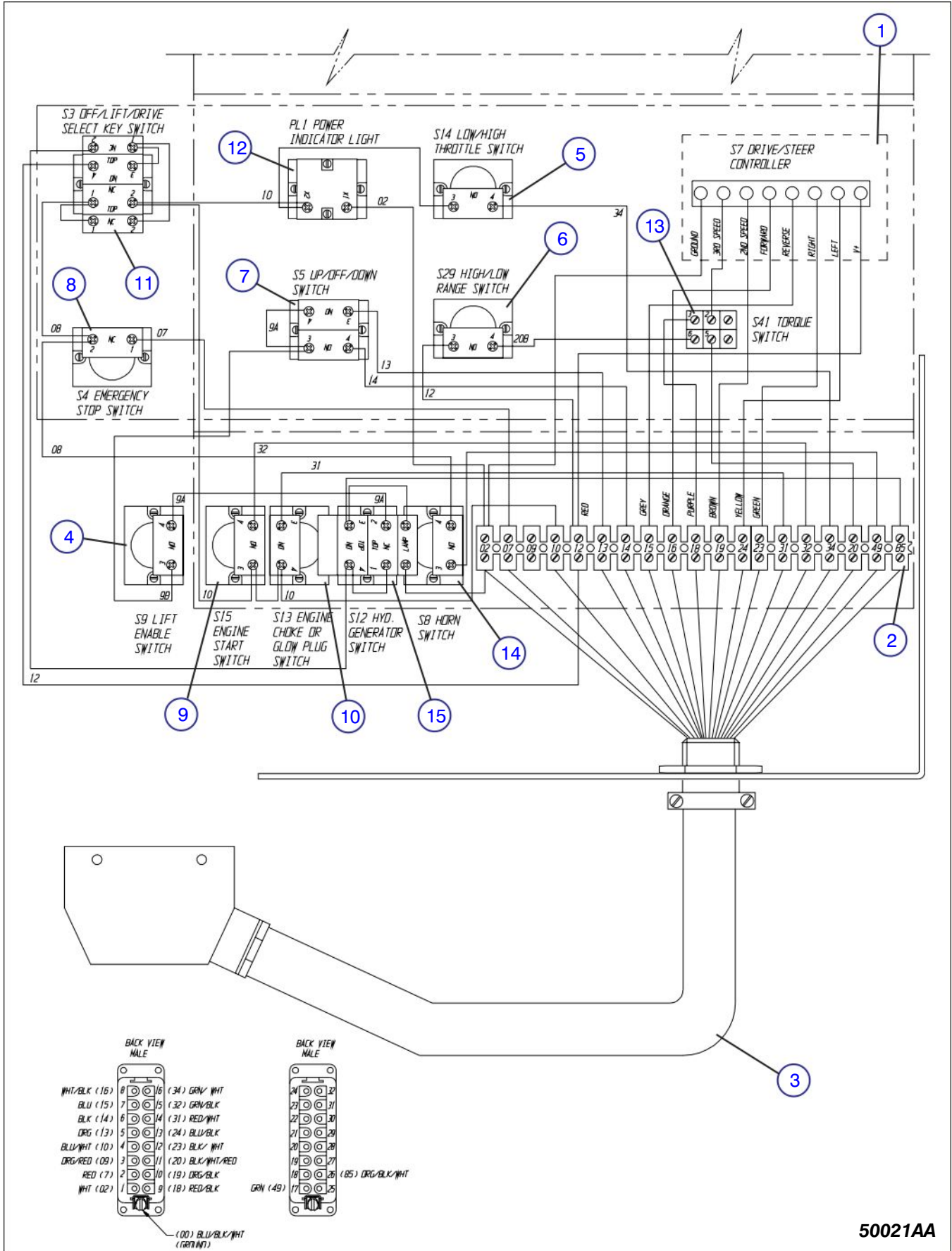
50079AA

**FIGURE 3.3-1D. OPERATOR'S CONTROL BOX DIAGRAM - No Options  
(Machines With Serial Number 33189 And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	123995	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1



**FIGURE 3.3-2A. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 32097 and Below)**



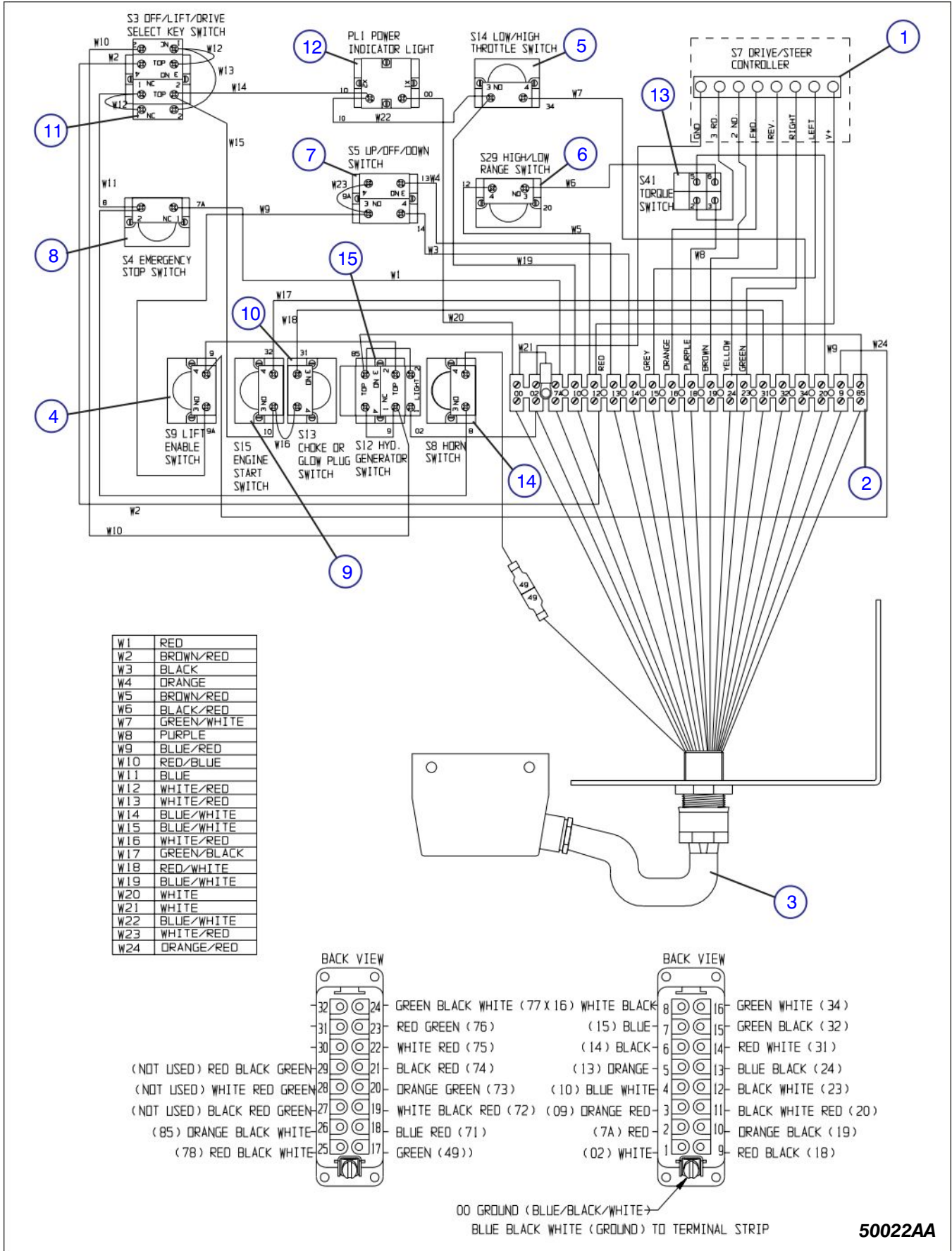
50021AA



**FIGURE 3.3-2A. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 32097 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	115283	CABLE ASSEMBLY, Control box 32 pole (Replaces cable with 28 pole round connector by also ordering (1) CONNECTOR, 114476)	1
4	(Ref.)	SWITCH ASSEMBLY, Lift enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41) (Later models)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1
15	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator (S12) (For components, refer to Figure 6-8.)	1

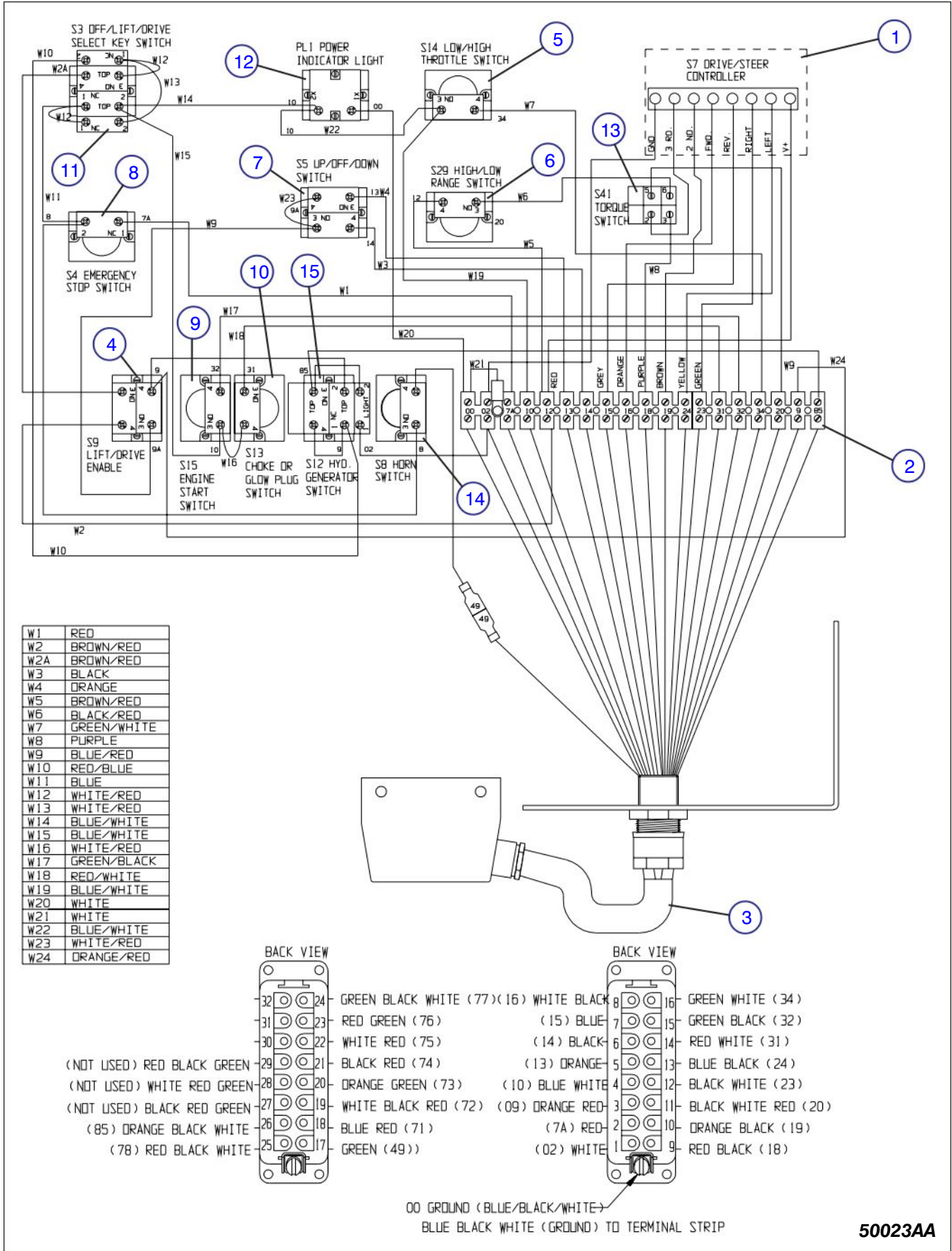
**FIGURE 3.3-2B. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 32098 To 33047)**



**FIGURE 3.3-2B. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 32098 To 33047)**

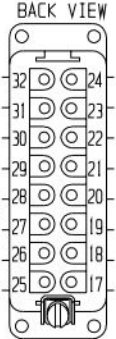
Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Lift enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1
15	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator (S12) (For components, refer to Figure 6-8.)	1

**FIGURE 3.3-2C. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Numbers From 32048 To 33188)**

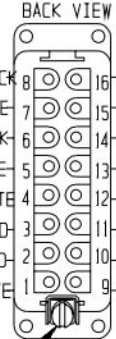


W1	RED
W2	BROWN/RED
W2A	BROWN/RED
W3	BLACK
W4	ORANGE
W5	BROWN/RED
W6	BLACK/RED
W7	GREEN/WHITE
W8	PURPLE
W9	BLUE/RED
W10	RED/BLUE
W11	BLUE
W12	WHITE/RED
W13	WHITE/RED
W14	BLUE/WHITE
W15	BLUE/WHITE
W16	WHITE/RED
W17	GREEN/BLACK
W18	RED/WHITE
W19	BLUE/WHITE
W20	WHITE
W21	WHITE
W22	BLUE/WHITE
W23	WHITE/RED
W24	ORANGE/RED

(NOT USED) RED BLACK GREEN  
 (NOT USED) WHITE RED GREEN  
 (NOT USED) BLACK RED GREEN  
 (85) ORANGE BLACK WHITE  
 (78) RED BLACK WHITE



24 GREEN BLACK WHITE (77) (16) WHITE BLACK (15) BLUE  
 23 RED GREEN (76) (14) BLACK  
 22 WHITE RED (75) (13) ORANGE  
 21 BLACK RED (74) (10) BLUE WHITE  
 20 ORANGE GREEN (73) (09) ORANGE RED  
 19 WHITE BLACK RED (72) (7A) RED  
 18 BLUE RED (71) (02) WHITE  
 17 GREEN (49))



8 GREEN WHITE (34)  
 7 GREEN BLACK (32)  
 6 RED WHITE (31)  
 5 BLUE BLACK (24)  
 4 BLACK WHITE (23)  
 3 BLACK WHITE RED (20)  
 2 ORANGE BLACK (19)  
 1 RED BLACK (18)

OO GROUND (BLUE/BLACK/WHITE)  
 BLUE BLACK WHITE (GROUND) TO TERMINAL STRIP

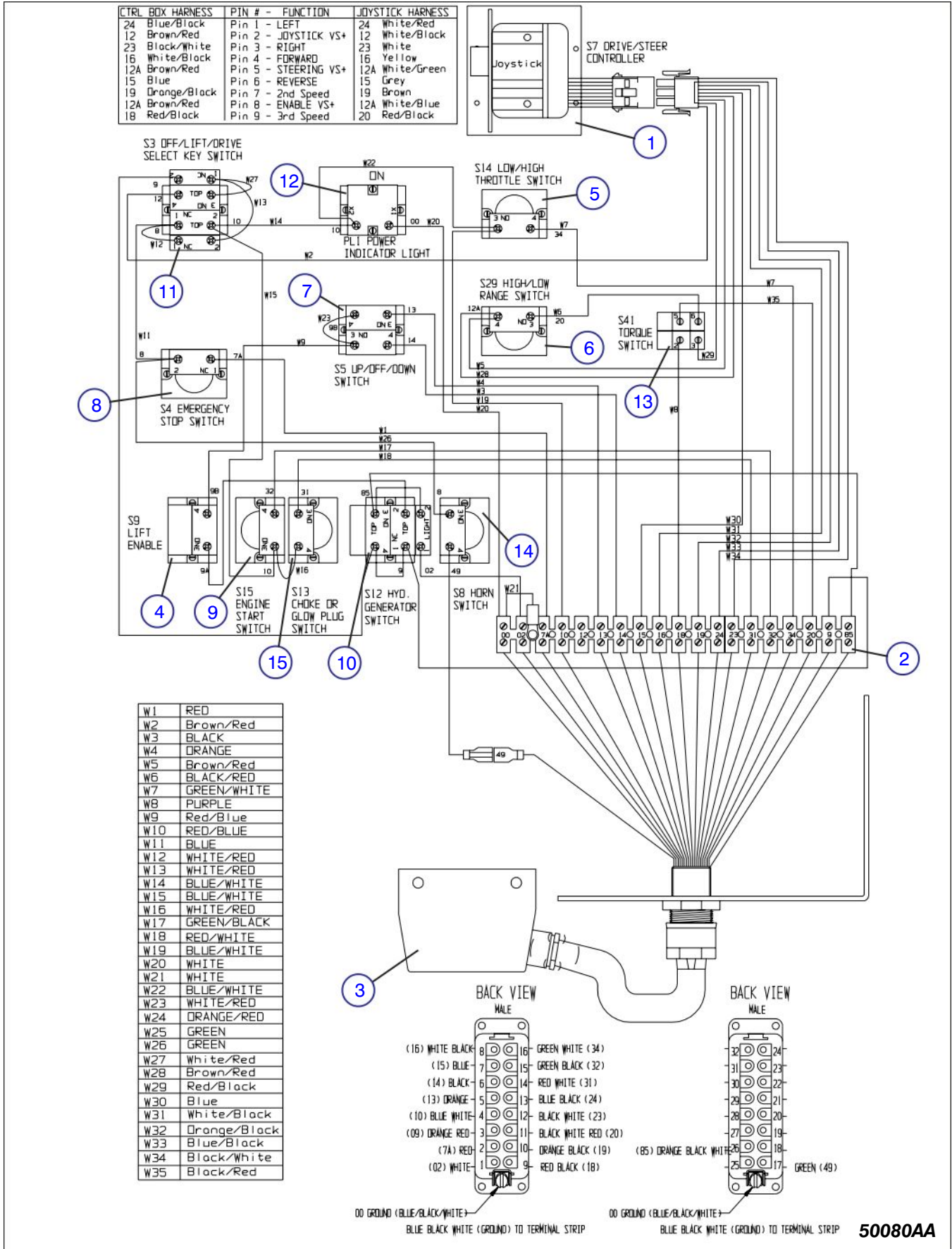
50023AA

**FIGURE 3.3-2C. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Numbers From 32048 To 33188)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103334	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1
15	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator (S12) (For components, refer to Figure 6-8.)	1



**FIGURE 3.3-2D. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 33189 And Above)**





**FIGURE 3.3-2D. OPERATOR'S CONTROL BOX DIAGRAM - All Options  
(Machines With Serial Number 33189 And Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	123995	CONTROLLER ASSEMBLY, Drive/steer (S7) (For components, refer to Figure 6-9.)	1
2	103012	STRIP, Terminal block	1.5
3	114485	CABLE ASSEMBLY, Control box 32 pole male	1
4	(Ref.)	SWITCH ASSEMBLY, Enable (S9) (For components, refer to Figure 6-8.)	1
5	(Ref.)	SWITCH ASSEMBLY, Throttle select (S14) (For components, refer to Figure 6-8.)	1
6	(Ref.)	SWITCH ASSEMBLY, Range select (S29) (For components, refer to Figure 6-8.)	1
7	(Ref.)	SWITCH ASSEMBLY, Up/down selector (S5) (For components, refer to Figure 6-8.)	1
8	(Ref.)	SWITCH ASSEMBLY, Emergency stop (S4) (For components, refer to Figure 6-8.)	1
9	(Ref.)	SWITCH ASSEMBLY, Engine start push-button (S15) (For components, refer to Figure 6-8.)	1
10	(Ref.)	SWITCH ASSEMBLY, Engine choke or glow plug push-button (S13) (For components, refer to Figure 6-8.)	1
11	(Ref.)	SWITCH ASSEMBLY, Key select (S3) (For components, refer to Figure 6-8.)	1
12	(Ref.)	SWITCH ASSEMBLY, Power indicator (PL1) (For components, refer to Figure 6-8.)	1
13	114373	SWITCH, Torque toggle (S41)	1
14	(Ref.)	SWITCH ASSEMBLY, Horn push-button (S8) (For components, refer to Figure 6-8.)	1
15	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator (S12) (For components, refer to Figure 6-8.)	1

**FIGURE 3.4-1. ELECTRICAL PARTS LIST**

Ref. No.	Skyjack Part No.	Description	Units per Assy
<b>A</b>	(Ref.)	ANSI/SIA & CSA Models (Kubota Dual Fuel ) Serial #31801 and Below	-
<b>B</b>	(Ref.)	ANSI/SIA & CSA Models (Kubota Dual Fuel ) Serial #31802 and Above	-
<b>C</b>	(Ref.)	CE Models (Kubota Diesel)	-
<b>D</b>	(Ref.)	All Models with Serial #33188 and Below	-
<b>E</b>	(Ref.)	All Models with Serial #33189 and Above	-
B1	103295	BATTERY, 12 Volt (starting)	1
BP-29	103056	BEEPER, 12 Volt	1
CAP1	103319	CAPACITOR, 35 Volt, 1000MFD	1
CB1	117326	CIRCUIT BREAKER, 20 Amp	1
CB2	117326	CIRCUIT BREAKER, 20 Amp	1
CB3	117326	CIRCUIT BREAKER, 20 Amp	1
CRD1	(Ref.)	CABLE ASSEMBLY, Control box (See Section 6)	1
CRD2	(Ref.)	CABLE ASSEMBLY, Scissor arm (See Section 6.)	1
CRD3	(Ref.)	CABLE ASSEMBLY, Electrical panel (See Section 6)	1
CRD4	(Ref.)	CABLE ASSEMBLY, Engine wiring (See Section 6)	1
CRD5	(Ref.)	CABLE ASSEMBLY, Engine electrical (See Section 6)	1
CRD6	(Ref.)	CABLE ASSEMBLY, Panel wiring (See Section 6)	1
CS-31A	103007	CHOKE SOLENOID, Engine	1
D10-D86	102921	DIODE	AR
DCM1	300248	MOTOR, 12 Volt (powered ext. platform option)	1
F2	111282	FUSE, 100 Amp (powered ext. platform option)	1
F4	119469	FUSE, 200 Amp (Electrical inverter option)	1
FL-13B	103743	FLASHER	1
FL-22	121476	FLASHING LIGHT	1
H1	102850	HORN, 12 Volt	1
HTS-34A	103007	HIGH THROTTLE SOLENOID, Engine, <b>A &amp; B</b>	1
HTS-34A	112721	HIGH THROTTLE SOLENOID, Engine, <b>C</b>	1
INV1	123629	INVERTER, 1500 Watt 120V @ 60hz	1
	124047	INVERTER, 1500 Watt 110/220V @ 50hz	1
GPL1	KUBOTA	GLOW PLUG INDICATOR LIGHT	1
GPT1	KUBOTA	GLOW PLUG TIMER	1
LS4	111356	LIMIT SWITCH, End-of-stroke	1
LS5	102848	LIMIT SWITCH, High speed/tilt override	1
LS6-LS8	102848	LIMIT SWITCH, Scissor guards (Early models), <b>C</b>	3
OPS1	102838	SWITCH, Engine oil pressure	1
PL1	102671	CONTACT BLOCK, Power indicator light	1
S1	119726	SWITCH, Main power disconnect	1
S3	103141	N.O. CONTACT BLOCK, Off/lift/drive key switch	1
	103225	N.C. CONTACT BLOCK, Off/lift/drive key switch	3
S4	103225	N.C. CONTACT BLOCK, Emergency stop switch	1
S5	103141	N.O. CONTACT BLOCK, Up/off/down switch	1
S7	103334	CONTROLLER ASSEMBLY, Drive/steer	1
<b>Parts list continued on the following page.</b>			

**FIGURE 3.4-1. ELECTRICAL PARTS LIST (Continued)**

Ref. No.	Skyjack Part No.	Description	Units per Assy
<b>Parts list continued from the previous page.</b>			
S7	103334	CONTROLLER ASSEMBLY, Drive/steer, <b>D</b>	1
	123995	CONTROLLER ASSEMBLY, Drive/steer, <b>E</b>	1
S7-1	102768	• SWITCH W/ACTUATOR, 2nd Speed, <b>D</b>	1
	122869	• SWITCH W/ACTUATOR, 2nd Speed, <b>E</b>	1
S7-2	105733	• SWITCH, Right steer, <b>D</b>	1
	122877	• SWITCH, Right steer, <b>E</b>	1
S7-3	105733	• SWITCH, Left steer, <b>D</b>	1
	122877	• SWITCH, Left steer, <b>E</b>	1
S7-4	102768	• SWITCH W/ACTUATOR, Reverse drive, <b>D</b>	1
	122869	• SWITCH W/ACTUATOR, Reverse drive, <b>E</b>	1
S7-5	102768	• SWITCH W/ACTUATOR, Forward drive, <b>D</b>	1
	122869	• SWITCH W/ACTUATOR, Forward drive, <b>E</b>	1
S7-6	102768	• SWITCH W/ACTUATOR, 3rd Speed, <b>D</b>	1
	122869	• SWITCH W/ACTUATOR, 3rd Speed, <b>E</b>	1
S7-7	122872	• SWITCH Joystick Enable, <b>E</b>	1
S8	103141	N.O. CONTACT BLOCK, Horn switch	1
S9	103141	N.O. CONTACT BLOCK, Lift enable switch	1
S11	102853	SWITCH, Platform extend/retract toggle (Later models with powered ext. platform option)	1
	103141	N.O. CONTACT BLOCK, Platform extend/retract (Early models with powered ext. platform option)	1
S12	103141	N.O. CONTACT BLOCK, Hyd. generator option	1
	112434	CONTACT BLOCK, Switch and hold (hydraulic generator option)	1
S13	103141	N.O. CONTACT BLOCK, Engine choke switch	1
S14	103141	N.O. CONTACT BLOCK, Low/high throttle switch	1
S15	103141	N.O. CONTACT BLOCK, Engine start	1
S16	103141	N.O. CONTACT BLOCK, Up push-button	1
S17	103141	N.O. CONTACT BLOCK, Down push-button	1
S29	103141	N.O. CONTACT BLOCK, Low/high range switch	1
S30	102572	SWITCH, Engine off/on (engine)	1
S31	102692	SWITCH, Engine choke push-button (engine)	1
S32	102692	SWITCH, Engine start push-button (engine)	1
S33	111627	SWITCH, Fuel select (dual fuel option), <b>A</b>	1
	300802	SWITCH, Fuel select (dual fuel ), <b>B</b>	1
S41	114373	SWITCH, Torque toggle	1
S42	102853	SWITCH, Enable toggle (powered ext. platform option)	1
<b>Parts list continued on the following page.</b>			

**FIGURE 3.4-1. ELECTRICAL PARTS LIST (Continued)**

Ref. No.	Skyjack Part No.	Description	Units per Assy
<b>Parts list continued from the previous page.</b>			
TPS1	113400	SWITCH, Engine temperature	1
TS1	117880	TILT SWITCH ASSEMBLY	1
TT	103336	HOUR METER	1
VS1	111623	SWITCH, Vacuum (dual fuel option), <b>A</b>	1
1TD	103207	RELAY, 12 Volt DPDT (drive time delay)	1
09CR	111787	CONTACTOR, 12 Volt (powered ext. platform option)	1
10BCR1	103207	RELAY, 12 Volt DPDT (engine on)	1
10BCR2	103207	RELAY, 12 Volt DPDT	1
13CR	103316	RELAY, 12 Volt SPDT (down)	1
14CR	103316	RELAY, 12 Volt SPDT (up)	1
15CR	103207	RELAY, 12 Volt DPDT (reverse drive)	1
16CR	103207	RELAY, 12 Volt DPDT (forward drive)	1
17CR	103316	RELAY, 12 Volt SPDT (2nd speed/large pump)	1
17ACR	103316	RELAY, 12 Volt SPDT (small pump)	1
18CR	103316	RELAY, 12 Volt SPDT (3rd speed)	1
2D37	116745	SOLENOID, Diesel fuel shut off	1
20CR	103316	RELAY, 12 Volt SPDT (series/parallel drive)	1
23CR	103316	RELAY, 12 Volt SPDT (right steer)	1
24CR	103316	RELAY, 12 Volt SPDT (left steer)	1
28CR	103207	RELAY, 12 Volt DPDT (tilt switch)	1
30CR	103316	RELAY, 12 Volt SPDT (brake)	1
31ACR	103731	RELAY, 12 Volt SPDT (engine glow plug)	1
31CR	103316	RELAY, 12 Volt SPDT (engine choke)	1
31CR	103316	RELAY, 12 Volt SPDT (glow plug)	1
32CR	103316	RELAY, 12 Volt SPDT (engine start)	1
32ACR	KUBOTA	SOLENOID, Engine start	1
32BCR	103316	RELAY, 12 Volt SPDT (throttle)	1
35CR	103207	RELAY, 12 Volt DPDT (tilt override) (Machines with serial number 30986 and above)	1
	111956	RELAY, 12 Volt TPDT (tilt override) (Machines with serial number 30985 and below)	1
49CR	103316	RELAY, 12 Volt SPDT	1
55CR	103731	RELAY, 12 Volt (vacuum switch) (dual fuel)	1
2G11	111626	SOLENOID, Gasoline valve	1
<b>Parts list continued on the following page.</b>			

**FIGURE 3.4-1. ELECTRICAL PARTS LIST (Continued)**

Ref. No.	Skyjack Part No.	Description	Units per Assy
<b>Parts list continued from the previous page.</b>			
2H-10A	103613	COIL, 12 Volt (brake lock valve) (Machines with serial number 30166 and below)	1
2H-13B	103613	COIL, 12 Volt (main lowering valve)	1
2H-13B-1	104410	COIL, 12 Volt (lift cylinder holding)	1
2H-13B-2	104410	COIL, 12 Volt (lift cylinder holding)	1
2H-14B	103613	COIL, 12 Volt (lift valve)	1
2H-17A	103613	COIL, 12 Volt (large pump dump valve)	1
2H-18A	103613	COIL, 12 Volt (small pump dump valve)	1
2H-25	103613	COIL, 12 Volt (brake valve)	1
2H-30A-1	103613	COIL, 12 Volt (brake dump valve)	1
2H-30A-2	103613	COIL, 12 Volt (brake feed valve)	1
2H-30(B)	103613	COIL, 12 Volt (free-wheeling valve)	1
2H-86	106272	COIL, 12 Volt (hydraulic generator option)	1
2P50	111618	SOLENOID, Propane valve	1
3H-20A	103613	COIL, 12 Volt (series/parallel drive)	1
4H-15B	107441	COIL, Reverse drive valve (Vickers)	1
	128322	COIL, Reverse drive valve (Hytos)	1
4H-16B	107441	COIL, Forward drive valve (Vickers)	1
	128322	COIL, Forward drive valve (Hytos)	1
4H-23A	107440	COIL, Right steer valve (Vickers)	1
	128321	COIL, Right steer valve (Hytos)	1
4H-24A	107440	COIL, Left steer valve (Vickers)	1
	128321	COIL, Left steer valve (Hytos)	1
4H-26	107440	COIL, Powered ext. platform extend valve (option) (Vickers)	1
	128321	COIL, Powered ext. platform extend valve (option) (Hytos)	1
4H-27	107440	COIL, Powered ext. platform retract valve (option) (Vickers)	1
	128321	COIL, Powered ext. platform retract valve (option) (Hytos)	1



FIGURE 3.4-2. BASE CONTROL/ELECTRICAL PANEL DIAGRAM (ANSI/SIA and CSA Machines With Serial Number 30985 and Below)

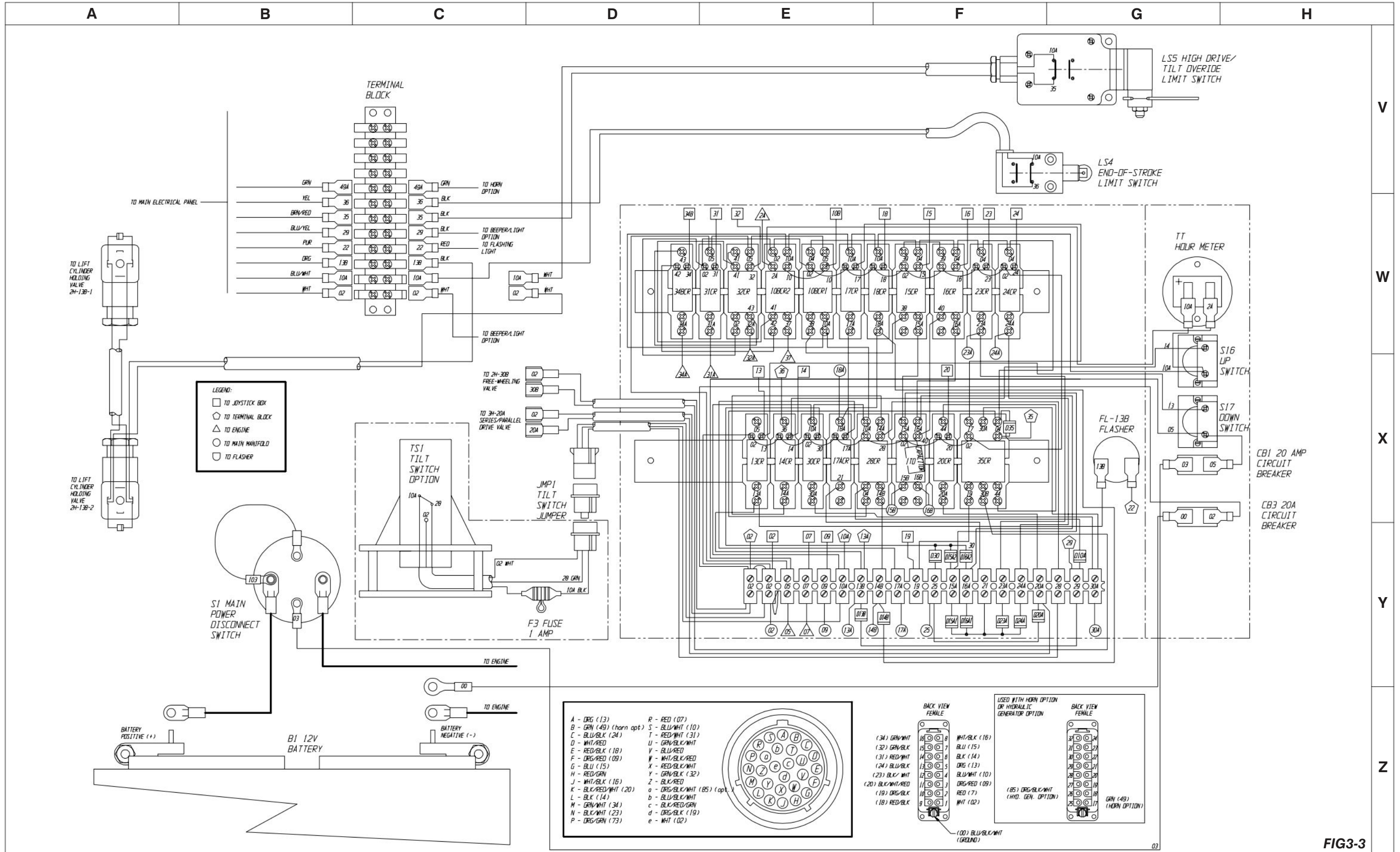
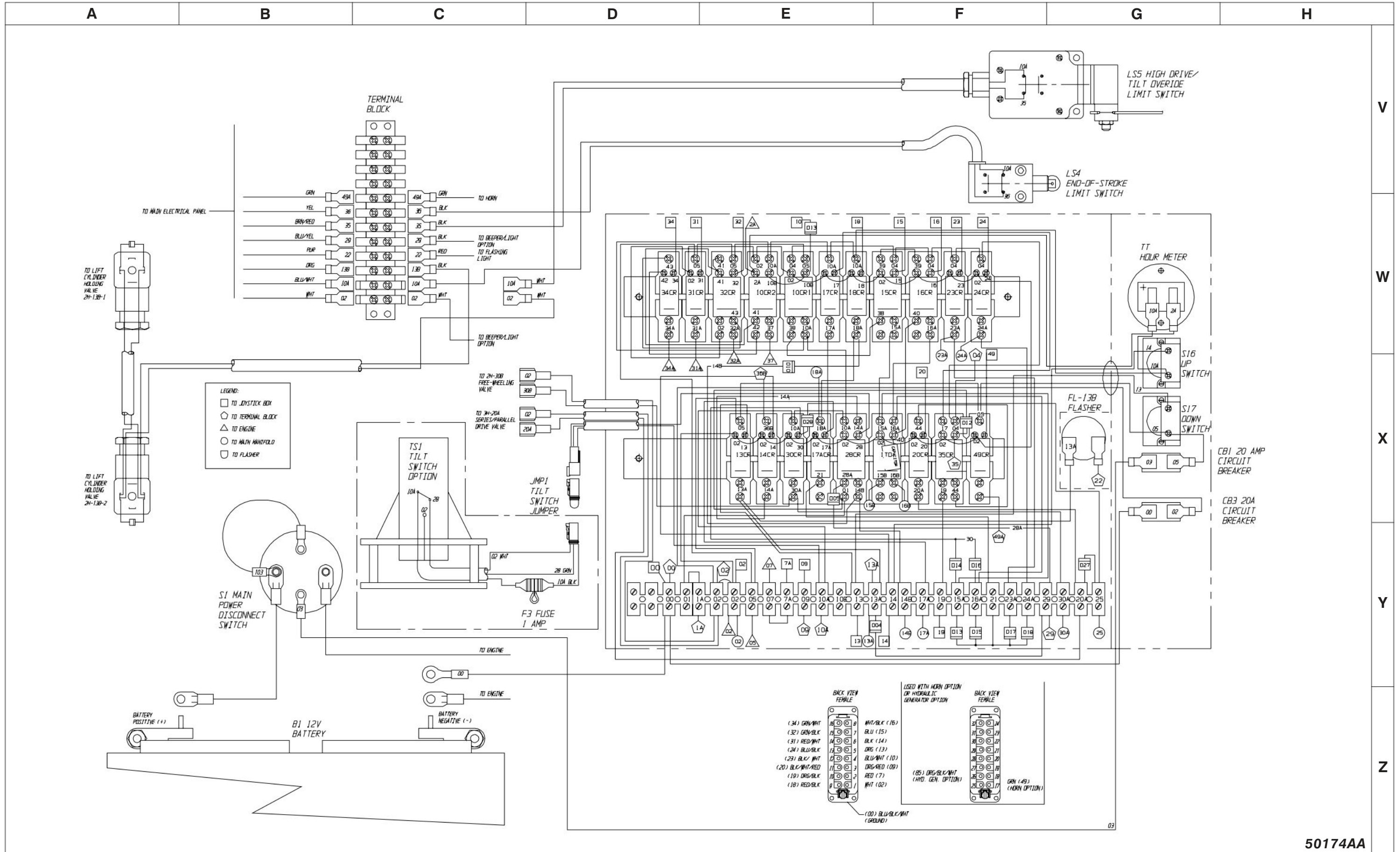


FIG3-3



FIGURE 3.4-3. BASE CONTROL/ELECTRICAL PANEL DIAGRAM (ANSI/SIA and CSA Machines With Serial Number 30986 through 32097)



50174AA

FIGURE 3.4-4. BASE CONTROL/ELECTRICAL PANEL DIAGRAM (ANSI/SIA and CSA Machines With Serial Number 32098 and Above)

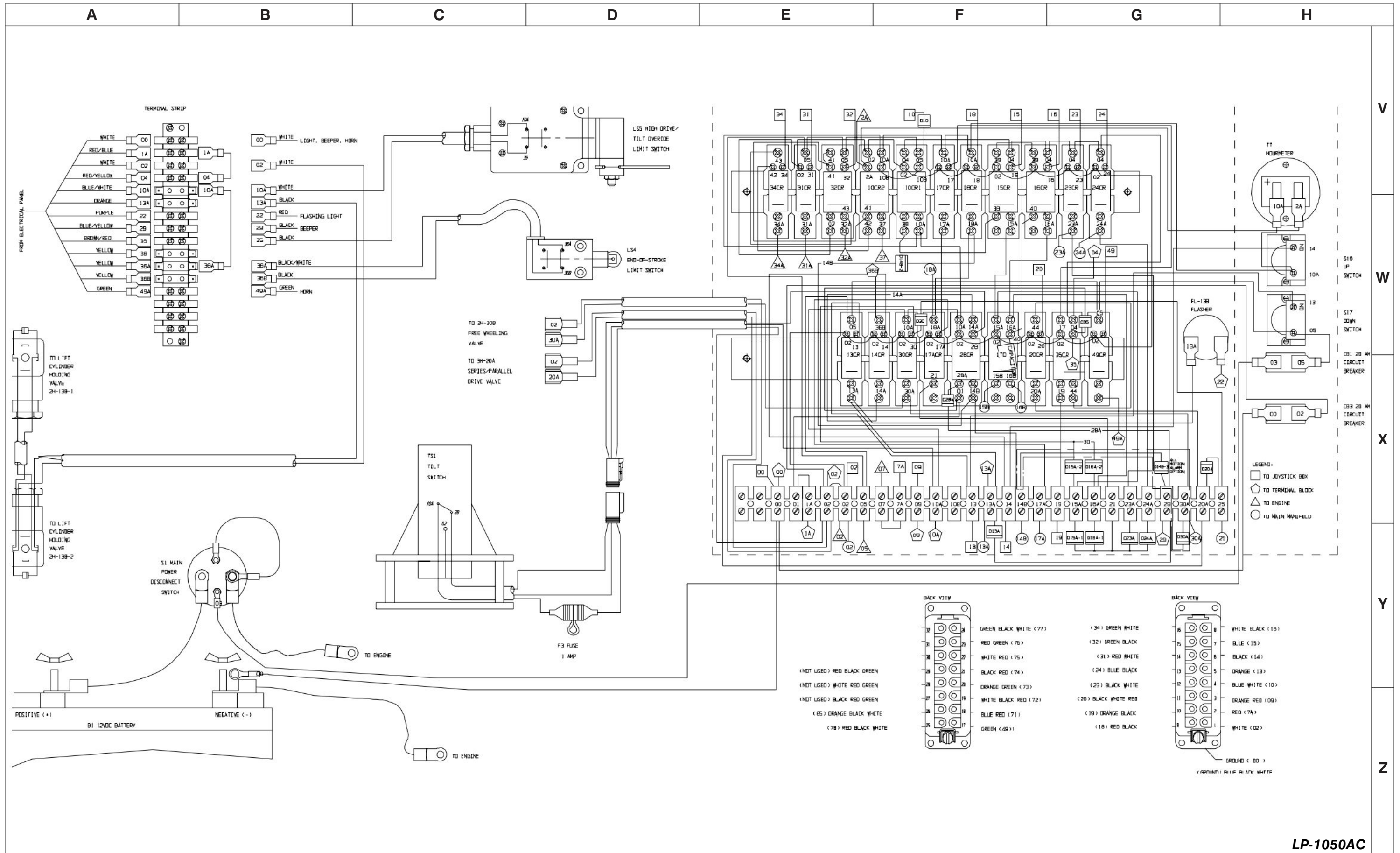






FIGURE 3.4-6. BASE CONTROL/ELECTRICAL PANEL DIAGRAM (CE Machines With Serial Number 30986 through 32097)

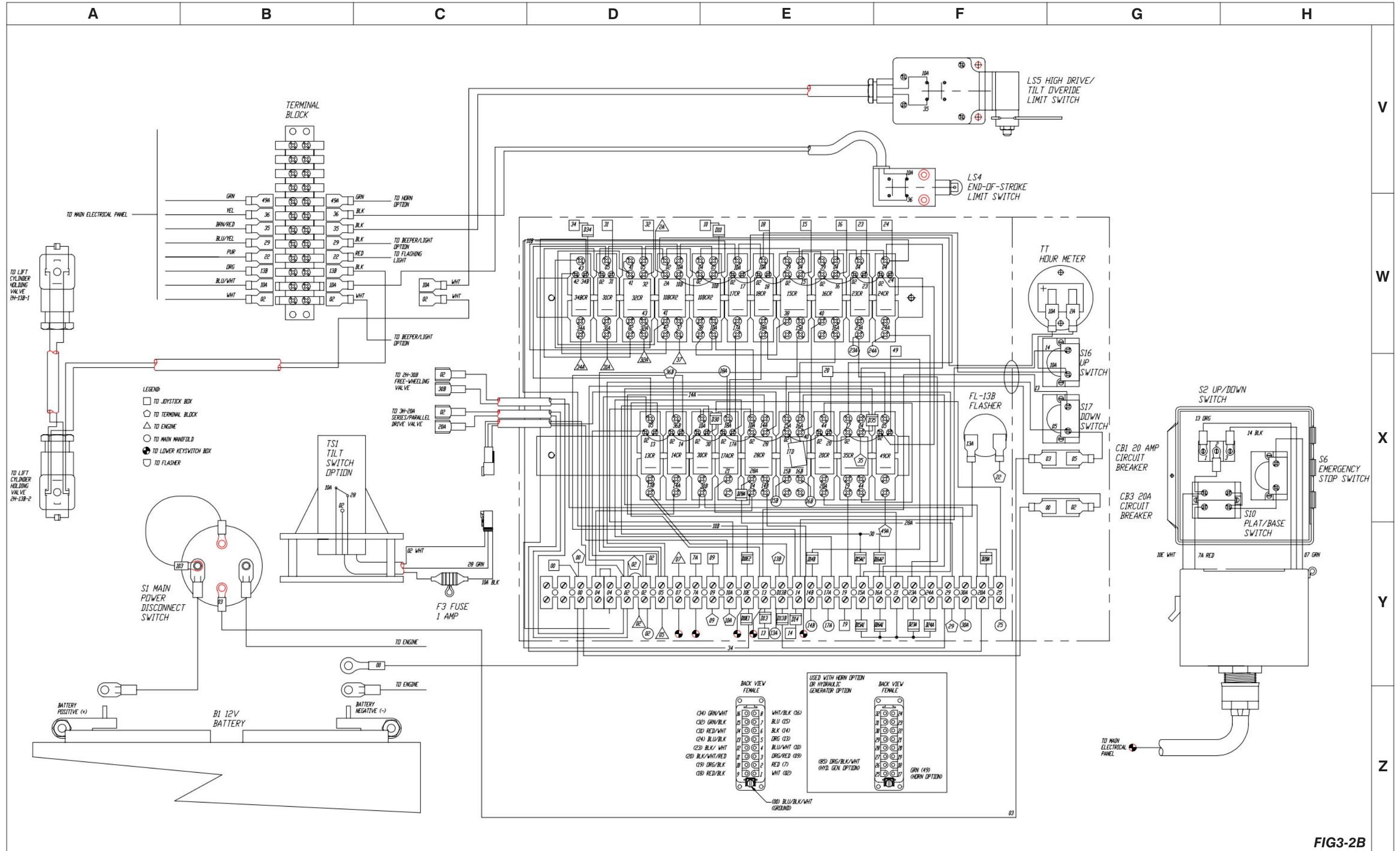
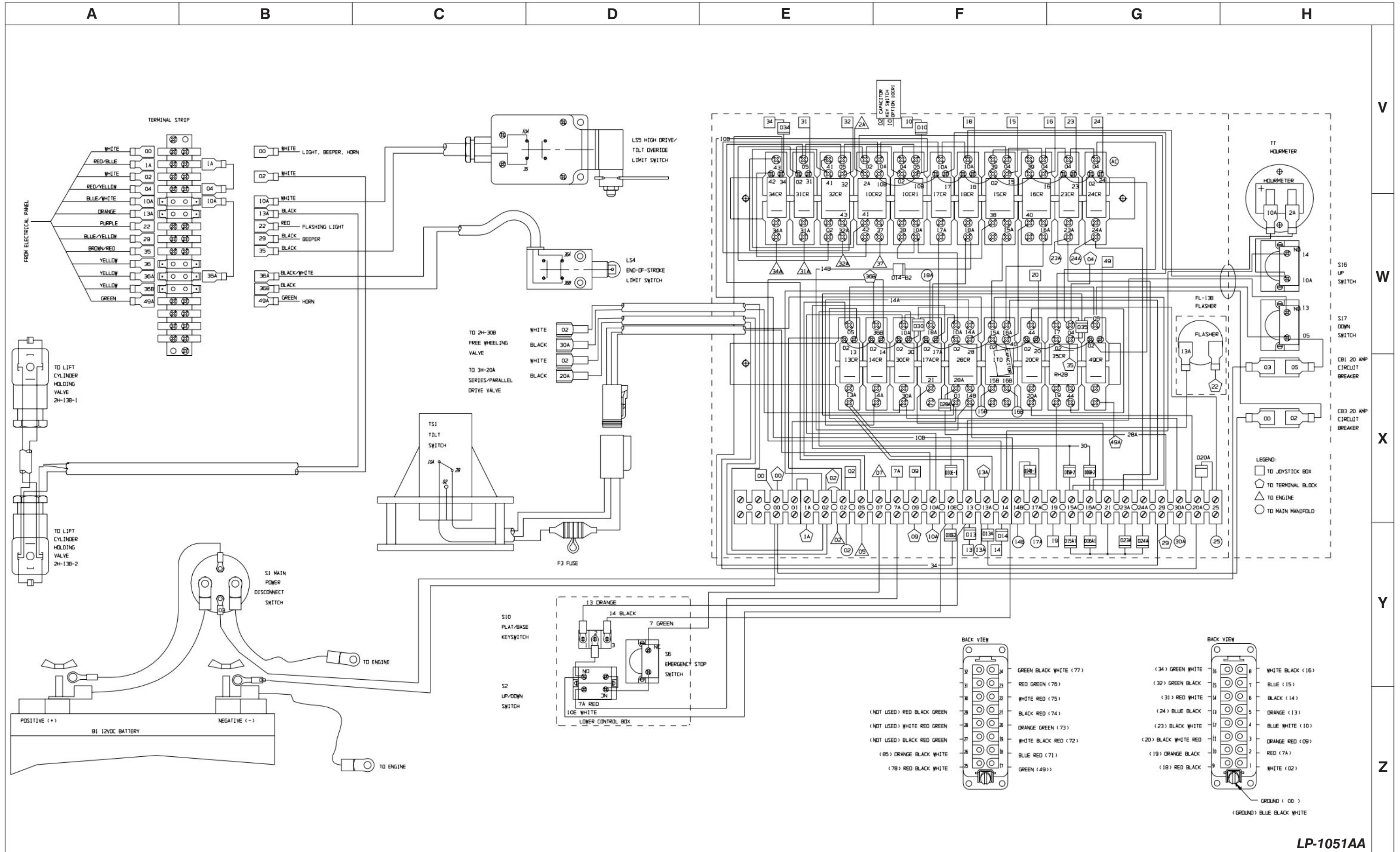


FIG3-2B

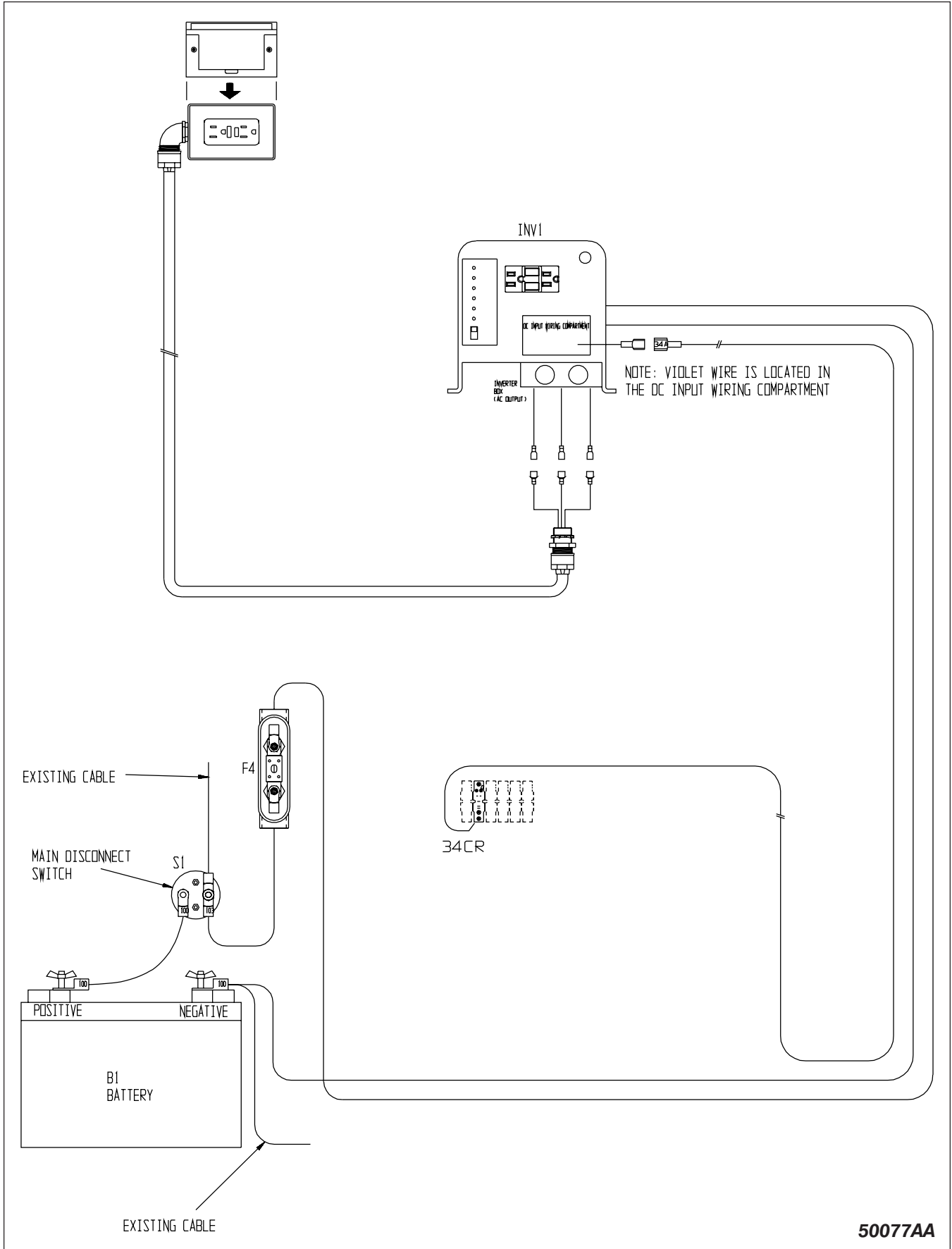


FIGURE 3.4-7. BASE CONTROL/ELECTRICAL PANEL DIAGRAM (CE Machines With Serial Number 32098 and Above)



LP-1051AA

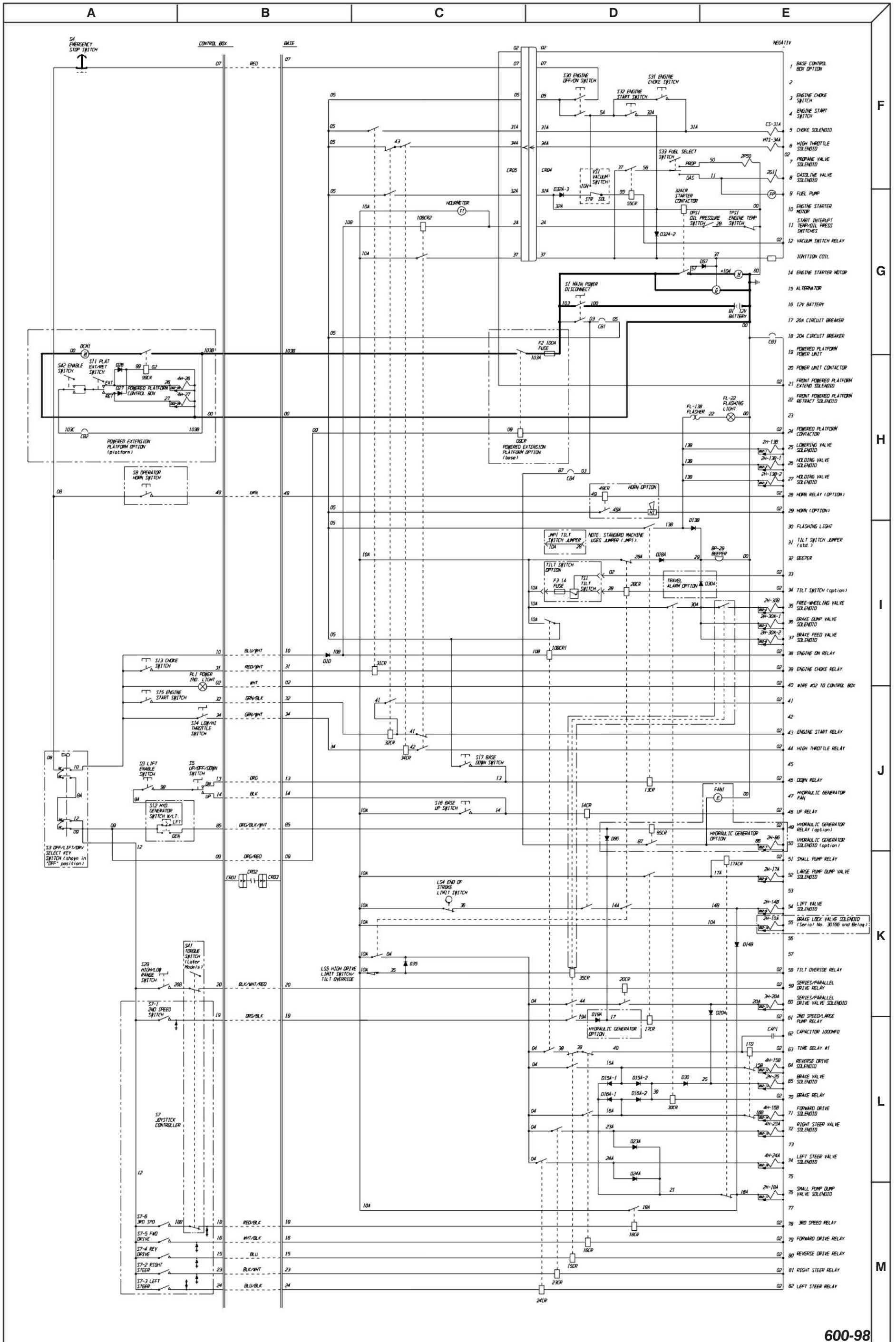
**FIGURE 3.4-8. ELECTRICAL INVERTER DIAGRAM**



**50077AA**



FIGURE 3.5-1. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Dual Fuel Engine and Shown With ANSI/SIA and CSA Options)



**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.

FIGURE 3.5-2. ELECTRICAL SCHEMATIC - (Machines Equipped With Kubota Dual Fuel Engine and Shown With ANSI and CSA Options)

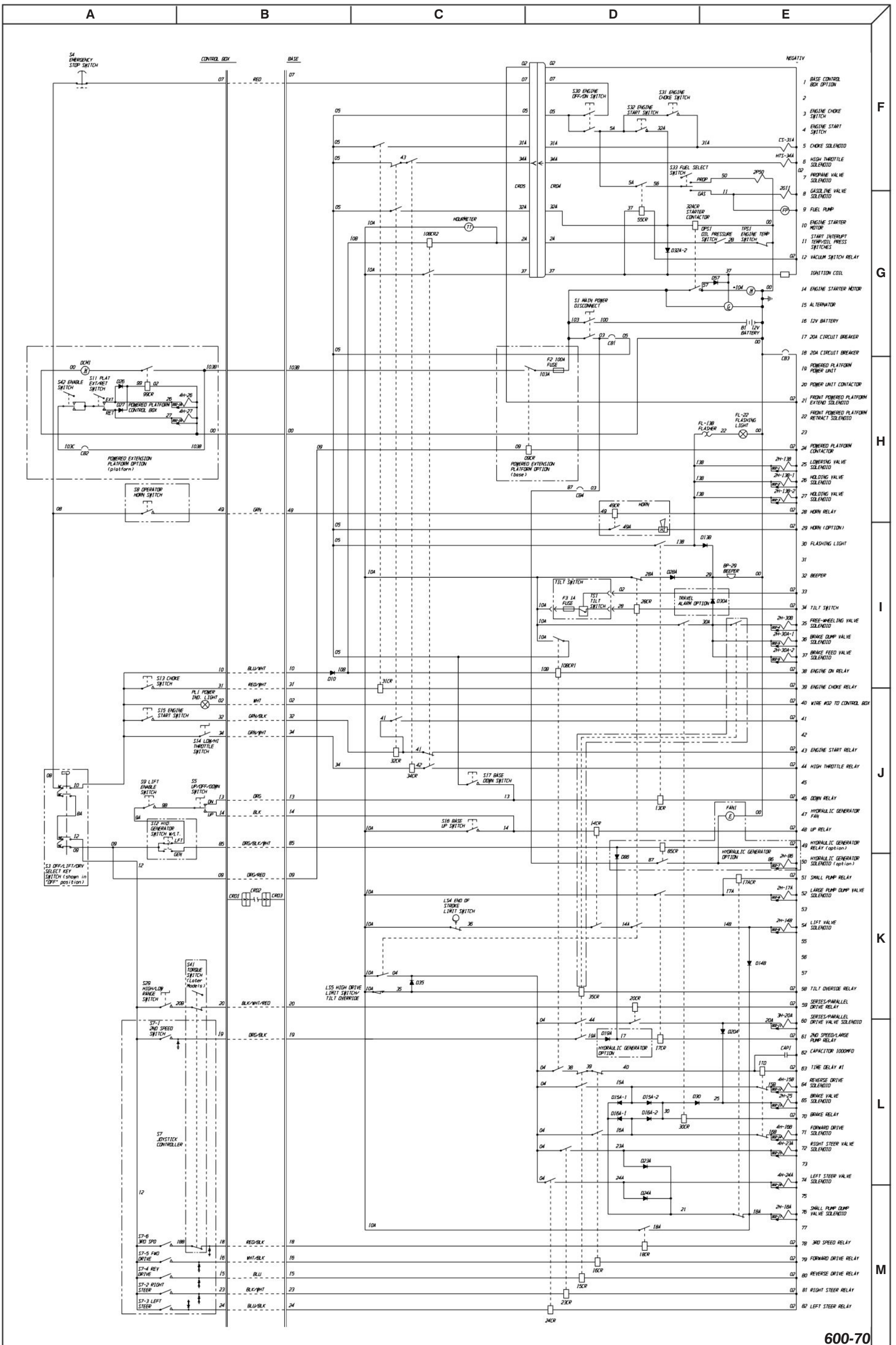
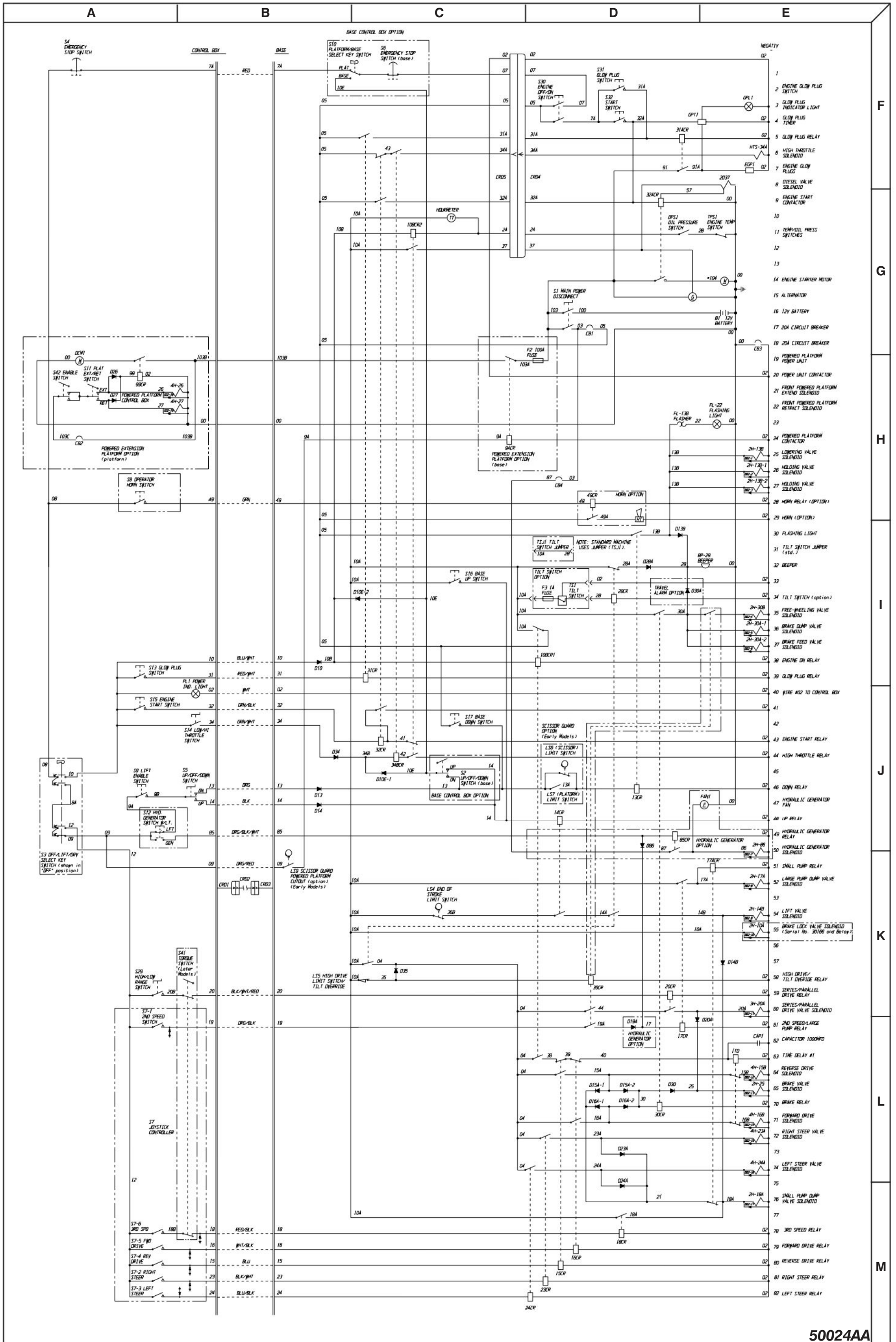


FIGURE 3.5-2.

