MAINTENANCE & PARTS MANUAL

SJ-600 Series

Engine Powered

Models: ROUGH TERRAIN SERIES
7127 & 7135
8243 & 8850

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 *44-1691-676-235*
Skyjack Europe, Glovers Meadow, Maesbury Rd., Oswestry, Shropshire, U.K....FAX 44-1691- 676-239

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Section - Paragraph Page No.

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

This Safety Alert Symbol means attention!

Become alert! Your safety is involved.

DANGER

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

WARNING

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

CAUTION

CAUTION indicates a potentionally hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

IMPORTANT

IMPORTANT indicates a procedure essential for safe operation and which, if not followed, may result in a malfunction or damage to the machine.

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

Aerial Platform Definition

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

Purpose of Equipment

The **SKYJACK** Mid Size (Models 7127, 7135, 8243 & 8850) and Full Size (Models 8831, 8841 & 9250) Rough Terrain 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. It can be driven over uneven terrain only when the platform is fully lowered.

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 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. The updated copy of the manuals are found on the company's website: www.skyjack.com.

Operator

The operator must read and completely understand both the operating manual and the safety panel label located on the platform and all other warnings in this manual and on the aerial platform. Compare the labels on the aerial platform with the labels found within this manual. If any labels are damaged or missing, replace them immediately.

Service Policy and Warranty

SKYJACK warrants each new SJRT Series aerial platform to be free of defective parts and workmanship for the first 12 months. Any defective part will be replaced or repaired by your local SKYJACK dealer at no charge for parts or labor. Contact the SKYJACK Service Department for warranty statement extensions or exclusions.

Optional Accessories

The SKYJACK aerial platform is designed to accept a variety of optional accessories. These are listed under "Standard and Optional Features" in Table 2.1 of the Operating Manual. Operating instructions for these options (if equipped) are located in Section 2 of the Operating Manual.

For non-standard components or systems, contact the SKYJACK Service Department at

North America & Asia:

☎ : 800 275-9522
🖷 : 630 262-0006

Europe:

☎ : 44 1691-676-235
🖷 : 44 1691-676-239

Include the model and serial number for each applicable aerial platform.

Scope of this Manual

a. **This manual** applies to the ANSI/SIA, CSA and CE versions of the Mid Size and Full Size Rough Terrain aerial platform models listed on Table 2.1.

- Equipment identified with “ANSI” meets the ANSI SIA-A92.6-2006 standard.

- Equipment identified with “CSA” meets the CSA B354.2-01 standard.

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

b. **CSA (Canada) and CE (Europe)**
Operators are required to conform to national, territorial/provincial 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 their responsibilities in the manual of responsibilities before they use or operate this aerial platform.

WARNING

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

Operator Safety Reminders

A study conducted by St. Paul Travelers showed that most accidents are caused by the failure of the operator to follow simple and fundamental safety rules and precautions.

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.

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.

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

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. The operator must allow for the platform to 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 A92.6-2006 and CSA B354.2-01 Requirements		**CE Guidance Note "Avoidance of danger from overhead lines"**
Voltage Range (Phase to Phase)	**Minimum Safe Approach Distance (Feet)**	**Adhere strictly to the governmental rulings and regulations applicable in your country.**
0 to 300V	Avoid Contact	
Over 300V to 50KV	10	
Over 50KV to 200KV	15	
Over 200KV to 350KV	20	
Over 350KV to 500KV	25	
Over 500KV to 750KV	35	
Over 750KV to 1000KV	45	
FAILURE TO AVOID THIS HAZARD WILL RESULT IN DEATH OR SERIOUS INJURY!		

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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 national, state/provincial and local rules which apply to your aerial platform and jobsite.
- **TURN** the (emergency) main power disconnect switch off when leaving the aerial platform unattended. Remove the key to prevent unauthorized use of the aerial platform.
- **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 aerial platform.

- **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 aerial platform stability.

- **DO NOT** drive or elevate the aerial platform if it is not on a firm level surface. 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 (if equipped) 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 when elevated. When fully lowered, ascending or descending, only grades up to rated maximum listed in Table 2.1 are permissible.

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.

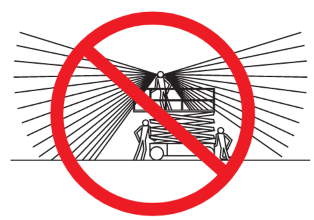
- **BE AWARE** of overhead obstructions or other possible hazards around the aerial platform when driving or lifting.

- **DO NOT** raise the platform while the aerial platform 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, locking pins and the entry gate/chain/bar in place.

Safety Precautions (Continued)

Know and understand the safety precautions before going on to next section.

- **DO NOT** exceed the rated capacity of the aerial platform. Do make sure the load is evenly distributed on the platform.

- **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.

- **DO NOT** place materials on the guardrails or materials that exceed the confines of the guardrails unless approved by Skyjack.

⚠ WARNING

Entering and exiting the aerial platform should only be done using the three points of contact.

- Use only equipped access openings.
- Enter and exit only when the aerial platform is in the fully retracted position.

- Do use three points of contact to enter and exit the platform. Enter and exit the platform from the ground only. Face the aerial platform when entering or exiting the platform.

- Three points of contact means that two hands and one foot or one hand and two feet are in contact with the aerial platform or the ground at all times during entering and exiting.

⚠ WARNING

An operator should not use any aerial platform that:

- 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.
- has been tagged or blocked out for non-use or repair.

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.

Section 2
List of Tables

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Table 2.1a Specifications and Features - ANSI/CSA

MODEL		Mid Size RT's				Full Size RT's		
		7127	7135	8243	8850	8831	8841	9250
Weight*		8,420 lb. 3819 kg	8,850 lb. 4014 kg	10,600 lb. 4808 kg	11,460 lb. 5198 kg	9,670 lb. 4386 kg	10,570 lb. 4794 kg	14,700 lb. 6668 kg
Width		71.5" 1.82 m				87" 2.21 m		92" 2.34 m
Length		150" 3.81 m				137.5" 3.5 m		176" 4.47 m
Platform Size		64" x 117" 1.63 m x 2.97 m				68" x 133" 1.73 m x 3.39 m		74" x 168" 1.88 m x 4.27 m
Height	Working	33' 10.1 m	41' 12.5 m	49' 14.9 m	56' 17.1 m	37' 11.3 m	47' 14.3 m	56' 17.1 m
	Platform Elevated	27' 8.2 m	35' 10.7 m	43' 13.1 m	50' 15.2 m	31' 9.4 m	41' 12.5 m	50' 15.2 m
	Platform Lowered	60.5" 1.54 m	67.5" 1.71 m	75" 1.91 m	82" 2.08 m	59" 1.5 m	69" 1.75 m	79" 2.01 m
	Drive	Full						26' 7.9 m
Tires		Please refer to Table 2-5 for tire specification and usage.						
Speed	Normal Drive	3.0 mph 4.8 km/h				3.5 mph 5.6 km/h	3.5 mph 5.6 km/h	2.0 mph 3.2 km/h
	Elevated Drive	0.35 mph 0.56 km/h				0.6 mph 0.97 km/h		
	Raise (Rated Load)	43 sec.	41 sec.	45 sec.	46 sec.	58 sec.	56 sec.	67 sec.
	Lower (Rated Load)	46 sec.	44 sec.	58 sec.	52 sec.	44 sec.	53 sec.	72 sec.
Engine (RPM)	Kubota (Dual Fuel)	2050 (Low) / 3500 (High)		N/A				
	Kubota (Diesel)	1400 (Low) / 2800 (High)				1400 (Low) / 2800 (High)		
	GM (Dual Fuel)	N/A		900 (Idle) /1400 (Low) / 2800 (High)				
Gradeability		30%				30%		25%

60348AF-ANSI-P

* Weights are approximate; refer to serial nameplate for specific weight. Values shown are for standard 2WD machines on air tires with a manual extension platform (Mid Size RT's) and no extension platforms (Full Size RT's).

Table 2.1b Specifications and Features - CE

Model		Mid Size RT's		Full Size RT's		
		7127	7135	8831	8841	9250
Weight*		3724 kg	4392 kg	4554 kg	4962 kg	6591 kg
		8210 lb.	9683 lb.	10040 lb.	10939 lb.	14531 lb.
Width		1.82 m		2.21 m		2.34 m
		72 in.		87 in.		92 in.
Length		3.81 m		3.5 m		4.47 m
		150 in.		138 in.		176 in.
Platform Size		1.63 m x 2.97 m		1.73 m x 3.39 m		1.88 m x 4.27 m
		64 in. x 117 in.		68 in. x 133 in.		74 in. x 168 in.
Height	Working	10.1 m	12.5 m	11.28 m	14.3 m	17.1 m
		33.1 ft.	41 ft.	37 ft.	46.9 ft.	56.1 ft.
	Platform Elevated	8.2 m	10.7 m	9.4 m	12.5 m	15.2 m
		26.9 ft.	35.1 ft.	30.8 ft.	41 ft.	49.9 ft.
	Platform Lowered	1.54 m	1.73 m	1.50 m	1.75 m	2.01 m
		5.1 ft.	5.7 ft.	4.9 ft.	5.7 ft.	6.6 ft.
	Drive	Full		7.9 m		
				25.9 ft.		
Tires		Refer to Table 2.5 for tire specification and usage.				
Speed	Normal Drive	4.8 km/h		5.6 km/h	5.6 km/h	3.2 km/h
		2.98 mph		3.48 mph	3.48 mph	1.99 mph
	Elevated Drive	0.56 km/h		0.97 km/h		
		0.34 mph		0.60 mph		
	Raise (Rated Load)	31 sec.	38 sec.	58 sec.	56 sec.	67 sec.
	Lower (Rated Load)	46 sec.	43 sec.	44 sec.	53 sec.	72 sec.
Engine (RPM)	Kubota (Dual Fuel)	2050 (Low) / 3500 (High)		N/A		
	Kubota (Diesel)	1400 (Low) / 2800 (High)		1400 (Low) / 2800 (High)		
	GM (Dual Fuel)	N/A		900 (Idle) /1400 (Low) / 2800 (High)		
Gradeability		30%		30%		25%

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* Weights are approximate; refer to serial nameplate for specific weight. Values shown are for standard 2WD aerial platforms on air tires with a manual extension platform (Mid Size RT's) and no extension platforms (Full Size RT's).

Table 2.1c Specifications and Features - AS

Model		Mid Size RT's		Full Size RT's		
		7127	7135	8831	8841	9250
Weight*		3819 kg	4014 kg	4386 kg	4794 kg	6668 kg
Width		1.82 m		2.21 m		2.34 m
Length		3.81 m		3.5 m		4.47 m
Platform Size		1.63 x 2.97 m		1.73 x 3.39 m		1.88 x 4.27 m
Height	Working	10.1 m	12.5 m	11.28 m	14.3 m	17.1 m
	Platform Elevated	8.2 m	10.7 m	9.4 m	12.5 m	15.2 m
	Platform Lowered	1.54 m	1.73 m	1.50 m	1.75 m	2.01 m
	Drive	Full		Full		7.9 m
Tires		Refer to Table 2.5 for tire specification and usage.				
Speed	Normal Drive	4.8 km/h		5.6 km/h	5.6 km/h	3.2 km/h
	Elevated Drive	0.58 km/h		0.8 km/h	0.8 km/h	0.8 km/h
	Raise (Rated Load)	31 sec.	38 sec.	58 sec.	56 sec.	67 sec.
	Lower (Rated Load)	46 sec.	43 sec.	44 sec.	53 sec.	72 sec.
Engine (RPM)	Kubota (Dual Fuel)	2050 (Low) / 3500 (High)		N/A		
	Kubota (Diesel)	1400 (Low) / 2800 (High)		1400 (Low) / 2800 (High)		
	GM (Dual Fuel)	N/A		900 (Idle) / 1400 (Low) / 2800 (High)		
Gradeability		30%		30%		25%

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* Weights are approximate; refer to serial nameplate for specific weight. Values shown are for standard 2WD aerial platforms on air tires with a manual extension platform (Mid Size RT's) and no extension platforms (Full Size RT's).

Table 2.2 Owner's Annual Inspection Record

Model Number: ________________________					Serial Number: ________________________				
Recording Date									
Recording Year #	1	2	3	4	5	6	7	8	9
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 2.3a Maximum Platform Capacities (Evenly Distributed) - ANSI/CSA

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
7127	One Extension Platform	1500 lb. 680 kg	5	500 lb. 227 kg	2	Not Available	
7135	One Extension Platform	1000 lb. 454 kg	4	350 lb. 159 kg	1	Not Available	
8243	One Extension Platform	1000 lb. 454 kg	3	350 lb. 159 kg	1	Not Available	
8850	One Extension Platform	800 lb. 363 kg	3	300 lb. 136 kg	1	Not Available	
8831	No Extension Platform	2500 lb. 1134 kg	6	Not Available			
	One Extension Platform	2000 lb. 907 kg	6	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1700 lb. 771 kg	6	500 lb. 227 kg	2	500 lb. 227 kg	2
8841	No Extension Platform	1700 lb. 771 kg	5	Not Available			
	One Extension Platform	1500 lb. 680 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1500 lb. 680 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2
9250	No Extension Platform	2000 lb. 907 kg	5	Not Available			
	One Extension Platform	1500 lb. 680 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1500 lb. 680 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2

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NOTE:

Occupants and materials are not to exceed rated load.
Capacities listed are for standard machines equipped with #6 tires.
Refer to capacity label at sides of platform for additional information and for models equipped with options.

Table 2.3b Maximum Platform Capacities (Evenly Distributed w/ Optional #7 Tires) - ANSI/CSA

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
7127	One Extension Platform	1500 lb. 680 kg	5	500 lb. 227 kg	2	Not Available	
7135	One Extension Platform	900 lb. 408 kg	3	300 lb. 136 kg	1	Not Available	
8831	No Extension Platform	2000 lb. 907 kg	6	Not Available			
	One Extension Platform	1700 lb. 771 kg	6	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1400 lb. 635 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2
8841	No Extension Platform	1250 lb. 567 kg	5	Not Available			
	One Extension Platform	1250 lb. 567 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1250 lb. 567 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2
9250	No Extension Platform	1500 lb. 680 kg	5	Not Available			
	One Extension Platform	1500 lb. 680 kg	5	500 lb. 227 kg	2	Not Available	
	Two Extension Platforms	1500 lb. 680 kg	5	500 lb. 227 kg	2	500 lb. 227 kg	2

60376AD-ANSI

NOTE:

Occupants and materials are not to exceed rated load.
Refer to capacity label at sides of platform for additional information and for models equipped with options.

Table 2.3c Maximum Platform Capacities (Evenly Distributed) - CE

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
7127	One Extension Platform	681 kg (1501 lb.)	5	227 kg (500 lb.)	2	Not Available	
7135	One Extension Platform	454 kg (1001 lb.)	4	159 kg (351 lb.)	1	Not Available	
8831	No Extension Platform	1134 kg (249 lb.)	6	Not Available			
	One Extension Platform	908 kg (2002 lb.)	6	227 kg (500 lb.)	2	Not Available	
	Two Extension Platform	771 kg (1700 lb.)	6	227 kg (500 lb.)	2	227 kg (500 lb.)	2
8841	No Extension Platform	771 kg (1700 lb.)	5	Not Available			
	One Extension Platform	681 kg (1501 lb.)	5	227 kg (500 lb.)	2	Not Available	
	Two Extension Platform	681 kg (1501 lb.)	5	227 kg (500 lb.)	2	227 kg (500 lb.)	2
9250	No Extension Platform	907 kg (2000 lb.)	5	Not Available			
	One Extension Platform	681 kg (1501 lb.)	5	227 kg (500 lb.)	2	Not Available	
	Two Extension Platform	681 kg (1501 lb.)	5	227 kg (500 lb.)	2	227 kg (500 lb.)	2

60376AD-CE

NOTE:

Occupants and materials are not to exceed rated load.
Capacities listed are for standard machines equipped with #6 tires except for model 9250A which is equipped with foam-filled tires.
Refer to capacity label at sides of platform for additional information and for models equipped with options.

BEAUFORT SCALE	Wind Speed				Ground Conditions
	m/s	km/h	ft/s	mph	
3	3.4 – 5.4	12.5 – 19.4	11.5 – 17.75	5 – 12.0	Papers and thin branches move, flags wave
4	5.4 – 8.0	19.4 – 28.8	17.75 – 26.25	12.0 – 18	Dust is raised, paper whirls up, and small branches sway.
5	8.0 – 10.8	28.8 – 38.9	26.25 – 35.5	18 – 24.25	Shrubs with leaves start swaying. Wave crests are apparent in ponds or swamps.
6	10.8 – 13.9	38.9 – 50.0	35.5 – 45.5	24.5 – 31	Tree branches move. Power lines whistle. It is difficult to open an umbrella.
7	13.9 – 17.2	50.0 – 61.9	45.5 – 65.5	31 – 38.5	Whole trees sway. It is difficult to walk against the wind.

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Table 2.3d Maximum Platform Capacities (Evenly Distributed) - AS

MODEL		Total		First Extension		Second Extension	
		Capacity	Number of Occupants	Capacity	Number of Occupants	Capacity	Number of Occupants
7127	One Extension Platform	681 kg	5	227 kg	2	Not Available	
7135	One Extension Platform	454 kg	4	159 kg	1	Not Available	
8831	No Extension Platform	1134 kg	6	Not Available			
	One Extension Platform	908 kg	6	227 kg	2	Not Available	
	Two Extension Platforms	681 kg	6	227 kg	2	227 kg	2
8841	No Extension Platform	771 kg	5	Not Available			
	One Extension Platform	681 kg	5	227 kg	2	Not Available	
	Two Extension Platforms	681 kg	5	227 kg	2	227 kg	2
9250	No Extension Platform	908 kg	5	Not Available			
	One Extension Platform	681 kg	5	227 kg	2	Not Available	
	Two Extension Platforms	681 kg	5	227 kg	2	227 kg	2

60376AD-AS

NOTE:

Occupants AND materials are not to exceed rated load.
Capacities listed are for standard machines equipped with #6 tires except for model 9250A which is equipped with foam fillec tires.
Refer to capacity label at sides of platform for additional information and for models equipped with options.

Table 2.4a Floor Loading Pressure - ANSI/CSA

MODEL		Total Aerial Platform Weight		Total Aerial Platform Load					
				WHEEL		LCP **		OUP **	
		lb.	kg	lb.	kg	psi	kPa	psf	kg/m^2
7127	min*	7920	3592	3168	1437	101.7	701.2	150.0	732.4
	max*	12180	5525	4872	2210	121.1	835.0	230.7	1126.4
7127 Outrigger Pads	min*	9360	4246	3744	1698	47.7	328.8	155.5	759.2
	max*	12180	5525	4872	2210	62.1	427.9	202.3	987.9
7135	min*	8850	4014	3540	1606	106.8	736.4	167.6	818.4
	max*	11980	5434	4792	2174	120.4	830.1	226.9	1107.9
7135 Outrigger Pads	min*	9790	4441	3916	1776	49.9	343.9	162.6	794.1
	max*	12110	5493	4844	2197	61.7	425.5	201.2	982.2
8243	min*	10600	4808	4240	1923	115.0	792.9	169.9	829.5
	max*	11980	5434	4792	2174	120.4	830.1	192.0	937.4
8243 Outrigger Pads	min*	10600	4808	4240	1923	54.0	372.4	176.1	859.8
	max*	12920	5860	5168	2344	65.8	453.9	214.6	1047.9
8850	min*	11460	5198	4584	2079	118.4	816.3	167.8	819.3
	max*	12530	5684	5012	2273	122.3	843.2	183.5	895.8
8850 Outrigger Pads	min*	11460	5198	4584	2079	58.4	402.6	196.2	958.2
	max*	12530	5684	5012	2273	63.8	440.2	214.6	1047.6
8831	min*	9670	4386	3868	1754	110.9	764.6	148.8	726.4
	max*	13350	6055	5340	2422	125.0	861.8	205.4	1002.9
8831 Outrigger Pads	min*	10540	4781	4216	1912	53.7	370.3	157.1	767.0
	max*	14300	6486	5720	2594	72.9	502.4	213.1	1040.6
8841	min*	10570	4794	4228	1918	114.9	792.2	162.6	794.0
	max*	13830	6273	5532	2509	126.4	871.5	212.8	1038.9
8841 Outrigger Pads	min*	11440	5189	4576	2076	58.3	401.9	170.5	832.5
	max*	14820	6722	5928	2689	75.5	520.7	220.9	1078.4
9250	min*	14700	6668	5880	2667	128.9	888.7	179.5	876.4
	max*	17470	7924	6988	3170	135.6	934.9	213.3	1041.5
9250 Outrigger Pads	min*	14700	6668	5880	2667	74.9	516.4	145.5	710.7
	max*	18410	8351	7364	3340	93.8	646.8	182.3	890.0

60379AD-ANSI

* **min** - Total aerial platform weight with no options
max - Aerial platform weight + all options

** **LCP** - **Locally Concentrated Pressure** is a measure of how hard the aerial platform 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 aerial platform 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.

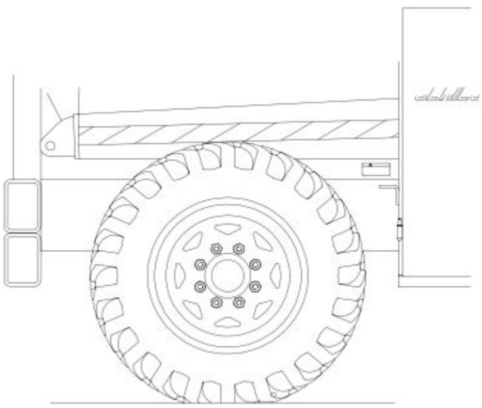
NOTE:
The **LCP** or **OUP** that an individual surface can withstand varies from structure to structure and is generally determined by the engineer or architect for that particular structure.

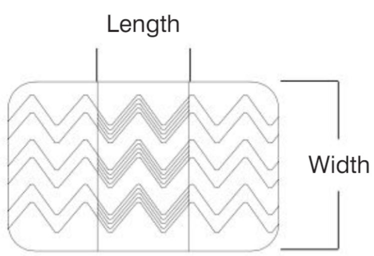
Floor Loading Pressure

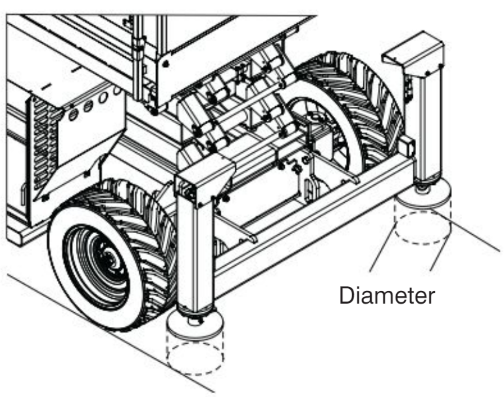
Locally Concentrated Pressure (LCP):

Foot Print Area = Length x Width
= πr^2

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



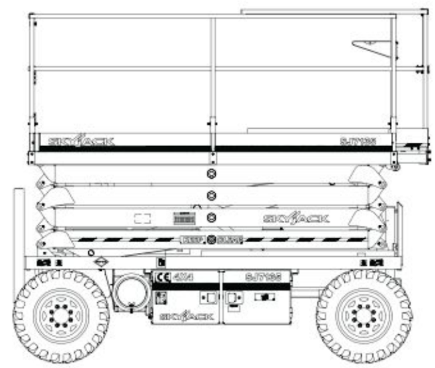


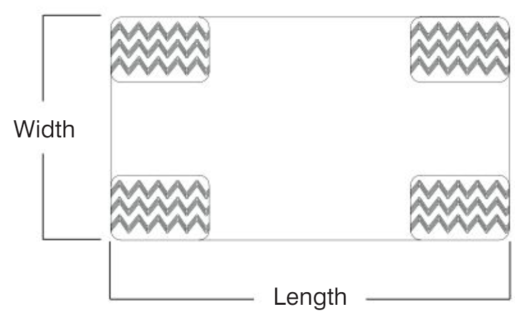


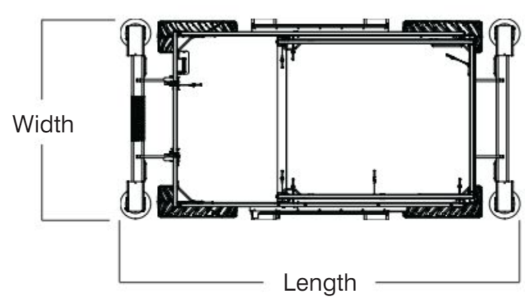
Overall Uniform Pressure (OUP):

Base Area = Length x Width

$$OUP = \frac{\text{Weight of Aerial Platform + Capacity}}{\text{Base Area}}$$







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 2.4b Floor Loading Pressure - CE

MODEL		Total Aerial Platform Weight		Total Aerial Platform Load					
				WHEEL		LCP **		OUP **	
		kg	lb.	kg	lb.	kPa	psi	kg/m^2	psf
7127	min*	3592	7920	1437	3168	701.2	101.7	732.4	150.0
	max*	5525	12180	2210	4872	835.0	121.1	1126.4	230.7
7127 Outrigger Pads	min*	4246	9360	1698	3744	328.8	47.7	759.2	155.5
	max*	5525	12180	2210	4872	427.9	62.1	987.9	202.3
7135	min*	4014	8850	1606	3540	736.4	106.8	818.4	167.6
	max*	5434	11980	2174	4792	830.1	120.4	1107.9	226.9
7135 Outrigger Pads	min*	4441	9790	1776	3916	343.9	49.9	794.1	162.6
	max*	5493	12110	2197	4844	425.5	61.7	982.2	201.2
8831	min*	4386	9670	1754	3868	764.6	110.9	726.4	148.8
	max*	6055	13350	2422	5340	861.8	125.0	1002.9	205.4
8831 Outrigger Pads	min*	4781	10540	1912	4216	370.3	53.7	767.0	157.1
	max*	6486	14300	2594	5720	502.4	72.9	1040.6	213.1
8841	min*	4794	10570	1918	4228	792.2	114.9	794.0	162.6
	max*	6273	13830	2509	5532	871.5	126.4	1038.9	212.8
8841 Outrigger Pads	min*	5189	11440	2076	4576	401.9	58.3	832.5	170.5
	max*	6722	14820	2689	5928	520.7	75.5	1078.4	220.9
9250	min*	6668	14700	2667	5880	888.7	128.9	876.4	179.5
	max*	7924	17470	3170	6988	934.9	135.6	1041.5	213.3
9250 Outrigger Pads	min*	6668	14700	2667	5880	516.4	74.9	710.7	145.5
	max*	8851	18410	3540	7364	646.8	93.8	890.8	182.3

60379AD-CE

* **min** - Total aerial platform weight with no options
max - Aerial platform weight + all options

** **LCP** - **Locally Concentrated Pressure** is a measure of how hard the aerial platform 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 aerial platform 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

Locally Concentrated Pressure (LCP):

Foot Print Area = Length x Width

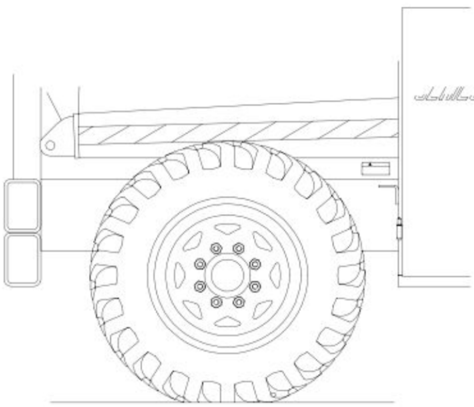
= πr^2

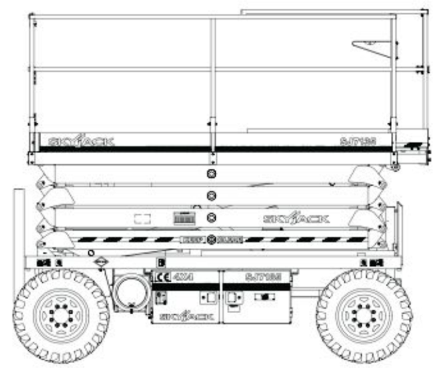
$$LCP = \frac{\text{Weight of Aerial Platform + Capacity}}{\text{Foot Print Area x 4 (Tires)}}$$

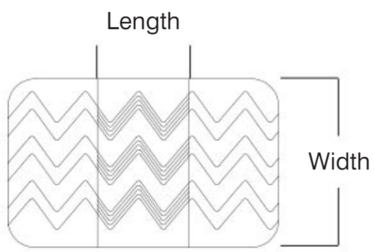
Overall Uniform Pressure (OUP):

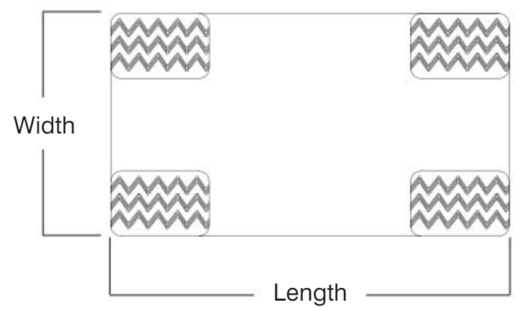
Base Area = Length x Width

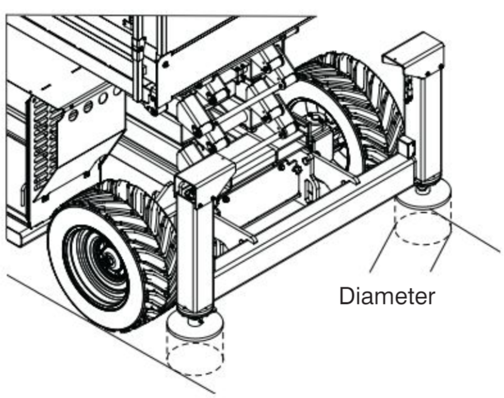
$$OUP = \frac{\text{Weight of Aerial Platform + Capacity}}{\text{Base Area}}$$

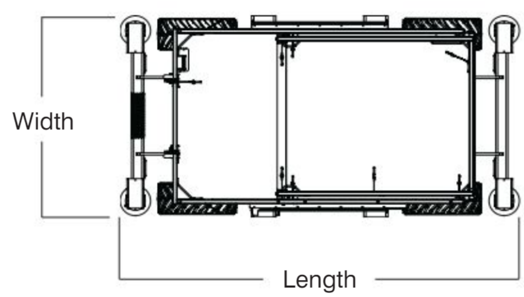












WARNING

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Table 2.4c Floor Loading Pressure - AS

MODEL		Total Aerial Platform Weight	Total Aerial Platform Load		
			WHEEL	LCP **	OUP **
		kg	kg	kPa	kg/m^2
7127	min*	3592	1437	701.2	732.4
	max*	5525	2210	835.0	1126.4
7127 Outrigger Pads	min*	4246	1698	328.8	759.2
	max*	5525	2210	427.9	987.9
7135	min*	4014	1606	736.4	818.4
	max*	5434	2174	830.1	1107.9
7135 Outrigger Pads	min*	4441	1776	343.9	794.1
	max*	5493	2197	425.5	982.2
8831	min*	4386	1754	764.6	726.4
	max*	6055	2422	861.8	1002.9
8831 Outrigger Pads	min*	4781	1912	370.3	767.0
	max*	6486	2595	502.4	1040.6
8841	min*	4794	1918	792.2	794.0
	max*	6273	2509	871.5	1038.9
8841 Outrigger Pads	min*	5189	2076	401.9	832.5
	max*	6722	2689	520.7	1078.4
9250	min*	6668	2667	888.7	876.4
	max*	7924	3170	934.9	1041.5
9250 Outrigger Pads	min*	6668	2667	516.4	710.7
	max*	8351	3340	646.8	890.0

60379AD-AS

* **min** - Total aerial platform weight with no options
max - Aerial platform weight + all options

** **LCP** - **Locally Concentrated Pressure** is a measure of how hard the aerial platform 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 aerial platform 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.

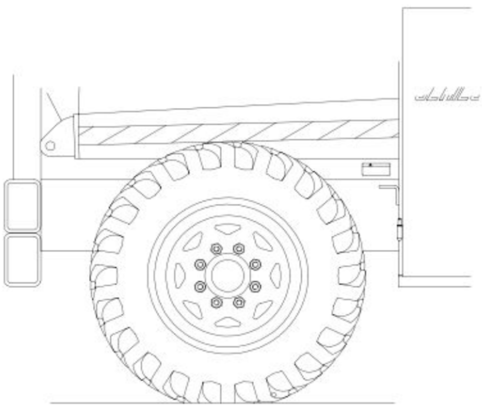
Floor Loading Pressure

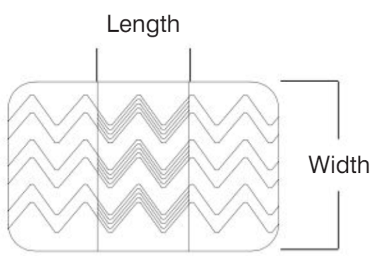
Locally Concentrated Pressure (LCP):

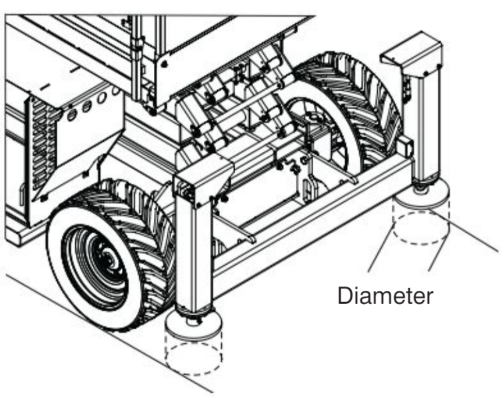
Foot Print Area = Length x Width

$= \pi r^2$

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



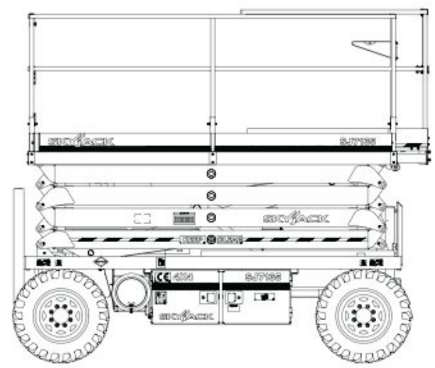


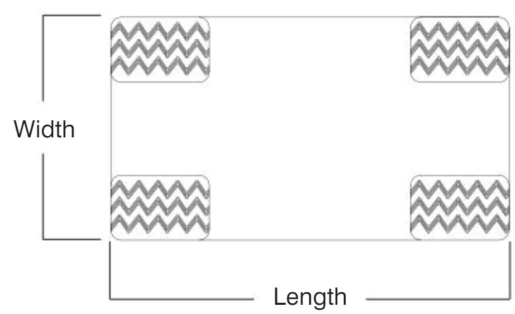


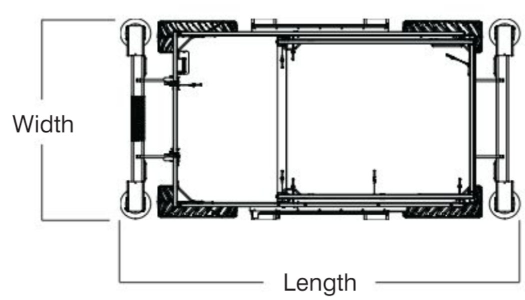
Overall Uniform Pressure (OUP):

Base Area = Length x Width

$$\text{OUP} = \frac{\text{Weight of Aerial Platform} + \text{Capacity}}{\text{Base Area}}$$







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 2.5a Tire Specifications - ANSI/CSA

WARNING

Air pressure can affect stability. Temperature changes can affect air pressure. It is important to visually inspect all tires for proper tire inflation prior to use. Tires should be checked by end user on a daily basis. Tire inflation pressures must be checked weekly with a calibrated gauge. If the measured pressure is less than the specification, reinflate to the pressure specified below. Tires must not be inflated above the recommended specification. Do not intermix tires of different types on one aerial platform. Use only tires of type originally supplied.

