

SKYJACK™

OPERATING MAINTENANCE & PARTS MANUAL

Model SJKB-40C^{me} (Multi-energy)



SJKB-40C^{me} BOOM

For Service in North America and Asia 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 990 Vernon Rd., Wathena, KS, 66090 FAX 888 782-4825	
For Parts & Service in Canada please call	800 265-2738
Skyjack Inc. 55 Campbell Rd., Guelph, Ontario, Canada N1H 1B9 FAX 519 837-3883	
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

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

6

SECTION INDEX

i



WARNING

ANSI/SIA (United States)

You are required by ANSI/SIA A92.5 -1992 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 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	VOLTAGE RANGE	MINIMUM SAFE APPROACH DISTANCE	
	(PHASE TO PHASE)	(FEET)	(METERS)
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.	(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 SJKB-40C-ME work platform. Equipment identified with "ANSI/CSA" meets the ANSI/SIA-A92.5 -1992 standards. Equipment identified with "CSA" meets the CAN3-B354.4 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 work platform has been shipped to the dealer's 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 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 accepted 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 dealer's 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 repacked, unless they are damaged beyond repair. Engine failures should be directed to your local engine distributor and covered by the manufacturer's 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 SJKB Boom Work Platforms are designed to transport and raise personnel and tools to overhead work areas.

USE OF EQUIPMENT

The SJKB Boom work platform (Figure 1-2) is a highly maneuverable work station. The SJKB-40C-ME Models are designed for both slab-type and rough terrain construction applications. **Lifting and elevated driving this model MUST be on a flat, level, compacted surface.**

WARNINGS

The operator **MUST** read and completely understand the front panel labels (Figures 1-1) and **ALL** other warnings in this manual and on the work platform. Compare the labels on the work platform with the labels found throughout Sections 1 and 2 of this manual. If any labels are damaged or missing, replace them immediately.

DESCRIPTION

The work platform consists of four major assemblies, the platform, boom assembly, rotating turret assembly and drive chassis. An operator's control console is located on the platform. A foot switch on the platform enables and disables the platform controls. Auxiliary base controls are located in the electric panel located on the rotating turret.

PLATFORM - The platform is constructed of a skid-resistant see-thru deck surface and a 42" high tubular steel railing system with midrails and 6" toe boards. The platform can be entered through a sliding midrail bar at the center of the railing system or optional hinged gate. The platform can be rotated 90 degrees from center in either direction. A 110 VAC GFI outlet is also located on the platform.

BOOM ASSEMBLY - The boom is mounted on the turret and consists of a 4 foot hydraulic boom jib, telescoping boom assembly and riser arm. This mechanism uses double-acting hydraulic cylinders with holding valves to control vertical movement. Manual lowering valves at the base of the main boom and jib cylinders allow the mechanism to lower in the event of an emergency or electrical system failure.

TURRET - The turret rotates 365° noncontinuous. The turret has two cowling doors which may be padlocked. The right hand door houses the CHARGE-PAK engine driven charging system mounted on a swing out tray, the tilt alarm sensor and the electric fuel pump. The left hand door houses the base control box, AC battery charger, hydraulic valves, and hydraulic pump and motor. The battery disconnect is located beneath the left door near the hinges. The hydraulic oil tank is located at the front of the turret.

DRIVE CHASSIS - This weldment supports two swing out battery compartments each holding four six volt, deep-cycle batteries. An electric motor coupled with a drive locking differential is used for driving the work platform. Dynamic braking as well as spring-applied hydraulically-released parking brakes are located on the drive axle. The front axle has two non-driven wheels steerable by a double-acting steer cylinder.

PLATFORM CONTROL CONSOLE - Located on the platform, this control station contains controls for work platform motion and emergency stopping. Also controls for engine operation and charge-pak operation.

OPTIONAL ACCESSORIES - The SKYJACK SJKB Boom Work Platforms are designed to accept a variety of optional accessories. These are listed in Specifications and Features found in this section. Operating instructions for these options (if required) can be found in Section 2 of this manual.

General Work Conditions

Read and pay attention to all labels on the unit.

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 raise your platform in windy or gusty conditions.

DO NOT exceed the rated capacity of your unit. Make sure the load is evenly distributed on the platform.

Jobsite Hazards

DO NOT operate the unit on surfaces not capable of supporting the weight of the work platform, including the rated load, e.g. covers, drains and trenches.

BE AWARE of overhead obstacles, especially electrical lines. Also be aware of poorly lit areas that might hide overhead obstacles.

DO NOT elevate the work platform if the unit 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 30% while in travel mode. Boom elevated driving must be done only on firm surfaces. (Ref. Table 1-1)

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

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.

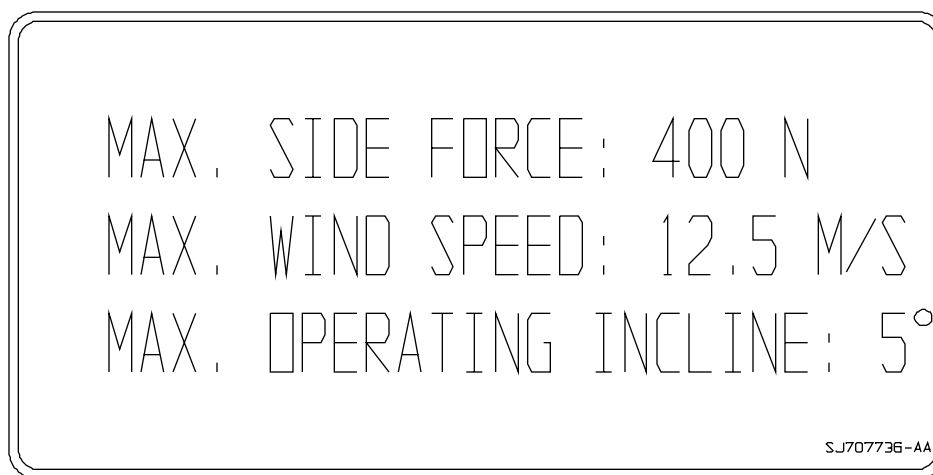


Figure 1-1. Front Panel & Platform Labels

SPECIFICATIONS AND FEATURES

Specifications

WEIGHT	14,200 lb. (6441kg)
WORK HEIGHT(nominal)	46' (14.02m)
RAISED PLATFORM HEIGHT(nominal)	40' (12.19m)
STOWED HEIGHT	6' 7" (2.0m)
OVERALL WIDTH	5' 10" (1.75m)
STOWED LENGTH	18' 3" (5.56m)
PLATFORM CAPACITY (Unrestricted)	500 lb. (227kg)
PLATFORM SIZE	30" x 66" (.76m x 1.68m)
ELECTRICAL SYSTEM	48 Volts DC
GRADABILITY	30%
TURRET ROTATION	365° (Noncontinuous)
TIRE SIZE	30" x 10" x 16.5 Air Filled

Features

STANDARD EQUIPMENT

- 4 Foot Hydraulically Controlled Boom Jib
- Variable Speed Drive and Function Controls
- In-Line Elevating Assembly
- Continuous Drive and Steer Directional Sensing
- Spring-Applied Hydraulic-Released Parking Brakes
- ANSI and CSA Standards Compliance
- Kubota Gas Engine

OPTIONAL EQUIPMENT

- Kubota Diesel Engine
- Dual Fuel (Gas/Propane)
- Operator Horn
- All Function Motion Alarm
- Travel Alarm
- Descent Alarm
- Flashing Amber Light
- Spring-Loaded Half Gate
- Spring-Loaded Full Gate
- Lifting Lugs
- Air or Hydraulic Line to Platform
- Cold Weather Start
- Foam Filled Tires
- Overload sensing

WORK PLATFORM MAJOR COMPONENT IDENTIFICATION

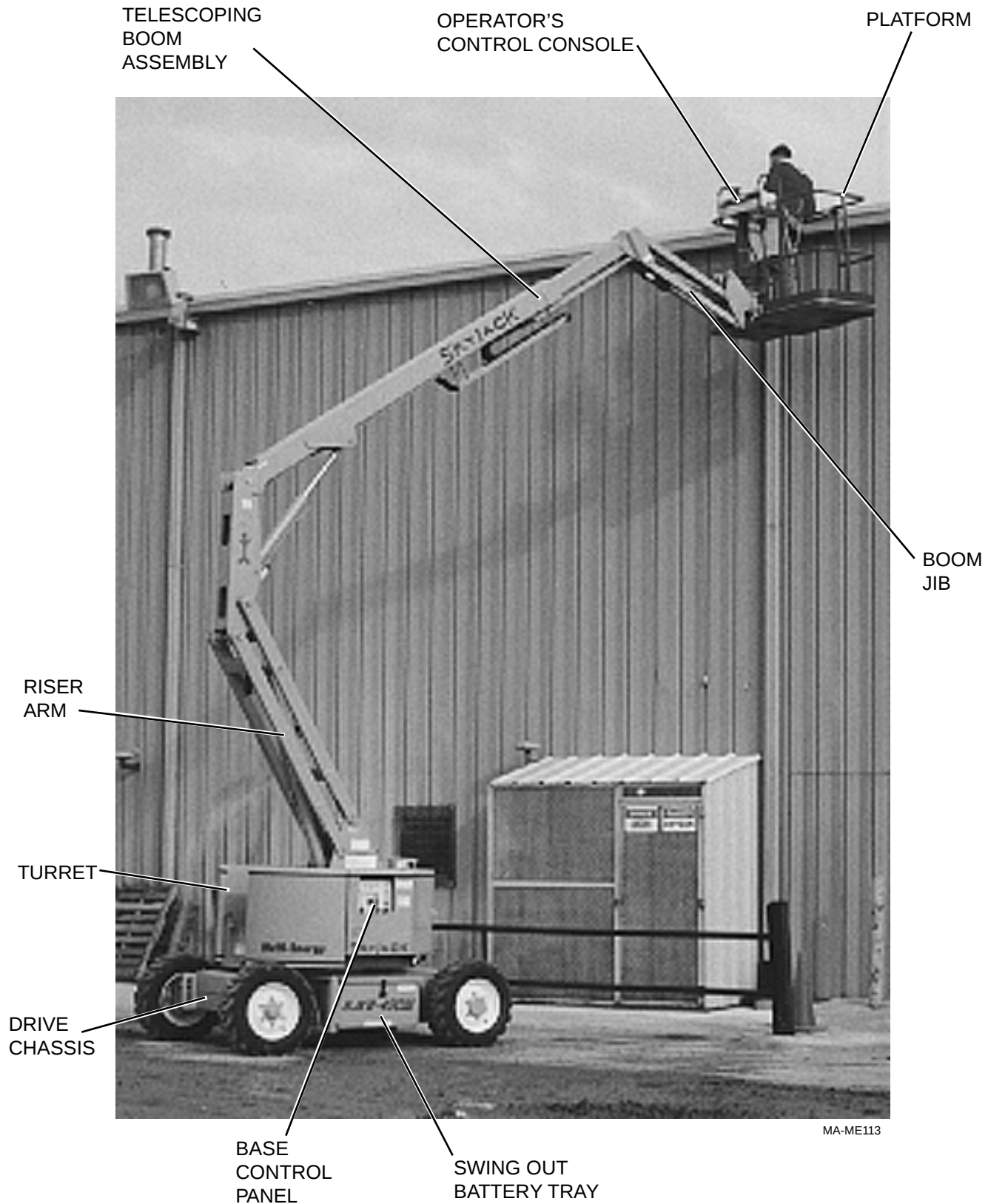


Figure 1-2. SKYJACK SJKB-40C-ME Boom Work Platform

SECTION 2

OPERATOR CONTROLS/INSPECTIONS

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. Operator also **MUST** be familiar with employer's work rules and 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.

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 and inspected before using it. Even if the operator is not directly responsible for the maintenance of this work platform, the operator should perform **ALL** the daily inspections found in Table 2-1. Maintenance and Inspection Schedule.

NOTE

Replace all worn or damaged parts or labels discovered during this inspection.

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 2-1. Maintenance and Inspection Schedule indicates the areas of the work platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.

OWNER'S ANNUAL INSPECTION RECORD

It is the responsibility of the owner to arrange daily, weekly, monthly and annual inspections of the work platform. (Refer to Table 2-2. in this manual.)

GENERAL MAINTENANCE HINTS

- Before attempting any repair work, disconnect the batteries by separating the Battery Connectors.
- Preventative maintenance is the easiest and least expensive type of maintenance.

OPERATING CONTROL 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 on Pages 8 through 12 in this manual.

Base Controls - Electrical Base Control Panel

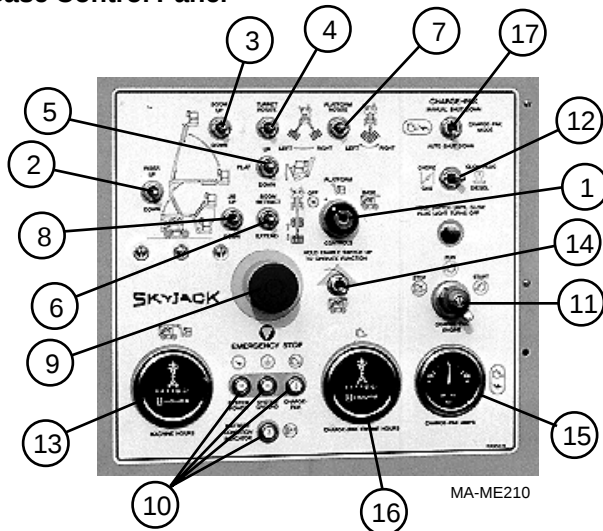


Figure 2-1. Base Control Panel and Label

NOTE

There are no operator serviceable components inside this enclosure. Only authorized service personnel should open the enclosure.

1. OFF/PLATFORM/BASE SELECT KEY SWITCH
2. RISER UP/DOWN TOGGLE SWITCH
3. BOOM UP/DOWN TOGGLE SWITCH
4. TURRET ROTATION TOGGLE SWITCH
5. PLATFORM LEVELING TOGGLE SWITCH
6. BOOM RETRACT/EXTEND TOGGLE SWITCH
7. PLATFORM ROTATION TOGGLE SWITCH
8. JIB UP/DOWN TOGGLE SWITCH
9. EMERGENCY STOP BUTTON
10. CIRCUIT BREAKERS
11. ENGINE STOP/RUN/START SELECT SWITCH
12. ENGINE CHOKE/GLOW PLUG SWITCH
13. UNIT HOURMETER
14. FUNCTION ENABLE SWITCH
15. CHARGE-PAK AMP METER
16. CHARGE-PAK HOUR METER
17. CHARGE-PAK MODE TOGGLE SWITCH

BASE CONTROL PANEL - This control station is located on the rotating turret in the hydraulic/electric cabinet. It contains the following controls:

1. OFF/PLATFORM/BASE SELECT KEY SWITCH - Turning the key to the "⊗" (off) position disconnects power from the control circuit. When the "🚚" (platform) position is selected, power is directed to the control station on the platform. When the switch is placed in the "🏠" (base) position power is directed to the control station on the base.

2. RISER UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the riser section. To raise the riser section, push and hold this toggle switch to the "↑" (up) position. Release switch to stop. To lower the riser section, push and hold this toggle switch to the "↓" (down) position. Release switch to stop.

3. BOOM UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the boom section. To raise the boom section, push and hold this toggle switch to the "↑" (up) position. Release switch to stop. To lower the boom section, push and hold this toggle switch to the "↓" (down) position. Release switch to stop.

4. TURRET ROTATION TOGGLE SWITCH - This switch controls clockwise and counterclockwise turret rotation. To rotate the turret clockwise, push and hold this toggle switch to the "↻" (cw) position. Release switch to stop. To rotate the turret counterclockwise, push and hold this toggle switch to the "↺" (ccw) position. Release switch to stop.

5. PLATFORM LEVELING TOGGLE SWITCH - This switch controls the leveling of the platform if adjustment is necessary. If the platform is tilted away from the jib, push and hold this toggle switch to the "↑" (up) position. Release switch when level. If the platform is tilted toward the jib, push and hold this toggle switch to the "↓" (down) position. Release switch when level.

6. BOOM RETRACT/EXTEND TOGGLE SWITCH - This switch controls the retraction and extension of the telescoping boom arm. To retract the boom arm, push and hold this toggle switch to the "↑" (retract) position. Release switch to stop. To extend the boom arm, push and hold this toggle switch to the "↓" (extend) position. Release switch to stop.

7. PLATFORM LEFT/RIGHT ROTATION TOGGLE SWITCH - This switch controls left and right rotation of the platform. To rotate the platform to the left, push and hold this toggle switch to the "↶" (left) position. Release switch to stop. To rotate the platform to the right, push and hold this toggle switch to the "↷" (right) position. Release switch to stop.

8. JIB UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the jib. To move the jib upward, push and hold this toggle switch to the "↑" (up) position. Release switch to stop. To move the jib downward, push and hold this toggle switch to the "↓" (down) position. Release switch to stop.

9. EMERGENCY STOP BUTTON - When struck, this red push-button switch disconnects power to the control circuit. In the event of an emergency or at work platform shut down, push button in. To restore power, simply pull button out.

10. CIRCUIT BREAKERS - In the event of a power overload or positive circuit grounding, the circuit breaker will pop out. Make the necessary corrections, then depress the push-button to reset.

11. ENGINE STOP/RUN/START SELECT SWITCH - Turning the switch to the “” (start) position will engage the starter, once the engine starts, release the switch and it will return to the “” (run) position. To stop the engine turn the switch to the “” (stop) position.

12. ENGINE CHOKE/GLOW PLUG SWITCH - This switch when held in the “” (up) position, activates the electric choke on gasoline engines or the glow plugs on the optional diesel engine.

13. UNIT HOUR METER - This meter is activated by the foot switch or the function enable switch and measures function running time.

14. BOOM FUNCTION ENABLE TOGGLE SWITCH - This momentary switch must be held to operate any function from the base control panel.

15. CHARGE-PAK AMP METER - This meter displays the output amperage of the charge-pak when the engine is running.

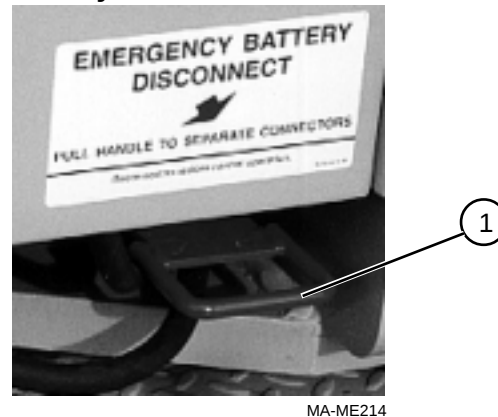
16. CHARGE-PAK HOUR METER - Activated by the ignition system, this gauge measures engine running time.

17. CHARGE-PAK MODE TOGGLE SWITCH - This switch determines the shut down mode of the CHARGE-PAK. With this switch in the manual shut down mode the CHARGE-PAK system will continue to run until the operator shuts it down. With this switch in the auto shut down mode the CHARGE-PAK system will automatically shut down when it reaches 85% to 95% of full charge.

IMPORTANT NOTE

The SJKB-40C-ME should not be left unattended even when in Auto Shut Down mode.

Battery Connector



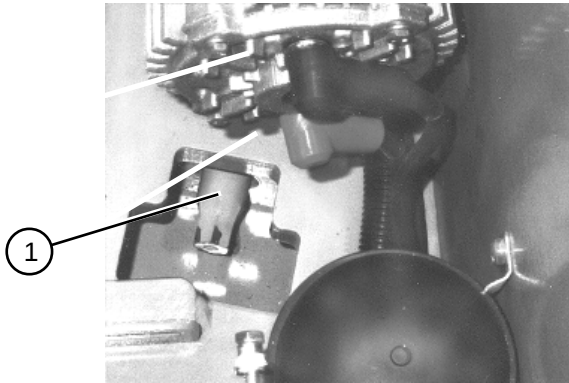
MA-ME214

Figure 2-2. Battery Connector

1. BATTERY CONNECTOR

1. BATTERY CONNECTOR - This connector, located below the left cowling door at the rear of the turret, disconnects all batteries and all power to both control stations in the event of an emergency and for work platform shut down or service. This connection **MUST** be made to operate any control on either control station. The AC battery charger works independently of this connection and the batteries may still be charged while these connectors are separated.

Base Controls - Mechanical Emergency Turret Rotating Mechanism



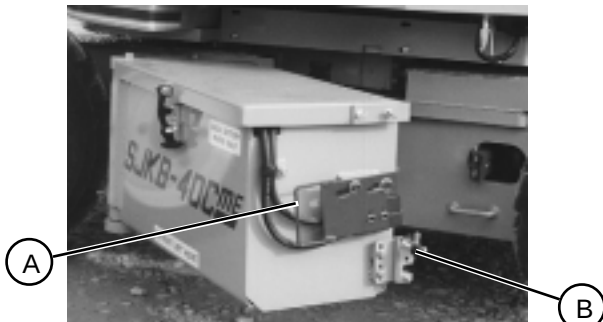
MA-ME218

Figure 2-3. Emergency Turret Rotating Mechanism

1. EMERGENCY TURRET ROTATING MECHANISM

1. EMERGENCY TURRET ROTATING MECHANISM - This mechanism is located on the rotation gear under the turret. Use a 7/8" 6-point socket with ratchet to rotate the turret back to center. NOTE: On European models a 7/8" 6-point ratcheting wrench (SKYJACK #701517) is located inside the hydraulic/electric cabinet. Rotate the Emergency Turret Rotation Valve to a fully closed (clockwise) position.

Swing Out Battery Tray



MA-ME216

Figure 2-4. Swing Out Battery Tray

1. SWING OUT BATTERY TRAY

1. SWING OUT BATTERY TRAY - This model has been designed with swing out battery trays for maintaining and servicing the batteries. To swing out the tray the following procedure **MUST** be followed:

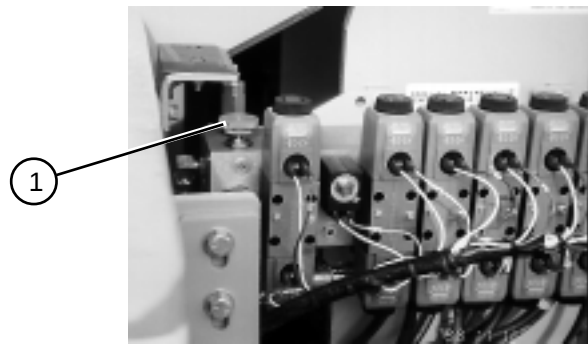
Step 1. Disconnect the battery tray connector (A) by lifting up and pulling outward.

Step 2. Release the latch (B) and pull the battery tray outward.



The battery tray lid **MUST** be closed before swinging the battery tray closed. Be sure to reconnect the battery tray connector before operating the machine.

Base Controls - Hydraulic Turret Rotation Speed Control Valve



MA-ME211

Figure 2-5. Turret Rotation Speed Control Valve

1. TURRET ROTATION SPEED CONTROL VALVE

1. TURRET ROTATION SPEED CONTROL VALVE - Located on the upper left side of the main manifold in the hydraulic/electric cabinet, this rotary valve when rotated to a fully closed position (clockwise) allows maximum turret rotation speed. By opening the valve (counterclockwise) the turret rotation speed can be reduced.

Emergency Lowering Valves

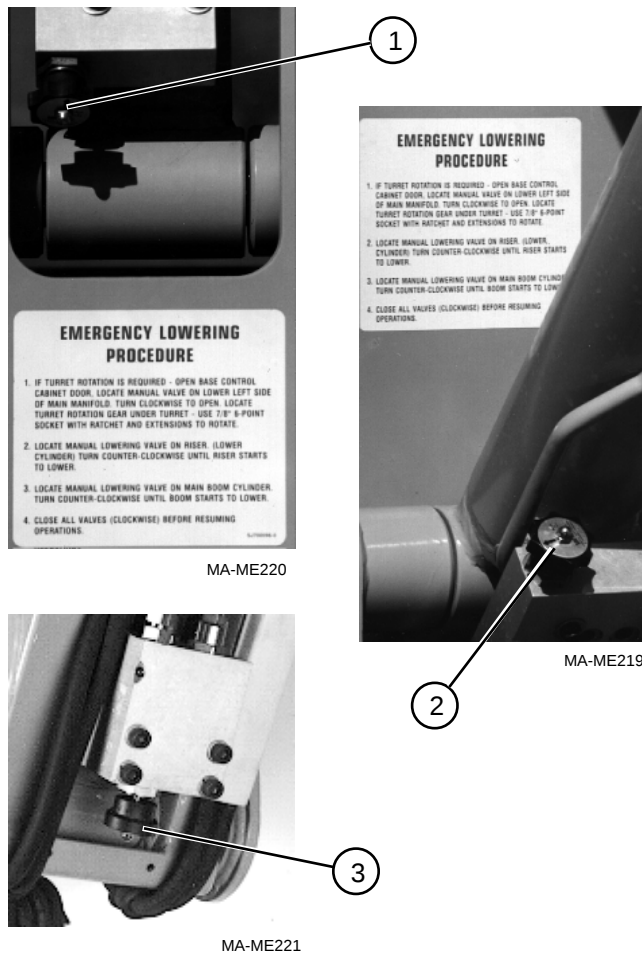


Figure 2-6. Emergency Lowering Valves and Procedure Label

1. EMERGENCY LOWERING VALVE ON RISER
2. EMERGENCY LOWERING VALVE ON BOOM
3. EMERGENCY LOWERING VALVE ON JIB

1. EMERGENCY LOWERING VALVE ON RISER - Located at the base on the riser cylinder, this valve allows riser lowering in the event of an emergency or an electrical system failure. Turning the valve knob counterclockwise allows the riser to gradually lower. Valve **MUST** be fully closed (clockwise) to restore normal operation.



Crushing hazard. **DO NOT** access this valve from beneath the boom. This valve **MUST** be accessed by opening one of the cowling doors. Failure to follow this warning may result in death or serious injury.

2. EMERGENCY LOWERING VALVE ON BOOM - Located at the base on the boom cylinder, this valve allows boom lowering in the event of an emergency or an electrical system failure. Turning the valve knob counterclockwise allows the boom to gradually lower. Valve **MUST** be fully closed (clockwise) to restore normal operation.

3. EMERGENCY LOWERING VALVE ON JIB - Located at the base on the jib cylinder, this valve allows boom lowering in the event of an emergency or an electrical system failure. Turning the valve knob counterclockwise allows the jib to gradually lower. Valve **MUST** be fully closed (clockwise) to restore normal operation.

NOTE

For European models only, the manual lowering valve knobs are located inside electrical cabinet door on turret.

Parking Brake Release Plunger

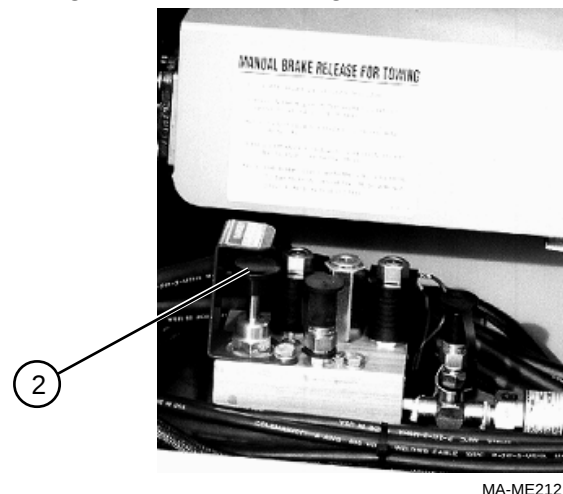


Figure 2-7. Parking Brake Release Plunger

1. PARKING BRAKE RELEASE PLUNGER



DO NOT release the brakes on an incline without the wheels chocked.

1. PARKING BRAKE RELEASE PLUNGER - Located on the brake manifold in the hydraulic/electric cabinet, when this red plunger on the brake valve is depressed, the brake valve opens allowing accumulator pressure to immediately disengage the parking brakes.

Step 1. Disconnect the batteries by separating the Battery Connector.

Step 2. Firmly depress the red plunger knob on the brake manifold. The brakes are now released.

NOTE

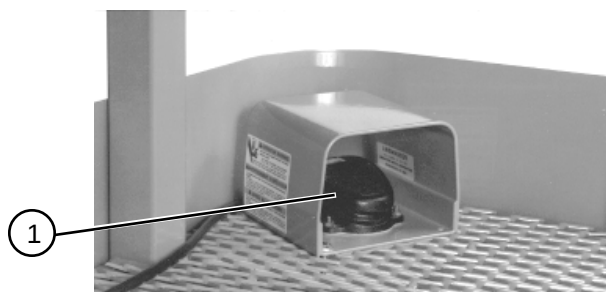
The brake will automatically return to normal operation when a drive function is selected.

NOTE

When towing, **DO NOT** exceed 2 mph.

Platform Controls - Electrical

Foot Switch



MA-ME208

Figure 2-8. Foot Switch

1. FOOT SWITCH

1. FOOT SWITCH - The foot switch is located on the platform. When the foot switch is depressed and held, power is brought to the controls on the operator's control console. When the foot switch is released, the controls on the operator's control console are cut out.

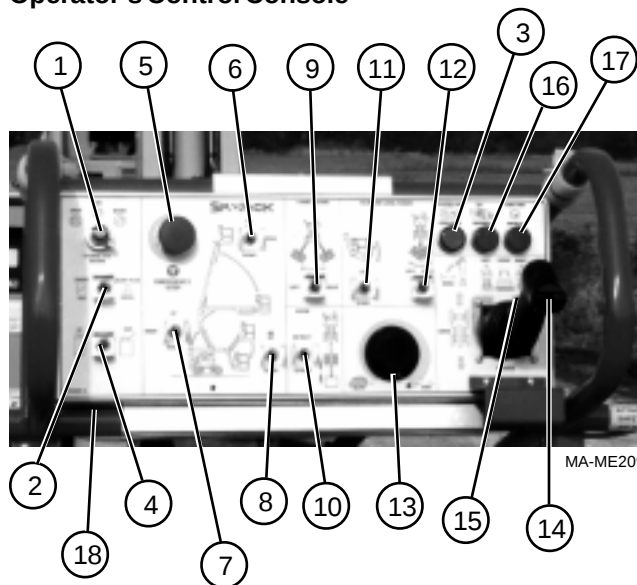
IMPORTANT NOTE

The foot switch **MUST** be depressed and held to use any control on the operator's control console.



Before releasing the foot switch, the controls should be returned to the neutral position. **Work platform motion will stop when the foot switch is released.**

Operator's Control Console



MA-ME209

Figure 2-9. Operator's Control Console and Label

1. ENGINE STOP/RUN/START SELECT SWITCH
2. ENGINE CHOKE/GLOW PLUG SWITCH
3. CHARGE-PAK LIGHT
4. FUEL SELECT TOGGLE SWITCH (Dual Fuel)
5. EMERGENCY STOP BUTTON
6. BOOM UP/DOWN TOGGLE SWITCH
7. RISER UP/DOWN TOGGLE SWITCH
8. JIB UP/DOWN TOGGLE SWITCH
9. TURRET ROTATE TOGGLE SWITCH
10. BOOM EXTEND/RETRACT TOGGLE SWITCH
11. PLATFORM LEVELING TOGGLE SWITCH
12. PLATFORM ROTATE TOGGLE SWITCH
13. BOOM SPEED CONTROL ROTARY SWITCH
14. DRIVE/STEER CONTROLLER
15. HORN PUSH-BUTTON
16. TILT SENSOR INDICATOR LIGHT
17. FUNCTION ENABLE LIGHT
18. BATTERY CONDITION INDICATOR

OPERATOR'S CONTROL CONSOLE - This metal control station is located at the front of the platform. It contains the following controls:

IMPORTANT NOTE

The foot switch **MUST** be depressed and held to use any control on the operator's control console. Refer to Operating Procedures for detailed instructions on operating these controls.

2. ENGINE STOP/START SWITCH - This switch controls the start/stop of the engine. To start the engine **DO NOT** depress the foot switch. Turning the switch to the " " (start) position will engage the starter, once the engine starts, release the switch and it will return to the " " (run) position. To stop the engine turn the switch to the " " (stop) position.

switch when held in the " " (left) position activates the electronic choke on gas and dual fuel machines. When held to the " " (right) position on machines equipped with the diesel option this switch activates the glow plugs.

3. CHARGE-PAK LIGHT - This blue indicator light informs the operator that the engine is running and the charge-pak is operating.

4. FUEL SELECT TOGGLE SWITCH (Dual Fuel) - This switch allows the operator to select the fuel source to be used.

5. EMERGENCY STOP BUTTON - This red mushroom-shaped button is designed to cut power to the platform controls when struck in the event of an emergency or at work platform shutdown. To restore power, simply pull button out.



Depressing the Emergency Stop Button instantly engages parking brakes.

6. BOOM UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the boom section. To raise the boom section, push and hold this toggle switch to the " " (up) position. Release switch to stop. To lower the boom section, push and hold this toggle switch to the " " (down) position. Release switch to stop.

7. RISER UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the riser section. To raise the riser section, push and hold this toggle switch to the " " (up) position. Release switch to stop. To lower the riser section, push and hold this toggle switch to the " " (down) position. Release switch to stop.

8. JIB UP/DOWN TOGGLE SWITCH - This switch controls the up/down movement of the jib. To move the jib upward, push and hold this toggle switch to the " " (up) position. Release switch to stop. To move the jib downward, push and hold this toggle switch to the " " (down) position. Release switch to stop.

9. TURRET ROTATION TOGGLE SWITCH - This switch controls clockwise and counterclockwise turret rotation. To rotate the turret clockwise, push and hold this toggle switch to the " " (cw) position. Release switch to stop. To rotate the turret counterclockwise, push and hold this toggle switch to the " " (ccw) position. Release switch to stop.

SJKB-40C-ME

10. BOOM RETRACT/EXTEND TOGGLE SWITCH - This switch controls the retraction and extension of the telescoping boom arm. To retract the boom arm, push and hold this toggle switch to the " " (retract) position. Release switch to stop. To extend the boom arm, push and hold this toggle switch to the " " (extend) position. Release switch to stop.

11. PLATFORM LEVELING TOGGLE SWITCH - This switch controls the leveling of the platform if adjustment is necessary. If the platform is tilted away from the jib, push and hold this toggle switch to the " " (up) position. Release switch when level. If the platform is tilted toward the jib, push and hold this toggle switch to the " " (down) position. Release switch when level. Platform leveling is not available on European models.

12. PLATFORM LEFT/RIGHT ROTATION TOGGLE SWITCH - This switch controls left and right rotation of the platform. To rotate the platform to the left, push and hold this toggle switch to the " " (left) position. Release switch to stop. To rotate the platform to the right, push and hold this toggle switch to the " " (right) position.

13. BOOM SPEED CONTROL ROTARY SWITCH - This rotary switch allows the operator to control the speed of the lifting, lowering and rotation functions. To reduce the speed of the functions turn the knob counter-clockwise. To increase the speed of the functions turn the knob clockwise.

14. DRIVE/STEER CONTROLLER - This lever-type controller allows the operator to drive in forward or reverse and by using the rocker on top of the controller to steer left or right.

15. HORN PUSH BUTTON (Option) - If equipped with the horn option, the horn is sounded by depressing the red button on the Drive/Steer controller handle.

16. TILT SENSOR INDICATOR LIGHT - This red indicator light warns the operator that the work platform is on a slope which exceeds the limits for safe operation. A warning buzzer will also sound.

17. FUNCTION ENABLE LIGHT - This red indicator light tells the operator that the foot switch has been depressed and power is available to operate the controls on the operator's control console.

18. BATTERY CONDITION INDICATOR - This gauge informs the operator of the state of charge of the battery packs.

OPERATING PROCEDURES

Before operating any control, read and completely understand ALL Dangers, Warnings and Cautions on the work platform and in this operator's manual.

OPERATORS CHECK LIST

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

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

MT-ME201

Prestart Checks

1. Check for obstacles around the work platform and in the path of travel such as holes, drop offs, debris, ditches and soft fill.
2. Check overhead clearances.
3. Make sure emergency lowering valves at the base of the riser, boom and jib cylinders are fully closed.
4. Check fuel level. Make sure the valve on the propane tank is in the open position (Dual Fuel Option only).

Start and Operation

1. Make sure the Battery Connector is not separated.
2. Unplug battery charger from 110V power source.
3. Pull out the Emergency Stop Button on the Base Control Panel.
4. Select "  " (platform) with Off/Platform/Base Select Key Switch.

5. Enter the platform by sliding the entry bar at the center of the platform upward. Make sure the entry midrail returns to midrail position. Close the gate (if so equipped).



WARNING

DO NOT operate any control on the operator's control console without your safety device fastened and properly securing the safety device lanyard to the platform lanyard rings. **Failure to avoid this hazard could result in death or serious injury!**

6. Attach the safety device lanyards of each occupant to the platform lanyard rings.
7. Pull out the Emergency Stop Button on the Operators Control Console.
8. Depress and hold the foot switch.

REMEMBER

The following controls on the Operator's Control Console WILL NOT operate unless the Foot Switch is depressed and held.

NOTE

When the operator is positioned over an axle, the direction the operator is facing will be FORWARD!

9. **TO DRIVE FORWARD:** Slowly move the Drive/Steer Controller handle to the "  " (forward) position. Release controller handle to stop.
10. **TO DRIVE IN REVERSE:** Slowly move the Drive/Steer Controller handle to the "  " (reverse) position. Release controller handle to stop.
11. **TO STEER:** Depress the rocker on the Drive/Steer Controller handle in the direction you wish to steer.
12. **TO ADJUST BOOM FUNCTION SPEED:** Turn the Boom Speed Control Knob counter-clockwise to decrease function speed or clockwise to increase function speed. The Boom Speed Control will affect all lifting, lowering and rotate functions but will not affect drive or steer speed.
13. **TO MOVE THE JIB UPWARD:** Press and hold the Jib Up/Down Toggle Switch to the "  " (up) position. Release the switch to stop.
14. **TO MOVE THE JIB DOWNWARD:** Press and hold the Jib Up/Down Toggle Switch to the "  " (down) position. Release the switch to stop.
15. **TO MOVE THE RISER UPWARD:** Press and hold the Riser Up/Down Toggle Switch to the "  " (up) position. Release the switch to stop.

16. **TO MOVE THE RISER DOWNWARD:** Press and hold the Riser Up/Down Toggle Switch to the "↓" (down) position. Release the switch to stop.
17. **TO MOVE THE BOOM UPWARD:** Press and hold the Boom Up/Down Toggle Switch to the "↑" (up) position. Release the switch to stop.
18. **TO MOVE THE BOOM DOWNWARD:** Press and hold the Boom Up/Down Toggle Switch to the "↓" (down) position. Release the switch to stop.
19. **TO ROTATE THE TURRET CLOCKWISE:** Press and hold the Turret Rotate Toggle Switch to the "↻" (clockwise) position. Release the switch to stop.
20. **TO ROTATE THE TURRET COUNTER-CLOCKWISE:** Press and hold the Turret Rotate Toggle Switch to the "↻" (counter-clockwise) position. Release the switch to stop.
21. **TO LEVEL THE PLATFORM (Platform is tilted away from the jib):** Press and hold the Platform Leveling Toggle Switch to the "↑" (up) position. To stop release the switch.
22. **TO LEVEL THE PLATFORM (Platform is tilted toward the jib):** Press and hold the Platform Leveling Toggle Switch to the "↓" (down) position. To stop release the switch.

NOTE

Platform leveling from platform control console is not available on European models.

23. **TO ROTATE THE PLATFORM TO THE LEFT:** Press and hold the Turret Rotate Toggle Switch to the "↶" (left) position. Release the switch to stop.
24. **TO ROTATE THE PLATFORM TO THE RIGHT:** Press and hold the Turret Rotate Toggle Switch to the "↷" (right) position. Release the switch to stop.
25. **TO RETRACT THE TELESCOPING BOOM:** Press and hold the Boom Extend/Retract Toggle Switch to the "↑" (retract) position. Release the switch to stop.
26. **TO EXTEND THE TELESCOPING BOOM:** Press and hold the Boom Extend/Retract Toggle Switch to the "↓" (extend) position. Release the switch to stop.
27. **TO SOUND THE HORN:** Depress the red push-button on the Drive/Steer Controller.

Shutdown Procedure

1. Fully lower the platform.
2. Push in the Emergency Stop Buttons.
3. Rotate the Off/Platform/Base Key Switch to the "⊗" (off) position. Remove the key.

Loading and Tie Down Procedure

1. With the telescopic boom fully retracted and trailer on firm level ground. Align the tires of the boom with the back end of the trailer.
2. Select low speed on the platform throttle control and slightly raise the jib for ground clearance while loading. Slowly and carefully drive the machine on to the trailer.

NOTE

For loading and unloading using a winch line, see the brake release procedure in this section.

3. With machine loaded on trailer, tie down as recommended. (Refer to Figure 2-10.)
4. Remove turret lock retaining pin. Lower turret lock into locked position and reinstall turret lock retaining pin.



MA-ME222

Figure 2-10. Recommended Tie Down Locations

CHARGE-PAK OPERATION

The SJKB-40C-ME Model is equipped with an on board engine driven charging system referred to as a CHARGE-PAK. The CHARGE-PAK system supplies electric power in parallel with the batteries. This electric power will go to charging the batteries if the SJKB-40C-ME is not being operated or if the function being operated draws less power than the CHARGE-PAK can supply. Part or all of this power will go to operating the function if the unit is being operated while the CHARGE-PAK is running.

NOTE

The SJKB-40C-ME may be operated with or without the CHARGE-PAK running. The operation of the unit is the same whether the CHARGE-PAK is running or not. The battery charge life is extended when the CHARGE-PAK is running.

REMEMBER

The CHARGE-PAK system will only charge the batteries to between 85% and 95% of full charge. To fully charge the batteries, the on board AC battery charger must be used. THE BATTERIES SHOULD BE "TOPPED OFF" WITH THE AC BATTERY CHARGER ONCE OR TWICE A WEEK DURING NORMAL OPERATION.

Base Controls Operation:

Start-Up

1. To start the CHARGE-PAK from the base controls the key switch must be in the base position and the emergency stop button pulled out.
2. Turn the Stop/Run/Start switch to the "  " (run) position.
3. Hold the choke switch in the on position until engine is running (gas & dual fuel). Hold the glow plug switch in the on position until the light turns off (diesel).
4. Turn the CHARGE-PAK start switch to the "  " (start) position to engage the starter.
5. Once the engine starts release the switch and it will return to the run position.

NOTE

The engine will be allowed to warm up a few seconds before the RPM increases and the system starts supplying electrical power.

Shut-Down

1. To shut the CHARGE-PAK system off return the Stop/Run/Start switch to the "  " (stop) position.
2. Turning the key switch off or pushing the emergency stop button will also shut the system down, but should not be used as the routine shut down method.
3. The CHARGE-PAK system will shut down when the key switch is switched to the "  " (platform) position and the system may then be restarted from the platform.

Platform Controls Operation

Start-Up

1. To start the CHARGE-PAK from the platform controls the base key switch must be in the platform position and the emergency stop buttons both at the base and at the platform must be pulled out.
2. Turn the Stop/Run/Start switch to the "  " (run) position.
3. Hold the choke switch in the on position until engine is running (gas & dual fuel). Hold the glow plug switch in the on position up to 10 seconds (diesel).
4. Turn the CHARGE-PAK start switch to the "  " (start) position to engage the starter.
5. Once the engine starts release the switch and it will return to the run position.

NOTE

The engine will be allowed to warm up a few seconds before the RPM increases and the system starts supplying electrical power.

Shut-Down

1. To shut the CHARGE-PAK system off return the Stop/Run/Start switch to the "  " (stop) position.
2. Turning the base key switch off or pushing either emergency stop button will also shut the system down, but should not be used as the routine shut down method.
3. The CHARGE-PAK system will shut down when the key switch is switched to the "  " (base) position and the system may then be restarted from the base.

Shutdown Mode

The CHARGE-PAK operation mode switch located in the base control panel will determine how the system will be shut down. This switch controls the shut down mode for both operation from the base and from the platform.

Manual Shut Down: The CHARGE-PAK system will continue to run until the operator shuts it down.

Auto Shut down: The CHARGE-PAK system will automatically shut down when it reaches 85% to 95% of full charge.

IMPORTANT NOTE

The SJKB-40C-ME should not be left unattended even when in Auto Shut Down mode.

The CHARGE-PAK system will automatically shut down independent of the operation mode switch for the following conditions:

1. High coolant temperature
2. Low engine oil pressure
3. High charging voltage
4. Low charging voltage
5. Engine over speed
6. Rectifier heat sink over temperature

BATTERY SERVICE AND CHARGING PROCEDURES

Battery Service

 **WARNING**
EXPLOSION HAZARD

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

 **CAUTION**

Contact with electrolytic acid can cause skin irritation and damage clothing. Wear a protective apron, gloves and goggles when working with batteries.

FIRST AID

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

1. Disconnect the batteries by separating the Battery Connector.

 **WARNING**
EXPLOSION HAZARD

DO NOT service the batteries without **first** separating the Battery Connector. Vapors emitted by batteries can be ignited by a spark or arc.

2. Check battery fluid level in each battery. If plates are not covered, add distilled or demineralized water.
3. Check each battery case for damage and corrosion.
4. Clean battery terminals and cable ends thoroughly with a terminal cleaning tool or wire brush. Clean battery trays and lids and allow to dry before reassembling.
5. Make sure all battery connections are tight.
6. Replace any battery that is damaged or incapable of holding a lasting charge.
7. Reconnect the Battery Connector.

Battery Charging Procedures



Chargers can ignite flammable materials and vapors. **DO NOT** use near fuels, grain dust, solvents, or other flammables.



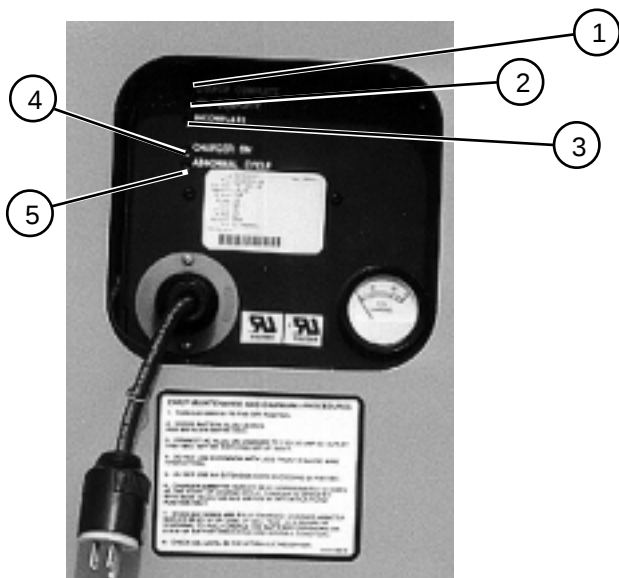
To reduce the risk of electrical shock, connect charger only to a properly grounded single phase outlet. **DO NOT** use an extension cord longer than 25 feet.

1. Select "⊗" (off) position with the Off/Platform/Base Key Switch.
2. Connect charger AC plug to proper voltage source. Refer to charger nameplate for voltage requirements.
3. Charge batteries. **DO NOT** leave charger unattended for more than two consecutive days. Severe overcharging and battery damage will result if charger fails to turn off.
4. Disconnect charger from external power source.

REMEMBER

All operating controls will be cut out when the battery charger is plugged in.

BATTERY CHARGER OPERATION



MA-ME213

Figure 2-11. Automatic Battery Charger

BATTERY STATUS

1. GREEN LED.....CHARGE COMPLETE
2. YELLOW LED.....80%CHARGE
3. RED LED.....INCOMPLETE

CHARGER STATUS

4. YELLOW LED.....CHARGER ON
5. RED LED.....ABNORMAL CYCLE

OPERATION OF THE COMPLETELY AUTOMATIC BATTERY CHARGER

This charger is equipped with an electronic circuit that will completely recharge the batteries and automatically turn off after the charge cycle is complete.

The function of the LED indicators is as follows:

When the AC power is connected to the charger, the LED's will flash several times then flash independently to check the light circuits. After the flashing sequence is complete the "INCOMPLETE" light will come on. Five seconds later, the "CHARGER ON" light will come on and at the same time, the ammeter will indicate how much current is going to the batteries.

As the charge cycle continues, which can last between 1-1/2 hours and 16 hours for a complete cycle, depending on the state of charge of the batteries, the "80% CHARGE" light will come on and the "INCOMPLETE" light will go off. When voltage of the batteries reaches approximately 60 volts, the "80% CHARGE" light will go off and the "CHARGE COMPLETE" light will come on. This light will remain on even after the charger is turned off by the electronic control. After the charger turns off, the "CHARGE COMPLETE" light will indicate to the operator that the batteries are healthy and are fully charged.

If the "80% CHARGE" light continues to stay on after the charge cycle is complete, this indicates to the operator that the batteries are not capable of attaining a full charge.

If the "INCOMPLETE" light remains on after the charge cycle is complete, this indicates to the operator that the batteries are not capable of attaining even an 80% charge.

If either the "80% CHARGE" or "INCOMPLETE" light remain on after the charge cycle is complete, the batteries should be inspected for problems.

Your standard good watering procedures should be used at all times.

Figure 2-12. Reach Diagram

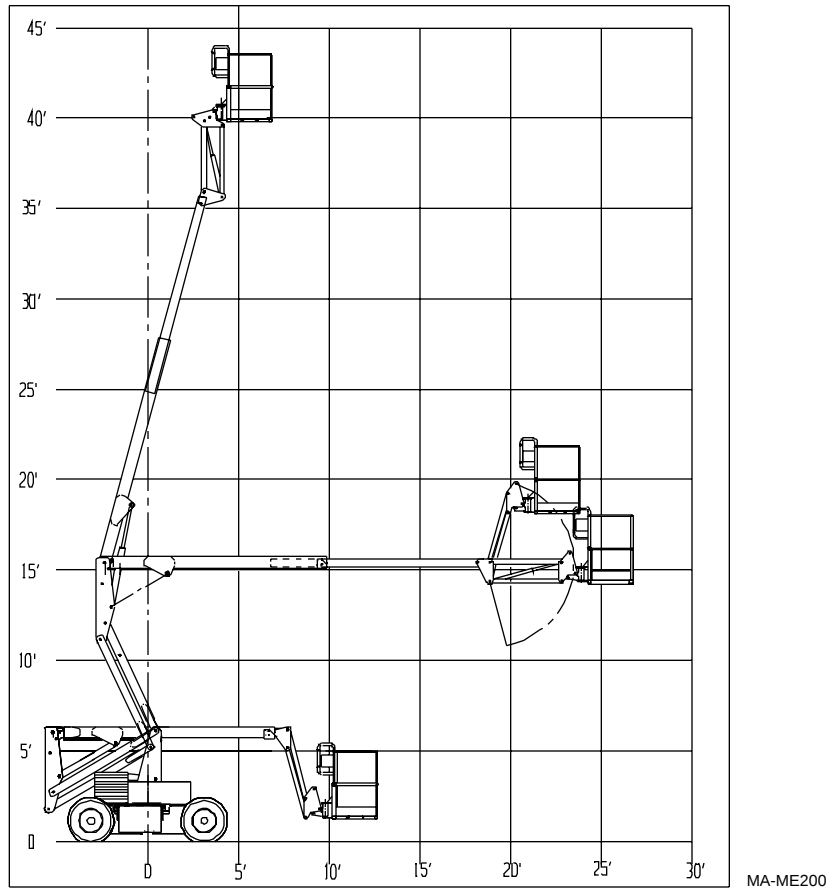
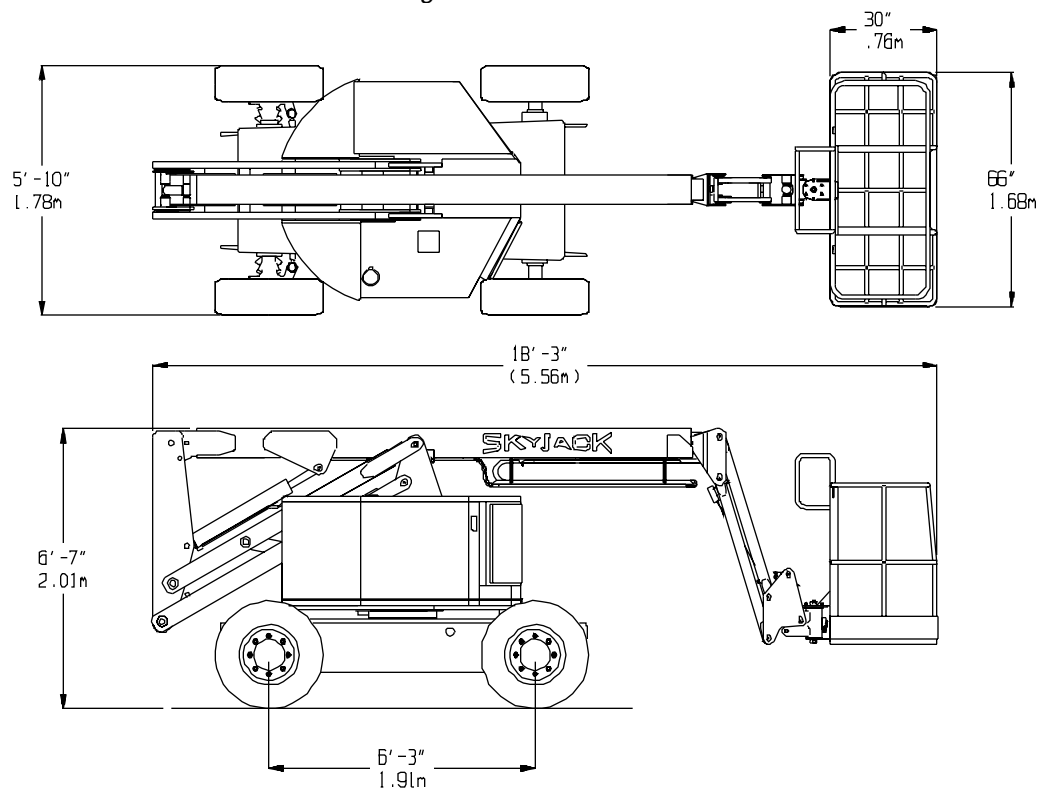


Figure 2-13. Dimensions



MA-ME201

Table 2-1. Maintenance and Inspection Schedule

	Daily	Weekly	Monthly	3 Months	6 Months	* Yearly
Engine (11)						
Fuel leaks (1)	✓					✓
Engine oil (4)	✓					✓
Fuel filter (7)					✓	✓
Muffler (2)(3)(11)				✓		✓
Air cleaner (1)(7)			✓			✓
Fuel tank cap (2)(3)	✓					✓
Coolant level (1)(12)	✓					✓
Mechanical						
Struct. damage/welds (1)	✓					✓
Parking brakes (2)	✓					✓
Tires and wheels (1)(2)(3)	✓					✓
Guides and wear pads (1)(2)(3)	✓					✓
Railings and gate (2)(3)		✓				✓
Bolts and fasteners (3)	✓					✓
Rust (1)			✓			✓
Whl brgs (2) King pins (1)(6)				✓	✓	✓
Turret gear (1)(2)(3)(6)		✓				✓
Turret gear box (1)(2)(3)(4)		✓				✓
Pivot pins (1)	✓					✓
Steer cylinders/tie rod ends(6)				✓		✓
Axle gear oil (13)						✓
Electrical						
Battery fluid level (1)	✓					✓
Joysticks and control switches (1)(2)(3)	✓					✓
Cords and wiring (1)(3)	✓					✓
Battery terminals (1)(3)(14)	✓					✓
Battery trays (14)			✓			✓
Terminals and plugs (1)(3)(14)	✓					✓
Generator and receptacle (2)	✓					✓
Limit switches (2)	✓					✓
Tilt sensors (2)	✓					✓
Directional sensing (2)	✓					✓
Emergency pump (2)		✓				✓
Hydraulic						
Hydraulic oil level (1)(4)	✓					✓
Hydraulic leaks/hoses (1)(3)	✓					✓
Lift/lowering time (8)				✓		✓
Hydraulic cylinders (1)(2)(3)		✓				✓
Emergency lowering (2)	✓					✓
Lift capacity (5)			✓			✓
Hydraulic oil/filter (7)					✓	✓
Miscellaneous						
Labels (1)(9) Manuals (10)	✓					✓
NOTES: (1) Visually inspect (2) Check operation (3) Check tightness (4) Check oil level (5) Check relief valve setting. Refer to (6) Lubricate (7) Replace (8) See Table 2-5. General Specification Serial Number nameplate (9) Replace if missing or illegible (10) Proper Operating Manual MUST be in the manual tube (11) Refer to engine manual (12) Check only when cooled (13) Change oil using 80W90, GL5 (14) Clean * Record inspection						

MT-ME202

BRAKE OPERATION TEST PROCEDURE

Proper operation of the parking brakes should be checked daily or at the beginning of each shift. Locate the machine in an appropriate area for testing the brakes. **IMPORTANT NOTE:** The area for testing the machine **MUST** be completely level and free of obstructions. **DO NOT** drive on an incline unless the parking brakes are working properly. With the machine fully stowed and the throttle switch in the high position (if engine powered). Drive the machine forward at full speed and remove foot from foot switch. Repeat this step driving in reverse.



WARNING

Parking brakes will instantly engage causing the machine to stop immediately.

The machine should come to an instant and abrupt stop. If the machine does not stop instantly or if the machine pulls to one side while stopping, the brake adjustment **MUST** be checked before putting the machine into service.

Table 2-2. Owner's Annual Inspection Record

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

MT-ME204

Table 2-3. Tire Specifications

Model	Tire		Fill Specification	
	Size	Rating	Type	Pressure
STANDARD	30 x 10.00 x 16.5	10 Ply	Air	55 psi
FOAM FILLED (Option)	30 x 10.00 x 16.5	10 Ply	Solid Urethane	*

* 28 Durometer Fill installed at 55 psi.

MT-ME203

Table 2-4. Maximum Platform Capacities

Model	Platform Capacity (unrestricted)
SJKB-40C-ME	500# (227kg) 2 occupants

NOTE: Refer to capacity label on work platform for additional information.

MT-ME205

RECOMMENDED HYDRAULIC OILS

DO NOT use synthetic or fire resistant oil in this work platform. 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.