**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.



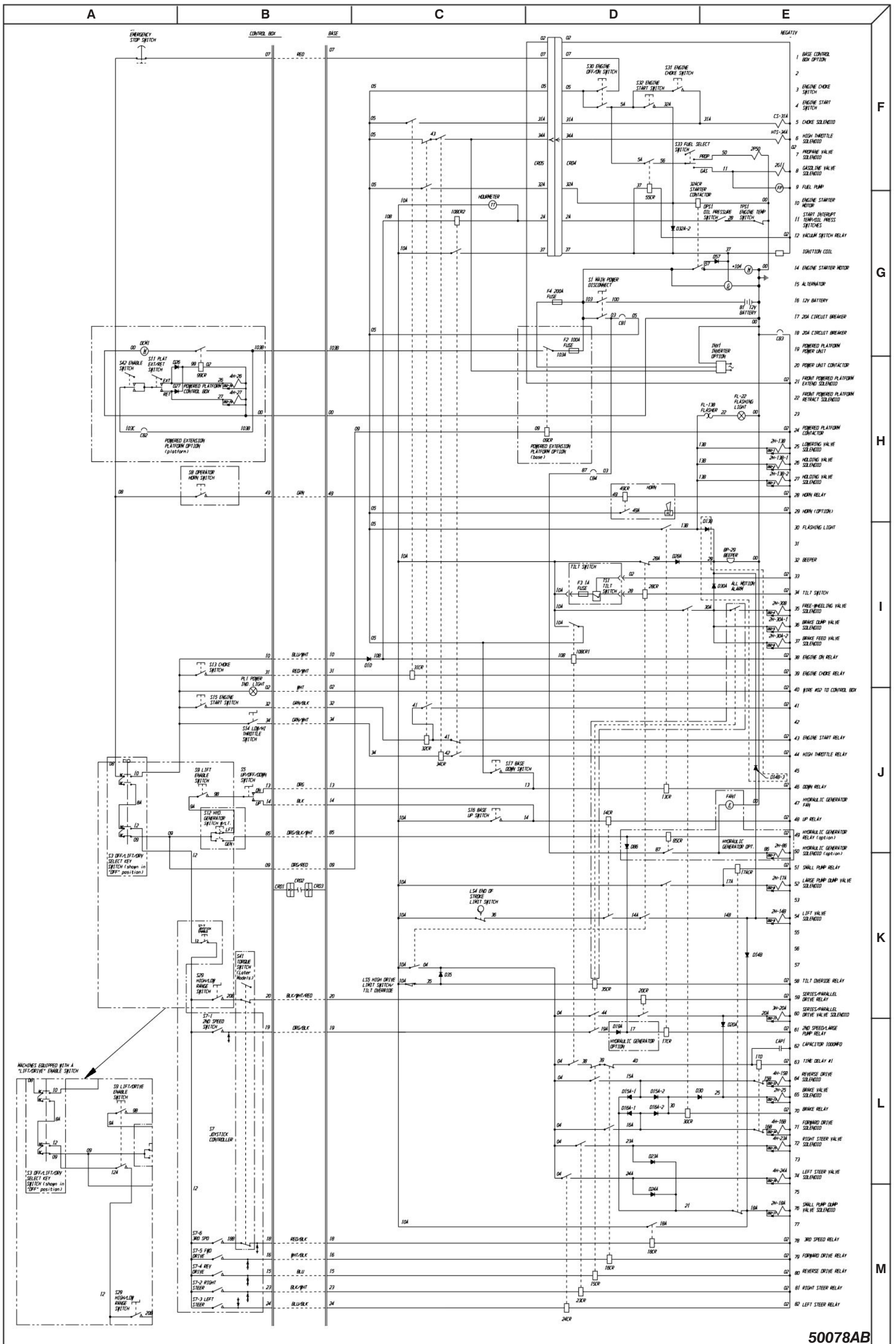
FIGURE 3.5-3. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Diesel Engine and Shown With CE Options)



50024AA

**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.

FIGURE 3.5-5. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Dual Fuel Engine and Shown With ANSI and CSA Options)



50078AB

**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.



FIGURE 3.5-6. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Diesel Engine and Shown With CE Options)

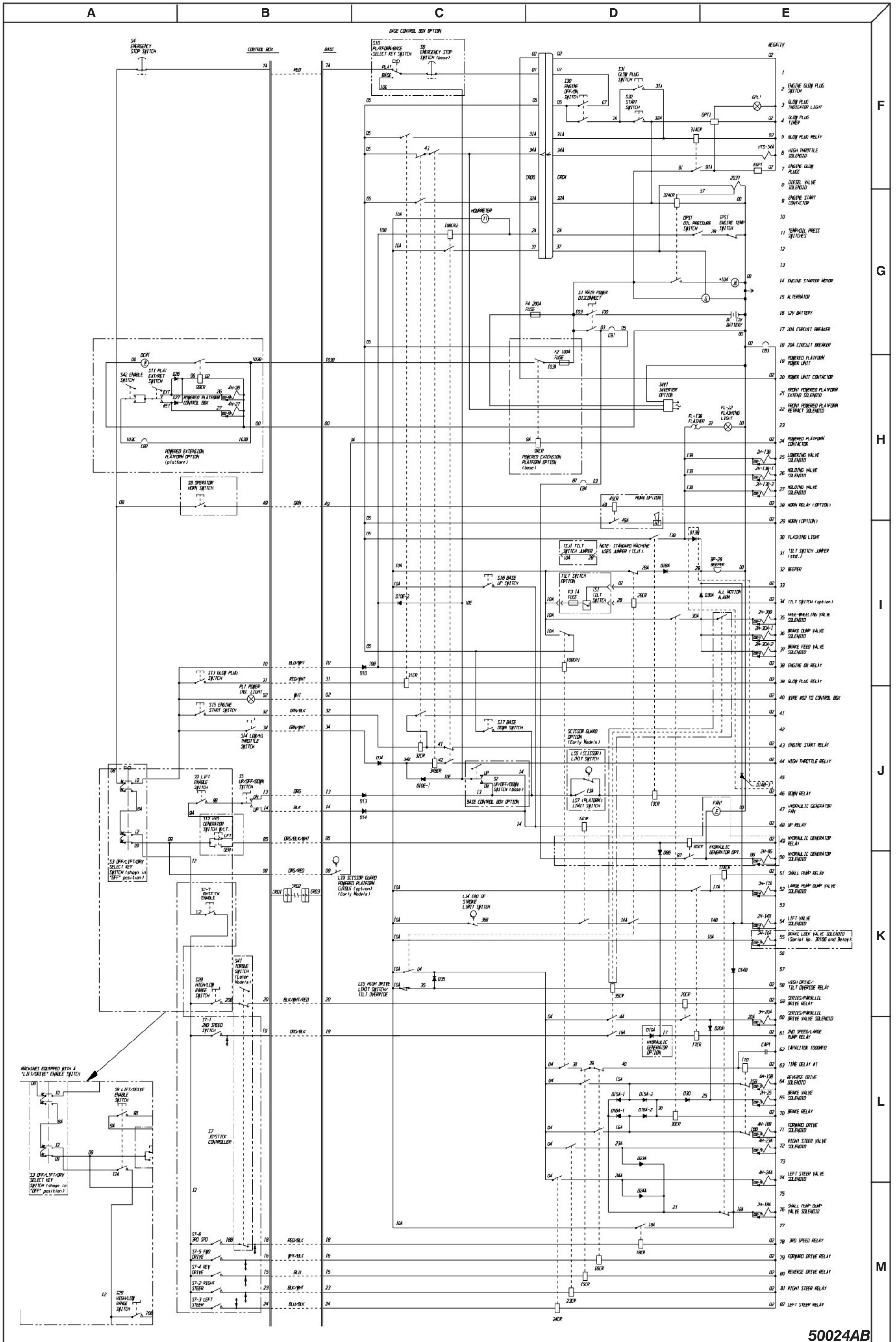


FIGURE 3.5-6.

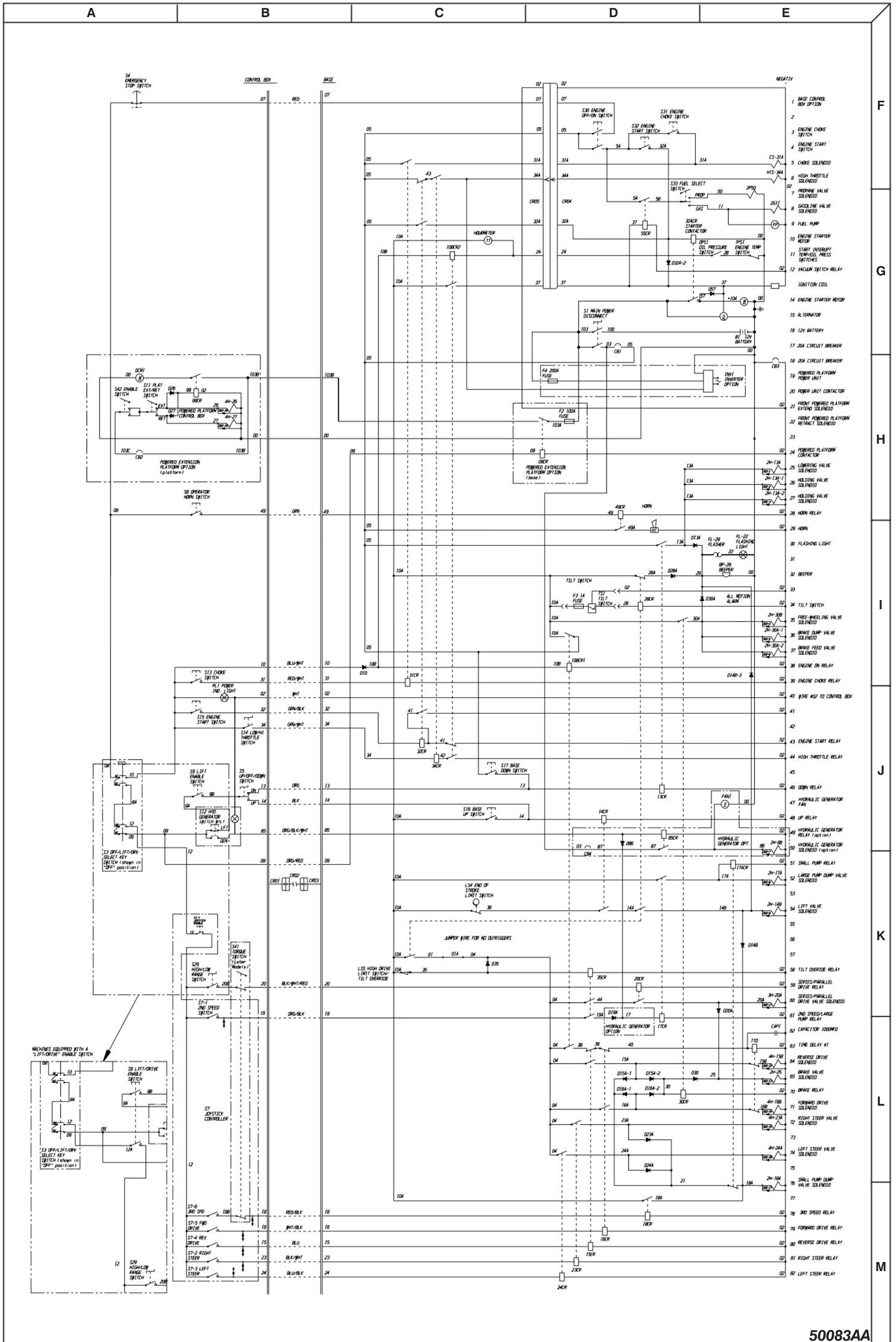
**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.

SJ-800 Series Engine Powered 112715

50024AB



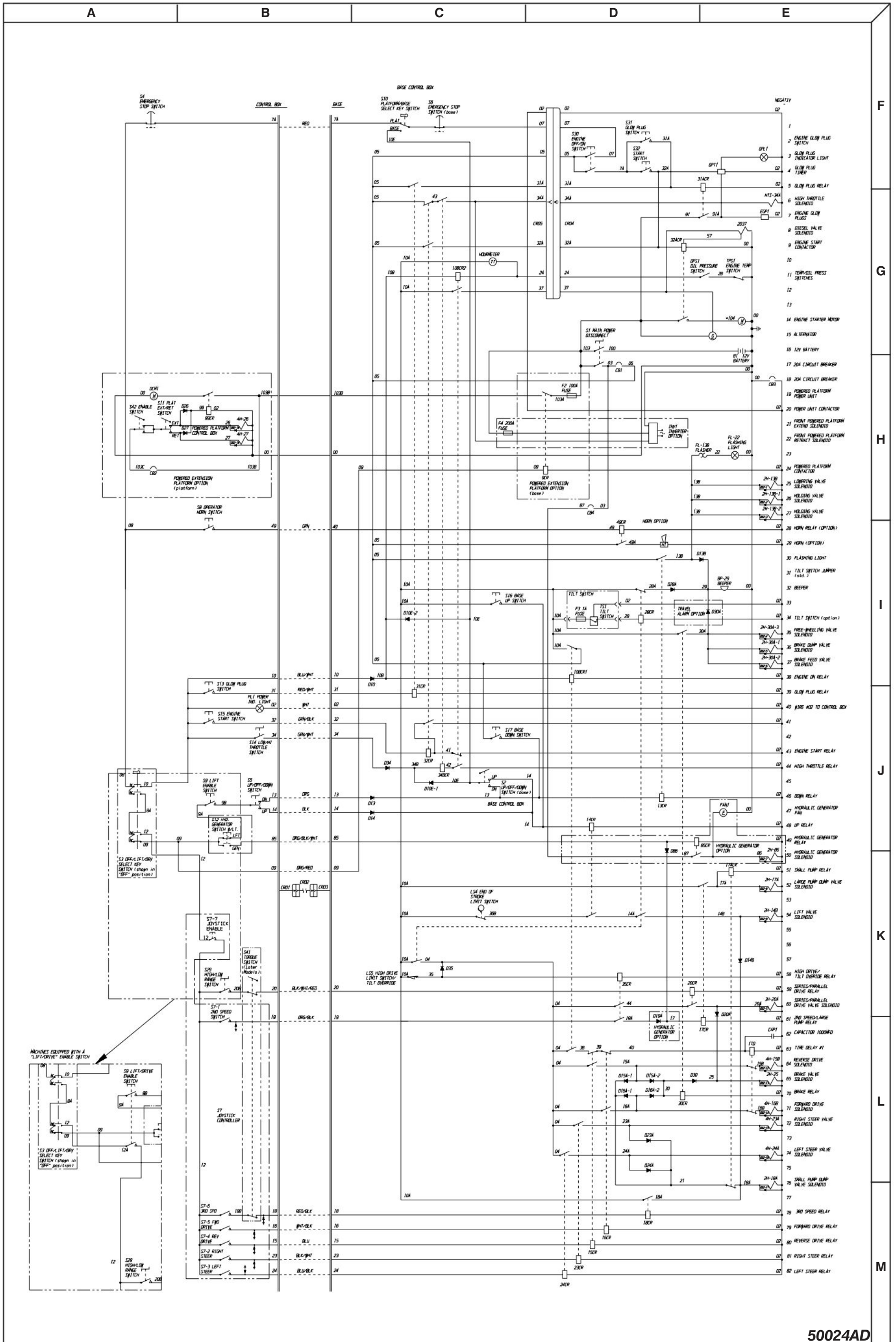
FIGURE 3.5-7. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Dual Fuel Engine and Shown With ANSI and CSA Options)



50083AA

**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.

FIGURE 3.5-8. ELECTRICAL SCHEMATIC (Machines Equipped With Kubota Diesel Engine and Shown With CE Options)



50024AD

FIGURE 3.5-8.

**NOTE:** To determine the correct electrical schematic or panel diagram that resembles your machine, refer to the "Table Of Contents" found at the beginning of this section.

SJ-800 Series Engine Powered 112715

**SECTION 3**  
**SYSTEM COMPONENT IDENTIFICATION**  
**AND SCHEMATICS ADDENDUM**  
**TABLE OF CONTENTS**

**ELECTRICAL SYSTEM**

FIGURE 3A. IMPORTANT INFORMATION ..... Page B  
FIGURE 3B. REVISED SCHEMATIC  
(ANSI Models Equipped with Lift/Drive Enable) (Machines with serial #33048 and above) ..... Page C  
FIGURE 3C. REVISED SCHEMATIC  
(Models Equipped with All Motion Alarm) (Machines with serial #32975 and above) ..... Page D

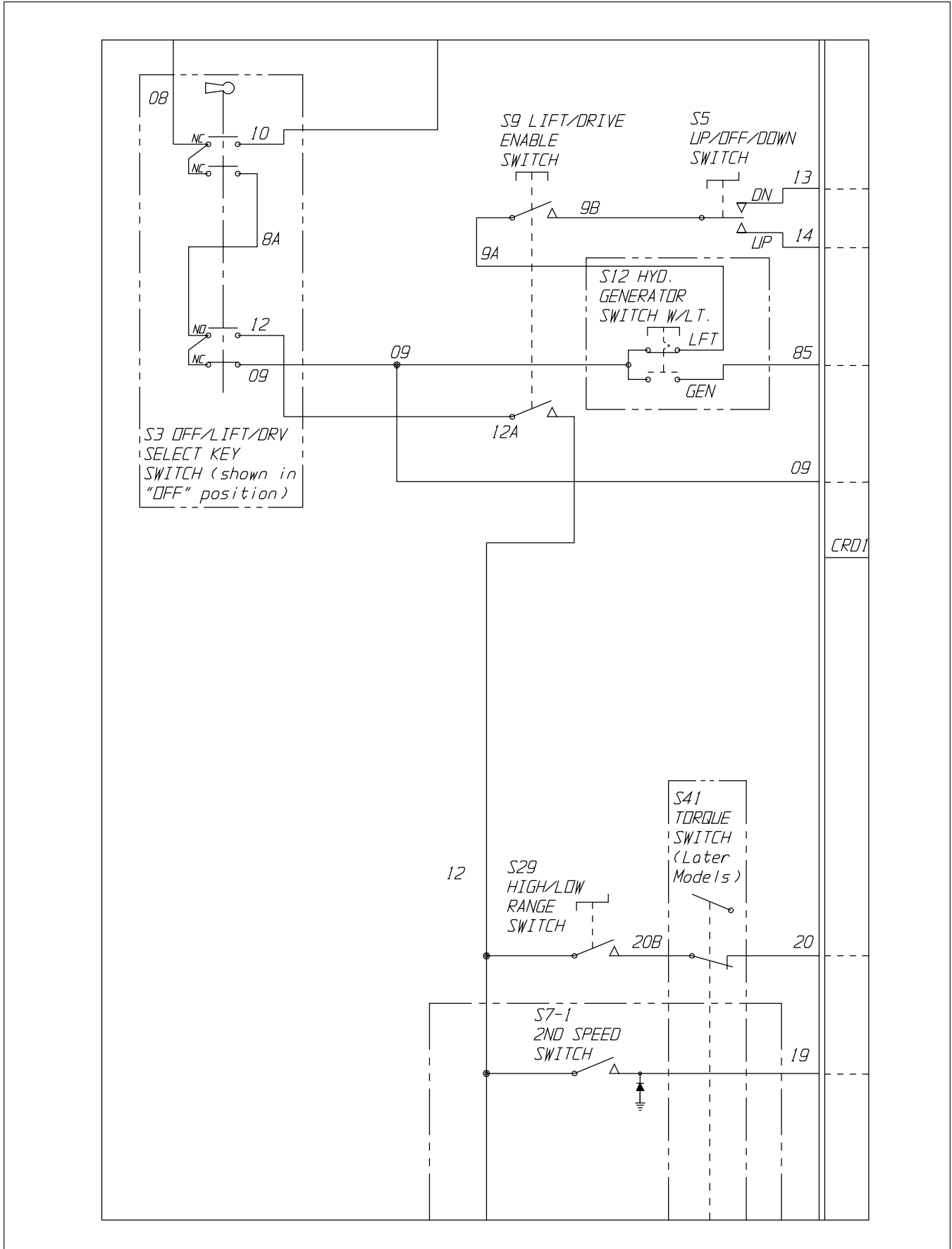
### **FIGURE 3A - IMPORTANT INFORMATION**

#### **\*\*\*ATTENTION SERVICE TECHNICIAN\*\*\***

When performing any maintenance, troubleshooting or service to the 600 Series work platform, please note:

- The electrical schematic Addendum found in Section 3, Page C must be taken into consideration when working on machines equipped with a “Lift/Drive” Enable switch on the platform control box.
- The electrical schematic Addendum found in Section 3, Page D must be taken into consideration when working on machines equipped with the “All Motion Alarm” Option.

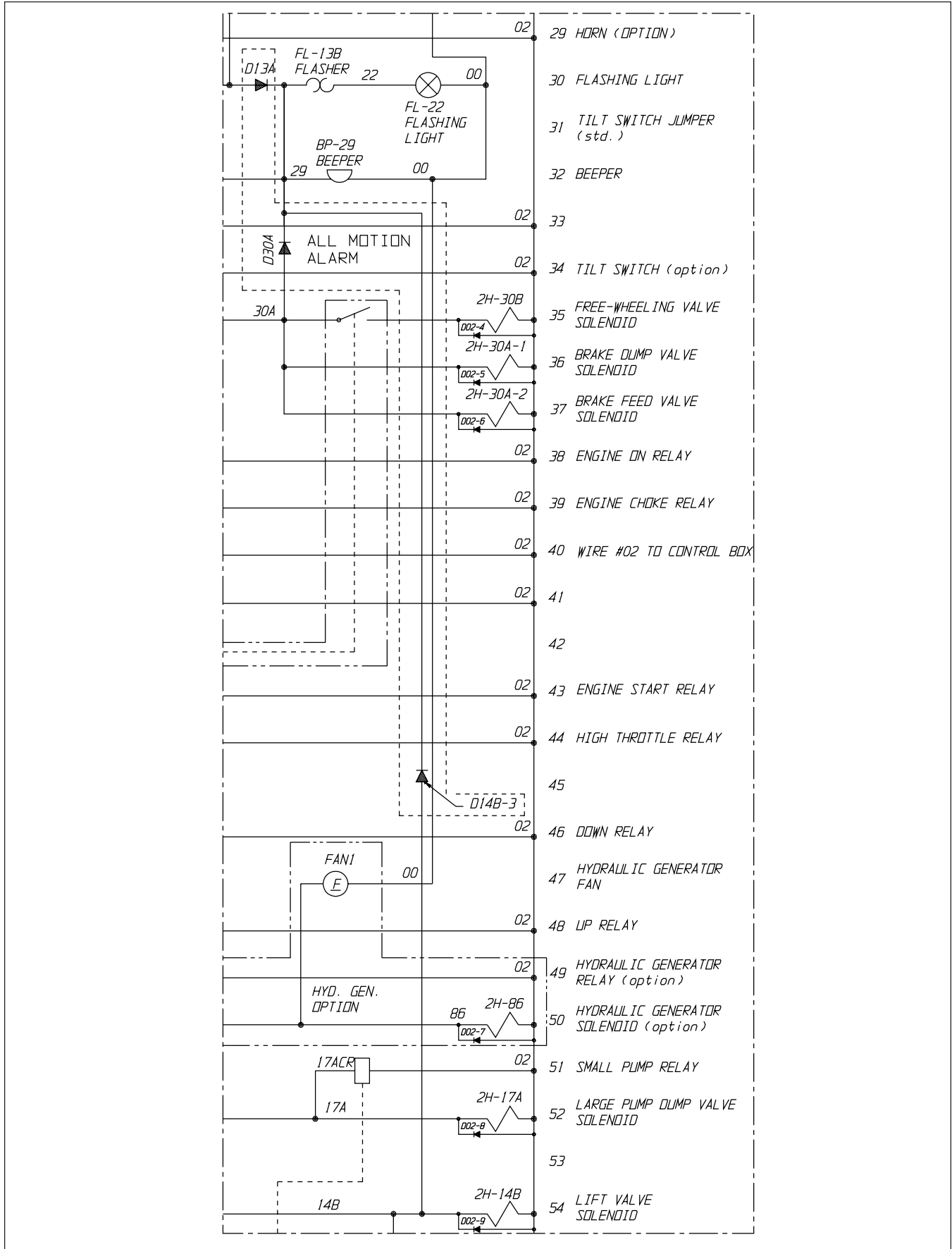
**FIGURE 3B. REVISED SCHEMATIC**  
 (All Models Equipped With Lift/ Drive Enable) (Machines with serial #33048 and above)





**FIGURE 3C. REVISED SCHEMATIC**

**(All Models Equipped With All Motion Alarm) (Machines with serial #32975 and above)**



# SECTION 4

## TROUBLESHOOTING INFORMATION

The following pages contain a Table of Troubleshooting information for locating and correcting most service trouble which can develop. Careful inspection and accurate analysis of the systems listed in the Table of Troubleshooting Information will localize the trouble more quickly than any other method. This manual cannot cover all possible troubles and deficiencies that may occur. If a specific trouble is not listed, isolate the major component in which the trouble occurs, isolate whether the problem is electrical or hydraulic, and then isolate and correct the specific problem.

### TROUBLESHOOTING INFORMATION ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ALL CONTROLS INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Battery disconnected or discharged.</li> <li>2. Loose or dirty battery cables.</li> <li>3. Open or defective main power disconnect switch (S1).</li> <li>4. Loose or broken wire #03 from main power disconnect switch (S1) to circuit breaker (CB1).</li> <li>5. Tripped or defective circuit breaker (CB1).</li> <li>6. Loose or broken wire #05 from breaker (CB1) to base terminal block (TB-1).</li> <li>7. Loose or broken wire #05 from base terminal block (TB-1) to engine off/on switch (S30).</li> <li>8. Loose or broken wire #100 from battery (B1) to main power disconnect switch (S1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Reconnect battery. Recharge if discharged.</li> <li>2. Clean and tighten battery cables.</li> <li>3. Close switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Reset breaker. Check for defective wiring. Replace breaker if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> </ol>
<b>NO POWER TO PLATFORM (Machines Without Base Control Box Option)</b>	<ol style="list-style-type: none"> <li>1. Open or defective engine off/on switch (S30).</li> <li>2. Loose or broken wire #07 from engine off/on switch (S30) to base terminal block (TB1).</li> <li>3. Loose or broken wire #07 from base terminal block (TB-1) to emergency stop switch (S4).</li> <li>4. Open or defective emergency stop switch (S4).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check switch. Replace if defective.</li> </ol>
<b>NO POWER TO PLATFORM (Machines With Base Control Box Option)</b>	<ol style="list-style-type: none"> <li>1. Open or defective engine off/on switch (S30).</li> <li>2. Loose or broken wire #07 from engine off/on switch (S30) to base terminal block (TB-1).</li> <li>3. Loose or broken wire #07 from base terminal block (TB-1) to emergency stop switch (S6).</li> <li>4. Loose or broken wire #07 from emergency stop switch (S6) to platform/base select switch (S10).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>NO POWER TO PLATFORM</b> <b>(Machines With Base Control Box Option)</b> <b>(Continued)</b>	5. Platform/base select switch (S10) set to base position. 6. Open or defective platform/base select switch (S10). 7. Loose or broken wire #7A from platform/base select switch (S10) to platform emergency stop switch (S4). 8. Open or defective platform emergency stop switch (S4).	5. Set (S10) to platform position. 6. Check switch. Replace if defective. 7. Check continuity. Replace if defective. 8. Check switch. Replace if defective.
<b>ALL FUNCTIONS INOPERATIVE FROM PLATFORM</b>	1. Open or defective emergency stop switch (S4). 2. Loose or broken wire #08 from emergency stop switch (S4) to off/lift/drive select switch (S3). 3. Open or defective off/lift/drive select switch (S3).	1. Check switch. Replace if defective. 2. Check continuity. Replace if defective. 3. Check switch. Replace if defective.
<b>ENGINE WILL NOT CRANK FROM PLATFORM</b>	1. Open or defective key select switch (S3). 2. Loose or broken wire #10 from key select switch (S3) to start switch (S15). 3. Defective start switch (S15). 4. Loose or broken wire #32 from start switch (S15) to relay (32CR). 5. Defective relay (32CR). 6. Loose or broken jumper wire #41 on relay (32CR). 7. Loose or broken wire #02 from relay (32CR) to base terminal block. 8. Loose or broken wire #05 from base terminal block to relay (32CR). 9. Loose or broken wire #32A from relay (32CR) to base terminal block. 10. Loose or broken wire #32A from base terminal block to starter contactor (32ACR). 11. Defective starter contactor (32ACR). 12. Loose or broken wire #00 from starter contactor (32ACR) to base. 13. Loose or broken wire #103 from main power disconnect (S1) to starter contactor (32ACR). 14. Loose or broken wire #104 from starter contactor (32ACR) to starter motor. 15. Defective starter motor.	1. Check switch. Replace if defective. 2. Check continuity. Replace if defective. 3. Check switch. Replace if defective. 4. Check continuity. Replace if defective. 5. Check relay. Replace if defective. 6. Check continuity. Replace if defective. 7. Check continuity. Replace if defective. 8. Check continuity. Replace if defective. 9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. Check contactor. Replace if defective. 12. Check continuity. Replace if defective. 13. Check continuity. Replace if defective. 14. Check continuity. Replace if defective. 15. Check motor. Repair or replace if defective.
<b>ENGINE WILL NOT CRANK FROM ENGINE CONTROLS</b>	1. Loose or broken wire #05 from base terminal block to engine off/on switch (S30).	1. Check continuity. Replace if defective.

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ENGINE WILL NOT CRANK FROM ENGINE CONTROLS</b> <b>(Continued)</b>	2. Loose or broken wire #05A from off/on switch (S30) to engine start switch (S32). 3. Defective engine start switch (S32). 4. Loose or broken wire #32A from engine start switch (S32) to starter contactor (32ACR). 5. Loose or broken wire #00 from starter contactor (32ACR) to base. 6. Defective starter contactor (32ACR). 7. Loose or broken wire #103 from main power disconnect switch (S1) to starter contactor (32ACR). 8. Loose or broken wire #104 from starter contactor (32ACR) to starter motor. 9. Defective starter motor.	2. Check continuity. Replace if defective. 3. Check switch. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Check contactor. Replace if defective. 7. Check continuity. Replace if defective. 8. Check continuity. Replace if defective. 9. Check motor. Repair or replace if defective.
<b>ENGINE CRANKS BUT WILL NOT START</b>	1. Open diode (D32A-2) from engine start switch (S32) to base terminal block. 2. Open diode (D32A-3). 3. Loose or broken wire #32B from diode (D32A-3) to vacuum switch (VS1). 4. Defective vacuum switch (VS1). 5. Loose or broken wire #55 from vacuum switch (VS1) to fuel relay (55CR). 6. Defective fuel relay (55CR). 7. Loose or broken wire #02 from fuel relay (55CR) to base terminal block. 8. Loose or broken wire #37 from fuel relay (55CR) to ignition coil (Dual Fuel Only). 9. Loose or broken wire #37 from base terminal block to diesel valve solenoid (2D37) (Diesel Only). 10. Loose or broken wire #57 from starter contactor (32ACR) to diesel valve solenoid (2D37) (Diesel Only). 11. Defective fuel valve solenoid (2D37) (Diesel only). 12. Loose or broken wire #56 from fuel relay (55CR) to fuel select switch (S33). 13. Defective fuel select switch (S33). 14. Defective fuel relay (55CR). 15. Loose or broken wires #50 (Liquid Propane) or #11 (Gasoline) from fuel select switch (S33) to fuel valve (2P50) (Liquid Propane) or (2G11) (Gasoline).	1. Check diode. Replace if defective. 2. Check diode. Replace if defective. 3. Check continuity. Replace if defective. 4. Check switch. Replace if defective. 5. Check continuity. Replace if defective. 6. Check relay. Replace if defective. 7. Check continuity. Replace if defective. 8. Check continuity. Replace if defective. 9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. Check solenoid. Replace if defective. 12. Check continuity. Replace if defective. 13. Check switch. Replace if defective. 14. Check relay. Replace if defective. 15. Check continuity. Replace if defective.

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ENGINE CRANKS BUT WILL NOT START (Continued)</b>	<ul style="list-style-type: none"> <li>16. Loose or broken wire #11 from fuel valve (2G11) to fuel pump (FP1).</li> <li>17. Defective fuel pump (FP1) (Gasoline Only).</li> <li>18. Open diode (D57) from starter motor to ignition coil.</li> <li>19. Choke inoperative (Dual Fuel).</li> <li>20. Defective glow plugs (Diesel).</li> <li>21. No spark (Dual Fuel).</li> </ul>	<ul style="list-style-type: none"> <li>16. Check continuity. Replace if defective.</li> <li>17. Check pump. Replace if defective.</li> <li>18. Check diode. Repair if necessary.</li> <li>19. Check choke. Repair if necessary.</li> <li>20. Check glow plugs. Repair if necessary.</li> <li>21. Refer to engine manufacturer service manual.</li> </ul>
<b>ENGINE STARTS BUT WILL NOT CONTINUE RUNNING</b>	<ul style="list-style-type: none"> <li>1. Engine oil lever low.</li> <li>2. Engine overheated.</li> <li>3. Defective temperature switch (TPS1).</li> <li>4. Defective oil pressure switch (OPS1).</li> <li>5. Loose or broken wire #2B from oil pressure switch (OPS1) to temperature switch (TPS1).</li> <li>6. Loose or broken wire #2A from relay (10BCR2) to oil pressure switch (OPS1).</li> <li>7. Loose or broken wire #10B from base terminal block to relay (10BCR2).</li> <li>8. Loose or broken wire #10A from base terminal block to relay (10BCR2).</li> <li>9. Loose or broken wire #37 from relay (10BCR2) to ignition coil (Dual fuel) or diesel valve solenoid (2D37) (Diesel).</li> <li>10. Defective relay (10BCR2).</li> </ul>	<ul style="list-style-type: none"> <li>1. Refill to proper level.</li> <li>2. Check cooling system.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check switch. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check continuity. Replace if defective.</li> <li>10. Check relay. Replace if defective.</li> </ul>
<b>CHOKE INOPERATIVE FROM PLATFORM OR ENGINE CONTROLS (Dual Fuel)</b>	<ul style="list-style-type: none"> <li>1. Loose or broken wire #31A from choke switch (S31) to choke solenoid (CS31A).</li> <li>2. Defective choke solenoid (CS31A).</li> </ul>	<ul style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check solenoid. Replace if defective.</li> </ul>
<b>CHOKE INOPERATIVE FROM PLATFORM (Dual Fuel)</b>	<ul style="list-style-type: none"> <li>1. Loose or broken wire #10 from key select switch (S3) to choke switch (S13).</li> <li>2. Defective choke switch (S13).</li> <li>3. Loose or broken wire #31 from choke switch (S13) to choke relay (31CR).</li> <li>4. Loose or broken wire #02 from relay (31CR) to base terminal block (TB1).</li> <li>5. Loose or broken wire #05 from base terminal block (TB1) to relay (31CR).</li> <li>6. Loose or broken wire #31A from relay (31CR) to base terminal block (TB1).</li> <li>7. Loose or broken wire #31A from base terminal block (TB1) to choke solenoid (CS31A).</li> <li>8. Defective choke relay (31CR).</li> </ul>	<ul style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check relay. Replace if defective.</li> </ul>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>GLOW PLUGS INOPERATIVE FROM PLATFORM OR ENGINE CONTROLS (Diesel)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #31A from glow plug switch (S31) to glow plug relay (31ACR).</li> <li>2. Loose or broken wire #02 from glow plug relay (31ACR) to base terminal block (TB1).</li> <li>3. Loose or broken wire #91 from base terminal block (TB1) to relay (31ACR).</li> <li>4. Loose or broken wire #91A from relay (31ACR) to engine glow plugs (EGP1).</li> <li>5. Defective glow plug relay (31ACR).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check relay. Replace if defective.</li> </ol>
<b>GLOW PLUGS INOPERATIVE FROM PLATFORM (Diesel)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #10 from key selector switch (S3) to glow plug switch (S13).</li> <li>2. Defective glow plug switch (S13).</li> <li>3. Loose or broken wire #31 from glow plug switch (S13) to glow plug relay (31CR).</li> <li>4. Loose or broken wire #02 from relay (31CR) to base terminal block (TB1).</li> <li>5. Loose or broken wire #05 from base terminal block (TB1) to relay (31CR).</li> <li>6. Loose or broken wire #31A from relay (31CR) to base terminal block (TB1).</li> <li>7. Loose or broken wire #31A from base terminal block (TB1) to glow plug relay (31ACR).</li> <li>8. Defective relay (31CR).</li> <li>9. Loose or broken wire #02 from relay (31ACR) to base terminal block (TB1).</li> <li>10. Loose or broken wire #91 from base terminal block (TB1) to relay (31ACR).</li> <li>11. Loose or broken wire #31A from relay (31ACR) to engine glow plugs (EGP1).</li> <li>12. Defective glow plug relay (31ACR).</li> <li>13. Defective glow plugs.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check relay. Replace if defective.</li> <li>9. Check continuity. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check continuity. Replace if defective.</li> <li>12. Check relay. Replace if defective.</li> <li>13. Check glow plugs. Replace if defective.</li> </ol>
<b>HIGH THROTTLE INOPERATIVE (Machines Without Base Control Box Option)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #10 from key select switch (S3) to low/high throttle switch (S14).</li> <li>2. Defective high/low throttle switch (S14).</li> <li>3. Loose or broken wire #34 from low/high throttle switch (S14) to relay (34CR).</li> <li>4. Defective relay (34CR).</li> <li>5. Loose or broken wire #42 from relay (34CR) to relay (10BCR2).</li> <li>6. Defective relay (10BCR2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check relay. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check relay. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>HIGH THROTTLE INOPERATIVE (Machines Without Base Control Box Option) (Continued)</b>	7. Loose or broken wire #02 from relay (10BCR2) to base terminal block (TB1). 8. Loose or broken wire #05 from base terminal block (TB1) to relay (32CR). 9. Defective relay (32CR). 10. Loose or broken wire #43 from relay (32CR) to relay (34CR). 11. Loose or broken wire #34A from relay (34CR) to high throttle solenoid (HTS34A). 12. Defective high throttle solenoid (HTS34A). 13. Loose or broken wire #02 from high throttle solenoid (HTS34A) to engine terminal block.	7. Check continuity. Replace if defective. 8. Check continuity. Replace if defective. 9. Check relay. Replace if defective. 10. Check continuity. Replace if defective. 11. Check continuity. Replace if defective. 12. Check solenoid. Replace if defective. 13. Check continuity. Replace if defective.
<b>HIGH THROTTLE INOPERATIVE (Machines With Base Control Box Option)</b>	1. Loose or broken wire #10 from key select switch (S3) to low/high throttle switch (S14). 2. Defective low/high throttle switch (S14). 3. Loose or broken wire #34 from low/high throttle switch (S14) to diode (D34). 4. Diode (D34) open. 5. Loose or broken wire #34B from diode (D34) to relay (34BCR). 6. Defective relay (34BCR). 7. Loose or broken wire #42 from relay (34BCR) to relay (10BCR2). 8. Defective relay (10BCR2). 9. Loose or broken wire #02 from relay (10BCR2) to base terminal block (TB1). 10. Loose or broken wire #05 from base terminal block (TB1) to relay (32CR). 11. Defective relay (32CR). 12. Loose or broken wire #43 from relay (32CR) to relay (34BCR). 13. Loose or broken wire #34A from relay (34BCR) to high throttle solenoid (HTS34A). 14. Defective high throttle solenoid (HTS34A). 15. Loose or broken wire #02 from high throttle solenoid (HTS34A) to engine terminal block.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check diode. Replace if defective. 5. Check continuity. Replace if defective. 6. Check relay. Replace if defective. 7. Check continuity. Replace if defective. 8. Check relay. Replace if defective. 9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. Check relay. Replace if defective. 12. Check continuity. Replace if defective. 13. Check continuity. Replace if defective. 14. Check solenoid. Replace if defective. 15. Check continuity. Replace if defective.
<b>DRIVE AND STEER INOPERATIVE</b>	1. Key select switch (S3) in lift position. 2. Defective drive switch in key select switch (S3). 3. Loose or broken wire #12 from key select switch (S3) to platform terminal block.	1. Turn switch to drive position. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective.

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>DRIVE AND STEER INOPERATIVE (Continued)</b>	<ol style="list-style-type: none"> <li>4. Loose or broken wire #12 from platform terminal block to joystick controller (S7).</li> <li>5. Loose or broken wire #10A from base terminal block to relay (28CR).</li> <li>6. Loose or broken wire #04 from relay (28CR) to base terminal block.</li> <li>7. Defective relay (28CR).</li> </ol>	<ol style="list-style-type: none"> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check relay. Replace if defective.</li> </ol>
<b>BRAKES WILL NOT RELEASE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #30 from diodes (D15A-2) and (D16A-2) to relay (30CR).</li> <li>2. Defective relay (30CR).</li> <li>3. Loose or broken wire #02 from relay (30CR) to base terminal block.</li> <li>4. Loose or broken wire #10A from base terminal block to relay (30CR).</li> <li>5. Loose or broken wire #30A from relay (30CR) to base terminal block.</li> <li>6. Loose or broken wire #30A from base terminal block to brake dump valve (2H30A-1) or brake feed valve (2H30A-2).</li> <li>7. Defective valve coil (2H30A-1) brake dump or (2H30A-2) brake feed.</li> <li>8. Loose or broken wire #02 from (2H30A-1) brake dump or (2H30A-2) brake feed coils to base terminal block.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check relay. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check coil. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> </ol>
<b>STEER RIGHT INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective steer right switch (S7-2) in joystick controller (S7).</li> <li>2. Loose or broken wire #23 from steer right switch (S7-2) to platform terminal block.</li> <li>3. Loose or broken wire #23 from platform terminal block to relay (23CR).</li> <li>4. Defective relay (23CR).</li> <li>5. Loose or broken wire #04 from base terminal block to relay (23CR).</li> <li>6. Loose or broken wire #23A from relay (23CR) to base terminal block.</li> <li>7. Loose or broken wire #02 from relay (23CR) to base terminal block.</li> <li>8. Loose or broken wire #23A from base terminal block to steer right valve coil (4H23A).</li> <li>9. Defective steer right valve coil (4H23A).</li> <li>10. Loose or broken wire #02 from steer right valve coil (4H32A) to base terminal block.</li> <li>11. Open diode (D23A).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check relay. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check coil. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check diode. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>STEER LEFT INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective steer left switch (S7-3) in joystick controller (S7).</li> <li>2. Loose or broken wire #24 from steer left switch (S7-3) to platform terminal block.</li> <li>3. Loose or broken wire #24 from platform terminal block to relay (24CR).</li> <li>4. Defective relay (24CR).</li> <li>5. Loose or broken wire #04 from base terminal block to relay (24CR).</li> <li>6. Loose or broken wire #24A from relay (24CR) to base terminal block.</li> <li>7. Loose or broken wire #02 from relay (24CR) to base terminal block.</li> <li>8. Loose or broken wire #24A from base terminal block to steer left valve coil (4H24A).</li> <li>9. Defective steer left valve coil (4H24A).</li> <li>10. Loose or broken wire #02 from steer left valve coil (4H24A) to base terminal block.</li> <li>11. Open diode (D24A).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check relay. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check coil. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check diode. Replace if defective.</li> </ol>
<b>REVERSE DRIVE INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective drive/reverse switch (S7-4) in joystick controller (S7).</li> <li>2. Defective joystick controller (S7).</li> <li>3. Loose or broken wire #15 from joystick (S7) to platform terminal block.</li> <li>4. Loose or broken wire #15 from platform terminal block to relay (15CR).</li> <li>5. Defective relay (15CR).</li> <li>6. Loose or broken wire #02 from relay (15CR) to base terminal block.</li> <li>7. Loose or broken wire #04 from base terminal block to relay (15CR).</li> <li>8. Loose or broken wire #15A from relay (15CR) to time delay relay (1TD).</li> <li>9. Defective time delay relay (1TD).</li> <li>10. Loose or broken wire #15B from time delay relay (1TD) to reverse valve coil (4H15B).</li> <li>11. Defective reverse valve coil (4H15B).</li> <li>12. Loose or broken wire #02 from reverse valve coil (4H15B) to base terminal block.</li> <li>13. Open diode (D15A-1) or (D15A-2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check joystick. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check relay. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check relay. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check coil. Replace if defective.</li> <li>12. Check continuity. Replace if defective.</li> <li>13. Check diodes. Replace if defective.</li> </ol>
<b>FORWARD DRIVE INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective drive forward switch (S7-5) in joystick controller (S7).</li> <li>2. Defective joystick controller (S7).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check joystick. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>FORWARD DRIVE INOPERATIVE (Continued)</b>	<ol style="list-style-type: none"> <li>3. Loose or broken wire #16 joystick controller (S7) to platform terminal block.</li> <li>4. Loose or broken wire #16 from platform terminal block to relay (16CR).</li> <li>5. Defective relay (16CR).</li> <li>6. Loose or broken wire #02 from relay (16CR) to base terminal block.</li> <li>7. Loose or broken wire #04 from base terminal block to relay (16CR).</li> <li>8. Loose or broken wire #16A from relay (16CR) to time delay relay (1TD).</li> <li>9. Defective time delay relay (1TD).</li> <li>10. Loose or broken wire #16B from time delay relay (1TD) to reverse valve coil (4H16B).</li> <li>11. Defective forward valve coil (4H16B).</li> <li>12. Loose or broken wire #02 from forward valve coil (4H16B) to base terminal block.</li> <li>13. Open diode (D16A-1) or (D16A-2).</li> </ol>	<ol style="list-style-type: none"> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check relay. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check relay. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check coil. Replace if defective.</li> <li>12. Check continuity. Replace if defective.</li> <li>13. Check diodes. Replace if defective.</li> </ol>
<b>FORWARD DRIVE SPEED AND STEERING INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #21 from base terminal block to relay (17ACR).</li> <li>2. Defective relay (17ACR).</li> <li>3. Loose or broken wire #18A from relay (17ACR) to small pump dump valve solenoid.</li> <li>4. Defective small pump dump valve coil (2H18A).</li> <li>5. Loose or broken wire #02 from small pump dump solenoid (2H18A) to base terminal block.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check relay. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check coil. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> </ol>
<b>SECOND DRIVE SPEED INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective second speed switch (S7-1) in joystick controller (S7).</li> <li>2. Defective joystick controller (S7).</li> <li>3. Loose or broken wire #19 from joystick controller (S7) to platform terminal block.</li> <li>4. Loose or broken wire #19 from platform terminal block to relay (35CR).</li> <li>5. Defective relay (35CR).</li> <li>6. Loose or broken wire #10A from base terminal block to high drive/tilt override limit switch (LS5).</li> <li>7. Misadjusted or defective high drive/tilt override limit switch (LS5).</li> <li>8. Loose or broken wire #35 from high drive/tilt override limit switch (LS5) to base terminal block.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check joystick. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check relay. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Adjust switch. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>SECOND DRIVE SPEED INOPERATIVE</b> <b>(Continued)</b>	9. Loose or broken wire #35 from base terminal block to relay (35CR). 10. Loose or broken wire #02 from relay (35CR) to base terminal block. 11. Defective relay (35CR). 12. Loose or broken wire #17 from relay (35CR) to relay (17CR). 13. Defective relay (17CR). 14. Loose or broken wire #02 from relay (17CR) to base terminal block. 15. Loose or broken wire #10A from base terminal block to relay (17CR). 16. Loose or broken wire #17A from relay (17CR) to base terminal block. 17. Loose or broken wire #17A from relay (17CR) to relay (17ACR). 18. Defective relay (17ACR). 19. Loose or broken wire #02 from relay (17ACR) to base terminal block. 20. Loose or broken wire #17A from base terminal block to large pump dump valve solenoid (2H17A). 21. Loose or broken wire #02 from large pump dump valve solenoid (2H17A) to base terminal block. 22. Defective large pump dump valve solenoid (2H17A).	9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. Check relay. Replace if defective. 12. Check continuity. Replace if defective. 13. Check relay. Replace if defective. 14. Check continuity. Replace if defective. 15. Check continuity. Replace if defective. 16. Check continuity. Replace if defective. 17. Check continuity. Replace if defective. 18. Check relay. Replace if defective. 19. Check continuity. Replace if defective. 20. Check continuity. Replace if defective. 21. Check continuity. Replace if defective. 22. Check solenoid. Replace if defective.
<b>THIRD DRIVE SPEED INOPERATIVE</b>	1. Low/high torque switch (S41) in low position or defective. 2. Defective third speed switch (S7-6) in joystick controller (S7). 3. Defective joystick controller (S7). 4. Loose or broken wire #18B from joystick controller (S7) to low/high torque switch (S41). 5. Loose or broken wire #18 from low/high torque switch (S41) to platform terminal block. 6. Loose or broken wire #18 from platform terminal block to relay (18CR). 7. Defective relay (18CR). 8. Loose or broken wire #02 from relay (18CR) to base terminal block. 9. Loose or broken wire #10A from base terminal block to relay (18CR). 10. Loose or broken wire #18A from relay (18CR) to small pump dump valve (2H18A). 11. Loose or broken wire #02 from small pump dump valve (2H18A) to base terminal block. 12. Defective small pump dump valve solenoid.	1. Turn low/high switch to high position. Replace if defective. 2. Check switch. Replace if defective. 3. Check joystick. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Check continuity. Replace if defective. 7. Check relay. Replace if defective. 8. Check continuity. Replace if defective. 9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. Check continuity. Replace if defective. 12. Check solenoid. Replace if defective.

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## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>HIGH/LOW RANGE SPEED INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #12 from key select switch (S3) to low/high range switch (S29).</li> <li>2. Defective low/high range switch (S29).</li> <li>3. Loose or broken wire #20B from low/high range switch (S29) to low/high torque switch (S41).</li> <li>4. Defective low/high torque switch (S41).</li> <li>5. Loose or broken wire #20 from high/low torque switch (S41) to relay (20CR).</li> <li>6. Defective relay (20CR).</li> <li>7. Loose or broken wire #02 from relay (20CR) to base terminal block.</li> <li>8. Loose or broken wire #04 from base terminal block to relay (35CR).</li> <li>9. Defective relay (35CR).</li> <li>10. Loose or broken wire #44 from relay (35CR) to relay (20CR).</li> <li>11. Loose or broken wire #20A from relay (20CR) to base terminal block.</li> <li>12. Loose or broken wire #20A from base terminal block to series parallel valve coil (3H20A).</li> <li>13. Defective series/parallel valve coil (3H20A).</li> <li>14. Loose or broken wire #02 from series/parallel valve coil (3H20A) to base terminal block.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check switch. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check switch. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check relay. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check relay. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check continuity. Replace if defective.</li> <li>12. Check continuity. Replace if defective.</li> <li>13. Check coil. Replace if defective.</li> <li>14. Check continuity. Replace if defective.</li> </ol>
<b>UP CIRCUIT INOPERATIVE FROM PLATFORM OR BASE</b>	<ol style="list-style-type: none"> <li>1. Lift/off/drive switch (S3) in drive position or defective.</li> <li>2. Loose or broken wire #09 from off/lift/drive switch (S3) to hydraulic generator switch (S12) or lift enable switch (S9).</li> <li>3. Loose or broken wire #09A from hydraulic generator switch (S12) to lift enable switch (S9).</li> <li>4. Defective hydraulic generator switch (S12).</li> <li>5. Defective lift enable switch (S9).</li> <li>6. Loose or broken wire #09B from lift enable switch (S9) to up/off/down switch (S5).</li> <li>7. Defective up/off/down switch (S5).</li> <li>8. Loose or broken wire #14 from up/off/down switch (S5) to diode (D14).</li> <li>9. Diode (D14) open.</li> <li>10. Loose or broken wire #14 from diode (D14) to base terminal block.</li> <li>11. Loose or broken wire #14 from base terminal block to relay (14CR).</li> </ol>	<ol style="list-style-type: none"> <li>1. Select lift position. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check continuity. Replace if defective.</li> <li>4. Check switch. Replace if defective.</li> <li>5. Check switch. Replace if defective.</li> <li>6. Check continuity. Replace if defective.</li> <li>7. Check switch. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check diode. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check continuity. Replace if defective.</li> </ol>

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## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>UP CIRCUIT INOPERATIVE FROM PLATFORM OR BASE (Continued)</b>	12. Loose or broken wire #02 from relay (14CR) to base terminal block. 13. Defective relay (14CR). 14. Loose or broken wire #10A from base terminal block to end of stroke limit switch (LS4). 15. Defective end of stroke limit switch (LS4). 16. Loose or broken wire #36B from end of stroke limit switch (LS4) to relay (14CR). 17. Loose or broken wire #14A from relay (14CR) to relay (28CR). 18. Loose or broken wire #14B from relay (28CR) to base terminal block. 19. Loose or broken wire #14B from base terminal block to lift valve solenoid (2H14B). 20. Loose or broken wire #02 from lift valve solenoid (2H14B) to base terminal block. 21. Defective lift valve solenoid (2H14B).	12. Check continuity. Replace if defective. 13. Check relay. Replace if defective. 14. Check continuity. Replace if defective. 15. Check switch. Replace if defective. 16. Check continuity. Replace if defective. 17. Check continuity. Replace if defective. 18. Check continuity. Replace if defective. 19. Check continuity. Replace if defective. 20. Check continuity. Replace if defective. 21. Check solenoid. Replace if defective.
<b>UP CIRCUIT INOPERATIVE FROM BASE</b>	1. Loose or broken wire #10A from base terminal block to base up switch (S16) 2. Loose or broken wire #14 from base up switch (S16) to base terminal block. 3. Defective base up switch (S16).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check switch. Replace if defective.
<b>UP CIRCUIT INOPERATIVE FROM BASE (Base Control Box Option)</b>	1. Loose or broken wire #10E from base terminal block to up/off/down switch (S2) 2. Loose or broken wire #14 from up/off/down switch (S2) to base terminal block. 3. Defective up/off/down switch (S2).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check switch. Replace if defective.
<b>DOWN CIRCUIT INOPERATIVE FROM PLATFORM OR BASE</b>	1. Lift/off/drive switch (S3) in drive position or defective. 2. Loose or broken wire #09 from off/lift/drive switch (S3) to hydraulic generator switch (S12) or lift enable switch (S9). 3. Loose or broken wire #09A from hydraulic generator switch (S12) to lift enable switch (S9). 4. Defective hydraulic generator switch (S12). 5. Defective lift enable switch (S9). 6. Loose or broken wire #13 from lift enable switch (S9) to diode (D13).	1. Select lift position. Check switch. Replace if defective. 2. Check continuity. Replace if defective. 3. Check continuity. Replace if defective. 4. Check switch. Replace if defective. 5. Check switch. Replace if defective. 6. Check continuity. Replace if defective.

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>DOWN CIRCUIT INOPERATIVE FROM PLATFORM OR BASE (Continued)</b>	<ol style="list-style-type: none"> <li>7. Diode (D13) Open.</li> <li>8. Loose or broken wire #13 from diode (D13) to base terminal block.</li> <li>9. Loose or broken wire #13 from base terminal block to platform limit switch (LS7).</li> <li>10. Loose or broken wire #13A from platform limit switch (LS7) to relay (13CR).</li> <li>11. Loose or broken wire #02 from relay (13CR) to base terminal block.</li> <li>12. Defective relay (13CR).</li> <li>13. Loose or broken wire #05 from base terminal block to relay (13CR).</li> <li>14. Loose or broken wire #13B from relay (13CR) to base terminal block.</li> <li>15. Loose or broken wire #13B from base terminal block to holding valve solenoid (2H13B-1) or (2H13B-2).</li> <li>16. Loose or broken wire #02 from holding valve solenoid (2H13B-1) or (2H13B-2) to base terminal block.</li> <li>17. Defective holding valve solenoid (2H13B-1) or (2H13B-2).</li> <li>18. Loose or broken wire #13B from base terminal block to lowering valve solenoid (2H13B).</li> <li>19. Loose or broken wire #02 from lowering valve solenoid (2H13B) to base terminal block.</li> <li>20. Defective lowering valve solenoid (2H13B).</li> </ol>	<ol style="list-style-type: none"> <li>7. Check diode. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check continuity. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check continuity. Replace if defective.</li> <li>12. Check relay. Replace if defective.</li> <li>13. Check continuity. Replace if defective.</li> <li>14. Check continuity. Replace if defective.</li> <li>15. Check continuity. Replace if defective.</li> <li>16. Check continuity. Replace if defective.</li> <li>17. Check solenoid. Replace if defective.</li> <li>18. Check continuity. Replace if defective.</li> <li>19. Check continuity. Replace if defective.</li> <li>20. Check solenoid. Replace if defective.</li> </ol>
<b>DOWN CIRCUIT INOPERATIVE FROM BASE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #05 from base terminal block to base down switch (S17).</li> <li>2. Loose or broken wire #13A from base down switch (S17) to base terminal block.</li> <li>3. Defective base down switch (S17).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> </ol>
<b>DOWN CIRCUIT INOPERATIVE FROM BASE (Base Control Box Option)</b>	<ol style="list-style-type: none"> <li>1. Loose or broken wire #10E from base terminal block to up/off/down switch (S2).</li> <li>2. Loose or broken wire #13 from up/off/down switch (S2) to base terminal block.</li> <li>3. Defective base up/off/down switch (S2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> </ol>
<b>POWERED EXTENSION DECK INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Loose or broken battery cable from main power disconnect switch (S1) to 100 Amp. fuse (F2).</li> <li>2. Open 100 Amp. fuse (F2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check continuity. Replace if defective.</li> <li>2. Check fuse. Replace if open.</li> </ol>

# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>POWERED EXTENSION DECK INOPERATIVE (Continued)</b>	<ol style="list-style-type: none"> <li>3. Loose or broken battery cable #103A from fuse (F2) to contactor (09ACR).</li> <li>4. Defective contactor (09ACR).</li> <li>5. Loose or broken battery cable #103B from contactor (09ACR) to motor contactor (99CR).</li> <li>6. Defective motor contactor (99CR).</li> <li>7. Loose or broken wire #103B from battery cable #103B to circuit breaker (CB2).</li> <li>8. Tripped or defective circuit breaker (CB2).</li> <li>9. Loose or broken wire #103C from circuit breaker (CB2) to powered platform enable switch (S42).</li> <li>10. Loose or broken wire #103D from enable switch (S42) to platform extend retract switch (S11).</li> <li>11. Defective platform extend/retract switch (S11).</li> <li>12. Defective platform enable switch (S42).</li> <li>13. Loose or broken battery cable #00 from platform power unit (DCM1) to battery (B1).</li> <li>14. Defective platform power unit (DCM1).</li> </ol>	<ol style="list-style-type: none"> <li>3. Check continuity. Replace if defective.</li> <li>4. Check contactor. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check contactor. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Reset breaker. Replace if defective.</li> <li>9. Check continuity. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check switch. Replace if defective.</li> <li>12. Check switch. Replace if defective.</li> <li>13. Check continuity. Replace if defective.</li> <li>14. Check power unit. Repair or replace if defective.</li> </ol>
<b>POWERED EXTENSION DECK WILL NOT EXTEND</b>	<ol style="list-style-type: none"> <li>1. Defective platform extend/retract switch (S11).</li> <li>2. Loose or broken wire #26 from platform extend/retract switch (S11) to platform extend valve coil (4H26).</li> <li>3. Diode (D26) open.</li> <li>4. Defective platform extend valve coil (4H26).</li> <li>5. Loose or broken wire #00 from platform extend valve coil (4H26) to battery cable #00.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check diode. Replace if defective.</li> <li>4. Check coil. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> </ol>
<b>POWERED EXTENSION DECK WILL NOT RETRACT</b>	<ol style="list-style-type: none"> <li>1. Defective platform extend/retract switch (S11).</li> <li>2. Loose or broken wire #27 from platform extend/retract switch (S11) to platform retract valve coil (4H27).</li> <li>3. Diode (D27) open.</li> <li>4. Defective platform retract valve coil (4H27).</li> <li>5. Loose or broken wire #00 from platform retract valve coil (4H27) to battery cable #00.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check switch. Replace if defective.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check diode. Replace if defective.</li> <li>4. Check coil. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> </ol>



# TROUBLESHOOTING INFORMATION

## ELECTRICAL SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>HYDRAULIC GENERATOR INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Key select switch (S3) in drive position.</li> <li>2. Loose or broken wire #09 from key select switch (S3) to generator switch (S12).</li> <li>3. Defective hydraulic generator switch (S12).</li> <li>4. Loose or broken wire #85 from generator switch (S12) to base terminal block.</li> <li>5. Loose or broken wire #85 from base terminal block to relay (85CR).</li> <li>6. Defective relay (85CR).</li> <li>7. Loose or broken wire #02 from relay (85CR) to base terminal block.</li> <li>8. Loose or broken wire #87 from base circuit breaker (CB4) to relay (85CR).</li> <li>9. Diode (D85) open.</li> <li>10. Loose or broken wire #86 from relay (85CR) to generator valve coil (2H86).</li> <li>11. Defective generator valve coil (2H86).</li> <li>12. Loose or broken wire #02 from generator valve coil (2H86) to base terminal block.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn switch to lift position.</li> <li>2. Check continuity. Replace if defective.</li> <li>3. Check switch. Replace if defective.</li> <li>4. Check continuity. Replace if defective.</li> <li>5. Check continuity. Replace if defective.</li> <li>6. Check relay. Replace if defective.</li> <li>7. Check continuity. Replace if defective.</li> <li>8. Check continuity. Replace if defective.</li> <li>9. Check diode. Replace if defective.</li> <li>10. Check continuity. Replace if defective.</li> <li>11. Check coil. Replace if defective.</li> <li>12. Check continuity. Replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## HYDRAULIC SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>ALL FUNCTIONS INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Hydraulic oil level low.</li> <li>2. Defective pump (P1).</li> <li>3. Broken engine to pump coupler.</li> <li>4. Relief valve (R1) open</li> </ol>	<ol style="list-style-type: none"> <li>1. Refill tank to proper level.</li> <li>2. Check pump. Repair or replace if defective.</li> <li>3. Check coupler. Replace if defective.</li> <li>4. Check valve. Replace if defective.</li> </ol>
<b>STEERING INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective brake feed valve (2H30A-2).</li> <li>2. Stuck or defective steer right valve (4H23A) or steer left valve (4H24A).</li> <li>3. Steer cylinder (C7) damaged or bypassing internally.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valves. Replace if defective.</li> <li>3. Check cylinder. Repair or replace if defective.</li> </ol>
<b>STEER AND FIRST DRIVE SPEED INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Small pump dump valve (2H18A) stuck open.</li> <li>2. Worn or defective small pump section of pump (P1).</li> <li>3. Check valve (CV1) or (CV2) stuck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check pump. Repair or replace if defective.</li> <li>3. Check valves. Clean or replace if defective.</li> </ol>
<b>LIFT AND SECOND DRIVE SPEED INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Large pump dump valve (2H17A) stuck open.</li> <li>2. Worn or defective large pump section of pump (P1).</li> <li>3. Check valve (CV1) or (CV2) stuck.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check pump. Repair or replace if defective.</li> <li>3. Check valves. Clean or replace if defective.</li> </ol>
<b>DRIVE INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective drive reverse valve (4H15B) or drive forward valve (4H16B).</li> <li>2. Defective motion control valve (MC1).</li> <li>3. Missing or defective check balls in series/parallel valve manifold (3H20A).</li> <li>4. Stuck or defective main series/parallel valve spool (V3) in drive motor.</li> <li>5. Defective drive motor (M1).</li> <li>6. Free wheeling valve (2H30B) stuck.</li> <li>7. Cushion cylinder (C8) bypassing internally.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valves. Repair or replace if defective.</li> <li>2. Check valve. Repair or replace if defective.</li> <li>3. Repair or replace balls. Refer to Section 5 for proper location.</li> <li>4. Check valve. Repair or replace if defective.</li> <li>5. Check motor. Repair or replace if defective.</li> <li>6. Check valve. Repair or replace if defective.</li> <li>7. Check cylinder. Repair or replace if defective.</li> </ol>
<b>REVERSE DRIVE INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective drive valve (4H15B).</li> <li>2. Stuck or defective check valve in motion control assembly (MC1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valves. Clean or replace if defective.</li> </ol>
<b>FORWARD DRIVE INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective drive valve (4H16B).</li> <li>2. Stuck or defective check valve in motion control assembly (MC1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valves. Clean or replace if defective.</li> </ol>

# TROUBLESHOOTING INFORMATION

## HYDRAULIC SYSTEM

TROUBLE	PROBABLE CAUSE	REMEDY
<b>BRAKES WILL NOT RELEASE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective brake feed valve (2H30A-2).</li> <li>2. Stuck or defective brake dump valve (2H30A-1).</li> <li>3. Stuck or defective brake valve (2H25).</li> <li>4. Stuck or defective auto reset valve (V6).</li> <li>5. Defective disc brake cylinder (C5)</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valve. Repair or replace if defective.</li> <li>3. Check valve. Repair or replace if defective.</li> <li>4. Check valve. Repair or replace if defective.</li> <li>5. Check cylinder. Repair or replace if defective.</li> </ol>
<b>UP CIRCUIT INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective lift valve (2H14B).</li> <li>2. Stuck check valve (CV3).</li> <li>3. Misadjusted or defective lift relief valve (R2).</li> <li>4. Stuck or defective lowering valve (2H13B).</li> <li>5. Stuck or defective manual lowering valve (V1).</li> <li>6. Open or defective brake feed valve (2H30A-2).</li> <li>7. Open manual override on holding valve (2H13B-1) or (2H13B-2).</li> <li>8. Stuck holding valve (2H13B-1) or (2H13B-2)</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valve. Replace if defective.</li> <li>3. Adjust valve. Replace if defective.</li> <li>4. Check valve. Repair or replace if defective.</li> <li>5. Check valve. Repair or replace if defective.</li> <li>6. Check valve. Repair or replace if defective.</li> <li>7. Depress and turn manual override clockwise to close. Replace if defective.</li> <li>8. Check valves. Repair or replace if defective.</li> </ol>
<b>DOWN CIRCUIT INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective lowering valve (2H13B).</li> <li>2. Stuck holding valve (2H13B1) or (2H13B2).</li> <li>3. Plugged lowering orifice (O1).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Check valves. Repair or replace if defective.</li> <li>3. Clean or replace orifice.</li> </ol>
<b>POWERED EXTENSION DECK INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Defective powered extension pump (P2).</li> <li>2. Misadjusted or defective relief valve (R5).</li> <li>3. Stuck or defective deck extend valve (4H26) or retract valve (4H27).</li> <li>4. Defective powered extension cylinder (C3).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check pump. Repair or replace if defective.</li> <li>2. Adjust valve. Replace if defective.</li> <li>3. Check valves. Repair or replace if defective.</li> <li>4. Check cylinder. Repair or replace if defective.</li> </ol>
<b>HYDRAULIC GENERATOR INOPERATIVE</b>	<ol style="list-style-type: none"> <li>1. Stuck or defective hydraulic generator valve (2H85).</li> <li>2. Misadjusted or defective flow control valve (FC1).</li> <li>3. Stuck or defective large pump dump valve (2H17A).</li> <li>4. Defective hydraulic generator hydraulic motor (M2).</li> </ol>	<ol style="list-style-type: none"> <li>1. Check valve. Repair or replace if defective.</li> <li>2. Adjust valve. Replace if defective.</li> <li>3. Check valve. Repair or replace if defective.</li> <li>4. Check motor. Repair or replace if defective.</li> </ol>

# SECTION 5 MAINTENANCE AND SERVICE

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## OPERATOR'S RESPONSIBILITY FOR MAINTENANCE

Death or injury can result if the work platform is not kept in good working order. Inspection and maintenance should be performed by competent personnel who are familiar with mechanical procedures.

