SKYJACK™

MAINTENANCE & PARTS MANUAL

SJIII Series

The Conventionals

Models 3220M, 3226M

For Service please call ***800 275-9522***

Skyjack Inc. Service Center, 3451 Swenson Ave., St. Charles, IL. 60174 .... *FAX 630 262-0006*

For Parts in North America and Asia please call ***800 965-4626***

Skyjack Inc. Parts Center, 3451 Swenson Ave., St. Charles, IL. 60174 ..... *FAX 888 782-4825*

For Parts & Service in Europe please call 44-1691-676 236

Skyjack Europe Glovers Meadow, Maesbury Road,Oswestry, Shropshire, UK ..... *FAX* 44-169- 676 238

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USE THE SERIAL NUMBER OF YOUR MACHINE TO DETERMINE THE CORRECT Maintenance & Parts Manual TO USE							
MANUAL PART #		117128AE	118940AN	122909AG	129919AG	129926AC	129945AA
Release Date		May 1999	April 2004	April 2004	January 2006	May 2005	October 2005
MODELS	3220	609330 & BELOW	609331 To 613550	613551 To 615766	615767 & ABOVE	Not Used	Not Used
	3226	Not Used	27014 To 28042 28048 To 28117	28043 To 28047 28118 To 272099	272100 & ABOVE		
	4620	66429 & BELOW	66430 To 66889	Not Used	710000 & ABOVE		
	4626	704418 & BELOW	704419 To 709588				
	4632	Not Used	Not Used				
	4830/32	86982 & BELOW	86983 To 871159		Not Used		
	6826	75517 & BELOW	75518 To 75635			75636 & ABOVE	
	6832	82402 & BELOW	82403 To 83108			83109 & ABOVE	
	3220M	Not Used	Not Used			Not Used	M600000 & ABOVE
	3226M						M270000 & ABOVE

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

Aerial Platform. A mobile device that has an adjustable position platform supported from ground level by a structure.

Purpose Of Equipment. The SKYJACK SJIII series aerial platforms are designed to transport and raise personnel, tools and materials to overhead work areas.

Use Of Equipment. The aerial platform is a highly maneuverable, mobile work station. Lifting and driving MUST be on a flat, level, compacted surface.

Manuals:

- **Operating:** The operating manual is considered a fundamental part of the aerial platform. It is a very important way to communicate necessary safety information to users and operators. A complete and legible copy of this manual must be kept in the provided weather resistant storage compartment on the aerial platform at all times.

- **Maintenance & Parts:** The purpose of this manual is to provide the customer with the servicing and maintenance procedures essential for the promotion of proper machine operation for its intended purpose.

  All information in this manual should be READ and UNDERSTOOD before any attempt is made to service the machine

All procedures herein are based on the use of the machine under proper operating conditions, with no deviations from the original design. Alteration and/ or modification of the machine is strictly forbidden without written approval from Skyjack, inc.

1-1. Scope Of This Manual

a. **This manual** applies to the ANSI/SIA, CSA and CE versions of the SJIII, Series aerial platform models listed on (Table 2-1.)

- **Equipment identified** with "ANSI" meet the ANSI SIA-A92.6-1999 standard.

- **Equipment identified** with "CSA" meets the CSA B354.2-01 standards.

- **Equipment identified** with "CE" meets the requirements for the European countries, i.e. Machinery Directive 98/37/EEC and EMC Directive 89/336/EEC and the corresponding EN standards.

b. **CSA (Canada) and CE (Europe)**
Operators are required to conform to national, state/province and local health and safety regulations applicable to the operation of this aerial platform.

c. **ANSI/SIA (United States)**
Operators are required by the current ANSI/SIA A92.6 standards to read and understand His/Her RESPONSIBILITIES in the Manual Of Responsibilities before they use or operate this aerial platform.

1-2-a. Warranty Statement

SKYJACK Inc. warrants each new aerial 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 aerial platform. The warranty is only effective when the warranty card has been completed and returned to Skyjack within 15 days of invoiced. When aerial platforms are put into Dealer's stock, the warranty period does not start until the aerial platform has been shipped to the dealer's customer. When 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 aerial platform.

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

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

1-2-b. Warranty Procedures

The selling distributor or authorized dealer shall be responsible for the complete handling of customer claims under this warranty. Here is 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 aerial platform is required to verify the claim.

1-2-b. Warranty Procedures (Continued)

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 USD 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 USD) per hour. The travel allowance will be paid at the same hourly rate within the dealers specified territory, limited to a maximum of four (4) hours. If a part has serviceable components, replace the faulty component. For instance, if you have a faulty switch on a controller, please replace the switch. Hydraulic cylinders should be resealed, unless they are damaged beyond repair. Engine failures should be directed to your local engine distributor and covered by the manufacturers warranty. Skyjack will accommodate you and your labor. Labor rates and travel allowances are subject to change without notice.

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

6. Materials returned for warranty inspection must be:

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.

Warning

Failure to comply with your required responsibilities in the use and operation of the aerial platform could result in death or serious injury!

1-3. 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 aerial platform is mandatory. The following pages of this manual should be read and understood completely before operating the aerial platform.

Any modifications from the original design are strictly forbidden without written permission from SKYJACK Inc.

1-4. Electrocution Hazard

This aerial platform is not electrically insulated. Maintain a minimum safe approach distance (MSAD) from energized power lines and parts as listed below. Operator **must allow** for platform sway, rock or sag. **This aerial platform does not provide protection from contact with or proximity to an electrically charged conductor.**

DO NOT USE THE MACHINE AS A GROUND FOR WELDING.
DO NOT OPERATE THE MACHINE DURING LIGHTNING OR STORMS.

DANGER
Avoid Power Lines

Minimum Safe Approach Distance

ANSI/SIA A92.6-1999 & CSA B354.2-01 Requirements			**CE Guidance Note** "Avoidance of danger from Overhead Lines"
Voltage Range	Minimum Safe Approach Distance		**Adhere strictly to the governmental rulings and regulations applicable in your country.**
(Phase to Phase)	Feet	Meters	
0 To 300V	Avoid Contact		
Over 300V to 50KV	10	3.05	
Over 50KV to 200KV	15	4.60	
Over 200KV to 350KV	20	6.10	
Over 350KV to 500KV	25	7.62	
Over 500KV to 750KV	35	10.67	
Over 750KV to 1000KV	45	13.72	

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

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1-5. Safety Precautions

Know And Understand The Safety Precautions Before Going On To Next Section.

Warning

Failure to heed the following safety precautions could result in tip over, falling, crushing, or other hazards leading to death or serious injury

- **KNOW** all Federal, State, Provincial and local rules which apply to your MACHINE and JOB-SITE.
- **DO NOT** leave the aerial platform unattended with the key in the key switch.
- **WEAR** all the protective clothing and personal safety devices issued to you or called for by job conditions.
- **DO NOT** wear loose clothing, dangling neckties, scarves, rings, wristwatches or other jewelry while operating this lift.

- **AVOID** entanglement with ropes, cords or hoses.

- **AVOID** falling. Stay within the boundaries of the guardrails.

- **DO NOT** raise the aerial platform in windy or gusty conditions.

- **DO NOT** increase the lateral surface area of the platform. Increasing the area exposed to the wind will decrease machine stability.

- **DO NOT** drive or elevate the aerial platform if it is not on firm level surfaces. Do not drive elevated near depressions or holes of any type, loading docks, debris, drop-offs and surfaces that may affect the stability of the aerial platform.

- **If Operation In Areas With Holes Or Drop-offs Is Absolutely Necessary,** elevated driving shall not be allowed. Position the aerial platform horizontally only with the platform fully lowered. After ensuring that all 4 wheels or outriggers have contact with level firm surface, the aerial platform can be elevated. After elevation, the drive function must not be activated.

- **Elevated driving** must only be done on a firm level surface.

- **DO NOT** Ascend or descend a grade steeper than 23% (3215, 3219), 25% (3220, 3226), 20% (4832) or 25% (4620, 4626, 6826 & 6832). Ascend or descend grades only when fully lowered and then only to the maximums noted above.

1-5. Safety Precautions (Continued)
Know And Understand The Safety Precautions Before Going On To Next Section.

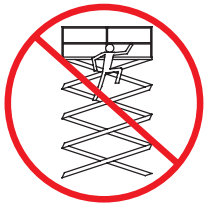
- **DO NOT** operate on surfaces not capable of holding the weight of the aerial platform including the rated load, e.g. covers, drains, and trenches.
- **DO NOT** operate an aerial platform that has ladders, scaffolding or other devices mounted on it to increase its size or work height. It is prohibited.

- **DO NOT** exert side forces on aerial platform while elevated.

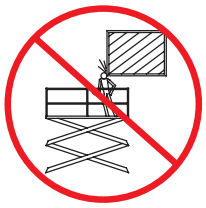
- **DO NOT** use the aerial platform as a crane. It is prohibited.

- **DO NOT** sit, stand or climb on the guardrails. It is prohibited.

- **DO NOT** climb on scissor arm assembly. It is prohibited.



- **BE AWARE** of overhead obstructions or other possible hazards around the aerial platform when driving or lifting.

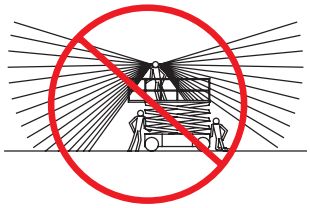


- **DO NOT** raise the aerial platform while the machine is on a truck, fork lift or other device or vehicle.

- **BE AWARE** of crushing hazards. Keep all body parts inside platform guardrail.

- **DO NOT** lower the platform unless the area below is clear of personnel and obstructions.

- **ENSURE** that there are no personnel or obstructions in the path of travel, including blind spots.



- **BE AWARE** of blind spots when operating the aerial platform.
- **STUNT** driving and horseplay are prohibited.
- **ENSURE ALL** tires are in good condition and lug nuts are properly tightened.
- **DO NOT** alter or disable limit switches or other safety devices.
- **DO NOT** use the aerial platform without guardrails, lock pins and the entry gate/chain/bar in place.
- **DO NOT** exceed the rated capacity of the aerial platform. Do make sure the load is evenly distributed on the platform.

1-5. Safety Precautions (Continued)
Know And Understand The Safety Precautions Before Going On To Next Section.

- **DO NOT** overload the platform, the lift relief valve does not protect against overloading when the platform is elevated.
- **DO NOT** attempt to free a snagged platform with lower controls until personnel are removed from the platform.
- **DO NOT** position the aerial platform against another object to steady the platform.

Warning

Entering and Exiting the aerial platform should only be done using the 3 point contact system.
- Use only equipped access openings and ladders.
- Enter and exit only when the elevating aerial platform is in the fully retracted position

- **Do Use Three Point Contact To Enter And Exit The Platform.** Enter and exit the platform from the ground only. Face the machine when entering or exiting the platform.
- **Three Point Contact** means that two hands and one foot **OR** one hand and two feet are in contact with the aerial platform at all times during entering and exiting.

Warning

***An operator should not use any* aerial platform that :**
- 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.

Failure to avoid these hazards could result in death or serious injury.

Jobsite Inspection.

- Do not use in hazardous locations.
- Perform a thorough jobsite inspection prior to operating the aerial platform, to identify potential hazards in your work area.
- Be aware of moving equipment in the area. Take appropriate actions to avoid collision.

Notes

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Table 2-1a. Specifications and Features

Model		3215	3219	3220 / 3220m	3226 / 3226m
Weight Ω		2403 lbs. (1090 kg)	2579 lbs. (1170 kg)	3790 lbs. (1583 kg)	4109 lbs. (1864 kg)
Width		32.0" (0.81m)		32.9" (0.84m)	
Length		70.0" (1.78m)		91.5" (2.32m)	
Platform Size		26"x62" (0.66x1.57m)		28" x 84" (0.71x2.13m)	
Height	Stowed Platform	34.7" (0.88m)	39.2" (0.99m)	38.0" (0.97 m)	45.1" (1.15 m)
	Platform Elevated	15' (4.6m)	19' (5.8m)	20.00' (6.10m)	26.00' (7.92m)
	Working	21' (6.4m)	25' (7.6m)	26.00' (7.92m)	32.00' (9.75m)
Stowed Height Railings Up	ANSI	74" (1.88m)	78.4" (1.99m)	77.5" (1.97 m)	84.7" (2.15 m)
	CSA			79.75" (2.03 m)	87" (2.21 m)
	CE	78.4" (1.99m)	82.9" (2.11m)	82.0" (2.08 m)	89.2" (2.27 m)
Drive Height (All Standards)		FULL			
High Travel Speed		2 mph (3.2km/h)			2.4 mph (3.9 km/h)
Elevated Drive Speed		0.65mph (1.05 km/h)		.64 mph (1 km/h)	.66 mph (1.1 km/h)
High Torque Drive Speed		N/A		1.2 mph (1.9 km/h)	1.33 mph (2.14 km/h)
Lift time (No Load)		18 sec.	19.5 sec.	26.7 sec.	42.6 sec.
Lower Time (No Load)		32 sec.	39 sec.	40.6 sec.	52.5 sec.
Lift Time (Rated Load)		23 sec.	25 sec.	33 sec.	56 sec.
Lower Time (Rated Load)		24 sec.	29 sec.	29 sec.	42 sec.
Gradability		23%		25%	
Sound Pressure		> 70 dB(A)			
Tires		12 x 4 x 8		16 x 5 x 12	
		Solid Rubber			

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Ω Weight with standard 3' (0.9m) extension platform. (Refer to nameplate for machines with 5' (1.5m) or 6' (1.8m) extension platform, CE models and other options.)

Table 2-1b. Specifications and Features

Model		4620	4626	4632	6826	6832
Weight Ω		4100 lb (1860 kg)	4700 lb (2132 kg)	5068 lb (2299 kg)	5380 lb (2440 kg)	5680 lb (2576 kg)
Width		46" (1.17 m)			68" (1.73 m)	
Length		91" (2.31 m)			99.25" (2.52 m)	
Platform Size		42" x 83" (1.07x2.11m)			60" x 81" (1.53x2.05m)	
Height	Working	26' (7.92 m)	32' (9.75 m)	38' (11.6 m)	32' (9.75 m)	38' (11.6 m)
	Platform Elevated	20' (6.1 m)	26' (7.92 m)	32' (9.75 m)	26' (7.92 m)	32' (9.75 m)
	Fixed Railing	77.25" (1.96 m)	84.5" (2.15 m)	88" (2.24 m)	93.6" (2.37 m)	99.0" (2.51 m)
	Platform Lowered	38.0" (0.97 m)	45.0" (1.14 m)	48.5" (1.23 m)	50.0" (1.27 m)	55.3" (1.40 m)
Drive Height	ANSI	20' (6.10m)	26'* (7.92m)	32' (9.75 m)	26' (7.92m)	32' (9.75 m)
	CSA					
	CE	20'*** (6.10m)			23'** (7.01m)	23' (7.01m)
High Travel Speed		2 mph (3.2 km/h)				
Elevated Drive Speed		0.56 mph (0.90 km/h)				0.4 mph (0.74 km/h)
High Torque Drive Speed		1 mph (1.6 km/h)				
Lift time (No Load)		24.0 sec.	47.8 sec.	50.2 sec.	N/A	57.6 sec.
Lower Time (No Load)		48.0 sec.	44.7 sec.	61.7 sec.	N/A	62.7 sec.
Lift Time (Rated Load)		33 sec.	55 sec.	59 sec.	65 sec.	60 sec.
Lower Time (Rated Load)		32 sec.	33 sec.	50 sec.	57 sec.	51 sec.
Gradability		25%				
Sound Pressure		> 70dB(A)				
Tires		16 x 5 x 12 Solid Rubber			23 x 10.5 x 12 Foam Filled[1]	

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* 24' with Dual Power
** 22' with Dual Power
*** 16' with Dual Power
Ω Weight with standard 3' (0.9m) extension platform. Refer to Serial Nameplate for specific applications.
(Refer to nameplate for machines with 5' (1.5m) or 6' (1.8m) extension platform, CE models and other options.)
Fill Hardness: 55 Durometer

Table 2-2. Floor Loading Pressure

Models		TOTAL MACHINE WEIGHT		TOTAL MACHINE LOAD					
				WHEEL		LCP**		OUP**	
		lbs	kg	lbs	kg	psi	Kg/cm²	psf	Kg/cm²
3215	min*	2400	1088	-	-	100	7.03	160	7.66
	max*	3000	1360	-	-	110	7.73	200	9.57
3219	min*	2580	1170	-	-	100	7.03	170	8.14
	max*	3130	1420	-	-	110	7.73	210	10.05
3220 3220M	min*	3490	1583	-	-	110	7.7	175	8.3
	max*	4840	1991	-	-	130	9.1	245	12
3226 3226M	min*	4110	1864	-	-	120	8.4	210	10
	max*	4610	2091	-	-	130	9.1	235	11
4620	min*	3660	1660	-	-	98	6.89	128.16	6.14
	max*	4760	2159	-	-	95	6.68	167.04	8
4626	min*	4870	2209	-	-	97	6.82	171.36	8.21
	max*	5720	2595	-	-	94	6.61	201.6	9.66
4832	min*	5280	2395	-	-	110	7.73	178.56	8.55
	max*	5980	2713	-	-	102	7.17	201.6	9.66
6826	min*	5220	2368	-	-	78	5.48	112.32	6
	max*	6420	2912	-	-	84	5.91	136.8	6.55
6832	min*	5870	2663	-	-	82	5.77	125.28	6
	max*	7070	3207	-	-	94	6.61	151.2	7.24

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* **min** - Total machine weight with no options
max - Machine weight + all options + full capacity

** **LCP – Locally Concentrated Pressure** is a measure of how hard the machine presses on the areas in direct contact with the floor. The floor covering (tile, carpet, etc.) must be able to withstand more that the indicated values above.
OUP – Overall Uniform Pressure is a measure of the average load the machine imparts on the whole surface directly underneath it. The structure of the operating surface (beams, etc.) must be able to withstand more than the indicated values above.

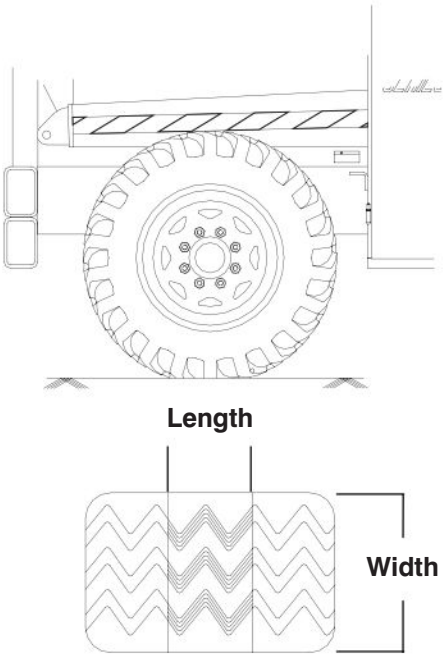
NOTE
The **LCP** or **OUP** that an individual surface can withstand varies from structure to structure and is generally determined by the engineer or architect for that particular structure.

Floor Loading Pressure

Local Concentrated Pressure (LCP):

Foot Print Area = Length x Width

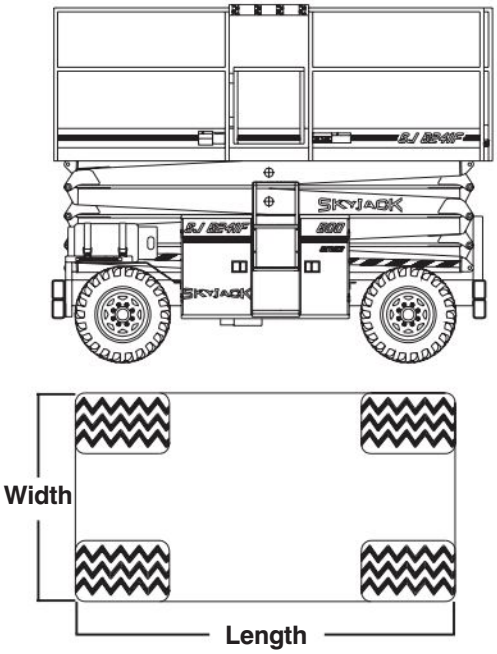
$$\textbf{LCP} = \frac{\text{Weight of Machine + Capacity (Lbs)}}{\text{Foot Print Area x 4 (Tires)}}$$



Overall Uniform Pressure (OUP):

Base Area = Length x Width

$$\textbf{OUP} = \frac{\text{Weight of Machine + Capacity}}{\text{Base Area}}$$



Warning

Intermixing tires of different types or using tires of types other than those originally supplied with this equipment can adversely affect stability. Therefore, replace tires only with the exact original Skyjack-approved type. Failure to operate with matched approved tires in good condition may result in death or serious injury.

Table 2-3. Owner's Annual Inspection Record

Model Number_____					Serial Number_____			
Recording Date								
Recording Year #	1	2	3	4	5	6	7	8
Owner's Name								
Inspected By								

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As described earlier in this section, this decal is located on the scissor assembly. It must be completed after an annual inspection has been completed. Do not use the aerial platform if an inspection has not been recorded in the last 13 months.

Table 2-4. Maximum Platform Capacities (Evenly Distributed)

MODEL	Manual Extension Platform				Powered Extension Platform			
	Main Platform		Extension Platform		Main Platform		Extension Platform	
3215	250 lbs (113kg)	1 Person	250 lbs (113kg)	1 Person	N/A	N/A	N/A	N/A
3219	250 lbs (113kg)	1 Person	250 lbs (113kg)	1 Person	N/A	N/A	N/A	N/A
3220 3220 M	600 lbs (272 kg)	1 Person	300 lbs (136 kg)	1 Person	500 lbs (227 kg)	1 Person	300 lbs (136 kg)	1 Person
3226 3226 M	250 lbs (113 kg)	1 Person	250 lbs (113 kg)	1 Person	N/A	N/A	N/A	N/A
4620	1000 lbs (454 kg)	2 Person	300 lbs (136 kg)	1 Person	1000 lbs (454 kg)	2 Person	300 lbs (136 kg)	1 Person
4626	700 lbs (318 kg)	2 Person	300 lbs (136 kg)	1 Person	700 lbs (318 kg)	2 Person	300 lbs (136 kg)	1 Person
4632	450 lbs. (204 kg)	1 Person	250 lbs (113 kg)	1 Person	N/A	N/A	N/A	N/A
6826 (ANSI&CSA)	900 lbs (408 kg)	2 Person	300 lbs (136 kg)	1 Person	700 lbs (317 kg)	2 Person	300 lbs (136 kg)	1 Person
6826 (CE)	700 lbs* (317 kg)	2 Person	300 lbs (136 kg)	1 Person	700 lbs (317 kg)	2 Person	300 lbs (136 kg)	1 Person
6832	550 lbs** (249 kg)	2 Person	300 lbs (136 kg)	1 Person	550 lbs** (249 kg)	2 Person	300 lbs (136 kg)	1 Person

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NOTE: Overall capacity - Occupants and materials not to exceed rated load.

Warning

This aerial platform is equipped with a Overload Sensing System. Do not exceed the rated capacity of the aerial platform. Failure to avoid this will prevent operation of all normal controls/functions of the aerial platform.
To resume normal operation remove the additional loads.

General Maintenance

Before attempting any repair work, disconnect the battery by turning the Battery Disconnect switches to the off position. Preventative maintenance is the easiest and least expensive type of maintenance.

Table 2-5. Maintenance And Inspection Schedule

	Daily	Weekly	Monthly	3 Months	6 Months	12 Months*
Mechanical						
Structural damage/welds	A					A
Parking brake	B					B
Tires/wheels & fasteners	A, B, C					A, B, C
Guides/ rollers & slider pads	A, B, I					A, B, I
Railings/Entry chains/gates	A, B, C					A, B, C
Bolts and fasteners	C					C
Maintenance Support	B					B
Rust			A			A
Wheel Bearings and King Pins	A, B, E					A, B, E
Pothole Protection	A, B					A, B
Steering cylinder & tie rod				A, B, E		A, B, E
Electrical						
Battery fluid level	A					A
Control switches/Indicator Lights	A, B					A, B
Cords & wiring	A					A
Battery terminals	A, C		A, C			A, C
Generator/receptacle	A, B					A, B
Terminal and Plugs	C					C
Limit Switches	B					B
Hydraulic						
Hydraulic oil	H					H
Hydraulic hoses/fittings	A, L		C			A, C, L
Lift/lowering speeds				G		G
Cylinders		A, B				A, B
Emergency lowering	B					B
Lift capacity			D			D
Hydraulic oil & oil filter					F	F
Miscellaneous						
Labels & Manual	A, J, K					A, J, K

Notes

A. Visually Inspect.
B. Check operation.**
C. Check tightness.
D. Check relief valve setting. Refer to serial number name-plate
E. Lubricate.
F. Replace.
G. Refer to Table 2-1 specifications and features.
H. Check oil level.
I. Ensure there is no metal to metal contact with slider, slider side or running surface. Check for free movement of surface. Also check for free movement of the slider pin through the slider and pad.
J. Replace if missing or illegible.
K. Proper manual must be in box
L. Check for leaks.
* Record inspection date and signature
** Since the enable switch works in conjunction with lift/drive or steer function, to inspect operation of the joystick enable switch activate the steer controller once with activating the enable switch and once without activating the enable switch.

60028AB

Warning

Use original or equivalent to the original parts and components for the aerial platform.

Notes

Section 3
System Component Identification And Schematics

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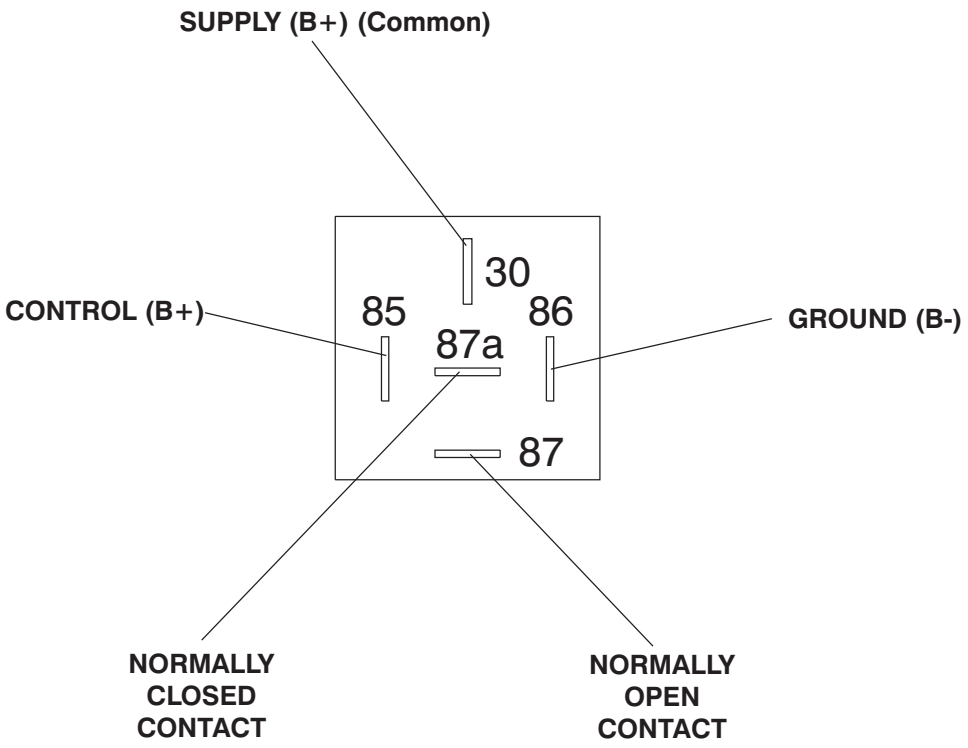
Figure 3.1-1. Relay Function Chart



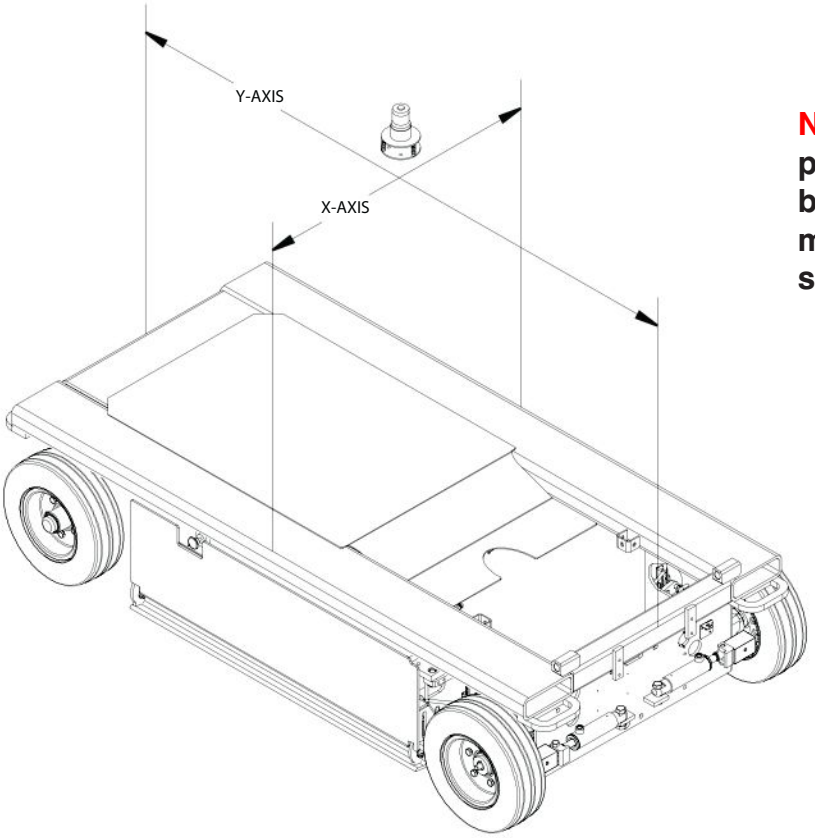
RELAY NO.	RELAY FUNCTION
17CR	TRANSFER RELAY
21ACR	PROPORTIONAL RELAY (CE)
28CR1	TILT RELAY (CE)
28CR2	DOWN RELAY (CE)
28ECR1	AUXILIARY TILT RELAY (CE)
28ECR2	AUXILIARY DOWN RELAY (CE)

60328AC-M

Figure 3.1-2. Tilt Switch Usage Chart

Model	CE Models	
	Serial Numbers	**Tilt switch** (X Axis° x Y Axis°)
		124138 (1.5° x 3.5°)
3220M	Current Production	X
3226M	Current Production	X

60041AD-M



NOTE: Ensure the platform is parked on a flat level surface before performing any adjustments or repairs to the tilt switch assembly.

M10196AA

Figure 3.1-3. Electrical Symbol Chart

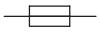
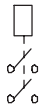
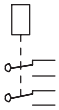
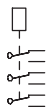
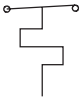
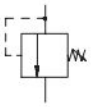
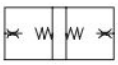
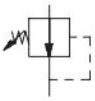
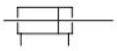
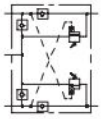
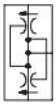
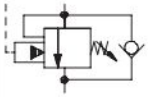
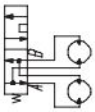
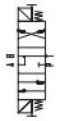
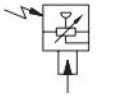
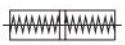
 WIRE CROSSING	 HOURMETER	 KEY SWITCH	 ANGLE TRANSDUCER
 WIRES JOINED	 LIGHT	 FOOT SWITCH	 PRESSURE TRANSDUCER
 BATTERY	 HYDRAULIC VALVE COIL	 TOGGLE SWITCH	 LIMIT SWITCH N.O.
 GROUND	 PROPORTIONAL HYDRAULIC VALVE COIL	 PUSH BUTTON	 LIMIT SWITCH N.O. HELD CLOSED
 FUSE	 ELECTRIC MOTOR	 ROTARY SWITCH	 LIMIT SWITCH N.C.
 CIRCUIT BREAKER	 HORN	 LIMIT SWITCH	 LIMIT SWITCH N.C. HELD OPEN
 BATTERY CHARGE INDICATOR	 EMERGENCY STOP BUTTON	 CAM OPERATED LIMIT SWITCH	 SILICON CONTROLLED RECTIFIER
 CAPACITOR	RESISTOR	 TILT SWITCH	 PROXIMITY SWITCH
 POTENTIOMETER	 LEVEL SENSOR	 SINGLE POLE SINGLE THROWN RELAY	 PNP TRANSISTOR
 SINGLE POLE DOUBLE THROW RELAY	 DOUBLE POLE SINGLE THROW RELAY	 DOUBLE POLE DOUBLE THROW RELAY	 NPN TRANSISTOR
 TRIPLE POLE DOUBLE THROW RELAY	 DIODE	 TRANSISTOR	 PRESSURE/ VACUUM SWITCH
 TEMPERATURE SWITCH			

Figure 3.1-4. Hydraulic Symbol Chart

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

Notes

Figure 3.2-1. Hydraulic Schematic Parts List

Index No.	Skyjack Part No.	Qty.	Description
2H-13	103655	1	VALVE, Lowering
2H-13-1	107269	1	VALVE, Holding (lower cylinder)
2H-13-2	107269	1	VALVE, Holding (upper cylinder) **(Model 3226M only)**
2H-18A	104132	1	VALVE, Differential
2H-59B	132749	1	VALVE, Proportional (Equipped with Internal Compensator Valve)
	115351	1	VALVE, Proportional (Equipped with External Compensator Valve)
3H-14	106273	1	VALVE, Lift
3H-17A	103623	1	VALVE, Brake
3H-18A-1	103623	1	VALVE, Speed A
3H-18A-2	103623	1	VALVE, Speed B
4H-15	128317	1	VALVE, “Hytos” Reverse drive (includes 4H-16)
4H-16	128317	1	VALVE, “Hytos” Forward drive (includes 4H-15)
4H-23	128317	1	VALVE, “Hytos” Right steer (includes 4H-24)
4H-24	128317	1	VALVE, “Hytos” Left steer (includes 4H-23)
4H-26	113953	1	VALVE, Powered platform extend (includes 4H-27) **(Model 3220M)**
4H-27	113953	1	VALVE, Powered platform retract (includes 4H-26) **(Model 3220M)**
C1	124291	1	CYLINDER, Cushion
C2	120989	AR	CYLINDER, Lift
C3	120236	1	CYLINDER, Steer
C4	120220	2	CYLINDER, Brake
C5	127100	AR	CYLINDER, 6 FT Powered extension platform **(Model 3220M)**
CB1	104133	1	VALVE, Counterbalance
CMP1	115382	1	VALVE, External Compensator (If Equipped)
CRV1	115299	1	VALVE, Cross-Over Relief (Option)
F1	109568	1	FILTER ASSEMBLY, Return
FD1	103354	1	VALVE, Flow divider/combiner
MI	103129	1	MOTOR, Hydraulic wheel LH
M2	103129	1	MOTOR, Hydraulic wheel RH
MB1	107354	1	BLOCK, Main manifold
MB2	107493	1	BLOCK, Emergency lowering manifold
MB3	130480	1	BLOCK, Holding valve manifold **(Model 3220M)**
	106688	1	BLOCK, Lower holding valve manifold **(Model 3226M)**
	108778	1	BLOCK, Upper holding valve manifold **(Model 3226M)**
MB4	108195	1	BLOCK, Rear drive manifold
MB5	--	1	BLOCK, Powered extension platform manifold (part of cylinder weldment)
MB9	132748	1	BLOCK, Proportional manifold (Equipped with Internal Compensator Valve)
	115349	1	BLOCK, Proportional manifold (Equipped with External Compensator Valve)

Parts list continued on following page.

Figure 3.2-1. Hydraulic Schematic Parts List (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from previous page.
O3	105811	1	ORIFICE, Steer (.040 diameter)
O4	105281	2	ORIFICE, Emergency lowering (.067 diameter)
O5	105811	2	ORIFICE, Brake (.040 diameter)
O6	104434	1	ORIFICE, Differential (.040 diameter)
P1	106577	1	PUMP, Hydraulic **(Model 3220M)**
	106587	1	PUMP, Hydraulic **(Model 3226M)**
PS1	102863	1	SWITCH, Pressure (option)
	113799	1	• MANIFOLD BLOCK, (for machines with Pressure Switch Option)
PT1	134431	1	TRANSDUCER, Pressure 2000 psi
	134532	1	TRANSDUCER, Pressure 1250 psi **(Model 3226M)**
R1	104534	1	VALVE, System relief
R2	104534	1	VALVE, Lift relief
R3	106557	2	VALVE, Holding valve relief **(Model 3226M)**
R4	115336	1	VALVE, Cross-over relief (Option)
R5	115336	1	VALVE, Cross-over relief (Option)
V1	107271	1	VALVE, Emergency lowering
V2	103136	1	VALVE, Free-wheeling

Figure 3.2-2. Hydraulic Schematic - Model 3220M

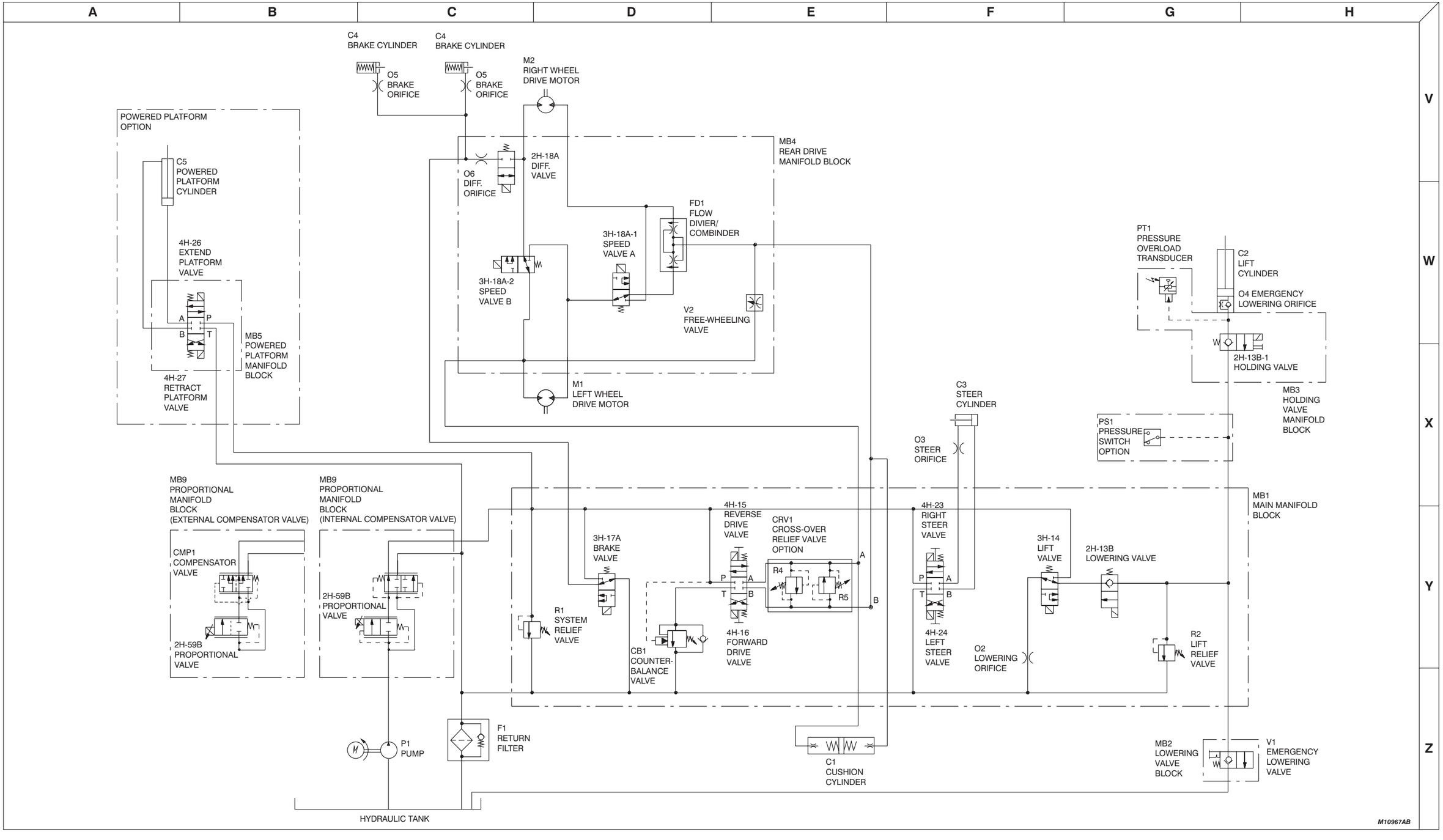


Figure 3.2-3. Hydraulic Schematic - Model 3226M

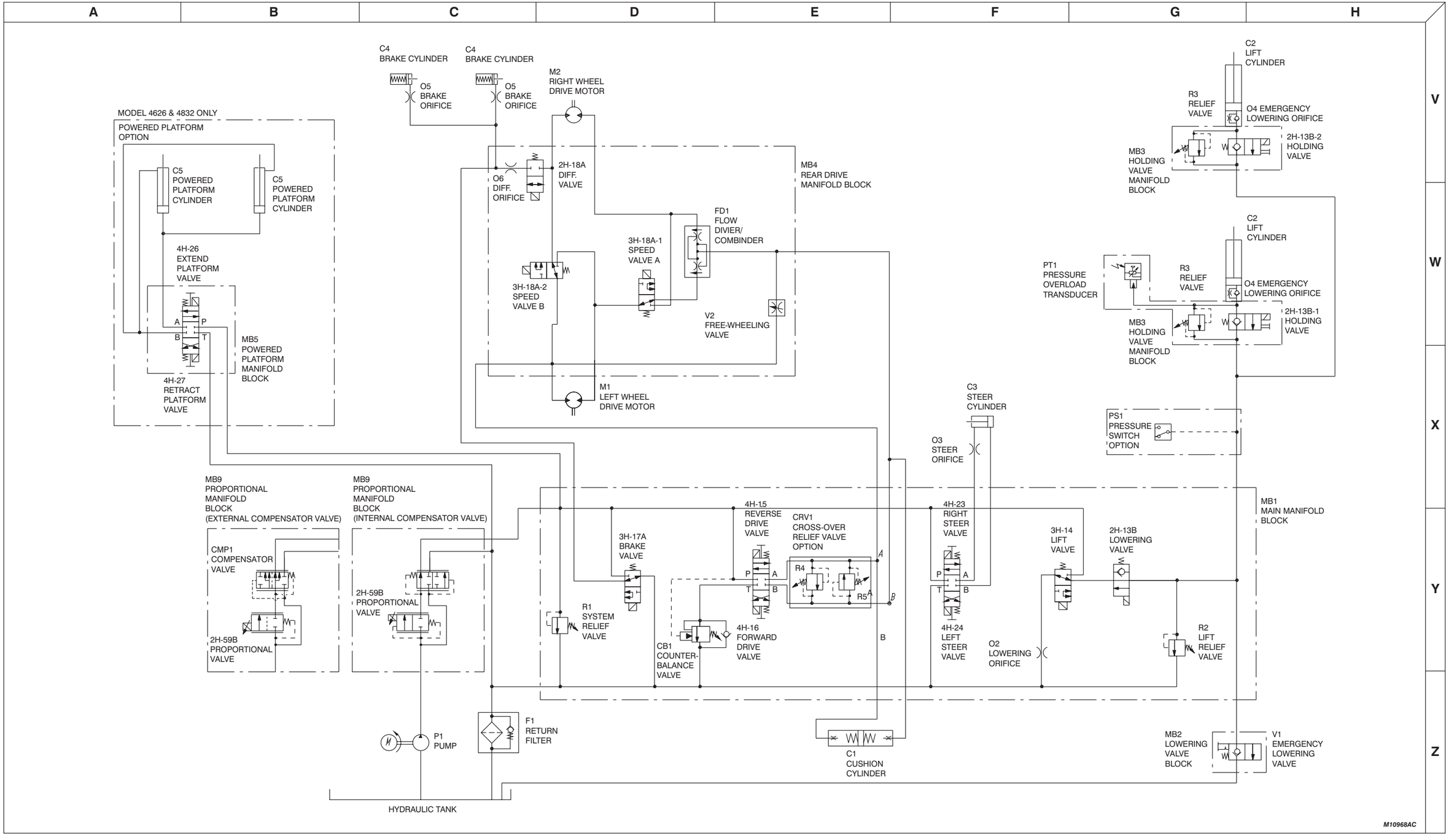


Figure 3.2-4. Hydraulic Manifold Component And Port Identification

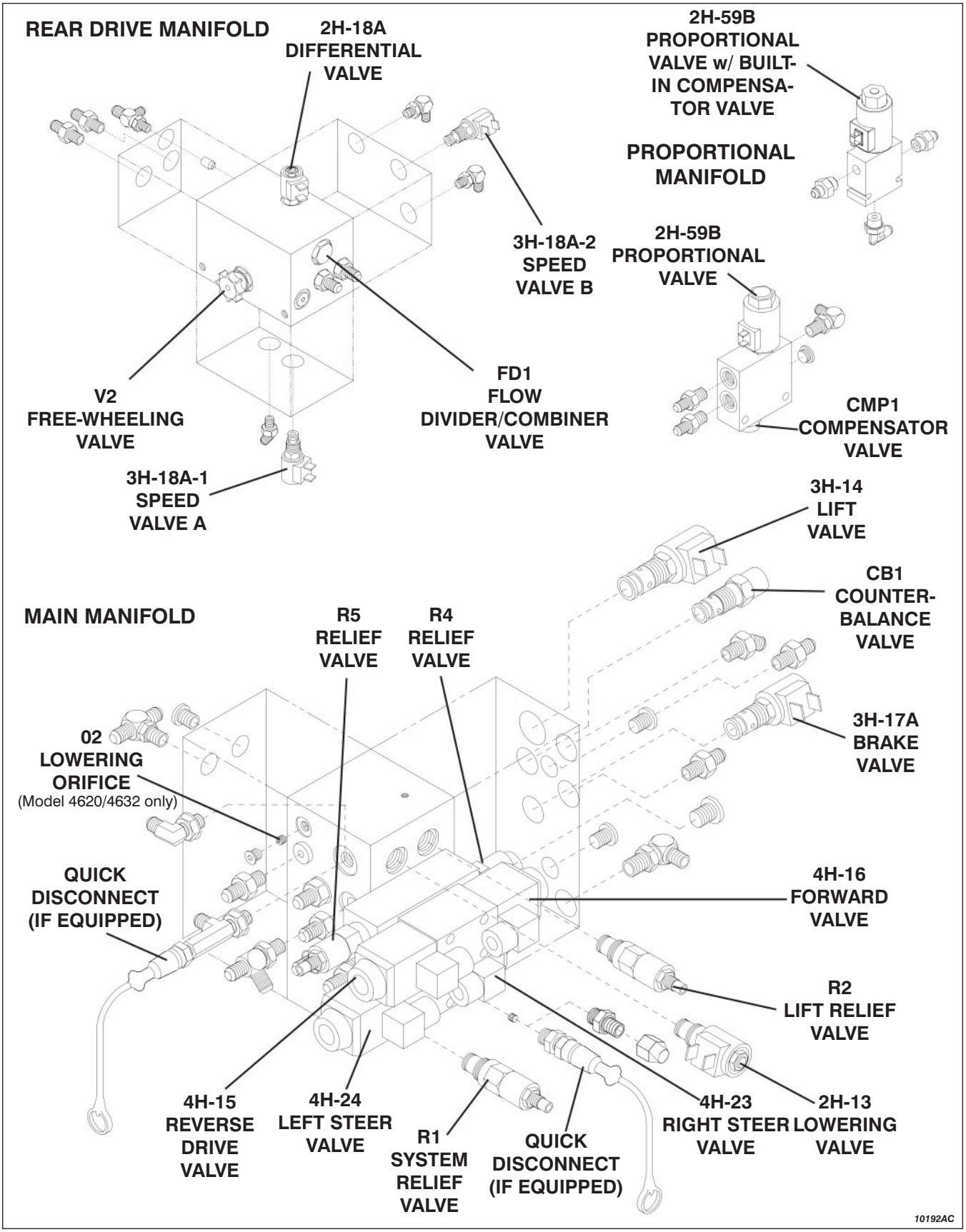


Figure 3.3-1. Electrical Schematic And Diagram Parts List

Index No.	Skyjack Part No.	Qty.	Description
129ACR	108589	1	RELAY, 24 Volt (Joystick enable switch)
17CR	108589	1	RELAY, 24 Volt (Transfer)
21ACR	108589	1	RELAY, 24 Volt (Proportional)
28CR1	108589	1	RELAY, 24 Volt (Tilt)
28CR2	108589	1	RELAY, 24 Volt (Down)
28ECR1	108589	1	RELAY, 24 Volt (Auxiliary Tilt)
28ECR2	108589	1	RELAY, 24 Volt (Auxiliary Down)
2H-13B	103605	1	COIL, 24 Volt (Down valve)
2H-13B-X	104493	AR	COIL, 24 Volt (Holding valve)
2H-18A	103605	1	COIL, 24 Volt (Differential valve)
2H-59B	115370	1	COIL, 24 Volt (Proportional valve)
3H-14	105610	1	COIL, 24 Volt (Lift valve)
3H-17A	103605	1	COIL, 24 Volt (Brake valve)
3H-18A-1	103605	1	COIL, 24 Volt (Speed A)
3H-18A-2	103605	1	COIL, 24 Volt (Speed B)
4H-15	128320	1	COIL, 24 Volt (Reverse drive spool valve)
4H-16	128320	1	COIL, 24 Volt (Forward drive spool valve)
4H-23	128320	1	COIL, 24 Volt (Right steer spool valve)
4H-24	128320	1	COIL, 24 Volt (Left steer spool valve)
4H-26	103605	1	COIL, 24 Volt (Powered platform extend spool valve) (Option)
4H-27	103605	1	COIL, 24 Volt (Powered platform retract spool valve) (Option)
AT1	130440	1	TRANSDUCER, Angle
B1-B4	106552	4	BATTERY, 6V (Interstate #U2500)
	103480	4	BATTERY, 6V (Interstate #U2200)
BC	128537	1	CHARGER, Battery 24VDC (Superior Universal)
BCI	122093	1	BATTERY CHARGE INDICATOR
BP-29	117967	1	BEEPER, 9-28 VDC
C1	103101	1	CONTACTOR, Motor (24 Volts)
CAP1	110699	1	CAPACITOR (.47UF, 100 Volts)
CB1-CB2	117325	2	CIRCUIT BREAKER (15 Amp)
CM1	130439	1	CONTROL MODULE, Integrated sensor
DCM1	123477	1	MOTOR, 24 Volt
D02-X	129258	AR	DIODE
DXX	102921	AR	DIODE
DA1	119758	1	DIODE PACK
DA2	119520	1	DIODE ASSEMBLY
DA3	119624	1	DIODE ASSEMBLY
F1	117619	1	FUSE, 300 Amp
FL-22	121477	1	FLASHING LIGHT (option)
FL-22A	103743	1	FLASHER, Flashing light

Parts list continued on the following page.