Table 2-5. General Specifications

ELECTRICAL SYSTEM (functions)	48 Volts DC
BATTERIES (8) (functions)	6 Volt, 305AH
TIRES	Refer to Table 2-3.
INSIDE TURNING RADIUS	7' (2.13m)
OUTSIDE TURNING RADIUS	14'-6" (4.42m)
UNDERCLEARANCE	6.25"(15.88cm)
WHEELBASE	6.3" (1.9m)
FLOOR LOADING	25psi(1.76kg/cm ²)
PIVOTAL HEIGHT	15'-0" (4.6m)
TAILSWING AT PIVOTAL HEIGHT	ZERO
TURRET ROTATION (non-continuous)	365 degrees
ELECTRICAL SYSTEM (engine)	12 VDC
BATTERY (engine)	12 Volt, 850 CCA
LIFT TIME (minimum)(entry height to maximum platform height)	124 Seconds
LOWERING TIME (minimum)(maximum platform height to entry height)	92 Seconds
SYSTEM RELIEF PRESSURE (R1)	2600 psi
PUMP (boom function)	.194 ci./rev
TRAVEL SPEED (maximum at stowed height)	3.0 mph (4.8kph)
TRAVEL SPEED (maximum at elevated height)	0.8mph (1.3kph)
RETURN FILTER	20 micron
HYD-RESERVOIR CAPACITY	8.8 gal.(33.3 liters)
HYD-SYSTEM CAPACITY	15.8 gal.(59.8 liters)
FUEL TANK CAPACITY	15 gal. (56.8 ltr.)
AMBIENT NOISE LEVEL	83db

MT-ME206

NOTE: For additional specifications, refer to Section 1.**Table 2-6. Standard Operating Times**

FUNCTION TEST	SECONDS
Riser Up	32-36
Riser Down	24-26
Boom Up	16-18
Boom Down	24-26
Boom Extend	30-34
Boom Retract	20-22
Jib Up	12-14
Jib Down	10-12
Platform Rotate Left	7-9
Platform Rotate Right	7-9
Turret Rotate Clockwise	57-63
Turret Rotate Counter Clockwise	57-63

MT-ME207

SECTION 3

SYSTEM COMPONENT IDENTIFICATION AND SCHEMATICS

TABLE OF CONTENTS

ELECTRICAL SYSTEM

TABLE 3-1. SKYJACK BOOMS, ELECTRICAL SYMBOLS LEGEND	Page 2
TABLE 3-2. SKYJACK BOOMS, HYDRAULIC SYMBOLS LEGEND	Page 3
TABLE 3-3. RELAY SCHEDULE	Page 4
TABLE 3-4. WIRE NUMBER AND COLOR CODE	Page 5
FIGURE 3-1. BATTERY CHARGER DIAGRAM AND PARTS LIST 120VAC/60Hz	Page 6
FIGURE 3-2. BATTERY CHARGER DIAGRAM AND PARTS LIST 230VAC/50Hz	Page 7
FIGURE 3-3. BATTERY CHARGER DIAGRAM AND PARTS LIST DUAL VOLTAGE	Page 9
FIGURE 3-4. OPERATOR'S CONTROL CONSOLE DIAGRAM (Dual Fuel)	Page 11
FIGURE 3-5. OPERATOR'S CONTROL CONSOLE DIAGRAM (Diesel)	Page 12
FIGURE 3-4./FIGURE 3-5. OPERATOR'S CONTROL CONSOLE DIAGRAM PARTS LIST	Page 13
FIGURE 3-6. BASE CONTROL/ELECTRICAL PANEL DIAGRAM PARTS LIST	Page 14
FIGURE 3-6. BASE CONTROL/ELECTRICAL PANEL DIAGRAM	Page 15
FIGURE 3-7. MOTOR CONTROLLER PANEL DIAGRAM	Page 16
FIGURE 3-7. MOTOR CONTROLLER PANEL DIAGRAM PARTS LIST	Page 17
FIGURE 3-8./FIGURE 3-9. ENGINE WIRING DIAGRAM PARTS LIST	Page 18
FIGURE 3-8. ENGINE WIRING DIAGRAM (Dual Fuel)	Page 19
FIGURE 3-9. ENGINE WIRING DIAGRAM (Diesel)	Page 20
FIGURE 3-10. ELECTRICAL SCHEMATIC (Dual Fuel)	Page 21
FIGURE 3-11. ELECTRICAL SCHEMATIC (Diesel)	Page 22
FIGURE 3-10./FIGURE 3-11. ELECTRICAL SCHEMATIC PARTS LIST	Page 23

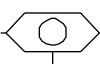
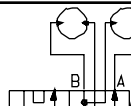
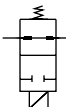
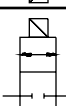
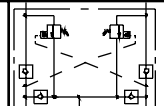
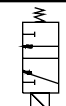
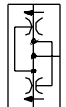
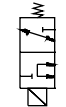
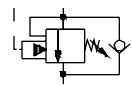
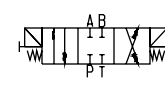
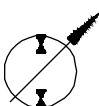
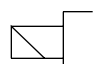
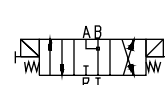
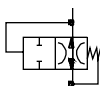
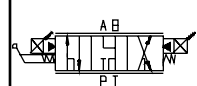
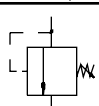
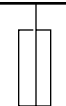
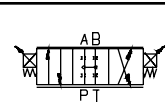
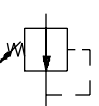
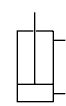
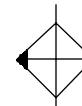
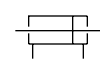
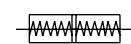
HYDRAULIC SYSTEM

FIGURE 3-12. HYDRAULIC SCHEMATIC PARTS LIST	Page 24
FIGURE 3-12. HYDRAULIC SCHEMATIC	Page 25
FIGURE 3-13. MAIN MANIFOLD COMPONENT AND PORT IDENTIFICATION	Page 26
FIGURE 3-14. BRAKE MANIFOLD COMPONENT AND PORT IDENTIFICATION	Page 26

Table 3-1. Skyjack Booms, Electrical Symbols Legend

	CIRCUITS CROSSING NO CONNECTION		EMERGENCY STOP BUTTON		RELAY, SINGLE POLE SINGLE THROW
	CIRCUITS CONNECTED		KEY SWITCH		RELAY, SINGLE POLE DOUBLE THROW
	BATTERY		FOOT SWITCH		RELAY, DOUBLE POLE SINGLE THROW
	GROUND		TOGGLE SWITCH		RELAY, DOUBLE POLE DOUBLE THROW
	FUSE		BUSH BUTTON SWITCH		RELAY, TRIPLE POLE DOUBLE THROW
	CIRCUIT BREAKER		ROTARY SWITCH		DIODE
	VOLT METER		LIMIT SWITCH N.O.		SILICON CONTROLLED RECTIFIER
	HOURLMETER		LIMIT SWITCH N.O. HELD CLOSED		CAPACITOR
	LIGHT		LIMIT SWITCH N.C.		RESISTOR
	HYDRAULIC VALVE COIL		LIMIT SWITCH N.C. HELD OPEN		POTENTIOMETER
	PROPORTIONAL HYDRAULIC VALVE COIL		CAM OPERATED LIMIT SWITCH		PROXIMITY SWITCH
	ELECTRIC MOTOR		TILT SWITCH		PNP TRANSISTOR
	HORN		LEVEL SENSOR		NPN TRANSISTOR
	PRESSURE/VACUUM SWITCH		TEMPERATURE SWITCH		

Table 3-2. Skyjack Booms, Hydraulic Symbols Legend

 MAIN LINES Solid	 ADJUSTABLE FLOW CONTROL	 ROTARY ACTUATOR
 PILOT LINES Dashed	 CHECK VALVE	 FIXED DISPLACEMENT HYDRAULIC MOTOR BIDIRECTIONAL
 LINES CROSSING NO CONNECTION	 SHUTTLE VALVE	 VARIABLE DISPLACEMENT HYDRAULIC MOTOR
 LINES CONNECTED	 ACCUMULATOR, GAS CHARGED	 BIDIRECTIONAL SERIES PARELLEL HYDRAULIC MOTOR
 HYDRAULIC TANK	 CUSHION CYLINDER	 TWO POSITION TWO WAY NORMALLY OPEN VALVE
 HYDRAULIC FILTER WITH BYPASS	 PRESSURE SWITCH	 TWO POSITION TWO WAY NORMALLY CLOSED VALVE
 ELECTRIC MOTOR	 MOTION CONTROL ASSEMBLY	 TWO POSITION THREE WAY VALVE
 ENGINE	 FLOW DIVIDER COMBINER	 TWO POSITION THREE WAY VALVE
 FIXED DISPLACEMENT PUMP UNIDIRECTIONAL	 COUNTER BALANCE VALVE	 THREE POSITION FOUR WAY CLOSED CENTER CLOSED PORT
 VARIABLE DISPLACEMENT PUMP BIDIRECTIONAL	 ELECTRICAL VALVE COIL	 THREE POSITION FOUR WAY CLOSED CENTER OPEN PORT
 HAND PUMP	 VELOCITY FUSE	 THREE POSITION FOUR WAY CLOSED CENTER OPEN PORT
 RELIEF VALVE	 SINGLE ACTING CYLINDER	 THREE POSITION FOUR WAY OPEN CENTER OPEN PORT
 PRESSURE REDUCING VALVE	 DOUBLE ACTING CYLINDER	 OIL COOLER
 FIXED ORIFICE	 DOUBLE ACTING DOUBLE RODDEED CYLINDER	 SERVO
 BRAKE CYLINDER	 SPRING APPLIED HYDRAULICALLY RELEASED BRAKE	

Ma-me307

Table 3-3. Relay Schedule

RELAY NUMBER	RELAY FUNCTION	WIRES	LOCATION	NOTES
04CR	Battery Indicator Relay	02,04,55,55A	Platform Console	
09CR	Line Contactor	01B,01C,09,00	Sevcon Panel	
09ACR1	Pump Motor Contactor	01D,09A,DCM3,SV2	Sevcon Panel	
09ACR2	Drive Relay	01C,01F,02,09A	Sevcon Panel	
11CR	Fuel Select Relay	02,11,50,56	Engine Panel	Dual fuel only
15ACR	Reverse Drive Contactor	01E,S1,15A,09A	Sevcon Panel	
16ACR	Forward Drive Contactor	01E,S2,16A,09A	Sevcon Panel	
17CR1	Steer Directional Relay	17,02,23A,24,24A	Base Panel	
17CR2	Steer Directional Relay	17,02,23,23A,24A	Base Panel	
20CR	Flashing Light Relay	02,09,20,20A	Base Panel	Option
21CR	Dump Valve Relay	02,09,21,21A	Base Panel	
28CR	Tilt Interlock Relay	02,08,27,99	Platform Console	
30ACR	Lift/Level Interlock Relay	02,10A,10B,B30A	Base Panel	
30BCR	Lift/Level Interlock Relay	02,08,08A,30B	Platform Console	
49CR	Horn Option Relay	02,07A,49,49A	Base Panel	Option
54ACR	Fuel Cutout Relay	02,54A,54B,56,50	Engine Panel	
57CR	Charge-pak Start Relay	000,02,57,57B	Base Panel	
57CCR	Engine Ignition Relay	05A,57C,03C	Engine Panel	
60ACR	Charge-pak Stop Relay	000,02,60A,104	Engine Panel	
74CR	Choke/Glow Plug Relay	02,05A,74,74A	Engine Panel	
106CR	Engine Run Relay	54,73,106	Base Panel	

MT-me301

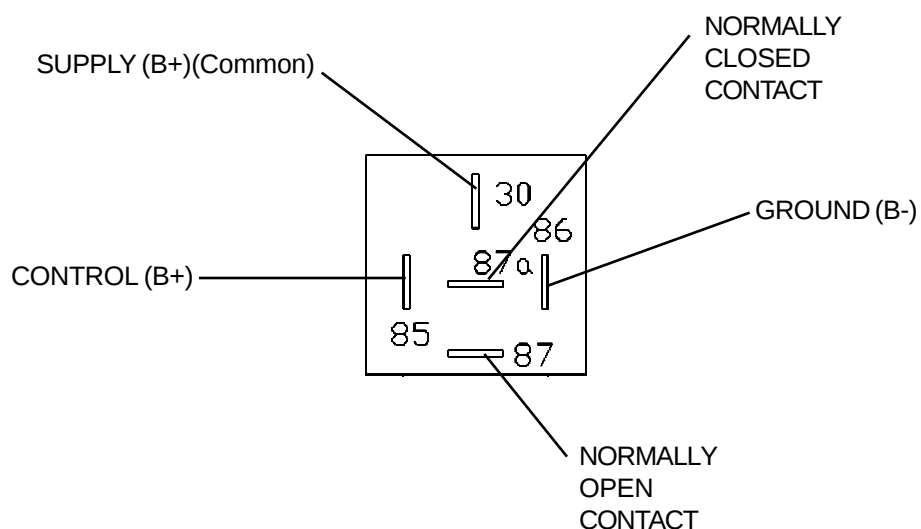


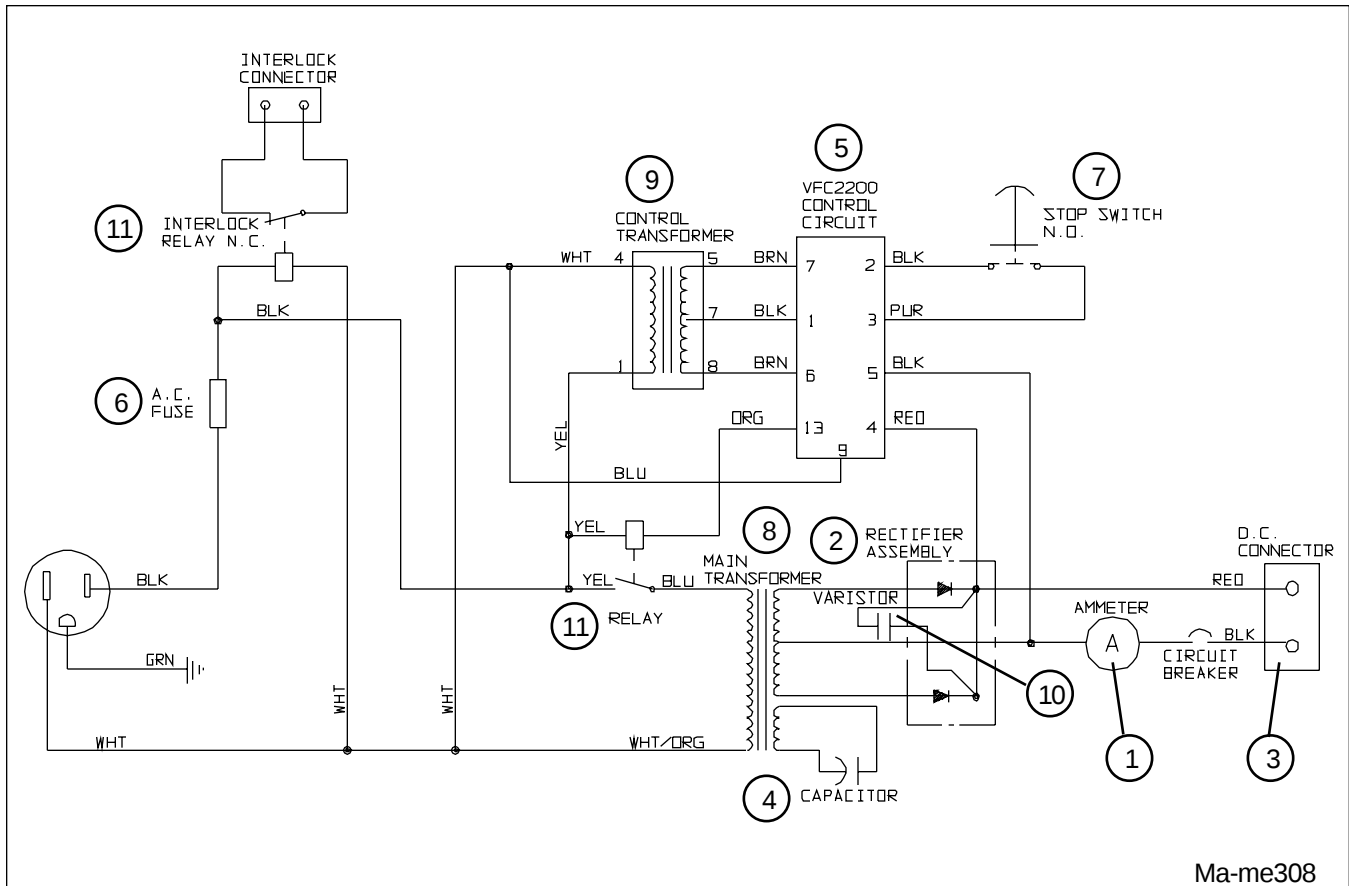
Table 3-4. Wire Number and Color Code

WIRE NO.	WIRE COLOR	WIRE NO.	WIRE COLOR	WIRE NO.	WIRE COLOR	WIRE NO.	WIRE COLOR	WIRE NO.	WIRE COLOR
00	WHT	20	ORG/BLU	44	YEL/WHT	67	ORG/BRN	92	GRN SHLD
000	WHT	21	WHT/RED	45	YEL/ORG	68	GREY	93	BLK SHLD
B1	BLU/PINK	23	BLK/WHT	46	RED/BLK	69	WHT/GRN	96	WHT/GREY
01	PUR/BLK	24	BLU/BLK	47	PUR/ORG	70	ORG/PINK	97	ORG/GREY
02	WHT	25	BRN/BLK	48	YEL/GREY	71	RED/ORG	98	RED SHLD
03	GRN/PUR	26	BLU/YEL	49	GRN/RED	72	RED/BRN	98A	BLK SHLD
04	RED/YEL	27	RED/BLK/ WHT	50	BRN	73	RED/PINK	99	BLK/GREY
05	PUR	28	GRN	51	BLK/GRN	74	GRN/GREY	103	BLK/PUR
06		29	GREY/ORG	52	GRN/BLU	75	GREY/PUR	104	GRN/ORG
07	RED	30	RED/GRN	53	BRN/RED	76	BRN/BLU	105	GRN/BRN
08	PUR/WHT	31	RED/WHT	54	PUR/RED	77	BRN/GREY	106	GRN/PINK
09	YEL	32	GRN/BLK	55	YEL/PUR	78	RED/BLU	107	BLK/BLU
10	BLU/WHT	33	GRN/WHT	56	YEL/BLK	79	BRN/PUR	108	YEL/BRN
11	WHT/ORG	34	ORG/BLK	57	BRN/GRN	80	GREY/WHT	109	GRN/YEL
12	GREY/ORG	35	ORG/WHT	58	WHT/PUR	81	GREY/BLK	110A	BLU
13	ORG	36	RED/PUR	59	YEL/BLU	82	BRN/WHT	110B	BRN
14	BLK	37	WHT/RED/ BLK	60	WHT/BLU	83	BLU/GREY	111	GREY/GRN
15	BLU	38	ORG/RED	61	GREY/BRN	84	WHT/BLK/ PUR	112	BLU/ORG
16	WHT/BLK	39	BLK/RED	62	GREY/RED	85	GREY/BLU	113	BLU/BRN
17	BLU/GRN	40	BLU/RED	63	GREY/YEL	86/87	PUR/BLU	114	YEL/RED
18	GRN/BLU	41	BLU/PUR	64	WHT/BRN	88	BLK/ORG	115	WHT/PUR
19	ORG/GRN	42	PINK	65	YEL/PINK	90	RED/GREY	118	PUR/ORG
22	PUR/GRN	43	WHT/YEL	66	ORG/YEL	91	RED SHLD		

MT-me302

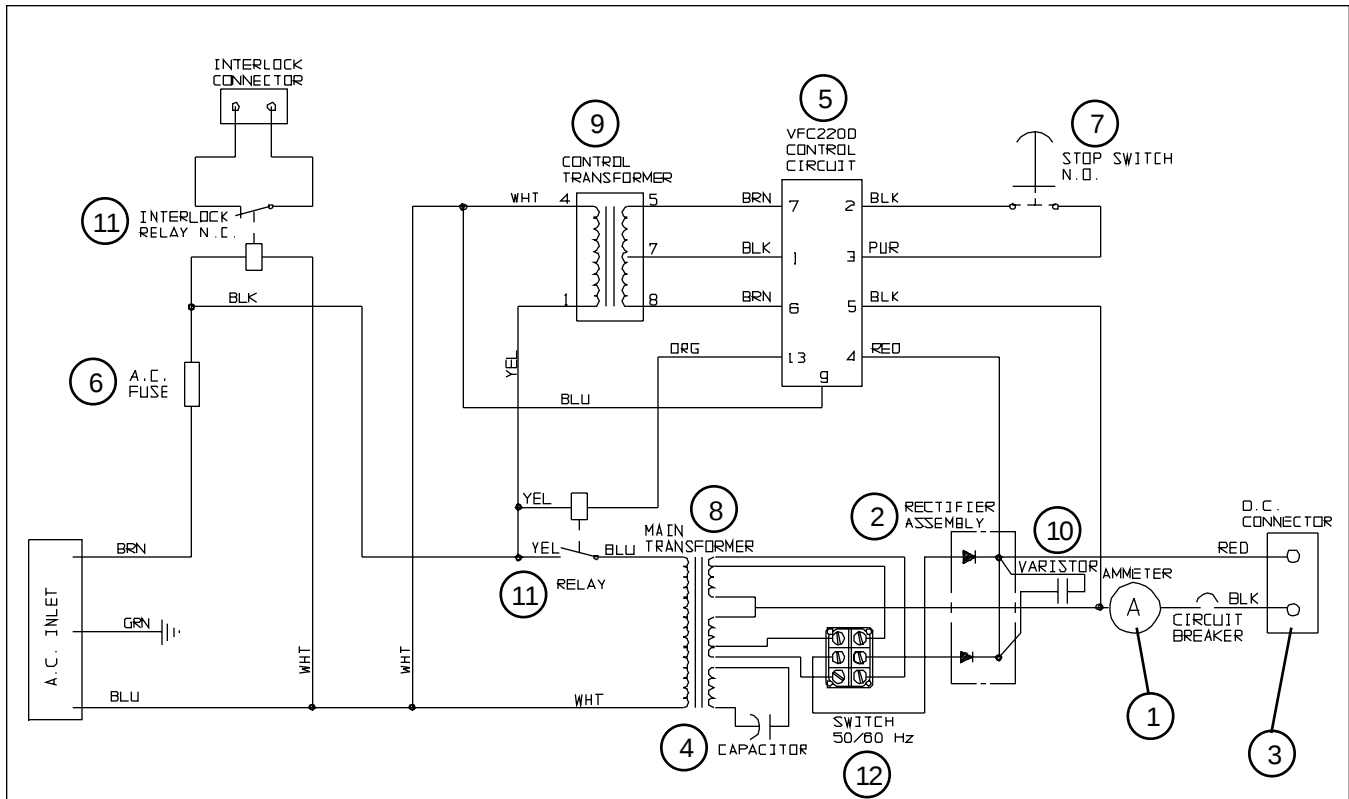
This table is to be used as a wire number/color reference for all electrical drawings and schematics. All wire numbers will retain their original color coding, for example if wire 7 is red, wire 7A, 7B, and 7C will also be red.

FIGURE 3-1. BATTERY CHARGER DIAGRAM AND PARTS LIST 120VAC/60Hz



Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	707681	BATTERY CHARGER ASSEMBLY (MAC #BA821)	-
2	108554	• AMMETER, 0-30	1
3	700689	• RECTIFIER ASSEMBLY	1
4	108556	• DIODE, 70 Amp	2
5	708976	• CORD ASSEMBLY, D.C.	1
6	103364	• PLUG, 50 Amp gray	1
7	708974	• CAPACITOR, 10MFD 440 VDC	1
8	708975	• CONTROL CIRCUIT, 48 VDC 120V VAC	1
9	108558	• FUSE HOLDER, A.C.	1
10	700688	• FUSE, 25 Amp A.C.	1
11	110857	• STOP SWITCH, N.O.	1
	700691	• TRANSFORMER, 48 VDC 23 Amp 120 VAC/60Hz	1
	108564	• CONTROL TRANSFORMER	1
	700692	• VARISTOR	1
	115315	• RELAY, 120 VAC/30 Amp	2

FIGURE 3-2. BATTERY CHARGER DIAGRAM AND PARTS LIST 220VAC/50-60Hz

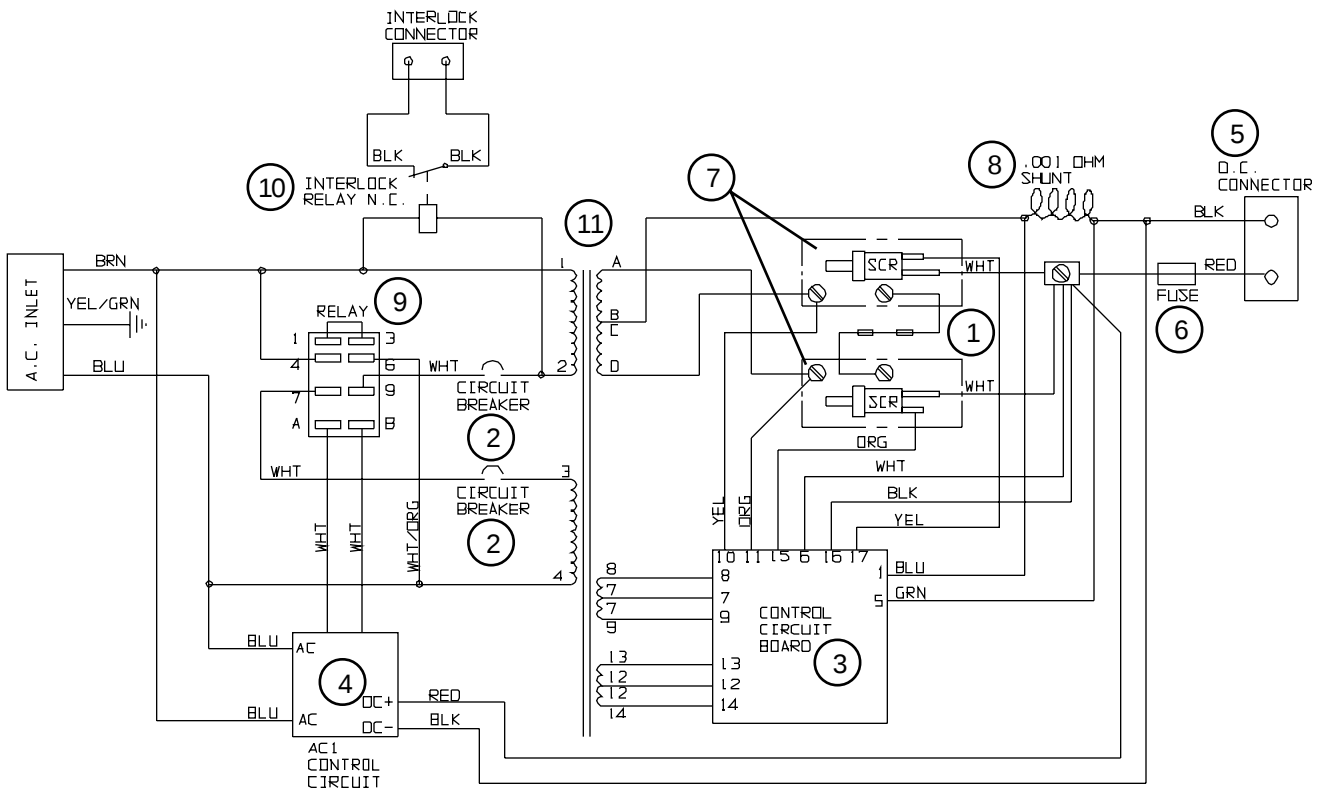


Ma-me309

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	707682	BATTERY CHARGER ASSEMBLY (MAC #BA842)	-
1	108554	• AMMETER, 0-30	1
2	708978	• RECTIFIER ASSEMBLY	1
	108556	• DIODE, 70 Amp	2
3	708976	• CORD ASSEMBLY, D.C.	1
	103364	• PLUG, 50 Amp gray	1
4	700877	• CAPACITOR, 10MFD TX 660 VAC	1
5	708977	• CONTROL CIRCUIT, 48 VDC 240V VAC	1
6	108558	• FUSE HOLDER, A.C.	1
	700688	• FUSE, 25 Amp A.C.	1
7	110857	• STOP SWITCH, N.O.	1
8	700879	• TRANSFORMER, 48 VDC 25 Amp 240 VAC/50-60Hz	1
9	111907	• CONTROL TRANSFORMER	1
10	700692	• VARISTOR	1
11	708979	• RELAY, 240 VAC	2
12	708980	• SWITCH, Toggle DPDT	1

NOTES

FIGURE 3-3. BATTERY CHARGER DIAGRAM AND PARTS LIST *DUAL VOLTAGE*



Ma-me310

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	120075	BATTERY CHARGER ASSEMBLY (MAC #BA1045)	-
1	119157	• CAPACITOR ASSEMBLY	2
2	119143	• CIRCUIT BREAKER, 10 Amp AC	2
3	119151	• CONTROL CIRCUIT, 48 Volt 21 Amp	1
4	119160	• AC CONTROL	1
5	119152	• CORD ASSEMBLY, DC	1
	103206	•• PLUG, 50 Amp red	1
6	117178	• FUSE HOLDER, DC	1
	117177	•• FUSE, 80 Amp DC	1
7	119148	• RECTIFIER ASSEMBLY	2
	119150	•• SCR, 35 Amp	1
8	119149	• SHUNT ASSEMBLY, Spiral .001 ohm	1
9	119155	• RELAY, 24 VDC 30 Amp	1
10	119156	• RELAY, 120 VAC	1
11	119145	• TRANSFORMER, 48 VDC/20 Amp 120/240 VAC 50/60Hz	1

NOTES

FIGURE 3-4. OPERATOR'S CONTROL CONSOLE DIAGRAM (Dual Fuel)

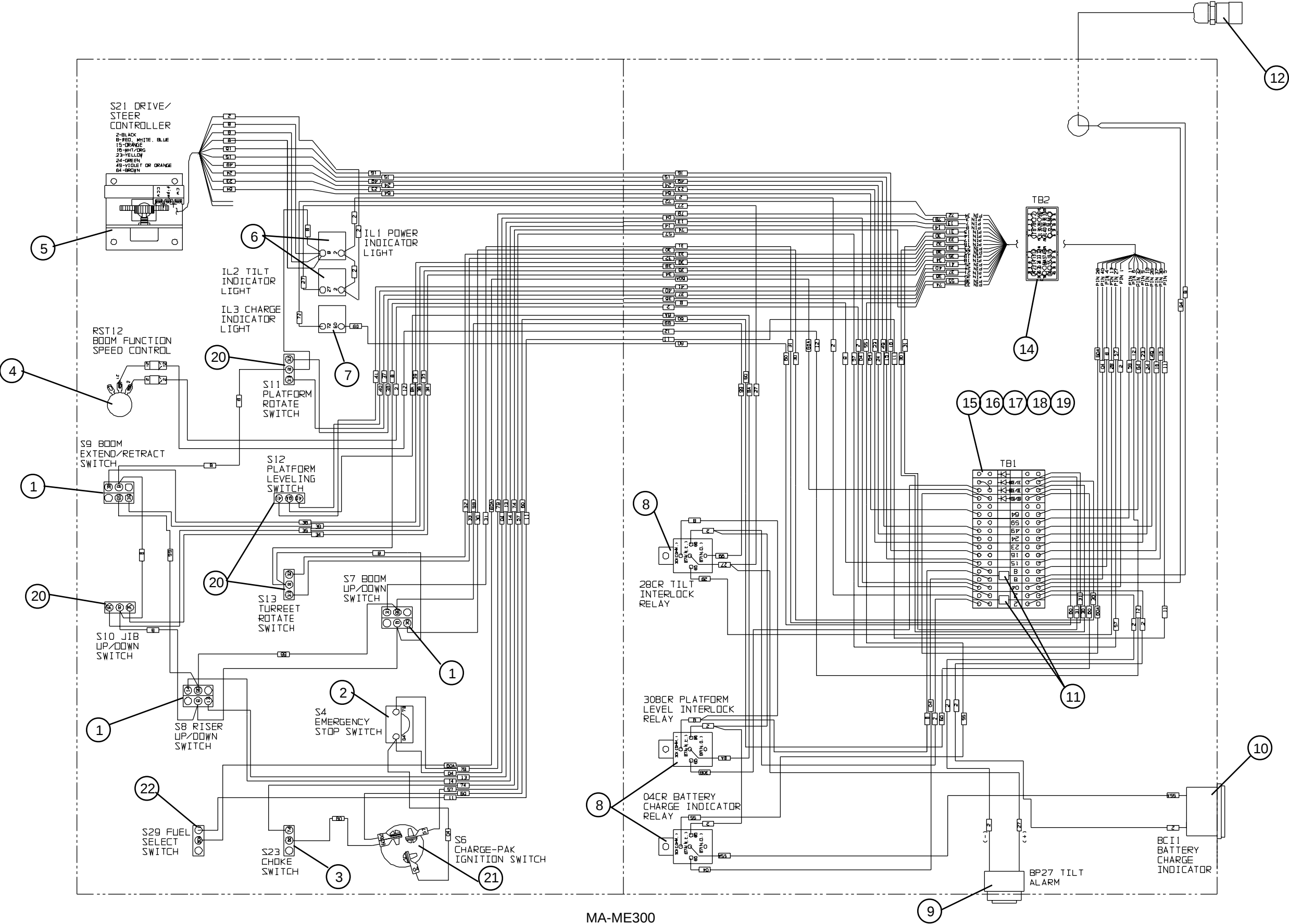


FIGURE 3-5. OPERATORS CONTROL CONSOLE (Diesel)

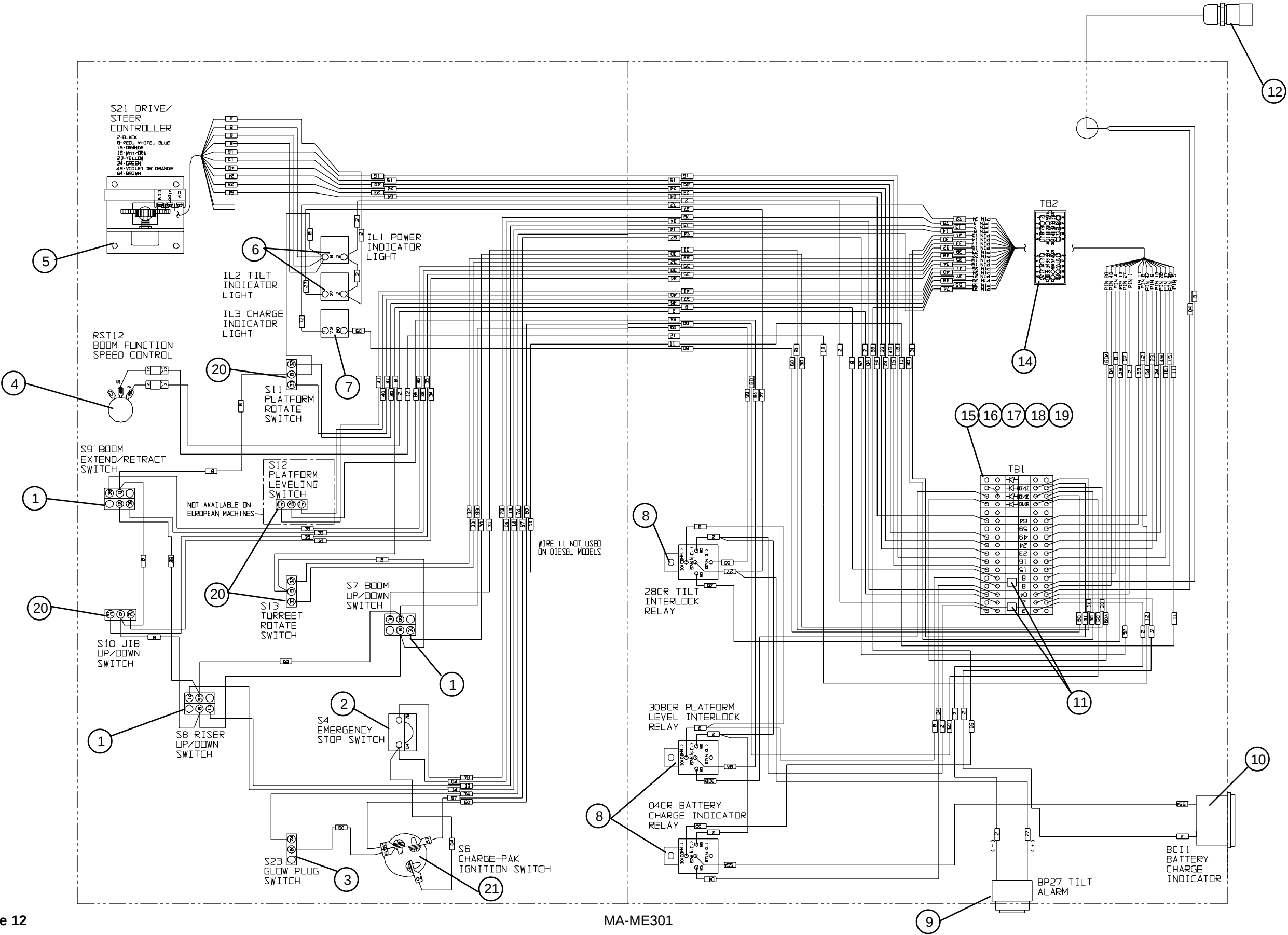


FIGURE 3-4./FIGURE 3-5. OPERATOR'S CONTROL CONSOLE DIAGRAM PARTS LIST

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	702662	SWITCH, Toggle, DPDT 3 position momentary	3
2	(Ref.)	SWITCH ASSEMBLY, Emergency stop	1
	102769	• SWITCH HEAD	1
	103281	• SWITCH CONTACT	1
3	701929	SWITCH, Toggle, SPST 2 position momentary	1
4	(Ref.)	POTENTIOMETER ASSEMBLY	1
	708933	• POTENTIOMETER (Serial Number 96006 and above)	1
	705401	• POTENTIOMETER (Serial Number 96005 and below)	1
	707253	• KNOB, Potentiometer	1
5	702406	JOYSTICK ASSEMBLY, Drive/steer (For components, refer to Figure 6-4.)	1
	701044	JOYSTICK ASSEMBLY, Drive/steer with horn option (For components, refer to Figure 6-5.)	1
6	(Ref.)	INDICATOR LIGHT ASSEMBLY, Red	2
	102671	• LIGHT BASE	1
	103202	• LIGHT HEAD	1
	102771	• BULB	1
7	(Ref.)	INDICATOR LIGHT ASSEMBLY, Blue	1
	102671	• LIGHT BASE	1
	705208	• LIGHT HEAD	1
	102771	• BULB	1
8	108589	RELAY, 40 Amp sealed	3
9	103057	BEEPER, 4-28VDC Alarm	1
10	704733	GAUGE, Battery "fuel" (optional)	1
11	707148	JUMPER, Terminal block	2
12	705441	HARNESS ASSEMBLY, Foot pedal	1
	103256	• CABLE, 18/2	34"
	103568	• HOUSING, Connector female	1
	103570	• INSERT, Female 4 pin connector	1
	103567	• HOUSING, Connector male	1
	103569	• INSERT, Male 4 pin connector	1
13	700187	FOOT SWITCH (Not shown)	1
14	(Ref.)	CONNECTOR RECEPTACLE, 40 Pin	1
	707875	• HOUSING, 40 Pin receptacle	1
	707847	• GASKET, Connector	1
	705256	• PLUG, Weather seal	AR
15	707147	END STOP, Terminal block	2
16	707146	END PLATE, Terminal block	1
17	707145	TERMINAL BLOCK, Diode	4
18	707143	TERMINAL BLOCK, Through	13
19	707149	DIN RAIL, Terminal block	.11
20	102853	SWITCH, Toggle SPST momentary	4
21	701931	SWITCH, Ignition	1
22	701930	SWITCH, Toggle SPST maintained (Dual Fuel)	1

FIGURE 3-6. BASE ELECTRICAL/CONTROL PANEL DIAGRAM PARTS LIST

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	700837	PANEL ASSEMBLY, Motor controller (For components, refer to Figure 3-7.)	1
2	705202	CAPACITOR	1
3	705417	TERMINAL STRIP, 12 Post (Located on back of cabinet.)	1
4	705341	BUS BAR	1
5	705339	BUS BAR	1
6	705349	BUS BAR	1
7	705340	BUS BAR	1
8	705342	BUS BAR	1
9	705350	BUS BAR	1
10	705343	BUS BAR	1
11	705344	BUS BAR	2
12	705346	BUS BAR	1
13	705128	PASS THROUGH	13
14	705347	BUS BAR	1
15	705210	FUSE	1
16	705348	BUS BAR	1
17	705198	CONTACTOR	1
18	705200	CURRENT CLAMP	1
19	705201	CIRCUIT BOARD, Charge-pak	1
20	705204	TIME DELAY, Glow plug	1
21	705362	AMMETER	1
22	103336	HOUR METER	2
23	705205	CIRCUIT BREAKER, 3 Amp	2
24	700158	CIRCUIT BREAKER, 10 Amp	2
25	801347	CONVERTER, DC/DC	1
26	108589	RELAY, 24 Volt sealed	6
27	(Ref.)	EMERGENCY STOP BUTTON ASSEMBLY	1
	102769	• SWITCH HEAD, Emergency stop	1
	103100	• SWITCH BASE	1
	103225	• CONTACT BLOCK, N.C.	1
28	701931	IGNITION SWITCH	1
29	(Ref.)	KEY SWITCH ASSEMBLY	1
	103100	• SWITCH BASE	1
	102753	• SWITCH HEAD	1
	103225	• CONTACT BLOCK, N.C.	2
	1003141	• CONTACT BLOCK, N.O.	2
30	701929	TOGGLE SWITCH, SPST 2 Position momentary	2
31	705232	TOGGLE SWITCH, SPST 2 Position maintained	1
32	102853	TOGGLE SWITCH, SPDT 3 Position momentary	7
33	705225	WIRE HARNESS, Main control	1
34	705228	WIRE HARNESS, Turret	1
35	705237	WIRE HARNESS, Engine	1
36	705395	HEAT SINK ASSEMBLY (Located on back of cabinet.)	1
37	705361	SHUNT	1
38	707143	TERMINAL BLOCK, Through	54
39	707145	TERMINAL BLOCK, Diode	30
40	707146	TERMINAL BLOCK, End plate	2
41	707147	TERMINAL BLOCK, End stop	4
42	707148	JUMPER, Terminal block	7
43	707149	DIN RAIL, Terminal block	20"
44	102921	DIODE, 6Amp 1000 PIV	2

FIGURE 3-6. BASE CONTROL/ELECTRICAL PANEL DIAGRAM

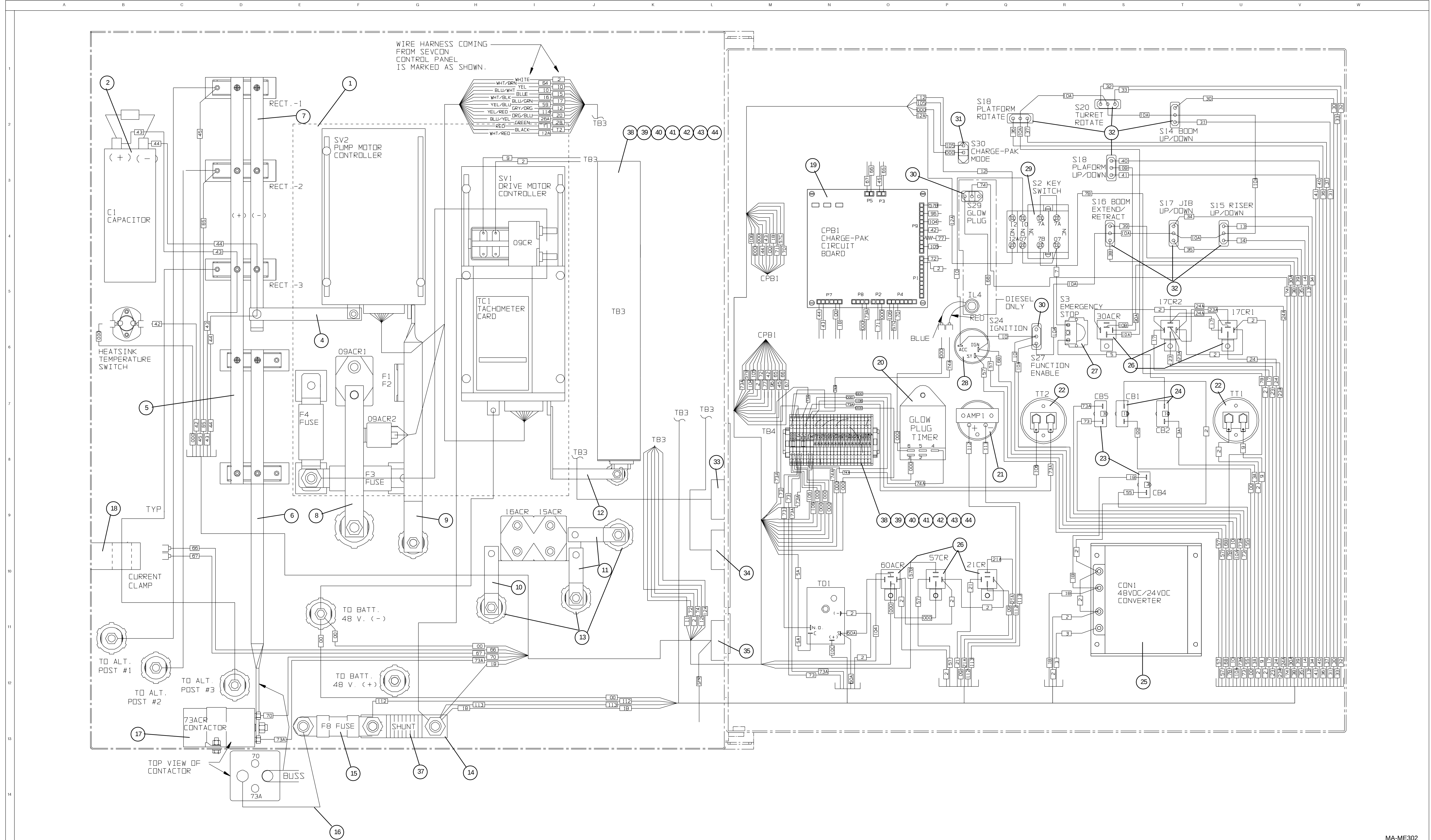


FIGURE 3-7. MOTOR CONTROLLER PANEL DIAGRAM

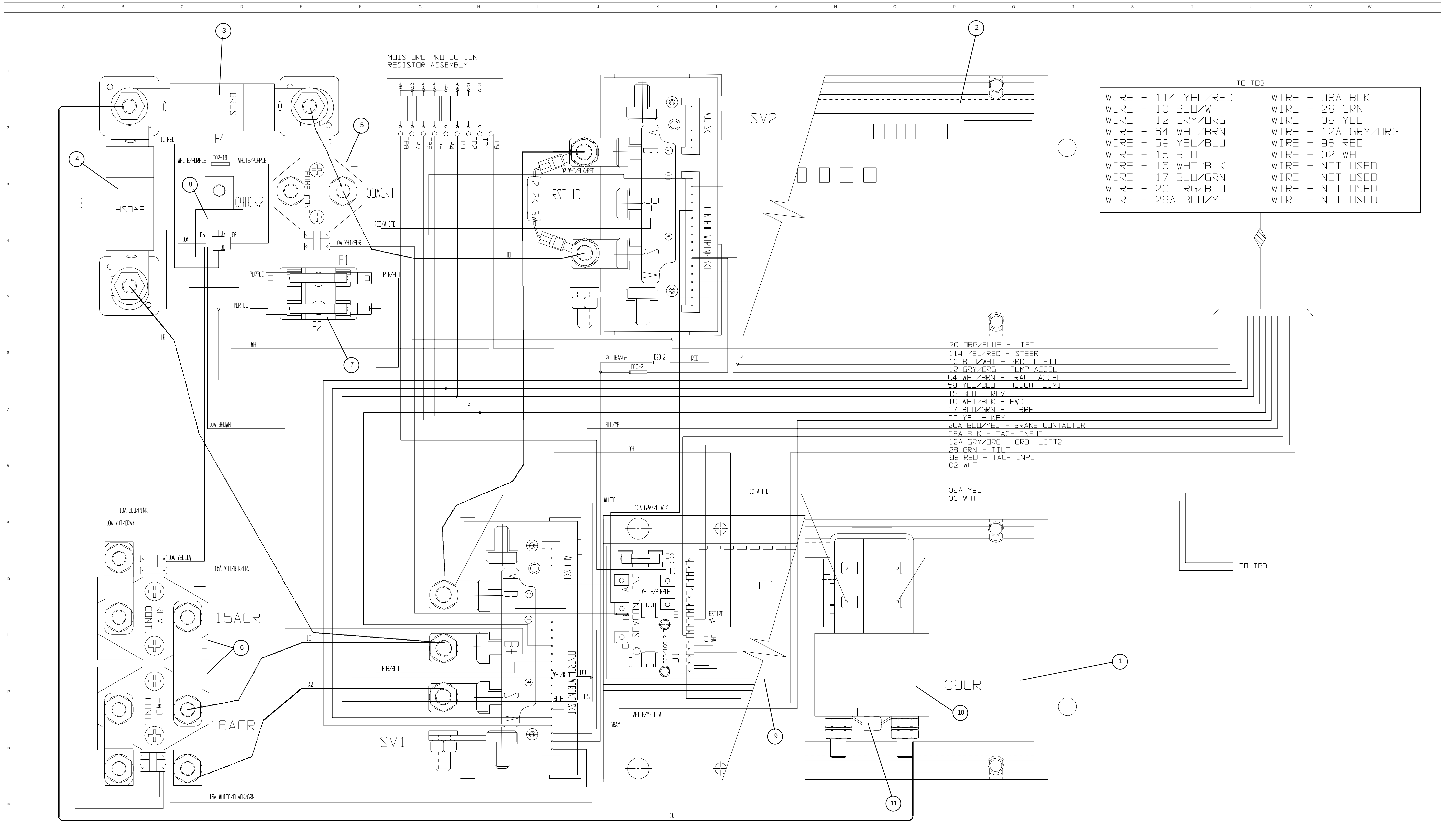


FIGURE 3-7. MOTOR CONTROLLER PANEL DIAGRAM PARTS LIST

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	700837	SEVCON PANEL ASSEMBLY	-
	700214	• CONTROLLER ASSEMBLY, Pump	1
	701082	•• RESISTOR ASSEMBLY, 2.2 K 3 Watt	1
2	700990	• CONTROLLER ASSEMBLY, Drive	1
	708484	• KIT, Connector and pins	AR
3	102756	• FUSE, 200 Amp pump	1
4	700228	• FUSE, 300 Amp drive	1
5	700219	• CONTACTOR, Pump	1
6	700218	• CONTACTOR, Drive	2
7	700222	• FUSE HOLDER, Double	1
	110855	• FUSE, AGC 10	2
8	108589	• RELAY, Sealed 40 amp	1
9	700217	• TACHOMETER CARD	1
	700776	•• FUSE, 250 Volt/6.3 amp	1
	700777	•• FUSE, 250 Volt/20 amp	1
10	701078	• LINE CONTACTOR	1
11	701081	• RESISTOR ASSEMBLY	1

FIGURE 3-8./FIGURE 3-9. ENGINE WIRING DIAGRAM PARTS LIST

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	705336	GOVERNOR CONTROL BOX	1
2	108589	RELAY, Sealed 24 volt	AR
3	701943	RELAY, Sealed 12 volt	AR
4	700158	CIRCUIT BREAKER	1
5	705252	WIRE HARNESS, Engine	1
6	705374	TEMPERATURE SENSOR, Coolant (Dual fuel)	1
	113400	TEMPERATURE SENSOR, Coolant (Diesel)	1
7	102838	OIL PRESSURE SENSOR, Engine (Dual fuel)	1
	112838	OIL PRESSURE SENSOR, Engine (Diesel)	1
8	705480	FUAL PUMP (Dual fuel)	1
	705179	FUEL PUMP (Diesel)	1
9	705483	ENGINE ALTERNATOR	1
10	705461	REGULATOR	1
11	705337	MAGNETIC PICKUP	1
12	705352	HARNESS, MAGNETIC PICKUP	1
13	115309	STARTER (Dual fuel)	1
	705482	STARTER (Diesel)	1
14	707677	THROTTLE ACTUATOR (Dual fuel)	1
	707675	THROTTLE ACTUATOR (Diesel)	1

FIGURE 3-8.ENGINE WIRING DIAGRAM (Dual fuel)

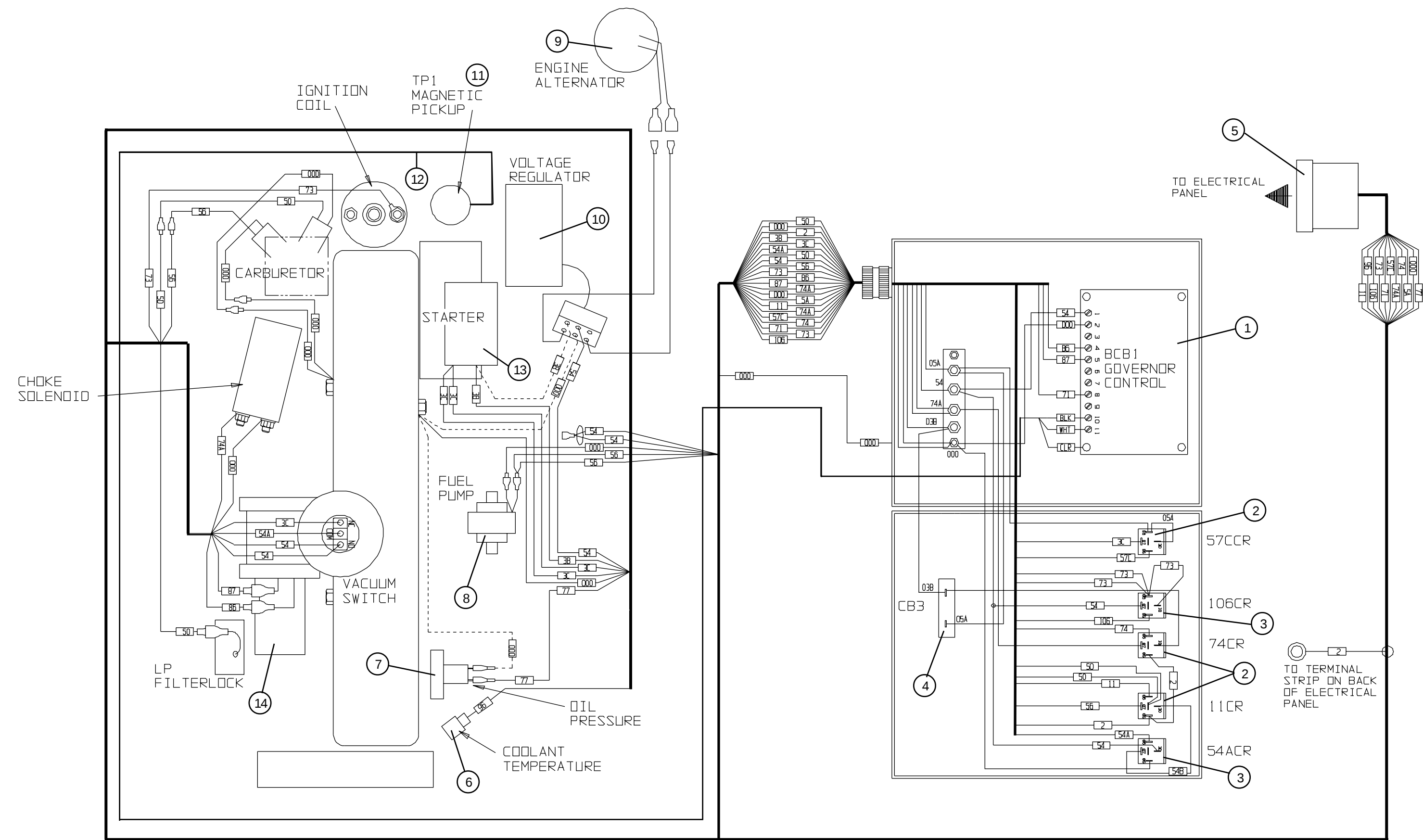


FIGURE 3-9.ENGINE WIRING DIAGRAM (Diesel)

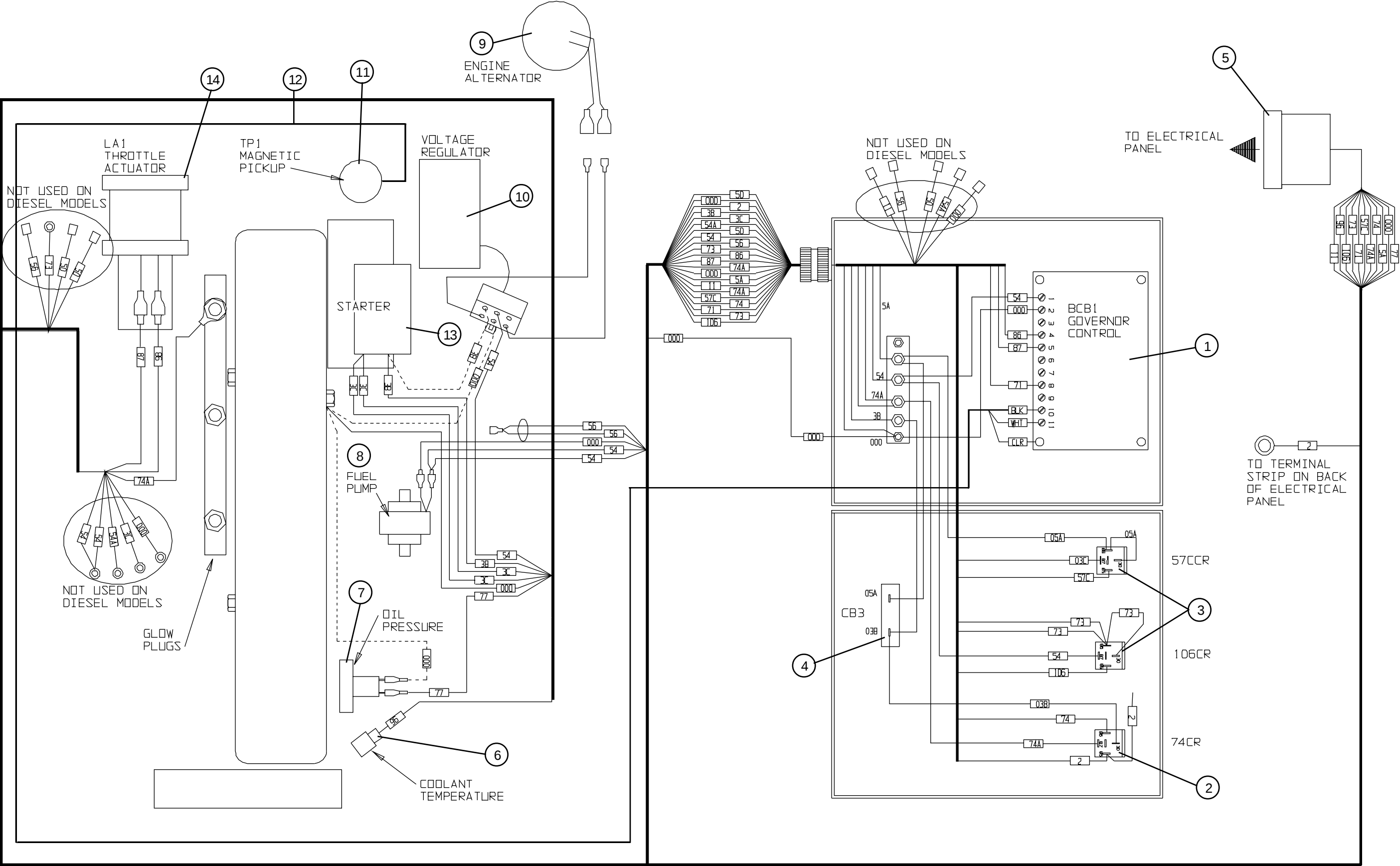


FIGURE 3-10. ELECTRICAL SCHEMATIC (Dual Fuel)

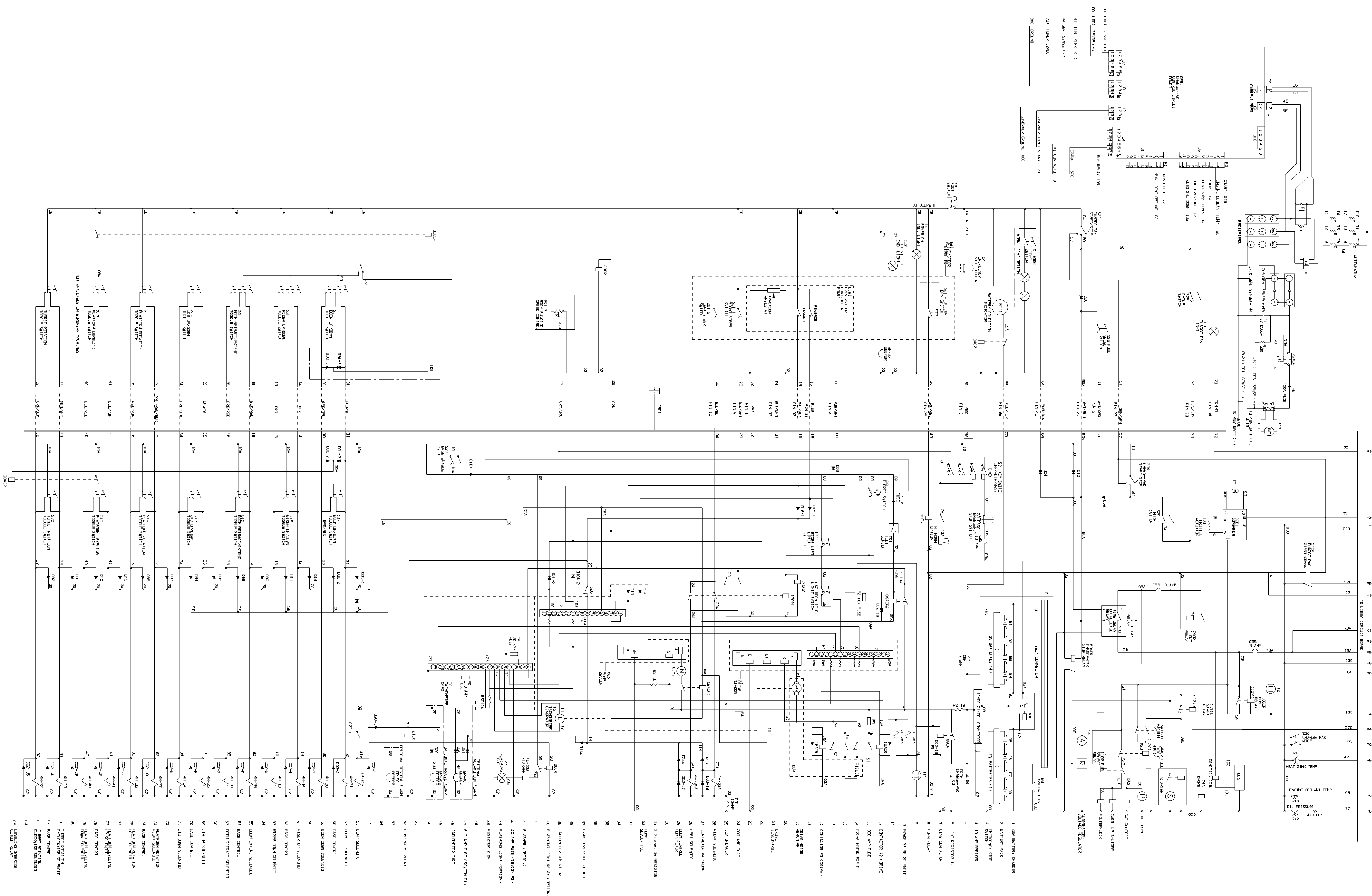


FIGURE 3-11. ELECTRICAL SCHEMATIC (Diesel)

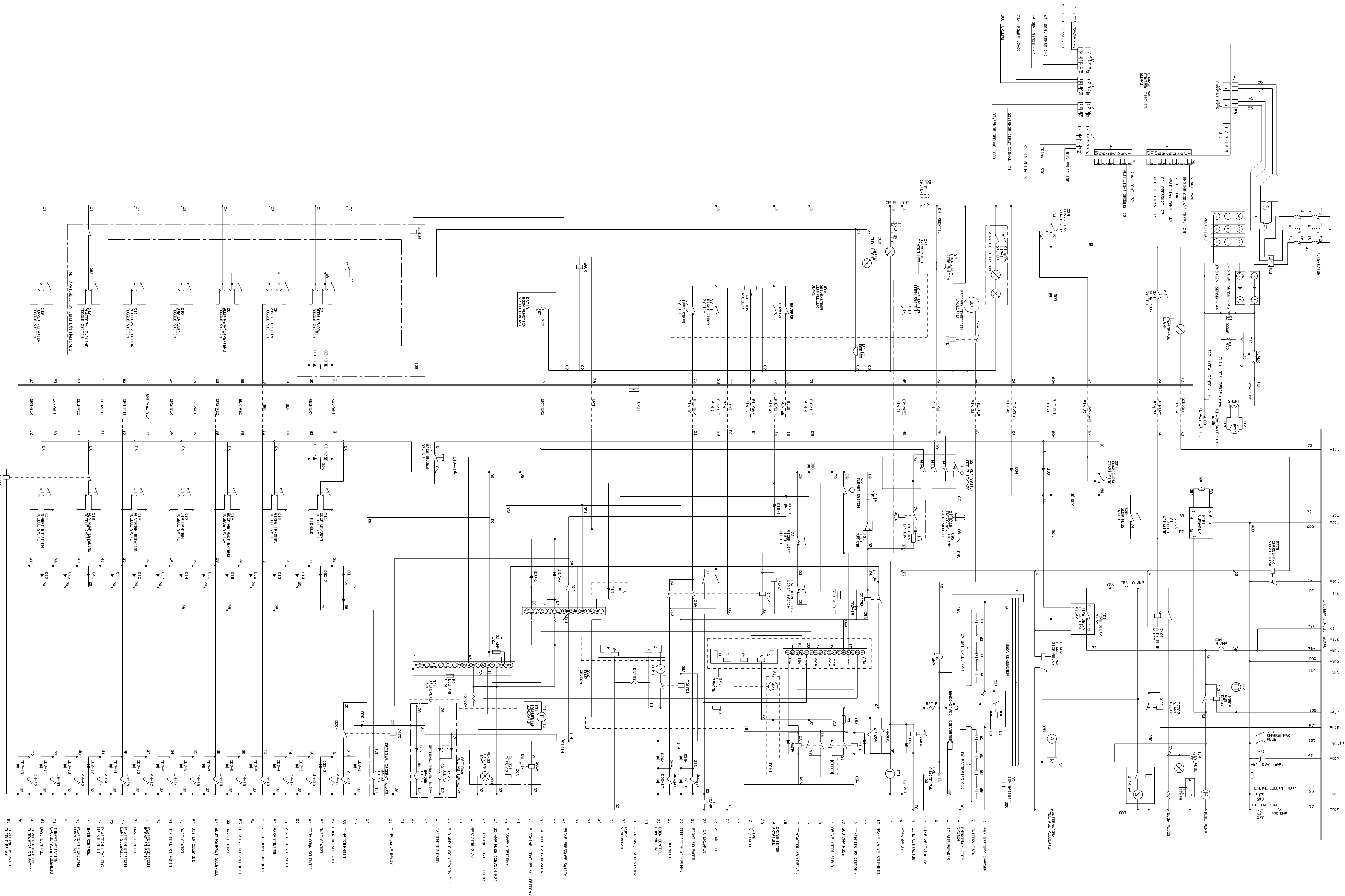


FIGURE 3-10./FIGURE 3-11. ELECTRICAL SCHEMATIC PARTS LIST

Ref. No.	Skyjack Part No.	Description 1 2 3 4 5 6 7	Units per Assy
04CR	108589	RELAY, 24 Volt sealed	1
09CR	701078	LINE CONTACTOR	1
09ACR1	700219	PUMP MOTOR CONTACTOR	1
09ACR2	108589	RELAY, 24 Volt sealed	1
11CR	108589	RELAY, 24 Volt sealed (Dual fuel only)	1
15ACR	700218	REVERSE DRIVE CONTACTOR	1
16ACR	700218	FORWARD DRIVE CONTACTOR	1
17CR1			
THRU	108589	RELAY, 40 Amp sealed	AR
49CR			
54ACR	701943	RELAY, 12 Volt sealed (Dual fuel only)	1
57CR	108589	RELAY 24 Volt sealed	1
57CCR	701943	RELAY, 12 Volt sealed	1
60ACR	108589	RELAY, 24 Volt sealed	1
73ACR	705198	CONTACTOR, Charge-pak	1
74CR	108589	RELAY, 24 Volt sealed	1
106CR	701943	RELAY, 12 Volt sealed	1
2H-21A	702754	COIL, Dump valve	1
2H-26A	708981	BRAKE VALVE ASSEMBLY	1
3H-26A	701298	BRAKE VALVE ASSEMBLY	1
4H-13			
THRU	702755	COIL, DIRECTIONAL VALVE	16
4H-41			
B1 - B8	700193	BATTERY, 6 Volt 350AH	8
B9	703719	BATTERY, 12 Volt	1
BCB1	705336	GOVERNOR CONTROL BOX	1
BCI1	704733	BATTERY "FUEL" GAUGE	1
BP-27	103057	BEEPER, Alarm	1
BP26B	103057	BEEPER, Alarm (option)	1
BP46	103057	BEEPER, Alarm (option)	1
BP-58	103057	BEEPER, Alarm (option)	1
CB1 - CB3	700158	CIRCUIT BREAKER, 10 Amp	3
CB4 - CB5	705205	CIRCUIT BREAKER, 3 Amp	2
CON1	801347	CONVERTER, 48 VDC-24VDC	1
CPB1	705201	CIRCUIT BOARD, Charge-pak	1
CRD1	704677	CONTROL CABLE	732"
D02-1			
THRU	700166	DIODE, 1 Amp 400 piv	19
D02-19			
D04	707145	DIODE, Terminal block	1
D08	102921	DIODE, 6 Amp 1000 piv	1
D10	707145	DIODE, Terminal block	1
D10A-1	102921	DIODE, 6 Amp 1000 piv	1
D10A-2	700166	DIODE, 1 Amp 400 piv	1
D13/D14	707145	DIODE, Terminal block	2
D15/D16	700166	DIODE, 1 Amp 400 piv	2
D15-1/D16-1	707145	DIODE, Terminal block	2
D20-1	707145	DIODE, Terminal block	1
D20-2	700166	DIODE, 1 Amp 400 piv	1
D21			
THRU	707145	DIODE, Terminal block	23
D114			
DCM1	701007	DRIVE MOTOR	1
	708387	• BRUSH KIT	AR
DCM3	700668	PUMP MOTOR	1
F1 - F2	110855	FUSE, AGC 10	2

Ref. No.	Skyjack Part No.	Description 1 2 3 4 5 6 7	Units per Assy
F3	700228	FUSE, 300 Amp drive	1
F4	102756	FUSE, 200 Amp pump	1
F5	700777	FUSE, 20 Amp	1
F6	700776	FUSE, 6.3 Amp	1
F7	114866	FUSE, 1 Amp tilt	1
F8	705210	FUSE	1
FL22A	106756	FLASHER (option)	1
FL22	103267	FLASHING LIGHT (option)	1
H1	102860	HORN (option)	1
IL1 - IL2	(Ref.)	INDICATOR LIGHT ASSEMBLY, Red	2
	102671	LIGHT BASE	1
	103202	LIGHT HEAD	1
	102771	BULB	1
IL3	(Ref.)	INDICATOR LIGHT ASSEMBLY, Blue	1
	102671	LIGHT BASE	1
	705208	LIGHT HEAD	1
	102771	BULB	1
IL4	705206	LIGHT, Glow plug (Diesel only)	1
LA1	707677	THROTTLE ACTUATOR (Dual fuel)	1
	707675	THROTTLE ACTUATOR (Diesel)	1
LS1	708604	LIMIT SWITCH, Riser lift	1
LS2	700160	LIMIT SWITCH, Boom telescope	1
RST12	708933	POTENTIOMETER	1
RST1B	701081	RESISTOR ASSEMBLY	1
RST1D	701082	RESISTOR ASSEMBLY	1
S1	701930	TOGGLE SWITCH, SPST 2 Position Maintained	1
S2	(Ref.)	KEY SWITCH ASSEMBLY	1
	702395	KEY SELECT SWITCH	1
	103279	CONTACT BASE, Switch (2N.C.)	1
	103141	CONTACT BASE, Switch N.O.	1
S3 - S4	(Ref.)	EMERGENCY STOP BUTTON ASSEMBLY	1
	102769	SWITCH HEAD	1
	103281	CONTACT BASE	1
S5	700187	FOOT SWITCH	1
S7 - S9	702662	TOGGLE SWITCH, DPDT 3 position momentary	3
S10 - S20	102853	TOGGLE SWITCH, SPDT 3 Position momentary	11
S21	702406	DRIVE/STEER CONTROLLER without horn	1
	701044	DRIVE/STEER CONTROLLER with horn	1
S22	709048	LIMIT SWITCH, Turret position	1
S23 - S24	701931	IGNITION SWITCH	2
S25	701930	TOGGLE SWITCH, SPST 2 Position maintained	1
S26	708677	BRAKE PRESSURE SWITCH	1
S27 - S29	701929	TOGGLE SWITCH, SPST 2 Position momentary	3
S30	701930	TOGGLE SWITCH, SPST 2 Position maintained	1
SV1	700990	DRIVE MOTOR CONTROLLER	1
SV2	700214	PUMP MOTOR CONTROLLER	1
TC1	700217	TACHOMETER CIRCUIT CARD	1
TD1	705204	RELAY, Time delay	1
TD2	705207	TIMER, Glow plug (Diesel only)	
TG1	700227	TACHOMETER GENERATOR	1
TP1	705337	TACHOMETER SENSOR	1
TS1	700552	TILT SENSOR	1
TT1/TT2	103336	HOUR METER	2