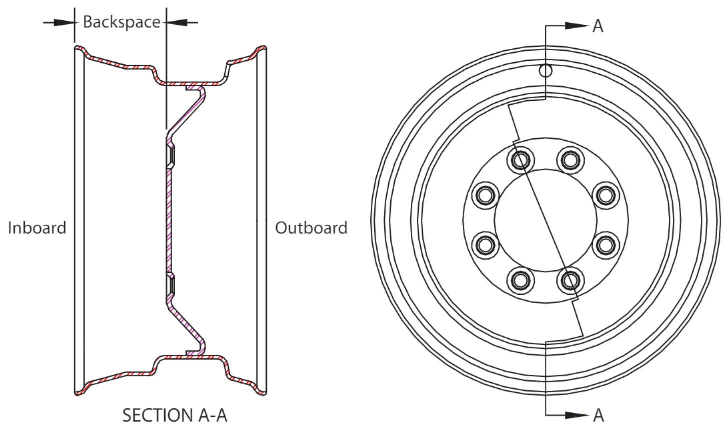
Tire Size		Fill Specification			Usage†						
		Fill Type	Ply Rating	Pressure (Factory) (kPa)	MID SIZE				FULL SIZE		
					7127	7135	8243	8850	8831	8841	9250
#6A	10-16.5 CARLISLE US LOADER	Air	10	75* (517.1)*	S	S	S	N/A	S	S	S
#6A	10-16.5 OTR OUTRIGGER (Non-Marking)	Air	10	75* (517.1)*	O	O	O	N/A	O	O	O
#7A	31-15.5-15 GOODYEAR TERRA XTRAC	Air	8	45* (310.3)*	O	O	O	N/A	O	O	O
#6F	10-16.5 CARLISLE US LOADER	Foam	10	N/A	O	O	O	S	O	O	O
#6F	10-16.5 OTR OUTRIGGER (Non-Marking)	Foam	10	N/A	O	O	O	O	O	O	O
#7F	31-15.5-15 GOODYEAR TERRA XTRAC	Foam	8	N/A	O	O	O	O	O	O	O

60378AD-ANSI

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

† Usage: (**S**)tandard Or (**O**)ptional
(**N/A**) Not Available

Rim Backspace Diagram



Rim Size	Backspace						
	7127	7135	8831	8841	8243	8850	9250
Serial Number	Contact Skyjack Service Department						
#6 & #6F	3-3/4"	3-3/4"	4-3/4"	4-3/4"	3-3/4"	3-3/4"	3-3/4"
	95 mm	95 mm	121mm	121mm	95 mm	95 mm	95 mm
#7 & #7F	All models are 4-3/8"						

60380AC-ANSI

Table 2.5b Tire Specifications - CE

WARNING

Air pressure can affect stability. Temperature changes can affect air pressure. It is important to visually inspect all tires for proper tire inflation prior to use. Tires should be checked by end user on a daily basis. Tire inflation pressures must be checked weekly with a calibrated gauge. If the measured pressure is less than the specification, reinflate to the pressure specified below. Tires must not be inflated above the recommended specification. Do not intermix tires of different types on one aerial platform. Use only tires of type originally supplied.

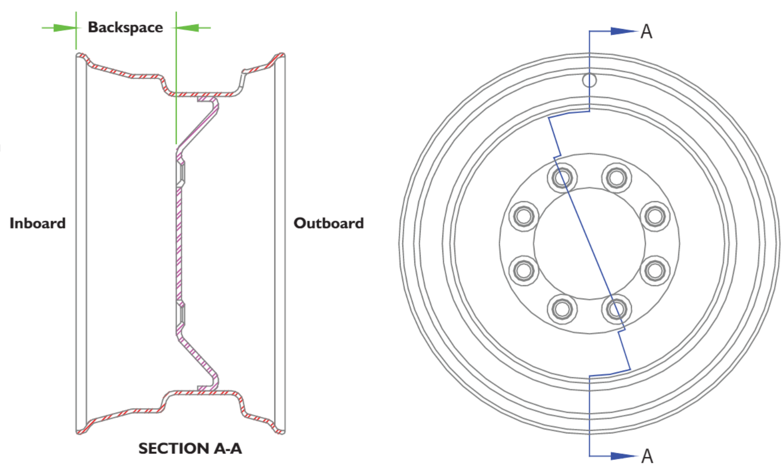
Tire Size		Fill Specification			Usage†						
		Fill Type	Ply Rating	Pressure (Factory) (kPa)	MID SIZE				FULL SIZE		
					7127	7135	8243	8850	8831	8841	9250
#6A	10-16.5 CARLISLE US LOADER	Air	10	517.1*	S	S	S	N/A	S	S	S
#6A	10-16.5 OTR OUTRIGGER (Non-Marking)	Air	10	517.1*	O	O	O	N/A	O	O	O
#7A	31-15.5-15 GOODYEAR TERRA XTRAC	Air	8	310.3*	N/A	N/A	N/A	N/A	N/A	N/A	N/A
#6F	10-16.5 CARLISLE US LOADER	Foam	10	N/A	O	O	O	S	O	O	O
#6F	10-16.5 OTR OUTRIGGER (Non-Marking)	Foam	10	N/A	O	O	O	O	O	O	O
#7F	31-15.5-15 GOODYEAR TERRA XTRAC	Foam	8	N/A	O	O	O	O	O	O	O

60378AD-CE

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

† Usage: (**S**)tandard Or (**O**)ptional
(**N/A**) Not Available

Rim Backspace Diagram



Rim Size	Backspace					
Serial Number	7127 Contact Skyjack Service Department		7135	8831	8841	9250
#6 & #6F	121 mm	95 mm	95 mm	121 mm	121 mm	95 mm
	4.75 in.	3.75 in.	3.75 in.	4.75 in.	4.75 in.	3.75 in.
#7 & #7F	All models are 135 mm					

60380AC-CE

Table 2.5c Tire Specifications - AS

WARNING

Air pressure can affect stability. Temperature changes can affect air pressure. It is important to visually inspect all tires for proper tire inflation prior to use. Tires should be checked by end user on a daily basis. Tire inflation pressures must be checked weekly with a calibrated gauge. If the measured pressure is less than the specification, reinflate to the pressure specified below. Tires must not be inflated above the recommended specification. Do not intermix tires of different types on one aerial platform. Use only tires of type originally supplied.

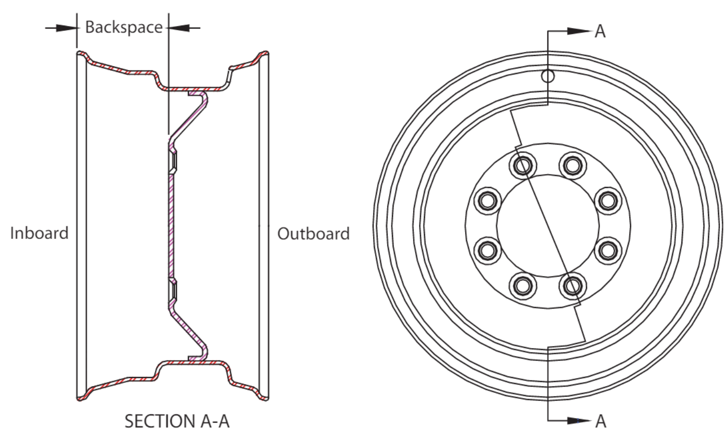
Tire Size		Fill Specification			Usage†				
		Fill Type	Ply Rating	Pressure (Factory)	MID SIZE		FULL SIZE		
				Psi (kPa)	7127	7135	8831	8841	9250
#6A	10-16.5 CARLISLE US LOADER	Air	10	75* (517.1)*	S	S	S	S	S
#6A	10-16.5 OTR OUTRIGGER (Non-Marking)		10	75* (517.1)*	O	O	O	O	O
#6F	10-16.5 CARLISLE US LOADER	Foam	10	N/A	O	O	O	O	O
#7F	31-15.5-15 GOODYEAR TERRA XTRAC		8	N/A	O	O	O	O	O

60378AD-AS

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

† Usage: (**S**)tandard Or (**O**)ptional
(**N/A**) Not Available

Rim Backspace Diagram



Rim Size	Backspace					
	7127		7135	8831	8841	9250
Serial Number	Contact Skyjack Service Department					
#6A & #6F	121mm	95 mm	95 mm	121mm	121mm	95 mm
	4.75 in.	3.75 in.	3.75 in.	4.75 in.	4.75 in.	3.75 in.
#7F	All models are 135 mm					

60380AD-AS

Table 2.6 Rough Terrain Scissor Fluids

AXLE OIL						
Axle Type		*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.	Recommended Equivalent Oil
Cushman	Front	2.4	0.634	Gear Oil, 80W-90 GL5	134612	-
Dana	Front / Rear					
Cushman	Rear	1	0.264	Gear Oil, ESI 80W-90	133461	Chevron Gear Lubricant Delo ESI 80W-90, Caltex Gear Lubricant ESI 80W-90, Caltex RPM Borate EP 80W-90, Texaco Star Gear Lubricant 80W-90

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

CENTER DRIVE OIL					
Center Drive Type	*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.	Recommended Equivalent Oil
Center Drive	1	0.26	Gear Oil, 80W-90 GL5	134612	-

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

HYDRAULIC OIL				
Model	*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.
SJRT-68xx	86.88	22.95	ATF Dexron III	119309
SJRT-7127	80.48	21.26		
SJRT-7135				
SJRT-8243				
SJRT-8850				
SJRT-8831	75.71	20		
SJRT-8841				
SJRT-8831E				
SJRT-8841E				
SJRT-9250	67.38	17.8		

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

Table 2.6 Rough Terrain Scissor Fluids

ENGINE OIL					
Engine Type	*Qty. (Liters)	*Qty. (Gallons)	Oil Type, Viscosity	Skyjack Part No.	Recommended Equivalent Oil (Viscosity - API Service Designation)
Kubota D902	3.9	1.03	Engine Oil, SAE 10W-30	105287	10W30 - API Service Designation CG-4, CF-4, CF, CD, SH.
Kubota D1105	5.1	1.35			
Kubota DF972	3.4	0.9			
Nissan A15	3.5	0.98			
GM 1.6				142454	10W30 - API Service Designation SF/CC.

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

ENGINE COOLANT				
Component Type	*Qty. (Liters)	*Qty. (Gallons)	**Coolant Type	Skyjack Part No.
Kubota D902	3.1	0.82	Antl-freeze / Water	125985
Kubota D1105				
Kubota DF972				
Nissan A15	11.4	3.01		
GM 1.6			Extended life antl-freeze / Water	142208

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

ENGINE FUEL							
Model	Tank		Diesel		Gasoline / Liquid Propane		
	*Qty. (Liters)	*Qty. (Gallons)	Kubota D902	Kubtoa D1105	Kubota DF972	GM 1.6	Nissan A15
SJRT-68xx	86.88	22.95	✓	N/A	✓	N/A	
SJRT-7127	80.48	21.26	N/A	✓			
SJRT-7135							
SJRT-8243					N/A	✓	
SJRT-8850							
SJRT-8831	49.21	13					
SJRT-8841							
SJRT-9250	64.35	17					

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

General Maintenance

Before attempting any repair work, disconnect battery by turning emergency main power disconnect switch to off position. Preventive maintenance is the easiest and least expensive type of maintenance.

Table 2.7a Maintenance and Inspection Schedule - ANSI/CSA

Frequency	Daily	3 months or 150 hours	Yearly
Visual and Daily Maintenance Inspections			
Labels	A		
Electrical	A		
Limit Switches	A		
Hydraulic	A		
Hydraulic/Electrical Compartment			
Emergency Main Power Disconnect Switch	A		
Base Control Switches	A		
Battery	A		
Manifolds	A		
Electrical Panel	A		
Tilt Sensor	A		
Hydraulic Tank (Model 9250)	A		
Hydraulic Oil (Model 9250)	A		
Emergency Lowering Access Rod (If Equipped)	A		
Hydraulic/Fuel Compartment			
Hydraulic Tank (Models 71xx & 8xxx)	A		
Hydraulic Oil (Models 71xx & 8xxx)	A	B*	
Fuel Tank	A		
Fuel Leaks	A		
Engine Compartment			
Engine Control Console	A		
Radiator	A		
Muffler and Exhaust	A		
Engine Tray	A		
Hydraulic Pump	A		
Engine Oil Level	A		
Engine Air Filter	A		
Fuel Leaks	A		
Platform Assembly			
Lanyard Attachment Anchors	A		
AC Outlet on Platform	A		
Platform Control Console	A		
Powered Extension Control Console (If Equipped)	A		

Frequency	Daily	3 months or 150 hours	Yearly
Lifting Mechanism			
Scissor Guards	A		
Sliders	A		
Maintenance Support	A		
Scissor Assembly	A		
Scissor Bumpers	A		
Lift Cylinder(s)	A		
Base			
Base Weldment	A		
Wheel/Tire Assembly	A	B*	
Drive Axle	A		
Steer Cylinder Assembly	A		
Tie Rod	A		
Disc Brake (Models 71xx & 8xxx)	A		
Pin Brakes (Model 9250)	A		
Drive Motor	A		
Ladder	A		
Outriggers	A		
Manuals	A		
Function Tests			
Test Emergency Main Power Disconnect Switch	A		
Base Control Console			
Test Platform Raise/Lower Switch	A		
Test Emergency Lowering (Models 71xx & 8xxx)	A		
Test Emergency Lowering (Model 9250)	A		
Platform Control Console			
Test Emergency Stop	A		
Test Enable Trigger Switch	A	B*	
Test Platform Raising/Lowering	A		
Test Steering	A		
Test Driving	A		
Test Speed Limit	A		
Test Brakes	A		
Test Horn	A		
Test Tilt Sensor	A		

60603AA-ANSI-P

A - Perform Visual and Daily Maintenance Inspections & Functions Test. Refer to Section 2.8 and Section 2.9 of the Operating Manual.
B - Perform Scheduled Maintenance Inspection. Refer to Service & Maintenance manual.
*** -** Maintenance must be performed only by trained and competent personnel who are familiar with mechanical procedures.

⚠ WARNING

Use original or manufacturer-approved parts and components for aerial platform.

General Maintenance

Before attempting any repair work, disconnect battery by turning main power disconnect switch to off position. Preventive maintenance is the easiest and least expensive type of maintenance.

Table 2.7b Maintenance and Inspection Schedule - CE

Frequency	Daily	3 months or 150 hours	Yearly
Visual and Daily Maintenance Inspections			
Labels	A	B*	
Electrical	A		
Limit Switches	A		
Hydraulic	A		
Hydraulic/Electrical Compartment			
Main Power Disconnect Switch	A		
Base Control Switches	A		
Battery	A		
Manifolds	A		
Electrical Panel	A		
Load/Tilt Sensor	A		
Hydraulic Tank (Model 9250)	A		
Hydraulic Oil (Model 9250)	A		
Emergency Lowering Access Rod (If Equipped)	A		
Hydraulic/Fuel Compartment			
Hydraulic Tank (Models 71xx & 88xx)	A		
Hydraulic Oil (Models 71xx & 88xx)	A		
Fuel Tank	A		
Fuel Leaks	A		
Engine Compartment			
Engine Control Console	A		
Radiator	A		
Muffler and Exhaust	A		
Engine Tray	A		
Hydraulic Pump	A		
Engine Oil Level	A		
Engine Air Filter	A		
Fuel Leaks	A		
Platform Assembly			
Lanyard Attachment Anchors	A		
AC Outlet on Platform	A		
Platform Control Console	A		
Powered Extension Control Console (If Equipped)	A		

Frequency	Daily	3 months or 150 hours	Yearly
Lifting Mechanism		B*	
Scissor Guards	A		
Sliders	A		
Maintenance Support	A		
Scissor Assembly	A		
Scissor Bumpers	A		
Lift Cylinder(s)	A		
Base			
Base Weldment	A		
Wheel/Tire Assembly	A		
Drive Axle	A		
Steer Cylinder Assembly	A		
Tie Rod	A		
Disc Brakes (Models 71xx & 88xx)	A		
Pin Brake (Model 9250)	A		
Drive Motor	A		
Ladder	A		
Outriggers (If Equipped)	A		
Manuals	A		
Function Tests			
Test Main Power Disconnect Switch	A	B*	
Base Control Console			
Test Emergency Stop	A		
Test Platform Raise/Lower Switch	A		
Test Emergency Lowering (Models 71xx & 88xx)	A		
Test Emergency Lowering (Model 9250)	A		
Platform Control Console			
Test Emergency Stop	A		
Test Enable Trigger Switch	A		
Test Platform Raising/Lowering	A		
Test Lowering Warning	A		
Test Steering	A		
Test Driving	A		
Test Speed Limit	A		
Test Brakes	A		
Test Horn	A		
Test Tilt Sensor	A		

60603AA-CE-P

A - Perform Visual and Daily Maintenance Inspections & Functions Test. Refer to Section 2.8 and Section 2.9 of the Operating Manual.
B - Perform Scheduled Maintenance Inspection. Refer to Service & Maintenance manual.
*** -** Maintenance must be performed only by trained and competent personnel who are familiar with mechanical procedures.

WARNING

Use original or manufacturer-approved parts and components for aerial platform.

General Maintenance

Before attempting any repair work, disconnect battery by turning main power disconnect switch to off position. Preventive maintenance is the easiest and least expensive type of maintenance.

Table 2.7c Maintenance and Inspection Schedule - AS

Frequency	Daily	3 months or 150 hours	Yearly
Visual and Daily Maintenance Inspections			
Labels	A		
Electrical	A		
Limit Switches	A		
Hydraulic	A		
Hydraulic/Electrical Compartment			
Main Power Disconnect Switch	A		
Base Control Switches	A		
Battery	A		
Manifolds	A		
Electrical Panel	A		
Tilt Sensor	A		
Hydraulic Tank (Model 9250)	A		
Hydraulic Oil (Model 9250)	A		
Emergency Lowering Access Rod (If Equipped)	A		
Hydraulic/Fuel Compartment			
Hydraulic Tank (Models 71xx & 8xxx)	A		
Hydraulic Oil (Models 71xx & 8xxx)	A	**B***	
Fuel Tank	A		
Fuel Leaks	A		
Engine Compartment			
Engine Control Console	A		
Radiator	A		
Muffler and Exhaust	A		
Engine Tray	A		
Hydraulic Pump	A		
Engine Oil Level	A		
Engine Air Filter	A		
Fuel Leaks	A		
Platform Assembly			
Lanyard Attachment Anchors	A		
AC Outlet on Platform	A		
Platform Control Console	A		
Powered Extension Control Console (If Equipped)	A		

Frequency	Daily	3 months or 150 hours	Yearly
Lifting Mechanism			
Scissor Guards	A		
Sliders	A		
Maintenance Support	A		
Scissor Assembly	A		
Scissor Bumpers	A		
Lift Cylinder(s)	A		
Base			
Base Weldment	A		
Wheel/Tire Assembly	A	**B***	
Drive Axle	A		
Steer Cylinder Assembly	A		
Tie Rod	A		
Disc Brake (Models 71xx & 8xxx)	A		
Pin Brakes (Model 9250)	A		
Drive Motor	A		
Ladder	A		
Outriggers (If Equipped)	A		
Manuals	A		
Function Tests			
Test Main Power Disconnect Switch	A		
Base Control Console			
Test Emergency Stop	A		
Test Platform Raise/Lower Switch	A		
Test Emergency Lowering (Models 71xx & 8xxx)	A		
Test Emergency Lowering (Model 9250)	A		
Platform Control Console			
Test Emergency Stop	A		
Test Enable Trigger Switch	A	**B***	
Test Platform Raising/Lowering	A		
Test Steering	A		
Test Driving	A		
Test Speed Limit	A		
Test Brakes	A		
Test Horn	A		
Test Tilt Sensor	A		

60603AA-AS-P

A - Perform Visual and Daily Maintenance Inspections & Functions Test. Refer to Section 2.8 and Section 2.9 of the Operating Manual.
B - Perform Scheduled Maintenance Inspection. Refer to Service & Maintenance manual.
*** -** Maintenance must be performed only by trained and competent personnel who are familiar with mechanical procedures.

WARNING

Use original or manufacturer-approved parts and components for aerial platform.

Table 2.8a Operator's Checklist - ANSI/CSA

SKYJACK

OPERATOR'S CHECKLIST

Serial Number: ______________________

Model: ______________________

Hourmeter Reading: ______________________

Date: ______________________

Time: ______________________

Operator's Name (Printed): ______________________

Operator's Signature: ______________________

Each item shall be inspected using the appropriate section of the Skyjack operating manual.
As each item is inspected, check the appropriate box.

P - PASS
F - FAIL
R - REPAIRED
NA - NOT APPLICABLE

- ❑ DAILY
- ❑ FREQUENTLY
- ❑ ANNUALLY
- ❑ BI-ANNUALLY

	N/A	P	F	R
Visual and Daily Maintenance Inspections				
Labels				
Electrical				
Limit Switches				
Hydraulic				
Hydraulic/Electrical Compartment				
Emergency Main Power Disconnect Switch				
Base Control Switches				
Battery				
Manifolds				
Electrical Panel				
Tilt Sensor				
Hydraulic Tank (Model 9250)				
Hydraulic Oil (Model 9250)				
Emergency Lowering Access Rod (If Equipped)				
Hydraulic/Fuel Compartment				
Hydraulic Tank (Models 71xx & 8xxx)				
Hydraulic Oil (Models 71xx & 8xxx)				
Fuel Tank				
Fuel Leaks				
Engine Compartment				
Engine Control Console				
Radiator				
Muffler and Exhaust				
Engine Tray				
Hydraulic Pump				
Engine Oil Level				
Engine Air Filter				
Fuel Leaks				
Platform Assembly				
Lanyard Attachment Anchors				
AC Outlet on Platform				
Platform Control Console				
Powered Extension Control Console (If Equipped)				

Note:
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	N/A	P	F	R
Lifting Mechanism				
Scissor Guards				
Sliders				
Maintenance Support				
Scissor Assembly				
Scissor Bumpers				
Lift Cylinder(s)				
Base				
Base Weldment				
Wheel/Tire Assembly				
Drive Axle				
Steer Cylinder Assembly				
Tie Rod				
Disc Brake (Models 71xx & 8xxx)				
Pin Brakes (Model 9250)				
Drive Motor				
Ladder				
Outriggers				
Manuals				
Function Tests				
Test Emergency Main Power Disconnect Switch				
Base Control Console				
Test Platform Raise/Lower Switch				
Test Emergency Lowering (Models 71xx & 8xxx)				
Test Emergency Lowering (Model 9250)				
Platform Control Console				
Test Emergency Stop				
Test Enable Trigger Switch				
Test Platform Raising/Lowering				
Test Steering				
Test Driving				
Test Speed Limit				
Test Brakes				
Test Horn				
Test Tilt Sensor				

60604AA-ANSI

Table 2.8b Operator’s Checklist - CE

SKYJACK

OPERATOR'S CHECKLIST

Serial Number: ______________________________

Model: ______________________________

Hourmeter Reading: ______________________________

Date: ______________________________

Time: ______________________________

Operator's Name (Printed): ______________________________

Operator's Signature: ______________________________

Each item shall be inspected using the appropriate section of the Skyjack operating manual.
As each item is inspected, check the appropriate box.

P - PASS
F - FAIL
R - REPAIRED
NA - NOT APPLICABLE

☐ DAILY
☐ FREQUENTLY
☐ ANNUALLY
☐ BI-ANNUALLY

	N/A	P	F	R
Visual and Daily Maintenance Inspections				
Labels				
Electrical				
Limit Switches				
Hydraulic				
Hydraulic/Electrical Compartment				
Main Power Disconnect Switch				
Base Control Switches				
Battery				
Manifolds				
Electrical Panel				
Load/Tilt Sensor				
Hydraulic Tank (Model 9250)				
Hydraulic Oil (Model 9250)				
Emergency Lowering Access Rod (If Equipped)				
Hydraulic/Fuel Compartment				
Hydraulic Tank (Models 71xx & 88xx)				
Hydraulic Oil (Models 71xx & 88xx)				
Fuel Tank				
Fuel Leaks				
Engine Compartment				
Engine Control Console				
Radiator				
Muffler and Exhaust				
Engine Tray				
Hydraulic Pump				
Engine Oil Level				
Engine Air Filter				
Fuel Leaks				
Platform Assembly				
Lanyard Attachment Anchors				
AC Outlet on Platform				
Platform Control Console				
Powered Extension Control Console (If Equipped)				

Note:
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	N/A	P	F	R
Lifting Mechanism				
Scissor Guards				
Sliders				
Maintenance Support				
Scissor Assembly				
Scissor Bumpers				
Lift Cylinder(s)				
Base				
Base Weldment				
Wheel/Tire Assembly				
Drive Axle				
Steer Cylinder Assembly				
Tie Rod				
Disc Brakes (Models 71xx & 88xx)				
Pin Brake (Model 9250)				
Drive Motor				
Ladder				
Outriggers (If Equipped)				
Manuals				
Function Tests				
Test Main Power Disconnect Switch				
Base Control Console				
Test Emergency Stop				
Test Platform Raise/Lower Switch				
Test Emergency Lowering (Models 71xx & 88xx)				
Test Emergency Lowering (Model 9250)				
Platform Control Console				
Test Emergency Stop				
Test Enable Trigger Switch				
Test Platform Raising/Lowering				
Test Lowering Warning				
Test Steering				
Test Driving				
Test Speed Limit				
Test Brakes				
Test Horn				
Test Tilt Sensor				

60604AA-CE

Table 2.8c Operator's Checklist - AS

SKYJACK

OPERATOR'S CHECKLIST

Serial Number: ____________________

Model: ____________________

Hourmeter Reading: ____________________ Operator's Name (Printed): ____________________

Date: ____________________

Time: ____________________ Operator's Signature: ____________________

Each item shall be inspected using the appropriate section of the Skyjack operating manual.
As each item is inspected, check the appropriate box.

P - PASS
F - FAIL
R - REPAIRED
NA - NOT APPLICABLE

❑ DAILY
❑ FREQUENTLY
❑ ANNUALLY
❑ BI-ANNUALLY

	N/A	P	F	R
Visual and Daily Maintenance Inspections				
Labels				
Electrical				
Limit Switches				
Hydraulic				
Hydraulic/Electrical Compartment				
Main Power Disconnect Switch				
Base Control Switches				
Battery				
Manifolds				
Electrical Panel				
Tilt Sensor				
Hydraulic Tank (Model 9250)				
Hydraulic Oil (Model 9250)				
Emergency Lowering Access Rod (If Equipped)				
Hydraulic/Fuel Compartment				
Hydraulic Tank (Models 71xx & 8xxx)				
Hydraulic Oil (Models 71xx & 8xxx)				
Fuel Tank				
Fuel Leaks				
Engine Compartment				
Engine Control Console				
Radiator				
Muffler and Exhaust				
Engine Tray				
Hydraulic Pump				
Engine Oil Level				
Engine Air Filter				
Fuel Leaks				
Platform Assembly				
Lanyard Attachment Anchors				
AC Outlet on Platform				
Platform Control Console				
Powered Extension Control Console (If Equipped)				

Note:
Make a copy of this page or visit the Skyjack web site:
www.skyjack.com for a printable copy.

	N/A	P	F	R
Lifting Mechanism				
Scissor Guards				
Sliders				
Maintenance Support				
Scissor Assembly				
Scissor Bumpers				
Lift Cylinder(s)				
Base				
Base Weldment				
Wheel/Tire Assembly				
Drive Axle				
Steer Cylinder Assembly				
Tie Rod				
Disc Brake (Models 71xx & 8xxx)				
Pin Brakes (Model 9250)				
Drive Motor				
Ladder				
Outriggers (If Equipped)				
Manuals				
Function Tests				
Test Main Power Disconnect Switch				
Base Control Console				
Test Emergency Stop				
Test Platform Raise/Lower Switch				
Test Emergency Lowering (Models 71xx & 8xxx)				
Test Emergency Lowering (Model 9250)				
Platform Control Console				
Test Emergency Stop				
Test Enable Trigger Switch				
Test Platform Raising/Lowering				
Test Steering				
Test Driving				
Test Speed Limit				
Test Brakes				
Test Horn				
Test Tilt Sensor				

60604AA-AS

Section 3
System Component Identification And Schematics

Table Of Contents

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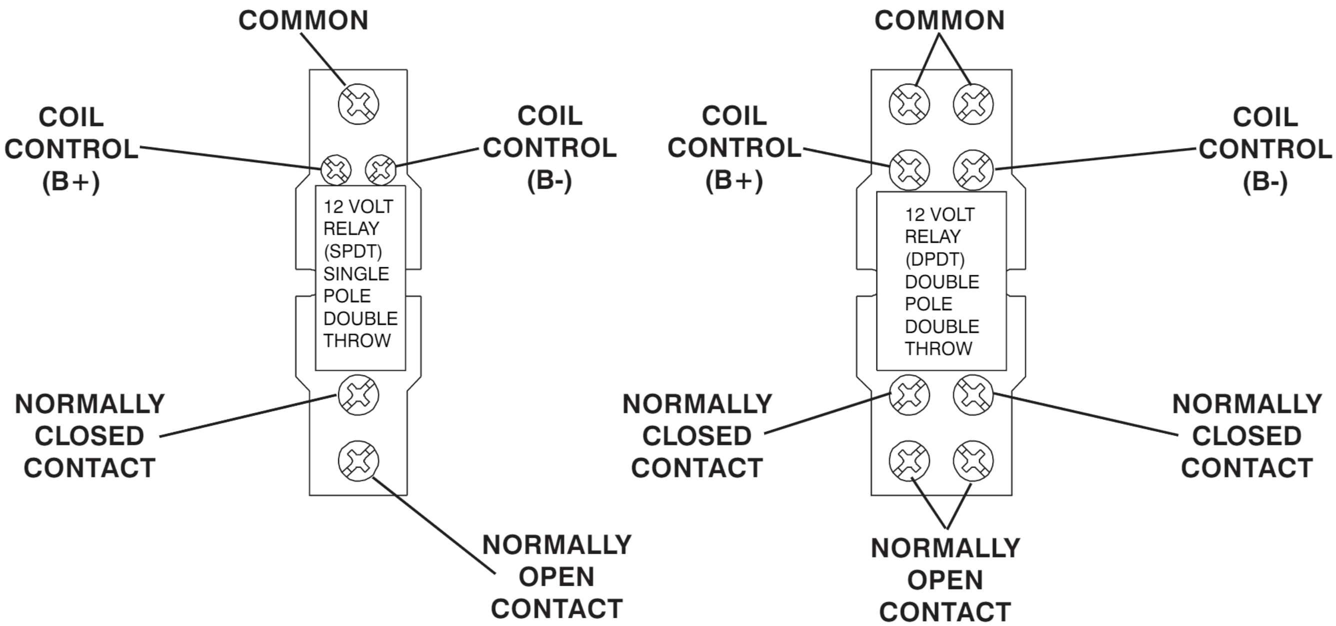
Figure 3.1-1. Relay Terminal Function Chart

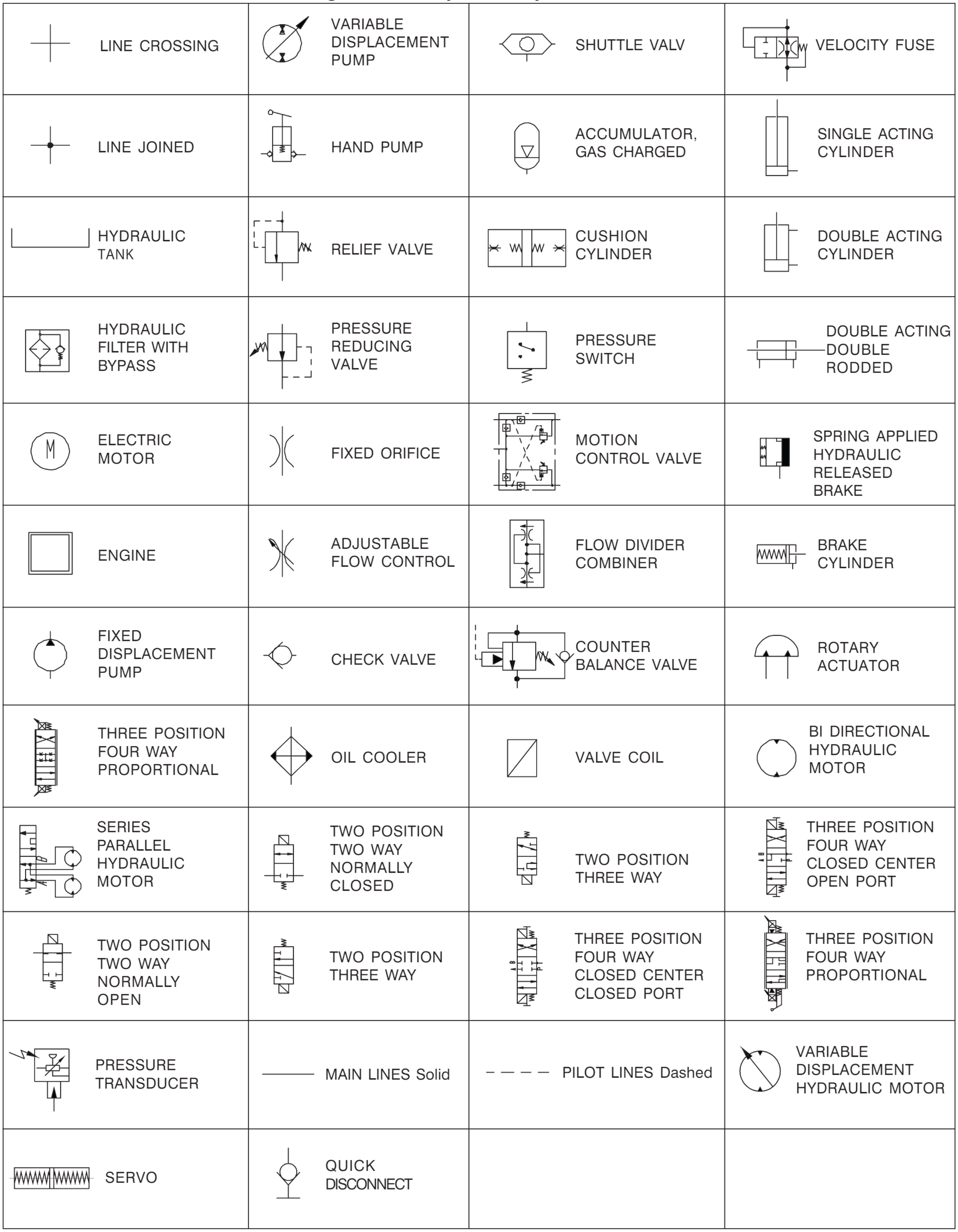


RELAY NO.	RELAY FUNCTION	RELAY NO.	RELAY FUNCTION
10BCR1	Engine On (DPDT)	20CR	Series/Parallel Drive (SPDT)
10BCR2	Engine Protection (DPDT)	23CR	Right Steer (SPDT)
13CR	Down (SPDT)	24CR	Left Steer (SPDT)
14CR	Up (SPDT)	28CR	Tilt Switch (DPDT)
15CR	Reverse Drive (DPDT)	30CR	Brake (SPDT)
16CR	Forward Drive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