The operator should be assured that the work platform has been properly maintained before using it. Included in this section is information on lubrication and inspection points that require maintenance.

Even if the operator is not responsible for the maintenance of this work platform, the operator should perform the daily inspections found in [Table 2-4. Maintenance and Inspection Schedule](#).

### IMPORTANT NOTE

Replace all worn or damaged parts or labels discovered during this inspection. Any problems or malfunctions that may affect the safe operation of this work platform **MUST** be repaired immediately.



**DO NOT** reach through scissors assembly without the safety bar properly positioned. **Failure to avoid this hazard will result in death or serious injury!**

## MAINTENANCE AND INSPECTION SCHEDULE

The actual operating environment of the work platform governs the use of the maintenance schedule. The inspection points covered in [Table 2-4. Maintenance and Inspection Schedule](#) indicates the areas of the work platform to be checked and the intervals at which they should be checked.

## OWNER'S ANNUAL INSPECTION RECORD

It is the responsibility of the owner to arrange daily, weekly, monthly and annual inspections of the work platform. [Table 2-1. Owner's Annual Inspection Record](#) in section 2 is to be used for recording the date of inspection, owner's name and the person responsible for the inspection of this work platform.

## GENERAL MAINTENANCE HINTS

- Before attempting any repair work, disconnect battery ground negative (-) lead.
- Properly position safety bar if the scissors assembly is raised.
- Preventive maintenance is the easiest and least expensive type of maintenance.



## HYDRAULIC SYSTEM AND COMPONENT MAINTENANCE AND REPAIR

The following points should be kept in mind when working on the hydraulic system or any component:

1. Any structure has limits of strength and durability. To prevent failure of structural parts of hydraulic components, relief valves which limit pressure to safe operating values are included in the hydraulic circuits.
2. Tolerance of working parts in the hydraulic system are very close. Even small amounts of dirt or foreign material in the system can cause wear or damage to components, as well as general faulty operation of the hydraulic system. Every precaution must be taken to assure absolute cleanliness of the hydraulic oil.
3. Samples of hydraulic oil should be drawn from the reservoir every six months. These samples should be about two quarts and should be taken while the oil is warmed through normal operation of the system. If possible, the sample should be analyzed by a qualified lubrication specialist to determine whether it is suitable for further use. The intervals between oil changes depend on operating conditions and on the care used in keeping the oil clean.
4. Whenever there is a hydraulic system failure which gives reason to believe that there are metal particles or foreign materials in the system, drain and flush the entire system and replace the filter cartridges. A complete change of oil must be made under these circumstances.
5. Whenever the hydraulic system is drained, check the magnets in the hydraulic reservoir for metal particles. If metal particles are present, flush the entire system and add a new change of oil. The presence of metal particles also may indicate the possibility of imminent component failure. A very small amount of fine particles is normal.
6. **DO NOT** use synthetic or fire resistant oils in this personnel lift. Use ATF Dexron III (ESSO) or equivalent hydraulic oil. For conditions causing oil temperatures below -31° F (-35° C) and above 122° F (50° C) consult Skyjack Inc.
7. All containers and funnels used in handling hydraulic oil must be absolutely clean. Use a funnel when necessary for filling the hydraulic oil reservoir, and fill the reservoir only through the filler opening. The use of cloth to strain the oil should be avoided to prevent lint from getting into the system.
8. When removing any hydraulic component, be sure to cap and tag all hydraulic lines involved. Also, plug the ports of the removed components.
9. All hydraulic components must be disassembled in spotlessly clean surroundings. During disassembly, pay particular attention to the identification of parts to assure proper reassembly. Clean all metal parts in a clean mineral oil solvent. Be sure to thoroughly clean all internal passages. After the parts have been dried thoroughly, lay them on a clean, lint-free surface for inspection.
10. Replace all o-rings and seals when overhauling any component. Lubricate all parts with clean hydraulic oil before reassembly. Use small amounts of petroleum jelly to hold o-rings in place during assembly.
11. Be sure to replace any lost hydraulic oil when completing the installation of the repaired component, and bleed any air from the system when required.
12. All hydraulic connections must be kept tight. A loose connection in a pressure line will permit the oil to leak out or air to be drawn into the system. Air in the system can cause damage to the components and noisy or erratic system operation.


**MAINTENANCE.** Three simple maintenance procedures have the greatest effect on hydraulic system performance, efficiency and life. Yet, the very simplicity of them may be reasons they are so often overlooked. What are they? Simply these:

1. Change filters regularly.
2. Maintain a sufficient quantity of clean hydraulic oil of the proper type and viscosity in the hydraulic reservoir.
3. Keep all connections tight.

**Table 5-1. General Specifications - SJ-600 Series**

ENGINE POWER - Kubota gasoline/propane ENGINE POWER - Kubota gasoline ENGINE POWER - Kubota diesel ENGINE POWER - Kubota diesel	23 Hp Water Cooled (DF-750E) 23 Hp Water Cooled (WG-750) 25.5 Hp Water Cooled (D1105-E) 19.5 Hp Water Cooled (DH-950)
BATTERY	12 Volt, 60 Ampere Hour
TIRES	Refer to Table 5-2.
INSIDE TURNING RADIUS (2WD) INSIDE TURNING RADIUS (4WD)	90" (2.29m) 122" (3.10m)
OUTSIDE TURNING RADIUS (2WD) OUTSIDE TURNING RADIUS (4WD)	174" (4.42m) 200" (5.08m)
GROUND UNDERCLEARANCE	8" (.20m)
FLOOR LOAD RATING	30 psi (2.11 kg/cm <sup>2</sup> )
ELEVATED PLATFORM SPEED	0.60 mph (.97 kph)
HIGH TRAVEL SPEED (High Range/High Speed)	3.0 mph (4.8 kph)
LIFT TIME (with load)	47 seconds
LOWERING TIME (with load)	35 seconds
HIGH SPEED DRIVE CUT OUT HEIGHT	84" (2.13m) ground to platform
LIFT RELIEF PRESSURE (With no extension platform) LIFT RELIEF PRESSURE (With extension platform)	1850 psi 2050 psi
SYSTEM RELIEF PRESSURE	2800 psi
HYDRAULIC PUMP (sml/lrg) (gasoline engines) HYDRAULIC PUMP (sml/lrg) (diesel engines)	.366/.671 ci/rev .488/.854 ci/rev
HYDRAULIC SYSTEM CAPACITY	17.0 gallons (64.3 liters)
HYDRAULIC TANK CAPACITY	16.5 gallons (62.4 liters)
FUEL (gasoline engines) FUEL (diesel engines)	Non-Blended Automotive No. 2 Diesel
FUEL TANK CAPACITY	20.5 gallons (80 liters)
ENGINE RPM (low/high) (DF-750E) ENGINE RPM (low/high) (WG-750) ENGINE RPM (low/high) (D1105-E) ENGINE RPM (low/high) (DH-950)	1500/3900 1800/3400 1300/2800 1300/2800
IGNITION TIMING (DF-750E) IGNITION TIMING (WG-750) IGNITION TIMING (D1105-E) IGNITION TIMING (DH-950)	BTDC 18° BTDC 20° BTDC 17.5° BTDC 25°
TAPPET CLEARANCE (int/exh) (DF750E) TAPPET CLEARANCE (int/exh)	.0065/.0065 .0057/.0072
ENGINE TEMPERATURE SWITCH SETTING	230° F (110° C)
POWERED PLATFORM RELIEF VALVE SETTING	500 psi
NOISE LEVEL (at high rpm)	85 DECIBELS

**Table 5-2. Tire Specifications**

 <b>WARNING</b>				
Air Pressure Can Affect Stability. Temperature Changes Can Affect Air Pressure. It Is Important To Check Tire Pressures Prior To Use On A Daily Basis In The Operating Conditions Experienced By End User. If The Measured PSI Reading Is Less Than The Specification And Tolerance, Re-inflate To The Proper Specification Within The Tolerance Range Specified. Tires Shall Also Not Be Subject To Over-inflation Above The Recommended Specification And Tolerance Range.				
Tire*		Fill Specification		
Size	Fill Type	Ply Rating	Pressure Psi (kPa)	
			Factory	Listed Sidewall Maximum
#6 30-10-16.5 NHS	Air	8	50 (344.7)*	65 (448.2)
#6 32.3-10-16.5 HD Stabilizer		10	70 (482.6)*	75 (517.1)
#6 30-10-16.5 OTR Outrigger		10	70 (482.6)*	75 (517.1)
#7 31-15.5-15 NHS		8	50 (344.7)*	Not Available
#8 31-13.5-15 NHS		Consult Skyjack Inc.		
#6F 30-10-16.5 NHS	Solid Urethane	8	**	
#7F 31-15.5-15 NHS		8	**	
#8F 31-13.5-15 NHS		Consult Skyjack Inc.		

\* Factory preset @ 20 C, Check pressures regularly as tires can lose pressure over time and over different ambient temperatures even under normal conditions.

\*\* Urethane used for filling #6F and #7F tires MUST be 50-55 durometer.

**Table 5-3. Torque Specifications**

Directional valve mounting bolts	28-32 lbf.in		3.16 - 3.61 Nm					
Wheel mounting bolts	135-145 lbf.ft		183 – 196 Nm					
Center drive sprocket mounting bolts	110-115 lbf.ft (242 LOCTITE)		149 – 156 Nm					
Hydraulic drive motor mounting bolts	120 lbf.ft (242 LOCTITE)		162 Nm					
Cartridge								
Torque	Size							
	08	38	58	10	12	16		
Lbf.ft (max)	20		25	35	50			
Lbf.in (max)	240		300	420	600			
Nm (max)	27.12		33.90	47.46	67.80			
Coils								
Torque	Size							
	All coils							
Lbf.ft (max)	4 to 5							
Lbf.in (max)	48 to 60							
Nm (max)	5.42 to 6.78							
SAE Plugs								
Torque	Size							
	2	4	5	6	8	10	12	16
Lbf.ft (max)	3	10	15		25		30	35
Lbf.in (max)	36	120	180		300		360	420
Nm (max)	4.07	13.56	20.34		33.90		40.68	47.46
<b>Newton-meter = Nm</b>		<b>Pound-force foot = lbf.ft</b>			<b>Pound-force inch = lbf.in</b>			

## Brake Adjustment Procedures

1. Place machine on level surface and block wheels to prevent rolling in either direction.
2. Turn Battery disconnect off.
3. Locate brake manifold in hydraulic/electric side cabinet.
4. Depress and turn the red knurled knob on the brake valve counter-clockwise to a fully closed position or depress black knob. (current manifold)
5. Grasp the red plunger and rapidly depress until plunger can no longer be depressed and the brake is fully released.
6. Inspect caliper and brake pads for binding. Pads should move freely on the pins.
7. Remove pin from brake cylinder clevis and brake actuating lever. Rotate actuating lever counter-clockwise to the end of its stroke.
8. Adjust brake cylinder clevis to obtain 1/2" between the center of the holes of the actuating lever and brake cylinder clevis. See Figure 5-1. Tighten jamb nut on brake cylinder rod against clevis. Note: It is important that the brake cylinder reaches its maximum stroke before the caliper to prevent damage to the caliper.

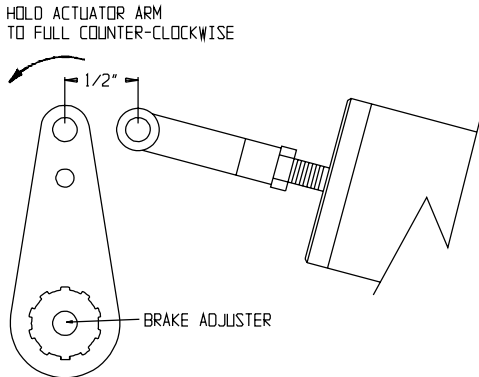


Figure 5-1. Brake Adjustment

9. Reinstall clevis pin back into the clevis actuating lever.
10. Remove plastic plug located on the end of the caliper shaft. See Figure 5-2.

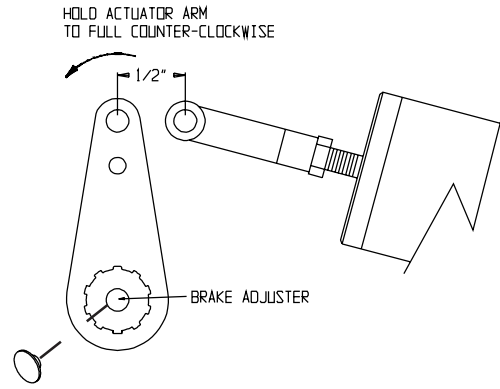


Figure 5-2. Plug Removal and Replacement

11. Using a 1/4" Allen wrench, turn brake adjuster counter-clockwise until it bottoms out. Turn Allen wrench clockwise 1/2 turn clockwise to set adjustment.
12. Replace plastic plug back into the end of the caliper shaft.
13. Depress red knurled knob on brake valve and turn clockwise to a fully open position.
14. Remove Wheel blocks. Turn emergency power disconnect switch on. Operate drive several times to seat pads to brake disc.

## Winching And Towing Procedures



### Warning

When Towing, **DO NOT** drive onto a downward slope or brake the towing vehicle rapidly.

### Parking Brake System

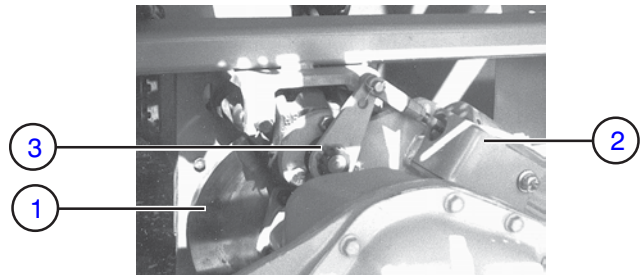


Figure 2-12. Disc Parking Brake

**1 - 3. Parking Brake Disc** -This device disengages the **brake disc (1)** when driving forward or in reverse. A **hydraulic brake cylinder (2)**, linked to a **disc caliper (3)**, engages and disengages a brake disc on the rear axle drive shaft yoke. The brake **MUST** be manually disengaged for pushing, towing or winching. **DO NOT push or tow the work platform onto a downward slope or pull the platform down an incline towards the winch.** The special procedure for manually disengaging the parking brake is as follows:

 **Warning**

**DO NOT** manually disengage the parking brakes if the work platform is on a slope.

**Later Models:**

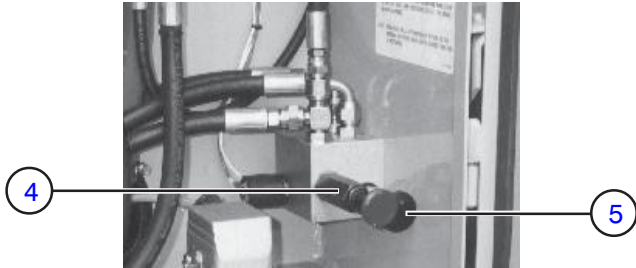


Figure 2-13A. Parking Brake Release Hand Pump and Brake Valve Plunger (Machines With Serial Number 30167 and Above)

**4 - 5. Parking Brake Release Hand Pump (4) and Brake Valve Plunger (5)** - Located on the brake manifold in the hydraulic electric side cabinet, this hand operated pump **MUST** be used when pushing, towing or winching the work platform. To release the parking brake:

1. Make sure that the work platform is on level ground. Chock or block the wheels to keep work platform from rolling.
2. Turn Emergency Power Disconnect Switch to "OFF" position.
3. Depress the black plunger on the Brake Valve until the plunger stays in.
4. Grasp the red hand pump plunger and rapidly depress 60 to 80 times until firm resistance is felt. The brake is now released.
5. Remove the wheel chocks or blocks, then push, tow or winch the work platform to the desired location. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 km/h). DO NOT push or tow the platform onto a downward slope or pull the platform down an incline towards the winch.**
6. Position machine on a firm and level surface. Chock or block the wheels to prevent the platform from rolling or re-engage the parking brake by momentarily activating the drive function.

**Note**

The parking brake will reset automatically when the work platform is put back into service.

**Earlier Models:**

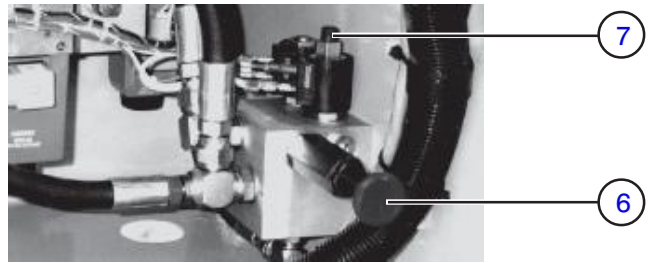


Figure 2-13B. Parking Brake Release Hand Pump and Quick Brake Valve (Machines With Serial Number 30166 and Below)

**6 - 7. Parking Brake Release Hand Pump (6) and Brake Valve Knob (7)** - Located on the brake manifold in the hydraulic electric side cabinet, this hand operated pump **MUST** be used when pushing or winching the work platform. To release the parking brake:

1. Make sure that the work platform is on level ground. Chock or block the wheels to keep work platform from rolling.
2. Turn Emergency Power Disconnect Switch to "OFF" position.
3. Depress and turn the red knurled knob on the quick brake valve counterclockwise to a fully closed position.
4. Grasp the red hand pump plunger and rapidly depress 60 to 80 times until firm resistance is felt. The brake is now released.
5. Remove the wheel chocks or blocks, then push, tow or winch the work platform to the desired location. **When pushing, towing or winching, DO NOT exceed 2 mph (3.2 km/h). DO NOT push or tow the platform onto a downward slope or pull the platform down an incline towards the winch.**
6. Position machine on a firm and level surface. Chock or block the wheels to prevent the platform from rolling. Re-engage the parking brake. Open the quick brake valve by depressing, then turning the red knurled knob on the brake valve clockwise to a fully open position.

 **Warning**

The quick brake valve **MUST** be open to restore normal operation. **Failure to follow the procedure discussed above could result in death or serious injury!**



## SYSTEM AND LIFT PRESSURE ADJUSTMENTS

All adjustments **MUST** be made with a Calibrated Hydraulic Gauge.

Refer to the Serial Number Nameplate located on the rear of the machine for System and Lift Pressure values.

### SYSTEM RELIEF PRESSURE ADJUSTMENT

1. Locate the Right Steer Hydraulic line at the Main Manifold. (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)
2. Tee in a Calibrated 3000 PSI Gauge into the Right Steer line.
3. Remove the Operator's Control Box from the guardrail and disconnect it from the Scissors Control Cable.
4. Locate the Electrical Panel Cable Plug in the Hydraulic/Electric Cabinet.
5. Disconnect the Scissors Control Cable and connect the Operator's Control Box Cable.
6. At the Main Manifold, loosen the locknut on the System Relief Valve (R1). (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)
7. Select "DRIVE" position with the Lift/Drive Select Switch on the Platform Control Box.
8. Engage Steer Right Switch on the top of the Controller Handle and hold.
9. Check the reading on Pressure Gauge. Adjust the System Relief Valve (R1) to the pressure listed on the Serial Number Nameplate. **NOTE:** Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counter-clockwise decreases pressure.
10. Release the Steer Switch and retighten the locknut on the System Relief Valve (R1).
11. Remove the gauge from the Steer line.

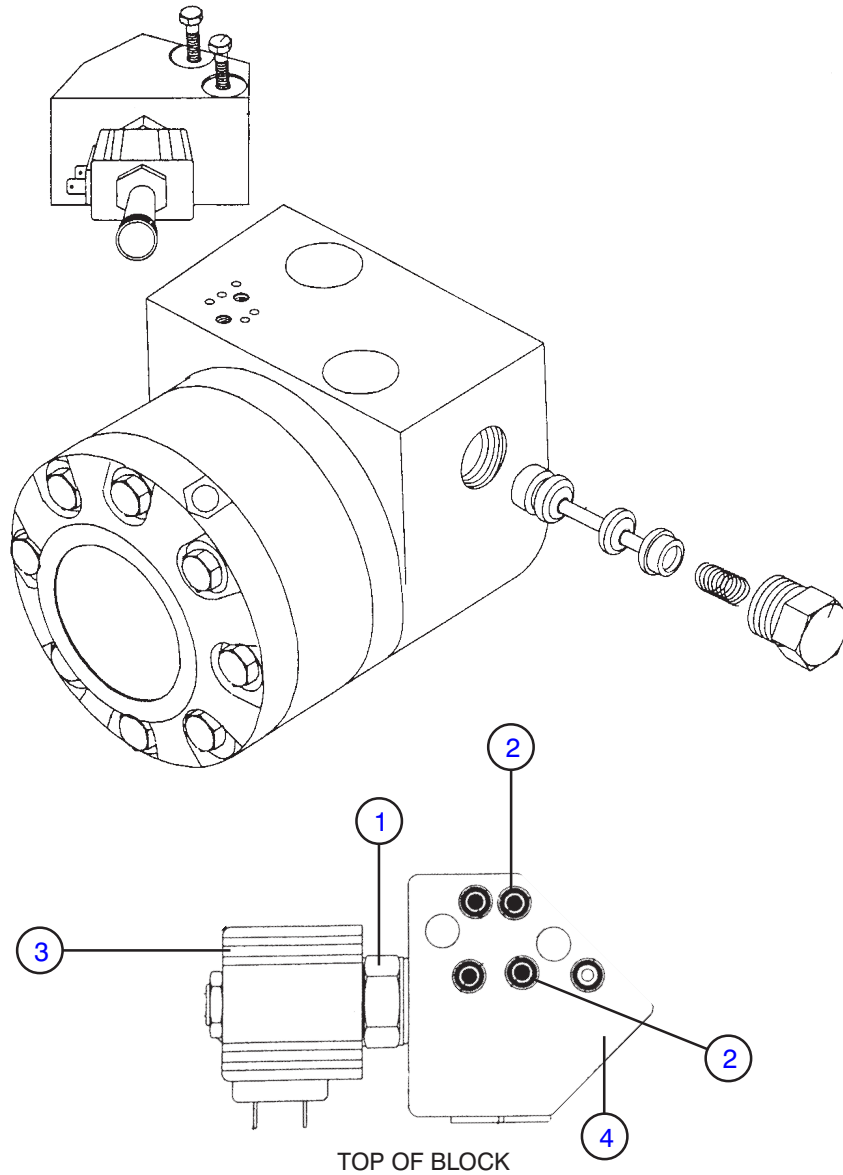
### LIFT PRESSURE ADJUSTMENT



1. Locate the Lift line coming out of the Main Manifold. (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)
2. Open the Manual Lowering Valve with the platform fully lowered. Remove the Lift line from the Main Manifold.
3. Install a 3000 PSI Gauge into the Lift line port fitting on the Main Manifold. Plug the Lift line going to the Lift Cylinders.
4. Loosen the locknut on the Lift Relief Valve (R2). (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)
5. Close the Manual Lowering Valve. Using the Base Controls in the Hydraulic/Electric Cabinet, depress and hold the Up Push-Button Switch.
6. Observe the reading on the gauge. Adjust the Lift Relief Valve (R2) to the pressure listed on the Serial Number Nameplate. **NOTE:** Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counter-clockwise decreases pressure.
7. Release the Up Push-Button and retighten the locknut on the Lift Relief Valve (R2).
8. Remove the gauge from the Lift line port fitting and reinstall the Lift line.



## 2 SPEED MOTOR ASSEMBLY



Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	109311	MOTOR, 2 Speed drive	1
1	103623	• VALVE, Series/parallel	1
2	115340	• CHECK BALL	4
3	103613	• COIL, Series/parallel valve	1
4	355113	• MANIFOLD, Motor	1
	115338	• SEAL KIT	AR

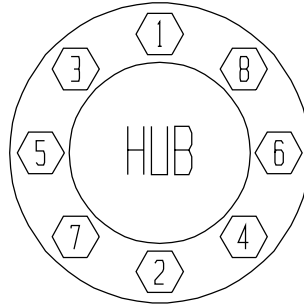
**Part Usage:**

The 3 smaller holes have O-rings and no Check Balls  
 The 2 bigger holes get Check Balls  
 In the Motor piece there are 2 holes that get 1 check ball each (4 Check Balls total)

## WHEEL BOLT/NUT INSPECTION AND TORQUING PROCEDURE

It is necessary to check the torque on all wheel nuts and wheel bolts at pre-delivery, after 8 hours of operation and at weekly intervals using the following procedure:

1. Confirm that each wheel fastener is torqued to 140 ft. lbs. ( $\pm$  5 ft. lbs.) using a suitable torque wrench of known accuracy. If any fastener falls outside of the specified tolerance, ALL fasteners MUST be torqued using the tightening sequence shown in Figure 5-5.



*Figure 5-5. Wheel Fastener Tightening Sequence*

2. Again, confirm that each wheel fastener is torqued to the specified tolerance. Retorque as necessary until ALL fasteners are properly torqued.

## WHEEL REINSTALLATION AND TORQUING PROCEDURE

When a Wheel/Tire Assembly has been removed or replaced, it will be necessary to follow the procedure below to ensure proper installation:

1. Inspect wheel fastener threads for damage or defects. Replace if defective.
2. Clean the mounting surfaces of the hub and wheel rim of debris, rust, excess paint, etc.
3. Mount wheel on the hub, centering mounting holes on the wheel studs or bolt holes. Use appropriate lifting device as required.
4. Install the wheel nuts or wheel bolts and hand tighten to center the rim.
5. Tighten the nuts or bolts to approximately 50 ft. lbs. torque using the tightening sequence in Figure 5-5. above.
6. Tighten to 100 ft. lbs. using the same sequence.
7. Tighten to 140 ft. lbs. using the same sequence.
8. Repeat the tightening sequence to confirm that none have changed from 140 ft. lbs. If any are found below 140 ft. lbs., repeat complete sequence until there is no change in torque values. If possible, drive the machine prior to checking torques.
9. Check torque values after 8 hours of operation and then at weekly intervals.

# SECTION 6 PARTS LIST

## GENERAL

The information contained in this section is designed to aid the user in locating and identifying replacement parts. Component parts of various assemblies and sub-assemblies comprising the work platform are illustrated and accompanied by a descriptive parts list. Exploded drawings are used to show relative location of component parts in disassembly order. If a part cannot be found in this section, order by work platform model number and serial number, giving a complete description of the part.

## PARTS ORDERING INFORMATION

When ordering replacement parts, the complete part number and description should be used to ensure proper identification and delivery of the desired item. This complete identification should also be used when requesting equipment information.

## METHOD OF LISTING

Parts are listed in order according to the reference number shown in the illustration, followed by a full description based upon the "NOUN FIRST" method. That is, the noun name of the part is listed first, then the modifying description information which serves to specifically identify the item. For example: PIN, Clevis. Assemblies or groups are shown at the beginning of a parts list and are identified with the letter references A, B, C, etc. Individual parts in these lists have corresponding letters after their description to identify

which assembly or group it is used in. Individual parts without identifying letters are used in all the assemblies or group shown at the beginning of the parts list. Descriptions preceded with an (\*) indicates a serviceable component or attaching hardware for the higher level assembly.

## QUANTITIES (Units per Assy.)

The quantities of each part that are required to complete the assembly. If quantity is (AR), it is understood that the quantity may vary when machine is equipped with certain options. Order quantity as needed.

## HARDWARE

Standard screws, washers, nuts, etc. are not identified by a reference number. These parts are known as COMMON HARDWARE items and appear indented under the major items with which they are used. They should be ordered separately as listed, since they are not component parts of the pieces they attach to.

## HOW TO ORDER REPAIR PARTS

1. Address all orders to your local SKYJACK dealer.
2. Specify model and serial number of the work platform (found on the serial number plate).
3. List the quantity needed.
4. List the length needed (if bulk item).
5. List the part number and description as shown in this manual for each item.
6. Show billing and shipping address and name of individual if possible.
7. Suggest best routing.

CUSTOMER \_\_\_\_\_

DEALER \_\_\_\_\_

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

DATE PURCHASED \_\_\_\_\_

**USE ONLY SKYJACK AUTHORIZED REPLACEMENT PARTS!**

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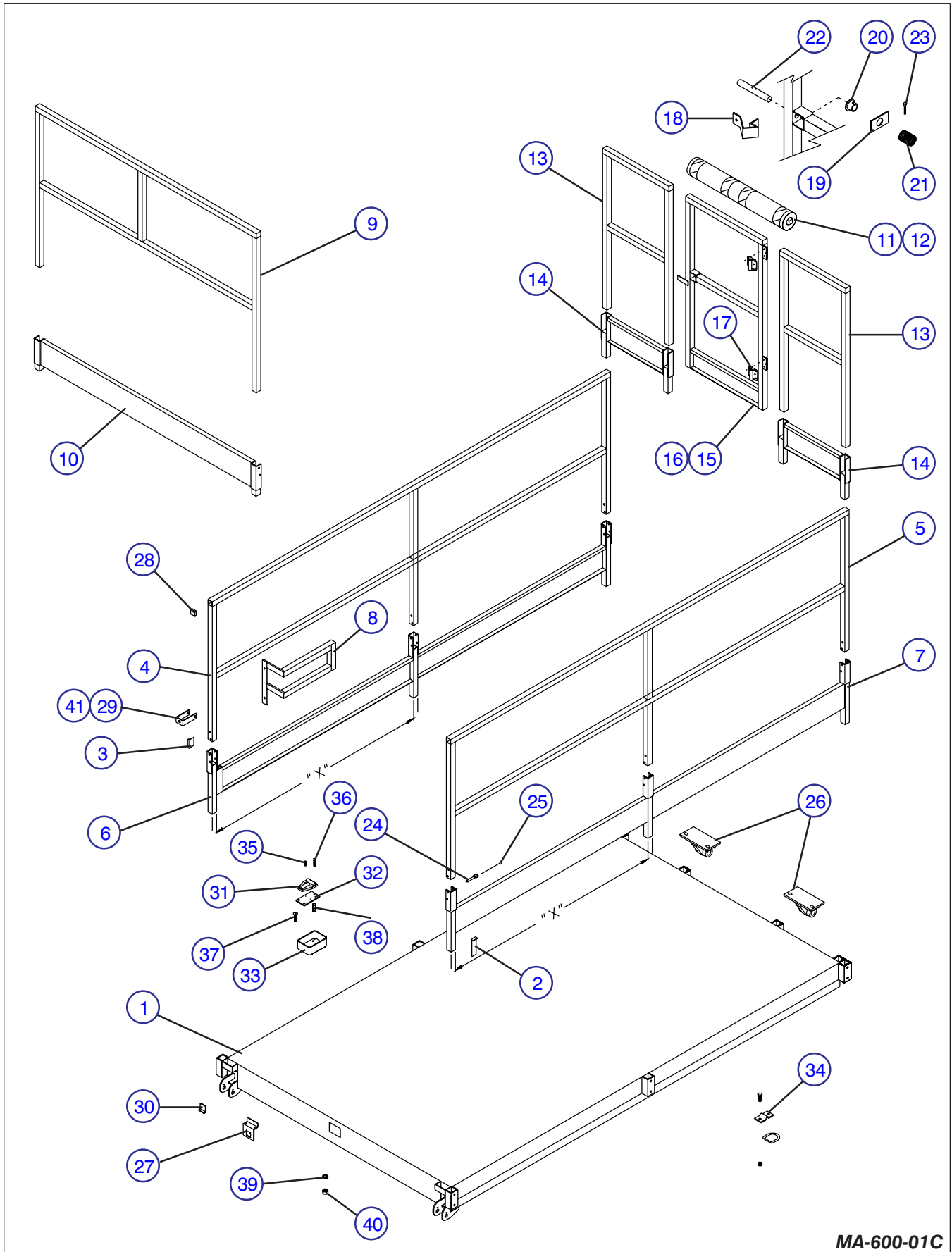
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FIGURE 6-1. MAIN PLATFORM AND RAILINGS



**FIGURE 6-1. MAIN PLATFORM AND RAILINGS**

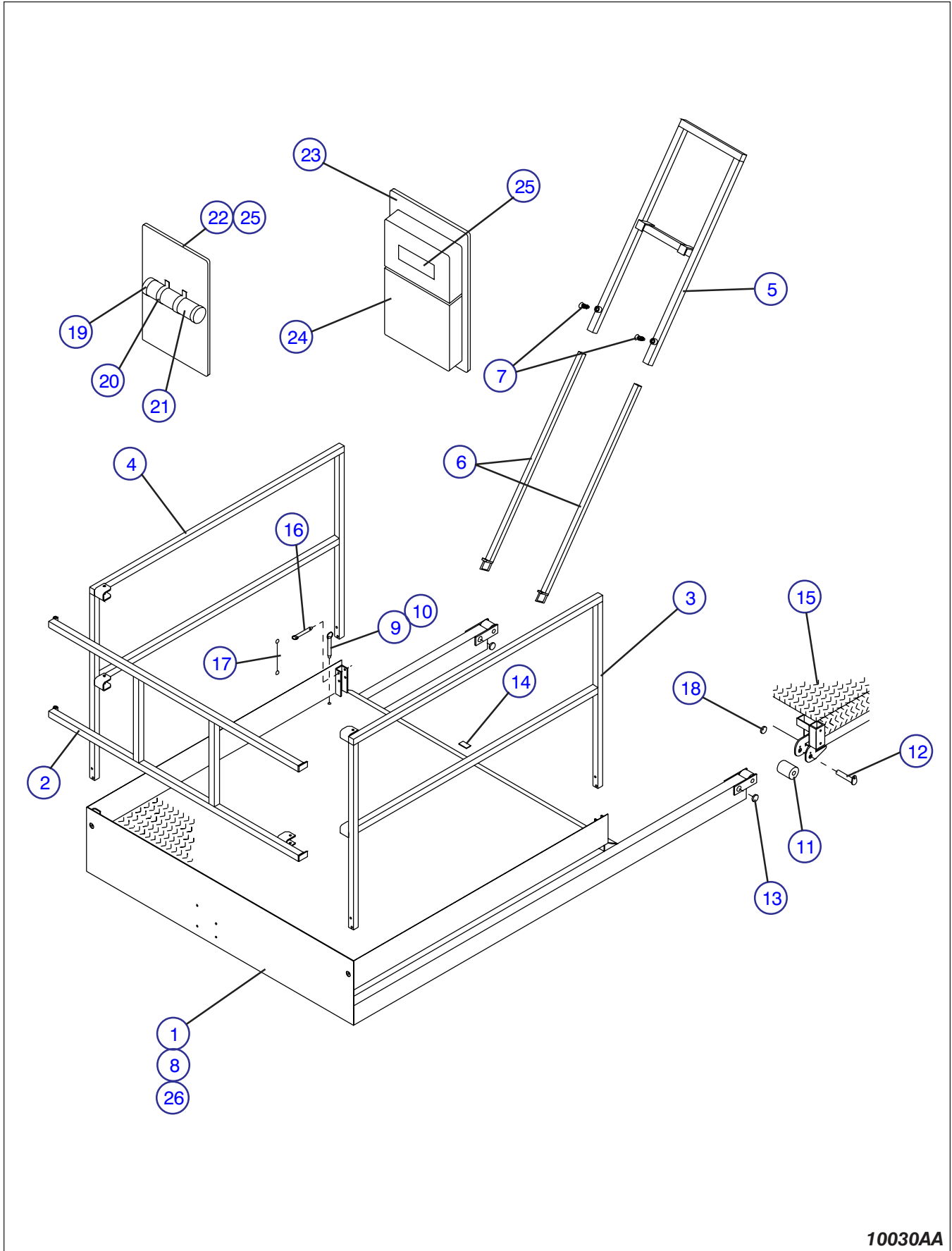
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	MAIN PLATFORM AND RAILINGS (Machines with Serial # 30302 and above) (X = 58-13/16" inside)	-
<b>B</b>	(Ref.)	MAIN PLATFORM AND RAILINGS (Machines with Serial # 30301 and below) (X = 55-9/16" inside)	-
1	115250	• WELDMENT, Main platform, <b>A</b>	1
	111036	• WELDMENT, Main platform, <b>B</b>	1
	104625	• • SCREW, Set 3/8-16 x 5/8" lg.	20
	300085	• • NUT, Jam 3/8	20
2	107614	• PLATE, Railing retainer long	10
	116631	• PLATE, Railing retainer short	AR
3	108791	• CLIP, Cable (stick-on)	2
4	115234	• RAILING, Hinged upper RH (w/o extension deck), <b>A</b>	1
	111040	• RAILING, Hinged upper RH (w/o extension deck), <b>B</b>	1
	115249	• RAILING, Hinged upper RH (w/ extension deck), <b>A</b>	1
	111048	• RAILING, Hinged upper RH (w/ extension deck), <b>B</b>	1
5	115237	• RAILING, Hinged upper LH (w/o extension deck), <b>A</b>	1
	111040	• RAILING, Hinged upper LH (w/o extension deck), <b>B</b>	1
	115247	• RAILING, Hinged upper LH (w/ extension deck), <b>A</b>	1
	111047	• RAILING, Hinged upper LH (w/ extension deck), <b>B</b>	1
	103872	• • BOLT, Hex-hd 3/8-16 x 2-1/4" lg.	AR
	103472	• • WASHER, Flat 3/8	AR
	104606	• • NUT, Lock 3/8-16	AR
6	115239	• RAILING, Hinged lower right, <b>A</b>	1
	111053	• RAILING, Hinged lower right, <b>B</b>	1
	103914	• BOLT, Hex-hd 3/8 - 16 x 3 3/4" lg.	2
7	115238	• RAILING, Hinged lower left, <b>A</b>	1
	111050	• RAILING, Hinged lower left, <b>B</b>	1
	103914	• BOLT, Hex-hd 3/8 - 16 x 3 3/4" lg.	2
8	108583	• RAILING, Control box support	1
	103865	• • BOLT, Hex-hd 5/16-18 x 2" lg.	1
	103866	• • BOLT, Hex-hd 5/16-18 x 2-1/4" lg.	1
	103996	• • WASHER, Flat 5/16	1
	103984	• • NUT, Lock 5/16-18	2
9	111764	• RAILING, Hinged upper front (w/o extension deck)	1
10	111761	• RAILING, Hinged lower front (w/o extension deck)	1
11	106915	• RAILING, Gate top (machines with half gate)	1
12	104183	• PAD, Entry insulation 27" (machines with half gate)	1
13	111042	• RAILING, Hinged upper rear	2
14	111041	• RAILING, Hinged lower rear	2
15	117279	• WELDMENT, Gate full (Hinged on Left hand side) (Replaces 109404 and 108136 by also ordering hinges 117277)	1 -
	310647	• WELDMENT, Gate full (Hinged on right hand side) (Special Option)	1
16	117280	• WELDMENT, Gate half (Replaces 109401 and 107868 by also ordering hinges 117277)	1 -

**Parts list continued on the following page.**

**FIGURE 6-1. MAIN PLATFORMS AND RAILINGS (continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
17	117277	• HINGE, Spring return (Models with serial # 31275 and above)	2
	103632	• • SCREW, Self-tapping 1/4-14 x 3/4" Ig.	12
	109388	• HINGE, Spring return (Models with serial # 31274 and below)	2
	103856	• • BOLT, Hex-hd 1/4-20 x 3/4" Ig.	6
	104000	• • WASHER, Lock 1/4"	6
	103980	• • NUT, Hex 1/4-20	6
	103632	• • SCREW, Self-tapping 1/4-14 x 3/4" Ig.	6
18	110693	• STOP, Latch	1
	103632	• • SCREW, Self-tapping 1/4-14 x 3/4" Ig.	6
19	105307	• PLATE, Latch release	1
20	105312	• GUIDE, Spring	1
21	103107	• SPRING, Compression	1
22	109377	• PIN, Latch 5/8 x 4-3/16" Ig.	1
23	300792	• PIN, Cotter 3/32 x 1-1/4" Ig.	1
24	752726	• PIN, Locking 3/8"	AR
25	300833	• CABLE, Lanyard 6" Ig.	AR
	103995	• WASHER, Flat 1/4"	AR
	103632	• SCREW, Self tapping 1/4"	AR
26	111123	• WELDMENT, Scissor mount	2
	103909	• • BOLT, Hex-hd 1/2-13 x 1-1/4" Ig.	8
	103470	• • WASHER, Lock 1/2"	8
	103468	• • WASHER, Flat 1/2"	8
	100695	BUSHING	AR
27	111597	• BRACKET, Scissor cable mount	1
28	100702	• CAP, Railing end	8
29	113164	• U-CLIP, Control Box	1
30	355071	• SPACER PLATE, Railing	2
31	300406	• GAGE, Cross Level	1
32	201121	• PLATE, Level	1
33	355079	• GUARD, Level	1
34	125584	• RING KIT, Safety	AR
	113122	• • BRACKET, D-Ring	AR
	114989	• • D-RING	AR
	103473	• • BOLT, Hex head 3/8 - 16 x 1" grade 5	AR
	103472	• • WASHER, Flat 3/8 S.A.E.	AR
	104606	• • NUT, Nylon lock hex 3/8-16 grade 5	AR
35	103960	• BOLT, 10-24 x 1/2	2
36	114711	• BOLT, RPHMS #10-32 x 1/2	3
37	300158	• BOLT, FSHCS 10-12 x 1	2
38	300444	• SPRING, Level	3
39	104185	• WASHER, Lock 10-24	2
40	103987	• NUT, 10-24	2
41	110007	• TRIM, Protective edge guard	2"

**FIGURE 6-2. ROLL-OUT EXTENSION PLATFORM ASSEMBLY**



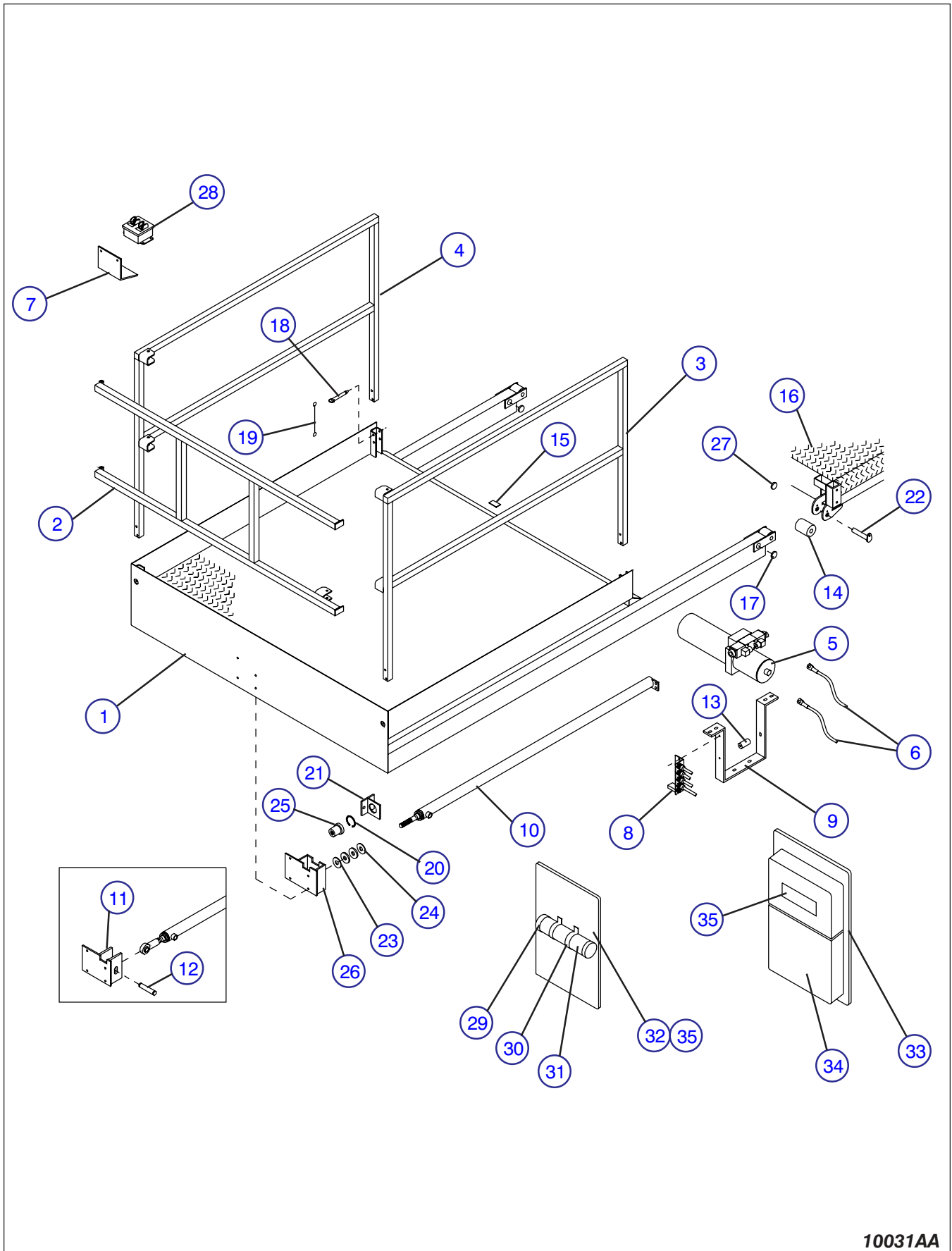
10030AA



**FIGURE 6-2. ROLL-OUT EXTENSION PLATFORM ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	111017	WELDMENT, Extension platform	1
	105829	PIN, Roller 3/4" x 2-3/8"	2
	100141	ROLLER, Rear	2
	114998	PAD, Nylon 1-3/4" x 4" lg.	4
	103632	SCREW, Self tapping 1/4"	4
2	111078	RAILING, Front	1
3	111068	RAILING, Extension platform side LH	1
4	111065	RAILING, Extension platform side RH	1
5	115014	PUSH BAR, Upper (serial # 30302 and above)	1
	112191	PUSH BAR, Upper (serial # 30301 and below)	1
6	115016	PUSH BAR, Lower (serial # 30302 and above)	2
	112511	PUSH BAR, Lower (serial # 30301 and below)	2
7	112467	PLUNGER, Quick release pull ring	2
8	106432	U-BOLT, 1/4-20 x 3/4" I.D.	2
9	112389	PIN, Quick release	1
10	112736	STOP, Extension platform (welded to platform deck)	1
11	111136	ROLLER, Extension platform	2
12	102237	PIN, Roller 3/4" x 3-11/32" lg.	2
	13	110425	PAD, Slider 1" dia. X 11/32" thk. (serial # 30302 and above)
101956		PAD, Slider 1-1/2" dia. X 1/4" thk. (serial # 30301 and below)	AR
101954		PAD, Slider 1-1/2" dia. X 3/8" thk. (serial # 30301 and below)	AR
101955		PAD, Slider 1-1/2" dia. X 7/16" thk. (serial # 30301 and below)	AR
14		107057	PAD, Extension deck slider
15	103632	SCREW, Self tapping 1/4"	4
	(Ref.)	WELDMENT, Main platform (Refer to Figure 6-1)	1
16	752726	PIN, Locking 3/8"	-
17	300833	CABLE, Lanyard 6" lg.	AR
18	110425	PAD, Slider 1" dia. X 11/32" thk. (Main Platform)	4
19	114271	CAP, 2" Dia Manual Tube	2
	105802	CAP, 1 - 1/2" Dia Manual Tube	2
20	114270	CLAMP, 2"	2
	105934	CLAMP, 1 - 1/2"	2
21	114269	TUBE, 2" Manual	1
	105744	TUBE 1 - 1/2" Manual	1
22	752706	PLATE, Info warning (Machines with Serial # 31297 & Above)	1
	105745	PLATE, Safety Label (Machines with Serial # 31296 & Below)	1
	103632	BOLT, Self tapping 1/4 - 14 x 3/4" lg.	4
23	117349	PLATE, Manual box (no rollout) (earlier models) (mounted kick plate to rail)	1
	355112	PLATE, Manual box (no rollout) (later models) (mounted kick railing <b>only</b> )	-
	310050	PLATE, Manual box (with rollout)	1
	103632	BOLT, Self tapping 1/4 - 14 x 3/4" lg.	2
	24	117293	BOX, Manual
104185		WASHER, Lock 10-24	4
114711		BOLT, Machine screw #10 - 32 x 1/2"	4
104003		NUT, Hex #10 - 32	4
104694		WASHER, Flat #10	4
25		(Ref.)	LABELS, (Refer to Figure 6-58)
26	110007	TRIM, Protective edge guard	AR

**FIGURE 6-3. POWERED EXTENSION PLATFORM ASSEMBLY**



10031AA

**FIGURE 6-3. POWERED EXTENSION PLATFORM ASSEMBLY**

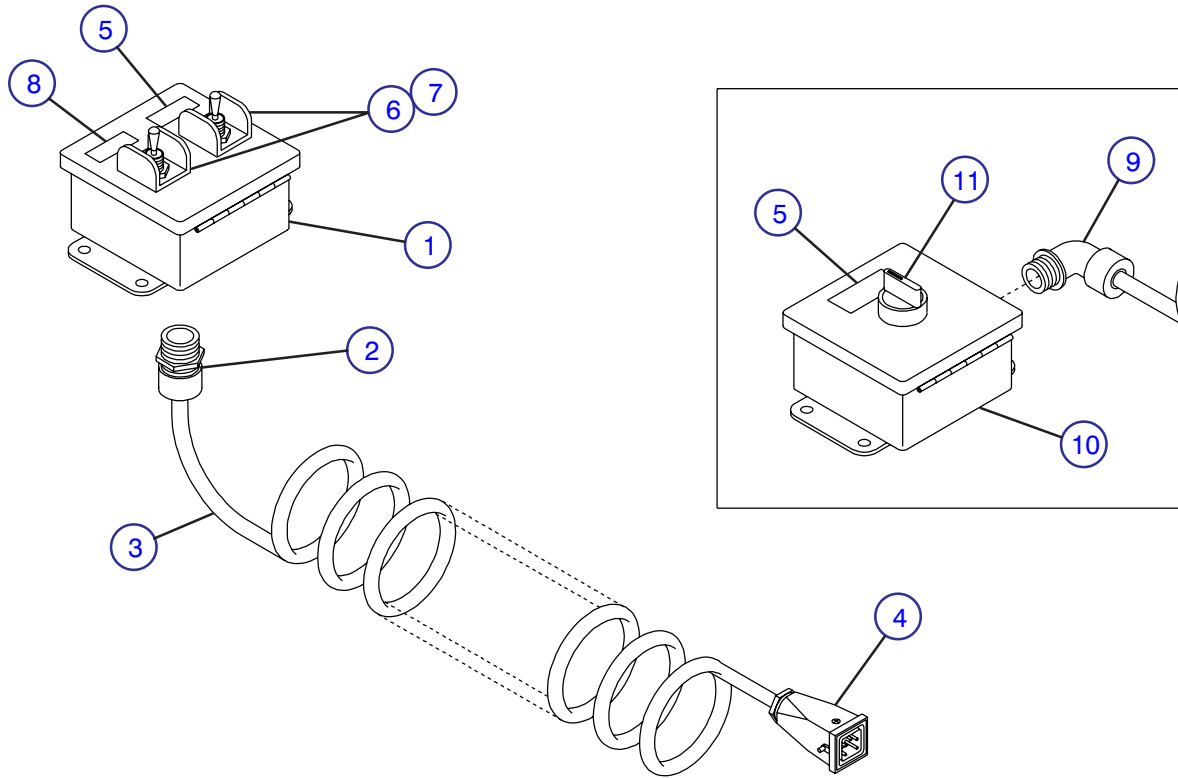
Index No.	Skyjack Part No.	Description	Units per Assy.	
1	111017	WELDMENT, Extension platform	1	
	105829	• PIN, Roller 3/4" x 2-3/8"	2	
	100141	• ROLLER, Rear	2	
	114998	PAD, Nylon 1-3/4" x 4" lg.	4	
	103632	SCREW, Self tapping 1/4"	4	
2	111078	RAILING, Front	1	
3	111068	RAILING, Extension platform side LH	1	
4	111065	RAILING, Extension platform side RH	1	
5	(Ref.)	POWER UNIT WITH VALVES (Order components) (For hydraulic connections, refer to Figure 6-7.)	1	
	103397	• VALVE ASS'Y, "Vickers" (early models - replace with Hytos below)	1	
	107440	• • COIL, 12 Volt Spool Valve	2	
	103920	• • BOLT, Soc-hd #10-24 x 2" lg.	4	
	128797	• VALVE ASSEMBLY, "Hytos" (later models & Vickers replacement)	1	
	128318	• • VALVE, Directional spool	1	
	128321	• • • COIL, 12 Volt Spool Valve	2	
	103920	• • BOLT, Socket head #10-24 x 2" grade 5	4	
	104345	• CONNECTOR, Gray	1	
	104409	• CONNECTOR, Black	1	
	111289	• POWER UNIT ASSEMBLY, 12 Volt (J.S. Barnes)	1	
	300243	• • CAP, Filler/breather	1	
	300248	• • MOTOR, 12 VDC	1	
	113172	• • • BRUSH SET, Motor	AR	
	300242	• • SOLENOID, 12 VDC	1	
	113173	• • PUMP, Hydraulic 1.2 gpm	1	
	111290	• • BLOCK, Manifold	1	
6	(Ref.)	POWER UNIT BATTERY CABLES	-	
	103148	CABLE, Welding 4 Gauge (Contactor Positive)	536"	
	103148	CABLE, Welding 4 Gauge (Battery Negative)	539"	
7	117188	PLATE, Control box mounting	1	
8	(Ref.)	PANEL ASSEMBLY, Powered platform electrical (For components, refer to Figure 6-6.)	1	
	110583	BRACKET, Power unit mounting	1	
9	300531	WASHER	3	
	103473	BOLT, Hex head 3/8 - 16 x 1"	7	
	103472	WASHER, Flat 3/8"	8	
	103999	WASHER, Lock 3/8"	8	
	103916	BOLT, Hex head 3/8 - 16 x 3 1/4"	1	
	10	113427	CYLINDER ASSEMBLY, Powered extension platform (Replaces CYLINDER, 108728 by also ordering (1) NUT, 106450 and (1) SPHERICAL END, 103420) (For components, refer to Figure 6-5.)	1
		108363	WELDMENT, Cylinder rod mount (Earlier models w/spherical end mounted extension platform cylinder)	1
12	108690	PIN, Cylinder 3/4" x 3-5/8" lg. (Earlier models w/spherical end mounted extension platform cylinder)	1	
	100759	• RING, Retaining	2	

**Parts list continued on the following page.**

**FIGURE 6-3. POWERED EXTENSION PLATFORM ASSEMBLY (continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
13	111586	SPACER, Power unit mounting	1
14	111136	ROLLER, Extension platform	2
15	107057	PAD, Extension deck slider	4
16	(Ref.)	WELDMENT, Main platform (Refer to Figure 6-1.)	1
17	110425	PAD, Slider 1" dia. X 11/32" thk. (Serial # 30302 and above)	AR
	101956	PAD, Slider 1-1/2" dia. X 1/4" thk. (Serial # 30301 and below)	AR
	101954	PAD, Slider 1-1/2" dia. X 3/8" thk. (Serial # 30301 and below)	AR
	101955	PAD, Slider 1-1/2" dia. X 7/16" thk. (Serial # 30301 and below)	AR
18	100509	PIN, Locking 3/8"	AR
19	300833	CABLE, Lanyard 6" lg.	AR
20	106446	RING, Retaining	1
21	108366	WELDMENT, Cylinder front support	1
22	102237	PIN, Roller 3/4" x 3-11/32" lg.	2
23	113304	WASHER, Isolator 3/4" x 2" (Later models with isolator mounted cylinder)	2
24	113305	ISOLATOR, Cylinder rod (Later models with isolator mounted cylinder)	2
25	113331	ADAPTER, Cylinder rod (Later models with isolator mounted cylinder)	1
26	113334	WELDMENT, Cylinder mount (Later models with isolator mounted cylinder)	1
	115544	SPACER	1
	103473	BOLT, Hex head 3/8 - 16 x 1"	1
	103472	WASHER, Flat 3/8"	1
	103999	WASHER, Lock 3/8"	1
	103887	BOLT, Hex head 5/16 - 18 x 3/4"	4
	103404	WASHER, Lock 5/16"	4
	103996	WASHER, Flat 5/16"	4
	113360	BOLT, Hex head 3/4 - 16 x 1 1/2"	1
	104002	WASHER, Lock 3/4"	1
27	110425	PAD, Slider 1" dia. X 11/32" thk. (Main platform)	4
28	(Ref.)	BOX ASSEMBLY, Powered extension platform control (For components, refer to Figure 6-4.)	1 -
29	114271	CAP, 2" Dia Manual Tube	2
	105802	CAP, 1 - 1/2" Dia Manual Tube	2
30	114270	CLAMP, 2"	2
	105934	CLAMP, 1 - 1/2"	2
31	114269	TUBE, 2" Manual	1
	105744	TUBE 1 - 1/2" Manual	1
32	117348	PLATE, Info warning (Machines with Serial # 31297 & Above)	
	105745	PLATE, Safety Label (Machines with Serial # 31296 & Below)	1
	103632	BOLT, Self tapping 1/4 - 14 x 3/4" lg.	4
33	117349	PLATE, Manual box (no rollout) (earlier models) (mounted kick plate to rail)	1 -
	355112	PLATE, Manual box (no rollout) (later models) (mounted kick railing <b>only</b> )	1 -
	310050	PLATE, Manual box (with rollout)	1
34	117293	BOX, Manual	1
35	(Ref.)	LABELS, (Refer to Figure 6-58)	-

**FIGURE 6-4. POWERED EXTENSION PLATFORM CONTROL BOX ASSEMBLY**

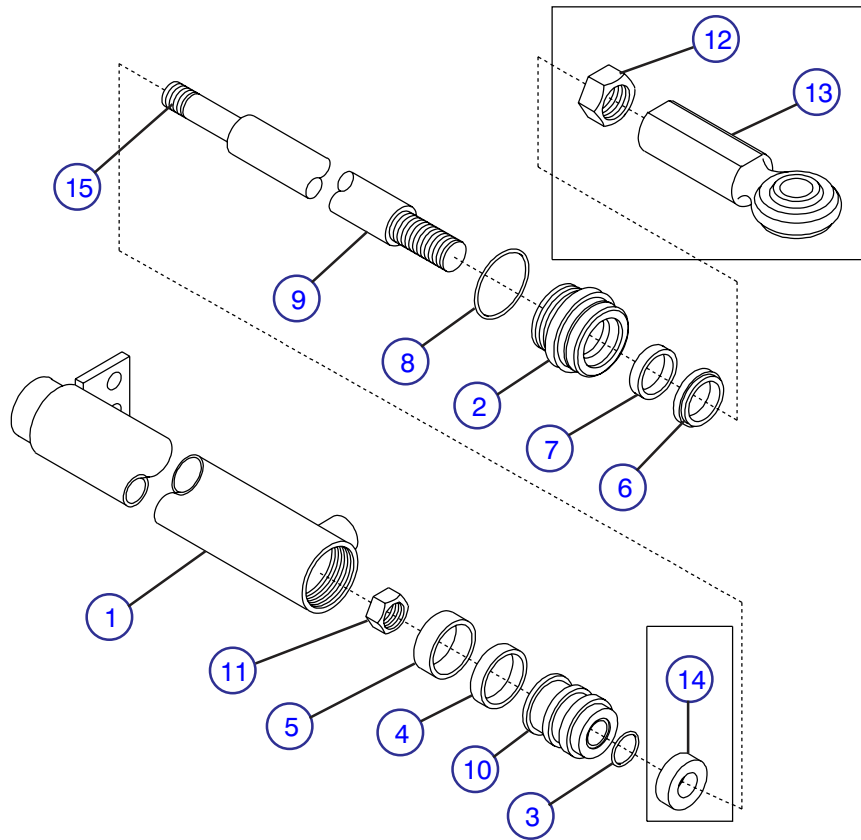


**MA-SJII-31B**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	115592	CONTROL BOX ASSEMBLY, Powered extension platform (Later models with toggle switch controls)	-
<b>B</b>	115481	CONTROL BOX ASSEMBLY, Powered extension platform (Early models with rotary switch controls)	-
1	115539	• BOX, Control, <b>A</b>	1
2	103041	• STRAIN RELIEF, Straight 1/2", <b>A</b>	1
3	106401	• CORD, Coiled 18/3	AR
4	107712	• CONNECTOR ASSEMBLY, 5 pole male (Replaces round connector by also ordering (1) CONNECTOR, 107711)	1
5	108328	• LABEL, Platform extend/retract	1
6	102853	• SWITCH, Toggle, <b>A</b>	2
7	111181	• GUARD, Toggle switch, <b>A</b>	2
8	115594	• LABEL, Enable, <b>A</b>	1
9	103035	• STRAIN RELIEF, Elbow 90° 1/2", <b>B</b>	1
10	102976	• BOX, Control, <b>B</b>	1
11	(Ref.)	• SWITCH ASSEMBLY, Platform extend/retract, <b>B</b>	1
	102837	• • HEAD, Selector switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. contact	1