FIGURE 3-12. HYDRAULIC SCHEMATIC PARTS LIST

Ref. No.	Skyjack Part No.	Description	Units per Assy
		1 2 3 4 5 6 7	
AC1	700903	PRESSURE ACCUMULATOR, Brake (450 PSI)	1
C1	700328	CYLINDER ASSEMBLY, Riser lift	1
	700452	• KIT, Seal repair	AR
C2	700332	CYLINDER ASSEMBLY, Boom lift	1
	700452	• KIT, Seal repair	AR
C3	700350	CYLINDER ASSEMBLY, Boom telescoping	1
	700455	• KIT, Seal repair	AR
C4	708655	CYLINDER ASSEMBLY, Jib lift	1
	700456	• KIT, Seal repair	AR
C5	700333	CYLINDER ASSEMBLY, Platform levelling master	1
	700454	• KIT, Seal repair	AR
C6	700388	CYLINDER ASSEMBLY, Platform levelling slave	1
	700454	• KIT, Seal repair	AR
C7	700299	CYLINDER ASSEMBLY, Steer LH	1
	700299	CYLINDER ASSEMBLY, Steer RH	1
	700451	• KIT, Seal repair	AR
CB1-CB9	700568	COUNTERBALANCE VALVE (3000 PSI)	9
CB10	700670	COUNTERBALANCE VALVE (1800 PSI)	1
CB11	700670	COUNTERBALANCE VALVE (1800 PSI)	1
F1	704488	FILTER ASSEMBLY, Return	1
	104254	• ELEMENT, Filter	AR
2H-21	700677	VALVE, Dump	1
3H-26A	701298	VALVE, Brake	1
4H-13	701860	VALVE, Riser down (includes 4H-14)	1
4H-14	701860	VALVE, Riser up (includes 4H-13)	1
4H-23A	701861	VALVE, Right steer (includes 4H-24A)	1
4H-24A	701861	VALVE, Left steer (includes 4H-23A)	1
4H-30	701860	VALVE, Boom down (includes 4H-31)	1
4H-31	701860	VALVE, Boom up (includes 4H-30)	1
4H-32	701860	VALVE, Turret rotation clockwise (includes 4H-33)	1
4H-33	701860	VALVE, Turret rotation c-clockwise (includes 4H-32)	1
4H-34	701860	VALVE, Jib down (includes 4H-35)	1
4H-35	701860	VALVE, Jib up (includes 4H-34)	1
4H-36	701860	VALVE, Platform rotation left (includes 4H-37)	1
4H-37	701860	VALVE, Platform rotation right (includes 4H-36)	1
4H-38	701860	VALVE, Boom retract (includes 4H-39)	1
4H-39	701860	VALVE, Boom extend (includes 4H-38)	1
4H-40	701860	VALVE, Platform levelling down (includes 4H-41)	1
4H-41	701860	VALVE, Platform levelling up (includes 4H-40)	1

Ref. No.	Skyjack Part No.	Description	Units per Assy
		1 2 3 4 5 6 7	
M1	700316	MOTOR, Turret rotation	1
	704237	• KIT, Seal Repair	AR
O1	700679	ORIFICE, 0.100 diameter	1
O2	700680	ORIFICE, 0.060 diameter	1
O3	700682	ORIFICE, 0.025 diameter	1
O4	700682	ORIFICE, 0.025 diameter	1
P1	700669	PUMP, Hydraulic .194 ci/rev	1
PM1	700224	PUMP/MOTOR ASSEMBLY, Boom function	1
PR1	701296	PRESSURE REDUCING VALVE, Brake (650 PSI)	1
S26	701194	PRESSURE SWITCH (off at 750 PSI)	1
	700448	ROTARY ACTUATOR	1
RV1	701875	• KIT, Seal repair	AR
	700673	RELIEF VALVE, System (2600 PSI)	1
RV2	700672	RELIEF VALVE, Turret rotation (1000 PSI)	1
RV3	700672	RELIEF VALVE, Turret rotation (1000 PSI)	1
V1	103136	VALVE, Riser cylinder emergency lowering	1
V2	103136	VALVE, Boom cylinder emergency lowering	1
V3	103136	VALVE, Emergency turret rotation	1
V4	701297	VALVE, Brake override	1
V5	103136	VALVE, Jib cylinder emergency lowering	1

FIGURE 3-12. HYDRAULIC SCHEMATIC

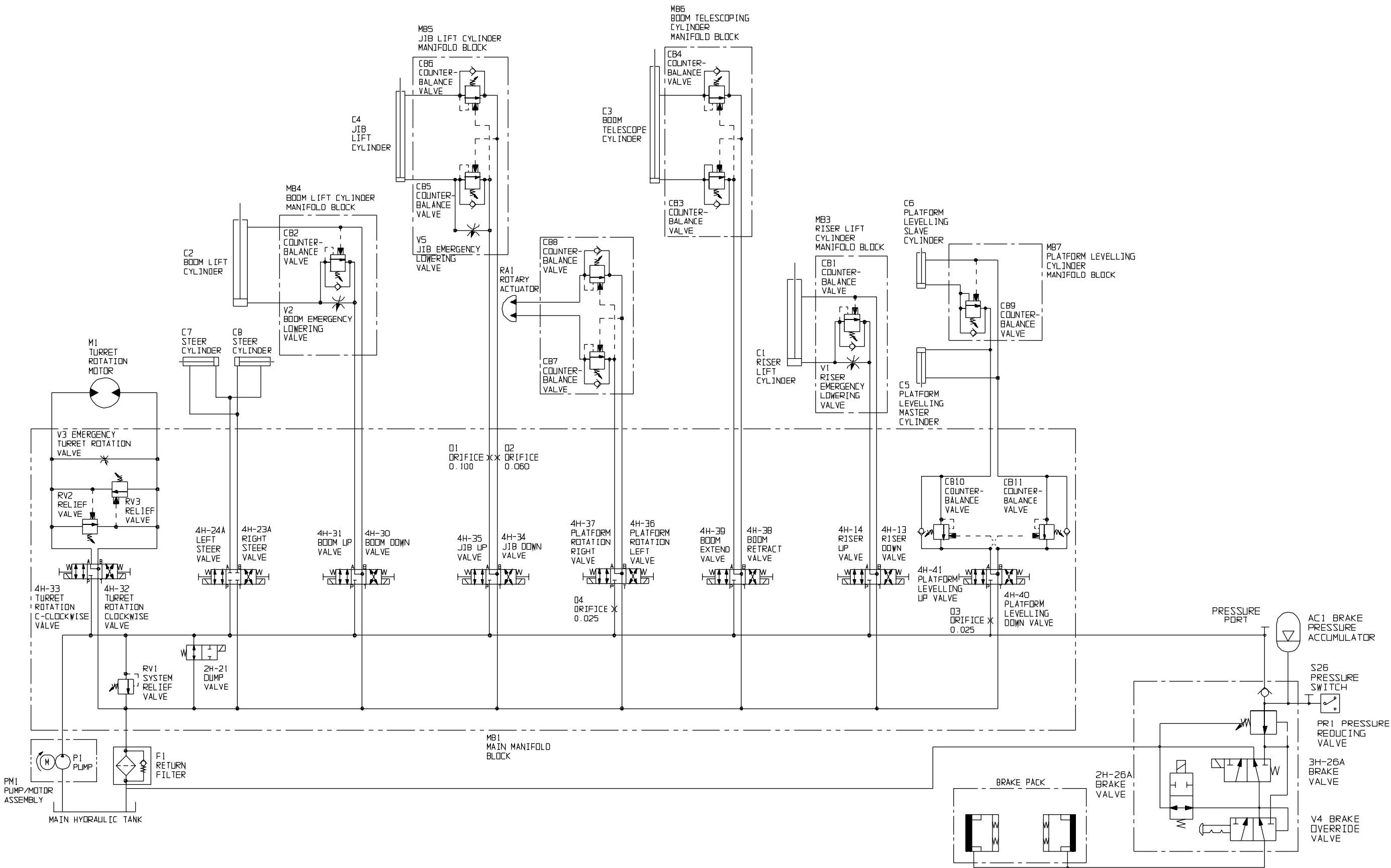


FIGURE 3-13. MAIN MANIFOLD COMPONENT AND PORT IDENTIFICATION

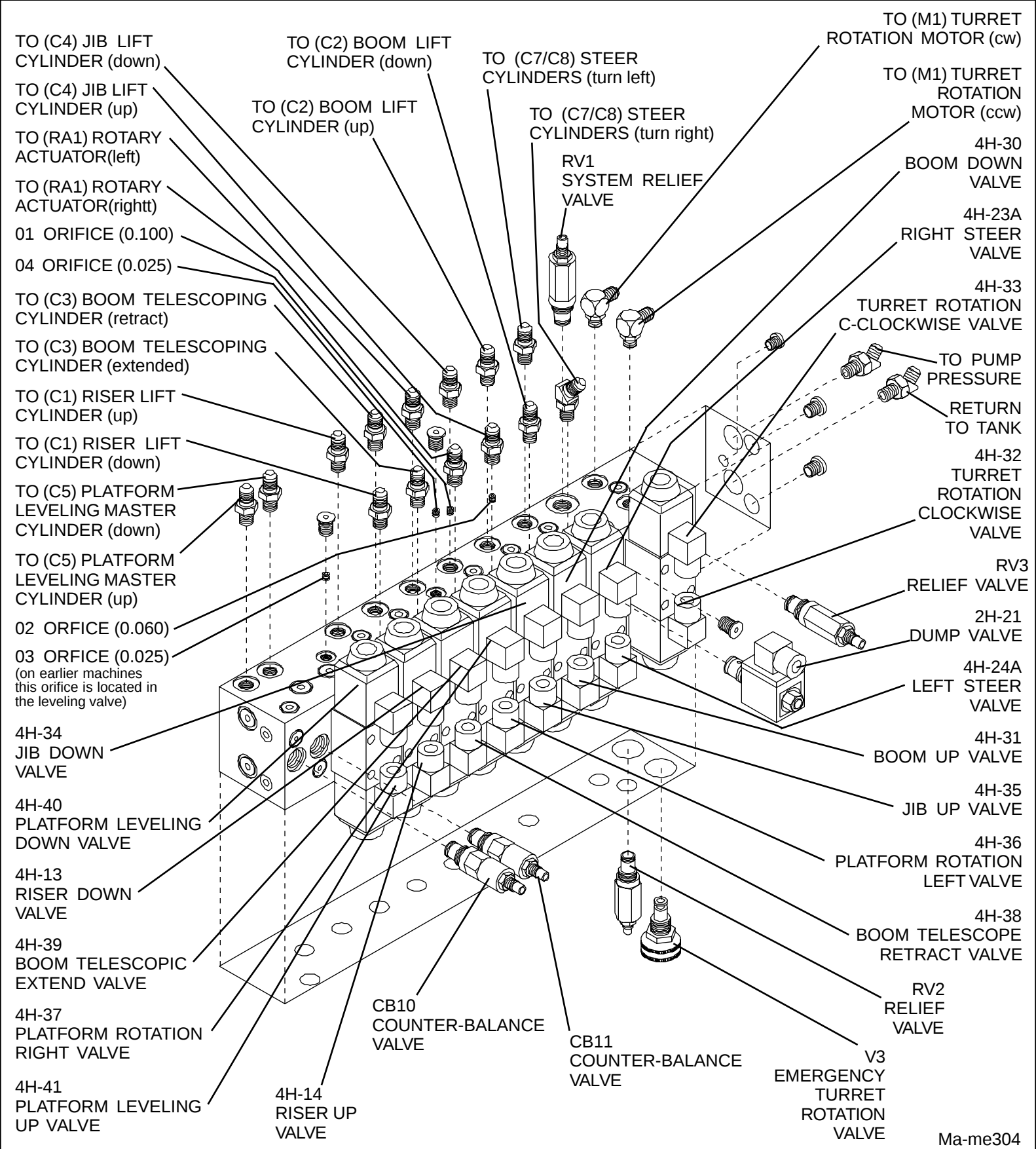
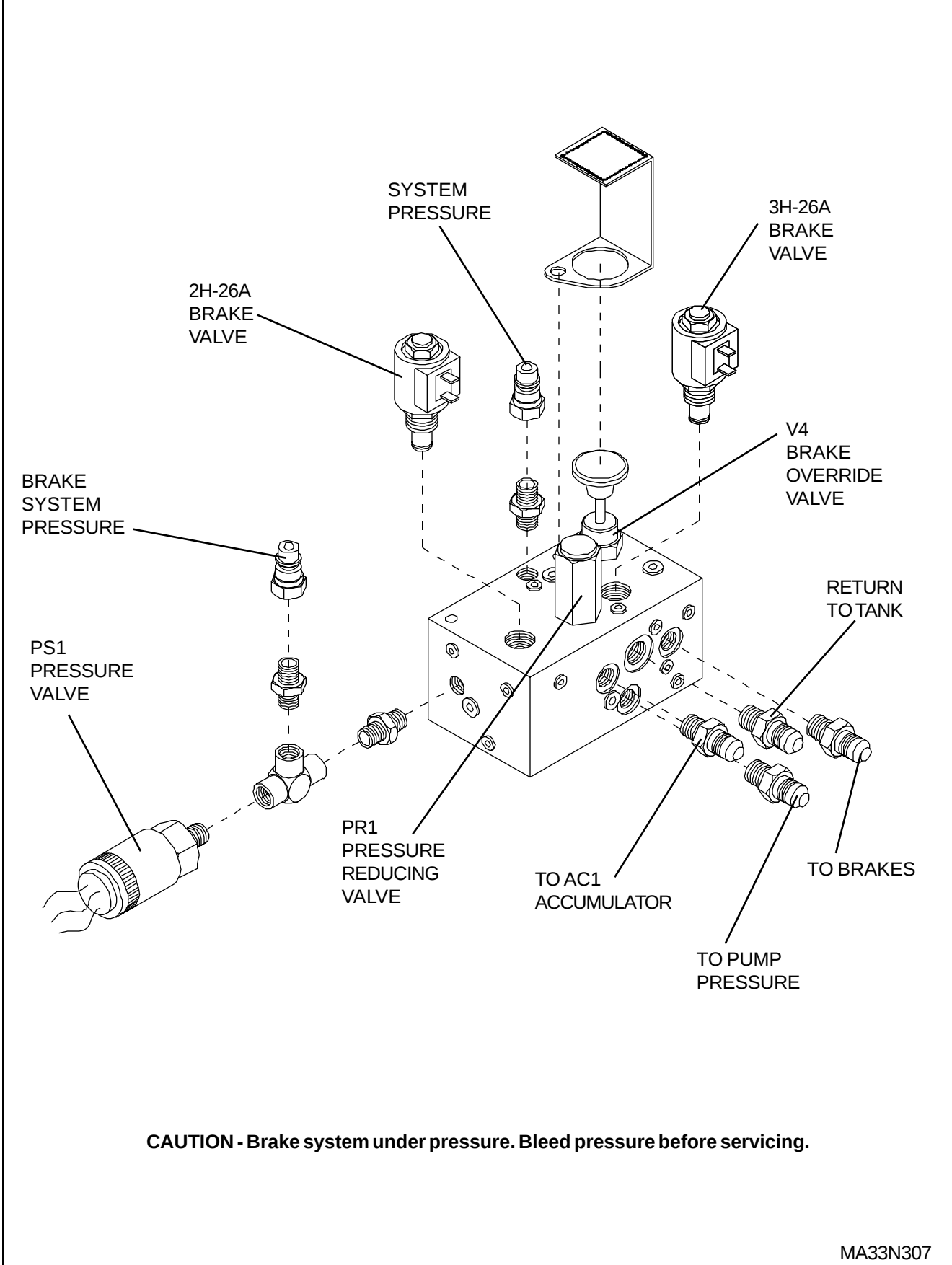


FIGURE 3-14. BRAKE MANIFOLD COMPONENT AND PORT IDENTIFICATION



SECTION 4 TROUBLESHOOTING

The following pages contain a Table of Troubleshooting information for locating and correcting most service trouble which can develop. Careful and accurate analysis of the system listed in the Table of Troubleshooting Information will localize the trouble more quickly than any other method. This manual can not 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, and then isolate and correct the specific problem.

TROUBLESHOOTING INFORMATION

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM		
All Controls Inoperative	1A. Batteries disconnected.	1A. Connect batteries.
	1B. Batteries not fully charged.	1B. Check each cell with hydrometer; reading should be 1.275 (fully charged). Recharge if low reading. Replace if reading difference between cells is 0.050.
	1C. Dirty or loose battery terminals or connector pins.	1C. Clean and/or tighten.
	2. Broken or loose wire #1 on main	2. Check continuity. Replace if defective.
	3. Broken or loose wire #3 to (CB1).	3. Check continuity. Replace if defective.
	4. Circuit Breakers (CB1) or (CB3) tripped or defective.	4. Reset switch or replace if defective.
	5. Broken or loose wire #5 to (CB1) from (S3).	5. Check continuity. Replace if defective.
	6. Base Emergency Stop Switch (S3) open or defective.	6. Check continuity thru switch, replace if defective.
	7. Broken or loose wire #7 from (S3) to (S2).	7. Check continuity. Replace if defective.
	8. Base Platform Select Switch (S2) defective.	8. Check continuity thru switch, replace if defective.
	9. Defective relay (10CR2).	9. Replace if defective.
	10. Defective Sevcon.	10. See Sevcon Troubleshooting.
	11. Line contactor (10CR3) open or defective.	11. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
All Controls Inoperative (cont.)	12. No power to wire #10 on line contactor (10CR3).	12. Check wire #10 on line contactor (10CR3) for 24V with foot switch depressed or base controls selected. Repair as necessary.
Controls Inoperative from Platform	- Broken or loose #7 wire in boom control cable. - Broken or loose #7A pin in plug. - Foot Switch (S5) open or defective. - Broken or loose wire #7C from (S5) to (S4) Emergency Stop. - Open Emergency Stop Button (S4). - Broken or loose wire #8 from (S4) to platform controls. - Broken or loose #8 wire in boom control cable. - Broken or loose #8 pin in plug. - Diode (D8) open or defective.	- Check continuity. Replace if open. - Replace pin if defective. - Check continuity thru switch, replace if defective. - Check continuity. Replace if open. - Check continuity thru switch, replace if defective. - Check continuity. Replace if open. - Check continuity. Replace if defective. - Replace pin if defective. - Check continuity. Replace if defective.
Base Controls Inoperative	- Key Selector Switch (S2) open or defective. - Loose or broken wire #7B from (S2) to function switches, or to pin #11 on Pump Sevcon (SV2). - Open or defective Diode (D7B-1). - Broken or loose #19A wire, from pin #14 on Pump Sevcon to Key Switch (S2). - Broken or loose #19A wire to pin #7 on tach board. - Defective (R19A) 2.2K resistor.	- Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check resistance. Should read 2200 ohms. - Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
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ELECTRICAL SYSTEM (Cont.)

Base Controls Inoperative (cont.)	7. Broken or loose #00 wire to battery plug.	7. Check continuity. Replace if defective.
Up Circuit Inoperative (Riser Only)	1. Broken or loose 9B wire to switch (S8). 2. Defective switch (S8). 3. Defective Switch Module (SM8). 4. Loose pin or broken wire #14 in boom control cable. 5. Defective coil (4H-14). 6. Diode (D02-4) or (D-14) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. If defective replace. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Down Circuit Inoperative (Riser Only)	1. Broken or loose 9A wire to switch (S8). 2. Defective switch (S8). 3. Defective Switch Module (SM8). 4. Loose pin or broken wire #13 in boom control cable. 5. Defective coil (4H-13). 6. Diode (D02-5) or (D-13) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. If defective replace. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Up Circuit Inoperative (Boom Only)	1. Broken or loose 9B wire to switch (S7) 2. Defective switch (S7). 3. Defective Switch Module (SM7). 4. Loose pin or broken wire #31 in boom control cable. 5. Defective coil (4H-31). 6. Diode (D02-2) or (D-31) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. If defective replace. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Down Circuit Inoperative (Boom Only)	1. Broken or loose 9A wire to switch (S7). 2. Defective switch (S7). 3. Defective Switch Module (SM7). 4. Loose pin or broken wire #30 in boom cable. 5. Defective coil (4H-30). 6. Diode (D02-3) or (D-30) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. If defective replace. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Telescope Out Inoperative	1. Broken or loose 9A wire to switch (S9). 2. Defective switch (S9). 3. Defective Switch Module (SM9).	1. Check continuity. Replace if defective. 2. Check switch. If defective replace. 3. Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Telescope Out Inoperative (cont.)	4. Loose pin or broken wire #39 in boom control cable. 5. Defective coil (4H-39). 6. Diode (D02-6) or (D-39) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Telescope In Inoperative	1. Broken or loose 9E wire to switch (S9). 2. Defective switch (S9). 3. Defective Switch Module (SM9). 4. Loose pin or broken wire #38 in boom control cable. 5. Defective coil (4H-38). 6. Diode (D02-7) or (D-38) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Jib Up Inoperative	1. Broken or loose 9B wire to switch (S10). 2. Defective switch (S10). 3. Defective Switch Module (SM10). 4. Loose pin or broken wire #35 in boom control cable. 5. Defective coil (4H-35). 6. Diode (D02-8) or (D-35) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Jib Up Inoperative (cont.)	7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	7. Check continuity. Replace if defective. 8. Replace Diode.
Jib Down Inoperative	1. Broken or loose 9A wire to switch (S10). 2. Defective switch (S10). 3. Defective Switch Module (SM10). 4. Loose pin or broken wire #34 in boom control cable. 5. Defective coil (4H-34). 6. Diode (D02-9) or (D-34) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Platform Rotate Left or Right Inoperative	1. Broken or loose wires #11 or #11A. 2. Defective switch (S11). 3. Defective Switch Module (SM-11-1). 4. Loose pin or broken wire #36 [L] or #37 [R] in boom cable. 5. Defective coil (4H-36) [L] or (4H-37) [R]. 6. Diode (D02-10) [R] or (D02-11) [L] shorted. 7. Diode (D36) [L] or (D37) [R] shorted. 8. Defective coil (2H-21). 9. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Replace Diode. 8. Check continuity. Replace if defective. 9. Replace Diode.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Platform Level Up Inoperative	1. Broken or loose 9B wire to switch (S11). 2. Defective switch (S11). 3. Defective Switch Module (SM-11-2). 4. Loose pin or broken wire #41 in boom control cable. 5. Defective coil (4H-41). 6. Diode (D02-12) or (D-41) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Platform Level Down Inoperative	1. Broken or loose 9A wire to switch (S11). 2. Defective switch (S11). 3. Defective Switch Module (SM-11-2). 4. Loose pin or broken wire #40 in boom control cable. 5. Defective coil (4H-40). 6. Diode (D02-13) or (D-40) shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Turret Rotate CW or CCW Inoperative	1. Broken or loose wires #11 or #11A. 2. Defective switch (S13). 3. Defective Switch Module (SM13).	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Turret Rotate CW or CCW Inoperative (cont.)	4. Loose pin or broken wire #32 [CW] or #33 [CCW] in boom cable. 5. Defective coil (4H-32) [CW] or (4H-33) [CCW]. 6. Diode (D02-14) [CCW], (D02-15) [CW], (D-32) [CW] or (D-33) [CCW] shorted. 7. Defective coil (2H-21). 8. Diode (D02-1) shorted.	4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Replace Diode. 7. Check continuity. Replace if defective. 8. Replace Diode.
Steering Left or Right Inoperative NOTE: Steering should always remain left or right relative to boom position. See steering does not change direction with boom position.	1. Broken or loose wire #8 from Emergency Stop Switch (S4) to right switch (S21-3) or left switch (S21-2). 2. Steer switch (S21-3) [R] or (S21-2) [L] defective. 3. Loose pin or broken wire #23 [R] or #24 [L] from (S21-3) [R] or (S21-2) [L] to (17ACR2) [R] or (17ACR1)[L] relay. 4. Open N.C. contacts on (17ACR1)[L] or (17ACR2) relay. 5. Broken or loose wire #23A [R] or #24A [L] from relay (17ACR2) [R] or (17ACR1) [L] to coil (4H-23A) [R] or coil (4H-24A) [L]. 6. Defective coil (4H-23A) or (4H-24A). 7. Diodes (D02-16) [R] or (D02-17) [L] shorted. 8. Diode (D23A) [R] or (D24A) [L] open. 9. Broken or loose wire 20A from diodes (D23A) [R] or (D24A)[L] to pump Sevcon terminal 8. 10. Diode (D20A) open. 11. Defective coil (2H-21).	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check relay. If defective replace. 5. Check continuity. Replace if defective. 6. Check continuity. Replace if defective. 7. Replace Diode. 8. Replace Diode. 9. Check continuity. Replace if defective. 10. Replace Diode. 11. Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Steering Left or Right Inoperative (cont.)	12. Diode (D02-1) shorted.	12. Replace Diode.
Steering Does Not Change Direction With Boom Position.	- Broken or loose wire #10 from D8 diode to turret Switch (S22). - Defective Turret Switch (S22). - Broken or loose wire #17A from Turret Switch (S22) to (17ACR1) or (17ACR2). - Broken or loose wire #2 from (17ACR1) or (17ACR2) to terminal strip on base.	- Check continuity. Replace if defective. - Check switch. If defective replace. - Check continuity. Replace if defective. - Check continuity. Replace if defective.
Forward - Reverse Drive Inoperative	- Defective Drive/Steer Controller (S21). - Broken or loose #6 wire from (S21) to drive Sevcon pin #14. - Loose pin or broken wire #15 [R] or #16 [F] from terminal block (TB2) on base. - Broken or loose wire #15 [R] or #16 [F] from terminal block (TB2) to drive Sevcon pin #11 [R] or #8 [F]. - Sevcon inoperative. - Broken or loose wire #15 [R] or #16A [F] from Sevcon pin #15 [R] or #17 [F] to contactor (15ACR) or (16ACR). - Defective coil (15ACR) [R] or (16ACR) [F]. - Broken or loose wire #10 from coil (15ACR) [R] or (16ACR) [F] to drive Sevcon pin #5. - Defective fuse (F3).	- Check output. If no output replace. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Refer to Sevcon troubleshooting. Check 10 amp (F2) Fuse. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
Forward - Reverse Drive Inoperative (cont.)	10. Broken or loose cable #1E from (F3) to contactor (15ACR) [R] or (16ACR) [F]. 11. Bad contacts in contactor (15ACR) [R] or (16ACR) {F}. 12. Defective drive motor (DCM1). 13. Defective Tach Generator (TG1). 14. Defective tach card. 15. Defective drive Sevcon. 16. Brake not releasing. 17. Defective (F5) or (F6) fuse on tach cards.	10. Check continuity. Replace if defective. 11. Replace contactor. 12. Check motor. Replace if defective. 13. See Sevcon troubleshooting. 14. See Sevcon troubleshooting. 15. Refer to Sevcon troubleshooting. 16. See brake troubleshooting. 17. Replace if defective.
Forward - Reverse Slow Speed Only	1. Broken or loose #10 wire from terminal block (TB1) on base to lift Limit Switch (LS1). 2. Lift Limit Switch (LS1) defective. 3. Broken or loose #18A wire from Limit Switch (LS1) to Limit Switch (LS2). 4. Telescope Limit Switch (LS2) defective. 5. Broken or loose #18 wire from (LS2) to drive Sevcon pin #13. 6. Defective Tilt Switch (TS1). No power to tach board wire #28. 7. Blown 1 Amp Fuse (F7) on Tilt Switch.	1. Check continuity. Replace if defective. 2. Replace Limit Switch. 3. Check continuity. Replace if defective. 4. Replace Limit Switch. 5. Check continuity. Replace if defective. 6. Replace Tilt Switch. 7. Replace Fuse.
Brake Not Releasing	1. Broken or loose wire #25 from drive Sevcon pin #1 to relay (26CR). 2. Defective relay (26CR). 3. Defective coil (3H-25). 4. Broken or loose wire #3 [24v] to Circuit Breaker (CB2).	1. Check continuity. Replace if defective. 2. Replace relay. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
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ELECTRICAL SYSTEM (Cont.)

Brake Not Releasing	5. Defective circuit breaker (CB2). 6. Broken or loose wire #3A from (CB2) to relay (26CR). 7. Broken or loose wire #3B from (26CR) to motor (DCM2). 8. Motor (DCM2) defective. 9. Broken or loose wire #1B from motor (DCM2) to Battery Plug (BP1).	5. Replace circuit breaker. 6. Check continuity. Replace if defective. 7. Check continuity. Replace if defective. 8. Replace Motor. 9. Check continuity. Replace if defective.
No Boom Functions	1. Loose or broken wire #10A from terminal B of Tachometer Card (TC1) to pin #5 on Sevcon (SV2). 2. Loose or broken wire #10A from terminal B of Tachometer Card (TC1) to Motor Contactor (10CR1). 3. Loose or broken wire from pin 1 on (SV2) to (10CR1). 4. Fuse (F1) open or defective. 5. Pump Motor (DCM3) defective. 6. Loose connection at terminal #20 on (TB2). 7. Loose or broken wire 20 from TB3 to TB2. 8. Open or defective Diode (D20-1). 9. Loose or broken wire #21 from (TB2) to Dump Solenoid (2H-21). 10. Open or defective Dump Solenoid (2H-21). 11. Defective Pump Sevcon (SV2).	1. Check continuity, repair if defective. 2. Check continuity, repair if defective. 3. Check continuity, repair if defective. 4. Check continuity. Replace if defective. 5. Replace if defective. 6. Repair if defective. 7. Check continuity. Replace if defective. 8. Replace if defective. 9. Check continuity. Replace if defective. 10. Check continuity. Replace if defective. 11. See Sevcon troubleshooting.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
ELECTRICAL SYSTEM (Cont.)		
No Boom Functions From Platform (Boom Operates from Base Controls)	1. Loose or broken wire #8 from platform terminal block to Boom Function Controller (S6). 2. Loose or broken wire #2 from platform terminal block to Boom Function Controller (S6). 3. Loose or broken wire #19A from Boom Function Controller (S6) to platform terminal strip. 4. Broken or loose #19 pin in plug. 5. Boom Function Controller (S6) defective. 6. Loose or broken wire #19 in Boom Control Cable. 7. Stuck contact block at 19A and 19B on Key Switch (S2).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. See Sevcon troubleshooting. 6. Check continuity. Replace if defective. 7. Replace if defective.

DRIVE SEVCON (SV1) TROUBLESHOOTING INFORMATION

FLASH CODE	TROUBLE	PROBABLE CAUSE	REMEDY
SEVCON ELECTRICAL SYSTEM			
NOTE: A Steady Light on Drive Sevcon Means System is Ready to Operate			
1 Flash Fault	No Drive	1. Sevcon defective.	1. Replace Sevcon.
2 Flash Fault (Procedure Fault)		1. Selecting function before power is on. 2. Broken #2 wire at drive/steer controller.	1. Turn power on and operate foot switch before selecting function. 2. Check continuity. If defective replace.
3 Flash Fault		1. Sevcon shorted. 2. Drive motor (DCM1) shorted.	1. Replace Sevcon. 2. Replace Motor.
4 Flash Fault		1. Contactor welded.	1. Replace contactor.
5 Flash Fault		1. Contactor not shifting. 2. Defective Sevcon.	1. Clean contactor. Replace if defective. 2. Replace Sevcon.
6 Flash Fault	No Drive	1. Broken #6 wire from drive/steer controller (S21) to pin 14 on Drive Sevcon (SV1). 2. Defective Drive Sevcon (SV1). 3. Defective drive/steer controller (S21).	1. Check continuity. Replace if defective. 2. Disconnect wire #6 from terminal strip in upper control box. Check voltage on wire #6 from Drive Sevcon (SV1). With foot switch depressed voltage should be approximately 8 volts. If no voltage present replace defective Sevcon (SV1). If voltage present see step 3. 3A. Remove brown wire from terminal strip in upper control box where wire #6 is located. Depress foot switch and check voltage on brown wire. It should read 3.8 to 4.2 volts DC. If voltage present replace defective Sevcon. If no voltage present move to step 3B.

DRIVE SEVCON (SV1) TROUBLESHOOTING INFORMATION (cont.)

FLASH CODE	TROUBLE	PROBABLE CAUSE	REMEDY
SEVCON ELECTRICAL SYSTEM (cont.)			
6 Flash Fault (cont.)	No Drive (cont.)	3. Defective drive/steer controller. (cont.)	3B. Locate white/red wire on drive/steer controller board. Measure voltage at white/red wire with foot switch depressed. It should read 6.1 to 6.2 volts DC. If no voltage present replace defective board. If voltage present move to step 3C. 3C. Locate white/black wire on drive/steer controller board. Measure voltage at white/black wire with foot switch depressed. It should read 2 volt DC. If no voltage present replace defective Potentiometer. If voltage present replace defective Sevcon. (Refer to Section 5 page 15)
7 Flash Fault		1. Low battery voltage.	1. Charge battery.
8 Flash Fault		1. Sevcon overheating.	1. Let unit cool down.
10 Flash Fault		1. Tachometer fault broken wire at terminal #2 or #12 on Drive Sevcon. 2. Broken or loose T1 or T2 wires from Tach Generator (TG1) on Motor to Terminal Block (TB1).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective.
11 Flash Fault		1. Tachometer Gen. defective. 2. Tachometer Gen. wires reversed. 3. Defective Tachometer Card. (TC1)	1. Check output - 2.5 volts per 100 RPM. 2. Switch wires at Tachometer Gen. 3. Check continuity. Replace if defective.

PUMP SEVCON (SV2) TROUBLESHOOTING INFORMATION

FLASH CODE	TROUBLE	PROBABLE CAUSE	REMEDY
SEVCON ELECTRICAL SYSTEM			
NOTE: A Steady Light on Pump Sevcon Means System is Ready to Operate.			
1 Flash Fault	No Boom Functions From Base or Platform	1. Sevcon defective.	1. Replace Sevcon.
2 Flash Fault (Procedure Fault)		1. Selecting function before power is on. 2. Broken #2 wire.	1. Turn power on and operate foot switch before selecting function. 2. Check continuity. If defective replace.
3 Flash Fault		1. Pump motor (DCM3) shorted. 2. Sevcon shorted.	1. Replace motor. 2. Replace Sevcon.
4 Flash Fault		1. Contactor welded.	1. Replace contactor.
5 Flash Fault		1. Contactor not shifting. 2. Defective Sevcon.	1. Replace contactor. 2. Replace Sevcon.
6 Flash Fault	No Boom Functions From Platform	1. Broken wire 19 from Boom Function Controller (S6) to pin #14 on Pump Sevcon (SV2). 2. Defective Pump Sevcon (SV2). 3. Defective Boom Function Controller.	1. Check continuity. If defective replace. 2. Disconnect wire #19 from the terminal strip in upper control box. Check voltage on wire 19 from Pump Sevcon (SV2) with foot switch depressed. Voltage should be approximately 8 volts DC. If no voltage present, replace defective Sevcon. If voltage present see step 3. 3A. Remove brown wire from the terminal strip in the upper control box where the #19 wire is located. Depress foot switch and check voltage on brown wire. It should be 3.8 to 4.2 volts DC. If voltage is present, replace defective Pump Sevcon (SV2). If no voltage present move to step 3B.

PUMP SEVCON (SV2) TROUBLESHOOTING INFORMATION (cont.)

FLASH CODE	TROUBLE	PROBABLE CAUSE	REMEDY
SEVCON ELECTRICAL SYSTEM (cont.)			
6 Flash Fault (cont.)	No Boom Functions From Platform (cont.)	3. Defective Boom Function Controller. (cont.)	3B. Locate the "+" and "-" terminals on the Boom Controller Board. Measure voltage at "+" and "-" with foot switch depressed. It should be 5 volts. If no voltage present, replace defective board. If voltage present, move to step 3C. 3C. Locate "Y" sig. terminal on Boom Controller Board. Measure voltage between "-" terminal and "Y" sig. terminal on Boom Controller Board with foot switch depressed. It should read 2.2 to 2.5 DC volts. If no voltage present replace defective Joy Stick. If voltage present, move to step 3D. 3D. Locate "X" sig. terminal on Boom Controller Board. Measure voltage between "-" terminal and "X" terminal on Boom Controller Board with Foot Switch depressed. It should read 2.2 to 2.5 volts DC. If no voltage present, replace defective Joy Stick. If voltage present, replace defective Pump Sevcon (SV2). (Refer to Section 5 page 16)
6 Flash Fault	No Boom Function From Base Controls Only	1. Loose or broken #19 wire from key switch to terminal block (TB2) in base controls. 2. Loose or broken #19 wire from key switch to pin #14 on Pump Sevcon (S2). 3. Defective R19A resistor on Tachometer Board Connector.	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check resistor 19A with Ohm-Meter. Replace if defective.
7 Flash Fault		1. Low battery voltage.	1. Charge battery.
8 Flash Fault		1. Sevcon overheating.	1. Let unit cool down.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION

TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM		
Engine Will Not Crank From Platform or Base	- Loose or broken wire 03C from relay 57CCR to starter solenoid. - Defective relay 57CCR. - Loose or broken wire 05A from circuit breaker CB3 to relay 57CCR. - Tripped or defective circuit breaker CB3. - Loose or broken wire 03B from starter B+ to circuit breaker CB3. - Loose or broken wire 57C from relay 57CCR to Charge-Pak Control Circuit Board. - Loose or broken wire 57B from Charge-Pak Control Circuit Board to relay 57CR. - Defective relay 57CR. - Loose or broken wire 57 from relay 57CR to Terminal Block TB3. - Defective starter or starter solenoid. - Defective Charge-Pak Control Circuit Board.	- Check continuity. Replace if defective. - Check relay. Replace if defective. - Check continuity. Replace if defective. - Reset circuit breaker. Check for defective wiring. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check relay. Replace if defective. - Check continuity. Replace if defective. - Refer to engine manufacturer's troubleshooting. - Replace circuit board.
Engine Will Not Crank From Platform	- Loose or broken wire 57 from base terminal block TB3 to platform ignition switch S23. - Defective platform ignition switch S23. - Loose or broken wire 04 from platform ignition switch S23 to platform emergency stop button S4. - Loose or defective wire 7B from platform emergency stop button thru terminal blocks TB2 and TB3 to base key select switch S2. - Defective key select switch	- Check continuity. Replace if defective. - Check switch. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check switch. Replace if defective.
Engine Will Not Crank From Base	- Loose or broken wire 57 from base terminal block TB3 to base ignition switch S24. - Defective base ignition switch S24. - Loose or broken wire 10 from base ignition switch S24 to key select switch S2. - Defective key select switch.	- Check continuity. Replace if defective. - Check switch. Replace if defective. - Check continuity. Replace if defective. - Check switch. Replace if defective.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION (cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM		
Engine Cranks But Will Not Start	- Loose or broken wire 60A from base terminal block TB3 to time delay relay TD1. - Defective time delay relay TD1. - Loose or broken wire 05A time delay relay TD1 through engine wire harness to circuit breaker CB3 at engine. - Loose or broken wire 73 from time delay relay TD1 through engine wire harness to relay 106CR at engine. - Defective relay 106CR. - Loose or defective wire 106 from relay 106CR to charge-pak control circuit board. - Loose or defective wire 54 from relay 106CR to fuel pump (diesel). - Loose or broken wire 54 from relay 106CR to vacuum switch or relay 54ACR (dual fuel). - Defective vacuum switch or relay 54ACR. - Loose or defective wire 54A from vacuum switch to relay 54ACR (dual fuel). - Loose or broken wire 77 from oil pressure switch to charge-pak control circuit board. - Defective oil pressure switch. - Loose or broken wire 96 from coolant temperature switch to charge-pak control circuit board. - Defective coolant temperature switch. - Loose or broken wire 42 from heatsink temperature switch to charge-pak control circuit board. - Defective heatsink temperature switch. - Defective charge-pak control circuit board.	- Check continuity. Replace if defective. - Check relay. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check relay. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check switch and relay. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check oil pressure switch. Replace if defective. - Check continuity. Replace if defective. - Check coolant temperature switch. Replace if defective. - Check continuity. Replace if defective. - Check heatsink temperature switch. Replace if defective. - Replace charge-pak control circuit board.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION (cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM		
Engine Starts But Will Not Keep Running From Platform	1. Defective platform ignition switch S23. 2. Loose or broken wire #60 from platform ignition switch S23 to platform terminal block TB1. 3. Open diode D60 at platform terminal block TB1. 4. Loose or broken wire 60A from platform terminal block TB2 to base terminal block TB3.	1. Check Switch. Replace if defective. 2. Check Continuity. Replace if defective. 3. Check Diode. Replace if defective. 4. Check Continuity. Replace if defective.
Engine Starts But Will Not Keep Running From Base	1. Engine oil level low. 2. Engine overheated. 3. Batteries are fully charged and charge-pak auto shutdown mode is selected.	1. Check oil level. Refill to proper level. 2. Check radiator coolant level. Refill if low. Check for radiator obstruction. 3. Engine will start and run for approximately 20 minutes then shut down. This is normal operation.
Engine Starts But Stays at Idle	1. Loose or broken wire 54 from relay 106CR to terminal #1 of governor. 2. Loose or broken wire 000 or 71 from governor to charge-pak control circuit board. 3. Loose or broken wire 86 or 87 from governor to throttle actuator. 4. Defective governor.	1. Check Continuity. Replace if defective. 2. Check Continuity. Replace if defective. 3. Check Continuity. Replace if defective. 4. Refer to section 5, governor diagnostics.
L.P. or Gasoline Valves Inoperative	1. Loose or broken wire 54B from relay 54ACR to relay 11CR. 2. Defective relay 11CR.	1. Check Continuity. Replace if defective. 2. Check relay. Replace if defective.
L.P. Valve Inoperative	1. Loose or broken wire 50 from relay 11CR to L.P. valve. 2. Loose or broken wire 11 from fuel select switch through main control cable and engine harness to relay 11CR. 3. Defective L.P. valve.	1. Check Continuity. Replace if defective. 2. Check Continuity. Replace if defective. 3. Check valve. Replace if defective.
Gasoline Valve or Fuel Pump Inoperative	1. Loose or broken wire 56 from relay 11CR to Gasoline valve. 2. Defective gasoline valve. 3. Loose or broken wire 56 from relay 11CR to fuel pump. 4. Defective fuel pump.	1. Check Continuity. Replace if defective. 2. Check valve. Replace if defective. 3. Check Continuity. Replace if defective. 4. Check fuel pump. Replace if defective.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION (cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM		
Choke or Glowplugs Inoperative	- Loose or broken wire 74 from terminal block TB3 through engine harness to relay 74CR. - Defective relay 74CR. - Loose or broken wire 74A from relay 74CR to choke or glowplugs. - Loose or broken wire 03B from terminal block to relay 74CR.	- Check Continuity. Replace if defective. - Check relay. Replace if defective. - Check Continuity. Replace if defective. - Check Continuity. Replace if defective.
Choke or Glowplugs Inoperative From Platform	- Loose or broken wire 60 from platform ignition switch S23 to choke/glowplug switch S28. - Defective choke/glowplug switch S28. - Loose or broken wire 74 from switch S28 through main control cable to terminal block TB3.	- Check continuity. Replace if defective. - Check switch. Replace if defective. - Check continuity. Replace if defective.
Choke or Glowplugs Inoperative From Base	- Loose or broken wire 68 from base ignition switch S24 to choke/glowplug switch S29. - Defective choke/glowplug switch S29. - Loose or broken wire 74 from switch S29 to terminal block TB3.	- Check continuity. Replace if defective. - Check switch. Replace if defective. - Check continuity. Replace if defective.
Red light on board does not come on with switch on	- No voltage of approximately 12 VDC at P8 pin 1(+) and Pin2(-) with switch on. - Defective board.	- Check continuity. Replace if defective. - Replace board.
Output contactor does not close after engine is running	- Open circuit of wire 70 at P4 pin 5. - Defective board.	- Check continuity. Replace if defective. - Replace board.
Starter will still engage with switch in start position and engine running	- Open circuit of wire 43 or 44 at P7 pin 5 & 6. - Defective board.	- Check continuity. Replace if defective. - Replace board.
System charges in excess of 105 AMPS	- CT1 open or short circuited. - Wrong R1 value on CT1 (45 OHMS). - Open circuit of wire 66 or 67 from P5 1 & 2 to CT1. - Board is defective.	- Check continuity. Replace if defective. - Check continuity. Replace if defective. - Check continuity. Replace if defective. - Replace board.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION (cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM		
System will not charge at a full load rate	- Wrong R1 value on CT1 (45 OHMS). - Alternator defective. - Rotor defective. - Bad connection in output power cables. - Defective rectifier on heatsink. - Relay 73ACR is defective. - Fuse F8 is blown. - Board is defective.	- Check Continuity. Replace if defective. - Check Alternator. Replace if defective. - Check Rotor. Replace if defective. - Check Continuity. Replace if defective. - Check Continuity. Replace if defective. - Check Continuity. Replace if defective. - Check Continuity. Replace if defective. - Replace board.
Engine will not shut down immediately with stop switch	- Open circuit of wire 104 at P9 pin 5. - Defective board.	- Check continuity. Replace if defective. - Replace board.
Engine will not shut down in auto shut down mode.	- Open circuit of wire 105 at P9 pin 11. - Defective batteries. - Defective CT1. - Defective board.	- Check continuity. Replace if defective. - Replace batteries. - Replace CT1. - Replace board.
Charge pack light not operating when engine is running	- Light burnt out. - No or low voltage at P7. Between pin 5 & 6 should be 18 volts or higher. - Defective board.	- Replace light. - Check voltage. Repair if defective. - Replace board.

CHARGE-PAK SYSTEM TROUBLESHOOTING INFORMATION (cont.)

FLASH CODE	TROUBLE	PROBABLE CAUSE	REMEDY
CHARGE-PAK SYSTEM			
1 Flash Fault (Overvolt)	ENGINE SHUTS DOWN AFTER STARTING	1. Actuator linkage too long. 2. Governor control misadjusted or defective. 3. Board is defective.	1. Shorten linkage. 2. Replace control if not adjustable. 3. Replace board.
2 Flash Fault (Undervolt)	ENGINE SHUTS DOWN AFTER STARTING	1. Load battery voltage below 20 volts DC. 2. Open circuit of wire 1B or 00 at P7 1&2. 3. Board is defective.	1. Charge battery. Replace if defective. 2. Check continuity. Replace if defective. 3. Replace board.
3 Flash Fault (Overspeed)	ENGINE SHUTS DOWN AFTER STARTING	1. Actuator linkage too long. 2. Governor control misadjusted or defective. 3. Alternator is defective. 4. Rectifiers defective. 5. Relay 73ACR defective. 6. Blocking diodes defective. 7. Fuse F8 blown. 8. Board defective.	1. Shorten linkage. 2. Replace control if not adjustable. 3. Replace alternator. 4. Replace rectifiers. 5. Check continuity. Replace if defective. 6. Check continuity. Replace if defective. 7. Check continuity. Replace if defective. 8. Replace board.
4 Flash Fault (Engine over temp)	ENGINE SHUTS DOWN AFTER STARTING	1. Engine coolant low. 2. Open circuit of wire 96 at P9 pin 3. 3. Defective coolant temp switch. 4. Board defective.	1. Add coolant. 2. Check continuity. Replace if defective. 3. Check continuity. Replace if defective. 4. Replace board.
5 Flash Fault (Engine low oil pressure)	ENGINE SHUTS DOWN AFTER STARTING	1. No oil in engine. 2. Open circuit of wire 77 at P9 pin 9. 3. Defective oil pressure switch. 4. Board defective.	1. Add oil to engine. 2. Check continuity. Replace if defective. 3. Check continuity. Replace if defective. 4. Replace board.
6 Flash Fault (Heat sink over temp)	ENGINE SHUTS DOWN AFTER STARTING	1. Heat sink fins dirty or obstructed. 2. Engine cooling fan not working. 3. Open circuit of wire 42 at P9 pin 7. 4. Defective heat sink temp switch. 5. Board defective.	1. Clean fins and remove any obstructions. 2. Check for power. Replace if defective. 3. Check continuity. Replace if defective. 4. Check continuity. Replace if defective. 5. Replace board.
7 Flash Fault (Engine shutdown)	ENGINE SHUTS DOWN AFTER STARTING	1. Out of fuel or defective fuel system. 2. Defective ignition system. 3. Board defective.	1. Check system. Replace any defective parts. 2. Check system. Replace any defective parts. 3. Replace board.

TROUBLESHOOTING INFORMATION

TROUBLE	PROBABLE CAUSE	REMEDY
HYDRAULIC SYSTEM		
No Boom Functions	1. Dump Valve (2H-21) stuck open. 2. System Relief Valve (RV1) defective or set low. 3. Pump (P1) defective.	1. Inspect valve, replace if defective. 2. Inspect valve, replace if defective. 3. Replace pump.
Up Circuit Inoperative (Riser Only)	1. Riser Up Valve (4H-14) not shifting properly or contaminated. 2. Emergency lowering valve (V1) open.	1. Clean valve and reinstall. Replace if defective. 2. Close valve.
Down Circuit Inoperative (Riser Only)	1. Riser Down Valve (4H-13) not shifting properly or contaminated. 2. Counter Balance Valve (CB1) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.
Riser Drifts Down	1. Emergency Lowering Valve (V1) open or contaminated. 2. Counter Balance Valve (CB1) open or defective. 3. Bad cylinder packing Riser Cylinder (C1).	1. Close or clean valve. 2. Clean valve and reinstall. Replace if defective. 3. Replace defective packing.
Up Circuit Inoperative (Boom Only)	1. Boom Up Valve (4H-31) not shifting properly or contaminated. 2. Emergency lowering valve (V2) open.	1. Clean valve and reinstall. Replace if defective. 2. Close valve.
Down Circuit Inoperative (Boom Only)	1. Boom Down Valve (4H-30) not shifting properly or contaminated. 2. Counter Balance Valve (CB2) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.
Boom Drifts Down	1. Emergency Lowering Valve (V2) open or contaminated. 2. Counter Balance Valve (CB2) open or defective. 3. Bad cylinder packing (C2) Boom Cylinder.	1. Close or clean valve. 2. Clean valve and reinstall. Replace if defective. 3. Replace defective packing.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
HYDRAULIC SYSTEM (Cont.)		
Boom Extend Inoperative	1. Boom Extend Valve (4H-39) not shifting properly or contaminated. 2. Counter Balance Valve (CB4) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.
Boom Retract Inoperative	1. Boom Retract Valve (4H-38) not shifting properly or contaminated. 2. Counter Balance Valve (CB3) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.
Jib Up Inoperative	1. Jib Valve (4H-35) open or defective. 2. Counter Balance Valve (CB6) not shifting. 3. Orifice (O1) plugged. 4. Emergency lowering valve (V5) open.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective. 3. Clean orifice. 4. Close valve.
Jib Down Inoperative	1. Jib Down Valve (4H-34) open or defective. 2. Counter Balance Valve (CB5) not shifting. 3. Orifice (O2) plugged.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective. 3. Clean orifice.
Jib Drifts Down	1. Emergency Lowering Valve (V5) open or contaminated. 2. Counter Balance Valve (C5) open or defective. 3. Bad cylinder packing (C4) Jib Lift Cylinder.	1. Close or clean valve. 2. Clean valve and reinstall. Replace if defective. 3. Replace defective packing.
Platform Rotate Left Inoperative	1. Platform Rotate Left Valve (4H-36) not shifting or contaminated. 2. Counter Balance Valve (CB7) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.
Platform Rotate Right Inoperative	1. Platform Rotate Right Valve (4H-37) not shifting or contaminated. 2. Counter Balance Valve (CB8) not shifting.	1. Clean valve and reinstall. Replace if defective. 2. Clean valve and reinstall. Replace if defective.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
HYDRAULIC SYSTEM (Cont.)		
No Platform Rotate Either Direction	1. Orifice (O4) plugged.	1. Clean orifice.
Platform Level Up Inoperative	1. Level Up Valve (4H-41) not shifting or contaminated. 2. Platform Master Leveling Cylinder (C5) or (C6) by passing. 3. Counter Balance Valve (CB11) not shifting or set to high.	1. Clean valve and reinstall. Replace if defective. 2. Reseal cylinder. 3. Adjust valve. Replace if defective.
Platform Level Down Inoperative	1. Level Down Valve (4H-40) not shifting or contaminated. 2. Platform Master Leveling Cylinder (C5) or (C6) by passing. 3. Counter Balance Valve (CB10) not shifting or set to high.	1. Clean valve and reinstall. Replace if defective. 2. Reseal cylinder. 3. Adjust valve. Replace if defective.
No Manual Platform Level	1. Plugged Orifice (O3).	1. Clean Orifice.
Turret Rotate Left (Clockwise)	1. Turret Rotate Left [CW] Valve (4H-32) not shifting or contaminated. 2. Relief Valve (RV3) set to low.	1. Clean valve and reinstall. Replace if defective. 2. Adjust relief valve. Replace if defective.
Turret Rotate Right (Counter Clockwise)	1. Turret Rotate Left [CCW] Valve (4H-33) not shifting or contaminated. 2. Relief Valve (RV2) set to low.	1. Clean valve and reinstall. Replace if defective. 2. Adjust valve. Replace if defective.
No Turret Rotation Either Direction	1. Emergency Turret Rotation Valve (V3) open to much. 2. By passing or defective rotate Hydraulic Motor (M1).	1. Close valve. 2. Reseal motor. Rebuild or replace if defective.
No Steering	1. Steer Valve (4H-24A) or (4H-23A) not shifting or contaminated. 2. By passing Steer Cylinder (C7).	1. Clean valve and reinstall. Replace if defective. 2. Reseal cylinder.

TROUBLESHOOTING INFORMATION (Cont.)

TROUBLE	PROBABLE CAUSE	REMEDY
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HYDRAULIC SYSTEM (Cont.)

Brakes Won't Release	1. Brake Valve (3H-26) not shifting. 2. By passing brake assembly. 3. Defective Accumulator (AC1). 4. Pressure Reducing Valve (PR1) set to low or defective. 5. Brake over ride valve (V4) stuck or leaking.	1. Clean valve and reinstall. Replace if defective. 2. Reseal brake assembly. 3. Replace if defective. 4. Adjust to proper setting. Replace if defective. 5. Replace if defective. (Refer to Section 5 page 19)
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SECTION 5

MAINTENANCE AND SERVICE

GENERAL MAINTENANCE HINTS

- Before attempting any repair work, disconnect the batteries by separating the 350A connectors.
- Preventive maintenance is the easiest and least expensive type of maintenance.

REPLACEMENT PARTS

Use only original replacement parts. Parts such as batteries, chargers, wheels, railings, etc. with weight and dimensions different from original parts will affect stability of the work platform and must not be used without manufacturer's consent.

Use only original filled tires for models which must be so equipped. Consult manufacturer.

Any machine that is damaged or not operating properly MUST be immediately tagged and removed from service until proper repairs are completed.

MAINTENANCE AND SERVICE SAFETY TIPS

- Maintenance and repair should only be performed by personnel who are trained and qualified to service this machine.
- All maintenance and service procedures should be performed in a well lighted and well ventilated area.
- Anyone operating or servicing this machine must read and completely understand all operating instructions and safety hazards in this manual.
- All tools, supports and lifting equipment to be used must be of proper rated load and in good working order before any service work begins. Work area should be kept clean and free of debris to avoid contaminating components while servicing.
- All service personnel must be familiar with employer and governmental regulations that apply to servicing this type of equipment.
- Keep sparks and flames away from all flammable or combustible materials.
- Properly dispose of all waste material, i.e. used oil, old parts etc.

NOTES

SECTION 5 MAINTENANCE AND SERVICE

TABLE OF CONTENTS

GENERAL MAINTENANCE HINTS	Page 1
REPLACEMENT PARTS	Page 1
MAINTENANCE AND SERVICE SAFETY TIPS	Page 1
HYDRAULIC SYSTEM AND COMPONENT MAINTENANCE AND REPAIR	Page 4
TABLE 5-1. TORQUE SPECIFICATIONS	Page 5
TABLE 5-2. SPECIAL TOOLS	Page 5
SEVCON CALIBRATION TOOL	Page 6
TABLE 5-3. DRIVE CONTROLLER ADJUSTABLE PARAMETERS	Page 7
TABLE 5-4. PUMP CONTROLLER ADJUSTABLE PARAMETERS	Page 8
TABLE 5-5. SEVCONTROL TEST SEQUENCE	Page 10
TRACTION SEVCON CONTROLLER PIN REFERENCE	Page 11
TABLE 5-6. TRACTION CONTROLLER FLASH FAULT PIN REFERENCES	Page 12
TACHOMETER BOARD TERMINAL REFERENCE	Page 13
TACHOMETER GENERATOR TESTING PROCEDURE	Page 14
BOOM FUNCTION SEVCON CONTROLLER PIN REFERENCE	Page 15
DRIVE JOYSTICK CIRCUIT BOARD DIAGNOSTICS	Page 16
GOVERNOR DIAGNOSTICS	Page 17
GOVERNOR COMPONENT FIELD REPLACEMENT	Page 19
BRAKE ADJUSTMENT PROCEDURES	Page 21
STANDARD HOSE NUMBERING SYSTEM	Page 24

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 is very close. Even small amounts of dirt or foreign materials 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 oil in this work platform. 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 filter 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 the hydraulic system performance, efficiency and life. Yet, the very simplicity of them may be the reason 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. Torque Specifications

DIRECTIONAL VALVE MOUNTING SCREWS				28-32 in. lbs.				
TURRET ROTATE GEAR MOUNTING BOLTS				205 ft. lbs. / Copper based anti-sieze				
WHEEL MOUNTING BOLTS (4 x 4)				290 ft. lbs. / Dry				
WHEEL MOUNTING BOLTS (4 x 2)				220 ft. lbs. / Dry				
COUNTERWEIGHT BOLTS				240 ft. lbs. / Dry				
AXLE MOUNTING BOLTS				205 ft. lbs. / Dry				
CARTRIDGE VALVES								
SIZE		08	38	58	10	12	16	
ft. lbs. (max)		20	20	20	25	35	50	
in. lbs. (max)		240	240	240	300	420	600	
COILS								
SIZE								
ft. lbs. (max)				4 to 5				
in. lbs. (max)				48 to 60				
SAE PLUGS								
SIZE	2	4	5	6	8	10	12	16
ft. lbs. (max)	3	10	15	15	25	25	30	35
in. lbs. (max)	36	120	180	180	300	300	360	400

MT-ME505

Table 5-2. Special Tools

BRAKE ADJUSTMENT TOOL	SKYJACK PART 707704
17mm ALLEN WRENCH	PURCHASE LOCALLY
PRESSURE GAUGE 0 - 5000 psi	PURCHASE LOCALLY
PRESSURE GAUGE 0 - 1000 psi	PURCHASE LOCALLY
CYLINDER ASSEMBLY TOOL - 2" Inside Diameter	SKYJACK PART 706522
CYLINDER ASSEMBLY TOOL - 2-1/2" Inside Diameter	SKYJACK PART 706521
CYLINDER ASSEMBLY TOOL - 3-1/4" Inside Diameter	SKYJACK PART 709800
CYLINDER ASSEMBLY TOOL - 3-1/2" Inside Diameter	SKYJACK PART 703872
CYLINDER ASSEMBLY TOOL - 4-1/2" Inside Diameter	SKYJACK PART 703873
CYLINDER ASSEMBLY TOOL - 5" Inside Diameter	SKYJACK PART 706866

SEVCONTROLLER ADJUSTMENT AND DIAGNOSTICS

Sevcon Calibration Tool



WARNING

All machine functions remain operational while calibrator is plugged in.

ADJUSTMENT PROCEDURE:

The following procedure is relevant for both the drive and pump controllers, except where otherwise noted. Both controllers are preset to factory specifications but may be readjusted.

A hand-held calibrator (Figure 5-1, Skyjack part #701051) can be plugged into the controller adjustment socket and used to digitally view or reset the parameters. The current value of these parameters will be shown on an LCD display. Additionally, the calibrator can perform certain measurements that can be useful for diagnostic purposes.

The calibrator has a bar display, operated by the SELECT button, showing the parameters/ measurement selected and an LCD display showing values that, provided they are parameters, may be adjusted using the +/- buttons. This unit can also be used to perform certain tests on the control wiring and controller (joystick).

1. Locate controller adjustment socket, as shown in Figure 5-2, and connect hand-held calibrator. Power up the boom by selecting base or platform controls (foot switch must be engaged for platform controls to be active) using key switch at electrical panel.
2. No LED segments on the bar display will be lit and the minutes/seconds count is displayed. The hours count is displayed by pressing the (-) button and the 1000's of hours count is displayed by pressing the (+) button as described later in this section. Pressing the select button reverts the calibrator to its normal operation and the IMax LED will be lit.
3. When the desired parameters has been selected, on the left side of the calibrator, it may be adjusted by pressing the + or - button on the right side of the calibrator. See Table 5-3 and Table 5-4. for adjustable parameters and ranges.
4. When the calibrator is unplugged the Sevcontrol will 'memorize' the new parameters settings.

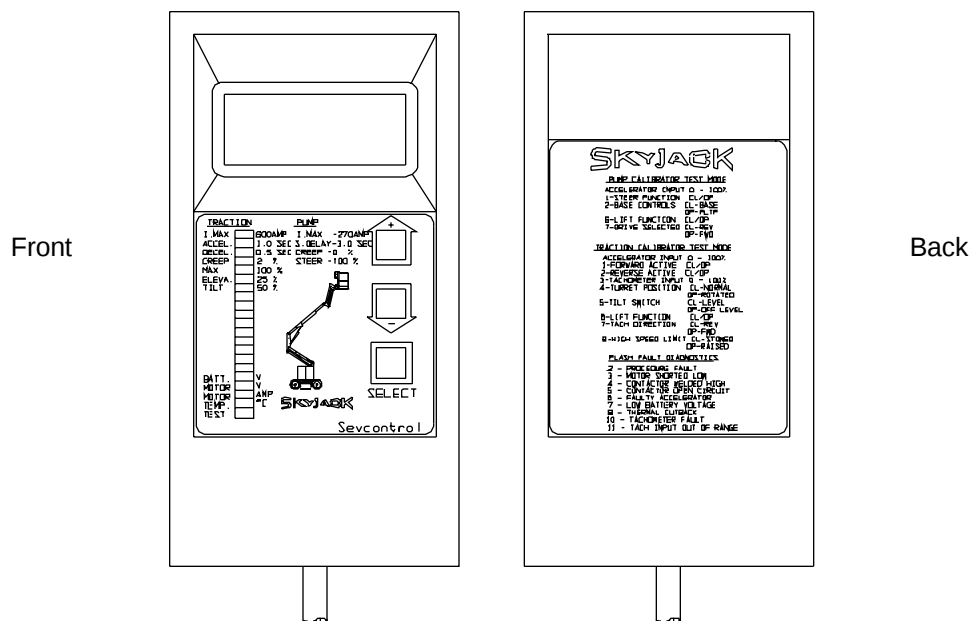


Figure 5-1. Hand Held Controller Calibrator

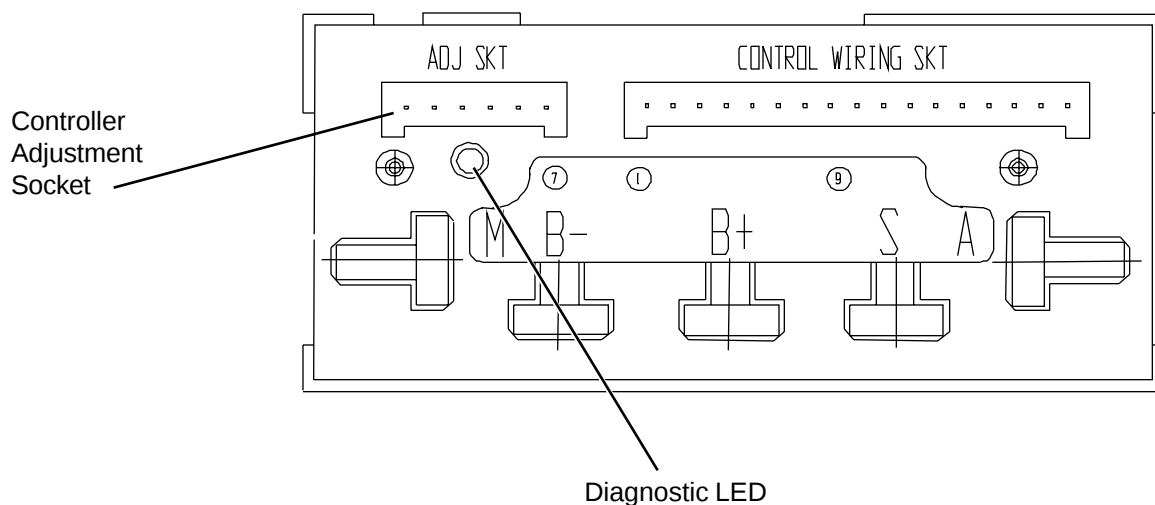


Figure 5-2. Sevcon Connection Points and Flash Fault Indicator

Table 5-3. Drive Controller Adjustable Parameters

Drive Controller				
Parameter	Min.	Max.	Units	Default
1. IMAX Maximum Controller Current	50	600	Amps	600
2. ACCEL. Acceleration Delay	1.0	3.0	Seconds	1.0
3. DECEL. Deceleration Delay	0.5	3.0	Seconds	0.5
4. CREEP Drive Creep Speed	0	10	% of Max Speed	2
5. MAX Max Allowed Speed	5	100	% of Max Possible Speed	100
6. ELEVA. Elevated Cutback Speed	5	25	% of Max Speed	25
7. TILT Tilted Cutback Speed	5	60	% of Max Speed	50
8. Through 14.	Not Used			-
15. CONFIGURATION Option Personality	0=Toggle switch operator control console. Inhibit drive and lift simultaneously. 1=Push-Button operator control console. Inhibit drive and lift simultaneously. 2=Toggle switch operator control console. Allow drive and lift simultaneously. 3=Push-Button operator control console. Allow drive and lift simultaneously.			1

MTWB-506

Table 5-4. Pump Controller Adjustable Parameters

Pump Controller				
Parameter	Min.	Max.	Units	Default
1. IMAX Maximum Controller Current	50	270	Amps	270
2. S.DELAY Pump Soft Start/Stop Delay	0.5	5.0	Seconds	3.0
3. CREEP Pump Creep Speed	0	30	% of Max Speed	0
4. STEER Steer Speed Base	0	100	% of Max Possible Speed	100
5. Through 14.	Not Used			-
15. CONFIGURATION Option Personality	0=Toggle switch operator control console. Inhibit drive and lift simultaneously. 1=Push-Button operator control console. Inhibit drive and lift simultaneously. 2=Toggle switch operator control console. Allow drive and lift simultaneously. 3=Push-Button operator control console. Allow drive and lift simultaneously.			1

MTWB-507

Sevcon Calibration Tool Cont.