Figure 3.1-2. Electrical Symbol Chart

WIRE CROSSING	HOURMETER	KEY SWITCH	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 3.1-3. Hydraulic Symbol Chart



Index No.	Skyjack Part No.	Qty.	Description
BP1	133420	1	BRAKE PACK **(Model 71XX & 8243)**
	133441	1	BRAKE PACK **(Model 8850)**
C1	121091	AR	CYLINDER ASSEMBLY, Lift
C5	120412	1	CYLINDER ASSEMBLY, Disc brake
C7	121086	1	CYLINDER ASSEMBLY, Steer **(2WD/4WD)**
C8	107752	1	CYLINDER, Cushion
C9 - C12	132694	4	CYLINDER ASSEMBLY, Outrigger
C13	126421	1	CYLINDER, Front extension platform
CBV1	132249	1	VALVE, Counterbalance **(Motion control)**
CBV2	132249	1	VALVE, Counterbalance **(Motion control)**
CV1	104624	1	CHECK VALVE, Small pump
CV2	104624	1	CHECK VALVE, Large pump
CV3	104624	1	CHECK VALVE, Lift
CV4-CV7	104115	AR	CHECK VALVE, Outrigger pilot
CV11	132248	1	CHECK VALVE, Motion control
CV12	132248	1	CHECK VALVE, Motion control
CV13	132248	1	CHECK VALVE, Motion control
CV14	132248	1	CHECK VALVE, Motion control
C13	126421	1	CYLINDER ASSEMBLY, front extension platform
F1	109568	1	FILTER ASSEMBLY, Return
	104254	AR	• ELEMENT, Filter
HP2	110652	1	HAND PUMP, Brake release
GM1	113875	1	MOTOR/PUMP with flow control **(Hydraulic generator option)**
M1	109311	1	MOTOR, Center drive hydraulic
MB1	114178	1	MANIFOLD BLOCK, Main
MB2	119748	1	MANIFOLD BLOCK, Emergency lowering
MB3	106688	AR	MANIFOLD BLOCK, Holding valve **(Model 71XX)**
	118345	AR	MANIFOLD BLOCK, Holding valve **(Model 8243 & 8850)**
MB4	106688	1	MANIFOLD BLOCK, Holding valve **(Model 71XX)**
MB5	118345	AR	MANIFOLD BLOCK, Holding valve **(Model 8243 & 8850)**
MB6	118345	AR	MANIFOLD BLOCK, Holding valve **(Model 8243 & 8850)**
	125430	AR	MANIFOLD BLOCK, Holding valve **(Model 8243 & 8850)**
MB7	110666	1	MANIFOLD BLOCK, Lift line
MB8	125430	AR	MANIFOLD BLOCK, Lift line

Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
MB10	111943	1	MANIFOLD BLOCK, Quick brake
MB11	111970	1	MANIFOLD BLOCK, Outrigger
MB12	103137	1	MANIFOLD BLOCK, Hydraulic generator
MB13	111290	1	MANIFOLD BLOCK, Powered platform
MB16	132261	1	MANIFOLD BLOCK, Motion Control
MC1	132244	1	MOTION CONTROL, Valve assembly
O1	132243	1	ORIFICE, Main lowering .096” diameter
O2	108721	AR	ORIFICE, Lift cylinder .055” diameter
OC1	114284	1	OIL COOLER ASSEMBLY (hyd. generator option)
P1	110460	1	PUMP, Dual inlet hydraulic .488/.854
P3	113173	1	PUMP, Hydraulic 1.2 gpm (powerdeck)
PT1	(Ref.)	1	TRANSDUCER, Pressure **(CE)**
			(Refer to Load Sensing supplemental manual, section 3)
QD1	122419	1	DISCONNECT, Quick (system pressure)
R1	104534	1	RELIEF VALVE, System
R2	104534	1	RELIEF VALVE, Lift
R3	106557	1	RELIEF VALVE, Lift cylinder **(Model 71XX)**
	104534	1	RELIEF VALVE, Lift cylinder **(Model 8243 & 8850)**
R4	106557	1	RELIEF VALVE, Lift cylinder **(Model 71XX)**
	104534	1	RELIEF VALVE, Lift cylinder **(Model 8243 & 8850)**
R8	113286	1	RELIEF VALVE, Powerdeck (Set at 500psi) **(Model 71XX)**
V1	107271	1	VALVE, Emergency lowering
V6	113752	1	VALVE, Brake release (auto reset)
2H-13A	103655	1	VALVE, Main lowering
2H-13A-1	107269	1	VALVE, Lift cylinder holding **(Model 71XX)**
	103655	1	VALVE, Lift cylinder holding **(Model 8243 & 8850)**
2H-13A-2	107269	1	VALVE, Lift cylinder holding **(Model 71XX)**
	103655	1	VALVE, Lift cylinder holding **(Model 8243 & 8850)**
2H-13A-3	103655	1	VALVE, Lift cylinder holding **(Model 8243 & 8850)**
2H-13A-4	103655	1	VALVE, Lift cylinder holding **(Model 8243 & 8850)**
2H-14B	103655	1	VALVE, Lift
2H-17A	114365	1	VALVE, Large pump dump
2H-17B	103655	1	VALVE, Outrigger holding
2H-18A	103356	1	VALVE, Small pump dump
2H-25	102626	1	VALVE, Brake
2H30A	112218	1	VALVE, Free Wheeling
2H-30A-1	103656	1	VALVE, Brake dump
2H-30A-2	103655	1	VALVE, Brake feed
2H-30A	112218	1	VALVE, Free-wheeling
2H-86	104412	1	VALVE, Hydraulic generator (option)
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
2H-98-1	103655	1	VALVE, Lift cylinder auxiliary holding **(Model 8243 & 8850)**
2H-98-2	103655	1	VALVE, Lift cylinder auxiliary holding **(Model 8243 & 8850)**
2H-98-3	103655	1	VALVE, Lift cylinder auxiliary holding **(Model 8243 & 8850)**
2H-98-4	103655	1	VALVE, Lift cylinder auxiliary holding **(Model 8243 & 8850)**
3H-20A	103623	1	VALVE, Series/parallel
4H-15B	139256	1	VALVE, Reverse drive (includes 4H-16B)
			(Order P/N 128319 for machines with Serial No. 342296 (71XX, 8243, 8850) & below)
4H-16B	139256	1	VALVE, Forward drive (includes 4H-15B)
			(Order P/N 128319 for machines with Serial No. 342296 (71XX, 8243, 8850) & below)
4H-23A	128318	1	VALVE, Right steer (includes 4H-24A)
4H-24A	128318	1	VALVE, Left steer (includes 4H-23A)
4H-26	128318	1	VALVE, Front platform extend (includes 4H-27)
4H-27	128318	1	VALVE, Front platform retract (includes 4H-27)
4H-71	128318	1	VALVE ASSEMBLY, Left front outrigger retract (includes 4H-75)
4H-72	128318	1	VALVE ASSEMBLY, Right front outrigger retract (includes 4H-76)
4H-73	128318	1	VALVE ASSEMBLY, Right rear outrigger retract (includes 4H-77)
4H-74	128318	1	VALVE ASSEMBLY, Left rear outrigger retract (includes 4H-78)
4H-75	128318	1	VALVE ASSEMBLY, Left front outrigger extend (includes 4H-71)
4H-76	128318	1	VALVE ASSEMBLY, Right front outrigger extend (includes 4H-72)
4H-77	128318	1	VALVE ASSEMBLY, Right rear outrigger extend (includes 4H-73)
4H-78	128318	1	VALVE ASSEMBLY, Left rear outrigger extend (includes 4H-74)

Figure 3.2-2. Hydraulic Schematic - Model 7127 & 7135

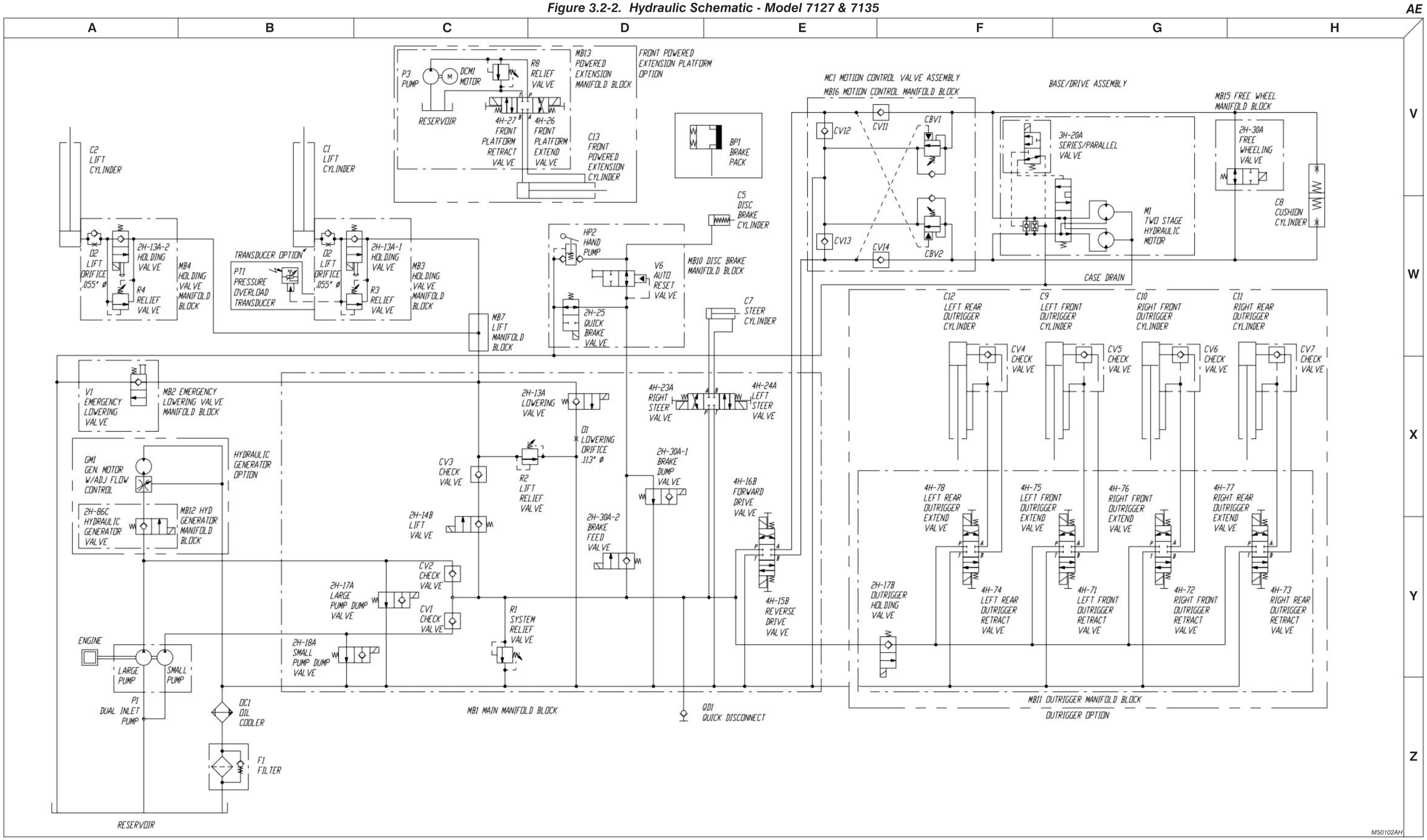


Figure 3.2-3. Hydraulic Schematic - Model 8243 & 8850 AE

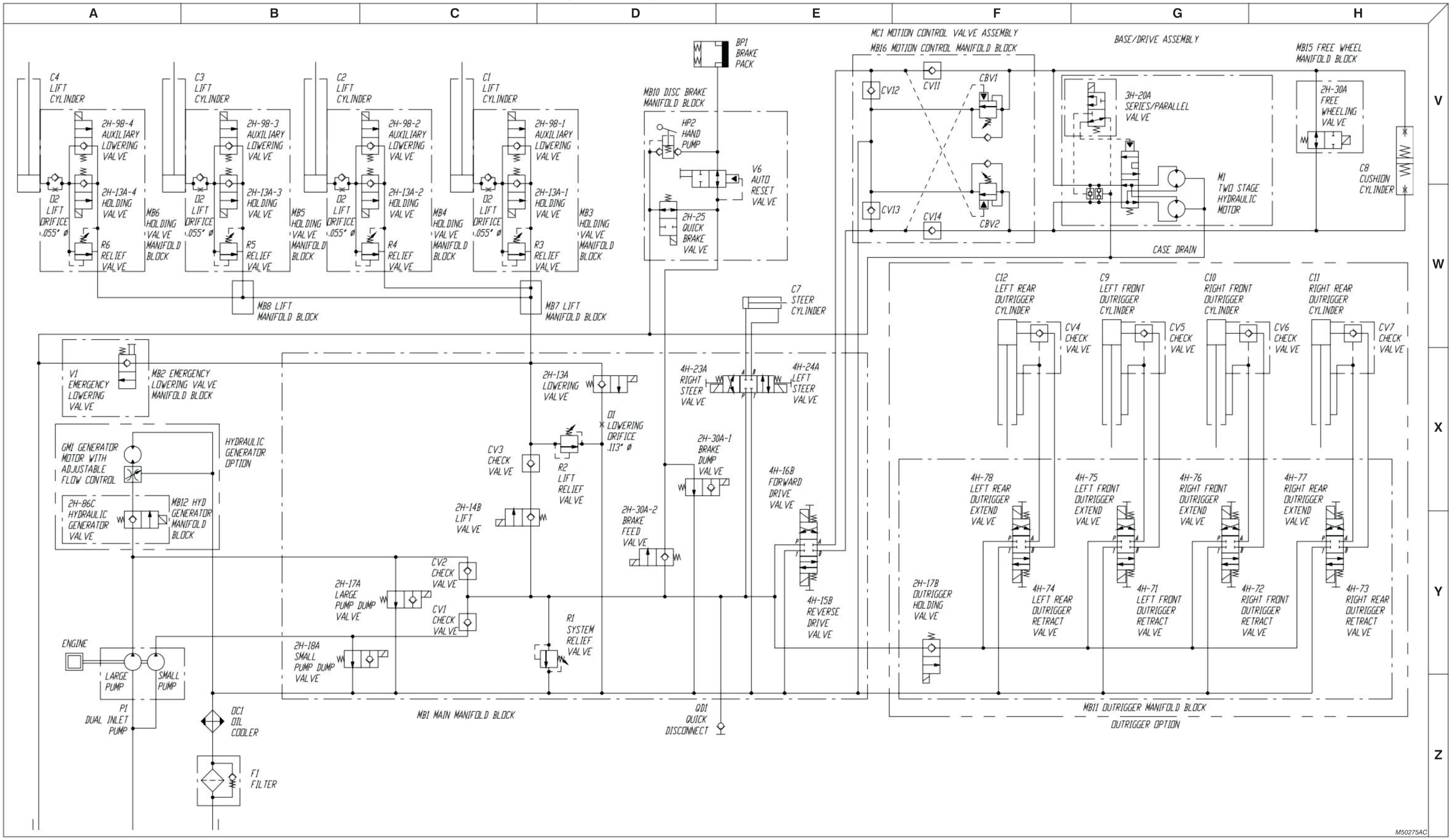
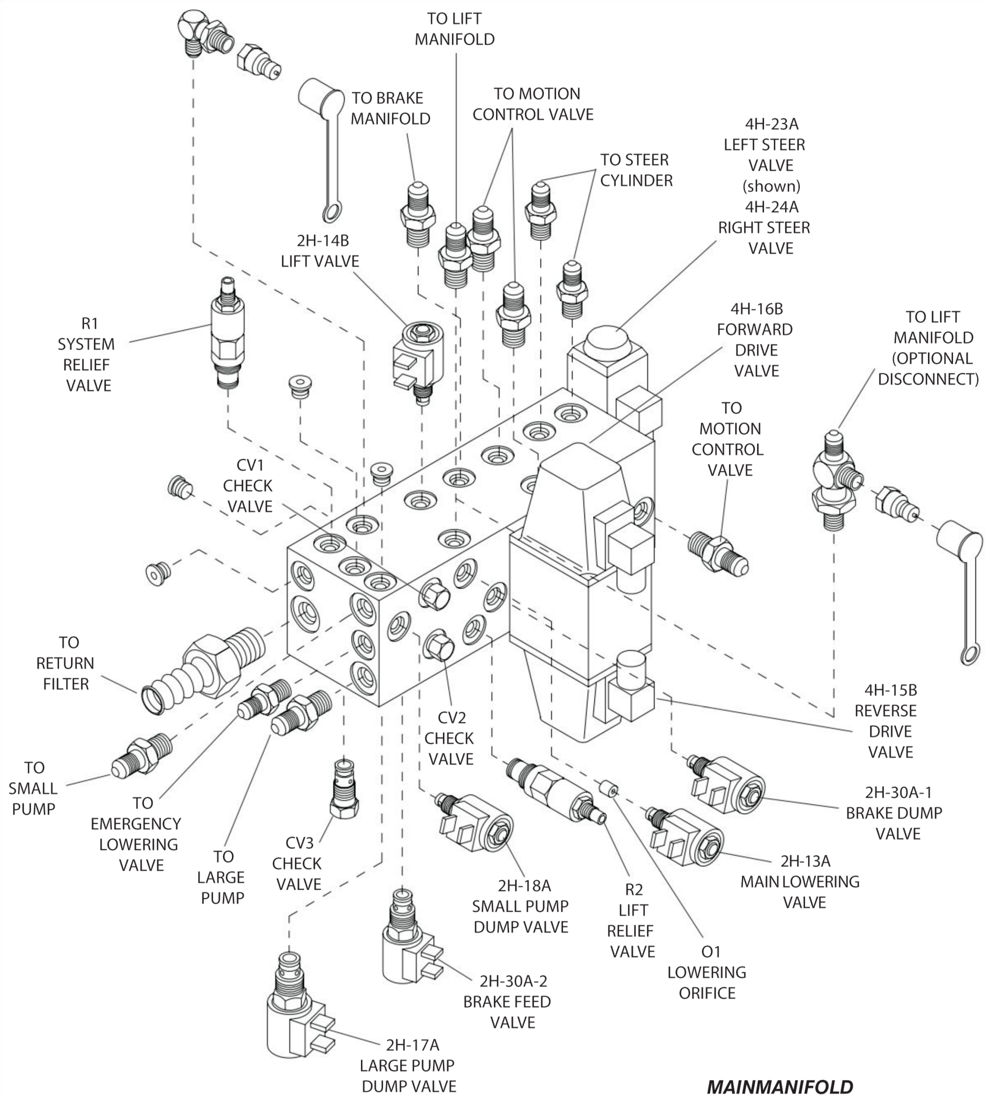
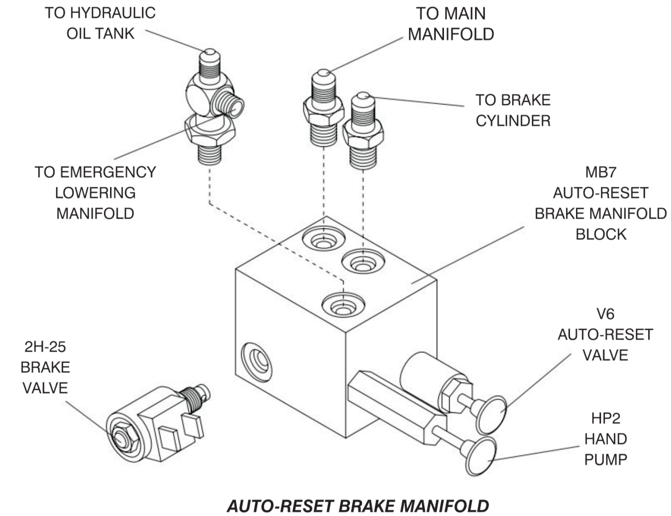
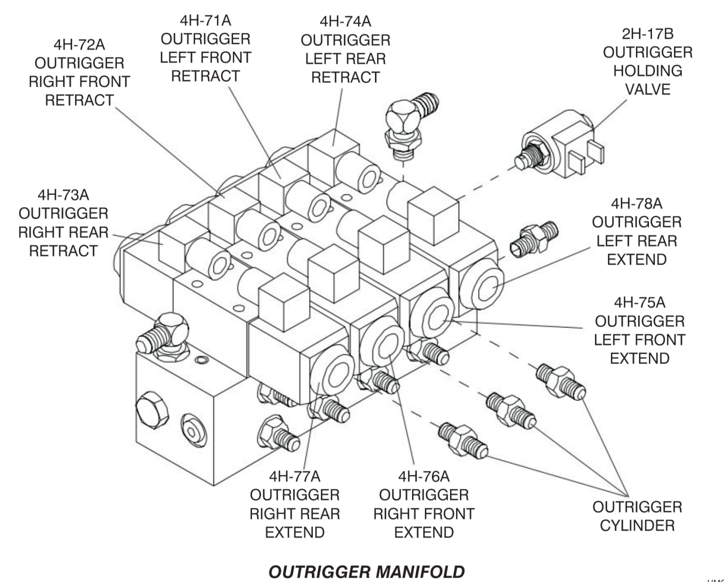


Figure 3.2-4. Hydraulic Manifolds And Ports Identification







Index No.	Skyjack Part No.	Qty.	Description
AT1	(Ref.)	1	TRANSDUCER, Angle (CE)
			(Refer to the Load Sensing supplemental manual, section 3)
B1	103295		BATTERY, 12 Volt (starting)
B2	108789	1	BATTERY, 12VDC-14 Amp Auxiliary **(Model 8243 & 8850 only)**
BP-29	103056	1	BEEPER, 12 Volt
CAP1	103319	1	CAPACITOR, 35 Volt, 1000MFD
CB1	117326	1	CIRCUIT BREAKER, 20 Amp
CB3	117326	1	CIRCUIT BREAKER, 20 Amp
CB4	117325	1	CIRCUIT BREAKER, 15 amp (Hydraulic Generator Option only)
CEL1	133133	1	LIGHT, Check engine (Nissan/GM)
CL-1	127765	1	LIGHT, Cabinet
CM1	(Ref.)	1	MODULE, Load sensing control **(CE)**
			(Refer to the Load Sensing supplemental manual, section 3)
CPS1	143530	1	SENSOR, Crankshaft position (GM)
CRD1	(Ref.)	1	CABLE ASSEMBLY, Control box (See Section 6.)
CRD2	(Ref.)	1	CABLE ASSEMBLY, Scissor arm (See Section 6.)
CRD3	(Ref.)	1	CABLE ASSEMBLY, Electrical panel (See Section 6.)
CS-31A	103007	1	SOLENOID, Choke (Kubota Dual Fuel Engine)
D02-X	129258	AR	DIODE
DXX	102921	AR	DIODE
DCM1	300248	1	MOTOR, 12 Volt (powered ext. platform option)
ECU1	132354	1	UNIT, Emission Control (NISSAN)
	142328	1	UNIT, Emission Control (GM)
EGP1	KUBOTA	1	PLUG, Engine glow (Diesel Fuel Engines)
F	115384	1	FAN, Oil cooler
F1	128595	1	FUSE, 300 Amp
F2	111282	1	FUSE, 100 Amp (powered ext. platform option)
F4	119469	1	FUSE, 200 Amp (Electrical inverter option)
F5	120658	1	FUSE, 10A (powered extension platform option)
F6	121504	1	FUSE, 20A
FL-22	121476	1	FLASHING LIGHT
FL-29	103743	1	FLASHER
FP	132365	1	PUMP, Fuel (Nissan/Kubota Dual Fuel Engines)
	142302	1	PUMP, Fuel (GM)
G	132339	1	ALTERNATOR (Dual Fuel Engines)
	115839	1	ALTERNATOR (Diesel Fuel Engines)
H1	102850	1	HORN, 12 Volt
HTS-34A	112721	1	SOLENOID, High throttle (Diesel Fuel Engines)
HTS-34C	103007	1	SOLENOID, High Throttle (Kubota Dual Fuel Engine)
IGC1	132340	1	COIL, Ignition (Nissan/Kubota Dual Fuel Engines)
	143527	1	COIL, Ignition (GM)
INV1	123629	1	INVERTER, 1500 Watt 120V @ 60hz
	124047	1	INVERTER, 1500 Watt 110/220V @ 50hz
GI1	132358	1	INJECTOR, Gasoline Fuel
GPL1	119184	1	GLOW PLUG INDICATOR LIGHT (Diesel Fuel Engines)
GPT1	119185	1	GLOW PLUG TIMER (Diesel Fuel Engines)
LS4	129358	1	LIMIT SWITCH, End-of-stroke
LS5	115598	1	LIMIT SWITCH, High speed/tilt override
LS61	115658	1	LIMIT SWITCH, Front left outrigger up
LS62	115658	1	LIMIT SWITCH, Front right outrigger up
			Parts list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
LS63	115658	1	LIMIT SWITCH, Rear right outrigger up
LS64	115658	1	LIMIT SWITCH, Rear left outrigger up
LS65	115658	1	LIMIT SWITCH, Front left outrigger down
LS66	115658	1	LIMIT SWITCH, Front right outrigger down
LS67	115658	1	LIMIT SWITCH, Rear right outrigger down
LS68	115658	1	LIMIT SWITCH, Rear left outrigger down
M	132336	1	MOTOR, Engine starter (Dual Fuel Engines)
	115457	1	MOTOR, Engine starter (Diesel Fuel Engines)
MS1	132356	1	SENSOR, Manifold Absolute Pressure (Nissan)
	143518	1	SENSOR, Manifold Absolute Pressure (GM)
OCM1	132804	1	MODULE, Outrigger Auto-Level Control
OPS1	133132	1	SWITCH, Engine oil Pressure (Dual Fuel Engines)
	102838	1	SWITCH, Engine oil pressure (Diesel Fuel Engines)
OL1	133133	1	LIGHT, Outrigger Indicator
OXS1	132819	1	SENSOR, Heated exhaust oxygen (Nissan)
	142315	1	SENSOR, Heated exhaust oxygen (GM)
OXS2	142299	1	SENSOR, Oxygen post-cat (GM)
PI1	132355	1	INJECTOR, Liquid Propane w/ o-ring
PL1	102671	1	CONTACT BLOCK, Control Box Power indicator light
PRV1	142340	1	PROPANE REGULATOR/VAPORIZER (GM)
PT1	(Ref.)	1	TRANSDUCER, Pressure **(CE)**
			(Refer to the Load Sensing supplemental manual, section 3)
RA1	--	-	ACTUATOR, Throttle Body (Dual Fuel Engines)
RL-22	107098	1	LIGHT, Optional rotating amber beacon
RL-29	107098	1	LIGHT, Optional rotating amber beacon
RST2	108788	1	RESISTOR, 3 Ohm / 100 **(Model 8243 & 8850 only)**
RST3	133049	1	RESISTOR, 1K / 1 OHM (Dual Fuel Engine)
RST4	133049	1	RESISTOR, 1K / 1 OHM (Dual Fuel Engine)
RST5	133050	1	RESISTOR, 1K / 10 OHM (Dual Fuel Engine)
RST6	133049	1	RESISTOR, 1K / 1 OHM (Nissan)
S1	119726	1	SWITCH, Main power disconnect
S2	103141	1	N.O. CONTACT BLOCK, Up/down switch
S3	(Ref)	1	ASSEMBLY, Off/Lift/Drive Key Switch
	103225	2	• N.C. CONTACT BLOCK, Off/lift/drive key switch
	103141	1	• N.O. CONTACT BLOCK, Off/lift/drive key switch
S4	103225	1	N.C. CONTACT BLOCK, Emergency stop switch
S5	103141	2	N.O. CONTACT BLOCK, Up/off/down switch
S6	103225	1	N.C. CONTACT BLOCK, Emergency stop switch **(Base controls) (CE)**
S7	132537	1	CONTROLLER ASSEMBLY, Drive/steer
S7-1	122869	1	• SWITCH W/ACTUATOR, 2nd Speed
S7-2	122877	1	• SWITCH, Right steer
S7-3	122877	1	• SWITCH, Left steer
S7-4	122869	1	• SWITCH W/ACTUATOR, Reverse drive
S7-5	122869	1	• SWITCH W/ACTUATOR, Forward drive
S7-6	122869	1	• SWITCH W/ACTUATOR, 3rd Speed
S7-7	122872	1	• SWITCH Joystick Enable
S8	103141	1	N.O. CONTACT BLOCK, Horn switch
S9	103141	1	N.O. CONTACT BLOCK, Lift enable switch
S9A	102853	1	SWITCH, Outrigger Enable
			Parts list continued on the following page

Figure 3.3-1. Electrical Component Parts List

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
S9B	102853	1	SWITCH, Outrigger enable
S10	103141	1	N.O. CONTACT BLOCK, Platform/base switch **(base controls) (CE)**
S11	102853	1	SWITCH, Power Deck Platform extend/retract toggle
S12	102853	1	SWITCH, Hydraulic generator option
S13	103141	1	N.O. CONTACT BLOCK, Glow Plug (Diesel Engine only)
S14	103141	1	N.O. CONTACT BLOCK, Low/high throttle switch
S15	103141	1	N.O. CONTACT BLOCK, Engine start
S16	103141	1	N.O. CONTACT BLOCK, Electrical Panel Up push-button
S17	103141	1	N.O. CONTACT BLOCK, Electrical Panel Down push-button
S20	102853	1	SWITCH, Front left outrigger up/down toggle
S20A	127132	1	SWITCH, Front left outrigger rocker
S21	102853	1	SWITCH, Front right outrigger up/down toggle
S21A	127132	1	SWITCH, Front right outrigger rocker
S22	102853	1	SWITCH, Rear right outrigger up/down toggle
S22A	127132	1	SWITCH, Rear right outrigger rocker
S23	102853	1	SWITCH, Rear left outrigger up/down toggle
S23A	127132	1	SWITCH, Rear left outrigger rocker
S24	102853	1	SWITCH, Auto-Level Outrigger
S29	103141	1	N.O. CONTACT BLOCK, Low/high range switch
S30	124446	1	SWITCH, Engine Off/On/Start (Dual Fuel Engines)
	102572	1	SWITCH, Engine off/on (Diesel Fuel Engines)
S31	102692	1	SWITCH, Engine Glow Plug (Diesel Fuel Engines)
S32	102692	1	SWITCH, Engine start push-button (Diesel Fuel Engines)
S33	115747	1	SWITCH, Gas/Propane Fuel Select Toggle (Nissan/Kubota Dual Fuel Engines)
	115574	1	SWITCH, Gas/Propane Fuel Select Toggle (GM)
S34	102853	1	SWITCH, Power Deck Enable toggle
S34A	102853	1	SWITCH, Power deck control box (enable)
S41	114373	1	SWITCH, Torque toggle
S51	103141	1	SWITCH, Auxiliary/Emergency Lowering (Model 8243 & 8850)
S98	102853	1	SWITCH, Outrigger Enable Toggle
TPS1	132360	1	SENSOR, Engine Coolant Temperature (Diesel Fuel Engines)
	116023	1	SWITCH, Engine temperature (Diesel Fuel Engines)
TPS2	132357	1	SENSOR, Air Temperature (Dual Fuel Engines)
TT	103336	1	HOUR METER
1TD	103207	1	RELAY, 12 Volt DPDT (drive time delay)
2D37	130905	1	SOLENOID, Stop (Diesel Engines)
9CR1	111787	1	CONTACTOR, 12 Volt (powered ext. platform option)
9CR2	127131	1	RELAY, 12 Volt (outrigger enable)
9CR3	127131	1	RELAY, 12 Volt (outrigger enable proof)
10ACR	127035	1	RELAY, 12 Volt 40 Amp
10ACR2	127035	1	RELAY, 12 Volt (oil cooler)
10BCR1	103207	1	RELAY, 12 Volt DPDT (engine on)
10BCR2	103207	1	RELAY, 12 Volt DPDT (engine on)
10BCR3	103207	1	RELAY, 12 Volt DPDT (oil cooler)
12BCR	127035	1	RELAY, 12 Volt (joystick controller enable)
13CR	103316	1	RELAY, 12 Volt SPDT (down)
14CR	103316	1	RELAY, 12 Volt SPDT (up)
15CR	103207	1	RELAY, 12 Volt DPDT (reverse drive)
16CR	103207	1	RELAY, 12 Volt DPDT (forward drive)
			Parts list continued on the following page