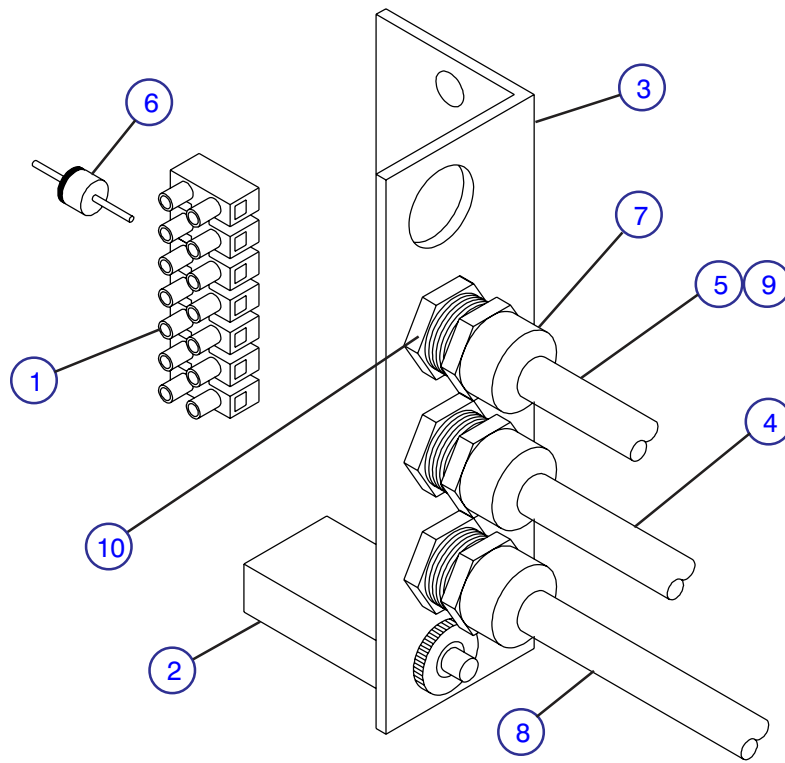
**FIGURE 6-5. POWERED EXTENSION PLATFORM CYLINDER ASSEMBLY**



**MA-1000-51**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	113427	CYLINDER ASSEMBLY, 5 Ft. extension platform	-
<b>B</b>	\$	CYLINDER ASSEMBLY, 5 Ft. extension platform (108728)	-
1	106454	• WELDMENT, Cylinder barrel	1
2	108723	• GLAND, Cylinder end	1
*3	103829	• O-RING, Piston	1
*4	103825	• SEAL, Piston	1
*5	106452	• RING, Piston wear	1
*6	106449	• WIPER, Rod	1
*7	108798	• SEAL, Rod	1
*8	103828	• O-RING, Gland	1
9	106453	• ROD, Piston	1
10	114344	• PISTON (Replaces Piston, 106457)	1
11	103830	• NUT, Lock 5/8-11 grade C	1
12	106450	• NUT, Jam 3/4-16, <b>B</b>	1
13	103420	• END, Spherical bearing, <b>B</b>	1
14	103822	• SPACER, Limit (Used with Piston, 106457)	1
15	106450	NUT, Jam 3/4 - 16	1
	107396	KIT, Seal repair	AR
		* Part of Seal Repair Kit, 107396	
		\$ Order replacement cylinder plus (1) SPHERICAL BEARING END, 103420 and (1) NUT, 106450	

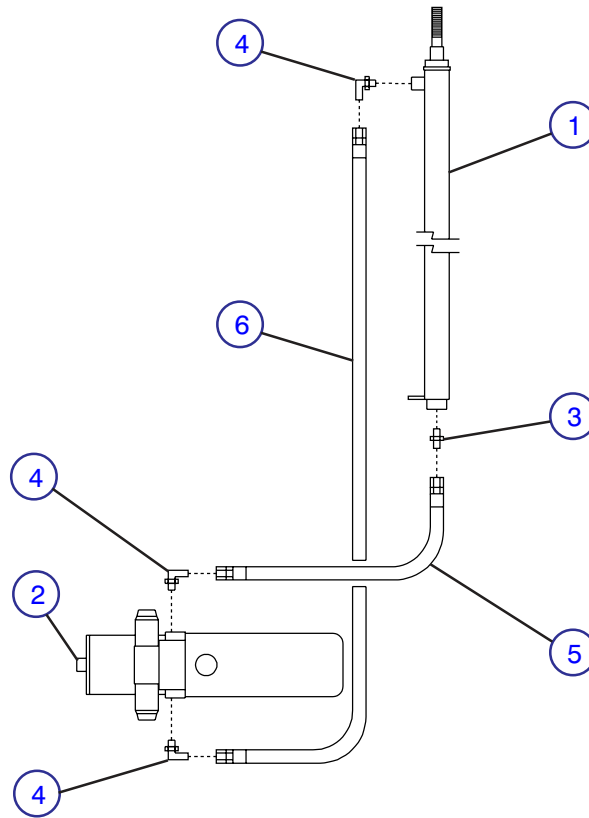
**FIGURE 6-6. POWERED EXTENSION PLATFORM ELECTRICAL PANEL**



**MA-600-04**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103012	BLOCK, Terminal	1
	103955	• BOLT, Machine #6-32 x 3/4" lg.	2
	103985	• NUT, Machine #6-32	2
2	117325	BREAKER, 15 Amp circuit	1
3	111611	PANEL, Powered platform electrical	1
4	(Ref.)	CABLE ASSEMBLY, Valve manifold	1
	104345	• CONNECTOR, Gray	1
	104409	• CONNECTOR, Black	1
	103257	• CABLE, 18/3	24"
5	103257	CABLE, 18/3 Powered extension platform control box	180"
6	102921	DIODE, 6 Amp	2
7	300207	CONNECTOR, Strain relief	3
8	(Ref.)	CABLE ASSEMBLY, Electrical panel to motor contactor	1
	103257	• CABLE, 18/3 x 24" lg.	1
9	107711	CONNECTOR ASSEMBLY, 5 Pin Female	1
	103568	• HOUSING	1
	103570	• INSERT, Female 5 Pin	1
10	300207	FITTING, Strain relief	3

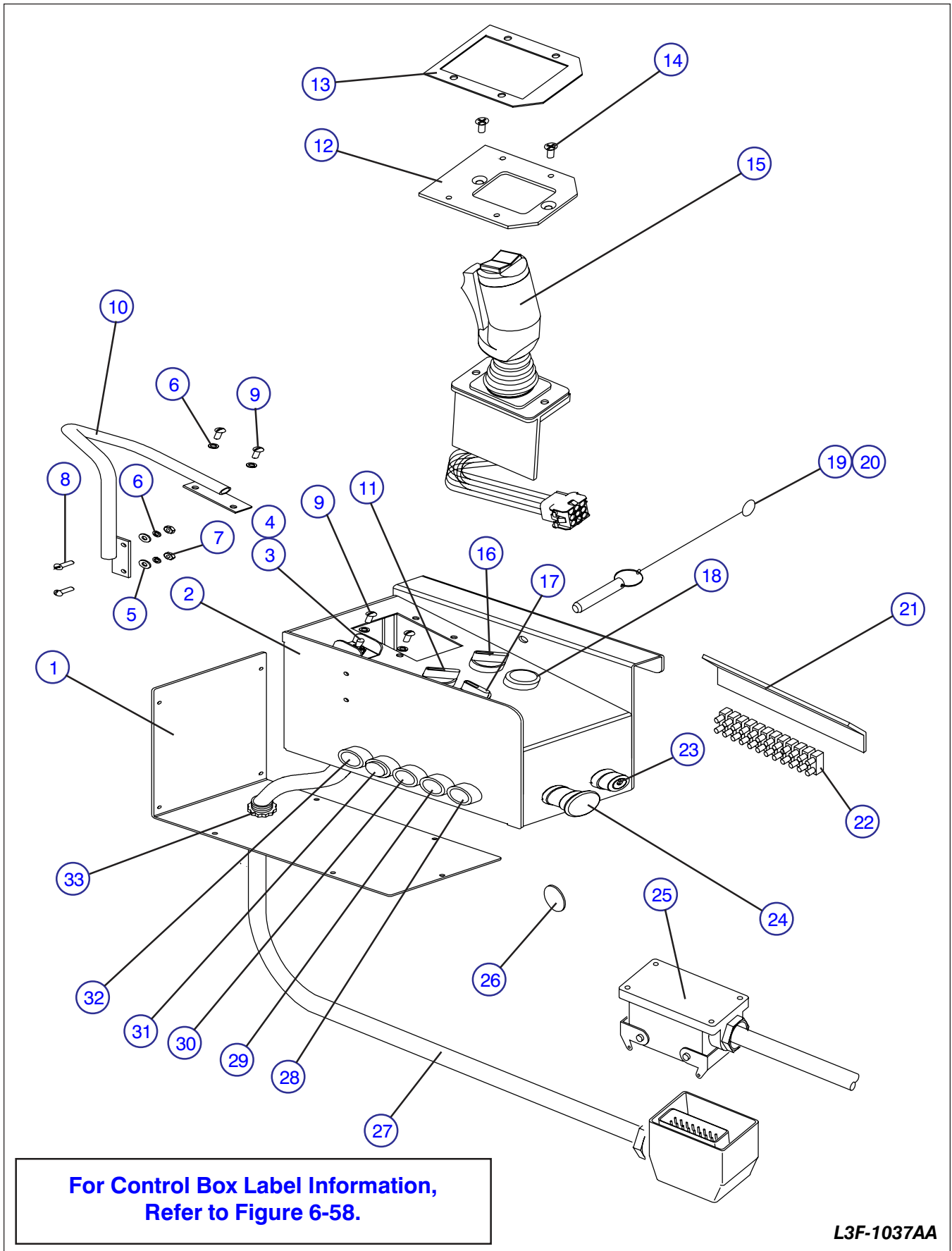
**FIGURE 6-7. POWERED EXTENSION PLATFORM HYDRAULIC HOSE CONNECTIONS**



**MA-800-12**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CYLINDER ASSEMBLY, Powered extension platform (For components, refer to Figure 6-5.)	1
2	(Ref.)	POWER UNIT ASSEMBLY, 12 VDC (For components, refer to Figure 6-3.)	1
3	103069	FITTING, Connector #6orb-#6	1
4	103073	FITTING, Elbow 90° #6orb-#6	3
5	104487	HOSE ASSEMBLY, Front cylinder extend 32" lg.	1
6	111372	HOSE ASSEMBLY, Front cylinder retract 88" lg.	1

**FIGURE 6-8A. CONTROL BOX ASSEMBLY**  
*(Used on Machines With Serial Numbers 33189 and Above)*



**FIGURE 6-8A. CONTROL BOX ASSEMBLY**  
**(Used on Machines With Serial Numbers 33189 and Above)**

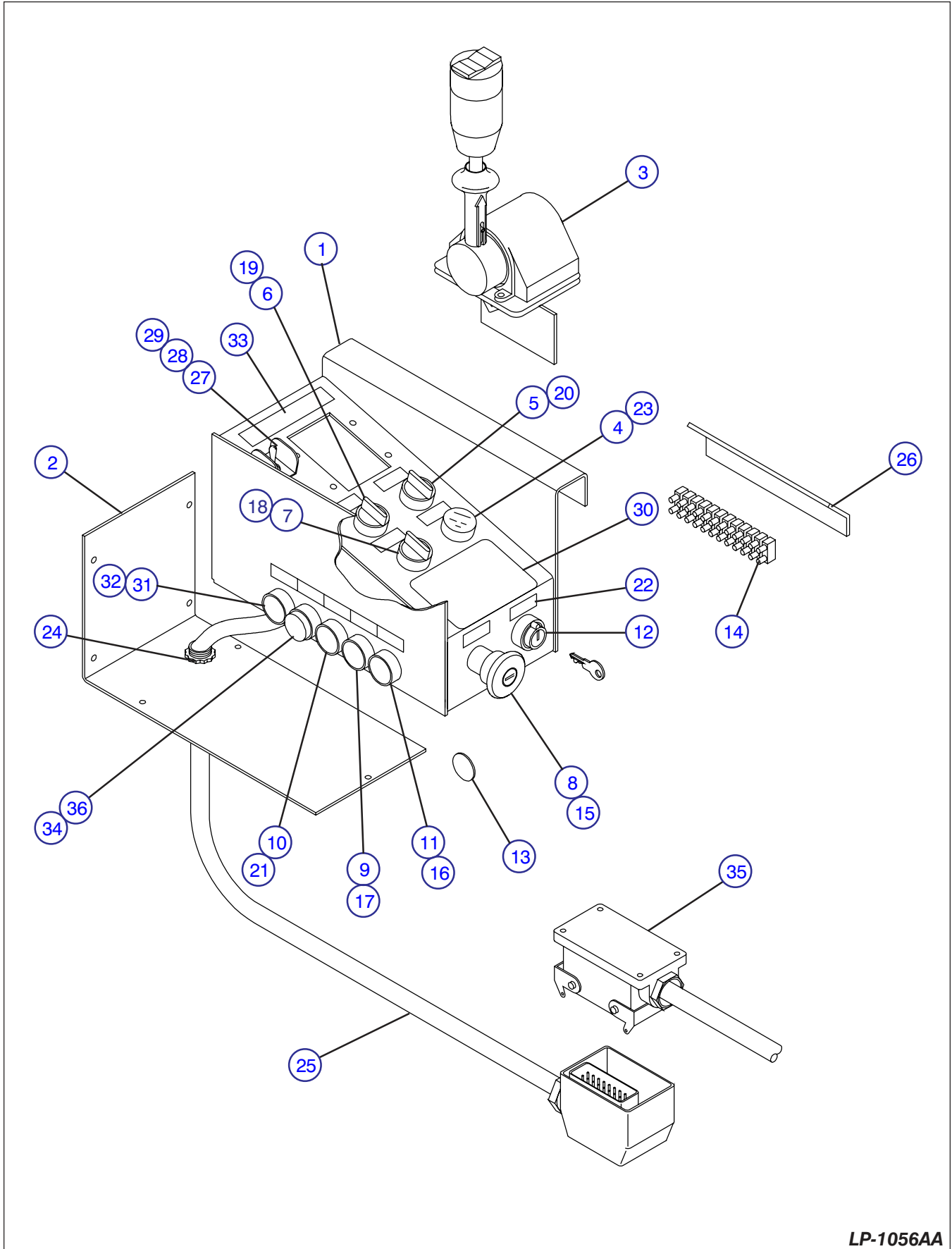
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	400091	CONTROL BOX ASSEMBLY (ANSI/SIA & CSA and CE)	-
<b>1</b>	355128	COVER, Control box bottom	1
<b>2</b>	355129	WELDMENT, Control box	1
	112327	• SCREW, Self-tapping #8-18 x 1/2" lg.	10
<b>3</b>	114373	SWITCH, Torque toggle	1
<b>4</b>	111181	GUARD, Toggle switch	1
<b>5</b>	104694	WASHER, Flat #10 S.A.E.	2
<b>6</b>	104185	WASHER, Lock #10 nom	6
<b>7</b>	104003	NUT, Machine #10 - 32 grade B	2
<b>8</b>	103962	SCREW, Machine #10 - 32 x .5	2
<b>9</b>	120094	BOLT, Machine #10 - 32 x 5/8	4
<b>10</b>	124153	GUARD, Joystick	1
<b>11</b>	(Ref.)	SWITCH ASSEMBLY, Range select	1
	102836	• HEAD, Select switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
<b>12</b>	124002	ADAPTER, Joystick	1
<b>13</b>	124029	GASKET, Joystick	1
<b>14</b>	300831	SCREW, Machine flat head #10 - 32 x 5/8	2
<b>15</b>	(Ref.)	CONTROLLER ASSEMBLY, Drive/steer (For Components, Refer to Figure 6-9A)	1
<b>16</b>	(Ref.)	SWITCH ASSEMBLY, Throttle select	1
	102836	• HEAD, Select switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
<b>17</b>	(Ref.)	SWITCH ASSEMBLY, Up/down selector	1
	102837	• HEAD, Selector switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
<b>18</b>	(Ref.)	LIGHT ASSEMBLY, Power indicator	1
	103202	• LENS, Red	1
	102671	• BASE, Indicator light	1
	103221	• BULB, 12 Volt	1
<b>19</b>	100509	PIN, Locking	1
<b>20</b>	300833	CORD, Lanyard 6" lg.	1
<b>21</b>	124275	BRACKET, Terminal block mount	1
<b>22</b>	103012	STRIP, Terminal block	1.5
	103955	• SCREW, Machine #6-32 x 3/4" lg.	6
	103985	• NUT, Machine #6-32	6
	106099	• WASHER, Lock #6	6
<b>23</b>	(Ref.)	SWITCH ASSEMBLY, Key select	1
	102753	• HEAD, 3-Position key select	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
	103225	• BLOCK, N.C. Contact	1
	100149	• WASHER, 7/8" x 1 - 3/8" x 1/16"	1
<b>Parts list continued on the following page.</b>			



**FIGURE 6-8A. CONTROL BOX ASSEMBLY (Continued)**  
**(Used on Machines With Serial Numbers 33189 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
24	(Ref.)	SWITCH ASSEMBLY, Emergency stop	1
	100149	• WASHER, Flat	1
	102769	• HEAD, Stop switch	1
	103100	• BASE, Contact	1
	103225	• BLOCK, N.C. Contact	1
25	114479	CABLE ASSEMBLY, Scissor control 16-32 Pole	1
	114476	• CONNECTOR, 32 Pole female	1
	114465	• • HOUSING	1
	114467	• • INSERT, Female (Pins 1-16)	1
	114468	• • INSERT, Female (Pins 17-32)	1
	114475	• CONNECTOR, 32 Pole male	1
	114466	• • HOUSING	1
	114469	• • INSERT, Male (Pins 1-16)	1
	114470	• • INSERT, Male (Pins 17-32)	1
	115274	• CABLE, Control 18/30	600"
	115401	• FERULE, 18 Gauge	60
26	300460	PLUG, 7/8" Hole	AR
27	114485	CABLE ASSEMBLY, Control box 16-32 pole	1
	115274	• CABLE, 18/30	80"
	114475	• CONNECTOR, 32 Pole male	1
	114466	• • HOUSING	1
	114469	• • INSERT, Male (Pins 1-16)	1
	114470	• • INSERT, Male (Pins 17-32)	1
28	(Ref.)	SWITCH ASSEMBLY, Enable push-button	1
	108854	• HEAD, Push-button switch (green)	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	2
29	(Ref.)	SWITCH ASSEMBLY, Start push-button	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
30	(Ref.)	SWITCH ASSEMBLY, Choke or glow plug	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
31	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator	1
	103221	• BULB, 12 Volt	1
	112436	• HEAD, Illuminated push-button	1
	103141	• BLOCK, N.O. Contact	1
	112434	• BLOCK, Switch and hold contact	1
	112435	• BASE, Lamp	11
32	(Ref.)	SWITCH ASSEMBLY, Horn push-button	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
33	300788	• STRAIN RELIEF, Straight 1/2"	1

**FIGURE 6-8B. CONTROL BOX ASSEMBLY**  
(Used on Machines With Serial Numbers 33188 and Below)



LP-1056AA

**FIGURE 6-8B. CONTROL BOX ASSEMBLY**  
**(Used on Machines With Serial Numbers 33188 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	400091	CONTROL BOX ASSEMBLY (ANSI/SIA and CSA) (Consists of items 1 - 14, 24 - 28) (Replaces 114495)	-
<b>B</b>	400091	CONTROL BOX ASS'Y (CE) (Consists of items 1 - 14, 24 - 28) (Replaces 114497)	-
<b>1</b>	110065	• WELDMENT, Control box	1
<b>2</b>	108703	• COVER, Control box bottom	1
	104607	• • SCREW, Self-tapping #6 x 3/8" lg.	9
<b>3</b>	103334	• CONTROLLER ASSEMBLY, Drive/steer (For components, refer to Figure 6-9B.)	1
	103957	• • SCREW, Machine #8-32 x 1/2"	4
<b>4</b>	(Ref.)	• LIGHT ASSEMBLY, Power indicator	1
	103202	• • LENS, Red	1
	102671	• • BASE, Indicator light	1
	103221	• • BULB, 12 Volt	1
<b>5</b>	(Ref.)	• SWITCH ASSEMBLY, Throttle select	1
	102836	• • HEAD, Select switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>6</b>	(Ref.)	• SWITCH ASSEMBLY, Range select	1
	102836	• • HEAD, Select switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>7</b>	(Ref.)	• SWITCH ASSEMBLY, Up/down selector	1
	102837	• • HEAD, Selector switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>8</b>	(Ref.)	• SWITCH ASSEMBLY, Emergency stop	1
	100149	• • WASHER, Flat	1
	102769	• • HEAD, Stop switch	1
	103100	• • BASE, Contact	1
	103225	• • BLOCK, N.C. Contact	1
<b>9</b>	(Ref.)	• SWITCH ASSEMBLY, Start push-button	1
	102851	• • HEAD, Push-button switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>10</b>	(Ref.)	• SWITCH ASSEMBLY, Choke or glow plug	1
	102851	• • HEAD, Push-button switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>11</b>	(Ref.)	• SWITCH ASSEMBLY, Enable push-button	1
	108854	• • HEAD, Push-button switch (green)	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	2
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-8B. CONTROL BOX ASSEMBLY (Continued)**  
**(Used on Machines With Serial Numbers 33188 and Below)**

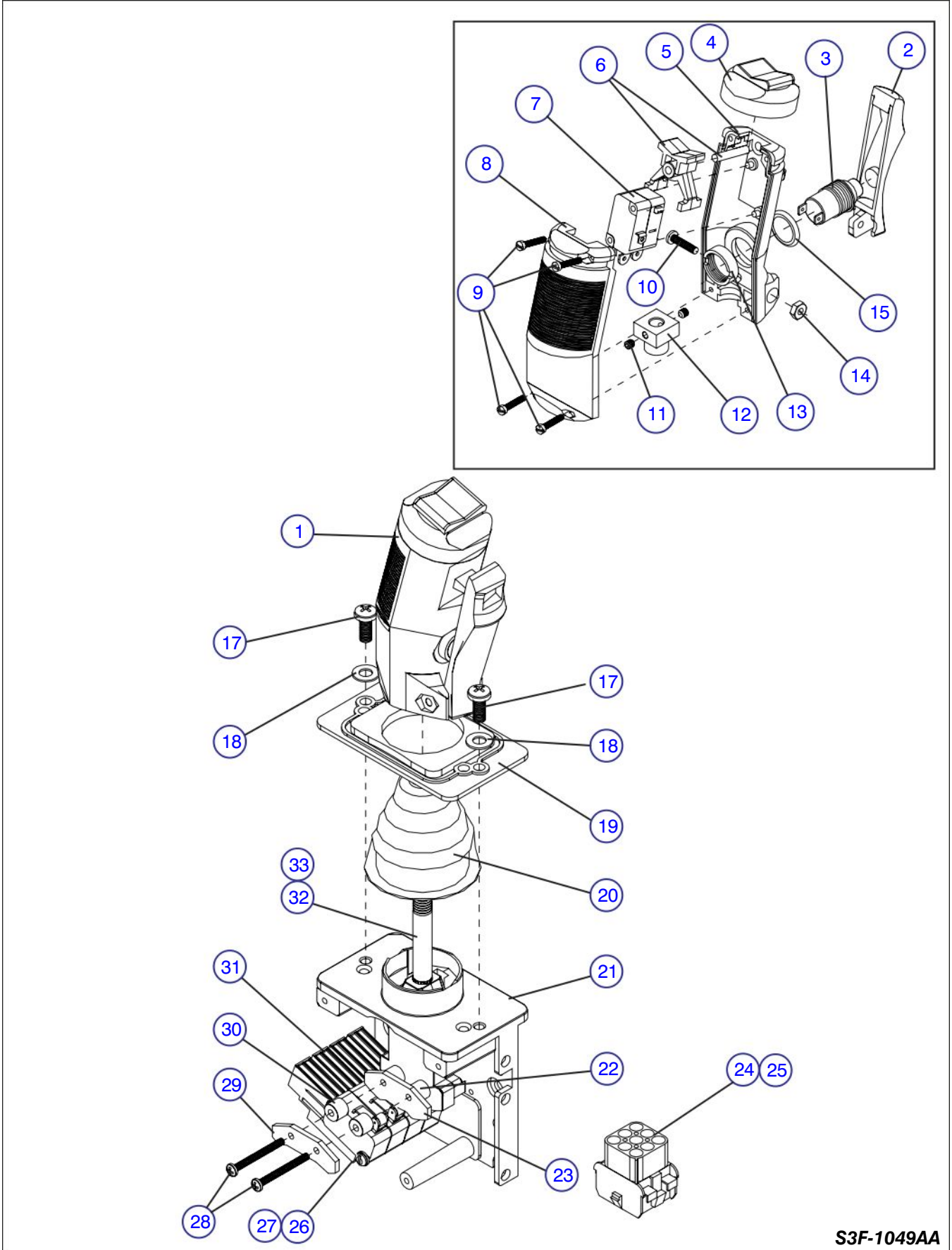
Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
12	(Ref.)	• SWITCH ASSEMBLY, Key select	1
	102753	• • HEAD, 3-Position key select	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
	103225	• • BLOCK, N.C. Contact	3
13	300460	• PLUG, 7/8" Hole (Replaces 102956)	AR
14	103012	• STRIP, Terminal block	1.5
15	102627	• LABEL, Emergency stop, <b>A</b>	1
	111814	• LABEL, Emergency stop, <b>B</b>	1
16	115594	• LABEL, Enable	1
17	102628	• LABEL, Start, <b>A</b>	1
	108334	• LABEL, Start, <b>B</b>	1
18	102657	• LABEL, Up/off/down, <b>A</b>	1
	108328	• LABEL, Up/off/down, <b>B</b>	1
19	110712	• LABEL, High/low range	1
20	102658	• LABEL, Throttle, <b>A</b>	1
	108332	• LABEL, Throttle, <b>B</b>	1
21	103060	• LABEL, Choke, <b>A</b>	1
	108329	• LABEL, Choke, <b>B</b>	1
	102448	• LABEL, Glow plug, <b>A</b>	1
	108330	• LABEL, Glow plug, <b>B</b>	1
22	103126	• LABEL, Off/lift/drive, <b>A</b>	1
	108335	• LABEL, Off/lift/drive, <b>B</b>	1
23	103080	• LABEL, On, <b>A</b>	1
	108331	• LABEL, On, <b>B</b>	1
24	300788	• STRAIN RELIEF, Straight 1/2" (Replaces 103041 and 300207)	1
25	114485	CABLE ASSEMBLY, Control box 32 pole	1
	115274	• CABLE, 18/30	80"
	114475	• CONNECTOR, 16/32 Pole male (Replaces 28 pole round connector by also ordering (1) CONNECTOR, 114476)	1
	114466	• • HOUSING 16/32 Pole	1
	114469	• • INSERT, Male (Pins 1-16)	1
	114470	• • INSERT, Male (Pins 17-32)	1
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-8B. CONTROL BOX ASSEMBLY (Continued)**  
**(Used on Machines With Serial Numbers 33188 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
26	113451	• BRACKET, Terminal block mount	1
27	114373	• SWITCH, Torque toggle (serial no. 30175 and above)	1
28	111181	• GUARD, Toggle switch (serial no. 30175 and above)	1
29	114372	• LABEL, Torque switch (serial no. 30175 and above)	1
30	107802	• LABEL, Operator warning	1
31	(Ref.)	SWITCH ASSEMBLY, Horn push-button	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
32	102467	LABEL, Horn, <b>A</b>	1
	105352	LABEL, Horn, <b>B</b>	1
33	123488	LABEL, Operation (Machines equipped with Lift/Drive enable switch)	1
34	112437	LABEL, Hydraulic generator off/on (Optional)	1
35	114479	CABLE ASSEMBLY, Scissor control 32 Pole (Replaces cable with 28 pole round connector by also ordering (1) CONNECTOR, 114477 and (1) CONNECTOR, 114478)	1
	114476	• CONNECTOR, 32 Pole female	1
	114465	• • HOUSING	1
	114467	• • INSERT, Female (Pins 1-16)	1
	114468	• • INSERT, Female (Pins 17-32)	1
	114475	• CONNECTOR, 32 Pole male	1
	114466	• • HOUSING	1
	114469	• • INSERT, Male (Pins 1-16)	1
	114470	• • INSERT, Male (Pins 17-32)	1
	115274	• CABLE, Control 18/30	588"
	115401	• FERULE, 18 Gauge	60
36	(Ref.)	SWITCH ASSEMBLY, Hydraulic generator (Optional)	1
	103221	• BULB, 12 Volt	1
	112436	• HEAD, Illuminated push-button	1
	103141	• BLOCK, N.O. Contact	1
	112434	• BLOCK, Switch and hold contact	1
	112435	• BASE, Lamp	1



**FIGURE 6-9A. DRIVE/STEER CONTROLLER ASSEMBLY**  
 (Used on Machines With Serial Numbers 33189 and Above)

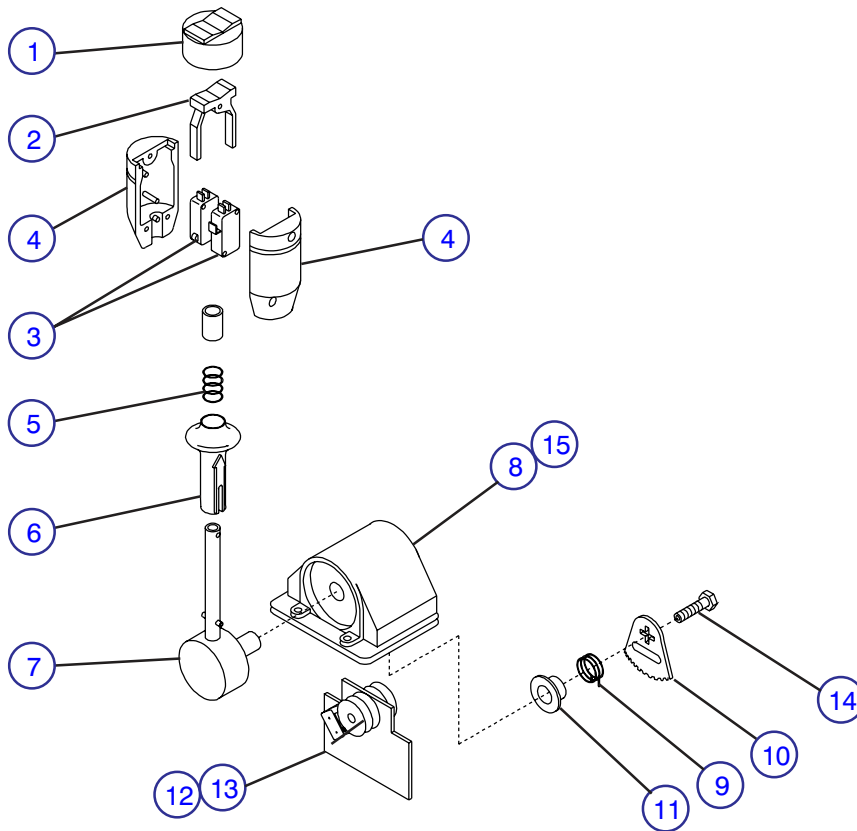


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**FIGURE 6-9A. DRIVE/STEER CONTROLLER ASSEMBLY**  
**(Used on Machines With Serial Numbers 33189 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	123995	CONTROLLER ASSEMBLY, Enable Joystick	-
<b>1</b>	122849	• HANDLE ASSEMBLY	1
<b>2</b>	122873	• • LEVER, Trigger	1
<b>3</b>	122872	• • SWITCH, Push button	1
<b>4</b>	122874	• • CAP, Rubber	1
<b>5</b>	122875	• • HANDLE, Front portion	1
<b>6</b>	122876	• • ROCKER ASSEMBLY	1
<b>7</b>	122877	• • SWITCH ASSEMBLY, Micro	2
<b>8</b>	122878	• • HANDLE, Back half	1
<b>9</b>	122879	• • SCREW, Joystick handle	4
<b>10</b>	122959	• • SCREW, Joystick lever	1
<b>11</b>	122960	• • SCREW, set	2
<b>12</b>	122961	• • COUPLING, 8mm	1
<b>13</b>	122962	• • COUPLING, 10mm	1
<b>14</b>	122963	• • NUT, Push button	1
<b>15</b>	122964	• • NUT, Joystick lever	1
<b>16</b>	122965	• • FITTING, O-Ring	1
<b>17</b>	122846	• SCREW	2
<b>18</b>	122847	• WASHER	2
<b>19</b>	122859	• GASKET	1
<b>20</b>	122848	• BOOT	1
<b>21</b>	122861	• BASE	1
<b>22</b>	122850	• SPACER	2
<b>23</b>	122862	• CAM	1
<b>24</b>	122840	• CONNECTOR ASSEMBLY, Male 9 pole	1
	116993	• • HOUSING, Connector Male 9 pole	1
	116990	• • PIN, Female wire	9
<b>25</b>	122841	• CONNECTOR ASSEMBLY, Female 9 pin	1
	122839	• • HOUSING, Connector Female 9 pin	1
	116989	• • PIN, Male wire	9
<b>26</b>	122870	• WASHER	2
<b>27</b>	122863	• SCREW	2
<b>28</b>	122866	• SCREW	2
<b>29</b>	122864	• CAM	1
<b>30</b>	122865	• SPACER	2
<b>31</b>	122869	• MICROSWITCH	4
<b>32</b>	124822	• SHAFT, Modified Joystick	1
<b>33</b>	127235	• SPRING, Torsion	1

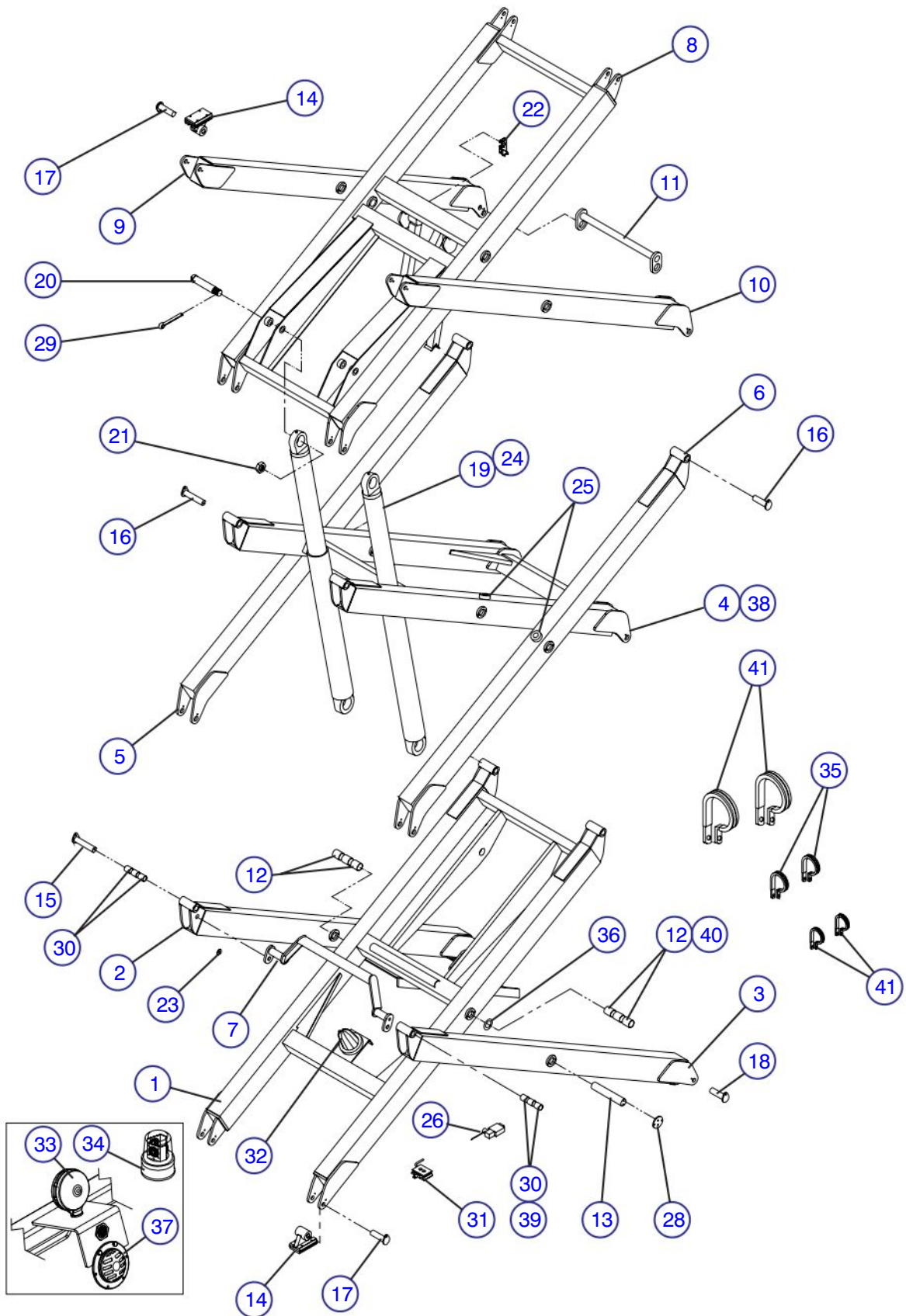
**FIGURE 6-9B. DRIVE/STEER CONTROLLER ASSEMBLY**  
**(Used on Machines With Serial Numbers 33188 and Below)**



**MA-SJM-13A**

Index No.	Skyjack Part No.	Description	Units per Assy.
	103334	CONTROLLER ASSEMBLY, Drive/steer	-
1	105735	• CAP, Elastic	1
2	105734	• ACTUATOR, Rocker	1
3	105733	• SWITCH, Directional	2
4	105738	• KNOB HALF	2
5	105737	• SPRING, Compression	1
6	105736	• SLIDE LOCK	1
7	105378	• HANDLE EXTENSION	1
8	106729	• HOUSING	1
9	106730	• SPRING, Handle return	1
10	106725	• RATCHET	1
11	106726	• BUSHING, Spring	1
12	106092	• CIRCUIT BOARD ASSEMBLY	1
13	102768	• • SWITCH W/ACTUATOR	4
14	106731	• SCREW, Hollow	1
15	110982	• GASKET, Housing	1

**FIGURE 6-10. SCISSOR ARM ASSEMBLY**



10310AA

**FIGURE 6-10. SCISSOR ARM ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	109795	ARM ASSEMBLY, 1st Inner	1
2	109798	ARM, 1st Outer RH	1
3	111754	ARM, 1st Outer LH	1
4	109796	ARM ASSEMBLY, 2nd Inner	1
5	109799	ARM, 2nd Outer RH	1
6	110790	ARM, 2nd Outer LH	1
7	111792	WELDMENT, 2nd Level cross tube	1
	112008	• BOLT, Hex-hd 3/4-10 x 1-1/2" lg.	2
	104002	• WASHER, Lock 3/4"	2
8	109797	ARM ASSEMBLY, 3rd Inner	1
9	109800	ARM, 3rd Outer RH	1
10	111001	ARM, 3rd Outer LH	1
11	110791	WELDMENT, 3rd Level cross tube	1
	112008	• BOLT, Hex-hd 3/4-10 x 1-1/2" lg.	2
	104002	• WASHER, Lock 3/4"	2
12	101564	BUSHING, Center pin	AR
13	111864	PIN, Center 1-3/4" x 9-7/8" lg.	6
14	111225	SLIDER ASSEMBLY	4
	105549	• WELDMENT, Slider	4
	101950	• PAD, Teflon 3/8" x 3-1/2" x 5-1/2" lg.	4
	103701	• PAD, Teflon 3/8" x 1-1/4" x 5-1/2" lg.	8
	117148	• KIT, Slider bushing replacement	AR
15	111867	PIN, End 1-1/4" x 5-7/8" lg. (1st and 2nd outer arms)	4
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	4
	103404	• WASHER, Lock 5/16"	4
16	110410	PIN, End 1-1/4" x 5-3/8" lg. (2nd and 3rd inner arms)	4
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	4
	103404	• WASHER, Lock 5/16"	4
17	110413	PIN, End 1-1/4" x 5-7/8" lg. (1st inner, 3rd inner and 3rd outer arms)	6
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	6
	103404	• WASHER, Lock 5/16"	6
18	111869	PIN, End 1" x 5-3/8" lg. (1st outer arm)	2
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
	103404	• WASHER, Lock 5/16"	2
19	(Ref.)	CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-11.)	2
20	111865	PIN, Cylinder pivot	4
21	111137	NUT, Jam 1-1/2-12	4
22	111954	LATCH ASSEMBLY, Safety bar	1
	102780	• LATCH, Rotary LH	1
	111534	• KNOB, Latch	1
23	101676	WASHER, Pin end (Early models)	8
	103473	• BOLT, Hex-hd 3/8-16 x 1" lg.	8
	103999	• WASHER, Lock 3/8"	8
<b>Parts list continued on the following page.</b>			



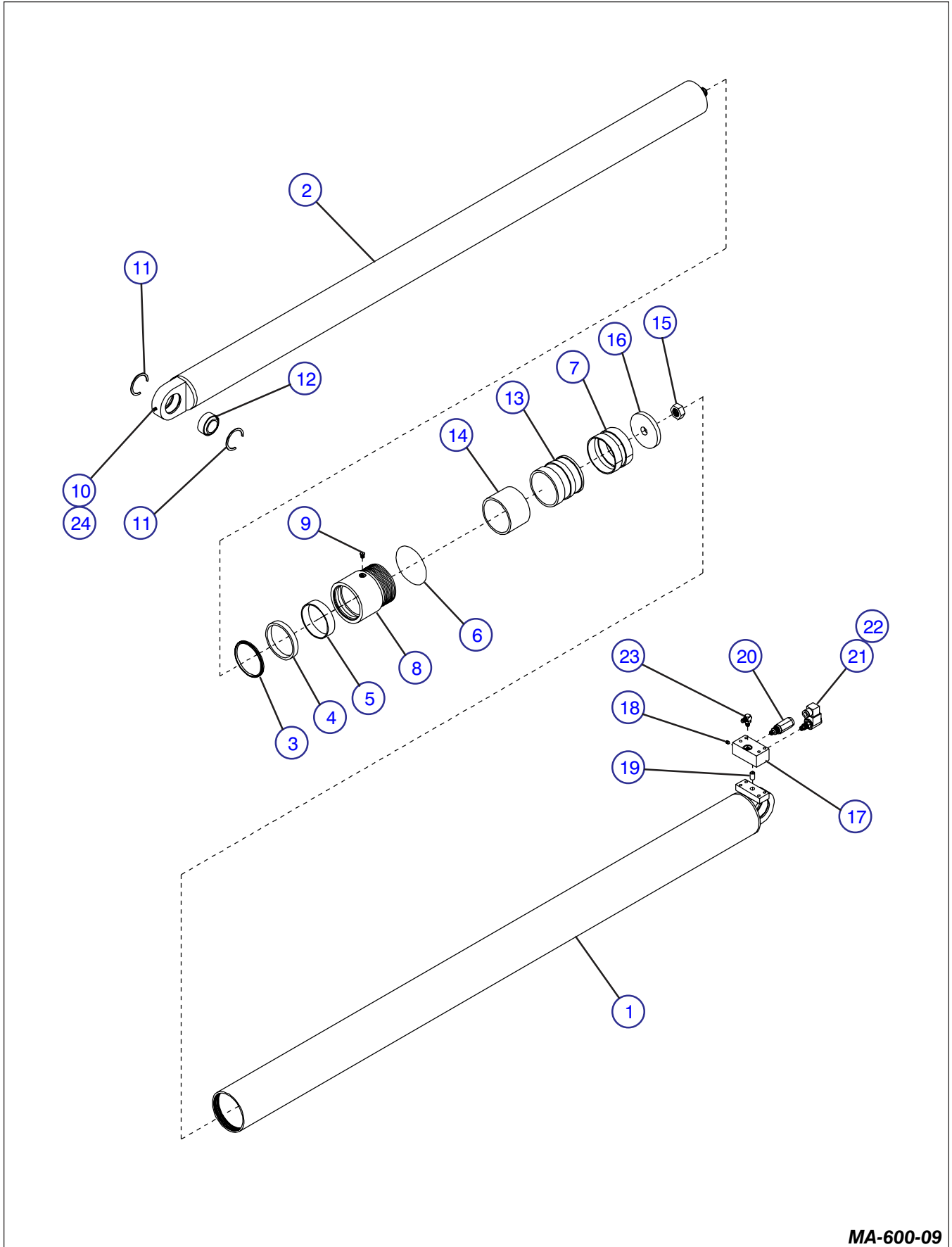
**FIGURE 6-10. SCISSOR ARM ASSEMBLY (continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
24	111931	CORD ASSEMBLY, Holding valve	1
	103256	• CORD, 18/2 x 269" lg.	1
	117518	• CONNECTOR, Clear	2
25	111135	BUMPER, Scissor arm 2-1/2" x 1-1/16" thk.	AR
	105395	BUMPER, Scissor arm 2-1/2" x 1-1/2" thk.	AR
	111846	SPACER, Scissor Bumper	AR
	103938	BOLT, Soc-hd 3/8-16 x 1 1/2" lg.	AR
	103937	BOLT, Soc-hd 3/8-16 x .75" lg.	AR
26	400046	SWITCH ASSEMBLY, High speed limit	1
	102848	• SWITCH, Limit	1
	102881	• DPDT HEAD, Side rotation	1
	103142	• ARM, Bar	1
27	108791	CLIP, Cord (adhesive back)	5
28	102236	PLATE, Center pin retainer	12
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	12
	103404	• WASHER, Lock 5/16"	12
	101632	• BOLT, Hex-hd 3/8-16 x 3/4" lg.	24
	103999	• WASHER, Lock 3/8"	24
29	115549	PIN, Cotter 5/16" x 2-1/2" lg.	4
30	100071	BUSHING, 1-1/4" x 1-1/4" lg.	24
31	400093	SWITCH ASSEMBLY, End of stroke limit	1
	111356	• SWITCH, Limit	1
	114028	• PLATE, End of stroke	1
	114029	• PLATE, Top	1
32	116270	BEEPER/LIGHT ASSEMBLY	1
	103255	• CABLE, 18/4 x 192" lg.	1
	103056	• BEEPER, 7.5 - 16 Volt	1
	(Ref.)	• LIGHT, Amber beacon (Replaced by 121837)	1
	103221	• • BULB, 12 Volt	1
33	121837	• KIT, Flashing light	1
	103743	• • FLASHER, 12 Volt	1
	121476	• • LIGHT ASSEMBLY, Flashing 12 Volt	1
	121533	• • • LENS, Amber	1
	114198	• • • BULB, 12 Volt	1
34	107098	BEACON, Rotating amber (Option)	1
35	103078	CLAMP, Double G10	AR
36	117840	WASHER	6
37	102850	HORN, 12 Volt	1
	103980	NUT, Hex 1/4" - 20	2
	103856	BOLT, Hex head 1/4" - 20 x .75"	2
	104000	WASHER, lock, 1/4"	2
	103632	BOLT, Self tap 1/4 - 14 x 3/4"	6
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-10. SCISSOR ARM ASSEMBLY (continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
38	124642	SPACER <b>(Contact Skyjack Before Ordering if Machine Has Serial #33435 or Above)</b>	
39	355153	TUBING, 1.38" O.D. x 1.26" I.D.	6
40	355154	BUSHING, 2828	8
41	355116	ONTARIO CLAMP OPTION	1
	752729	CLAMP, 1"	3
	102972	CLAMP, G8	3
	103995	WASHER, Flat 1/4"	6

**FIGURE 6-11. LIFT CYLINDER ASSEMBLY**

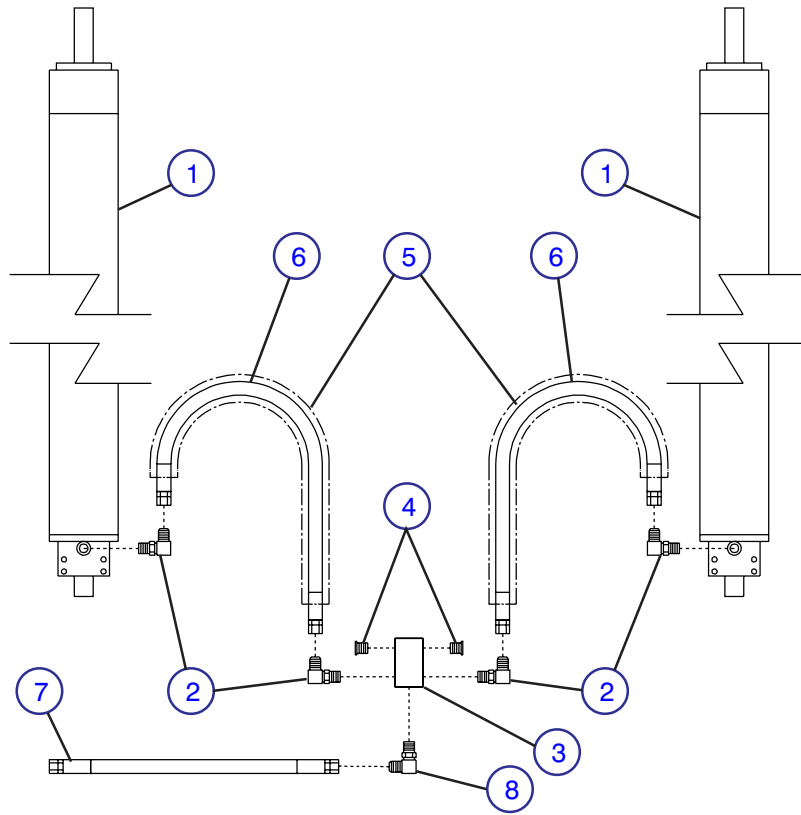


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**FIGURE 6-11. LIFT CYLINDER ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
A	121091	CYLINDER ASSEMBLY, Lift	-
B	110530	CYLINDER ASSEMBLY, Lift	-
<b>Used on Machines with Serial # 32328 and Below.</b>			
1	121094	• WELDMENT, Cylinder barrel A	1
	113420	• WELDMENT, Cylinder barrel B	1
2	111094	• WELDMENT, Cylinder rod	1
3*	106221	• WIPER, Rod	1
4*	106222	• SEAL, Rod	1
5*	106219	• RING, Rod wear	1
6*	120445	• O-RING, Gland A	1
	106223	• O-RING, Gland B	1
7*	106220	• RING, Piston wear	2
8	121092	• GLAND A	1
	111081	• GLAND B	1
9	102856	• PLUG, Soc-hd 3/8-24	1
10	102027	• FITTING, Grease 1/8P	2
11	109249	• RING, Retaining	4
12	109250	• BEARING, Spherical	2
13	113515	• WELDMENT, Piston	1
14	111102	• SPACER, Stroke limit	1
15	104400	• NUT, Lock 1-14 grade C	1
16	111095	• PLATE, Piston retainer (Early models)	1
17	106688	BLOCK, Lift cylinder manifold	1
	103931	• BOLT, Soc-hd 5/16-18 x 3-1/2" lg. Grade 8	4
	104637	• WASHER, Lock 5/16"	4
	103403	• O-RING, Manifold block seal	1
18	102930	PLUG, Pressure 1/16P	4
19	105501	ORIFICE, .094 diameter	1
20	106557	VALVE, Relief	1
21	107269	VALVE, N.C. (holding)	1
22	104410	COIL, 12 Volt	1
23	(Ref.)	FITTING, Elbow 90° #6orb-#6 (Refer to Figure 6-12 for hydraulic hose connections)	1
24	114699	CAP, Plastic Grease	AR
*	121095	KIT, Seal repair A	AR
*	105888	KIT, Seal repair B	AR

**FIGURE 6-12. SCISSOR ARM HYDRAULIC HOSE CONNECTIONS**

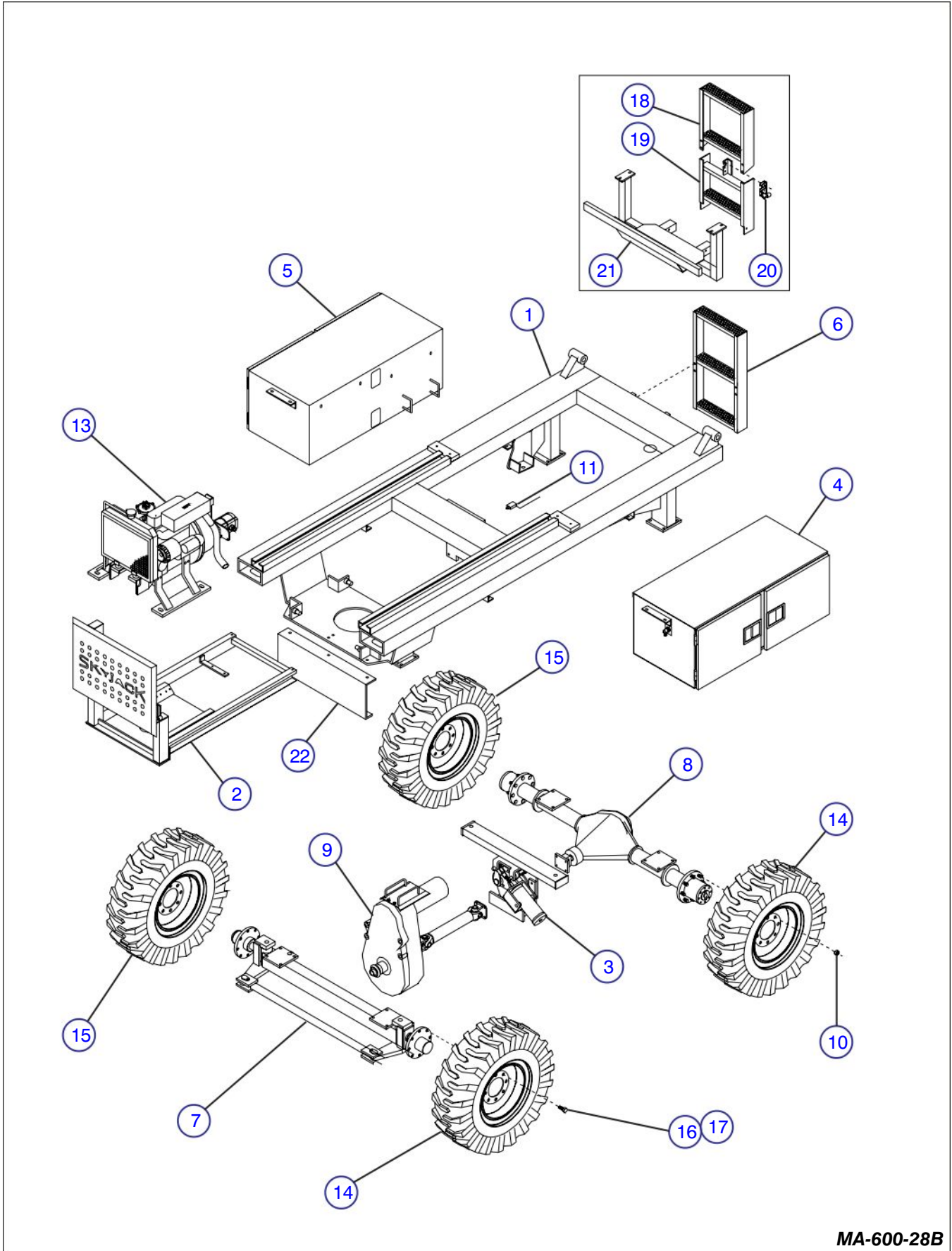


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Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-11.)	2
2	114578	FITTING, Elbow 90° #6orb-#6	4
3	110666	BLOCK, Lift manifold	1
	103861	BOLT, Hex-hd 1/4-20 x 2" lg.	2
	104000	WASHER, Lock 1/4"	2
4	104437	FITTING, Plug soc-hd #6	1
5	103090	CONDUIT, Convoluted 1-1/4 O.D. x 28" lg.	2
6	111949	HOSE ASSEMBLY, Lift cylinder 26" lg.	2
7	114463	HOSE ASSEMBLY, Main manifold to lift manifold (Replaces 111873)	1
8	114582	FITTING, Elbow 90° #8orb-#6	1



**FIGURE 6-13. BASE, AXLES, AND WHEELS**



**MA-600-28B**

**FIGURE 6-13. BASE, AXLES AND WHEELS**

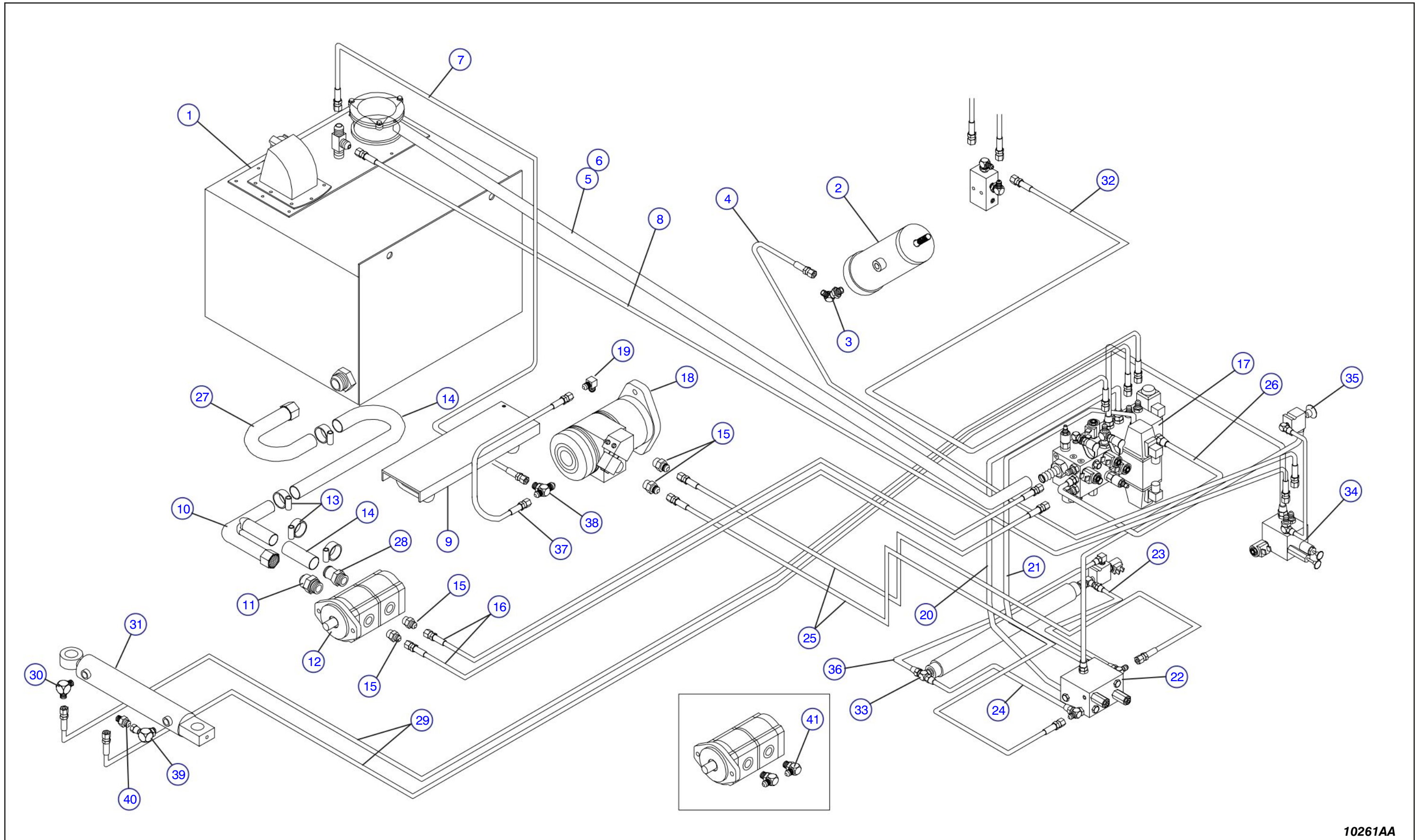
Index No.	Skyjack Part No.	Description	Units per Assy.
1	112928	WELDMENT, Base (standard)	1
	100309	BUSHING	AR
	100695	BUSHING	AR
2	(Ref.)	ENGINE ROLL-OUT TRAY ASSEMBLY (Refer to Figure 6-42, 6-43)	1
3	(Ref.)	DISC BRAKE ASSEMBLY (Refer to Figure 6-17.)	1
4	(Ref.)	HYDRAULIC/ELECTRIC CABINET ASSEMBLY (Refer to Figure 6-31.)	1
5	(Ref.)	FUEL TANK/HYDRAULIC OIL TANK CABINET ASSEMBLY (Refer to Figure 6-26.)	1
	103473	• BOLT, Hex-hd 3/8-16 x 1" lg.	8
6	103472	• WASHER, Flat 3/8"	16
	103999	• WASHER, Lock 3/8"	8
	103978	• NUT, Hex 3/8-16	8
	111644	LADDER, 3 Step (standard)	1
7	101632	• BOLT, Hex-hd 3/8-16 x 3/4" lg.	4
	103472	• WASHER, Flat 3/8"	4
	103999	• WASHER, Lock 3/8"	4
	(Ref.)	AXLE ASSEMBLY, Front idle (for 2WD machines) (Refer to Figure 6-20.)	1
8	(Ref.)	AXLE ASSEMBLY, Front drive (for 4WD machines) (Refer to Figure 6-21.)	1
	126361	• BOLT, Hex-hd 1/2-13 x 1.75" grade 8	8
	126286	• WASHER, Lock 1/2" grade 8	8
	123856	• NUT, Hex 1/2-13 grade 8	8
	(Ref.)	AXLE ASSEMBLY, Rear drive (Refer to Figure 6-25.)	1
9	(Ref.)	CENTER DRIVE AND DRIVE SHAFTS (Refer to Figure 6-23.)	1
	300821	• BOLT, Hex-hd 1/2-13 x 5" lg. <b>Use Part # 103907 (BOLT, Hex-hd 1/2-13 x 1-1/2" lg.) for Machines with Serial # 32272 and below.</b>	4
10	103470	• WASHER, Lock 1/2"	4
	300822	• WASHER, Flat 1/2"	4
	103315	• NUT, Wheel 5/8-18 (For rear drive axle)	16
11	111356	SWITCH, End-of-stroke	1
	110428	• PLATE, Limit switch mounting	1
	110429	• PLATE, Limit switch locking (top)	1
13	(Ref.)	ENGINE AND RELATED PARTS (Refer to Figures 6-48, 6-51, 6-52.)	1

**FIGURE 6-13. BASE, AXLES AND WHEELS**

Index No.	Skyjack Part No.	Description	Units per Assy.
14	111612L	WHEEL/TIRE ASSEMBLY (standard) (30 x 9.5 x 16.5 6 ply air filled)	2
	111613L	WHEEL/TIRE ASSEMBLY (optional) (30 x 9.5 x 16.5 6 ply foam filled)	2
15	112654	• WHEEL, 8.25 x 16.5 8 Bolt	AR
	112605L	WHEEL/TIRE ASSEMBLY (optional) (31 x 15.5 x 15 8 ply air filled)	2
	112738L	WHEEL/TIRE ASSEMBLY (optional) (31 x 15.5 x 15 8 ply foam filled)	2
	111518	• WHEEL, 12 x 15 8 Bolt	AR
16	111612R	WHEEL/TIRE ASSEMBLY (standard) (30 x 9.5 x 16.5 6 ply air filled)	2
	111613R	WHEEL/TIRE ASSEMBLY (optional) (30 x 9.5 x 16.5 6 ply foam filled)	2
	112654	• WHEEL, 8.25 x 16.5 8 Bolt	AR
	112605R	WHEEL/TIRE ASSEMBLY (optional) (31 x 15.5 x 15 8 ply air filled)	2
17	112738R	WHEEL/TIRE ASSEMBLY (optional) (31 x 15.5 x 15 8 ply foam filled)	2
	111518	• WHEEL, 12 x 15 8 Bolt	AR
	103198	BOLT, Wheel 5/8-18 (For front idle axle)	16
17	103315	NUT, Wheel 5/8-18 (For front drive axle)	16
<b>NOTE: Items 18 thru 21 are for machines with Dual Fuel Option.</b>			
18	111628	LADDER, Upper section	1
	101632	• BOLT, Hex-hd 3/8-16 x 3/4" lg.	4
	103472	• WASHER, Flat 3/8"	4
	103999	• WASHER, Lock 3/8"	4
19	111594	LADDER, Lower section	1
	103874	• BOLT, Hex-hd 3/8-16 x 2-3/4" lg.	2
	104606	• NUT, Lock 3/8-16"	2
20	102780	LATCH, Ladder lock	1
	111534	• KNOB, Latch	1
	103855	• • BOLT, Hex-hd 1/4-20 x 1/2" lg.	1
	104000	• • WASHER, Lock 1/4"	1
21	114211	WELDMENT, Propane cylinder carrier	1
22	111549	GUARD, Front axle	1



FIGURE 6-14. BASE HYDRAULIC HOSE CONNECTIONS (Machines With Serial # 32273 and Above)