HOURS COUNTER:

The hours counter records pulsing hours, and is displayed when the calibrator is first plugged in. Once the SELECT button is pressed, the calibrator reverts to normal operation.

Initially a minute/seconds count is displayed. By pressing the (-) button, hours are displayed and by pressing the (+) button 1000's of hours are displayed.

Releasing the buttons reverts back to the minute/seconds display. The decimal point blinks every second during drive. The counter will record up to 65,500 hours before rolling back to 0.

DIAGNOSTIC PROCEDURE:



All machine functions remain operational while calibrator is plugged in.

The last five segments on the bar display are as follows.

BATT	Displays the current battery voltage. Pressing the (+) button displays the highest voltage, for the machine, that the Sevcontrol has recorded.
MOTOR V.	Displays the motor voltage as the machine is being driven.
MOTOR AMP	Displays the motor current as the machine is being driven.
TEMP	Displays the temperature of the MOSFET heat sink in °C. Pressing the (+) button displays the highest temperature recorded and pressing the (-) button displays the lowest temperature recorded.
TEST	This invokes the diagnostic test routines to check machine switches, joystick, control wiring etc.

With the calibrator connected and the boom powered up, as described in the adjustment procedure. Use the SELECT button to select the test segment. If the SELECT button is pressed at any time during the test, the test will be terminated and the minute/seconds count will be displayed.

The first test displayed, for both drive and pump Sevcontrol, is the joystick input. This displays the input as 0-100% as joystick is moved from min. to max.

Pressing the (+) and (-) buttons step through the tests as shown in Table 5-5. After the final test, the sequence will loop back to the joystick input test, then test 1.

Table 5-5. Sevcontrol Test Sequence

Drive Controller Test Sequence		
Sequence No.	Test	Display
-	Controller (Joystick) Input	0 to 100%
1	Forward Switch	CL/OP
2	Reverse Switch	CI/OP
3	Tachometer Input	0 to 100%
4	Turret Position Limit Switch	CL = Rotated OP = Normal
5	Tilt Switch	CL = Level OP = Tilt
6	Boom Lift Function Selected	CL/OP
7	Actual Direction, Tachometer Output	CL = Reverse OP = Forward
8	Boom Lift Limit Switches	CL = Lowered OP = Raised
9	Not used	
10	Not used	
Pump Controller Test Sequence		
Sequence	Test	Display
-	Controller (Joystick) Input	0 to 100%
1	Steer Function	CL/OP
2	Base Controls	OP = Platform Controls CL = Base Controls
3	Not Used	
4	Not Used	
5	Not Used	
6	Boom Lift Function Selected	CL/OP
7	Drive Function Selected	CL = Reverse OP = Forward to
8	Not Used	
9	Not Used	
10	Not Used	

SEVCONTROLLER ADJUSTMENT AND DIAGNOSTICS Cont.

Pin Voltage Readings

TRACTION SEVCON CONTROLLER PIN REFERENCE

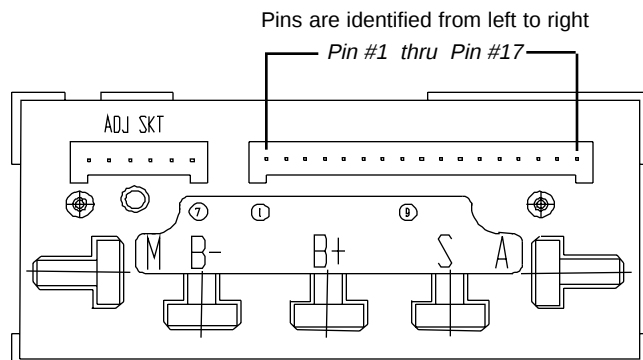


Figure 5-3. Traction Controller

- Pin 1 - Brake valve control. Brings B- through wire 26A to the 3H-26A and 2H-26A brake valve in drive.
Test between pin 1 and 09 wire (B+).
- Pin 2 - From pin 4 of tachometer board. Determines direction.
0 volts = forward
15 volts = reverse
Test between pin 2 and 02 wire (B-).
- Pin 3 - Not used
- Pin 4 - Turret position. Determines where platform is in relation to base. Changes sequencing of 15ACR and 16ACR contactors.
0 volts = platform over drive axle
24 volts = platform over steer axle
Test between pin 4 and 02 wire (B-).
- Pin 5 - 24 volt input from wire 09B.
Test between pin 5 and 02 wire (B-).
- Pin 6 - 48 volt signal from relay 09BCR2
48 volt = OK
0 volts = blown F2 fuse, bad 09BCR2 relay or broken 09B wire.
Test between pin 6 and 02 wire (B-).
- Pin 7 - Tiltswitch input.
0 volts = 50% full speed. (0% speed if off a limit switch)
24 volts = 100% full speed available,
Test between pin 7 and 02 wire (B-).
- Pin 8 - Forward direction input from drive joystick (wire 16).
24 volts = forward selected
Test between pin 8 and 02 wire (B-).
- Pin 9 - Not used
- Pin 10 - Not used
- Pin 11 - Reverse direction input from drive joystick (wire 15).
24 volts = reverse selected
Test between pin 11 and 02 wire (B-).

- Pin 12 - Signal from Pin 2 of tachometer board. Tachometer generator signal to Traction Controller. Varies with speed of machine.
Will see 7.5 volts when foot switch is depressed and joystick is in neutral position (center position).
7.5 volts to 15 volts = reverse
7.5 volts to 0 volts = forward
Test between pin 12 and 02 wire (B-).
- Pin 13 - From boom and telescope limit switches.
24 volts = full speed
0 volts = creep speed (one or more limit switches open)
Test between pin 13 and 02 wire (B-).
- Pin 14 Accelerator input. Wire #64 from drive controller.
Foot switch depressed = 3.8 to 4.2 volts
Joystick threshold = 3.5 volts = slowest speed
Joystick at full travel = 0 volts = full speed
Test between pin 14 and 02 wire (B-).
- Pin 15 - Forward contactor output.
Completes B- to 16ACR motor contactor
If platform is over steer axle operates 15ACR
Test between pin 15 and 10 wire (B+).
- Pin 16 - Drive function cutout signal.
0 volts = drive available
24 volts = drive is cutout when operating a lift function
Test between pin 16 and 02 wire (B-).
- Pin 17 - Reverse contactor output.
Completes B- to 15ACR motor contactor
If platform is over steer axle operates 16ACR
Test between 17 and 10 wire (B+).
- NOTE: Standard configuration for North American machines allow drive and lift simultaneously. This can be changed using the calibrator. European regulations prohibit lift and drive simultaneously.

Table 5-6. Traction Controller Flash Fault Pin References

	1 Flash	2 Flash	3 Flash	4 Flash	5 Flash	6 Flash	7 Flash	8 Flash	9 Flash	10 Flash
Pin 1										
Pin 2										
Pin 3										
Pin 4										
Pin 5										
Pin 6							X			
Pin 7										
Pin 8		X			X					
Pin 9										
Pin 10										
Pin 11		X			X					
Pin 12									X	X
Pin 13										
Pin 14						X				
Pin 15				X	X					
Pin 16		X				X				
Pin 17				X	X					

Pin Voltage Readings Cont.

TACHOMETER BOARD TERMINAL REFERENCE

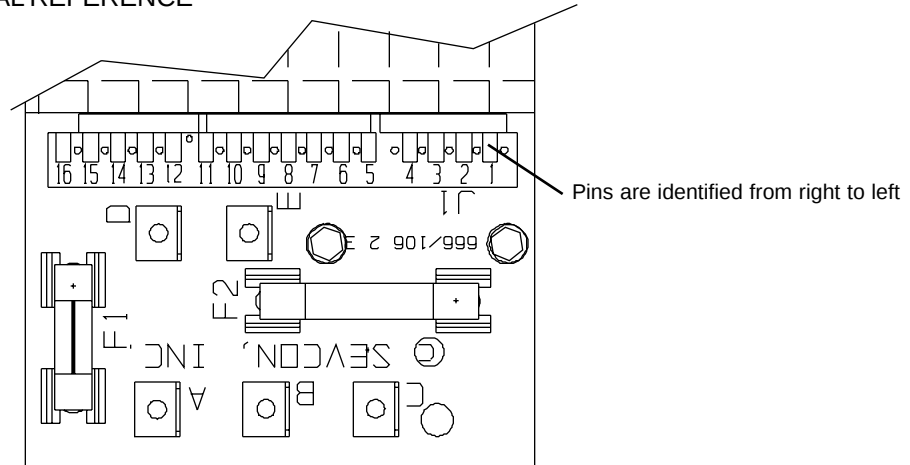


Figure 5-4. Tachometer Board.

Term A -48 volt input from 09BCR2

Test between term A and 02 wire (B-).

Term B -24 volt output to boom pump motor, forward and reverse contactors, Pin 5 of traction and boom Sevcon's. From Term C through 20Amp fuse on tachometer board. Wire 09B.

Test between term B and 02 wire (B-).

Term C -24 volt input from wire 09.

Test between term C and 02 wire (B-).

Term D -24 volt output to Pin 7 of traction Sevcon.

0 volts = 50% full drive speed. (0% if off telescope or boom limit switch)

24 volts = 100% full drive speed available.

Test between term D and 02 wire (B-).

Term E -24 volt input from tilt switch. Wire 28.

0 volts = 50% full drive speed. (0% if off telescope or boom limit switch)

24 volts = 100% full drive speed available.

Test between term E and 02 wire (B-).

Pin 1 - Battery negative. Wire 02.

Pin 2 - Speed signal to Pin 12 of traction Sevcon.

7.5 volts with foot switch depressed and drive joystick is in center position.

7.5 volts to 15 volts = reverse

7.5 volts to 0 volts = forward

Test between pin 2 and 02 wire (B-).

Pin 3 - Wire T1 from tachometer generator.

Pin 4 - To Pin 2 of traction Sevcon. Determines direction.

0 volts = forward

15 volts = reverse

Test between pin 4 and 02 wire (B-).

Pin 5 - Wire T2 from tachometer generator.

Pin 6 - Speed reducing resistor. Also attach to Pin 1.

Controls speed of boom functions when using base controls

2.2k ohm resistor

Pin 7 - Speed reducing resistor. From wire 12A.

Controls speed of boom functions when using base controls

2.2k ohm resistor

Pin 8 through Pin 16 - Spike suppression for pump and directional contactors.

TACHOMETER GENERATOR TESTING PROCEDURE

1. Jack up and support the steer axle end of the machine.



CAUTION

The supports used must have a capacity of at least 5300 lbs.

2. Locate tachometer generator on back of drive motor. Remove rubber boot from the rear of the tachometer generator.
3. Mark the location of the wires attached to the generator and remove wires. **NOTE:** Wires must be reattached to the same terminals as they were removed from or the Sevcon controller will not function when reassembled.
4. Remove the four 5/16-18 x 1-1/2" bolts securing the tachometer generator mounting plate to the rear of the motor.
NOTE: Do not attempt to remove the tachometer generator from mounting plate until it has been determined to be defective.
5. Remove the coupler half from the tachometer generator and attach generator to a drill with a 1000 RPM rating.
6. Attach a voltmeter to the terminals on the rear of the tachometer generator and set the meter for D.C. voltage.
7. Energize drill and read voltage on meter. At 1000 RPM you should read at least 20.8 volts. If reading is lower than 20.8 volts, the tachometer generator is defective.

1. DRIVE AXLE
2. DRIVE MOTOR
3. COUPLER HALF
4. TACHOMETER GENERATOR MOUNTING PLATE
5. COUPLER HALF
6. TACHOMETER GENERATOR

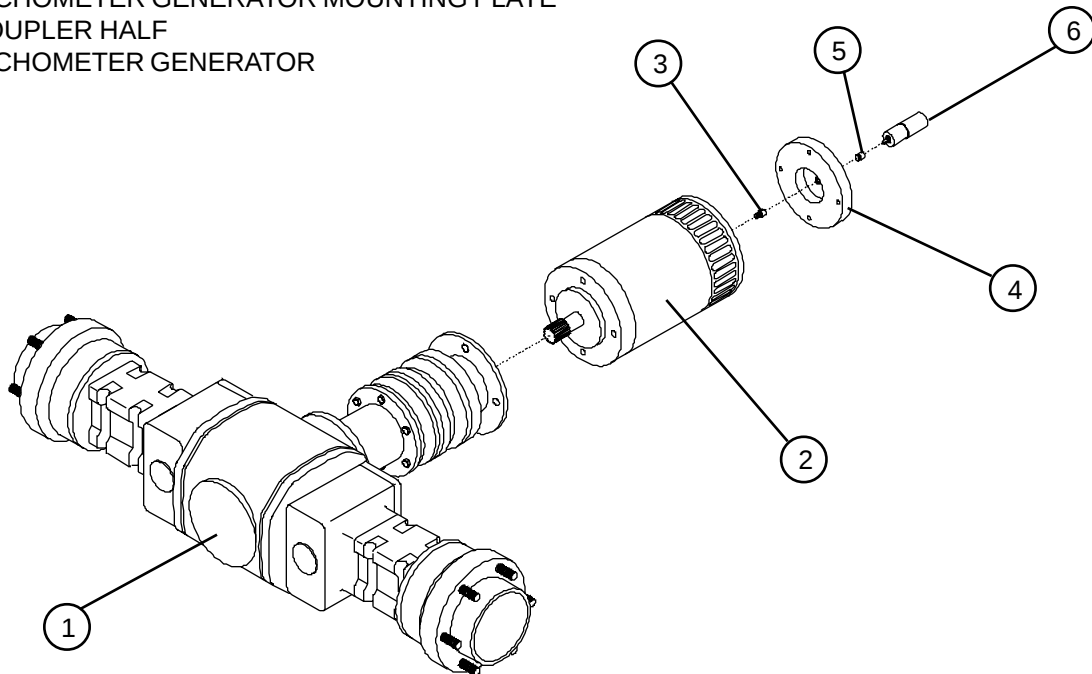


Figure 5-5. Axle Assembly

SEVCONTROLLER ADJUSTMENT AND DIAGNOSTICS Cont.

Pin Voltage Readings

BOOM FUNCTION SEVCON CONTROLLER PIN REFERENCE

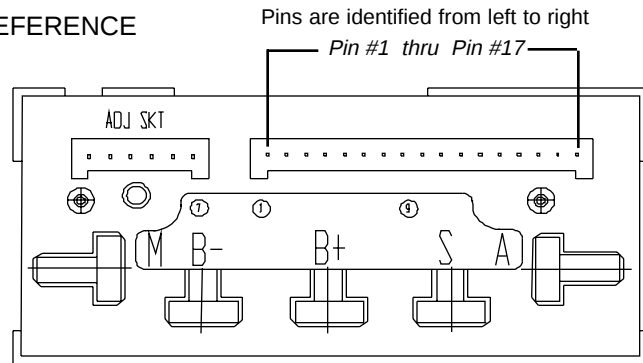
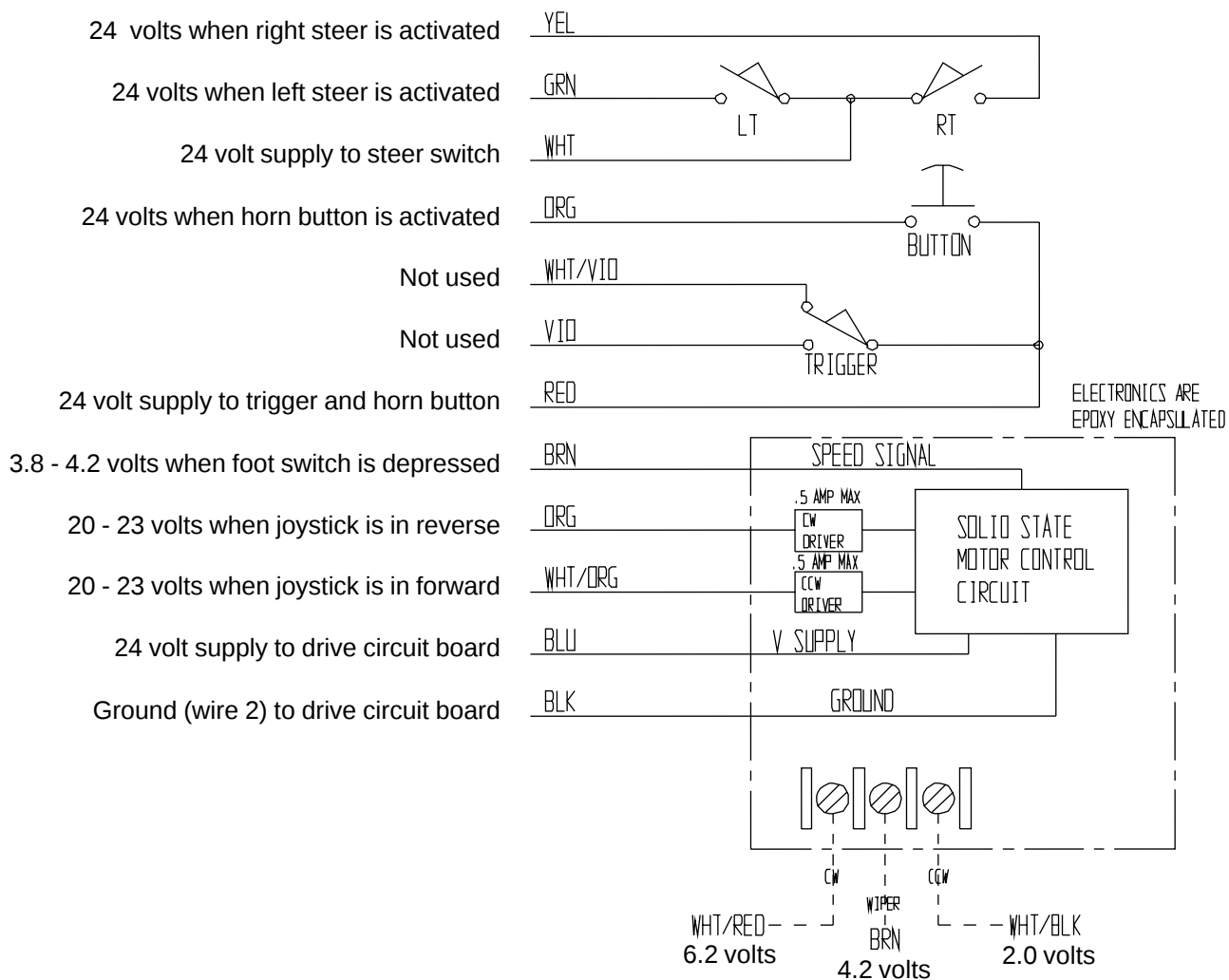


Figure 5-6. Boom Controller

- Pin 1 - Pump motor contactor control.
Brings B - to pump contactor 09BCR2
Test between pin 1 and 09B wire.
- Pin 2 - Drive activation signal
0 volts = Drive not active.
24 volts = Drive active.
Test between pin 2 and 02 wire (B-).
- Pin 3 - Not used
- Pin 4 - Not used
- Pin 5 - 24 volt input from wire 09B.
Test between pin 5 and 02 wire (B-).
- Pin 6 - 48 volt signal from relay 09BCR2
48 volts = O.K.
0 volts = blown F1 fuse, defective 09BCR2 relay or broken 09B wire.
Test between pin 6 and 02 wire (B-).
- Pin 7 - Not used
- Pin 8 - Steer select. Overrides 24 volt signal on pin 2 to allow steering while driving and allows pump run to as required to release brakes.
0 volts = steer not selected / no pressure required for brake circuit.
24 volts = steer selected / pressure required for brake circuit.
Test between pin 8 and 02 wire (B-).
- Pin 9 - Not used
- Pin 10 - Not used
- Pin 11 - 24 volt input from key switch when base selected.
Signals pump Sevcon that key switch is in base position
Test between pin 11 and 02 wire (B-).
- Pin 12 - Not used
- Pin 13 - Not used
- Pin 14 - Accelerator input. Wire 12 from boom function controller.
Threshold = 3.5 volts = slowest speed
High speed = 0 volts = full speed
Test between pin 14 and 02 wire (B-).
- Pin 15 - Not used
- Pin 16 - 24 volt signal from boom functions, wire 20.
Signal to activate boom Sevcon when boom function is selected
Test between pin 16 and 02 wire (B-).
- Pin 17 - Not used

DRIVE JOYSTICK CIRCUIT BOARD DIAGNOSTICS

All tests performed with foot switch depressed and voltages read between function and terminal on strip with wire 2.



BLACK	GROUND	TO WIRE #2
BROWN	SPEED SIGNAL	TO WIRE #6
BLUE	24 VOLT SUPPLY	FROM WIRE #8
ORANGE	REVERSE	TO WIRE #15
WHITE/ORANGE	FORWARD	TO WIRE #16
WHITE	24 VOLT TO STEER SWITCH	TO WIRE #8
YELLOW	RIGHT STEER	TO WIRE #23
GREEN	LEFT STEER	TO WIRE #24
RED	24 VOLT TO TRIGGER AND HORN BUTTON	FROM WIRE #8
ORANGE	HORN	TO WIRE #9
VIOLET	NOT USED	
WHITE/VIOLET	NOT USED	

GOVERNOR DIAGNOSTICS

1. Clean and inspect the throttle linkage. Linkage should move freely and without excessive play.
2. Check the settings of SW1 and SW2. SW1 should be "ON" for gas engines, "OFF" for diesel engines. SW2 should be "ON" for diesel engines, "OFF" for gas engines.
3. With the power turned off. Place an insulated jumper between terminals 2 and 3 of the governor controller. Refer to Figure 5-8. Apply 12VDC from B+ to terminal 1 of the controller. The actuator should go to full stroke. DC voltage between terminals 4 and 5 should be within 3 volts of the input voltage. If the actuator does not move continue to step 4. (Remove jumper)
4. Locate and disconnect the spade connectors in the Throttle Actuator wires. Refer to Figure 5-7 for location.
5. Using a Volt/Ohm Meter set to the RX10 Scale, measure the resistance of the Actuator Coil. It should read 1.8 Ohms $\pm$.2 Ohms. If reading is outside of this range replace Actuator. If reading is within range go to Step 6.
6. Reconnect spade connectors.
7. While cranking the engine. Check for AC voltage across terminals 10 and 11. AC voltage should be between 2.0 and 2.2 volts. If no voltage is present go to step 8. If voltage is present skip to step 9.
8. Measure the resistance of the magnetic pickup coil. This should be from 150 ohms (250 ohms max). If there is an open or shorted coil, replace the magnetic pickup.
9. With DC power supplied to the controller and the engine "OFF" measure the DC voltage between terminals 6 and 2 of the controller. The voltage should be approximately 8 VDC. Measure DC voltage between terminals 7 and 2. The voltage should be approximately 4 VDC. If either voltage is not present, replace the controller.

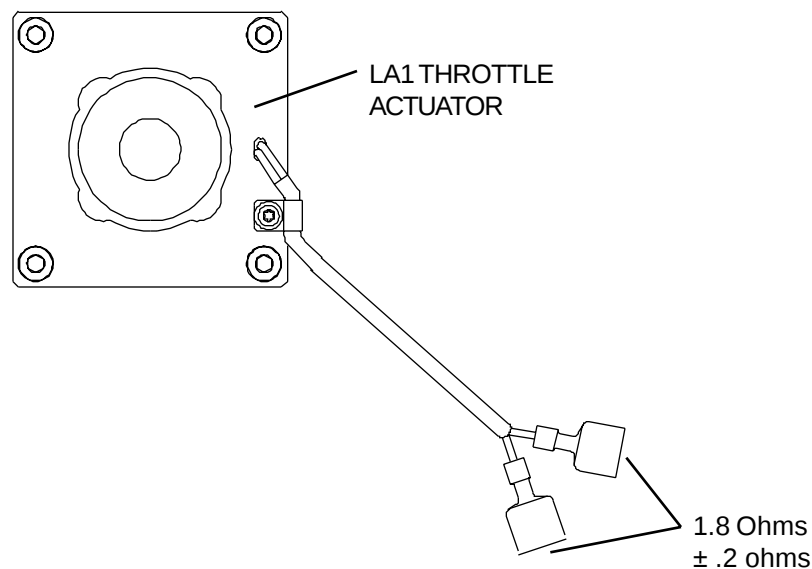


Figure 5-7. Throttle Actuator

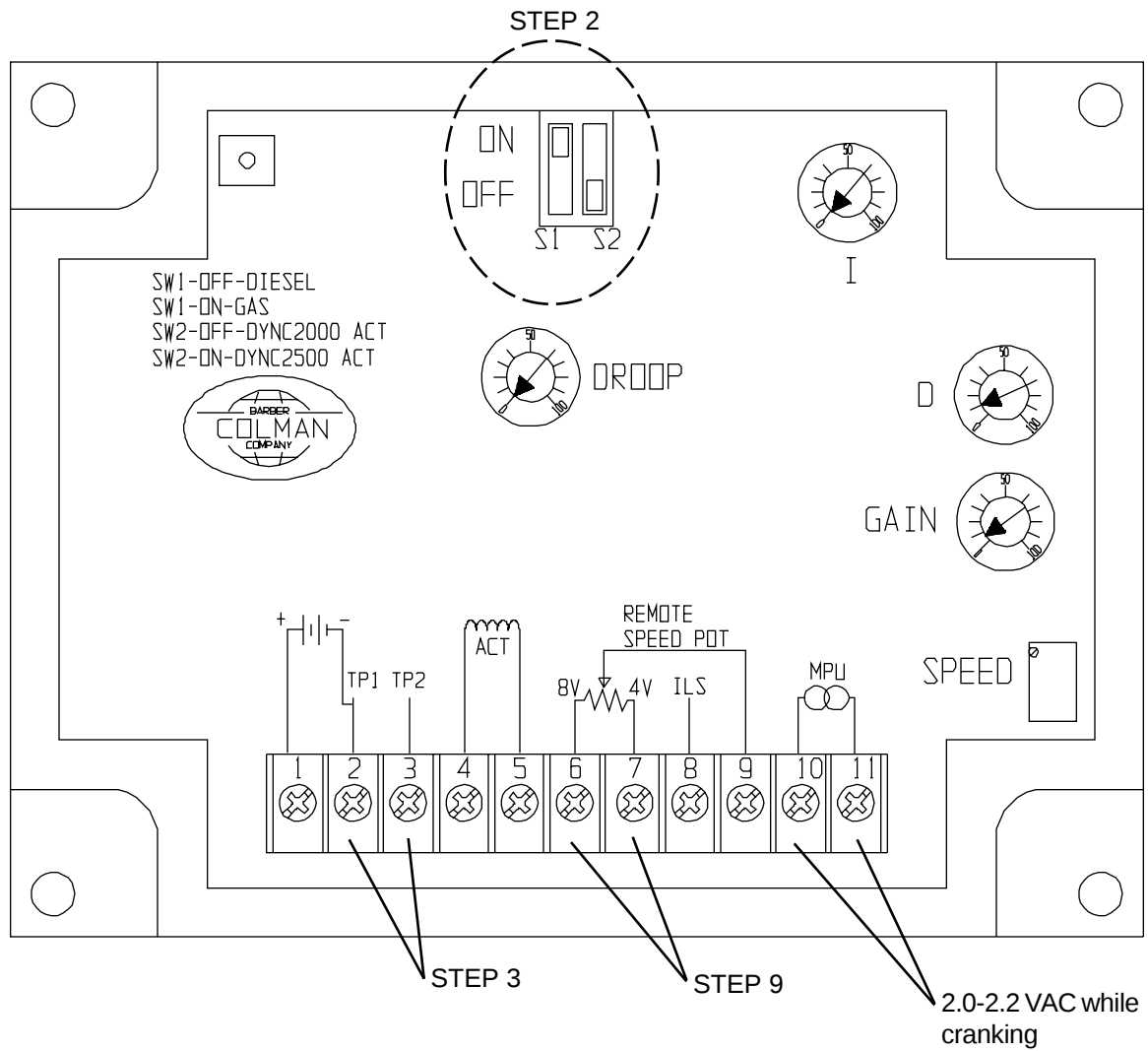


Figure 5-8. Governor Controller

GOVERNOR COMPONENT FIELD REPLACEMENT

Skyjack 54 volt 105 amps. (Set up using Figure 5-9)

With engine cranking (not running), at normal operating temperature and battery supply voltage at 12 volts minimum, adjust the magnetic pickup to approximately 2.2 volts AC.

Barber Colman Settings:

Diesel Generator: Set S1 to off position. Set S2 to on position.

Gas/LP Generator: Set S1 to on position. Set S2 to off position.

Adjust D to 10%. Adjust G to 5%. Adjust Droop to 0%. Adjust I to 0%. See figure 5-8. Preset the DC power supply to 4.0 volts.

NOTE: If an adjustable power supply is not available, connect potentiometer and voltmeter as shown in figure 5-9.

Install the power supply to pin #8 input to the Barber Colman controller after the red wire #71 is disconnected. Attach the ground of the power supply to pin #2. Disconnect wire #70 from 73ACR contactor in lower control box so there is no load on the engine. Turn the power supply on and start the engine. The engine will run at approximately 2500-2700 RPM. This is the warm up speed. This speed does not need to be adjusted as long as it does not go above 2700RPM as it is only a warm up speed. Slowly adjust the power supply to 5.0 volts, monitoring the engine speed to assure it does not exceed 3600 RPM. Adjustment of the speed pot may be necessary to achieve 3600 RPM at 5.0 volts input. Reconnect wire #71 on the Barber Colman controller and wire #70 on 73ACR contactor.

Start the engine by holding the momentary start switch in the closed position. Crank for 15 seconds and then wait for 15 seconds before trying to crank. After the engine starts, it should go to warm up speed for 15 seconds. Now the generator will close the contactor by decreasing the speed so the voltage of the generator is 3 volts or less of the battery voltage. After the contactor is closed, the set will go into the charger loop and regulate at 54 volts.

Check the following:

No load voltage	_____ 54 volts	ILS input _____
Rated load charge voltage	_____ 54 volts	ILS input _____
Current limit	_____ 105A +/- 5 amps.	
Engine oil pressure Operation	_____ Fault indicator 5	
Engine temp. switch operation	_____ Fault indicator 4	

After checking the above, let the set regulate for 15 minutes at rated load and monitor regulation and stability.

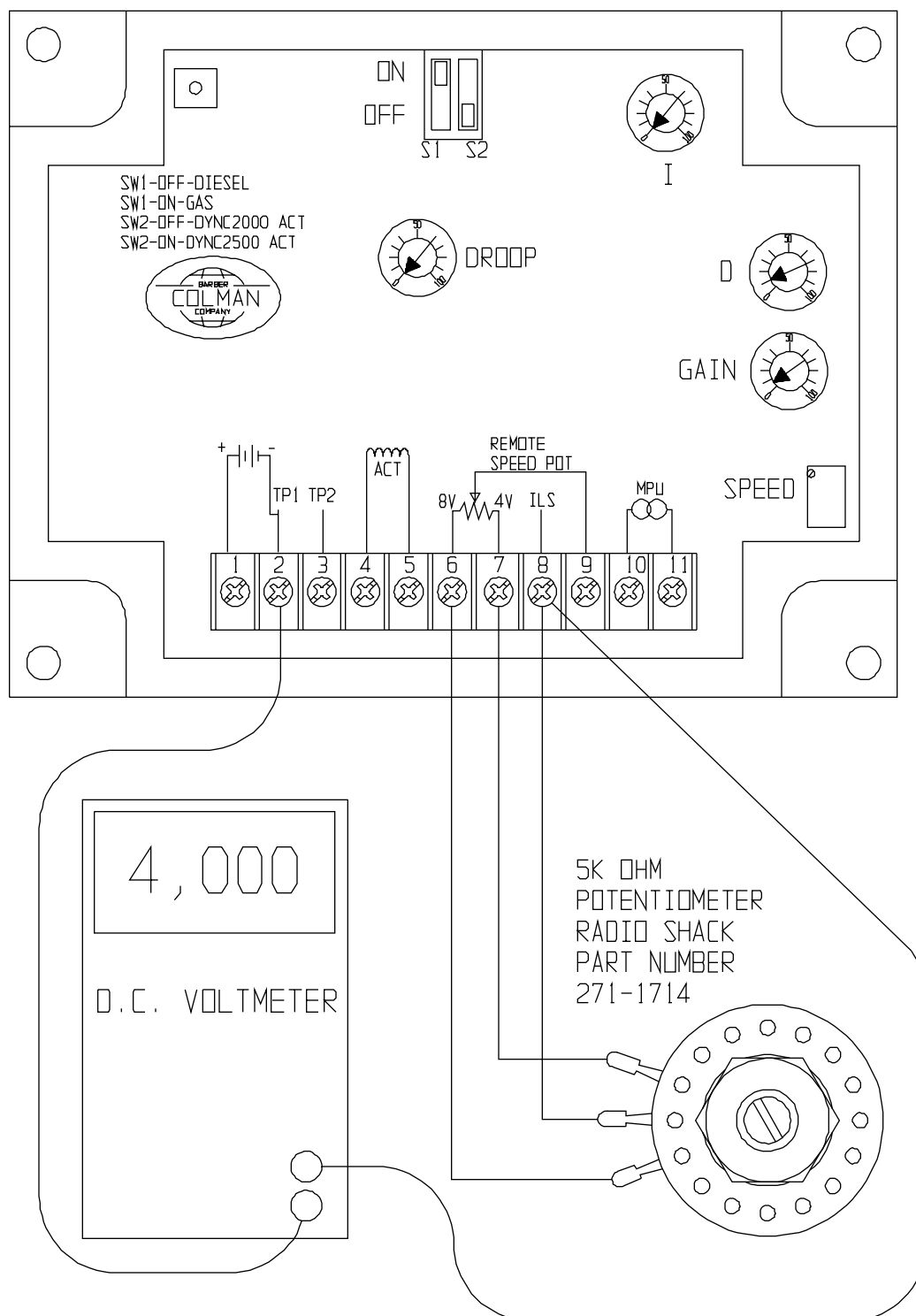


Figure 5-9. Governor Controller

BRAKE ADJUSTMENT PROCEDURES

Mechanical

Checking the adjustment of each brake on the rear axle requires the following procedure:

1. Chock the wheels to prevent the work platform from rolling when the brake is released. Remove the thumb screws from the Rear Axle Cover and lift off to expose the rear axle.
2. Remove the Center Plug (17mm allen head) (Item #1) from each brake cover.
3. Starting with the left brake, insert the shaft of the Dial Indicator (Item #2, Skyjack part #707704) through the hole in the brake cover and carefully tighten the gauge holder (clockwise) until no threads are exposed.
4. Rotate the dial on the Dial Indicator to "0".
5. Locate the Parking Brake Release Hand Pump (refer to Section 2, Page 5). Follow the procedure to release the parking brakes.
6. Read the Dial Indicator setting. The proper setting range is 1.8mm (0.080") to 2.2mm (0.085"). If the setting is within this range, pull out the Brake Override Valve Plunger to engage the brakes, then perform the same adjusting check on the right brake. Remove the Dial Indicator and reinstall Center Plug.

NOTE: If setting on either brake is not within the specified range, proceed to step 7.

7. Remove the Dial Indicator. Pull out the Brake Override Valve Plunger to engage the brakes. With a M19 socket and wrench, adjust the Actuator Shaft (Item #3) by tightening (clockwise) the Actuator Shaft Nut (Item #4) to reach a lower setting or loosening (counterclockwise) the Actuator Shaft Nut (Item #4) to reach a higher setting.
8. Repeat steps 3, 4, 5 and 6.
9. Repeat step 6. If setting is still not within the specified range, repeat steps 7 and 8 until setting is within specified range.

NOTE: The brake will automatically return to normal operation when a drive function is selected.

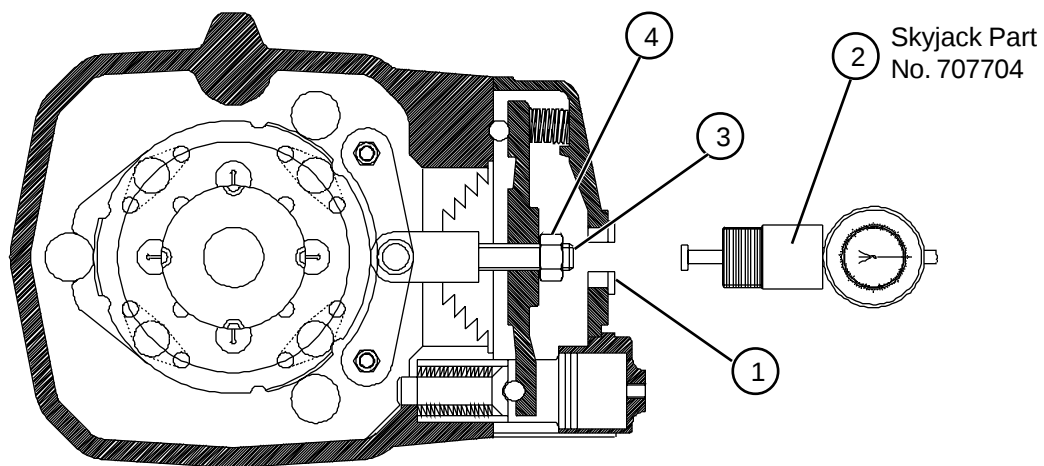


Figure 5-10. Cross Section of Brake Assembly

BRAKE ADJUSTMENT PROCEDURES Cont. Hydraulic



WARNING

**Make sure unit is on level ground with front wheels chocked.
Make sure to pull override valve out when finished.**

1. Bleed all brake pressure off by pumping the brake override valve 10 times, until system has no pressure. (Fig. 5-11)
2. Install pressure gauge at the tee in the main brake line on the drive axle. (Fig. 5-12)
3. Lift drive axle off the ground so the drive wheels don't move the machine.
4. Engage drive slowly and check pressure gauge. It should read 650 psi.
5. If the pressure is low repeat step #1.
6. Remove the cap plug from pressure reducing valve using a 5/16 allen wrench. (Fig. 5-11)
7. Using an 3/8 allen wrench turn pressure reducing valve in a 1/4 of a turn. (Fig. 5-11)
8. Repeat steps #4, 5 & 7 until pressure reaches 650 psi.
9. Replace pressure reducing valve plug cap.
10. Repeat step #1.
11. Remove pressure gauge and connect brake lines.
12. Install pressure gauge at the test port between the brake manifold and the pressure switch. (Fig. 5-11)
13. Engage drive slowly and check pressure gauge. It should read 750 psi.
14. If the pressure is low repeat step #1.
15. Turn pressure switch body a 1/4 of a turn clockwise. (Fig. 5-11)
16. Repeat steps #13-15 until pressure reaches 750 psi.
17. Repeat step #1.
18. Remove pressure gauge.
19. Pressure adjustment complete, lower machine and test drive.

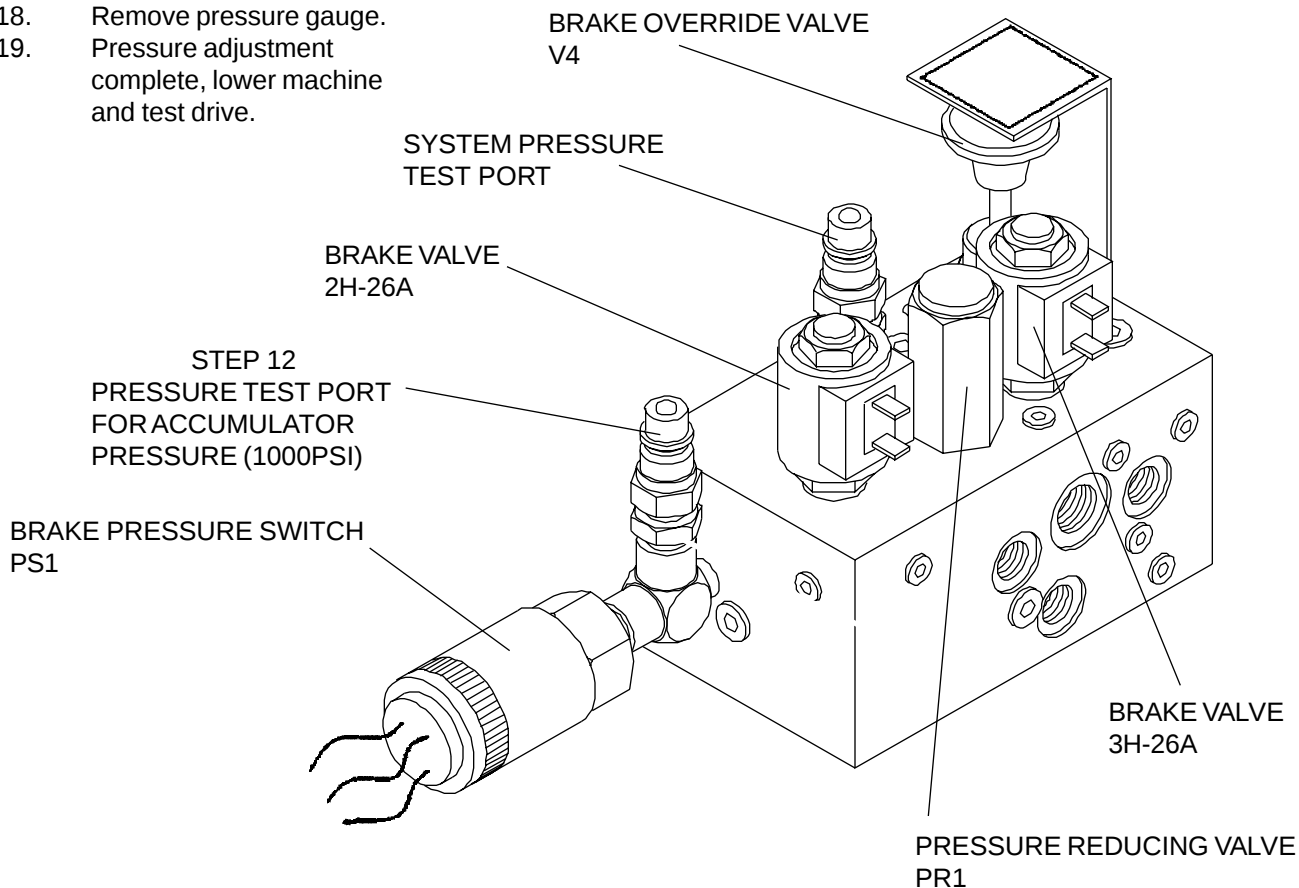


Figure 5-11. Brake Manifold MB2

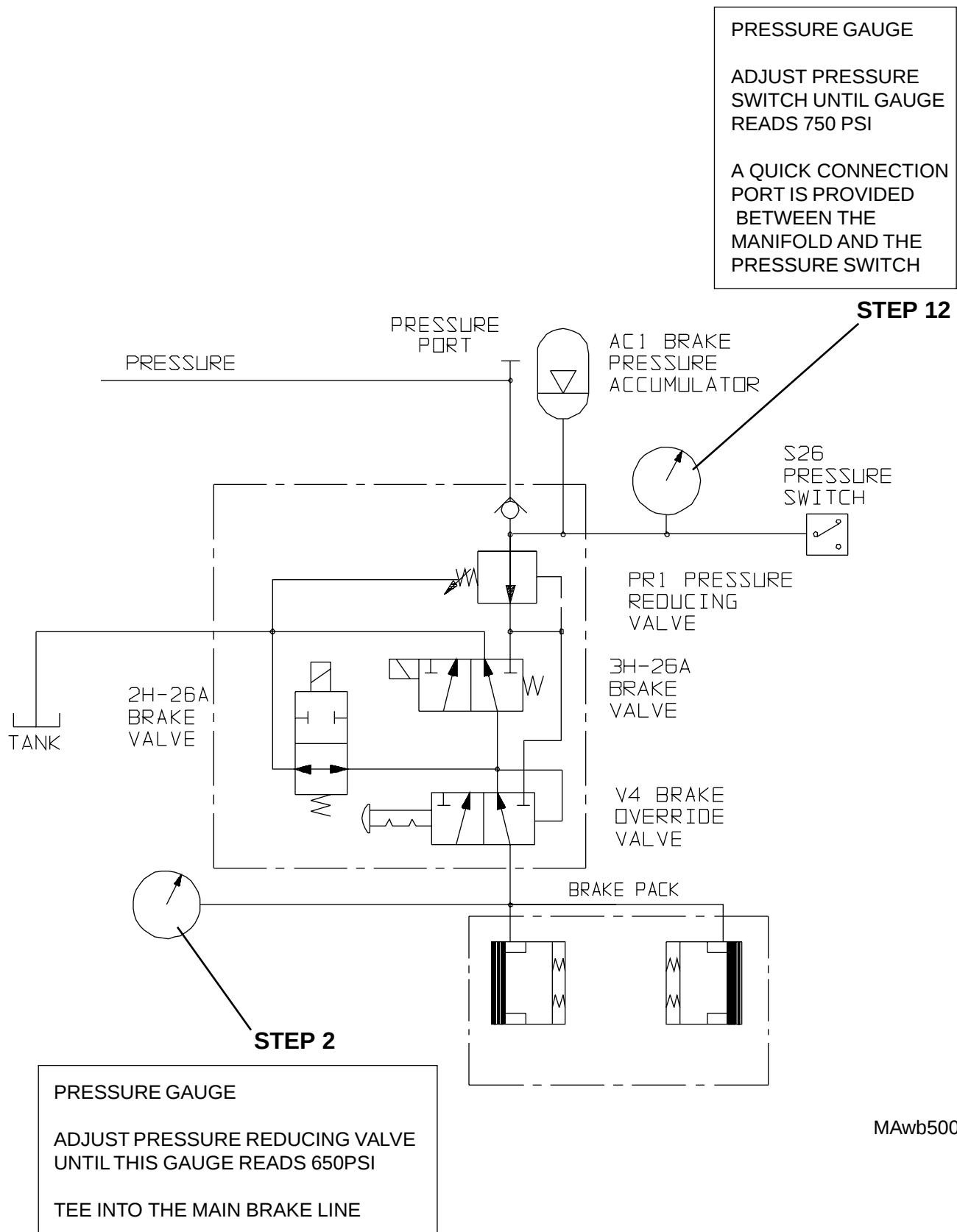
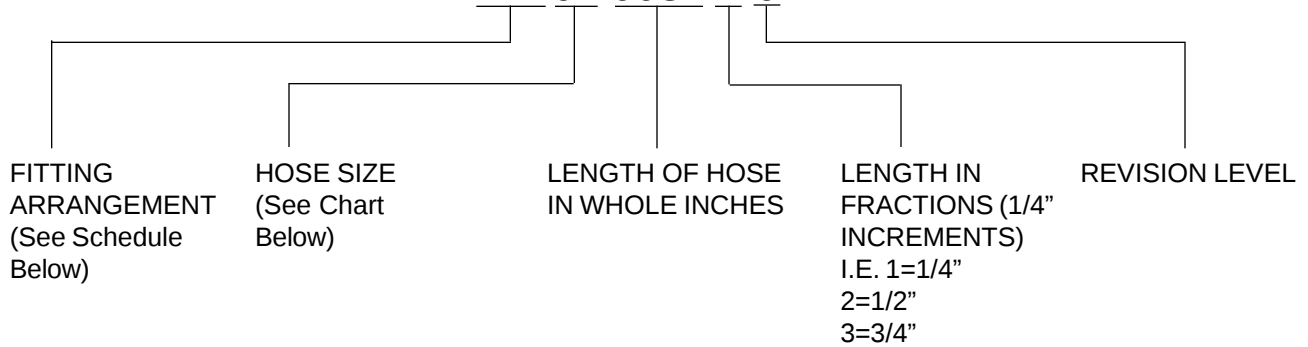


Figure 5-12. Brake Pressure System

STANDARD HOSE NUMBERING SYSTEM

H1104 0081 2-0



Using the number above as an example (H1104 0081 2 0). This hose requires a 37° JIC, female swivel fitting on one end. A medium length 90° JIC, female swivel fitting for the other end. The Hose must meet or exceed S.A.E. 100R13 hose specification, and be a total of 81-1/2" long. NOTE: Hose ends and hose must be from same manufacturer per S.A.E. J1273 Nov. '91, Sections 3.10 and 4.2. Hose ends and hose must be of the same size i.e. #4 size fittings must be used with #4 size hose.

HOSE SIZE CHART

SIZE	03	04	06	08	10	12	16	20	24	32	40	48	56	64
I.D.	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	3-1/2"	4"

FITTING ARRANGEMENT SCHEDULE

HOSE PREFIX	HOSE END FITTING	HOSE END FITTING	S.A.E. HOSE SPECIFICATION
H1	FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R1
H2	FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R13
H3	FEMALE, 37° JIC, SWIVEL	45°, FEMALE, 37° JIC, SWIVEL	100R1
H4	FEMALE, 37° JIC, SWIVEL	45°, FEMALE, 37° JIC, SWIVEL	100R13
H5	FEMALE, 37° JIC, SWIVEL	LONG 90°, FEMALE, 37° JIC, SWIVEL	100R1
H6	FEMALE, 37° JIC, SWIVEL	SHORT 90°, FEMALE, 37° JIC, SWIVEL	100R1
H7	LONG 90°, FEMALE, 37° JIC, SWIVEL	LONG 90°, FEMALE, 37° JIC, SWIVEL	100R1
H8	FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R4
H9	FEMALE, 37° JIC, SWIVEL	45°, FEMALE, 37° JIC, SWIVEL	100R4
H10	FEMALE, 37° JIC, SWIVEL	MALE PIPE THREAD FITTING	100R1
H11	FEMALE, 37° JIC, SWIVEL	MEDIUM 90°, FEMALE, 37° JIC, SWIVEL	100R13
H12	SHORT 90°, FEMALE, 37° JIC, SWIVEL	SHORT 90°, FEMALE, 37° JIC, SWIVEL	100R1
H13	FEMALE, 37° JIC, SWIVEL	REUSABLE MALE PIPE THREAD FITTING	300 PSI
H14	REUSABLE MALE PIPE THREAD FITTING	NO FITTING	300 PSI
H15	REUSABLE, FEMALE, 37° JIC, SWIVEL	REUSABLE, FEMALE, 37° JIC, SWIVEL	300 PSI
H16	NO FITTING	NO FITTING	100R4
H17	NO FITTING	NO FITTING	300 PSI
H18	REUSABLE, FEMALE, 37° JIC, SWIVEL	NO FITTING	300 PSI
H19	LONG 90°, FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R13
H20	FEMALE, 37° JIC, SWIVEL	SHORT 90°, FEMALE, 37° JIC, SWIVEL	100R4
H21	FEMALE, 37° JIC, SWIVEL	SHORT 90°, FEMALE, 37° JIC, SWIVEL	100R2AT
H22	FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R2AT
H23	FEMALE, 37° JIC, SWIVEL	LONG 90°, FEMALE, 37° JIC, SWIVEL	100R2AT
H24	FEMALE, 37° JIC, SWIVEL	SHORT 90°, FEMALE, 37° JIC, SWIVEL	100R13
H25	FEMALE, 37° JIC, SWIVEL	FEMALE, 37° JIC, SWIVEL	100R4

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 _____

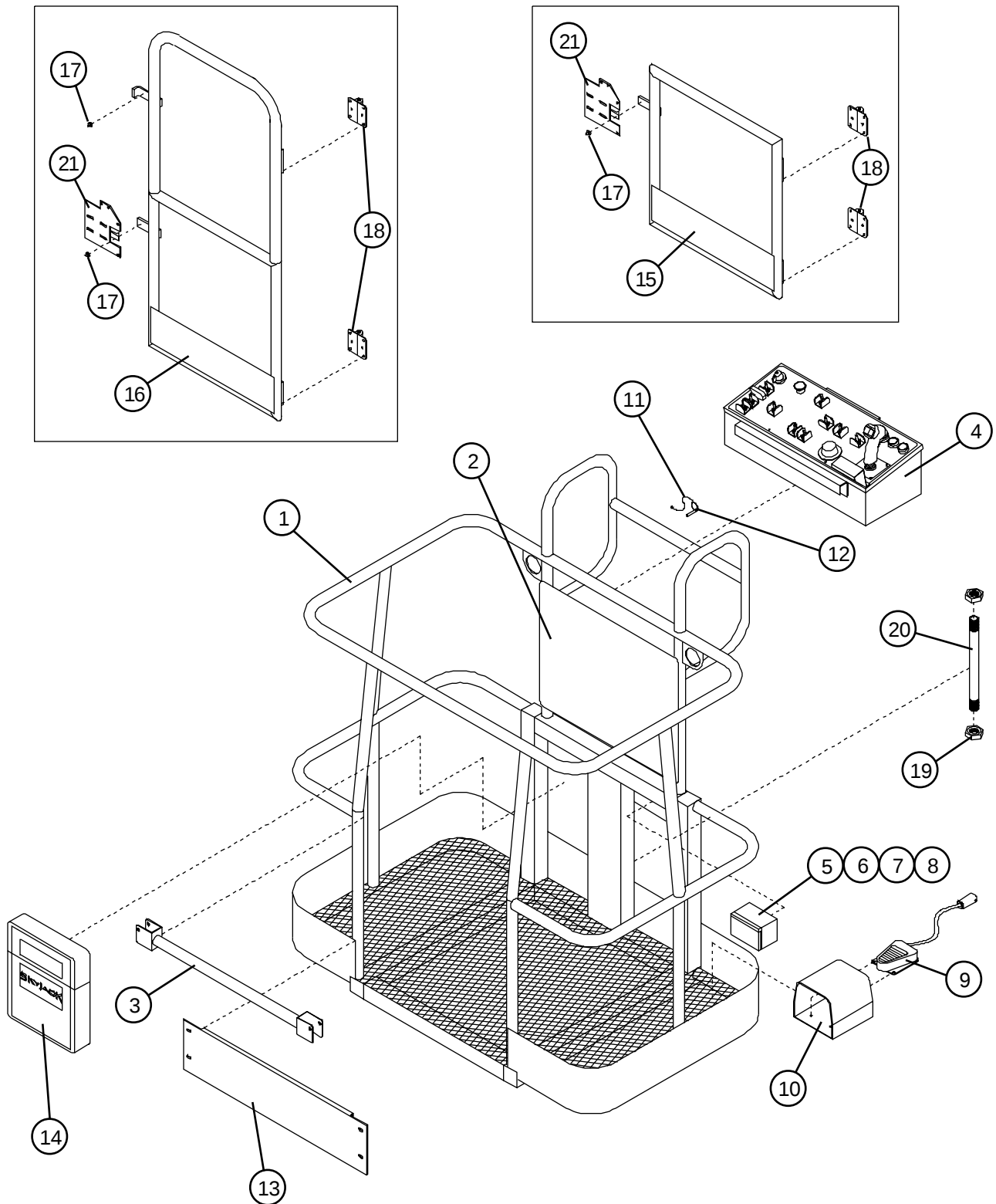
USE ONLY SKYJACK AUTHORIZED REPLACEMENT PARTS!