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
17CR	103316	1	RELAY, 12 Volt SPDT (2nd speed/large pump)
17ACR	103316	1	RELAY, 12 Volt SPDT (small pump)
17BCR	127131	1	RELAY, 12 Volt (outrigger lift disable)
18CR	103316	1	RELAY, 12 Volt SPDT (3rd speed)
20CR	103316	1	RELAY, 12 Volt SPDT (series/parallel drive)
23CR	103316	1	RELAY, 12 Volt SPDT (right steer)
24CR	103316	1	RELAY, 12 Volt SPDT (left steer)
28CR	103207	1	RELAY, 12 Volt DPDT (tilt switch)
30CR	103316	1	RELAY, 12 Volt SPDT (brake)
31ACR	103731	1	RELAY, 12 Volt SPDT - Engine Glow Plug (Diesel Fuel Engines)
31CR	103316	1	RELAY, 12 Volt SPDT (engine choke/glow plug)
32CR	103316	1	RELAY, 12 Volt DPDT (engine start)
32ACR	KUBOTA	1	SOLENOID, Engine start
33CR	127035	1	RELAY, Power on-demand (Kubota Dual Fuel Engine)
34BCR	103731	1	RELAY, 12 Volt SPDT (throttle)
35ACR	103731	1	RELAY, 12 Volt SPDT (throttle enable)
35CR	103207	1	RELAY, 12 Volt DPDT (tilt override)
37CR	127035	1	RELAY, Fuel (Kubota Dual Fuel Engine)
49CR	103316	1	RELAY, 12 Volt SPDT (horn)
61CR	127131	1	RELAY, 12 Volt (outrigger drive enable)
65CR	127131	1	RELAY, 12 Volt (outrigger lift enable)
86ACR	103731	1	RELAY, 12 Volt SPDT (hydraulic generator stop)
86BCR	103207	1	RELAY, 12 Volt DPDT (hydraulic generator)
99CR	300242	1	SOLENOID, 12V motor (Powered extension platform option)
130CR	103316	1	RELAY, 12 Volt SPDT (down)
140CR	103316	1	RELAY, 12 Volt SPDT (up)
2D37	130905	1	SOLENOID, Diesel fuel shut-off
2G-11	(Ref.)	1	SOLENOID, Gas shutoff (Kubota Dual Fuel Engine) (Refer to section 6 for components)
2H-13A	103613	1	COIL, 12 Volt main lowering valve
2H-13A-1	104410	1	COIL, 12 Volt lift cylinder holding
2H-13A-2	104410	1	COIL, 12 Volt lift cylinder holding
2H-13A-3	104410	1	COIL, 12 Volt lift cylinder holding **(Model 8243 & 8850 only)**
2H-13A-4	104410	1	COIL, 12 Volt lift cylinder holding **Model 8243 & 8850 only)**
2H-14B	103613	1	COIL, 12 Volt lift valve
2H-17A	106272	1	COIL, 12 Volt large pump dump valve
2H-17B	103613	1	COIL, 12 Volt Outrigger holding
2H-18A	103613	1	COIL, 12 Volt small pump dump valve
2H-25	103613	1	COIL, 12 Volt brake valve
2H-30A	103613	1	COIL, 12 Volt free-wheeling valve
2H-30A-1	103613	1	COIL, 12 Volt brake dump valve
2H-30A-2	103613	1	COIL, 12 Volt brake feed valve
2H-86C	106272	1	COIL, 12 Volt hydraulic generator option
2H-98-1	104410	1	COIL, 12 Volt Auxiliary Holding Valve **(Model 8243 & 8850 only)**
2H-98-2	104410	1	COIL, 12 Volt Auxiliary Holding Valve **(Model 8243 & 8850 only)**
2H-98-3	104410	1	COIL, 12 Volt Auxiliary Holding Valve **(Model 8243 & 8850 only)**
2H-98-4	104410	1	COIL, 12 Volt Auxiliary Holding Valve **(Model 8243 & 8850 only)**
2P-50	125793	1	SOLENOID, Propane valve
			Parts list continued on the following page

Figure 3.3-1. Electrical Component Parts List

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
2P-50-1	125793	1	SOLENOID, Propane lockoff valve, vaporizer (Kubota Dual Fuel Engine)
2P-50-2	(Ref.)	1	SOLENOID, Propane lockoff valve, carburetor (Kubota Dual Fuel Engine) (Refer to section 6 for components)
2P-56	142324	1	SOLENOID, Propane lockoff valve (GM Dual Fuel Engine)
3H-20A	103613	1	COIL, 12 Volt series/parallel drive
4H-15B	128322	1	COIL, Reverse drive valve
4H-16B	128322	1	COIL, Forward drive valve
4H-23A	128321	1	COIL, Right steer valve
4H-24A	128321	1	COIL, Left steer valve
4H-26	128321	1	COIL, Powered ext. platform extend valve
4H-27	128321	1	COIL, Powered ext. platform retract valve
4H-71	128321	1	COIL, 12 Volt front left outrigger up
4H-72	128321	1	COIL, 12 Volt front right outrigger up
4H-73	128321	1	COIL, 12 Volt rear right outrigger up
4H-74	128321	1	COIL, 12 Volt rear left outrigger up
4H-75	128321	1	COIL, 12 Volt front left outrigger down
4H-76	128321	1	COIL, 12 Volt front right outrigger down
4H-77	128321	1	COIL, 12 Volt rear right outrigger down
4H-78	128321	1	COIL, 12 Volt rear left outrigger down

Figure 3.3-2. Electrical Inverter Wiring Diagram

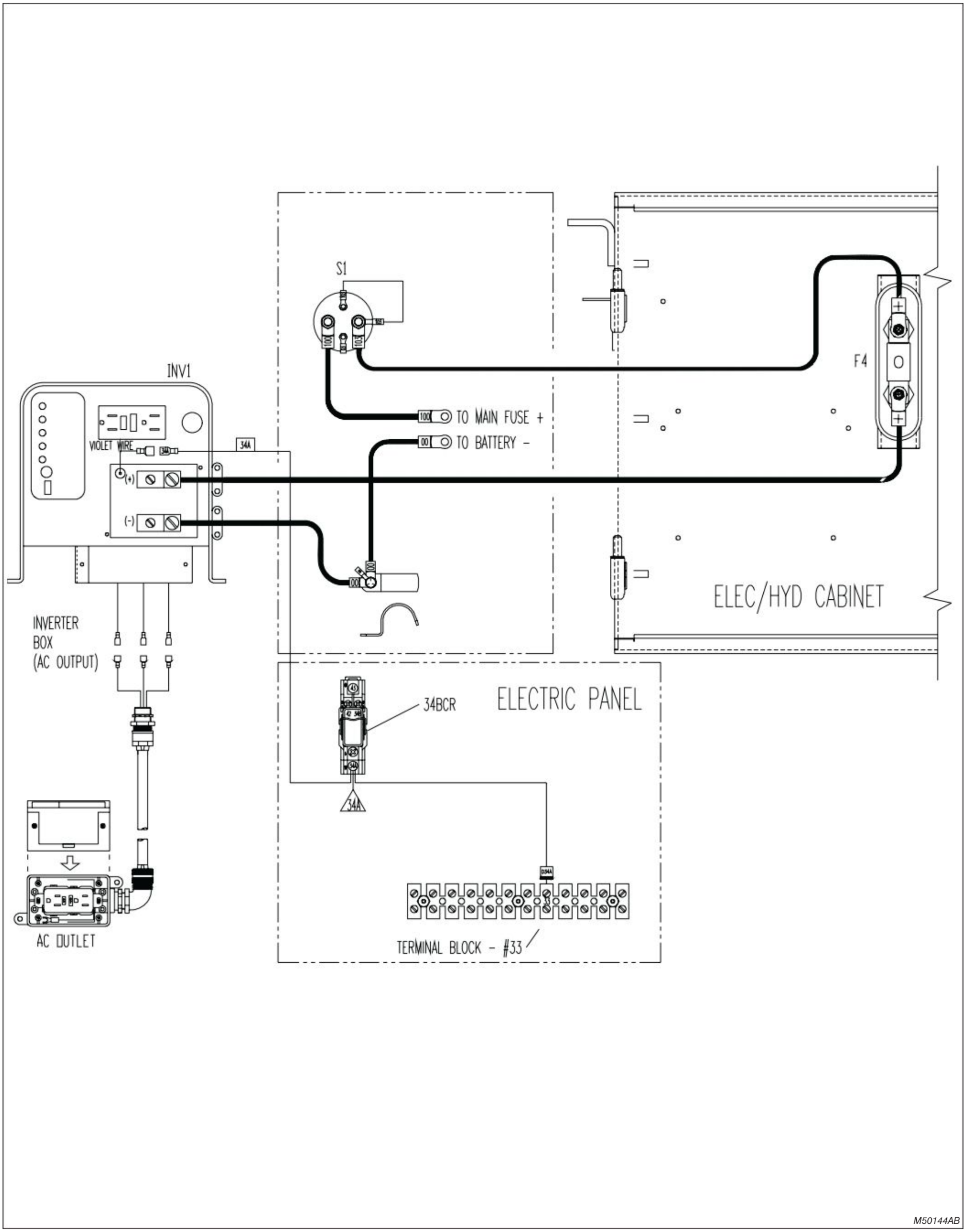


Figure 3.3-3a. Control Box Diagram - With All Options (ANSI/CSA) (SN 341970 and below)

Serial Breakdown Reference Chart	
Model	Serial Number
All	341970 & Below

CONTROL BOX HARNESS		PIN # - FUNCTION	JOYSTICK HARNESS	
24	BLUE/BLACK	PIN 1 - LEFT	24	WHITE/RED
12	BROWN/RED	PIN 2 - JOYSTICK VS+	12	WHITE/BLACK
23	BLACK/WHITE	PIN 3 - RIGHT	23	WHITE
16	WHITE/BLACK	PIN 4 - FORWARD	16	YELLOW
12A	BROWN/RED	PIN 5 - STEERING VS+	12A	WHITE/GREEN
15	BLUE	PIN 6 - REVERSE	15	GREY
19	ORANGE/BLACK	PIN 7 - 2nd SPEED	19	BROWN
12A	BROWN/RED	PIN 8 - ENABLE VS+	12A	WHITE/BLUE
18B	RED/BLACK	PIN 9 - 3rd SPEED	18B	RED/BLACK

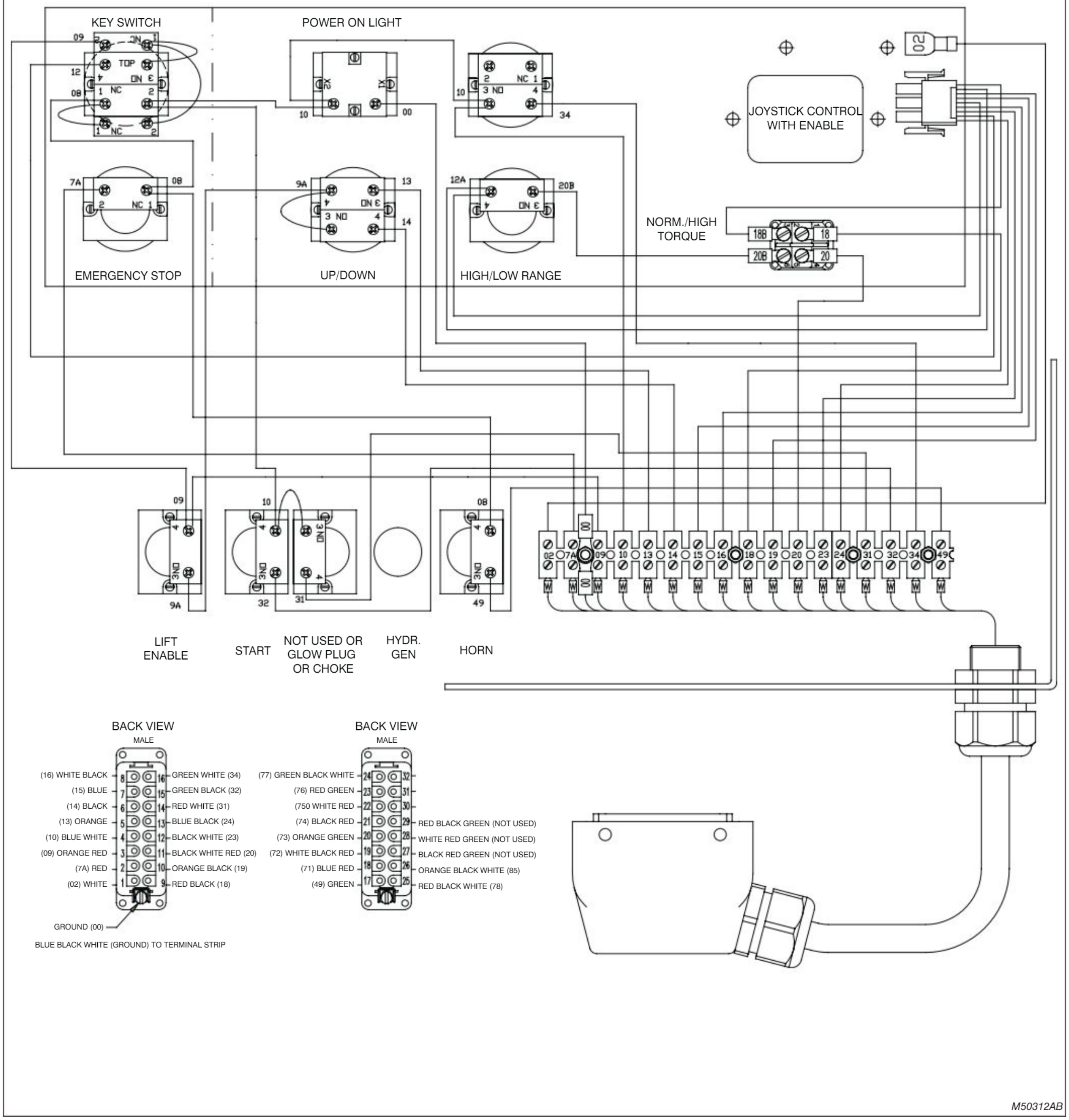


Figure 3.3-3b. Control Box Diagram - With All Options (ANSI/CSA)(SN 341971 and above) **AC**

Serial Breakdown Reference Chart	
Model	Serial Number
All	341971 & Above

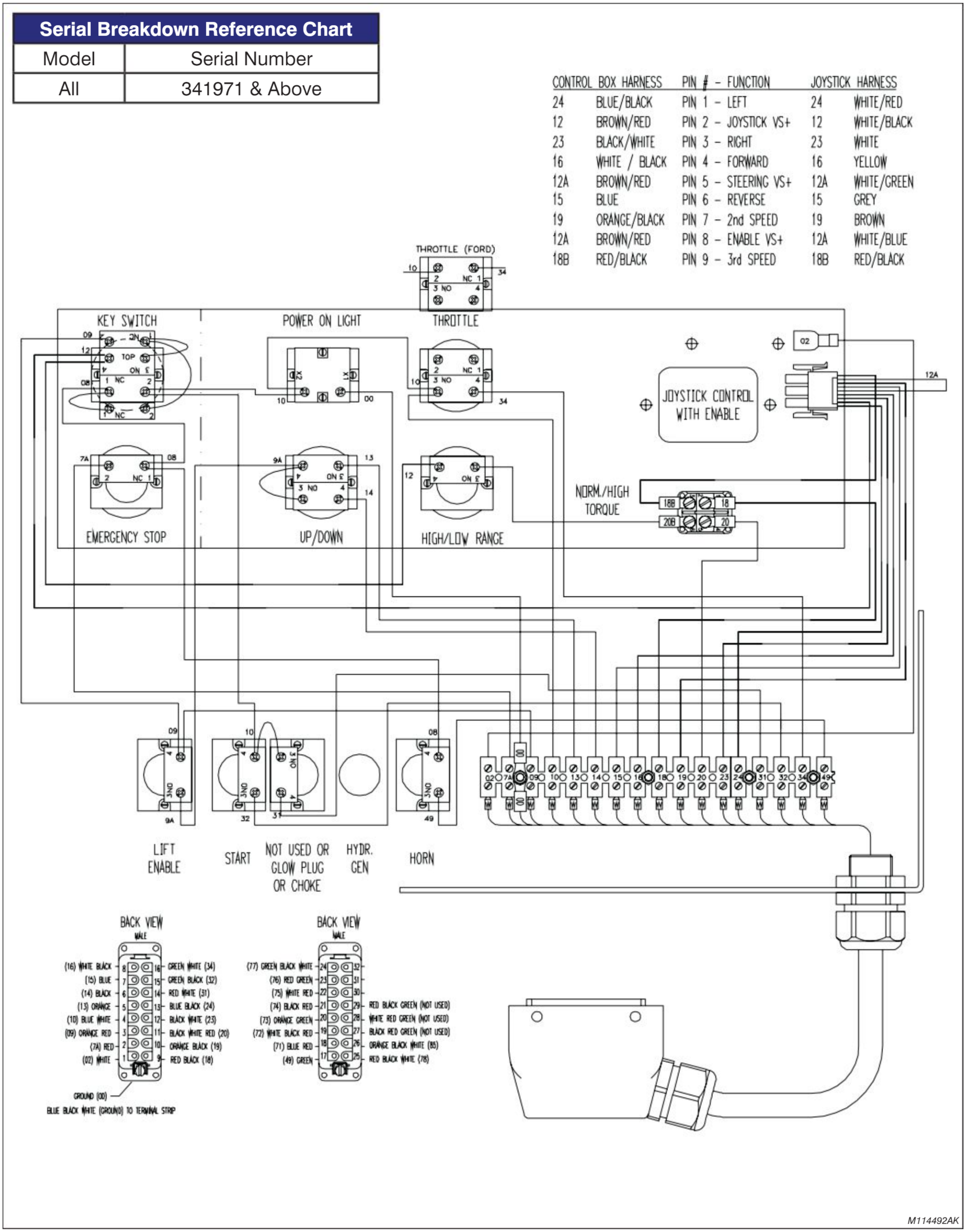


Figure 3.3-4a. Control Box Diagram - With All Options (CE) (SN 341970 and below)

Serial Breakdown Reference Chart	
Model	Serial Number
All	341970 & Below

CONTROL BOX HARNESS		PIN # - FUNCTION	JOYSTICK HARNESS	
24	BLUE/BLACK	PIN 1 - LEFT	24	WHITE/RED
12	BROWN/RED	PIN 2 - JOYSTICK VS+	12	WHITE/BLACK
23	BLACK/WHITE	PIN 3 - RIGHT	23	WHITE
16	WHITE/BLACK	PIN 4 - FORWARD	16	YELLOW
12A	BROWN/RED	PIN 5 - STEERING VS+	12A	WHITE/GREEN
15	BLUE	PIN 6 - REVERSE	15	GREY
19	ORANGE/BLACK	PIN 7 - 2nd SPEED	19	BROWN
12A	BROWN/RED	PIN 8 - ENABLE VS+	12A	WHITE/BLUE
18B	RED/BLACK	PIN 9 - 3rd SPEED	18B	RED/BLACK

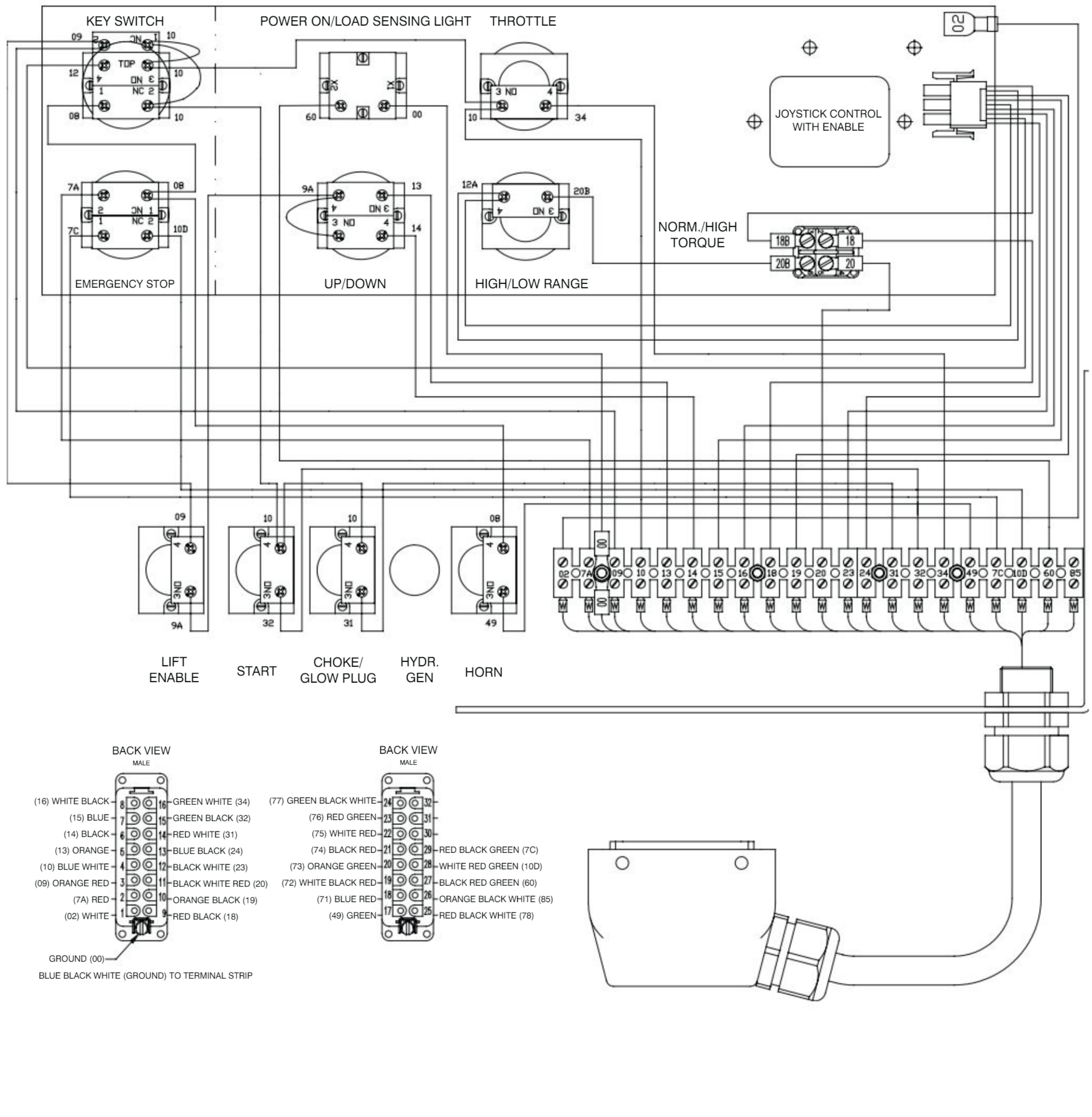
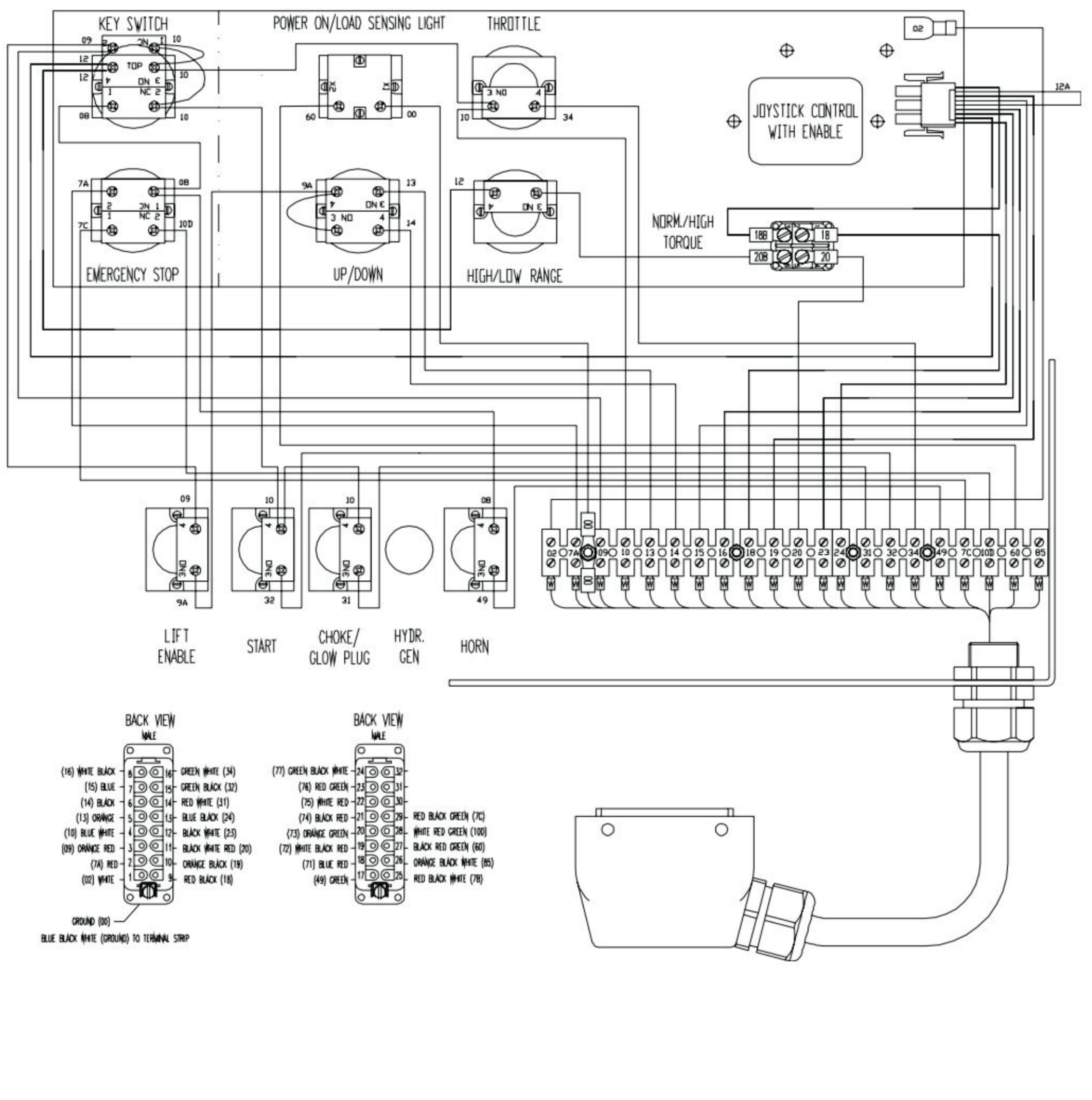


Figure 3.3-4b. Control Box Diagram - With All Options (CE)(SN 341971 and above) **AC**

Serial Breakdown Reference Chart	
Model	Serial Number
All	341971 & Above

CONTROL BOX HARNESS		PIN # - FUNCTION	JOYSTICK HARNESS	
24	BLUE/BLACK	PIN 1 - LEFT	24	WHITE/RED
12	BROWN/RED	PIN 2 - JOYSTICK VS+	12	WHITE/BLACK
23	BLACK/WHITE	PIN 3 - RIGHT	23	WHITE
16	WHITE / BLACK	PIN 4 - FORWARD	16	YELLOW
12A	BROWN/RED	PIN 5 - STEERING VS+	12A	WHITE/GREEN
15	BLUE	PIN 6 - REVERSE	15	GREY
19	ORANGE/BLACK	PIN 7 - 2nd SPEED	19	BROWN
12A	BROWN/RED	PIN 8 - ENABLE VS+	12A	WHITE/BLUE
18B	RED/BLACK	PIN 9 - 3rd SPEED	18B	RED/BLACK



M130711AC

Figure 3.3-5. Outrigger/Hydraulic Generator Control Box Wiring Diagram

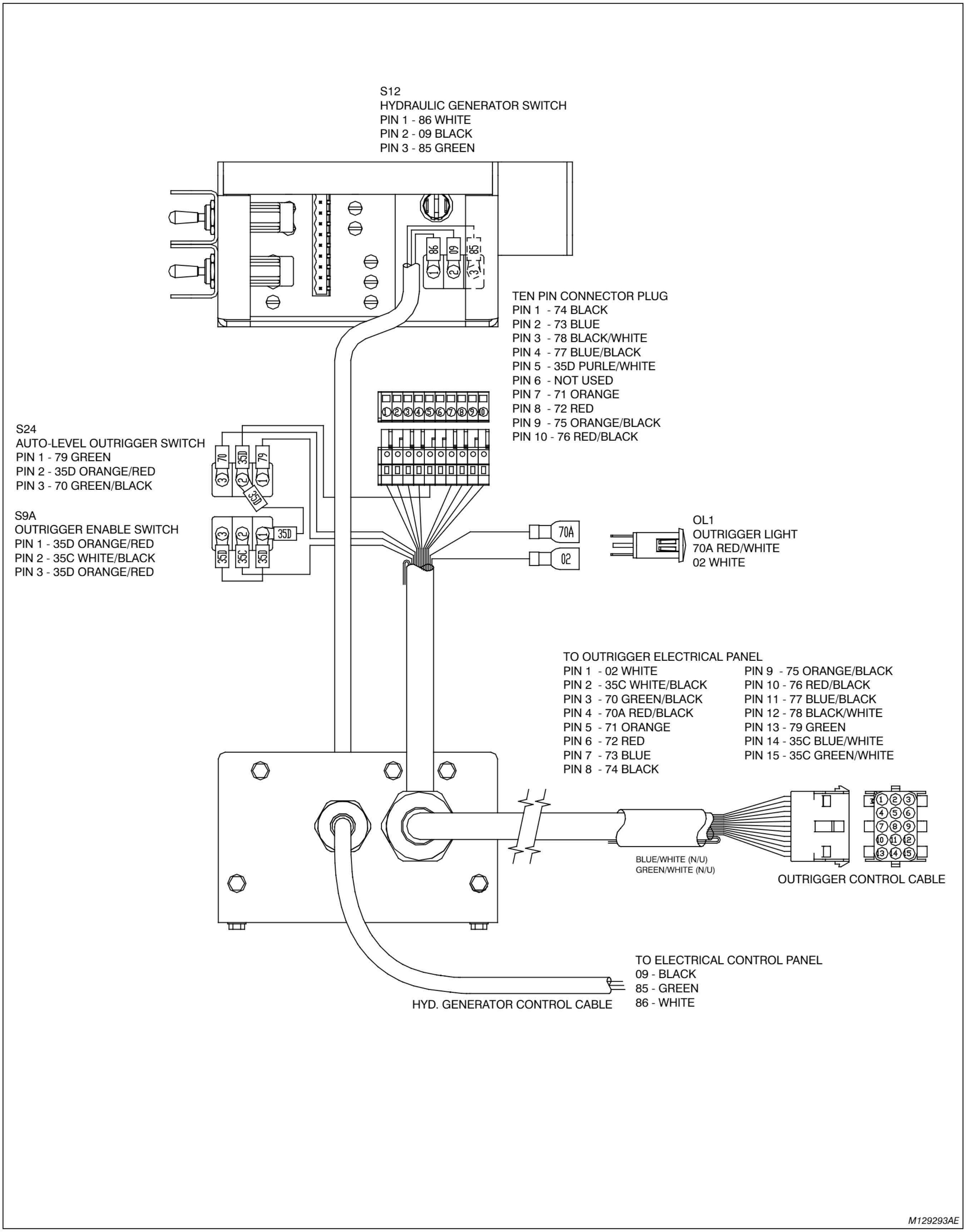


Figure 3.3-6. Powered Extension Related Assemblies and Electrical Connection Diagram

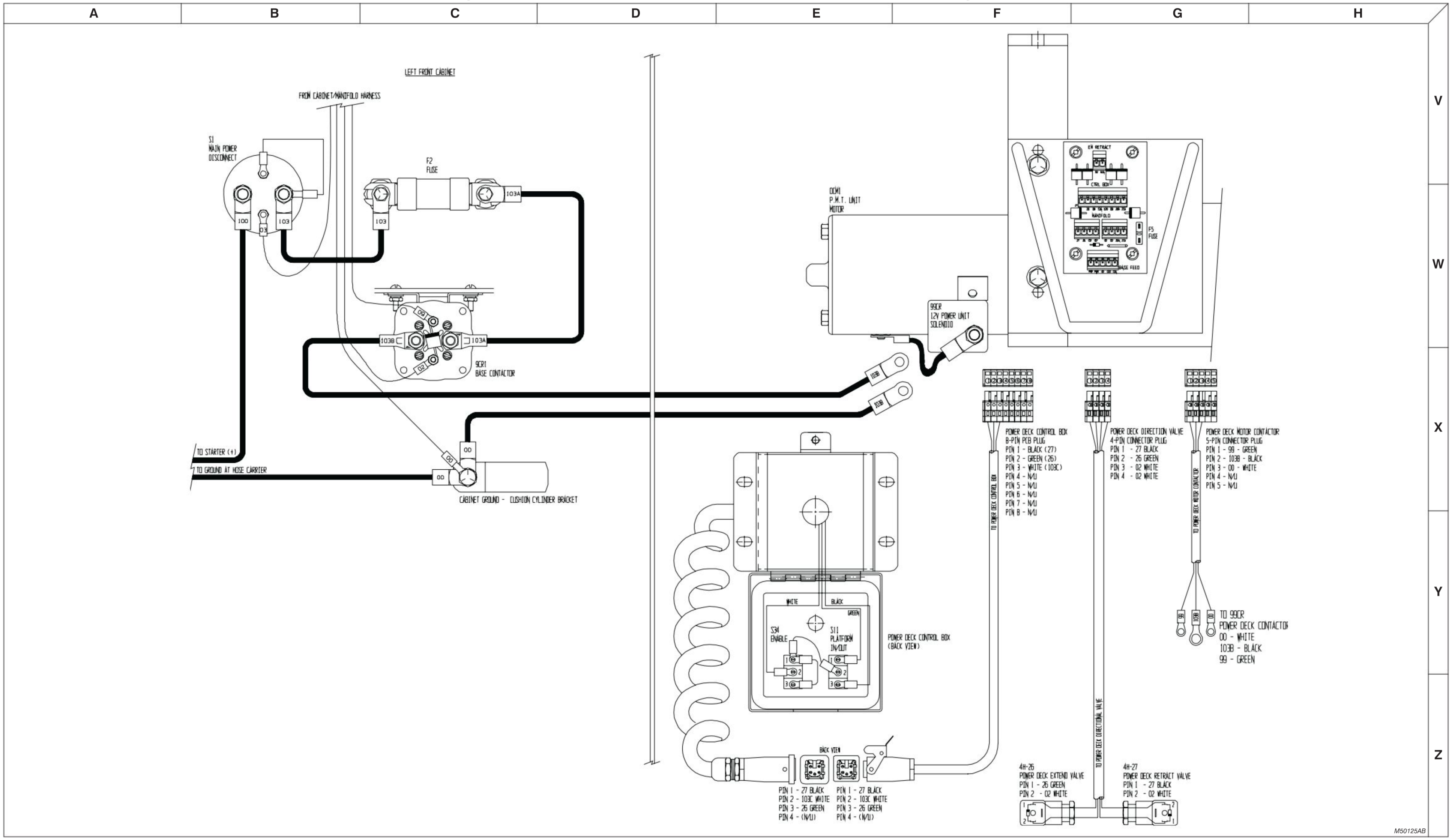


Figure 3.3-7. Hydraulic Generator Related Components and Electrical Panel Wiring Diagram