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**NOTES**

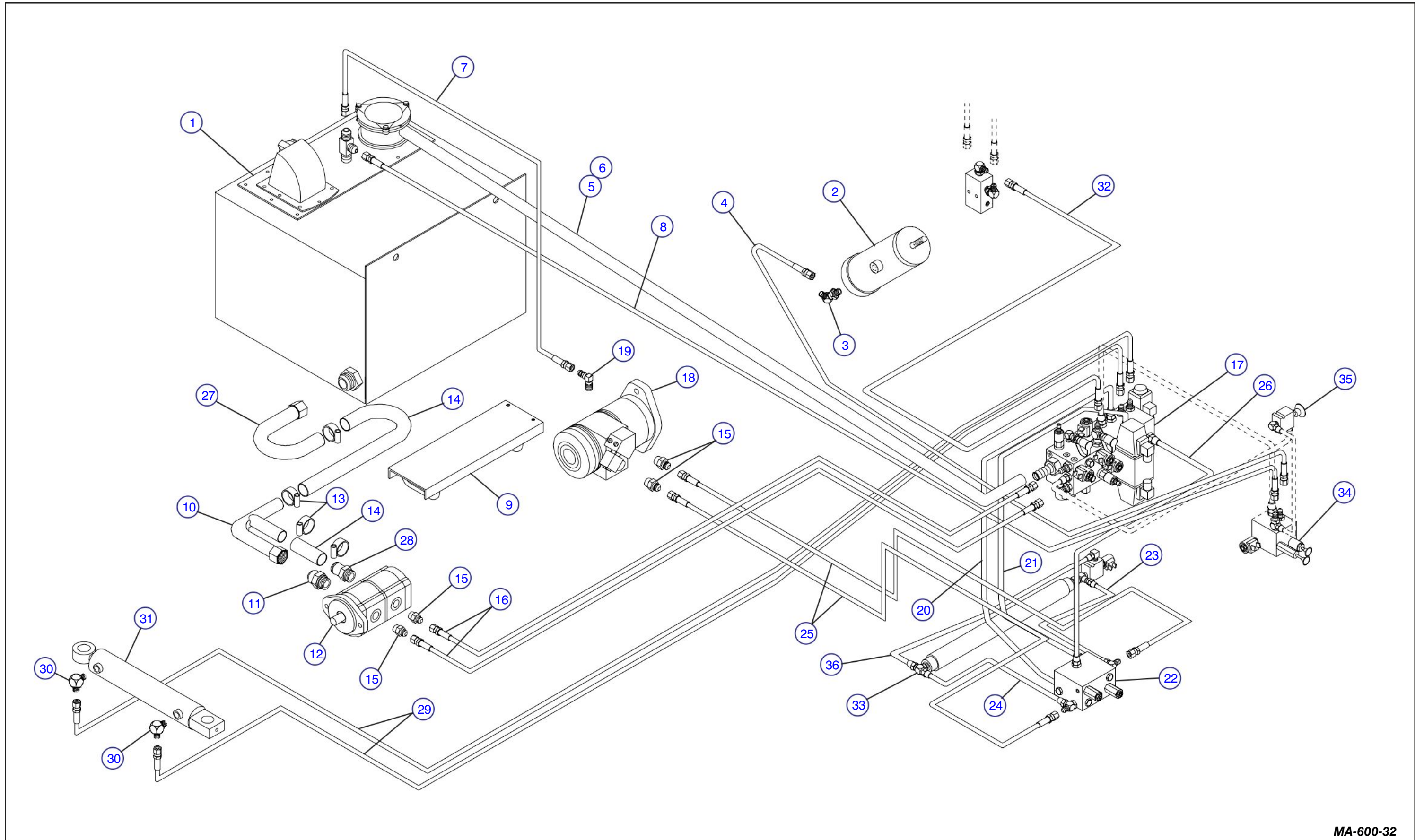


**FIGURE 6-14. BASE HYDRAULIC HOSE CONNECTIONS (Machines With Serial # 32273 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	COVER, Hydraulic tank (For Components, Refer to Figure 6-29)	1
2	(Ref.)	CYLINDER ASS'Y, Disc brake (For Components, Refer to Figure 6-18)	-
3	105447	FITTING, Elbow #8orb-#8	1
4	114383	HOSE ASSEMBLY, Brake 1/2" x 96" lg.	1
5	103320	CLAMP, Worm #16	2
6	103033	HOSE, Suction 1" I.D.	AR
7	113352	HOSE ASSEMBLY, Return 3/8" x 56" lg.	1
8	114396	HOSE ASSEMBLY, Relief 1/2" x 74" lg.	1
9	114317	CARRIER, Hose	1
10	114322	TUBE, Suction pump 1-1/4"	1
11	114328	FITTING, Connector #16-#20S	1
12	110460	PUMP, Hydraulic (Diesel engine)	1
	114201	PUMP, Hydraulic, (Gas or LP engine)	1
13	114326	CLAMP, Hose 1-1/4"	4
14	114327	HOSE, Suction 1-1/4" I.D.	63"
15	103071	FITTING, Connector #10orb-#8	4
16	112545	HOSE ASSEMBLY, 1/2" x 157"	2
17	(Ref.)	MANIFOLD ASSEMBLY, Main (For Components, Refer to Figure 6-36)	1
18	(Ref.)	MOTOR, Hydraulic drive (For Components, Refer to Figure 6-23)	-
19	113348	FITTING, Elbow 90°	1
20	114134	TUBE, Motion control to main manifold	1
21	114135	TUBE, Motion control to main manifold	1
22	(Ref.)	VALVE ASSEMBLY, Motion control (For Components, Refer to Figure 6-39)	-
23	114132	TUBE, R.H. cushion cylinder	1
24	114133	TUBE, L.H. cushion cylinder	1
25	114144	HOSE ASSEMBLY, Drive 1/2" x 24" lg.	2
26	114131	TUBE, Return motion to main manifold	1
27	114324	TUBE, Suction tank 1-1/4"	1
28	114325	FITTING, Connector	1
29	112543	HOSE ASSEMBLY, Steering 1/4" x 116" lg.	2
30	114578	FITTING, Elbow 90° #6orb-#6 (Replaces 103073)	1
31	(Ref.)	CYLINDER, Steering (Refer to Fig. 6-19)	1
32	114463	HOSE ASSEMBLY, Main man. to lift manifold	1
33	(Ref.)	CYLINDER ASSEMBLY, Cushion (For Components, Refer to Figure 6-38)	-
34	(Ref.)	VALVE ASSEMBLY, Auto reset (For Components, Refer to Figure 6-34)	1
35	(Ref.)	VALVE ASSEMBLY, Manual lwrgr (For Components, Refer to Figure 6-32)	-
36	102522	HOSE ASSEMBLY, Cushion cylinder 1/4" x 24.5"	1
37	121601	HOSE ASSEMBLY, 1/4" x 6" lg.	1
38	121602	FITTING, Tee #4SAE #6JIC #6JIC	1
39	355083	FITTING, Elbow 90°	1
40	355084	FITTING, Male Union #6orb-#6orb	1
41	120054	FITTING, elbow	2



FIGURE 6-15. BASE HYDRAULIC HOSE CONNECTIONS (Machines With Serial #'s 30170 through 32272)



MA-600-32



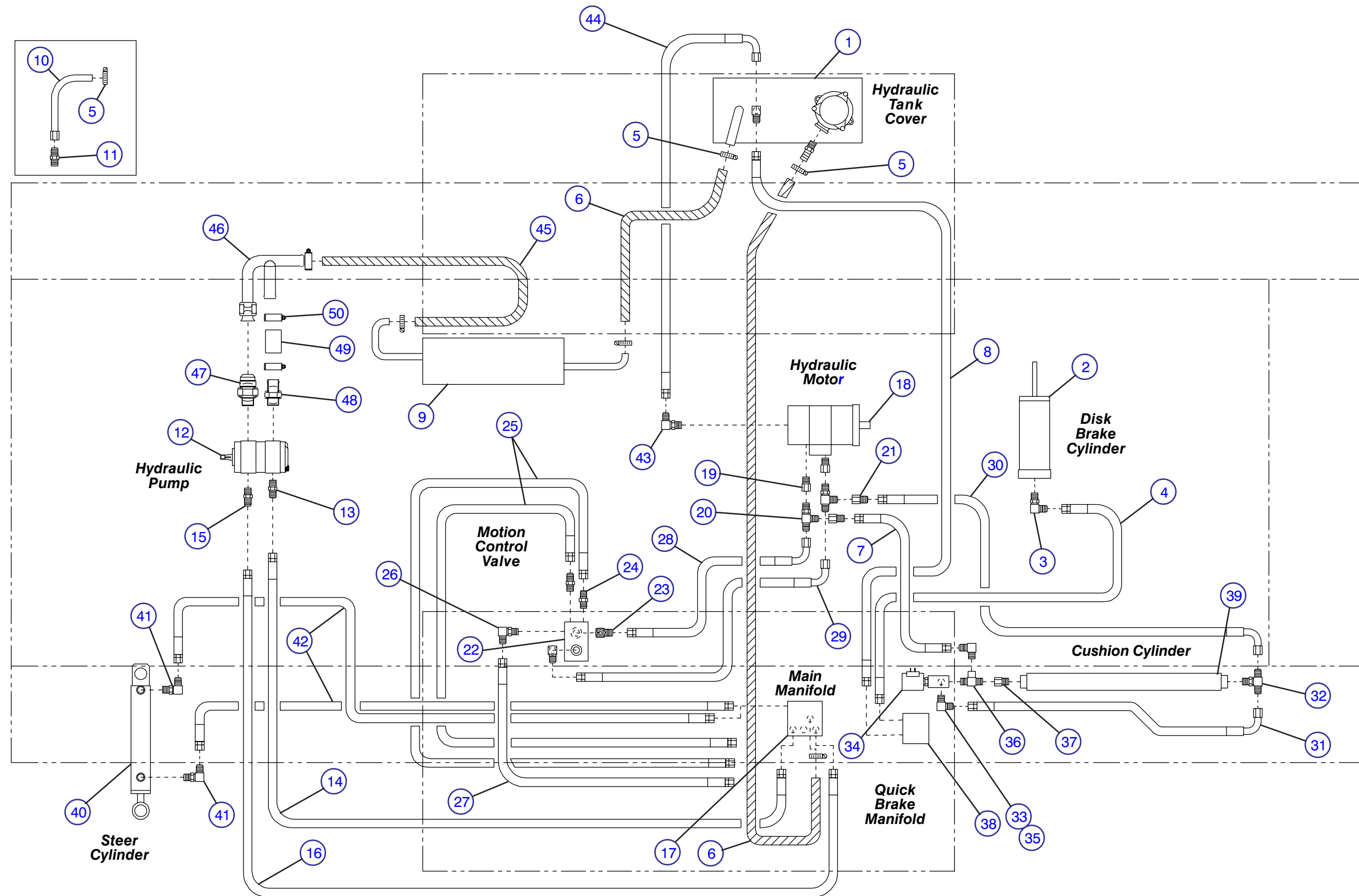
**NOTES**



**FIGURE 6-15. BASE HYDRAULIC HOSE CONNECTIONS  
(Machines With Serial # 30170 through 32272)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	COVER, Hydraulic tank (For Components, Refer to Figure 6-29 & 6-30)	1 -
2	(Ref.)	CYLINDER ASS'Y, Disc brake (For Components, Refer to Figure 6-18)	1 -
3	105447	FITTING, Elbow #8orb-#8	1
4	114383	HOSE ASSEMBLY, Brake 1/2" x 96" lg.	1
5	103320	CLAMP, Worm #16	2
6	103033	HOSE, Suction 1" I.D.	AR
7	113352	HOSE ASSEMBLY, Return 3/8" x 56" lg.	1
8	114396	HOSE ASSEMBLY, Relief 1/2" x 74" lg.	1
9	114317	CARRIER, Hose	1
10	114322	TUBE, Suction pump 1-1/4"	1
11	114328	FITTING, Connector #16-#20S	1
12	110460	PUMP, Hydraulic (Diesel engine)	1
	114201	PUMP, Hydraulic, (Gas or LP engine)	1
13	114326	CLAMP, Hose 1-1/4"	4
14	114327	HOSE, Suction 1-1/4" I.D.	63"
15	103071	FITTING, Connector #10orb-#8	4
16	112545	HOSE ASSEMBLY, 1/2" x 157"	2
17	(Ref.)	MANIFOLD ASSEMBLY, Main (For Components, Refer to Figure 6-36 & 6-37)	1 -
18	(Ref.)	MOTOR, Hydraulic drive (For Components, Refer to Figure 6-24)	1 -
19	113348	FITTING, Elbow 90°	1
20	114134	TUBE, Motion control to main manifold	1
21	114135	TUBE, Motion control to main manifold	1
22	(Ref.)	VALVE ASSEMBLY, Motion cntrl (For Components, Refer to Figure 6-39)	1 -
23	114132	TUBE, R.H. cushion cylinder	1
24	114133	TUBE, L.H. cushion cylinder	1
25	114144	HOSE ASSEMBLY, Drive 1/2" x 24" lg.	2
26	114131	TUBE, Return motion to main manifold	1
27	114324	TUBE, Suction tank 1-1/4"	1
28	114325	FITTING, Connector	1
29	112543	HOSE ASSEMBLY, Steering 1/4" x 116" lg.	2
30	114578	FITTING, Elbow 90° #6orb-#6 (Replaces 103073)	2
31	(Ref.)	CYLINDER, Steering (For Components, Refer to Figure 6-19)	1 -
32	114463	HOSE ASSEMBLY, Main man. to lift manifold	1
33	(Ref.)	CYLINDER ASSEMBLY, Cushion (For Components, Refer to Figure 6-38)	1 -
34	(Ref.)	VALVE ASSEMBLY, Auto reset (For Components, Refer to Figure 6-34)	1 -
35	(Ref.)	VALVE ASSEMBLY, Manual lwrgr (For Components, Refer to Figure 6-32)	1 -
36	102522	HOSE ASSEMBLY, Cushion cylinder 1/4" x 24.5"	1

FIGURE 6-16. BASE HYDRAULIC HOSE CONNECTIONS (Machines With Serial # 30169 and Below)



**FIGURE 6-16. BASE HYDRAULIC HOSE CONNECTIONS  
(Machines With Serial # 30169 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	COVER, Hydraulic tank (For Components, Refer to Figure 6-30)	1
2	(Ref.)	CYLINDER ASSEMBLY, Disc brake (For Components, Refer to Figure 6-18)	-
3	105447	FITTING, Elbow #8orb-#8	1
4	113385	HOSE ASSEMBLY, Brake 98" lg.	1
5	103320	CLAMP, Worm #16	6
6	103033	HOSE, Suction 1" ID	AR
7	109131	HOSE ASSEMBLY, Motor to free-wheeling valve 21" lg.	1
8	111859	HOSE ASSEMBLY, Quick brake manifold to tank 74" lg.	1
9	111807	WELDMENT, Hose carrier/suction tube	1
10	112890	TUBE, Pump suction 1" OD	1
11	112021	FITTING, Connector #16orb-#16	1
12	114201	PUMP, Dual inlet (.366/.671) (For machines with Kubota gas engine)	1
	110460	PUMP, Dual inlet (.488/.854) (For machines with Kubota diesel engine) (Replacement for single inlet pump by also ordering items 45 through 50)	1
13	103307	FITTING, Connector #10orb-#6	1
14	112544	HOSE ASSEMBLY, Small pump 156" lg.	1
15	103071	FITTING, Connector #10orb-#8	1
16	112545	HOSE ASSEMBLY, Large pump 157" lg.	1
17	(Ref.)	MANIFOLD ASSEMBLY, Main (For Components, Refer to Figure 6-37)	1
18	(Ref.)	MOTOR, Hydraulic drive (For Components, Refer to Figure 6-24)	-
19	104436	FITTING, Reducer #10orb-#8orb	2
20	110554	FITTING, Tee #8orb-#8-#8	2
21	110498	FITTING, Reducer #8-#6	2
22	110434	MOTION CONTROL VALVE ASSEMBLY	1
23	105447	FITTING, Elbow 90° #8orb-#8	2
24	102659	FITTING, Connector #8orb-#8	2
25	111858	HOSE ASSEMBLY, Main manifold to M.C.V. 30" lg.	2
26	102665	FITTING, Elbow 90° #8orb-#6	1
27	111863	HOSE ASSEMBLY, M.C.V. drain 39" lg.	1
28	110471	HOSE ASSEMBLY, M.C.V. to motor 18" lg.	1
29	111357	HOSE ASSEMBLY, M.C.V. to motor 20" lg.	1
30	110566	HOSE ASSEMBLY, Motor to cushion cylinder 56" lg.	1
31	102522	HOSE ASSEMBLY, Free-wheeling valve to cushion cylinder 24-1/2" lg.	1
32	104660	FITTING, Tee #6orb-#6-#6	1
33	103324	FITTING, Elbow 90 #4P-#6	2
		<b>Parts list continued on following page.</b>	

**FIGURE 6-16. BASE HYDRAULIC HOSE CONNECTIONS  
(Machines With Serial # 30169 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from preceding page.</b>	
34	(Ref.)	FREE-WHEELING VALVE ASSEMBLY	-
	103615	• BLOCK, Valve	1
	112218	• VALVE, N.O.	1
	103613	• COIL, 12 Volt	1
35	113343	ORIFICE, .104" Diameter	1
36	103245	FITTING, Tee #4P-#4P-#4P	1
37	106554	FITTING, Reducer #4P-#6orb	1
38	(Ref.)	QUICK BRAKE MANIFOLD ASSEMBLY (For Components, Refer to Figure 6-35)	1
39	107752	CYLINDER, Cushion	1
40	(Ref.)	CYLINDER ASSEMBLY, Steer (For Components, Refer to Figure 6-19)	-
41	114578	FITTING, Elbow 90° #6orb-#6 (Replaces 103073)	2
42	112543	HOSE ASSEMBLY, Steer 116" lg.	2
43	113348	FITTING, Elbow 90° #6orb-#4	1
44	113352	HOSE ASSEMBLY, Motor 56" lg.	1
		<b>NOTE: Items #45 through #50 are replacement parts for any model with single inlet pump.</b>	
45	114327	HOSE, Suction 1-1/4" diameter	1
	102918	• HOSE, Clear spacer 3" lg.	1
46	114322	TUBE, Dual inlet suction	1
47	114328	FITTING, Connector #16orb-#20	1
48	114325	FITTING, Pump	1
49	114327	HOSE, Suction 1-1/4" diameter 5-1/2" lg.	1
50	114326	CLAMP, Hose 1-1/4"	4

NOTES

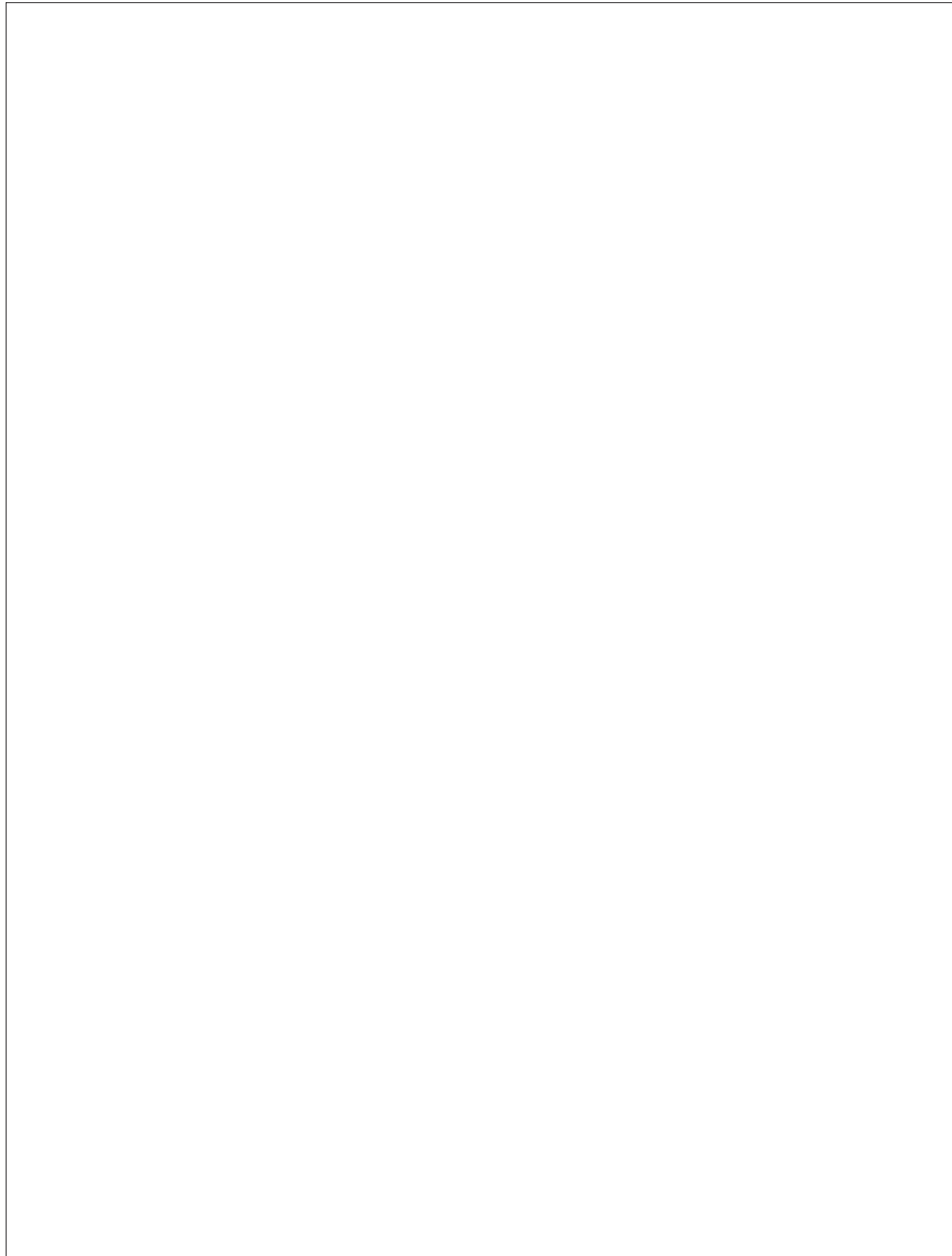
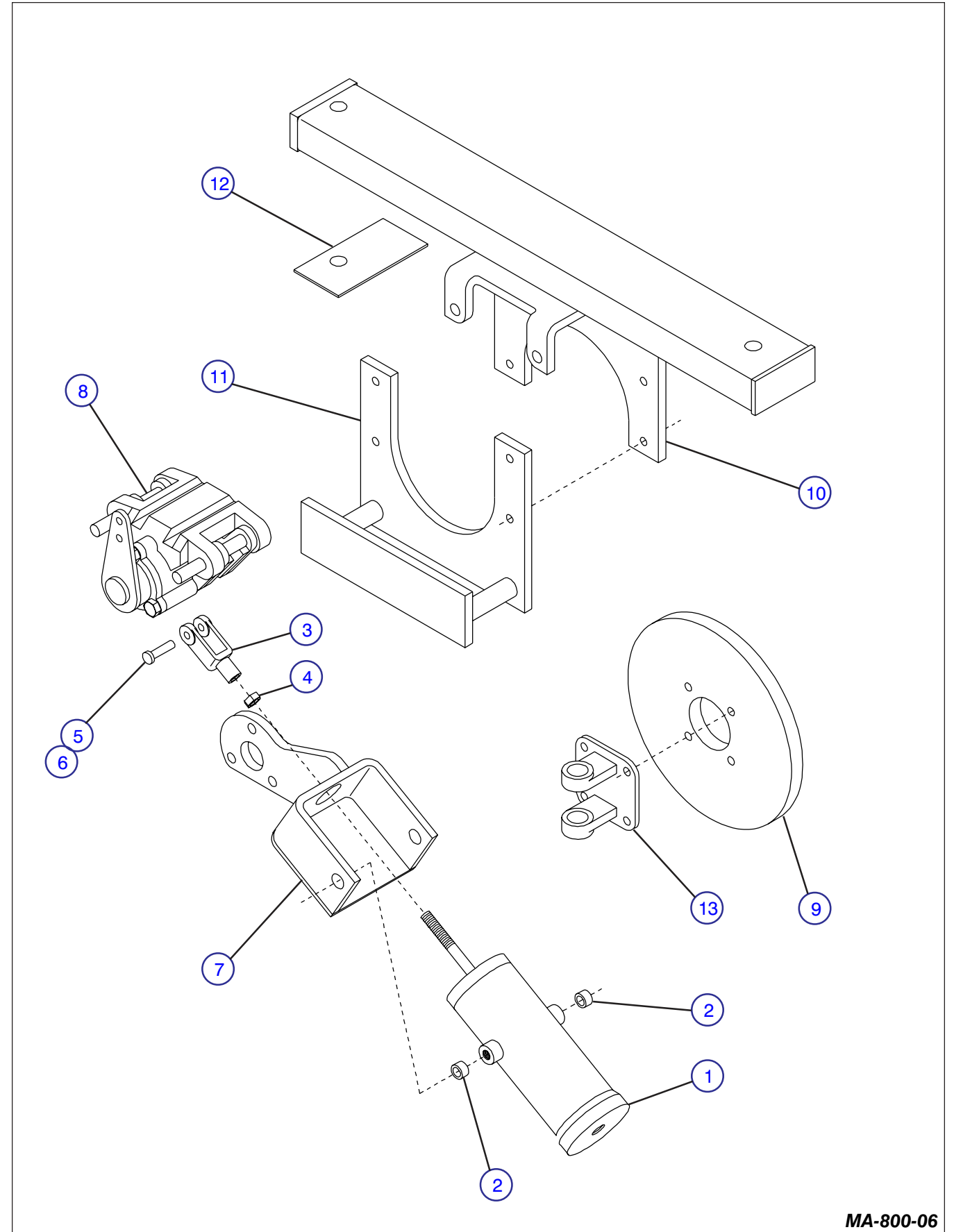


FIGURE 6-17. DISC BRAKE ASSEMBLY



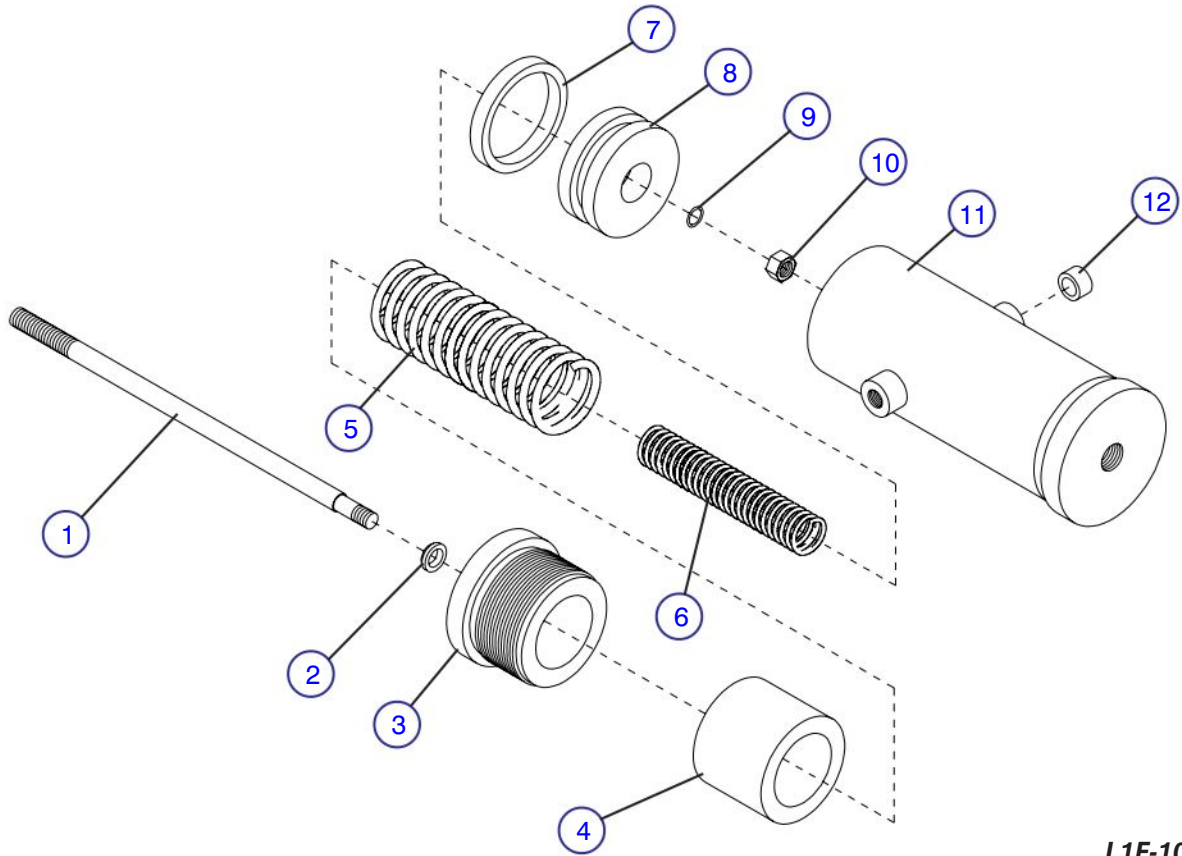
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**FIGURE 6-17. DISC BRAKE ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	CYLINDER ASSEMBLY, Disc brake (For components, refer to Figure 6-18.)	1
2	109579	SPACER, Cylinder mounting	2
3	109599	CLEVIS, Rod end 1/2-20	1
4	109598	NUT, Jam 1/2-20	1
5	109600	PIN, Clevis	1
6	109601	PIN, Cotter	1
7	109580	BRACKET, Brake cylinder	1
	103911	• BOLT, Hex-hd 1/2-13 x 1" lg.	2
	103470	• WASHER, Lock 1/2"	2
	103468	• WASHER, Flat 1/2"	2
8	109602	CALIPER ASSEMBLY, Disc brake	1
	113731	• KIT, Disc pad (Set of 2)	AR
	103909	• BOLT, Hex-hd 1/2-13 x 1-1/4" lg.	3
	103470	• WASHER, Lock 1/2"	3
	115347	• LEVER, Brake Actuator	1
9	110529	DISC, 11" Diameter brake	1
	103872	• BOLT, Hex-hd 3/8-16 x 2-1/4" lg.	4
	103999	• WASHER, Lock 3/8"	4
	103978	• NUT, Hex 3/8-16	4
10	111570	SUPPORT, Disc brake tube	1
	100845	• BOLT, Hex-hd 5/8-11 x 3-1/2" lg. grade 8	2
	100352	• WASHER, Flat 5/8"	4
	111577	• NUT, Lock 5/8-11 (special)	2
	103909	• BOLT, Hex-hd 1/2-13 x 1-1/4" lg.	2
	107949	• NUT, Jam 1/2-13	2
11	111117	WELDMENT, Brake skid	1
	103872	• BOLT, Hex-hd 3/8-16 x 2-1/4" lg.	4
	103999	• WASHER, Lock 3/8"	4
	103978	• NUT, Hex 3/8-16	8
12	111961	PAD, Brake support	2
13	111159	FLANGE, Drive shaft yoke	1
	300603	• BOLT, Hex-hd. 7/16-13 x 2" lg.	4
	104636	• WASHER, Lock 7/16"	4
	300605	• NUT, Hex 7/16-13	4



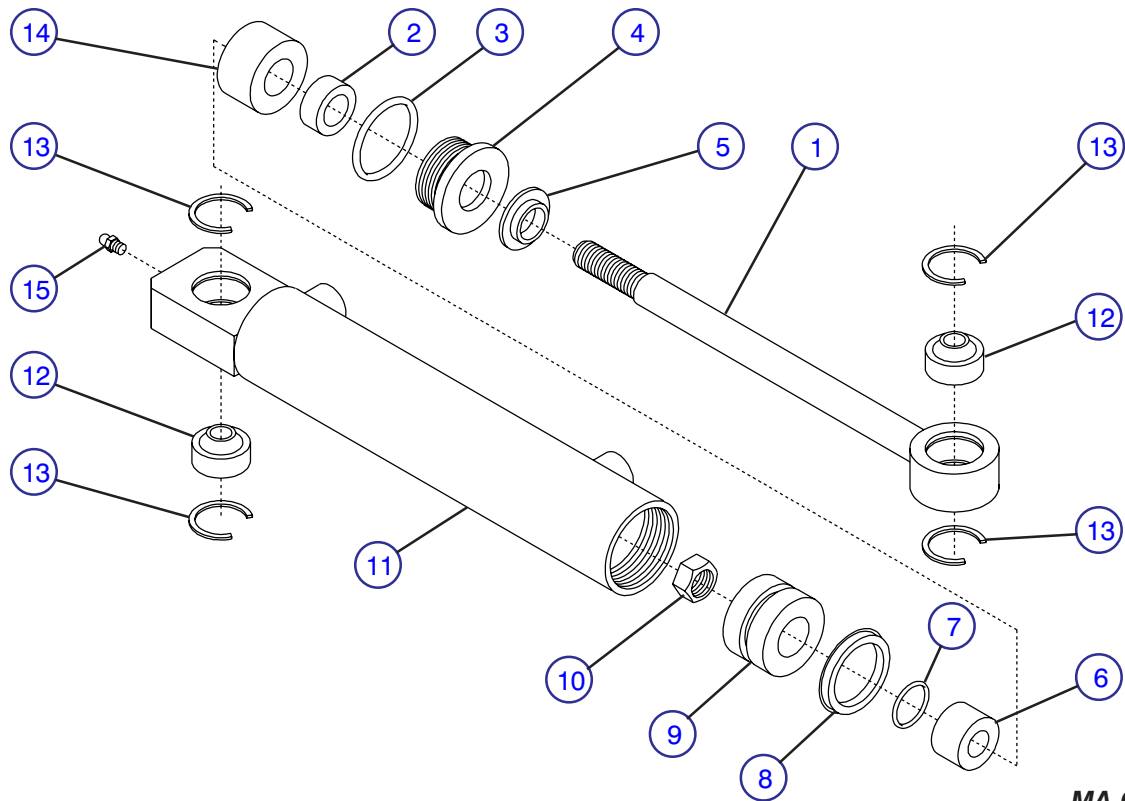
**FIGURE 6-18. DISC BRAKE CYLINDER ASSEMBLY**



**L1F-1003AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	120412	CYLINDER ASSEMBLY, Disc brake	-
1	120631	• ROD, Brake cylinder	1
*2	109597	• WIPER, Brake rod	1
3	120409	• GLAND, Front end	1
4	109573	• SPACER, Stroke limit	1
5	109604	• SPRING, Outer	1
6	109603	• SPRING, Inner	1
*7	116364	• SEAL, Piston	1
8	120630	• PISTON	1
*9	120632	• O-RING, Piston	1
10	111803	• NUT, Hex 7/16-20	1
11	120411	• WELDMENT, Cylinder barrel	1
12	109579	SPACER, Mounting	2
* Part of Seal Repair Kit, 112274.			

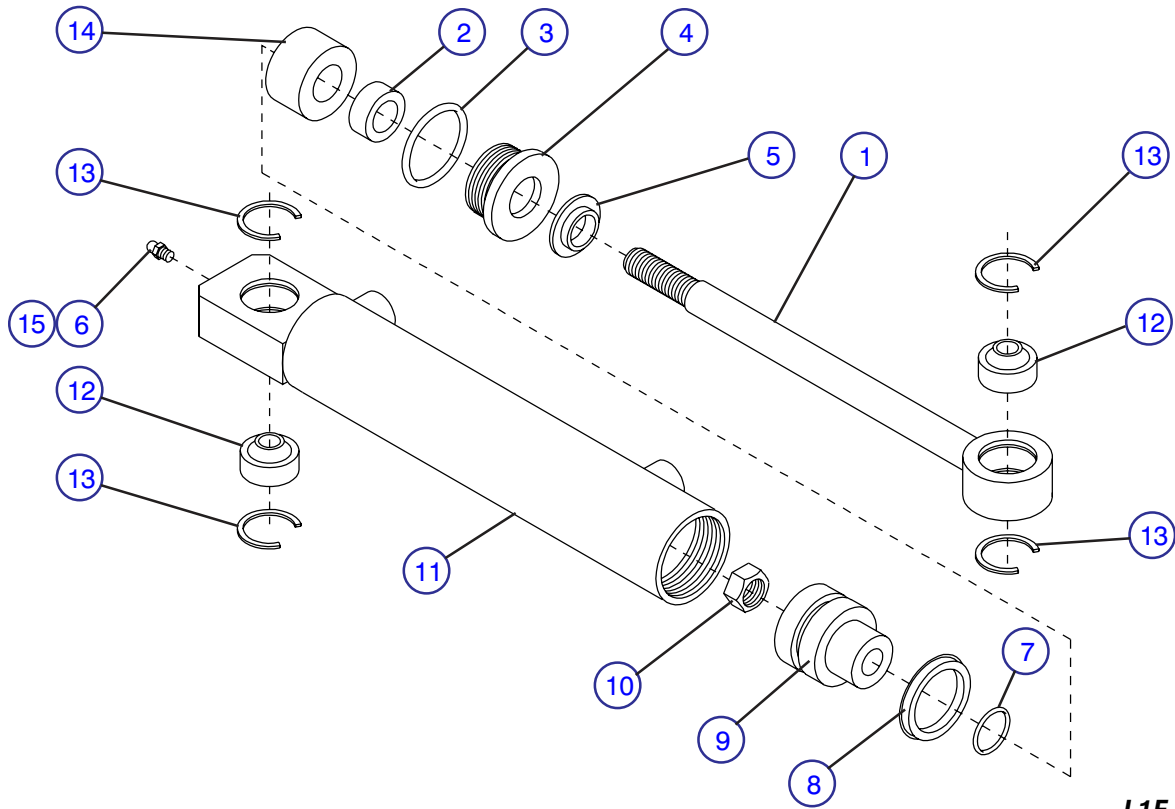
**FIGURE 6-19A. STEER CYLINDER ASSEMBLY  
(Machines With Serial # 32328 and Below)**



MA-600-07A

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	113356	CYLINDER ASSEMBLY, Steer (2WD/4WD)	-
1	113347	• ROD, Steering	1
*2	113350	• SEAL, Steering rod	1
*3	107934	• O-RING, Gland	1
4	112496	• GLAND	1
*5	113349	• WIPER, Rod	1
6	104111	• SPACER, Piston	1
*7	103829	• O-RING, Piston	1
*8	107935	• SEAL, Piston	1
9	112497	• PISTON, Cylinder	1
10	103830	• NUT, Lock 5/8-11 grade C	1
11	112494	• WELDMENT, Cylinder barrel	1
12	102025	• BEARING, Spherical	2
13	104114	• RING, Retaining	2
14	113355	• SPACER, Stroke limit	1
15	103513	• FITTING, Grease	1
*	113443	KIT, Seal repair	AR

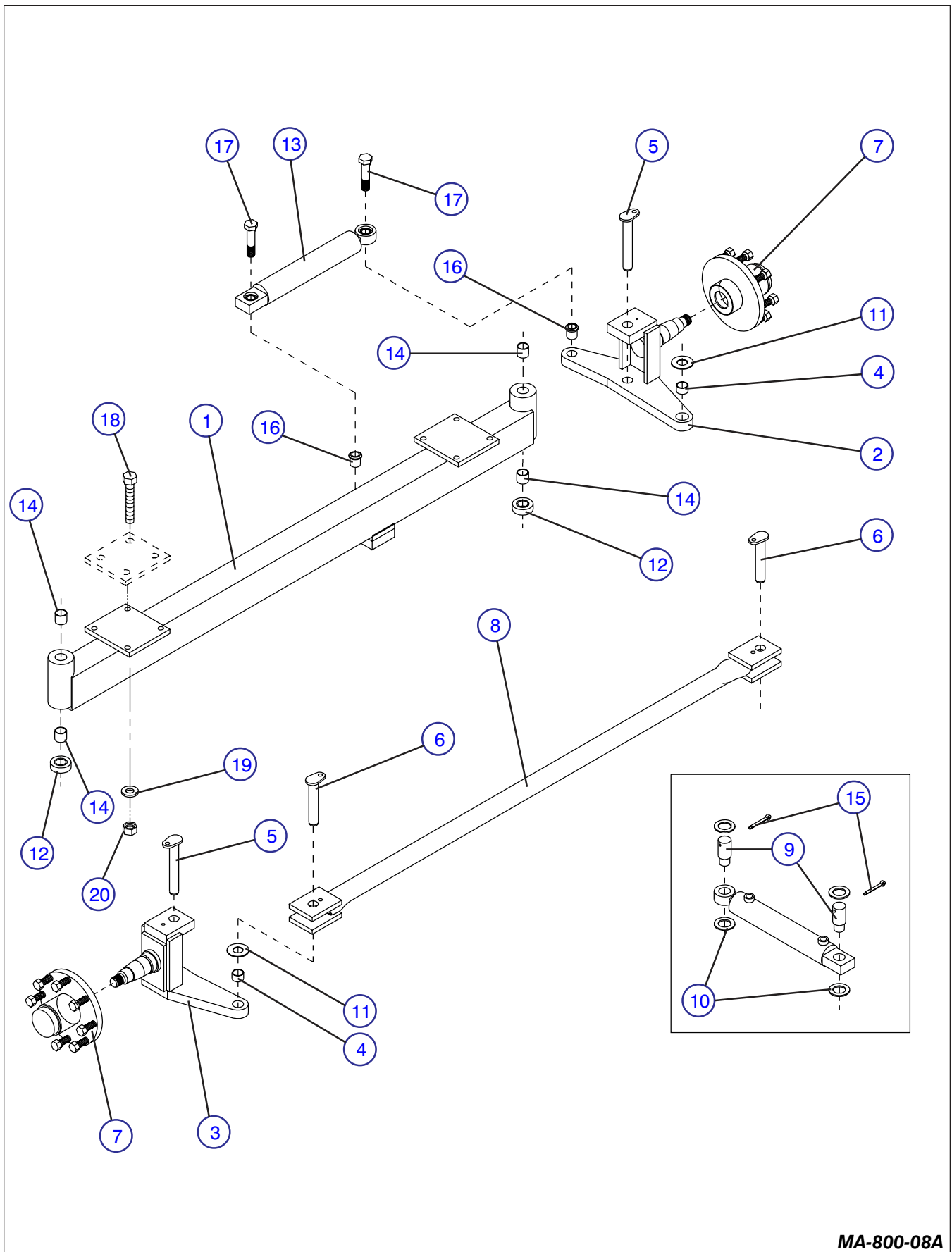
**FIGURE 6-19B. STEER CYLINDER ASSEMBLY**



**L1F-1055AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	121086	CYLINDER ASSEMBLY, Steer (2WD/4WD)	-
1	113347	• ROD, Steering	1
*2	113350	• SEAL, Steering rod	1
*3	120438	• O-RING, Gland	1
4	120401	• GLAND, Front end	1
*5	113349	• WIPER, Rod	1
6	103513	• FITTING, Grease	1
*7	110976	• O-RING, Piston	1
*8	107935	• SEAL, Piston	1
9	120633	• PISTON, Cylinder	1
10	103830	• NUT, Lock 5/8-11 grade C	1
11	121115	• WELDMENT, Cylinder barrel	1
12	102025	• BEARING, Spherical	2
13	104114	• RING, Retaining	2
14	113355	• SPACER, Stroke limit	1
15	132565	• CAP, Grease fitting	1
*	121108	KIT, Seal repair	AR

**FIGURE 6-20. FRONT IDLE AXLE ASSEMBLY (For 2-Wheel Drive Machines)**



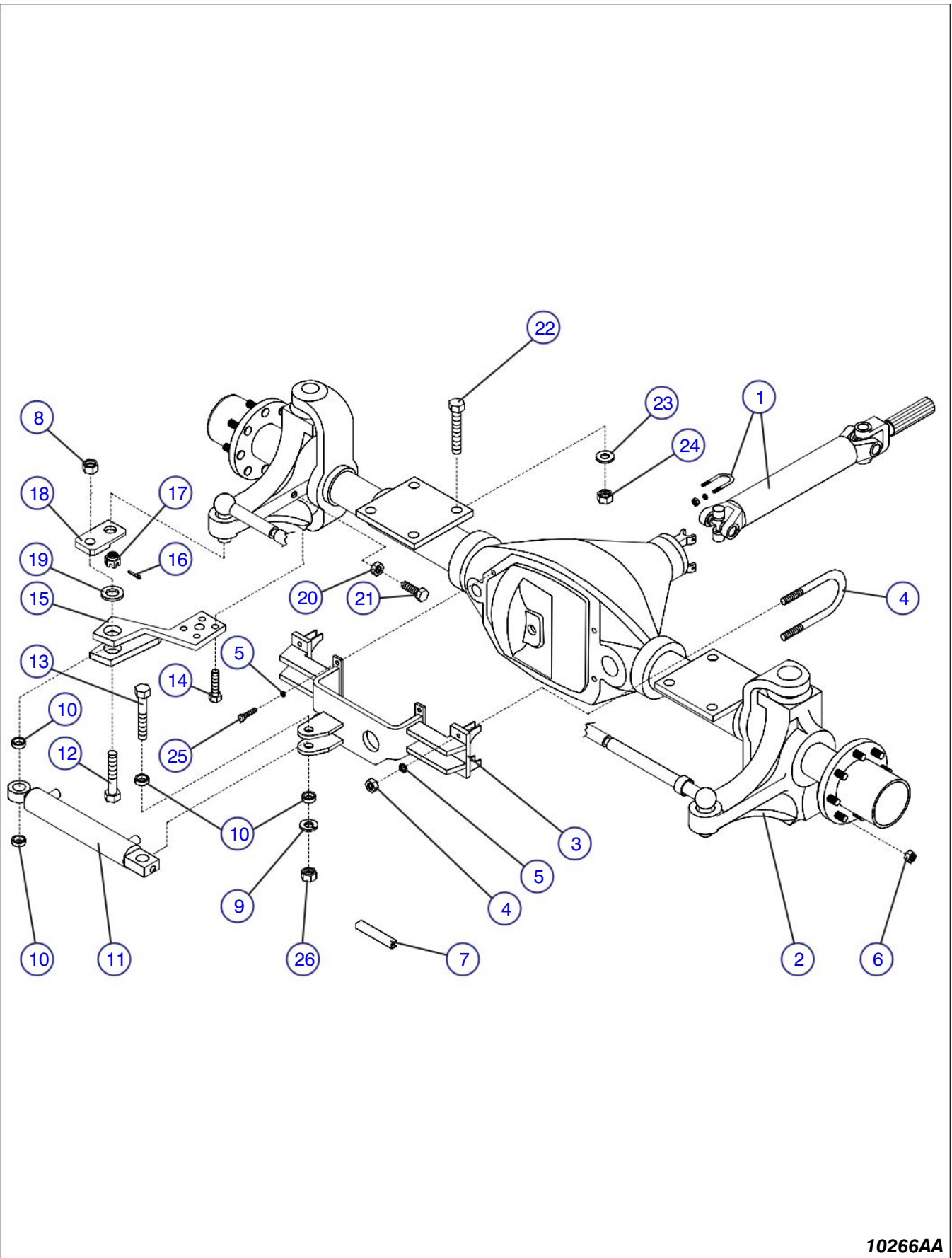
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**FIGURE 6-20. FRONT IDLE AXLE ASSEMBLY (For 2-Wheel Drive Machines)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	112031	AXLE ASSEMBLY, Front idle	-
<b>1</b>	111585	• WELDMENT, Front idle axle	1
<b>2</b>	111756	• WELDMENT, Spindle arm RH	1
<b>3</b>	111755	• WELDMENT, Spindle arm LH	1
<b>4</b>	100309	• BUSHING	3
<b>5</b>	102230	• PIN, Spindle	2
	103932	• • BOLT, Soc-hd 5/16-18 x 3/4" lg.	2
	103404	• • WASHER, Lock 5/16"	2
<b>6</b>	102229	• PIN, Tie bar	2
	103935	• • BOLT, Soc-hd 5/16-18 x 1/2" lg.	2
	103404	• • WASHER, Lock 5/16"	2
<b>7</b>	107908	• HUB ASSEMBLY, Front wheel	2
	102646	• • WASHER, Flat	2
	102905	• • HUB, Front wheel	2
	103004	• • BEARING, Outer cone	2
	103009	• • BEARING, Inner cone	2
	103085	• • PIN, Cotter 3/16" x 1-1/2" lg.	2
	103145	• • SEAL, Grease	2
	103198	• • BOLT, Wheel	16
	103220	• • CAP, Dust	2
	103239	• • BEARING	2
	104351	• • NUT, Castle 1"-14	2
<b>8</b>	111588	• WELDMENT, Tie bar	1
<b>9</b>	102028	• PIN, Steer cylinder (Used with earlier Cylinder, 105325)	2
	103910	• • BOLT, Hex-hd 1/2-13 x 1-1/4" lg.	2
	103470	• • WASHER, Lock 1/2"	2
	101806	• • WASHER, Cylinder pin 5/16" thk.	2
<b>10</b>	101520	• WASHER, Nylon 1-9/32" x 2" x 1/8" thk.	4
<b>11</b>	103264	• WASHER, Bronze 1" x 2" x 1/8" thk.	2
<b>12</b>	101801	• BEARING, Thrust	2
<b>13</b>	(Ref.)	• CYLINDER ASSEMBLY, Steer (For Components, Refer to Figure 6-19) (Replaces earlier cylinders by also ordering items 16 and 17.)	1 - -
<b>14</b>	100695	• BUSHING, 1"ID x 1-1/2" lg.	4
<b>15</b>	103972	• PIN, Cotter 1/4" x 2" lg.	2
<b>16</b>	113432	• SLEEVE, Cylinder mounting bolt	2
<b>17</b>	113489	• BOLT, Hex-hd 3/4-10 x 3-1/4" lg. grade 8	2
	103990	• • WASHER, Flat 3/4"	2
	104002	• • WASHER, Lock 3/4"	2
	100252	• • NUT, Jam 3/4-10	2
<b>18</b>	126361	• BOLT, Hex-hd 1/2-13 x 1.75" grade 8	8
<b>19</b>	126286	• WASHER, Lock 1/2" grade 8	8
<b>20</b>	123856	• NUT, Hex 1/2-13 grade 8	8



**FIGURE 6-21. FRONT AXLE HARDWARE ASSEMBLY (4WD)**

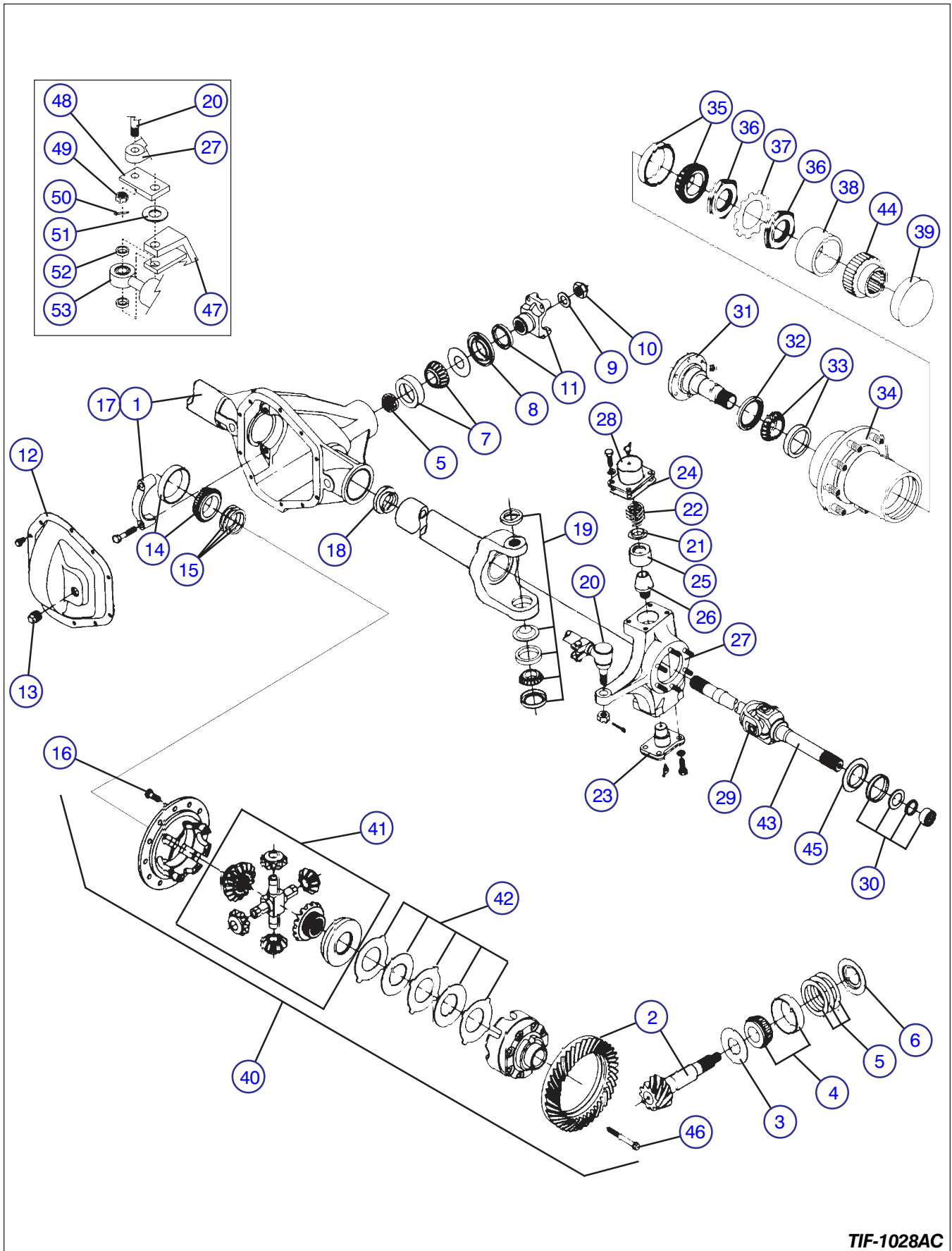


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**FIGURE 6-21. FRONT AXLE HARDWARE ASSEMBLY (4WD)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	SHAFT ASSEMBLY, Front drive (For Components, Refer to Figure 6-23 or 6-24)	1 -
2	(Ref.)	AXLE, Front (For Components, Refer to Figure 6-22)	1 -
3	109775	BRACKET, Steering arm	1
4	300689	• CLAMP, 3" U-Bolt	2
	117417	• CLIP, Locking (Serial #'s below 31390)	4
	117430	• BOLT, Hex-hd 3/8-16 x 1-1/4" (Serial #'s below 31390)	4
5	103999	WASHER, Lock 3/8"	8
6	103315	NUT, Wheel	16
7	300690	TRIM, 1/2"	5"
8	100252	NUT, Jam 3/4-10	1
9	104002	WASHER, Lock 3/4"	2
10	102028	SPACER, Steering Clevis	4
11	(Ref.)	CYLINDER ASSEMBLY, Steer (For Components, Refer to Figure 6-19)	1 -
12	103893	BOLT, Hex-hd 3/4-10 x 3-1/2" lg Grade 8	1
13	113489	BOLT, Hex-hd 3/4-10 x 3-1/4" lg Grade 8	1
14	114740	BOLT, Hex-hd 1/2-20 x 1-3/4" lg.	4
15	102030	ARM, Steering	1
16	300792	PIN, Cotter 3/32 x 1-1/4" lg.	1
17	120191	NUT, Tie Rod Castle Hex	1
18	120845	WELDMENT, Steering arm Support (Must use Castle Nut #120191) <b>.....Both part numbers 120845 &amp; 120191 MUST be ordered for Machines with Serial #'s 32004 &amp; Below</b>	1
19	103264	WASHER, Bronze 2" O.D. x 1" I.D.	1
20	109598	NUT, Hex jam 1/2-20	1
21	114679	BOLT, Hex-hd 1/2-20 x 2-1/4" lg.	1
22	126361	BOLT, Hex-hd 1/2-13 x 1.75" grade 8	8
23	126286	WASHER, Lock 1/2"	8
24	123856	NUT, Hex 1/2-13	8
25	103473	BOLT, Hex-hd 3/8-16 x 1" lg.	4
26	705240	NUT, Hex head 3/4 - 10	1

**FIGURE 6-22. FRONT AXLE ASSEMBLY (4WD)**



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**FIGURE 6-22. FRONT AXLE ASSEMBLY (4WD)**

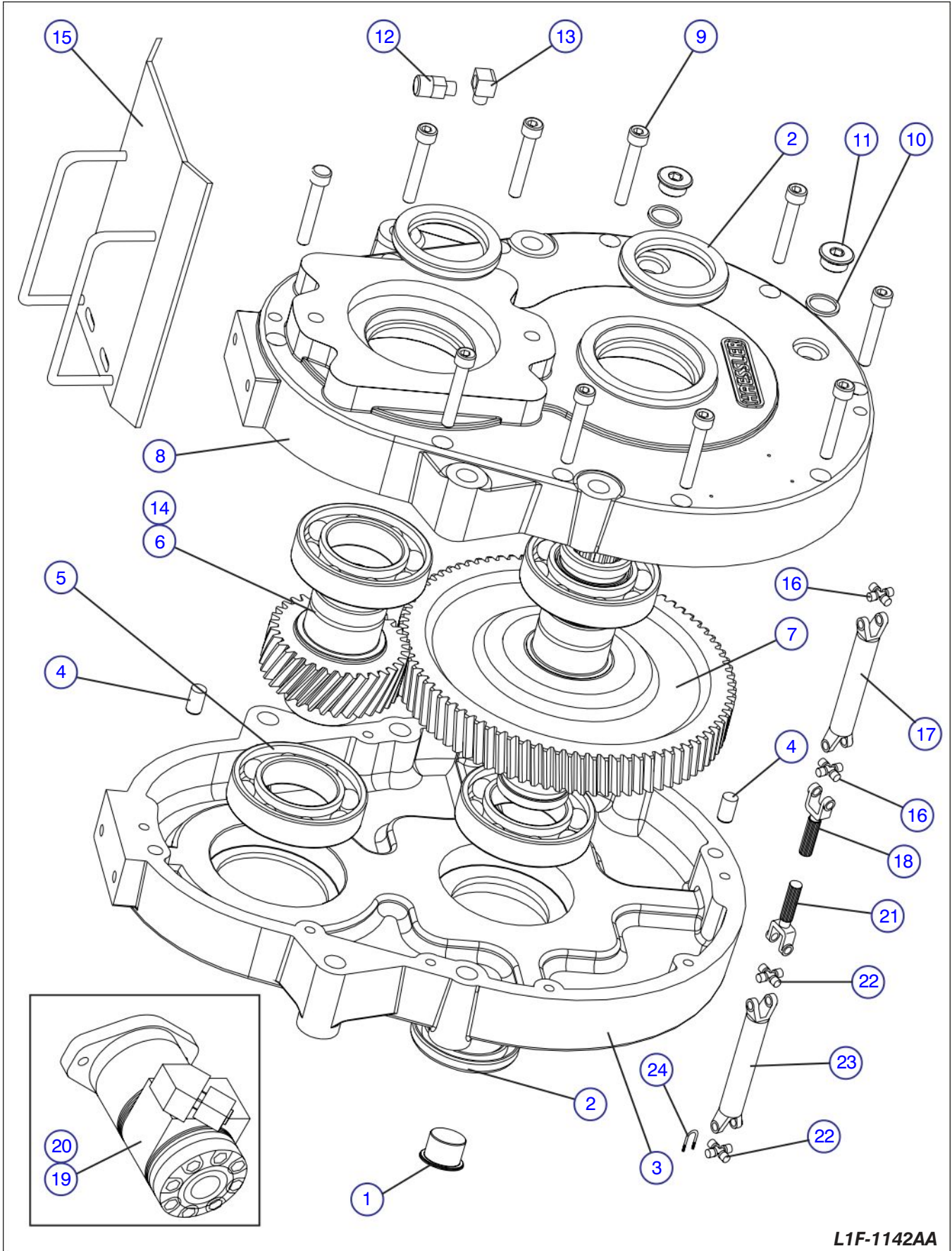
Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	111583	MODIFIED AXLE ASSEMBLY, Front drive	-
-	103337	• AXLE ASSEMBLY, Front drive (DANA 60B)	1
<b>1</b>	<b>\$</b>	• • HOUSING W/BEARING CAPS, Front drive axle	1
<b>2</b>	113927	• • DRIVE GEAR AND PINION SET	1
<b>3</b>	113928	• • SLINGER, Inner pinion	1
<b>4</b>	113880	• • BEARING ASSEMBLY, Inner pinion	
<b>5</b>	113929	• • KIT, Pinion adjusting shim	AR
<b>6</b>	113930	• • SLINGER, Inner pinion bearing	1
<b>7</b>	113883	• • BEARING ASSEMBLY, Outer pinion	1
<b>8</b>	113884	• • SEAL, Pinion	1
<b>9</b>	113885	• • WASHER, Pinion nut	1
<b>10</b>	113886	• • NUT, Pinion	1
<b>11</b>	113887	• • YOKE ASSEMBLY, End	1
<b>12</b>	108394	• • COVER, Carrier	1
<b>13</b>	113888	• • PLUG, Carrier cover	1
<b>14</b>	113889	• • BEARING ASSEMBLY, Differential	2
<b>15</b>	113931	• • KIT, Differential bearing shim	AR
<b>16</b>	113932	• • BOLT, Drive gear	12
<b>17</b>	113892	• • PLUG, Vent	1
<b>18</b>	113933	• • SEAL AND GUIDE ASSEMBLY	1
<b>19</b>	108392	• • KIT, King pin seal and bearing	AR
<b>20</b>	113934	• • TIE ROD ASSEMBLY	1
	<b>\$</b>	• • • TIE ROD	1
	113792	• • • END, Tie rod RH	1
	113793	• • • END, Tie rod LH	1
<b>21</b>	113895	• • RETAINER, Spring	2
<b>22</b>	113896	• • SPRING, Upper king pin	2
<b>23</b>	113897	• • CAP, Lower king pin	2
<b>24</b>	113898	• • GASKET, Upper king pin	2
<b>25</b>	108388	• • BUSHING, Upper king pin	2
<b>26</b>	105817	• • PIN, Upper king	2
<b>27</b>	113732	• • KNUCKLE, Steering LH (shown)	1
	113733	• • KNUCKLE, Steering RH (opposite)	1
<b>28</b>	113899	• • CAP, Upper king pin	2
<b>29</b>	113900	• • JOINT, Universal drive	2
<b>30</b>	113901	• • KIT, Spindle bearing and seal	AR
<b>31</b>	113902	• • SPINDLE ASSEMBLY	2
<b>32</b>	108393	• • SEAL, Wheel hub	2
<b>33</b>	108390	• • BEARING ASSEMBLY, Inner hub	2
<b>34</b>	113903	• • HUB, Wheel	2
	111719	• • • STUD, Wheel	16
<b>35</b>	108391	• • BEARING ASSEMBLY, Outer hub	2
<b>36</b>	113904	• • NUT, Bearing retaining	2
<b>37</b>	113905	• • WASHER, Retaining nut lock	2
<b>38</b>	119180	• • SPACER, Drive gear	2
<b>Parts list continued on the following page.</b>			

**FIGURE 6-22. FRONT AXLE ASSEMBLY (4WD) (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
39	113907	• • CAP, Hub	2
40	113935	• • DIFFERENTIAL ASSEMBLY	1
41	113936	• • • GEAR SET, Internal differential	1
42	113937	• • • KIT, Disc and plate	AR
43	117082	• • SHAFT AND JOINT ASSEMBLY (Includes item #29)	2
44	119179	• • GEAR, Drive	1
45	708440	• • SLINGER	1
46	?????	• • BOLT, Differential case bolt	?
47	102030	• • WELDMENT, Steering arm	1
48	120845	• • WELDMENT, Steer arm support (must use castle nut 120191)	1
49	120191	• • CASTLE NUT	2
50	122071	• • COTTER PIN, 1/8 X2"	2
51	103264	• • WASHER, Bronze	2
52	102028	• • SPACER	AR
53	(Ref.)	• • STEER CYLINDER (For components, refer to Figure 6-19)	-



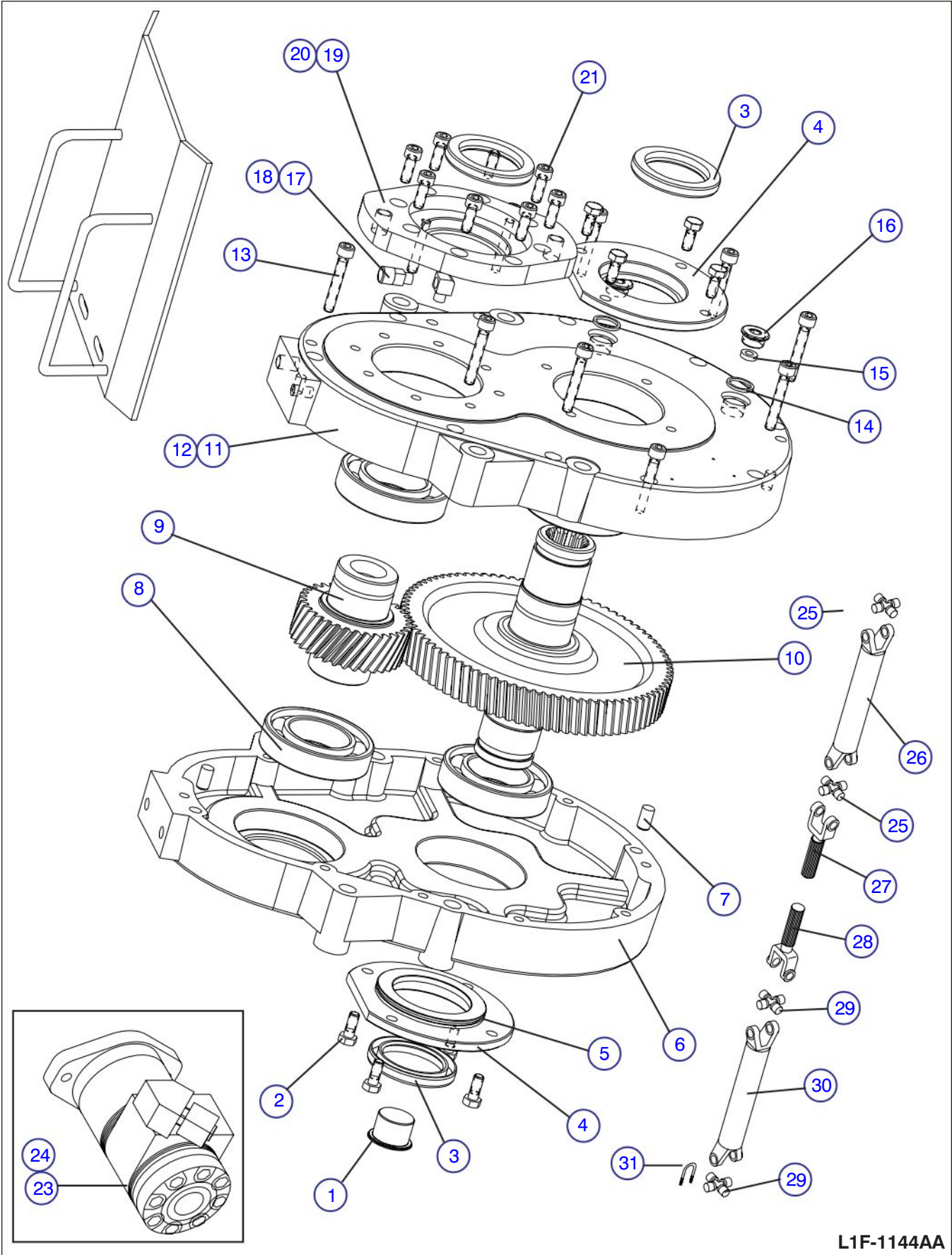
**FIGURE 6-23A. CENTER DRIVE AND DRIVE SHAFTS**  
**(Haessler Drive Serial # 1691 and Above)**