Figure 3.3-1. Electrical Schematic And Diagram Parts List (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
H1	121058	1	HORN, Operator
INV1	128770	1	INVERTER, 24VDC - 110/220 VAC @ 50 Hz
L1CR	115315	1	RELAY, Battery charger
LB1	102671	1	MOUNT, Load Sensing Light assembly
LS1A	121975	1	LIMIT SWITCH, High speed
LS1B	121975	1	LIMIT SWITCH, High speed
LS3	122014	1	LIMIT SWITCH, End of stroke (Option)
LS4	125886	1	LIMIT SWITCH, Pothole protection - Battery tray
LS5	125885	1	LIMIT SWITCH, Pothole protection - Hydraulic tray
LS6	121975	1	LIMIT SWITCH, Drive override
PS1	102863	1	PRESSURE SWITCH
PT1	134431	1	TRANSDUCER, Pressure (2000 psi)
	134532	1	TRANSDUCER, Pressure (1250 psi) **(Model 3226M)**
PWM	122868	1	CIRCUIT BOARD ASSEMBLY, Proportional controller
RST1	119629	1	RESISTOR (2.7Kohm)
RST2	115313	1	RESISTOR (25W - 30 ohm)
RST3	116505	1	RESISTOR, Low voltage protection
S1	119725	1	SWITCH, Main power disconnect
S2	103141	1	N.O. CONTACT, Up/Down (Base Control Box)
S3	103141	2	N.O. CONTACT, On/Off key switch (Main Control Box)
S4	103225	1	N.C. CONTACT, Emergency stop switch (Main Control Box)
S5	116382	1	SWITCH, Lift/Off/Drive toggle (Main Control Box)
S7	123994	1	CONTROLLER ASSEMBLY, Proportional (Main Control Box)
S8	103141	1	N.O. CONTACT, Operator horn (Main Control Box)
S11	102853	1	SWITCH, Powered extension platform extend/retract toggle (Option)
S12	102853	1	SWITCH, Powered extension platform enable toggle (Option)
S27	115574	1	SWITCH, Torque toggle
S28	103225	1	N.C. CONTACT, Emergency stop switch (Base Control Box)
TMR-19B	132494	1	RELAY, Inverter Timer cut-out
TT	103336	1	HOURMETER

Figure 3.3-2. Control Module to Transducers Diagram

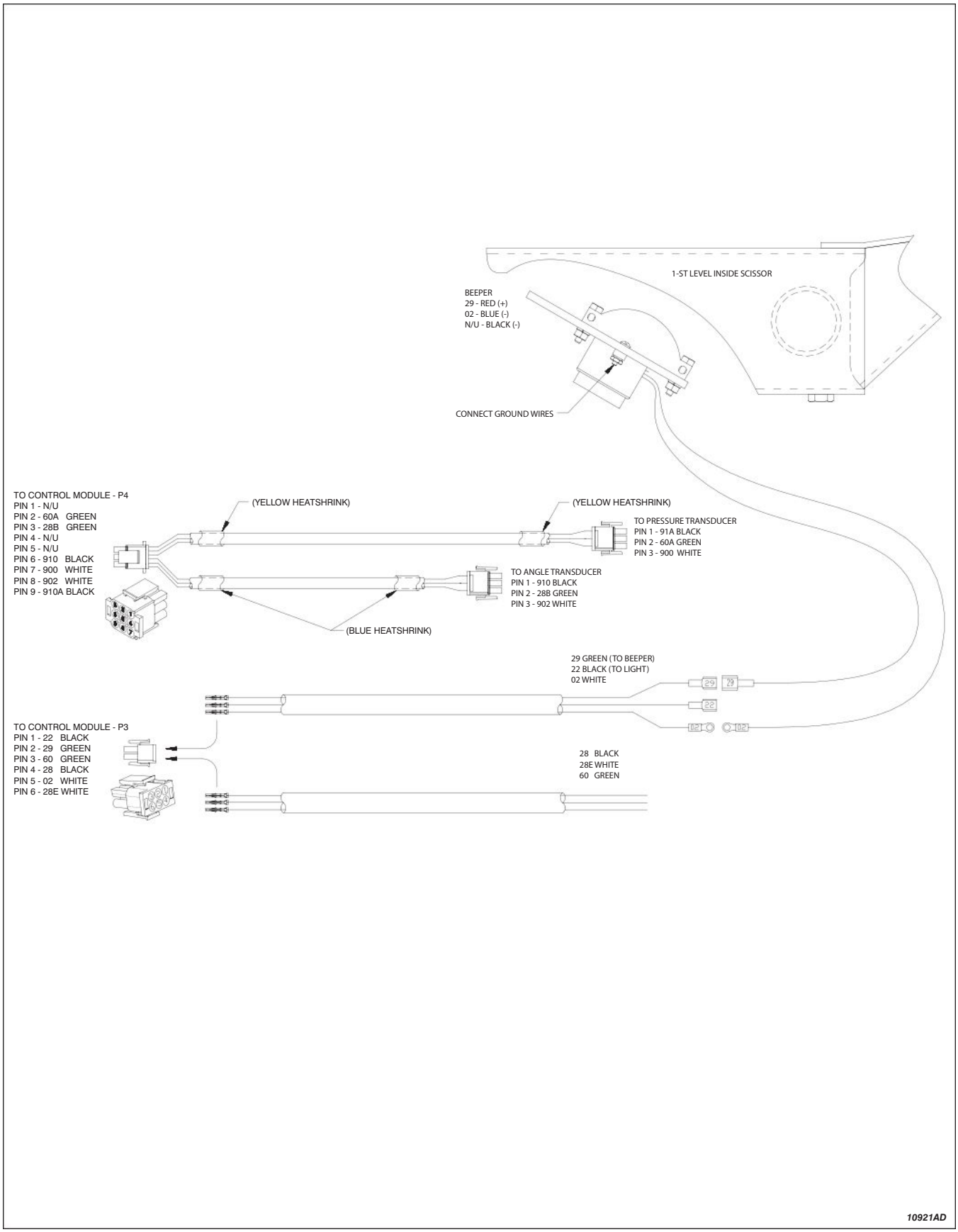


Figure 3.3-3. Control Box Wiring Diagram - Equipped With All Options (No Rollout Limit) - (Model 3220M)

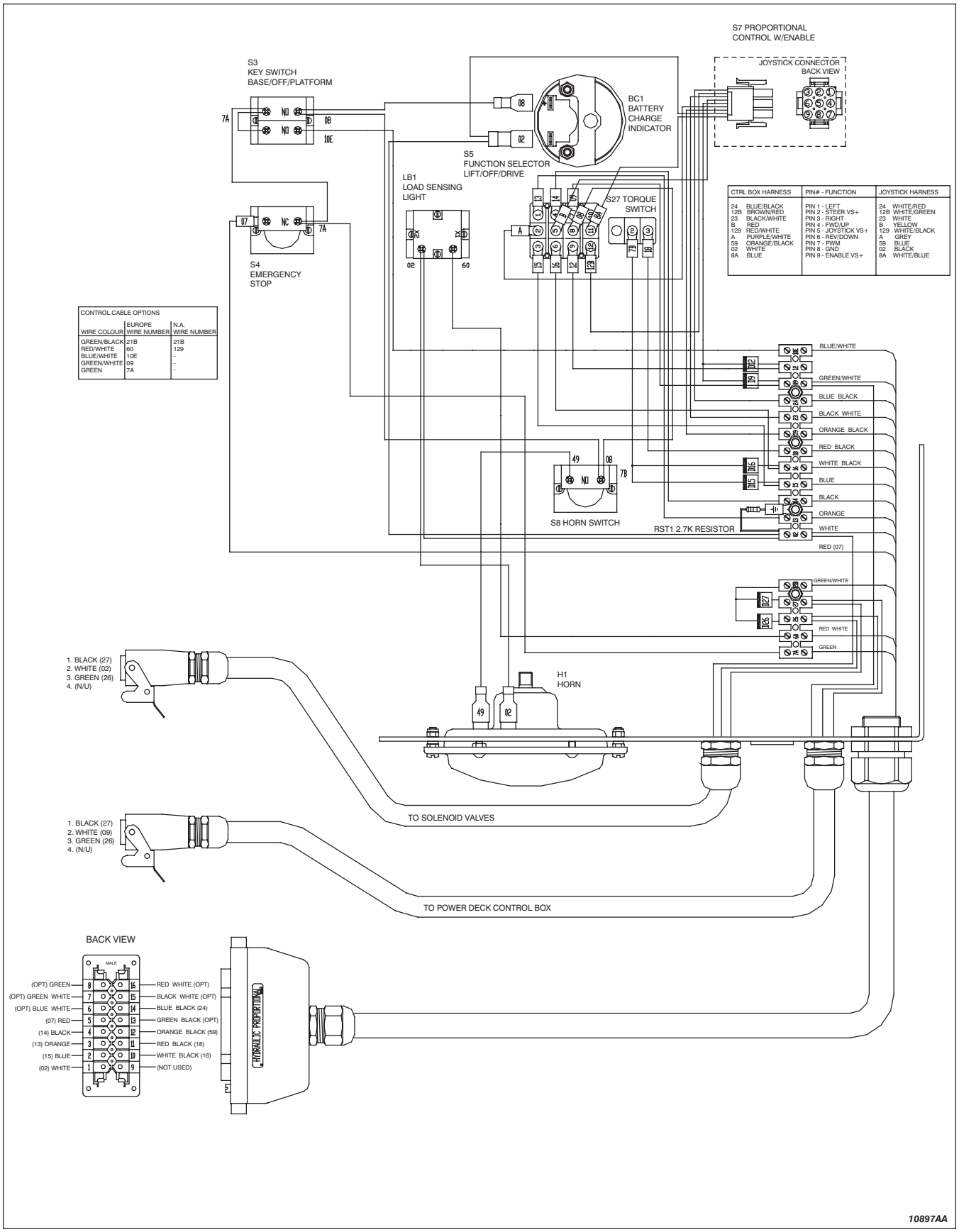


Figure 3.3-4. Control Box Wiring Diagram - Equipped With No Option

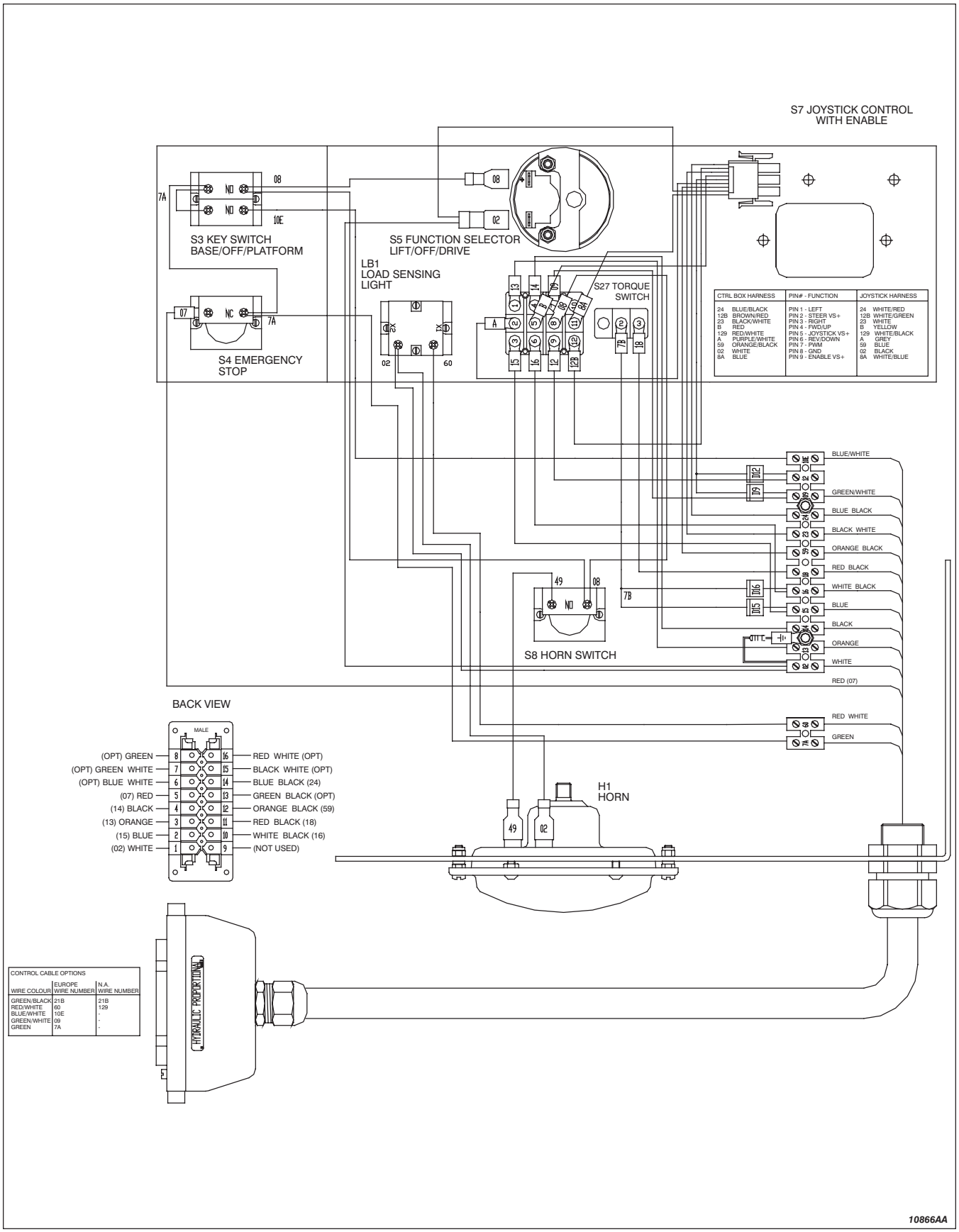
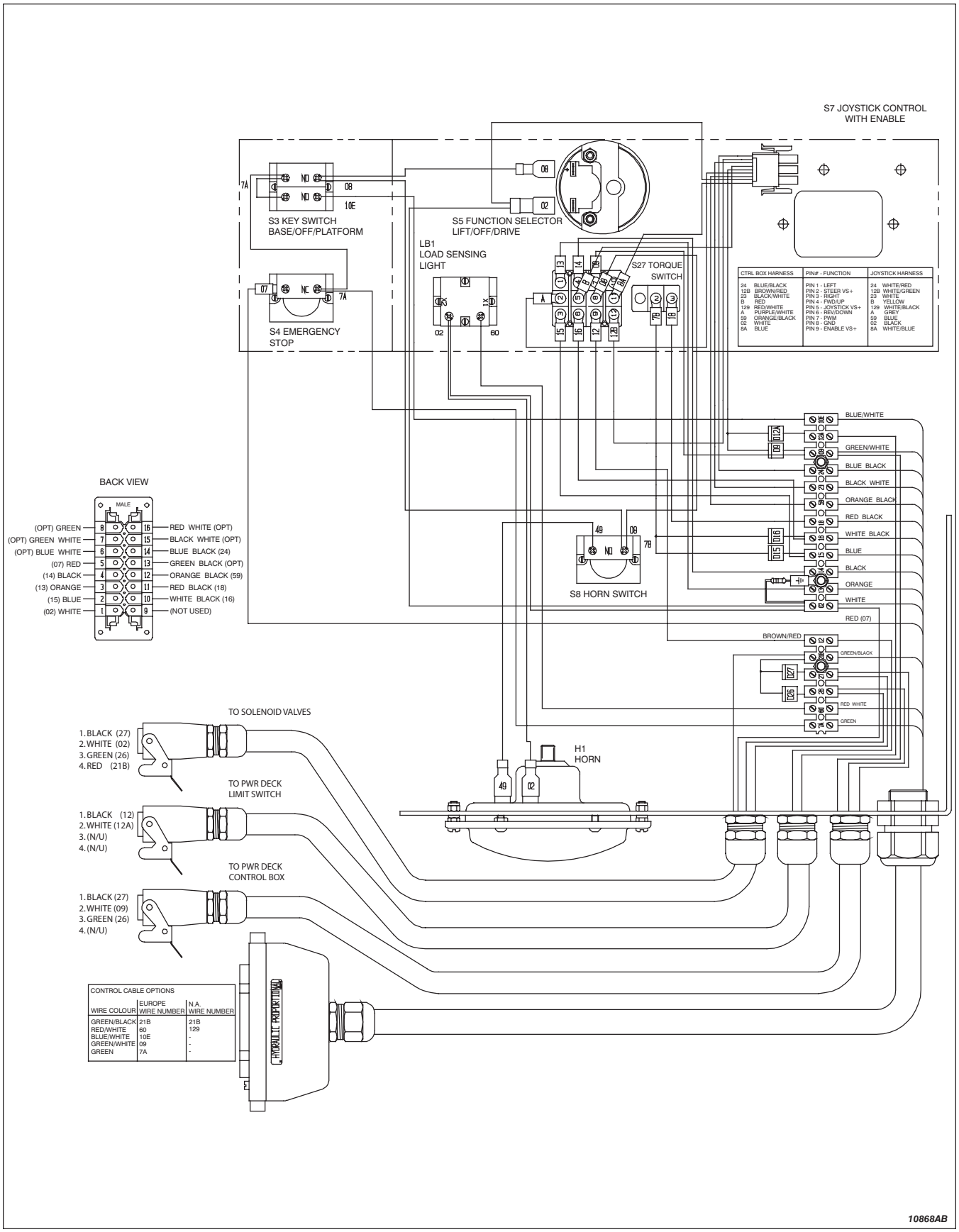


Figure 3.3-5. Control Box Wiring Diagram - Equipped With All Option (Model 3226M)



Notes

Figure 3.4-1. Electrical Panel Diagram - CE Models Equipped With All Options

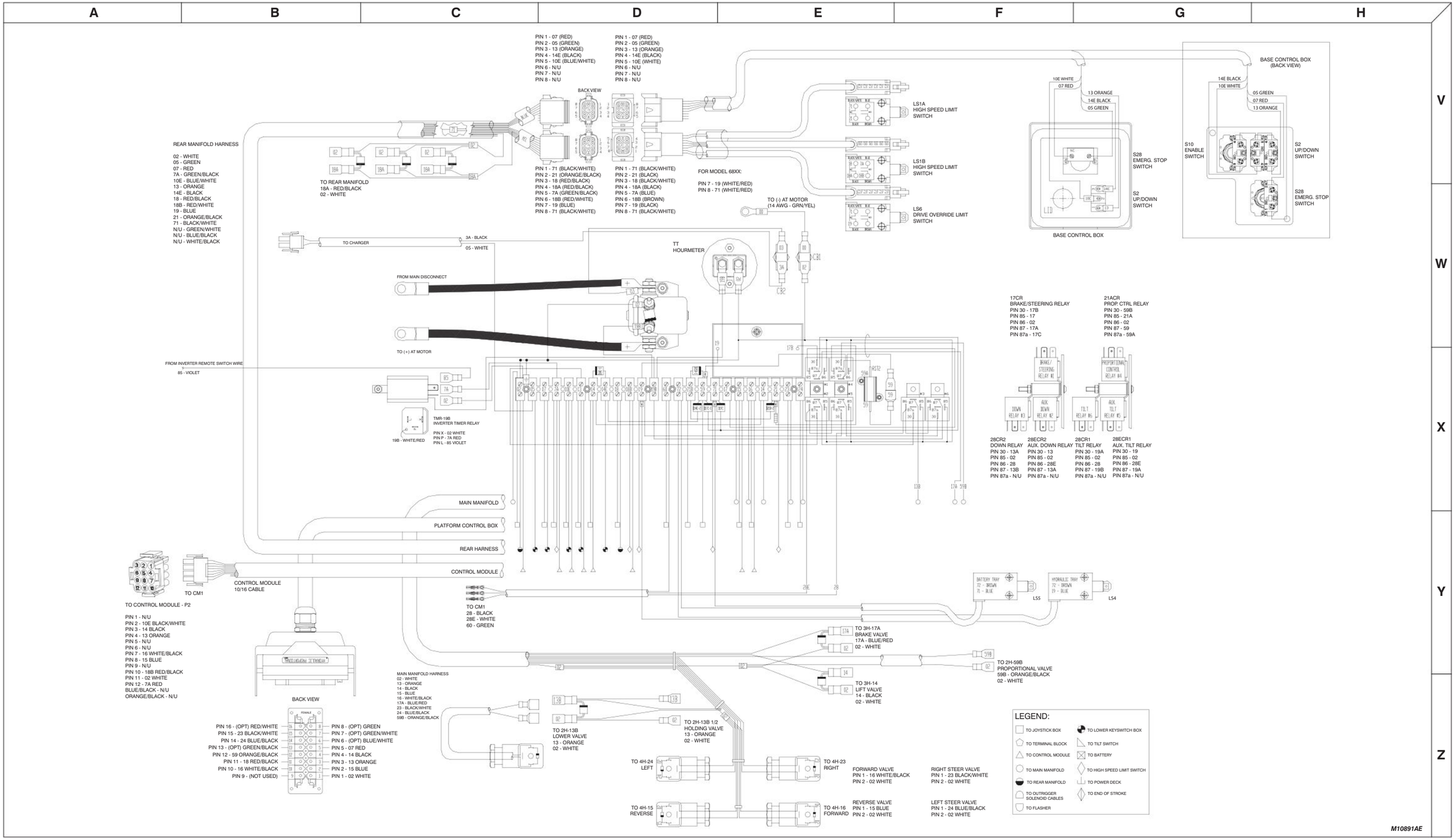
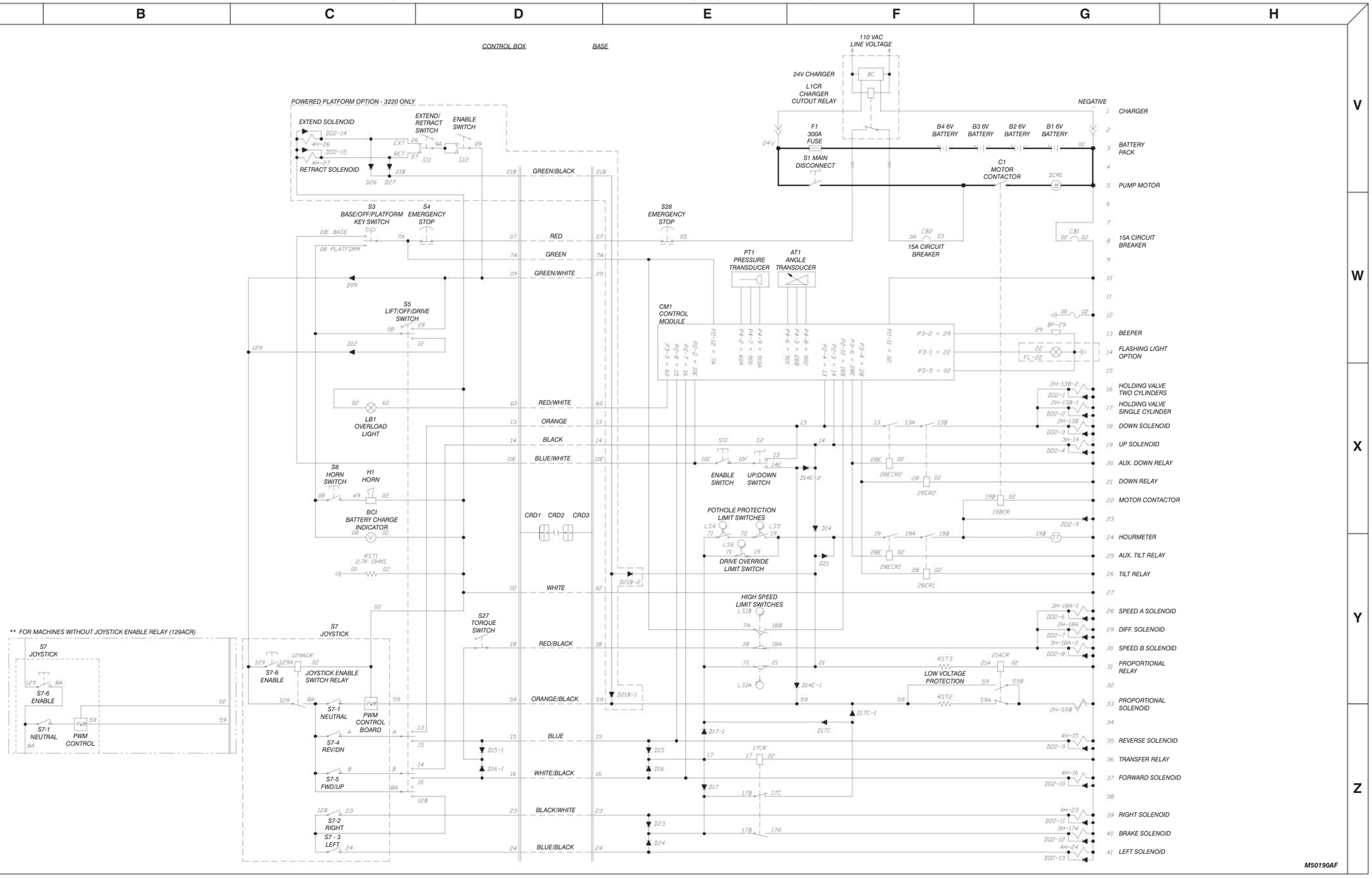


Figure 3.5-1. Electrical Schematic - CE Models Equipped With All Options



Section 4
Troubleshooting Information

Table Of Contents

4

Introduction

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

Troubleshooting Information - Electrical System

Probable Cause	Remedy
4.1-1. All Controls Inoperative	
1. Battery Charger plugged into external power source.	1. Disconnect charger cord.
2. Batteries disconnected.	2. Connect batteries.
3. Dirty or loose battery terminals.	3. Clean and tighten connections.
4. Battery charge low.	4. 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.
5. Main battery cables open or defective.	5. Check continuity. Replace if defective.
6. Fuse (F1) defective.	6. Replace fuse.
7. Main Battery Disconnect Switch (S1) open or defective.	7. Close switch. Check continuity. Replace if defective.
8. Loose or broken wire #3 from Motor Contactor (C1) to Circuit Breaker (CB2).	8. Check continuity. Replace if defective
9. Defective Battery Charger Relay (L1CR).	9. Check relay. Replace if defective.
10. Defective or tripped Circuit Breaker (CB2).	10. Reset circuit breaker. Replace if defective.
11. Loose or broken wire #5 from Charger Relay (L1CR) to Base Terminal Block (TB-1).	11. Check continuity. Replace if defective.
12. Loose or broken wire #5 from base terminal block (TB-1) to enable switch (S10).	12. Check continuity. Replace if defective.
13. Defective enable switch (S10).	13. Check switch replace if defective.
14. Loose or broken wire #00 from Pump Motor (DCM1) to Circuit Breaker (CB1).	14. Check continuity. Replace if defective.
15. Defective or tripped Circuit Breaker (CB1).	15. Reset circuit breaker. Replace if defective.
16. Loose or broken wire #2 from Circuit Breaker (CB1) to Base Terminal Block (TB-1).	16. Check continuity. Replace if defective.
17. Loose or broken wire #19A from Base Terminal Block (TB-1) to Contactor (C1).	17. Check continuity. Replace if defective.
18. Contactor (C1) defective.	18. Check contactor. Replace if defective.
19. Defective Pump Motor (DCM1).	19. Check motor. Replace if defective.
20. Loose or broken wire #59B from Relay (21CCR) to Proportional Valve Coil (2H-59B).	20. Check continuity. Replace if defective.
21. Loose or broken wire #02 from Proportional Valve Coil (2H-59B) to Base Terminal Block (TB-1).	21. Check continuity. Replace if defective.
22. Defective Proportional Valve Coil (2H-59B).	22. Check continuity through coil. Reading should be 19ohms. Replace if defective.
4.1-2. All Controls Inoperative From Platform	
1. Loose or broken wire #5 from the normally open contact to the normally closed contact on the enable switch (S10).	1. Check continuity. Replace if defective.
2. Defective normally closed contact on enable switch (S10).	2. Check continuity through contact. Replace if defective.
3. Loose or broken wire #7 from enable switch (S10) to base terminal block (TB-1).	3. Check continuity. Replace if defective.
4. Loose or broken wire #07 from Base Terminal Block (TB-1) to Platform Emergency Stop Switch (S4).	4. Check continuity. Replace if defective.
5. Open or defective Platform Emergency stop switch (S4).	5. Close switch. Replace if defective.
6. Loose or broken wire #7A from Platform Emergency Stop Switch (S4) to Key Switch (S3).	6. Check continuity. Replace if defective.
7. Open or defective Key Switch (S3).	7. Close switch. Replace if defective.

Probable Cause	Remedy
4.1-2. All Controls Inoperative From Platform (continuted)	
8. Loose or broken wire #8 from Keyswitch (S3) to Battery charge Indicator (BCI).	8. Check continuity. Replace if defective.
9. Loose or broken wire #8 from Battery Charge Indicator (BCI) to Lift/Drive select switch (S5).	9. Check continuity. Replace if defective.
10. Defective Lift/Drive select switch (S5).	10. Check switch. Replace if defective.
4.1-3. Lift And Drive Inoperative From Platform Controls	
1. Defective Neutral Switch (S7-1) in Joystick Controller (S7).	1. Check switch. Replace if defective.
2. Defective A/B switch (S7-4) in Joystick Controller (S7).	2. Check switch. Replace if defective.
3. Circuit Board (PWM) defective.	3. Refer to Section 5, Joystick Controller Test Procedure.
4. Loose or broken wire #59 from Joystick Controller (S7) to Platform Terminal Block (TB-2).	4. Check continuity. Replace if defective.
5. Loose or broken wire #59 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).	5. Check continuity. Replace if defective.
4.1-4. No Down Or Reverse Only Function From Platform Controls	
1. A/B Switch (S7-4) in Proportional Controller open or defective.	1. Check switch. Replace if defective.
2. Loose or broken wire “A” from Proportional Controller (S7) to Lift/Drive Switch (S5).	2. Check continuity. Replace if defective.
3. Lift/Drive Switch (S5) defective.	3. Check Switch. Replace if defective.
4.1-5. No Up Or Forward Only Function From Platform Controls	
1. A/B Switch (S7-5) in Proportional Controller open or defective.	1. Check switch. Replace if defective.
2. Loose or broken wire “B” from Proportional Controller (S7) to Lift/Drive Select Switch (S5).	2. Check continuity. Replace if defective.
3. Lift Drive Select Switch (S5) defective.	3. Check switch. Replace if defective.
4.1-6. No Up Function From Platform Or Base Controls	
1. Loose or broken wire #14A from Base Terminal Block (TB-1) to Up Valve Coil (3H-14A)	1. Check continuity. Replace if defective.
2. Defective Up Valve Coil (3H-14A)	2. Check continuity through coil. Replace if defective.
3. Open Diode (D21A).	3. Check diode. Replace if defective.
4. Open Diode (D14A).	4. Check diode. Replace if defective.
5. Machine not level.	5. Use on level surface.
6. Loose or broken wire 19 from Base Terminal Block (TB-1) to Tilt Switch (TS1).	6. Check continuity. Replace if defective.
7. Defective Tilt Switch (TS1).	7. Test Tilt switch. Replace if defective.
8. Loose or broken wire #28 from Tilt Switch (TS1) to Tilt Relay (28CR).	8. Check continuity. Replace if defective.
9. Loose or broken wire #02 from Tilt Switch (TS1) to Terminal Strip (TB-1).	9. Check continuity. Replace if defective.
10. Defective Tilt Relay (28CR).	10. Check relay. Replace if defective.
11. Loose or broken wire #19A from Tilt Relay (28CR) to Pump Motor Contactor.	11. Check continuity. Replace if defective.

Probable Cause	Remedy
4.1-7. No Down Function From Platform Controls (CE)	
1. Loose or broken wire #13 from lift/drive select switch (S5) to base terminal block (TB-1).	1. Check continuity. Replace if defective.
2. Loose or broken wire #13B from base terminal block (TB-1) to down valve (2H-13B) or holding valve (2H-13B-1 or 2H-13B-2).	2. Check continuity. Replace if defective.
3. Loose or broken wire #02 from base terminal block (TB-1) to down valve (2H-13B) or holding valve (2H-13B-1 or 2H-13B-2).	3. Check continuity. Replace if defective.
4. Defective down valve coil (2H-13B) or holding valve coil (2H-13B-1 or 2H-13B-2).	4. Check continuity. Replace if defective.
4.1-8. No Down Function From Platform Controls (NOTE: Down Function Is Not Proportionally Control-	
1. Loose or broken wire #13 from Lift/Drive Select Switch (S5) to base terminal Block (TB-1).	1. Check continuity. Replace if defective.
2. Loose or broken wire #13 from Base Terminal Block (TB-1) to Down Valve (2H-13).	2. Check continuity. Replace if defective.
3. Down valve coil (2H-13) defective.	3. Check continuity through coil. Replace if defective.
4. Loose or broken wire #2 from Down Valve Coil (2H-13) to Base Terminal Block (TB-1).	4. Check continuity. Replace if defective.
5. Loose or broken wire #13 from Down Valve Coil (2H-13) to Lift Cylinder Holding Valve(s) (2H-13-1) and (2H-13-2).	5. Check continuity. Replace if defective.
6. Defective Lift Cylinder Holding Valve Coil(s) (2H-13-1) and (2H-13-2).	6. Check continuity through coil. Replace if defective.
7. Loose or broken wire #02 from Lift Cylinder Holding Valve Coil(s) (2H-13-1) and (2H-13-2).	7. Check continuity. Replace if defective.
4.1-9. Platform Lifts Slow From Platform Controls And Base Controls	
1. Open Diode (D14E-2). (CE) or (D14) ANSI-CSA	1. Check diode. Replace if defective.
4.1-10. Steer Only Inoperative	
1. Defective Relay (17CR).	1. Check relay. Replace if defective.
2. Loose or broken wire #17C from Relay (17CR). to Diode (17C).	2. Check continuity. Replace if defective.
3. Open Diode (D17C).	3. Check diode. Replace if defective.
4. Open Diode (D17C-1).	4. Check diode. Replace if defective.
4.1-11. Drive Only Inoperative	
1. Open Diode (D17-1).	1. Check diode. Replace if defective.
4.1-12. No Drive Or Steer When Platform Fully Lowered (All Machines)	
1. Loose or broken wire #71 from Base Terminal Block (TB-1) to Drive Override Limit Switch (LS6).	1. Check continuity. Replace if defective.
2. Defective Drive Override Switch (LS6).	2. Check switch. Replace if defective.
3. Loose or broken wire #19 from Drive Override Limit Switch (LS6) to Base Terminal Block (TB-1).	3. Check continuity. Replace if defective.

Probable Cause	Remedy
4.1-13. No Drive Or Steer When Platform Elevated (All Machines)	
1. Pot Hole Protection Bars not fully lowered.	1. Clear obstructions. Repair as needed.
2. Loose or broken wire #71 from Base Terminal Block (TB-1) to Pot Hole Protection Limit Switch (LS4).	2. Check continuity. Replace if defective.
3. Defective Pot Hole Protection Limit Switch (LS4).	3. Check switch. Replace if defective.
4. Loose or broken wire #72 from Pothole Protection Limit Switch (LS4) to Base Terminal Block (TB-1).	4. Check continuity. Replace if defective.
5. Loose or broken wire #72 from Base Terminal Block (TB-1) to Pothole Protection Limit Switch (LS5).	5. Check continuity. Replace if defective.
6. Defective Pothole Protection Limit Switch (LS5).	6. Check switch. Replace if defective.
7. Loose or broken wire #19 from Pothole Protection Limit Switch to Base Terminal Block (TB-1).	7. Check continuity. Replace if defective.
4.1-14. No Drive Or Steer From Platform (Machines With Powered Platform Only)	
1. Defective Lift/Drive Select Switch (S5).	1. Check switch. Replace if defective.
2. Loose or broken wire #12 from Lift/Drive Select Switch (S5) to Platform Terminal Block (TB-2).	2. Check continuity. Replace if defective.
3. Loose or broken wire #12 from Platform Terminal Block (TB-2) to Powered Platform Limit Switch (LS2).	3. Check continuity. Replace if defective.
4. Open or defective Powered Platform Limit Switch (LS2).	4. Check switch. Replace if defective.
5. Loose or broken wire #12A from Powered Platform Limit Switch (LS2).	5. Check continuity. Replace if defective.
6. Loose or broken wire #12A from Powered Platform Limit Switch (LS2) to Platform Terminal Block (TB-2).	6. Check continuity. Replace if defective.
7. Open Diode (D12A).	7. Check diode. Replace if defective.
4.1-15. Right Steer Inoperative (Machines With a Powered Platform)	
1. Defective Right Steer Switch (S7-2).	1. Check switch. Replace if defective.
2. Loose or broken wire #23 from Right Steer Switch (S7-2) to Platform Terminal Block (TB-2).	2. Check continuity. Replace if defective.
3. Loose or broken wire #23 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).	3. Check continuity. Replace if defective.
4. Loose or broken wire #23 from Base Terminal Block (TB-2) to Steer Right Valve Coil (4H-23).	4. Check continuity. Replace if defective.
5. Defective Steer Right Valve Coil (4H-23).	5. Check continuity through coil. Replace if defective.
6. Loose or broken wire #02 from Steer Right Valve Coil (4H-23) to Base Terminal Block (TB-1).	6. Check continuity. Replace if defective.
7. Open Diode (D23).	7. Check diode. Replace if defective.
4.1-16. Left Steer Inoperative (Machines With A Powered Platform)	
1. Defective Left Steer Switch (S7-3).	1. Check switch. Replace if defective.
2. Loose or broken wire #24 from Left Steer Switch (S7-3) to Platform Terminal Block (TB-2).	2. Check continuity. Replace if defective.
3. Loose or broken wire #24 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).	3. Check continuity. Replace if defective.
4. Loose or broken wire #24 from Base Terminal Block (TB-1) to Steer Left Valve Coil (4H-24).	4. Check continuity. Replace if defective.
5. Defective Steer Left Valve Coil (4H-24).	5. Check continuity through coil. Replace if defective.
6. Loose or broken wire #02 from Steer Left Valve Coil (4H-24) to Base Terminal Block (TB-1).	6. Check continuity. Replace if defective.
7. Open Diode (D24).	7. Check diode. Replace if defective.

Probable Cause	Remedy
4.1-17. No Elevated Drive Function	
1. Loose or broken wire #59 from Proportional Relay (21CCR) to Resistor (RST2). 2. Resistor (RST2) open. 3. Loose or broken wire #59 from Resistor (RST2) to Proportional Relay (21CCR). 4. Proportional Relay (21CCR) defective.	1. Check continuity. Replace if defective. 2. OHM Check Resistor, it should be 30 ohms. Replace if defective. 3. Check continuity. Replace if defective. 4. Check relay, replace if defective.
4.1-18. Work Platform Drives In Slow Speed Only	
1. Loose or broken wire #71 from Base Terminal Block (TB-1) to High Speed Limit Switch (LS1). 2. Open or defective High Speed Limit Switch (LS1). 3. Loose or broken wire #21 from High Speed Limit Switch (LS1) to Proportional Relay (21CCR). 4. Proportional Relay (21CCR) defective. 5. Loose or broken wire #2 from Proportional Relay (21CCR) to Base Terminal Block (TB-1). 6. Proportional Controller (S7) out of adjustment.	1. Check continuity. Replace if defective. 2. Check switch. Replace if defective. 3. Check continuity. Replace if defective. 4. Check relay, replace if defective. 5. Check continuity. Replace if defective. 6. Adjust controller. Refer to Section 5, Joystick Adjusting Procedure.
4.1-19. Forward Drive Function Inoperative	
1. Loose or broken wire #16 from Lift/Drive Select Switch (S5) to Base Terminal Block (TB-1). 2. Loose or broken wire #16 from Base Terminal Block (TB-1) to Forward Drive Valve Coil (4H-16). 3. Forward Drive Valve Coil (4H-16) defective. 4. Loose or broken wire #02 from Forward Drive Valve Coil (4H-16) to Base Terminal Block (TB-1). 5. Open Diode (D16).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check continuity through coil. Replace if defective. 4. Check continuity. Replace if defective. 5. Check diode. Replace if defective.
4.1-20. Reverse Drive Function Inoperative	
1. Loose or broken wire #15 from Lift/Drive Select Switch (S5) to Base Terminal Block (TB-1). 2. Loose or broken wire #15 from Base Terminal Block (TB-1) to Reverse Drive Valve Coil (4H-15). 3. Reverse Drive Valve Coil (4H-15) defective. 4. Loose or broken wire #02 from Reverse Drive Valve Coil (4H-15) to Base Terminal Block (TB-1). 5. Open Diode (D15).	1. Check continuity. Replace if defective. 2. Check continuity. Replace if defective. 3. Check continuity through coil. Replace if defective. 4. Check continuity. Replace if defective. 5. Check diode. Replace if defective.
4.1-21. Brake Will Not Release	
1. Loose or broken wire #17A from Transfer Relay (17CR) to Brake Valve Coil (3H-17A). 2. Brake Valve Coil (3H-17A) defective. 3. Loose or broken wire #02 from Brake Valve Coil (3H-17A) to Base Terminal Block (TB-1). 4. Open Diode (D17). 5. Transfer Relay (17CR) defective.	1. Check continuity. Replace if defective. 2. Check continuity through coil. Replace if defective. 3. Check continuity through coil. Replace if defective. 4. Check diode. Replace if defective. 5. Check relay. Replace if defective.

Probable Cause	Remedy
4.1-22. Lift Up Inoperative From Base Controls	
1. Defective Up/Down Switch (S2). 2. Loose or broken wire #14E from Up/Down Switch (S2) to Diode (D14E-1). 3. Open Diode (D14E-1). 4. Loose or broken wire #14E from Up/Down Switch (S2) to Diode (D14E-2). 5. Open Diode (D14E-2).	1. Check switch. Replace if defective. 2. Check continuity. Replace if defective. 3. Check Diode. Replace if defective. 4. Check continuity. Replace if defective. 5. Check Diode. Replace if defective.
4.1-23. Lift Down Inoperative From Base Controls	
1. Defective Up/Down Switch (S2). 2. Loose or broken wire #13 from Up/Down Switch (S2) to Base Terminal Block (TB-1).	1. Check switch. Replace if defective. 2. Check continuity. Replace if defective.
4.1-24. Two Or More Functions At One Time	
1. Shorted Diode.	1. Check continuity of all Diodes. Replace if defective.
4.1-25. Powered Platform Extension Will Not Extend Or Retract	
1. Lift/Drive Select Switch (S5) not in lift position. 2. Loose or broken wire #09 from Platform Terminal Block TB-2 to Powered Platform Enable Switch (S12). 3. Powered Platform Enable Switch (S12) defective. 4. Loose or broken wire #09A from Powered Platform Enable Switch (S12) to Platform Extend/Retract Switch (S11). 5. Loose or broken wire #21B from Platform Terminal Block TB-2 to Base Terminal Block (TB-1). 6. Open Diode (D21B-1). 7. Open Diode (D21B-2). 8. Loose or broken wire #02 from Extend/Valve Coil (4H-26) to Retract Valve Coil (4H-27) to Platform Terminal Block (TB-2).	1. Move switch to lift position. 2. Check continuity. Replace if defective. 3. Check switch. Replace if defective. 4. Check continuity. Replace if defective. 5. Check continuity. Replace if defective. 6. Check diode. Replace if defective. 7. Check diode. Replace if defective. 8. Check continuity. Replace if defective.
4.1-26. Powered Extension Platform Will Not Extend	
1. Powered Platform Extend/Retract Switch (S11) defective. 2. Loose or broken wire #26 from Powered Platform Extend/Retract Switch (S11) to extend Valve Coil (4H-26). 3. Extend Valve Coil (4H-26) defective. 4. Open Diode (D26). 5. Loose or broken wire #02 from Extend Valve Coil (4H-26).	1. Check switch. Replace if defective. 2. Check continuity. Replace if defective. 3. Check continuity through coil, replace if defective. 4. Check diode. Replace if defective. 5. Check continuity through coil. Replace if defective.

Probable Cause	Remedy
4.1-27. Powered Extension Platform Will Not Retract	
1. Powered Platform Extend/Retract Switch (S11) defective.	1. Check switch. Replace if defective.
2. Loose or broken wire #27 from Powered Platform Extend/ Retract Switch (S11) to Retract Valve Coil (4H-27).	2. Check continuity. Replace if defective.
3. Retract Valve Coil (4H-27) defective.	3. Check continuity through coil, replace if defective.
4. Open Diode (D27).	4. Check diode. Replace if defective.
5. Loose or broken wire #02 from Retract Valve Coil (4H-27).	5. Check continuity, replace if defective.
4.1-28. High/Low Torque Inoperative	
1. Open Diode (D15-1). (Reverse) or (D16-1) (Forward).	1. Check diode. Replace if defective.
2. Loose or broken wire #18 from Diodes (D15-1) and (D16-1) to High/Low Torque (S27).	2. Check continuity. Replace if defective.
3. Defective High/Low Torque Switch (S27).	3. Check switch. Replace if defective.
4. Loose or broken wire #18 from High/Low Torque Switch (S27) to Platform Terminal Block (TB-2).	4. Check continuity. Replace if defective.
5. Loose or broken wire #18 from Platform Terminal Block (TB-2) to Base Terminal Block (TB-1).	5. Check continuity. Replace if defective.
6. Loose or broken wire #18 from Base Terminal Block (TB-1) to High Speed Limit Switch (LS1)	6. Check continuity. Replace if defective.
7. Defective High Speed Limit Switch (LS1).	7. Check switch. Replace if defective.
8. Loose or broken wire #18A from High Speed Limit Switch (LS1) to Rear Drive Manifold.	8. Check continuity. Replace if defective.
9. Defective Speed Valve Coils (3H-18A-1) or (3H-18A-2).	9. Check continuity through coil. Replace if defective.
10. Loose or broken wire #02 from Rear Drive Manifold to Base Terminal Block (TB-1).	10. Check continuity. Replace if defective.