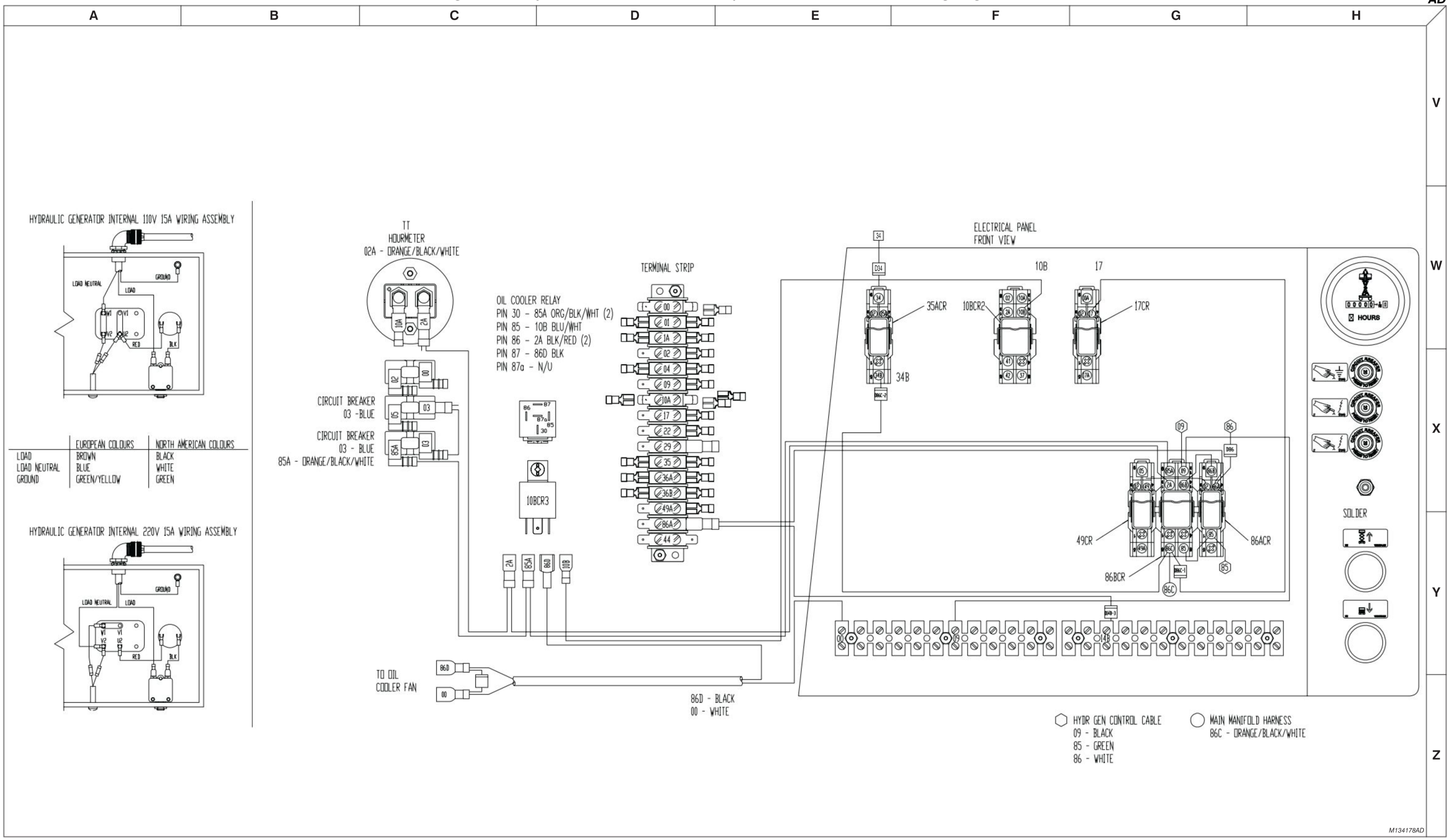


Figure 3.3-8. Oil Cooler Related Components and Electrical Panel Wiring Diagram (Nissan Engine Without Hydraulic Generator Option)

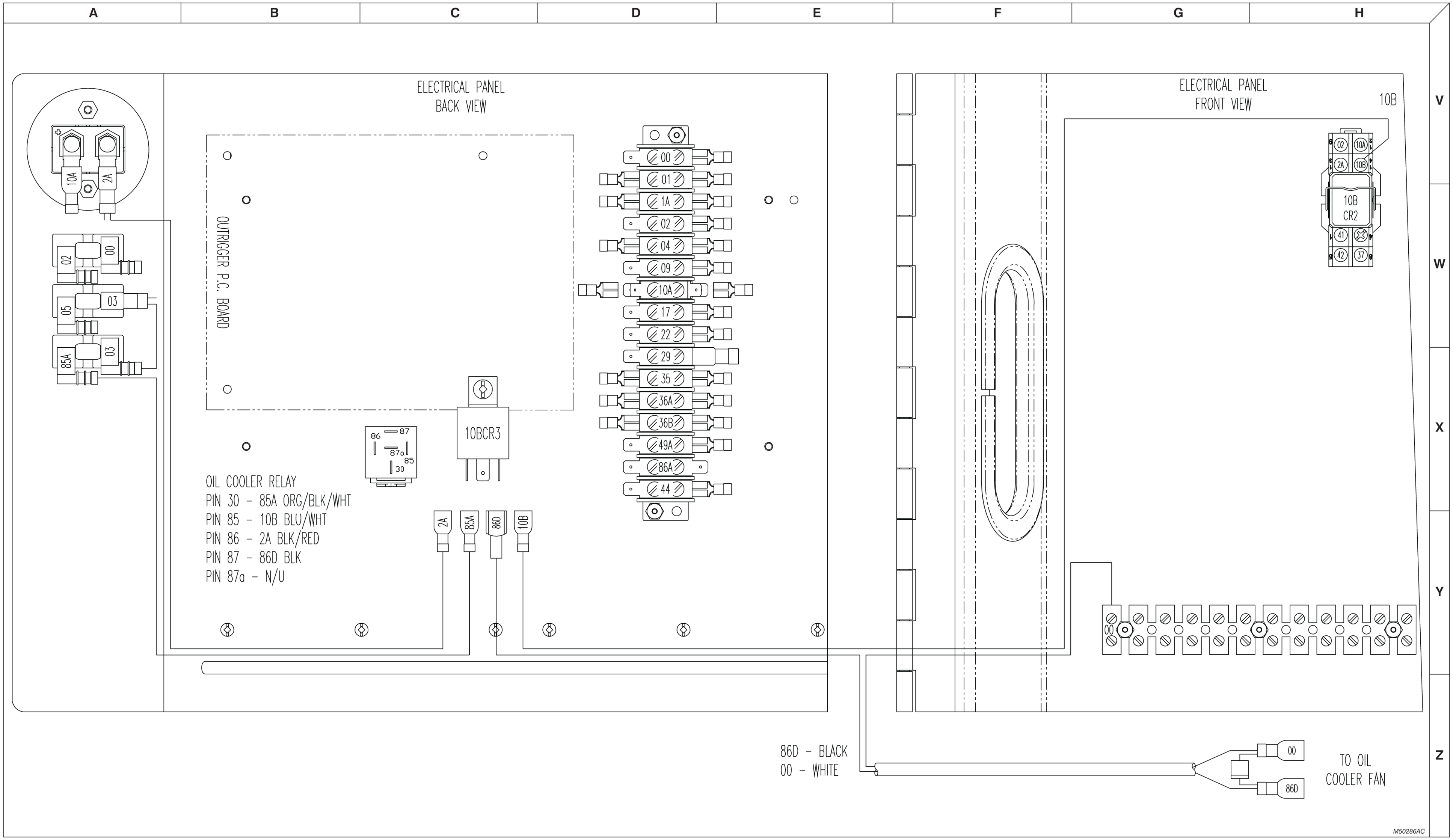


Figure 3.3-9. Outrigger Option Electrical Panel Wiring Diagram (ANSI/CSA)

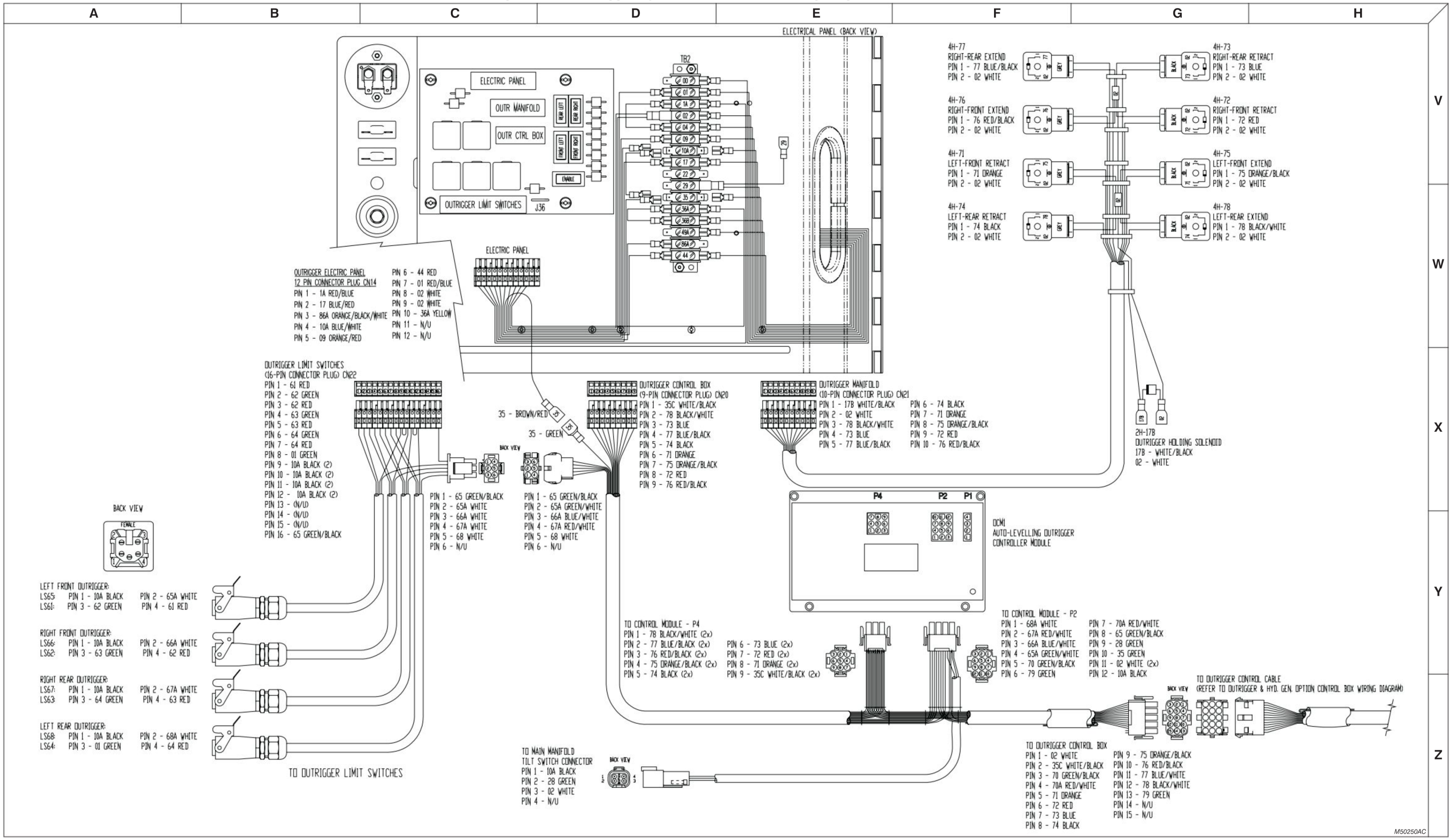


Figure 3.3-10. Outrigger Option Electrical Panel Wiring Diagram (CE)

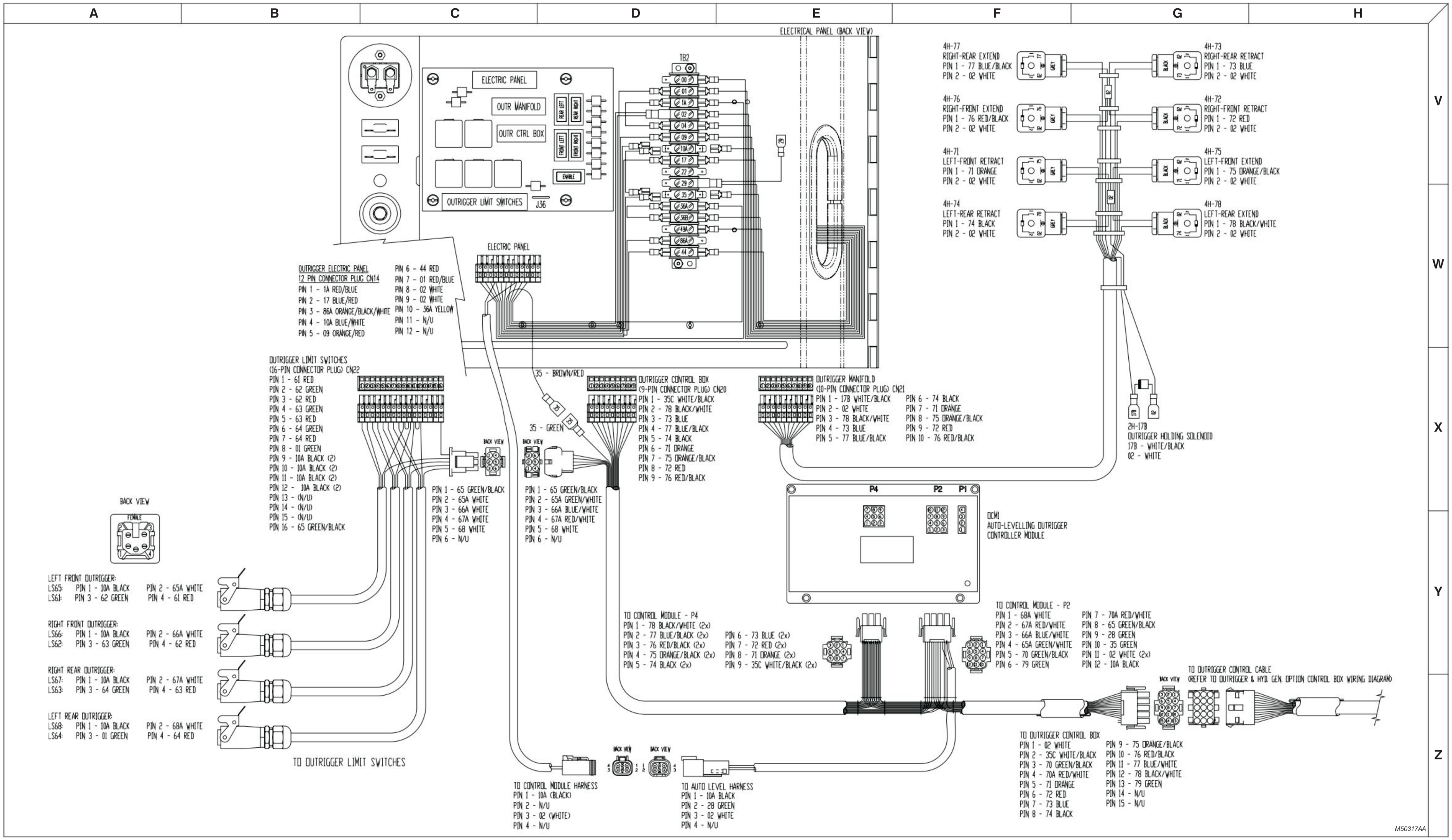


Figure 3.3-11. Main Manifold/Cabinet Harness Wiring Diagram (ANSI/CSA)

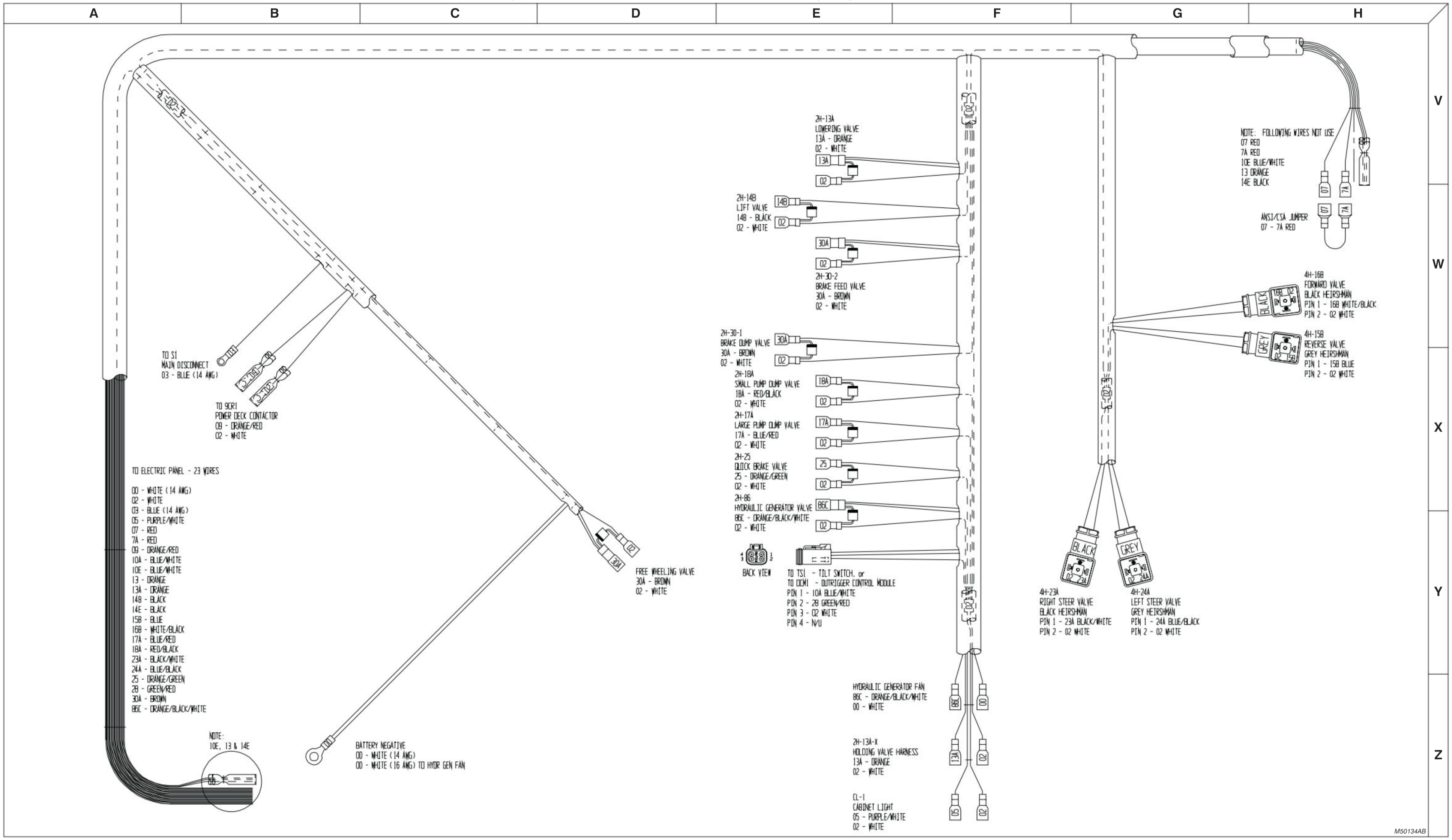


Figure 3.3-12. Main Manifold / Base Controls Cabinet Harness Wiring Diagram (CE)

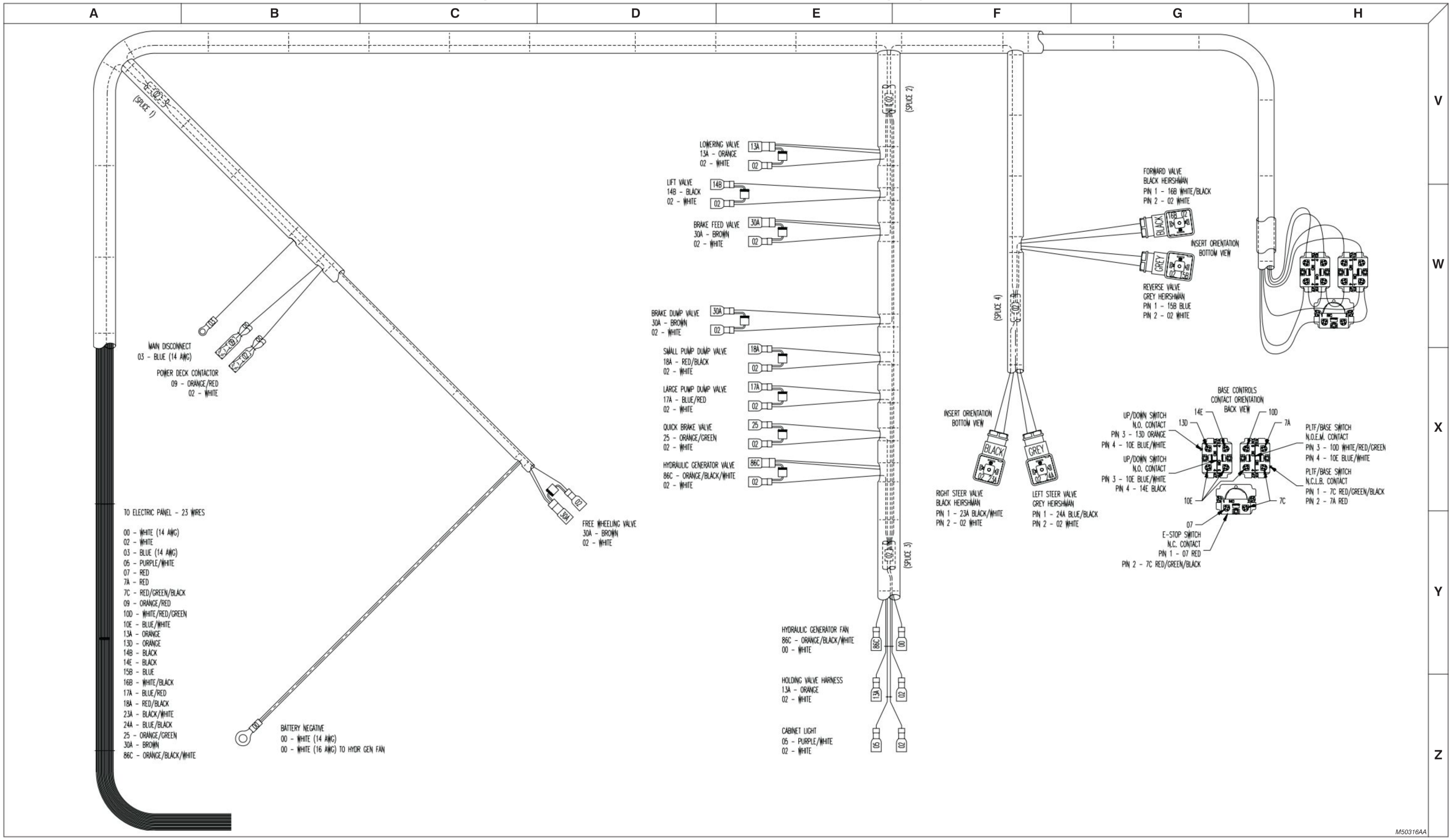


Figure 3.3-13a. Engine Wiring Diagram - Dual Fuel System (Nissan Engine)

AE

Serial Breakdown Reference Chart		
Model	Serial Number	Reference
SJ-600	341970 & Below	Figure 3.3-13a
	341971 & Above	Figure 3.3-13b

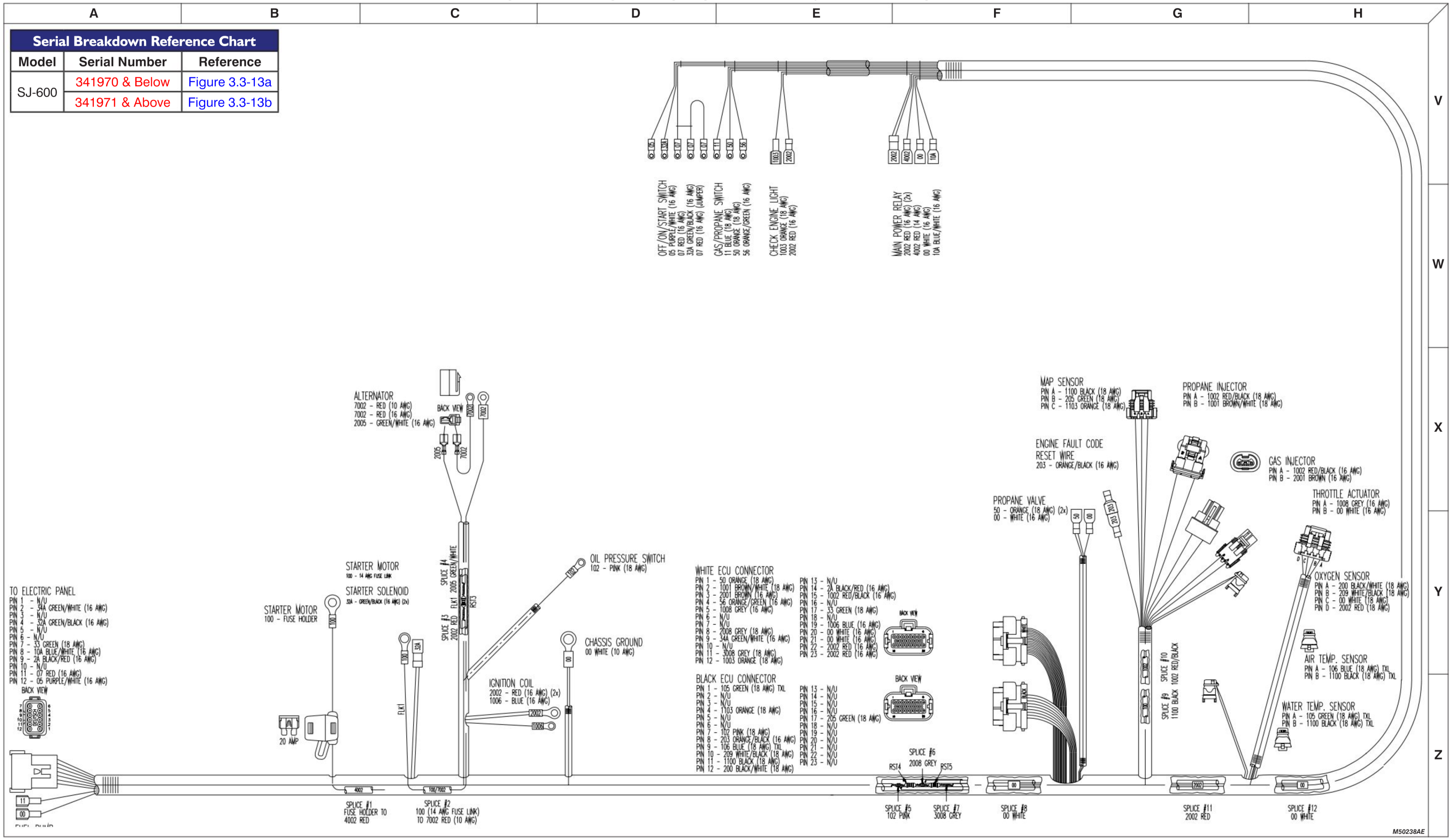


Figure 3.3-13b. Engine Wiring Diagram - Dual Fuel System (Nissan Engine) **AE**

Serial Breakdown Reference Chart		
Model	**Serial Number**	**Reference**
SJ-600	341970 & Below	Figure 3.3-13a
	341971 & Above	Figure 3.3-13b

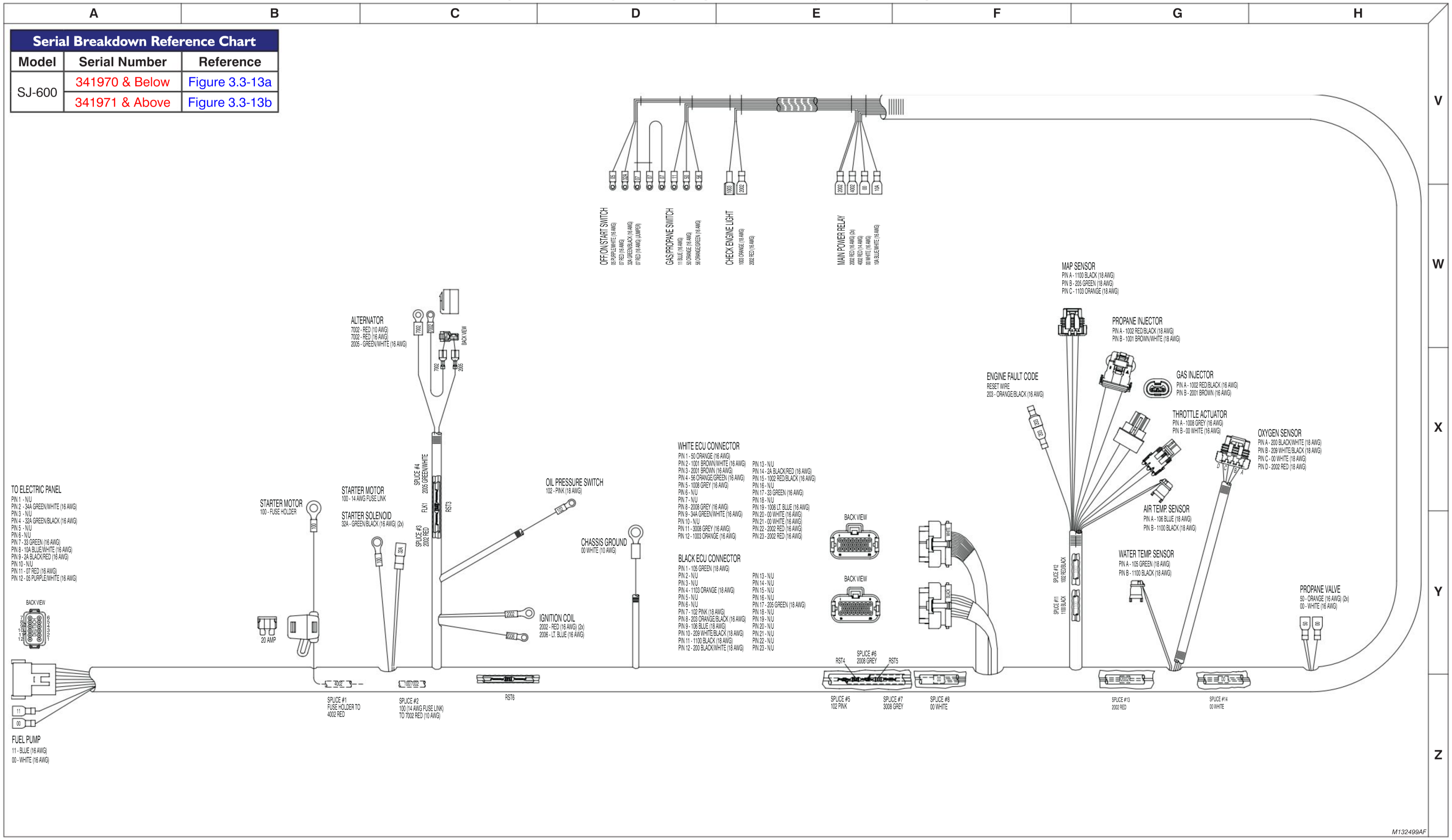


Figure 3.3-14. Engine Wiring Diagram - Diesel Fuel System (Kubota Engine)

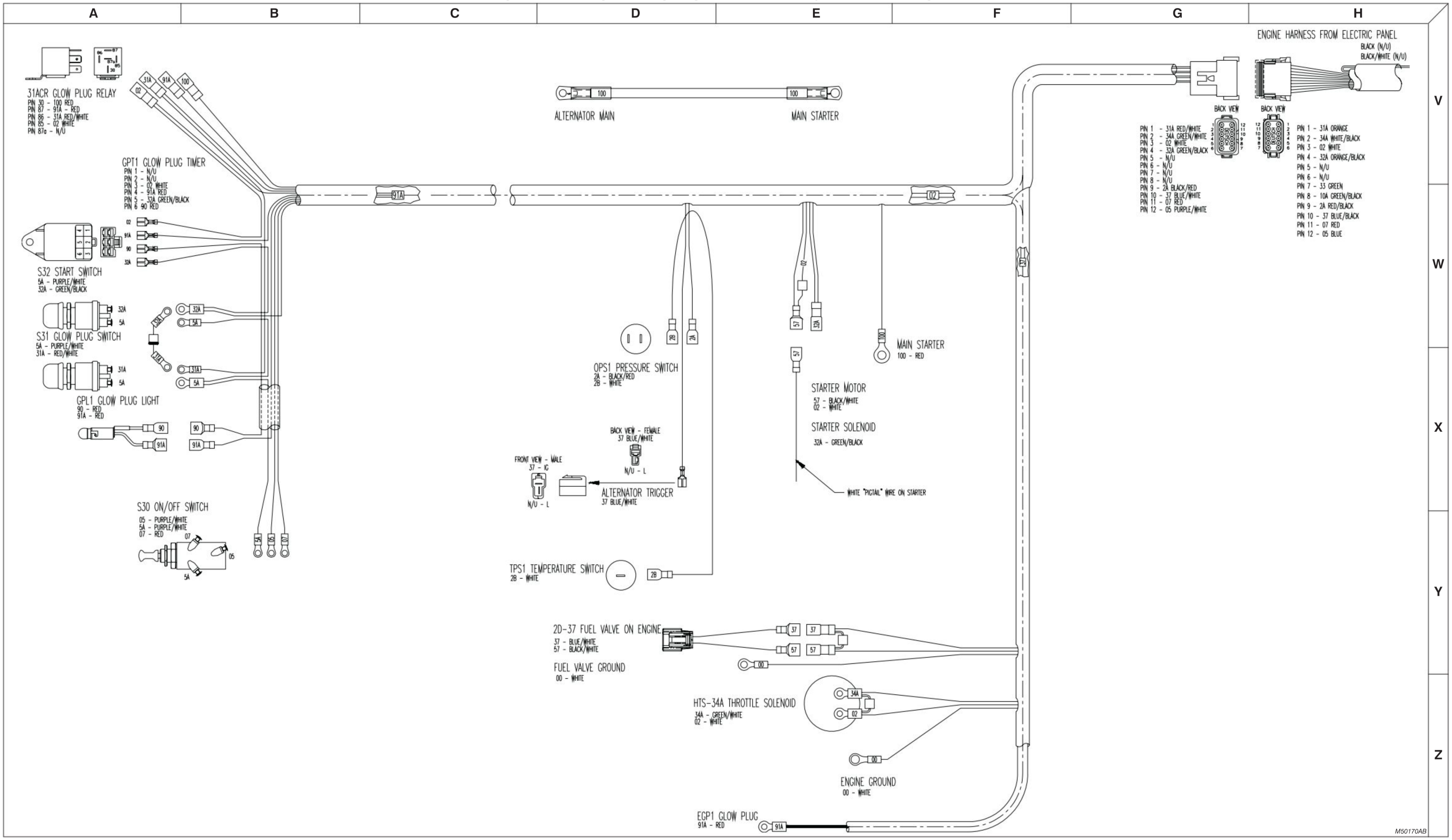


Figure 3.3-15. Engine Wiring Diagram - Dual Fuel System (Kubota Engine)