**FIGURE 6-23A. CENTER DRIVE AND DRIVE SHAFTS  
(Haessler Drive Serial # 1691 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
A	900550	CENTER DRIVE Assembly	-
1	121629	CAP, Output Shaft (2WD)	1
2	900328	• SEAL, Lip	3
3	900408	• HOUSING, Transfer Case, Front	1
4	900080	• PIN, Dowel	2
5	900321	• BEARING, 6210	4
6	900547	• GEAR, Input Shaft	1
7	121554	• ASSEMBLY, Output Shaft and Gear	1
8	900407	• HOUSING, Transfer Case, Rear	1
9	900283	• BOLT, M8X1.25X50	10
10	900072	• SEAL, Drain Plug	2
11	900643	• PLUG, Oil Drain	1
12	900370	• BREATHER	1
13	900553	• FITTING, 90°	1
14	900414	• SHIM	1
15	114126	PLATE, Center Drive Motor Cover and Hose Bracket	1
16	105863	KIT, Universal joint	AR
17	121585	SHAFT, Rear drive	1
18	103099	YOKE	AR
	900542	• BOOT, Output Shaft	AR
19	109311	MOTOR, 2 Speed drive	1
	103623	• VALVE, Series/parallel	1
	355113	• MANIFOLD, Motor	1
	103613	• COIL, Series/parallel valve	1
	115340	• CHECK BALL	4
	115338	• SEAL KIT	1
20	(Ref.)	HARDWARE, Drive Motor Mounting	-
	103910	• BOLT, 1/2"-13 x 1.25" Grade 8 (Use Loctite 242 or equivalent)	2
	103470	• WASHER, 1/2" Lock	2
		Following items are used on 4WD machines	
21	103099	YOKE	AR
	900542	• BOOT, Output Shaft	AR
22	105863	KIT, Universal joint	AR
23	111544	SHAFT, Front drive	1
24	103084	U-BOLT KIT	1
25	900655	KIT, SERVICE (9 Pieces) (Consists of items 2(3), 10(2) & 12(1))	

**FIGURE 6-23B. CENTER DRIVE AND DRIVE SHAFTS**  
 (Haessler Drive Serial # 1690 and Below)



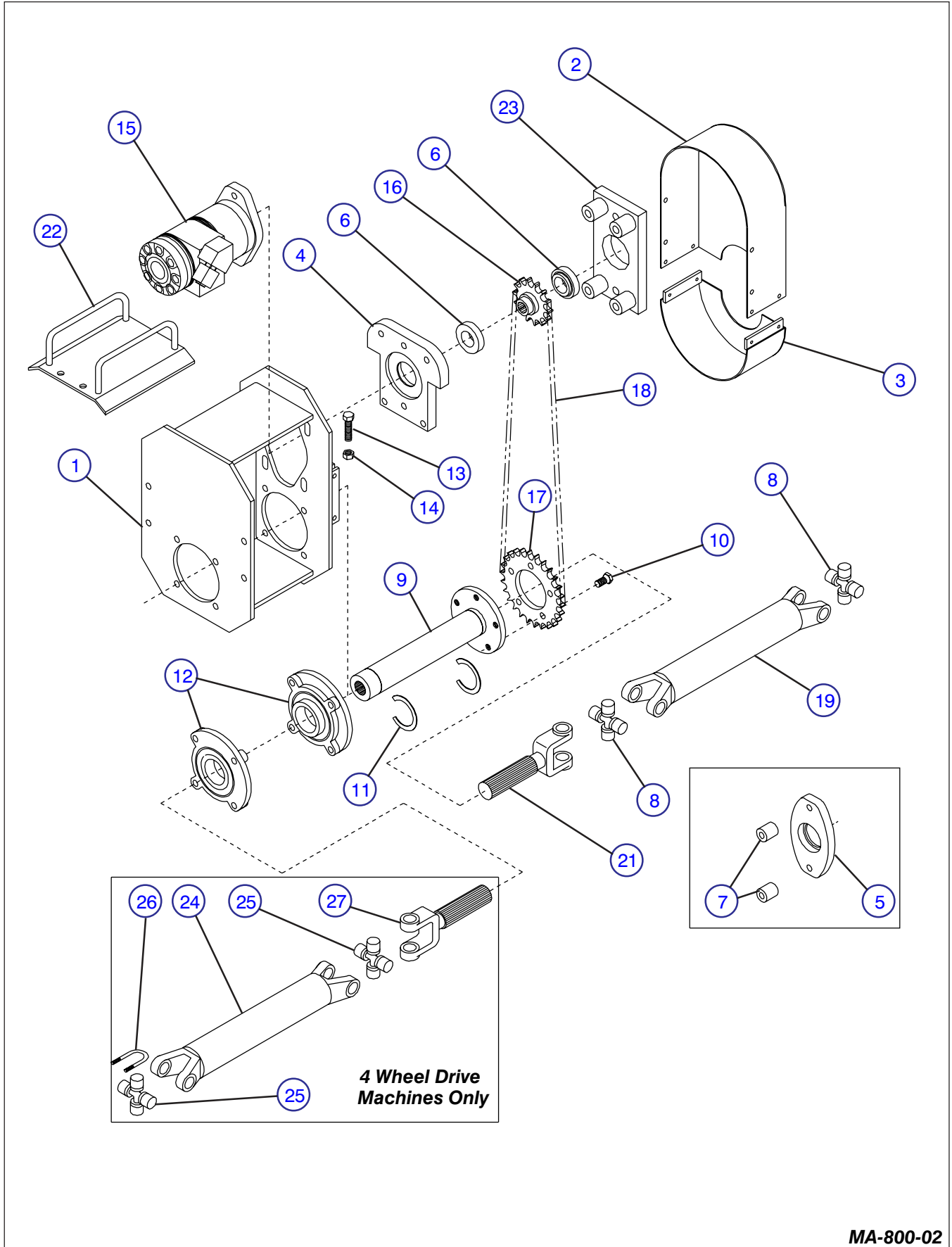
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**FIGURE 6-23B. CENTER DRIVE AND DRIVE SHAFTS**  
**(Haessler Drive Serial # 1690 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	900550	CENTER DRIVE Assembly	-
<b>1</b>	121629	CAP, Output Shaft (2WD)	1
<b>2</b>	900329	• BOLT, M8X1.25X15	8
<b>3</b>	900328	• SEAL, Lip	3
<b>4</b>	900427	• FLANGE, Output Shaft	2
<b>5</b>	900490	• O-RING, Flange	3
<b>6</b>	900408	• HOUSING, Transfer Case, Front	1
<b>7</b>	900080	• PIN, Dowel	2
<b>8</b>	900321	• BEARING, 6210	4
<b>9</b>	900547	• GEAR, Input Shaft	1
<b>10</b>	121554	• Assembly, Output Shaft and Gear	1
<b>11</b>	900407	• HOUSING, Transfer Case, Rear	1
<b>12</b>	900071	• PLUG, Oil Drain	1
<b>13</b>	900283	• BOLT, M8X1.25X50	10
<b>14</b>	900072	• SEAL, Drain Plug	2
<b>15</b>	900650	• MAGNET, Ring	1
<b>16</b>	900643	• PLUG, Oil Drain	1
<b>17</b>	900370	• BREATHER	1
<b>18</b>	900553	• FITTING, 90°	1
<b>19</b>	900336	• FLANGE, Hydraulic motor	1
<b>20</b>	900414	• SHIM	1
<b>21</b>	900025	• BOLT, M8X1.25x22	8
<b>22</b>	114126	PLATE, Center Drive Motor Cover And Hose Bracket	1
<b>23</b>	109311	MOTOR, 2 Speed drive	1
	103623	• VALVE, Series/parallel	1
	355113	• MANIFOLD, Motor	1
	103613	• COIL, Series/parallel valve	1
	115340	• CHECK BALL	4
	115338	• SEAL KIT	1
<b>24</b>	(Ref.)	HARDWARE, Drive Motor Mounting	-
	103910	• BOLT, 1/2"-13 x 1.25" Grade 8 (Use Loctite 242 or equivalent)	2
	103470	• WASHER, 1/2" Lock	2
<b>25</b>	105863	KIT, Universal joint	AR
<b>26</b>	121585	SHAFT, Rear drive	1
<b>27</b>	103099	YOKE	AR
	900542	• BOOT, Output Shaft	AR
<b>28</b>	103099	Following items are used on 4WD machines YOKE	AR
	900542	• BOOT, Output Shaft	AR
<b>29</b>	105863	KIT, Universal joint	AR
<b>30</b>	111544	SHAFT, Front drive	1
<b>31</b>	103084	U-BOLT KIT	1
<b>32</b>	900655	KIT, SERVICE (9 Pieces) (Consists of items 3(3), 5(3), 14(2) & 17(1))	



**FIGURE 6-24. CENTER DRIVE AND DRIVE SHAFTS (Serial # 32272 and Below)**



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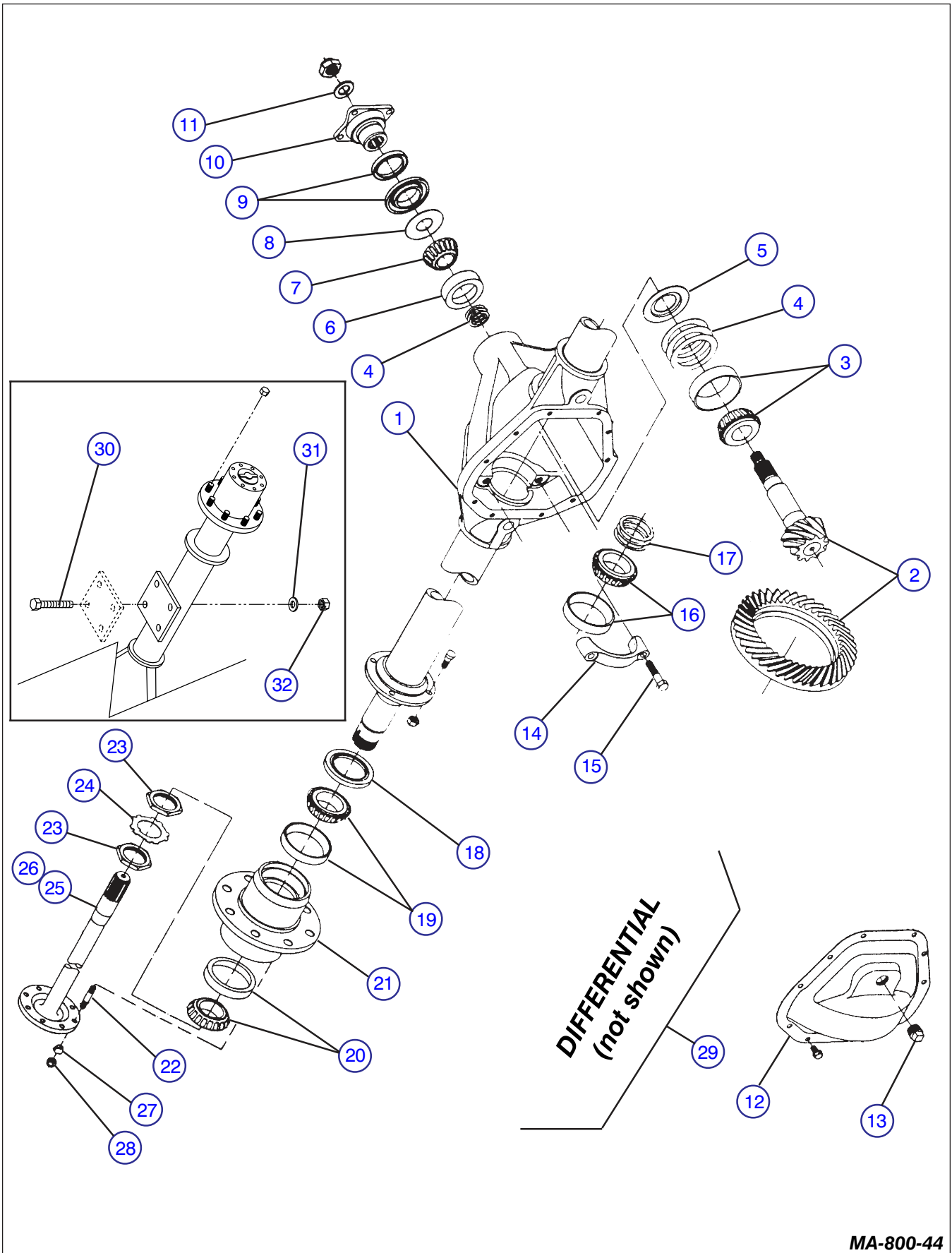
**FIGURE 6-24. CENTER DRIVE AND DRIVE SHAFTS (Serial # 32272 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	110441	WELDMENT, Center drive box	1
2	108686	COVER, Chain upper	1
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	4
3	108688	COVER, Chain lower	1
	103855	• BOLT, Hex-hd 1/4-20 x 1/2" lg.	4
4	110453	PLATE, Hydraulic motor adjusting	1
	300602	• BOLT, Hex-hd 1/2-13 x 3" lg.	2
	103907	• BOLT, Hex-hd 1/2-13 x 1-1/2" lg. (Older models)	4
	103470	• WASHER, Lock 1/2"	4
	103468	• WASHER, Flat 1/2"	4
5	110454	PLATE, Drive sprocket bearing (Machines with serial #. 30418 and below)	1
	111420	• BOLT, Hex-hd 1/2-13 x 4-1/2" lg.	2
	103470	• WASHER, Lock 1/2"	2
	103468	• WASHER, Flat 1/2"	2
	107949	• NUT, Jam 1/2-13	2
6	111138	BEARING	2
7	110459	SPACER, 1-1/8" Diameter x 1-1/4" thk. (Machines with serial #. 30418 and below)	2
8	105863	KIT, Universal joint	2
9	101973	SHAFT, Center drive	1
	102027	• FITTING, Grease 1/8P	2
10	103199	BOLT, Driven sprocket 1/2-20 x 1-1/2" lg. (Refer to Table 5-3 for torque specifications)	5
11	103314	RING, Retaining	2
12	107897	BEARING, Flanged	2
	103513	• FITTING, Grease 1/4-28	2
	103904	• BOLT, Hex-hd 1/2-13 x 2" lg.	8
	103470	• WASHER, Lock 1/2"	8
	107949	• NUT, Jam 1/2-13	8
13	103905	BOLT, Adjusting 1/2-13 x 2" lg.	2
14	107949	NUT, Adjusting bolt 1/2-13	2
15	109311	MOTOR, 2 Speed drive	1
	103623	• VALVE, Series/parallel	1
	355113	• MANIFOLD, Motor	1
	103613	• COIL, Series parallel valve 12V	1
	111420	• BOLT, Hex-hd 1/2-13 x 4-1/2" lg.	1
	400077	• BOLT, Flat socket-hd 1/2-13 x 2-1/2" lg.	1
	115340	• BALL, Check	4
	115338	• KIT, Seal	1
<p><b>Parts list continued on the following page.</b></p>			

**FIGURE 6-24. CENTER DRIVE AND DRIVE SHAFTS (Serial # 32272 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
16	110456	SPROCKET, Center drive (14T)	1
17	110522	SPROCKET, Center driven (26T) (Used on early machines) (See NOTE)	1
	113564	SPROCKET, Center driven (30T) (Used on later machines) (See NOTE)	1
18	103053	CHAIN, #60 (19 links - 26T sprocket) (21 links - 30T sprocket)	AR
19	111801	SHAFT, Rear drive	1
21	103099	YOKE, Rear drive shaft	1
22	114126	BRACKET, Hose	1
23	114771	PLATE, Center drive sprocket (Machines with serial # 30419 and above)	1
	300602	<ul style="list-style-type: none"> <li>• BOLT, Hex-hd 1/2-13 x 3" lg.</li> </ul>	4
<b>Items 24 thru 27 are used for 4WD machines</b>			
24	111544	SHAFT, Front drive	1
25	105863	KIT, Universal joint	2
26	103084	U-BOLT KIT, Front drive shaft	1
27	103099	YOKE, Front drive shaft	1
<b>NOTE: Count number of teeth before ordering.</b>			

**FIGURE 6-25. REAR DRIVE AXLE ASSEMBLY**

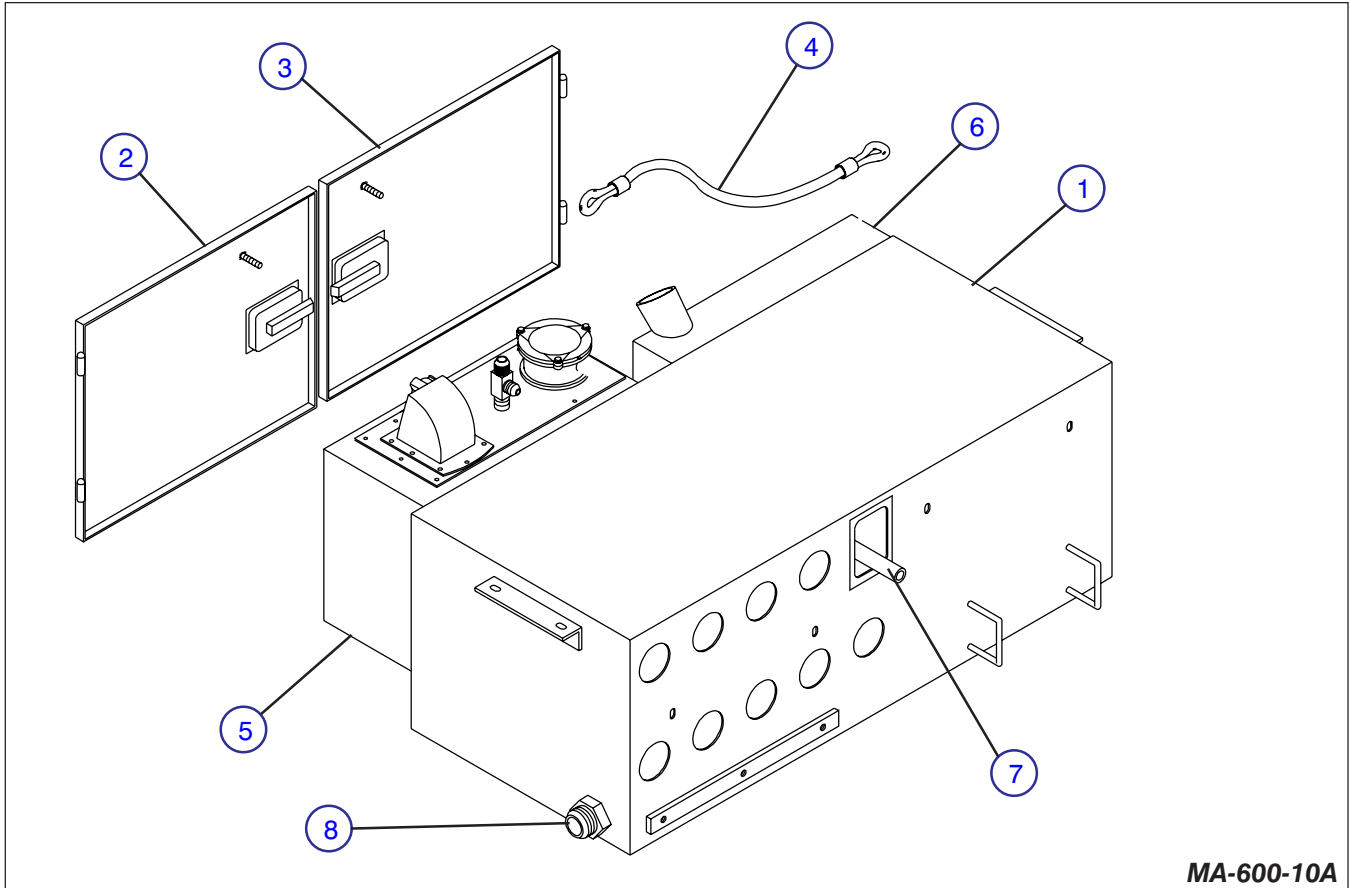


MA-800-44

**FIGURE 6-25. REAR DRIVE AXLE ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
	111589	AXLE ASSEMBLY, Rear drive (DANA #60A) (Consists of items 1 thru 29)	-
1	\$	• HOUSING W/BEARING CAPS, Rear drive axle	1
2	113938	• DRIVE GEAR AND PINION ASSEMBLY	1
3	113939	• BEARING ASSEMBLY, Inner pinion (Includes item 4)	1
4	113940	• KIT, Pinion adjusting shim	AR
5	113882	• SLINGER, Inner pinion	1
6	113883	• BEARING ASSEMBLY, Outer pinion	1
7	113930	• SLINGER, Inner pinion bearing	1
8	113884	• SEAL, Pinion	1
9	113914	• YOKE ASSEMBLY, End	1
10	113885	• WASHER, Pinion nut	1
11	113886	• NUT, Pinion	1
12	108394	• COVER, Carrier	1
13	113888	• PLUG, Carrier cover	1
14	\$	• CAP, Differential bearing (part of item #1)	2
15	\$	• BOLT, Differential bearing cap (part of item #1)	4
16	113889	• BEARING ASSEMBLY, Differential	2
17	113912	• KIT, Differential shim	AR
18	113941	• SEAL, Hub	2
19	113942	• BEARING ASSEMBLY, Inner wheel	2
20	113943	• BEARING ASSEMBLY, Outer wheel	2
21	113944	• HUB, Wheel	2
22	113919	• STUD, Axle hub	16
23	113945	• NUT, Spindle	4
24	113946	• WASHER, Spindle	2
25	114903	• SHAFT, Flanged axle LH (short)	1
26	113947	• SHAFT, Flanged axle RH (long)	1
27	113924	• ADAPTER, Stud nut	16
28	113925	• NUT, Stud	16
29	113948	• DIFFERENTIAL ASSEMBLY (Detroit Locker) (Service parts not available at time of printing)	1
30	106447	• BOLT, Hex-hd 1/2-13 x 1-1/2" lg.	8
31	126286	• WASHER, Lock 1/2"	8
32	123856	• NUT, Hex 1/2-13	8
		\$ Not available, order complete assembly	

**FIGURE 6-26. FUEL TANK/HYDRAULIC OIL TANK CABINET ASSEMBLY**

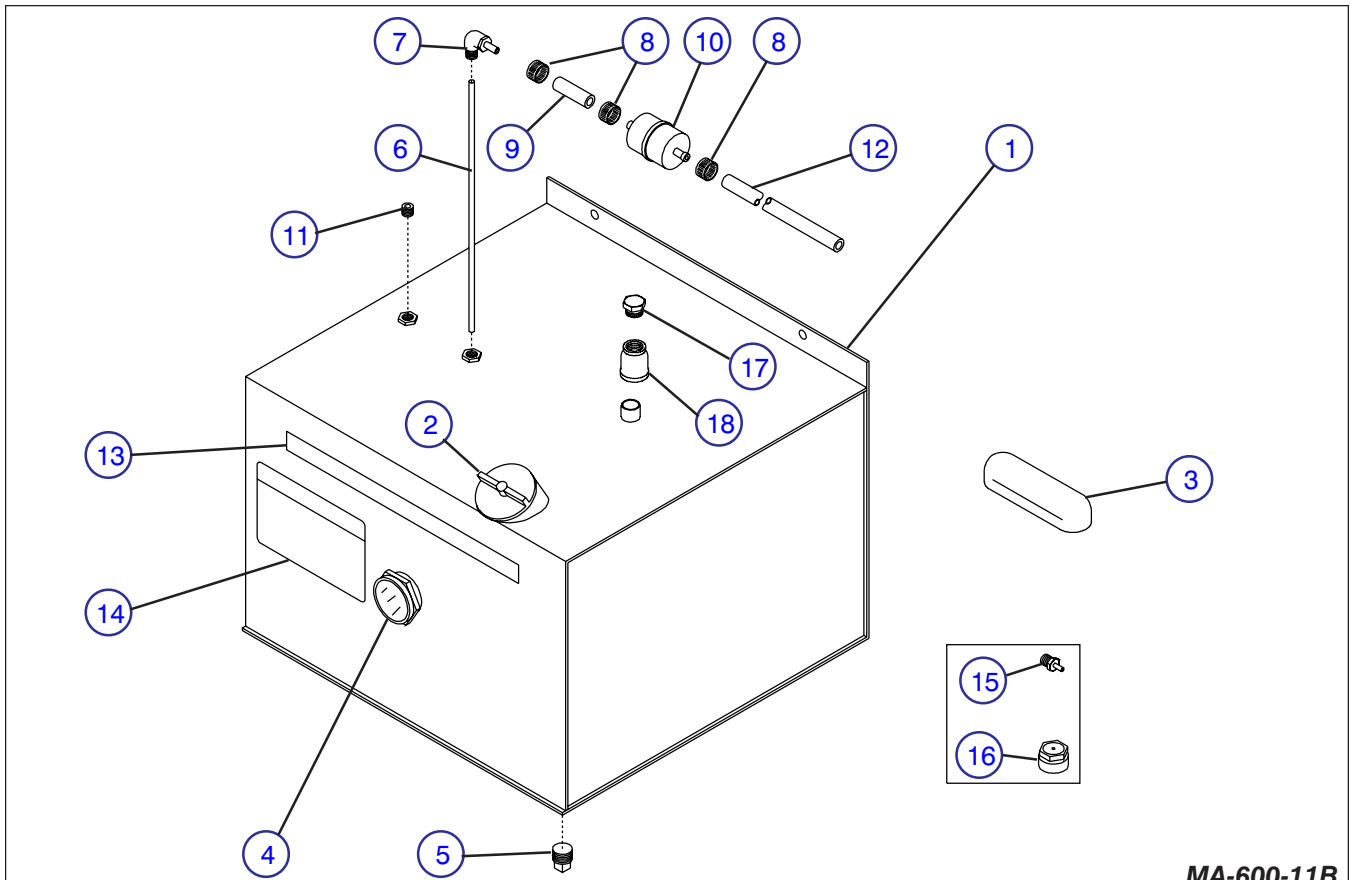


**MA-600-10A**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	114309	WELDMENT, Fuel tank/hydraulic oil tank cabinet	1
2	112014	DOOR, Fuel tank access	1
	103628	• SEAL, Door (72-3/4" total)	AR
	101541	• HANDLE W/LOCK, Recessed	1
	111944	• • KEY, Door #CH501	AR
3	111152	DOOR, Hydraulic oil tank access	1
	103628	• SEAL, Door (72-3/4" total)	AR
	101541	• HANDLE W/LOCK, Recessed	1
	111944	• • KEY, Door #CH501	AR
4	116052	LANYARD, Door stop 18" lg. (Replaces 104104)	2
	103980	• NUT, Hex 1/4-20	8
	103995	• WASHER, Lock 1/4"	4
5	(Ref.)	TANK ASSEMBLY, Hydraulic oil (For components, refer to Figure 6-29. or 6-30)	1
	103473	• BOLT, Hex-hd 3/8-16 x 1" lg.	2
	103472	• WASHER, Flat 3/8"	2
	112601	• NUT, Hex flange lock 3/8-16	2
6	(Ref.)	TANK ASSEMBLY, Fuel (For components, refer to Figure 6-27 or 6-28.)	1
	103473	• BOLT, Hex-hd 3/8-16 x 1" lg.	2
	103472	• WASHER, Flat 3/8"	2
	112601	• NUT, Hex flange lock 3/8-16	2
7	108675	CONDUIT, Convoluted (edge protection) 40" lg.	1
8	114329	FITTING, Reducer 3/4 x 1/2	1



**FIGURE 6-27. FUEL TANK ASSEMBLY - Gasoline Engines**



**MA-600-11B**

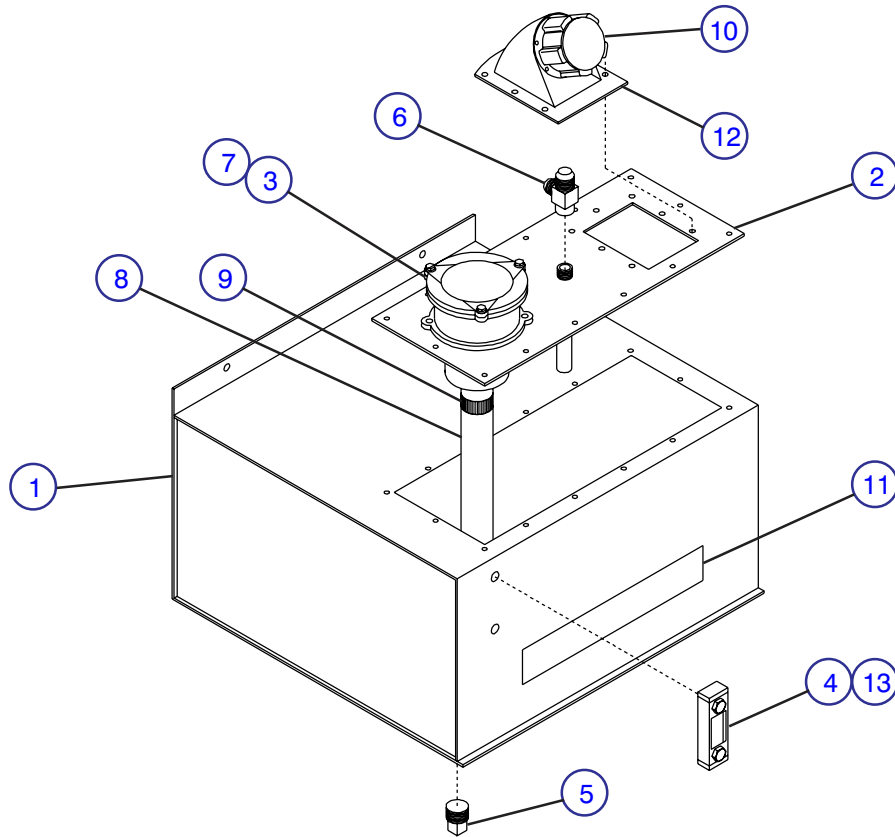
Index No.	Skyjack Part No.	Description	Units per Assy.
	111134	TANK ASSEMBLY, Fuel (Consists of items 1 and 2)	-
1	(Ref.)	• WELDMENT, Fuel tank	1
2	113848	• CAP, Filler w/spring	1
3	113399	VENT, Breather (Later models up serial #. 31274)	1
	114723	• SCREW, Soc-hd set 1/4-20 x 1/4"	1
4	101360	GAUGE, Fuel level	1
5	103339	PLUG, Drain	1
6	112588	TUBE, Fuel line	1
7	102907	FITTING, Elbow fuel line (Replaces 103164)	1
8	103321	CLAMP, Hose	3
9	102984	HOSE, Fuel tank to fuel filter 3" lg.	1
10	102764	FILTER, In-line fuel	1
11	102932	PLUG, Hollow hex 1/4P	1
12	102984	HOSE, Fuel filter to fuel pump 158" lg.	1
13	102960	LABEL, Use gasoline only	1
14	106694	LABEL, Danger, explosion hazard	1
15	\$	FITTING, Hose barb (Order 102907)	1
16	101359	VENT, Fuel tank breather (Early models)	1
17	355028	VENT, Breather (serial # 31275 and above)	1
18	355029	COUPLING, Red. (serial # 31275 and above)	1



**FIGURE 6-28. FUEL TANK ASSEMBLY - Diesel Engines**

Index No.	Skyjack Part No.	Description	Units per Assy.
	111134	TANK ASSEMBLY, Fuel (Consists of items 1 and 2)	-
1	(Ref.)	• WELDMENT, Fuel tank	1
2	113848	• CAP, Filler w/spring	1
3	113399	VENT, Breather (Later models up serial # 31274)	1
	114723	• SCREW, Soc-hd set 1/4-20 x 1/4"	1
4	101360	GAUGE, Fuel level	1
5	103339	PLUG, Drain	1
6	112588	TUBE, Fuel line	1
7	103164	FITTING, Elbow fuel line	1
8	103321	CLAMP, Hose	3
9	102984	HOSE, Fuel tank to fuel filter 3" lg.	1
10	102764	FILTER, In-Line fuel	1
11	111565	FITTING, Hose barb (Early models)	1
12	103176	FITTING, Hose connector	1
13	102660	HOSE, Overflow 188" lg.	1
14	102984	HOSE, Fuel filter to fuel pump 168"lg.	1
15	102962	LABEL, Use diesel only	1
16	106694	LABEL, Danger, explosion hazard	1
17	102907	FITTING, Brass 90° w/hose barb (Later models)	1
18	103164	FITTING, Elbow fuel line (Early models)	1
19	101359	VENT, Fuel tank breather (Early models)	1
20	355028	VENT, Breather (serial # 31275 and above)	1
21	355029	COUPLING, Red. (serial # 31275 and above)	1

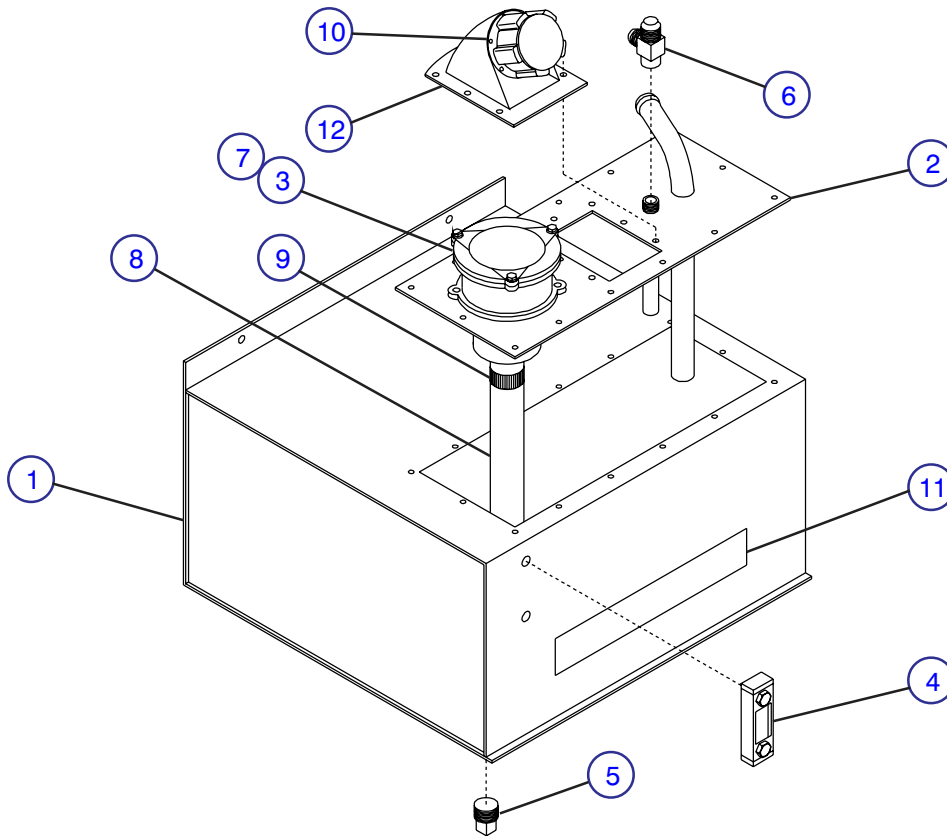
**FIGURE 6-29. HYDRAULIC OIL TANK ASSEMBLY (Serial # 30200 And Above)**



**MA-600-60**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	TANK ASSEMBLY, Hydraulic oil	-
1	114315	• WELDMENT, Hydraulic oil tank	1
2	114307	• COVER W/SUCTION PIPE, Hydraulic tank	1
	116193	• • SCREW, Machine #10-32 x 1/2" lg.	14
3	109568	• FILTER ASSEMBLY, Return	1
	104254	• • ELEMENT, Filter	1
	103864	• • BOLT, Hex-hd 5/16-18 x 1" lg.	2
	103996	• • WASHER, Flat 5/16"	2
	104637	• • WASHER, Lock 5/16"	2
	100397	• • NUT, Hex 5/16-18	2
	123022	• SEAL, Filter Assembly	1
	123021	• COVER, Filter Assembly	1
	123020	• SPRING, Filter Assembly	1
	122973	• CASTING, Aluminum	1
	121571	• SCREW, Set	1
	122969	• BOLT, Washer Combined	3
	122968	• CASING, Filter	1
4	103236	• GAUGE, Oil level temp	1
5	103339	• PLUG, 3/4P Magnetic	1
6	113454	• FITTING, Run tee	1
7	112187	• FITTING, 3/4" Hose barb	1
8	102918	• HOSE, Tank 6" lg.	1
9	103320	• CLAMP, #16 Gear	1
10	102694	• CAP W/GASKET, Filler/breather	1
	103964	• • SCREW, Machine #10-32 x 1/4" lg.	6
11	102961	LABEL, Use hydraulic oil	1
12	113118	• NECK, Side filler	1
13	124311	• INSERT	2

**FIGURE 6-30. HYDRAULIC OIL TANK ASSEMBLY (Serial # 30199 And Below)**

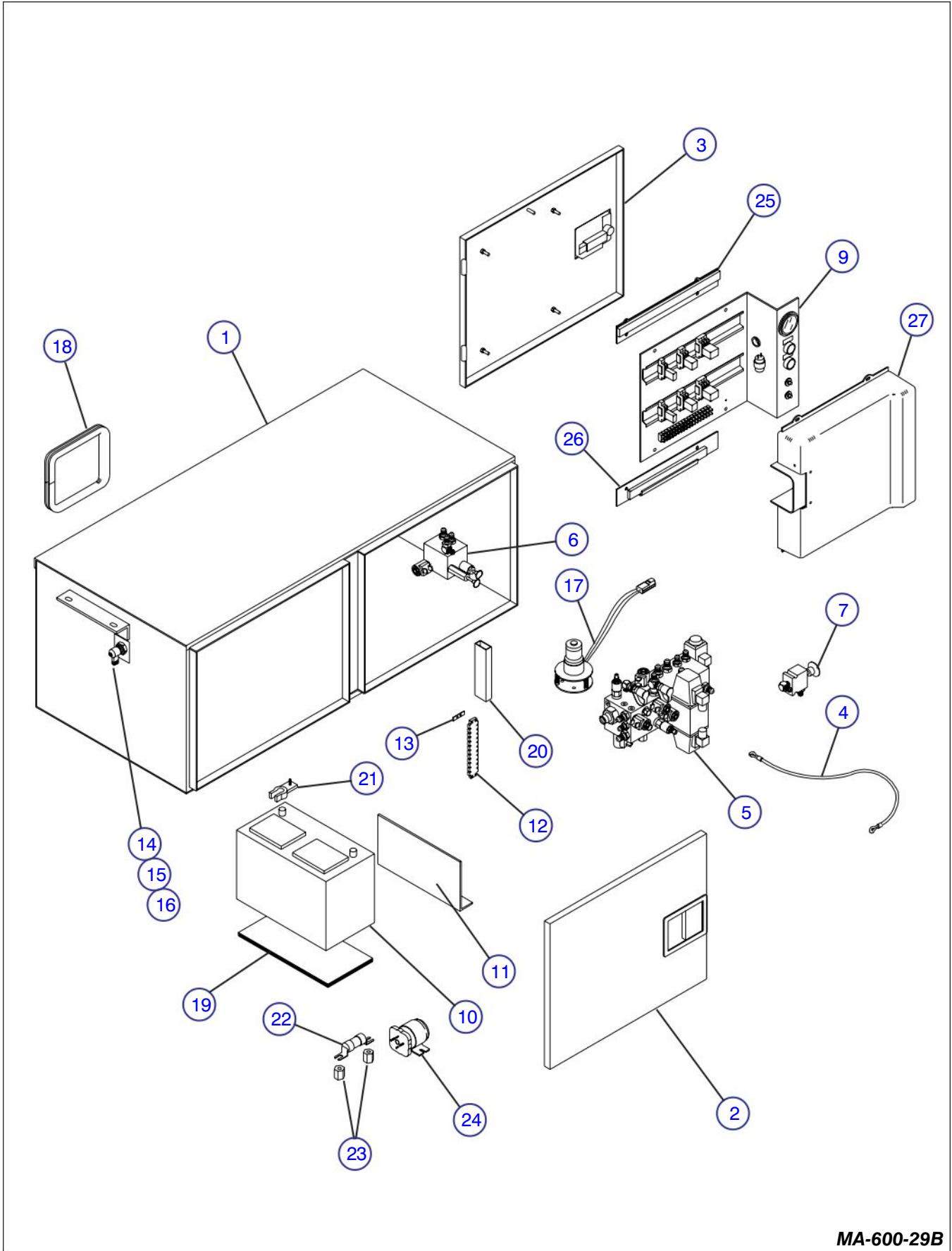


**MA-600-13**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	TANK ASSEMBLY, Hydraulic oil	-
1	113319	• WELDMENT, Hydraulic oil tank	1
2	113318	• COVER W/SUCTION PIPE, Hydraulic tank	1
	103964	• • SCREW, Machine #10-32 x 1/4" lg.	14
3	109568	• FILTER ASSEMBLY, Return	1
	104254	• • ELEMENT, Filter	1
	103864	• • BOLT, Hex-hd 5/16-18 x 1" lg.	2
	103996	• • WASHER, Flat 5/16"	2
	100397	• • NUT, Hex 5/16-18	2
	123022	• SEAL, Filter Assembly	1
	123021	• COVER, Filter Assembly	1
	123020	• SPRING, Filter Assembly	1
	122973	• CASTING, Aluminum	1
	121571	• SCREW, Set	1
	122969	• BOLT, Washer Combined	3
	122968	• CASING, Filter	1
4	103236	• GAUGE, Oil level temp	1
5	103339	• PLUG, 3/4P Magnetic	1
6	113454	• FITTING, Run tee	1
7	112187	• FITTING, 3/4" Hose barb	1
8	102918	• HOSE, Tank 6" lg.	1
9	103320	• CLAMP, #16 Gear	1
10	102694	• CAP W/GASKET, Filler/breather	1
	103964	• • SCREW, Machine #10-32 x 1/4" lg.	6
11	102961	LABEL, Use hydraulic oil	1
12	113118	• NECK, Side filler	1



**FIGURE 6-31. HYDRAULIC/ELECTRIC CABINET ASSEMBLY**



**MA-600-29B**

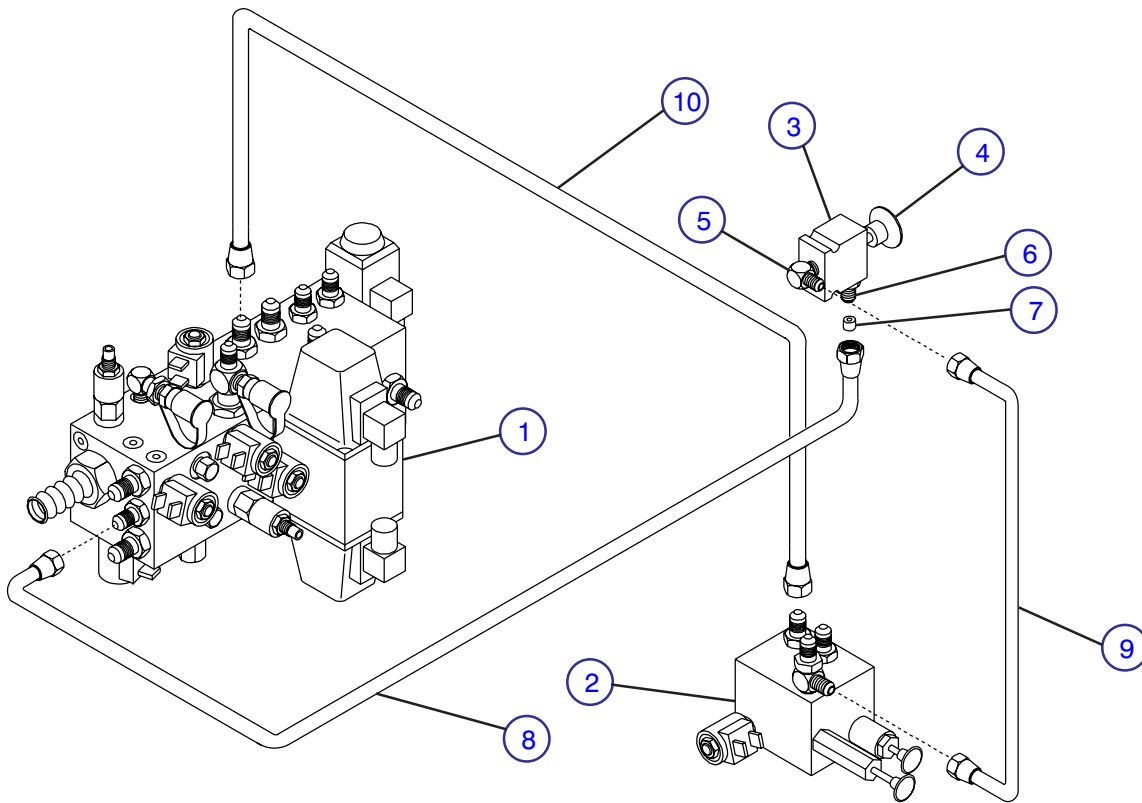
**FIGURE 6-31. HYDRAULIC/ELECTRIC CABINET ASSEMBLY**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	114146	WELDMENT, Hydraulic/electric cabinet	1
2	111152	DOOR, Hydraulic component access	1
	103628	• SEAL, Foam (72-3/4" total)	AR
3	111153	DOOR, Electrical panel access	1
	103628	• SEAL, Foam (72-3/4" total)	AR
4	116052	LANYARD, Door stop 18" lg. (Replaces 104104)	2
	103980	• NUT, Hex 1/4-20	8
	103995	• WASHER, Lock 1/4"	4
5	(Ref.)	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-36, 6-37.)	1
	101446	• STUD, 5/16-18 x 1-1/2" lg.	4
	103404	• WASHER, Lock 5/16"	4
	103996	• WASHER, Flat 5/16"	4
	100397	• NUT, Hex 5/16-18	4
6	(Ref.)	MANIFOLD ASSEMBLY, Brake (For components, refer to Figure 6-34, 6-35.)	1
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
	103404	• WASHER, Lock 5/16"	2
	103996	• WASHER, Flat 5/16"	2
7	(Ref.)	VALVE AND BLOCK ASSEMBLY, Manual lowering valve (Refer to Figure 6-32.)	1
	103860	• BOLT, Hex-hd 1/4-20 x 1-3/4" lg.	2
	104000	• WASHER, Lock 1/4"	2
	103995	• WASHER, Flat 1/4"	2
9	(Ref.)	PANEL ASSEMBLY, Base control/electrical (For components, refer to Figure 6-40.)	1
	103864	• BOLT, Hex-hd 5/16-18 x 1" lg.	4
	103404	• WASHER, Lock 5/16"	4
	100397	• NUT, Hex 5/16-18	4
10	103295	BATTERY, 12 Volt	1
11	108795	PLATE, Battery mounting	1
	103887	• BOLT, Hex-hd 5/16-18 x 3/4" lg.	2
	103404	• WASHER, Lock 5/16"	2
	103984	• NUT, Lock 5/16-18	2
	103628	• SEAL, Rubber 5-3/4" lg.	AR
12	103104	BLOCK, 12 Pole terminal	1
	103962	• SCREW, Machine #10-32 x 1/2"lg.	2
13	108170	BAR, Double terminal spade	AR
		<b>Parts list continued on the following page.</b>	

**FIGURE 6-31. HYDRAULIC/ELECTRIC CABINET ASSEMBLY (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>Parts list continued from the previous page.</b>			
14	119726	SWITCH, Power off/on (Replaces 102601)	1
15	105600	BOOT, Switch terminal	2
16	(Ref.)	CABLE ASSEMBLY, Battery to power switch	1
	104533	<ul style="list-style-type: none"> <li>• CABLE, #2 Battery</li> </ul>	1
17	117880	SWITCH, Tilt	1
		(Replaces 106471 by also ordering (1) Adapter cable, 117145)	
	114866	<ul style="list-style-type: none"> <li>• FUSE, 250 Volt 1 amp</li> </ul>	1
	119128	<ul style="list-style-type: none"> <li>• KIT, 4 Pole receptacle connector</li> </ul>	1
	103856	<ul style="list-style-type: none"> <li>• BOLT, Hex-hd 1/4-20 x 3/4" lg.</li> </ul>	2
	104000	<ul style="list-style-type: none"> <li>• WASHER, Lock 1/4"</li> </ul>	2
	103980	<ul style="list-style-type: none"> <li>• NUT, Hex 1/4-20</li> </ul>	2
18	103090	CONDUIT, Edge protection	1
19	112125	PLYWOOD, 6-1/2" x 12" x 3/8" thk.	2
20	104127	PROTECTION, Cable 72" lg. (30" total)	AR
21	107898	ADAPTER, Marine battery terminal	2
22	111282	FUSE, 100 Amp	1
23	103068	INSULATOR, Fuse	2
24	111787	CONTACTOR, 12 Volt	1
25	355048	MOUNT, Panel	1
26	355043	RETAINER, Panel	1
27	355046	COVER, Panel	1
	300755	<ul style="list-style-type: none"> <li>• SCREW, Thumb 1/4-20 x 1/2"</li> </ul>	2
	103995	<ul style="list-style-type: none"> <li>• WASHER, Flat 1/4"</li> </ul>	2
	103628	<ul style="list-style-type: none"> <li>• SEAL, Adhesive</li> </ul>	40"

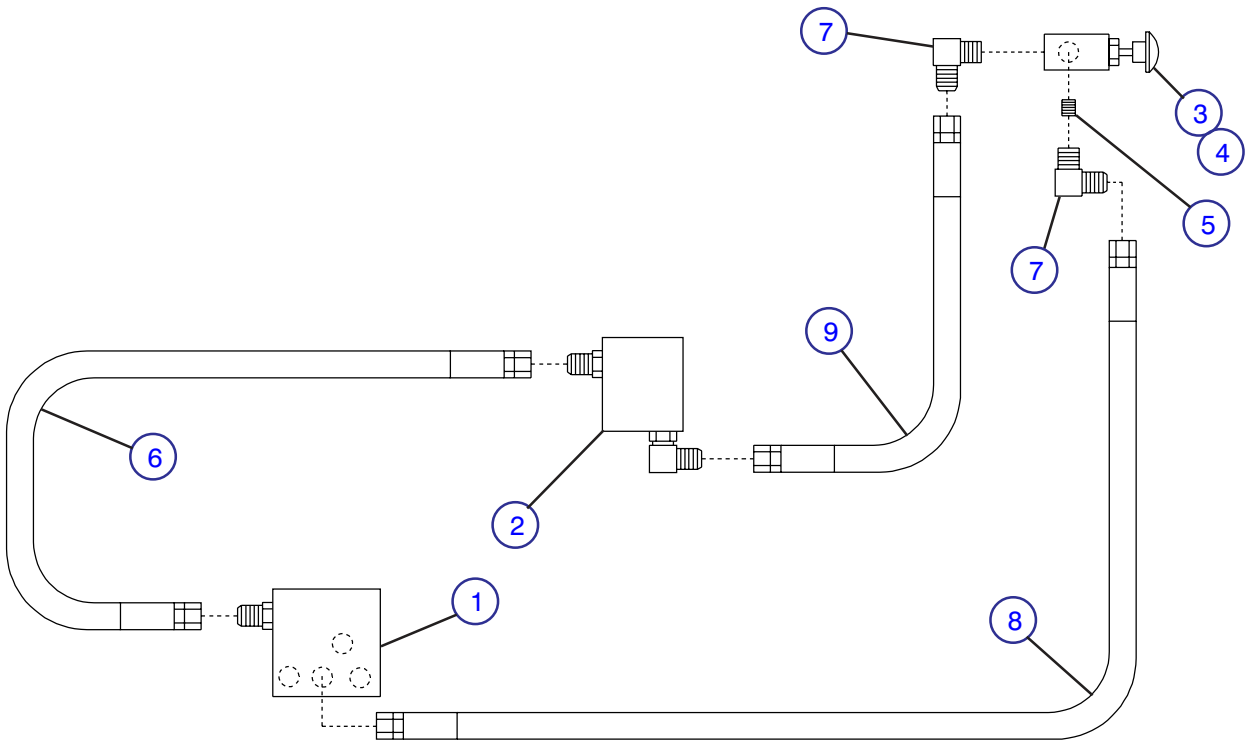
**FIGURE 6-32. HYDRAULIC/ELECTRIC CABINET HYDRAULIC HOSE CONNECTIONS**  
**(Machines With Serial # 30167 and Above)**



**MA-600-65**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	MANIFOLD ASSEMBLY, Main (Refer to Figure 6-36, 6-37.)	1
2	(Ref.)	VALVE ASSEMBLY, Auto reset (Refer to Figure 6-34.)	1
3	103137	MANIFOLD, Manual lowering	1
4	107271	VALVE, Manual lowering	1
5	106670	FITTING, Elbow 90° #6-#6	1
6	355049	FITTING, Connector #6-#6 (Replaces 103323)	1
7	104435	ORIFICE, Lowering .067 diameter	1
8	114220	TUBE, Emergency lowering manifold to main manifold	1
9	114221	TUBE, Emergency lowering manifold to manual brake	1
10	114136	TUBE, Manual brake to main manifold	1

**FIGURE 6-33. HYDRAULIC/ELECTRIC CABINET HYDRAULIC HOSE CONNECTIONS**

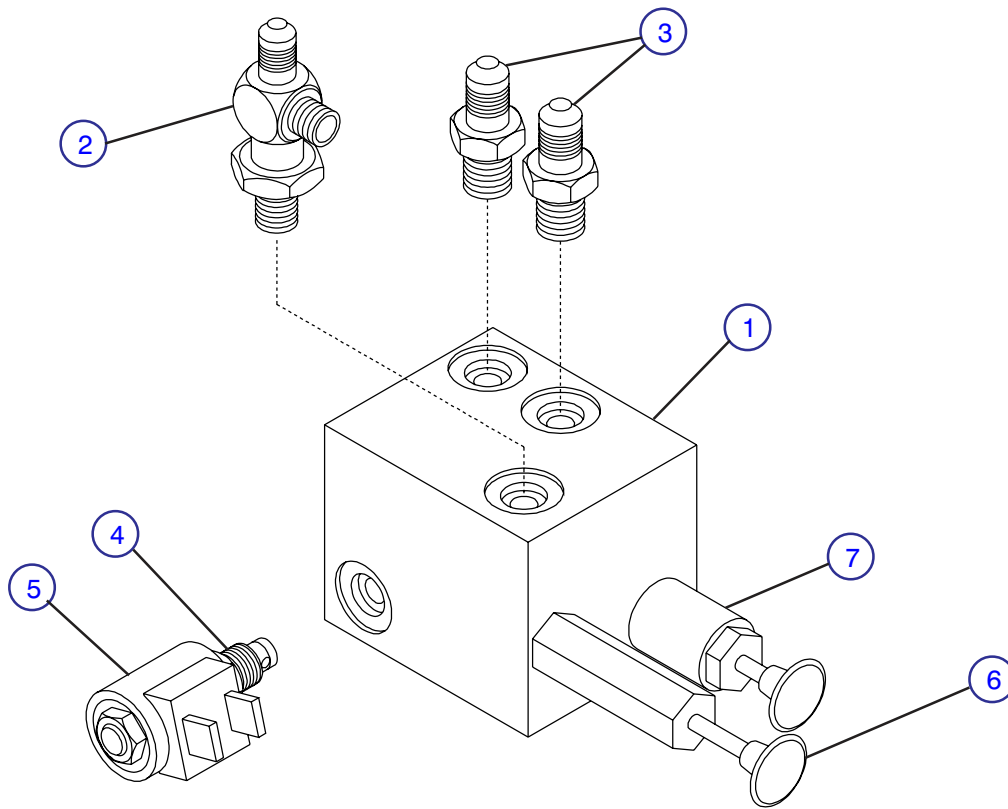


**MA-600-14**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	MANIFOLD ASSEMBLY, Main (Refer to Figure 6-36, 6-37.)	1
2	(Ref.)	VALVE ASSEMBLY, Quick brake (Refer to Figure 6-35.)	1
3	103137	MANIFOLD, Manual lowering	1
4	107271	VALVE, Manual lowering	1
5	101451	ORIFICE, Lowering .067 I.D.	1
6	114220	HOSE ASSEMBLY, Main manifold to quick brake manifold	1
7	106670	FITTING, Elbow 90° #6-#6	2
8	102491	HOSE ASSEMBLY, Emergency lowering block to main manifold	1
9	108887	HOSE ASSEMBLY, Emergency lowering block to quick brake manifold	1



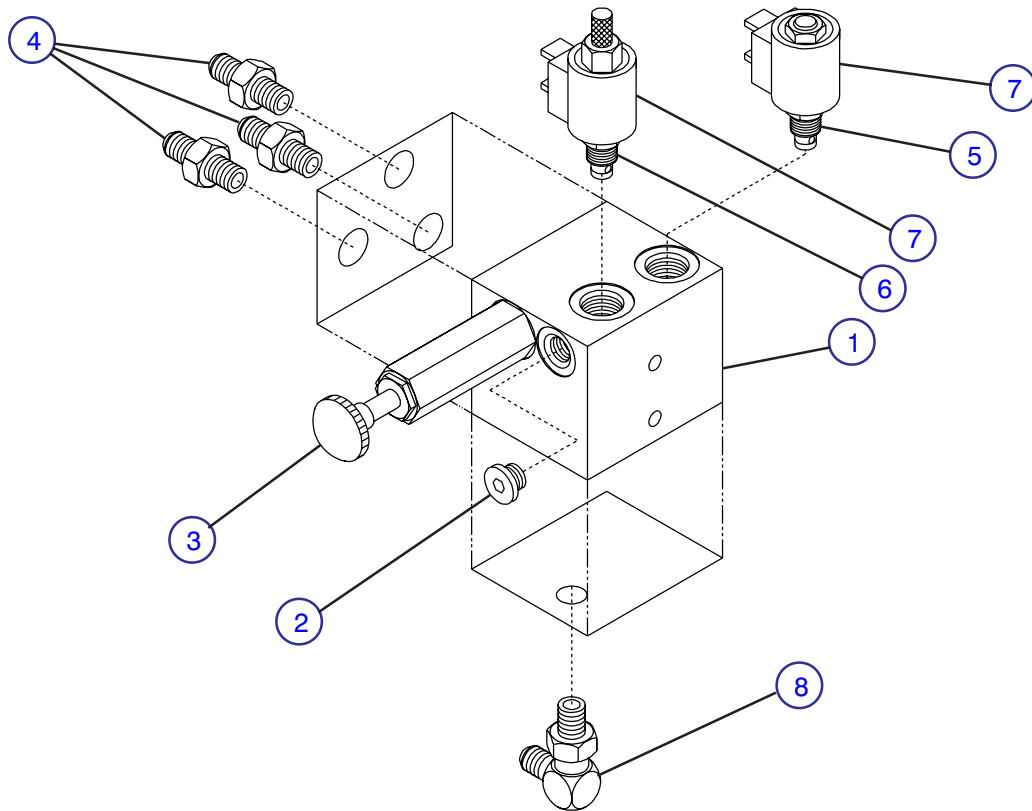
**FIGURE 6-34. AUTO RESET BRAKE MANIFOLD ASSEMBLY  
(Machines With Serial # 30167 & Above)**



MA-600-33

Index No.	Skyjack Part No.	Description	Units per Assy.
1	111943	MANIFOLD, Auto reset brake	1
2	110554	FITTING, Run tee #8orb-#8-#8	1
3	102659	FITTING, Connector #8orb-#8	2
4	102626	VALVE, N.O. (brake)	1
5	103613	COIL, 12 Volt	1
6	110652	PUMP, Cavity hand	1
7	113752	VALVE, Auto reset	1

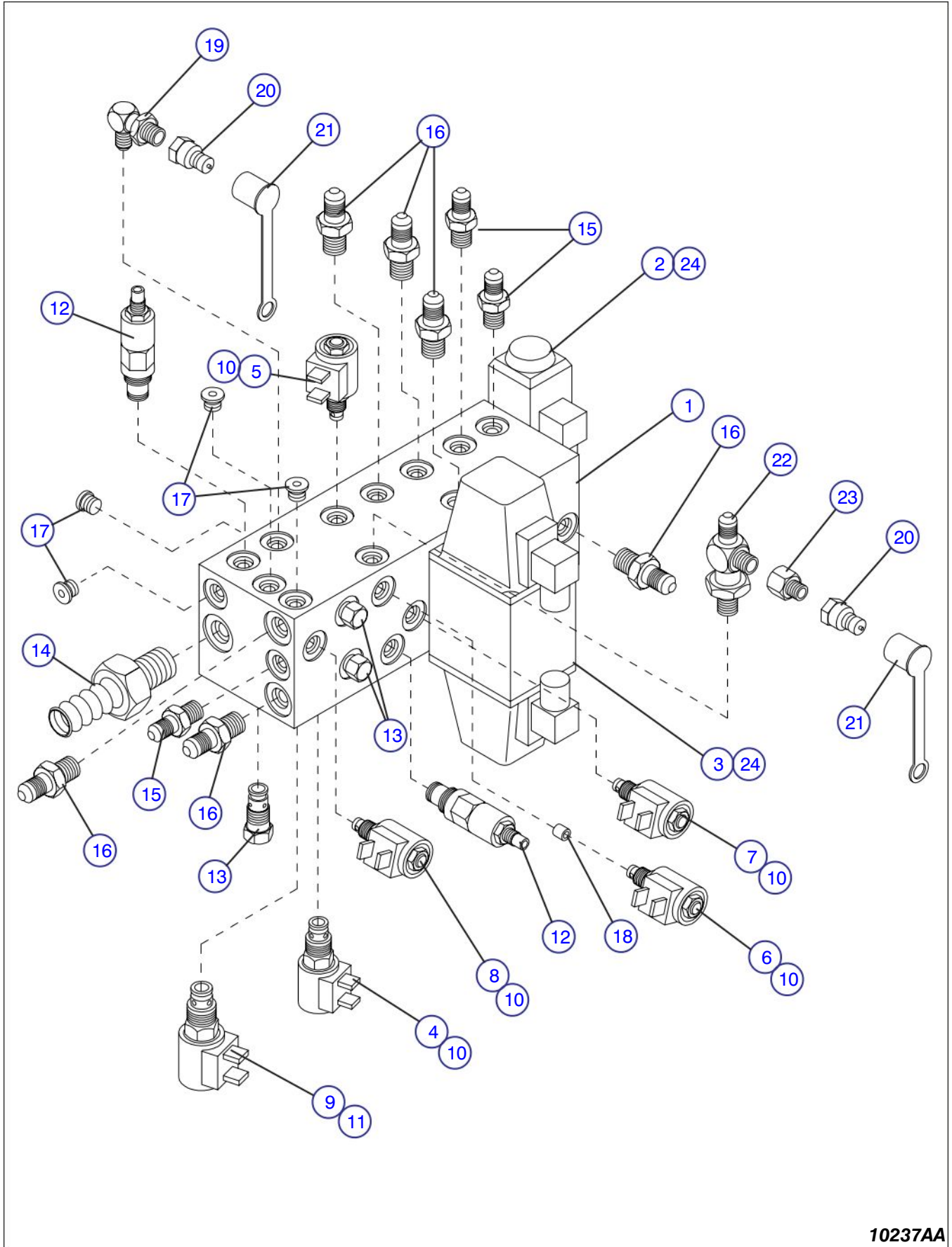
**FIGURE 6-35. QUICK BRAKE MANIFOLD ASSEMBLY  
(Machines With Serial # 30166 & Below)**



**MA-800-23**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	MANIFOLD ASSEMBLY, Quick brake (Order components)	-
1	110643	• BLOCK, Brake manifold	1
2	104437	• PLUG, Hex-soc #6orb	1
3	110652	• PUMP, Hand	1
4	102659	• FITTING, Connector #8orb-#8	3
5	104132	• VALVE, N.C. (brake lock)	1
6	110655	• VALVE W/MANUAL OVERRIDE, N.O. (quick brake)	1
7	103613	• COIL, 12 Volt valve	2
8	103073	• FITTING, Elbow 90° #6orb-#6	1