NOTES

LIST OF ILLUSTRATIONS

Description	Page
FIGURE 6-1. PLATFORM ASSEMBLY - 30" x 48"	4
FIGURE 6-2. PLATFORM ASSEMBLY - 30" X 66"	6
FIGURE 6-3. OPERATOR'S CONTROL CONSOLE ASSEMBLY	8
FIGURE 6-4. DRIVE/STEER CONTROLLER ASSEMBLY (Machines without factory installed horn option).	12
FIGURE 6-5. DRIVE/STEER CONTROLLER ASSEMBLY (Machines with factory installed horn option.)	13
FIGURE 6-6. BOOM ASSEMBLY	14
FIGURE 6-7. JIB LIFT CYLINDER ASSEMBLY	16
FIGURE 6-8. PLATFORM LEVELING MASTER CYLINDER ASSEMBLY	19
FIGURE 6-9. BOOM LIFT CYLINDER ASSEMBLY	20
FIGURE 6-10. RISER LIFT CYLINDER ASSEMBLY	22
FIGURE 6-11. ROTARY ACTUATOR ASSEMBLY	24
FIGURE 6-12. PLATFORM LEVELING SLAVE CYLINDER ASSEMBLY	27
FIGURE 6-13. BOOM ASSEMBLY (Main and Telescopic Section)	28
FIGURE 6-14. BOOM TELESCOPING CYLINDER ASSEMBLY	30
FIGURE 6-15. TELESCOPING BOOM WEAR PADS	32
FIGURE 6-16. MAIN BOOM WEAR PADS	33
FIGURE 6-17. HYDRAULIC HOSE CONNECTIONS (Boom Assembly)	34
FIGURE 6-18. TURRET ASSEMBLY	36
FIGURE 6-19. TURRET COVERS AND DOORS	38
FIGURE 6-20. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY	40
FIGURE 6-21. FUEL TANK ASSEMBLY	44
FIGURE 6-22. HYDRAULIC TANK ASSEMBLY	45
FIGURE 6-23. MAIN MANIFOLD ASSEMBLY	46
FIGURE 6-24. BRAKE MANIFOLD ASSEMBLY	48
FIGURE 6-25. MOTOR CONTROLLER PANEL ASSEMBLY	49
FIGURE 6-26. BATTERY CHARGER ASSEMBLY	50
FIGURE 6-27. BATTERY CHARGER ASSEMBLY (DUAL VOLTAGE	52
FIGURE 6-28. ENGINE AND RELATED PARTS (DUAL FUEL)	54
FIGURE 6-29. DUAL FUEL SYSTEM	58
FIGURE 6-30. ENGINE AND RELATED PARTS (DIESEL) (OPTION)	60
FIGURE 6-31. HYDRAULIC CONNECTIONS (Turret/Base)	62
FIGURE 6-32. BASE, AXLES AND WHEELS	64
FIGURE 6-33. STEERING CYLINDER ASSEMBLY	66
FIGURE 6-34. STEERING ASSEMBLIES	67
FIGURE 6-35. BATTERY TRAY ASSEMBLY	68
FIGURE 6-36. DRIVE AXLE ASSEMBLY	70
FIGURE 6-37. PLANETARY REDUCTION GEAR ASSEMBLY (Brevini)	72
FIGURE 6-38. PLANETARY REDUCTION GEAR ASSEMBLY (Sige)	73
FIGURE 6-39. DRIVE AXLE	74
FIGURE 6-40. BRAKE ASSEMBLY	75
FIGURE 6-41. LABELS AND NAMEPLATES	76
FIGURE 6-42. OVERLOAD SENSING OPTION	78
FIGURE 6-43. TRAVEL ALARM/ALL MOTION ALARM OPTION	80
FIGURE 6-44. DESCENT ALARM OPTION	81
FIGURE 6-45. FLASHING LIGHT OPTION	82
FIGURE 6-46. BATTERY FUEL GAUGE OPTION	83
FIGURE 6-47. AIRLINE TO PLATFORM OPTION	84
FIGURE 6-48. HORN OPTION	85
FIGURE 6-49. PLATFORM TOOL TRAY/CONTROL COVER OPTION	86

FIGURE 6-1. PLATFORM ASSEMBLY - 30" x 48"

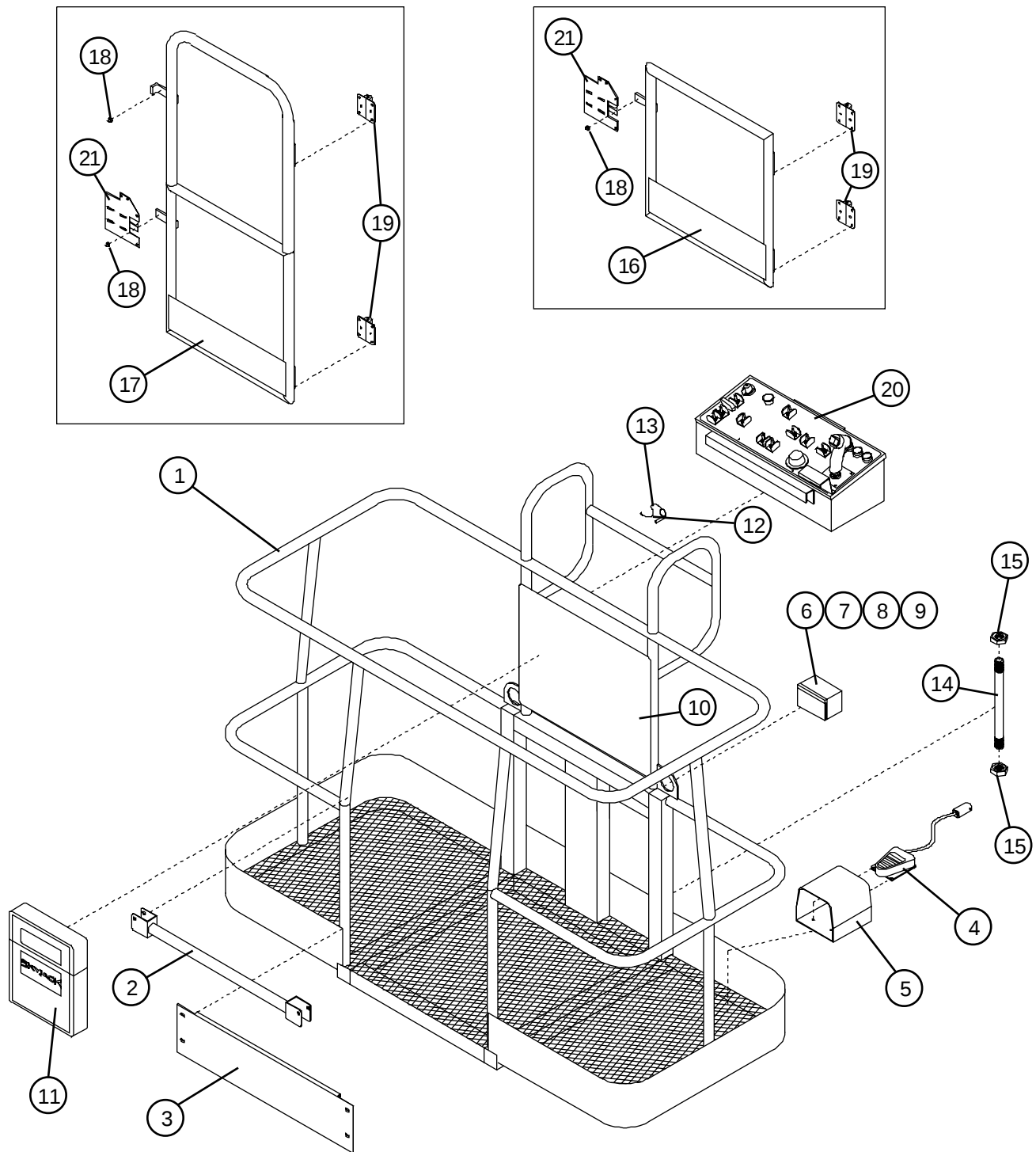


MA-ME622

FIGURE 6-1. PLATFORM ASSEMBLY - 30" x 48"

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
A	707968	PLATFORM ASSEMBLY, (standard)	-
B	707969	PLATFORM ASSEMBLY, (with half gate option)	-
C	707976	PLATFORM ASSEMBLY, (with full gate option)	-
D	707974	PLATFORM ASSEMBLY, Europe (standard)	-
E	707975	PLATFORM ASSEMBLY, Europe (with half gate option)	-
F	(Ref.)	PLATFORM ASSEMBLY, Europe (with full gate option)	-
1	700399	• WELDMENT, Platform, A	1
	706790	• WELDMENT, Platform, B	1
	706791	• WELDMENT, Platform, C	1
	703407	• WELDMENT, Platform, D	1
	706792	• WELDMENT, Platform, E	1
		• WELDMENT, Platform, F	1
	103909	•• BOLT, Hex-hd 1/2-13 x 1-1/4" lg.	6
	103470	•• WASHER, Lock 1/2"	6
	705541	•• CLAMP, Hose 1-1/4"	1
	103632	•• BOLT, Self tap. 1/4-14 x 3/4" lg.	1
	103995	•• WASHER, Flat 1/4"	1
	103125	•• LABEL, Blue/White stripping	163"
2	706856	• PLATE, Info/ warning	1
	103632	•• SCREW, Self tap. 1/4-14 x 3/4" lg.	4
3	708028	• RAILING ASSEMBLY, Entry, A, D	1
	708027	•• WELDMENT, Entry rail	1
	103872	•• BOLT, HHCS 3/8-16 x 2-1/4 lg.	2
	104606	•• NUT, Lock 3/8-16	2
4	(Ref.)	OPERATOR'S CONTROL CONSOLE ASSEMBLY (For components, refer to Figure 6-3.)	1
5	109700	• RECEPTACLE 110V GFCI BOX	1
	112707	•• SCREW, Self tapping #10-24 x 5/8" lg.	4
	104694	•• WASHER, Flat #10	4
	103035	•• STRAIN RELIEF, Metal 90°	1
6	109698	• RECEPTACLE 110V GFCI, A, B, C	1
7	109699	• RECEPTACLE 110V, Cover plate, A, B, C	1
8	703737	• COVER 110V., Outlet Blank, D, E	1
9	700520	• SWITCH ASSEMBLY, Foot	1
	700187	•• SWITCH, Foot	1
	(Ref.)	•• CONNECTOR ASSEMBLY, 4 Pin male	1
	103567	••• HOUSING, Connector male	1
	103569	••• INSERT, Male 4 pin connector	1
10	700188	• COVER, Foot switch	1
	103857	•• BOLT, Hex-hd 1/4-20 x 1" lg.	2
	103980	•• NUT, Hex 1/4-20	2
	700598	•• WASHER, Fender 9/32" x 1-1/4" x 1/16" thk.	2
	104000	•• WASHER, Lock 1/4"	2
11	105807	• LANYARD 6" lg.	1
12	100509	• PIN, Quick release 3/8" diameter x 2" lg.	1
13	706142	• KICK PLATE, A	1
14	117293	• MANUAL, Enclosure	1
	700438	• MANUAL, ANSI A-92.5 (Not shown)	1
15	706802	• WELDMENT, Half gate, B, E	1
16	706803	• WELDMENT, Full gate, C, F	1
17	701027	• BUMPER, RUBBER, B, C, E	AR
18	117277	• HINGE, SPRING, B, C, E	2
	112495	•• BOLT, 1/4-20x1/8" lg.	12
	104000	•• WASHER, Lock 1/4"	12
19	700570	• NUT, Hex 1"-14	2
20	700426	• CENTER BOLT, Rotary actuator	1
21	(Ref.)	• LATCH ASSEMBLY, B, C, E	1
	710262	• PLATE, Latch mounting	1
	103632	•• SCREW, Self tapping 1/4-14x3/4"	4
	710274	• LATCH, Finger bolt	1
	705572	•• BOLT, SHCS #10-24x1/2" grade 5	4
	705571	•• NUT, HEX Lock #10-24	4

FIGURE 6-2. PLATFORM ASSEMBLY - 30" x 66"

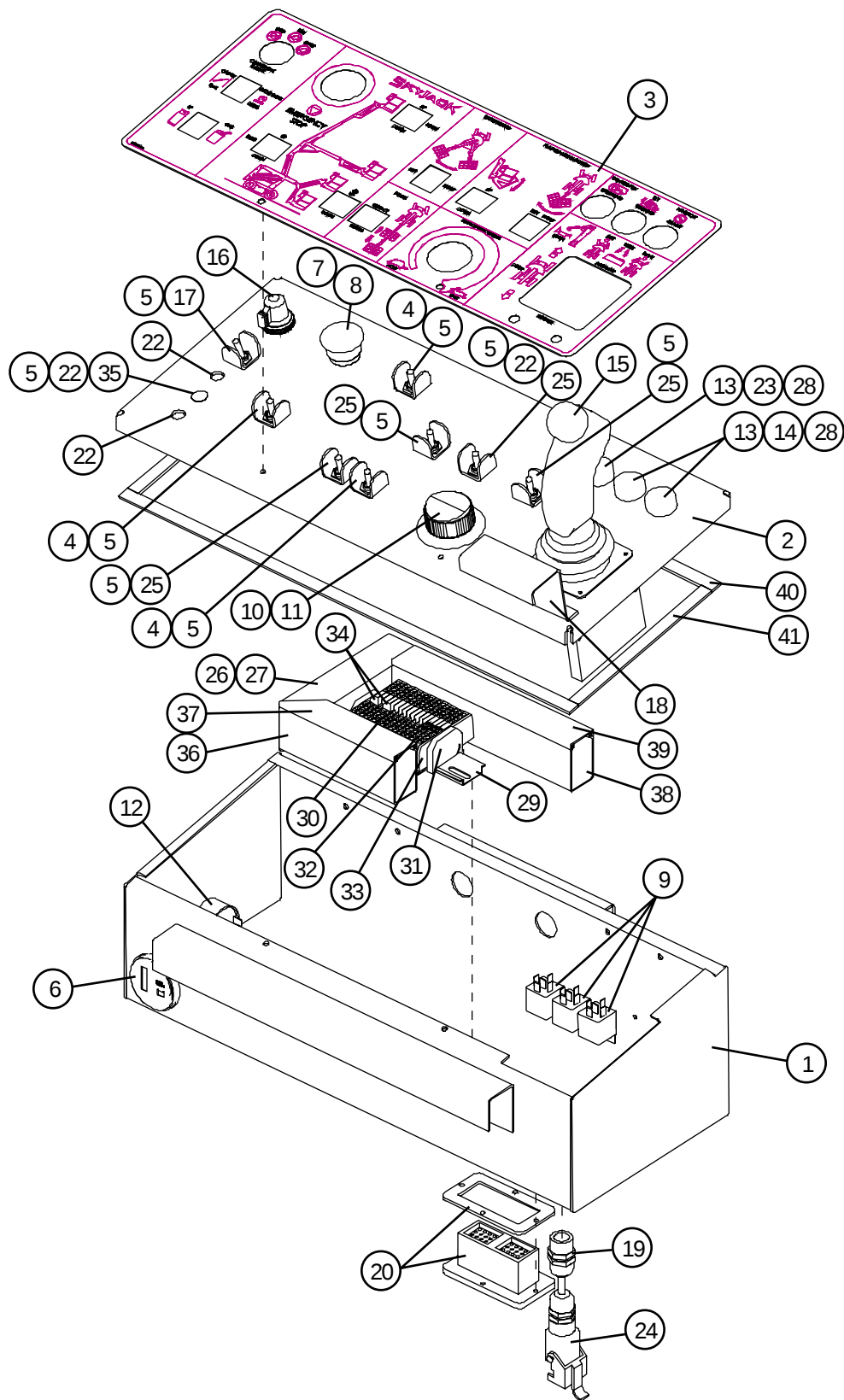


MA-ME600

FIGURE 6-2. PLATFORM ASSEMBLY - 30" x 66"

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
A	701499	PLATFORM ASSEMBLY, (standard)	-
B	701500	PLATFORM ASSEMBLY, (with half gate option)	-
C	703033	PLATFORM ASSEMBLY, (with full gate option)	-
D	701559	PLATFORM ASSEMBLY, Europe (standard)	-
E	701560	PLATFORM ASSEMBLY, Europe (with half gate option)	-
1	704351	• WELDMENT, Platform, A	1
	706793	• WELDMENT, Platform, B	1
	706794	• WELDMENT, Platform, C	1
	704445	• WELDMENT, Platform, D	1
	706795	• WELDMENT, Platform, E	1
	103909	•• BOLT, HHCS 1/2-13x1-1/4" lg.	6
	103470	•• WASHER, Lock 1/2	6
	705541	•• CLAMP, Hose 1-1/4"	1
	103632	•• SCREW, Self tapping 1/4-14x3/4" lg.	1
	103995	•• WASHER, Flat SAE 1/4	1
2	103125	•• LABEL, Blue/White stripping	187"
	708028	• ENTRY RAIL ASSEMBLY, A, D	1
	708027	•• WELDMENT, Entry rail	1
	103872	•• BOLT, HHCS 3/8x2-1/4	2
	104606	•• NUT, Lock 3/8-16	2
3	706142	• KICK PLATE, A	1
4	700187	• FOOT SWITCH	1
	103567	•• CONNECTOR, Housing 4 pin male	1
	103569	•• CONNECTOR, Insert 4 pin male	1
5	700188	• SWITCH COVER, Foot	1
	103857	•• BOLT HHCS 1/4-20x1" lg.	2
	103980	•• NUT, 1/4-20	2
	700598	•• WASHER, Fender 1-1/4" O.D. 9/32" I.D.	2
	104000	•• WASHER, Lock 1/4	2
6	109700	• RECEPTACLE 110V. GFCI BOX	1
	112707	•• SCREW, Self tapping #10 24x5/8" lg.	4
	104694	•• WASHER, Flat #10	4
	103035	•• STRAIN RELIEF, Metal 90°	1
7	109698	• RECEPTACLE 110V. GFCI, A, B, C	1
8	109699	• RECEPTACLE 110V. Cover Plate, A, B, C	1
9	703737	• COVER 110V. Outlet Blank, D, E	1
10	706843	• INFO/WARNING PLATE	1
	103632	•• SCREW, Self tapping 1/4-14x3/4" lg.	4
	117293	• MANUAL, Enclosure	1
	706857	•• BOLT, Mach. RD HD 1/4-20x3/4" lg.	4
	103995	•• WASHER, Flat 1/4"	4
	700583	•• NUT, Lock 1/4-20	4
	700438	• MANUAL, ANSI A-92.5 (Not shown)	1
12	100509	• PIN, Quick release 3/8" diameter x 2" lg.	1
13	105807	• LANYARD 6"	1
	706169	•• SCREW, Self tapping #10-16X5/8" lg.	1
	707902	• CENTER BOLT, Rotary Actuator	1
15	700570	• NUT, HEX 1"-14	2
16	706802	• WELDMENT, Half Gate, B, E	1
17	706803	• WELDMENT, Full Gate, C	1
18	701027	• BUMPER RUBBER, B, C, E	AR
19	117277	• HINGE SPRING, B, C, E	2
	112495	•• BOLT, HHCS 1/4-20x3/8" lg.	12
	104000	•• WASHER, Lock 1/4	12
20	Ref.	OPERATOR'S CONTROL CONSOLE	1
21	(Ref.)	(For components, refer to Figure 6-3.)	
	710262	• LATCH ASSEMBLY, B, C, E	1
	103632	•• SCREW, Self tapping 1/4-14x3/4"	4
	710274	• LATCH, Finger bolt	1
	705572	•• BOLT, SHCS #10-24x1/2" grade 5	4
	705571	•• NUT, HEX Lock #10-24	4

FIGURE 6-3. OPERATOR'S CONTROL CONSOLE ASSEMBLY

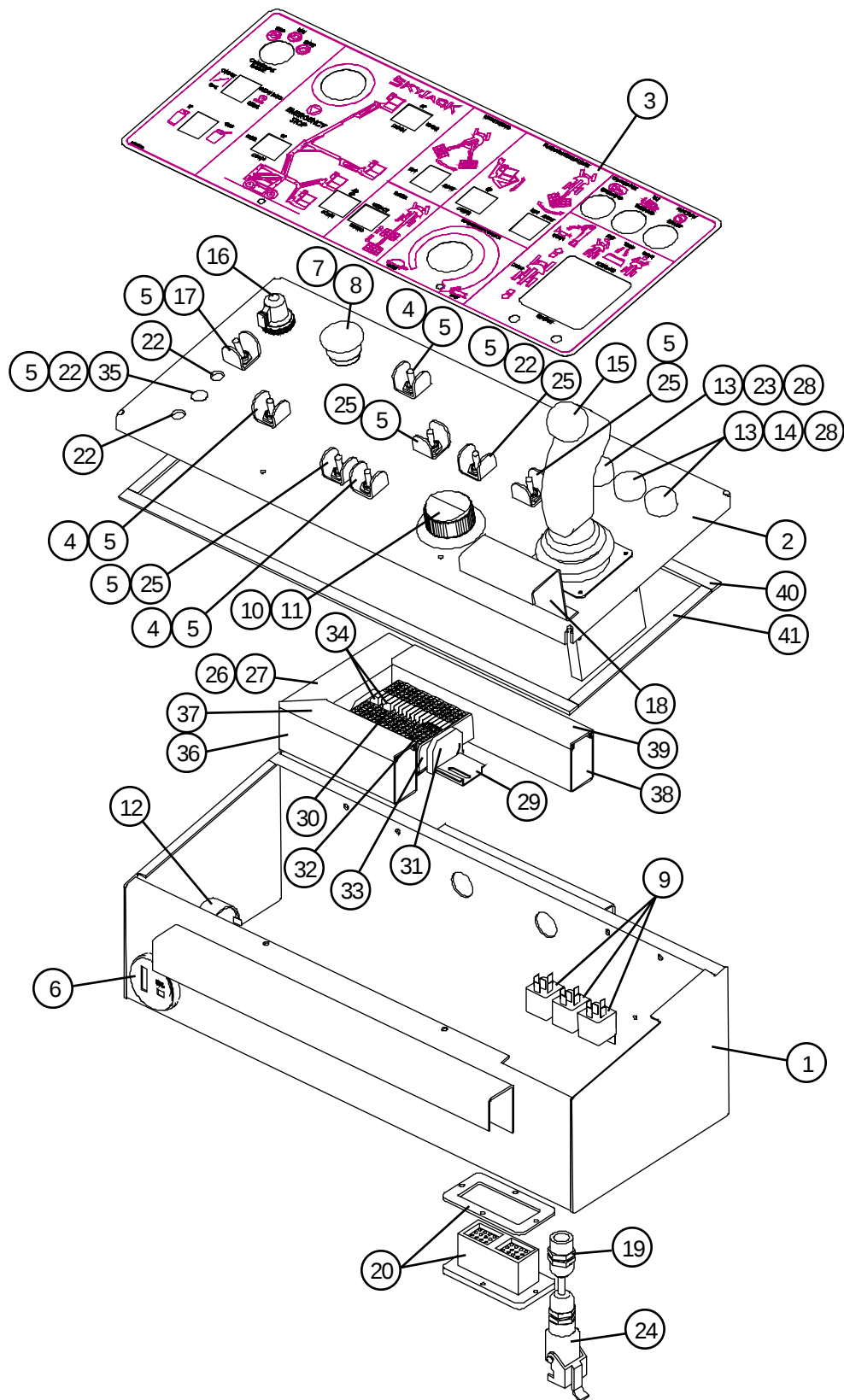


710443

FIGURE 6-3. OPERATOR'S CONTROL CONSOLE ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
A	710444	OPERATOR'S CONTROL CONSOLE ASSEMBLY (Dual Fuel without horn option.)	-
B	???	OPERATOR'S CONTROL CONSOLE ASSEMBLY (Dual Fuel with horn option.)	-
C	710443	OPERATOR'S CONTROL CONSOLE ASSEMBLY (Diesel without horn option.)	-
D	???	OPERATOR'S CONTROL CONSOLE ASSEMBLY (Diesel with horn option.)	-
E	710445	OPERATOR'S CONTROL CONSOLE ASSEMBLY (Diesel - Europe.)	-
1	705407	• WELDMENT, Control box	1
	700583	• NUT, Lock nylon insert 1/4-20	4
	700481	• BOLT, Machine hd rd slotted 1/4-20 x 1/2" lg.	4
	700479	• BOLT, Machine hd #10-24x3/4" grd. 5 PLT	2
	700480	• NUT-CLIP, #10-32	2
2	704370	• WELDMENT, Lid	1
	700841	• BOLT, Machine hd #6-32x1/2"	4
	103985	• NUT, HEX #6-32	4
3	705251	• DECAL, Control box,(D D/F), A, B, C, D	1
	705633	• DECAL, Control box,(D), E	1
4	702662	• SWITCH, DPDT, Momentary, 3 Position	3
5	707394	• GUARD, Toggle	AR
6	704733	• BATTERY INDICATOR	1
7	103281	• SWITCH CONTACT BASE, N.C.	1
8	102769	• SWITCH HEAD, Emergency stop	1
9	108589	• RELAY, 24 Volt	AR
	104003	• NUT, Hex #10-32	1
	104185	• WASHER, Lock #10	1
	103962	• BOLT, Machine hd rd slotted #10-32 x 1/2" lg.	1
10	708933	• POTENTIOMETER (S/N 96006 and Above)	1
	705401	• POTENTIOMETER (S/N 96005 and Below)	1
11	707253	• KNOB, Potentiometer	1
12	103057	• BEEPER	1
13	102671	• BASE, Light	3
14	103202	• HEAD, Light (red)	2
15	702406	• ASSEMBLY, Joystick, A, C (For components refer to Figure 6-4.)	1
	701044	• ASSEMBLY, Joystick, B, D, E (For components refer to Figure 6-5.)	1
	103962	• BOLT, Machine hd rd slotted #10-32 x 1/2" lg.	4
16	701931	• SWITCH, Ignition	1
17	701929	• SWITCH, Toggle, SPST, 2 Position Momentary	1
18	700066	• PLATE, Wrist support	1
	103962	• BOLT, Machine hd rd slotted #10-32 x 1/2" lg.	2
	104003	• NUT, Hex #10-32	2
	104185	• WASHER, Lock #10	2
19	103036	• STRAIN RELIEF	1
Parts list continued on Page 11.			

FIGURE 6-3. OPERATOR'S CONTROL CONSOLE ASSEMBLY

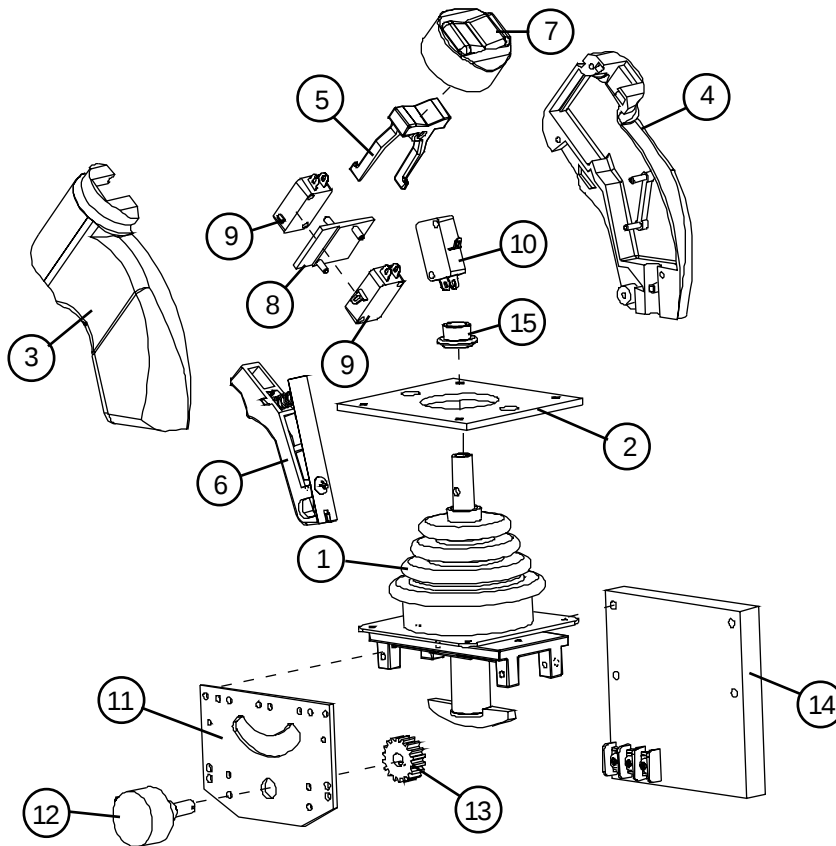


710443

FIGURE 6-3. OPERATOR'S CONTROL CONSOLE ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
		Parts list continued from Page 9.	
20	707875	• CONNECTOR, 40 Pin	1
	103958	• BOLT, Machine hd rd slotted #8-32 x 3/4" lg.	4
	103986	• NUT, Hex #8x32	4
	707847	• GASKET, Connector	4
	112249	• WASHER, Lock #8	2
	705256	• PLUG, Seal	8
	705258	• PIN, Contact	35
	707822	• TOOL, Pin removal	AR
	707823	• TOOL, crimp	AR
21	705493	• RELAY, 24VDC, Delay (S/N 96005 and Below) (Not Shown)	1
	700583	• NUT, Lock nylon insert 1/4-20	1
	706349	• BOLT, Machine hd rd, 1/4-20 x 1-1/4" lg.	2
22	702262	• PLUG, Knockout, 1/2"	AR
23	705208	• HEAD, Light (blue)	1
24	705441	• ASSEMBLY, Harness, foot pedal	1
	103036	• STRAIN RELIEF	1
	103570	• CONNECTOR, Insert (4 pin female)	1
	103568	• CONNECTOR, Housing (4 pin female)	1
	103256	• CABLE, 18/2 Cabtire	1
25	102853	• SWITCH,Toggle, SPST, Momentary	AR
26	710143	• WIRE DUCT, 1" x 2"	1
27	710145	• COVER, Wire duct	1
28	102771	• BULB, 24V, Small	3
29	710140	• DIN 35 Rail	1
	703031	• BOLT, Thread insert #10-32	2
	103962	• BOLT, Machine hd rd slotted #10-32 x 1/2" lg.	2
	104185	• WASHER, Lock #10	2
30	707143	• TERMINAL BLOCK, 4 Cond, Thru	13
31	707147	• TERMINAL BLOCK, End stop	2
32	707145	• TERMINAL BLOCK, 4 Cond, Diode	4
33	707146	• TERMINAL BLOCK, 4 Cond, Thru	1
34	707148	• JUMPER, Term, adjacent	2
35	701930	• SWITCH, Toggle, SPST, Maintained	1
36	710142	• WIRE DUCT, 1" x 2"	1
37	710144	• COVER, Wire duct	1
38	710446	• WIRE DUCT, 1" x 2"	1
39	710447	• COVER, Wire duct	1
40	710498	• WEATHERSTRIPPING	2
41	710499	• WEATHERSTRIPPING	2

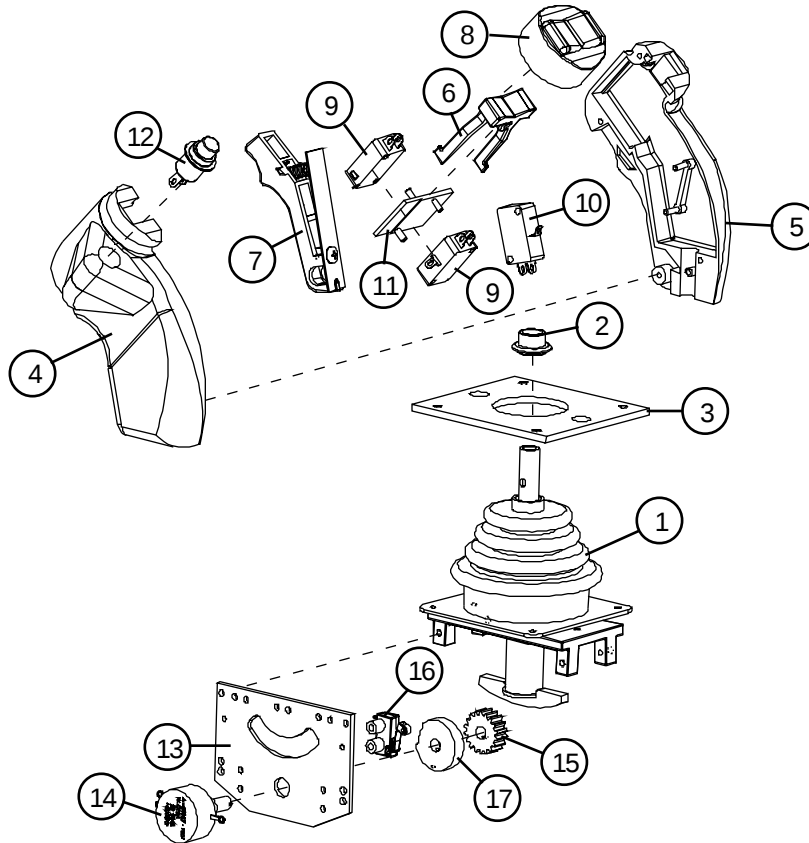
FIGURE 6-4. DRIVE/STEER CONTROLLER ASSEMBLY
(Machines without factory installed horn option.)



702406

Index No.	Skyjack Part No.	Description	Units per Assy.
	702406	CONTROLLER ASSEMBLY, Drive/steer	-
1	700978	• BOOT, Controller handle	1
2	708995	• TRANSITION PLATE	1
	709000	• GRIP ASSEMBLY	1
3	700953	• • HANDLE, Grip left	1
4	700954	• • HANDLE, Grip right	1
5	105734	• • SWITCH, Actuator	1
6	700955	• • TRIGGER ASSEMBLY	1
7	105735	• • CAP	1
8	711082	• • MOLDING, SWITCH SEPARATOR	1
9	105733	• • SWITCH, Rocker	2
10	105733	• • SWITCH, Trigger	1
-	700835	• ELECTRICAL ASSEMBLY	1
11	708996	• • PLATE, Mounting	1
12	708997	• • POTENTIOMETER, 500 OHM	1
13	708998	• • GEAR, Pinion	1
14	708999	• BOARD, Circuit controller	1
15	710018	• SLEEVE, Retaining spring	1

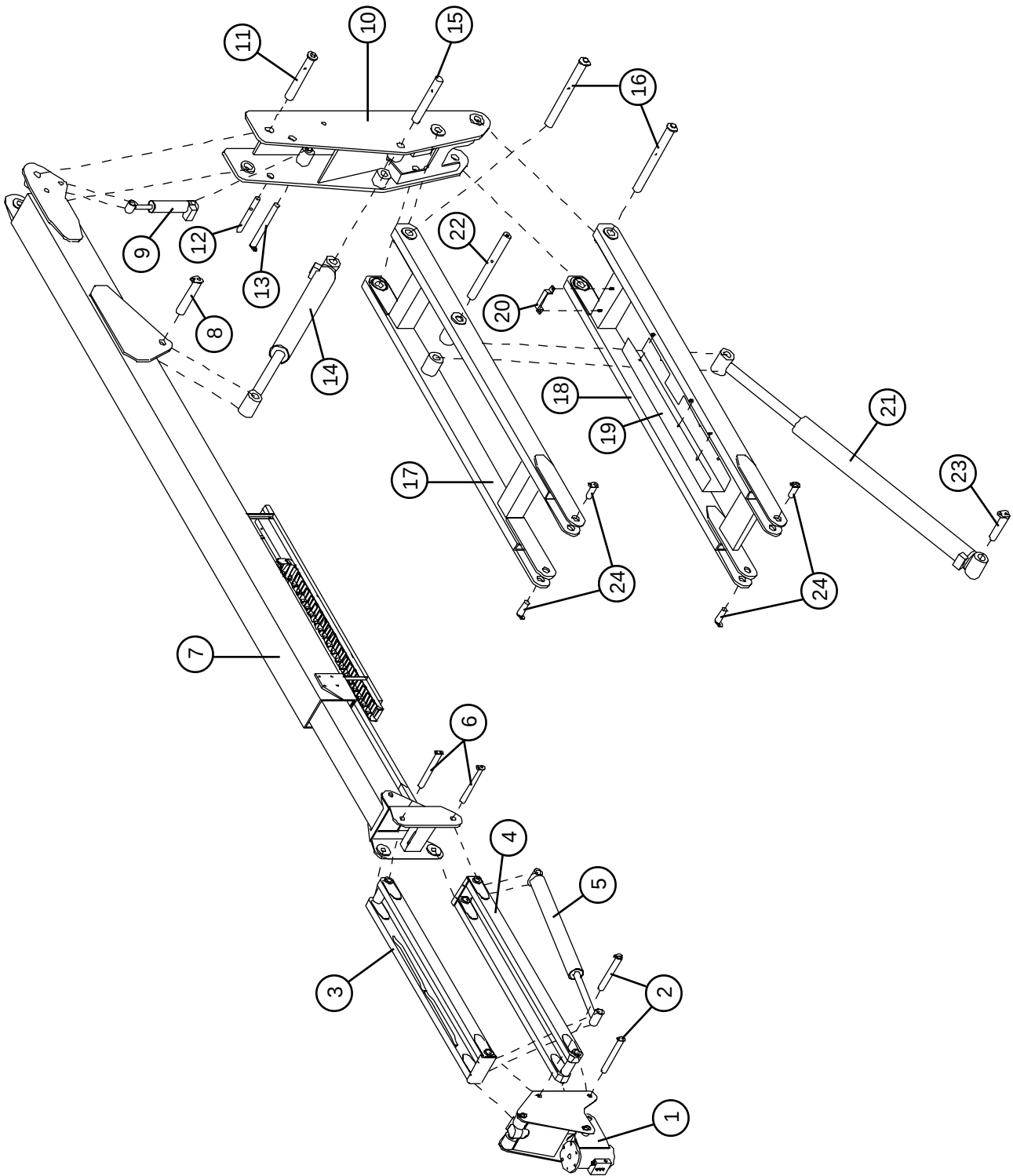
FIGURE 6-5. DRIVE/STEER CONTROLLER ASSEMBLY
(Machines with factory installed horn option.)



701044

Index No.	Skyjack Part No.	Description	Units per Assy.
	701044	ASSEMBLY, Drive Joystick with horn	-
1	700978	• BOOT, Controller handle	1
2	710018	• SLEEVE, Retaining spring	1
3	708995	• TRANSITION PLATE	1
-	709390	• GRIP ASSEMBLY, Side push button	1
4	701239	•• HANDLE GRIP, Left hand with horn	1
5	709391	•• HANDLE GRIP Right hand	1
6	105734	•• SWITCH, Actuator	1
7	700955	•• TRIGGER ASSEMBLY	1
8	105735	•• CAP	1
9	105733	•• SWITCH, Rocker	2
10	105733	•• SWITCH, Trigger	1
11	711082	•• MOLDING, Switch seperator	1
12	701240	•• SWITCH, Push Button Horn	1
-	709388	• CONTROLLER POTENTIOMETER ASSEMBLY,	-
13	708996	•• MOUNTING PLATE	1
14	709385	•• RESISTOR, Potentiometer 1k OHM	1
15	708998	•• GEAR, Pinion	1
16	709386	•• SWITCH WITH ROLLER ACTUATOR	1
17	709387	•• CAM, Neutral switch	1

FIGURE 6-6. BOOM ASSEMBLY

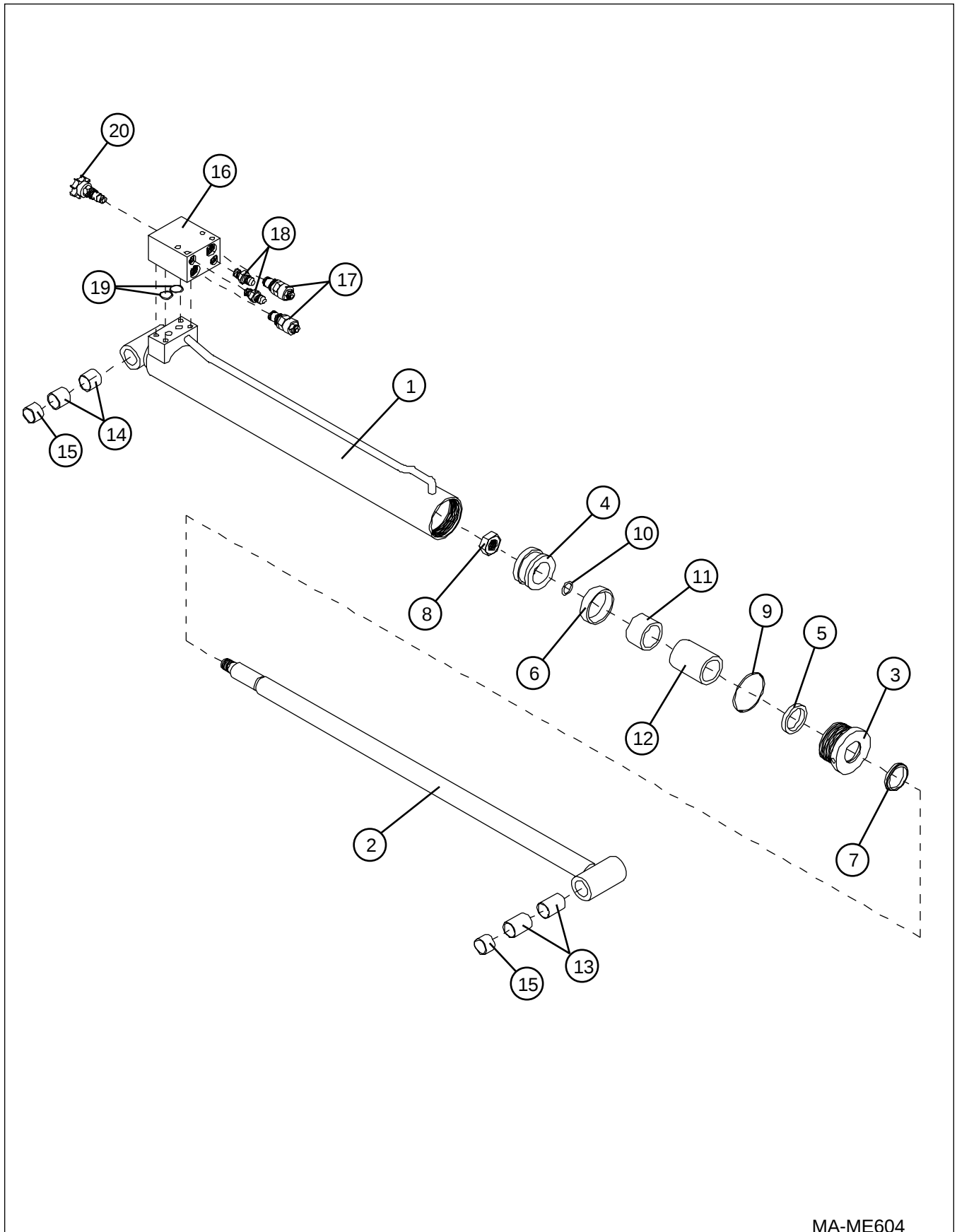


MA-ME601

FIGURE 6-6. BOOM ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	706017	ACTUATOR ASSEMBLY, Rotary (For components refer to Figure 6-11.)	1
2	700386	PIN, Jib Actuator	2
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1
3	707178	PARALLEL ASSEMBLY, Jib upper	1
	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	6
	705541	• CLAMP, Hose 1-1/4"	1
	102972	• CLAMP, Hose G8 double	1
	103995	• WASHER, Flat SAE 1/4	2
	103632	• SCREW, Self tapping 1/4-14 x 3/4" lg.	2
4	707179	PARALLEL ASSEMBLY, Jib lower	1
	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	6
	102972	• CLAMP, Hose G8 double	2
	103995	• WASHER, Flat SAE 1/4	2
	103632	• SCREW, Self tapping 1/4-14 x 3/4" lg.	2
5	706003	CYLINDER ASSEMBLY, Jib lift (For components refer to Figure 6-7.)	1
6	700384	PIN, Jib parallel top	2
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1
7	705229	MAIN BOOM ASSEMBLY (For components refer to Figure 6-13.)	1
	701805	RUBBER WEAR STRIP (Not shown)	7
8	700362	PIN, Lift Cylinder top	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1
9	700333	CYLINDER ASSEMBLY, Master (For components refer to Figure 6-8.)	1
10	700966	KNUCKLE ASSEMBLY	1
	100904	• BUSHING, 1-1/2" x 1-5/8" x 1" lg.	2
	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	4
	103216	• BUSHING, 1-1/2" x 1-5/8" x 1-1/2" lg.	8
11	700364	PIN, Upper knuckle	1
	706872	• BOLT, HHCS 1/2-13 x 1-1/4" lg.	2
	700425	• WASHER, Stop 2-1/4 DIA x .19	2
12	700366	PIN, Master cylinder top	1
	103873	• BOLT, HHCS 3/8-16 x 2-1/2" lg.	1
	104606	• NUT, Lock 3/8-16	1
13	700430	PIN, Master cylinder bottom	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1
14	700988	CYLINDER ASSEMBLY, Lift (For components refer to Figure 6-9.)	1
15	700364	PIN, Lift cylinder bottom	1
	700425	• WASHER, Stop 2-1/4 DIA x .19	2
	706872	• BOLT, HHCS 1/2-13 x 1-1/4" lg.	2
16	709448	PIN, Upper parallel	2
	700342	• WASHER, Bronze 2-1/2 DIA x 1-1/2 I.D.	2
	709446	• SPACER, Pin	1
	706872	• BOLT, HHCS 1/2-13 x 1-1/4" lg.	2
	700425	• WASHER, Stop 2-1/4 DIA x 3/16	2
17	701102	PARALLEL UPPER ASSEMBLY, Riser	1
	100904	• BUSHING, 1-1/2" x 1-5/8" x 1" lg.	2
	103216	• BUSHING, 1-1/2" x 1-5/8" x 1-1/2" lg.	2
18	700964	PARALLEL LOWER ASSEMBLY, Riser	1
	100904	• BUSHING, 1-1/2" x 1-5/8" x 1" lg.	2
	103216	• BUSHING, 1-1/2" x 1-5/8" x 1-1/2" lg.	2
19	700994	HOSE COVER, Riser	1
20	700327	HOSE STRAP, Riser	1
21	700987	CYLINDER ASSEMBLY, Riser (For components refer to Figure 6-10.)	1
22	700347	PIN, Riser cylinder upper	1
	103915	• BOLT, HHCS 3/8-16 x 3-1/2" lg.	1
	104606	• NUT, Lock 3/8-16	1
23	700346	PIN, Riser cylinder lower	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1
24	700344	PIN, Turret lower parallel	4
	700342	• WASHER, Bronze 2-1/2 DIA x 1-1/2 I.D.	2
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• WASHER, Lock 5/16	1

FIGURE 6-7. JIB LIFT CYLINDER ASSEMBLY



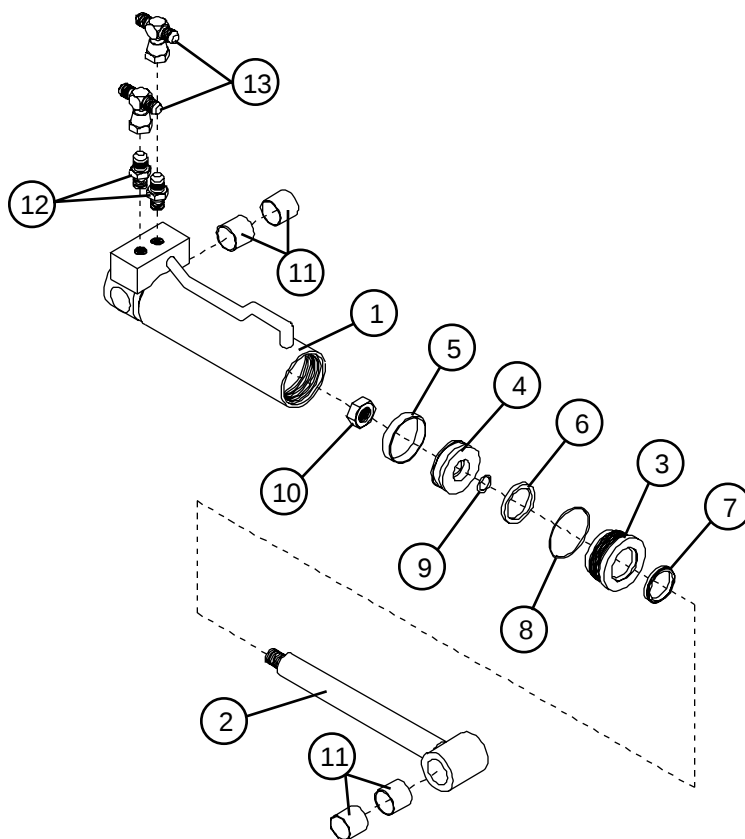
MA-ME604

FIGURE 6-7. JIB LIFT CYLINDER ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	708655	CYLINDER ASSEMBLY, Jib lift	-
1	700245	• WELDMENT, Cylinder barrel	1
2	700244	• WELDMENT, Cylinder rod	1
3	700243	• GLAND, Cylinder	1
4	700242	• PISTON, Cylinder	1
*5	700576	• SEAL, Rod	1
*6	700585	• SEAL, Piston	1
*7	700578	• WIPER, Rod	1
8	700575	• NUT, Lock 3/4-10	1
*9	701965	• O-RING, Gland	1
*10	701634	• O-RING, Piston	1
11	700449	• SPACER, Cylinder 1-1/8" x 1-3/4" x 1-5/16" lg.	1
12	708650	• SPACER, Cylinder 1-1/4" x 1-3/4" x 2-3/4" lg.	1
13	100695	• BUSHING, 1" x 1-1/8" x 1-1/2" lg.	2
14	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	2
15	100249	• BUSHING, 1" x 1-1/8" x 3/4" lg.	2
16	701029	VALVE BLOCK, Jib cylinder	1
	103884	• BOLT, HHCS 5/16-18 x 2-1/2" lg.	4
	103404	• WASHER, Lock 5/16	4
17	700568	VALVE, Counterbalance	2
18	701956	FITTING, Connector #6orb-#4	2
19	701635	O-RING, Valve block	2
20	103136	VALVE, Manual lowering	1
	700456	KIT, Seal repair	AR
		* Part of Seal Repair Kit.	

NOTES

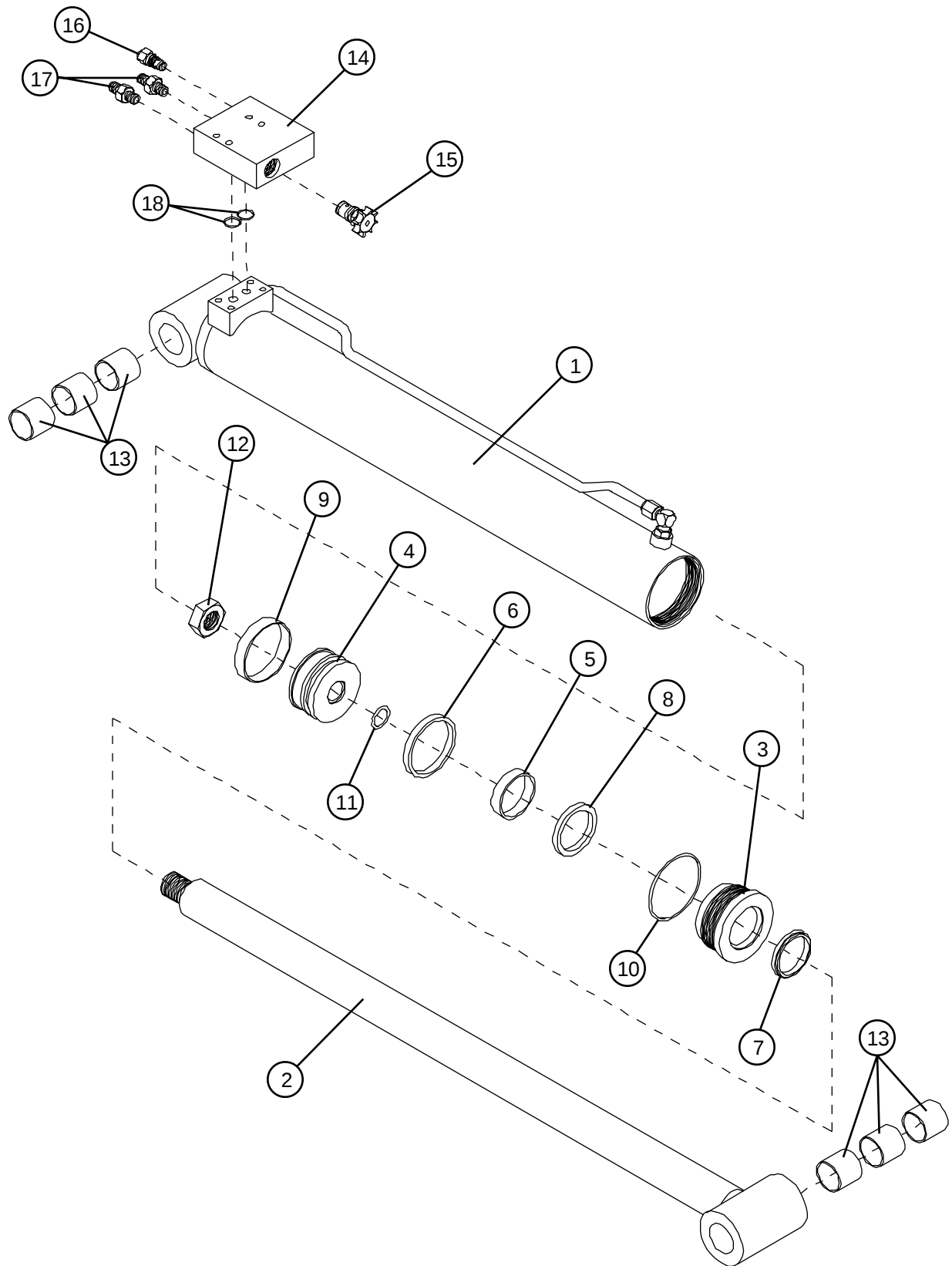
FIGURE 6-8. PLATFORM LEVELING MASTER CYLINDER ASSEMBLY



MA-ME605

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
	700333	CYLINDER ASSEMBLY, Platform leveling master							-
1	700334	• WELDMENT, Cylinder barrel							1
2	700337	• WELDMENT, Cylinder rod							1
3	700340	• GLAND, Cylinder							1
4	700341	• PISTON, Cylinder							1
*5	107935	• SEAL, Piston							1
*6	108798	• SEAL, Gland							1
*7	106449	• WIPER, Rod							1
*8	701964	• O-RING, Gland							1
*9	701633	• O-RING, Piston							1
10	103830	• NUT, Lock 5/8-11							1
11	100309	• BUSHING, 1" x 1-1/4" x 1" lg.							4
12	103069	• FITTING, Connector #6orb-#6							2
13	703223	FITTING, Tee #6swv-#4-#4							2
	700454	KIT, Seal repair							AR
		* Part of Seal Repair.							

FIGURE 6-9. BOOM LIFT CYLINDER ASSEMBLY

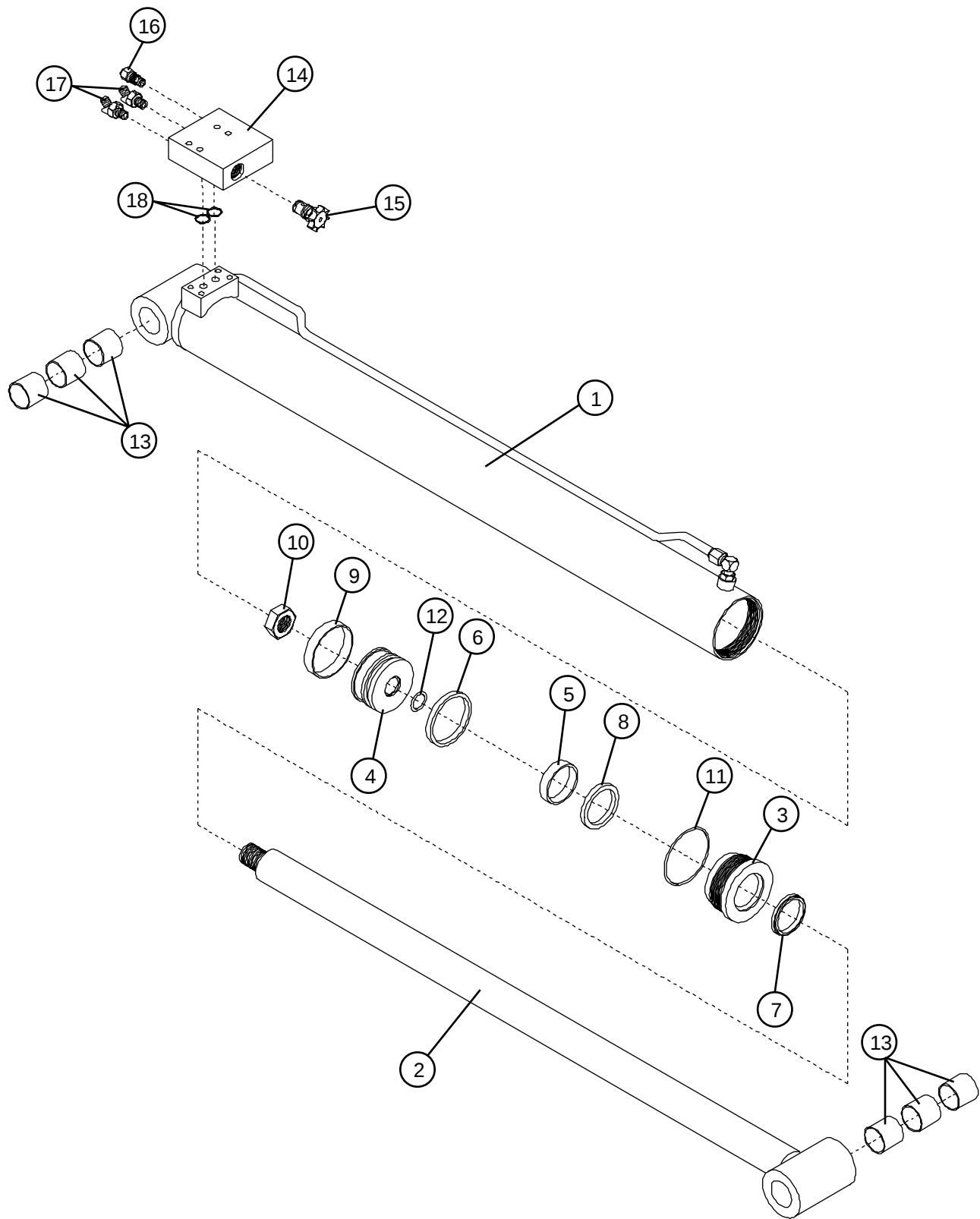


MA-ME606

FIGURE 6-9. BOOM LIFT CYLINDER ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700989	CYLINDER ASSEMBLY, Boom lift	-
1	700141	• WELDMENT, Cylinder barrel	1
2	700147	• WELDMENT, Cylinder rod	1
3	700329	• GLAND, Cylinder	1
4	700330	• PISTON, Cylinder	1
*5	700571	• SEAL, Rod	1
*6	106225	• SEAL, Piston	1
*7	700573	• WIPER, Rod	1
*8	700574	• WEAR RING, Gland	1
*9	106220	• WEAR RING, Piston	1
*10	701966	• O-RING, Gland	1
*11	701639	• O-RING, Piston	1
12	106230	• NUT, Lock 1-1/4-12	1
13	103216	• BUSHING, 1-1/2" x 1-11/16" x 1-1/2" lg.	6
14	700044	VALVE BLOCK, Boom lift cylinder	1
	103865	• BOLT, HHCS 5/16-18 x 2" lg.	4
	103404	• WASHER, Lock 5/16	4
15	103136	VALVE, Manual lowering	1
16	700568	VALVE, Counterbalance	1
17	103069	FITTING, Connector #6orb-#6	2
18	701635	O-RING, Valve block	2
	700452	KIT, Seal repair	AR
	703872	TOOL, Cylinder assembly	-
		* Part of Seal Repair Kit.	

FIGURE 6-10. RISER LIFT CYLINDER ASSEMBLY

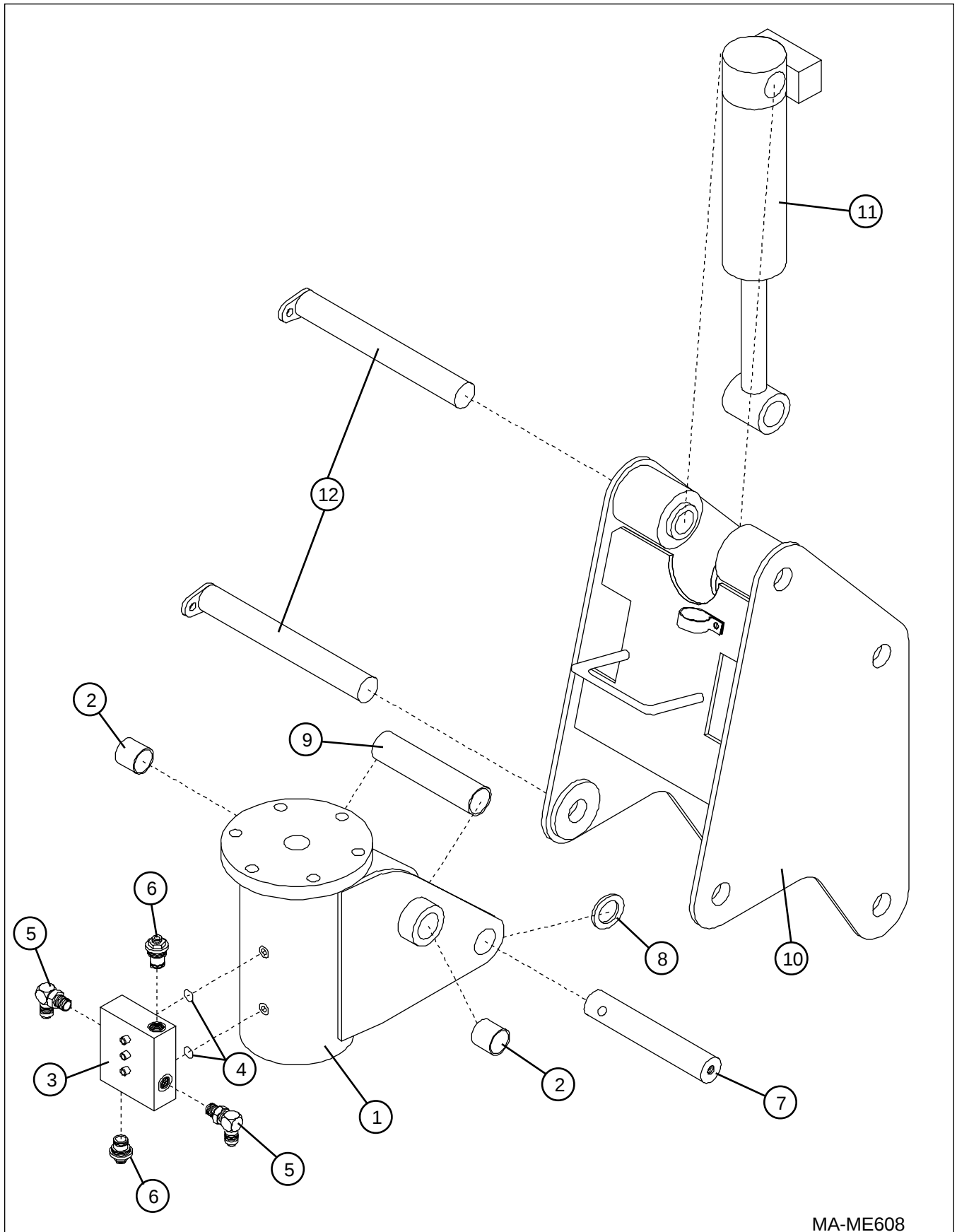


MA-ME607

FIGURE 6-10. RISER LIFT CYLINDER ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700328	CYLINDER ASSEMBLY, Riser lift	-
1	700135	• WELDMENT, Cylinder barrel	1
2	700145	• WELDMENT, Cylinder rod	1
3	700329	• GLAND, Cylinder	1
4	700330	• PISTON, Cylinder	1
*5	700571	• SEAL, Rod	1
*6	106225	• SEAL, Piston	1
*7	700573	• WIPER, Rod	1
*8	700574	• WEAR RING, Gland	1
*9	106220	• WEAR RING, Piston	1
10	106230	• NUT, Lock 1-1/4-12	1
*11	701966	• O-RING, Gland	1
*12	701639	• O-RING, Piston	1
13	103216	• BUSHING, 1-1/2" x 1-11/16" x 1-1/2" lg.	6
14	700044	VALVE BLOCK, Riser lift cylinder	1
	103931	• BOLT, Soc-hd 5/16-18 x 2" lg.	4
	103404	• WASHER, Lock 5/16"	4
15	103136	VALVE, Manual lowering	1
16	700568	VALVE, Counterbalance	1
17	107742	FITTING, Elbow 45° #6orb-#6	2
18	701635	O-RING, Valve block	2
	700452	KIT, Seal repair	AR
	703872	TOOL, Cylinder assembly	-
		* Part of Seal Repair Kit.	

FIGURE 6-11. ROTARY ACTUATOR ASSEMBLY



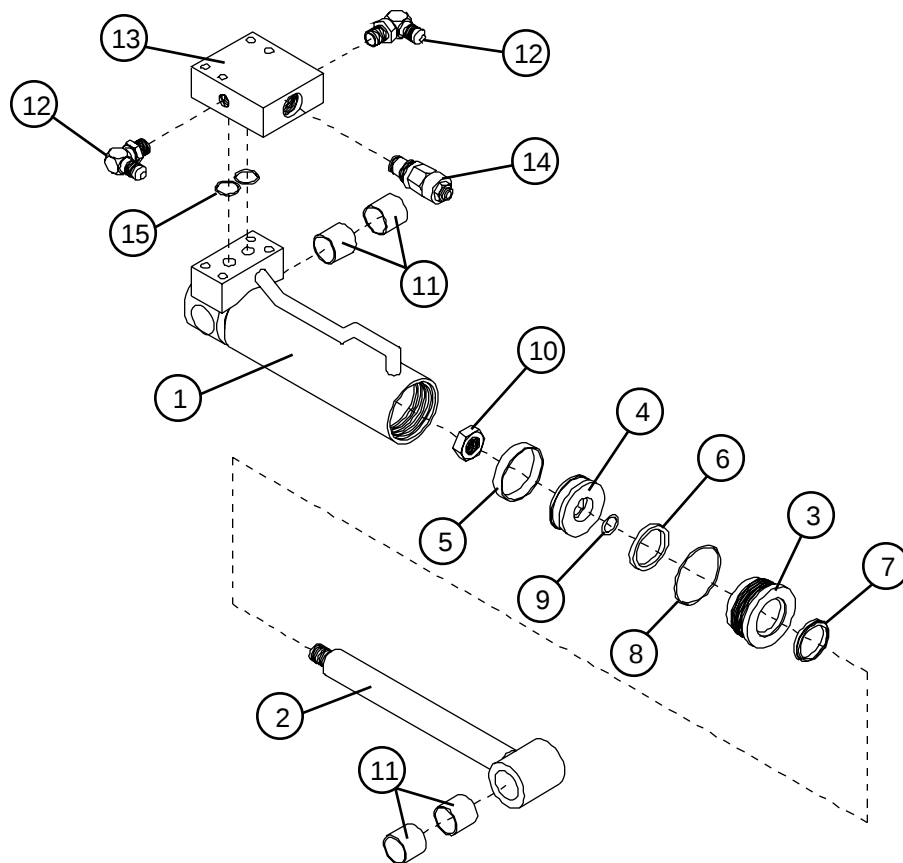
MA-ME608

FIGURE 6-11. ROTARY ACTUATOR ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	706017	ACTUATOR ASSEMBLY, Rotary	-
1	701498	• ACTUATOR ROTARY, Keyed	1
	701875	• • KIT, Seal Repair	AR
	103024	• • HOSE CLAMP, G8-single	2
	104000	• • WASHER, Lock 1/4	1
	103632	• • SCREW, Self tapping 1/4-14 x 3/4" lg.	1
2	100309	• BUSHING 16DU16	2
3	700390	• MANIFOLD, Rotary Actuator	1
	709835	• • BOLT, HHCS 1/4-20 x 1-5/8" lg.	3
4	701487	• SEAL, O-Ring 2-012	2
5	701850	• FITTING, #4orb-#4	2
6	700568	• VALVE, Counterbalance	2
7	700432	• PIN, Slave cylinder	1
	103873	• • Bolt, HHCS 3/8-16 x 2-1/2 lg.	1
	104606	• • NUT, Lock 3/8-16	1
8	700376	• WASHER, Bronze 1-3/4" OD x 1" ID	1
9	700434	• SPACER, Actuator pin	1
10	700375	• WELDMENT, Actuator bracket	1
	705541	• • HOSE CLAMP, 1-1/4"	1
	104000	• • WASHER, Lock 1/4	1
	103632	• • SCREW, Self tapping 1/4-14 x 3/4" lg.	1
11	706002	• CYLINDER ASSEMBLY, Slave (For components refer to Figure 6-12.)	1
12	700386	• PIN, Jib Actuator bracket	2
	103887	• • BOLT, HHCS 5/16-18 x 3/4" lg.	1
	103404	• • WASHER, Lock 5/16	1

NOTES

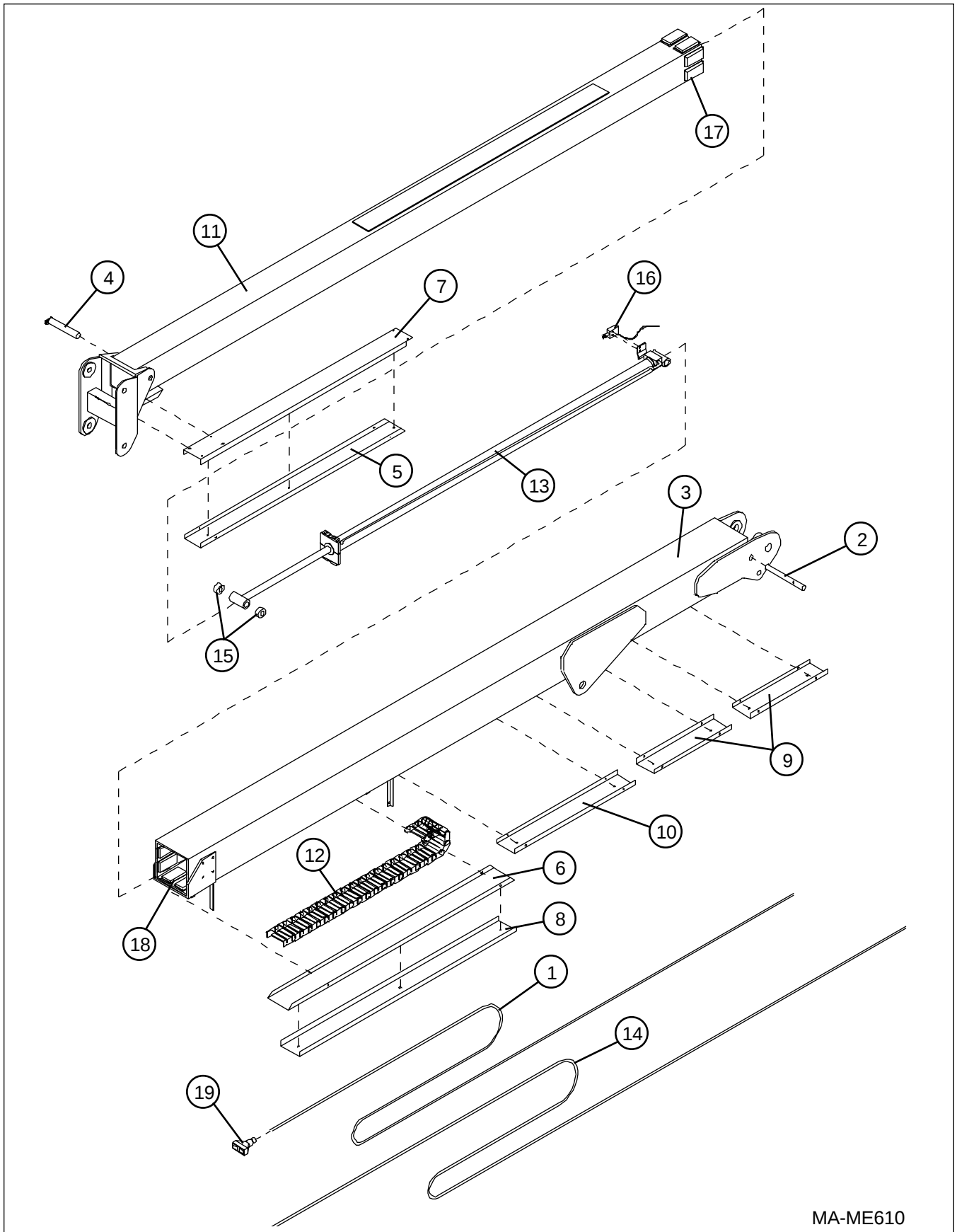
FIGURE 6-12. PLATFORM LEVELING SLAVE CYLINDER ASSEMBLY



MA-ME609

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700388	CYLINDER ASSEMBLY, Platform leveling slave	-
1	700389	• WELDMENT, Cylinder barrel	1
2	700600	• WELDMENT, Cylinder rod	1
3	700340	• GLAND, Cylinder	1
4	700341	• PISTON, Cylinder	1
*5	107935	• SEAL, Piston	1
*6	108798	• SEAL, Gland	1
*7	106449	• WIPER, Rod	1
*8	701964	• O-RING, Gland	1
*9	701633	• O-RING, Piston	1
10	103830	• NUT, Lock 5/8-11	1
11	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	4
12	701999	FITTING, Elbow 90° #6orb-#4	2
13	700040	VALVE BLOCK, Slave cylinder	1
	103885	• BOLT, HHCS 5/16-18 x 1.75 lg.	4
	103404	• WASHER, Lock 5/16"	4
14	700568	VALVE, Counterbalance	1
15	701635	O-RING, Valve block	2
	700454	KIT, Seal repair	AR
		* Part of Seal Repair Kit.	