AD

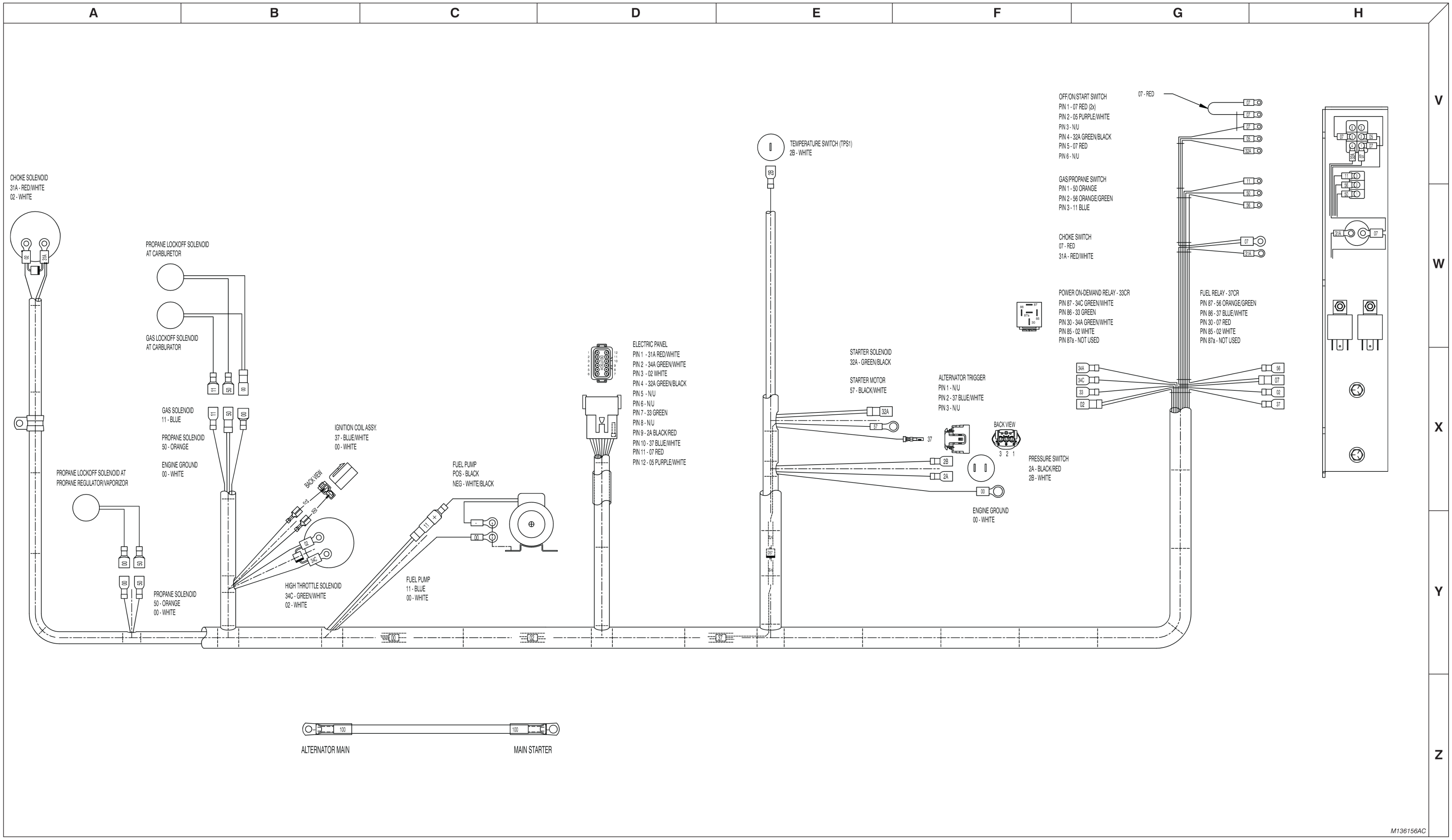


Figure 3.3-16. Horn, Beeper, and Light Wiring Diagram

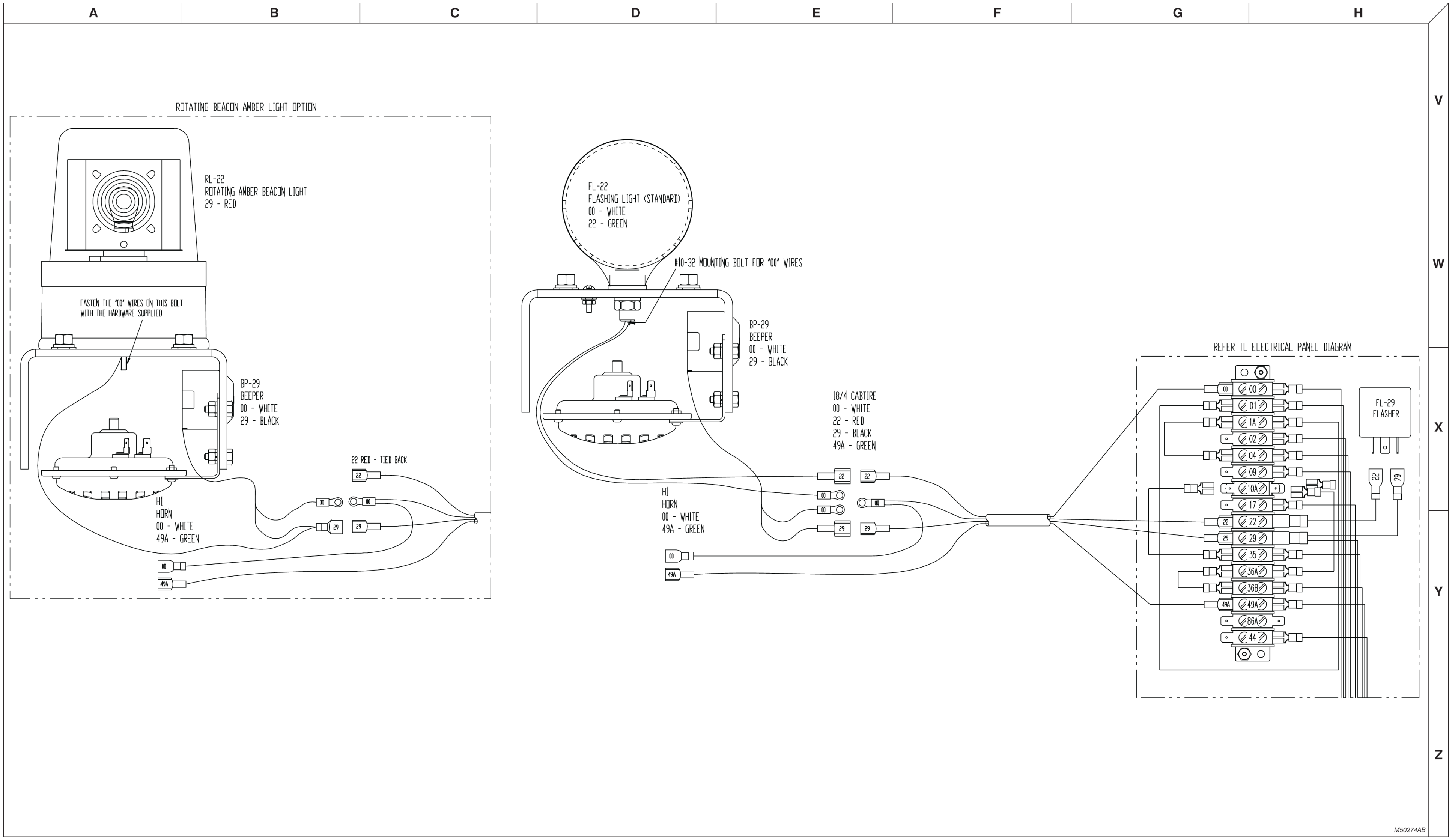


Figure 3.3-17. Lift Cylinder Holding Valve Harness Wiring Diagram

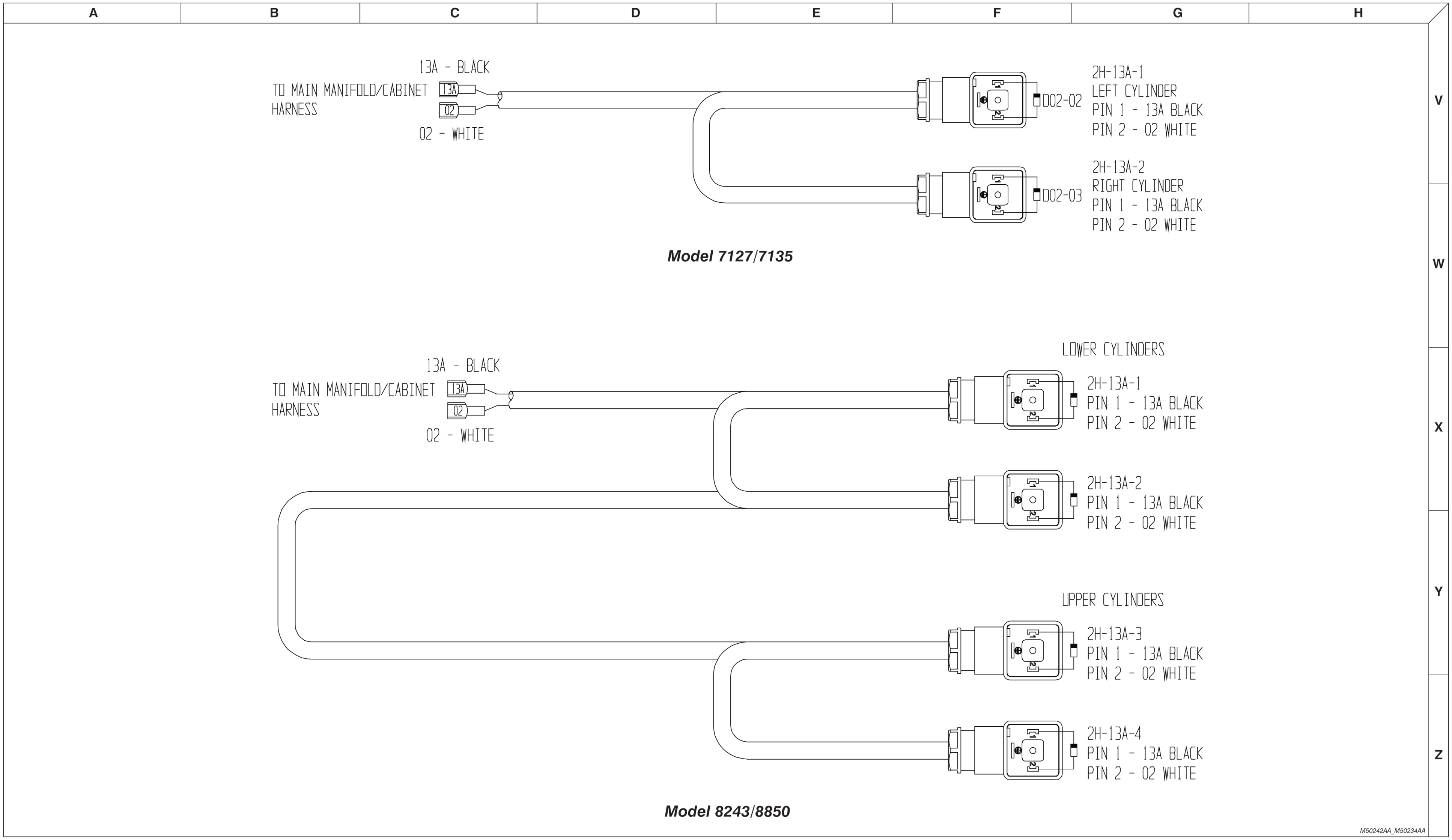


Figure 3.3-18. Emergency Lowering System Wiring Diagram - Model 8243 & 8850 only

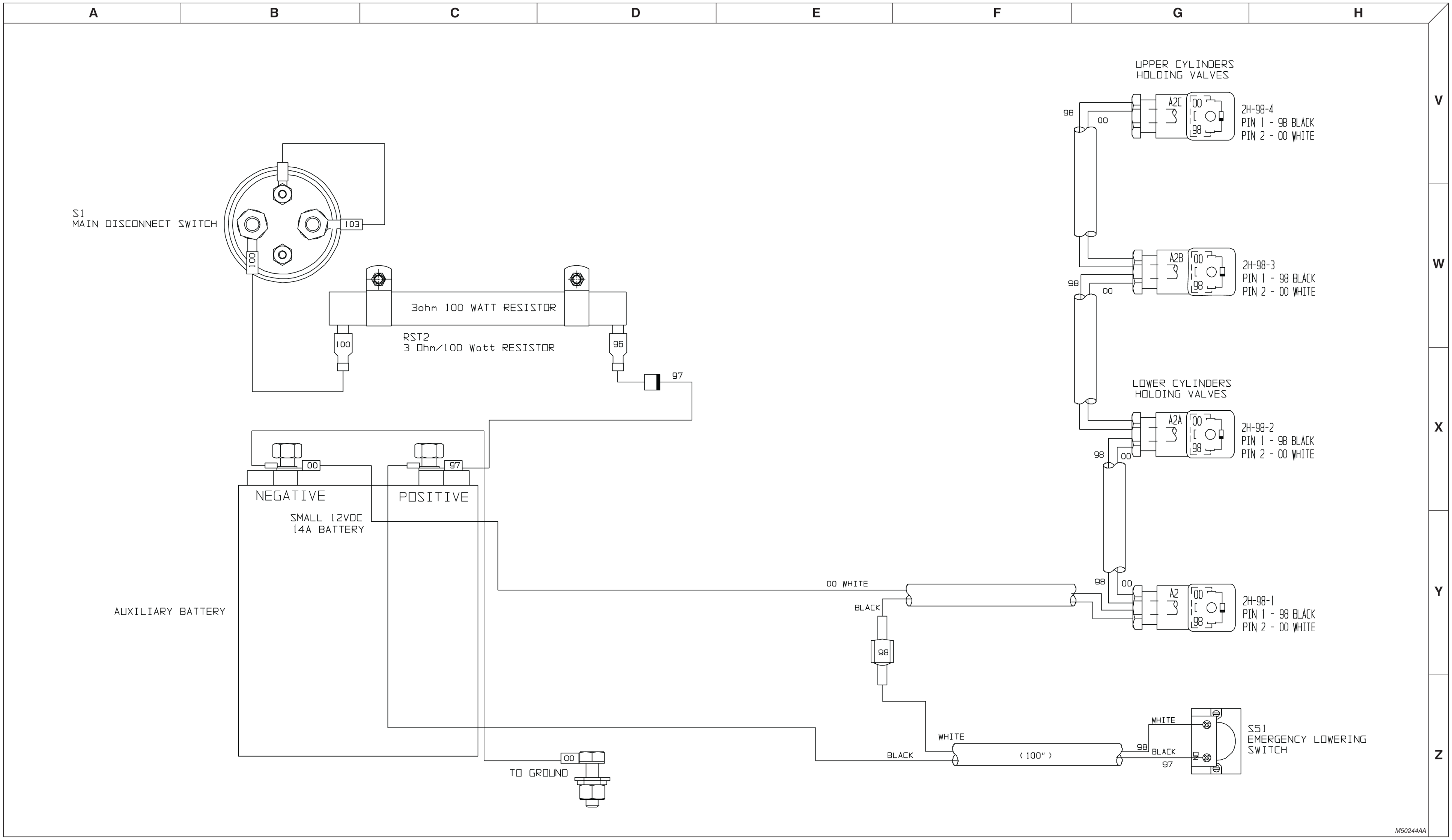


Figure 3.4-1. Electrical Panel Wiring Diagram - Model 7127 & 7135 (ANSI/CSA)

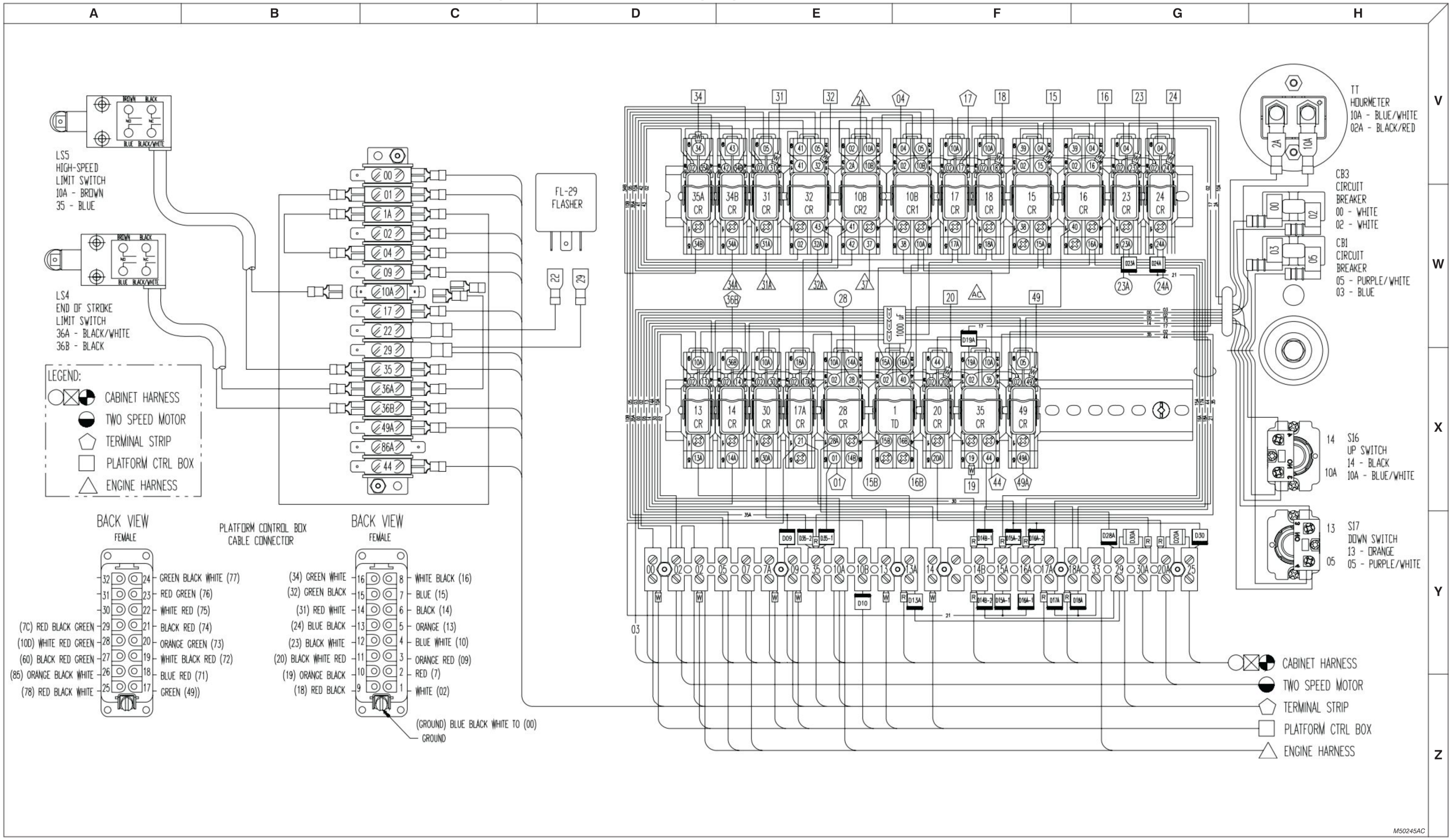
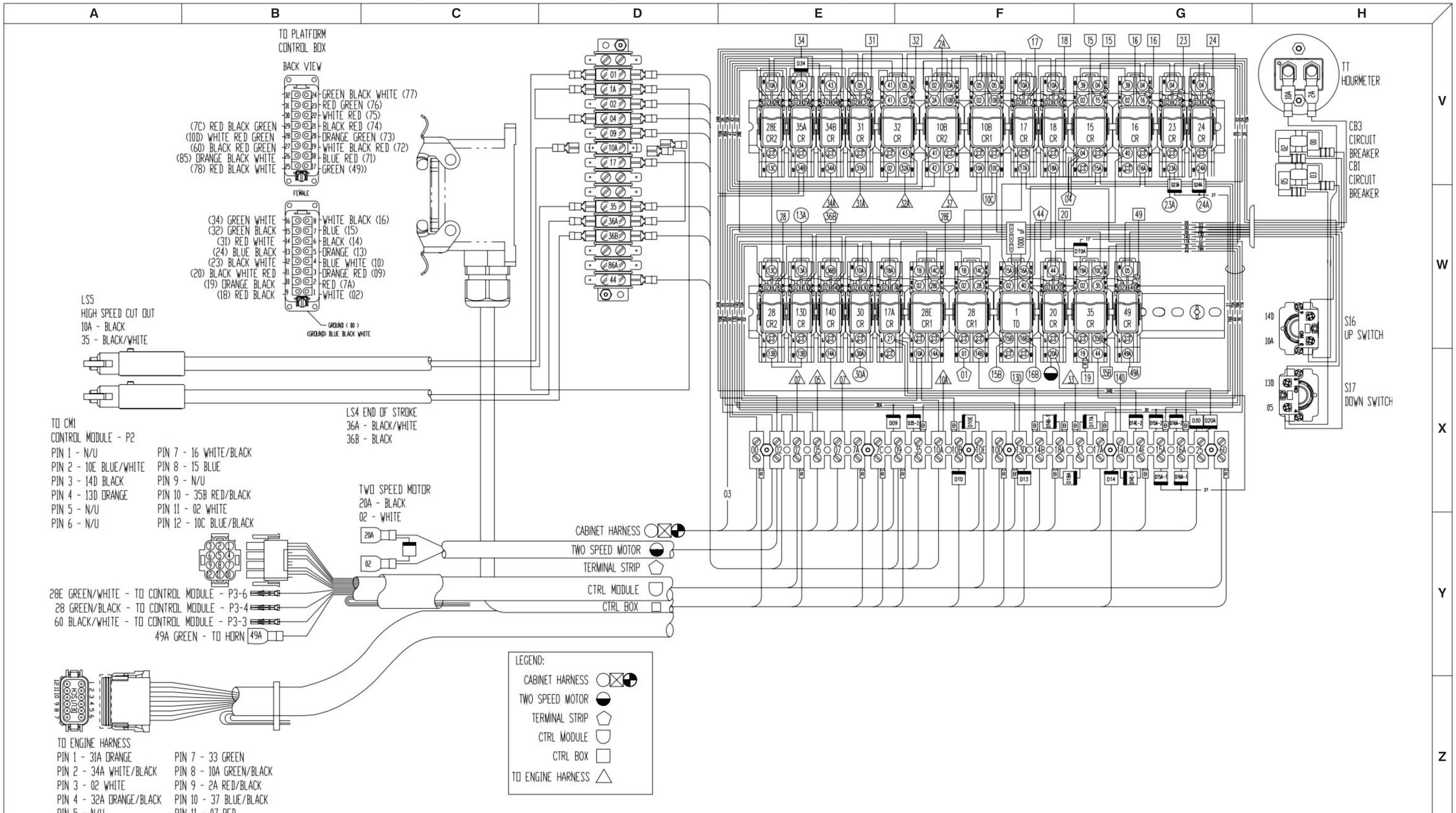


Figure 3.4-2. Electrical Panel Diagram - CE Models Equipped With All Options (Model 7127 & 7135 only)



For machines equipped with load sensing system, refer to load sensing supplement manual for additional components

Figure 3.4-3. Electrical Panel Wiring Diagram - Model 8243 & 8850 (ANSI/CSA)

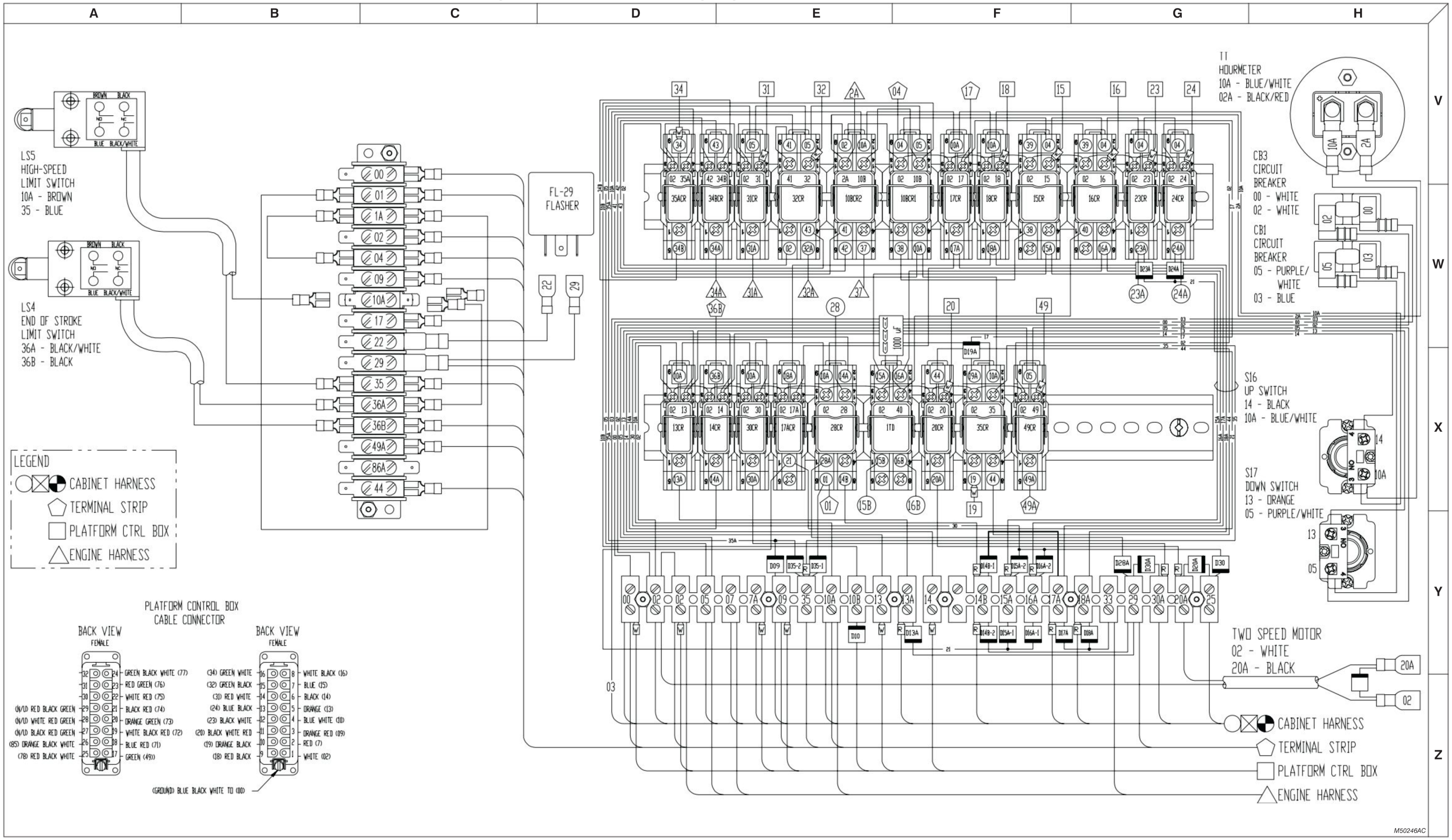


Figure 3.5-1a. Electrical Schematic - Nissan Engine Dual Fuel ***(ANSI/CSA - No Options)***
(Refer to Serial Breakdown Reference Chart)

AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341970 & Below

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-1b

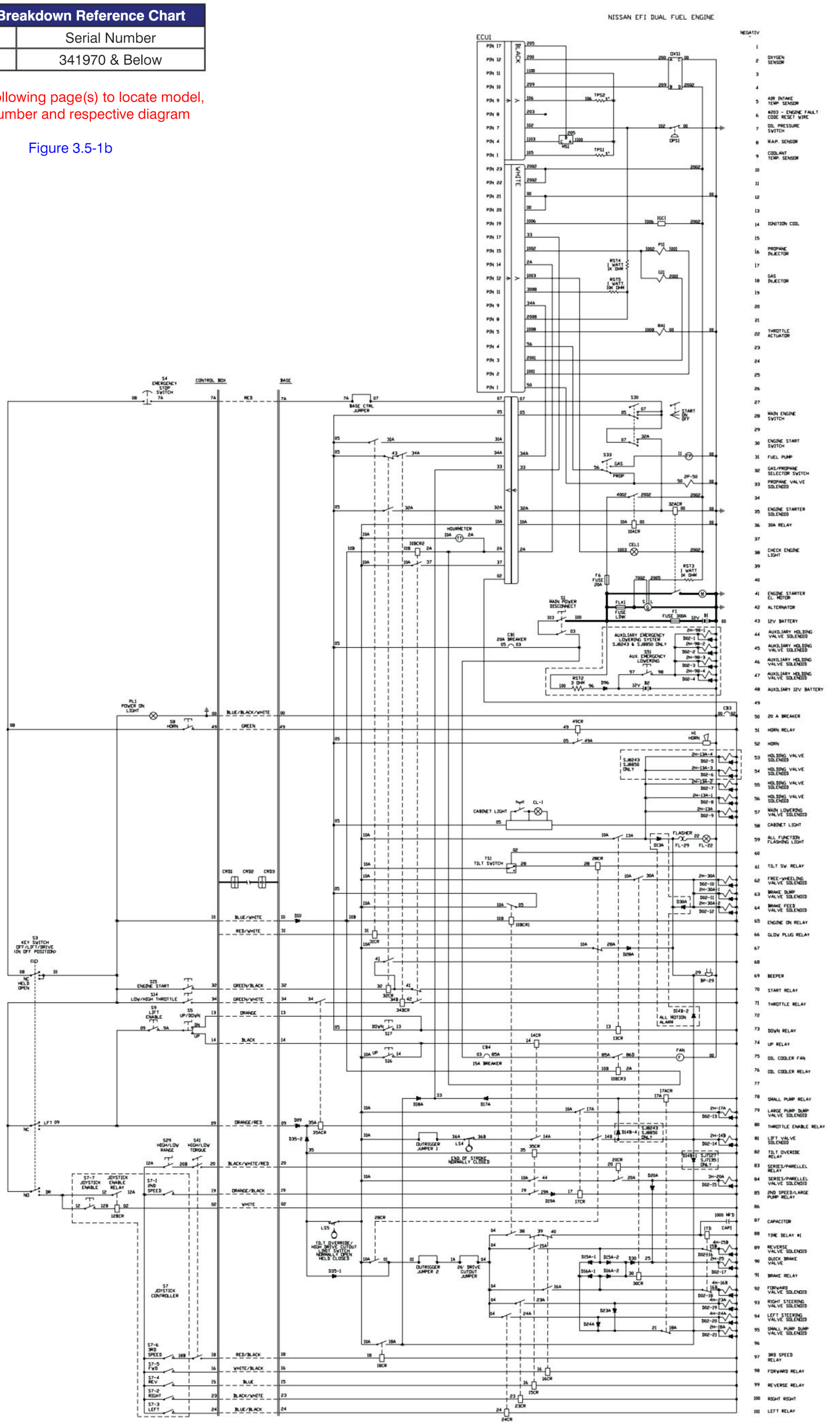


Figure 3.5-1b. Electrical Schematic - Nissan Engine Dual Fuel (ANSI/CSA - No Options)

(Refer to Serial Breakdown Reference Chart)

AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341971 & Above

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-1a

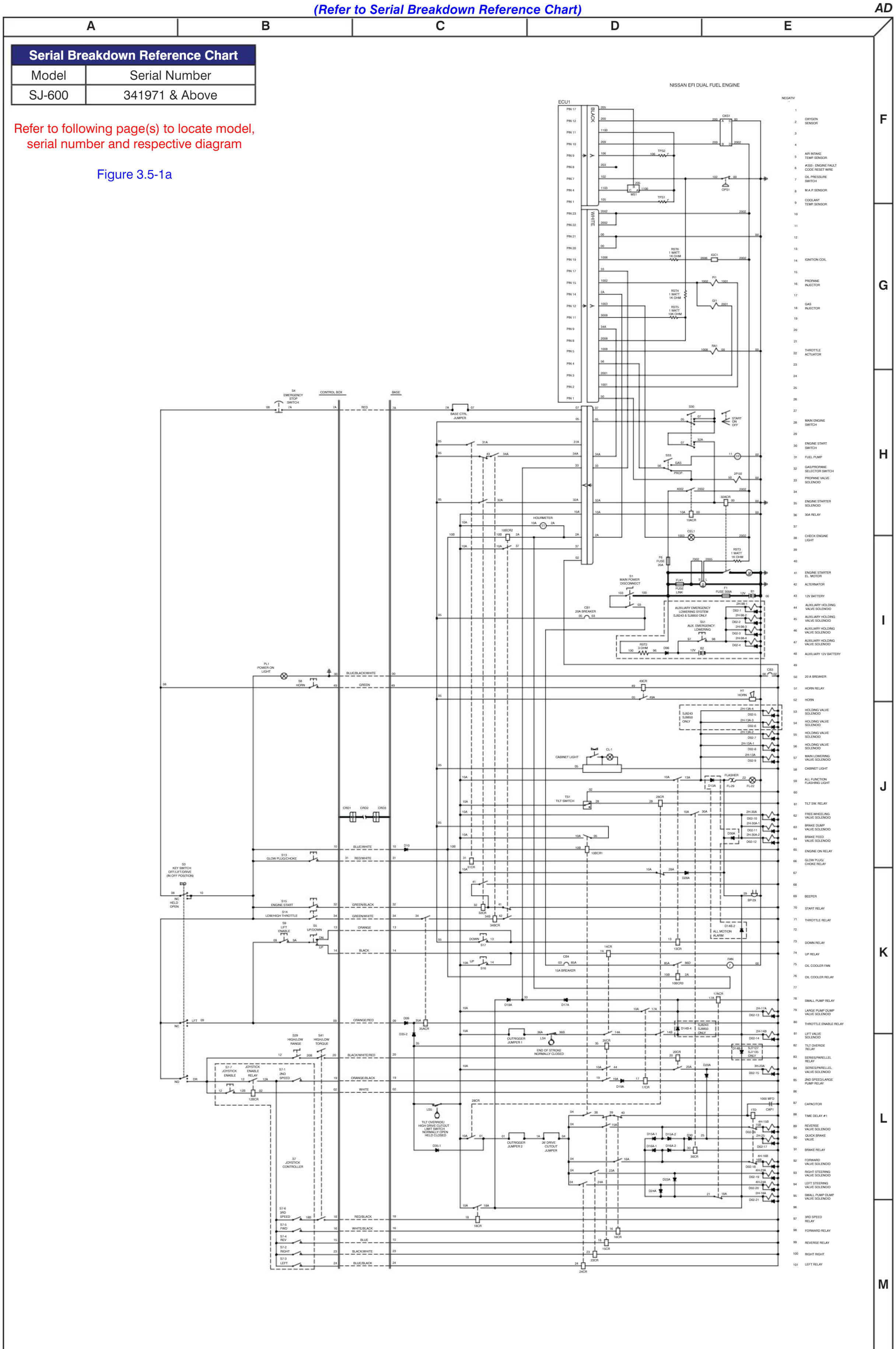


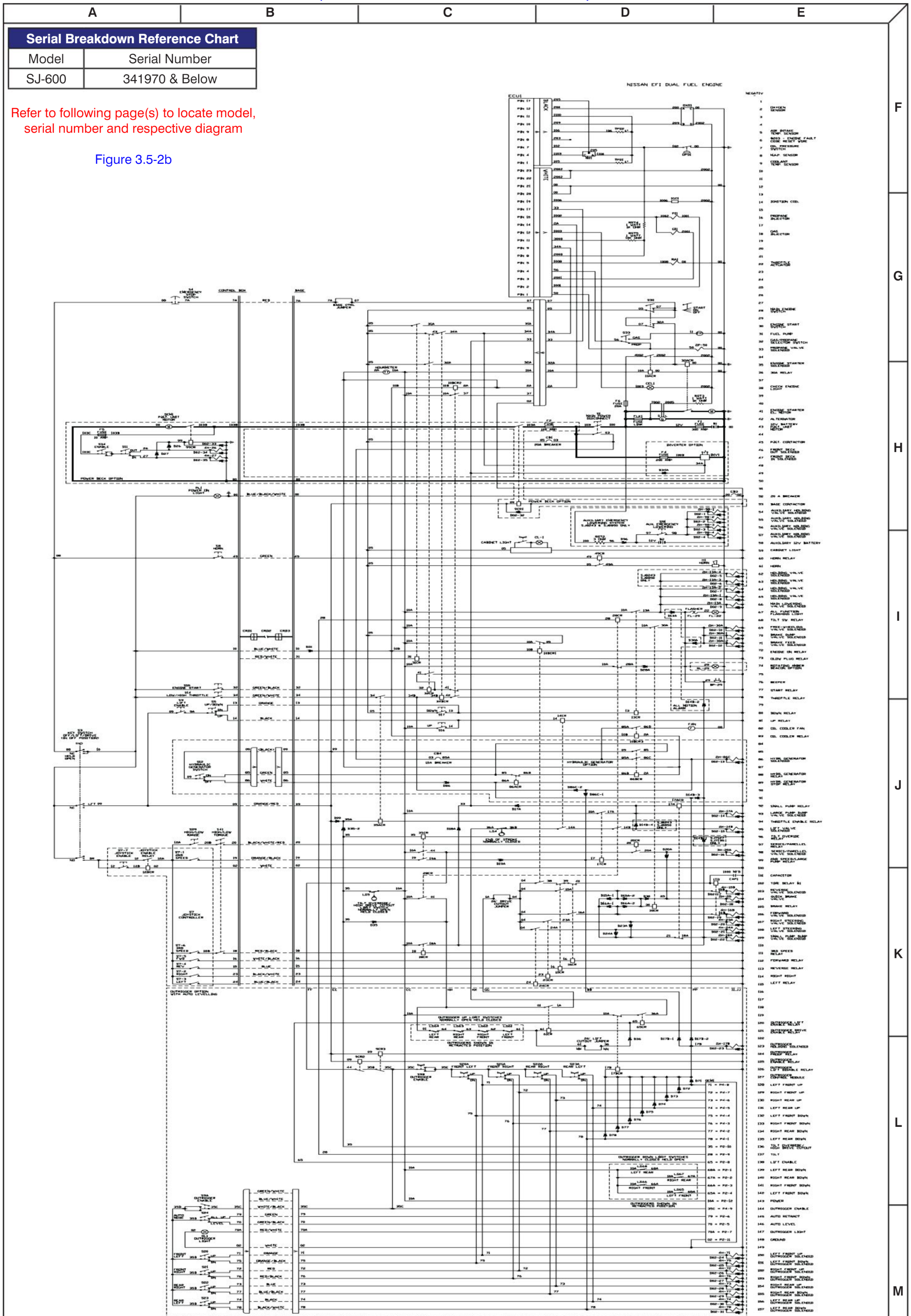
Figure 3.5-2a. Electrical Schematic - Nissan Dual Fuel Engine *(ANSI/CSA - All Options)*
(Refer to Serial Breakdown Reference Chart)

AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341970 & Below

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-2b



M50247AF

NOTE: For CE machines equipped with load sensing system refer to the load sensing supplemental manual.