Troubleshooting Information - Hydraulic System

Probable Cause	Remedy
4.2-1. All Functions Inoperative	
1. Proportional Valve (2H-59B) defective or is sticking. 2. Compensator Valve (CMP1) defective or is sticking. 3. Pump (P1) defective.	1. Check valve. Replace if defective. 2. Check valve. Replace if defective. 3. Check pump. Replace if defective.
4.2-2. Platform Drifts Down	
1. Defective Lift Cylinder Seals. 2. Combination of: Defective Holding Valves (2H-13-1) and (2H-13-2) and either defective Lowering Valve (2H-13) or Relief Valve (R2) or Manual Lowering Valve (V1).	1. Rebuild cylinder. Replace if damaged. 2. Check valves. Replace if defective.
4.2-3. Platform Lifts Slowly	
1. Open or leaking Manual Lowering Valve (V1). 2. Lift Relief Valve (R2) defective. 3. Open Manual Override on Holding Valve (2H-13-1) or (2H-13-2).	1. Close valve. Replace if defective. 2. Check valve. Replace if defective. 3. Depress and turn manual override clockwise to close. Replace if defective.
4.2-4. Platform Does Not Lift	
1. Open Manual Lowering Valve (V1). 2. Hydraulic oil level too low. 3. Platform weight excessive. 4. Up Valve (3H-14) defective or is sticking.	1. Close valve. Replace if defective. 2. Fully lower the platform. Fill hydraulic tank until fluid is at or slightly above the top mark on the sight glass. 3. Reduce platform load to maximum capacity. 4. Check valve. Replace if defective.
4.2-5. Platform Will Not Lower (NOTE: Down Function Is NOT Proportionally Controlled)	
1. Lowering Valve (2H-13) defective or is sticking. 2. Defective Holding Valve (2H-13-1) or (2H-13-2).	1. Clean valve. Replace if defective. 2. Check valve. Replace if defective.
4.2-6. Platform Drives Slow	
1. Free-Wheeling Valve (V2) open or defective. 2. Flow Divider/Combiner (FD1) defective or is plugged. 3. Drive Motor (M1) or (M2) defective. 4. Cushion Cylinder (C-1) defective.	1. Close valve. Replace if defective. 2. Check valve. Replace if defective. 3. Check motors. Replace if defective. 4. Check cylinder. Replace if defective.
4.2-7. Platform Will Not Drive In Forward Or Reverse	
1. Open Free-Wheeling Valve (V2). 2. Forward Drive Valve (4H-16) or Reverse Drive Valve (4H-15) defective or is sticking. 3. Flow/Divider/Combiner Valve (FD1) defective or is plugged. 4. Counterbalance Valve (CB1) defective or is plugged.	1. Close Valve. Replace if defective. 2. Clean Valve. Replace if defective. 3. Clean Valve. Replace if defective. 4. Clean Valve. Replace if defective.
4.2-8. Brake(s) Will Not Release	
1. Brake Valve (3H-17A) defective or is sticking. 2. Brake Orifice(s) (05) plugged. 3. Brake Cylinder(s) (C4) defective. (Machines with Integral Brakes) 4. Plugged or defective brake orifice (07). 5. Damaged integral brake in wheel motor.	1. Clean valve. Replace if defective. 2. Remove orifice(s). Clean and reinstall. 3. Rebuild cylinder(s). Replace if damaged. 4. Clear obstruction. Replace if defective. 5. Inspect wheel motor assembly. Repair and replace as necessary.

Troubleshooting Information - Hydraulic System

Probable Cause	Remedy
4.2-9. Brake(s) Will Not Release (Machines with Integral Brakes)	
1. Stuck or defective auto reset value (V3).	1. Check valve operation. Clean valve. Replace if defective.
2. Stuck or defective hand pump (P2).	2. Check pump operation. Clean pump. Replace if defective.
3. Defective internal brake piston seals.	3. Check brake pack will maintain pressure. If pressure is not maintained replace seals.
4.2-10. Machine Will Not Hold on a Grade (Machined with Integral Brakes)	
1. Worn or damaged brake discs.	1. Inspect brake discs for wear. Replace if worn or damaged.
2. Broken or damaged brake compression springs.	2. Check springs. Replace if defective.
4.2-11. Platform Does Not Steer	
1. Right Steer Valve (4H-23) or Left Steer Valve (4H-24) defective or sticking.	1. Clean valve. Replace if defective.
2. Steer Cylinder (C3) seals leaking.	2. Rebuild cylinder(s). Replace if damaged.
3. Mechanical binding in King Pins.	3. Check for binding. Repair as needed.
4. Orifices (03) plugged.	4. Clean Orifices, and reinstall.
4.2-12. All Systems Sluggish	
1. System Relief Valve defective or not adjusted properly.	1. Adjust valve. Replace if defective.
2. Hydraulic pump (P1) worn.	2. Check pump. Replace if defective.
3. Compensator Valve (CMP1) defective.	3. Clean. Replace if defective.
4. Proportional Valve (2H-59B) contaminated or defective.	4. Clean, replace if defective.
4.2-13. Power Extension Platform Will Not Extend Or Retract	
1. Platform Extend Valve (4H-26) or Platform Retract Valve (4H-27) defective or is sticking.	1. Clean valve. Replace if defective.
2. Powered Platform Cylinder (C5) seals defective.	2. Rebuild cylinder. Replace if damaged.
3. Mechanical binding in powered platform mechanism.	3. Check for binding. Repair as needed.
4.2-14. High/Low Torque Inoperative	
1. Stuck Speed Valve (3H-18A-1).	1. Clean valve. Replace if defective.
2. Stuck Speed Valve (3H-18A-2).	2. Clean valve. Replace if defective.

Notes

Section 5
Maintenance And Service

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Operator's Responsibility For Maintenance

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

The operator should be assured that the work platform has been properly maintained 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 in the Maintenance and Inspection Schedule (Table 2-5.) found in Section 2 of this manual.

Note

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

Danger
Crushing Hazard

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

Maintenance And Inspection Schedule

The actual operating environment of the work platform governs the use of the maintenance schedule. The inspection points covered in the Maintenance and Inspection Schedule (Section 2, Table 2-5.) 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. The Owner's Annual Inspection Record (Table 2-3. in Section 2) is to be used for recording the date of inspection, owner's name and the person responsible for the inspection of this work platform.

General Maintenance Hints

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

Hydraulic System And Component Maintenance And Repair

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

1. Any structure has limits of strength and durability. To prevent failure of structural parts of hydraulic components, relief valves which limit pressure to safe operating values are included in the hydraulic circuits.

2. Tolerance of working parts in the hydraulic system are very close. Even small amounts of dirt or foreign material in the system can cause wear or damage to components, as well as general faulty operation of the hydraulic system. Every precaution must be taken to assure absolute cleanliness of the hydraulic oil.

3. Samples of hydraulic oil should be drawn from the reservoir every six months. These samples should be about two quarts and should be taken while the oil is warmed through normal operation of the system. If possible, the sample should be analyzed by a qualified lubrication specialist to determine whether it is suitable for further use. The intervals between oil changes depend on operating conditions and on the care used in keeping the oil clean.

4. Whenever there is a hydraulic system failure which gives reason to believe that there are metal particles or foreign materials in the system, drain and flush the entire system and replace the filter cartridges. A complete change of oil must be made under these circumstances.

5. Whenever the hydraulic system is drained, check the magnets in the hydraulic reservoir for metal particles. If metal particles are present, flush the entire system and add a new change of oil. The presence of metal particles also may indicate the possibility of imminent component failure. A very small amount of fine particles is normal.

6. **DO NOT** use synthetic or fire resistant oils in this 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 filler opening. The use of cloth to strain the oil should be avoided to prevent lint from getting into the system.

8. When removing any hydraulic component, be sure to cap and tag all hydraulic lines involved. Also, plug the ports of the removed components.

9. All hydraulic components must be disassembled in spotlessly clean surroundings. During disassembly, pay particular attention to the identification of parts to assure proper reassembly. Clean all metal parts in a clean mineral oil solvent. Be sure to thoroughly clean all internal passages. After the parts have been dried thoroughly, lay them on a clean, lint-free surface for inspection.

10. Replace all o-rings and seals when overhauling any component. Lubricate all parts with clean hydraulic oil before reassembly. Use small amounts of petroleum jelly to hold o-rings in place during assembly.

11. Be sure to replace any lost hydraulic oil when completing the installation of the repaired component, and bleed any air from the system when required.

12. All hydraulic connections must be kept tight. A loose connection in a pressure line will permit the oil to leak out or air to be drawn into the system. Air in the system can cause damage to the components and noisy or erratic system operation.

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

1. Change filters regularly.

2. Maintain a sufficient quantity of clean hydraulic oil of the proper type and viscosity in the hydraulic reservoir.

3. Keep all connections tight.

Table 5-1. General Specifications

Model	3220	3226	4620	4626	4632
Electrical System	24 Volts DC	24 Volts DC	24 Volts DC	24 Volts DC	24 Volts DC
6V Batteries	220AH 250AH (Opt.)	220AH 250AH (Opt.)	220AH 250AH (Opt.)	220AH 250AH (Opt.)	220AH 250AH (Opt.)
Lift Relief (Rated Load)	2045 Psi *	1305 Psi *	2770 Psi *	1900 Psi *	2000 Psi *
System Relief (Rated Load)	3002 Psi *	3002 Psi *	3000 Psi *	3000 Psi *	3000 Psi *
Return Filter	20 Micron	20 Micron	20 Micron	20 Micron	20 Micron
Oil Tank Capacity	7.3 Gallons (28 Litres)	7.3 Gallons (28 Litres)	7.3 Gallons (28 Litres)	7.3 Gallons (28 Litres)	7.3 Gallons (28 Litres)
Wheel Motors	18 ci/rev	18 ci/rev	18 ci/rev	18 ci/rev	18 ci/rev
Hydraulic Pump	0.226 ci/rev	0.29 ci/rev	0.29ci/rev	0.29ci/rev	0.29ci/rev
DC Motor	4 HP @ 3600 rpm	4 HP @ 3600 rpm	4 HP @ 3600 rpm	4 HP @ 3600 rpm	4 HP @ 3600 rpm
Sound Pressure	<70 dB (A)	<70 dB (A)	<70 dB (A)	<70 dB (A)	<70 dB (A)
High Travel Speed	2 mph (3.2 km/h)	2.4 mph (3.2 km/h)	2 mph (3.2 km/h)	2 mph (3.2 km/h)	2 mph (3.2 km/h)
Elevated Drive Speed	0.64 mph (0.9 km/h)	0.66 mph (0.9 km/h)	0.55 mph (0.9 km/h)	0.55 mph (0.9 km/h	0.55 mph (0.9 km/h
High Torque Drive Speed	1 mph (1.6 km/h)	1.3 mph (1.6 km/h)	1 mph (1.6 km/h)	1 mph (1.6 km/h)	1 mph (1.6 km/h)
Lift Time (Rated Load)	33 sec.	56 sec.	33 sec.	55 sec.	59 sec.
Lower Time (Rated Load)	29 sec.	42 sec.	32 sec.	33 sec.	50 sec.
Gradability	25%	25%	25%	25%	25%
Tires	16 x 5 x 12 Solid Rubber	16 x 5 x 12 Solid Rubber	16 x 5 x 12 Solid Rubber	16 x 5 x 12 Solid Rubber	16 x 5 x 12 Solid Rubber

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* Refer to serial number nameplate for specific pressures.

Table 5-2. Torque Specifications

Directional valve mounting bolts	28-32 lbf.in	2.16 – 3.61 Nm
Wheel mounting bolts	70 lbf.ft	94.92 Nm
Wheel motor castle nut	200 lbf.ft	271.20 Nm
Parking brake cylinder rod nut	35 lbf.ft	47.46 Nm

Cartridge

	Size					
Torque	08	38	58	10	12	16
Lbf.ft (max)	20	20	20	25	35	50
Lbf.in (max)	240	240	240	300	420	600
Nm (max)	27.12	27.12	27.12	33.90	47.46	67.80

Coils

	Size
Torque	All coils
Lbf.ft (max)	4 to 5
Lbf.in (max)	48 to 60
Nm (max)	5.42 to 6.78

SAE Plugs

	Size							
Torque	2	4	5	6	8	10	12	16
Lbf.ft (max)	3	10	15	15	25	25	30	35
Lbf.in (max)	36	120	180	180	300	300	360	420
Nm (max)	4.07	13.56	20.34	20.34	33.90	33.90	40.68	47.46

Newton-meter = Nm	**Pound-force foot = lbf.ft**	**Pound-force inch = lbf.in**

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System And Lift Pressure Adjustments

All adjustments **must** be made with a Calibrated Gauge.
Refer to the Serial Number Plate located on the rear of the machine for System and Lift Pressure values.

System Relief Pressure Adjustment

1. Locate the System Pressure Quick Disconnect Port on the Main Manifold. Refer to Section 6 Main Manifold Assembly for location.
2. Install a Calibrated 5000 PSI Gauge to the System Pressure Quick Disconnect Port.
3. Remove the Platform Control Box from the Guardrail and disconnect from the Main Control Cable.
4. Locate the Main Control Cable Plug at the rear of the machine.
5. Disconnect the Main Cable and connect the Platform Control Box into the Plug.
6. At the Main Manifold, loosen the Locknut on the System Relief Valve R1. Refer to Section 6 Main Manifold Assembly for location.
7. Select Drive with the Lift/Drive Select Switch on the Platform Control Box.
8. Engaged Steer Right and hold.
9. Observe reading on Gauge. Adjust the R1 System Relief Value listed on the Serial Number Plate. Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counterclockwise decreases pressure.
10. Release Steer Switch and tighten the Locknut.
11. Remove the gauge from the System Pressure Test Port.

Lift Pressure Adjustment

Note: Adequate area to raise the Platform to full height is required for the following steps.

1. Locate the Lift Pressure Test Port on the Main Manifold. Refer to Section 6 Main Manifold Assembly for location.
2. Install a Calibrated 3000 PSI Gauge to the Lift Pressure Quick Disconnect Port.
3. At the Main Manifold, loosen the Locknut on the Lift Relief Valve R2.
4. Close the Manual Lowering Valve. Using the Lift Switch at the Base Controls, raise the platform to full height and hold the Lift Up Switch on.
5. Observe the reading on the gauge. Adjust the R2 Relief Valve to the value listed on the Serial Number Plate. Turning the stem of the Relief Valve increases pressure. Turning the stem counterclockwise decreases pressure.
6. Remove the gauge from the Lift Pressure Test Port.

Note: Pressure setting may vary as machine components wear.
The lift pressure should be set for rated load only.

Flow Control

Single coil or solenoid for single direction. The coil has two connections; one is wired to the P.C. Board (A) terminal and the other is wired to (-), or the negative side of the supply voltage. Switches to control directional valves may be provided on the controller.

Adjustment Procedures

Adjustments are made by turning a trimpot adjustment screw. The trimpots are multi-turn, end to end-devices. It may be necessary to turn the adjustment screw several turns to observe a change in output.

Clockwise (CW) adjustment of the trimpot increases the output.
Counter-clockwise (CCW) adjustment of the trimpot decreases the output.

Adjustments affect output current, voltage or percentage of duty cycle to the coil. The minimum and maximum output is preset at the factory. However, for optimum performance, they must be adjusted while the equipment is operating.

Although the following adjustments affect the current/voltage or percentage of duty cycle, the best way to adjust the function is to observe the response or speed of the function. The following adjustments affect function response, or speed. There may be some interaction between adjustments, making it necessary to repeat the adjustment in order to achieve the desired response.

"Threshold" Adjustments

Adjusts the initial current flow or duty cycle, affecting the function response or speed when the handle is first moved from the off position. Deflect the handle slowly to the position where the controller first turns on. Adjust the threshold trimpot screw to the point where the controlled function just starts to move, then turn the trimpot screw one, full turn in the counterclockwise direction. **This adjustment should be done first.**

"Maxout" Adjustments

Adjusts the full stroke current or duty cycle affecting the maximum function response, or speed when the handle is deflected to its full travel. Fully deflect the handle, and adjust the maxout trimpot for maximum desired function response or speed. To obtain proportional resolution, it is important that the function starts to slow down as soon as the handle is moved back from the fully deflected position.

The ideal adjustment occurs when the function just begins to move when the handle is deflected, and the output increases until it reaches its maximum desired response or speed at the end of handle travel.

Problem

1. The function will not operate when the handle is moved. The LEDs do not light
   - A. Check that voltage is present at the positive (+)input terminal.
   - B. Check that ground is connected to the negative (-) terminal.
   - C. If there is an in-line fuse, check to see if it is good.
   - D. Check the controller on/off switch and the connectors. Voltage should be present at the (X) terminal when the controller is turned on.
   - E. Check that valve wiring is not shorted to ground. The LEDs will not light.
   - F. Check that valve wiring is not open. The LEDs will light, but the intensity will not vary.
   - G. Check trimpot settings. Fully “CCW” turns output off, “CW” turns output fully on.
2. The function jumps or lurches when turned on.
   A. Perform “Threshold” adjustment procedures.

3. The function reaches maximum speed before the handle is fully deflected,
   A. Perform “Maxout” adjustment procedures.

4. The function speed remains constant regardless of the degree of handle deflection.
   A. Perform “Maxout” adjustment procedures. ”

IRS Option

1. Function speed reacts too slowly or too quickly in relation to handle deflection.
   - A. Check “IRS” (Ramp) trimpot adjustment. “CW” increases ramp time, “CCW” decreases ramp time.

Integrated Ramp System (IRS)

Provides smooth function response ,when reacting to an abrupt change in handle deflection. “CW” rotation of the trimpot increases ramp time and slows the response time. “CCW” decreases ramp time and increases the response time. To increase the ramp time, turn the adjusting screw “CW” a few turns, then move the controller handle abruptly. Continue to adjust until a smooth response is observed. Most controllers have on/off contacts which remove power from the P.C. Board when the handle is returned to the off position. When the handle is abruptly returned to neutral, the output will not ramp down, and the function will stop.

Ramp Thru Off

The P.C. Board should be adjusted as outlined in the IRS adjustment procedure. If the handle is abruptly returned to neutral (OFF) the output will ramp down to off. Ramp time is factory set to 2 seconds, unless otherwise specified.

Note: Trimpots should be sealed with nail polish or enamel based paint.
DO NOT USE RTV SILICONE

Figure 5-1. OEM Joystick Switch Wiring (Without Enable Relay)

Wire Chart		
Color	**From**	**To**
White/Red	Steer Left	Pin #1
White/Green	+24V Steer Common	Pin #2
White	Steer Right	Pin #3
Yellow	Forward/Up (S2-NO)	Pin #4
White/Black	+24V Input	Pin #5
Gray	Reverse/Down (S1-NO)	Pin #6
Blue	PWM Out (A)	Pin #7
Black	Ground	Pin #8
White/Blue	Enable Switched Power	Pin #9

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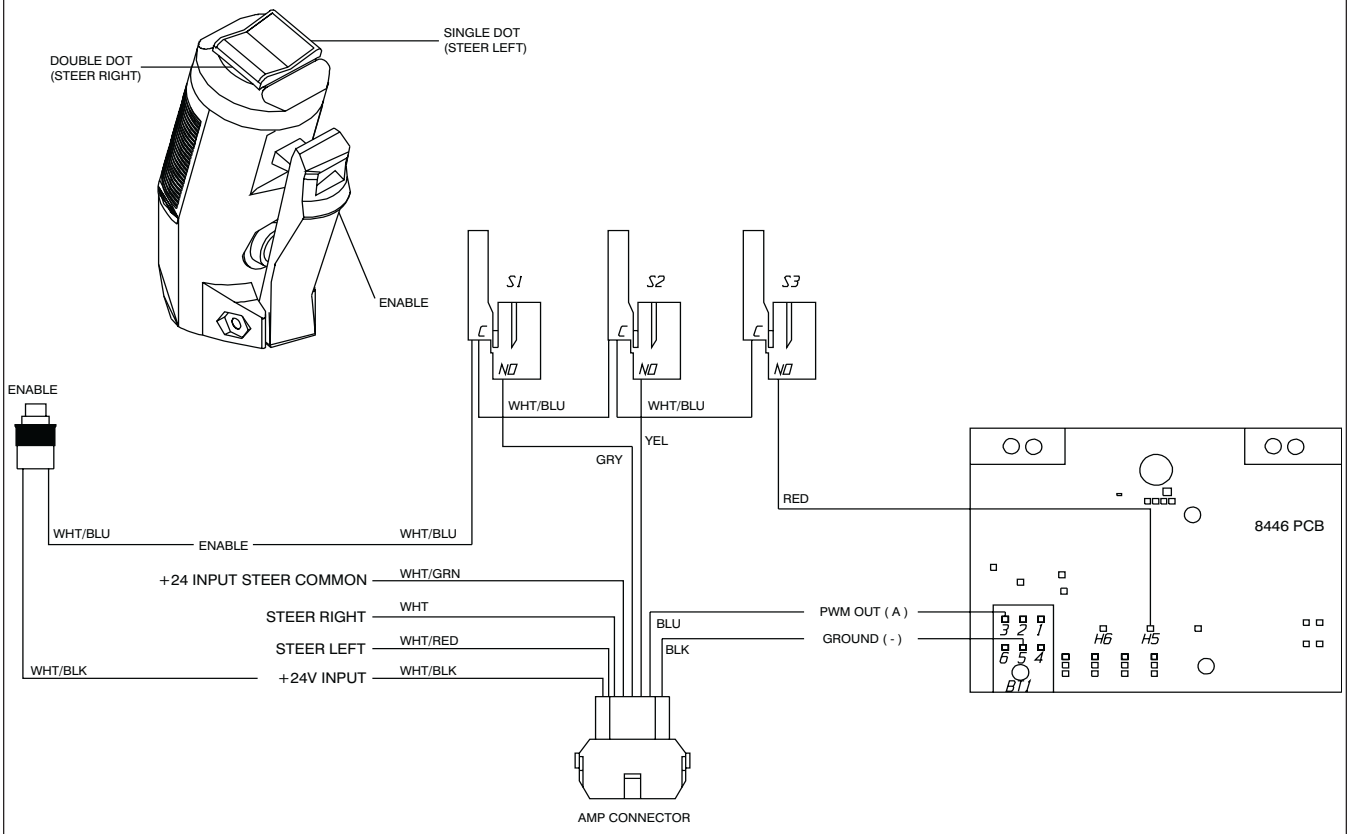

Figure 5-2. OEM Joystick Switch Wiring (Equipped with Enable Relay)

Wire Chart		
Color	**From**	**To**
White/Red	Steer Left	Pin #1
White/Green	+24V Steer Common	Pin #2
White	Steer Right	Pin #3
Yellow	Forward/Up (S2-NO)	Pin #4
White/Black	+24V Input	Pin #5
Gray	Reverse/Down (S1-NO)	Pin #6
Blue	PWM Out (A)	Pin #7
Black	Ground	Pin #8
White/Blue	Enable Switched Power	Pin #9

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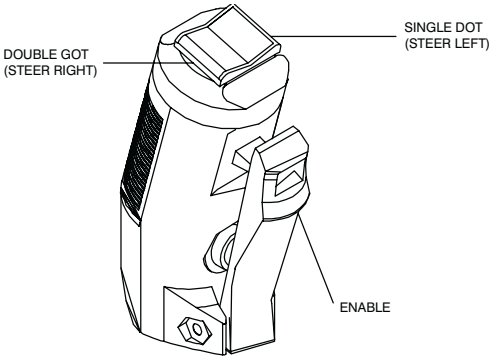

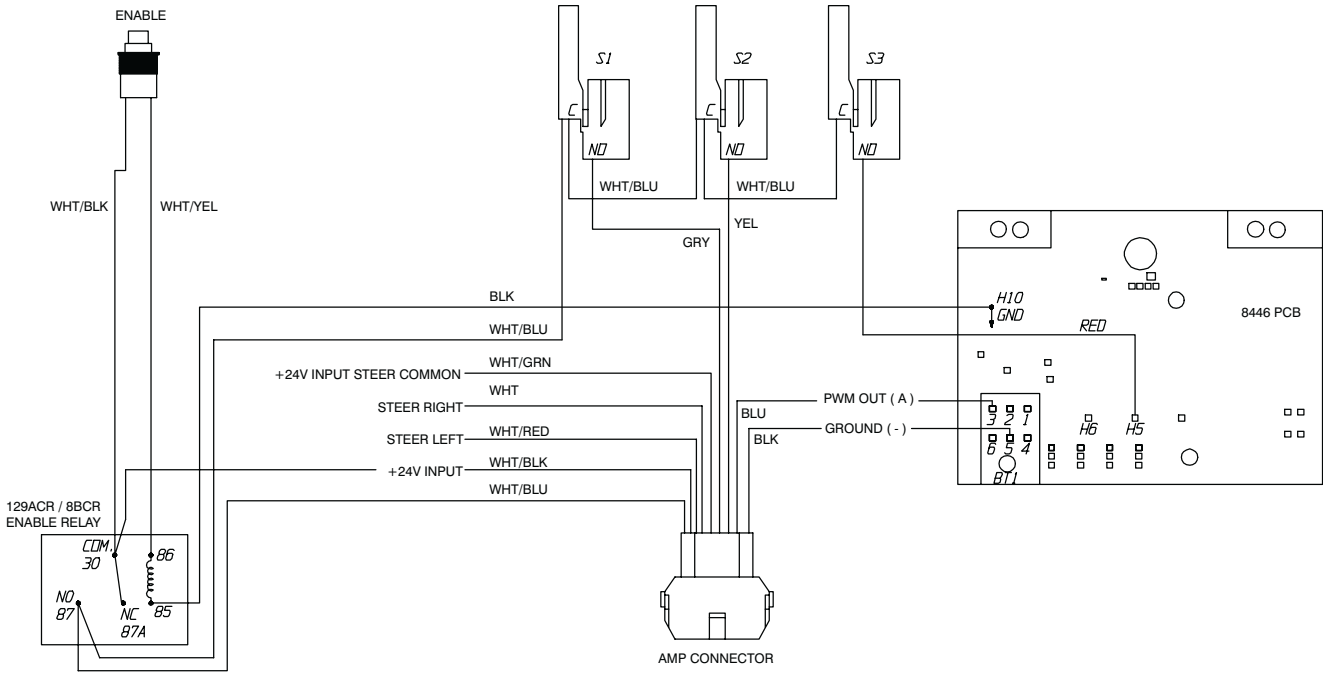

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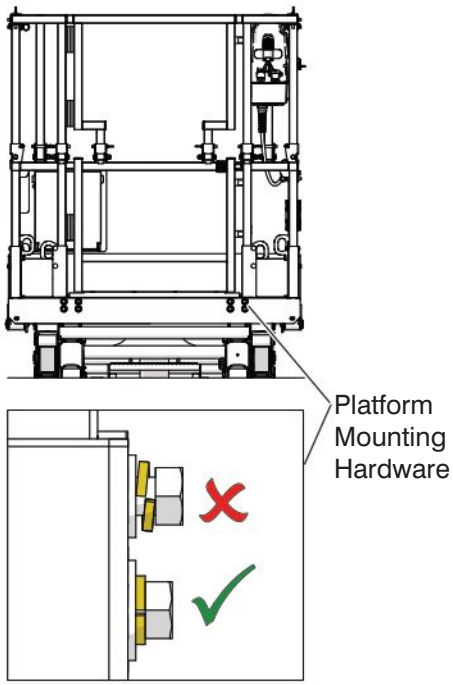
Platform Mounting Hardware Inspection

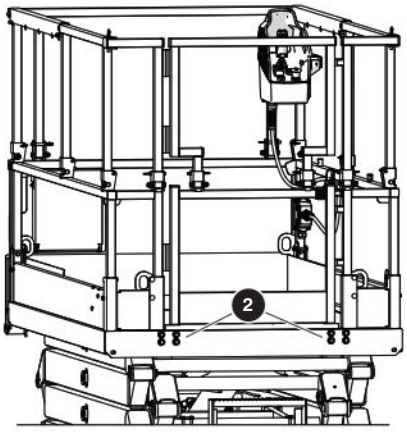


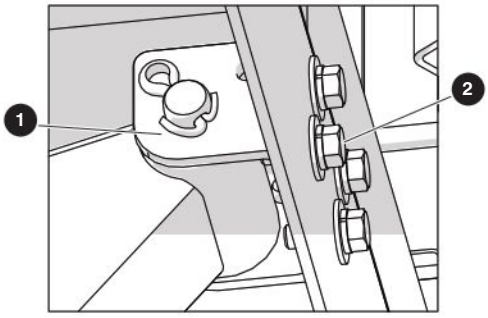
1. Make sure the fasteners are correctly installed and there are no missing or loose bolts, flat washers, or spring washers.
2. Make sure the spring washers are fully compressed.
3. Make sure there is no damage on the platform surface next to the flat washers.
4. If any of the above conditions are not met, immediately tag and lock the MEWP and remove it from service for repair.
5. Refer to the Platform Mounting Hardware Installation for the maintenance/installation procedure.

Platform Mounting Hardware Installation

If damage is found during an inspection of the platform mounting hardware, or following maintenance or repair of the platform mounting hardware and/or removal of the platform, you must:

1. Inspect the platform, scissors, and the attachment area. Make sure you also do a check for damage to the threads on the scissor arm bracket ❶. Remove any debris, oils or grease from the threads.
2. Replace all of the platform mounting hardware ❷ (bolts, flat washers, and spring washers) with new Skyjack-approved parts. Refer to the parts manual for the part numbers for your specific MEWP.
3. Apply a high-strength threadlocker (Loctite 270 or equivalent) to each bolt. Refer to the threadlocker manufacturer instructions for the specific requirements on its use.
4. Insert all of the bolts evenly. Then use a correctly calibrated torque wrench set to 41 Nm (30 ft-lb) to tighten each bolt. Use a smooth, even motion until an indication (audible click) is heard and felt.
5. When all of the bolts are torqued, repeat the tightening sequence to confirm the torque.





Notes

Section 6
Parts Lists

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!

6

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Platform And Related Parts

Scissors And Related Parts

Base And Related Parts

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Figure 6.1-1. Entrance Gates

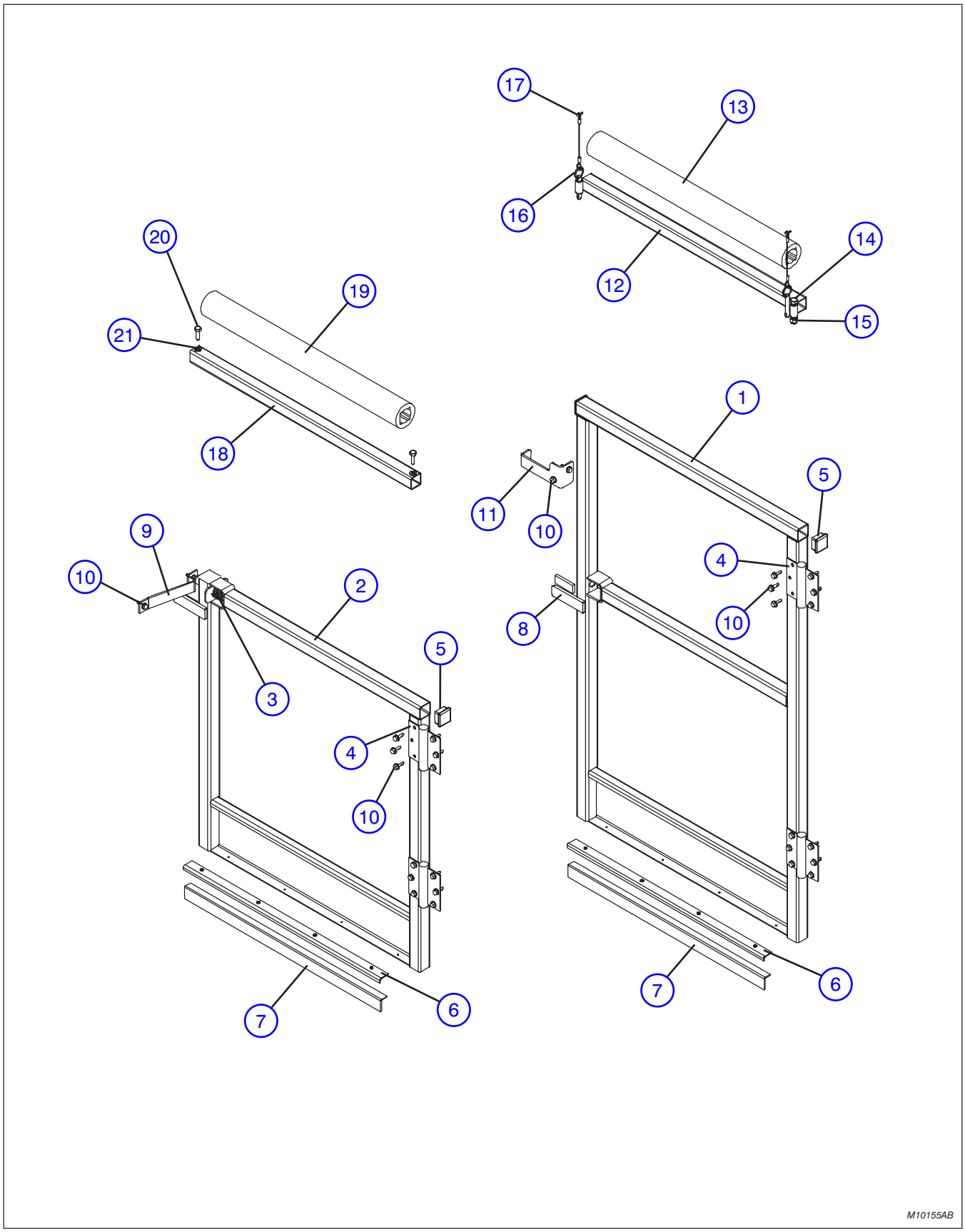
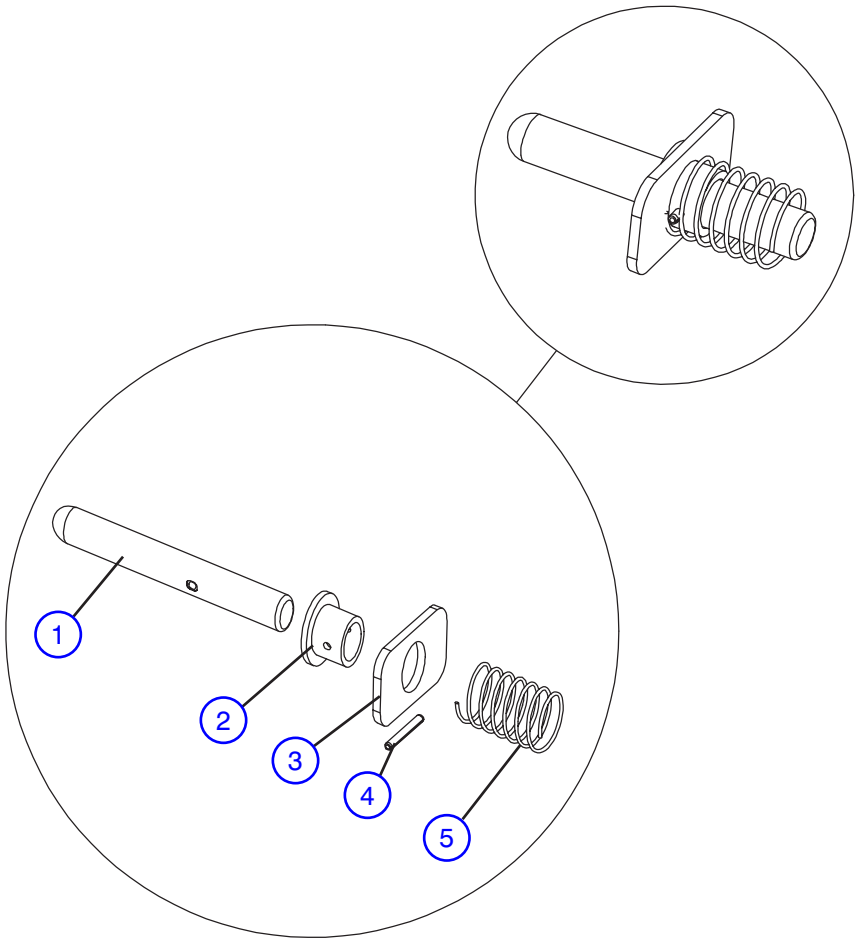


Figure 6.1-1. Entrance Gates

Index No.	Skyjack Part No.	Qty.	Description
1	600232	1	GATE, Solid full
2	600675	1	GATE, Half
3	(Ref.)	-	ASSEMBLY, Latch (For components, refer to Figure 6.1-2)
4	117277	2	HINGE, Spring (Stanley 2060R)
5	600244	AR	PLUG, Tube
6	600387	1	CLAMP, Aluminum Door Sweep
7	600297	1	STRIP, Door sweep rubber
8	600407	1	PAD, Adhesive rubber foam
9	600317	1	STRIKE, Gate stop
10	600493	AR	SCREW, Rambo (ST 6.3 x 19)
11	125687	-	STOP ASSEMBLY, Additional gate
	125686	1	• STOP, Additional gate
12	600662	1	TUBE, Hinged top rail
13	600665	1	PADDING, Entry rail
14	600307	1	BOLT, Hex head (M10-1.5 GR8.8 DIN931)
15	600287	1	NUT, Hex nylon lock (M10-1.5 GR8.8 DIN985)
16	(Ref.)	2	PIN ASSEMBLY, Quick release small loop (For components, refer to Figure 6.1-7)
17	600531	2	SCREW, Rambo (ST 3.5 x 13 DIN7504)
18	103540	1	TUBE, Top rail
19	125691	1	PADDING, Entry rail
20	103864	2	BOLT, Hex head (5/16-18 x 1” GR5)
21	103404	2	WASHER, Lock (5/16”)

Notes

Figure 6.1-2. Gate Latch Assembly



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Index No.	Skyjack Part No.	Qty.	Description
A	600449	-	ASSEMBLY, Latch pin spring
1	600451	1	• PIN, Latch
2	600450	1	• GUIDE, Nylon spring
3	600452	1	• PLATE, Gate latch release
4	600454	1	• PIN, Roll
5	600495	1	• SPRING, Compression

Figure 6.1-3. Side Railings

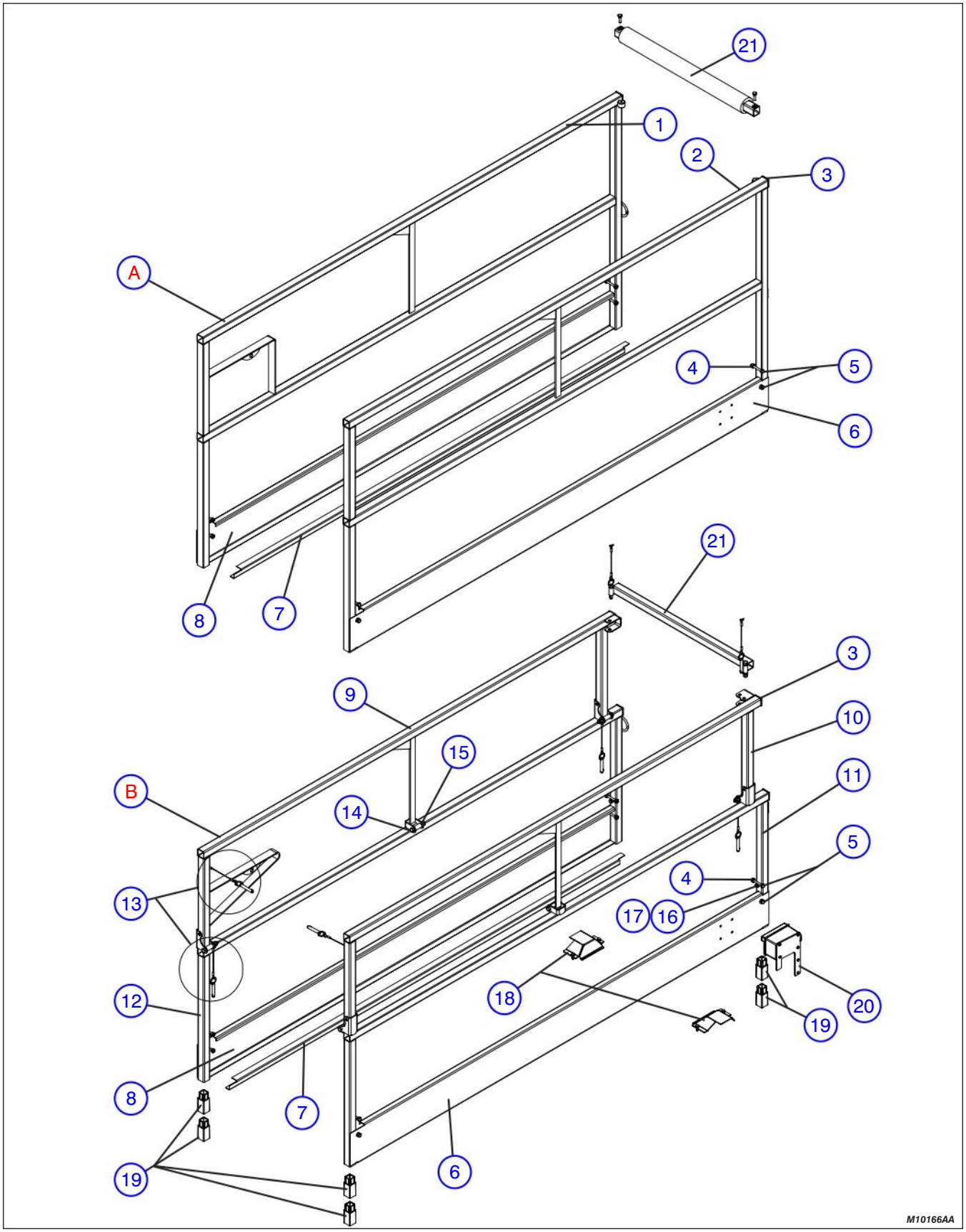

Figure 6.1-3. Side Railings

Index No.	Skyjack Part No.	Qty.	Description
A	600241	-	RAILING ASSEMBLY, **Model 3220M** solid
B	600488	-	RAILING ASSEMBLY, **Models 32XX** hinged
1	600242	1	• RAILING, Rigid RH, **A**
2	600243	1	• RAILING, Rigid LH, **A**
3	600244	AR	• CAP, Plastic End
4	600262	AR	• NUT, Hex lock (M8-1.25 GR8.8 DIN985)
5	600718	AR	• BOLT, Carriage (M8-1.25 x 50 GR8.8 DIN603)
6	600246	1	• PLATE, Kick
7	600247	1	• GUARD, Cable
8	600245	1	• PLATE, Kick
9	600305	1	• RAILING, RH upper, **B**
10	600306	1	• RAILING, LH upper, **B**
11	600303	1	• RAILING, Side bottom LH, **B**
12	600304	1	• RAILING, Side bottom RH, **B**
13	(Ref.)	-	• PIN ASSEMBLY, Quick release large or small loop (For components, refer to Figure 6.1-7)
14	600307	AR	• BOLT, Hex head (M10-1.5 x 60 GR8.8), **B**
15	600287	AR	• NUT, Lock (Hex) (M10-1.5 GR8.8), **B**
16	112329	4	• BOLT, Self tapping (1/4-14 x 1”), **B**
17	125580	4	• SPACER, Railing Retainer, **B**
18	(Ref.)	-	• CABLE GUARDS (For components, refer to Figure 6.1-8)
19	125336	AR	SPACER, Railing
20	(Ref.)	-	AC outlet on the platform (For components, refer to Figure 6.1-4)
21	(Ref.)	-	Entrance rails and gates (For components, refer to Figure 6.1-1)

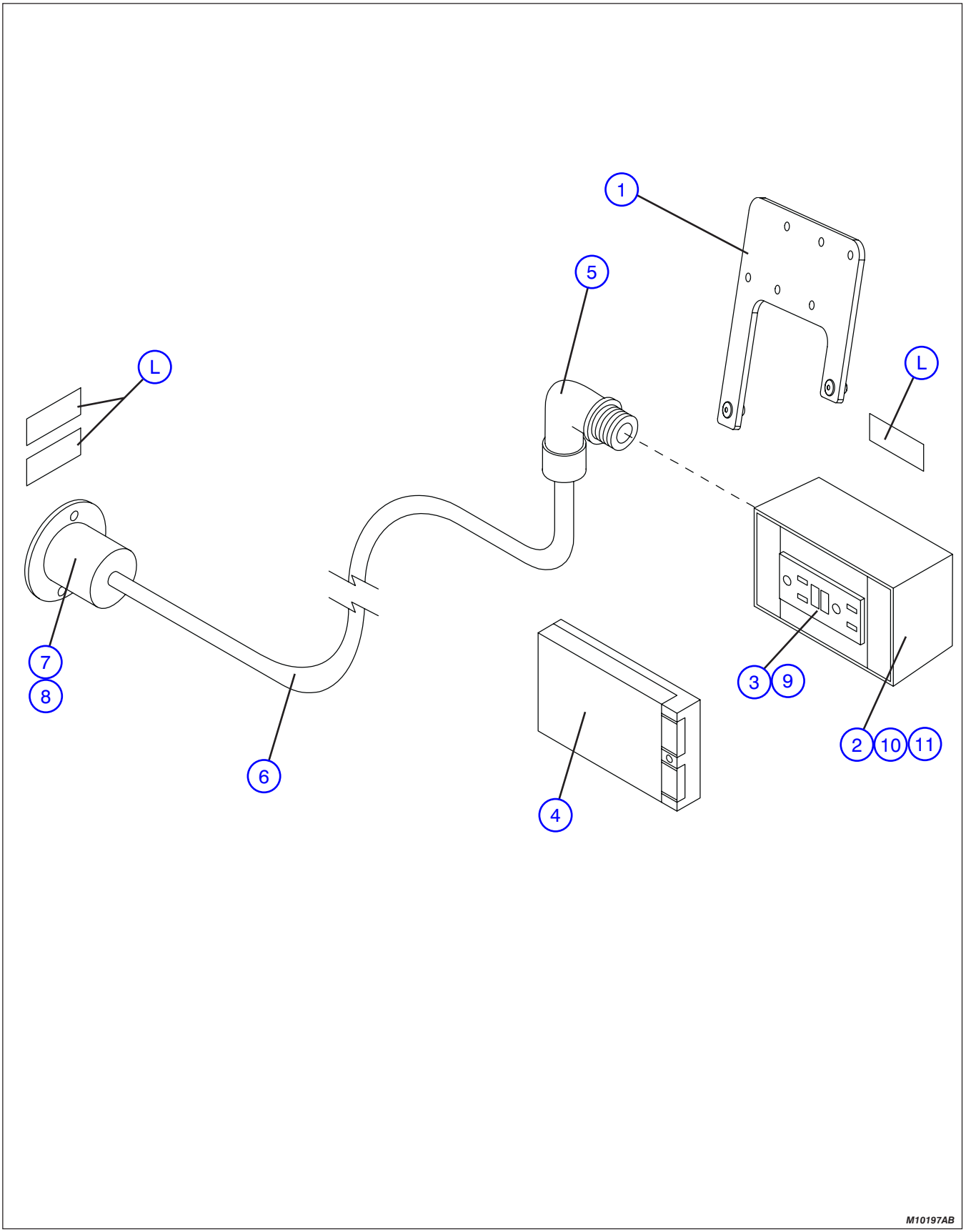
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Figure 6.1-4. Platform AC Outlet **AA**

Index No.	Skyjack Part No.	Qty.	Description
A	109553	-	AC OUTLET 100 Volt ON PLATFORM **(Model 3220M)**
B	109554	-	AC OUTLET 100 Volt ON PLATFORM **(Model 3226M)**
C	122047	-	AC OUTLET 220 Volt ON PLATFORM **(Model 3220M)**
D	122048	-	AC OUTLET 100 Volt ON PLATFORM **(Model 3226M)**
1	133952	1	PLATE, 110V Outlet support (**Model 32XX** equipped with gate option)
	139638	1	• RIVET, Pop 6.4mm dia. x 12.7mm
2	109700	1	BOX, GFI Receptacle, **A, B**
3	109698	1	RECEPTACLE, 125V GFI, **A, B**
4	109699	1	PLATE, Weatherproof cover, **A, B**
5	103035	1	ELBOW, 90° Strain relief, **A, B**
	117887	1	• NUT LOCK, Strain relief
6	105269	1	CORD (14/3 x 342” lg) **A**
	105269	1	CORD (14/3 x 420” lg) **B**
	117542	1	CORD (14/3 x 336” lg) **C**
	117542	1	CORD (14/3 x 420” lg) **D**
7	105271	1	PLUG, 3-Prong reccessed, **A, B**
8	113227	1	SEAL, 110V Seal tite cover, **A, B**
9	114678	2	SCREW, Machine (#6-32 x 1/2”) **A, B**
10	124562	4	BOLT, Hex head washer (12-24 x 1/2”) **A, B**
11	104694	4	WASHER, Flat (#10) **A, B**
L	(Ref.)	-	LABELS (Refer to Figure 6.7-3)