FIGURE 6-13. BOOM ASSEMBLY (Main and Telescopic Section)



MA-ME610

FIGURE 6-13. BOOM ASSEMBLY (Main and Telescopic Section)

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	705229	MAIN BOOM ASSEMBLY	-
2	704677	• CABLE, Control	644"
3	700367	• PIN, Telescopic Cylinder - Barrel end	1
	700781	•• BOLT, BHCS 5/16-18 x 3/8" lg.	1
	103984	•• NUT, Lock 5/16-18	1
4	704457	• WELDMENT, Main boom	1
5	700368	• PIN, Telescopic cylinder - rear	1
	703016	•• BOLT, HHCS 5/16-18 x 5/8" lg.	1
	103404	•• WASHER, Lock 5/16	1
6	706160	• TRACK SUPPORT, Outer boom	1
	704940	• TRACK SUPPORT WELDMENT, Lower	1
	708574	•• BOLT, BHCS 5/16-18 x 3/4" lg.	4
	103984	•• NUT, Lock 5/16-18	4
	103404	•• WASHER, Lock 5/16"	4
7	704738	• TRACK BRACKET WELDMENT, Outer boom	1
	700583	•• NUT, Lock 1/4-20	3
	700584	•• BOLT, BHCS 1/4-20 x 1/2" lg.	4
	103980	•• NUT, HEX 1/4-20	4
8	704263	• HOSE GUIDE, Lower	1
	700583	•• NUT, Lock 1/4-20	3
9	706162	• HOSE COVER, Main boom	2
	700583	•• NUT, Lock 1/4-20	2
10	704431	• TRAY COVER, Outer boom	1
	700583	•• NUT, Lock 1/4-20	2
11	700935	• WELDMENT, Telescopic boom	1
12	706192	• CABLE CARRIER-E-CHAIN ASSEMBLY	1
13	701398	• CYLINDER/MANIFOLD ASSEMBLY, Telescopic (For components refer to Figure 6-14.)	1
14	105269	• CABLE, 14/3 Cabtire	672"
15	700370	• PIN SPACER, Telescopic Cylinder 1-3/4 x 7/8	2
16	710310	SWITCH, Sealed limit	1
	700549	• BOLT, Rnd-hd #10-32 x 3/4" lg.	2
	104694	• WASHER, Flat #10	2
	104185	• WASHER, Lock #10	2
	104003	• NUT, Hex #10-32	2
17	(Ref.)	• WEAR PADS, Telescopic Boom (For components refer to Figure 6-15.)	-
18	(Ref.)	• WEAR PADS, Main Boom (For components refer to Figure 6-16.)	-
19	(Ref.)	CONNECTOR ASSEMBLY	1
	707874	• PLUG, Connector 40 pin	1
	707846	• BOOT, Connector	1
	705255	• CONTACT SOCKET	36
	705256	• PLUG, Seal	5

FIGURE 6-14. BOOM TELESCOPING CYLINDER ASSEMBLY

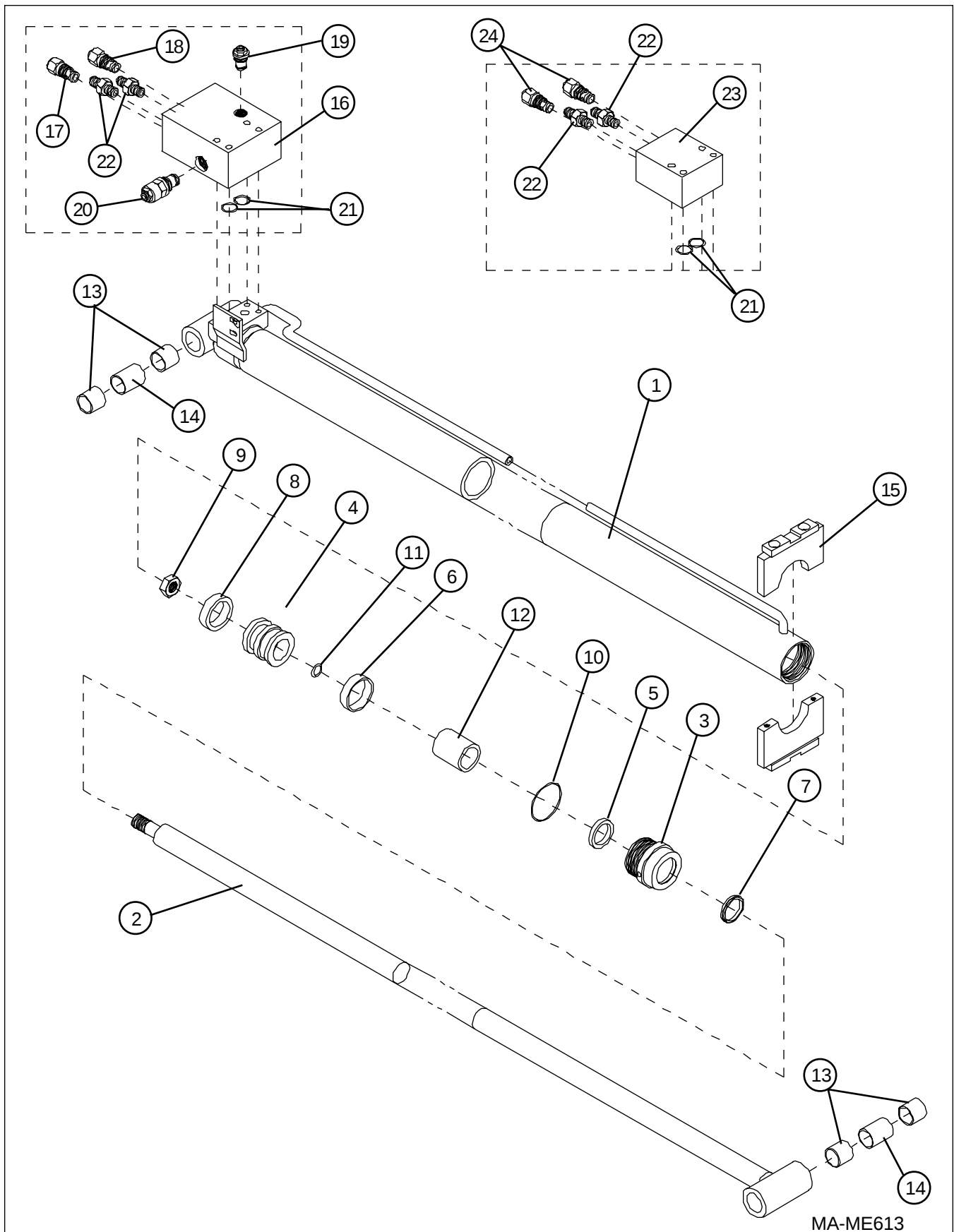
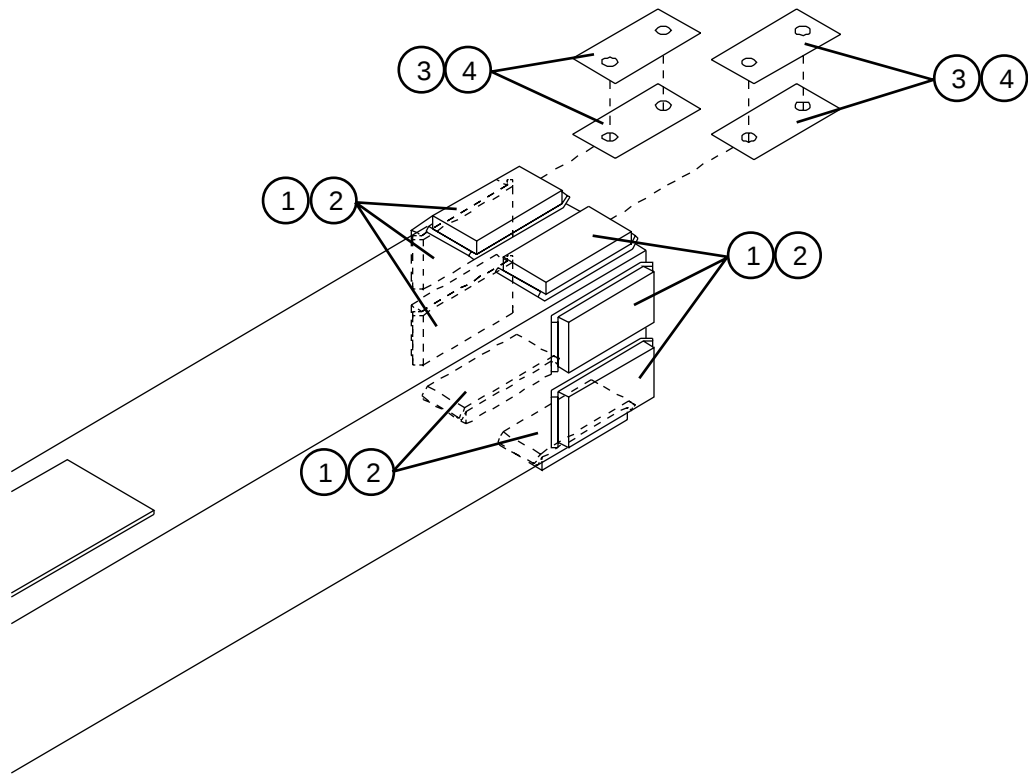


FIGURE 6-14. BOOM TELESCOPING CYLINDER ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700871	CYLINDER ASSEMBLY, Boom telescopic	-
1	700872	• WELDMENT, Cylinder barrel	1
2	700874	• WELDMENT, Cylinder rod	1
3	700359	• GLAND, Cylinder	1
4	700360	• PISTON, Cylinder	1
*5	700576	• SEAL, Rod	1
*6	700577	• SEAL, Piston	1
*7	700578	• WIPER, Rod	1
*8	110949	• WEAR RING, Piston	1
9	700575	• NUT, Lock 3/4-10	1
*10	701964	• O-RING, Gland	1
*11	701634	• O-RING, Piston	1
12	700876	• SPACER, Cylinder 1-1/4" x 1-1/2" x 2.113" lg.	1
13	100309	• BUSHING, 1" x 1-1/8" x 1" lg.	4
14	100695	• BUSHING, 1" x 1-1/8" x 1-1/2" lg.	2
15	700258	SUPPORT ASSEMBLY, Telescopic cylinder	1
	700260	• PAD, Telescopic cylinder support	2
	700259	• BRACKET, Telescopic cylinder support	1
	700581	• BOLT, Soc-hd 1/4-20 x 1-1/2" lg.	2
	700582	• BOLT, Flat-hd 1/4-20 x 3/4" lg.	4
		NOTE - Items 16 thru 22 are for machines with S/N 96050 and above.	
16	709824	VALVE BLOCK, Telescopic cylinder	1
	707809	• BOLT, HHCS 5/16-18 x 3" lg.	4
	103404	• WASHER, Lock 5/16"	4
17	700568	VALVE, Counterbalance	1
18	710264	VALVE, Counterbalance	1
19	709825	VALVE, Check	1
20	709826	VALVE, Pilot Check	1
21	701635	O-RING, Valve block	2
22	701956	FITTING, Connector #6orb-#4	2
		NOTE - Items 21 thru 24 are for machines with S/N 96049 and below.	
23	700041	VALVE BLOCK, Telescopic cylinder	1
	108429	• BOLT, SHCS 5/16-18 x 3-1/2" lg.	4
	103404	• WASHER, Lock 5/16"	4
24	700568	VALVE, Counterbalance	2
	700455	KIT, Seal repair	AR
		* Part of Seal Repair Kit.	

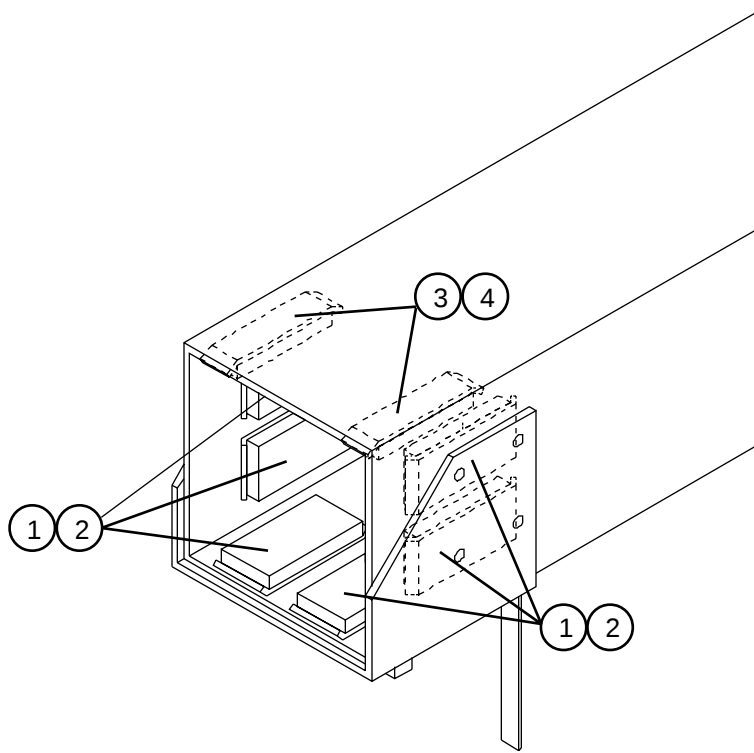
FIGURE 6-15. TELESCOPIC BOOM WEAR PADS



MA-ME611

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	700077	WEAR PAD							8
	700579	• PIN, Roll 1/4x1/2" lg.							1
2	700098	BRACKET, Wear Pad							8
	101632	• BOLT, HHCS 3/8-16x3/4" lg.							2
	103472	• WASHER, Flat SAE 3/8"							2
	103999	• WASHER, Lock 3/8"							2
3	700097	SHIM, Wear pad (.059 thk.)							AR
4	700580	SHIM, Wear pad (.023 thk.)							AR

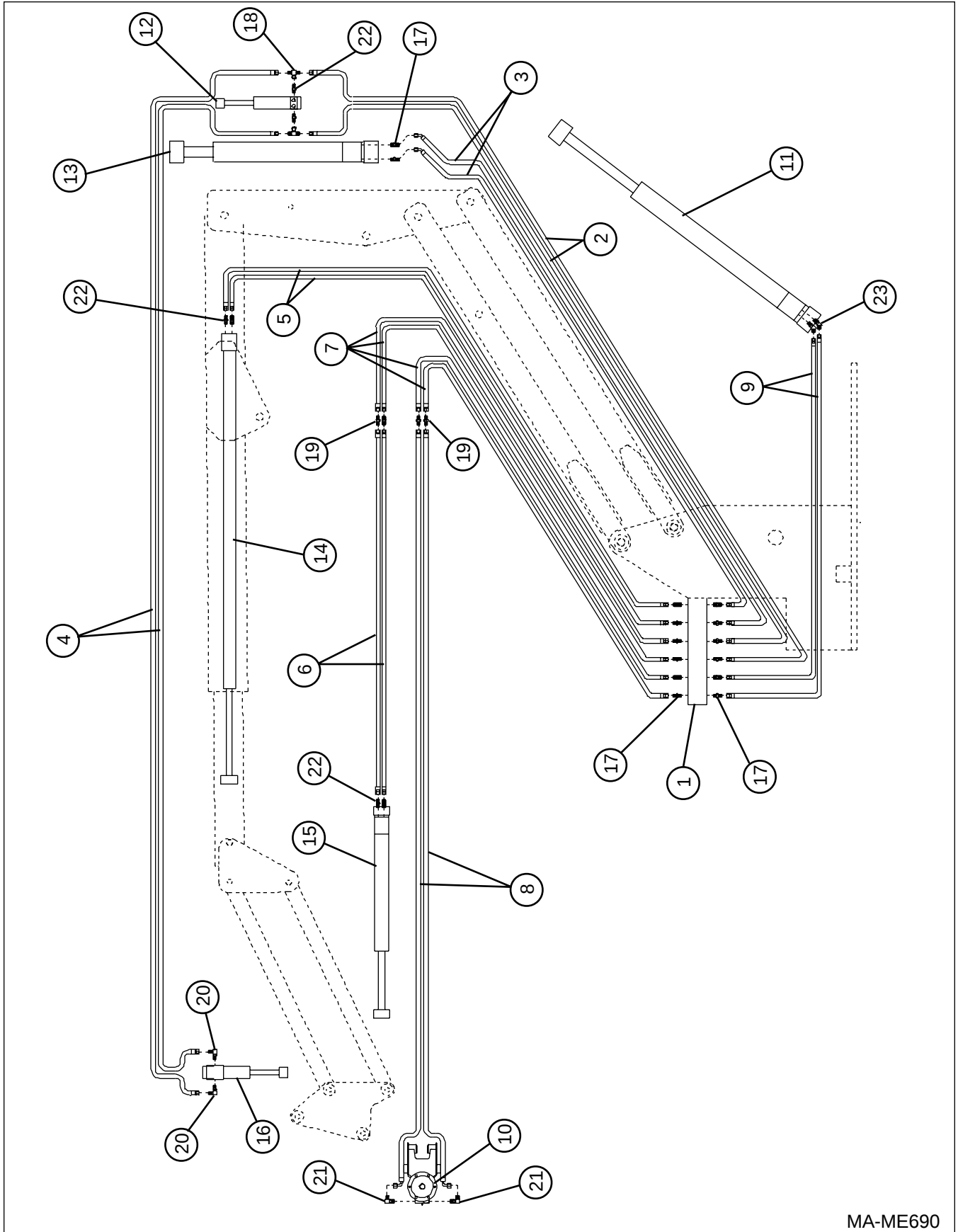
FIGURE 6-16. MAIN BOOM WEAR PADS



MA-ME612

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	700077	WEAR PAD							6
	700579	• PIN, Roll 1/4x1/2" lg.							1
2	700098	BRACKET, Wear Pad							6
	101632	• BOLT, HHCS 3/8-16x3/4" lg.							2
	103472	• WASHER, Flat SAE 3/8"							2
	103999	• WASHER, Lock 3/8"							2
	701072	WEAR PAD							2
4	700579	• PIN, Roll 1/4x1/2" lg.							1
	701071	BRACKET, Wear Pad							2
	103473	• BOLT, HHCS 3/8-16x1" lg.							2
	103472	• WASHER, Flat SAE 3/8"							2
	103999	• WASHER, Lock 3/8"							2

FIGURE 6-17. HYDRAULIC HOSE CONNECTIONS - Boom Assembly



MA-ME690

FIGURE 6-17. HYDRAULIC HOSE CONNECTIONS - Boom Assembly

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	701867	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-23.)	1
2	700392	HOSE ASSEMBLY, Manifold to master cylinder	2
3	700391	HOSE ASSEMBLY, Manifold to lift cylinder	2
4	H104 0370 00-0	HOSE ASSEMBLY, Master cylinder to slave cylinder	2
5	700393	HOSE ASSEMBLY, Manifold to telescopic cylinder	2
6	H104 0286 00-0	HOSE ASSEMBLY, Union to jib cylinder	2
7	700394	HOSE ASSEMBLY, Manifold to union	4
8	H604 0327 00-0	HOSE ASSEMBLY, Union to rotary actuator	2
9	701201	HOSE ASSEMBLY, Manifold to riser cylinder	2
10	706017	ACTUATOR ASSEMBLY, Rotary (For components, refer to Figure 6-11.)	1
11	700987	CYLINDER ASSEMBLY, Riser (For components, refer to Figure 6-10.)	1
12	700333	CYLINDER ASSEMBLY, Master (For components, refer to Figure 6-8.)	1
13	700988	CYLINDER ASSEMBLY, Lift (For components, refer to Figure 6-9.)	1
14	706001	CYLINDER ASSEMBLY, Telescopic (For components, refer to Figure 6-14.)	1
15	706003	CYLINDER ASSEMBLY, Jib lift (For components, refer to Figure 6-7.)	1
16	706002	CYLINDER ASSEMBLY, Slave (For components, refer to Figure 6-12.)	1
17	103069	FITTING, Connector #6orb-#6	14
18	703223	FITTING, Tee #6 female-#4-#4	2
19	709706	FITTING, Tube union #6-#6	4
20	701999	FITTING, Elbow 90° #6orb-#4	2
21	701850	FITTING, Elbow 90° #4orb-#4	2
22	701956	FITTING, Connector #6orb-#4	6
23	107742	FITTING, Elbow 45° #6orb-#6	2
NOTE: Refer to Standard Hose Numbering System (SECTION 5, Page 22) for explanation of hose numbering.			

FIGURE 6-18. TURRET ASSEMBLY

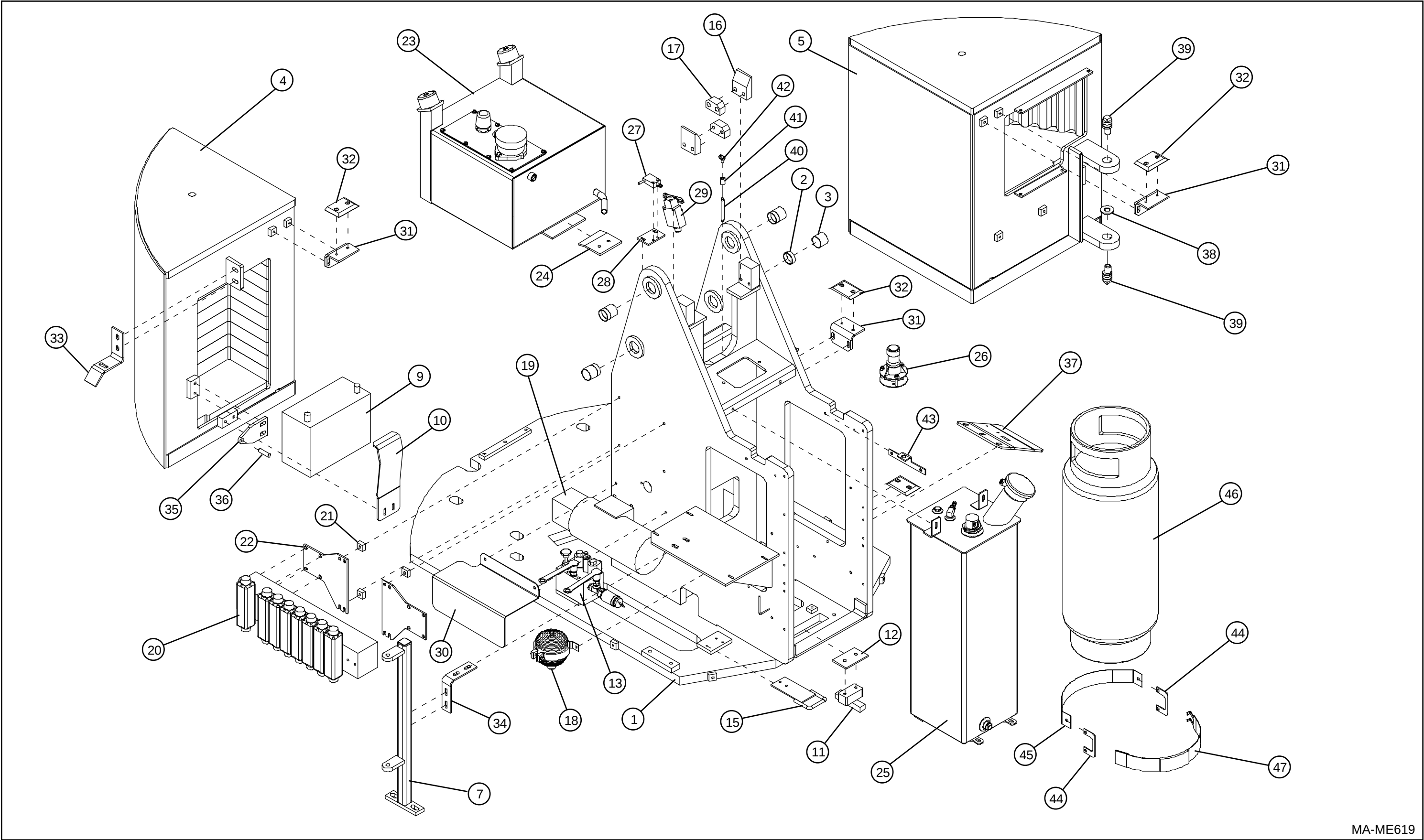
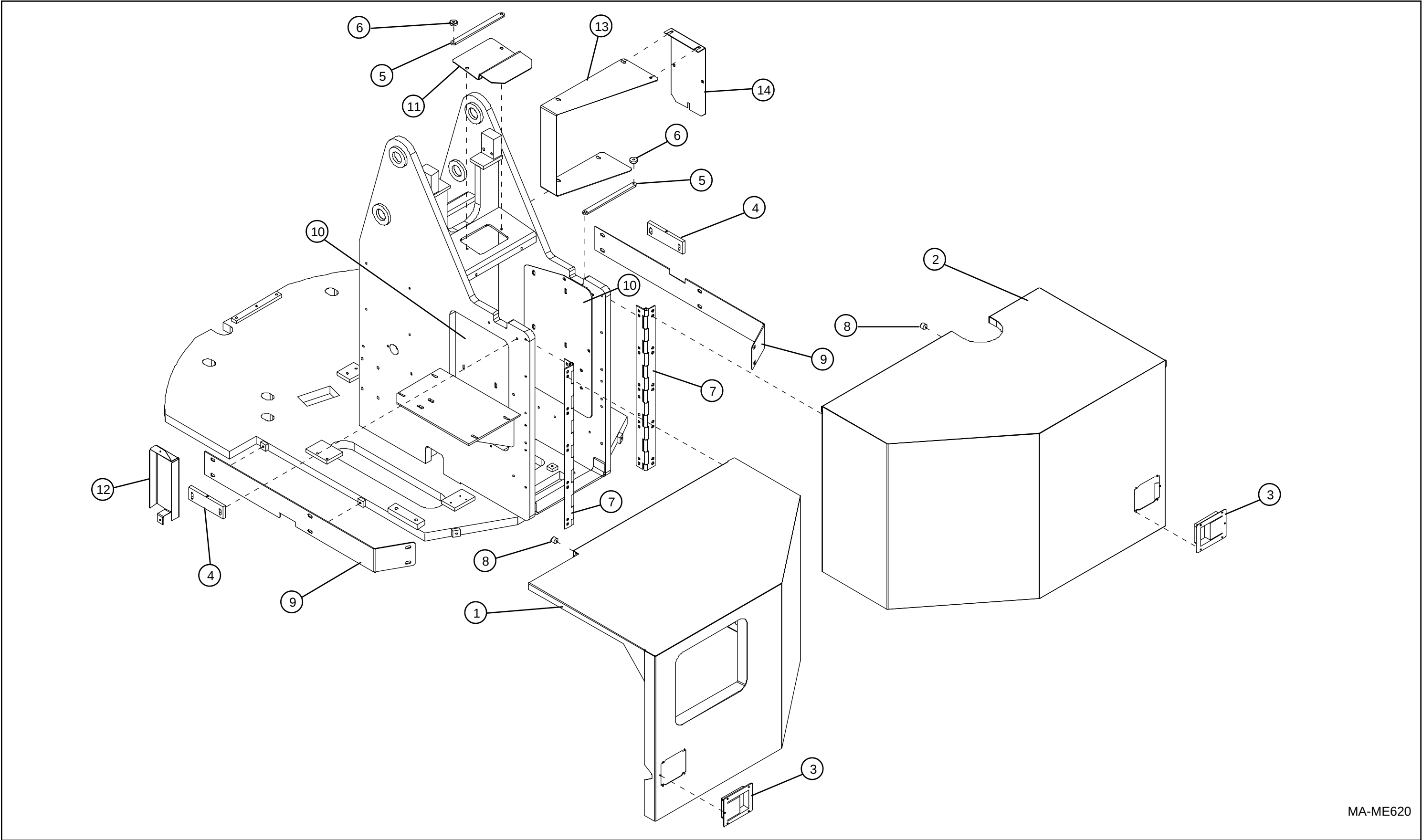


FIGURE 6-18. TURRET ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	709780	WELDMENT, Turret	1
	701762	• BOLT, Hex-hd 5/8-11 x 4-1/2" lg.	20
	700500	• BOLT, Soc-hd 5/8-11 x 4-1/2" lg.	3
	700782	• WASHER, Flat-hard 5/8"	23
2	700482	BUSHING, 1-1/2" x 1-11/16" x 1/2" lg.	4
3	700483	BUSHING, 1-1/2" x 1-11/16" x 1-1/4" lg.	4
4	705385	WELDMENT, counterweight (Lefthand)	1
	708282	• BOLT, HHCS 1-8 x 3" lg. Grade 5	3
	700435	• WASHER, Turret	3
5	705305	WELDMENT, counterweight (Righthand)	1
	708282	• BOLT, HHCS 1-8 x 3" lg. Grade 5	3
	700435	• WASHER, Turret	3
6	(Ref.)	ASSEMBLY, Ground control box (Not Shown) (Refer to Figure 6-20)	1
	705239	• BOLT, HHCS 1/2-13 x 2-1/4" lg.	2
	702507	• NUT, Lock 1/2-13	2
7	705110	WELDMENT, Control box hinge	1
	706915	• BOLT, HHCS 1/2-13 x 2-1/4" lg. Grade 8	2
	103468	• WASHER, Flat 1/2"	2
	702507	• NUT, Lock 1/2-13 Grade C	2
8	(Ref.)	ASSEMBLY, Governor control box (Not Shown)	1
	705559	• ENCLOSURE	1
	705336	• GOVERNOR CONTROL BOX	1
	108589	• RELAY, Sealed 24 volt	AR
	701943	• RELAY, Sealed 12 volt	AR
	700158	CIRCUIT BREAKER	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg.	AR
	103984	• NUT, Lock 5/16-18	AR
9	Ref.	BATTERY ASSEMBLY	-
	703719	• BATTERY 12V, 850 CCA	1
	708507	• PLYWOOD, Battery tray	1
	702851	• TERMINAL, Battery 12V pos.	1
	702555	• TERMINAL, Battery 12V neg.	1
10	705410	BRACKET, Battery holddown	1
	101632	• BOLT, HHCS 3/8-16 x 3/4" lg.	2
	103999	• WASHER, Lock 3/8"	2
11	700920	WELDMENT, Moveable stop	1
12	700923	CAP, Moveable stop	1
	101632	• BOLT, HHCS 3/8-16 x 3/4" lg.	2
	103999	• WASHER, Lock 3/8"	2
13	706911	ASSEMBLY, Brake manifold (For components, refer to Figure 6-24.)	1
	702674	• BOLT, HHCS 1/4-20 x 4" lg. Grade 5	2
	104000	• WASHER, Lock 1/4"	2
14	(Ref.)	BATTERY CHARGER (Not Shown) (Refer to Figure 6-26, 6-27.)	1
	104698	• BOLT, Machine hd #10-32 x 3/4" lg.	AR
	104694	• WASHER, Flat #10	AR
	701695	• NUT, Lock #10-32	AR
15	700925	WELDMENT, Main disconnect handle	1
	103859	• BOLT, HHCS 1/4-20 x 1-1/2" lg. Grade 5	4
	103995	• WASHER, Flat 1/4"	4
16	700814	GUIDE, Boom side	2
17	700813	REST PAD, Boom lower	2
	709832	• BOLT, SHCS 3/8-16 x 2" lg. Grade 5	2
18	700903	ACCUMULATOR, Brake pressure	1
	700904	CLAMP, Accumulator	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	• WASHER, Lock 5/16"	2
19	700224	PUMP/MOTOR ASSEMBLY	1
	700669	• PUMP, Hydraulic	1
	103072	•• FITTING, Tee 90° #6orb-#6	1
	103073	•• FITTING, Elbow 90° #6orb-#6	1
	103032	• HOSE, 3/4" suction	24"
	106052	• COUPLING	1
	700668	• MOTOR, 48 Volt	1
	109174	•• BRUSH SET	1
	109175	•• SPRING, Brush	8
	103871	•• BOLT, HHCS 3/8-16 x 1-3/4" lg. Grade 5	4
	104606	•• NUT, Lock nylon insert 3/8-16	4
	700523	•• BUSHING, Rubber	4
20	705537	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-23.)	1
	103886	BOLT, HHCS 5/16-18 x 1-1/2" lg. Grade 5	4
	103404	• WASHER, Lock 5/16"	4

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
21	705419	SPACER	4
22	705042	BRACKET, Manifold valve	2
	103886	• BOLT, HHCS 5/16-18 x 1-1/2" lg. Grade 5	4
	103404	• WASHER, Lock 5/16"	4
23	701110	ASSEMBLY, Hydraulic tank (For components, refer to Figure 6-22.)	1
24	701242	BRACKET, Hydraulic tank hold down	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	• WASHER, Lock 5/16"	2
25	Ref.	ASSEMBLY, Fuel tank (For components, refer to Figure 6-21.)	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	• WASHER, Lock 5/16"	2
26	708955	SWITCH, Tilt	1
	114866	• FUSE, 250 Volt, 1 amp	1
	103855	• BOLT, HHCS 1/4-20 x 1/2" lg. Grade 5	4
	104000	• WASHER, Lock 1/4"	4
27	705468	SWITCH, Sealed limit (turret rotate)	1
	705238	• BOLT, Machine rd hd slotted #10-32 x 1-3/4" lg.	2
28	700930	PLATE, Turret rotate limit switch mount	1
	103887	BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	WASHER, Lock 5/16"	2
29	709827	ASSEMBLY, Limit switch (boom)	1
	104698	• BOLT, Machine hd slotted #10-32 x 3/4" lg.	2
	701695	• NUT, Lock #10-32	2
30	705331	COVER, Pump/motor unit	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	• WASHER, Lock 5/16"	2
31	705112	BRACKET, Slide pad	3
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103404	• WASHER, Lock 5/16"	2
	103996	• WASHER, Flat 5/16"	2
32	705023	SLIDE PAD	4
	705548	• BOLT, FHCS 1/4-20 x 1" lg.	2
	700583	• NUT, Lock nylon insert 1/4-20	2
33	705398	BRACKET, Control box latch	1
	702195	• BOLT, HHCS 3/8-16 x 1-1/2" lg.	2
	103472	• WASHER, Flat 3/8"	4
	104606	• NUT, Lock nylon insert 3/8-16	2
34	705108	BRACE	1
	702195	• BOLT, HHCS 3/8-16 x 1-1/2" lg. Grade 5	2
	103473	• BOLT, HHCS 3/8-16 x 1" lg. Grade 5	2
	103999	• WASHER, Lock 3/8"	2
	104606	• NUT, Lock nylon insert 3/8-16	2
35	705131	PLATE, Door latch	2
	101632	• BOLT, HHCS 3/8-16 x 3/4"	2
	103999	• WASHER, Lock 3/8"	2
36	705132	PIN, Door latch	2
	109598	• NUT, Jam 1/2-20 Grade 5	1
37	705418	PLATE, Engine tray latch	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	3
	103404	• WASHER, Lock 5/16"	3
38	705127	WASHER, Machine .75 x 1.75 x 1/8" thick	1
39	705021	PIN, Engine tray eccentric	2
40	703099	NIPPLE, .125 NPT x 3-1/2" lg.	1
41	703100	COUPLING, .125 NPT	1
42	705539	FTG, STR THREAD 45° elbow	1
43	705605	NOTE - Items 43 thru 47 are for machines with Dual Fuel Option only.	
	103845	BRACKET, LPG Relief valve	1
	103404	• BOLT, HHCS 5/16-18 x 1/2" lg. Grade 5	2
	705071	• WASHER, Lock 5/16	2
44	103845	PLATE, LPG Strap latch	2
	103404	• BOLT, HHCS 5/16-18 x 1/2" lg. Grade 5	2
	705055	• WASHER, Lock 5/16	2
45	702253	STRAP, LPG Bottle	1
46		LP TANK	1
47	103020	STRAP, LP Tank	1
48	701517	NOTE - Items 48 thru 49 are for European machines only.	
49	701467	TOOLASSEMBLY, Turret rotate (Not Shown)	1
		PIN, Cotter (Not Shown)	1

FIGURE 6-19. TURRET COVERS AND DOORS



MA-ME620

FIGURE 6-19. TURRET COVERS AND DOORS

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	705060	WELDMENT, Door lefthand	1
	705576	• BOLT, Carriage 5/16-18 x 1" lg.	5
	103996	• WASHER, Flat 5/16"	5
	103984	• NUT, Lock nylon insert 5/16-18	5
2	705138	WELDMENT, Door righthand	1
	705576	• BOLT, Carriage 5/16-18 x 1" lg.	5
	103996	• WASHER, Flat 5/16"	5
	103984	• NUT, Lock nylon insert 5/16-18	5
3	705133	DOOR Latch	2
	103962	• BOLT, Machine hd rd slotted #10-32 x 1-1/2" lg.	5
	701695	• NUT, Lock #10-32	5
4	705170	SUPPORT, Door prop	2
	103864	• BOLT, HHCS 5/16-18 x 1"	2
	103996	• WASHER, Flat 5/16"	2
	103404	• WASHER, Lock 5/16"	2
5	705169	BAR, Door prop	2
	705549	• BOLT, Shoulder 1/4-20 x 1/2" lg	1
6	705186	ROLLER	2
	705548	• BOLT, FHCS 1/4-20 x 1" lg. Grade 5	2
7	705051	HINGE, Door	2
	709781	• SHIM, Door (Not shown)	AR
	103864	• BOLT, HHCS 5/16-18 x 1" lg.	5
	103996	• WASHER, Flat 5/16"	5
	103404	• WASHER, Lock 5/16"	5
8	705193	RUBBER BUMPER, Door	2
	705558	• BOLT, Machine hd rd slotted #10-32 x 2" lg.	1
	701695	• NUT, Lock #10-32	2
9	705037	SKIRT	2
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	3
	103996	• WASHER, Flat 5/16"	3
	103404	• WASHER, Lock 5/16"	3
10	705313	PLATE, Turret access cover	2
	103845	• BOLT, HHCS 5/16-18 x 1/2" lg. Grade 5	3
	103404	• WASHER, Lock 5/16"	3
11	705168	GUARD, Fuel tank	1
	101632	• BOLT, HHCS 3/8-16 x 3/4" lg. Grade 5	2
	103999	• WASHER, Lock 3/8"	2
12	705334	COVER, Terminal strip	1
	103958	• BOLT, Machine hd #8-32 x 3/4" lg.	2
	112249	• WASHER, Lock #8	2
13	705185	SHROUD, Radiator	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	4
	103996	• WASHER, Flat 5/16"	4
	103984	• NUT, Lock nylon insert 5/16-18	4
14	705187	SHROUD, Access cover	1
	103887	• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103996	• WASHER, Flat 5/16"	2
	103984	• NUT, Lock nylon insert 5/16-18	2

This exploded view diagram illustrates the internal components of the MA-ME676 control panel, organized into two main sections: the top section (components 10-66) and the bottom section (components 1-65). The diagram uses numbered callouts to identify individual parts and their assembly sequence.

Top Section Components (10-66):

- 10, 11:** Mounting bracket and screw.
- 13, 14:** Top and side mounting rails.
- 15:** Main control panel assembly.
- 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28:** Various internal components including relays, switches, and terminal blocks.
- 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66:** A large number of small components, including screws, washers, and specialized electronic parts.

Bottom Section Components (1-65):

- 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66:** A large number of small components, including screws, washers, and specialized electronic parts.

The diagram shows the assembly sequence for the control panel, with components 1 through 65 being installed into the main panel assembly (15). The top section (10-66) shows the final assembly of the control panel, including the mounting bracket (10, 11) and the main panel (15).

SJKB-40C-ME

FIGURE 6-20. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	(Ref.)	PANEL ASSEMBLY, Base control	-
1	705188	• CONTROL BOX, Drilled	1
2	700837	• ASSEMBLY, Motor controller (For components, refer to Figure 6-25.)	1
	705235	• ASSEMBLY, Terminal block-box	1
3	707143	•• TERMINAL BLOCK, Through	47
4	707145	•• TERMINAL BLOCK, Diode	13
5	707146	•• TERMINAL BLOCK, End plate	1
6	707147	•• TERMINAL BLOCK, End stop	2
7	707148	•• JUMPER, Terminal block	5
8	707149	•• DIN RAIL, Terminal block	13"
	702659	••• WASHER, Starr #10	2
	705525	••• BOLT, Truss hd #10-32 x 1" lg.	2
	104694	••• WASHER, Flat #10	4
	104003	••• NUT, Hex #10-32	2
9	102921	•• DIODE, 6Amp 1000 PIV	2
10	705096	• WELDMENT, Latch bracket	1
	101297	•• BOLT, HHCS 3/8-16 x 1-1/4 lg. Grade 5	2
	103472	•• WASHER, Flat 3/8"	2
	104606	•• NUT, Lock 3/8-16	2
11	705370	• DOUBLER, Latch bracket	1
12	705202	• CAPACITOR	1
13	705094	• WELDMENT, Box hinge	1
14	705417	• TERMINAL STRIP, 12 Post	1
	701695	•• NUT, Lock #10-32	12
	705552	•• BOLT, Machine hd #8-32 x 5/8" lg.	2
	112249	•• WASHER, Lock #8	2
	705554	•• WASHER, Flat #8	2
15	705341	• BUS BAR	1
16	705339	• BUS BAR	1
17	705349	• BUS BAR	1
18	705340	• BUS BAR	1
19	705342	• BUS BAR	1
20	705350	• BUS BAR	1
21	705343	• BUS BAR	1
22	705344	• BUS BAR	2
23	705346	• BUS BAR	1
24	705128	• PASS THRU	13
25	705347	• BUS BAR	1
26	705210	• FUSE	1
27	705348	• BUS BAR	1
28	103068	• STAND OFF	1
29	705198	• CONTACTOR	1
30	705200	• CURRENT CLAMP	1
31	705201	• CIRCUIT BOARD	1
	705579	•• BOLT, Machine rd hd #6-32 x 1.4" lg.	8
	705425	•• STANDOFF, Hex #6-32 x 1/2" lg.	4
	705236	• ASSEMBLY, Terminal block - door	1
32	707143	•• TERMINAL BLOCK, Through	7
33	707145	•• TERMINAL BLOCK, Diode	17
34	707146	•• TERMINAL BLOCK, End plate	1
35	707147	•• TERMINAL BLOCK, End stop	2
36	707148	•• JUMPER, Terminal block	2
37	707149	•• DIN RAIL, Terminal block	7"
	700479	••• BOLT, Machine rd hd #10-24 x 3/4" lg.	AR
	104694	••• WASHER, Flat #10	AR
	705571	••• NUT, Lock #10-24	AR
38	705204	• TIMER, Delay off	1
39	705207	• TIMER, Glow plug (Diesel Only)	1
	700479	•• BOLT, Machine rd hd #10-24 x 3/4" lg.	AR
	104694	•• WASHER, Flat #10	AR
	705571	•• NUT, Lock #10-24	AR
Parts list continued on Page 43.			

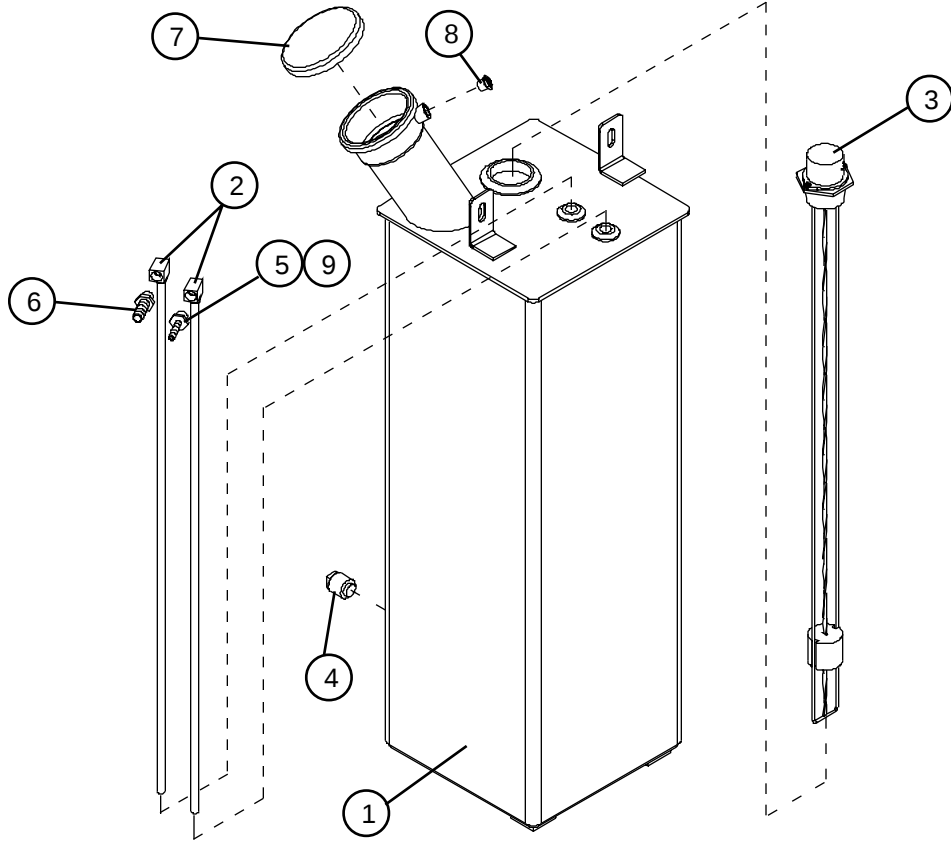
This exploded view diagram illustrates the assembly of the MA-ME676 control panel. It shows three main components: the front panel (top left), the main unit (top right), and the terminal block (bottom). The front panel features a display area (58) with various indicators (54, 48, 66, 53, 52, 47, 40, 41, 43, 42) and a control knob (46). The main unit includes a terminal block (13), a display area (14), and a control knob (59). The terminal block (bottom) shows the internal wiring connections for the front panel and main unit, with numbered callouts (1-65) indicating specific components and terminals. The diagram is labeled MA-ME676 in the bottom right corner.

SJKB-40C-ME

FIGURE 6-20. BASE CONTROL/ELECTRICAL PANEL ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
		Parts list continued from Page 41.	
40	705362	• AMMETER	1
41	103336	• HOURMETER	2
42	705205	• CIRCUIT BREAKER, 3 AMP	2
43	700158	• CIRCUIT BREAKER, 10 AMP	2
44	801347	• DC/DC CONVERTER	1
	700479	•• BOLT, Machine rd hd #10-24 x 3/4" lg.	AR
	104694	•• WASHER, Flat #10	AR
	705571	•• NUT, Lock #10-24	AR
45	108589	• RELAY, 24V	6
	700479	•• BOLT, Machine rd hd #10-24 x 3/4" lg.	AR
	104694	•• WASHER, Flat #10	AR
	705571	•• NUT, Lock #10-24	AR
46	(Ref.)	• ASSEMBLY, Emergency stop button	1
	102769	•• SWITCH HEAD, Emergency stop	1
	103100	•• SWITCH BASE, Emergency stop	1
	103225	•• CONTACT BLOCK, N.C.	1
47	701931	• SWITCH, Ignition	1
48	705206	• LIGHT, Glow plug (Diesel Only)	1
49	(Ref.)	• ASSEMBLY, Key switch	1
	102753	•• SWITCH HEAD	1
	104466	••• KEY	1
	103100	•• SWITCH BASE	1
	103225	•• CONTACT BLOCK, N.C.	2
	103141	•• CONTACT BLOCK, N.O.	2
50	114270	• CLAMP, 2"	1
51	705384	• Latch, Ground box/engine tray	1
52	701929	• SWITCH, SPDT 2 position momentary	2
53	701930	• SWITCH, SPDT 2 position maintained	1
54	102853	• SWITCH, SPDT 3 position momentary	7
55	(Ref.)	• ASSEMBLY, Connector (Main control)	1
	705257	•• FLANGE/CONNECTOR	1
	705258	•• Pin, Contact	36
	705256	•• Plug, Seal	4
	705451	•• GASKET	1
	103958	••• BOLT, Machine rd hd #8-32 x 3/4" lg	AR
	705557	••• NUT, Lock #8-32	AR
56	(Ref.)	• ASSEMBLY, Connector (Turret)	1
	705257	•• FLANGE/CONNECTOR	1
	705258	•• Pin, Contact	33
	705256	•• Plug, Seal	7
	705451	•• GASKET	1
	103958	••• BOLT, Machine rd hd #8-32 x 3/4" lg	AR
	705557	••• NUT, Lock #8-32	AR
57	(Ref.)	• ASSEMBLY, Connector (Engine)	1
	705261	•• FLANGE/CONNECTOR	1
	705258	•• Pin, Contact	11
	103958	••• BOLT, Machine rd hd #8-32 x 3/4" lg	AR
	705557	••• NUT, Lock #8-32	AR
58	(Ref.)	• LABEL, Ground controls panel	1
	705250	• LABEL, Ground controls	AR
	705632	• LABEL, Ground controls (Europe)	AR
59	705395	• ASSEMBLY, Heat sink	1
60	705361	• SHUNT	1
61	702186	• COVER, Wire duct 1"	12"
62	707188	• COVER, Wire duct 2"	18"
63	707187	• WIRE DUCT, 1" x 2"	12"
64	707020	• WIRE DUCT, 2" x 2"	18"
65	705192	• BRACKET, Wago	1
	104694	•• WASHER, Flat #10	AR
	701695	•• NUT, Lock #10-32	AR
66	705564	• PLUG, Steel push penney 1/2" dia. (Dual Fuel Only)	1

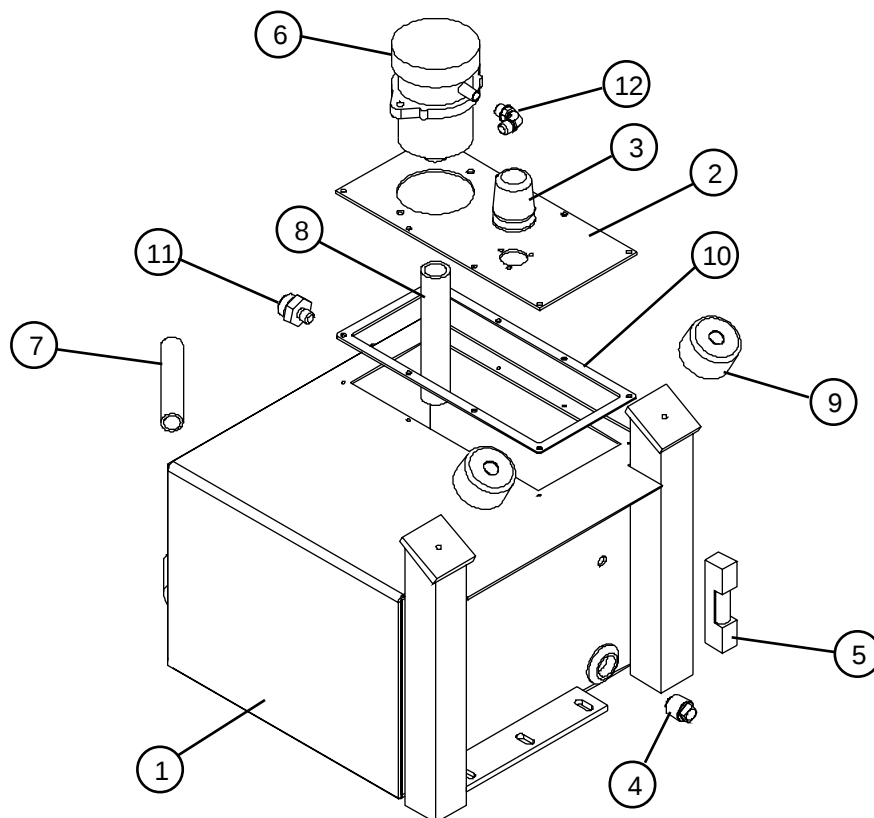
FIGURE 6-21. FUEL TANK ASSEMBLY



MA-ME673

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
A	709783	ASSEMBLY, Fuel tank 40ME (Dual Fuel)							-
B	705143	ASSEMBLY, Fuel tank 40ME (Diesel)							-
1	705069	• WELDMENT, Fuel tank							1
2	705151	• WELDMENT, Fuel tank withdrawal A							1
		• WELDMENT, Fuel tank withdrawal B							2
3	705144	• GAUGE, Fuel							1
4	103339	• FITTING, Mag plug							1
5	705248	• FITTING, Brass male hose barb #4 - #3 B							1
6	705249	• FITTING, Brass male hose barb #4 - #6							1
7	703937	• FILLER CAP, Fuel tank							1
8	700506	• FITTING, Breather vent plug							1
9	709785	• PLUG, Hex head 1/4 A							1

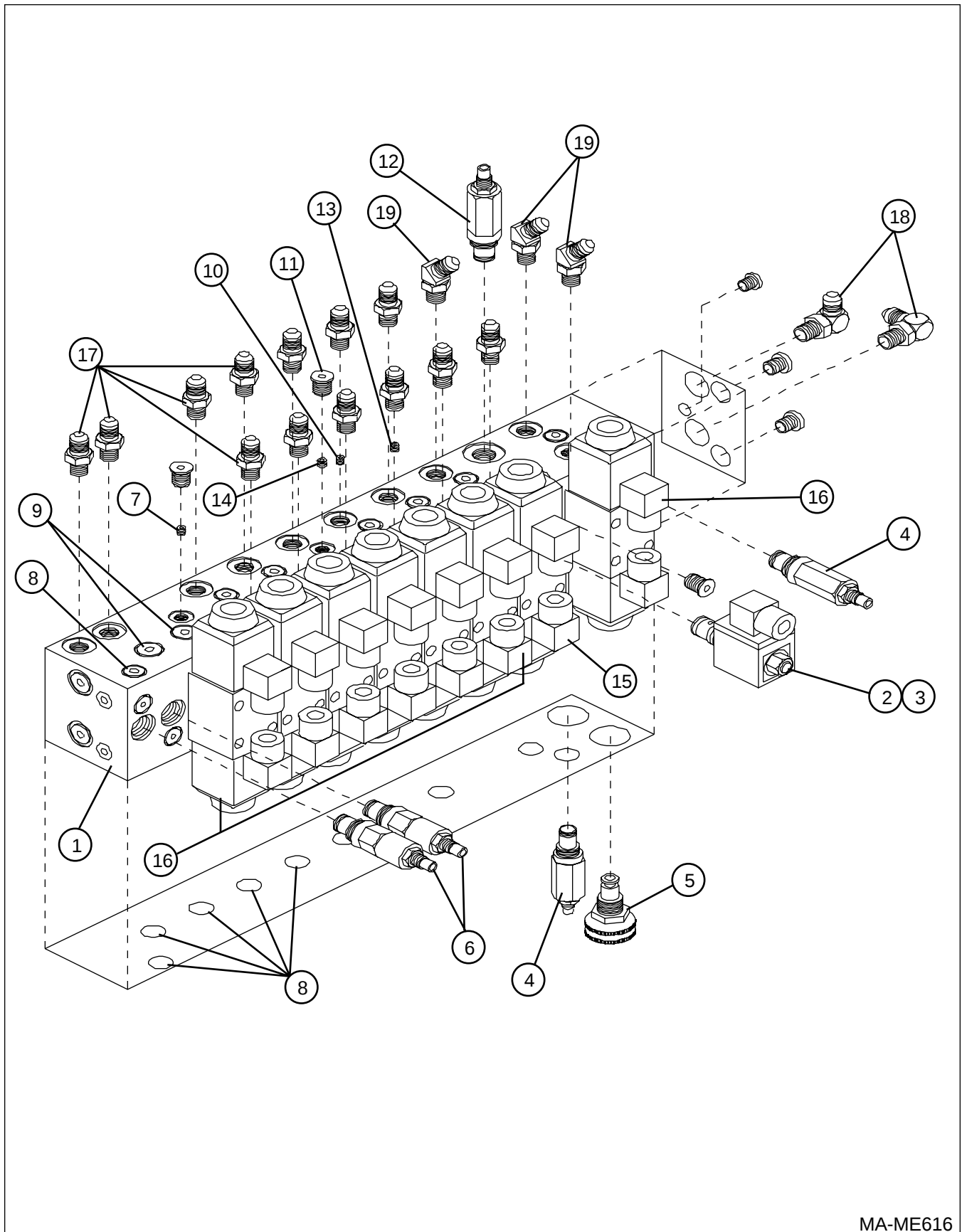
FIGURE 6-22. HYDRAULIC TANK ASSEMBLY



MA-ME674

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	701110	TANK ASSEMBLY, Hydraulic	-
2	701443	• WELDMENT, Hydraulic tank	1
	700984	• TANK LID, Hydraulic	1
	103962	•• BOLT, Machine-hd #10-32 x 1/2" lg.	8
	104694	•• WASHER, Flat #10	8
	104185	•• WASHER, Lock #10.	8
3	704488	• FILTER ASSEMBLY, Hydraulic return	1
	104254	•• ELEMENT, Filter	1
	103864	•• BOLT, HHCS 5/16-18 x 1" lg.	2
	103404	•• WASHER, Lock 5/16"	2
	100397	•• NUT, Hex 5/16-18	2
	708402	•• SEAL KIT	1
4	103339	• PLUG, Magnetic 3/4 NPT	1
5	103236	• GAUGE, Oil level temp	1
6	102693	• CAP W/ GASKET, Filler/breather	1
	103962	•• SCREW, Mach-hd #10-32 x 1/2" lg.	3
7	102918	• HOSE, Tank 1" Dia.	7"
	103320	•• CLAMP, #16 Gear	1
8	103032	• HOSE, Suction 3/4" I.D.	24"
	102854	•• CLAMP, #12 Gear	2
9	111135	• REST PAD, Riser	2
	103857	•• BOLT, HHCS 1/4-20 x 1"	2
	104000	•• WASHER, Lock 1/4"	2
10	704823	• GASKET	1
11	109052	• FITTING, Connector #12orb-#6	1
12	103073	• FITTING, Elbow 90° #6	1

FIGURE 6-23. MAIN MANIFOLD ASSEMBLY

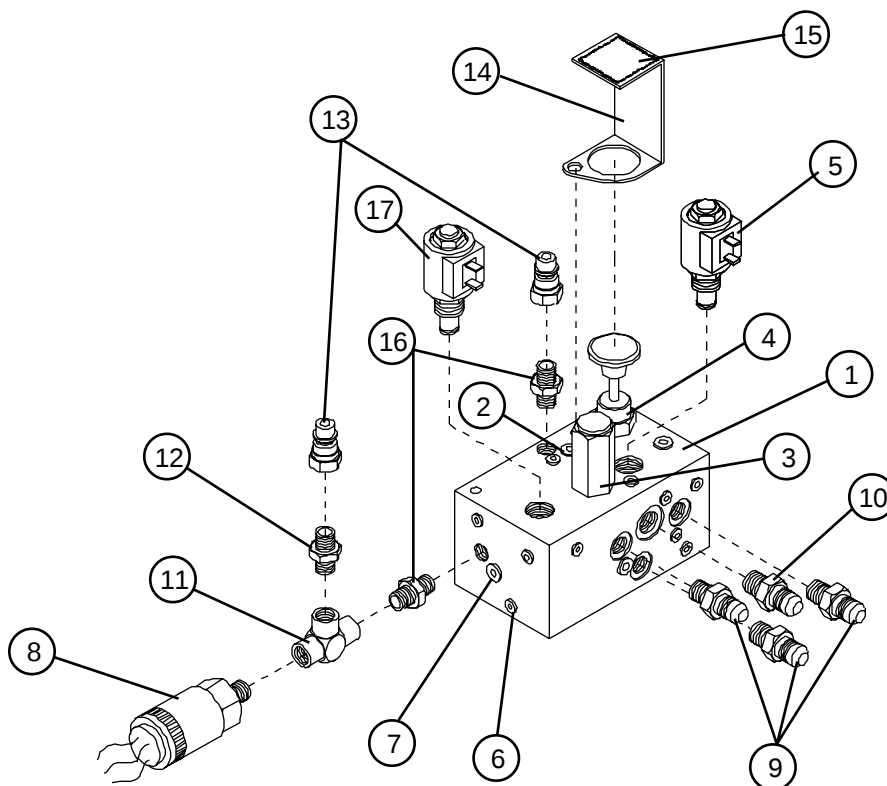


MA-ME616

FIGURE 6-23. MAIN MANIFOLD ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	701867	MANIFOLD ASSEMBLY, Main (MCD 4933)	-
1	700671	• BLOCK, Main manifold	1
2	700677	• VALVE, Dump	1
3	702754	• COIL, 24 Volt	1
4	700672	• VALVE, Relief (turret rotate)	2
5	700763	• VALVE, Needle (emergency turret rotate)	1
6	700670	• VALVE, Counterbalance (platform tilt)	2
7	700682	• ORIFICE, .025 dia. (platform tilt)	1
8	700764	• PLUG, Soc-hd #2orb	21
9	700765	• PLUG, Soc-hd #4orb	11
10	700679	• ORIFICE, .100 dia. (jib lift)	1
11	104437	• PLUG, Soc-hd #6orb	4
12	700673	• VALVE, Relief (dump)	1
13	700680	• ORIFICE, .060 dia. (jib lift)	1
14	700682	• ORIFICE, .025 dia (platform rotate)	1
15	701861	VALVE ASSEMBLY, 24 Volt spool (steering)	1
	702755	• COIL, 24 Volt	2
	103918	• BOLT, Soc-hd #10-24 x 1-1/4" lg.	4
16	701860	VALVE ASSEMBLY, 24 Volt spool (lift functions)	7
	702755	• COIL, 24 Volt	14
	103918	• BOLT, Soc-hd #10-24 x 1-1/4" lg.	28
17	103069	FITTING, Connector #6orb-#6	13
18	103073	FITTING, Elbow 90° #6orb-#6	2
19	107742	FITTING, Elbow 45° #6orb-#6	3

FIGURE 6-24. BRAKE MANIFOLD ASSEMBLY

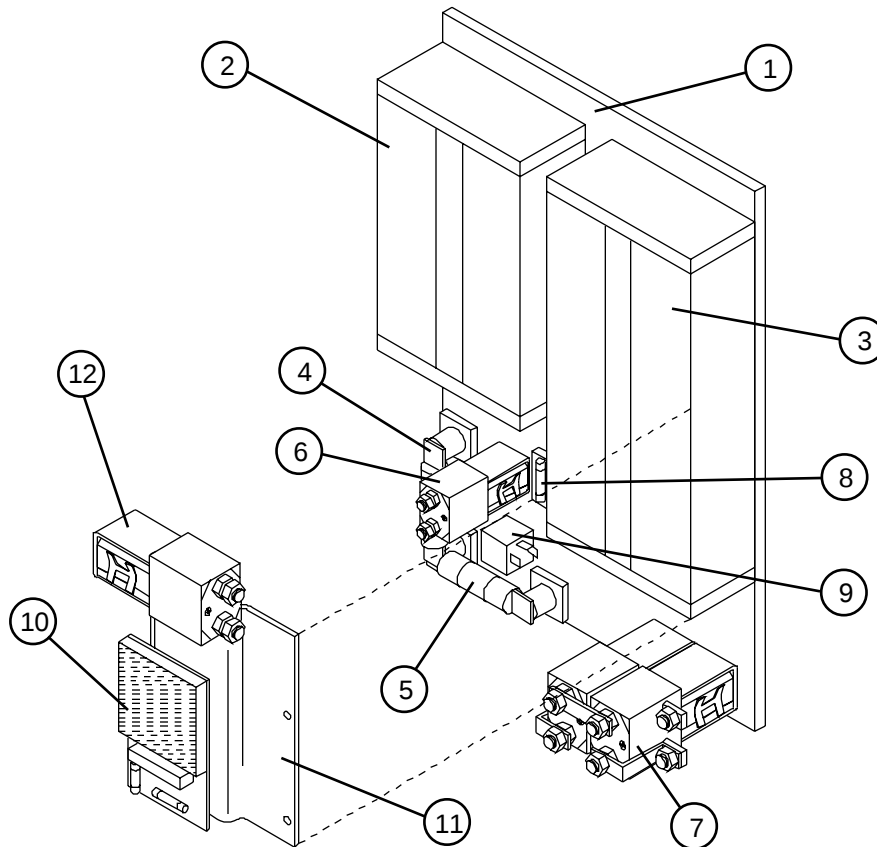


CAUTION - Brake system under pressure. Bleed pressure before servicing.