Figure 3.5-2b. Electrical Schematic - Nissan Dual Fuel Engine (ANSI/CSA - All Options)

(Refer to Serial Breakdown Reference Chart)

A	B	C	D	E

Serial Breakdown Reference Chart

Model	Serial Number
SJ-600	341971 & Above

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-2a

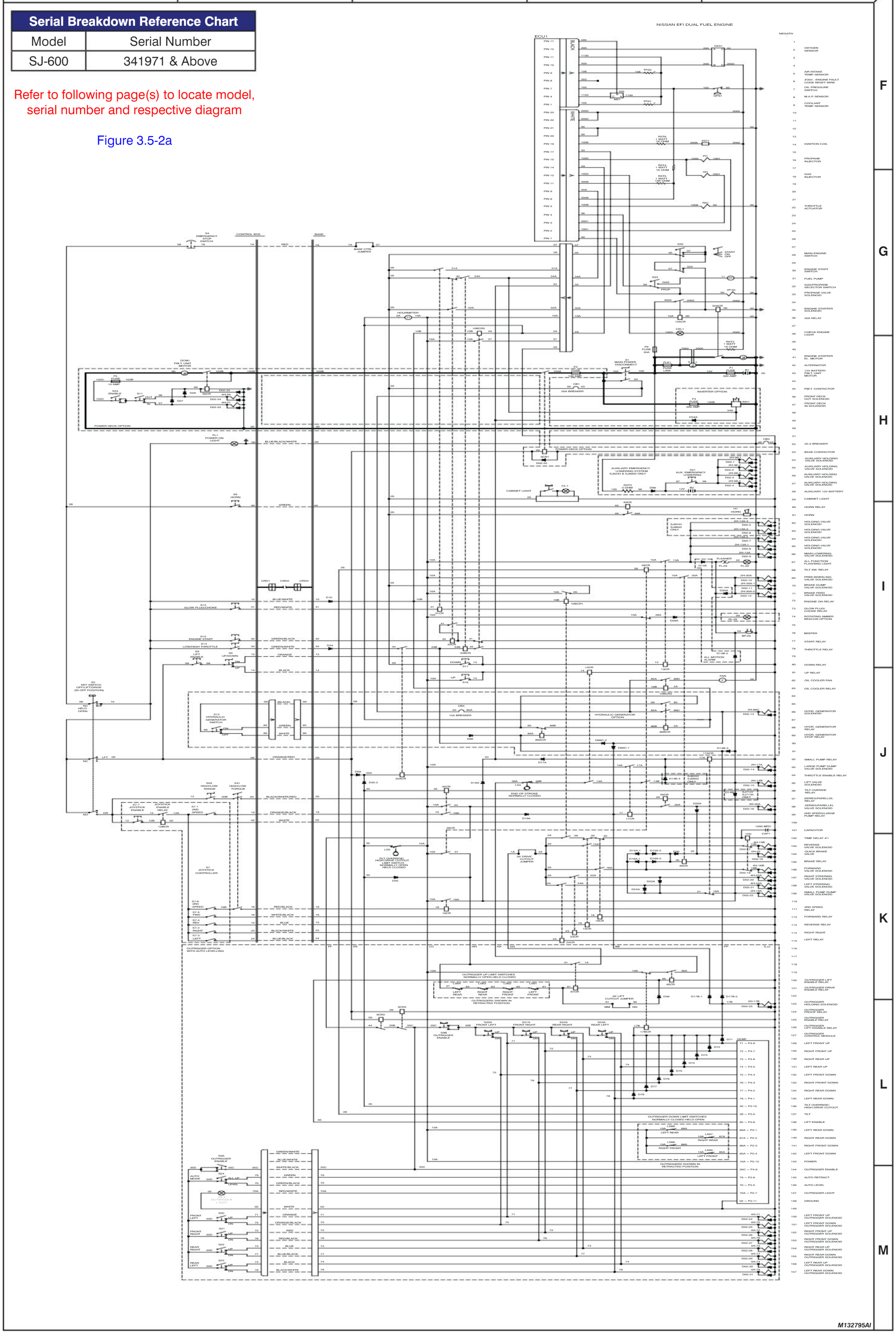


Figure 3.5-3a. Electrical Schematic - Kubota Diesel Engine (CE - All Options)
(Refer to Serial Breakdown Reference Chart)

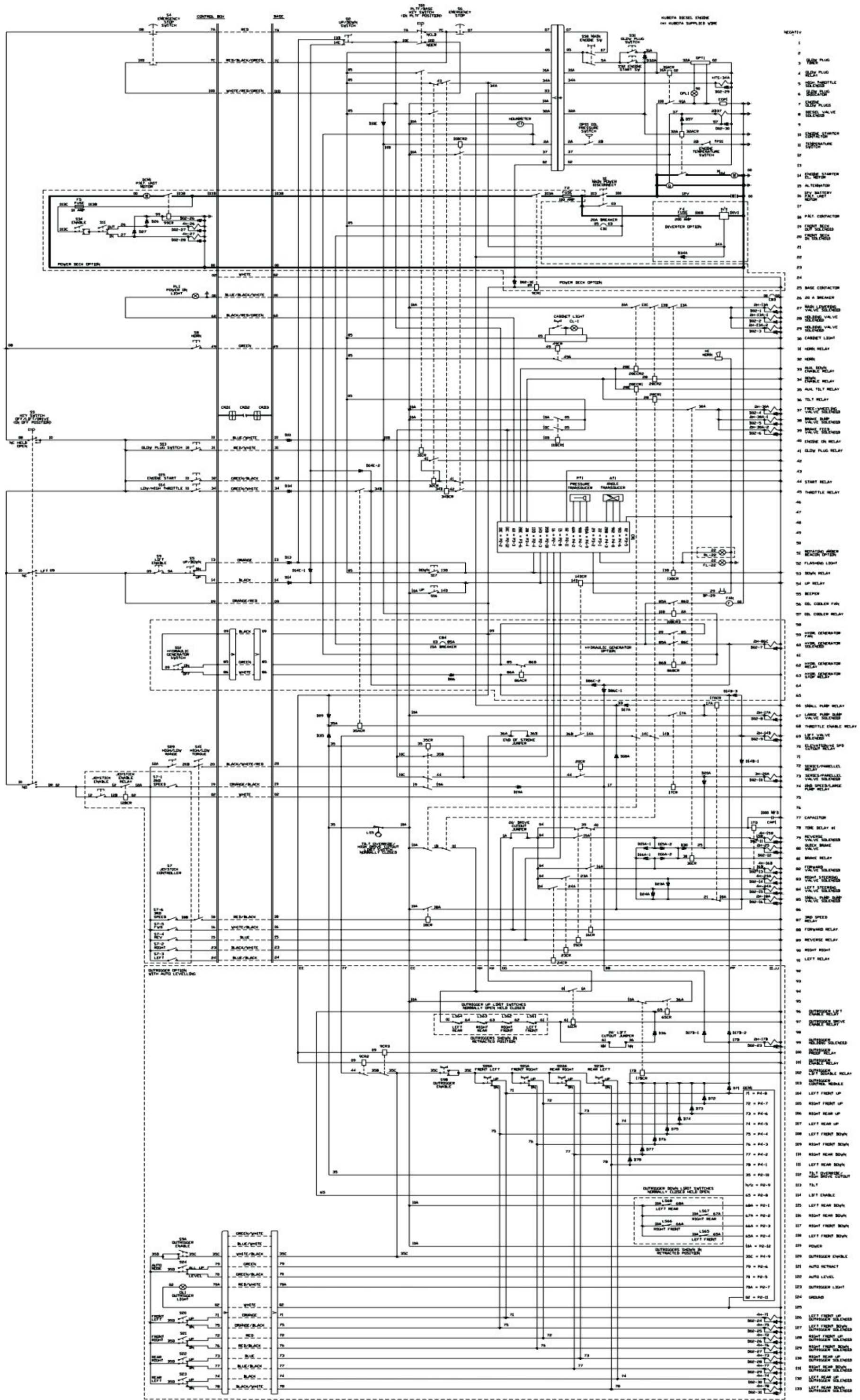
AD

A	B	C	D	E

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341970 & Below

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-3b



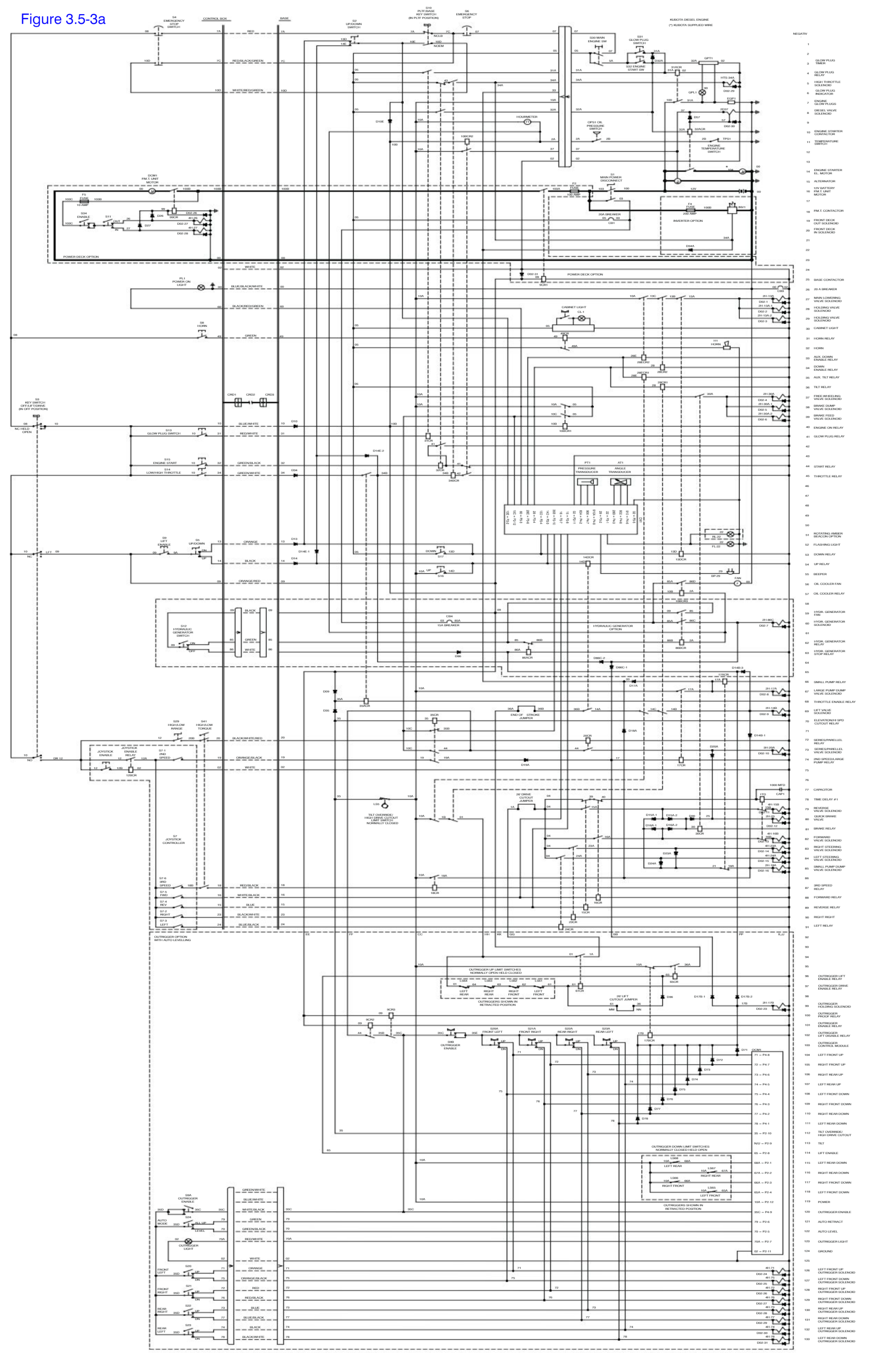
M50233AH

Figure 3.5-3b. Electrical Schematic - Kubota Diesel Engine (CE - All Options)
(Refer to Serial Breakdown Reference Chart)

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341971 & Above

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-3a



M134386AG

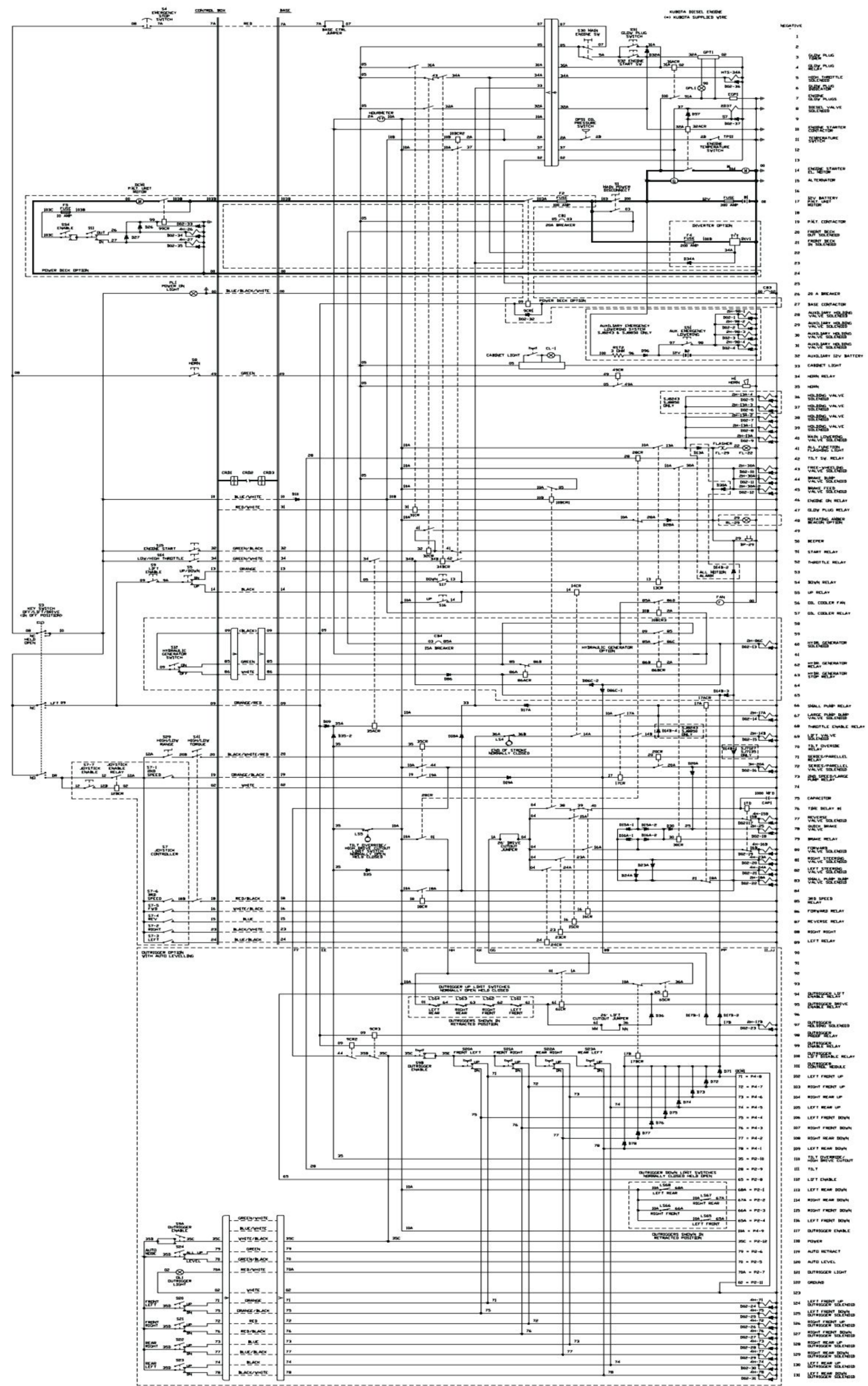
Figure 3.5-4a. Electrical Schematic - Kubota Diesel Engine (ANSI/CSA - All Options)
(Refer to Serial Breakdown Reference Chart)

AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341970 & Below

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-4b

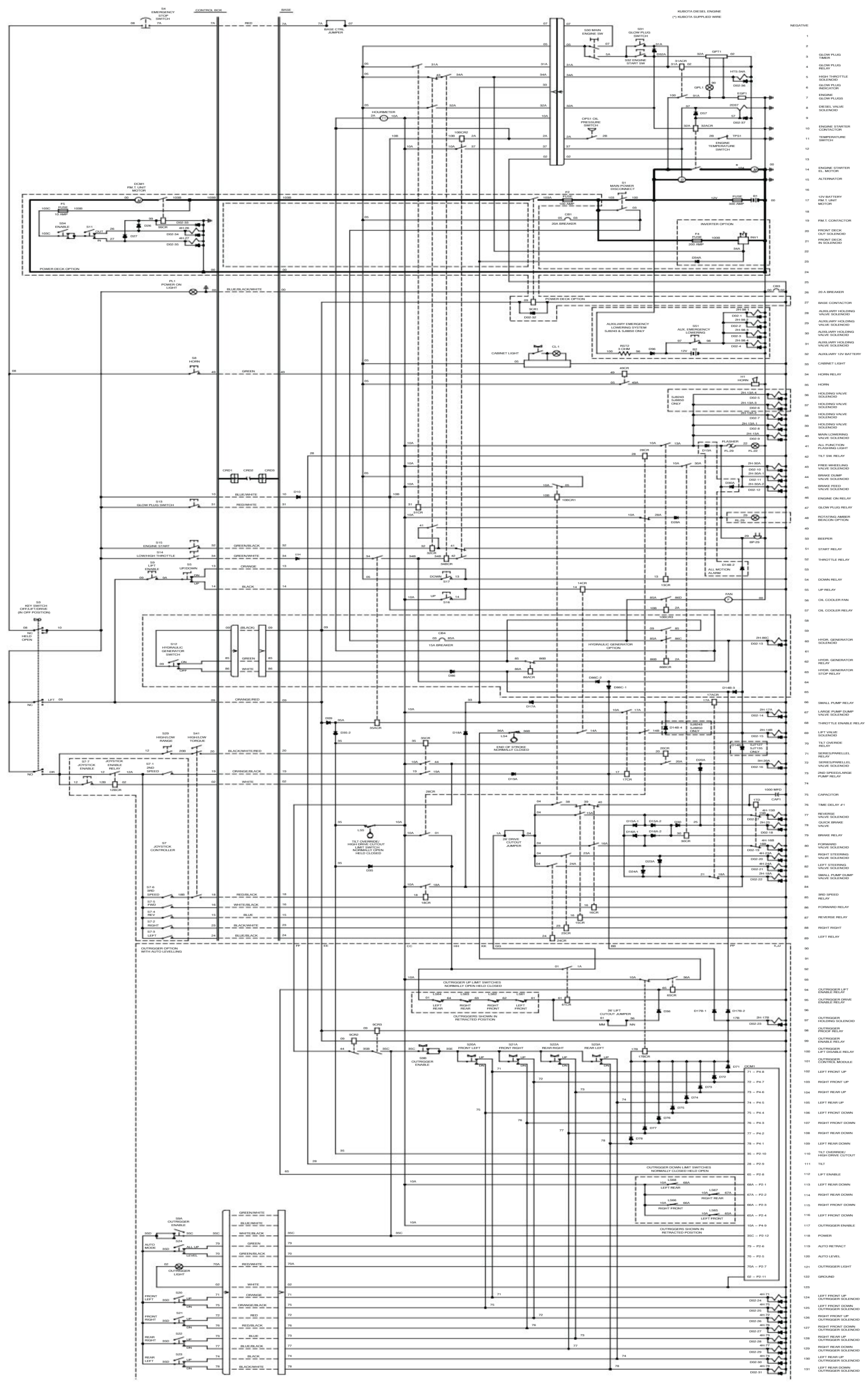


M50303AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341971 & Above

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-4a



M134632AF

Figure 3.5-5. Electrical Schematic - Kubota Dual Fuel Engine (ANSI/CSA - No Options)

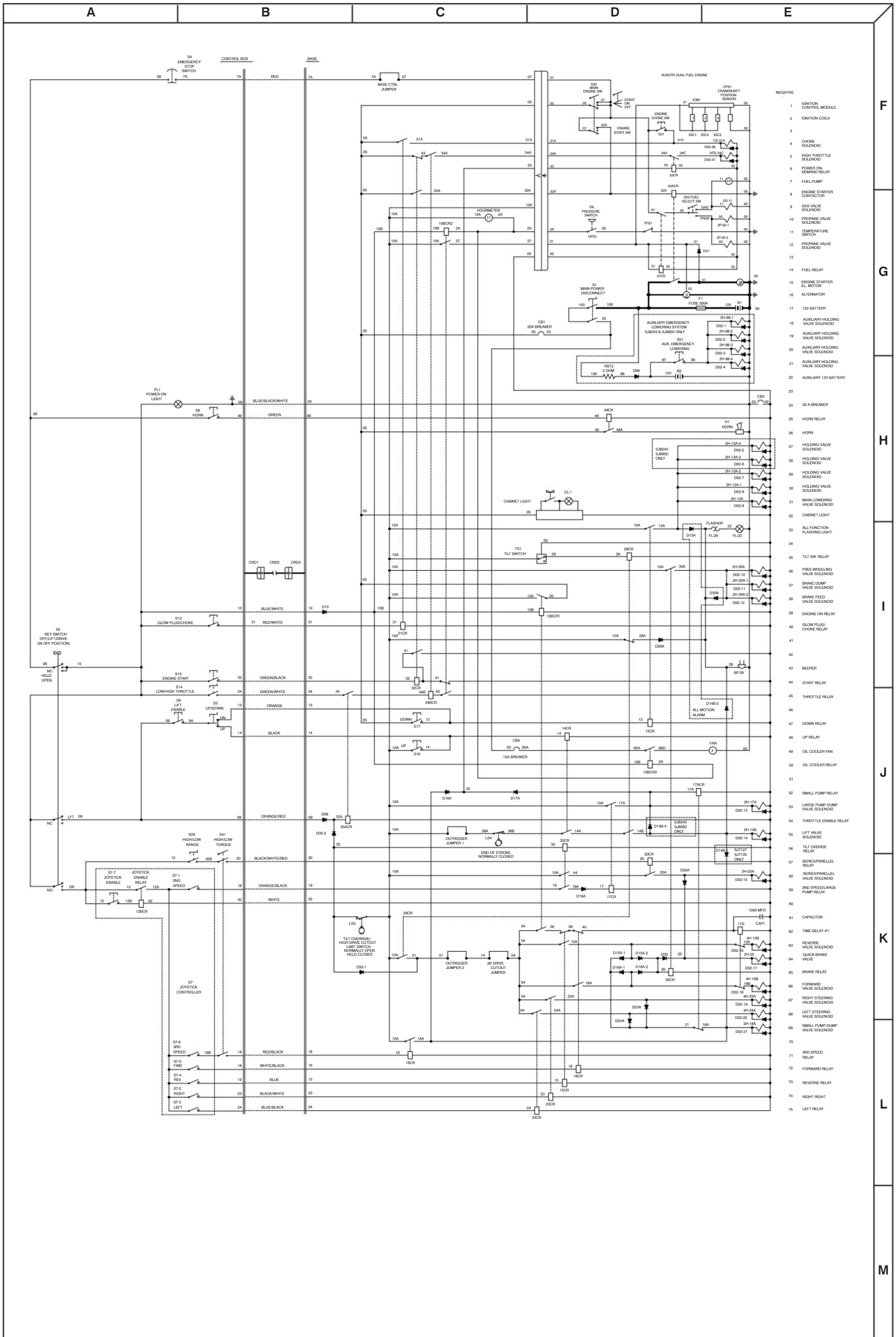


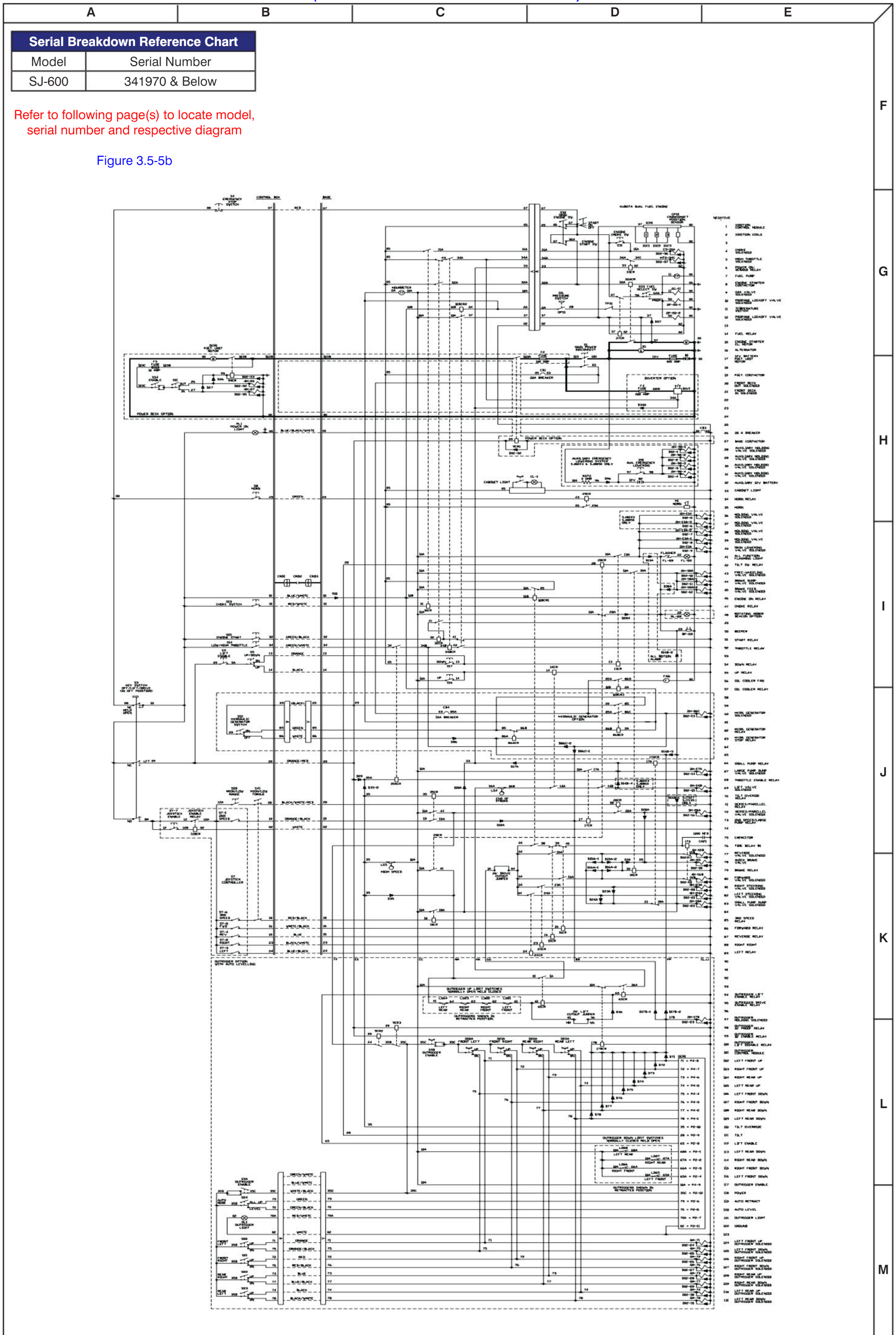
Figure 3.5-6a. Electrical Schematic - Kubota Dual Fuel Engine (ANSI/CSA - All Options)
(Refer to Serial Breakdown Reference Chart)

AD

Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341970 & Below

Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-5b



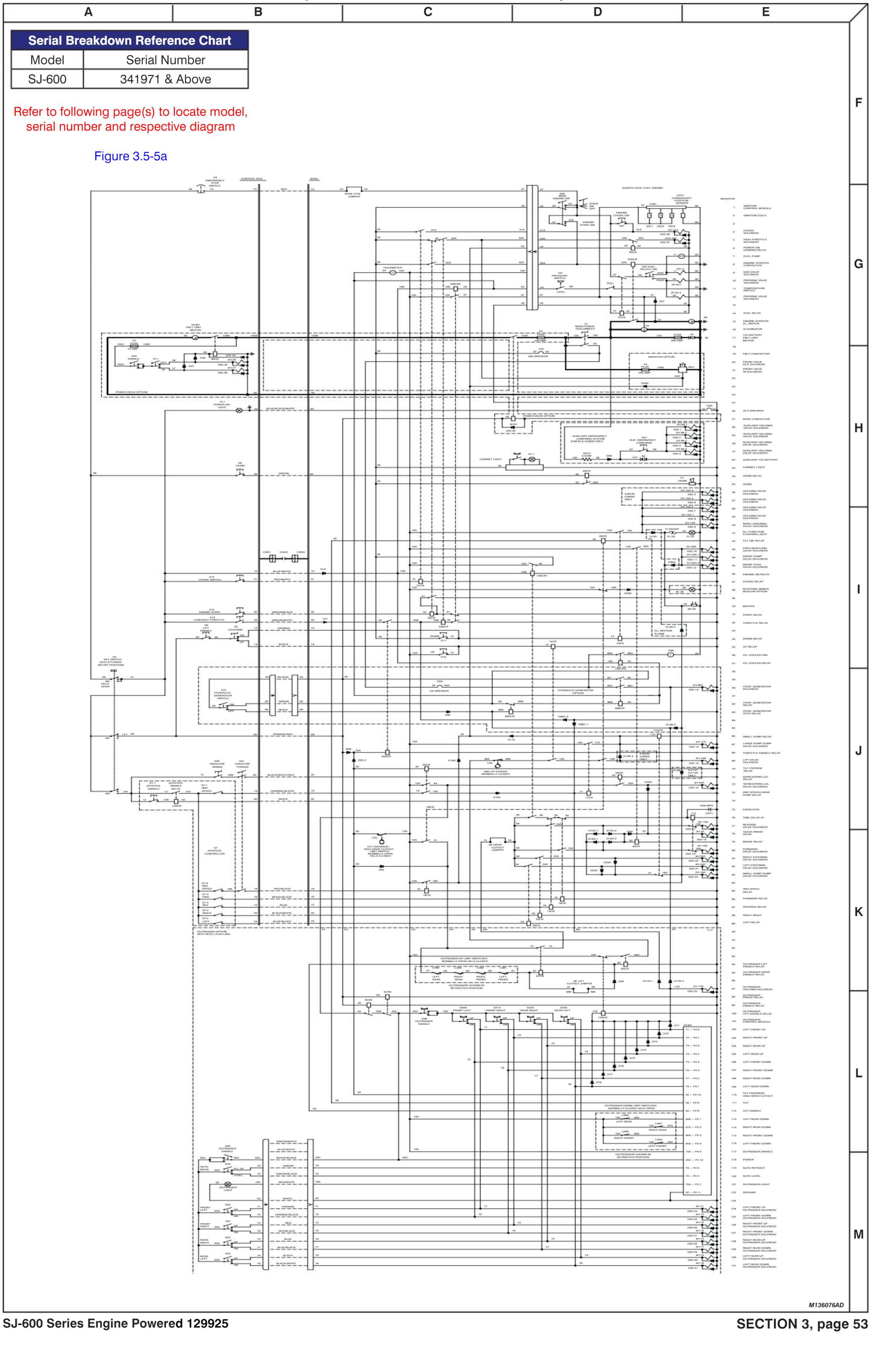
M50339AB

Figure 3.5-6b. Electrical Schematic - Kubota Dual Fuel Engine (ANSI/CSA - All Options)
(Refer to Serial Breakdown Reference Chart)