Figure 6.1-5A. Extension Platform Railings

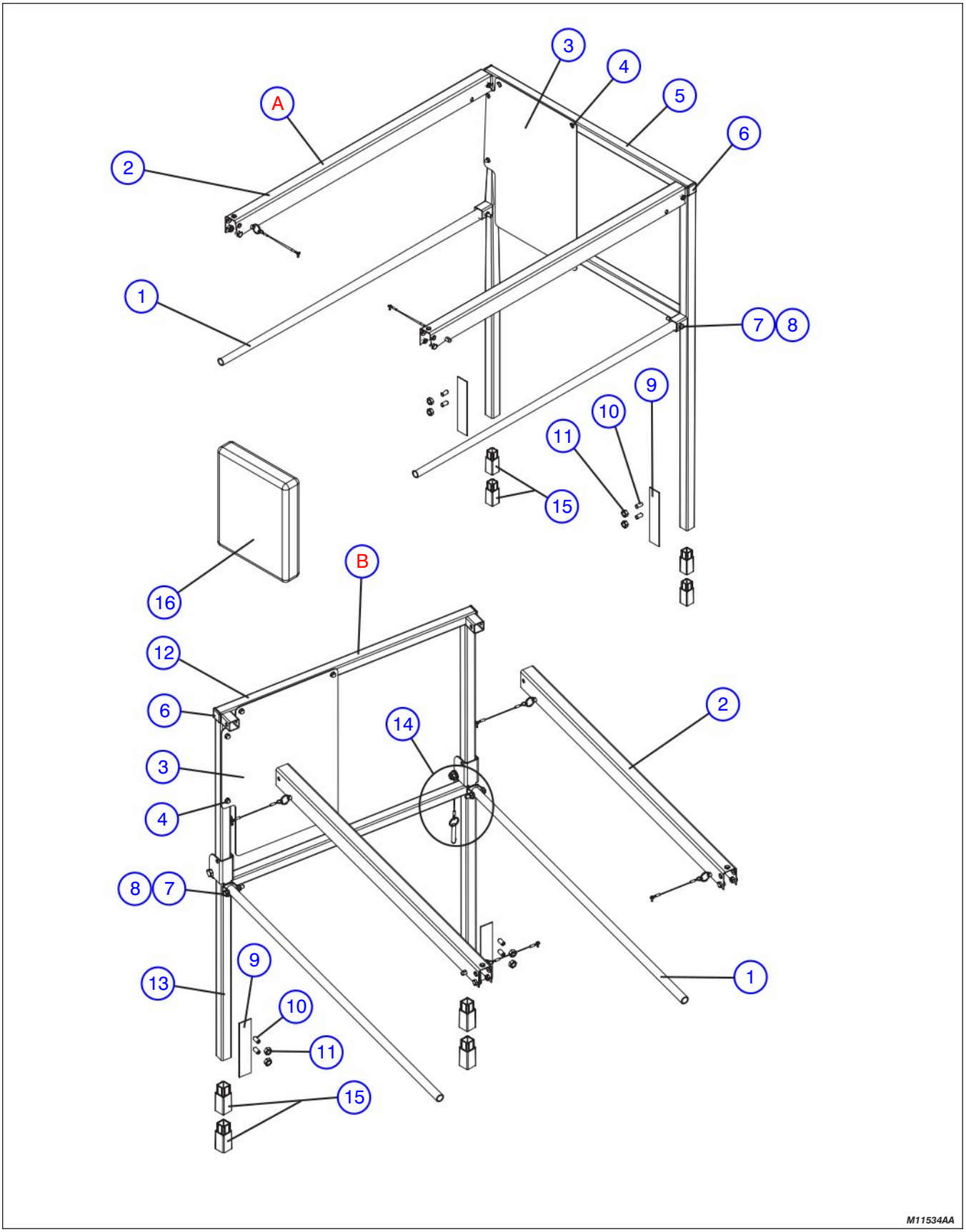


Figure 6.1-5A. Extension Platform Railings

Index No.	Skyjack Part No.	Qty.	Description
A	600275	-	RAILING ASSEMBLY, Extension deck rigid **(Model 3220M)**
B	600460	-	RAILING ASSEMBLY, Extension deck hinged **(Model 3226M)**
1	600289	2	• MIDRAIL, Extension deck
2	(Ref.)	-	• HANDRAIL ASSEMBLIES, Sliding (For components, refer to Figure 6.1-6)
3	600288	1	• PLATE, Info/warning
4	600493	AR	• SCREW, Rambo (ST 6.3 x 19 DIN7504)
5	600282	1	• RAILING, Extension deck, **A**
6	600244	2	• CAP, Plastic end
7	600261	2	• BOLT, Hex head (M8-1.25 x 50 GR8.8 DIN931)
8	600262	2	• NUT, Hex nylon lock (M8-1.25 GR8.8 DIN985)
9	600290	2	• PLATE, Extension deck railing retaining
10	600298	4	• SCREW, Set (M10-1.50 x 20)
11	600291	4	• NUT, Hex head (M10-1.50 GR8.8)
12	600480	1	• RAILING, Extension deck upper, **B**
13	600462	1	• RAILING, Extension deck lower, **B**
14	(Ref.)	-	• PIN ASSEMBLY, Quick release large or small loop (For components, refer to Figure 6.1-7)
15	125336	AR	SPACER, Railing
16	600599	1	MANUAL ENCLOSURE ASSEMBLY
	117293	1	• ENCLOSURE, Manual
	600597	3	• Nut, Hex head lock (M4-0.7 DIN985)
	600428	3	• SCREW, Machine cheese head (M4-0.7 x 25)

Figure 6.1-5B. Extension Platform Railings (Powered)

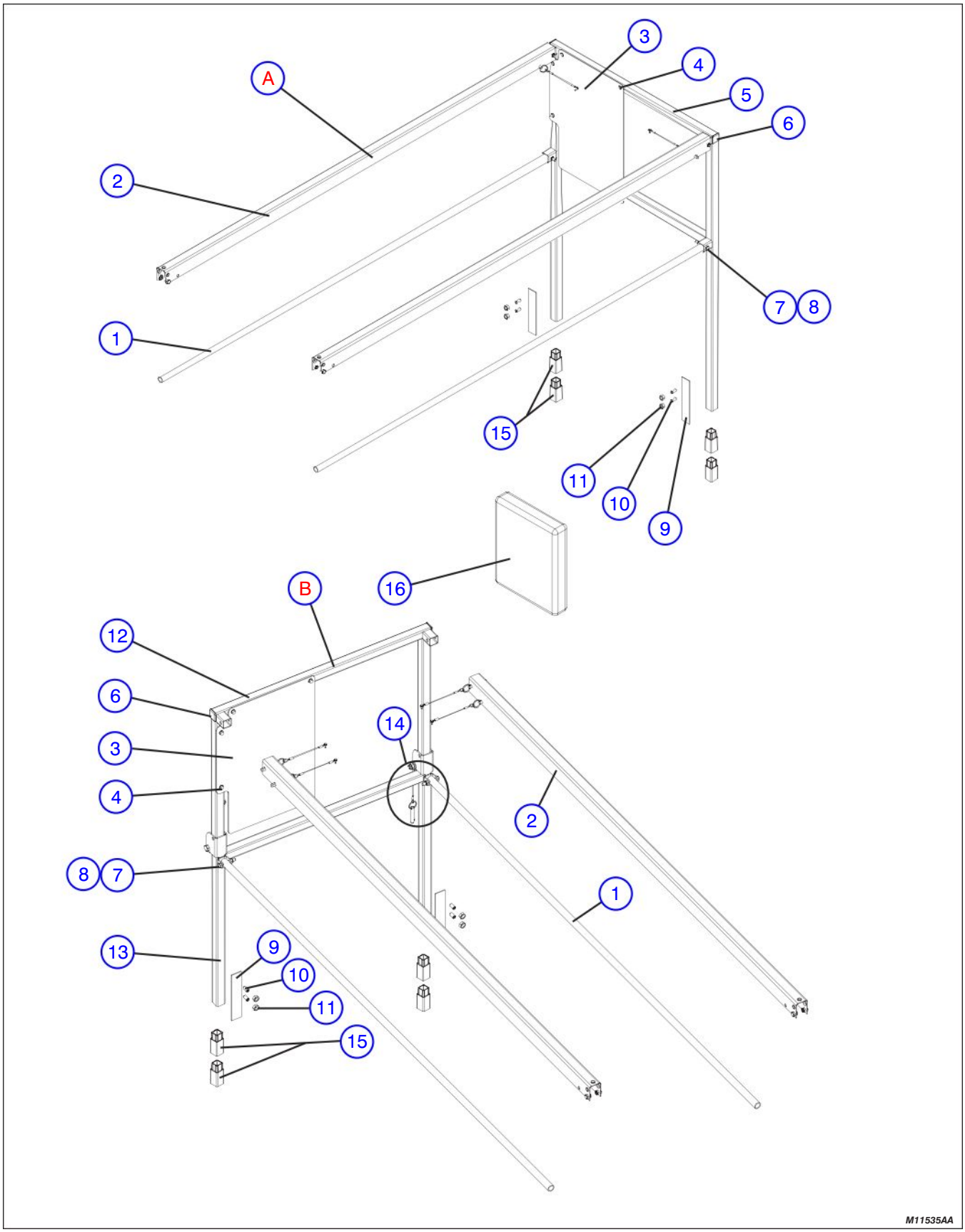
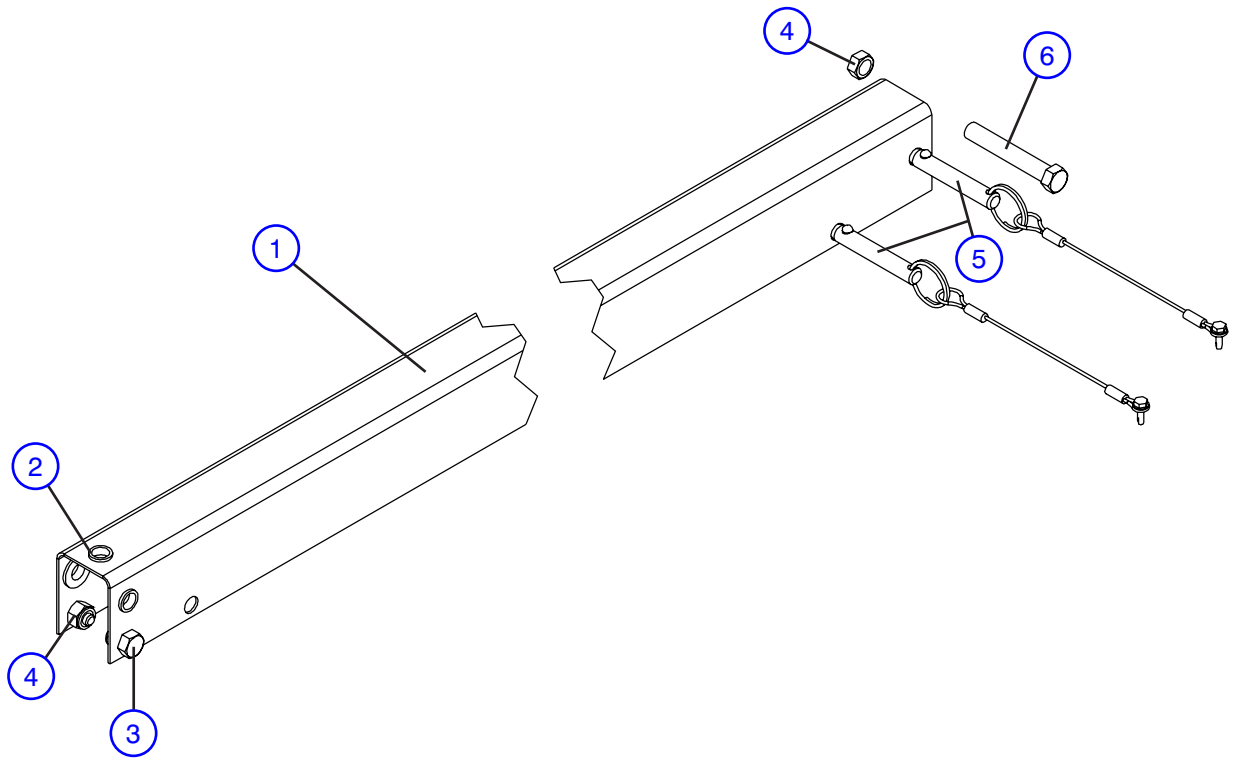


Figure 6.1-5B. Extension Platform Railings (Powered)

Index No.	Skyjack Part No.	Qty.	Description
A	600656	-	RAILING ASSEMBLY, Powered extension deck rigid **(Model 3220M)**
B	600654	-	RAILING ASSEMBLY, Powered extension deck hinged **(Model 3226M)**
1	600652	2	• MIDRAIL, Extension deck (6' Powered extension, no 3' cutout)
	117080	1	• MIDRAIL, Extension deck left (6' Powered extension)
		1	• MIDRAIL, Extension deck right (3' Cutout)(6' Powered extension)
2	(Ref.)	-	• HANDRAIL ASSEMBLIES, Sliding (For components, refer to Figure 6.1-6)
3	600288	1	• PLATE, info/warning
4	600493	AR	• SCREW, Rambo (ST 6.3 x 19 DIN7504)
5	600282	1	• RAILING, Extension deck, **A**
6	600244	2	• CAP, Plastic end
7	600261	2	• BOLT, Hex head (M8-1.25 GR8.8 DIN931)
8	600262	2	• NUT, Hex nylon lock (M8-1.25 GR8.8 DIN985)
9	600290	2	• PLATE, Extension deck railing retaining
10	600298	1	• SCREW, (M10-1.50 x 20)
11	600291	4	• NUT, Hex head (M10-1.50 GR8.8)
12	600480	1	• RAILING, Extension deck upper, **B**
13	600462	1	• RAILING, Extension deck lower, **B**
14	(Ref.)	-	• PIN ASSEMBLY, Quick release large or small loop (For components, refer to Figure 6.1-7)
15	125336	AR	SPACER, Railing
16	600599	1	MANUAL ENCLOSURE ASSEMBLY
	117293	1	• ENCLOSURE, Manual
	600597	3	• NUT, HEx head lock (M4-0.7 DIN985)
	600428	3	• SCREW, Machine cheese head (M4-0.7 x 25)

Figure 6.1-6. Slide Rail Assemblies



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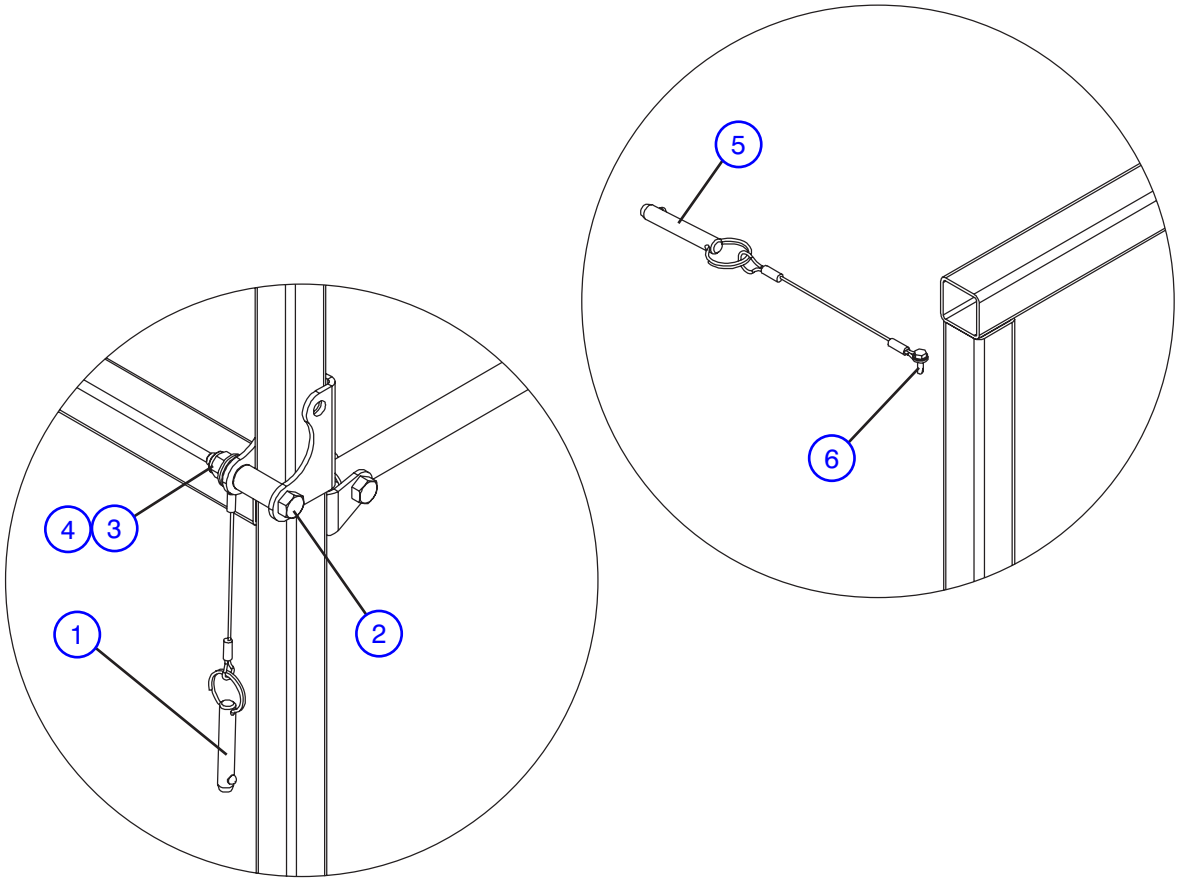
Index No.	Skyjack Part No.	Qty.	Description
A	600679	-	HANDRAIL, 3’ Standard (Hinge rails)
B	600277	-	HANDRAIL, 3’ Standard (Rigid rails)
C	600681	-	HANDRAIL, 6’ Powered extension platform (Hinged rails)
D	600653	-	HANDRAIL, 6’ Powered extension platform (Rigid rails)
1	600278	1	• HANDRAIL, Extension, **A, B**
	600655	1	• HANDRAIL, Extension 6 ft. **C, D**
2	103550	3	• PLUG, Handrail slide
3	600682	2	• BOLT, Hex head (M8-1.25 x 10 GR8.8 DIN933)
4	600262	AR	• NUT, Lock (Hex) (M8-1.25 GR8.8 DIN985)
5	(Ref.)	-	• PIN ASSEMBLY, Quick release large or small loop (For components, refer to Figure 6.1-7)
6	600261	1	BOLT, Hex head (M8-1.25 x 50 GR8.8 DIN931), **B, D**

Figure 6.1-7. Quick Release Pins



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Index No.	Skyjack Part No.	Qty.	Description
1	124548	1	PIN ASSEMBLY, Quick release large loop
	100509	1	• PIN, Quick release (3/8” dia. x 2”)
	105807	1	• LANYARD, 6” Plastic coated
2	600307	1	BOLT, Hex head (M10-1.5 x 60 GR8.8 DIN931)
3	600315	2	WASHER, Flat (M10, DIN125)
4	600287	1	NUT, Lock (Hex) (M10-1.5 GR8.8 DIN985)
5	124547	2	PIN ASSEMBLY, Quick release small loop
	100509	1	• PIN, Quick release (3/8” dia. x 2”)
	105807	1	• LANYARD, 6” Plastic coated
6	600531	1	SCREW, Rambo (ST 3.5 x 13 DIN7504)

Figure 6.1-8. Main Platforms Assemblies

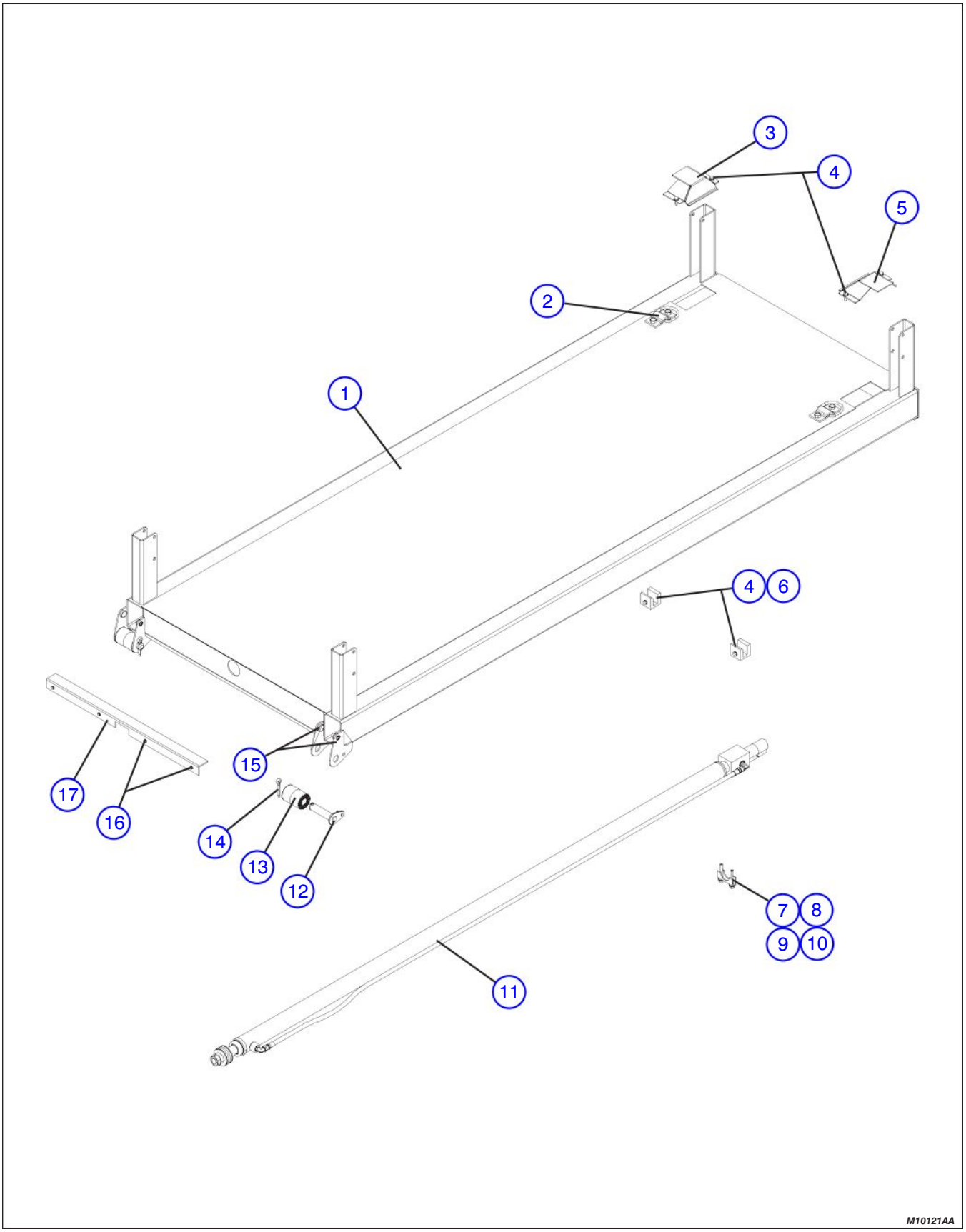


Figure 6.1-8. Main Platforms Assemblies

Index No.	Skyjack Part No.	Qty.	Description
1	600650	1	WELDMENT, Main platform **(Model 3220M)**
	600658	1	WELDMENT, Main platform (**Model 3220M**, Equipped with a power deck)
	600518	1	WELDMENT, Main platform **(Model 3226M)**
2	(Ref.)	-	KIT, Safety D-ring (For components, refer to Figure 6.1-15)
3	600318	1	COVER, Cable guard RH
4	600493	4	BOLT, Self tapping (ST 6.3 x 19 DIN7504)
5	600319	1	COVER, Cable guard LH
6	600227	2	BUMBER, Platform (If equipped)
7	600672	1	CLAMP, Pipe (1-1/8") (Powered extension cylinder)
8	600184	2	WASHER, Flat (M8 DIN125, SAE) (Powered extension cylinder)
9	600185	2	WASHER, Lock (M8 DIN127) (Powered extension cylinder)
10	600261	2	BOLT, Hex head (M8-1.5 x 50 GR8.8 DIN931) (Powered extension cylinder)
11	(Ref.)	-	HYDRAULIC CYLINDER ASSEMBLY (For components, refer to Figure 6.1-10 and 6.1-11)
12	600228	2	PIN, Rollout roller
13	600223	2	ROLLER, Extension platform wide
14	600179	2	PIN, Cotter (ST 6.3 x 45 DIN94)
15	600206	4	BUSHING, Slider
16	600531	4	BOLT, Self tapping (ST 3.5 x 13 DIN7504)
17	108772	1	ANGLE, Extension slider (1-1/8" x 1-3/8" x 1/8" x 22")

Figure 6.1-9. Extension Platform Assemblies

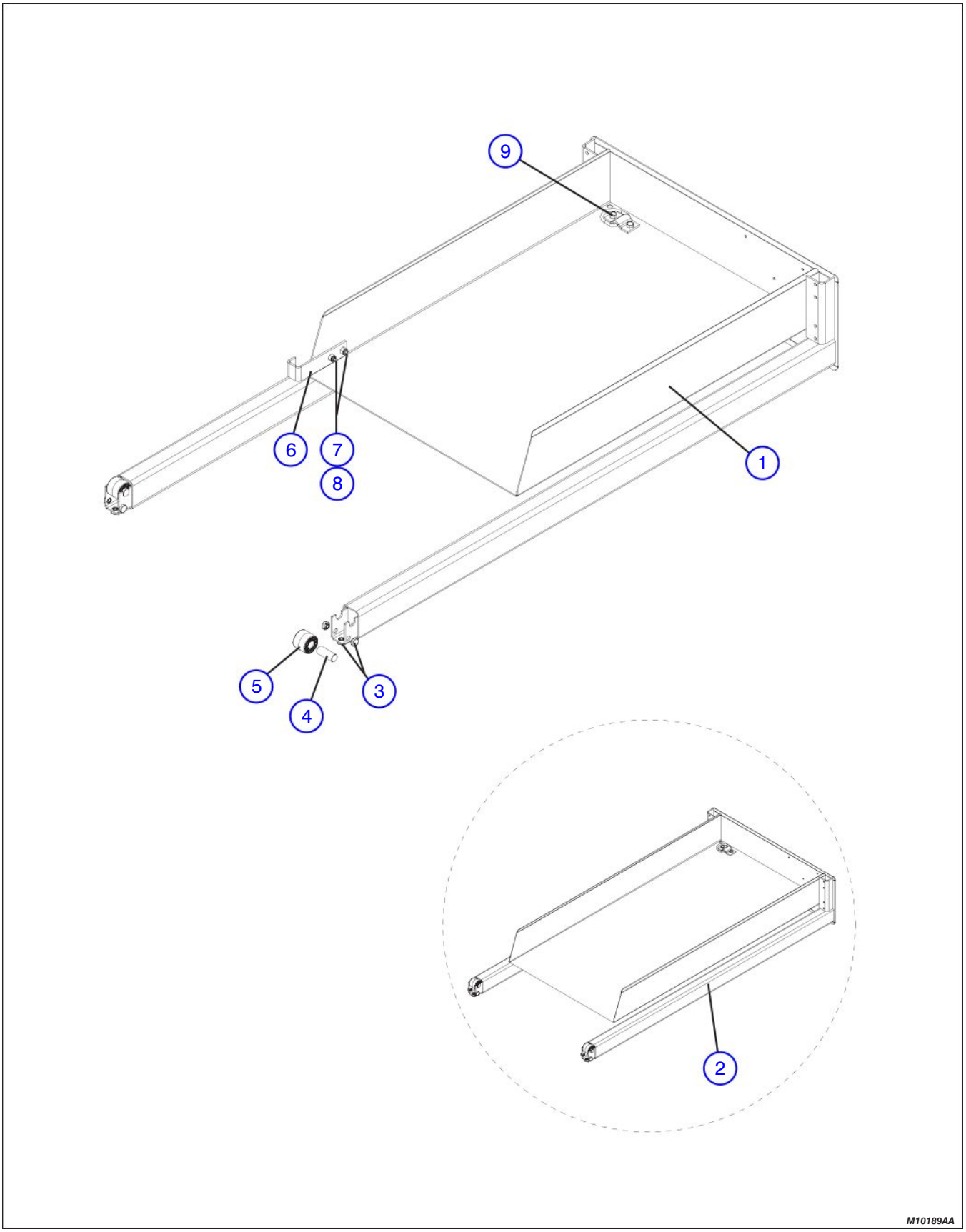
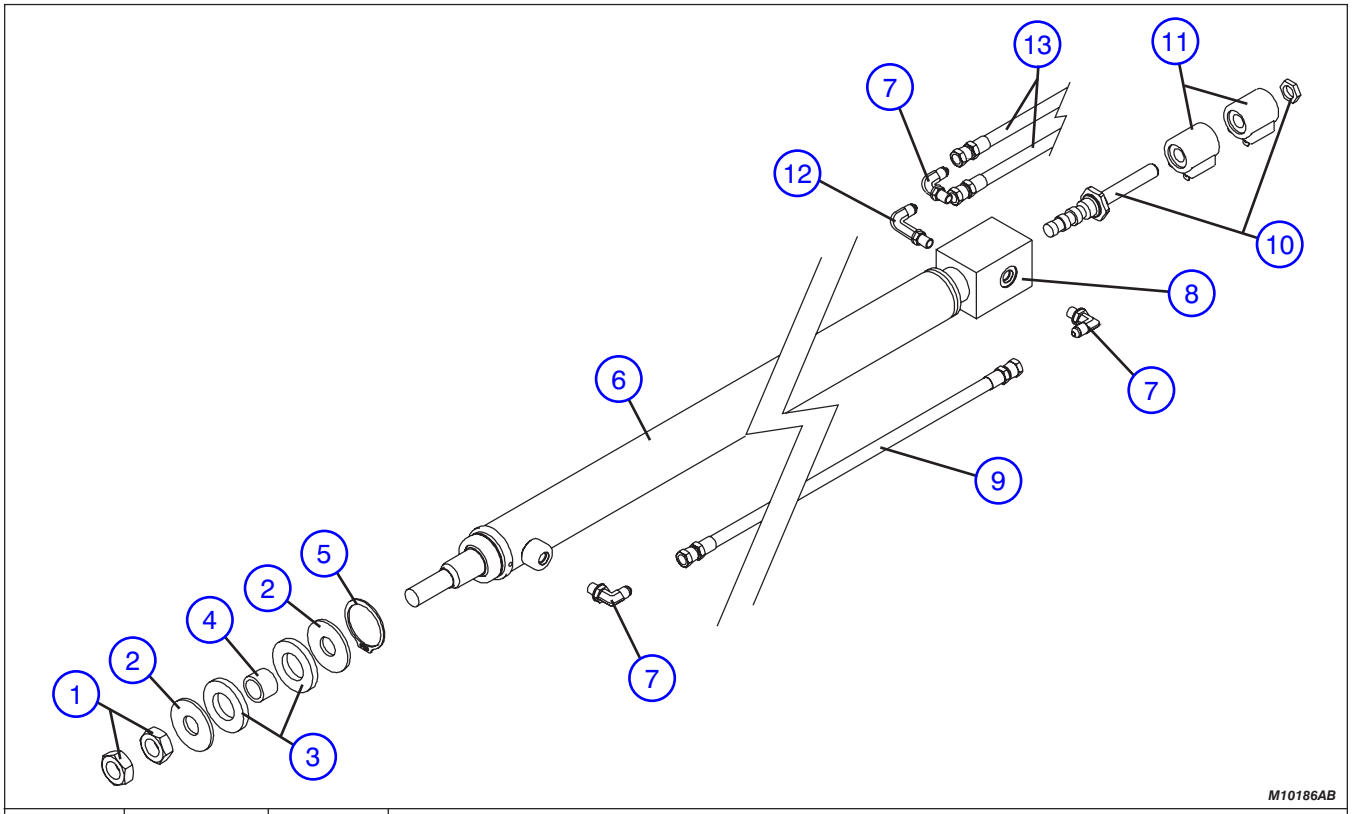


Figure 6.1-9. Extension Platform Assemblies

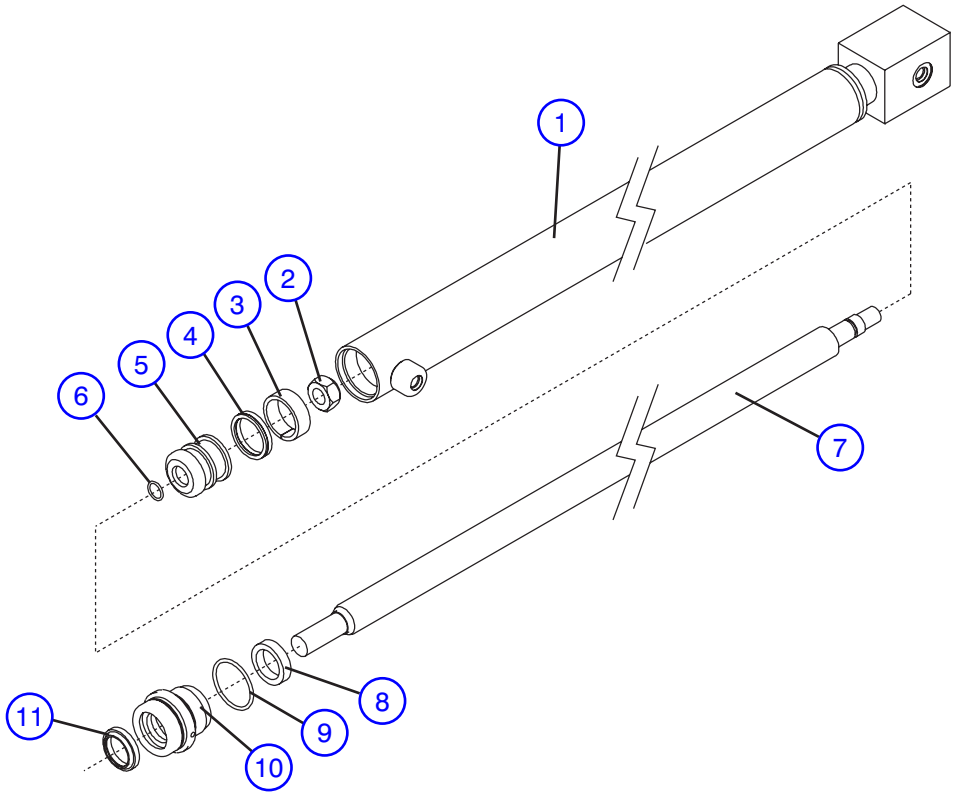
Index No.	Skyjack Part No.	Qty.	Description
A	600629	-	ASSEMBLY, Extension deck (**Model 32XXM**, 3' manual extension)
B	600667	-	ASSEMBLY, Extension deck (**Model 3220M**, 6' powered extension)
1	600630	1	• WELDMENT, Manual extension deck, **A**
2	600668	1	• WELDMENT, Powered extension deck, **B**
3	600206	6	• BUSHING, Slider
4	600219	2	• PIN, Extension deck roller
5	600220	2	• ROLLER, Extension deck narrow
6	600218	1	• STOP, Extension deck
7	600262	2	• NUT, Lock (Hex) (M8-1.25 GR8.8 DIN985)
8	600296	2	• BOLT, Button head (M8-1.25 x 25 GR10.9)
9	(Ref.)	-	• KIT, Safety D-ring (For components, refer to Figure 6.1-15)

Figure 6.1-10. Powered Extension Hardware Assembly



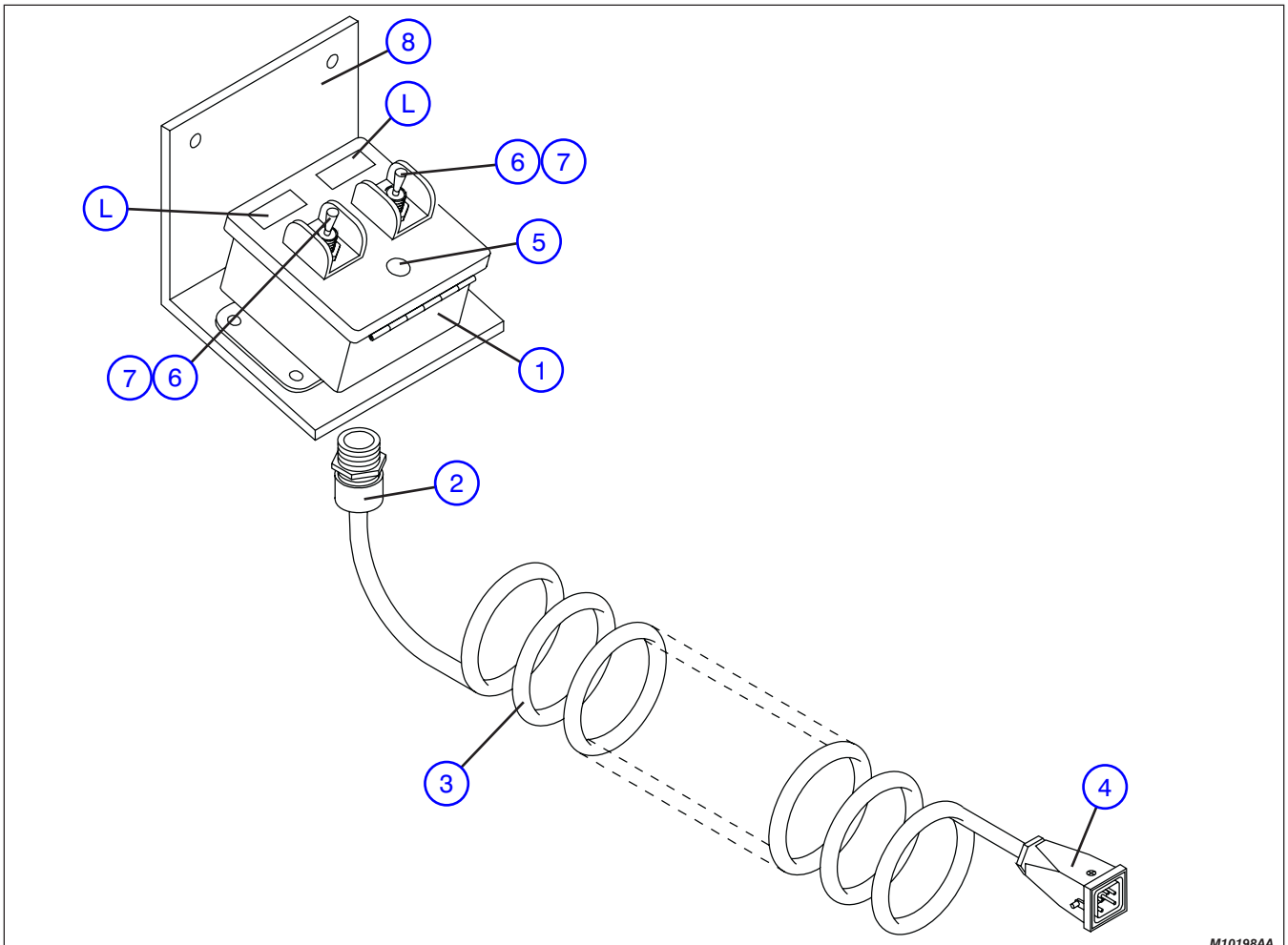
Index No.	Skyjack Part No.	Qty.	Description
A	125807	-	HYDRAULIC CYLINDER ASSEMBLY
1	106450	2	• NUT, Hex head (Jam nut) (3/4-16 GR5)
2	113304	2	• WASHER, Flat steel plated (3/4")
3	113305	2	• INSULATOR, Hydraulic extension deck noise
4	125664	1	• SPACER, Hydraulic extension deck
5	106446	1	• RETAINING RING (#N1400-0175)
6	(Ref.)	-	• CYLINDER, 6' Powered extension deck (For components, refer to Figure 6.1-11)
7	125883	3	• FITTING, Elbow (#4-#4 90°)
			Use part #113348 for machines prior to S/N 613588 (3220M)
8	108507	1	• PLUG, O-ring manifold
9	125828	1	• HOSE, Hydraulic line (3/16 dia. 72.75")
10	113953	1	• VALVE, 4 Way spool
11	103605	2	• COIL, 24V Valve
12	126366	1	• FITTING, Long elbow (#4-#4 90°)
			Use fitting combination of #126364 & #126365 for machines prior to S/N 613588 (3220M)
13	126022	1	HOSE ASSEMBLY, From main manifold return 300" lg.
			Use part #107234 for machines prior to S/N 613588 (3220M)
	126021	1	HOSE ASSEMBLY, From main manifold return 312" lg.
			Use part #125395 for machines prior to S/N 61355 (3220M)

Figure 6.1-11. Powered Extension Cylinder Assembly



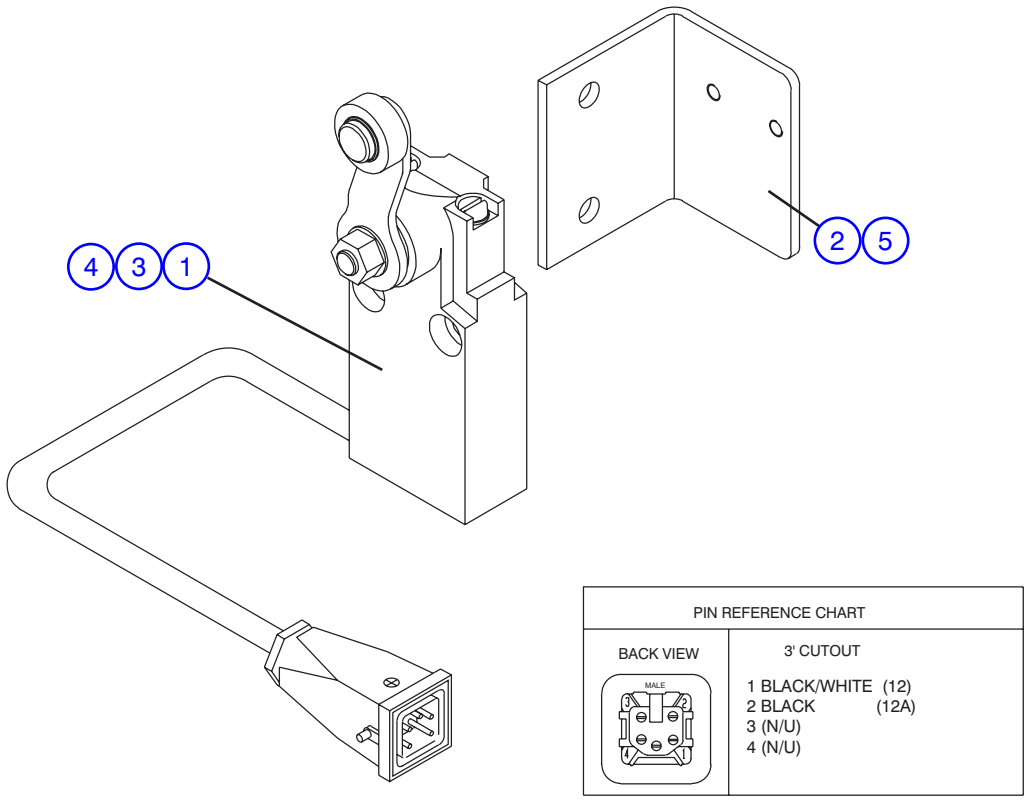
Index No.	Skyjack Part No.	Qty.	Description
A	125737	-	ASSEMBLY, Powered extension 6’ cylinder
1	125699	1	• WELDMENT, 6’ Powered deck cylinder barrel
2	103830	1	• NUT, Hex head (5/8-11 Grade C)
*3	106452	1	• SEAL, Piston wear ring
*4	103825	1	• SEAL, Piston
5	117942	1	• PISTON, Cylinder p. deck
*6	110976	1	• SEAL, O-ring
7	125736	1	• ROD, 6’ Powered deck cylinder
*8	108798	1	• SEAL, Rod
*9	120436	1	• SEAL, O-ring
10	125698	1	• GLAND, Powered deck cylinder
*11	106449	1	• SEAL, Rod wiper
*	107396	AR	KIT, Seal repair

Figure 6.1-12. Powered Extension Control Box Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	115592	-	CONTROL BOX ASSEMBLY, Powered extension platform
1	115539	1	• Box, Control
2	103041	1	• STRAIN RELIEF, Straight (1/2”)
3	106401	1	• CORD, Coiled (18/3)
4	107712	1	• CONNECTOR ASSEMBLY, 5 Pole male
5	114377	1	• PLUG, Plastic (1/2”)
6	102853	2	• SWITCH, Toggle
7	111181	2	• GUARD, Toggle switch
8	117188	1	PLATE, Powered extension control box mounting
L	(Ref.)	-	LABELS (Refer to Figure 6.7-2 and 6.7-3)

Figure 6.1-13. Powered Extension Cutout Assembly



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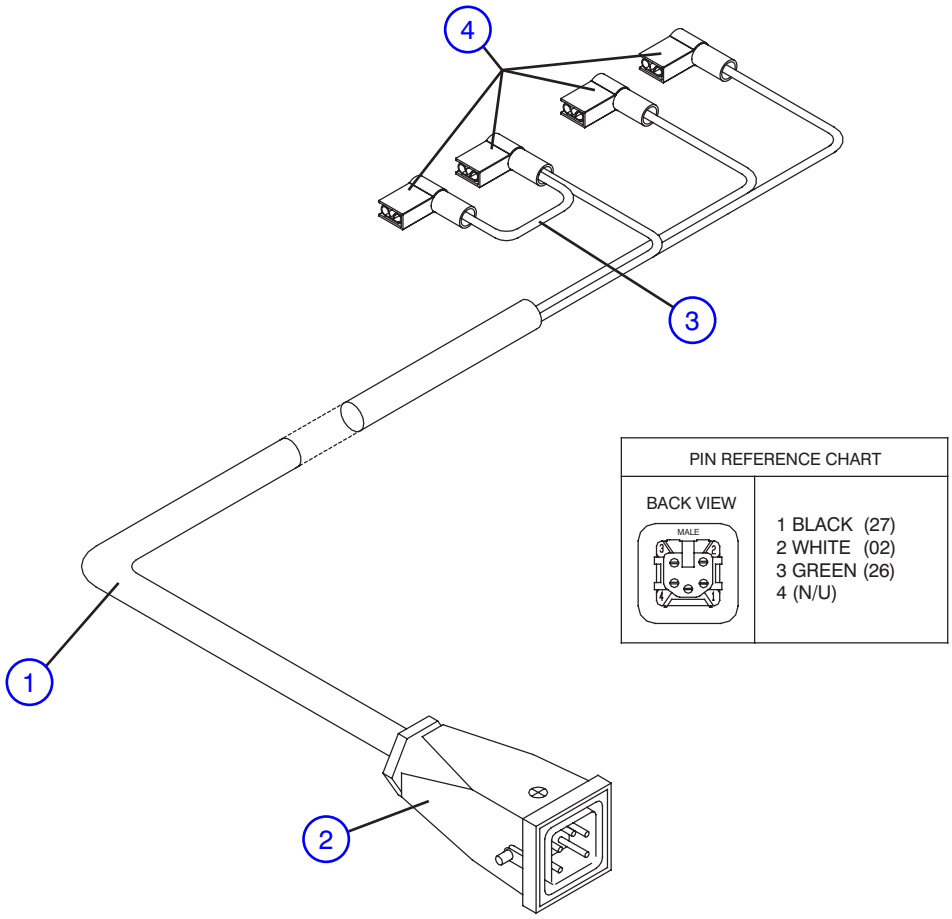
Index No.	Skyjack Part No.	Qty.	Description
1	117081	1	SWITCH ASSEMBLY, Cutout limit
	117079	1	• SWITCH, Roller level limit
	107712	1	• CONNECTOR ASSEMBLY, 5 Pin male
2	117184	1	BRACKET, Limit switch mounting
3	103958	2	BOLT, Machine (#8-32 x 0.75”)
4	112249	2	WASHER (#8)
5	103632	2	BOLT, Self tapping (1/4-14 x 0.75”)

Figure 6.1-14. Powered Extension Platform Valve Solenoid Cable



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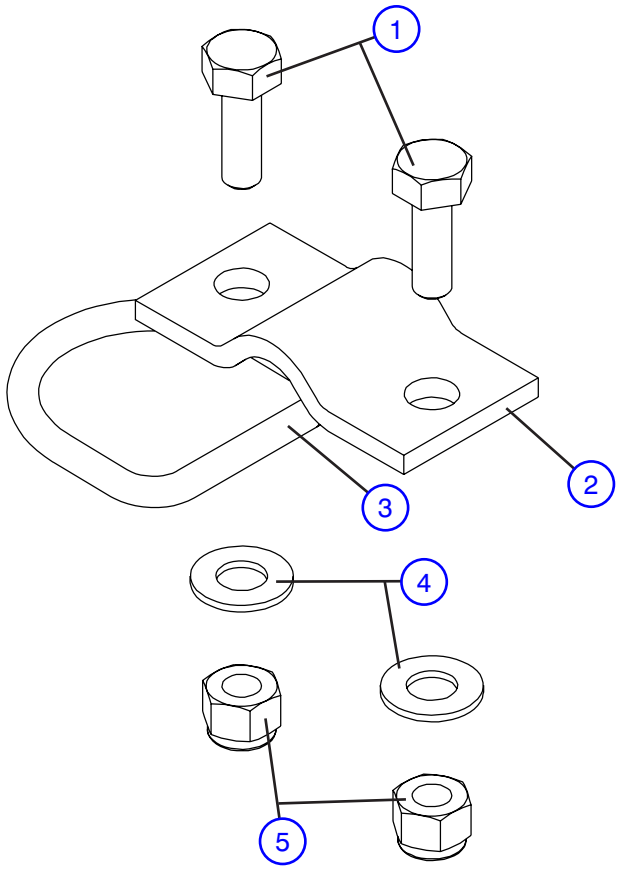
Index No.	Skyjack Part No.	Qty.	Description
A	126109	-	ASSEMBLY, Hydraulic extension platform solenoid cable
1	103257	AR	• CABLE, Cabtire (18/3)
2	107712	1	• CONNECTOR, 5 Pin male
3	102734	AR	• WIRE, White (16 AWG)
4	300772	4	• TERMINAL, Female disconnect (14-16 AWG, 90°)

Figure 6.1-15. Safety D-Ring Assembly



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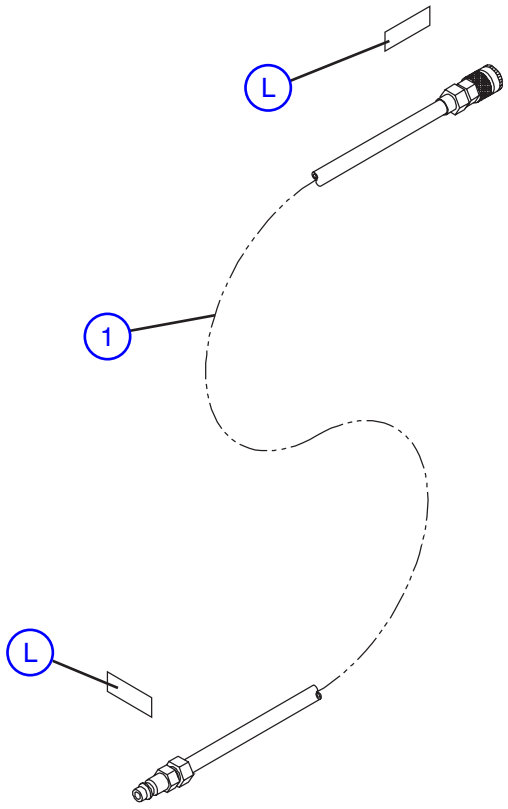
Index No.	Skyjack Part No.	Qty.	Description
A	600224	-	SAFETY D-RING KIT
1	600316	2	• BOLT, Hex head (M10-1.5 x 25 GR8.8)
2	600225	1	• BRACKET, Safety ring
3	600226	1	• D-Ring, Safety
4	600315	2	• WASHER, Flat (M10)
5	600287	2	• NUT, Hex nylon lock (M10-1.5 GR8.8)

Notes

Figure 6.1-16. Platform Air Supply Hose



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Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	HOSE ASSEMBLY (Air to platform)
	107882	1	• FITTING, Female disconnect
	107883	1	• FITTING, Male disconnect
	107884	324”	• HOSE, Air (1/2”) **(Model 3220M)**
	107884	396”	• HOSE, Air (1/2”) **(Model 3226M)**
	109050	2	• FITTING, Hose barb
	107886	2	• CLAMP, Hose
	102891	AR	• STRAP, Tie (7” lg.)
	102893	AR	• STRAP, Tie (10-1/2” lg.)
L	107887	2	• LABEL, Connect air here

Figure 6.1-17. Operator's Control Box Assembly

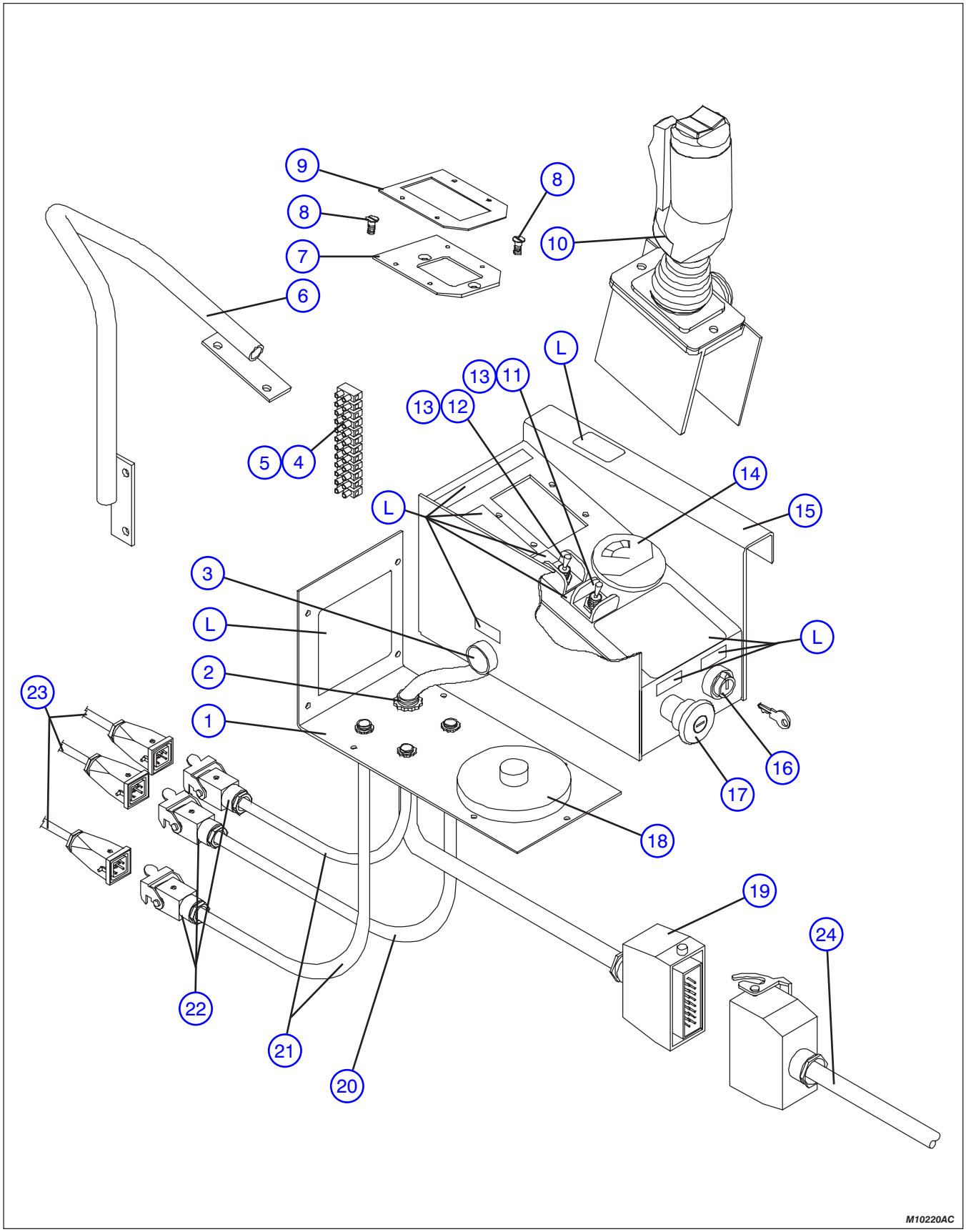

Figure 6.1-17. Operator's Control Box Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	117900	-	CONTROL BOX ASSEMBLY, (Proportional)
B	11789	-	CONTROL BOX ASSEMBLY, (Powered extension platform option)
1	108704	1	COVER, Bottom with horn
2	103041	1	STRAIN RELIEF, Cable
3	(Ref.)	-	SWITCH ASSEMBLY, Horn push-button
	102851	1	• HEAD, Push-button switch
	103100	1	• BASE, Contact
	103141	1	• BLOCK, N.O. contact
4	103012	AR	BLOCK, Terminal
5	113451	1	MOUNT, Terminal strip
6	124153	1	GUARD, Control box
	120094	6	• BOLT, Machine (#10-32 x 5/8)
	104185	6	• WASHER, Lock (#10 NOM)
	104694	2	• WASHER, Flat (#10 SAE)
	104003	2	• NUT, Machine (#10-32 Grade B)
7	124002	1	ADAPTER, Joystick
8	124031	2	SCREW, Machine flat head (#10-32 x 1/2)
9	124029	1	GASKET, Joystick
10	(Ref.)	-	CONTROLLER ASSEMBLY, Proportional (For components, refer to Figure 6.1-18)
11	116382	1	SWITCH, Lift/off/drive toggle
12	115574	1	SWITCH, Torque toggle
13	111181	2	GUARD, Toggle switch
14	122093	1	INDICATOR, Toggle switch
15	124078	1	CONTROL BOX, 4 Hole
16	(Ref.)	-	SWITCH ASSEMBLY, Key base/off/platform
	103082	1	• HEAD, 3-Position key switch
	104466	AR	• KEY, #455
	103100	1	• BASE, Contact
	103278	1	• BLOCK, N.O. Contact
17	(Ref.)	-	SWITCH ASSEMBLY, Emergency stop
	102769	1	• HEAD, STOP switch
	103100	1	• BASE, Contact
	103225	1	• BLOCK, N.C. Contact
18	121058	1	HORN, 24 Volt operator

Parts list continued on the following page.