**FIGURE 6-36. MAIN MANIFOLD ASSEMBLY**  
*(Machines With Serial # 30208 and Above)*

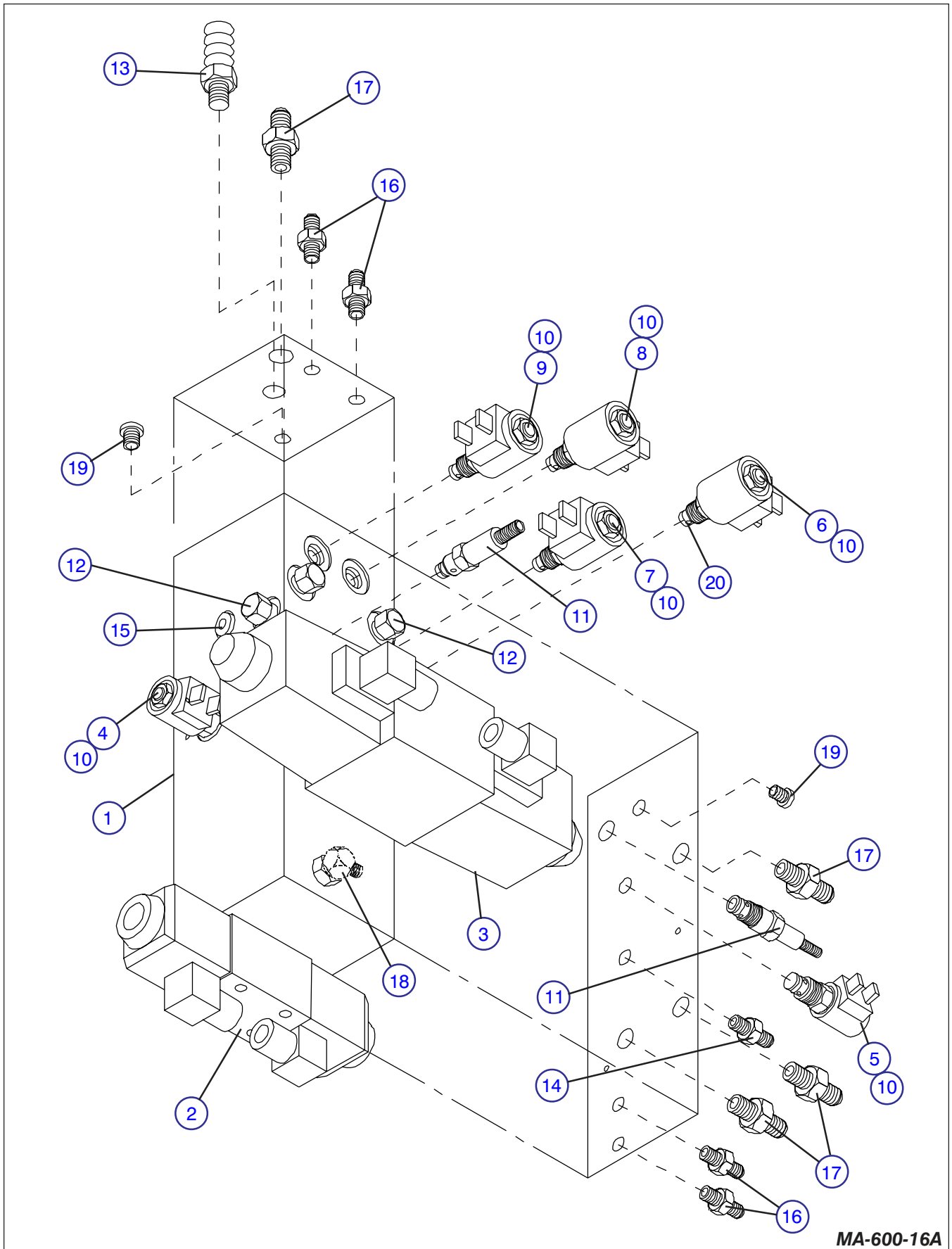


10237AA

**FIGURE 6-36. MAIN MANIFOLD ASSEMBLY  
(Machines With Serial # 30208 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	114366	MANIFOLD ASSEMBLY, Main (Consists of items 1 thru 22)	-
<b>1</b>	114178	• Block, Main manifold	1
	101446	BOLT, Stud 5/16" - 18 x 1 1/2" lg.	4
	100397	NUT, Hex head 5/16" - 18	8
	104637	WASHER, Lock 5/16"	4
	103996	WASHER, Flat 5/16" S.A.E.	4
	300117	WASHER, Fender 5/16	4
<b>2</b>	103397	• VALVE ASS'Y, "Vickers" steer (early models - replace with Hytos)	1
	107440	• • COIL, 12 Volt Spool Valve	2
	103920	• • BOLT, Socket head #10-24 x 2" grade 5	AR
	128797	• VALVE ASS'Y, "Hytos" steer (later models & Vickers replacement)	1
	128318	• • VALVE, Directional spool	1
	128321	• • • COIL, 12 Volt Spool Valve	2
	103920	• • BOLT, Socket head #10-24 x 2" grade 5	AR
<b>3</b>	103396	• VALVE ASS'Y, "Vickers" Drive (early models - replace with Hytos)	1
	107441	• • COIL, 12 Volt Spool Valve	2
	103943	• • BOLT, Socket head 1/4-20 x 2" grade 5	AR
	128796	• VALVE ASS'Y, "Hytos" drive (later models & Vickers replacement)	1
	128319	• • VALVE, Directional spool	1
	128322	• • • COIL, 12 Volt Spool Valve	2
	103942	• • BOLT, Socket head 1/4-20 x 1.75" grade 5	AR
<b>4</b>	103655	• VALVE, N.C. (brake feed)	1
<b>5</b>	103655	• VALVE, N.C. (lift)	1
<b>6</b>	103655	• VALVE, N.C. (lowering)	1
<b>7</b>	103656	• VALVE, N.O. (brake dump)	1
<b>8</b>	103656	• VALVE, N.O. (small pump dump)	1
<b>9</b>	114365	• VALVE, N.O. (large pump dump)	1
<b>10</b>	103613	• COIL, 12 Volt valve	5
<b>11</b>	106272	• COIL, 12 Volt valve	1
<b>12</b>	104534	• VALVE, Relief	2
<b>13</b>	104624	• VALVE, Pilot check	3
<b>14</b>	112187	• FITTING, Hose barb	1
<b>15</b>	103069	• FITTING, Connector #6orb-#6	3
<b>16</b>	102659	• FITTING, Connector #8orb-#8	6
<b>17</b>	104437	• FITTING, Plug hex-soc #6orb (port)	4
<b>18</b>	104630	• ORIFICE, Lowering .096 diameter	1
<b>19</b>	114518	• FITTING, Elbow 90° #6orb-#4	1
<b>20</b>	114520	• FITTING, Quick disconnect nipple	2
<b>21</b>	114521	• CAP, Quick disconnect dust	2
<b>22</b>	116128	• FITTING, Tee #8orb-#8-#4 (Later models)	1
	114517	• FITTING, Tee #8orb-#6-#6 (Early models)	1
<b>23</b>	103329	• FITTING, Reducer #8-#6(Early models)	1
<b>24</b>	(Ref.)	CONNECTORS, Valve electrical	
	104345	• • CONNECTOR, Gray	AR
	104409	• • CONNECTOR, Black	AR
	119825	• • CONNECTOR, Clear with Diode	AR

**FIGURE 6-37. MAIN MANIFOLD ASSEMBLY (Machines With Serial # 30207 and Below)**

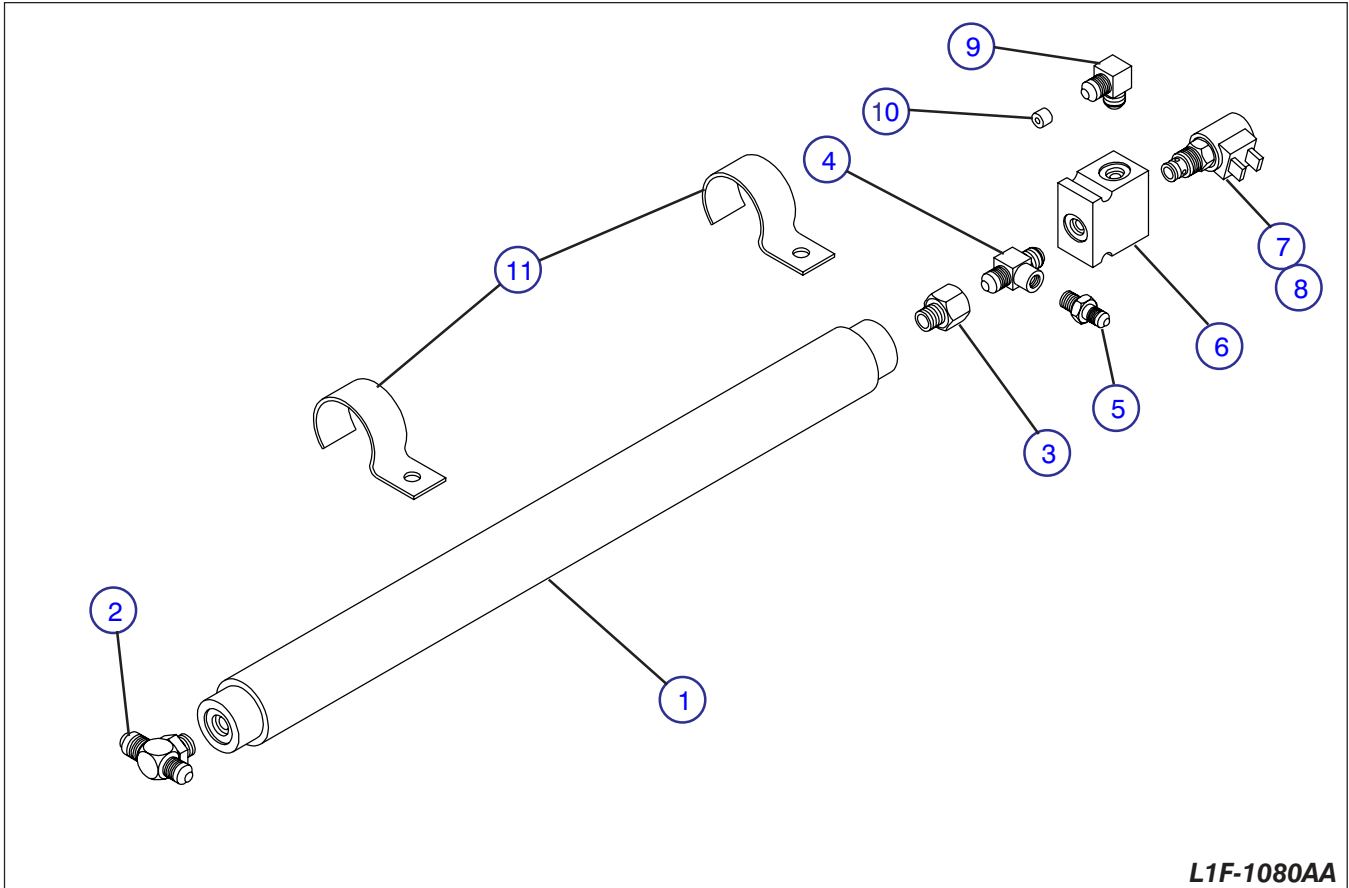




**FIGURE 6-37. MAIN MANIFOLD ASSEMBLY (Machines With Serial # 30207 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
	110586	MANIFOLD ASSEMBLY, Main (Consists of items 1 thru 20)	-
1	108009	• BLOCK, Main manifold	1
2	103397	• VALVE ASSEMBLY, 12 Volt spool (steer)	1
	107440	• • COIL, 12 Volt spool valve	2
	104345	• • CONNECTOR, Gray	AR
	104409	• • CONNECTOR, Black	AR
	119825	• • CONNECTOR, Clear with Diode	AR
	103920	• • BOLT, Soc-hd #10-24 x 2" lg.	4
3	103396	• VALVE ASSEMBLY, 12 Volt spool (drive)	1
	107441	• • COIL, 12 Volt spool valve	2
	104345	• • CONNECTOR, Gray	AR
	104409	• • CONNECTOR, Black	AR
	119825	• • CONNECTOR, Clear with Diode	AR
	103943	• • BOLT, Soc-hd 1/4-20 x 2" lg.	4
4	103655	• VALVE, N.C. (brake feed)	1
5	103655	• VALVE, N.C. (lift)	1
6	103655	• VALVE, N.C. (lowering)	1
7	103656	• VALVE, N.O. (brake dump)	1
8	103656	• VALVE, N.O. (small pump dump)	1
9	103656	• VALVE, N.O. (large pump dump)	1
10	103613	• COIL, 12 Volt valve	6
11	104534	• VALVE, Relief	2
12	104624	• VALVE, Pilot check	3
13	112187	• FITTING, Hose barb	1
14	104402	• FITTING, Connector #6orb-#8	1
15	108222	• PLUG, Hex-soc #10orb (cavity)	1
16	103069	• FITTING, Connector #6orb-#6	4
17	102659	• FITTING, Connector #8orb-#8	4
18	103073	• FITTING, Elbow 90° #6orb-#6	1
19	104437	• PLUG, Hex-soc #6orb (port)	AR
20	104630	• ORIFICE, Lowering .096 diameter	1

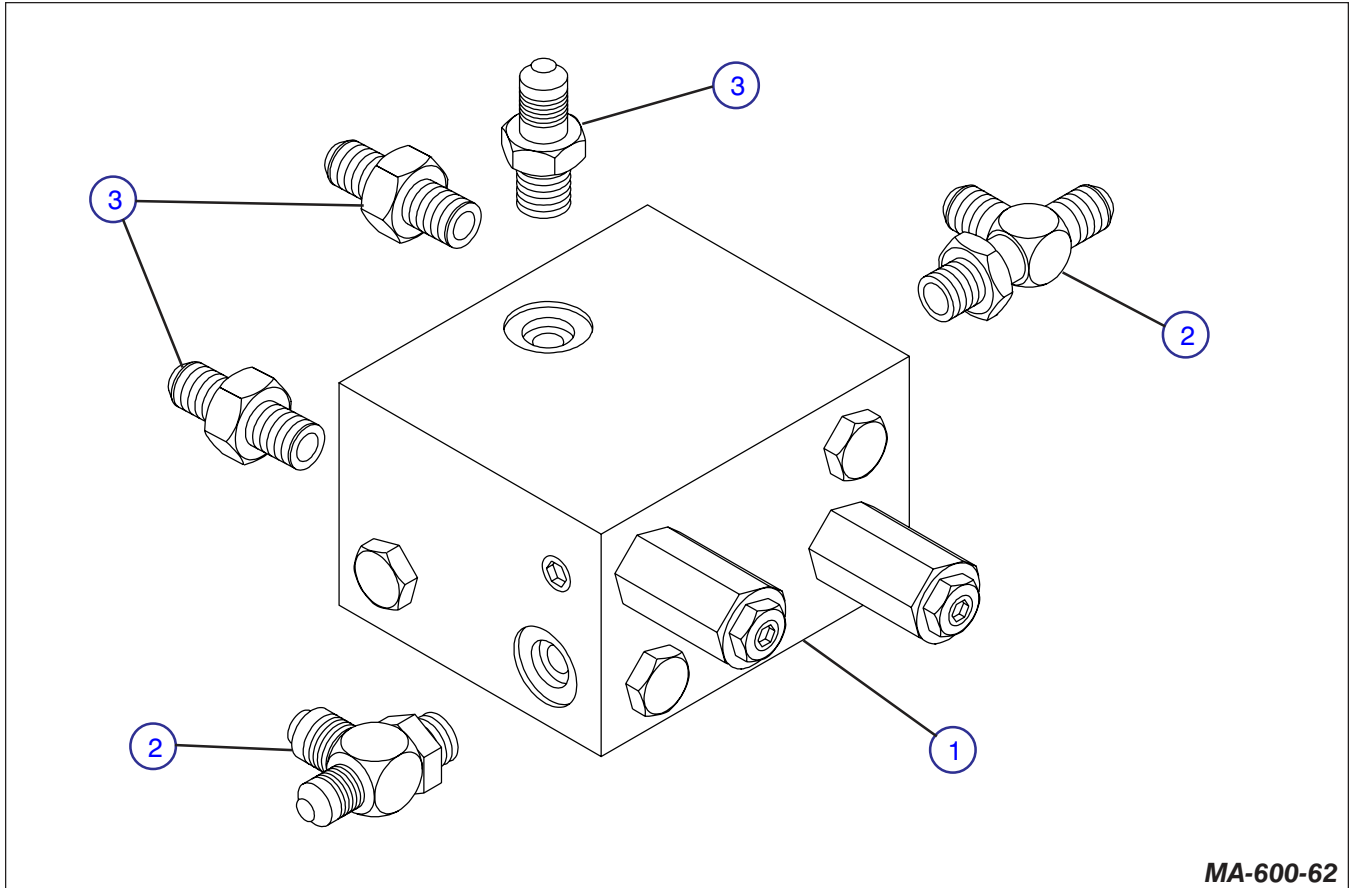
**FIGURE 6-38. CUSHION CYLINDER ASSEMBLY**



**L1F-1080AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	107752	CYLINDER, Cushion	1
2	104660	FITTING, Tee #6orb-#6-#6	1
3	106554	FITTING, Reducer #6orb-#4	1
4	103245	FITTING, Tee #4 - #4 - #4	1
5	103322	FITTING, Reducer #6 - #4	1
6	103615	MANIFOLD, Free-wheeling valve	1
7	112218	VALVE, N.O. (free-wheeling)	1
8	103613	COIL, 12 Volt	1
9	103324	FITTING, Elbow 90° #6 - #4	1
10	113343	ORIFICE, Free-wheeling .104 diameter (Serial # 30985 & Below)	1
11	111887	FASTENER, Cylinder	2
	103887	• BOLT, Hex Head 5/16-18 X 3/4"	2
	103996	• WASHER, Flat 5/16"	2
	104637	• WASHER, Lock 5/16"	2
	100397	• NUT, 5/16-18	2

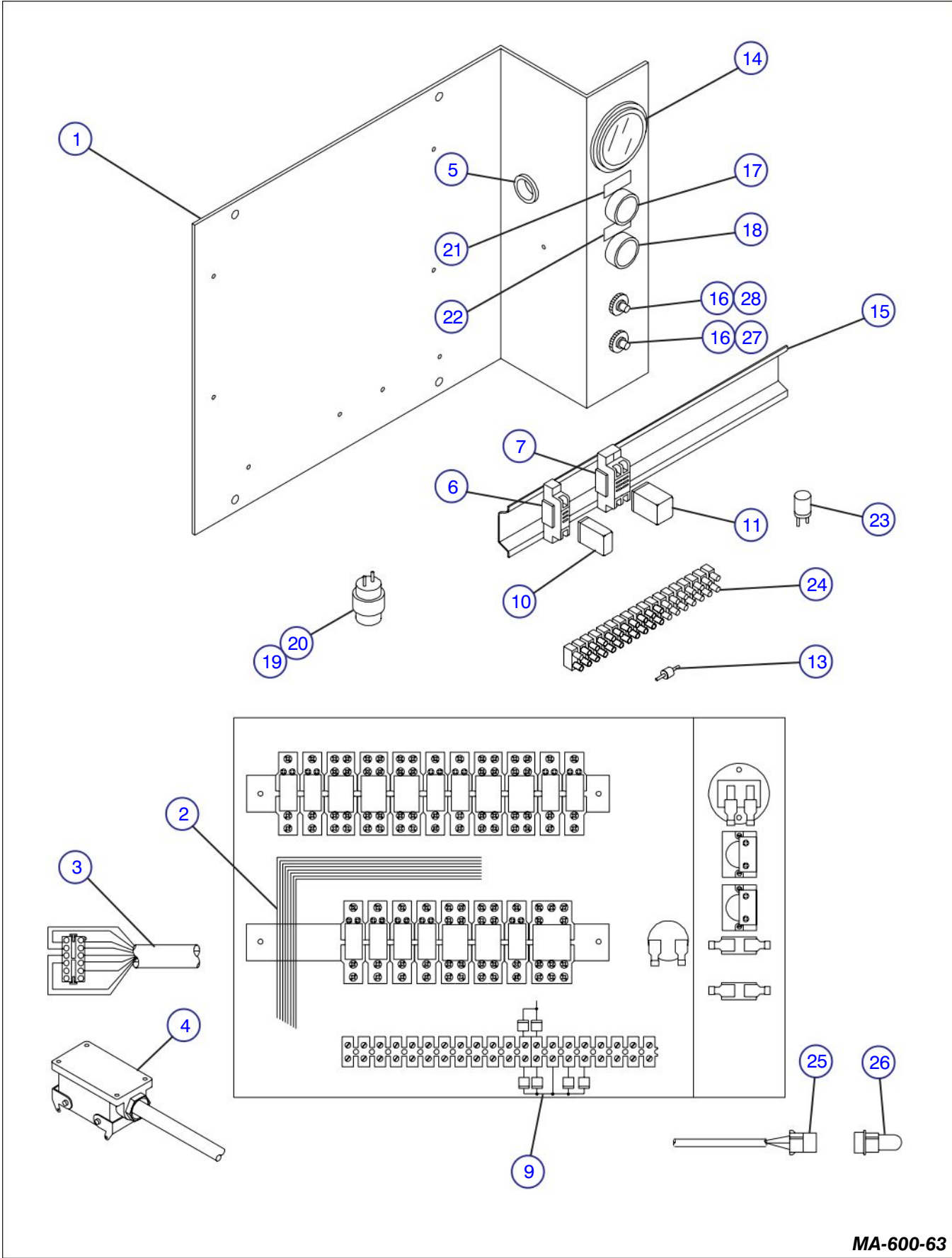
**FIGURE 6-39. MOTION CONTROL VALVE ASSEMBLY**



**MA-600-62**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	110434	VALVE ASSEMBLY, Motion control	1
2	110554	FITTING, Run tee #8orb-#8-#8	2
3	102659	FITTING, Connector #8orb-#8	3

**FIGURE 6-40. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY**  
**(Machines With Serial # 30986 and Above)**



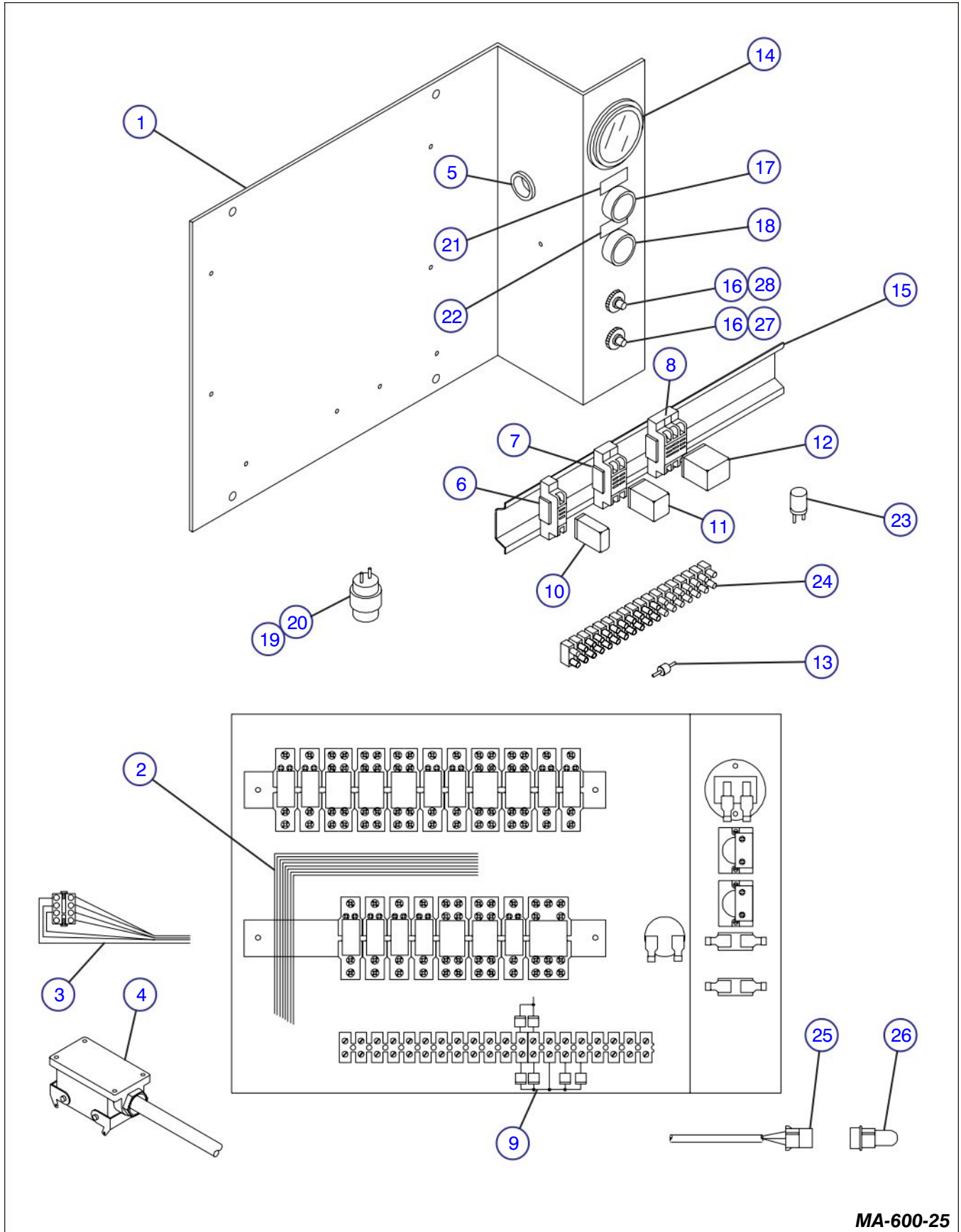
MA-600-63

**FIGURE 6-40. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY  
(Machines With Serial # 30986 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	400063	PANEL ASSEMBLY, Electrical (ANSI/SIA and CSA)	-
<b>B</b>	400064	PANEL ASSEMBLY, Electrical (CE)	-
<b>1</b>	111920	• PANEL, Base control/electrical	1
<b>2</b>	400092	• CABLE ASSEMBLY, Panel wiring (ANSI/SIA and CSA)	1
	117102	• CABLE ASSEMBLY, Panel wiring (CE)	1
<b>3</b>	355002	• CABLE ASSEMBLY, Engine wiring 12 pole (ANSI/SIA and CSA)	1
	355090	• CABLE ASSEMBLY, Engine wiring 12 pole (CE)	1
	119135	• • CONNECTOR, Kit 12 Pole Plug (mates with #119134 receptacle)	1
	102888	• • CABLE, 16/10 x 202" lg.	1
<b>4</b>	310610	• CABLE ASSEMBLY, Electrical panel	1
	115274	• • CABLE, 18/30 x 68" lg.	1
	114476	• • CONNECTOR, 32 Pole female	1
	114465	• • • HOUSING	1
	114467	• • • INSERT, Female (Pins 1-16)	1
	114468	• • • INSERT, Female (Pins 17-32)	1
	115401	• • FERRULE, 18 Gauge	60
<b>5</b>	103014	• GROMMET, Rubber	1
<b>6</b>	102479	• SOCKET, Single relay	AR
<b>7</b>	103271	• SOCKET, Double relay	AR
<b>9</b>	104313	• DIODE ASSEMBLY W/4 DIODES	1
<b>10</b>	103316	• RELAY, Single 12V SPDT	AR
<b>11</b>	103207	• RELAY, Double 12V DPDT	AR
<b>13</b>	102921	• DIODE, 6 Amp	AR
<b>14</b>	103336	• HOURMETER	1
<b>15</b>	102874	• TRACK, Relay 13" lg.	2
	121459	• • CLIP, Single Relay mounting	AR
	121460	• • CLIP, Double Relay mounting	AR
<b>16</b>	117326	• BREAKER, 20 Amp circuit (Replaces 114584)	2
<b>17</b>	(Ref.)	• SWITCH ASSEMBLY, Up push-button	1
	102851	• • HEAD, Push-button switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>18</b>	(Ref.)	• SWITCH ASSEMBLY, Down push-button	1
	102851	• • HEAD, Push-button switch	1
	103100	• • BASE, Contact	1
	103141	• • BLOCK, N.O. Contact	1
<b>19</b>	102509	• CLAMP, Plastic (flasher)	1
<b>20</b>	103743	• FLASHER, 12 Volt	1
<b>21</b>	103081	LABEL, Up	1
<b>22</b>	102667	LABEL, Down	1
<b>23</b>	103319	• CAPACITOR, 35 Volt, 1000UF	1
<b>24</b>	103011	• BLOCK, Terminal strip	3
<b>25</b>	113203	• CONNECTOR, 3 Pole (tilt switch)	1
	103049	• • SOCKET, Female	3
<b>26</b>	113202	• CONNECTOR, 3 Pole (Tilt switch jumper)	1
	102987	• • PIN, Male	3
<b>27</b>	117389	LABEL, Push to reset ground	1
<b>28</b>	117387	LABEL, Push to reset power	1



**FIGURE 6-41. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY  
(Machines With Serial # 30985 & Below)**



MA-600-25

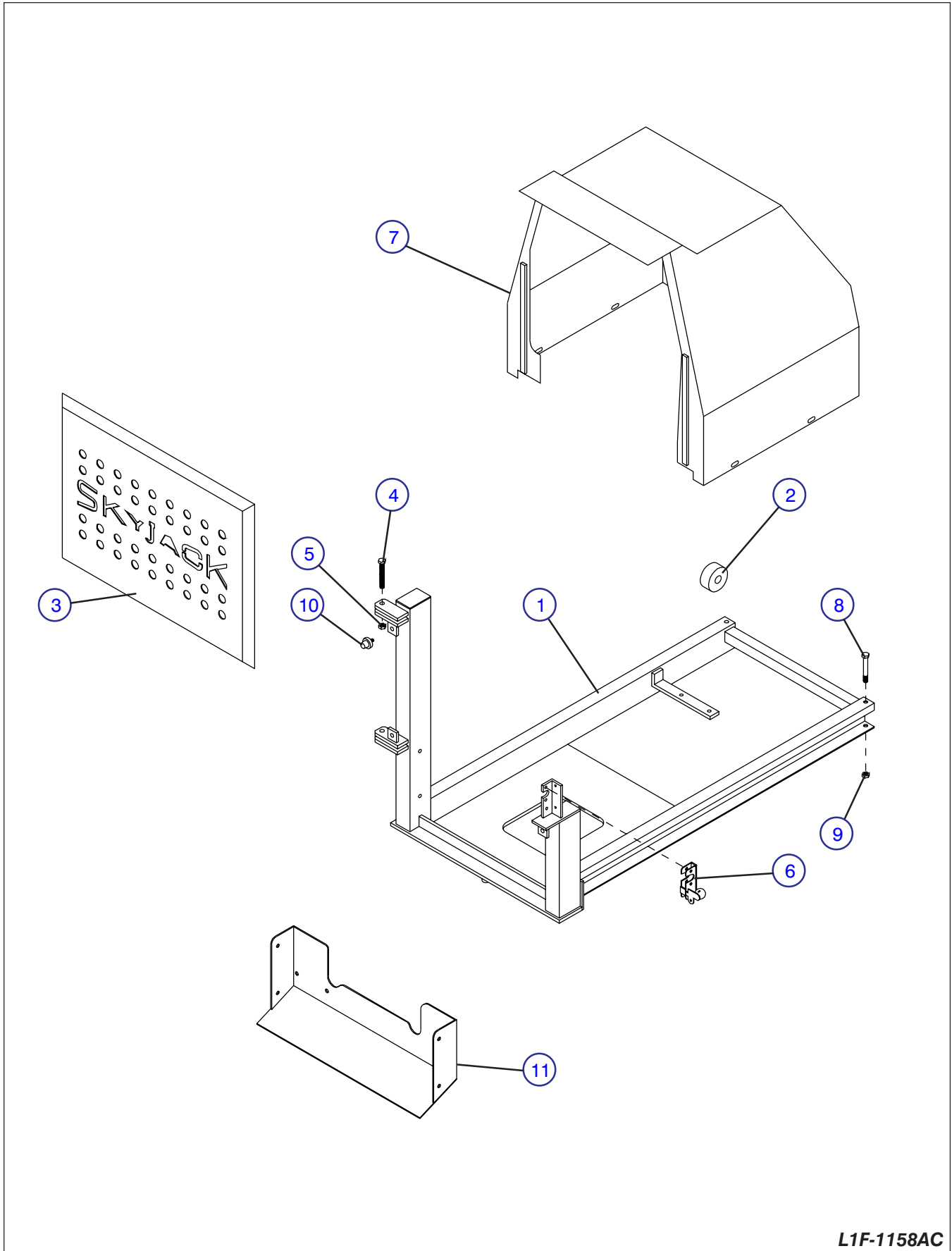
**FIGURE 6-41. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY  
(Machines With Serial # 30985 & Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	111920	PANEL, Base control/electrical	1
2	112011	CABLE ASSEMBLY, Panel wiring (North America)	1
	113223	CABLE ASSEMBLY, Panel wiring (Europe)	1
3	117104	CABLE ASSEMBLY, Engine wiring 8 pole	1
	103318	• CONNECTOR, 8 Pole female	1
	103049	• • SOCKET, Female	1
	102888	• CABLE, 16/10 x 222" lg.	1
4	114484	CABLE ASSEMBLY, Electrical panel 16 pole (Replaces cable with 28 pole round connector by also ordering (1) CONNECTOR, 114478)	1
	115274	• CABLE, 18/30 x 70" lg.	1
	114477	• CONNECTOR ASSEMBLY, 16 Pins female (Replaces 28 pole round connector by also ordering (1) CONNECTOR, 114478)	1
	115284	CABLE ASSEMBLY, Electrical panel 32 Pole (Replaces cable with 28 pole round connector by also ordering (1) CONNECTOR, 114475)	1
	115274	• CABLE, 18/30 x 70" lg.	1
	114476	• CONNECTOR ASSEMBLY, 32 Pole female (Replaces 28 pole round connector by also ordering (1) CONNECTOR, 114475)	1
5	103014	GROMMET, Rubber	1
6	102479	SOCKET, Single relay	AR
7	103271	SOCKET, Double relay	AR
8	111958	SOCKET, Triple relay	1
9	104313	DIODE ASSEMBLY W/4 DIODES	1
	102921	• DIODE, 6 Amp	4
10	103316	RELAY, Single 12V SPDT	AR
11	103207	RELAY, Double 12V DPDT	AR
12	111956	RELAY, Triple 12V TPDT	1
13	102921	DIODE, 6 Amp	AR
14	103336	HOURMETER	1
15	102874	TRACK, Relay 13" lg.	2
	121459	• • CLIP, Single Relay mounting	AR
	121460	• • CLIP, Double Relay mounting	AR
16	117326	BREAKER, 20 Amp circuit (Replaces 102331 and 114584)	2
17	(Ref.)	SWITCH ASSEMBLY, Up push-button	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
<b>Parts list continued on the following page.</b>			

**FIGURE 6-41. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY (Continued)**  
**(Machines With Serial # 30985 & Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
18	(Ref.)	SWITCH ASSEMBLY, Down push-button	1
	102851	• HEAD, Push-button switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
19	102509	CLAMP, Plastic (flasher)	1
20	103743	FLASHER, 12 Volt	1
21	103081	LABEL, Up	1
22	102667	LABEL, Down	1
23	103319	CAPACITOR, 35 Volt, 1000UF	1
24	103011	BLOCK, Terminal strip	1.6
25	113203	CONNECTOR, 3 Pole (tilt switch)	1
	103049	• SOCKET, Female	3
26	113202	CONNECTOR, 3 Pole (Tilt switch jumper)	1
	102987	• PIN, Male	3
27	117389	LABEL, Push to reset ground	1
28	117387	LABEL, Push to reset power	1

**FIGURE 6-42. ENGINE ROLL-OUT TRAY ASSEMBLY (Machines With Serial # 30419 and Above)**



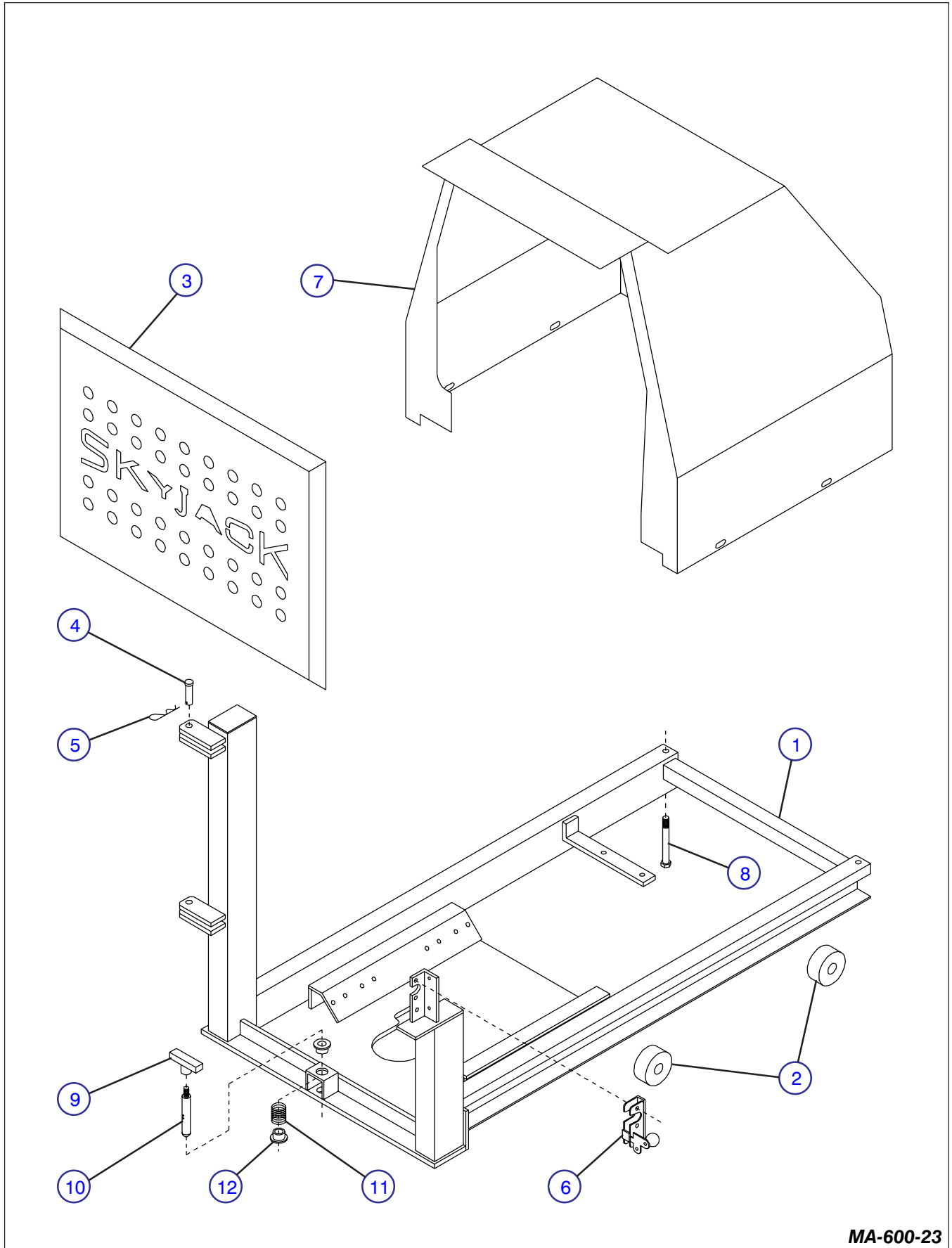
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**FIGURE 6-42. ENGINE ROLL-OUT TRAY ASSEMBLY (Machines With Serial # 30419 and Above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	TRAY ASSEMBLY, Engine roll-out (Order components)	-
1	115585	WELDMENT, Engine roll-out tray	1
2	111351	ROLLER, Engine tray	4
3	112725	GUARD, Engine Front	1
	114217	• BUMPER, " Machine With Scissor Gurad Option Only "	1
4	103905	BOLT, Hex head 1/2 - 13 x 2	2
5	702507	Nut, Lock 1/2 - 13	2
6	(Ref.)	LATCH ASSEMBLY, Front Cover	1
	102780	• LATCH, Rotary L.H.	1
	103864	• • BOLT, Hex-head 5/16-18 x 1" lg.	3
	111534	• KNOB, Latch	1
	103855	• • BOLT, Hex-head 1/4-20 x 1/2" lg.	1
	104000	• • WASHER, Lock 1/4"	1
7	355065	COVER, Kubota Dual Fuel engine DF750E (Serial # 31802 and above)	1
	114725	COVER, Engine (Replaces 112782)	1
	103628	• NEOPRENE, 1/4" x 3/4" x 11" lg.	2
8	103914	BOLT, Tray stop 3/8-16 x 3-3/4" lg.	2
9	104606	NUT, Lock 3/8-16	2
10	114217	BUMPER, Rubber	3
11	115741	DAM, Engine air	1



**FIGURE 6-43. ENGINE ROLL-OUT TRAY ASSEMBLY (Machines With Serial # 30418 and Below)**

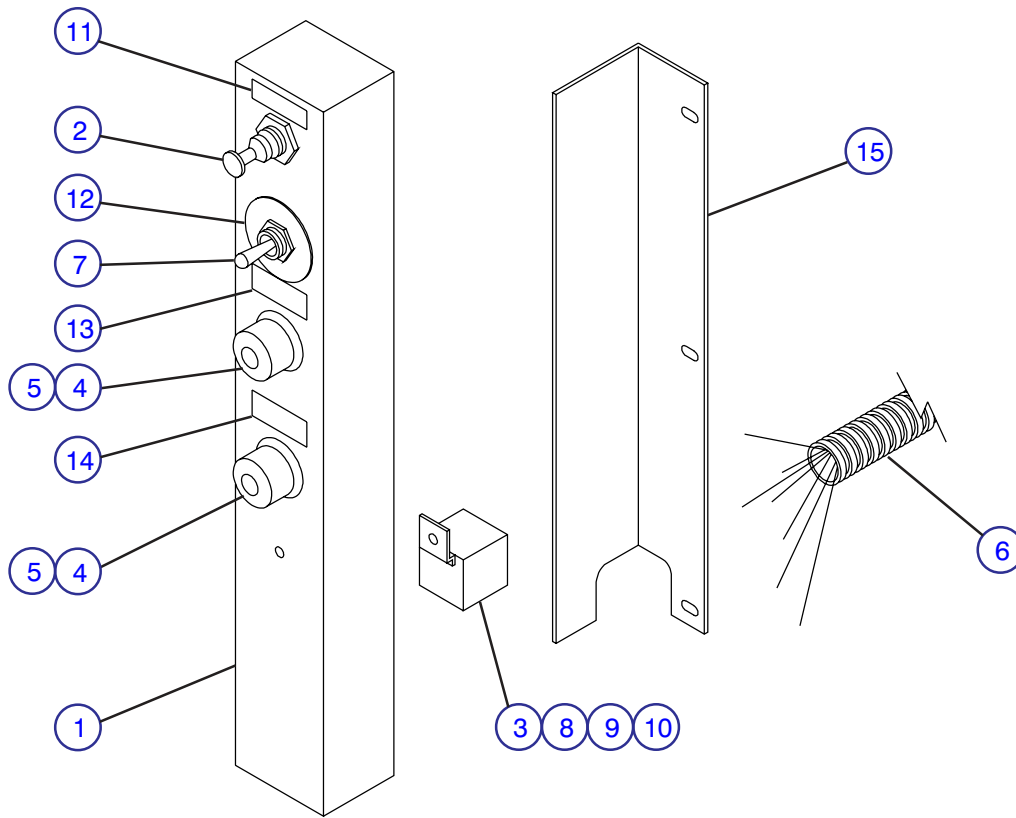


MA-600-23

**FIGURE 6-43. ENGINE ROLL-OUT TRAY ASSEMBLY (Machines With Serial # 30418 and Below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	TRAY ASSEMBLY, Engine roll-out (Order components)	-
1	112794	WELDMENT, Engine roll-out tray	1
2	111351	ROLLER, Engine tray	4
3	112725	GUARD, Engine front	1
4	103232	PIN, Clevis 1/2" x 1-3/4" lg.	2
5	103055	PIN, Cotter 1/8" x 2-1/4" lg.	2
6	(Ref.)	LATCH ASSEMBLY, Front cover	1
	102781	• LATCH, Front cover (blue spring)	1
	103864	• • BOLT, Hex-hd 5/16-18 x 1" lg.	3
	111534	• KNOB, Latch	1
	103855	• • BOLT, Hex-hd 1/4-20 x 1/2" lg.	1
	104000	• • WASHER, Lock 1/4"	1
7	114725	COVER, Engine (Replaces 112782)	1
	103628	• NEOPRENE, 1/4" x 3/4" x 11" lg.	2
8	103913	BOLT, Tray stop 3/8-16 x 3-3/4" lg.	2
9	104606	• NUT, Lock 3/8-16	2
	112747	HANDLE, Tray release	1
10	112724	PIN, Tray release	1
	100933	• PIN, Roll 1/8" x 1" lg.	1
11	113647	SPRING, Compression	1
12	105312	GUIDE, Spring	1

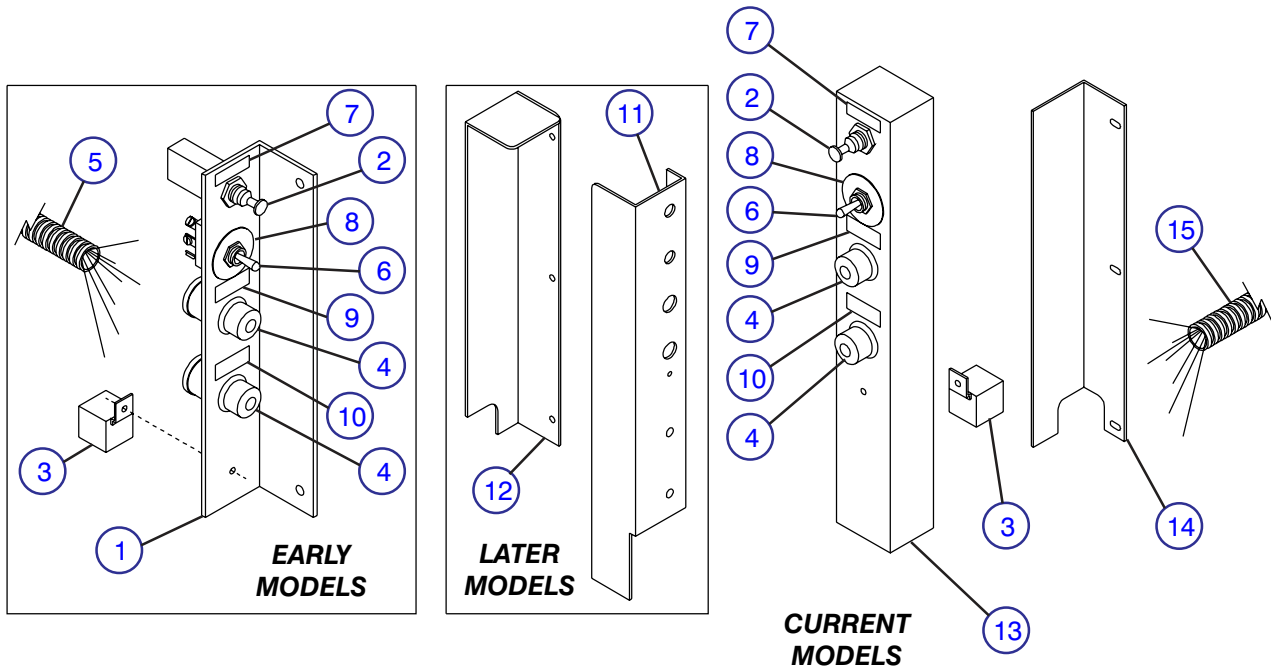
**FIGURE 6-44. ENGINE CONTROL PANEL - Kubota Dual Fuel (Serial # 31802 and Above)**



MA-600-75

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	355063	ENGINE ELECTRICAL ASSEMBLY, Dual fuel	1
1	114194	• PANEL, Engine control front	1
2	102572	• SWITCH, Engine off/on	1
3	103731	• RELAY, 12 Volt	1
4	102692	• SWITCH, Push-button	2
5	751688	• COVER, Switch	2
6	355064	• HARNESS, Engine wiring	1
	102921	• • DIODE, 6 Amp	3
	119134	• • KIT, 12 Pin connector receptacle (mates with #119135 plug)	1
7	300802	• SWITCH, Fuel select toggle DPDT	1
8	104003	• NUT, Hex head #10	1
9	104185	• WASHER, Lock #10	1
10	103962	• BOLT, Machine #10 x 32 x 1/2" lg.	1
11	105983	LABEL, Off/on	1
12	114097	LABEL, LP Gas/Off/Gas (Machines w/Dual Fuel Option)	1
13	102628	LABEL, Start	1
	108334	LABEL, Start (International)	1
14	103060	LABEL, Choke	1
	108329	LABEL, Choke (International)	1
15	114846	COVER, Rear engine control	1

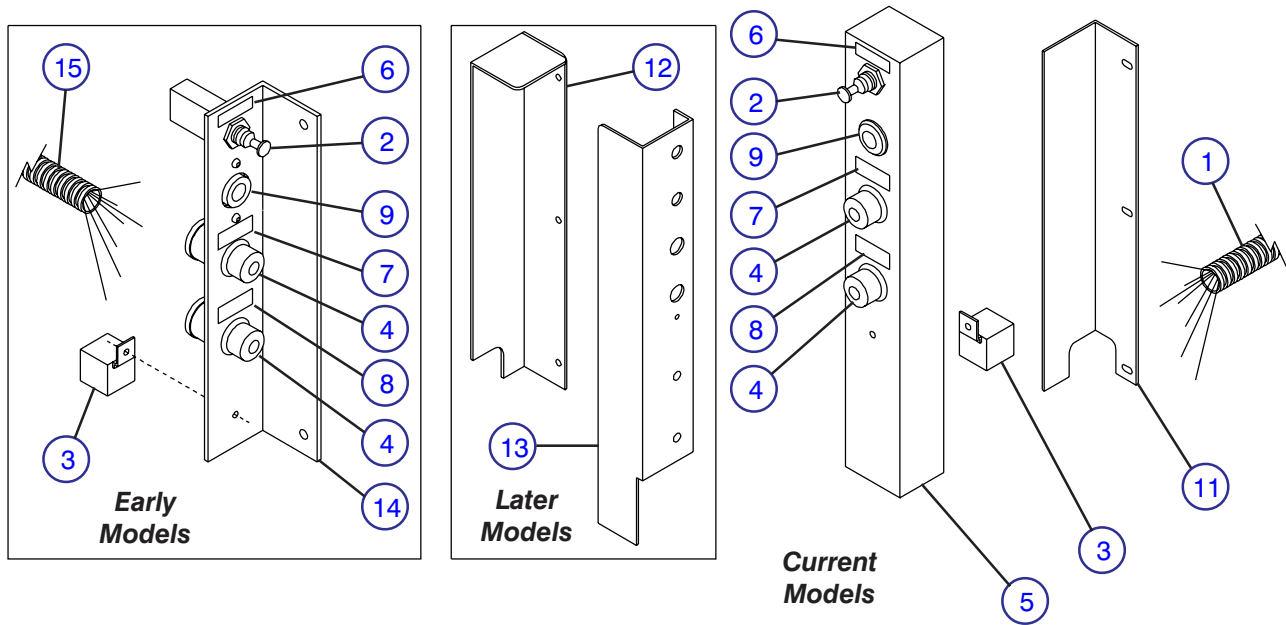
**FIGURE 6-45. ENGINE CONTROL PANEL - Kubota Gasoline/Dual Fuel Engines**



**MA-600-20A**

Index No.	Skyjack Part No.	Description	Units per Assy.
	400078	HARNESS ASSEMBLY, Dual fuel (not shown)	1
	400079	HARNESS ASSEMBLY, Gasoline (not shown)	1
1	101990	PANEL, Engine control (Early models)	1
2	102572	SWITCH, Engine off/on	1
3	103731	RELAY, 12 Volt	1
4	102692	SWITCH, Push-button	2
5	109258	HARNESS, Engine wiring (Early models)	1
	102921	• DIODE, 6 Amp	2
	102552	• CONNECTOR, 8 Pin male	1
	102987	• PIN, Male	7
6	111627	SWITCH, Fuel select toggle DPDT (Machines w/Dual Fuel Option)	1
7	105983	LABEL, Off/on	1
8	114097	LABEL, LP Gas/Off/Gas (Machines w/Dual Fuel Option)	1
9	102628	LABEL, Start	1
	108334	LABEL, Start (International)	1
10	103060	LABEL, Choke	1
	108329	LABEL, Choke (International)	1
11	112884	PANEL, Engine control front (Later models)	1
12	112926	COVER, Engine control panel rear (Later models)	1
13	114194	PANEL, Engine control front	1
14	114846	COVER, Rear engine control	1
15	400081	HARNESS, Engine	1

**FIGURE 6-46. ENGINE CONTROL PANEL - Kubota Diesel Engine**



**MA-600-19A**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	400080	ENGINE ELECTRICAL HARNESS ASSEMBLY, Diesel (not shown)	1
1	102921 (Ref.)	• • DIODE, 6 Amp	1
	119134	• HARNESS, Engine wiring	1
2	102572	• • KIT, 12 Pole receptacle connector (mates with #119135 plug)	1
3	103731	• SWITCH, Engine off/on	1
4	102692	• RELAY, 12 Volt	1
5	114194	• SWITCH, Push-button	2
6	105983	• PANEL, Engine control front	1
7	102628	LABEL, Off/on	1
	102628	LABEL, Start	1
	108334	LABEL, Start (International)	1
8	102448	LABEL, Glow plug	1
	108330	LABEL, Glow plug (International)	1
9	KUBOTA	• INDICATOR, Glow plug	1
10	KUBOTA	• TIMER, Glow plug (not shown)	1
11	114846	COVER, Engine control panel rear	1
12	112926	COVER, Engine control panel rear (Later models)	1
13	112884	PANEL, Engine control front (Later models)	1
14	101994	PANEL, Engine control (Early models)	1
15	(Ref.)	HARNESS, Engine wiring	1
	102921	• DIODE, 6 Amp	1
	102552	• CONNECTOR, 8 Pin male	1
	102987	• PIN, Male	7





**FIGURE 6-47. ENGINE AND RELATED PARTS - Kubota Dual Fuel Engine**

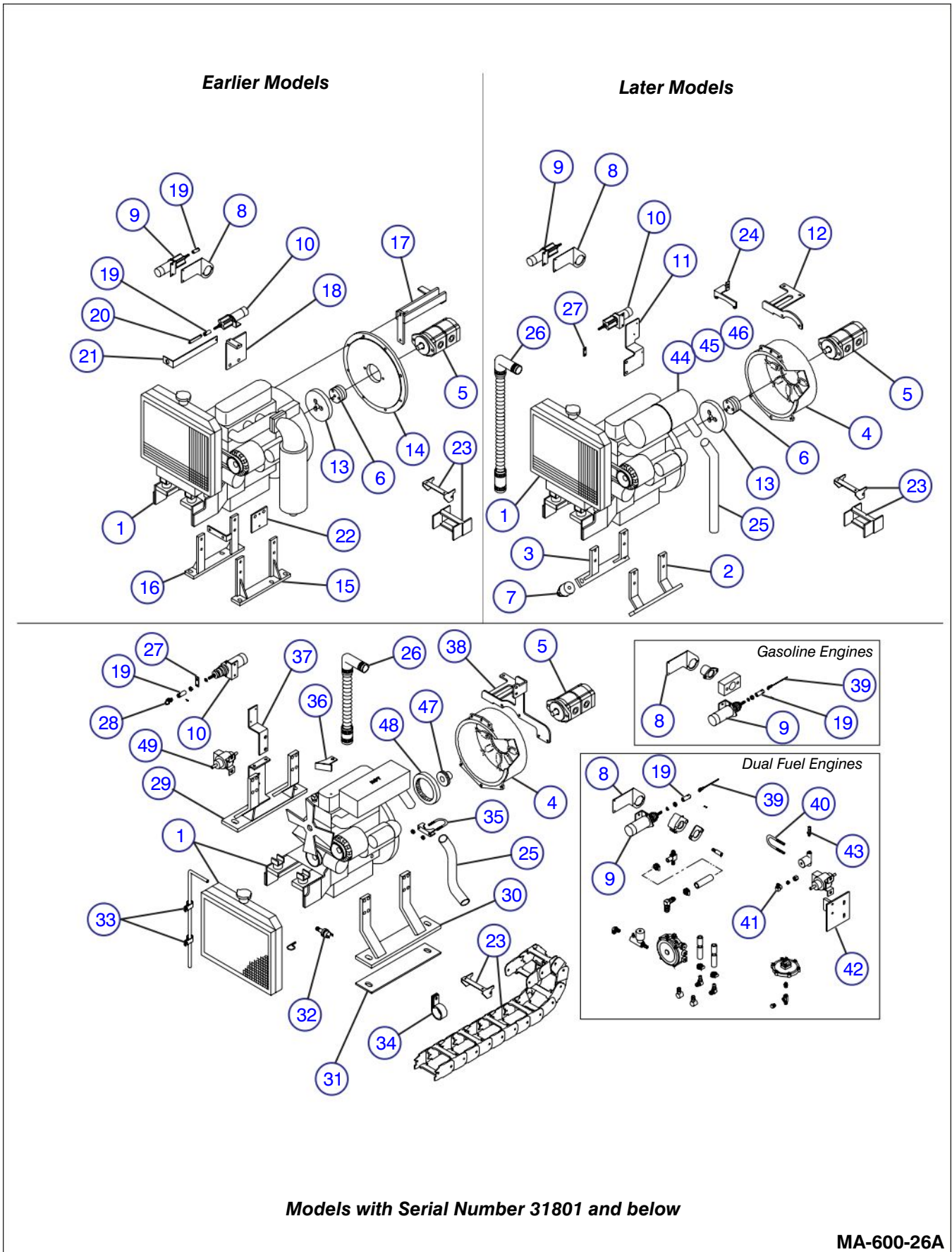
Index No.	Skyjack Part No.	Description	Units per Assy.
1	400062	ENGINE ASS'Y, Kubota dual fuel	-
	355061	<ul style="list-style-type: none"> <li>• ENGINE, Kubota dual fuel (#DF-750E)</li> </ul>	1
		<b>Use Engine #102840 for Machines with Serial # 31801 and Below.</b>	
		<ul style="list-style-type: none"> <li>• SOLENOID, Fuel shut-off #115305</li> <li>• STARTER ASSEMBLY #115309</li> <li>• ALTERNATOR ASSEMBLY #115329</li> <li>• FLANGE, Air cleaner #115330</li> <li>• ELEMENT, Air filter #115331</li> <li>• FILTER, Oil #115337</li> <li>• RADIATOR #115341</li> <li>• DISTRIBUTOR #115342</li> <li>• • GASKET, Distributor #115344</li> </ul>	
2	114527	• WELDMENT, Engine mounting LH	1
3	114455	• WELDMENT, Engine mounting RH	1
4	114422	• NEOPRENE, Anti-vibration	2
5	103904	• BOLT, Hex-hd 1/2-13 x 2" lg.	4
6	103468	• WASHER, Flat 1/2"	4
7	107949	• NUT, Hex Jam 1/2-13	4
8	115480	• BRACKET, Radiator support	1
9	116031	• SWIVEL, Ring	1
10	101860	• LINKAGE, Throttle	2
11	114684	• PIN, Roll 1/8" x 7/16" lg.	2
12	114709	• NUT, Hex 1/4-28	2
13	114707	• BOLT, Hex-hd 1/4-20 x 3-1/2" lg.	1
14	103980	• NUT, Hex 1/4-20	2
15	113582	• PLATE, Solenoid limit	1
16	400005	CLEANER ASSEMBLY, Air	1
	115378	• CAP, Air cleaner	1
	115379	• BAND, Air cleaner support	1
	115386	• COVER, Air cleaner	1
	113997	• INTAKE ASSEMBLY, Air	1
17	103962	• BOLT, Pan hd 10-32 x 1/2" lg.	4
18	104185	• WASHER, Lock #10	4
19	104694	• WASHER, Flat #10	2
20	103007	• SOLENOID	2
21	300039	• NUT, Hex nylock 1/4-20	1
22	104003	• NUT, Hex 10-32	2
23	114489	• BRACKET, Throttle solenoid	1
24	103078	• CLAMP, G10	4
25	103856	• BOLT, Hex-hd 1/4-20 x 3/4" lg.	2
26	104000	• WASHER, Lock 1/4	4
27	103995	• WASHER, Flat 1/4	4
28	115304	• PUMP, Fuel (included with Kubota Engine Item #1)	1
29	103321	• CLAMP, #4 Gear	6
30	355059	• BRACKET, Choke solenoid	1
31	114682	• CLAMP, #8	4
32	114708	• LANYARD	5"
33	300688	• SCREW, Slotted pan-hd. 8-32 x 1/4" lg.	1
34	103159	• FITTING, Elbow 90° (brass)	1

**Parts list continued on the following page.**

**FIGURE 6-47. ENGINE AND RELATED PARTS - Kubota Dual Fuel Engine**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
35	103156	• FITTING, Connector	1
36	300798	• FILTER, Bulkhead	1
37	103164	• FITTING, Elbow 90°	1
38	300799	• VALVE, Relief	1
39	102519	• CLAMP, #6 Gear	2
40	113641	• FITTING, Elbow 90°	1
41	103158	• FITTING, Elbow 90°	1
42	300796	• FITTING, Connector	1
43	300781	• FITTING, Elbow 90°	2
44	111629	• VAPORIZER, Regulator	1
45	102660	• HOSE, 3/16"	AR
46	300801	• HOSE, 3/8" 250PSI	AR
47	300797	• HOSE, 3/8" 200PSI	AR
48	300782	• FITTING, Elbow 90° hose barb	2
49	115294	• FLANGE, Flywheel	1
50	115296	• HUB, Pump	1
51	113409	• HOUSING, Gas engine bell	1
52	355055	• SUPPORT, Dual Fuel carrier	1
53	114328	• FITTING, Connector #16-#20S	1
54	114325	• FITTING, Connector	1
55	114201	• PUMP, Dual	1
56	101297	• BOLT, Hex-hd. 3/8-16 x 1-1/4" lg.	2
57	120054	• FITTING, Elbow 45° #10-#8	2
58	113653	• CLAMP, 1-1/8" Exhaust	2
59	300768	• PIPE, Exhaust	1
60	103848	• BOLT, Hex-hd. 10mm-1.25 x 20mm lg.	4
61	300600	• WASHER, Lock M10	12
62	114720	• BOLT, Hex-hd. 10mm-1.25 x 30mm lg.	8
63	102838	• SWITCH, Oil pressure	1
64	(Ref.)	• HARNESS ASSEMBLY, Engine (For Components, Refer to Figure 6-44 or 6-45)	-
65	300464	• SCREW, #10-32 x 7/8" lg.	2
66	355062	• HOSE, 1/4" 200 PSI	AR
67	300800	• BOLT, Hex-hd. 6mm	1
68	355035	• BRACKET, Overflow	1
69	300780	• TANK, Overflow	1
70	111618	• SOLENOID, 12V LPG Shut-off	1
71	113648	• HOSE, Propane fuel	1
72	123367	• CARRIER ASSEMBLY, Hose (18 links)	1
	122998	• • BRACKET, Carrier Assembly Mounting (Male)	1
	122999	• • BRACKET, Carrier Assembly Mounting (Female)	1
	122835	• • SEPARATOR, HOSE Carrier	AR
	122836	• • LINK, Hose Carrier	AR
		<b>Use CARRIER ASSEMBLY #111395 (17 links) or # 113852 (18 Links) for Machines with Serial #33301 and below.</b>	
		• Uses SEPARATOR #114199	
		• Uses LINK #113860	
		• Uses Brackets #113853	
73	102893	• ZIP TIE, Large	2

**FIGURE 6-48. ENGINE AND RELATED PARTS - Kubota Gasoline Engine**



MA-600-26A

**FIGURE 6-48. ENGINE AND RELATED PARTS - Kubota Gasoline Engine**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	ENGINE ASS'Y, Kubota gasoline (Current models) (Consists of items 1,5,8 - 10,19,26 - 40, 48 - 50)	-
	(Ref.)	ENGINE ASS'Y, Kubota gasoline (Later models) (Consists of items 1 thru 13 and 15 thru 28)	-
	(Ref.)	ENGINE ASS'Y, Kubota gasoline (Earlier models) (Consists of items 1, 5, 6, 8, 9, 10 and 14 thru 21)	-
1	102840	<ul style="list-style-type: none"> <li>• ENGINE, Kubota dual fuel (#GF-750E)</li> <li>• GEAR, Ring (Aluminum housing) #115297</li> <li>• GEAR, Ring (Cast housing) #115298</li> <li>• SOLENOID, Fuel shut-off #115305</li> <li>• STARTER ASSEMBLY #115309 <ul style="list-style-type: none"> <li>• CLUTCH, Starter #115314</li> </ul> </li> <li>• ALTERNATOR ASSEMBLY #115329</li> <li>• FLANGE, Air cleaner #115330</li> <li>• ELEMENT, Air filter #115331</li> <li>• FILTER, Oil #115337</li> <li>• RADIATOR #115341</li> <li>• DISTRIBUTOR #115342 <ul style="list-style-type: none"> <li>• IGNITOR, Distributor #115343</li> <li>• GASKET, Distributor #115344</li> <li>• ROTOR, Distributor #115345</li> <li>• CAP, Distributor #115346</li> </ul> </li> <li>• CAP, Air cleaner #115378</li> <li>• BAND, Air cleaner support #115379</li> <li>• COVER, Air cleaner #115386</li> </ul>	1
2	113208	• WELDMENT, Engine mounting LH	1
3	113207	• WELDMENT, Engine mounting RH	1
4	115292	• HOUSING, Bell	1
5	114201	• PUMP, Dual Hydraulic	1
6	(Ref.)	• COUPLING ASSEMBLY, Pump/engine	1
	111831	• COUPLING, Pump (3/4" dia. w/keyway)	1
	103025	• SPIDER, Coupling	1
	101465	• COUPLING, Engine (7/16" bore)	1
7	112748	• MOUNT, Engine vibration	4
8	110594	• BRACKET, Choke solenoid	1
9	103007	• SOLENOID, Engine choke	1
10	103007	• SOLENOID, Engine throttle	1
11	113328	• BRACKET, Throttle solenoid/fuel pump	1
12	113336	• BRACKET, Hose carrier support	1
13	101981	• PLATE, Engine to coupling adapter	1
14	101442	• PLATE, Pump mounting	1
15	101886	• WELDMENT, Engine mounting LH	1
16	101897	• WELDMENT, Engine mounting RH	1
17	111400	• WELDMENT, Hose carrier support	1