MA-ME617

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	706911	BRAKE MANIFOLD ASSEMBLY	-
1	\$	• BLOCK, Brake manifold	1
2	701295	• VALVE, Check	1
3	701296	• VALVE, Pressure reducing	1
4	701297	• HAND VALVE, Brake release	1
5	701298	• SOLENOID VALVE, Brake	1
	709395	• • COIL	1
6	700764	• PLUG, #2 SAE	10
7	700765	• PLUG, #4 SAE	5
8	701194	• PRESSURE SWITCH, Brake	1
9	103322	• FITTING, Connector #4orb - #6	3
10	103069	• FITTING, Connector #6orb - #6	1
11	704064	• FITTING, Street tee 1/4NPT	1
12	701458	• FITTING, Pipe nipple 1/4NPT	1
13	114520	• FITTING, Hydraulic disconnect	2
	114521	• DUST CAP	2
14	701986	• COVER, Brake release	1
15	702005	• LABEL, Danger	1
16	703071	• FITTING, Adaptor #4 - 1/4NPT	2
17	708981	• SOLENOID VALVE, Brake	1
	709395	• • COIL	1
		\$ - Consult Factory	

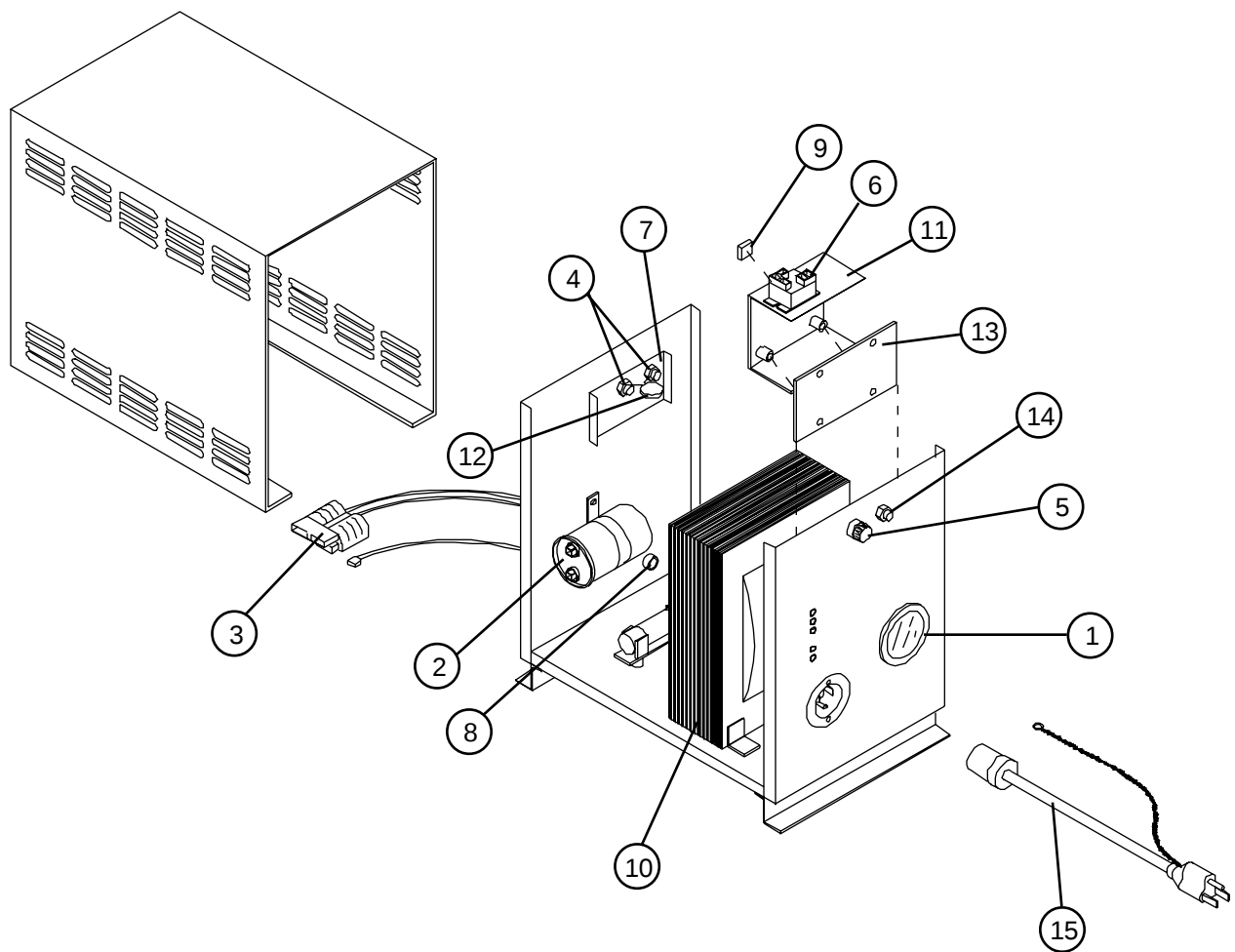
FIGURE 6-25. MOTOR CONTROLLER PANEL ASSEMBLY



MA-ME675

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700837	PANEL ASSEMBLY, Motor controller	-
1	700216	• PLATE, Base	1
2	700214	• CONTROLLER, Pump	1
	701082	• • RESISTOR ASSEMBLY, 2.2k - 3w	1
3	700990	• CONTROLLER, Drive	1
	708484	• • KIT, Connector and pins	AR
4	102756	• FUSE, 200 Amp pump	1
5	700228	• FUSE, 300 Amp drive	1
6	700219	• CONTACTOR, Pump (boom control)	1
7	700218	• CONTACTOR, Directional	2
8	700222	• FUSE HOLDER, Double	1
	110855	• • FUSE, AGC 10	2
9	108589	• RELAY, Sealed 40 Amp	1
10	700217	• TACHOMETER BOARD	1
	701080	• • RESISTOR, 2.2 K	1
	700776	• • FUSE, 250 Volt, 6.3 Amp	1
	700777	• • FUSE, 250 Volt, 20 Amp	1
11	700991	• MOUNT PLATE, Tachometer board	1
12	701078	• LINE CONTACTOR	1
	701081	• • RESISTOR ASSEMBLY, 1k - 5w	1
	701291	• BRAIDED CABLE, 10" lg.	1
	700220	• BRAIDED CABLE, 7" lg.	3
	700229	• BRAIDED CABLE, 5" lg.	2
	701083	• CABLE ASSEMBLY, Line contactor to fuse	1

FIGURE 6-26. BATTERY CHARGER ASSEMBLY

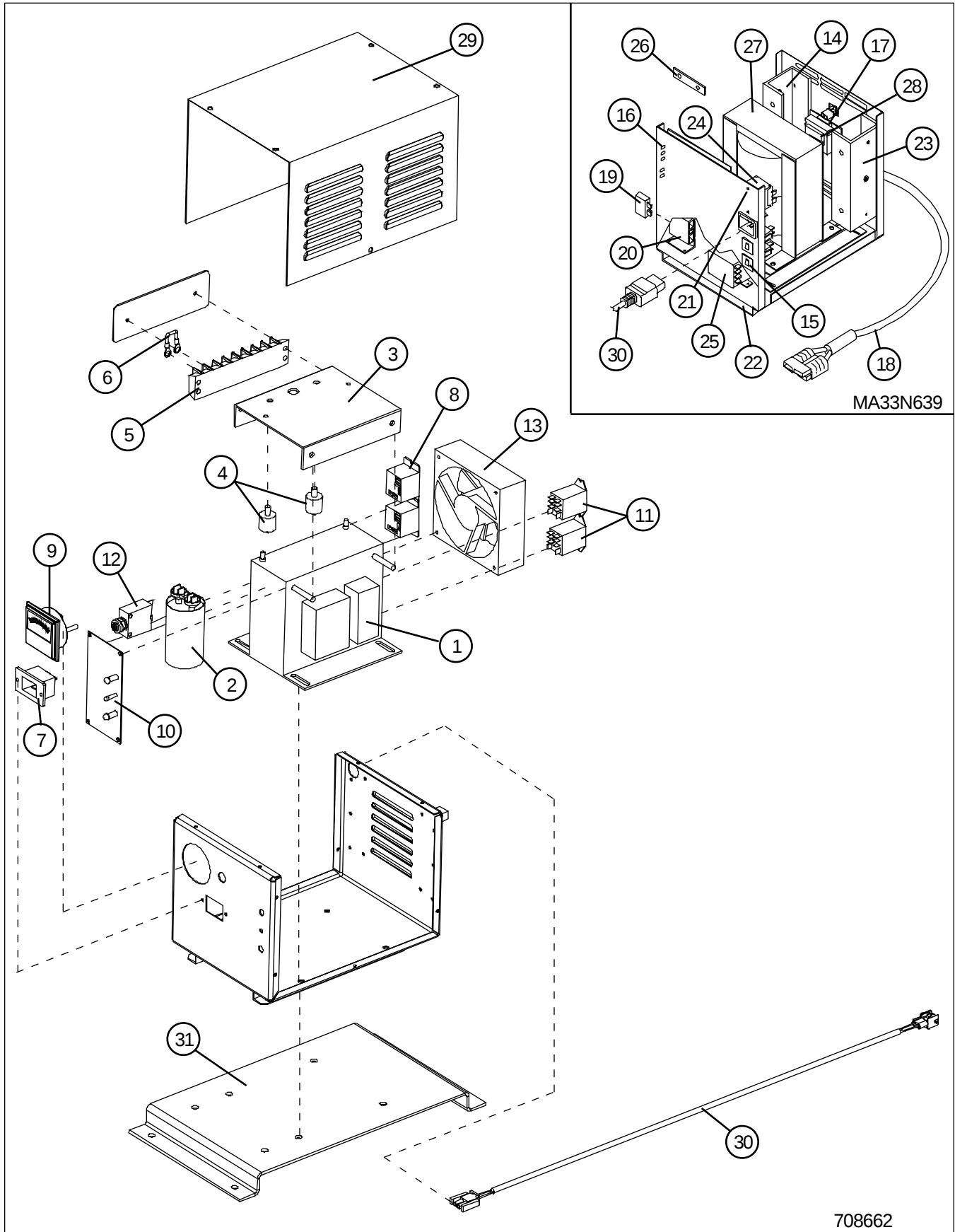


MA-ME623

FIGURE 6-26. BATTERY CHARGER ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
A	707681	CHARGER ASSEMBLY, Battery (MAC #BA821)(North American) 48VDC, 25A, 120VAC, 60 Hz	-
B	707682	CHARGER ASSEMBLY, Battery (MAC #BA842)(Europe) 48VDC, 25A, 220VAC, 50/60 Hz	
1	108554	• AMMETER, 0-30	1
2	708974	• CAPACITOR, 10MFD 440VAC, A	1
	700877	• CAPACITOR, 10MFD TX 660VAC, B	1
3	708976	• CORD ASSEMBLY, D.C.	1
	103364	• PLUG, 50 Amp gray	1
4	108556	• DIODE, 70 Amp	2
5	108558	• FUSE HOLDER, A.C.	1
	700688	• FUSE, 25 Amp A.C.	1
6	115315	• RELAY, 120 VAC/30 Amp, A	2
	708979	• RELAY, 240 VAC, B	2
7	700689	• RECTIFIER ASSEMBLY, A	1
	708978	• RECTIFIER ASSEMBLY, B	1
8	700690	• STRAIN RELIEF	1
9	108562	• TRIAC	1
10	700691	• TRANSFORMER, 48 VDC 23 Amp 120 VAC/60Hz, A	1
	700879	• TRANSFORMER, 48 VDC 25 Amp 240 VAC/50-60Hz, B	1
11	108564	• CONTROL TRANSFORMER	1
	111907	• TRANSFORMER, Control	1
12	700692	• VARISTOR	1
13	708975	• CONTROL CIRCUIT, 48VDC 120V VAC, A	1
	708977	• CONTROL CIRCUIT, 48VDC 240V VAC, B	1
14	110857	• STOP SWITCH, N.O.	1
15	700530	CABLE ASSEMBLY, Charger A.C., A	1
	700635	• LUG, 15A Male	1
	700597	• RECEPTACLE, 20 Amp Female	1
	105269	• CABLE, 14/3	8"
	105807	• LANYARD, 6" lg.	1
	700913	• CABLE ASSEMBLY, Charger A.C., B (not shown)	1
	700914	• PLUG, Male	1
	108561	• STRAIN RELIEF	1
	708980	• SWITCH, Toggle DPDT, B (not shown)	1
		\$ Consult factory.	

FIGURE 6-27. BATTERY CHARGER ASSEMBLY (DUAL VOLTAGE)

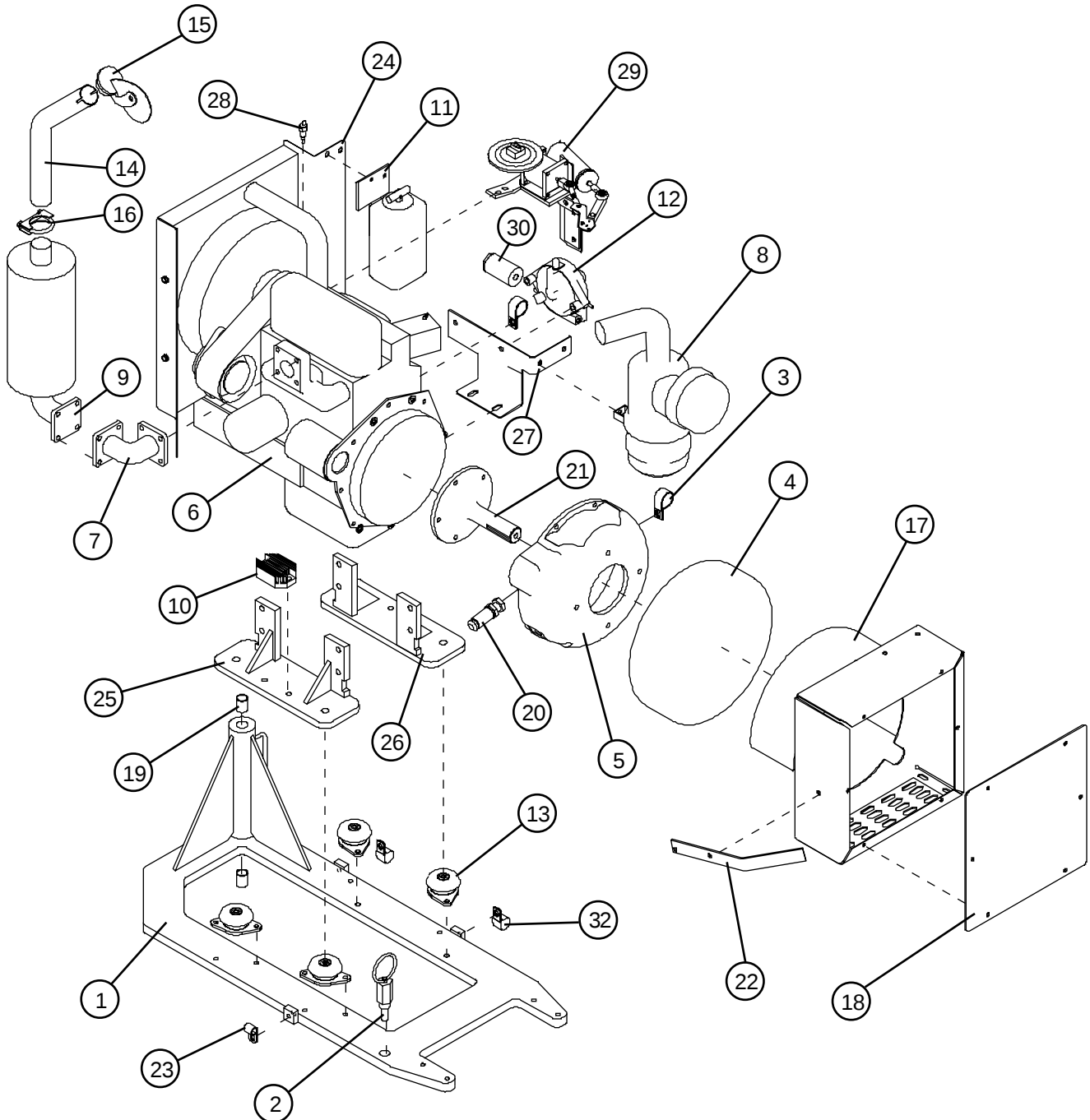


708662

FIGURE 6-27. BATTERY CHARGER ASSEMBLY (DUAL VOLTAGE)

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	708662	BATTERY CHARGER ASSEMBLY, Dual voltage	1
-	122367	• BATTERY CHARGER, Dual voltage, (Serial Number 96008 and Above.)	1
1	711073	•• TRANSFORMER, Charger	1
2	711074	•• CAPACITOR	1
3	711196	•• HEAT SINK, Charger	1
4	711197	•• RECTIFIER, Charger	2
5	711198	•• TERMINAL STRIP, Thru	1
6	711199	•• JUMPER FUSE	1
7	711200	•• RECEPTACLE, IEC 60320-C20	1
8	711201	•• RELAY, 24 VDC, 20 AMP	2
9	711202	•• GAUGE, Ammeter, 50 ADC	1
10	711203	•• CONTROLLER, Assembly Charger	1
11	711204	•• RELAY, 240 VAC	2
12	711205	•• BREAKER,CIRCUIT, 20 amp	1
13	711206	•• FAN, Cooling, 15 VAC	1
-	120075	• BATTERY CHARGER, Dual voltage (BA1045)(S/N 96007 and below.)	1
14	119157	•• CAPACITOR ASSEMBLY, 400V	2
15	119143	•• CIRCUIT BREAKER, 10 Amp	2
16	119151	•• CONTROL CIRCUIT, 48V21A	1
17	119160	•• CONTROL, ACZ/48V	1
18	119152	•• CORD ASSEMBLY, DC	1
	103206	••• PLUG, 50 amp (red)	1
19	117177	•• FUSE, 80 amp DC	1
20	117178	•• HOLDER, Fuse	1
21	119162	•• INSULATOR, Relay	2
22	119161	•• PLATE, Mounting	1
23	119148	•• RECTIFIER ASSEMBLY	1
	119150	••• SCR, 35amp	2
24	119155	•• RELAY, 24VDC 30A	1
25	119156	•• RELAY, 120VAC	1
26	119149	•• SHUNT ASSEMBLY	1
27	119145	•• TRANSFORMER, Main 48V20A, 120/240/50/60	1
28	119159	•• TRANSFORMER, Control 230V16A	1
29	\$	•• COVER, Charger	1
30	708664	• PIGTAIL, DC Interlock	1
	711243	•• CABLE, Subassembly	1
31	708663	• MOUNTING PLATE, Charger	1
	103855	•• BOLT, HHCS 1/4"-20 x 1/2"	6
	104000	•• WASHER, Lock 1/4", (Serial Number 96008 and Above.)	6
	700583	•• WASHER, Lock 1/4", (Serial Number 96007 and Below.)	6
		\$ Consult factory.	

FIGURE 6-28. ENGINE AND RELATED PARTS (Dual Fuel)

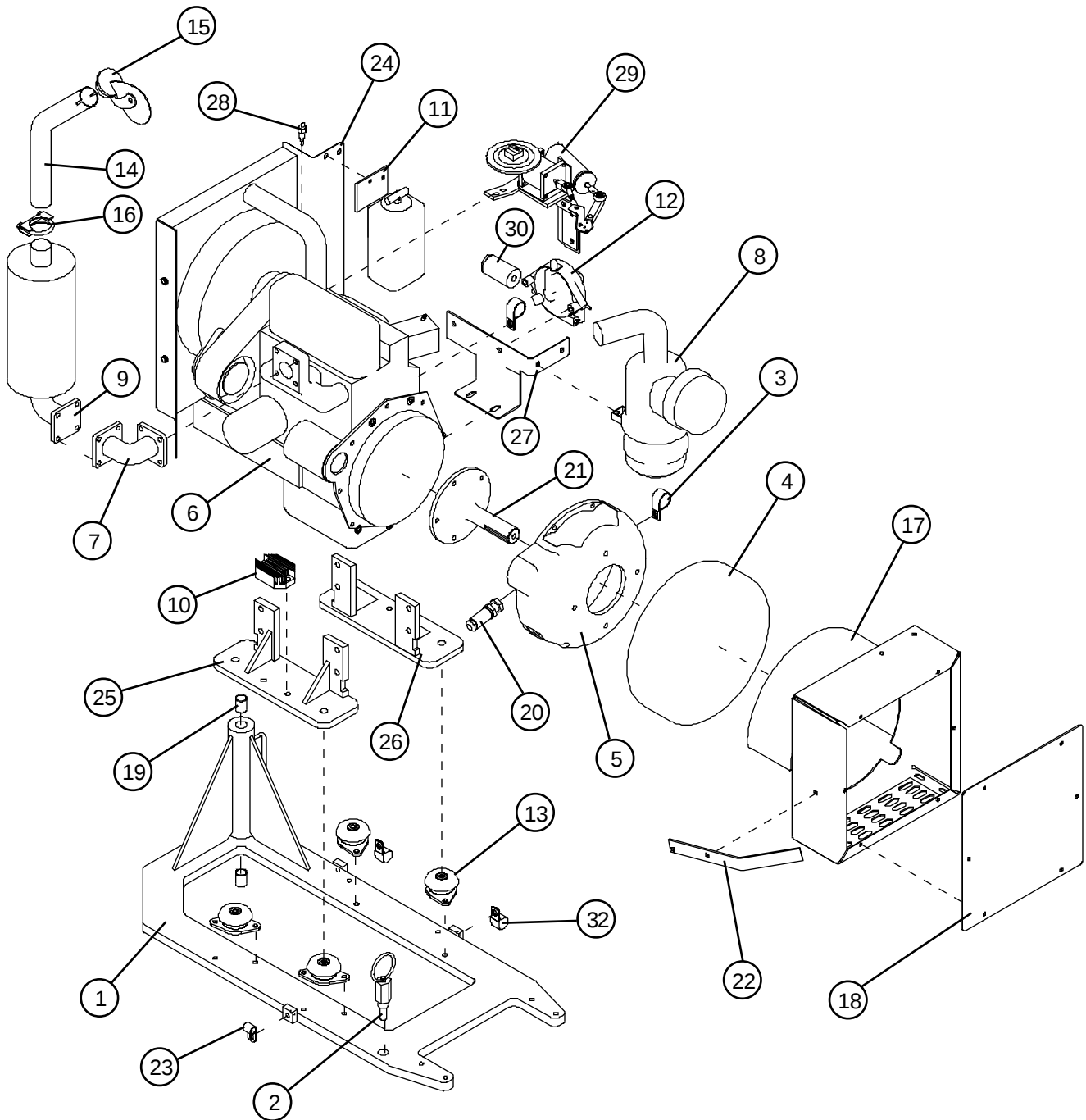


705623

FIGURE 6-28. ENGINE AND RELATED PARTS (Dual Fuel)

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
-	705623	ASSEMBLY, Engine Kubota DF750	1
1	705000	• WELDMENT, Engine tray	1
2	705384	• ASSEMBLY, Lock pin	1
	200227	•• HOUSING, Guardrail latch	1
	709707	•• PIN, Latch	1
	300136	•• RING, Split 2" I.D.	1
	709708	•• SPRING, Compression	1
3	704036	• CLAMP, Hose 1-1/2"	2
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	1
	103404	•• WASHER, Lock 5/16"	1
4	705390	• ASSEMBLY, Alternator kit	1
	705580	•• ASSEMBLY, Alternator Housing	1
	705392	•• ASSEMBLY, Rotor	1
	\$	•• BUSHING, Split taper	1
	\$	•• FAN	1
	\$	•• TERMINAL BLOCK, 9 Position	1
5	705479	• HOUSING, Flywheel	1
	710057	•• BOLT, HHCS 8M-1.25 x 20MM lg.	5
	701056	•• WASHER, Lock 8mm	5
6	705456	• ENGINE, Sub-Assembly (Kubota D750)	1
	705481	•• KIT, Accessory	1
7	705457	•• EXHAUST ELBOW	1
	\$	•• ASSEMBLY, Fuel filter	1
8	705458	•• ASSEMBLY, Air cleaner	1
	\$	••• ELEMENT, Air cleaner	1
	705484	•• ASSEMBLY, Radiator	1
9	705129	•• ASSEMBLY, Muffler	1
	705581	•• COUPLER, Alternator/Regulator	1
10	705461	•• REGULATOR, Alternator	1
	705483	•• ALTERNATOR	1
	115309	•• STARTER	1
	705485	•• FAN, Cooling	1
	705480	•• PUMP, Electric fuel	1
11	705414	•• BOTTLE, Overflow	1
12	705463	•• REGULATOR, LPG	1
	705460	•• COIL, Ignition	1
13	116982	• ISOLATOR, Engine	4
	705550	•• BOLT, HHCS 5/16-18 x 1-1/4" lg.	2
	103984	•• NUT, Lock nylon insert 5/16-18	2
	705245	•• BOLT, HHCS 12M-1.75 x 30mm lg.	1
	705244	•• WASHER, Lock 12M	1
14	705113	• PIPE, Exhaust	1
15	705631	• RAIN CAP, Rail pipe	1
16	707758	• CLAMP, Exhaust 1-1/2"	1
17	705156	• WELDMENT, Alternator shroud	1
	103984	•• NUT, Lock nylon insert 5/16-18	2
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103996	•• WASHER, Flat 5/16"	2
18	705152	• PLATE, Alternator access cover	1
	705247	•• NUT, Clip 1/4-20	6
	700481	•• BOLT, Machine rd hd slotted 1/4-20 x 1/2" lg.	6
	103995	•• WASHER, Flat 1/4"	6
19	705178	• BUSHING, 1-9/16 I.D. x 1-1/4" lg.	2
20	705337	• MAGNETIC PICKUP	1
	705352	• HARNESS, Magnetic pickup, (Not Shown)	1
21	705393	• DRIVE PLATE, Stub shaft	1
	709732	•• BOLT, HHCS 8M-1.25 x 12mm lg.	5
		Parts list continued on Page 57.	

FIGURE 6-28. ENGINE AND RELATED PARTS (Dual Fuel)

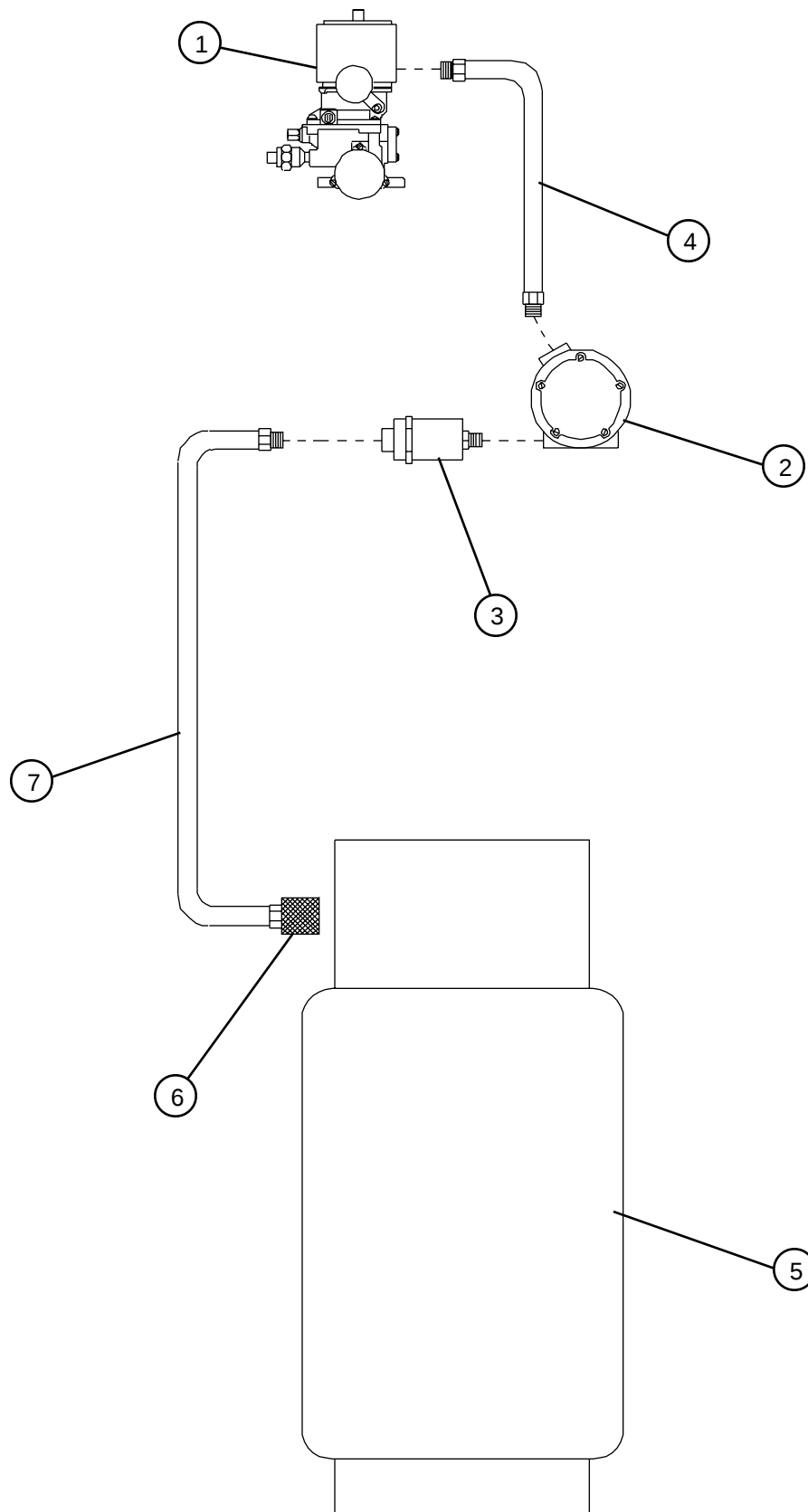


705623

FIGURE 6-28. ENGINE AND RELATED PARTS (Dual Fuel)

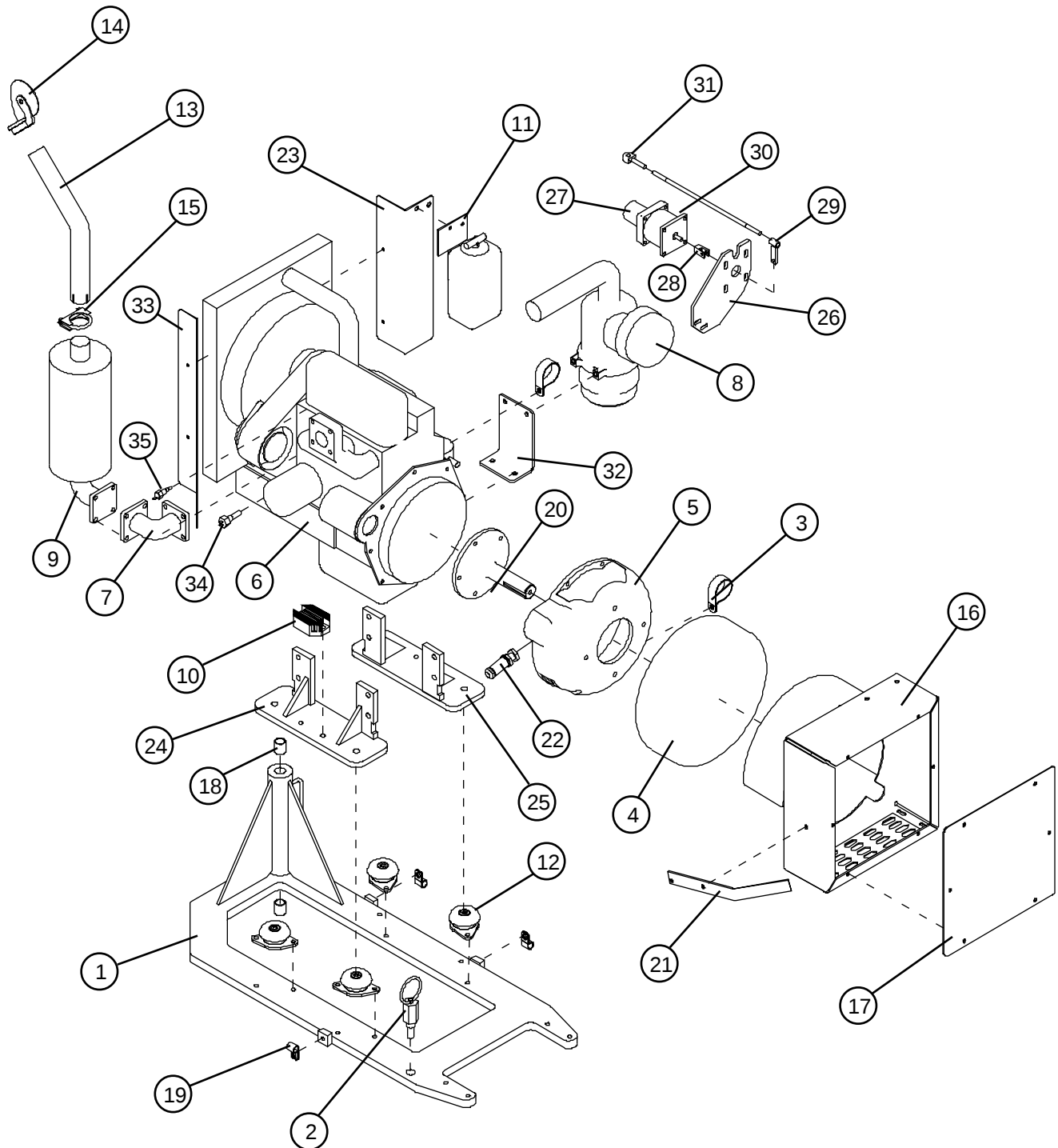
Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
		Parts list continued from Page 55.	
22	705141	• HANDLE, Engine tray release	1
	103864	•• BOLT, HHCS 5/16-18 x 1" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	1
	103984	•• NUT, Lock nylon insert 5/16-18	1
23	706946	• CLAMP, Hose 1/2" I.D.	1
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	1
	103404	•• WASHER, Lock 5/16"	1
24	705081	• PLATE, Overflow mount	1
	705475	•• WASHER, Lock 6M	2
	710079	•• BOLT, HHCS 6M-1.0 x 10mm lg.	2
25	705011	• WELDMENT, LH Motor mount	1
	707637	•• BOLT, HHCS 10M-1.25 x 30mm lg.	2
	705242	•• BOLT, HHCS 10M-1.25 x 20mm lg.	2
	706786	•• WASHER, Lock 10M	4
26	705012	• WELDMENT, RH Motor mount	1
	707637	•• BOLT, HHCS 10M-1.25 x 30mm lg.	2
	705242	•• BOLT, HHCS 10M-1.25 x 20mm lg.	2
	706786	•• WASHER, Lock 10M	4
27	705413	• BRACKET, Air cleaner/Regulator	1
	703715	•• WASHER, Flat 5/16"	2
	103984	•• NUT, Lock nylon insert 5/16-18	2
28	113400	• THERMOSWITCH	1
29	Ref.	• ASSEMBLY, Throttle/Solenoid	1
	707299	•• PLATE, Throttle actuator	1
	700549	••• BOLT, SHCS #10-32 x 3/4" lg.	2
	701695	••• NUT, Lock #10-32	2
	707677	•• THROTTLEACTUATOR	1
	707757	•• CLEVIS	1
	103857	••• BOLT, 1/4-20 x 1" lg. Grade 5	1
	700583	••• NUT, Lock nylon insert 1/4-20	1
	707679	•• ROD END, 1/4-28 Female	3
	707783	•• THROTTLE LINK	1
	705369	•• BRACKET, Throttle DF750	1
	103856	••• BOLT, HHCS 1/4-20 x 3/4" lg. Grade 5	1
	700583	••• NUT, Lock nylon insert 1/4-20	1
	700613	••• POP RIVET, 1/8" dia.	3
	705467	•• SWITCH, Vacuum	1
	708257	••• FITTING, Pipe 1/8 NPT x 1/8 NPT x 3/4" lg.	1
	708256	••• FITTING, Pipe 1/8 NPT x 1/8 NPT x 3" lg.	1
	710083	••• FITTING, Female pipe tee #2 - #2	1
	709784	••• FITTING, Male pipe hose insert #2 - #2	1
	707070	•• BRACKET, Choke solenoid	1
	103856	••• BOLT, HHCS 1/4-20 x 3/4" lg. Grade 5	2
	103995	••• WASHER, Flat 1/4"	2
	700583	••• NUT, Lock nylon insert 1/4-20	2
	705409	•• BRACKET, Choke solenoid	1
	707676	•• SOLENOID, Choke	1
	705462	•• LINK, Choke solenoid	1
	710078	••• BOLT, HHCS 4M-0.7 x 10mm	1
30	705464	• SOLENOID, Filterlock	1
31	705082	• SHIELD, Radiator (Not shown)	1
	710079	•• BOLT, HHCS 6M-1.0 x 10mm	2
32	704101	• CLAMP, Hose 7/8"	2
		\$ Consult factory.	

FIGURE 6-29. DUAL FUEL SYSTEM



MA-ME679

FIGURE 6-30. ENGINE AND RELATED PARTS (Diesel) (Option)



705624

FIGURE 6-30. ENGINE AND RELATED PARTS (Diesel) (Option)

Index No.	Skyjack Part No.	Description	Units per Assy.
-	705624	ASSEMBLY, Engine Kubota D722	1
1	705000	• WELDMENT, Engine tray	1
2	705384	• ASSEMBLY, Lock pin	1
	200227	•• HOUSING, Guardrail latch	1
	709707	•• PIN, Latch	1
	300136	•• RING, Split 2" I.D.	1
	709708	•• SPRING, Compression	1
3	704972	• CLAMP, Hose 1-3/4"	2
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	1
	103404	•• WASHER, Lock 5/16"	1
4	705390	• ASSEMBLY, Alternator kit	1
	705580	•• ASSEMBLY, Alternator Housing	1
	705392	•• ASSEMBLY, Rotor	1
	\$	•• BUSHING, Split taper	1
	\$	•• FAN	1
	\$	•• TERMINAL BLOCK, 9 Position	1
5	705479	• HOUSING, Flywheel	1
	701056	•• WASHER, Lock 8M	5
	704617	•• BOLT, HHCS 8M-1.25 x 30MM lg.	5
6	705264	• ENGINE, Sub-Assembly (Kubota D722)	1
	711517	•• FILTER, Oil	1
	705486	•• KIT, Accessory	1
7	705457	•• EXHAUST ELBOW	1
	705491	•• ASSEMBLY, Fuel filter	1
	711519	••• ELEMENT, Fuel filter	1
8	705488	•• ASSEMBLY, Air cleaner	1
	711518	••• ELEMENT, Air cleaner	1
	705490	•• ASSEMBLY, Radiator	1
9	705489	•• ASSEMBLY, Muffler	1
	705207	•• Timer, Glow lamp	1
	705206	•• LAMP, Glow plug	1
	705581	•• COUPLER, Alternator/Regulator	1
10	705461	•• REGULATOR, Alternator	1
	103995	••• WASHER, Flat 1/4"	2
	700583	••• NUT, Lock nylon insert 1/4-20	2
	103859	••• BOLT, HHCS 1/4-20 x 1-1/2" lg.	2
	705483	•• ALTERNATOR	1
	705482	•• STARTER	1
	705485	•• FAN, Cooling	1
	705179	•• PUMP, Electric fuel	1
11	705414	•• BOTTLE, Overflow	1
12	116982	• ISOLATOR, Engine	4
	705550	•• BOLT, HHCS 5/16-18 x 1-1/4" lg.	2
	103984	•• NUT, Lock nylon insert 5/16-18	2
	705245	•• BOLT, HHCS 12M-1.75 x 30mm lg.	1
	705244	•• WASHER, Lock 12M	1
13	705113	• PIPE, Exhaust	1
14	705631	• RAIN CAP, Rail pipe	1
15	707758	• CLAMP, Exhaust 1-1/2"	1
16	705156	• WELDMENT, Alternator shroud	1
	103984	•• NUT, Lock nylon insert 5/16-18	2
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	2
	103996	•• WASHER, Flat 5/16"	2

Index No.	Skyjack Part No.	Description	Units per Assy.
17	705152	• PLATE, Alternator access cover	1
	705247	•• NUT, Clip 1/4-20	6
	700481	•• BOLT, Machine rd hd slotted 1/4-20 x 1/2" lg.	6
	103995	•• WASHER, Flat 1/4"	6
18	705178	• BUSHING, 1-9/16 I.D. x 1-1/4" lg.	2
19	706946	• CLAMP, Hose 1/2" I.D.	3
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	1
	103404	•• WASHER, Lock 5/16"	1
20	705393	• DRIVE PLATE, Stub shaft	1
	709732	•• BOLT, HHCS 8M-1.25 x 12mm lg.	5
21	705141	• HANDLE, Engine tray release	1
	103864	•• BOLT, HHCS 5/16-18 x 1" lg. Grade 5	1
	103996	•• WASHER, Flat 5/16"	2
	103984	•• NUT, Lock nylon insert 5/16-18	1
22	705337	• MAGNETIC PICKUP	1
	705352	• HARNESS, Magnetic pickup, (Not Shown)	1
23	705081	• PLATE, Overflow mount	1
	705475	•• WASHER, Lock 6M	2
	710079	•• BOLT, HHCS 6M-1.0 x 10mm lg.	2
24	705011	• WELDMENT, LH Motor mount	1
	707637	•• BOLT, HHCS 10M-1.25 x 30mm lg.	2
	705242	•• BOLT, HHCS 10M-1.25 x 20mm lg.	2
	706786	•• WASHER, Lock 10M	4
25	705012	• WELDMENT, RH Motor mount	1
	707637	•• BOLT, HHCS 10M-1.25 x 30mm lg.	2
	705242	•• BOLT, HHCS 10M-1.25 x 20mm lg.	2
	706786	•• WASHER, Lock 10M	4
26	705286	• PLATE, Throttle actuator mount	1
	103995	•• WASHER, Flat 1/4"	4
	705578	•• BOLT, HHCS 6M-1.00 x 30mm lg.	3
	103857	•• BOLT, HHCS 1/4-20 x 1" lg. Grade 5	4
	700583	•• NUT, Lock nylon insert 1/4-20	4
27	707675	• THROTTLEACTUATOR, 1/2 Pound	1
28	707757	• CLEVIS	1
	710056	•• BOLT, Shoulder 1/4 x 1/2	1
	705571	•• NUT, Hex lock #10-24	1
29	705355	• WELDMENT, Throttle linkage lug	1
30	705415	• ROD, Throttle linkage	1
	705383	•• NUT, Hex 5/16-24	3
31	705379	• END, Rod 5/16" female	1
	710058	•• SPACER	1
	700583	•• NUT, Lock nylon insert 1/4-20	1
32	705101	• BRACKET, Air cleaner D722	1
	703715	•• WASHER, Flat 5/16"	2
	705550	•• BOLT, HHCS 5/16-18 x 1-1/4" lg. Grade 5	2
	103984	•• NUT, Lock nylon insert 5/16-18	2
33	705082	• SHIELD, Radiator	1
	710079	•• BOLT, HHCS 6M-1.0 x 10MM lg.	2
	705475	•• WASHER, Lock 6M	2
34	112838	• OIL SWITCH, 7 PSI	1
35	113400	• THERMOSWITCH	1
		\$ - Consult Factory	

FIGURE 6-31. HYDRAULIC CONNECTIONS - Turret/Base

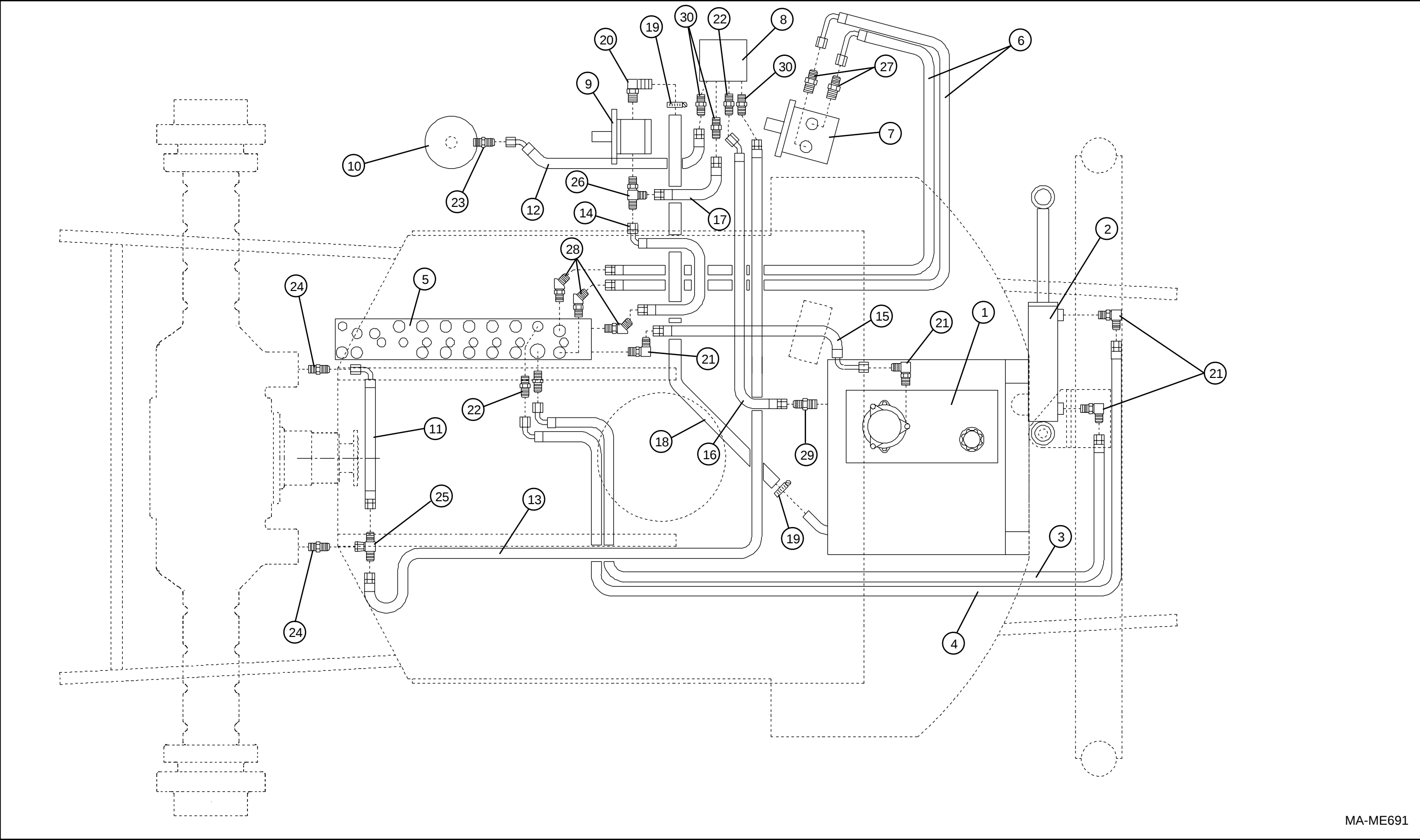


FIGURE 6-31. HYDRAULIC CONNECTIONS - Turret/Base

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	70110	TANK ASSEMBLY, Hydraulic (Refer to Figure 6-22.)	-
2	700783	CYLINDER ASSEMBLY, Steering (For components, refer to Figure 6-33.)	1
3	701199	HOSE ASSEMBLY	1
4	701200	HOSE ASSEMBLY	1
5	701867	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6-23.)	1
6	701198	HOSE ASSEMBLY	2
7	700316	MOTOR, Turret rotate	1
8	706911	MANIFOLD ASSEMBLY, Brake (For components, refer to Figure 6-24.)	1
9	700669	PUMP, Hydraulic	1
10	700903	ACCUMULATOR, Brake pressure	1
11	H606 0024 00-0	HOSE ASSEMBLY	1
12	701202	HOSE ASSEMBLY	1
13	701204	HOSE ASSEMBLY	1
14	701198	HOSE ASSEMBLY	1
15	701198	HOSE ASSEMBLY	1
16	701202	HOSE ASSEMBLY	1
17	701203	HOSE ASSEMBLY	1
18	103032	HOSE, Suction	24"
19	102854	CLAMP, Gear #12	2
20	700524	FITTING, Adaptor 90° #12 - 3/4 hose barb	1
21	103073	FITTING, Elbow 90° #6orb-#6	4
22	103069	FITTING, Connector #6orb-#6	3
23	103070	FITTING, Adaptor #8-#6	1
24	700817	FITTING, Adaptor 14mm-#6	2
25	114109	FITTING, Tee #6 female -#6-#6	1
26	103072	FITTING, Tee #6orb-#6-#6	1
27	103307	FITTING, Reducer #10orb-#6	2
28	107742	FITTING, Elbow 45° #6orb-#6	3
29	109052	FITTING, Connector #12orb-#6	1
30	103322	FITTING, Connector #4orb-#6	3
NOTE: Refer to Standard Hose Numbering System (SECTION 5, Page 22) for explanation of hose numbering.			

FIGURE 6-32. BASE, AXLES AND WHEELS

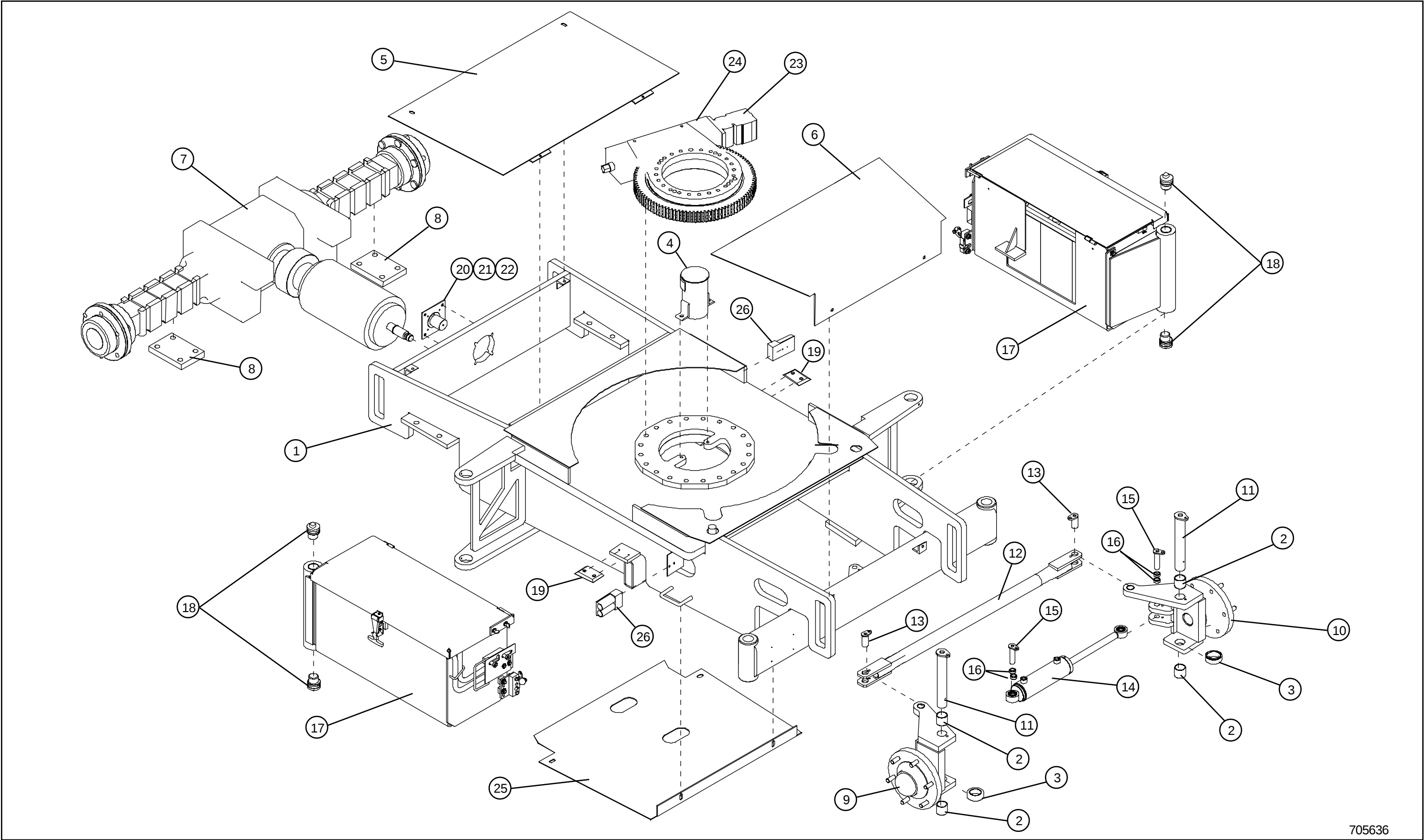


FIGURE 6-32. BASE, AXLES AND WHEELS

Index No.	Skyjack Part No.	Description 1 2 3 4 5 6 7	Units per Assy.
	705636	BASE ASSEMBLY	-
1	705534	• WELDMENT, Base	1
2	103216	• BUSHING, 1-1/2" x 1-11/16" x 1-1/2" lg.	4
3	700262	• BEARING, Thrust	2
4	709420	• WELDMENT, Hose carrier	1
	103473	•• BOLT, Hex-hd 3/8-16 x 1" lg. Grade 5	2
	103472	•• WASHER, Flat 3/8"	2
	103999	•• WASHER, Lock 3/8"	2
5	700936	• WELDMENT, Rear base cover	1
	700474	•• SCREW, Thumb 3/8-16 x 3/4" lg.	2
	103472	•• WASHER, Flat 3/8"	2
	103999	•• WASHER, Lock 3/8"	2
6	700937	• WELDMENT, Front base cover	1
	700474	•• SCREW, Thumb 3/8-16 x 3/4" lg.	2
	103472	•• WASHER, Flat 3/8"	2
	103999	•• WASHER, Lock 3/8"	2
7	701092	• AXLE ASSEMBLY, Drive (For components, refer to Figure 6-36.)	1
8	700536	• PLATE, Bottom rear axle mounting	2
	704844	•• BOLT, HHCS, 3/4-10 x 8" lg. Grade 8	4
	700575	•• NUT, Lock, 3/4-10 Grade C	4
9	701094	• STEERING ASSEMBLY, Right (For components, refer to Figure 6-34.)	1
10	704146	• STEERING ASSEMBLY, Left (For component, refer to Figure 6-34.)	1
11	700291	• PIN, Plated spindle king	2
	103887	•• BOLT, HHCS, 5/16-18 x 3/4" lg. Grade 5	1
	103404	•• WASHER, Lock 5/16"	1
12	700693	• WELDMENT, Steering tie bar	1
13	700297	• PIN, Plated tie bar	2
	103887	•• BOLT, HHCS 5/16-18 x 3/4" lg. Grade 5	1
	103404	•• WASHER, Lock 5/16"	1
14	700783	• CYLINDER ASSEMBLY, Steering (For components, refer to Figure 6-33.)	1
15	700312	• PIN, Plated steering cylinder	2
	103887	•• BOLT, HHCS, 5/16-18 x 3/4" lg. Grade 5	1
	103404	•• WASHER, Lock 5/16"	1
16	700314	• SPACER, Steering cylinder pin	4
17	705584	• TRAY ASSEMBLY, Battery (For components, refer to Figure 6-35.)	2
18	705335	• PIN, Battery tray eccentric	4
	702051	•• BOLT, SHSS 1/4-20 x 3/8" lg. cone point	4
19	705023	• PAD, Engine tray	2
	702696	•• BOLT, FHCS, 1/4-20 x 1/2" lg. Grade 5	1
	705548	•• BOLT, FHCS, 1/4-20 x 1" lg. Grade 5	1
	700583	•• NUT, Lock nylon insert 1/4-20	1

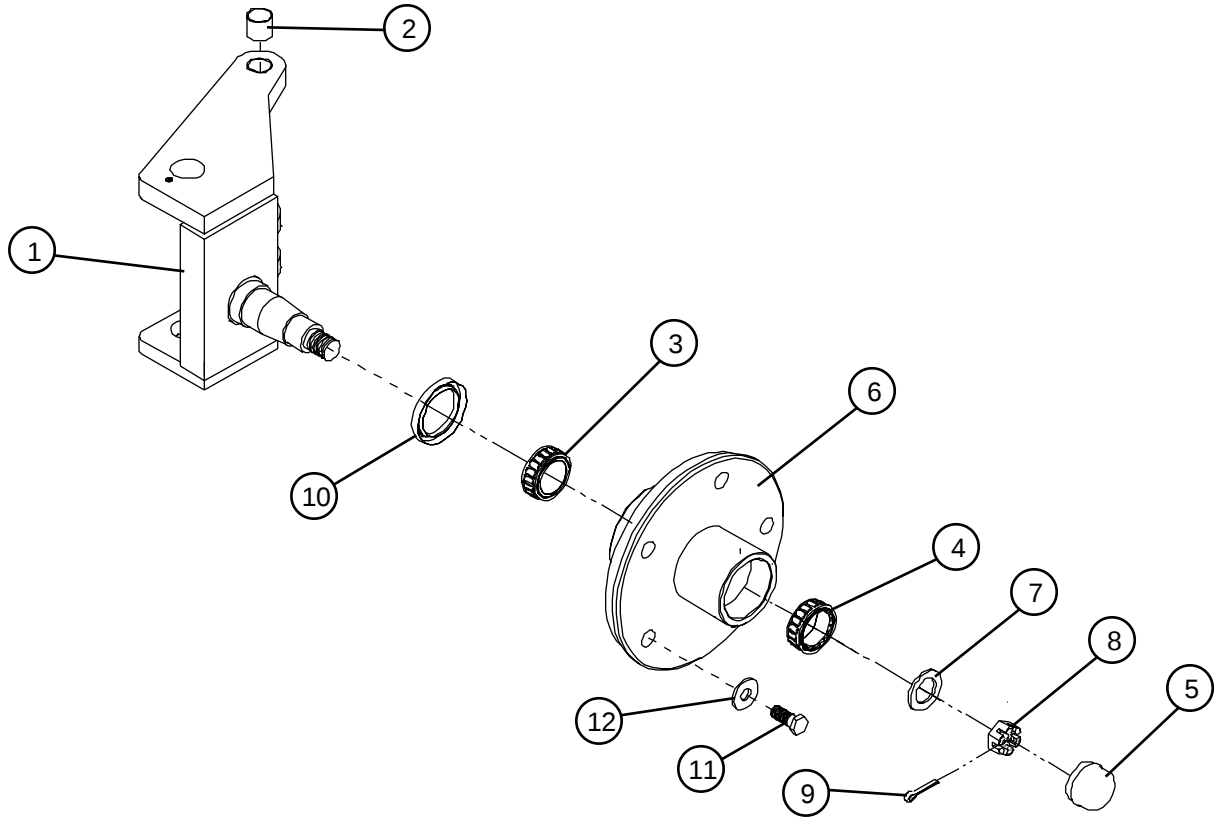
Index No.	Skyjack Part No.	Description 1 2 3 4 5 6 7	Units per Assy.
20	705542	• PLATE, 110 Volt receptical mount	1
	103885	•• BOLT, HHCS 5/16-18 x 1-3/4" lg. Grade 5	4
	103996	•• WASHER, Flat 5/16"	4
	103404	•• WASHER, Lock 5/16"	4
	100397	•• NUT, Hex 5/16-18	4
21	105271	• PLUG RECESSED, Male 110 Volt	1
22	113227	• BOOT, Rubber	1
23	700316	• MOTOR, Hydraulic turret rotate	1
	103307	•• FITTING, Adaptor #10 orb-#6	2
	103907	•• BOLT, HHCS 1/2-13 x 1-1/2" lg.	2
	103470	•• WASHER, Lock 1/2"	2
	704237	•• KIT, Seal repair	1
24	700317	• GEAR, Turret rotate	1
	701761	•• BOLT, HHCS, 5/8-11 x 3-3/4" lg. Plated Grade 8	20
	700782	•• WASHER, Flat SAE 5/8" Hard-Yellow Zinc	20
25	705557	• SKID PLATE	1
	103473	•• BOLT, HHCS 3/8-16 x 1" lg.	4
	103472	•• WASHER, Flat SAE 3/8"	4
	103999	•• WASHER, Lock 3/8"	4
26	709593	• CABLE ASSEMBLY, Battery box	2
27	701061	• WHEEL/ TIRE ASSEMBLY, Lug (Not Shown) (See note) (30 x 10.00 x 16.5, specify R or L, Air filled.)	4
	709347	•• TIRE, 30 x 10.00 x 16.5	1
	701062	•• WHEEL, 8.25 x 16.5, 6 Bolt	1
NOTE: Size and load rating of replacement tires MUST be identical to that of original equipment to maintain safety and stability of machine.			

FIGURE 6-33. STEERING CYLINDER ASSEMBLY

MA-ME663

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	700783	CYLINDER ASSEMBLY, Steering	-
1	700784	• WELDMENT, Cylinder barrel	1
2	700992	• WELDMENT, Cylinder rod	1
3	700786	• GLAND, Cylinder	1
4	700787	• PISTON, Cylinder	1
5	700788	• SPACER, Cylinder	1
*6	106449	• WIPER, Rod	1
*7	701965	• O-RING, Gland	1
*8	701634	• O-RING, Piston	1
*9	108798	• SEAL, Gland	1
*10	700585	• SEAL, Piston	1
11	700575	• NUT, Lock 3/4-10 Grade C	1
12	102025	BEARING, Spherical	2
13	104114	RING, Retaining	4
14	700510	NIPPLE, Grease 1/8NPT - 90°	2
15	103073	FITTING, 90° #6orb-#4	2
	701076	KIT, Seal repair	AR
		* Part of Seal Repair Kit.	