Figure 6.1-17. Operator's Control Box Assembly (Continued)

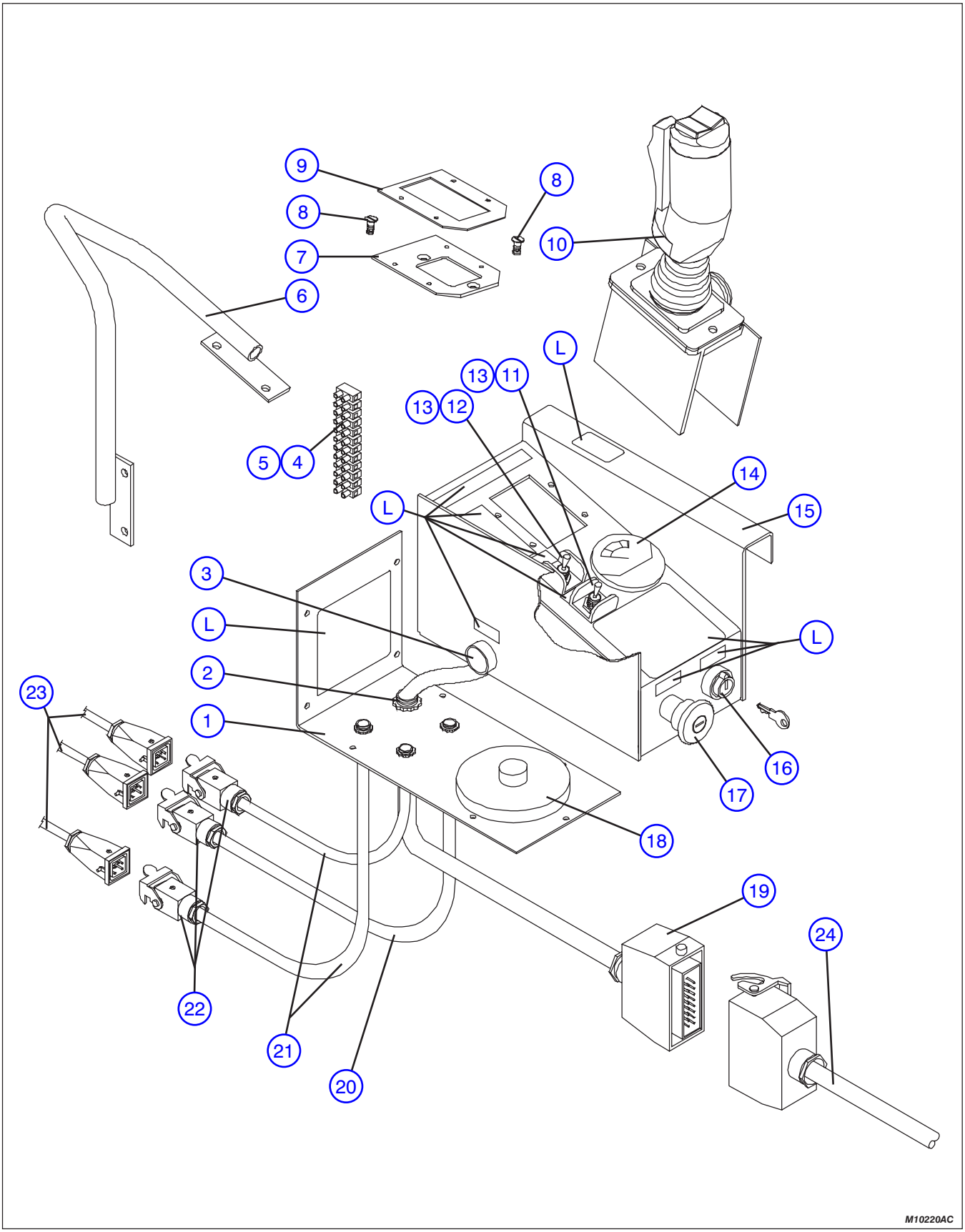

Figure 6.1-17. Operator's Control Box Assembly (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
19	119731	1	CABLE ASSEMBLY, Control box
	107820	1	• CONNECTOR ASSEMBLY, 16 Pole male
	102887	27"	• CABLE (16/15)
	118711	2	• LABEL, Hydraulic proportional
	119727	2	• CODE PIN
20	103256	AR	CORD, Cabtire (18/2)
21	103257	AR	CORD, Cabtire (18/3)
22	107711	3	CONNECTOR ASSEMBLY, 5 Pole female
23	(Ref.)	-	CABLE ASSEMBLIES, Powered extension option (For components, refer to FIgure 6.1-12, 6.1-13, & 6.1-14)
24	(Ref.)	-	CABLE ASSEMBLY, Scissor arm (For components, refer to Figure 6.1-19)
L	(Ref.)	-	LABEL (Refer to Figure 6.7-2)

Figure 6.1-18. Proportional Controller Assembly

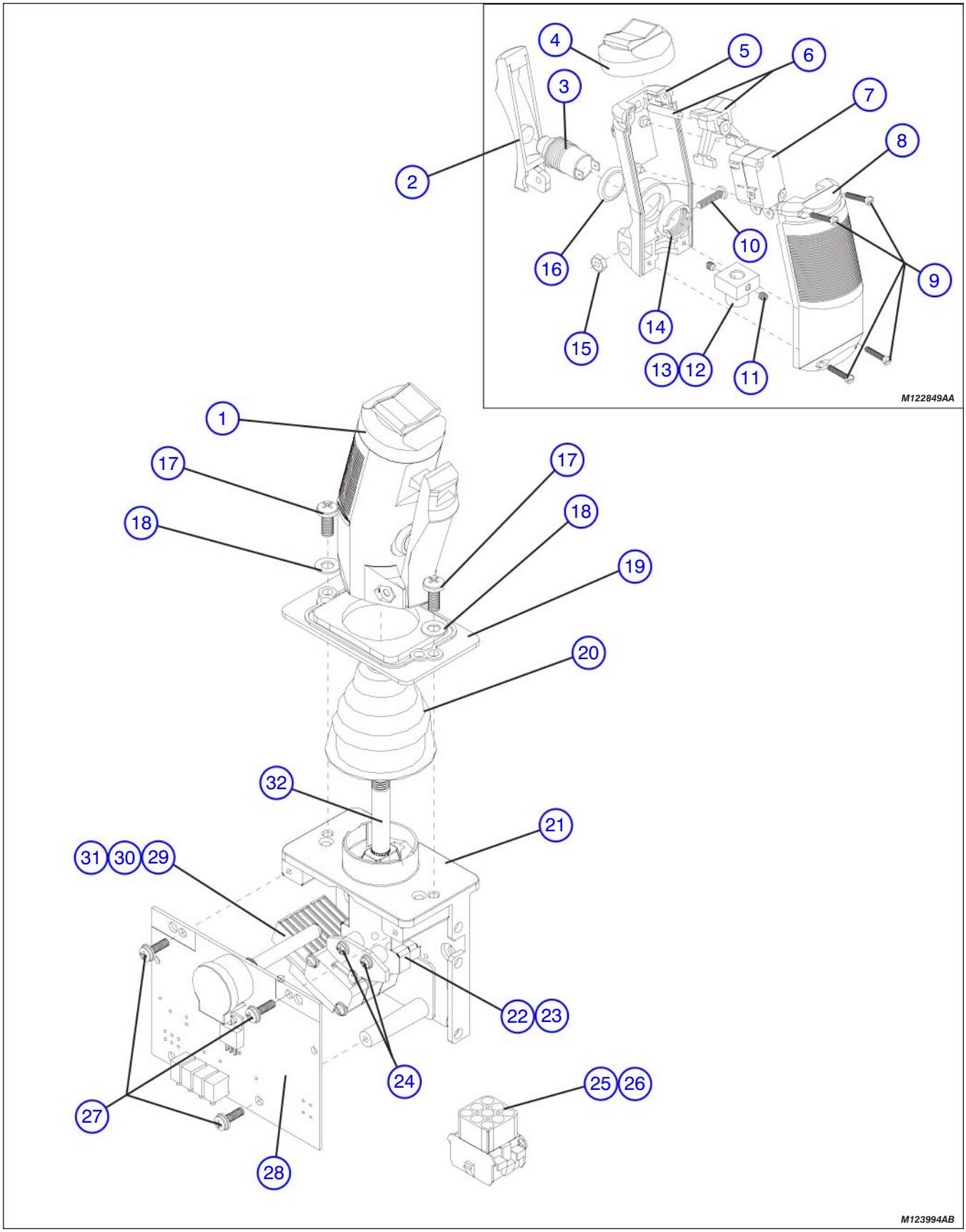

Figure 6.1-18. Proportional Controller Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	123994	-	CONTROLLER ASSEMBLY, Enable Joystick
1	122849	1	• HANDLE ASSEMBLY
2	122873	1	• • LEVEL, Trigger
3	122872	1	• • SWITCH, Enable push-button
4	122874	1	• • CAP, Rubber
5	122875	1	• • HANDLE, Front portion
6	122876	1	• • ROCKER ASSEMBLY
7	122877	2	• • SWITCH ASSEMBLY, Micro
8	122878	1	• • HANDLE, Back portion
9	122879	4	• • SCREW, Joystick handle
10	122959	1	• • SCREW, Joystick lever
11	122960	2	• • SCREW, Set
12	122961	1	• • COUPLING, 8mm
13	122962	1	• • COUPLING, 10mm
14	122963	1	• • NUT, Push-button
15	122964	1	• • NUT, Joystick lever
16	122965	1	• • FITTING, O-ring
17	122846	2	• SCREW
18	122847	2	• WASHER
19	122859	1	• GASKET
20	122848	1	• BOOT
21	122871	1	• BASE
22	122850	2	• SPACER
23	122851	1	• CAM
24	122852	2	• SCREW, Cam
25	122840	1	• CONNECTOR ASSEMBLY, 9 Pole male
	116993	1	• • HOUSING, 9 Pole male connector
	116990	9	• • PIN, Female wire
26	122841	1	• CONNECTOR ASSEMBLY, 9 Pin female
	122839	1	• • HOUSING, 9 Pin female connector
	116989	9	• • PIN, Male wire
27	122867	3	• SCREW, Circuit board
28	122868	1	• CIRCUIT BOARD ASSEMBLY
29	122869	3	• SWITCH, Micro
30	122870	2	• WASHER, Switch micro
31	122857	2	• SCREW, Switch micro
32	124820	1	• SHAFT, Modified joystick

Figure 6.1-19. Scissor Arm Control Cable Assemblies

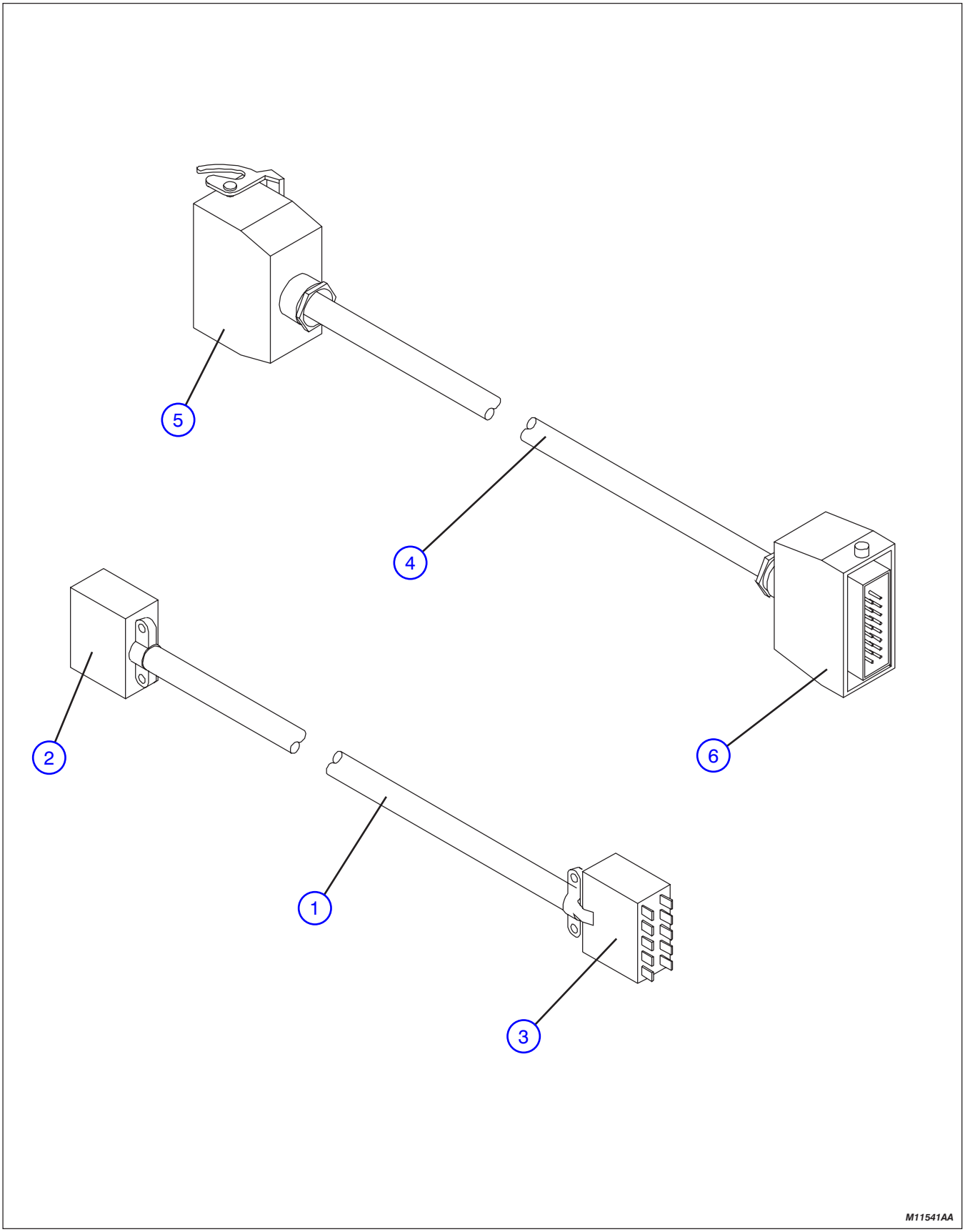

Figure 6.1-19. Scissor Arm Control Cable Assemblies

Index No.	Skyjack Part No.	Qty.	Description
1	119643	1	CABLE ASSEMBLY, 10 Pin **(Model 3220M)**
	119644	1	CABLE ASSEMBLY, 10 PIN **(Model 3226M)**
	102888	AR	• CABLE (16/10) (Refer to chart below for lengths)
	119457	2	• CONNECTOR, Plug
2	102518	1	• SOCKET, 10 Pole female
	119456	2	• COVER, Connector
3	102766	1	• PLUG, 10 Pin male
	119949	4	• BOLT, Self thread (#6-32)
	118711	4	• LABEL, Hydraulic proportional
4	119732	1	CABLE ASSEMBLY, 16 Pin **(Model 3220M)**
	119733	1	CABLE ASSEMBLY, 16 Pin **(Model 3236M)**
	102887	AR	• CABLE (16/15) (Refer to chart below for lengths)
5	107821	1	• CONNECTOR, 16 Pin female
	103565	1	• • HOUSING, Top
	103573	1	• • INSERT, Female
	119727	4	• CODE PIN
6	107820	1	• CONNECTOR, 16 Pin male
	103564	1	• • HOUSING, Top
	103574	1	• • INSERT, Male
	118711	4	• LABEL, Hydraulic proportional

Cable Lengths			
Wire Type	Wire Part Number	Models	
		3220	3226
16/10	102888	384”	468”
16/15	102887	384”	468”

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Figure 6.2-1. Scissor Arm Assembly - Model 3220M

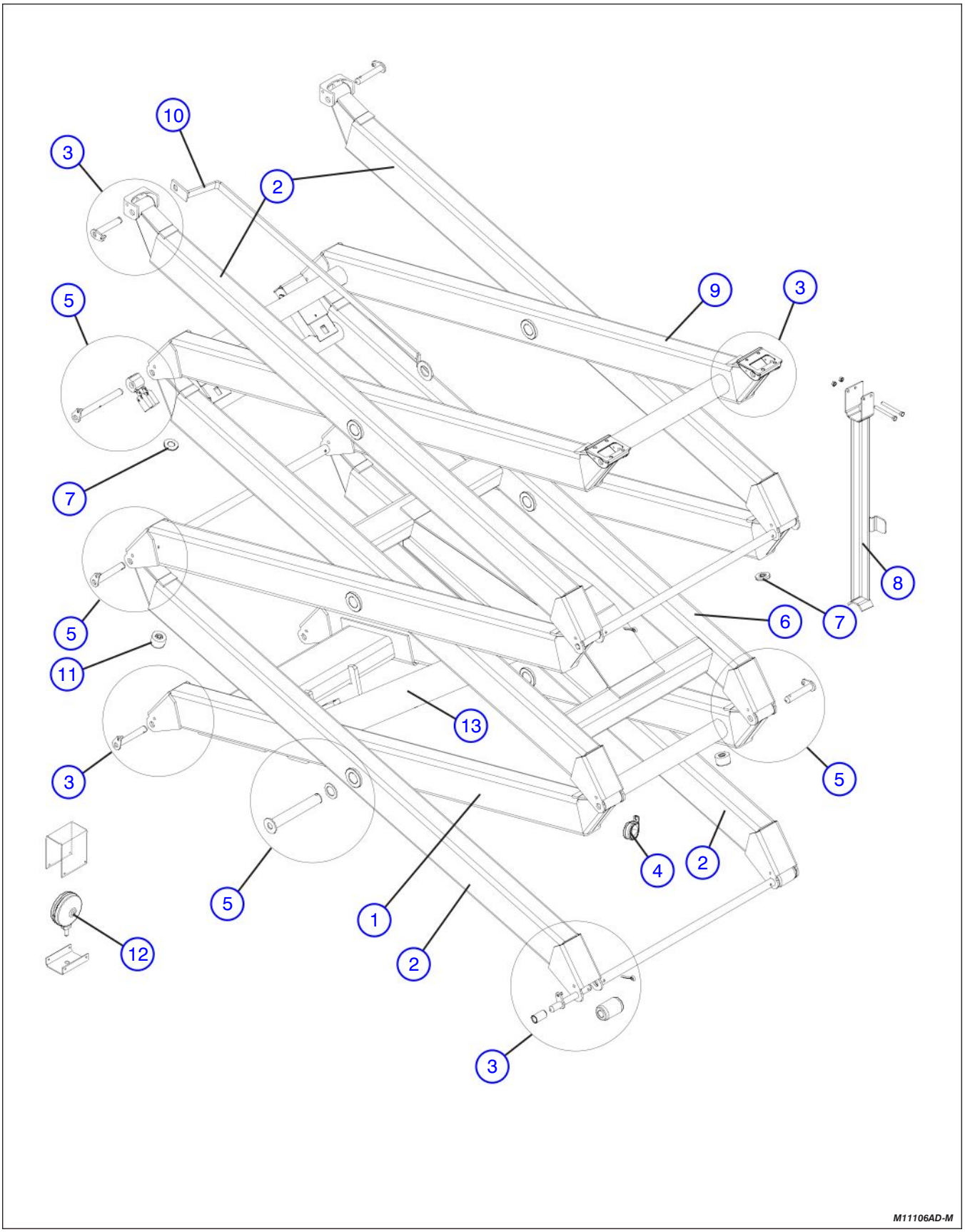


Figure 6.2-1. Scissor Arm Assembly - Model 3220M

Index No.	Skyjack Part No.	Qty.	Description
A	130581	-	ENTIRE SCISSOR ASSEMBLY, (Without powered extension)
	132584	-	ENTIRE SCISSOR ASSEMBLY, (With powered extension)
1	600058	1	SCISSOR LEVEL, Inside cylinder bottom
2	600041	6	SCISSOR ARMS, Outside
3	(Ref.)	-	MOUNTING, Scissor stack assembly (For components, refer to Figure 6.2-3)
4	103078	AR	CLIP, Double G10
	122501	AR	• SCREW, Machine hex washer head (3/8”-16 x 5/8”)
5	(Ref.)	-	HARDWARE, Scissor arm assembly connecting (For components, refer to Figure 6.2-4)
6	600062	1	SCISSOR LEVEL, Inside cylinder top
7	600169	AR	BUMBER, Scissor arm
8	600121	1	WELDMENT, Safety bar
	600188	AR	• NUT, Hex lock (5/16”-18 Grade B)
	600187	AR	• BOLT, Hex head (5/16”-18 x 3.25” GR5)
9	600063	1	SCISSOR LEVEL, Inside
10	600087	AR	WELDMENT, Cable carrier
11	600170	1	BUMBER, Scissor bottom
12	(Ref.)	-	ASSEMBLY, Flashing light option (For components, refer to Figure 6.2-5)
13	(Ref.)	-	HARDWARE, Lift cylinder and mounting (For components, refer to Figure 6.2-7)

Figure 6.2-2. Scissor Arm Assembly - Model 3226M

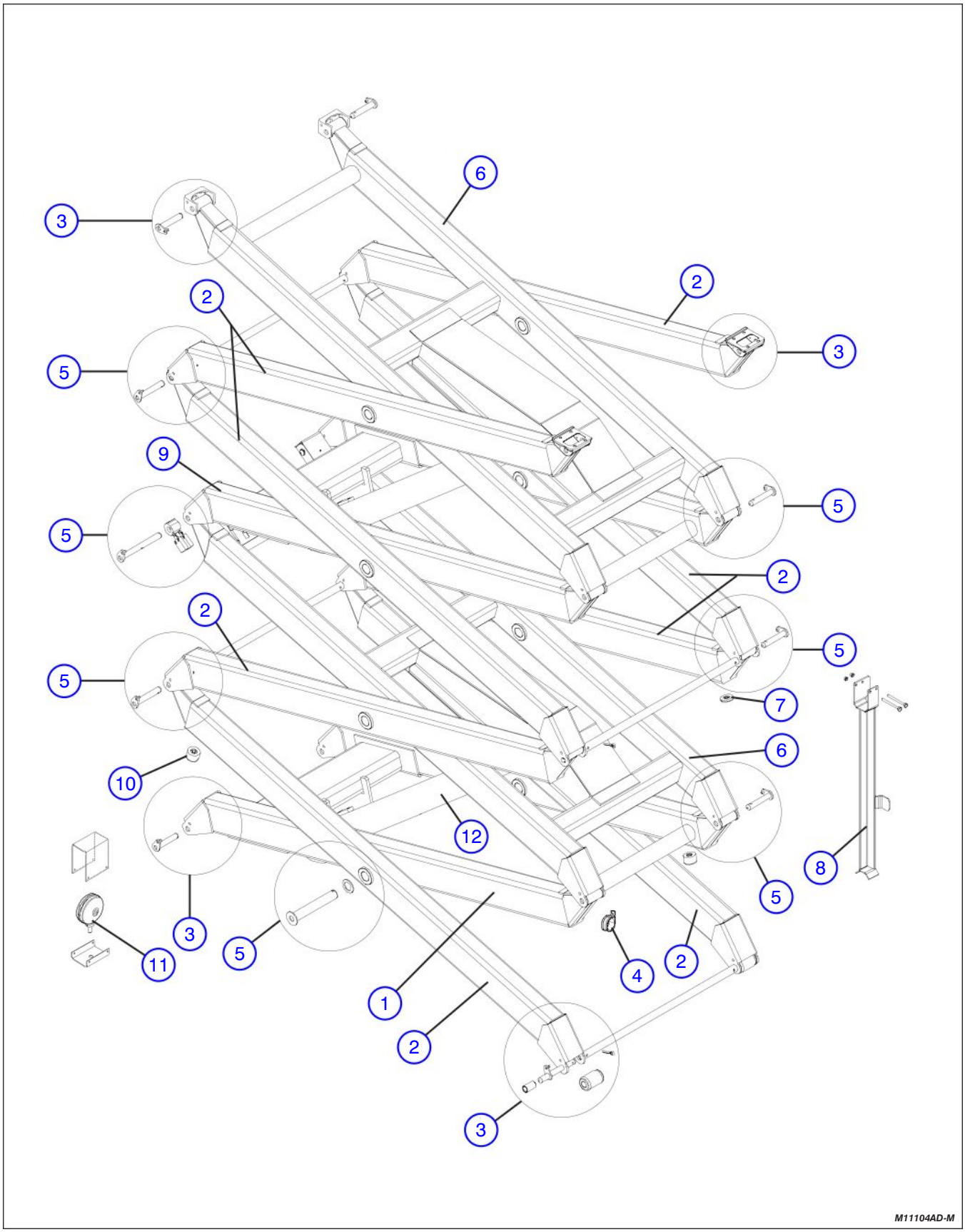
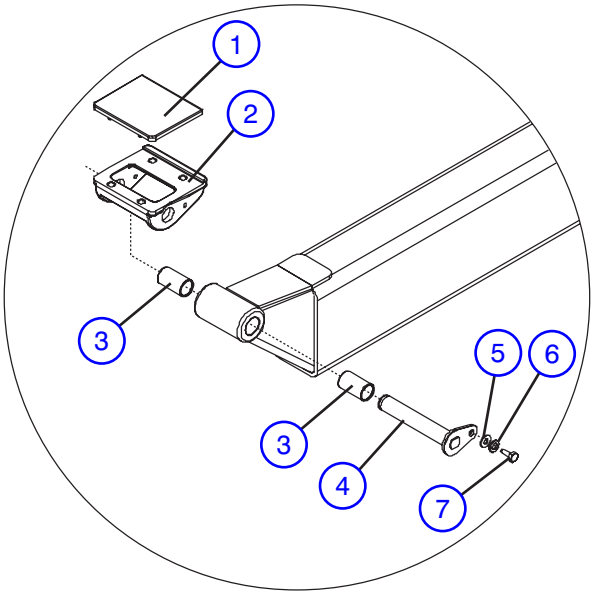


Figure 6.2-2. Scissor Arm Assembly - Model 3226M

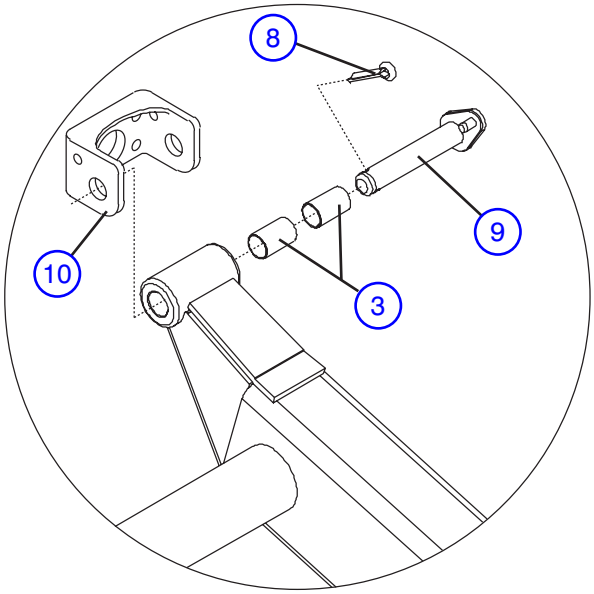
Index No.	Skyjack Part No.	Qty.	Description
A	130600	-	ENTIRE SCISSOR ASSEMBLY
1	600635	1	SCISSOR LEVEL, Inside cylinder assembly
2	600041	8	SCISSOR ARMS, Outside
3	(Ref.)	-	MOUNTING, Scissor stack assembly (For components, refer to Figure 6.2-3)
4	103078	AR	CLIP, Double G10
	122501	AR	• SCREW, Machine hex washer head (3/8”-16 x 5/8”)
5	(Ref.)	-	HARDWARE, Scissor arm assembly connecting (For components, refer to Figure 6.2-4)
6	600062	2	SCISSOR LEVEL, Inside cylinder top
7	600169	AR	BUMBER, Scissor arm
8	600121	1	WELDMENT, Safety bar
	600188	AR	• NUT, Hex lock (5/16”-18 Grade B)
	600187	AR	• BOLT, Hex head (5/16”-18 x 3.25 GR5)
9	601250	1	SCISSOR LEVEL, Inside cylinder bottom
10	600170	1	BUMBER, Scissor bottom
11	(Ref.)	-	ASSEMBLY, Flashing light option (For components, refer to Figure 6.2-5)
12	(Ref.)	-	HARDWARE, Lift cylinder and mounting (For components, refer to Figure 6.2-7)

Figure 6.2-3. Scissor Stack Assembly Mounting

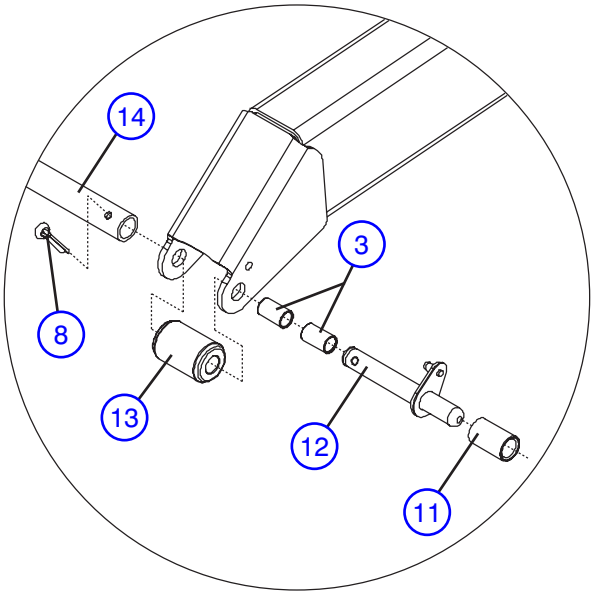
A - Top Slider Assembly



B - Main Platform Bracket Mounting Assembly



C - Bottom Slider Assembly



D - End Pin Assembly at Base

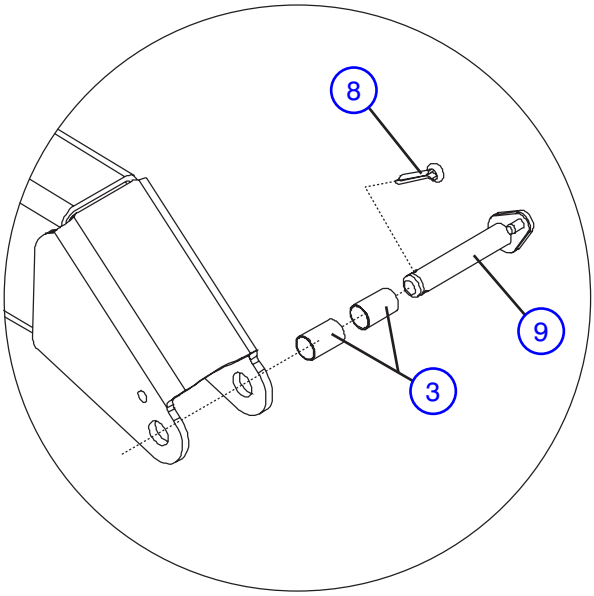


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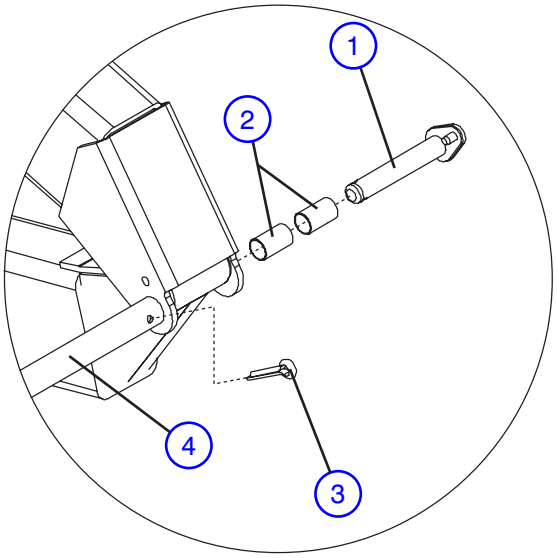
Figure 6.2-3. Scissor Stack Assembly Mounting

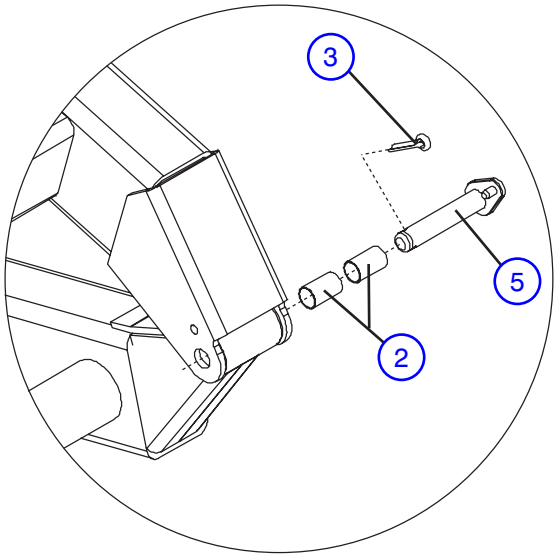
Index No.	Skyjack Part No.	Qty.	Description
1	120772	AR	PAD, Slider
2	600166	AR	SLIDER, Platform
3	600141	AR	BUSHING (20mm dia. x 40mm)
4	600181	AR	PIN, Main platform slider **(Model 3220M)**
	600626	AR	PIN, Main platform slider **(Model 3226M)**
5	600190	AR	WASHER, Flat (M6 DIN125)
6	600191	AR	WASHER, Lock (M6 DIN125)
7	600189	AR	BOLT, Hex head (M6 x 1.0 lg. DIN931)
8	600179	AR	PIN, Cotter (6mm dia. x 45mm)
9	600128	AR	PIN, Inside Scissors (20mm x 105.5mm) (Without cable carrier weldment)
	600163	AR	PIN, Inside Scissors (20mm x 112mm) (With cable carrier weldment)
10	600142	AR	BRACKET, Platform mounting
11	600173	AR	SPACER, Bottom roller pin
12	600131	AR	PIN, Bottom roller
13	600140	AR	ROLLER, Scissor
14	600126	AR	TUBE, Outside scissor arms cross member

Figure 6.2-4. Scissor Arm Assembly Connecting Hardware

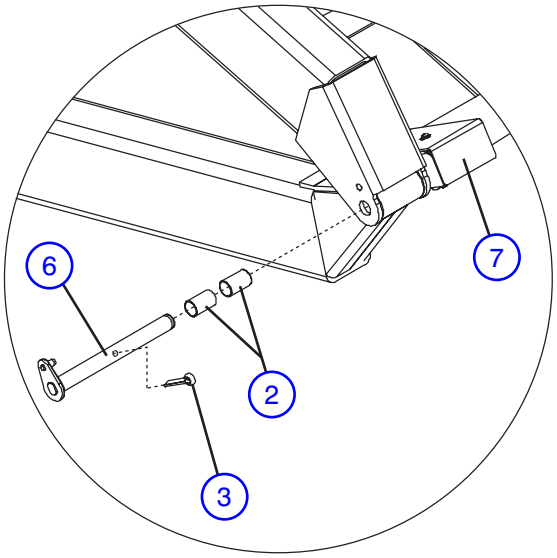
Outside End Pin Assembly (With Cross Member Tube)



Inside End Pin Assembly (Without Cross Member Tube)



Limit Switch Pin Assembly



Center Pin Assembly

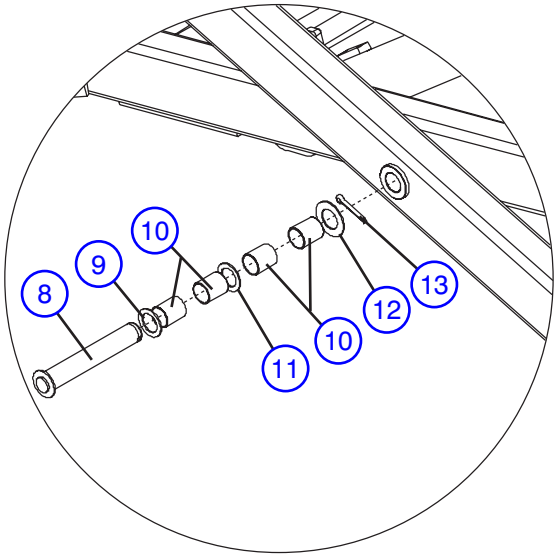


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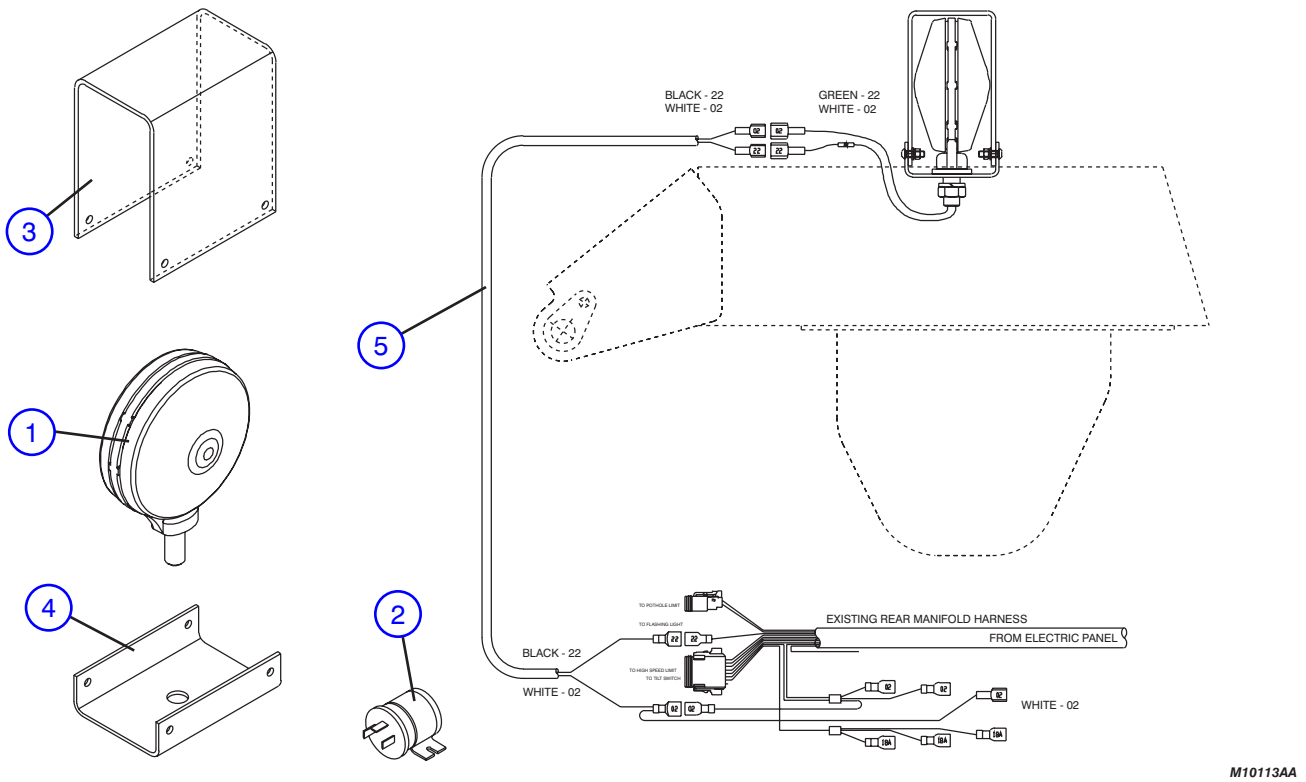
Figure 6.2-4. Scissor Arm Assembly Connecting Hardware

Index No.	Skyjack Part No.	Qty.	Description
1	600136	AR	PIN, Outside scissor
2	600141	AR	BUSHING, Fiberglide (3/4” I.D. x 1-1/2”)
3	600179	AR	PIN, Cotter (6mm dia. x 45mm)
4	600126	AR	TUBE, Outside scissor arms cross member
5	600128	AR	PIN, Inside Scissor (20mm x 105.5mm)
6	600138	AR	PIN, Limit Switch (20mm x 208.5mm)
7	(Ref.)	-	ASSEMBLY, Limit switch (For components, refer to Figure 6.2-6)
8	600133	AR	PIN, Center
9	600715	AR	WASHER, Nylon (65mm O.D. x 33mm I.D.)
10	600174	AR	BUSHING (32mm dia. x 50mm)
11	600176	AR	SPACER, Thrust fiberglide (1-1/4” I.D.)
12	600707	AR	WASHER, Flat (1-1/4” I.D. x 2-1/4” O.D.)
13	600179	AR	PIN, Cotter (6mm dia. x 45mm)

Notes

Figure 6.2-5. Flashing Amber Light Option



Index No.	Skyjack Part No.	Qty.	Description
1	121838	1	LIGHT ASSEMBLY, Flash amber (Option)
	121477	1	• LIGHT, Beacon
	121533	1	• • LENS, Amber
	103111	1	• • BULB, 24 Volt
2	103743	1	• FLASHER, 12-24 Volt
3	123180	1	COVER ASSEMBLY
	123177	1	• COVER, Flashing light
4	13178	1	• BRACKET, Flashing light cover
	120094	4	• BOLT (#10-32 x 5/8”)
	104003	4	• NUT (#10-32)
	104694	4	• WASHER, Flat (#10)
	104185	4	• WASHER, Lock (#10)
5	126104	1	HARNESS, Flashing light **(Model 3220M)**
	103256	48”	• CABTIRE (18/2)
	126100	1	HARNESS, Flashing light **(Model 3226M)**
	103256	228”	• CABTIRE (18/2)