**Parts list continued on the following page.**

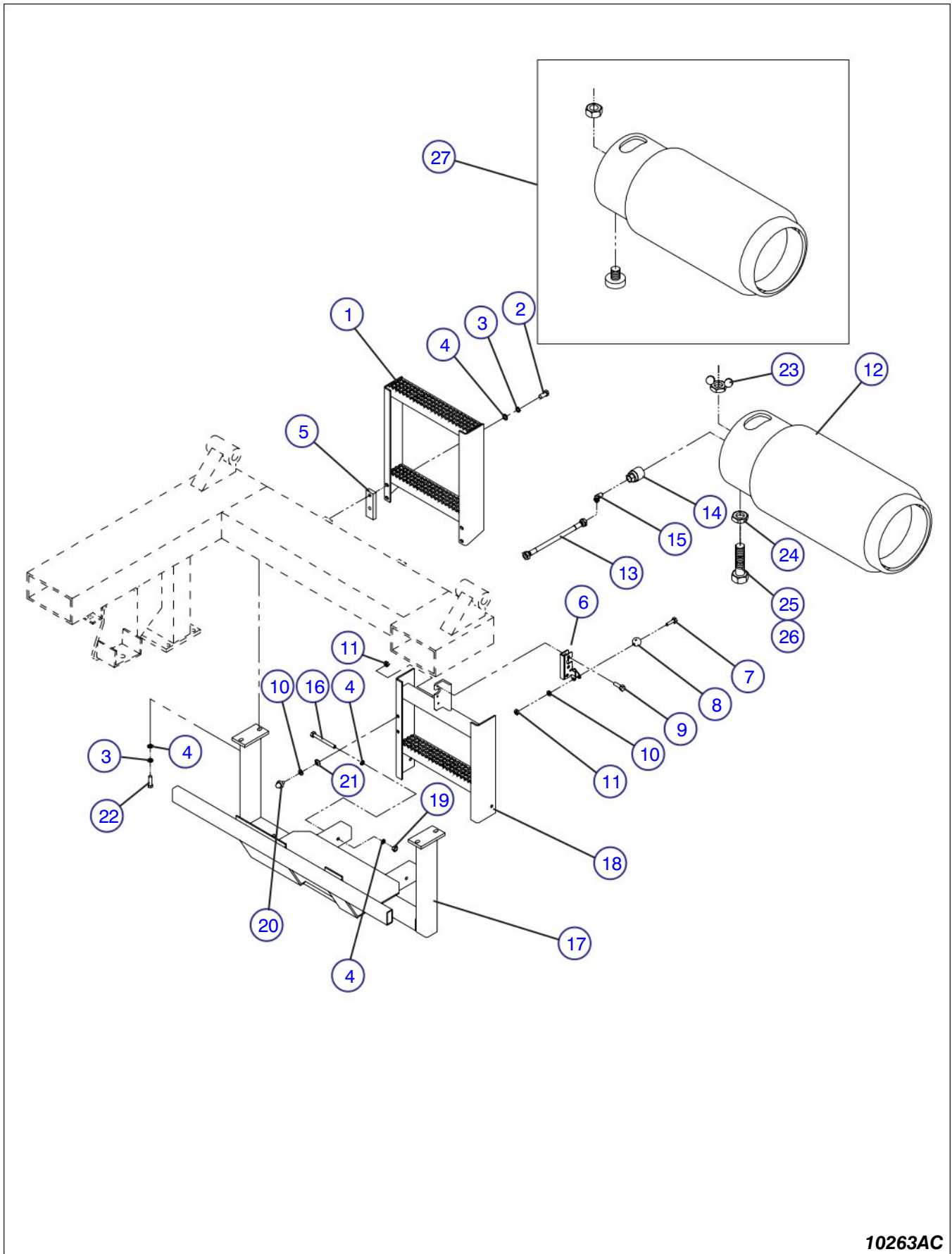
**FIGURE 6-48. ENGINE AND RELATED PARTS - Kubota Gasoline Engine**

**AJ**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
18	101982	• BRACKET, Throttle solenoid	1
19	101860	• LINKAGE, Solenoid 1/2" diameter	2
20	109019	• LINK, Throttle	1
21	111427	• BRACKET, Radiator support	1
22	111429	• PLATE, Fuel pump mounting	1
23	123367	• CARRIER ASSEMBLY, Hose (18 links)	1
	122998	• • BRACKET, Carrier Assembly Mounting (Male)	1
	122999	• • BRACKET, Carrier Assembly Mounting (Female)	1
	122835	• • SEPARATOR, HOSE Carrier	AR
	122836	• • LINK, Hose Carrier	AR
		<b>Use CARRIER ASSEMBLY #111395 (17 links) or # 113852 (18 Links) for Machines with Serial # 33301 and below.</b>	
		• <b>Uses SEPARATOR #114199</b>	
		• <b>Uses LINK #113860</b>	
		• <b>Uses Brackets #113853</b>	
24	113224	BRACKET, LP Regulator mounting (Dual Fuel)	1
25	113638	PIPE, Exhaust	1
	113653	• CLAMP, 1-1/8" Exhaust	2
26	113997	HOSE ASSEMBLY, Air intake	1
27	113582	STOP, Solenoid	1
28	116031	RING, Swivel	1
29	114455	BRACKET, Engine mounting RH	1
30	114527	BRACKET, Engine mounting LH	1
31	114422	NEOPRENE, Anti-vibration	2
32	102838	SWITCH, Oil pressure	1
33	103078	CLAMP, G10	5
34	114682	CLAMP, # 8	1
35	113653	CLAMP, 1-1/8" Exhaust	2
36	115480	PLATE, Radiator stop	1
37	114489	BRACKET, Throttle solenoid	1
38	113407	BRACKET, Carrier support	1
39	114708	LANYARD	1
40	114737	U-BOLT, 1/4"	1
41	114032	FITTING, Brass elbow	1
42	114736	BRACKET, Fuel mount	1
43	112565	FITTING, Hose barb	1
44	113955	MUFFLER	1
45	113956	GASKET, Muffler	1
46	114216	BRACKET, Muffler	1
47	115296	HUB, Pump coupling	1
48	115294	FLANGE, Nylon flywheel	1
49	115304	PUMP, Fuel (part of Kubota engine item #1)	1
		<b>NOTE: For Dual Fuel System components, refer to Figure 6-50.</b>	



**FIGURE 6-49. PROPANE TANK MOUNTING AND CONNECTION**



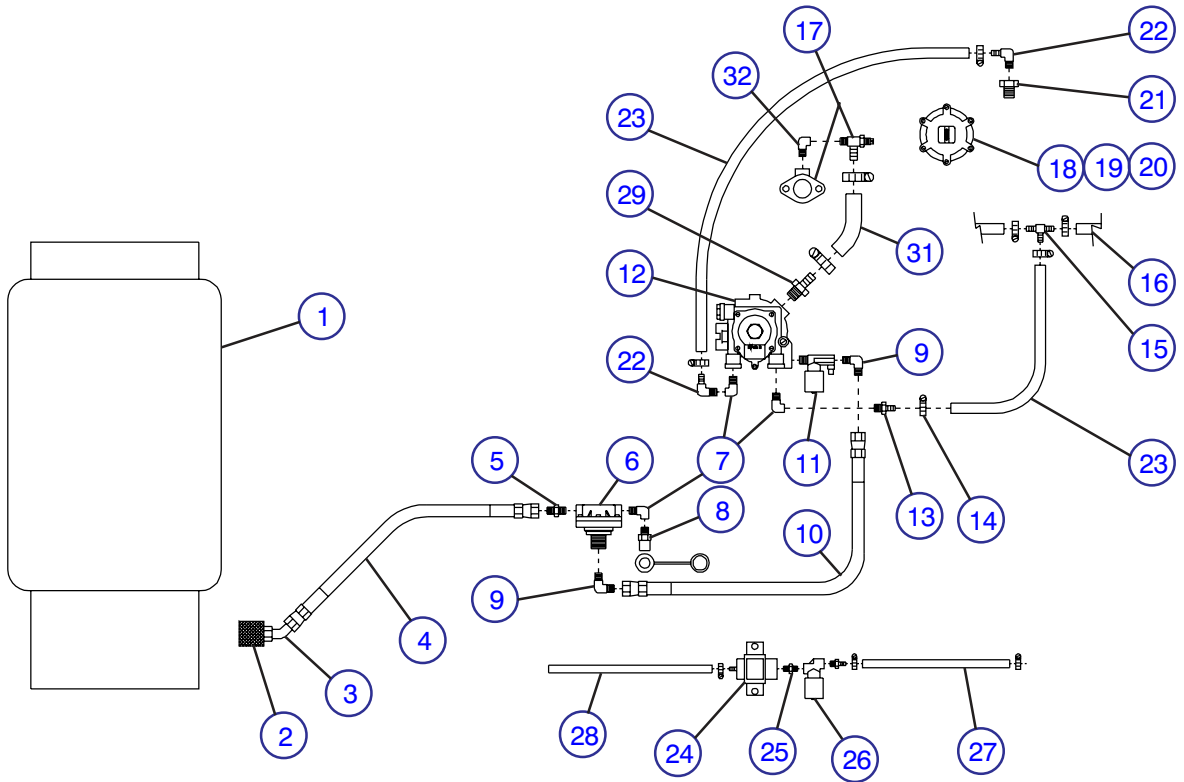
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**FIGURE 6-49. PROPANE TANK MOUNTING AND CONNECTION**

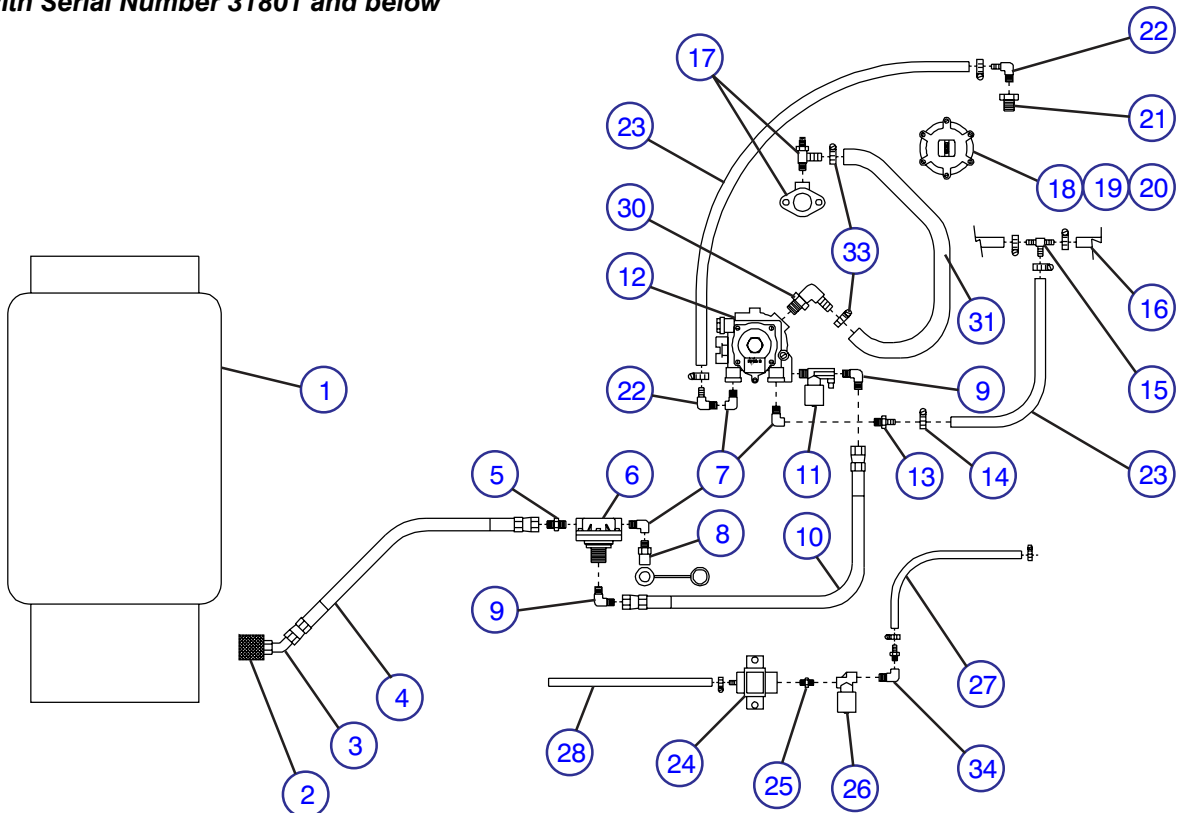
Index No.	Skyjack Part No.	Description	Units per Assy.
	400010	LADDER ASSEMBLY, Propane	-
1	111628	• LADDER WELDMENT, Propane	1
2	101297	• BOLT, Hex-hd. 3/8-16 x 1-1/4" lg.	4
3	103999	• WASHER, Lock 3/8	8
4	103472	• WASHER, Flat 3/8	12
5	114212	• SPACER, Propane bottle	2
6	102780	• LATCH, Rotary	1
7	103857	• BOLT, Hex-hd 1/4-20 x 1" lg.	1
8	111534	• KNOB, Latch	1
9	103864	• BOLT, Hex-hd 5/16-18 x 1" lg.	3
10	104000	• WASHER, Lock 1/4	3
11	103980	• NUT, Hex 1/4-20	3
12	103028	• TANK, 33lb. Propane	1
13	103095	• HOSE, Propane fuel	1
14	103006	• COUPLER, Female quick	1
15	103159	• FITTING, Elbow 45°	1
16	111709	• BOLT, Hex-hd 5/16-18 x 2" lg.	2
17	114211	• CARRIER, Propane tank	1
18	114204	• LADDER, Propane carrier	1
19	104606	• NUT, Hex nylock 3/8-16	2
20	114217	• BUMPER, Protective	2
21	300015	• WASHER, Fender 1/4	2
22	103473	• BOLT, Hex-hd. 3/8-16 x 1" lg.	4
23	752704	• NUT, Wing 1/2 - 13	1
24	107949	• NUT, Jam 1/2 - 13	1
25	103905	• BOLT, Hex-hd. 1/2-13 x 2" lg.	1
26	103468	• WASHER, Flat 1/2"	1
27	(Ref.)	<p><b>Use The following hardware for machines with Serial #33551 &amp; below.</b></p> <ul style="list-style-type: none"> <li>• <b>SPACER, Propane Bottle Mount #355091</b></li> <li>• <b>NUT, Jam 7/8-9 #355093</b></li> </ul>	

**FIGURE 6-50. DUAL FUEL SYSTEM - Kubota Gasoline Engine**



**Earlier Models**

**Models with Serial Number 31801 and below**

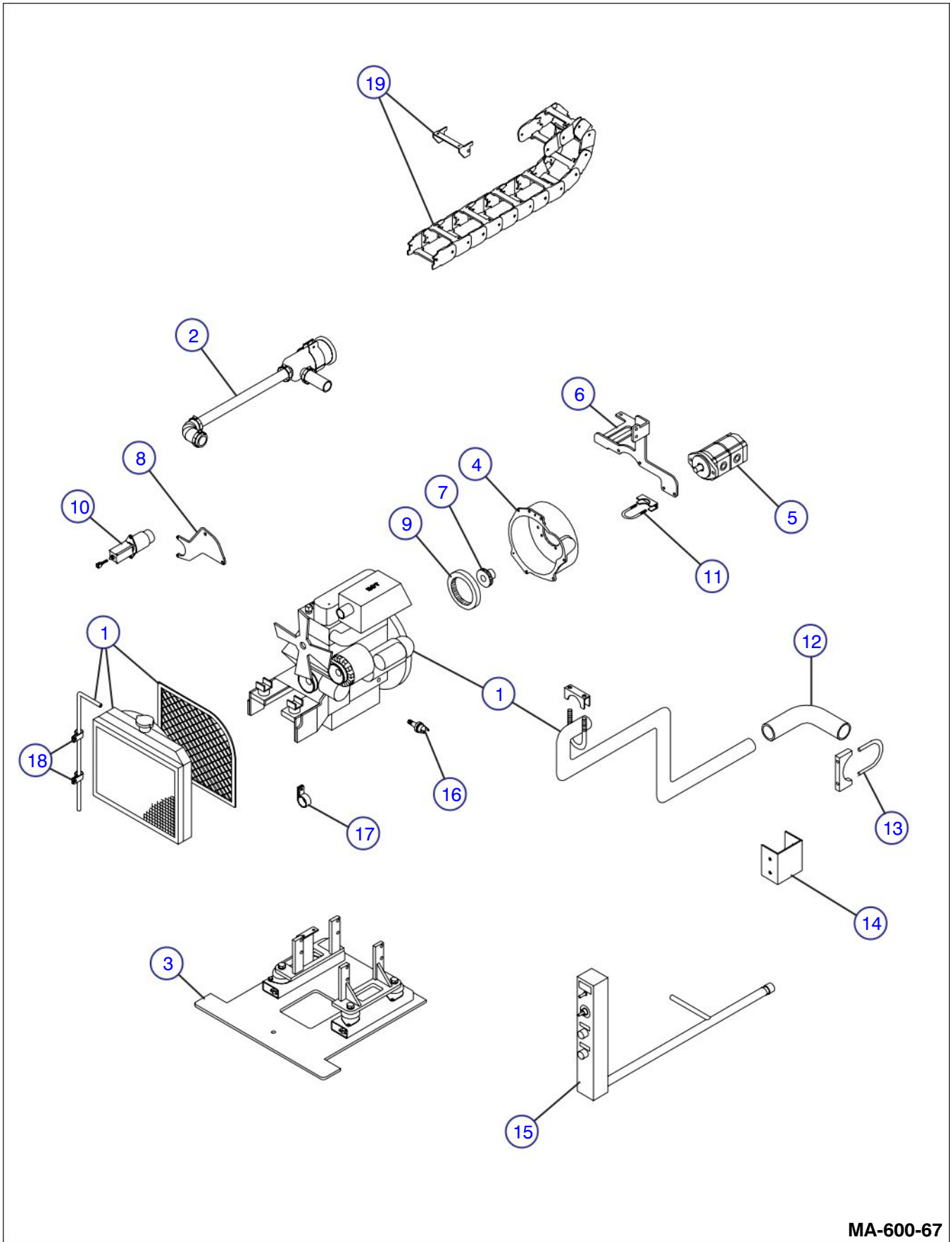


**MA-600-18**

**FIGURE 6-50. DUAL FUEL SYSTEM - Kubota Gasoline Engine**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	103028	TANK W/COUPLING, 33 Lb. Propane	1
2	103006	COUPLING, Quick attach LPG	1
3	103159	FITTING, Elbow 45° (brass)	1
4	103095	HOSE ASSEMBLY, LPG 24" lg.	1
5	103156	FITTING, Connector (brass)	1
6	111619	FILTER, LPG Bulkhead	1
7	103164	FITTING, Elbow 90° (brass)	3
8	111620	VALVE ASSEMBLY, Relief	1
	111622	• RAIN CAP, Relief valve	1
9	300795	FITTING, Elbow 45° (brass)	2
10	113648	HOSE ASSEMBLY, LPG 132" lg. (Later models)	1
	103097	HOSE ASSEMBLY, LPG 144" lg. (Earlier models)	1
11	111618	VALVE ASSEMBLY, Propane lockoff	1
12	111629	VAPORIZER/REGULATOR, LPG	1
13	103168	FITTING, Connector (brass)	1
14	103321	CLAMP, Gear #4	12
15	103178	FITTING, Tee (brass)	1
16	KUBOTA	HOSE, Coolant (Kubota Part)	1
17	111632	ADAPTER AND VALVE, Carburetor	1
18	111623	SWITCH, Vacuum safety	1
19	103163	FITTING, Tee (brass)	1
20	103165	FITTING, Plug 1/8P	1
21	100385	FITTING, Reducer #6P-#4P	1
22	103174	FITTING, Elbow 90° (brass)	2
23	111630	HOSE, Coolant	AR
24	KUBOTA	FUEL PUMP (Kubota Part)	1
25	103154	FITTING, Connector (brass)	2
26	111626	VALVE ASSEMBLY, Gasoline lockoff	1
27	102984	HOSE, Fuel line 16" lg.	1
28	(Ref.)	HOSE, Fuel line 158" lg. (Refer to Figure 6-27.)	1
29	103161	FITTING, Connector (brass) (Earlier models)	1
30	113641	FITTING, Elbow 90° (brass) (Later models)	1
31	111631	HOSE, Regulator to carburetor	1
32	103164	FITTING, Elbow 90° (brass) (Earlier models)	1
33	102519	CLAMP, Gear #6	2
34	103153	FITTING, Elbow 90° (brass) (Later models)	1

**FIGURE 6-51. ENGINE AND RELATED PARTS - Kubota Diesel Engine  
(Serial Number 31252 and above)**

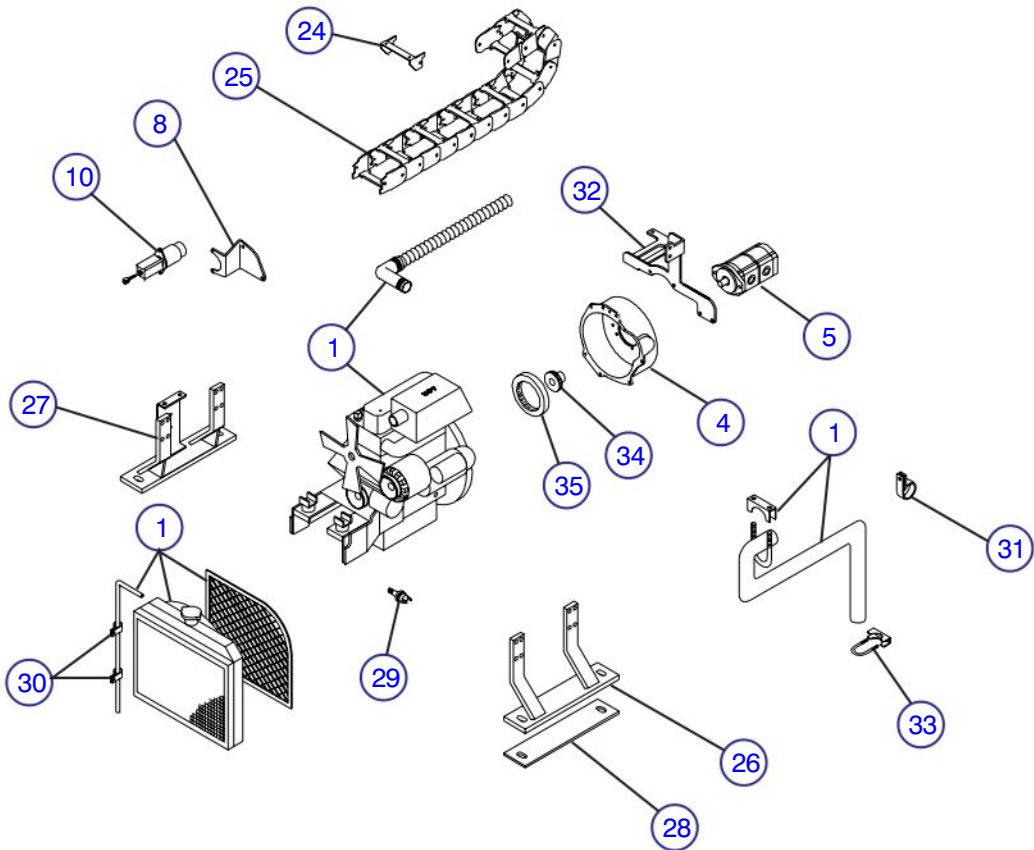
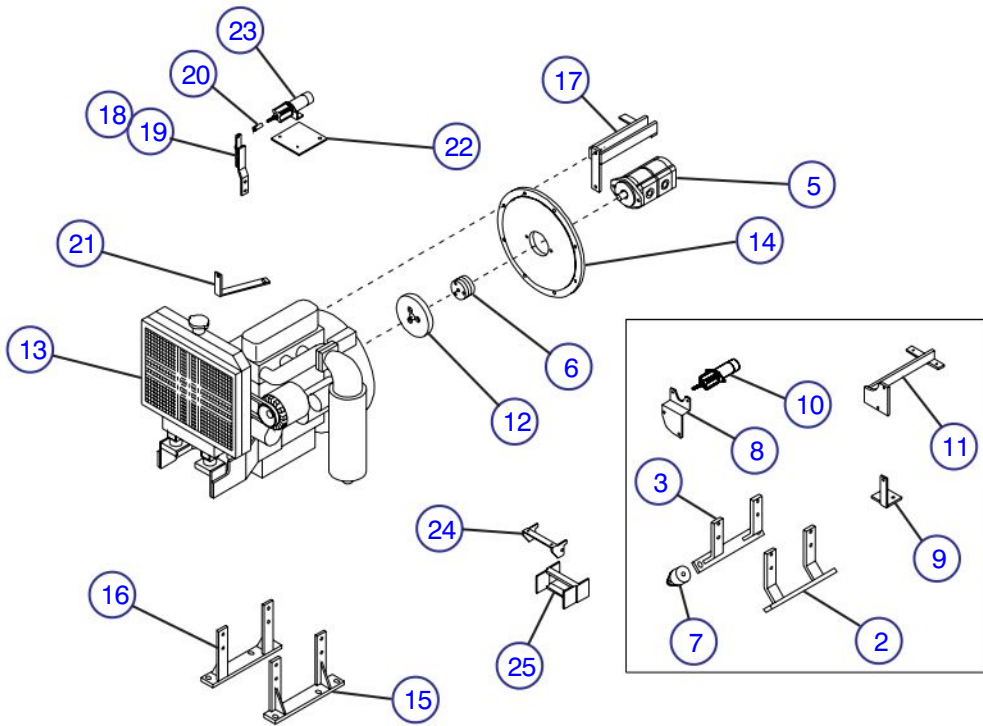


MA-600-67

**FIGURE 6-51. ENGINE AND RELATED PARTS - Kubota Diesel Engine  
(Serial Number 31252 and above)**

Index No.	Skyjack Part No.	Description	Units per Assy.
	400061	ENGINE ASSEMBLY, Kubota diesel (Current models) (Consists of items 1,3 thru 18)	-
1	112696	• ENGINE, Kubota diesel (D1105-E)	1
	355014	• • PIPE, Exhaust	1
	113650	• • CLAMP, Exhaust pipe	2
	115457	• • STARTER ASSEMBLY,	1
	115839	• • ALTERNATOR ASSEMBLY	1
	116745	• • SHUTDOWN SOLENOID	1
2	400007	• INTAKE ASSEMBLY, Air	1
3	355022	• MOUNTING ASSEMBLY, Diesel engine	1
	116982	• • ISOLATOR, Engine mount	4
4	112746	• HOUSING, Bell	1
5	110460	• PUMP, Hydraulic	1
6	355060	• BRACKET, Carrier support	1
		<b>Use Part #113407 for Machines with Serial # 32049 and Below.</b>	-
7	115296	• HUB, Pump coupling	1
8	112769	• BRACKET, Throttle solenoid	1
9	115295	• FLANGE, Nylon flywheel	1
10	103007	• SOLENOID, Engine shut-off	1
11	113653	• CLAMP, 1-1/8" Exhaust	1
12	300659	• PIPE, Exhaust 90°	1
13	300658	• CLAMP, 2" Exhaust	1
14	355026	• BRACKET, Exhaust diversion	1
15	(Ref.)	• PANEL, Engine control <a href="#">(For Components, Refer to Figure 6-46)</a>	1 -
16	102838	• SWITCH, Oil pressure	1
17	114682	• CLAMP, G8	2
18	103078	CLAMP, G10	3
19	123367	• CARRIER ASSEMBLY, Hose (18 links)	1
	122998	• • BRACKET, Carrier Assembly Mounting (Male)	1
	122999	• • BRACKET, Carrier Assembly Mounting (Female)	1
	122835	• • SEPARATOR, HOSE Carrier	AR
	122836	• • LINK, Hose Carrier	AR
		<b>Use CARRIER ASSEMBLY #111395 (17 links) or # 113852 (18 Links) for Machines with Serial # 33301 and below.</b>	
		• <b>Uses SEPARATOR #114199</b>	
		• <b>Uses LINK #113860</b>	
		• <b>Uses Brackets #113853</b>	

**FIGURE 6-52. ENGINE AND RELATED PARTS - Kubota Diesel Engine  
(Serial Number 31251 and below)**



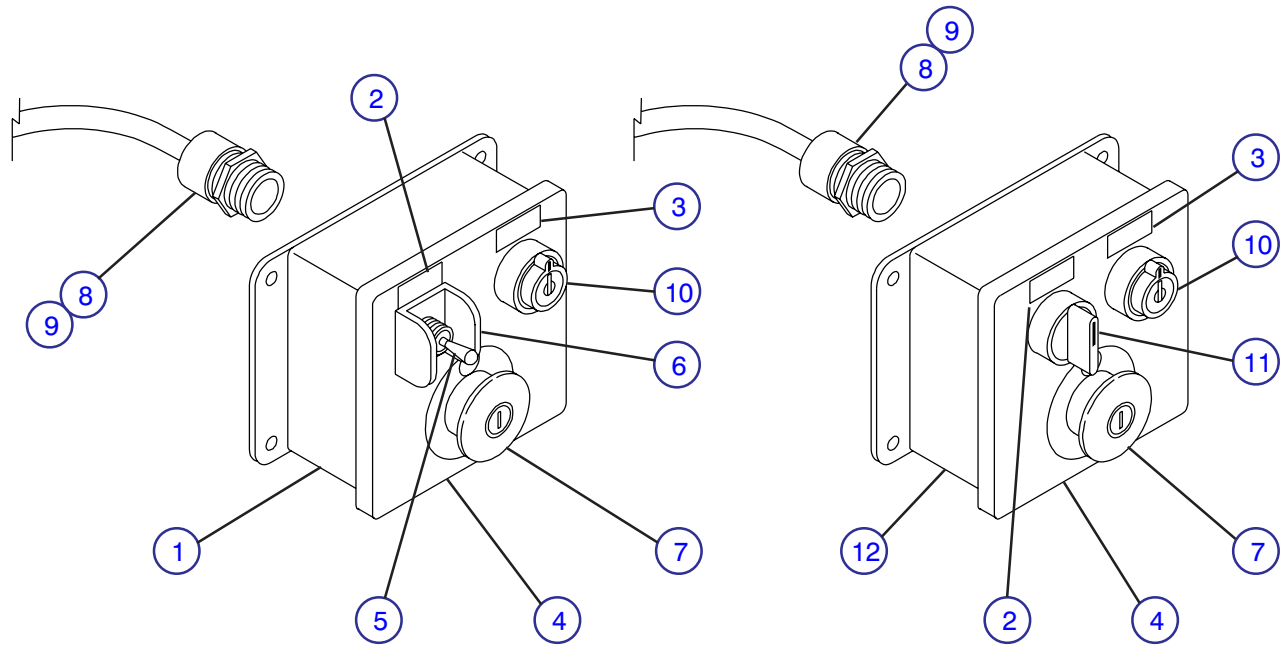
MA-600-27A



**FIGURE 6-52. ENGINE AND RELATED PARTS - Kubota Diesel Engine  
(Serial Number 31251 and below)**

Index No.	Skyjack Part No.	Description	Units per Assy.
	(Ref.)	ENGINE ASSEMBLY, Kubota diesel <b>(Consists of items 1,4,5,8,10,12,26 thru 35) (Current models)</b>	-
	(Ref.)	ENGINE ASSEMBLY, Kubota diesel <b>(Consists of items 1 thru 12) (Later models)</b>	-
	(Ref.)	ENGINE ASSEMBLY, Kubota diesel <b>(Consists of items 5, 6, 7, 10 &amp; 12 thru 23) (Machines with serial #'s 30036 &amp; Below)</b>	-
1	112696	• ENGINE, Kubota diesel (D1105-E)	1
	112921	• • PIPE, Exhaust	1
	112922	• • HOSE, Air intake	1
	113650	• • CLAMP, Exhaust pipe	2
	115457	• • STARTER ASSEMBLY,	1
	115839	• • ALTERNATOR ASSEMBLY	1
	116745	• • SHUTDOWN SOLENOID	1
2	112788	• WELDMENT, Engine mounting LH	1
3	112789	• WELDMENT, Engine mounting RH	1
4	115293	• HOUSING, Bell	1
5	110460	• PUMP, Hydraulic	1
6	(Ref.)	• COUPLING ASSEMBLY, Pump/engine	1
	111831	• • COUPLING, Pump (3/4 dia. w/keyway)	1
	103025	• • SPIDER, Coupling	1
	101845	• • COUPLING, Engine (7/16" bore)	1
7	112748	• MOUNT, Engine vibration	4
8	112769	• BRACKET, Throttle solenoid	1
9	112800	• BRACKET, Muffler	1
10	103007	• SOLENOID, Engine throttle	1
11	112888	• WELDMENT, Hose carrier support	1
12	101981	• PLATE, Engine to coupling adapter	1
13	102429	• ENGINE, Kubota diesel (DH-950)	1
		<b>(Machines with serial #'s 30036 &amp; below)</b>	
	115456	• • STARTER ASSEMBLY	1
	106370	• • SHUTDOWN SOLENOID	1
14	101442	• PLATE, Pump mounting	1
15	102245	• WELDMENT, Engine mounting LH	1
16	102258	• WELDMENT, Engine mounting RH	1
17	111400	• WELDMENT, Hose carrier support	1
18	102247	• SUPPORT, Throttle bar pivot	1
19	102253	• BAR, Throttle	
20	101860	• LINKAGE, Solenoid 1/2" diameter	1
21	111425	• BRACKET, Radiator support	1
22	111781	• BRACKET, Throttle solenoid	1
23	106370	• SOLENOID, Engine shut-off	1
24	113853	BRACKET, Carrier	2
25	111395	CARRIER ASSEMBLY, Hose (17 links)	1
	113852	CARRIER ASSEMBLY, Hose (18 links)	1
	113860	• LINK, Hose carrier	AR
	114199	• SEPARATOR, Link	AR
26	114527	• BRACKET, Engine mounting LH	1
27	114455	• BRACKET, Engine mounting RH	1
28	114422	• NEOPRENE, Anti-vibration	2
29	102838	SWITCH, Oil pressure	1
30	103078	CLAMP, G10	5
31	114682	CLAMP, G8	1
32	113407	• BRACKET, Carrier support	1
33	113653	CLAMP, 1-1/8" Exhaust	1
34	115296	HUB, Pump coupling	1
35	115295	FLANGE, Nylon flywheel	1

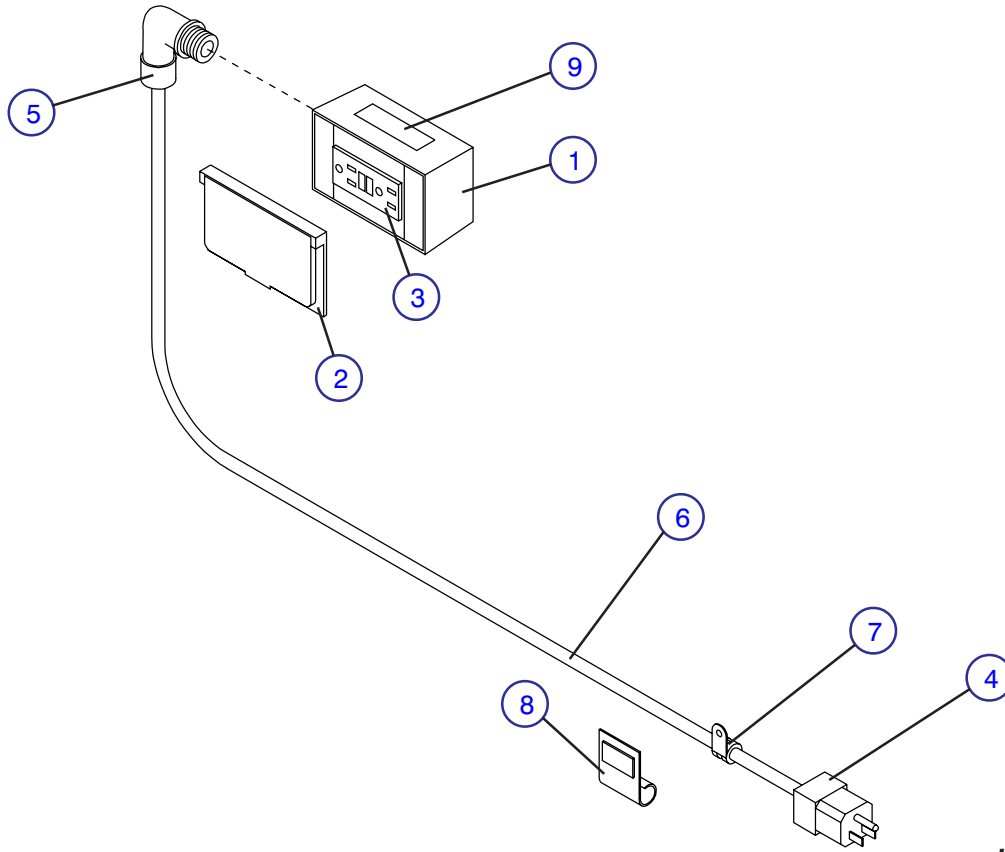
**FIGURE 6-53. BASE CONTROL BOX OPTION**



**MA-SJII-32A**

Index No.	Skyjack Part No.	Description	Units per Assy.
<b>A</b>	(Ref.)	BASE CONTROL BOX ASSEMBLY (Later models with toggle up/down switch)	-
<b>B</b>	(Ref.)	BASE CONTROL BOX ASSEMBLY (Early models with rotary up/down switch)	-
1	115538	• BOX, Base control, <b>A</b>	1
2	108328	LABEL, Platform up/down	1
3	102451	LABEL, Platform/base select	1
4	111814	LABEL, Emergency stop (Replaces 105351)	1
5	102853	• SWITCH, Toggle, <b>A</b>	1
6	111181	• GUARD, Toggle switch, <b>A</b>	1
7	(Ref.)	SWITCH ASSEMBLY, Emergency stop	1
	102769	• • HEAD, Stop switch	1
	103100	• • BASE, Contact	1
	103225	• • BLOCK, N.C. Contact	1
8	103041	• STRAIN RELIEF, Cord 1/2"	1
9	103260	CABLE, 18/5 x 144" lg.	1
10	(Ref.)	SWITCH ASSEMBLY, Platform/base select	1
	102754	• HEAD, Key selector switch	1
	104466	• KEY, #455	AR
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	1
	103225	• BLOCK, N.C. Contact	1
11	(Ref.)	SWITCH ASSEMBLY, Platform up/off/down	1
	102837	• HEAD, Selector switch	1
	103100	• BASE, Contact	1
	103141	• BLOCK, N.O. Contact	2
12	112963	BOX, Base control, <b>B</b>	1

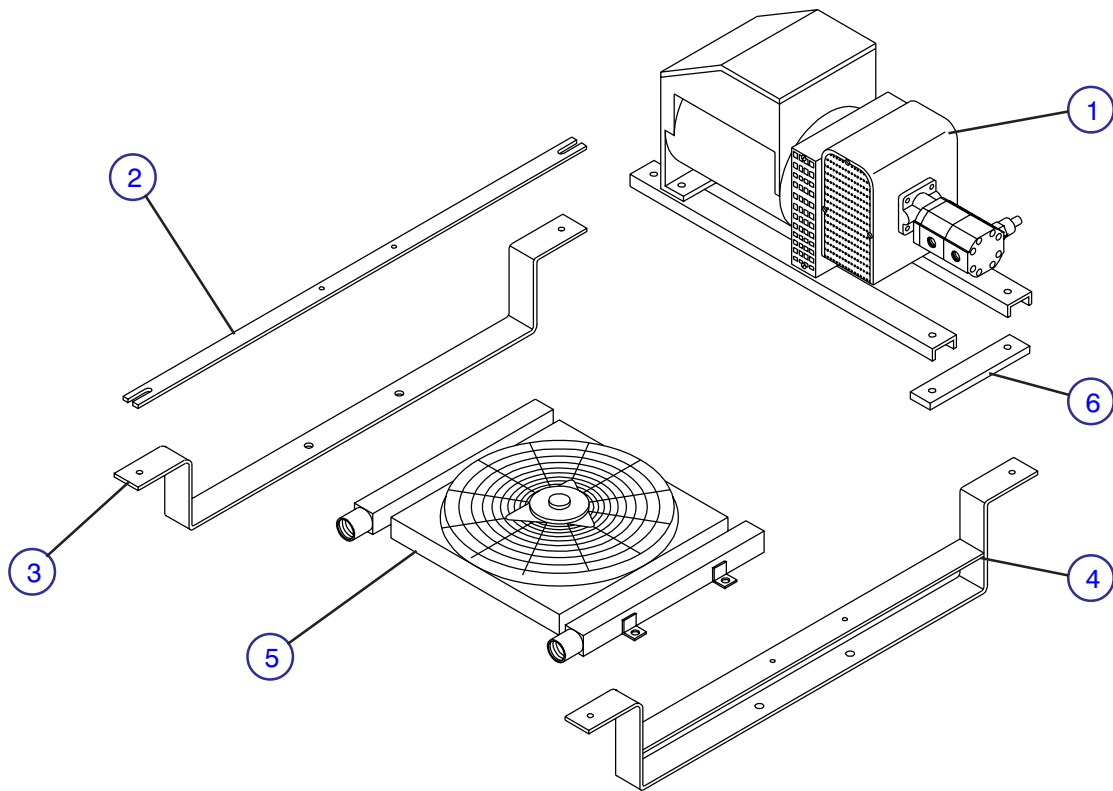
**FIGURE 6-54. AC OUTLET ON PLATFORM OPTION**



**L2F-1015AA**

Index No.	Skyjack Part No.	Description	Units per Assy.
	400067	AC OUTLET ON PLATFORM	-
1	109700	• BOX, G.F.I. Receptacle	1
2	109699	• PLATE, Weatherproof cover	1
3	109698	• RECEPTACLE, 125V G.F.I.	1
4	104208	• PLUG, 3-Prong male, 15A/125V	1
5	103035	• ELBOW, 90° Strain relief	1
	114599	• NUT, 1/2" Conduit Lock	1
6	105269	• CORD, 14/3	464"
7	114682	• CLIP, G8	1
8	108791	• CLIP, Adhesive Back Cord	1
9	110333	LABEL, Connect 110V supply here	1

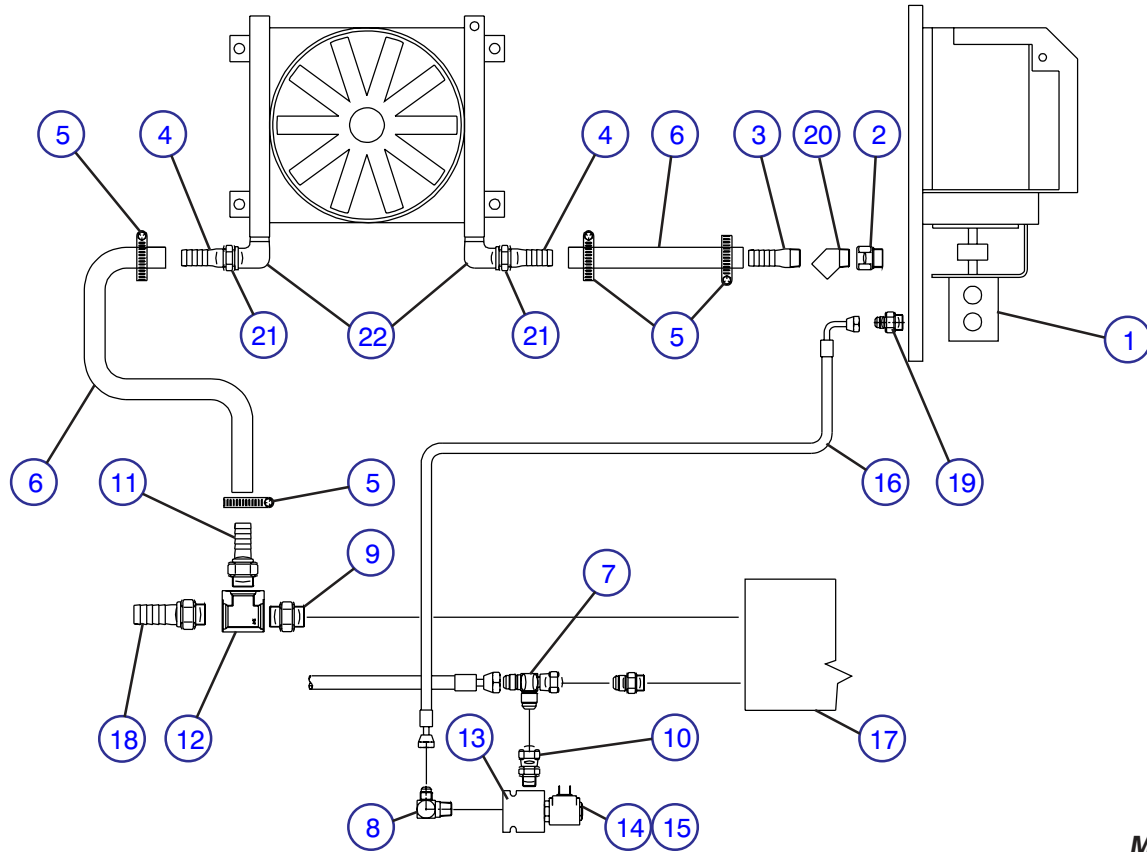
**FIGURE 6-55. 3500 WATT HYDRAULIC GENERATOR OPTION - Generator, Oil Cooler, and Mounting**



10314AA

Index No.	Skyjack Part No.	Description	Units per Assy.
1	106216	GENERATOR, 3500W Hydraulic	1
	113875	• PUMP, Hydraulic	1
	106673	• COUPLING, Pump 1/2"	1
	103026	• SPIDER, Coupling	1
	113876	• COUPLING, Generator 14mm	1
	113877	• FLOW CONTROL, 8GPM	1
	117325	• CIRCUIT BREAKER, 15 Amp	1
	103933	BOLT, Soc-hd 5/16-18 x 1-3/4" lg.	4
	103404	WASHER, Lock 5/16"	4
	2	114338	PLATE, Generator mounting front
3	114253	MOUNT, Oil cooler front	1
4	114293	MOUNT, Hydraulic generator/oil cooler	1
5	114284	COOLER, Oil	1
	115384	• FAN, Oil cooler	1
	103473	• BOLT, Hex-hd 3/8-16 x 1" lg.	4
	103999	• WASHER, Lock 3/8"	4
	103978	• NUT, Hex 3/8-16	4
	6	355054	• SPACER

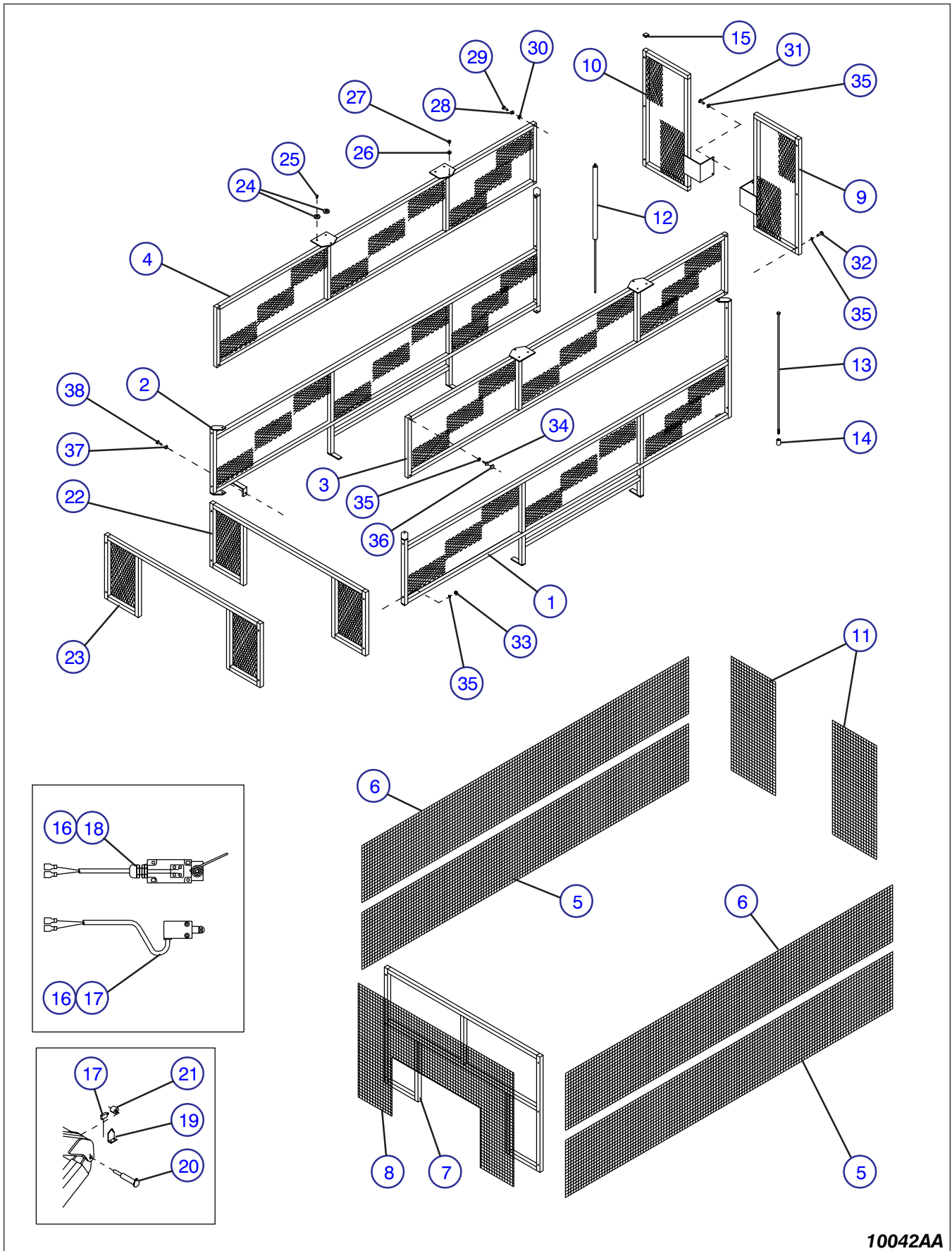
**FIGURE 6-56. 3500 WATT HYDRAULIC GENERATOR OPTION - Hydraulic Hose Connections**



**MA-800-38A**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	(Ref.)	PUMP, Hydraulic generator (Refer to Figure 6-55)	1
2	102374	FITTING, Connector #8orb-#8	1
3	103294	FITTING, Reducer #10orb-#8P	1
4	103215	FITTING, Hose barb	1
5	102854	CLAMP, Worm #12	4
6	103032	HOSE, Suction 3/4" x 70" lg.	1
7	106170	FITTING, Tee #8swvl-#8-#8	1
8	106670	FITTING, Elbow 90° #6-#6	1
9	112455	FITTING, Connector #12orb-#12orb	1
10	112456	FITTING, Adapter #8swvl-#6P	1
11	108799	FITTING, Hose barb	1
12	112451	BLOCK, Manifold tee	1
13	103137	BLOCK, Valve manifold	1
14	104412	VALVE, N.C. (generator)	1
15	106272	COIL, 12 Volt (2-prong)	1
16	110566	HOSE ASSEMBLY, Valve manifold to generator pump	1
17	(Ref.)	MANIFOLD ASSEMBLY, Main (Refer to Figure 6-36)	1
18	(Ref.)	FITTING, Hose barb (Refer to Figure 6-36)	1
19	103070	FITTING, Connector #6orb-#8	1
20	103177	FITTING, Elbow 45° #8	1
21	110556	FITTING, Pipe reducer 1"-3/4"	2
22	103059	FITTING, Street elbow 90° 1"	2

**FIGURE 6-57. SCISSOR GUARD OPTION**



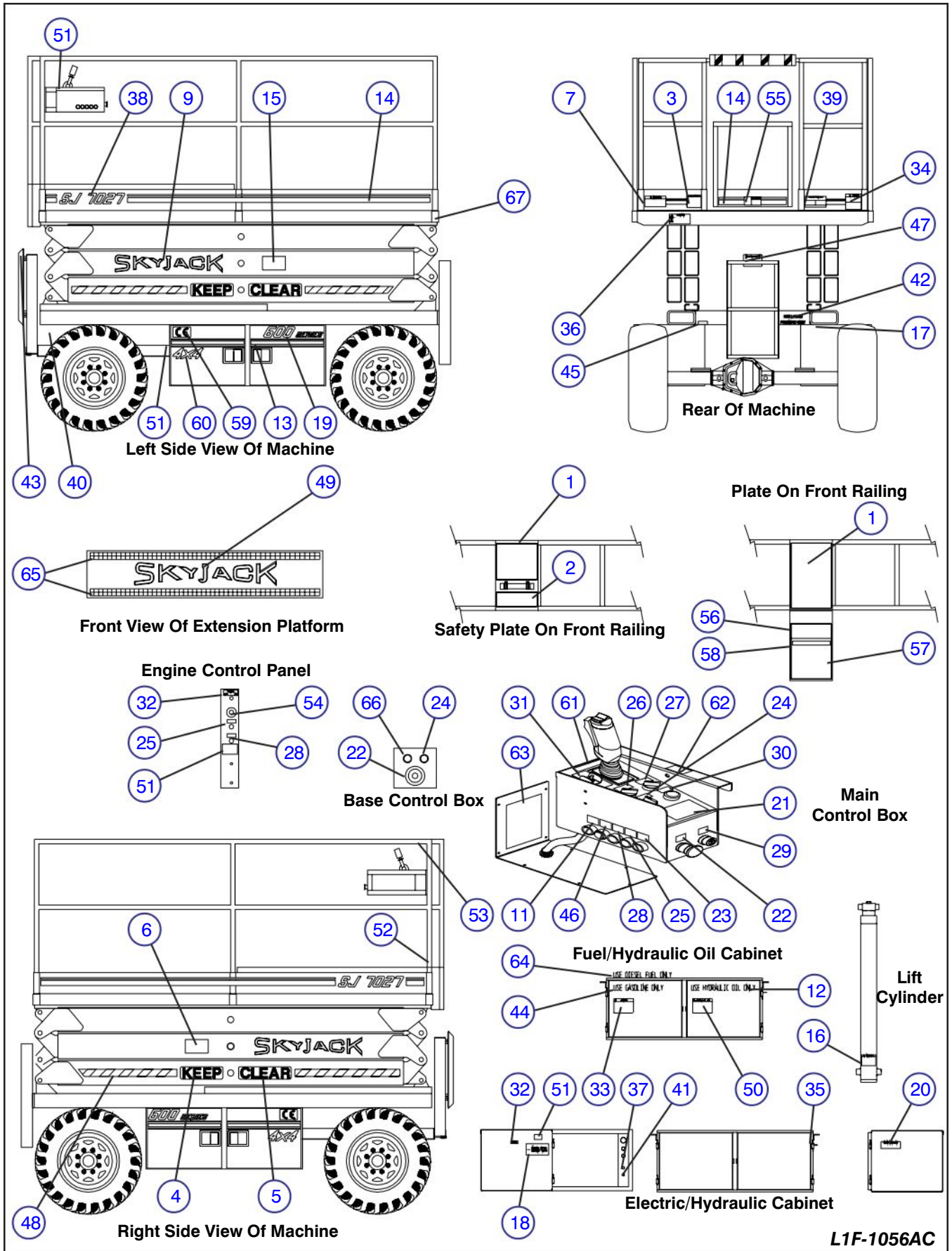
10042AA



**FIGURE 6-57. SCISSOR GUARD OPTION**

Index No.	Skyjack Part No.	Description	Units per Assy.
1	115505	FRAME, LH lwr guard <b>Use Part #111658 for Machines with Serial # 30418 and below.</b>	1
2	115504	FRAME, RH lwr guard <b>Use Part #111657 for Machines with Serial # 30418 and below.</b>	1
3	115500	FRAME, LH upper guard <b>Use Part #111665 for Machines with Serial # 30418 and below.</b>	1
4	115501	FRAME, RH upper guard <b>Use Part #111664 for Machines with Serial # 30418 and below.</b>	1
5	111677	MESH, Side lwr guard (Serial # 30418 and below)	2
6	111678	MESH, Side upper guard (Serial # 30418 and below)	2
7	111669	FRAME, Front guard (Serial # 30418 and below)	1
8	111676	MESH, Front guard (Serial # 30418 and below)	1
9	111674	FRAME, LH Rear scissor guard	1
10	111673	FRAME, RH Rear scissor guard	1
11	111675	MESH, Rear scissor guard (Serial # 30418 and below)	2
12	110499	CYLINDER, Gas spring	4
13	115524	ROD, Scissor guard slider short	2
	111680	ROD, Scissor guard slider long	4
14	111651	SLIDER, Scissor guard	6
15	100702	CAP, Tube end	14
16	102891	STRAP, Tie 7" lg.	315
17	111356	SWITCH, Sealed limit (scissor pin) (Machines with extension platform)	1
18	(Ref.)	SWITCH ASSEMBLY, Limit (platform) (Machines with extension platform)	1
	102668	• SWITCH, Limit	1
	102882	• HEAD, Limit switch	1
	103142	• ACTUATOR, Limit switch	1
	103036	STRAIN RELIEF	1
19	113161	BRACKET, Limit switch mounting (Machines with extension platform)	1
20	113190	PIN, Scissor end (limit switch cam) (Machines with extension platform)	1
21	100967	CAM, Limit switch (Machines with extension platform)	1
22	115519	FRAME, Front inner guard (Serial # 30419 thru 31391)	1
23	115502	FRAME, Front outer guard (Serial # 30419 thru 31391)	1
24	105673	PAD, Bumper	8
25	116193	BOLT, #10-32 x 1/2"	8
26	104636	WASHER, Lock 7/16"	8
27	114718	NUT, Hex M10 - 1.5	8
28	104185	WASHER, Lock #10	12
29	300228	BOLT, BHCS #10 - 24 x 1/2"	12
30	104694	WASHER, Flat #10 SAE	12
31	103473	BOLT Hex head 3/8 - 16 x 1"	4
32	103916	BOLT, Hex head 3/8 - 16 x 3 1/4"	10
33	104606	NUT, Hex lock nylon insert 3/8 - 16	28
34	103872	BOLT, Hex head 3/8 - 16 x 2 1/4"	10
35	103472	WASHER, Flat 3/8 SAE	48
36	300460	PLUG, Round 7/8" hole	4
37	103999	WASHER, Lock 3/8"	2
38	101632	BOLT, Hex head 3/8 - 16 x 3/4"	2

FIGURE 6-58. LABELS AND NAMEPLATES



L1F-1056AC

**FIGURE 6-58. LABELS AND NAMEPLATES**

Index No.	Skyjack Part No.	Description	Units per Assy.
	113874	KIT, Service labels and nameplates (SEE NOTE) (Consists of items 1 thru 35)	-
1	118277	• LABEL, Danger (safety plate)	1
2	\$	• LABEL, Caution (safety plate) (order 118277)	1
3	106691	• LABEL, Operator checklist	2
4	106760	• LABEL, Keep (on scissor arm)	2
5	106761	• LABEL, Clear (on scissor arm)	2
6	109985	• LABEL, Annual inspection	1
7	108666	• LABEL, Replacement parts	1
8	108946	• LABEL, SKYJACK (small) (21-1/2" wide)	2
9	102632	• LABEL, SKYJACK (medium) (26" wide)	2
10	105983	• LABEL, Power off/on	1
11	105352	• LABEL, Horn (Control box)	1
12	102961	• LABEL, Use hydraulic oil	1
13	103110	• STRIPE, Red/blue/red 96" lg.	2
14	103125	• STRIPE, White/blue 144" lg.	2
15	106406	• LABEL, Safety bar	1
16	106703	• LABEL, Orifice warning (lift cylinder)	2
17	106705	• LABEL, Do not alter (limit switches)	2
18	106899	• LABEL, Emergency battery switch	1
19	111268	• LABEL, 600 SERIES	2
20	111605	• LABEL, Emergency lowering	1
21	106704	• LABEL, Operator warning (control box)	1
22	111814	• LABEL, Emergency stop (control box)	2
23	108855	• LABEL, Lift enable (control box)	1
	115594	• LABEL, Enable (control box) (machines with Lift/Drive enable)	1
24	108328	• LABEL, Up/off/down (control box)	2
25	108334	• LABEL, Start (control box) (on engine control box)	1
26	110712	• LABEL, Low/high range (control box)	1
27	108332	• LABEL, Low/high throttle (control box)	1
28	103060	• LABEL, Choke (control box) (on engine control panel) (gasoline engines)	2
	102448	• LABEL, Glow plug (control box) (on engine control panel) (diesel engines)	2
29	108335	• LABEL, Off/lift/drive (control box)	1
30	103080	• LABEL, On indicator (control box)	1
31	114372	• LABEL, Hi-lo torque (control box)	1
32	105983	• LABEL, Off/on (engine control panel)	1
33	106694	• LABEL, Danger, explosion hazard	1
34	106693	• LABEL, Danger, filled tires (For Model SJ7027F)	1
35	113846	• LABEL, Manual brake procedure (in hyd/elec. cabinet) <b>(Order Part # 111604 for Machines With Serial #30166 and Below)</b>	1 -
36	124931	LABEL, Off slab (compliance) (CE)	1
	125476	LABEL, Off slab (compliance) (ANSI/SIA & CSA) <b>(Order Part # 108664 for Machines With Serial #33188 and Below)</b>	1 -
<b>Parts list continued on the following page.</b>			

**FIGURE 6-58. LABELS AND NAMEPLATES (Continued)**

Index No.	Skyjack Part No.	Description	Units per Assy.
		<b>Parts list continued from the previous page.</b>	
37	117387	LABEL, Push to reset power	1
38	(Ref.)	LABEL, Model designation	-
	111269	• SJ7027	2
	111284	• SJ7027F	2
39	(Ref.)	LABEL, Platform capacity	-
	112586	• 1500 lbs.	2
40	125024	LABEL, Tire Pressure (machines with 70 psi - 10 ply tires)	4
41	117389	LABEL, Push to reset ground	1
42	106911	LABEL, Use liquid propane only (Machines with Dual Fuel Option)	1
43	106409	LABEL, Fuel switch sequence (engine front cover) (Dual Fuel Option)	1
44	102960	LABEL, Use gasoline only (gasoline engines) (on fuel tank)	1
45	110333	LABEL, Connect 110V AC supply here (AC Outlet on Platform)	1
46	112437	LABEL, Generator off/on (Machines with Hydraulic Generator Option)	1
47	(Ref.)	NAMEPLATE, Serial # (Consult factory)	1
48	102975	STRIPE, Warning (648" roll)	AR
49	102631	LABEL, SKYJACK large (36" wide) (Machines with extension platform)	AR
50	114378	LABEL, Recommended hydraulic oil	1
51	114252	LABEL, California Proposition 65 (Only on machines sold in California)	3
52	115531	LABEL, Warning, Secure pins	6
53	115543	LABEL, Warning, No step	2
54	114097	LABEL, LP Gas/off/gasoline	1
55	115982	LABEL, Danger, Do not drive (elevated platform)	1
56	122883	MANUAL, Operating	1
57	114224	MANUAL, Responsibilities ANSI/SIA	1
58	123628	LABEL, Manual Box	1
59	117023	LABEL, CE Approval	1
60	707236	LABEL, 4x4	2
61	123488	LABEL, Operating (Control box) (machines with lift/drive Enable switch)	1
62	124080	LABEL, Enable Joystick (Control box)	1
63	124207	LABEL, Joystick Connector (Control box)	1
64	102962	LABEL, Diesel fuel only	1
65	112906	TAPE, Caution checkered	AR
66	102451	LABEL, Platform/Base	1
67	124465	LABEL, Side force/outdoor	1
		<b>NOTE: Items 36 thru 67 not included in Service Label Kit, order separately. Supply Model Number and Serial # when ordering complete machine labels.</b>	

**CALIFORNIA**

**Proposition 65 Warning.**

**Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.**







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