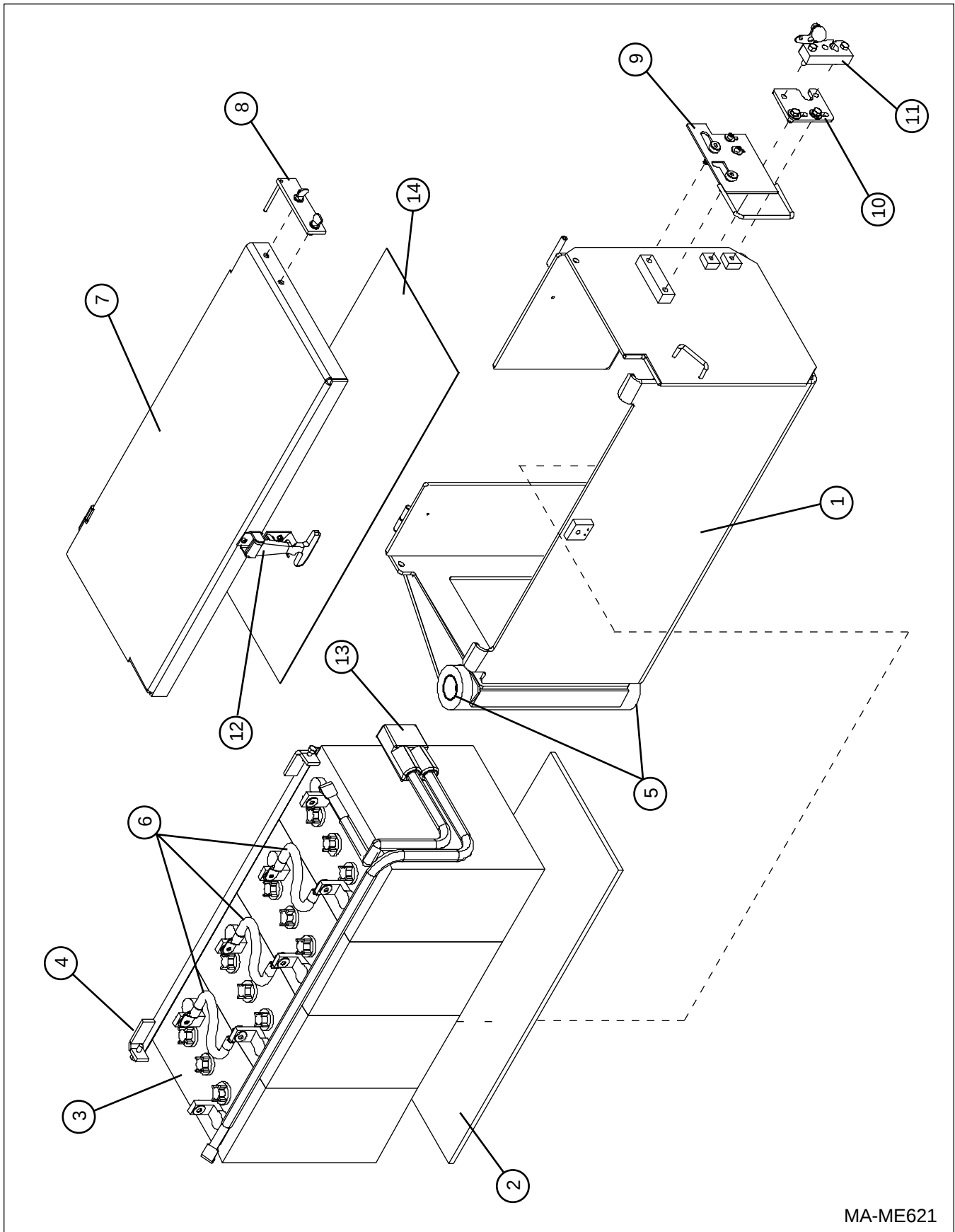
FIGURE 6-34. STEERING ASSEMBLIES



MA-ME664

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	701095	SPINDLE WELDMENT, Left (w/bushing)	1
	701096	SPINDLE WELDMENT, Right (w/bushing)	1
2	100309	• BUSHING, 1"x1-1/8"x1" lg.	1
(Ref.)	700463	HUB ASSEMBLY	1
3	700471	• BEARING, Inner	1
	700472	•• BEARING CUP, Inner	1
4	700469	• BEARING, Outer	1
	700470	•• BEARING CUP, Outer	1
5	700467	• DUST CAP	1
6	700464	• HUB	1
7	102646	• WASHER, Flat	1
8	104351	• NUT, Castle 1"	1
9	700508	• PIN, Cotter 3/16 x 2" lg.	1
10	700466	• SEAL, Grease	1
11	700468	WHEEL BOLT, 5/8-18x1-1/2 gr. 5	6
12	700782	WASHER, Flat SAE 5/8" hard	6

FIGURE 6-35. BATTERY TRAY ASSEMBLY

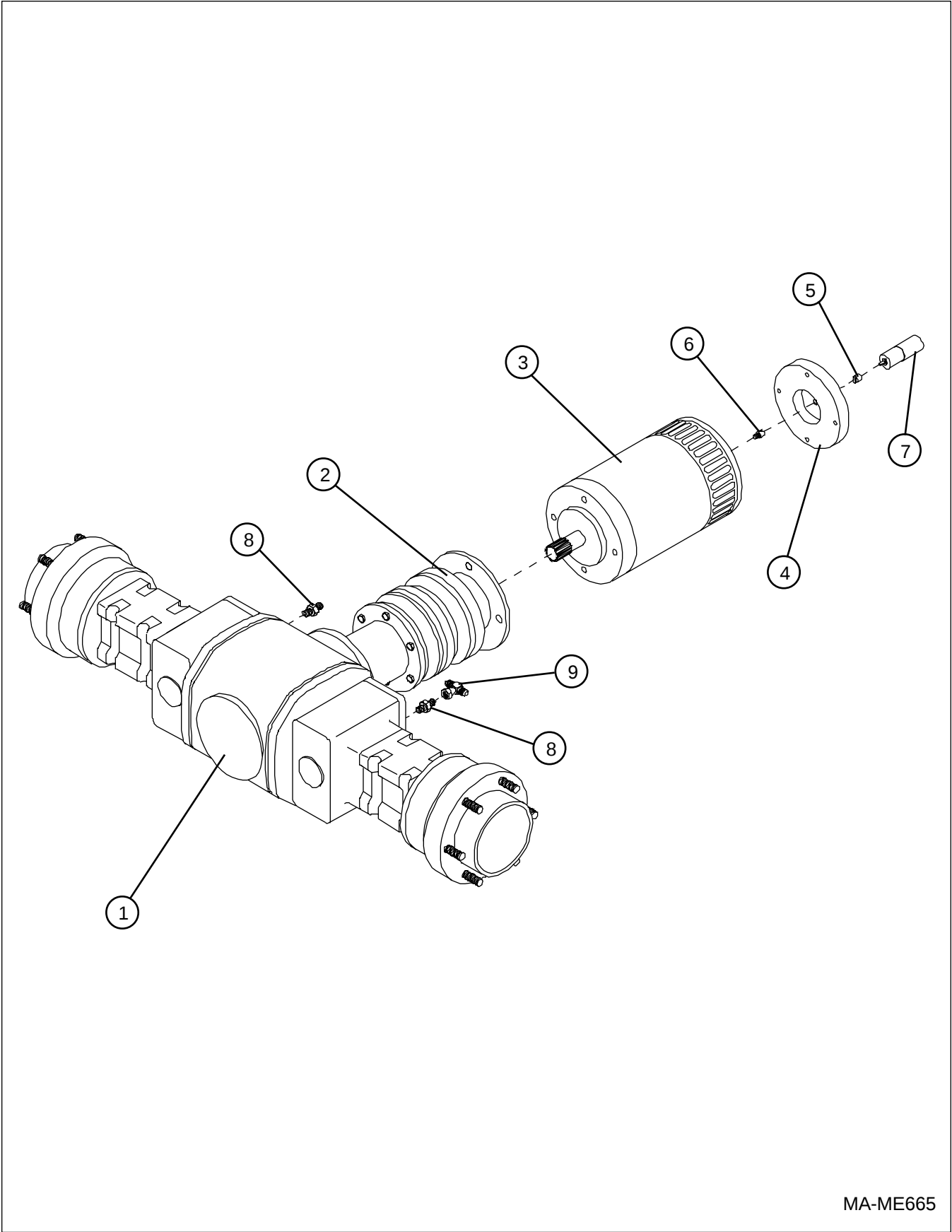


MA-ME621

FIGURE 6-35. BATTERY TRAY ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	705584	BATTERY TRAY ASSEMBLY	-
	705316	• WELDMENT, Battery tray	1
2	700246	• BATTERY TRAY WOOD	1
3	701048	• BATTERY, 305 AMP HR	4
4	700477	• WELDMENT, Battery holding bar mount	1
5	103864	•• BOLT, HHCS 5/6-18 x 1" lg. Grade 5	2
	100904	• BUSHING, 1-1/2" x 1-5/8" x 1" lg.	2
6	700753	• BATTERY LEAD, 13 Inches	3
7	103404	•• WASHER, Lock 5/16"	6
	103996	•• WASHER, Flat SAE 5/16"	12
8	705326	• BATTERY TRAY COVER	1
9	705523	• WELDMENT, Hinge pin	1
	700474	•• THUMB SCREW, 3/8-16 x 3/4" lg.	2
10	705443	• WELDMENT, Battery disconnect handle	1
	709833	•• BOLT, Shoulder 1/2-13 x 1-1/4" lg.	2
11	103859	•• BOLT, SHCS 1/4-20 x 1-1/2" lg.	2
	103995	•• WASHER, Flat 1/4"	2
12	700583	•• NUT, Lock nylon insert 1/4-20	2
	705351	• PLATE, Battery tray latch mount	1
13	103887	•• BOLT, HHCS 5/6-18 x 3/4" lg. Grade 5	2
	103404	•• WASHER, Lock 5/16"	2
14	103996	•• WASHER, Flat SAE 5/16"	2
	102781	• ROTARY LATCH	1
15	111534	•• Knob, Ball	1
	103845	•• BOLT, HHCS 5/6-18 x 1/2" lg. Grade 5	1
16	103886	•• BOLT, HHCS 5/6-18 x 1 1/2" lg. Grade 5	2
	103984	•• NUT, Lock nylon insert 5/16-18	2
17	705528	• RUBBER LATCH	1
	103855	•• BOLT, HHCS 1/4-20 x 1/2" lg.	1
18	104000	•• WASHER, Lock 1/4"	1
	705572	•• BOLT, HHCS #10-24 x 1/2" lg. Grade 5	4
19	705571	•• NUT, Lock 10-24	2
	104185	•• WASHER, Lock #10	2
20	705587	• CABLE ASSEMBLY, 40ME	1
	103404	•• WASHER, Lock 5/16"	2
21	103996	•• WASHER, Flat SAE 5/16"	4
	701001	• CABLE	67"
22	701006	• ASSEMBLY, Connector	1
	700540	•• HOUSING	1
23	701008	•• CONTACT	2
	709445	• BATTERY LID LINER	1

FIGURE 6-36. DRIVE AXLE ASSEMBLY

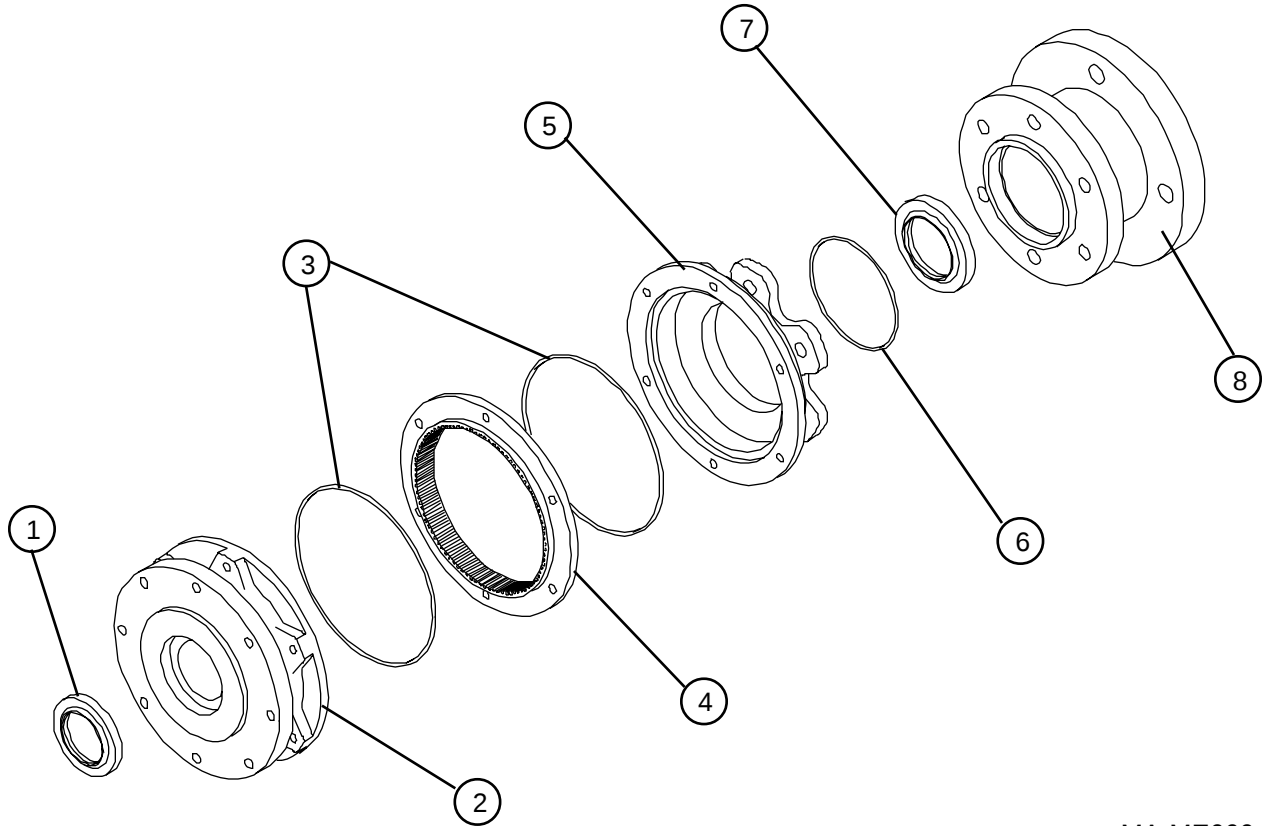


MA-ME665

FIGURE 6-36. DRIVE AXLE ASSEMBLY

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
1	701092	AXLE ASSEMBLY, Drive	-
	701053	• DRIVE AXLE (For components, refer to Figure 6-39.)	1
2	701047	• PLANETARY ASSEMBLY (For components, refer to Figure 6-37, 6-38.)	1
	701054	•• BOLT, Hex-hd 8mm-1.25 x 40mm lg.	8
3	701055	•• NUT, Hex 8mm-1.25	8
	701056	•• WASHER, Lock 8mm	8
	701007	• MOTOR, Traction, 9"-20 HP	1
	708387	•• BRUSH KIT	AR
	708398	•• SPRING, Brush	AR
4	103899	•• BOLT, Hex-hd 5/8-11 x 1-3/4" lg.	4
	103998	•• WASHER, Lock 5/8"	4
	700069	• ADAPTOR PLATE, Tachometer	1
	103886	•• BOLT, Hex-hd 5/16-18 x 1-1/2" lg.	4
5	103404	•• WASHER, Lock 5/16	4
	700487	• COUPLER, Tachometer (rubber)	1
6	700081	• COUPLER, Tachometer (steel)	1
7	700227	• GENERATOR, Tachometer	1
	700515	•• SCREW, Machine #2-56 x 3/8" lg.	3
	700516	•• WASHER, Lock #2	3
8	700817	• FITTING, Adaptor 14mm-#6	2
9	114109	• FITTING, Tee #6 female #6-#6	1
	701741	CABLE ASSEMBLY, "A1" terminal	1
	701743	CABLE ASSEMBLY, "S1" terminal	1
	701744	CABLE ASSEMBLY, "S2" terminal	1
	701742	CABLE ASSEMBLY, "A2" terminal	1

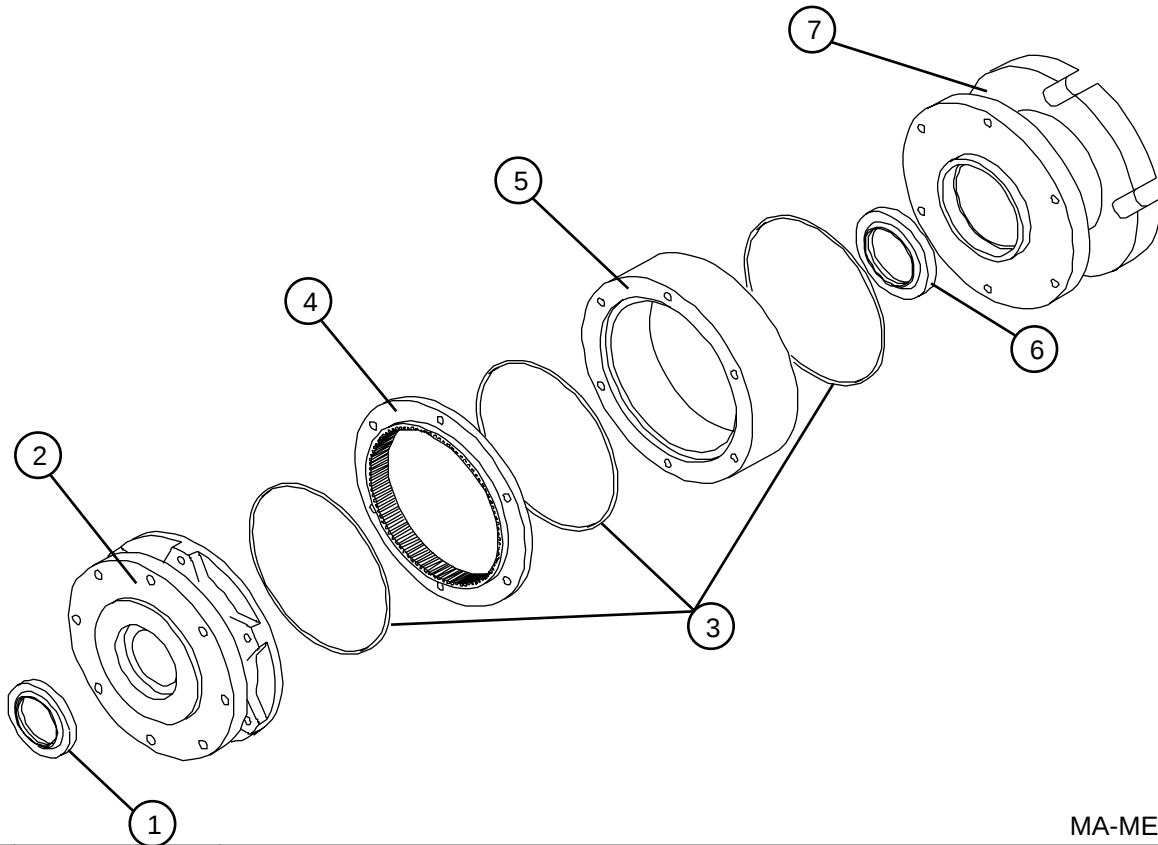
FIGURE 6-37. PLANETARY REDUCTION GEAR ASSEMBLY (Brevini)



MA-ME666

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	701841	LIP SEAL, Output housing							1
2	\$	HOUSING, Output							1
3	701849	O-RING SEAL							2
4	\$	RING GEAR							1
5	\$	HOUSING, Input							1
6	701942	O-RING SEAL, Input adapter							1
7	701842	LIP SEAL, Input adapter							1
8	701030	HOUSING, Input adapter							1
		\$ Consult factory							

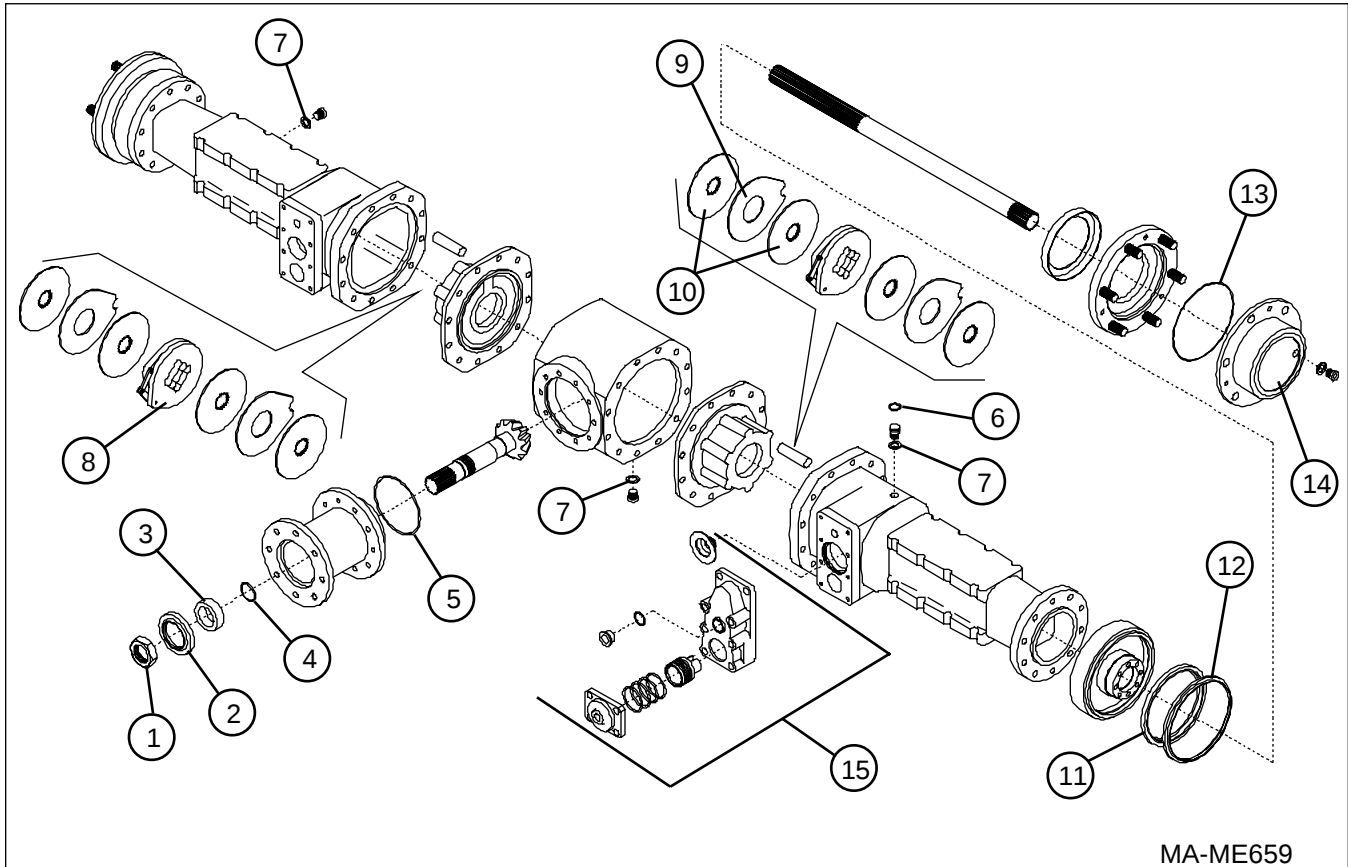
FIGURE 6-38. PLANETARY REDUCTION GEAR ASSEMBLY (Sige)



MA-ME667

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	701960	LIP SEAL, Output housing							1
2	\$	HOUSING, Output							1
3	701961	O-RING SEAL							3
4	\$	RING GEAR							1
5	\$	HOUSING, Input							1
6	701962	LIP SEAL, Input adapter							1
7	\$	HOUSING, Input adapter							1
		\$ Consult factory							

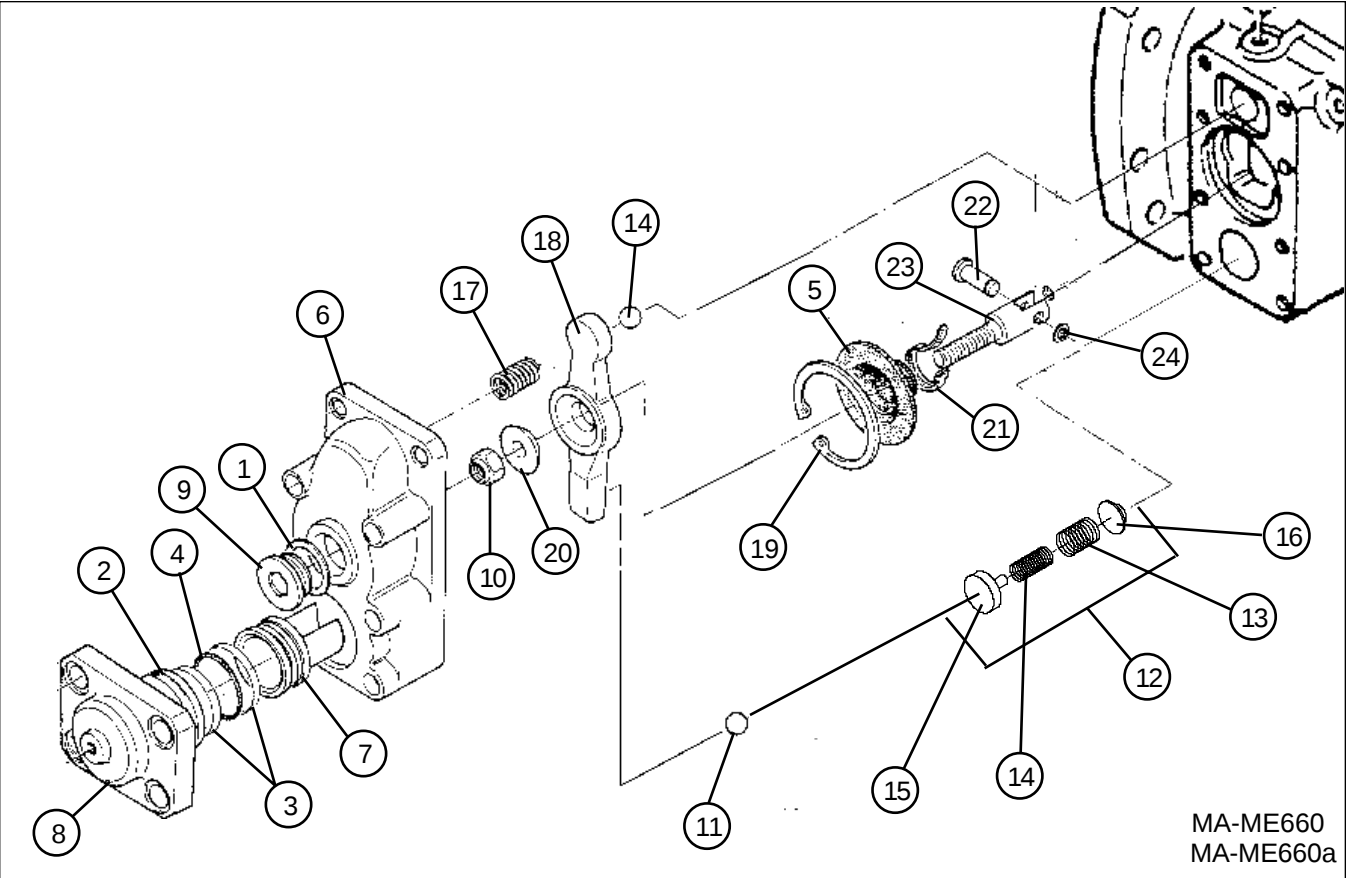
FIGURE 6-39. DRIVE AXLE



MA-ME659

Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	701836	RETAINING NUT, Pinion lock							1
2	701837	OIL SEAL, Pinion shaft							1
3	701838	OIL SEAL SPACER, Pinion shaft							1
4	701839	O-RING, Pinion shaft							1
5	701848	O-RING, Pinion flange							1
6	701851	O-RING, Breather plug							1
7	701843	WASHER, Oil plug gasket							5
8	701845	ACTUATOR, Brake							2
9	701846	BRAKE DISK, Intermediate							4
10	701847	BRAKE DISK							8
11	701808	OIL SEAL, Wheel flange							2
12	701889	DUST COVER, Wheel flange							2
13	701809	O-RING, Wheel flange							2
14	702003	COVER, Torque hub							2
15	(Ref.)	BRAKE ASSEMBLY (For components, refer to Figure 6-40.)							2

FIGURE 6-40. BRAKE ASSEMBLY



Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	701844	WASHER, Oil Plug							1
2	701890	SEAL, O-ring (housing)							1
3	704231	BACKING RING, Seal							2
4	704219	SEAL, O-ring (piston)							1
5	701853	SEAL, Spring							1
6	703045	COVER, Brake							1
7	706544	PISTON, Brake							1
8	706545	FLANGE							1
9	708982	PLUG							1
10	708983	NUT, Tristop M 12							1
11	119101	BALL							1
12	710197	BRAKE KIT, Piston & spring							1
13	710198	• SPRING, Outer							1
14	710199	• SPRING, Inner							1
15	710200	• STEM							1
16	710201	• COVER							1
17	708986	SPRING							1
18	708987	BRAKE FORK							1
19	708988	SNAP RING							1
20	708989	THRUST WASHER							1
21	708990	SPRING CLIP							1
22	708991	PIN							1
23	708992	FORK							1
24	708993	SNAP RING E 9							1

FIGURE 6-41. LABELS AND NAMEPLATES

Index No.	English Labels	Dutch Labels	French Labels	German Labels	Portuguese Labels	Spanish Labels	England Labels	Danish Labels	Swedish Labels	Description	Units per Assy.
										1 2 3 4 5 6 7	
A	709607	711296	-----	709921	-----	-----	-----	-----	709768	KIT, Service labels and nameplates (Dual Fuel)	-
B	709608	711297	-----	709922	-----	-----	-----	-----	709769	KIT, Service labels and nameplates (Diesel) (Consists of items 1-29)	-
1	701085	707442	707508	702974	708055	707574	701085	708122	708189	• LABEL, Daily maintenance	1
2	701814	707450	707516	702968	708063	707582	701814	708130	708197	• LABEL, Main disconnect	1
3	702782	707461	707527	706252	708073	707593	702782	708140	708207	• LABEL, Unleaded fuel only, A	1
	702781	707460	707526	706251	708072	707592	702781	708139	708206	• LABEL, Diesel only, B	1
4	710497	710617	710620	710609	710619	710618	710497	710616	710621	• LABEL, Pinch point	2
5	701111	707444	707510	702967	708057	707576	701111	708124	708191	• LABEL, Manual brake release	1
6	703727	707472	707538	706257	708084	707604	703727	708151	708218	• LABEL, ATF only	1
7	700096	77446	707512	706726	708059	707578	701469	708126	708193	• LABEL, Emergency lowering	2
8	702013	707452	707518	706262	708065	707584	702013	708132	708199	• LABEL, Danger explosive	1
9	702005	707451	707517	702969	708064	707583	702005	708131	708198	• LABEL, Danger brake release	1
10	701086	707443	707509	702962	708056	707575	701086	708123	708190	• LABEL, Jib emergency lowering	1
11	700035	707435	707501	702978	708048	707567	700035	708115	708182	• LABEL, Annual inspection (inside door)	1
12	700029	707431	707497	702976	708044	707563	700029	708111	708178	• LABEL, Tie down	2
13	110333	707427	707493	702965	708040	707559	110333	708107	708174	• LABEL, AC Supply	10
14	108666	707426	707492	702975	708039	707558	108666	708106	708173	• LABEL, Use original parts	2
15	106705	707425	707491	702963	708038	707557	106705	708105	708172	• LABEL, Do not alter	3
16	106691	707424	707490	702977	708037	707556	106691	708104	708171	• LABEL, Checklist	1
17	700032	707433	707499	702983	708046	707565	700032	708113	708180	• LABEL, Attach safety belt (large)	1
18	700107	707437	707503	702964	708050	707569	700107	708117	708184	• LABEL, Attach safety belt (small)	2
19	700026	707429	707495	702973	708042	707561	700026	708109	708176	• LABEL, Danger	1
20	700551	707440	707506	702984	708053	707572	700551	708120	708187	• LABEL, Warning hazards	1
21	700028	708569	707567	708566	708575	708568	707734	708576	708577	• LABEL, Design standards	1
22	117294	707428	707494	706860	708041	707560	117294	708108	708175	• LABEL, Manual enclosed (Manual Enclosure)	1
23	700108	707438	707504	702980	708051	707570	700108	708118	708185	• LABEL, Do not lift here	2
24	700473	707439	707505	702981	708052	707571	700473	708119	708186	• LABEL, Check battery level daily	2
25	701114	707445	707511	702961	708058	707577	701114	708125	708192	• LABEL, Manual rotate valve	1
26	-----	707447	707513	702972	708060	707579	701470	708127	708194	• LABEL, Knob location (on turret vertical plate near knob)	1
27	-----	708838	708836	708835	708839	708837	707736	708840	708841	• LABEL, European load	2
28	710357	710357E	-----	710357D	-----	-----	710357	-----	710357ZP	• LABEL, Caution battery	2
29	-----	117023	117023	117023	117023	117023	117023	117023	117023	• LABEL, CE Approval	3
30	700031	707432	707498	702979	708045	707564	700031	708112	708179	LABEL, Capacity 500 lbs.	2
31	705640	705640	705640	705640	705640	705640	705640	705640	705640	LABEL, Serial number nameplate SJKB-40C <u>me</u> , (Consult factory)	1
32	705368	705368	705368	705368	705368	705368	705368	705368	705368	LABEL, SJKB-40C <u>me</u>	2
33	705595	705595	705595	705595	705595	705595	705595	705595	705595	LABEL, Multi-Energy	2
34	700025	700025	700025	700025	700025	700025	700025	700025	700025	LABEL, Skyman	2
35	102631	102631	102631	102631	102631	102631	102631	102631	102631	LABEL, Skyjack 6 x 36-1/4	2
36	108946	108946	108946	108946	108946	108946	108946	108946	108946	LABEL, Skyjack 3-9/16 x 21-1/2	2
37	103125	103125	103125	103125	103125	103125	103125	103125	103125	LABEL, Blue/white striping	538"
38	705250	705632	705632	705632	705632	705632	705632	705632	705632	LABEL, Turret control panel	1
39	705251	705633	705633	705633	705633	705633	705633	705633	705633	LABEL, Platform control panel	1
NOTE: Supply Model Number when ordering complete machine labels.											

FIGURE 6-41. LABELS AND NAMEPLATES

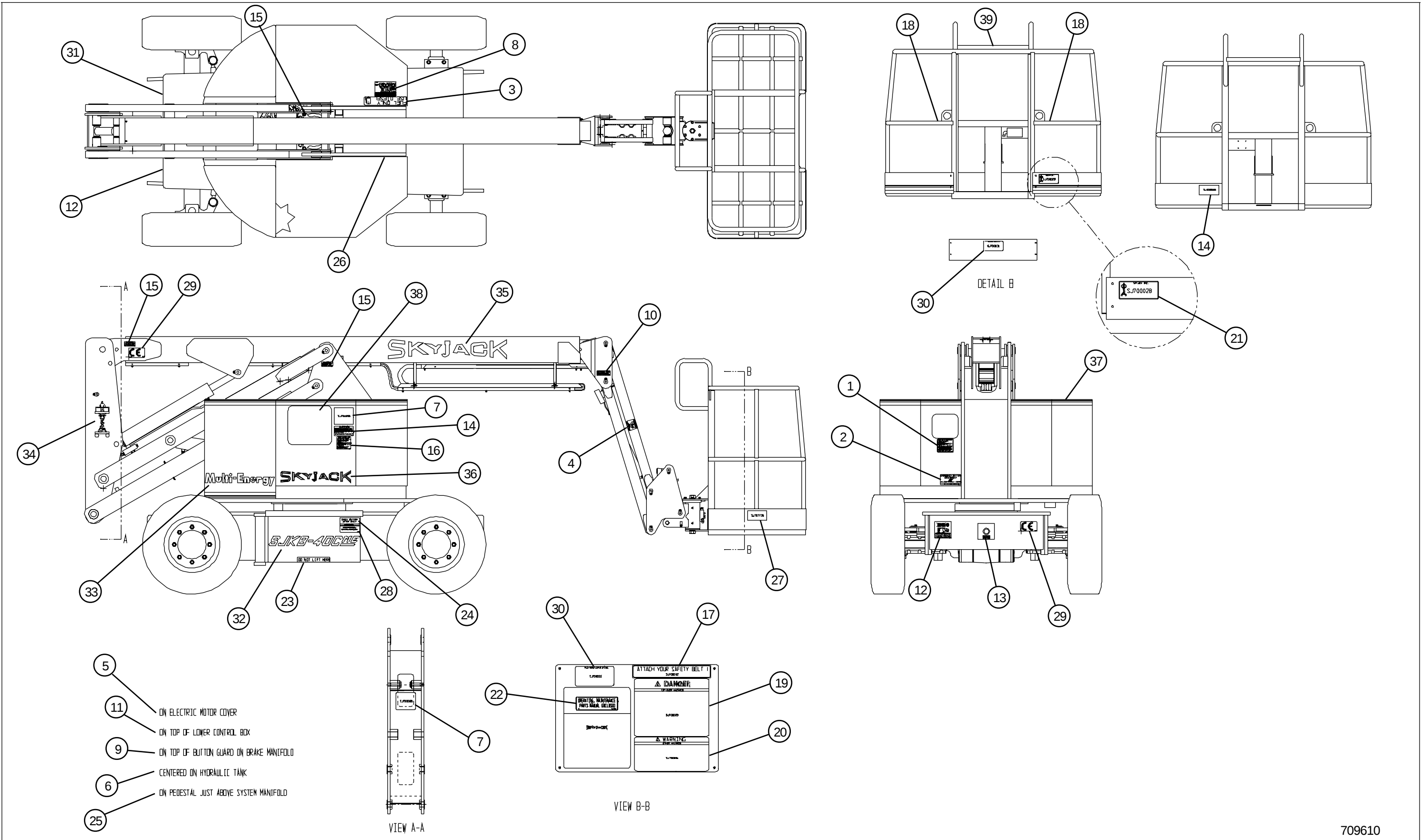


FIGURE 6-42. OVERLOAD SENSING OPTION

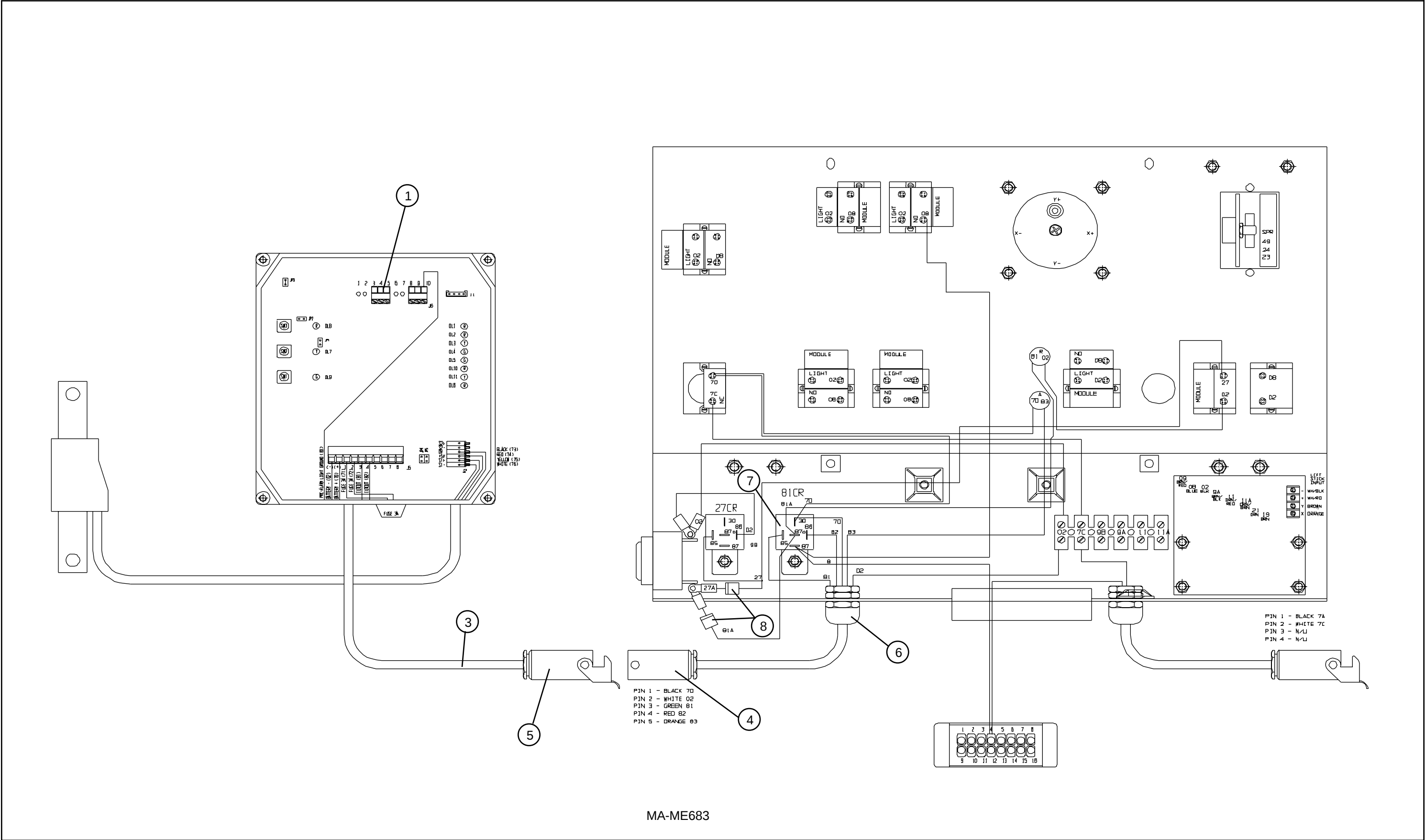
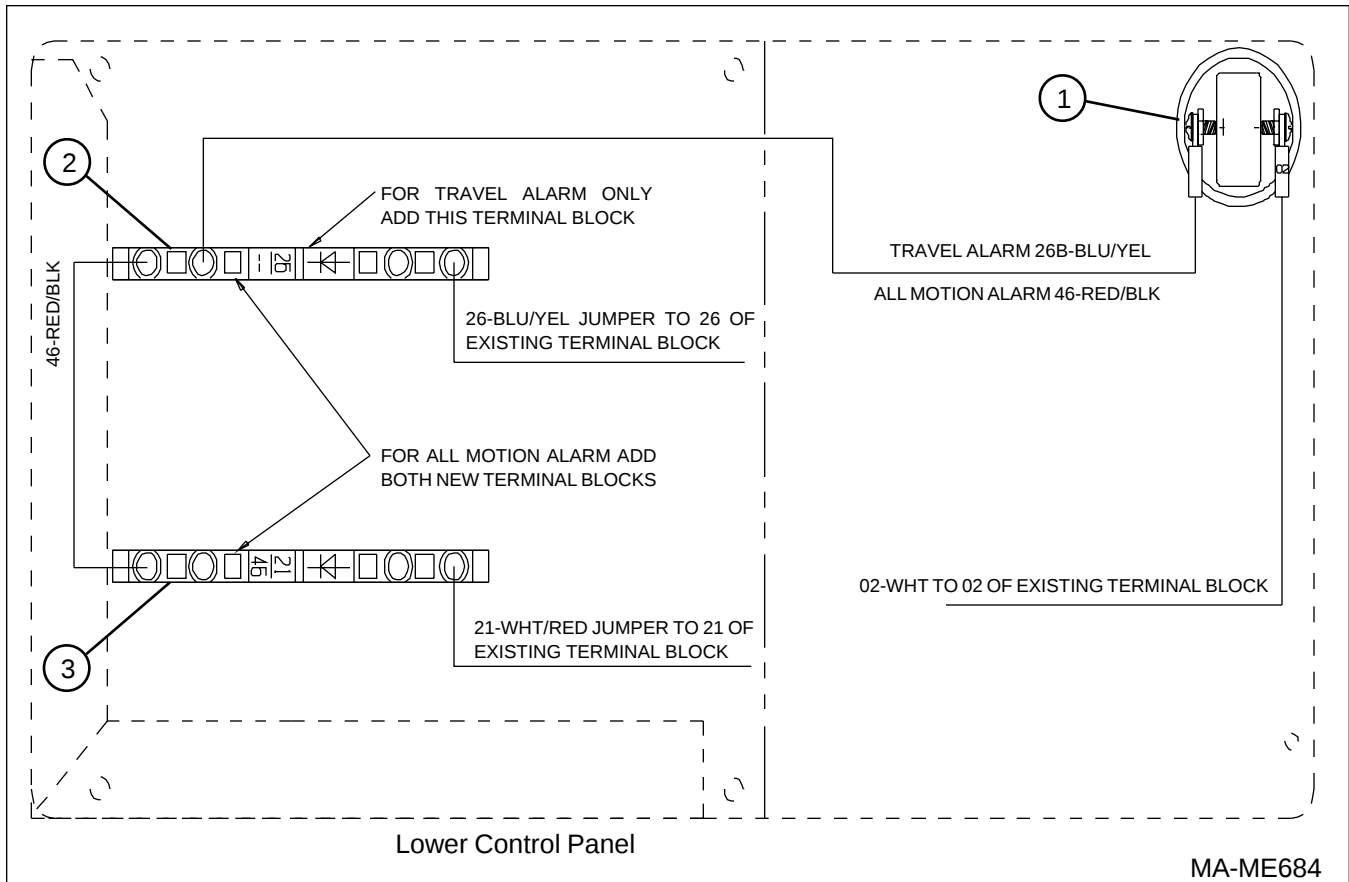


FIGURE 6-42. OVERLOAD SENSING

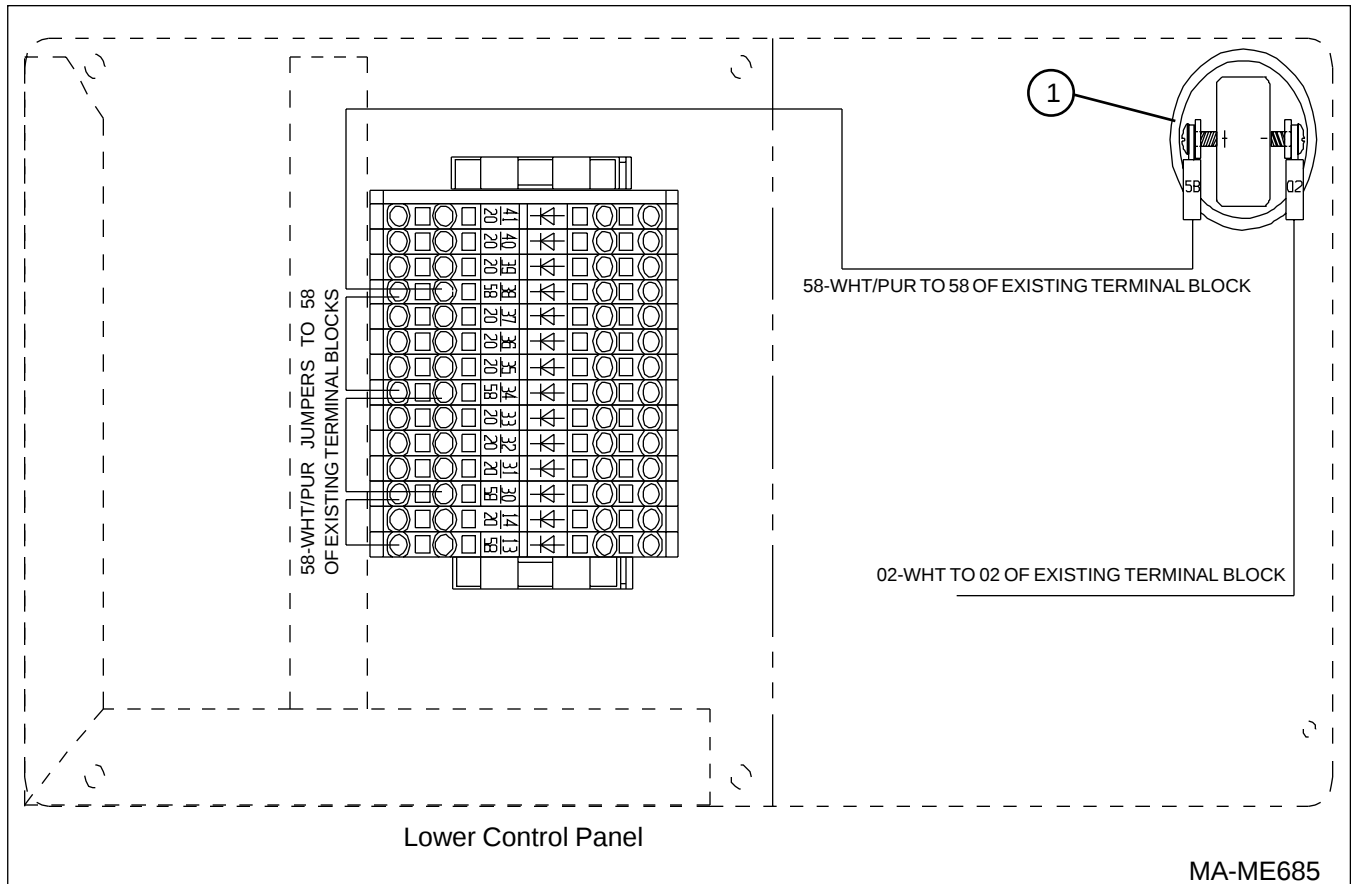
Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
	702336	PLATFORM LOAD SENSING OPTION							-
1	702305	• PROCESSOR KIT, Load sense option							1
2	702306	• ENCLOSURE, Load sense processor (not shown)							1
	702338	• COTROL BOX, Modified							1
3	103260	•• CABLE, 18/5							64"
4	103568	•• HOUSING, 4 Pin connector female							1
	103570	•• INSERT, 4 Pin connector female							1
5	103567	•• HOUSING, 4 Pin connector male							1
	103569	•• INSERT, 4 Pin connector male							1
6	103036	•• STRAIN RELIEF							1
7	108589	•• RELAY							1
8	102921	•• DIODE							2
9	702337	•• LABEL, Overload indicator (not shown)							1

FIGURE 6-43. TRAVEL ALARM/ALL MOTION ALARM



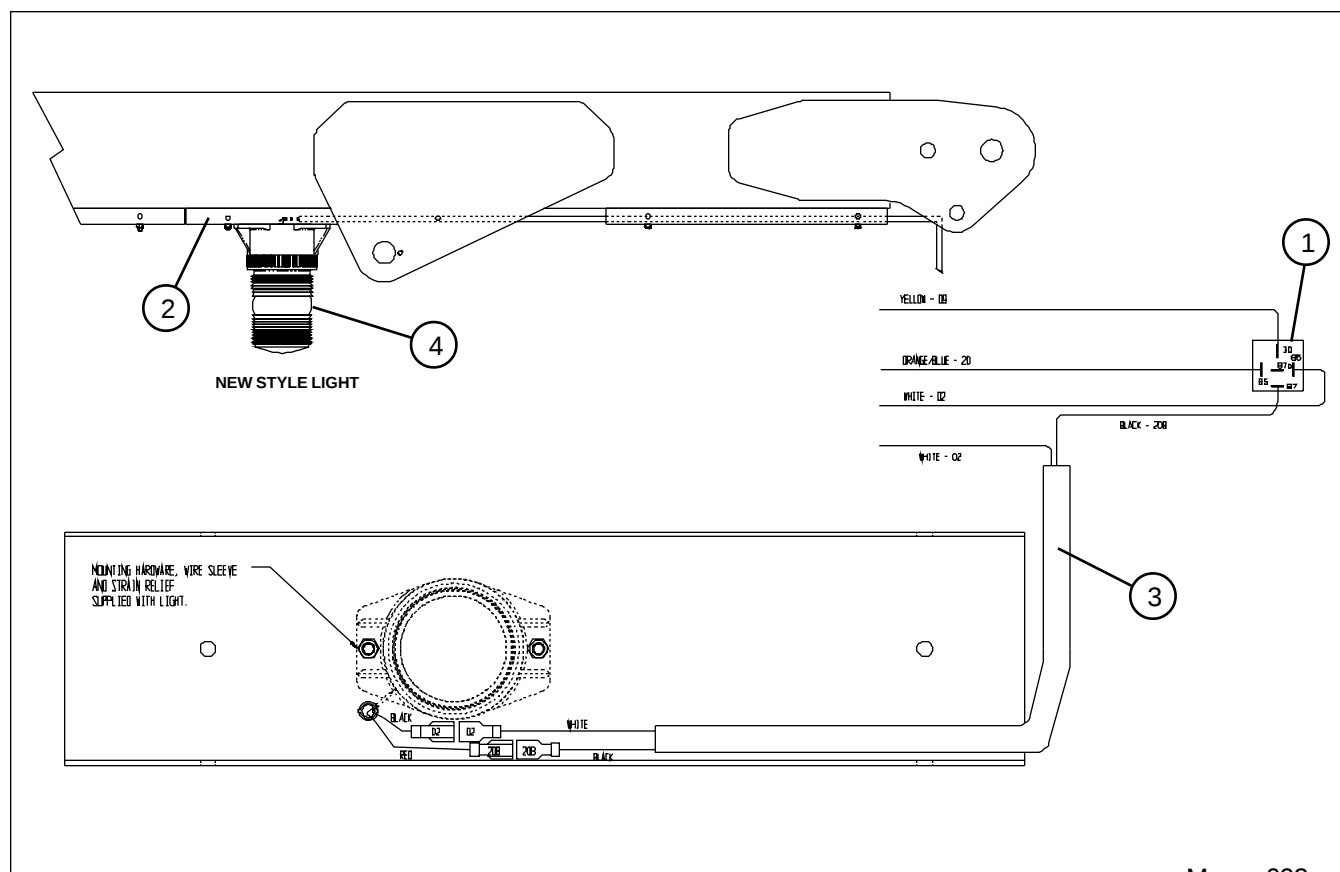
Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	709360	TRAVEL ALARM OPTION							-
	103057	• BEEPER							1
	702465	• • WIRE, 16 GA, white							32"
	102955	• TERMINAL, 16 GA x #6 ring							2
	702482	• • WIRE, 16 GA, blue/yellow (Travel Alarm)							38"
2	702466	• • WIRE, 16 GA, red/black (All Motion Alarm)							38"
	707145	• TERMINAL BLOCK, Diode							1
	709361	ALL MOTION ALARM OPTION							-
3		(Travel Alarm Option [709360] MUST Be Included)							
	707145	• TERMINAL BLOCK, Diode							1

FIGURE 6-44. DESCENT ALARM



Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	709364 103057 102955 702347 702465	DESCENT ALARM OPTION • BEEPER, 4-28 VDC • TERMINAL, 16 GA x #6 ring • WIRE, 16 GA, white/purple • WIRE, 16 GA, white							- 1 2 38" 32"

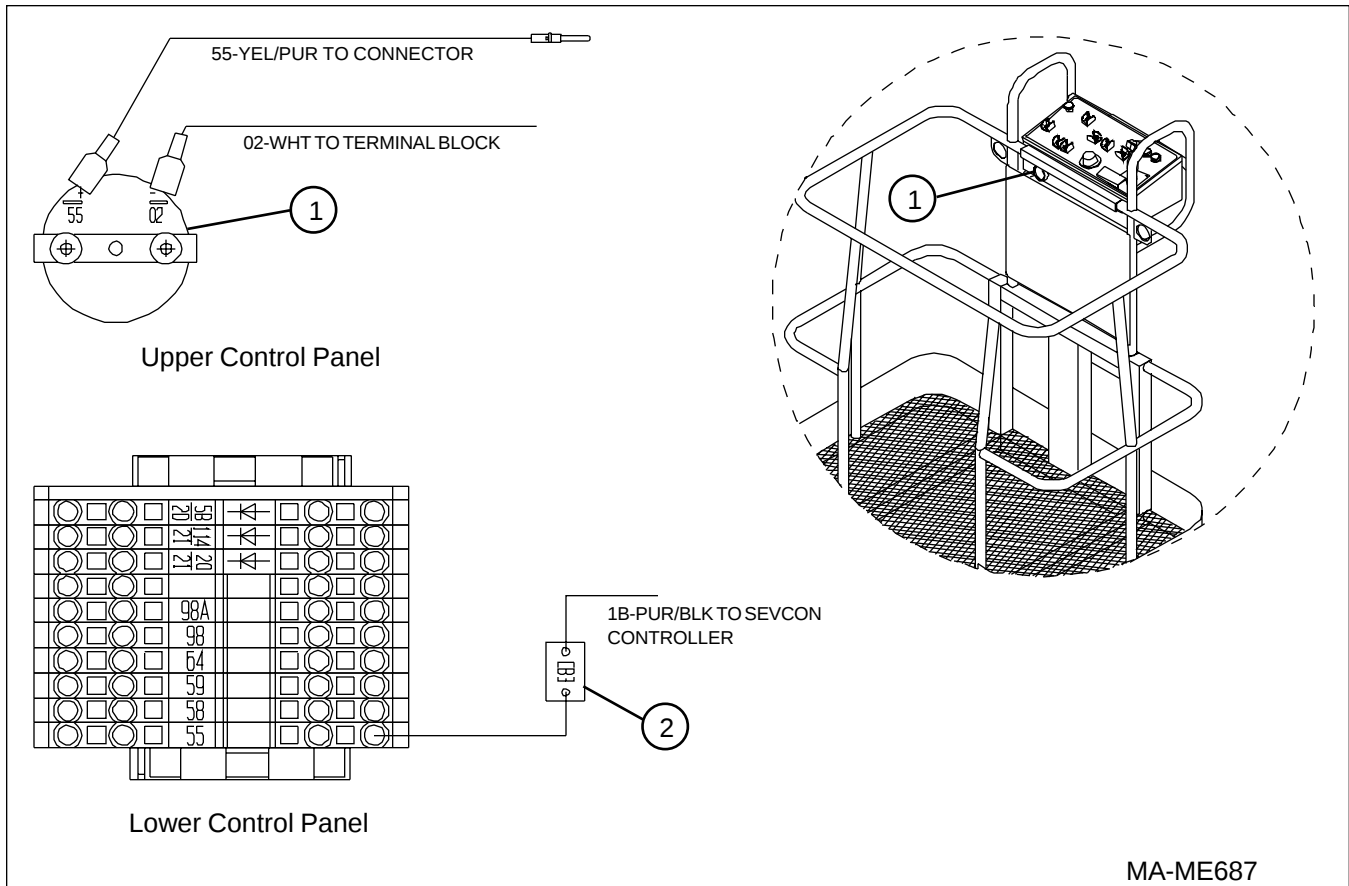
FIGURE 6-45. FLASHING LIGHT



Ma-me692

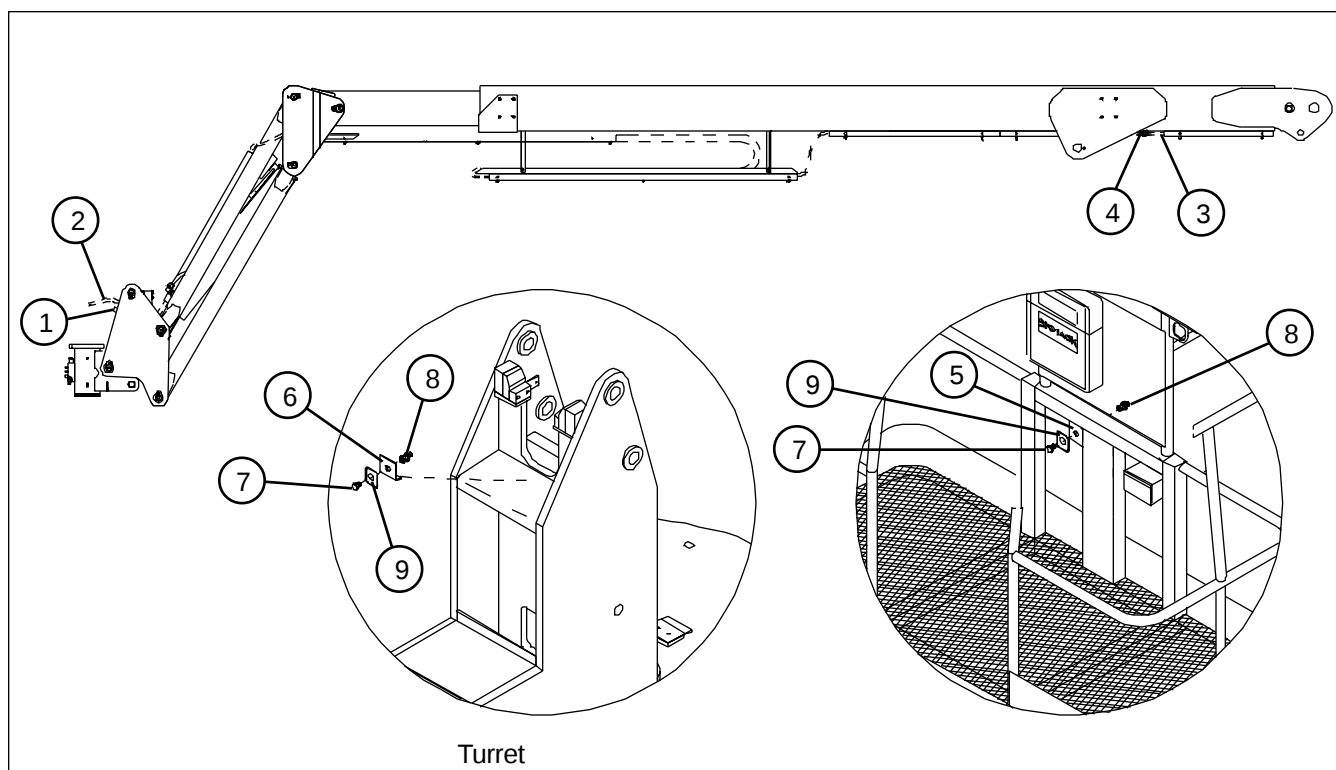
Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	710137	FLASHING LIGHT OPTION (New Style)							-
	709363	FLASHING LIGHT OPTION (Old Style)							-
	108589	• RELAY, 40 AMP Sealed							1
	103962	• BOLT, Mach-hd #10-32 x 1/2" lg.							1
	104185	• WASHER, Lock #10							1
	702357	• WIRE, 16 GA Orange/Blue							AR
	702465	• WIRE, 16 GA White							AR
	702478	• WIRE, 16 GA Yellow							AR
	702000	• TERMINAL, 16 GA x 1/4 SPD F							AR
	710136	• HOSE COVER, Flashing light (New Style)							1
	709312	• HOSE COVER, Flashing light (Old Style)							1
	103256	• CABLE, 18/2 Cabtire							AR
	702000	• TERMINAL, 16 GA x 1/4 SPD F							4
	710139	• LIGHT, Flashing (New Style)							1
2	106756	• LIGHT, Flashing (Old Style)							1
	103267	• FLASHER (Old Style Only)							1
	701414	• BRACKET, Flasher mount (Old Style Only)							1
	700808	• LIGHT ADAPTOR, Flashing (Old Style Only)							1
	702465	• WIRE, 16 GA White							AR
	105360	• TERMINAL, 16 GA x 1/4 SPD M							2

FIGURE 6-46. BATTERY FUEL GAUGE



Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	704743	BATTERY FUEL GAUGE OPTION							-
	704733	• GAUGE, Battery fuel							1
	702465	•• WIRE, 16 GA white							12"
	702456	•• WIRE, 16 GA yellow/purple							60"
	704026	•• WIRE SLEEVING							60"
	109210	•• TERMINAL, 16 GA x 5/16 Ring							1
	702000	•• TERMINAL, 16 GA x 1/4 QFC							2
	703769	•• TERMINAL, 16 GA x 1/4 QCMF							1
2	705258	•• CONTACT PIN							1
	703632	• CIRCUIT BREAKER, 10 AMP							1
	702000	•• TERMINAL, 16 GA x 1/4 QFC							2

FIGURE 6-47. AIR LINE TO PLATFORM



Turret

MA-ME688

Index No.	Skyjack Part No.	Description	Units per Assy.
		1 2 3 4 5 6 7	
	706972	AIR LINE TO PLATFORM OPTION	-
1	704036	• CLAMP, Hose	2
2	708342	• HOSE ASSEMBLY (H308 0343 00-0)	1
3	708343	• HOSE ASSEMBLY (H108 0173 00-0)	1
4	702125	• FITTING, Tube union #8	1
5	709116	• BRACKET, Air line platform	1
6	706970	• BRACKET, Air line turret	1
7	703683	• FITTING, Pipe - 1/2" NPT plug zinc	2
8	703681	• FITTING, Bulk head connector (LN8) - female	2
9	703671	• LABEL, Air line	2
 NOTE: Refer to Standard Hose Numbering System (SECTION 5, Page 22) for explanation of hose numbering.			

FIGURE 6-48. HORN OPTION

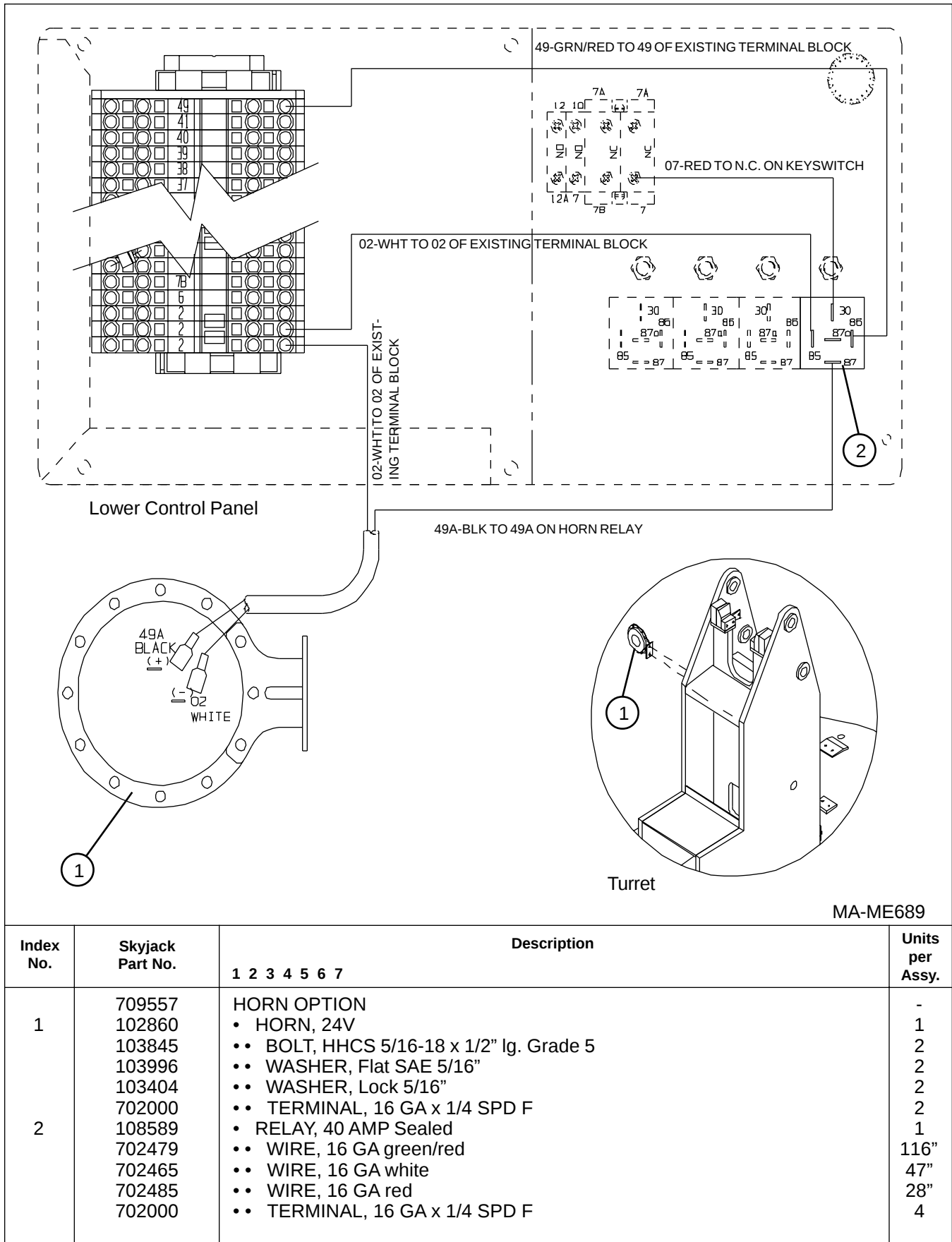
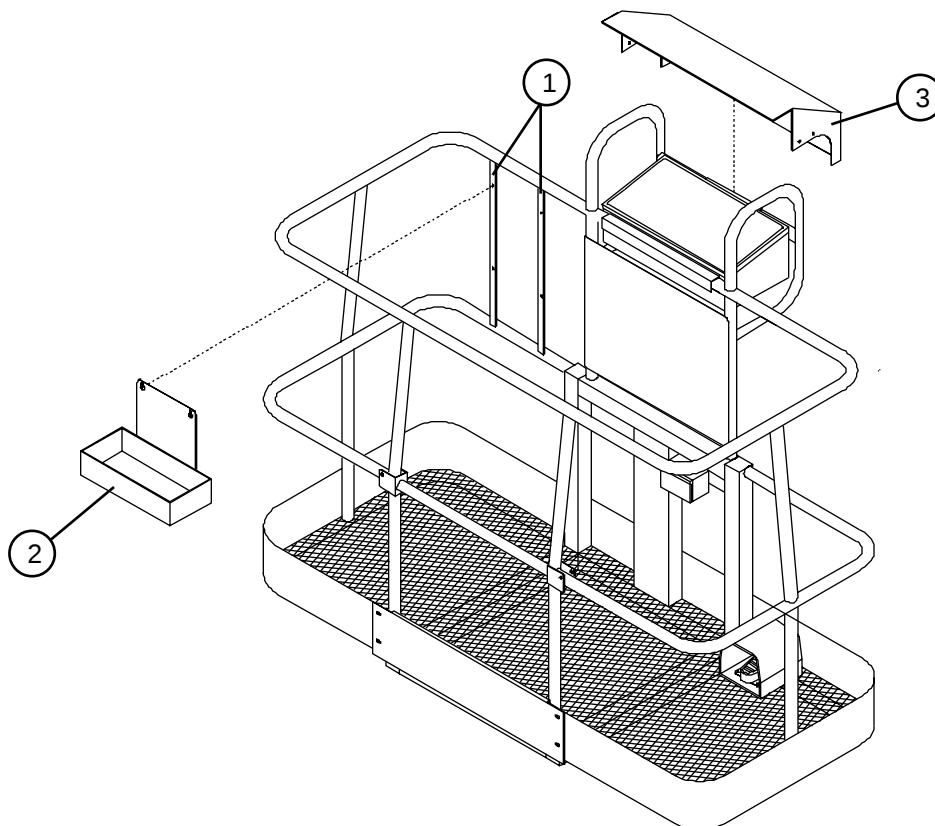


FIGURE 6-49. PLATFORM TOOL TRAY/CONTROL COVER OPTION



Index No.	Skyjack Part No.	Description							Units per Assy.
		1	2	3	4	5	6	7	
1	710060	PLATFORM TOOL TRAY OPTION (30x66 and larger only)							-
	200525	• TOOL TRAY WELDMENT							1
	700583	•• NUT, lock nylon insert 1/4"-20							4
	703273	•• BOLT, BHCS 1/4"-20x1.00 SS							4
2	710061	• TOOL TRAY SUPPORT							1
3	710427	CONTROL COVER OPTION							-
	710479	• CONTROL COVER WELDMENT							1
	700583	•• NUT, lock nylon insert 1/4"-20							6
	103995	•• WASHER, Flat 1/4"							12
	103860	•• BOLT, HHCS 1/4"-20x1-3/4"							6