Figure 6.2-6. Scissor Arm Limit Switch Assemblies

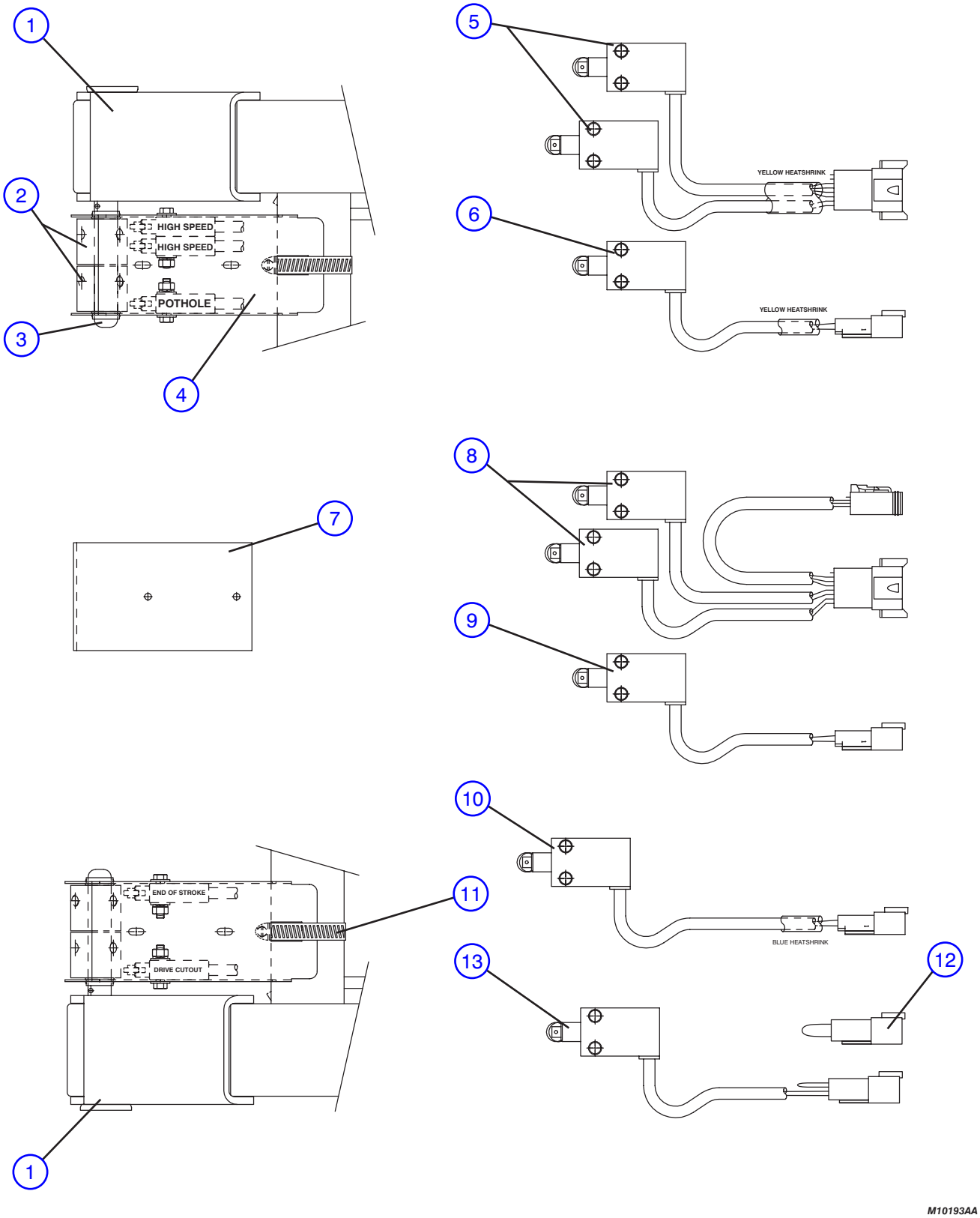


Figure 6.2-6. Scissor Arm Limit Switch Assemblies

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	1	PIN WELDMENT, Limit switches (For components, refer to Figure 6.2-4)
2	600175	AR	CAM, Limit switch
3	121908	AR	BUSHING, Snap-in
4	600457	AR	BRACKET, Limit switch
5	130559	1	SWITCH ASSEMBLY, CE pothole override limit
	121975	2	• SWITCH, Drilled sealed limit
	119132	1	• KIT, 8-Pole receptacle
	119965	2”	• HEATSHRINK, Yellow
6	121983	1	SWITCH ASSEMBLY, CE pothole override limit
	121975	2	• SWITCH, Drilled sealed limit
	119128	1	• KIT, 2-Pole receptacle
	119963	2”	• HEATSHRINK, Yellow
7	600459	AR	GUARD, Limit switch
8	121976	1	SWITCH, Drilled sealed limit
	121975	2	• SWITCH, Drilled sealed limit
	103257	12”	• CABLE, Cabtire (18/3)
	119132	1	• KIT, 8-Pole receptacle
	119131	1	• KIT, 4-Pole plug
9	121978	1	SWITCH ASSEMBLY, Pothole override limit
	121975	2	• SWITCH, Drilled sealed limit
	119128	1	• KIT, 2-Pole receptacle
10	122014	AR	SWITCH ASSEMBLY, Optional end of stroke limit
	121975	1	• SWITCH, Drilled sealed limit
	119128	1	• KIT, 2-Pole receptacle
	119964	2”	• HEATSHRINK, Blue
11	121869	AR	CLAMP, 2.5” Worm gear
12	118713	1	JUMPER ASSEMBLY, Optional drive cutout
13	121991	1	SWITCH ASSEMBLY, Optional drive cutout limit
	122010	1	• SWITCH, Drilled sealed limit
	119130	1	• KIT, 4-Pole receptacle

Figure 6.2-7. Lift Cylinder Assembly And Mounting Hardware

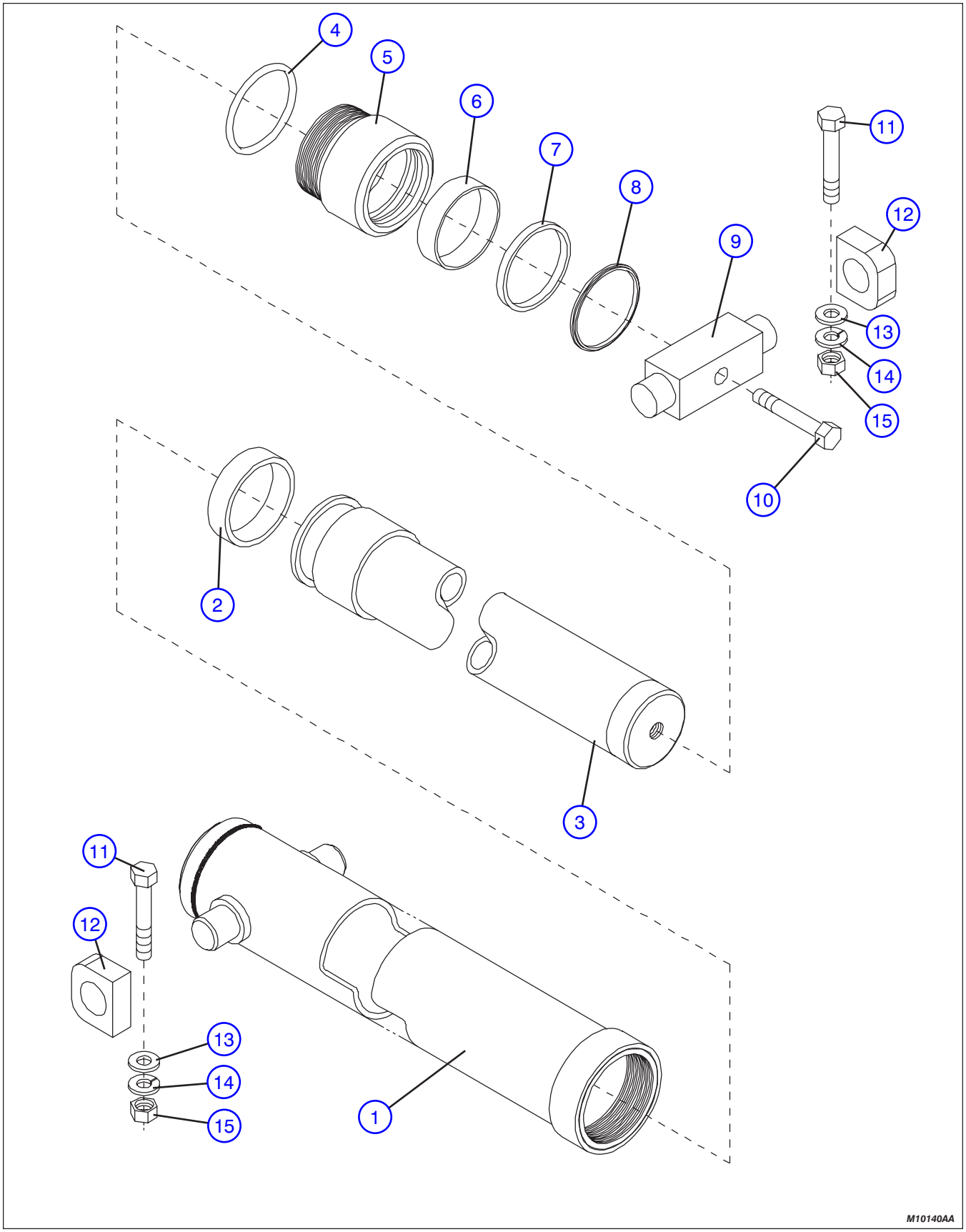
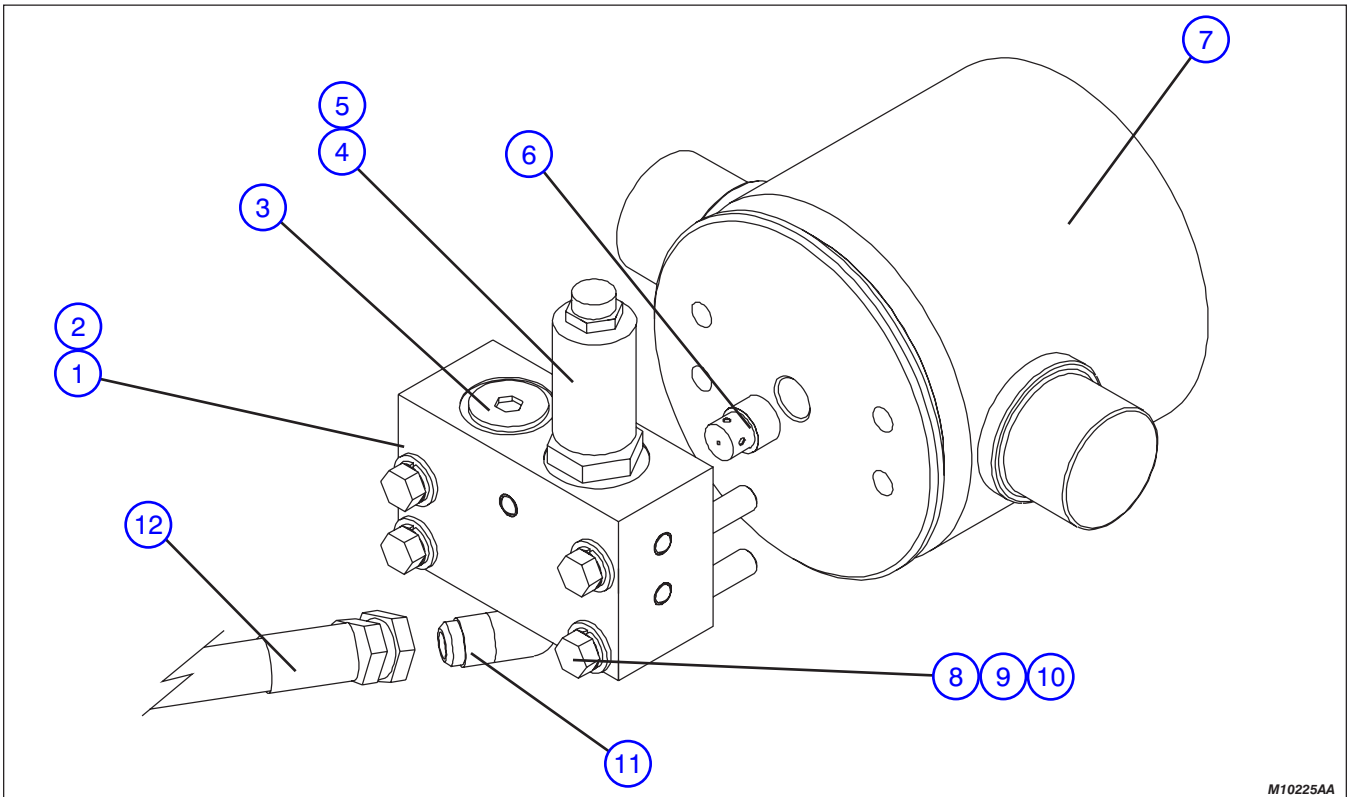


Figure 6.2-7. Lift Cylinder Assembly And Mounting Hardware

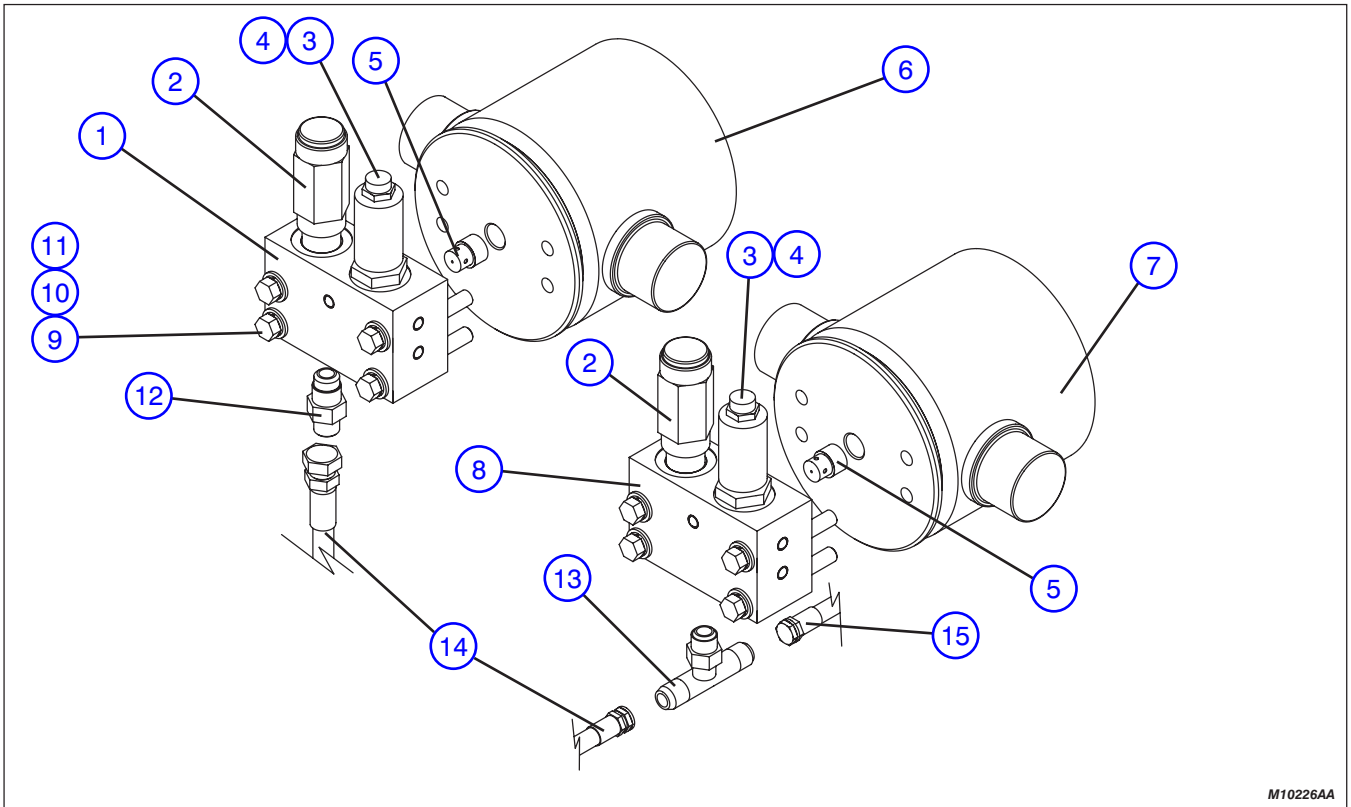
Index No.	Skyjack Part No.	Qty.	Description
A	120989	AR	CYLINDER ASSEMBLY, Lift
1	120993	1	• WELDMENT, Barrel
*2	105690	1	• RING, Piston wear
3	120991	1	• ROD, Piston
*4	120448	1	• O-RING, Gland
5	121096	1	• GLAND, Front head
*6	105689	1	• RING, Gland wear
*7	105687	1	• SEAL, Piston rod
*8	105688	1	• WIPER, Piston rod
9	121668	AR	• TRUNNION
10	105686	1	• BOLT (3/4-16 x 3”)
11	103869	AR	BOLT, Hex head (5/16-18 grade 5 x 4.50) (4 per cylinder)
12	123808	AR	BEARING BLOCK ASSEMBLY (4 Per Cylinder)
	101076	AR	• BLOCK
	100904	AR	• BEARING
13	103996	AR	WASHER, Flat (5/16 SAE) (4 per cylinder)
14	103404	AR	WASHER, Lock (5/16 NOM x 0.07) (4 per cylinder)
15	100397	AR	NUT, Hex head (5/16-18 Grade B) (4 per cylinder)
*	121097	AR	KIT, Seal repair

Figure 6.2-8. Holding Valve Assembly - Model 3220M



Index No.	Skyjack Part No.	Qty.	Description
1	130480	1	BLOCK, Holding valve
2	103403	1	SEAL, O'ring
3	134431	1	TRANSDUCER, Pressure 3000 psi
4	104493	1	COIL, 24 Volt
5	107269	1	VALVE, N.C. Holding
6	105281	1	ORIFICE, One way
7	(Ref.)	-	LIFT CYLINDER ASSEMBLY (For components, refer to Figure 6.2-7)
8	103865	4	BOLT, Hex head (5/16 - 18 x 2.00 lg.)
9	103996	4	WASHER, Flat (5/16 SAE)
10	103404	4	WASHER, Lock (5/16 NOM)
11	114578	1	FITTING, Elbow
12	104135	1	HOSE ASSEMBLY, Lift cylinder

Figure 6.2-9. Holding Valve Assembly - Model 3226M



Index No.	Skyjack Part No.	Qty.	Description
1	108778	1	BLOCK, Upper holding valve
2	106557	2	VALVE, Relief
3	107269	1	VALVE, N.C. Holding
4	104493	1	COIL, 24 Volt
5	105281	2	ORIFICE, One way
6	(Ref.)	-	LIFT CYLINDER ASSEMBLY (Upper cylinder) (For components, refer to Figure 6.2-7)
7	(Ref.)	-	LIFT CYLINDER ASSEMBLY (Lower cylinder) (For components, refer to Figure 6.2-7)
8	106688	1	BLOCK, Lower holding valve
9	103865	4	BOLT, Hex head (5/16 - 18 x 2.00 lg.)
10	103996	4	WASHER, Flat (5/16 SAE)
11	103404	4	WASHER, Lock (5/16 NOM)
12	103069	1	CONNECTOR, Straight (Upper lift cylinder)
13	114579	1	FITTING, Tee (Lower lift cylinder)
14	102635	1	HOSE ASSEMBLY, Upper lift cylinder to lower lift cylinder
15	104657	1	HOSE ASSEMBLY, Lower lift cylinder to main manifold

Figure 6.3-1. Base, Axle & Wheels

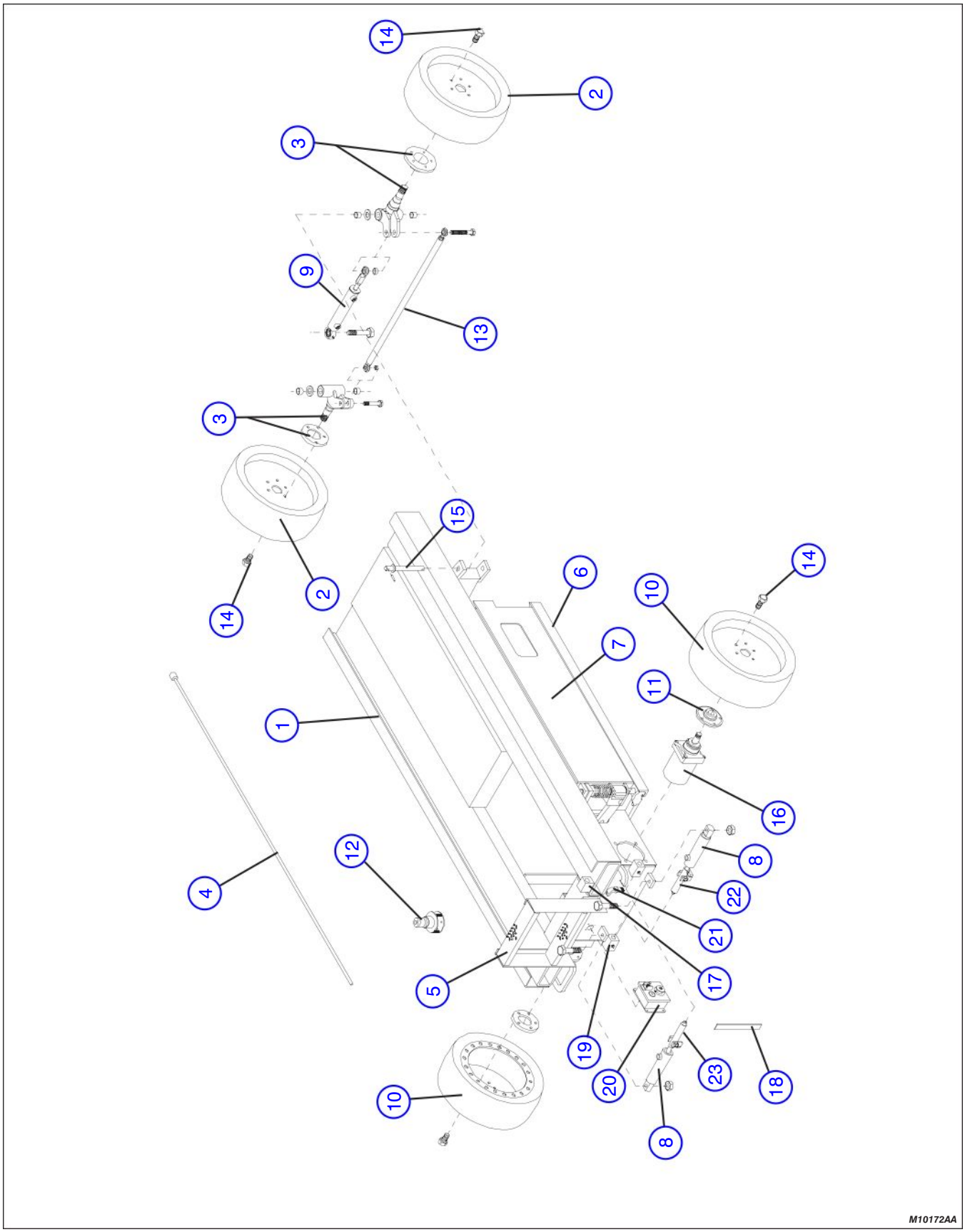


Figure 6.3-1. Base, Axle & Wheels

Index No.	Skyjack Part No.	Qty.	Description
1	136529	1	WELDMENT, Base **(Model 3220M)**
	136998	1	WELDMENT, Base **(Model 3226M)**
2	125785	2	WHEEL ASSEMBLY, Front
3	(Ref.)	-	HUB & SPINDLE ASSEMBLY, Front axle
			(For components, refer to Figure 6.3-4)
4	600619	1	BAR ASSEMBLY, Emergency lowering
	600684	1	• BAR, Emergency lowering access
	119920	2	• CLIP, Spring coated
	600620	AR	• BOLT, Machine (#10-32 x 1/4" lg.)
	600683	2	• PIN, Locking
5	600468	1	LADDER **(Model 3220M)**
	600311	1	LADDER **(Model 3226M)**
6	(Ref.)	-	DEVICE ASSEMBLY, Pothole protection
			(For components, refer to Figure 6.3-2)
7	(Ref.)	-	TRAY ASSEMBLY, Battery
			(For components, refer to Figure 6.5-1)
	(Ref.)	-	TRAY ASSEMBLY, Hydraulic/Electric
			(For components, refer to Figure 6.4-1)
8	(Ref.)	-	CYLINDER ASSEMBLY, Brake
			(For components, refer to Figure 6.3-7)
9	(Ref.)	-	CYLINDER ASSEMBLY, Steer
			(For components, refer to Figure 6.3-6)
10	125786	2	WHEEL ASSEMBLY, Rear
11	(Ref.)	-	HUB ASSEMBLY, Rear axle
			(For components, refer to Figure 6.3-3)
12	(Ref.)		SWITCH, Tilt
		-	(For components, refer to Figure 6.3-11)
13	(Ref.)	-	ROD ASSEMBLY, Tie
			(For components, refer to Figure 6.3-5)
14	103199	AR	BOLT, Wheel
15	600737	2	PIN ASSEMBLY, King
	600735	1	• PIN, Axle king
	600736	1	• PIN (1/4" x 1-3/16" lg.)
	600738	1	• PIN, Cotter (1/4" x 1-1/4" lg.)
	104129	1	• WASHER, Bronze
16	(Ref.)	-	DRIVE MOTOR, Wheel
			(For components, refer to Figure 6.3-3)
17	(Ref.)	-	BUSHING
			(For components, refer to Figure 6.2-3)
18	600567	1	STRAP ASSEMBLY, Static
	115420	1	• STRAP, Ground
	600316	1	• BOLT, Hex head (M10-1.5 x 25)
	600553	1	• WASHER, Lock (M10 NOM)
	600291	1	• NUT, Hex head (M10-1.5)
19	102027	2	FITTING, Grease
20	(Ref.)	-	CONTROL BOX ASSEMBLY, Base
			(For components, refer to Figure 6.3-10)
			Parts list continued on the following page

Figure 6.3-1. Base, Axle & Wheels (Continued)

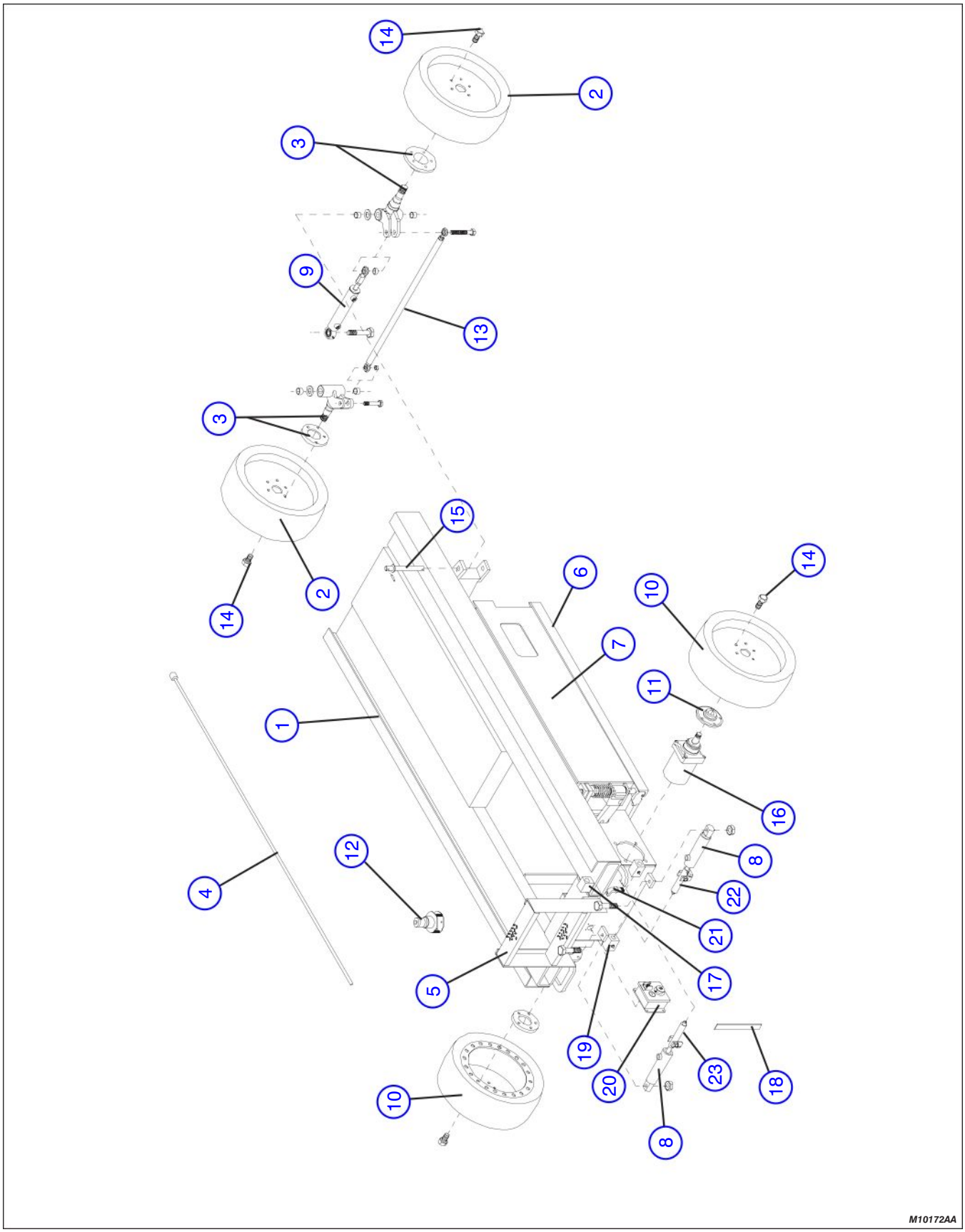


Figure 6.3-1. Base, Axle & Wheels (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page
21	119725	1	SWITCH, Battery
	108714	1	• KIT, Battery switch lockout
	(Ref.)	-	• LABEL, Power on/off (Refer to Figure 6.7-3)
22	104488	1	WELDMENT, Brake pin LH **(Model 3220M)**
	124228	1	WELDMENT, Brake pin LH **(Model 3226M)**
	103940	1	• BOLT, Soc-hd (1/4-20 x 1-1/4" lg.)
	104000	1	• WASHER, Lock (1/4")
	103983	1	• NUT, Jam (1/4-20)
23	105890	1	WELDMENT, Brake pin RH **(Model 3220M)**
	124229	1	WELDMENT, Brake pin RH **(Model 3226M)**
	103940	1	• BOLT, Soc-hd (1/4-20 x 1-1/4" lg.)
	104000	1	• WASHER, Lock (1/4")
	103983	1	• NUT, Jam (1/4-20)

Figure 6.3-2. Pothole Protection Device

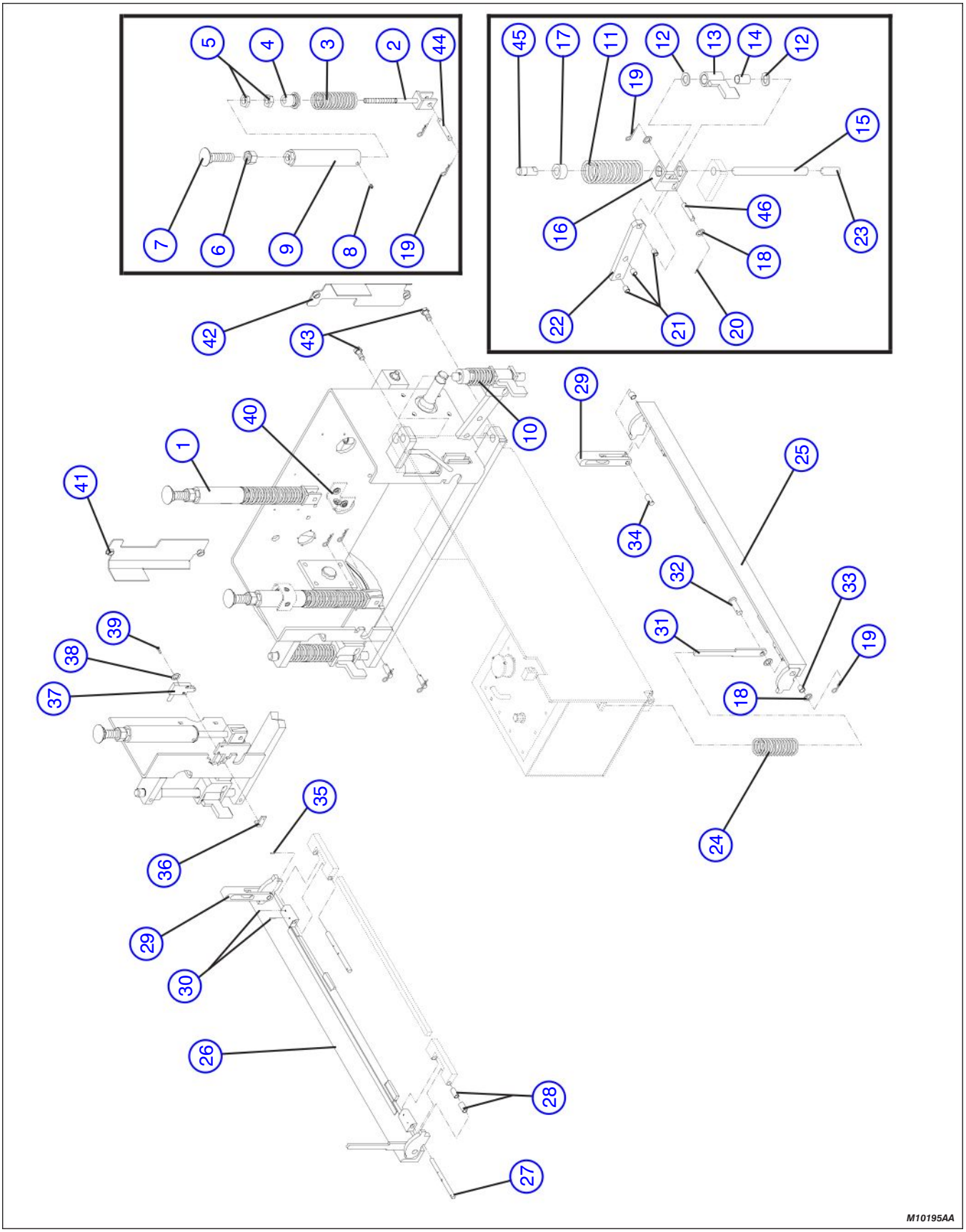


Figure 6.3-2. Pothole Protection Device

Index No.	Skyjack Part No.	Qty.	Description
1	600435	2	ASSEMBLY, Compression rod
2	600436	2	• WELDMENT, Compression rod
3	119311	2	• SPRING, Compression
4	600437	2	• PLUG, Compression tube
5	600422	4	• NUT, Hex head Jam (M12-1.75)
6	600444	2	• NUT, Hex head Jam (M20-2.25)
7	600440	2	• BOLT, Carriage (M20-2.5x70)
8	600425	4	• SCREW, Set cup point (M6-1.0x8)
9	600439	2	• WELDMENT, Compression tube
10	125776	2	ASSEMBLY, Cam lock
11	600434	2	• SPRING, Cam lock
12	600512	4	• WASHER, Driver
13	119499	2	• LOCK, Cam
14	600327	2	• BUSHING, Cam lock
15	600329	2	• PIN, Lever bar guide
16	600328	2	• DRIVER, Lock
	600478	2	• PIN, Spring (2.5mm X 30)
17	600330	2	• LOCATOR, Pin
18	600426	8	WASHER, Flat (M12)
19	600485	8	PIN, Cotter clip
20	600486	2	PIN, Spring (1/8” x 7/8” lg.)
21	600513	6	BUSHING (7/16” x 1/2” lg.)
22	600382	2	BAR, Lever
23	118983	2	PIN, Lower tray
24	600515	2	SPRING, Kicker
25	600321	1	WELDMENT, Hydraulic tray angle
26	600320	1	WELDMENT, Battery tray angle
27	600491	4	PIN, Angle
28	600499	16	BUSHING, Fiberglide (10mm ID X 15mm lg.)
29	600409	2	SLIDER, Lock cam
30	600477	8	PIN, Spring (2.5mm x 16mm lg.)
31	600490	2	PLATE, Kicker
32	600479	2	PIN, Clevis
33	600500	4	BUSHING, Fiberglide (8 I.D. X 10mm lg.)
34	600489	2	PIN, Lock
35	600476	2	PIN, Spring (2.5mm dia. x 22mm)

Parts list continued on the following page.

Figure 6.3-2. Pothole Protection Device (Continued)

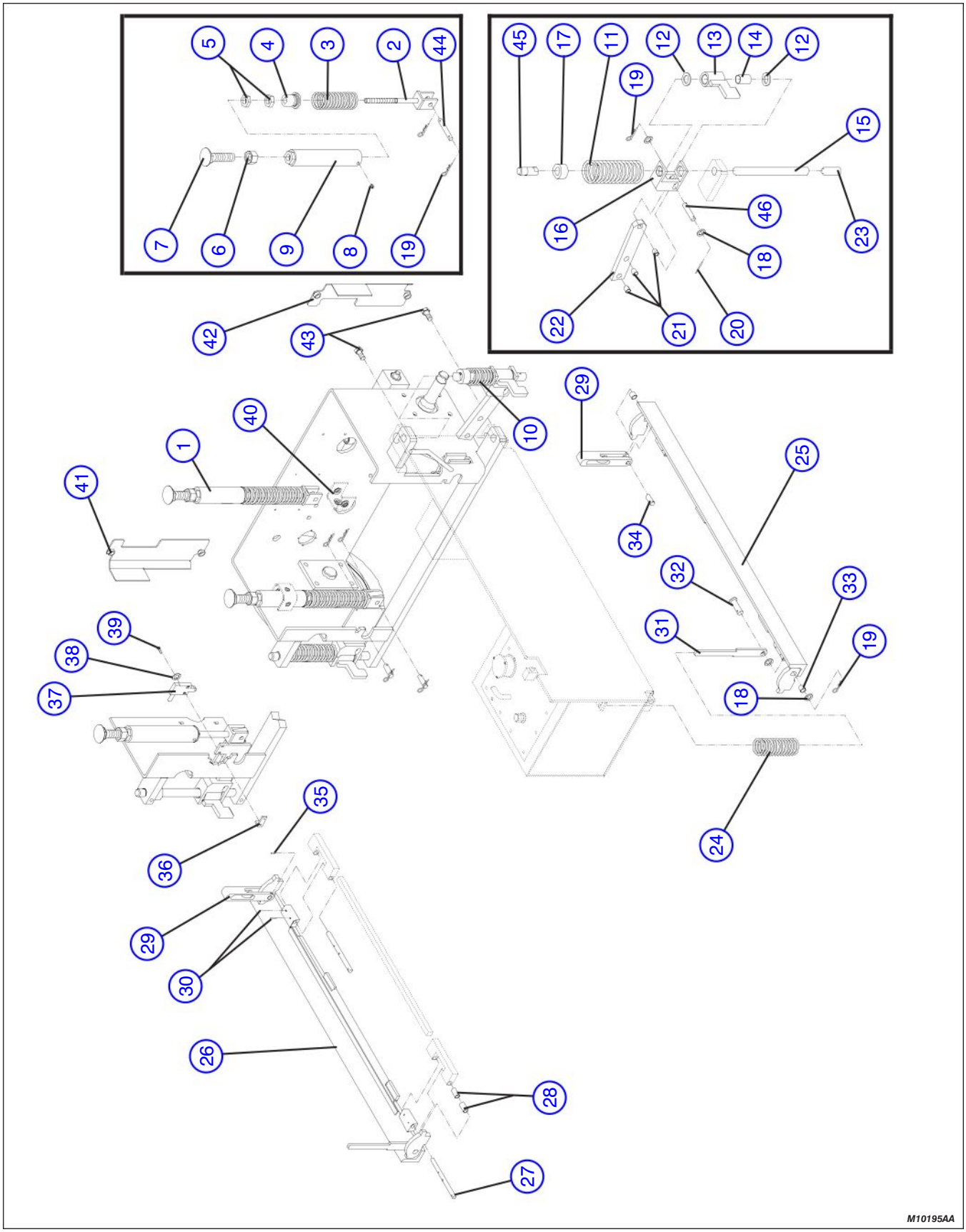
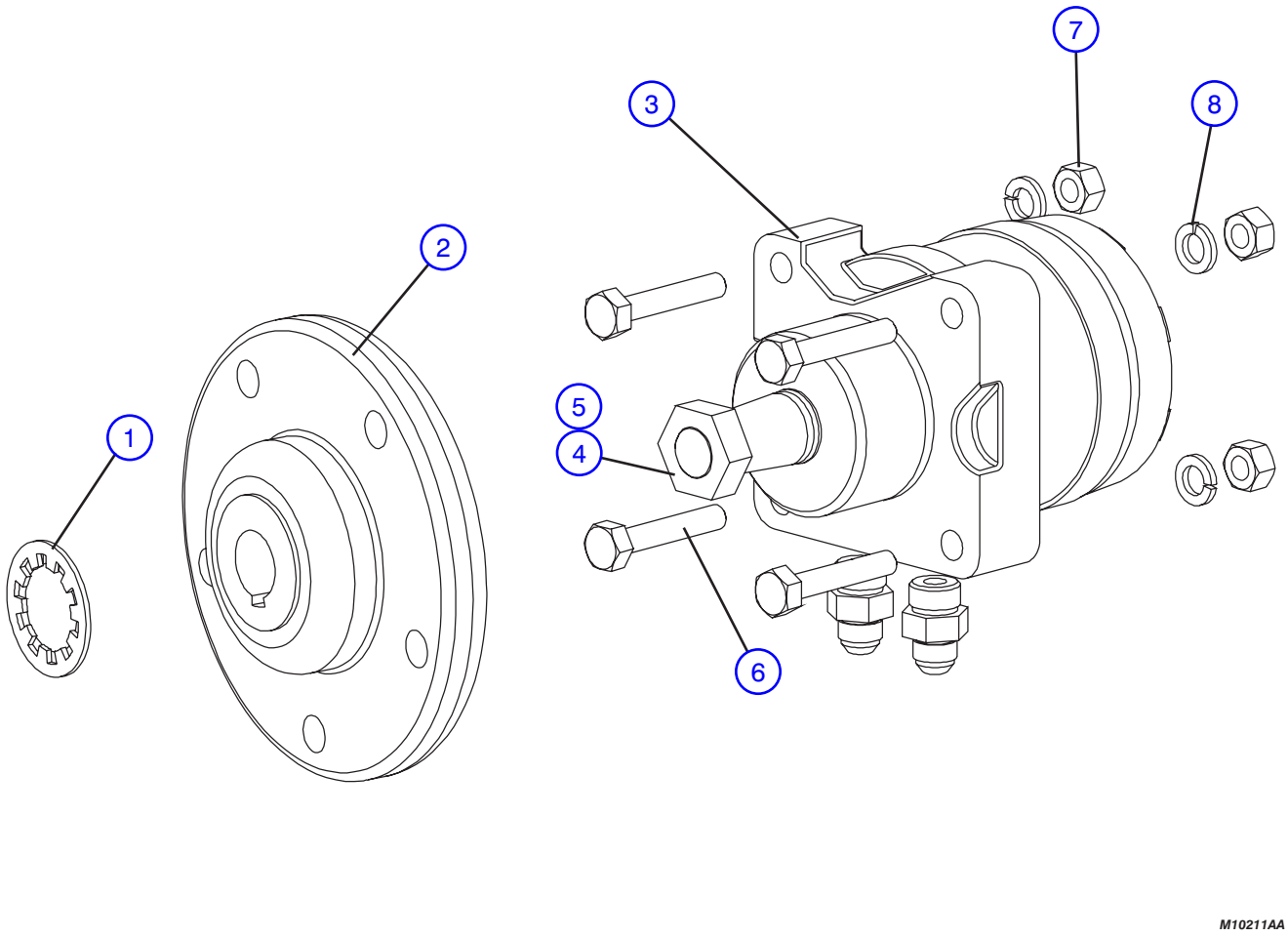


Figure 6.3-2. Pothole Protection Device (Continued)

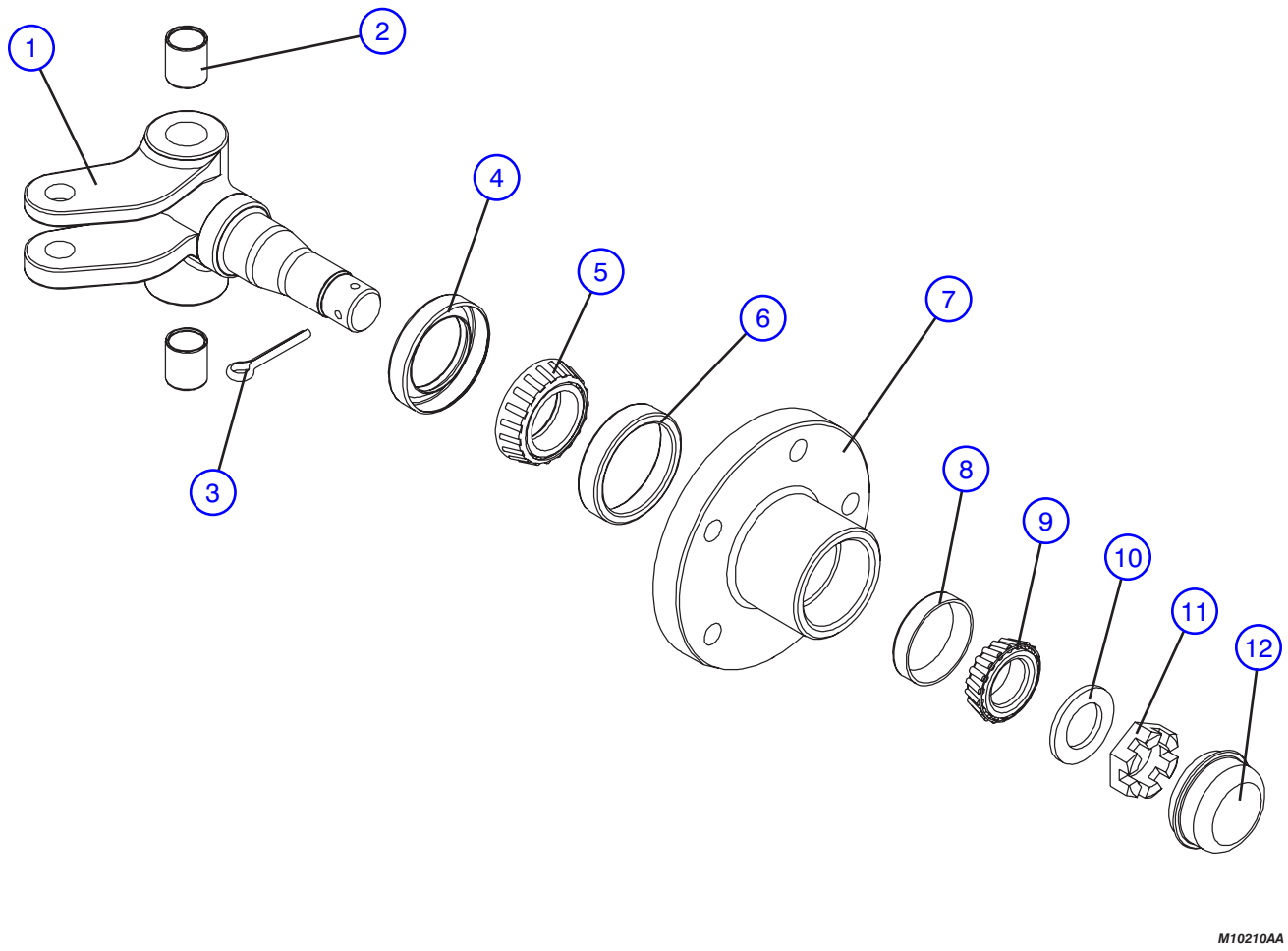
Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
36	600517	2	MOUNT, Limit switch
37	125888	1	SWITCH ASSEMBLY, Pothole device limit
	125886	1	• SWITCH, Limit pothole battery tray
	125885	1	• SWITCH, Limit pothole hydraulic tray
38	600427	4	WASHER, Lock (M5) NOM
39	600428	4	SCREW, Machine (HD M4-0.7x25)
40	600474	6	PLUG, Slider
41	600419	1	FLAP WELDMENT, Battery tray
42	600417	1	FLAP WELDMENT, Hydraulic tray
43	(Ref.)	-	HARDWARE, Flap weldment retaining
	103473	4	• BOLT, Hex head (3/8-16 x 1” lg.)
44	600383	4	PIN, Lever
45	100446	2	PIN, Eccentric
46	600516	2	PIN, Tray spring guide

Figure 6.3-3. Rear Hub & Wheel Motor Assembly



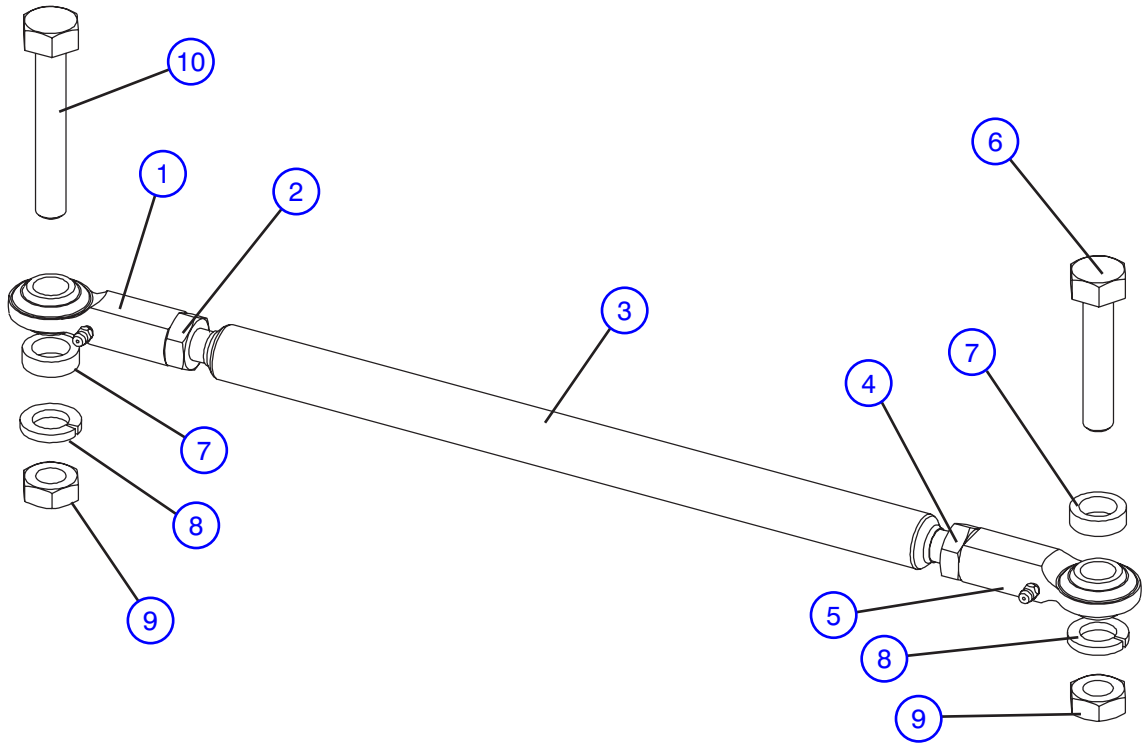
Index No.	Skyjack Part No.	Qty.	Description
A	125795	-	REAR HUB ASSEMBLY
1	103789	1	• WASHER, Lock toothed (1”)
2	107912	1	• HUB, Rear shaft (1-1/4”)
3	103129	1	MOTOR, Wheel drive
-	104212	1	• KIT, Seal
4	106451	1	• NUT, Hex jam (1”- 20)
5	103789	1	• WASHER, Lock (1”)
6	600554	4	BOLT, Hex head (M12-1.75x65)
7	600555	4	NUT, Hex head jam (M12-1.75)
8	600549	4	WASHER, Lock (M12)

Figure 6.3-4. Front Hub & Spindle Assembly



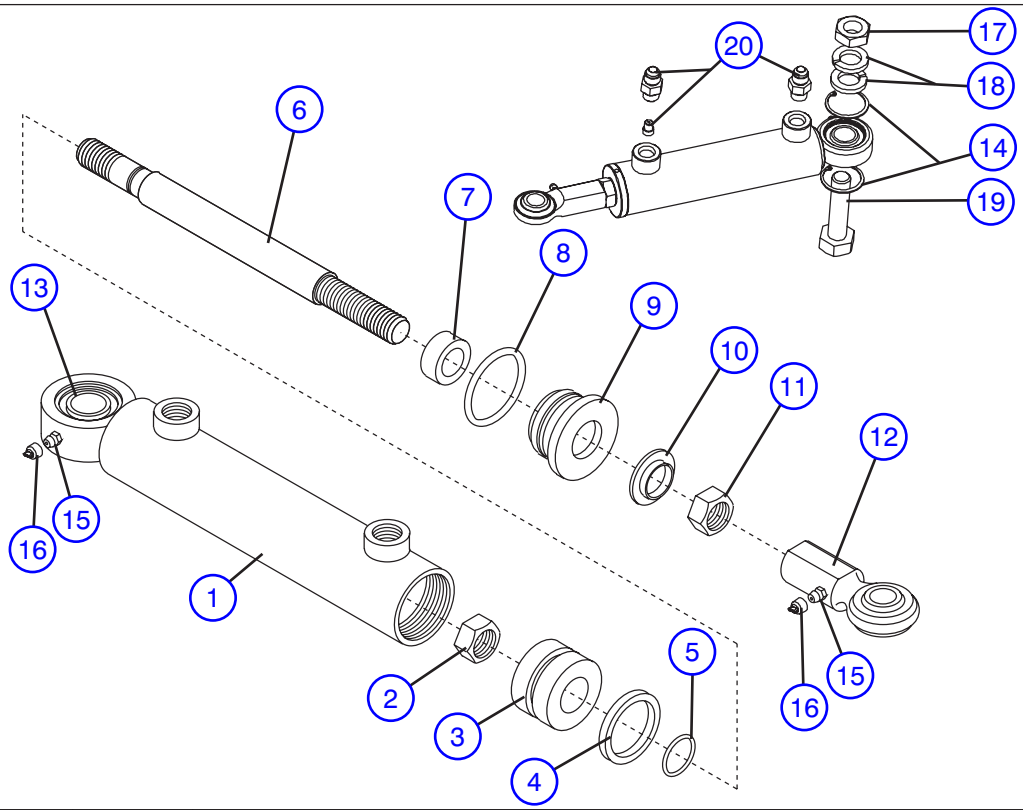
Index No.	Skyjack Part No.	Qty.	Description
A	125792	-	FRONT HUB & SPINDLE ASSEMBLY
1	125806	1	• Spindle, Casting, modification
2	100050	2	• BUSHING, Fiberglide
-	107909	1	• HUB ASSEMBLY, Front
3	103085	1	• • PIN, Cotter
4	103144	1	• • SEAL, Grease
5	103009	1	• • BEARING, Inner cone
6	102978	1	• • BEARING, Inner cup
7	102833	1	• • HUB, Front 5 bolt
8	102977	1	• • BEARING, Outer cup
9	103003	1	• • BEARING, Outer cone
10	102829	1	• • WASHER, Flat
11	102749	1	• • NUT, Castle (1” - 14)
12	102865	1	• • CAP, Dust

Figure 6.3-5. Tie Rod Assembly



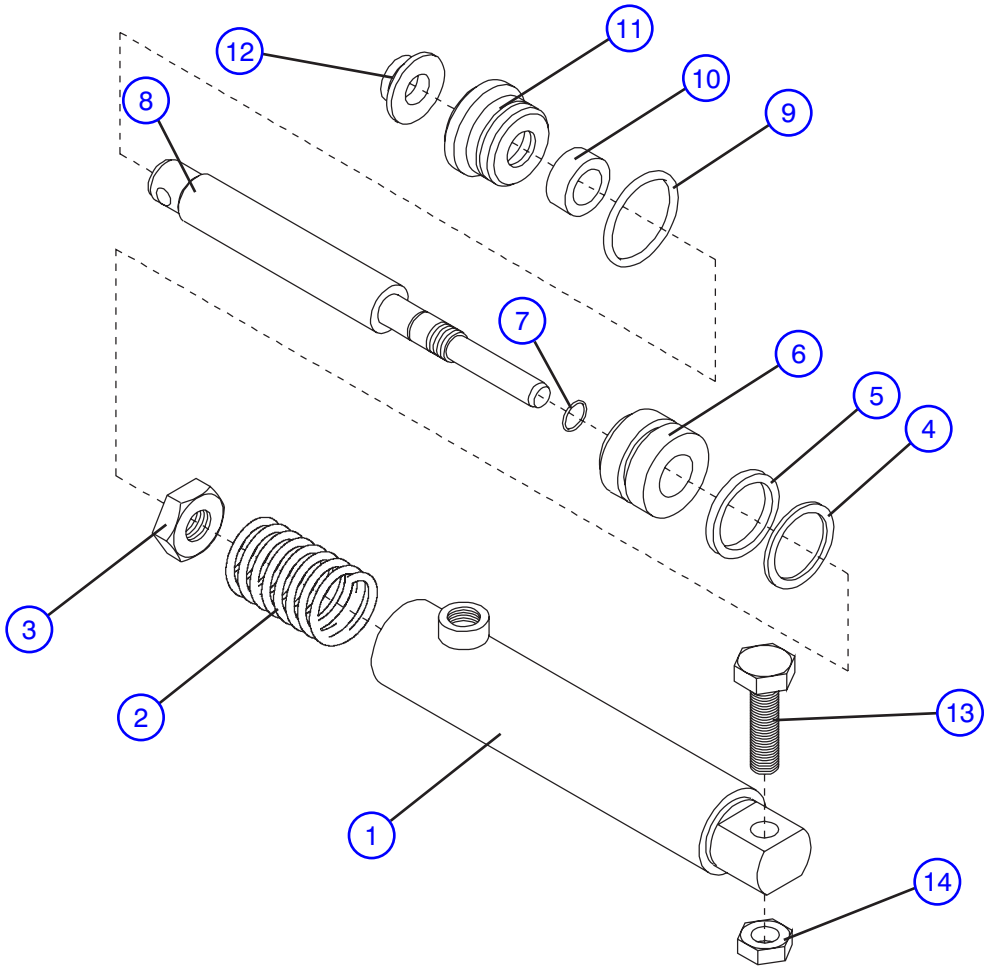
Index No.	Skyjack Part No.	Qty.	Description
A	125728	-	TIE ROD ASSEMBLY
-	125472	1	• ROD, Tie
1	115281	1	• • END, Female (LH Thread)
2	100855	1	• • NUT, Hex head Jam (5/8 - 18 (LH))
3	125469	1	• • BAR, Tie rod
4	100846	1	• • NUT, Hex head Jam (5/8 - 18 (RH))
5	100847	1	• • END, Female (RH Thread)
6	125747	1	• BOLT, Hex head (5/8” - 11 x 2 3/4”)
7	100856	2	• SPACER
8	103998	2	• WASHER, Lock (5/8”)
9	103982	2	• NUT, Hex head (5/8” - 11)
10	107797	1	• BOLT, Hex head (5/8” - 11 x 3 1/2”)

Figure 6.3-6. Steer Cylinder Assembly



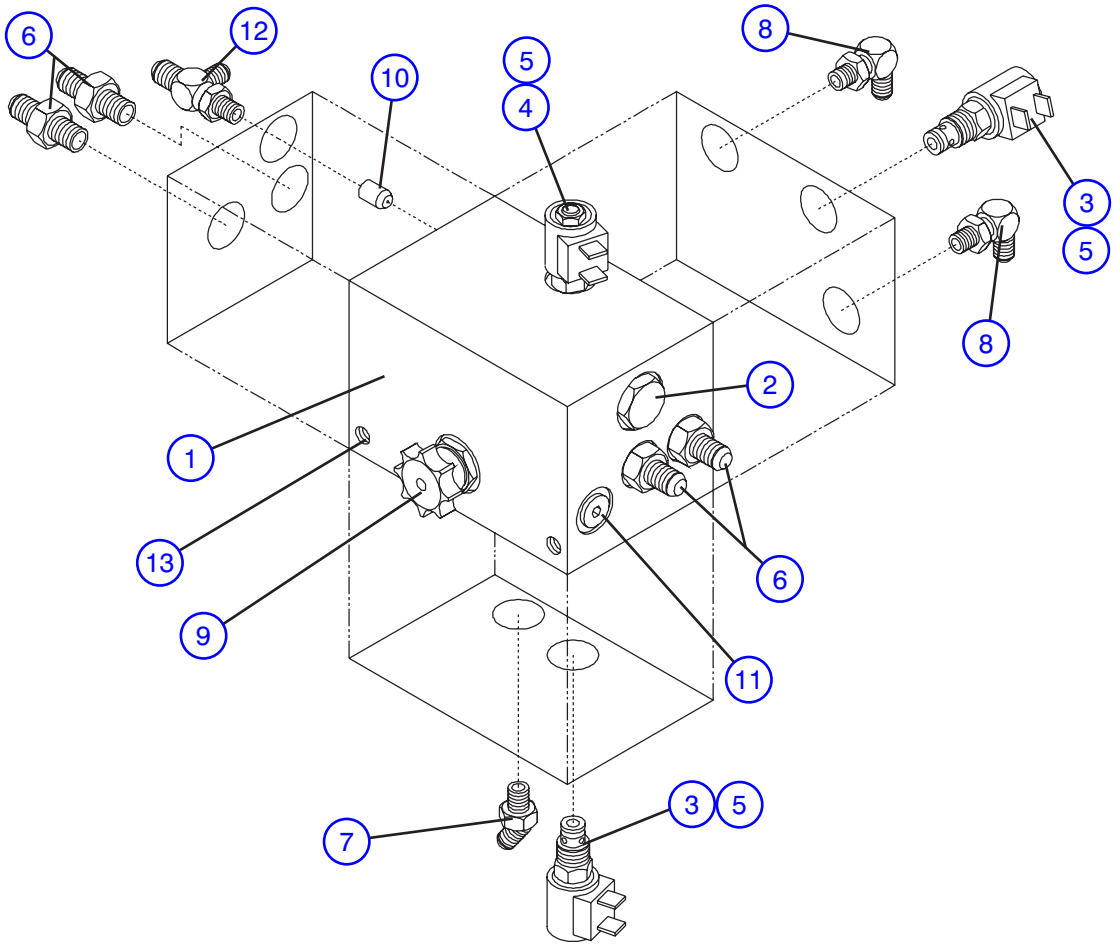
Index No.	Skyjack Part No.	Qty.	Description
A	120236	-	CYLINDER ASSEMBLY, Steer
1	120235	1	• BARREL, Steer cylinder
2	103830	1	• NUT, Hex head (5/8-11 Grade C)
3	118844	1	• PISTON, Steer cylinder
*4	103825	1	• SEAL, Piston
*5	110976	1	• O-RING, Rod
6	117047	1	• ROD, Piston
*7	103826	1	• SEAL, Rod
*8	120436	1	• O-RING, Gland
9	120148	1	• GLAND, Cylinder
*10	103827	1	• WIPER, Rod
11	100846	1	• NUT, Jam 5/8-18
12	100847	1	• END, Cylinder rod
13	102025	1	• BEARING, Spherical
14	104114	2	• RING, Retaining
15	103513	1	• FITTING, Grease
16	132565	2	• CAP, Grease fitting
17	100252	1	NUT, Hex head jam (3/4”-10)
18	104002	2	WASHER, Lock (3/4”)
19	119310	1	BOLT, Hex head (3/4”-10 x 2-3/4”)
20	(Ref.)	-	FITTINGS, Hydraulic (For components, refer to Figure 6.3-9)
*	105816	AR	KIT, Seal repair

Figure 6.3-7. Brake Cylinder Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	120220	-	CYLINDER ASSEMBLY, Brake
1	120153	1	• BARREL, Brake cylinder
2	102844	1	• SPRING, Brake return
3	103830	1	• NUT, Lock 5/8-11 grade C
4	120368	1	• RING, Back-up
*5	111295	1	• SEAL, Piston
6	121178	1	• PISTON, Brake cylinder
*7	110976	1	• O-RING, Rod
8	120154	1	• ROD, Brake
*9	120436	1	• O-RING, Gland
*10	103826	1	• SEAL, Rod
11	120148	1	• GLAND
*12	103827	1	• WIPER, Rod
13	103897	1	BOLT, Hex head (5/8” - 11 x 2”)
14	103982	1	NUT, Hex head (5/8” - 11)
*	105816	AR	KIT, Seal repair

Figure 6.3-8. Rear Drive Manifold Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	108301	-	MANIFOLD ASSEMBLY, Rear drive
1	108195	1	• BLOCK, Manifold
	108052	8	• • PLUG, Expander
2	103354	1	• VALVE, Flow divider/combiner
3	103623	2	• VALVE, N.O. (speed)
4	104132	1	• VALVE, N.C. (differential)
5	103605	3	• COIL, 24 Volt
6	104402	4	• FITTING, Adapter (#10 orb - #8)
7	114580	1	• FITTING, Elbow (45° #6 orb - #6)
8	114578	2	• FITTING, Elbow (90° #6 orb - #6)
9	103136	1	• VALVE, Free-wheeling
10	104434	1	• ORIFICE (0.040 dia.)
11	104437	1	• PLUG, O-ring manifold
12	114581	1	• FITTING, Tee (#6 orb - #6 - #6)
13	103874	2	BOLT, Hex head (3/8-16 x 2-3/4" lg.)
	126068	2	SPACER, Tube **(Model 3220M)**
	103999	2	WASHER, Lock (3/8")
	103472	2	WASHER, Flat (3/8" SAE)

Figure 6.3-9. Hydraulic Hose Connections

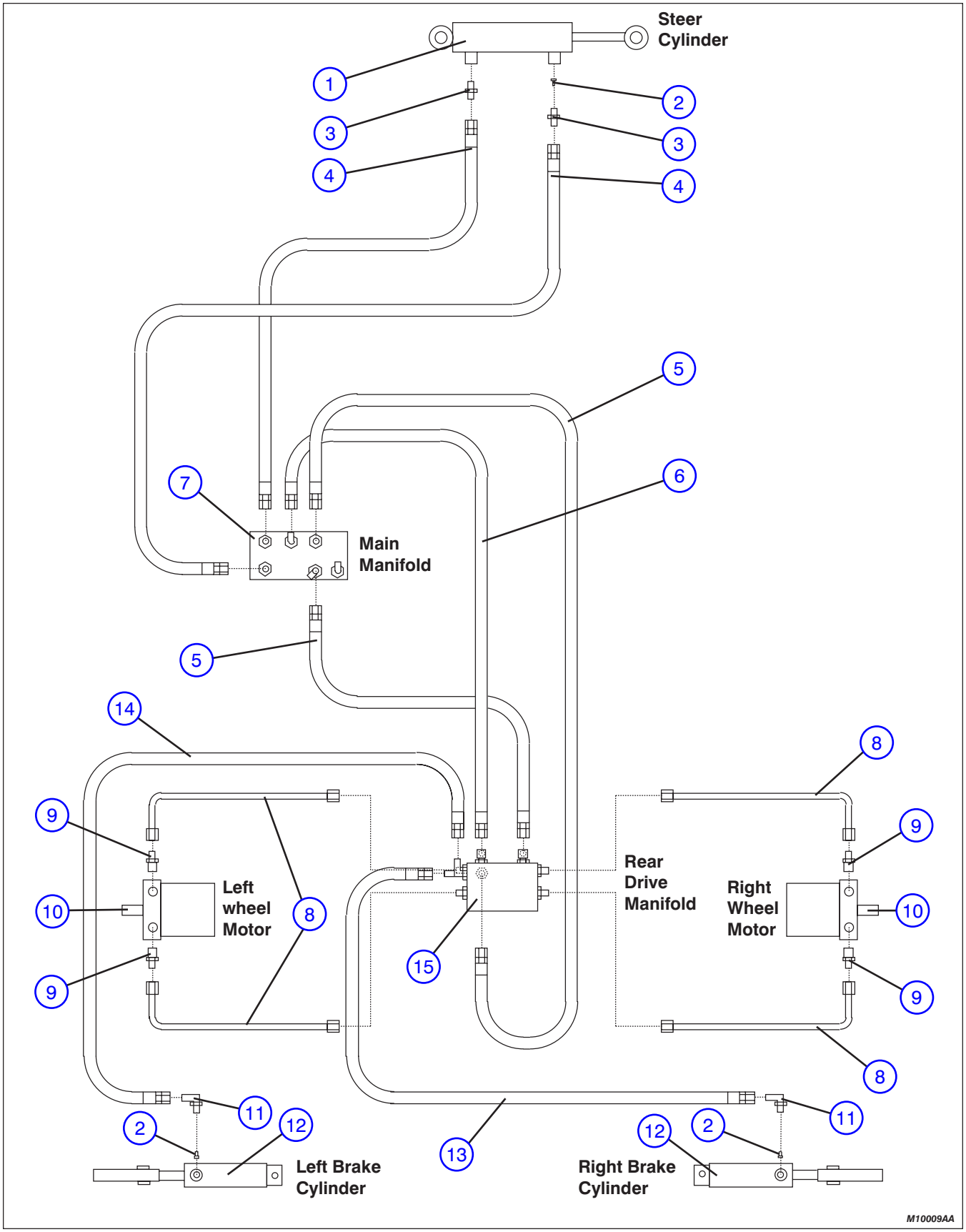


Figure 6.3-9. Hydraulic Hose Connections

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	CYLINDER ASSEMBLY, Steer (For components, refer to Figure 6.3-6)
2	105811	3	ORIFICE (0.040 dia.)
3	103069	2	FITTING, Connector (#6 orb - #6)
4	102616	2	HOSE ASSEMBLY, Steer
5	102611	2	HOSE ASSEMBLY, Drive
6	104487	1	HOSE ASSEMBLY, Brake supply
7	(Ref.)	-	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6.4-4)
8	125497	4	TUBE ASSEMBLY, Drive motor
9	103071	4	FITTING, Adapter (#10 orb - #8)
10	103129	2	MOTOR, Hydraulic drive
11	114578	2	FITTING, Elbow (90° #6 orb - #6)
12	(Ref.)	-	CYLINDER ASSEMBLY, Brake (For components, refer to Figure 6.3-7)
13	102540	1	HOSE ASSEMBLY, Brake (RH)
14	126015	1	HOSE ASSEMBLY, Brake (LH)
15	(Ref.)	-	MANIFOLD ASSEMBLY, Rear drive (For components, refer to Figure 6.3-8)

Figure 6.3-10. Base Control Box Option

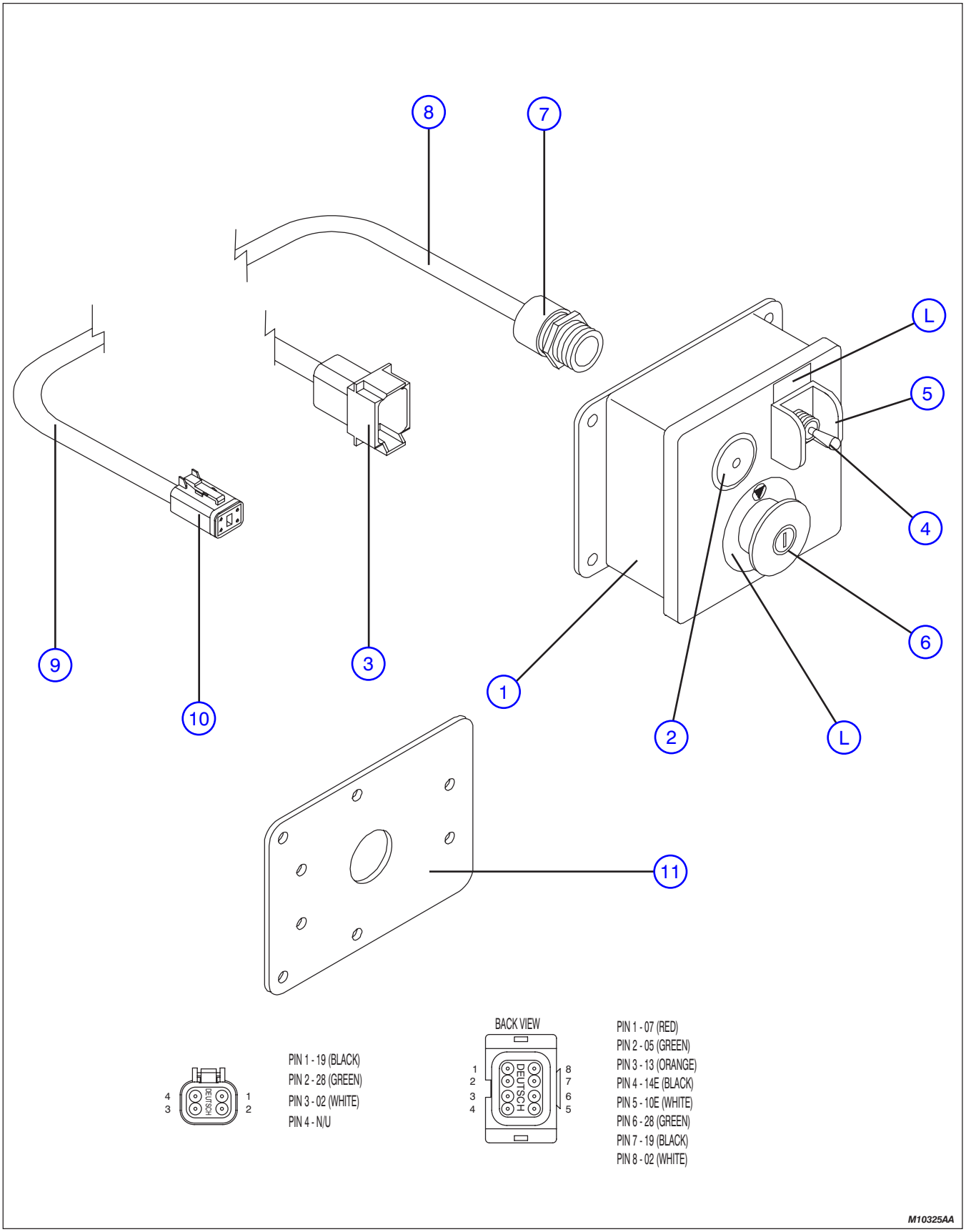


Figure 6.3-10. Base Control Box Option

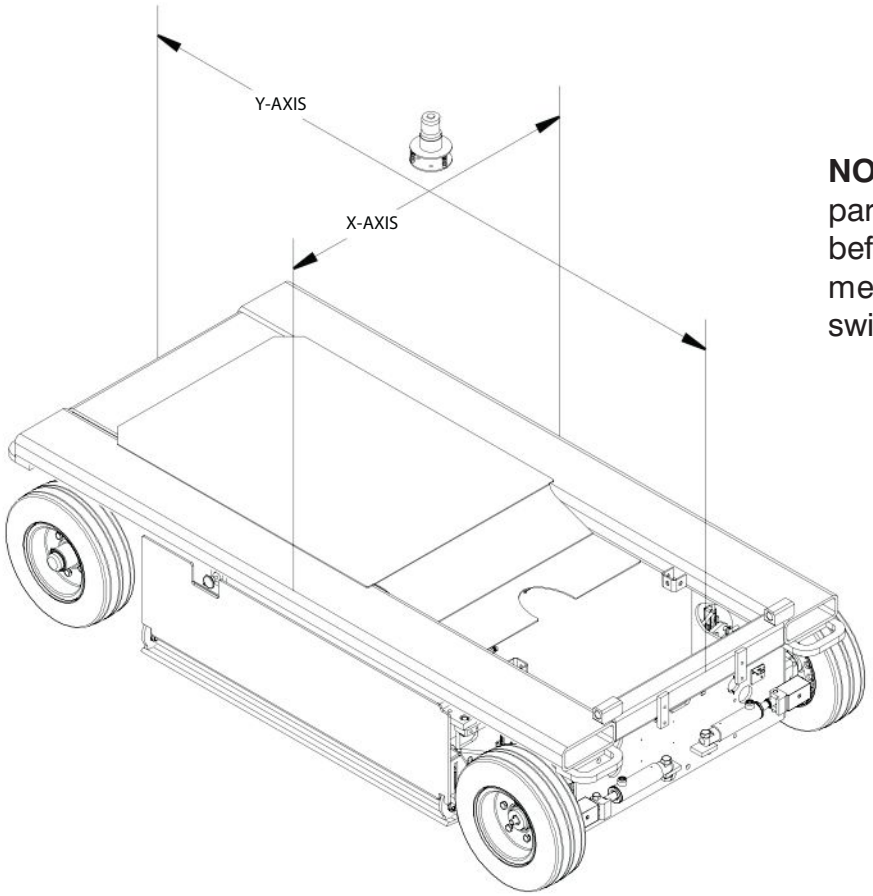
Index No.	Skyjack Part No.	Qty.	Description
A	121993	-	BOX ASSEMBLY, Base control
1	115538	1	• BOX, Base control
	103857	4	• • BOLT, Hex head (1/4-20 x 1” lg.)
	103980	4	• • NUT, Hex head (1/4-20”)
	103995	4	• • WASHER, Flat (1/4”)
	104000	4	• • WASHER, Lock (1/4”)
2	102956	1	• PLUG, Hole (7/8”)
3	119131	1	• KIT-4 POLE, Deutsch plug
4	102853	1	• SWITCH, Toggle
5	111181	1	• GUARD, Toggle switch
6	(Ref.)	-	• SWITCH ASSEMBLY, Emergency stop
	102769	1	• • HEAD, Stop switch
	103100	1	• • BASE, Contact
	103225	1	• • BLOCK, N.C. Contact
7	103041	1	• STRAIN RELIEF, Cord (1/2”)
8	103260	34”	• CORD (18/5)
9	103257	12”	• CORD (18/3)
10	119132	1	• KIT-8 POLE, Deutsch plug
11	126689	1	• PLATE, Adapter (If Equipped)
L	(Ref.)	-	• LABELS (Refer to Figure 6.7-3)

Notes

Figure 6.3-11. Tilt Usage Chart

Model	CE Models	
	Serial Numbers	**Tilt switch** (X Axis° x Y Axis°)
		124138 (1.5° x 3.5°)
3220M	Current Production	X
3226M	Current Production	X

60041AD-M



NOTE: Ensure the platform is parked on a flat level surface before performing any adjustments or repairs to the tilt switch assembly.

M10196AA

Figure 6.4-1. Hydraulic/Electric Tray Assembly

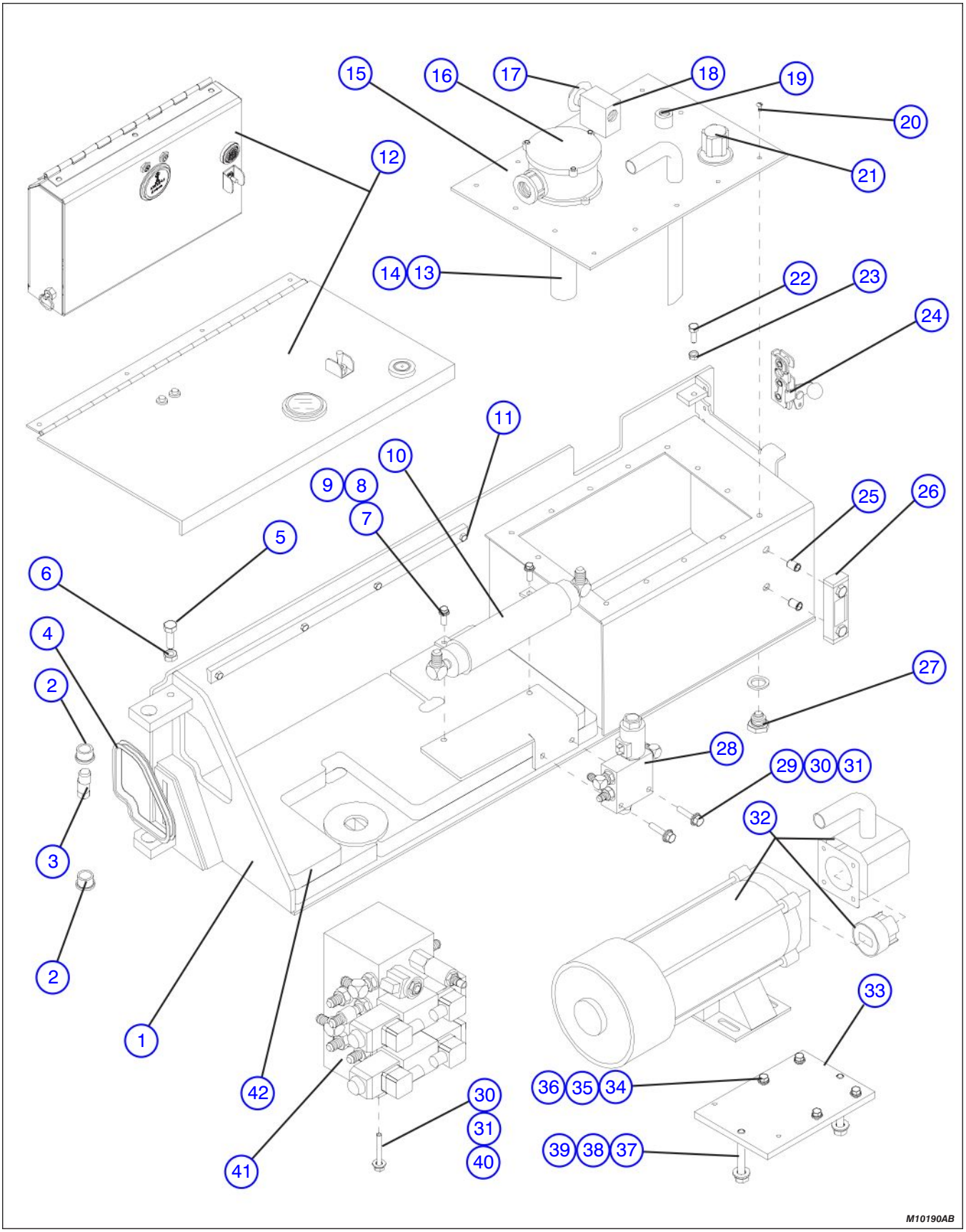


Figure 6.4-1. Hydraulic/Electric Tray Assembly

Index No.	Skyjack Part No.	Qty.	Description
			NOTE: For Pothole Protection Device Parts, Refer to Figure 6.3-2
1	137009	1	WELDMENT, Hydraulic/electric tray
2	100335	2	BUSHING, Bronze
3	(Ref.)	-	PIN, Eccentric (For component, refer to Figures 6.5-1)
4	125821	1	PROTECTIVE TRIM
5	600592	1	BOLT, Hex head (M12-1.75 x 40)
6	600422	1	NUT, Hex head jam (M12-1.75)
7	600548	2	BOLT, Hex head (M6-1.0x12)
8	600191	2	WASHER, Lock (M6)
9	600190	2	WASHER, Flat (M6)
10	103831	1	ASSEMBLY, Cushion cylinder and brackets
	124291	1	• CYLINDER, Cushion
	102971	2	• BRACKET, Cylinder mounting
11	600723	4	BOLT, Hex head (M6-1.0x10)
12	(Ref.)	-	PANEL ASSEMBLY, Electrical (For component, refer to Figure 6.6-1)
13	102918	1	HOSE, Tank (1”)
14	103320	1	CLAMP, Worm (#16)
15	600209	1	COVER, Hydraulic tank
16	109568	1	FILTER ASSEMBLY, Return
	103864	2	• BOLT, Hex head (5/16-18 x 1” lg.)
	104254	1	• ELEMENT, Filter
	123022	1	• SEAL, Filter assembly
	123021	1	• COVER, Filter assembly
	123020	1	• SPRING, Filter assembly
	122973	1	• CASTING, Aluminum
	121571	1	• SCREW, Set
	122969	3	• BOLT, Washer combined
	122968	1	• CASING, Filter
17	107271	1	VALVE, Pull-type lowering
18	107493	1	MANIFOLD, Lowering valve
19	104437	1	PLUG, O-ring
20	600540	14	BOLT, Hex head (M5-0.8 x 12)
21	102693	1	CAP W/GASKET, Filler/breather
	103962	3	• SCREW, Machine (#10-32 x 1/2” lg.)
22	600634	1	SCREW, Hex head (M10-1.5x25)
23	600593	1	NUT, Hex jam (M10-1.5)
24	600544	1	LATCH ASSEMBLY, Tray (RH)
	102780	1	• LATCH, Tray
	600589	1	• KNOB, Latch
	600548	1	• BOLT, Hex head (M6-1.0 x 12)
	600191	1	• WASHER, Lock (M6)
	600546	3	• BOLT, Hex head (M8-1.25 x 25)
	600188	2	• NUT, Lock (M8-1.25)
	600185	2	• WASHER, Lock (M8)
25	600647	2	INSERT, Threaded (Not needed if ordering gauge assembly)
			Parts list continued on the following page.

Figure 6.4-1. Hydraulic/Electric Tray Assembly (Continued)

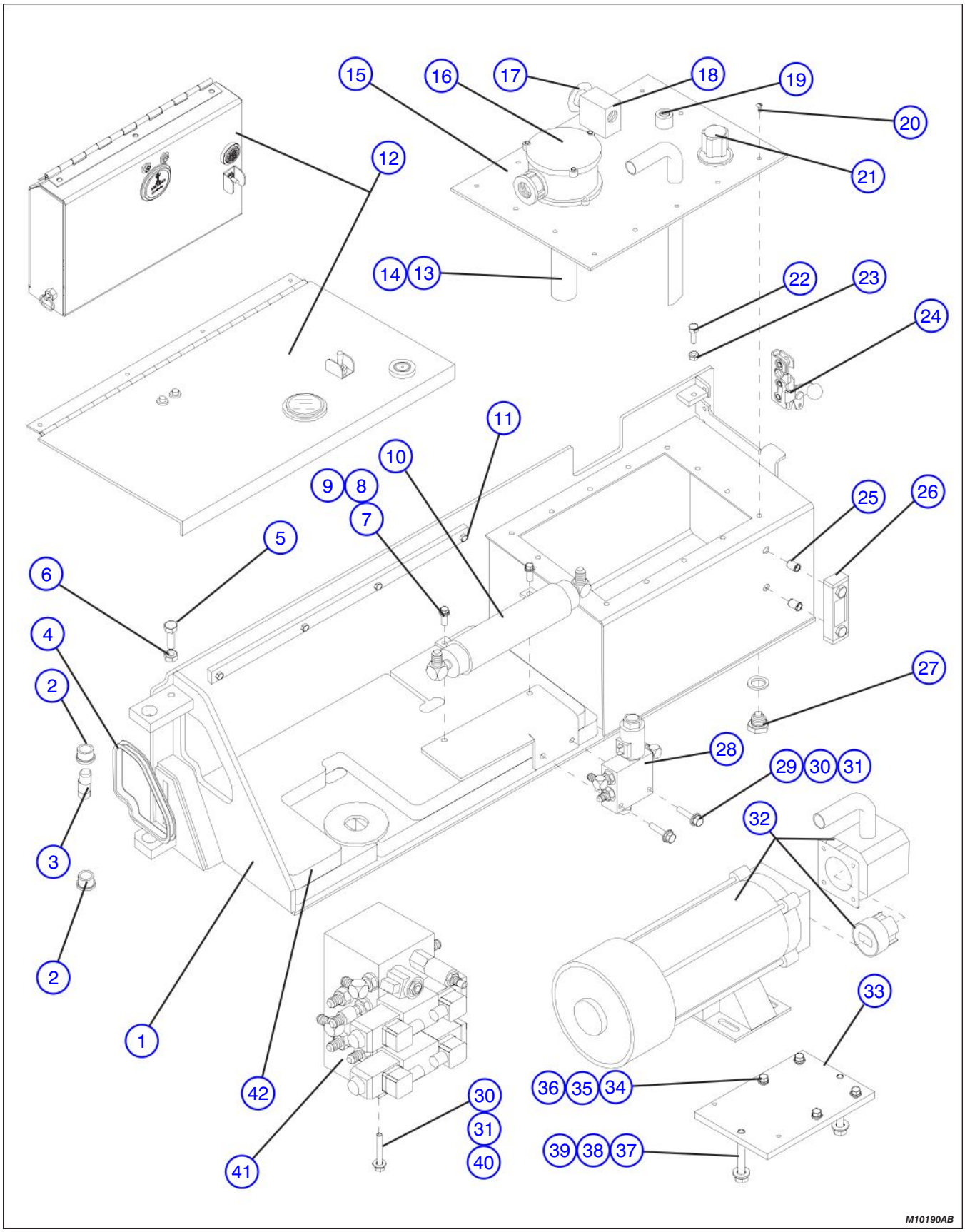
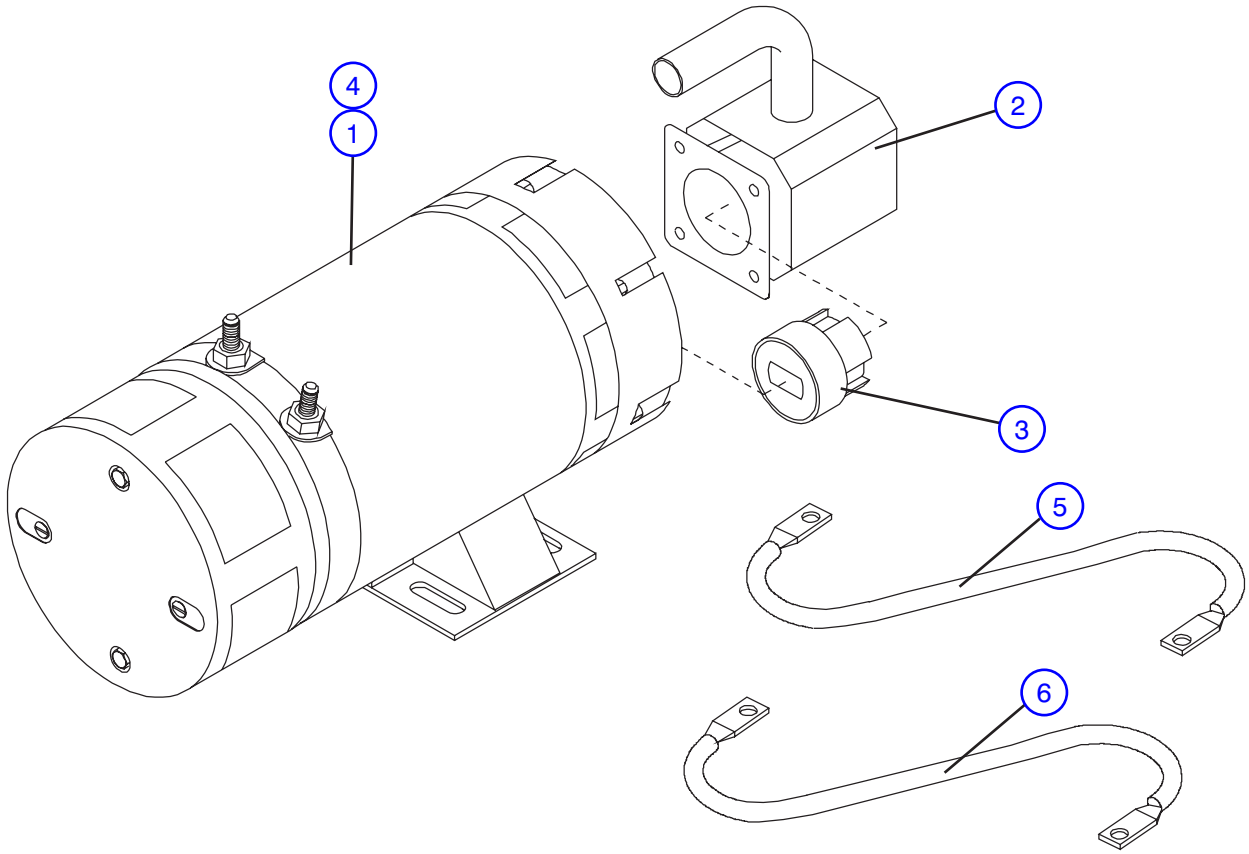


Figure 6.4-1. Hydraulic/Electric Tray Assembly (Continued)

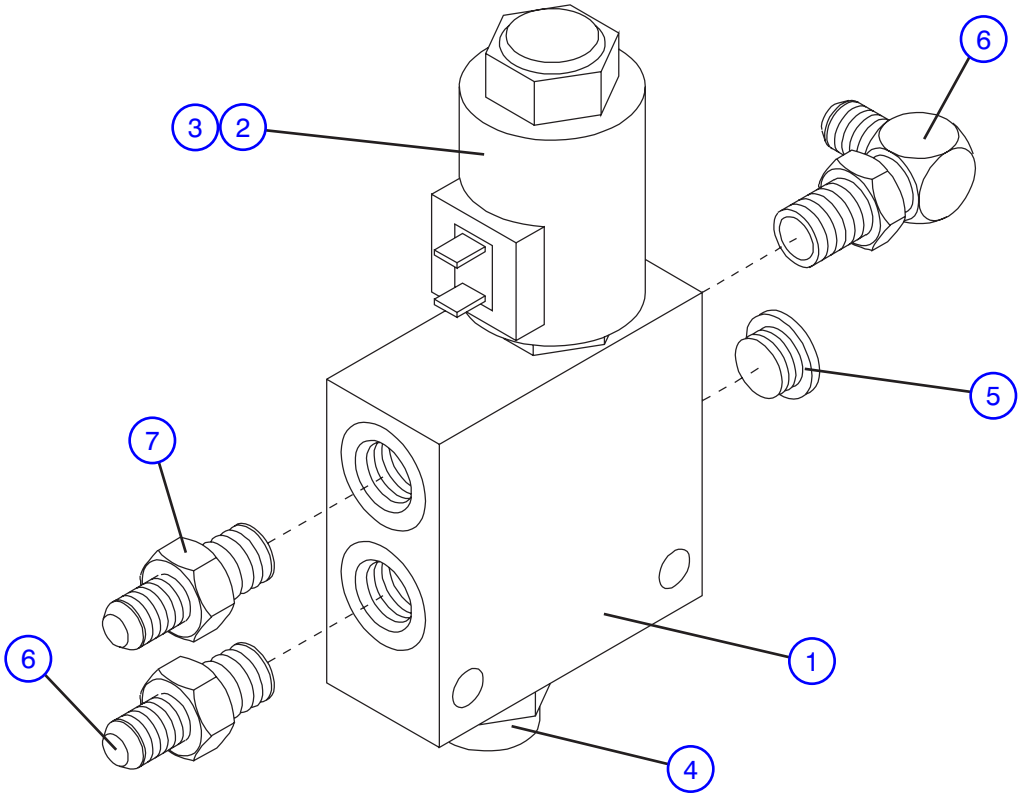
Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
26	103236	1	GAUGE, Oil level/temperature
27	600594	1	FITTING, Magnetic drain plug
28	(Ref.)	-	MANIFOLD ASSEMBLY, Proportional control (For components, refer to Figure 6.4-3)
29	600550	2	BOLT, Hex head (M10-1.5 x 50)
30	600315	3	WASHER, Flat (M10)
31	600553	3	WASHER, Lock (M10)
32	(Ref.)	-	PUMP AND MOTOR ASSEMBLY (For components, refer to Figure 6.4-2)
33	600543	1	PLATE, Motor mounting
34	600547	4	BOLT, Hex head (M8-1.25 x 20)
35	600184	4	WASHER, Flat (M8)
36	600185	4	WASHER, Lock (M8)
37	600551	2	BOLT, Hex head (M12-1.75 x 90)
38	600426	2	WASHER, Flat (M12)
39	600549	2	WASHER, Lock (M12)
40	103873	1	BOLT, Hex head (3/8”-16 x 2 1/2” lg.)
41	(Ref.)	-	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6.4-4)
42	600463	1	WEIGHT ASSEMBLY

Figure 6.4-2. Pump And Motor Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	123475	-	PUMP & MOTOR ASSEMBLY **(Model 3220M)**
B	123476	-	PUMP & MOTOR ASSEMBLY **(Model 3226M)**
1	123477	1	MOTOR, 24 Volt DC
2	106577	1	PUMP, Hydraulic, **A**
	106587	1	PUMP, Hydraulic, **B**
3	703183	1	COUPLER (includes seals)
4	-	1	MOTOR Hardware
	122967	1	• BRUSH KIT (Includes Brushes and Springs)
	103845	4	• BOLT, Hex head (5/16-18 x 1/2” lg.)
	103996	4	• WASHER, Flat (5/16”)
	103404	4	• WASHER, Lock (5/16”)
5	124323	1	CABLE, Motor/Main Contactor (#4 5/16 x 35 x 3/8)
6	124325	1	CABLE, Motor/Battery (#4 5/16 x 116 x 3/8)

Figure 6.4-3. Proportional Control Manifold Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	115310	-	MANIFOLD ASSEMBLY, Proportional control
1	115349	1	• BLOCK, Proportional manifold
2	115351	1	• VALVE, Proportional
3	115370	1	• COIL, 24 Volt (proportional valve)
4	115382	1	• VALVE, Pressure compensator
5	115320	1	• PLUG, Soc-hd #8 orb
6	102665	AR	• FITTING, Elbow (90° #8 orb - #6) (Earlier models)
	103070	AR	• FITTING, Connector straight (#8 orb - #8) (Later models)
7	103070	1	• FITTING, Connector (#8 orb - #8)

Figure 6.4-4. Main Manifold Assembly

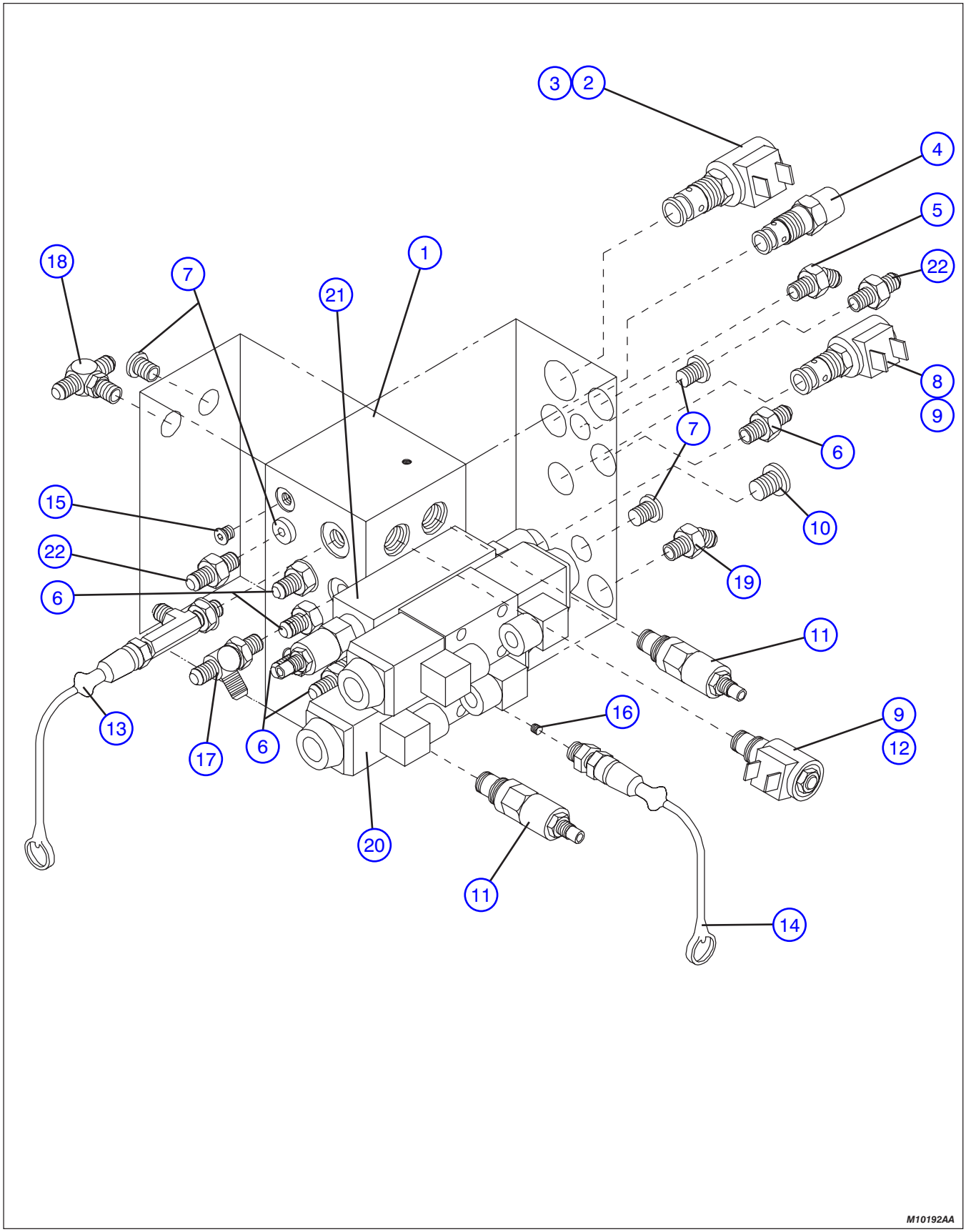


Figure 6.4-4. Main Manifold Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	122272	-	MANIFOLD ASSEMBLY, Main
B	124253	-	• ASSEMBLY, Manifold (Without directional valves)
1	107354	1	• • BLOCK, Main manifold
	108052	9	• • • PLUG, Expander
2	106273	1	• • VALVE, 3-Way (lift)
3	105610	1	• • COIL, 24 Volt
4	104133	1	• • VALVE, Counter balance
5	114580	1	• • FITTING, O ring fitting (45° #6 orb - #6)
6	103069	AR	• • FITTING, Connector (#6 orb - #6)
7	104437	6	• • FITTING, Plug (#6)
8	103623	1	• • VALVE, 3-Way (brake)
9	103605	2	• • COIL, 24 Volt
10	115320	1	• • FITTING, Plug (#8)
11	104534	2	• • VALVE, Relief
12	103655	1	• • VALVE, N.C. (lowering)
13	122427	1	• • KIT, Quick Disconnect
	122385	1	• • • QUICK DISCONNECT, Coupler
	114521	1	• • • CAP, Dust
	122364	1	• • • FITTING, Tee (#6 - #6 - #6)
14	122420	1	• • KIT, Quick Disconnect
	122385	1	• • • QUICK DISCONNECT, Coupler
	114521	1	• • • COVER, Quick disconnect dust
	122428	1	• • • FITTING, (#6 - #6)
15	102856	1	• • FITTING, Plug (#3)
16	104419	1	• • FITTING, Plug (1/16” NPT)
17	114581	1	• • FITTING, Tee (#6 orb - #6 - #6)
18	114579	1	• • FITTING, Tee (#6 orb - #6 - #6)
19	114578	1	• • FITTING, Elbow
20	103614	2	• VALVE ASSEMBLY, 24 Volt spool (drive and steer)
	103690	4	• • COIL, 24 Volt
	119825	4	• • CONNECTOR, With Diode
	103943	4	• • BOLT, Soc-head (#10 - 24 x 2” lg.) (standard)
21	116188	1	VALVE ASSEMBLY, Drive cross over relief
	115299	1	• MANIFOLD W/RELIEF VALVES, Cross-over
	103922	4	• • BOLT, Soc-head (#10 - 24 x 3” lg.)
	121877	1	• MANIFOLD W/RELIEF VALVES, Cross-over
	103922	4	• BOLT, Soc-head (#10 - 24 x 3” lg.)
22	701956	2	FITTING, Connector (#6 orb - #4) (Machines with powered extension platform)
			Use part #103069 for machines prior to S/N 613588 (3220).

Figure 6.4-5. Hydraulic Hose Connections - Hydraulic/Electric Tray

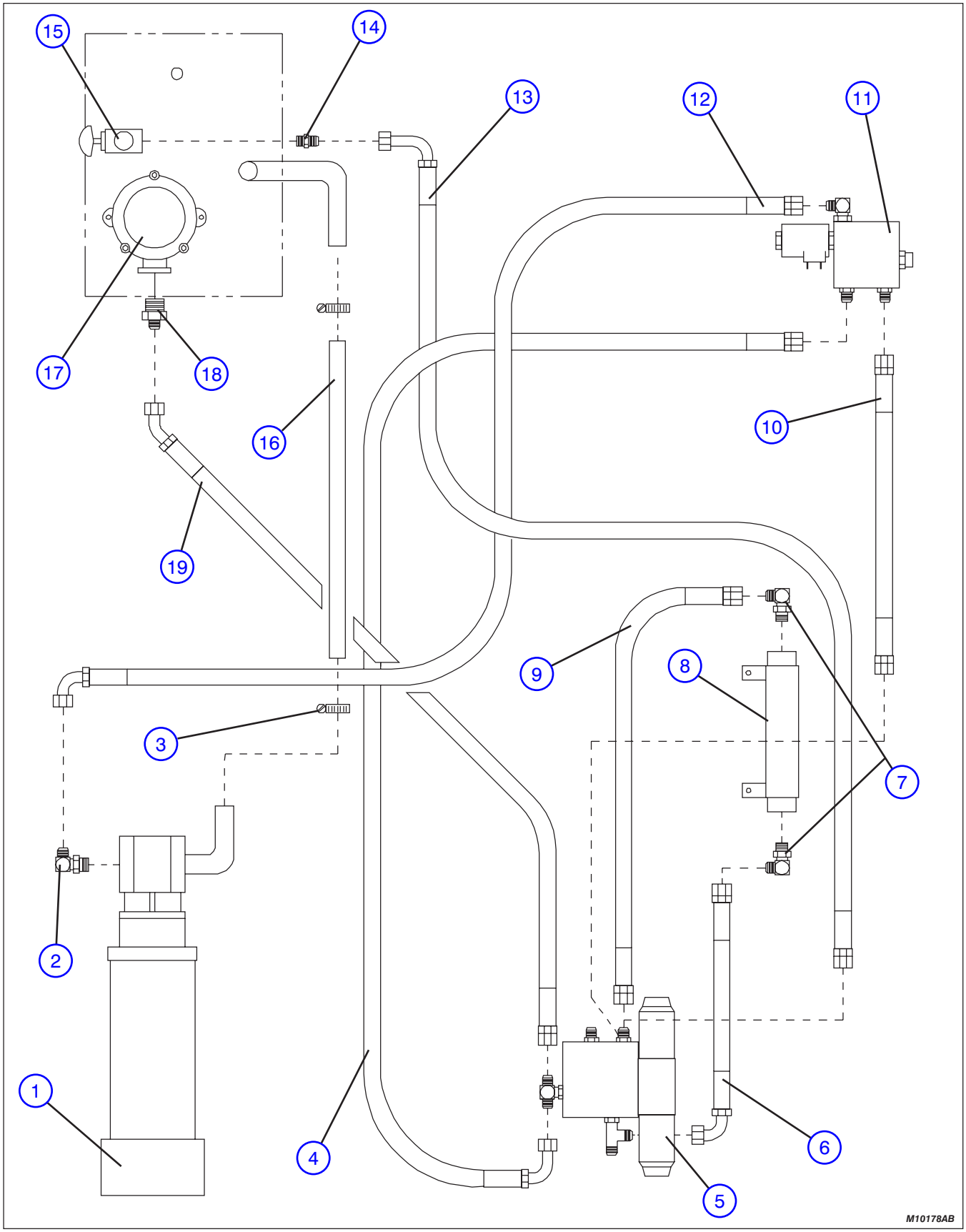


Figure 6.4-5. Hydraulic Hose Connections - Hydraulic/Electric Tray

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	PUMP AND MOTOR ASSEMBLY (For components, refer to Figure 6.4-2)
2	102665	1	FITTING, Connector (#12 orb - #6)
3	114402	2	CLAMP, Worm (#12)
4	125487	1	HOSE ASSEMBLY, Proportional manifold to return filter
5	(Ref.)	-	MANIFOLD ASSEMBLY, Main (For components, refer to Figure 6.4-4)
6	126331	1	HOSE ASSEMBLY, Cushion cylinder
7	114578	2	FITTING, Elbow (90° #6 orb - #6)
8	(Ref.)	-	CYLINDER, Cushion (For components, refer to Figure 6.4-1)
9	125491	1	HOSE ASSEMBLY, Cushion cylinder
10	125489	1	HOSE ASSEMBLY, Main manifold to proportional manifold
11	(Ref.)	-	MANIFOLD ASSEMBLY, Proportional control (For components, refer to Figure 6.4-3)
12	125488	1	HOSE ASSEMBLY, Pump to proportional manifold
13	112631	1	HOSE ASSEMBLY, Manual lowering valve manifold
14	103069	1	FITTING, Connector (#6 orb - #6)
15	(Ref.)	-	LOWERING VALVE/MANIFOLD (For components, refer to Figure 6.4-1)
16	119851	1	HOSE, Suction (3/4”)
17	(Ref.)	-	FILTER ASSEMBLY, Return (For components, refer to Figure 6.4-1)
18	109052	1	FITTING, Connector (#12 orb - #6)
19	125486	1	HOSE ASSEMBLY, Filter to main manifold

Figure 6.5-1. Battery Tray Assembly

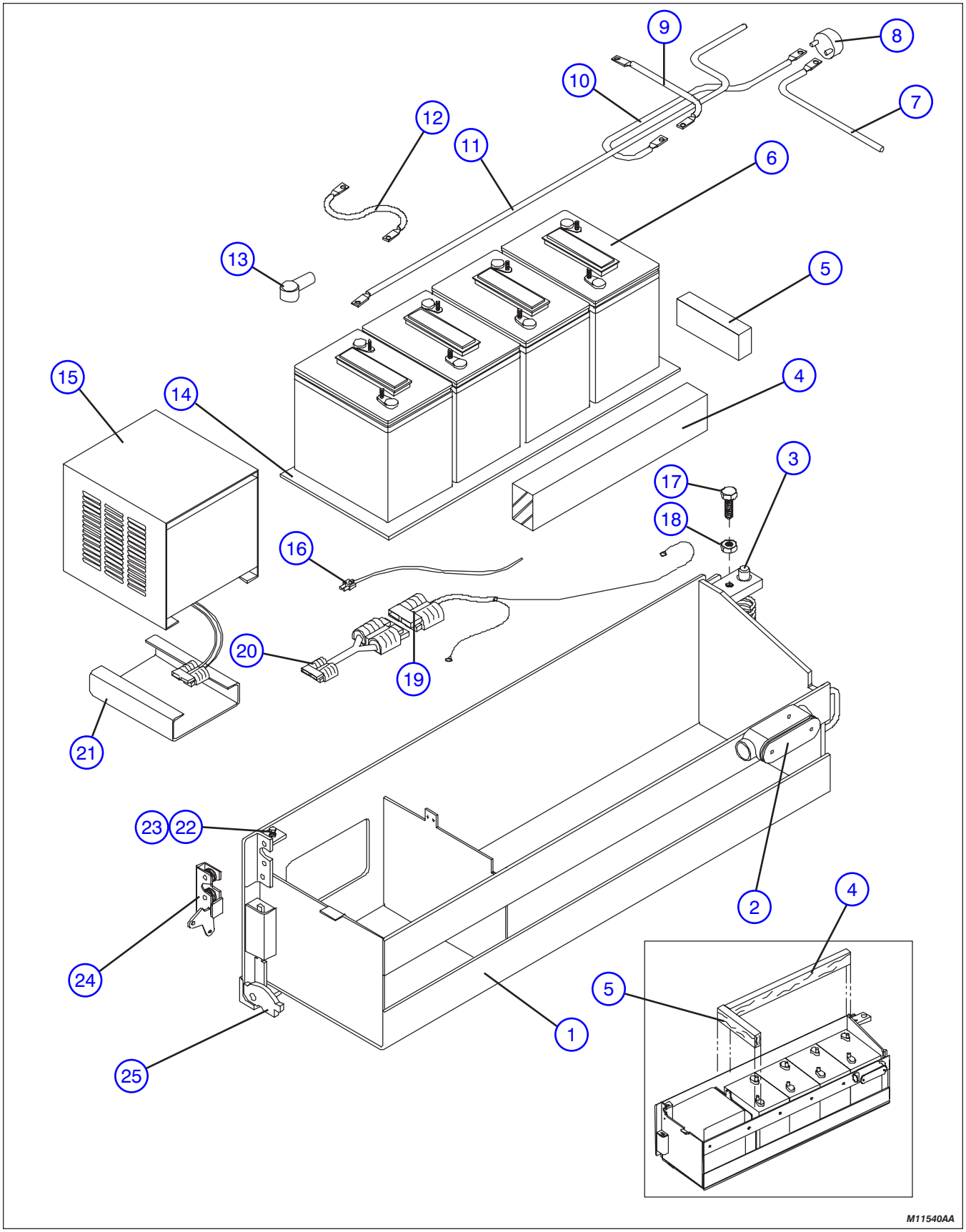


Figure 6.5-1. Battery Tray Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	136517	-	BATTERY TRAY ASSEMBLY (Standard)
1	137012	1	WELDMENT, Battery tray
2	119061	1	HOLDER, Fuse
	119007	2	• BOLT, Flat head (1/4-20 x 5/8” lg.)
	103068	2	• INSULATOR, Fuse
	117619	1	• FUSE, 300 Amp
	600723	2	• BOLT, Hex head (M6 x 10 gr 8.8)
	600191	2	• WASHER, Lock (M6)
	(Ref.)	-	• LABEL Fuse (Refer to Figure 6.7-3)
3	600591	2	BUSHING, Bronze
	100446	AR	• PIN, Eccentric (Upper)
	118983	AR	• PIN, Tray bottom
4	600559	1	SPACER, Wood (2” x 3” x 28” lg.)
5	600560	1	SPACER, Wood (2” x 3” x 11” lg.)
6	$	4	BATTERY, 6V 220AH
7	120029	1	CABLE ASSEMBLY, Electrical Panel To Emergency Battery Disconnect
8	(Ref.)	-	SWITCH, Emergency Battery Disconnect
		-	(For components, refer to Figure 6.3-1)
9	119547	1	CABLE ASSEMBLY, Battery Positive To Fuse Assembly
10	119548	1	CABLE ASSEMBLY, Fuse Assembly To Emergency Battery Disconnect
11	(Ref.)	-	CABLE ASSEMBLY, Battery Negative To Pump Motor (For components, refer to Figure 6.4-2)
12	120425	3	CABLE, Battery jumper
13	105600	AR	BOOT, Red Battery
	105601	AR	BOOT, Black Battery
	117408	AR	BOOT, Red Battery
	117407	AR	BOOT, Black Battery
14	100440	1	PLYWOOD (3/8” x 10-1/2” x 28-1/2” lg.)
15	(Ref.)	-	CHARGER ASSEMBLY, Battery (For components, refer to Figure 6.5-2)

Parts list continued on the following page.

Figure 6.5-1. Battery Tray Assembly (Continued)

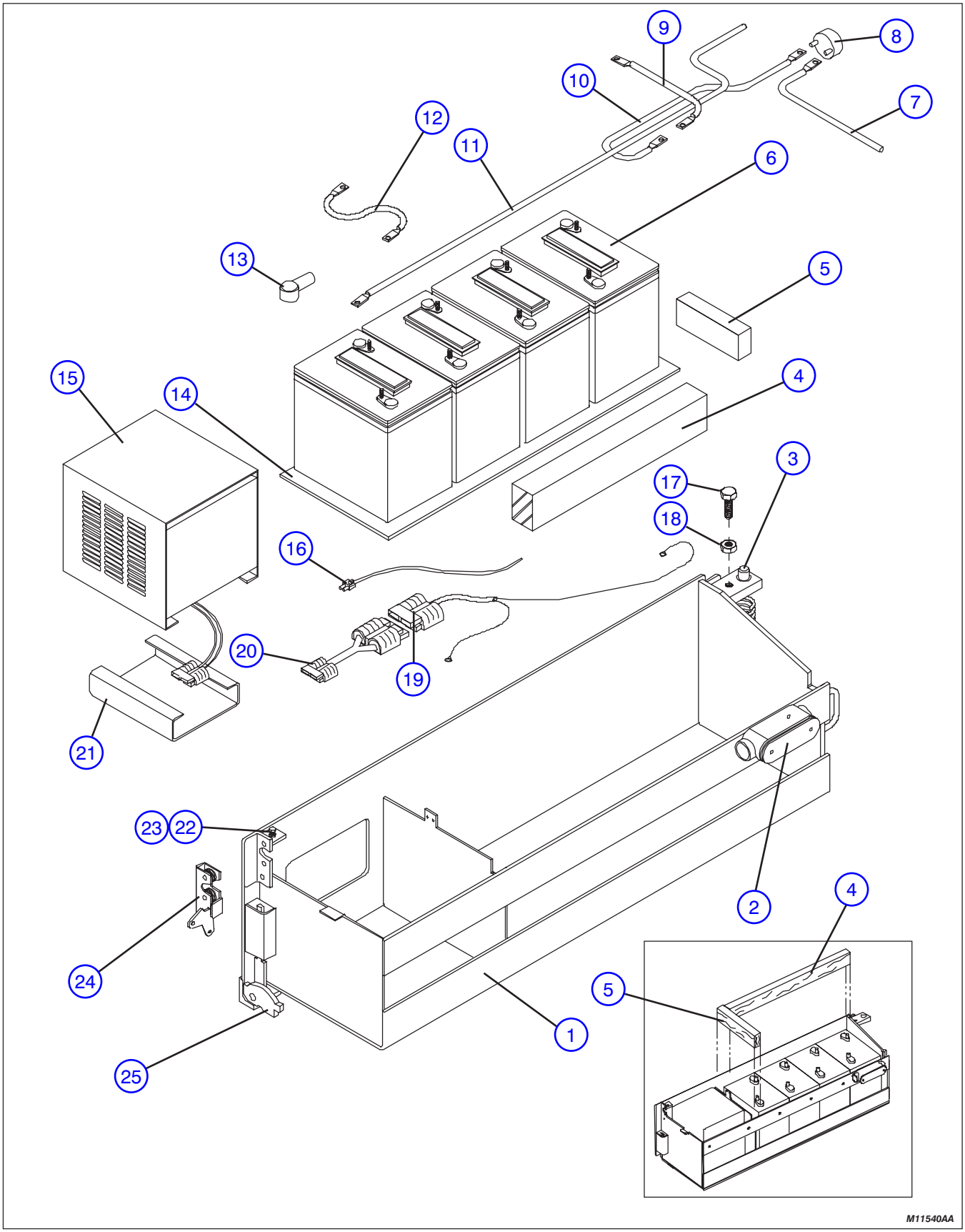


Figure 6.5-1. Battery Tray Assembly (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
16	118949	1	HARNESS, Vehicle Disable Relay
	105269	156”	• CABLE, Cabtire (14/3)
	116992	1	• PLUG, 2-Pole Male (Mate-N-Lock)
	116990	2	• PIN, Female (Mate-N-Lock)
17	600592	1	BOLT, Hex head (M12-1.75 x 40 GR8.8 DIN933)
18	600422	1	NUT, Hex jam (M12-1.75 Grade 04 DIN439B)
19	119583	1	CABLE ASSEMBLY, Battery charger
	103364	1	• PLUG, 50 Amp
20	125381	1	CABLE ASSEMBLY, Charger to battery adapter cable
21	121708	1	BRACKET, Bycan charger
22	125800	1	SCREW, Slotted round head (3/8-16 x 1” GR5)
23	108575	1	NUT, Hex jam (3/8-16 grade B)
24	600605	1	LATCH ASSEMBLY, Tray (LH)
	102781	1	• LATCH
	600589	1	• KNOB, Latch
	600548	1	• BOLT, Hex head (M6-1.0x12)
	600546	3	• BOLT, Hex head (M8-1.25x25)
	600185	1	• WASHER, Lock (M8)
	600188	1	• NUT, Lock (M8-1.25)
	600191	1	• WASHER, (Lock M6)
25	(Ref.)	-	POT HOLE PROTECTION DEVICE (For components, refer to Figure 6.3-2)
			$ **- Purchase locally.**

Figure 6.5-2. Battery Charger Assembly

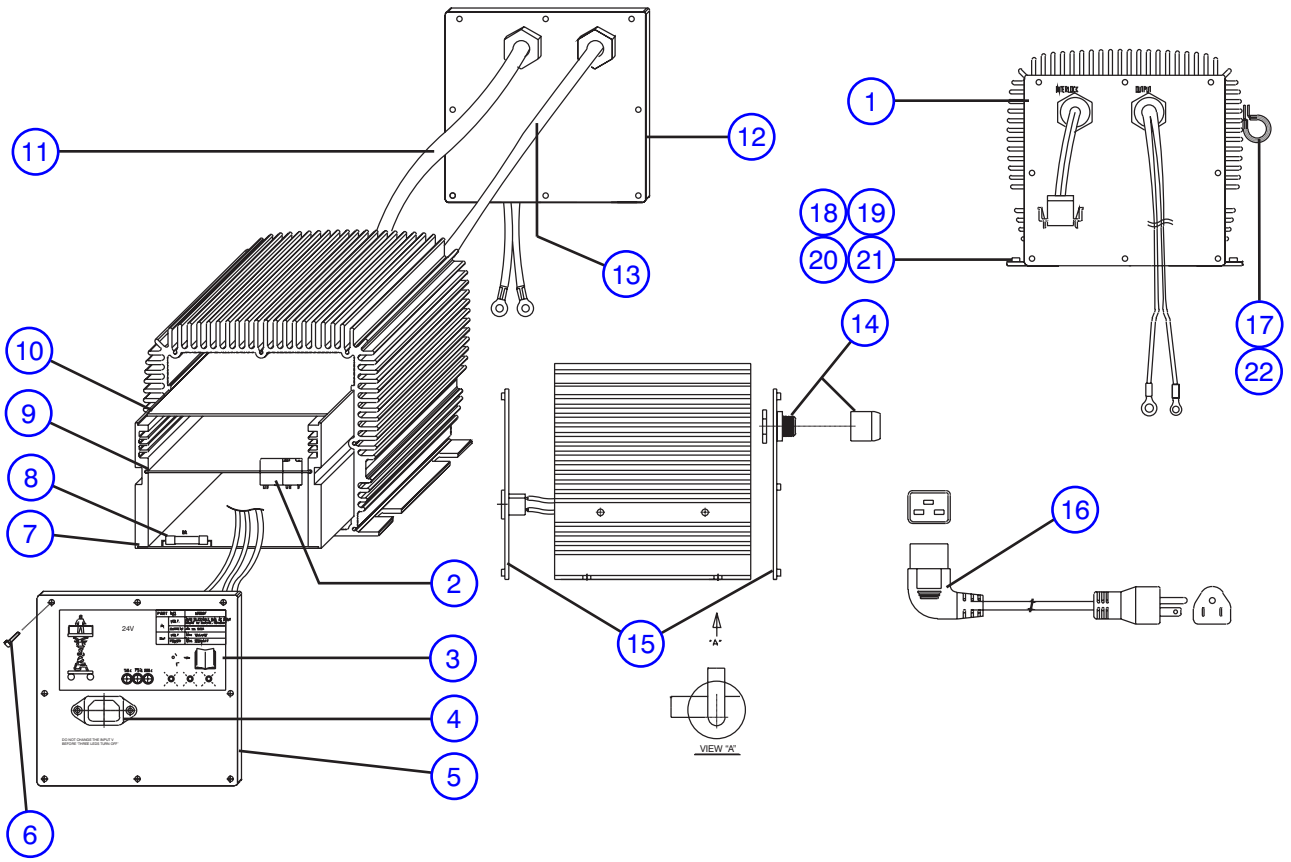


Figure 6.5-2. Battery Charger Assembly

Index No.	Skyjack Part No.	Qty.	Description
1	128537	1	CHARGER, “Superior VP” 24 V DC
2	127171	1	• RELAY, Power ON
	127154	1	• • RELAY, Interlock
3	129163	1	• LABEL, Front plate
4	127159	1	• CONNECTOR, IEC
5	127162	1	• PLATE, Front
6	127164	AR	• SCREWS, Front and rear plates
7	127160	1	• BOARD, Main PC (1)
8	127155	1	• FUSE, Internal
9	127161	1	• BOARD, Main PC (2)
10	127169	1	• CONTROL BOARD, Main
11	127156	1	• CABLE, Interlock
12	127163	1	• PLATE, Rear
13	127157	1	• CABLE, Output
14	127158	1	• STRAIN RELIEF, Rear plate
15	127170	1	• GASKET, Front or Rear plate
16	120789	1	CORD, Charger (120V)
	120790	1	CORD, Charger (220V)
17	123764	1	CLIP, Single (#10 G6)
18	103856	4	BOLT (1/4 - 20 x 3/4 GR5)
19	103995	4	WASHER, Flat (1/4)
20	104000	4	WASHER, Lock (1/4)
21	103980	4	NUT (1/4 - 20 Grade B)
22	129702	AR	SCREW, Slot hex washer head tapping

Figure 6.6-1. Electrical Panel Assembly

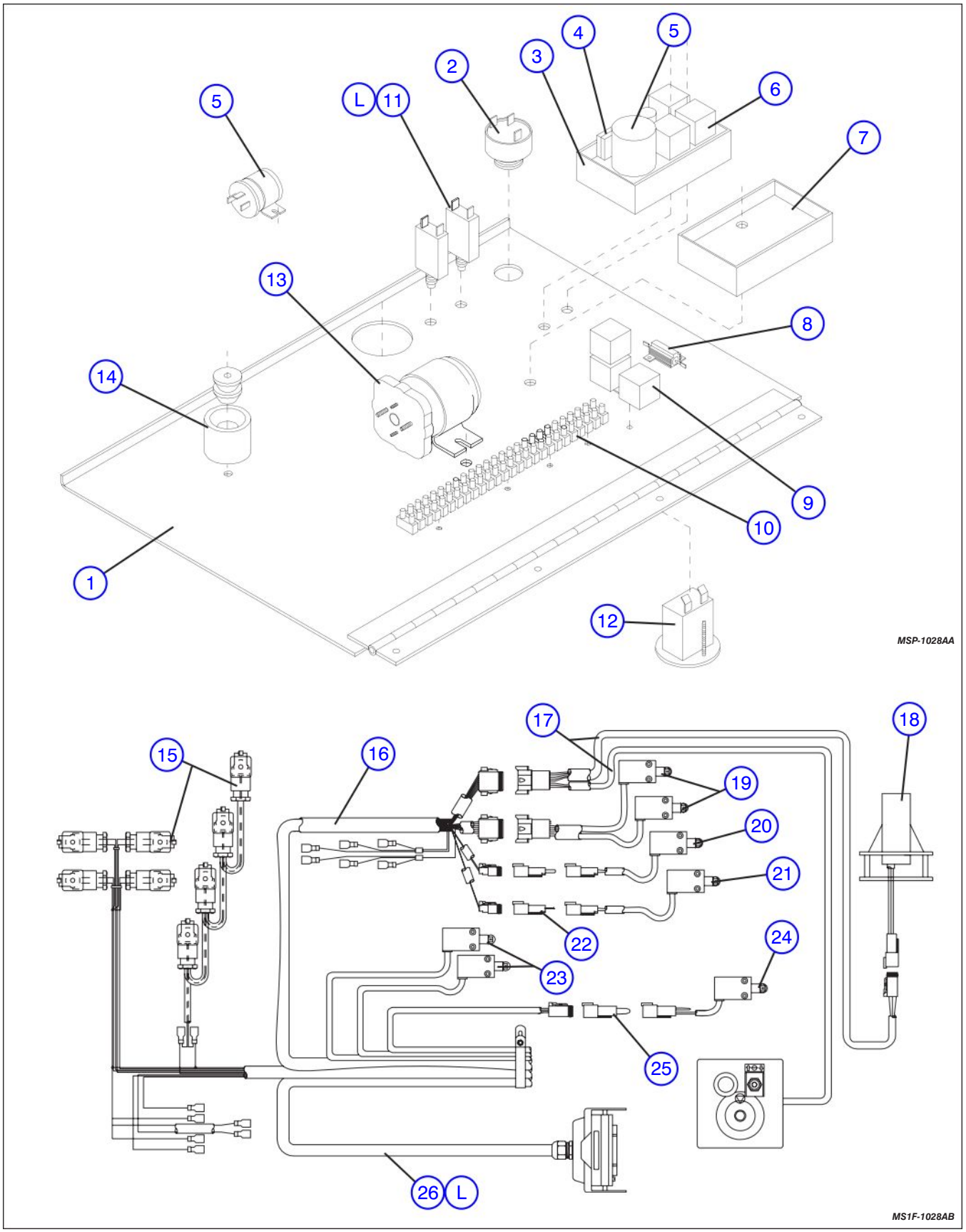


Figure 6.6-1. Electrical Panel Assembly

Index No.	Skyjack Part No.	Qty.	Description
1	601253	1	WELDMENT, Electrical panel
2	103057	1	BEEPER, 24 Volt
3	118717	1	MODULE, Lowering warning system
	119134	1	• KIT, 12 Pole receptacle connector
4	108589	6	• RELAY, 24 Volt (latching, time delay cut out, limit switch)
	118715	1	• POTTING ASSEMBLY
5	(Ref.)	-	• FLASHER 12-24 Volt (For components, refer to Figures 6.2-5)
6	117625	1	• RELAY, 24 Volt (time delay)
	117627	1	• • SPRING, Relay hold down
7	119758	1	DIODE PACK, Potted
8	115313	1	RESISTOR (25 Watt / 30 Ohm)
9	108589	3	RELAY, 24 Volt
10	103011	1	STRIP, Terminal block
11	117325	2	CIRCUIT BREAKER (15 Amp)
12	103336	1	HOURMETER
13	103101	1	CONTACTOR
14	112447	1	KIT, Bumper
15	117655	1	HARNESS, Manifold, 1 lift cylinder
	121988	1	HARNESS, Manifold, 2 lift cylinders
16	130562	1	HARNESS ASSEMBLY, Rear manifold
	119129	2	• KIT, 2 Pole plug connector
	119133	2	• KIT, 8 Pole plug connector
17	(Ref.)	-	HARNESS, Base Control Box and Tilt Switch (For components, refer to Figure 6.3-10)
18	(Ref.)	-	SWITCH ASSEMBLY, Tilt (For components, refer to Figure 6.3-11)
	119130	1	• KIT, 4 Pole receptacle connector
19	(Ref.)	-	LIMIT SWITCH ASSEMBLY, High Speed (For components, refer to Figure 6.2-6)
20	(Ref.)	-	LIMIT SWITCH ASSEMBLY, End Of Stroke Option (For components, refer to Figure 6.2-6)
21	(Ref.)	-	LIMIT SWITCH ASSEMBLY, Pothole Override protection (For components, refer to Figure 6.2-6)
22	119597	AR	JUMPER, 2 Pin
23	(Ref.)	-	LIMIT SWITCH ASSEMBLY, Pothole (For components, refer to Figure 6.3-2)
24	(Ref.)	-	LIMIT SWITCH ASSEMBLY, Drive Cut-out (26') (For components, refer to Figure 6.2-6)
25	118713	1	JUMPER, 4 Pin
26	119730	1	CABLE ASSEMBLY, Electrical panel control
	102887	73"	• CABLE (16/15)
	107821	1	• CONNECTOR, 16 Pin
L	(Ref.)	-	LABELS (Refer to Figures 6.7-2 and 6.7-3)

Figure 6.7-1 Label Kit

Label Kits

The following label kits are for models SJIII 3220, 3226, 4620, 4626 & 4632. Each contains labels that are common to all machines.

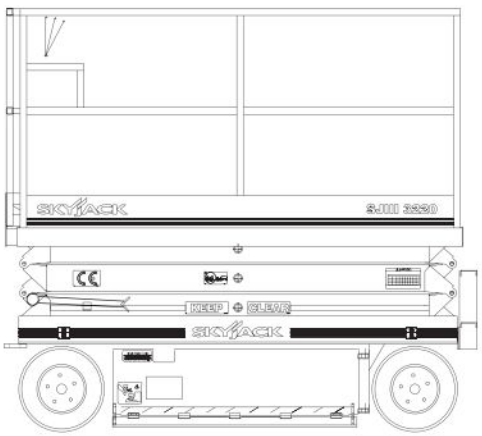
It excludes:

- **serial numbers**
- **nameplates**
- **registrations**
- **stripes**
- **tapes**
- **platform capacities**
- **model designations**
- **all special options**

There are two kits for these machines, one for ANSI/CSA and one for CE. Supply model number, country and language when ordering complete machine labels. Items with * are part of the label kit.

Label Kit		
MODELS	ANSI/CSA	CE
	Part # 129980	Part # 129981
3220	615767 & ABOVE	
3226	272100 & ABOVE	
4620	710000 & ABOVE	
4626		
4632		

60393AA



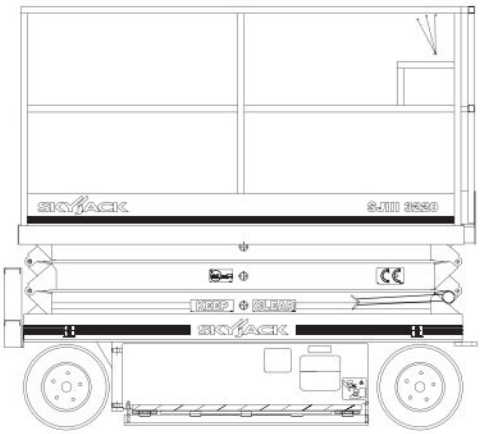
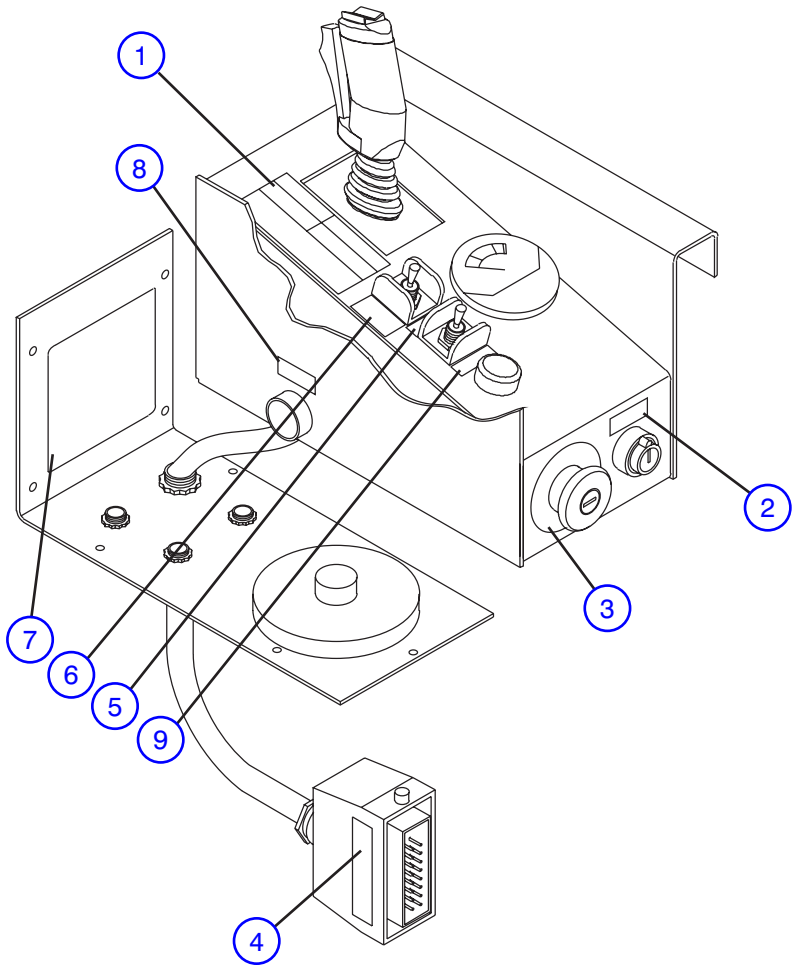


Figure 6.7-2 Labels - Operators Control Box



Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.7-1)
*1	130434	1	LABEL, Lift/Drive Direction
*2	130617	1	LABEL, Base/Off/Platform
*3	111814	1	LABEL, Emergency Stop
*4	118711	2	LABEL, “Hydraulic Proportional”
*5	130638	1	LABEL, Lift/Off/Drive
*6	116577	1	LABEL, Torque Normal/High
*7	124199	1	LABEL, Joystick Controller
*8	105352	1	LABEL, Horn
9	130639	1	LABEL, Overload
			***Included in the label kit**
			NOTE: Supply Model Number, Serial Number, Country and Language when ordering complete machine labels.

Figure 6.7-3. Labels And Nameplates - Misc

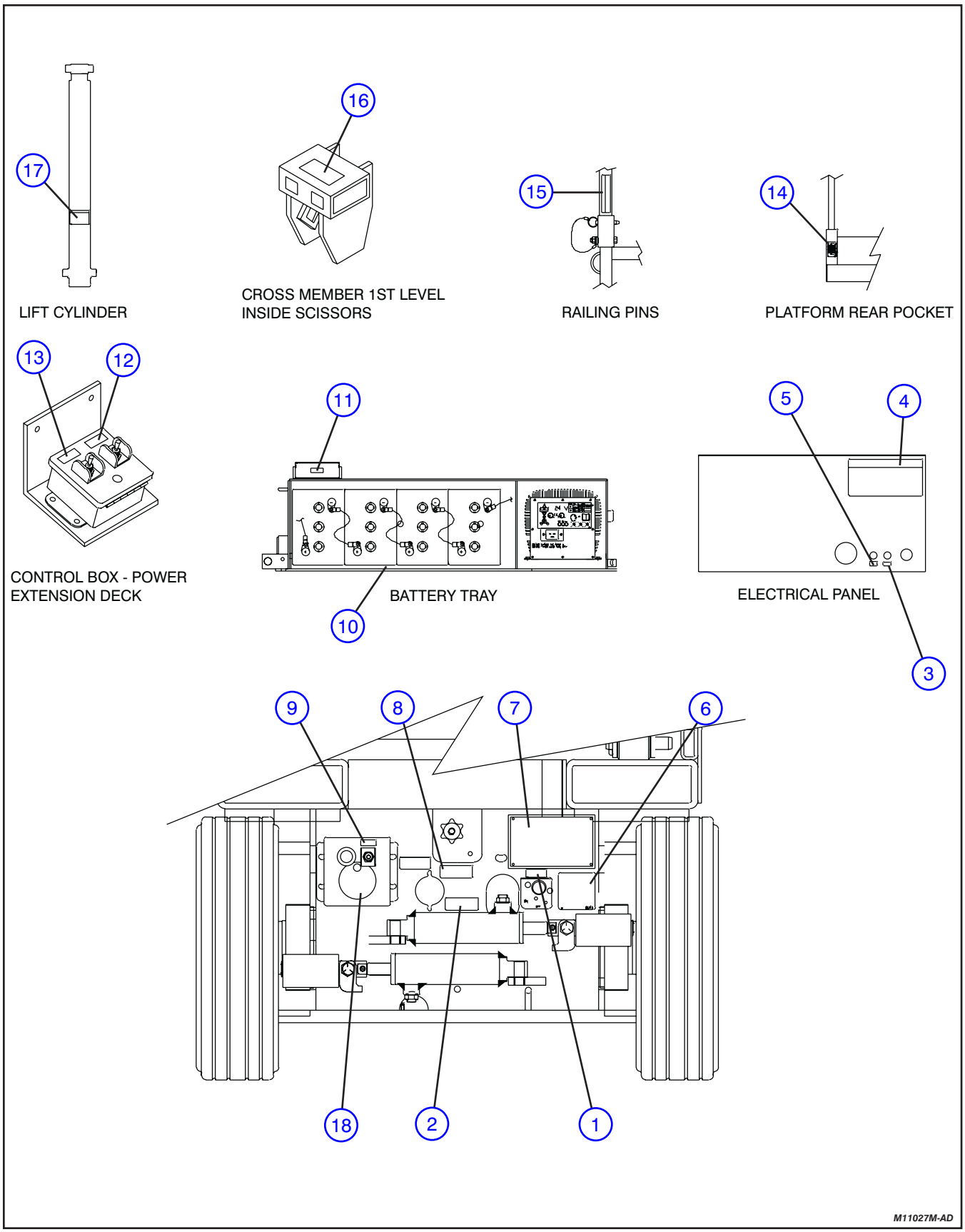
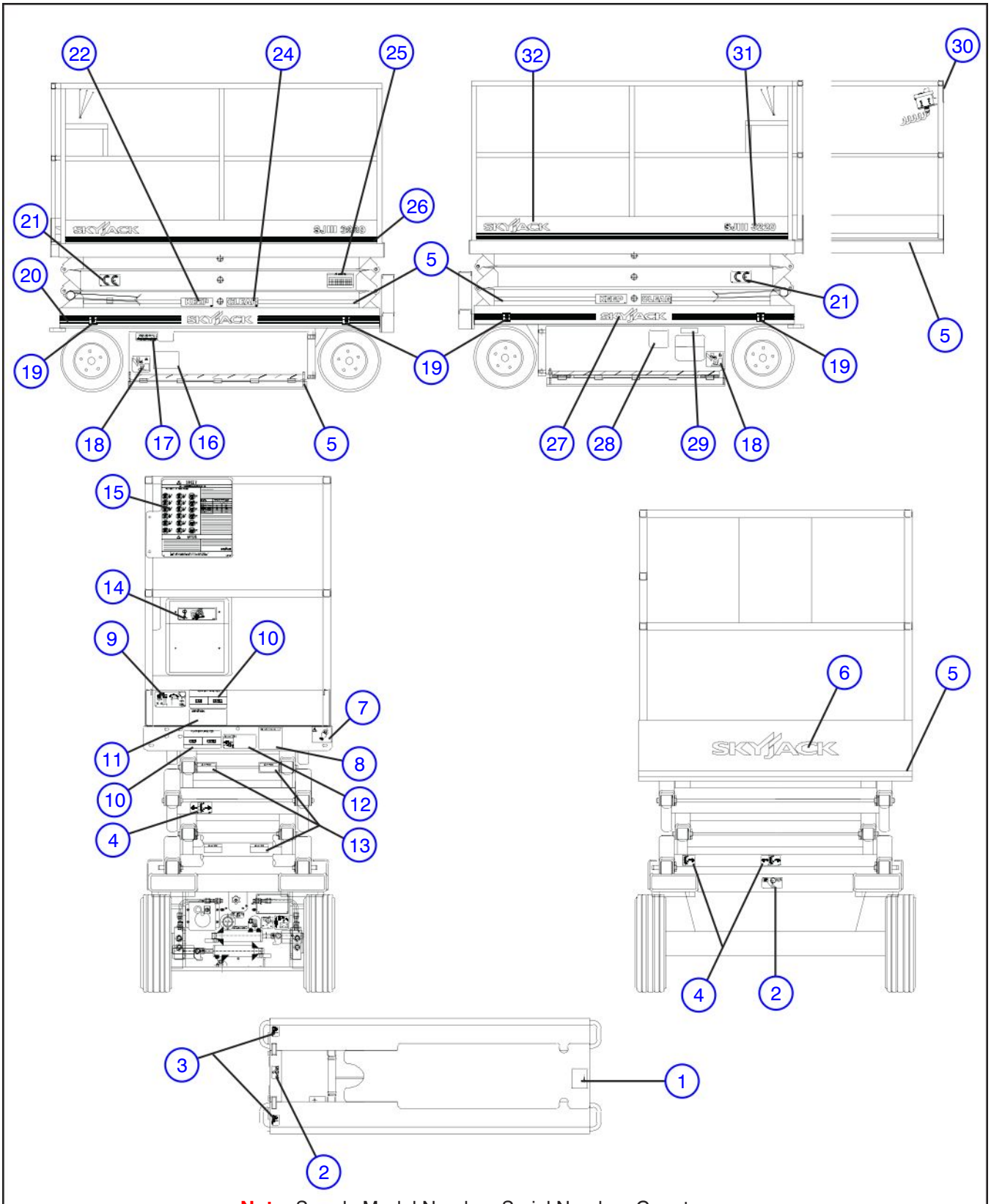


Figure 6.7-3. Labels And Nameplates - Misc

Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.7-1)
*1	130637	1	LABEL, Off/On (Main disconnect switch)
*2	110333	1	LABEL, Connect AC supply here
*3	117387	1	LABEL, Push to reset power
*4	108666	1	LABEL, Warning replacement parts (If Equipped)
*5	117389	1	LABEL, Push to reset ground
*6	119674	1	LABEL, Battery disconnect switch location
7	600708	1	NAMEPLATE, Serial number
*8	103297	1	LABEL, Free-wheeling valve
9	108328	1	LABEL, Up/Off/Down (Base Control Box)
*10	126032	1	LABEL, Warning “Wood Spacers” (with U2200 Batteries)
	126220	1	LABEL, Warning “Wood Spacers” (with U2500 Batteries)
*11	119915	1	LABEL, Fuse
12	132003	1	LABEL, Platform extend/retract (Powered extension platform option)
13	132004	1	LABEL, Enable (Powered extension platform option)
*14	125724	2	LABEL, Rail height
*15	126056	2	LABEL, Warning, falling hazard (Vertical)
	126057	10	LABEL, Warning, falling hazard (Horizontal)
*16	109442	1	LABEL, Emergency lowering
*17	106703	2	LABEL, Orifice detail
*18	111814	1	LABEL, Emergency Stop
			*Included in the label kit
			NOTE: Supply Model Number, Serial Number,Country and Language when ordering complete machine labels.

Figure 6.7-4. Labels And Nameplates - Chassis



Note: Supply Model Number, Serial Number, Country and Language when ordering complete machine labels.

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Figure 6.7-4. Labels And Nameplates - Chassis

Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.7-1)
*1	106406	1	LABEL, Safety bar
*2	124767	2	LABEL, Lift point/tie down
*3	102896	2	LABEL, Forklift boot
*4	127711	1	LABEL, Place safety bar here
5	119803	AR	TAPE, Caution 1”
*6	129773	1	LABEL, Skyjack, medium blue (If Equipped)
*7	124362	1	LABEL, Do not wear jewelry
*8	106691	1	LABEL, Operator’s checklist
9	134460	1	LABEL, Side force/outdoor **(Model 3220)**
	126505	1	LABEL, Side force/no wind **(Model 3226)**
10	130373	2	LABEL, Platform capacities 900 (600/300), **Model 3220** (manual extension)
	130374	2	LABEL, Platform capacities 800 (500/300), **Model 3220** (powered extension)
	130318	2	LABEL, Platform capacities 500 (250/250), **Model 3226** (manual extension)
*11	124931	1	LABEL, On/off slab
*12	106515	1	LABEL, Caution, brake
*13	106705	3	LABEL, Do not alter
*14	123628	1	LABEL, Manual enclosed
*15	128742	1	LABEL, Danger/Warning
*16	600720	1	LABEL, Hydraulic System Oil (Inside Tray)
	102961	1	LABEL, “Use Hydraulic Oil ATF Dextron III”
*17	109442	1	LABEL, Emergency lowering
*18	119866	4	LABEL, Danger, pinch hand/foot
19	132396	4	LABEL, Wheel Load
20	103110	AR	STRIPE, Red/blue/red
*21	117023	2	LABEL, “CE”
*22	129838	2	LABEL, Keep
*24	129839	2	LABEL, Clear
*25	109985	1	LABEL, Annual inspection
26	103125	AR	STRIPE, White/blue
*27	129759	2	LABEL, Skyjack logo, small
28	124465	1	LABEL, Side force/outdoor **(Model 3220)**
	126505	1	LABEL, Side force/no wind **(Model 3226)**
*29	110334	1	LABEL, Battery charger connection in tray (If Equipped)
*30	116038	1	LABEL, Attention, power deck (with power extension option) (If Equipped)
31	129796	2	LABEL, Model Designation SJIII 3220
	129798	2	LABEL, Model Designation SJIII 3226
*32	129758	2	LABEL, Skyjack logo, small blue

***Included in the label kit**

NOTE: Supply Model Number, Serial Number, Country and Language when ordering complete machine labels.

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Notes