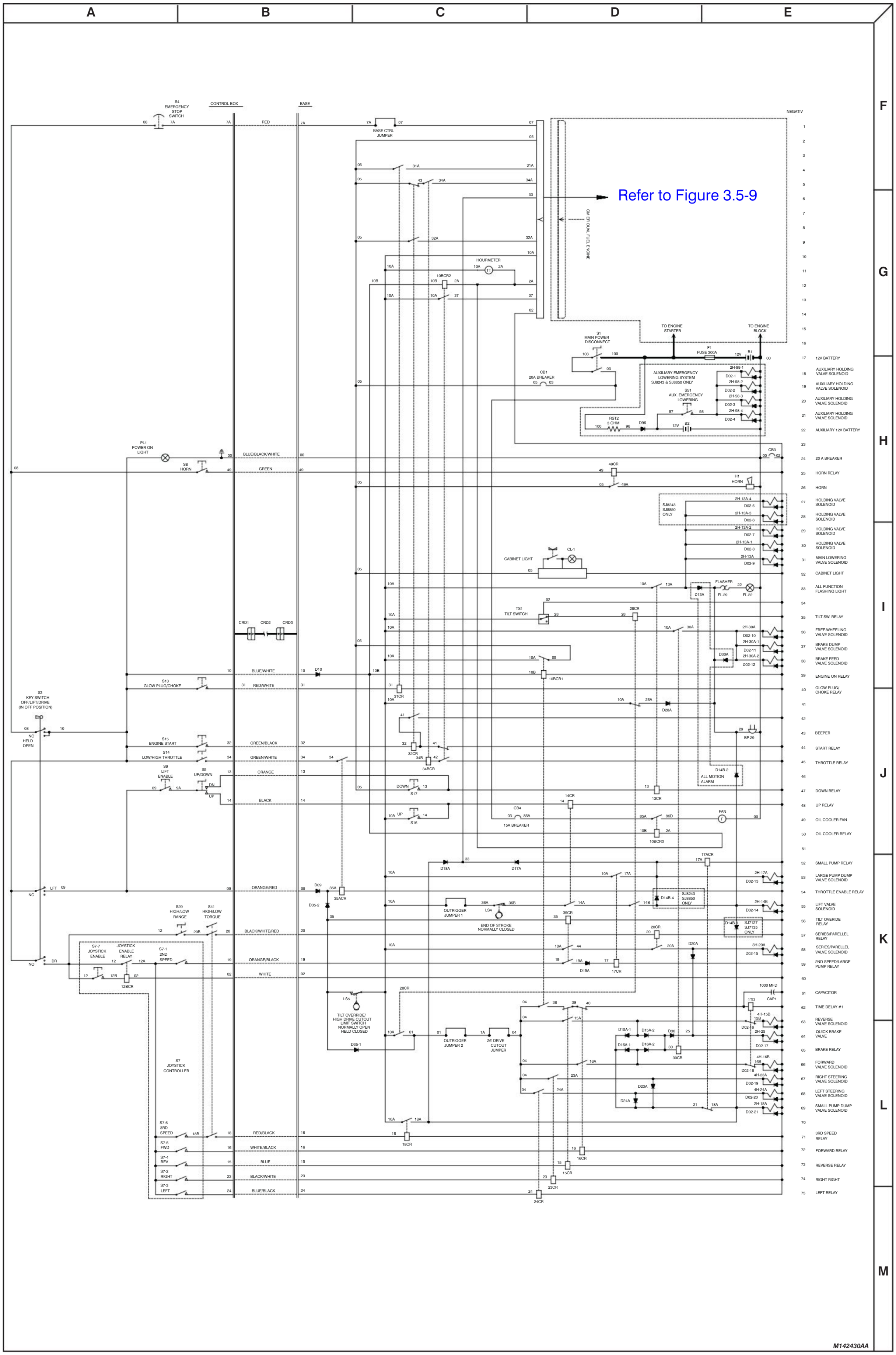
Serial Breakdown Reference Chart	
Model	Serial Number
SJ-600	341971 & Above

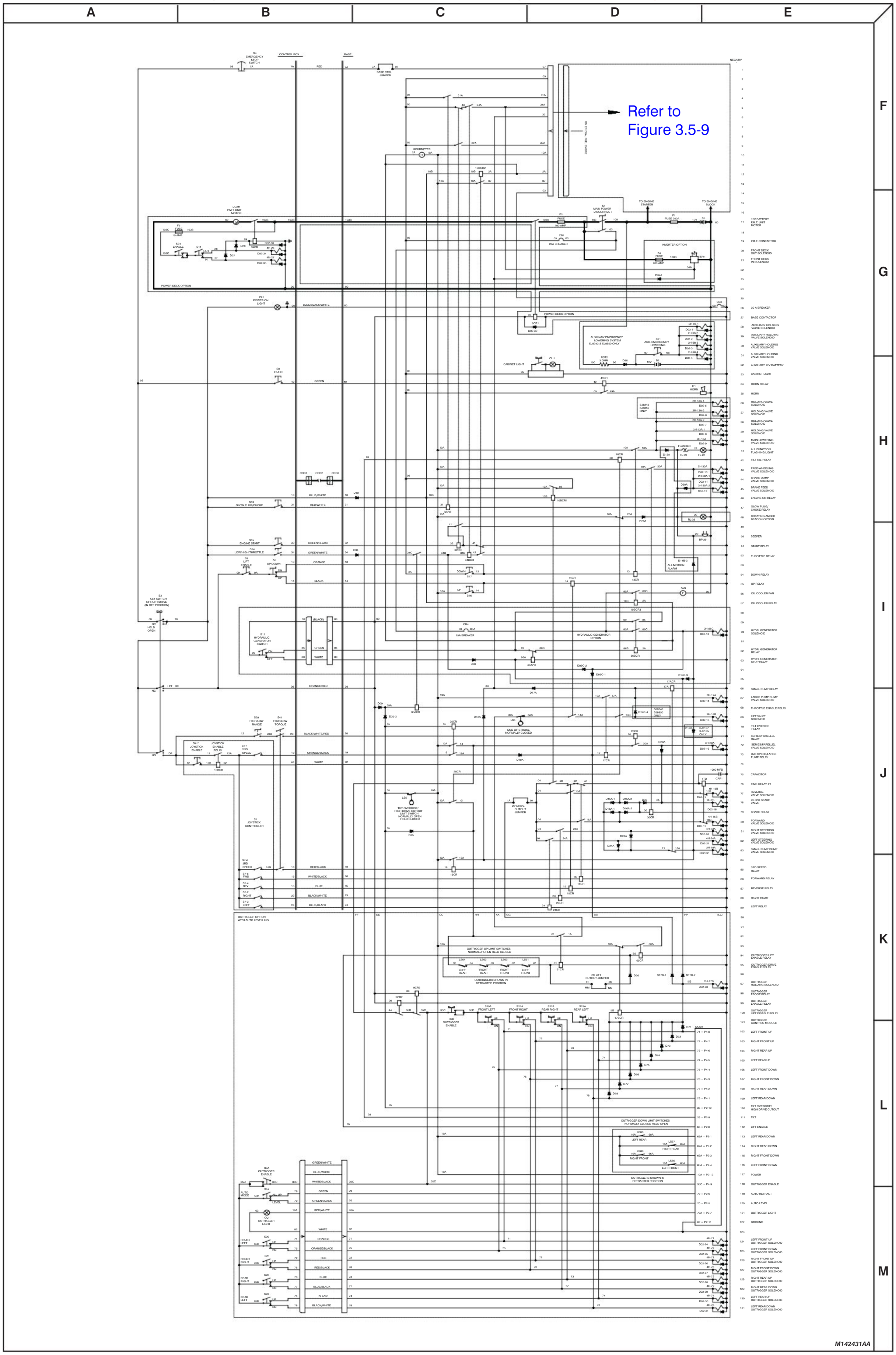
Refer to following page(s) to locate model, serial number and respective diagram

Figure 3.5-5a



M136076AD


Refer to Figure 3.5-9
M142430AA


A
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M
Refer to Figure 3.5-9
M142431AA

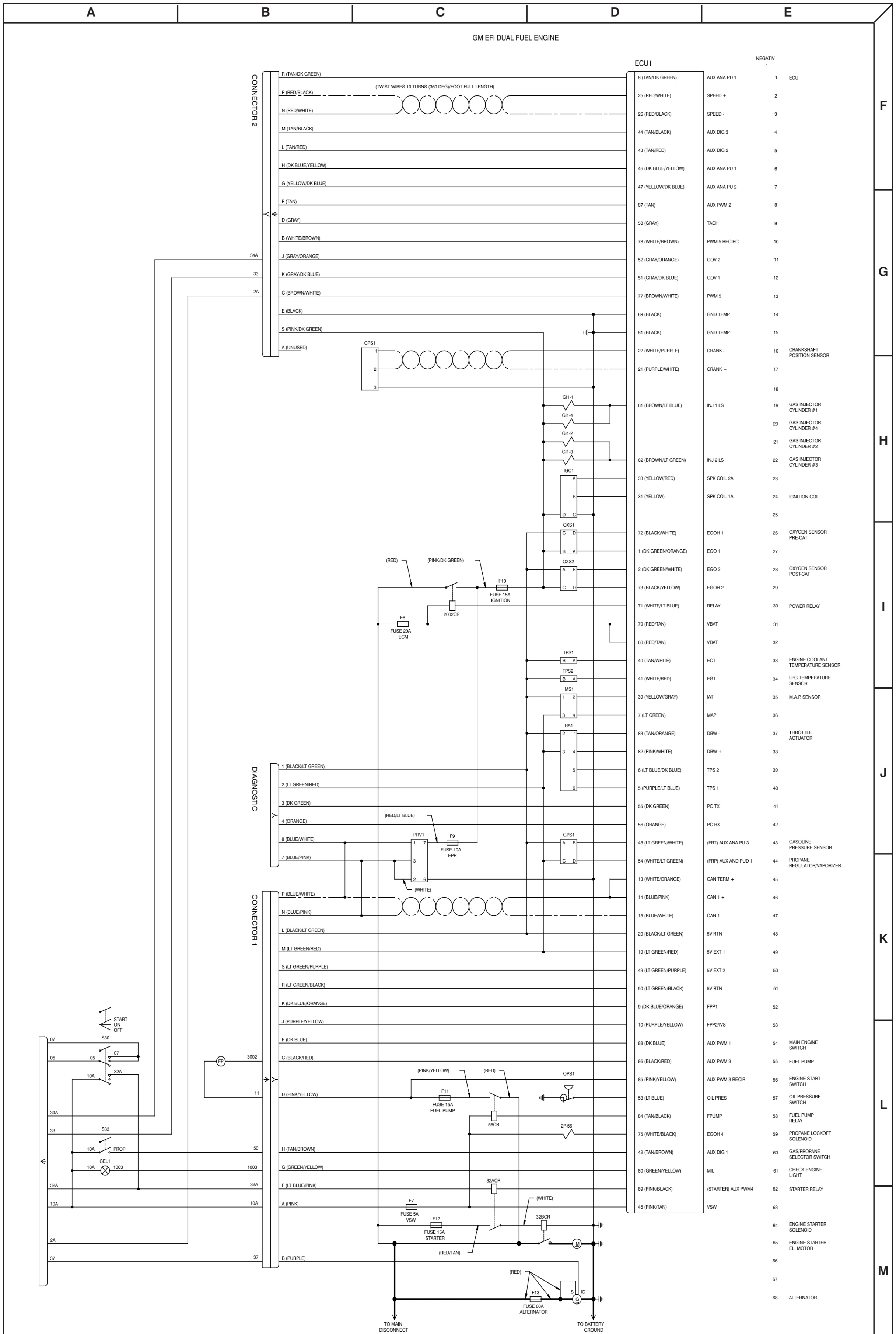
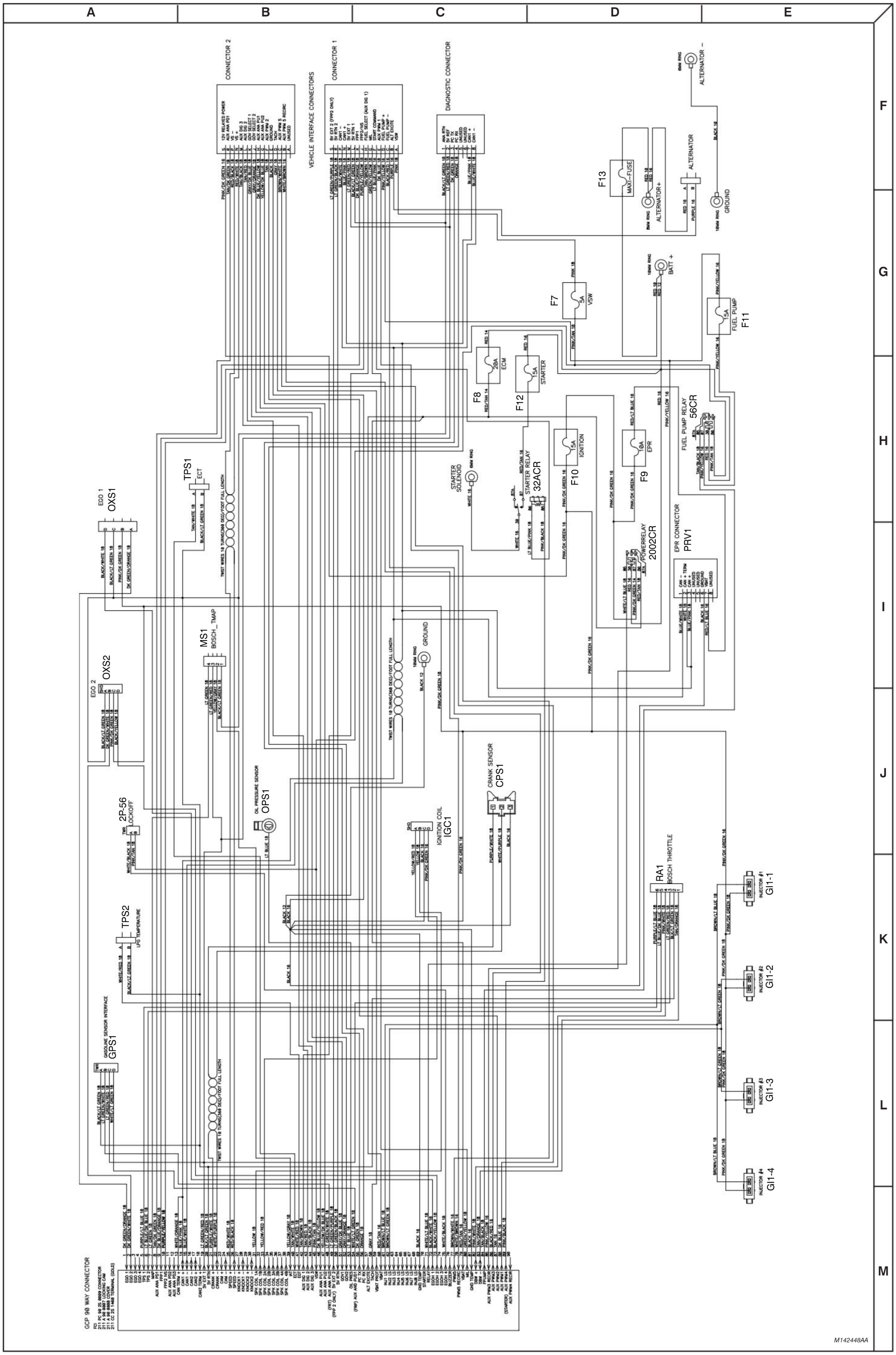

A
B
C
D
E
F
G
H
I
J
K
L
M
GM EFI DUAL FUEL ENGINE
ECU1
NEGATIV
CONNECTOR 2
DIAGNOSTIC
CONNECTOR 1
(TWIST WIRES 10 TURNS (360 DEG)/FOOT FULL LENGTH)
ECU
CRANKSHAFT POSITION SENSOR
GAS INJECTOR CYLINDER #1
GAS INJECTOR CYLINDER #4
GAS INJECTOR CYLINDER #2
GAS INJECTOR CYLINDER #3
IGNITION COIL
OXYGEN SENSOR PRE-CAT
OXYGEN SENSOR POST-CAT
POWER RELAY
ENGINE COOLANT TEMPERATURE SENSOR
LPG TEMPERATURE SENSOR
M.A.P. SENSOR
THROTTLE ACTUATOR
GASOLINE PRESSURE SENSOR
PROPANE REGULATOR/VAPORIZER
MAIN ENGINE SWITCH
FUEL PUMP
ENGINE START SWITCH
OIL PRESSURE SWITCH
FUEL PUMP RELAY
PROPANE LOCKOFF SOLENOID
GAS/PROPANE SELECTOR SWITCH
CHECK ENGINE LIGHT
STARTER RELAY
ENGINE STARTER SOLENOID
ENGINE STARTER EL. MOTOR
ALTERNATOR
FUSE 15A IGNITION
FUSE 20A ECM
FUSE 10A EPR
FUSE 15A FUEL PUMP
FUSE 5A VSW
FUSE 15A STARTER
FUSE 60A ALTERNATOR
START ON OFF
TO MAIN DISCONNECT
TO BATTERY GROUND
M142434AB_1

Figure 3.5-10. Engine Harnesses - GM Dual Fuel Engine



Section 4
Troubleshooting Information
Table of Contents

4

Table Of Contents

Hydraulic System

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.

The content of this section is separated into “probable cause” and “remedy”. The information preceded by a number represents the “probable cause”. The following line, noted by a dash and a greater indentation represents the “remedy” to the “probable cause” directly above it. See example below for clarification.

1. Probable Cause
    -Remedy

4.1-1. All Controls Inoperative

1. Battery disconnected or discharged.
   -Reconnect battery. Recharge if discharged.
2. Loose or dirty battery cables.
   -Clean and tighten battery cables.
3. Defective main fuse (F1) 300Amp.
   -Check fuse. Replace if defective.
4. Open or defective main power disconnect switch (S1).
   -Close switch. Replace if defective.
5. Loose or broken wire #03 from main power disconnect switch (S1) to circuit breaker (CB1).
   -Check continuity. Replace if defective.
6. Tripped or defective circuit breaker (CB1).
   -Reset breaker. Check for defective wiring. Replace breaker if defective.
7. Loose or broken wire #05 from breaker (CB1) to base terminal block (TB-1).
   -Check continuity. Replace if defective.
8. Loose or broken wire #05 from base terminal block (TB-1) to base engine switch (S30).
   -Check continuity. Replace if defective.

4.1-2. All Controls Inoperative From Base Control Box (CE)

1. Battery disconnected or discharged.
   -Reconnect battery. Recharge if discharged.
2. Loose or dirty battery cables.
   -Clean and tighten battery cables.
3. Defective main fuse (F1) 300Amp.
   -Check fuse. Replace if defective.
4. Loose or broken wire #7C from * to emergency stop switch (S4).
   -Check continuity. Replace if defective.
5. Loose or broken wire #10D from emergency stop switch (S4) to base/platform switch (S10).
   -Check continuity. Replace if defective.
6. Loose or broken wire #10D from base/platform switch (S10) to base terminal block.
   -Check continuity. Replace if defective.
7. Open diode (D10E) at base terminal block.
   -Check diode. Replace if defective.

4.1-3. No Power To Platform (Machines without base control box option)

1. Open or defective base engine switch (S30).
   -Check switch. Replace if defective.
2. Loose or broken wire #07 from base engine switch (S30) to base terminal block (TB1).
   -Check continuity. Replace if defective.
3. Loose or broken wire #07 from base terminal block (TB-1) to emergency stop switch (S4).
   -Check continuity. Replace if defective.
4. Open or defective emergency stop switch (S4).
   -Check switch. Replace if defective.

4.1-4. No Power To Platform (Machines with base control box option)

1. Open or defective base engine switch (S30).
   -Check switch. Replace if defective.
2. Loose or broken wire #07 from engine start switch (S30) to base terminal block (TB-1).
   -Check continuity. Replace if defective.

3. Loose or broken wire #07 from base terminal block (TB-1) to emergency stop switch (S6).
   -Check continuity. Replace if defective.
4. Loose or broken wire #07 from emergency stop switch (S6) to PLATFORM/BASE select switch (S10).
   -Check continuity. Replace if defective.
5. PLATFORM/BASE select switch (S10) set to base position.
   -Set (S10) to platform position.
6. Open or defective PLATFORM/BASE select switch (S10).
   -Check switch. Replace if defective.
7. Loose or broken wire #7A from PLATFORM/BASE select switch (S10) to platform emergency stop switch (S4).
   -Check continuity. Replace if defective.
8. Open or defective platform emergency stop switch (S4).
   -Check switch. Replace if defective.

4.1-5. All Functions Inoperative From The Platform

1. Open or defective emergency stop switch (S4).
   -Check switch. Replace if defective.
2. Loose or broken wire #08 from emergency stop switch (S4) to OFF/LIFT/DRIVE select switch (S3).
   -Check continuity. Replace if defective.
3. Open or defective OFF/LIFT/DRIVE select switch (S3).
   -Check switch. Replace if defective.
4. Open diode (D10) at base terminal block.
   -Check diode. Replace if defective.

4.1-6. Engine Will Not Crank From Platform

1. Open or defective key select switch (S3).
   -Check switch. Replace if defective.
2. Loose or broken wire #10 from key select switch (S3) to start switch (S15).
   -Check continuity. Replace if defective.
3. Defective start switch (S15).
   -Check switch. Replace if defective.
4. Loose or broken wire #32 from start switch (S15) to relay (32CR).
   -Check continuity. Replace if defective.
5. Defective relay (32CR).
   -Check relay. Replace if defective.
6. Loose or broken jumper wire #41 on relay (32CR).
   -Check continuity. Replace if defective.
7. Loose or broken wire #02 from relay (32CR) to base terminal block.
   -Check continuity. Replace if defective.
8. Loose or broken wire #05 from base terminal block to relay (32CR).
   -Check continuity. Replace if defective.
9. Loose or broken wire #32A from relay (32CR) to base terminal block.
   -Check continuity. Replace if defective.
10. Loose or broken wire #32A from base terminal block to starter contactor (32ACR).
    -Check continuity. Replace if defective.
11. Defective starter contactor (32ACR).
    -Check contactor. Replace if defective.
12. Loose or broken wire #00 from starter contactor (32ACR) to base.
    -Check continuity. Replace if defective.
13. Loose or broken wire #100 from main power disconnect (S1) to starter contactor (32ACR).
    -Check continuity. Replace if defective.

14. Loose or broken wire #104 from starter contactor (32ACR) to starter motor.
    -Check continuity. Replace if defective.
15. Defective relay (10BCR2).
    -Check relay. Replace if defective.
16. Defective starter motor.
    -Check motor. Repair or replace if defective.

4.1-7. Engine Will Not Crank from Base Controls (GM Dual Fuel)

1. Loose or broken wire #10A from base terminal block (TB1) to engine harness plug.
   -Check continuity. Replace if defective.
2. Loose or broken wire #10A from engine harness plug to base start switch (S30).
   -Check continuity. Replace if defective.
3. Defective base start switch (S30).
   -Check switch. Replace if defective.
4. Loose or broken wire #32A from base start switch (S30) to GM engine connector 1.
   -Check continuity. Replace if defective.

4.1-8. Engine Will Not Crank from Platform or Base Control (Additional for GM Dual Fuel)

1. Loose or broken wire #10A from base terminal block (TB1) to engine harness plug.
   -Check continuity. Replace if defective.
2. Loose or broken wire #10A from engine harness plug to GM engine connector 1.
   -Check continuity. Replace if defective.
3. Loose or broken PINK wire from GM engine connector 1 to fuse (F7).
   -Check continuity. Replace if defective.
4. Defective fuse (F7).
   -Check fuse. Replace if defective
5. Loose or broken PINK/TAN wire from fuse (F7) to ECU connector pin #45.
   -Check continuity. Replace if defective
6. Loose or broken RED wire from battery positive to ECU fuse (F8).
   -Check continuity. Replace if defective.
7. Defective fuse (F8).
   -Check fuse. Replace if defective.
8. Loose or broken RED/TAN wire from fuse (F8) to ECU connector pin #60 and pin #79.
   -Check continuity. Replace if defective.
9. Loose or broken BLACK wire from engine ground to ECU connector pin #69 and #81.
   -Check continuity. Replace if defective.
10. Loose or broken LT BLUE/PINK wire from GM engine connector 1 to relay (32ACR).
    -Check continuity. Replace if defective.
11. Loose or broken PINK/BLACK wire from ECU connector pin #89 to relay (32ACR).
    -Check continuity. Replace if defective.
12. Defective relay (32ACR).
    -Check relay. Replace if defective.
13. Loose or broken RED wire from battery positive to starter fuse (F12).
    -Check continuity. Replace if defective.
14. Defective fuse (F12).
    -Check fuse. Replace if defective.
15. Loose or broken RED/TAN wire from fuse (F12) to relay (32ACR).
    -Check continuity. Replace if defective.
16. Loose or broken WHITE wire from relay (32ACR) to start solenoid (32BCR).
    -Check continuity. Replace if defective.

17. Defective starter solenoid (32BCR).
    -Check solenoid. Replace if defective.
18. Loose or broken battery cable from starter solenoid (32BCR) to starter motor.
    -Check continuity. Replace if defective.
19. Defective starter motor.
    -Check motor. Repair or replace if defective.

4.1-9. Engine Will Not Crank From Engine Controls (Kubota Diesel)

1. Loose or broken wire #05 from base terminal block to base engine switch (S30).
   -Check continuity. Replace if defective.
2. Loose or broken wire #05A from base engine switch (S30) to engine start switch (S32).
   -Check continuity. Replace if defective.
3. Defective engine start switch (S32).
   -Check switch. Replace if defective.
4. Loose or broken wire #32A from engine start switch (S32) to starter contactor (32ACR).
   -Check continuity. Replace if defective.
5. Loose or broken wire #00 from starter contactor (32ACR) to base.
   -Check continuity. Replace if defective.
6. Defective starter contactor (32ACR).
   -Check contactor. Replace if defective.
7. Loose or broken wire #100 from main power disconnect switch (S1) to starter contactor (32ACR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #104 from starter contactor (32ACR) to starter motor.
   -Check continuity. Replace if defective.
9. Defective starter motor.
   -Check motor. Repair or replace if defective.

4.1-10. Engine Will Not Crank From Engine Controls (Nissan Dual Fuel & Kubota Dual Fuel)

NOTE

For further information on Nissan Dual Fuel Troubleshooting,
refer to Section 4, EMS Troubleshooting.

1. Loose or broken wire #05 from base terminal block to base engine switch (S30).
   -Check continuity. Replace if defective.
2. Loose or broken wire #7 on base engine switch (S30).
   -Check continuity. Replace if defective.
3. Defective base engine switch (S30).
   -Check switch. Replace if defective.
4. Loose or broken wire #32A from base engine switch (S30) to starter contactor (32ACR).
   -Check continuity. Replace if defective.
5. Loose or broken wire #00 from starter contactor (32ACR) to base.
   -Check continuity. Replace if defective.
6. Defective starter contactor (32ACR).
   -Check contactor. Replace if defective.
7. Loose or broken wire #100 from main power disconnect switch (S1) to starter contactor (32ACR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #104 from starter contactor (32ACR) to starter motor.
   -Check continuity. Replace if defective.
9. Defective starter motor.
   -Check motor. Repair or replace if defective.

4.1-11. Engine Cranks But Will Not Start (Kubota Diesel)

1. Open diode (D32A) from engine start switch (S32) to glow plug switch (S31).
   -Check diode. Replace if defective.
2. Loose or broken wire #37 from base terminal block to diesel valve solenoid (2D37).
   -Check continuity. Replace if defective.
3. Loose or broken wire #57 from starter contactor (32ACR) to diesel valve solenoid (2D37).
   -Check continuity. Replace if defective.
4. Defective fuel valve solenoid (2D37).
   -Check solenoid. Replace if defective.
5. Defective glow plugs.
   -Check glow plugs. Repair if necessary.
6. Defective glow plug timer (GPT1).
   -Check timer. Replace if defective.
7. Defective glow plug relay (31ACR).
   -Check relay. Replace if defective.

4.1-12. Engine Cranks But Will Not Start (Check Engine Light Does Not Come On) (Nissan Dual Fuel)

1. Loose or broken wire #10A from base terminal block (TB1) to engine harness plug.
   -Check continuity. Replace if defective.
2. Loose or broken wire #10A from base terminal block to main power relay (10ACR).
   -Check continuity. Replace if defective.
3. Loose or broken wire #00 from chassis ground to main power relay (10ACR).
   -Check continuity. Replace if defective.
4. Defective main power relay (10ACR).
   -Check relay. Replace if defective.
5. Loose or broken wire #100 from engine start solenoid (32ACR) to fuse (F6).
   -Check continuity. Replace if defective.
6. Defective fuse (F6).
   -Check fuse. Replace if defective.
7. Loose or broken wire #4002 from fuse (F6) to main power relay (10ACR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #2002 from main power relay (10ACR) to check engine light (CEL1).
   -Check continuity. Replace if defective.
9. Loose or broken wire #2002 from main power relay (10ACR) to white ECU connector at pins #22 and #23.
   -Check continuity. Replace if defective.
10. Loose or broken wire #00 from chassis ground to the white ECU connector at pins #20 and #21.
    -Check continuity. Replace if defective.
11. Check bulb.
    -Replace if defective.

4.1-13. Engine Cranks But Will Not Start (Kubota Dual Fuel)

1. Open or defective diode (D57).
   -Check diode. Replace if defective.
2. Loose or broken wire #17 from engine harness plug to coil pack 2 wire connector.
   -Check continuity. Replace if defective.
3. Loose or broken wire #00 from coil pack 2 wire connector to engine ground.
   -Check continuity. Replace if defective.
4. Loose or broken wire #00 from engine ground to crank position sensor.
   -Check continuity. Replace if defective.

5. Loose or broken wire #13 from ignition control module (ICM1) to crank position sensor (CPS1).
   -Check continuity. Replace if defective.
6. Defective ignition control module (ICM1).
   -Refer to section 5 of this manual for Ohm specifications. Replace if defective.
7. Defective crank position sensor.
   -Refer to section 5 of this manual for Ohm specifications. Replace if defective.
8. Loose or broken wire #37 from engine harness plug to fuel relay (37CR).
   -Check continuity. Replace if defective.
9. Loose or broken wire #02 from engine harness plug to fuel relay (37CR).
   -Check continuity. Replace if defective.
10. Defective fuel relay (37CR).
    -Check continuity. Replace if defective.
11. Loose or broken wire #7 from main engine switch (S30) to fuel relay (37CR).
    -Check continuity. Replace if defective.
12. Loose or broken wire #56 from fuel relay (37CR) to fuel select switch (S33).
    -Check continuity. Replace if defective.
13. Defective fuel switch (S33).
    -Check switch. Replace if defective.
14. While in gasoline, loose or broken wire #11 from fuel select switch (S33) to fuel pump (FP11) or gas valve (2G-11).
    -Check continuity. Replace if defective.
15. While in propane, loose or broken wire #50 from fuel select switch (S33) to fuel lockoff (2P-50-1) or propane lockoff (2P-50-2).
    -Check continuity. Replace if defective.
16. Loose or broken wire #00 from engine ground to propane lockoff (2P-50-1) or (2P-50-2) (propane) or to gasoline (2G-11) or fuel pump (FP11) (gasoline).
    -Check continuity. Replace if defective.
17. Defective propane lockoff (2P-50-1) or (2P-50-2) (propane) or gas valve (2G-11) or fuel pump (FP11) (gasoline).
    -Check lockoffs, valve or pump. Replace if defective.

4.1-14. Engine Cranks But Will Not Start (GM Dual Fuel)

NOTE

For additional engine troubleshooting refer to diagnostic trouble codes for use with the check engine light.

1. Loose or broken RED wire from battery positive to relay (2002CR).
   -Check continuity. Replace if defective.
2. Loose or broken RED/TAN wire from ECU fuse (F8) to relay (2002CR).
   -Check continuity. Replace if defective.
3. Loose or broken WHITE/LT BLUE wire from ECU connector pin #71 to relay (2002CR).
   -Check continuity. Replace if defective.
4. Defective relay (2002CR).
   -Check relay. Replace if defective.
5. Loose or broken PINK/DR GREEN wire from relay (2002CR) to ignition fuse (F10).
   -Check continuity. Replace if defective
6. Defective fuse (F10).
   -Check fuse. Replace if defective
7. Loose or broken PINK/DR GREEN wire from fuse (F10) to ignition coil (IGC1) pin #D.
   -Check continuity. Replace if defective.
8. Loose or broken BLACK wire from ignition coil (IGC1) pin #C to engine ground.
   -Check continuity. Replace if defective.

9. Defective ignition coil (IGC1).
   - Refer to section 5 of this manual for Ohm specifications. Replace if defective.
10. Loose or broken PINK/DR GREEN wire from fuse (F10) to gas injectors (GI-1, GI-2, GI-3 and GI-4).
   -Check continuity. Replace if defective.
11. Loose or broken PINK/WHITE wire from ECU connector pin #82 to throttle actuator (RA1).
   -Check continuity. Replace if defective.
12. Loose or broken TAN/ORANGE wire from ECU connector pin #83 to throttle actuator (RA1).
   -Check continuity. Replace if defective.
13. Loose or broken LT GREEN/RED wire from ECU connector pin #19 to throttle actuator (RA1).
   -Check continuity. Replace if defective.
14. Loose or broken BLACK/LT GREEN wire from ECU connector pin #20 to throttle actuator (RA1).
   -Check continuity. Replace if defective.
15. Loose or broken LT BLUE/DR BLUE wire from ECU connector pin #6 to throttle actuator (RA1).
   -Check continuity. Replace if defective.

FUEL RELATED PROBLEMS

(GASOLINE ONLY)

16. Loose or broken PINK/TAN wire from fuse (F7) to fuel pump relay (56CR).
   -Check continuity. Replace if defective.
17. Loose or broken RED wire from battery positive to fuel pump relay (56CR).
   -Check continuity. Replace if defective.
18. Loose or broken TAN/BLACK wire from ECU connector pin #42 to fuel pump relay (56CR).
   -Check continuity. Replace if defective.
19. Defective fuel pump relay (56CR).
   -Check relay. Replace if defective.

20. Loose or broken PINK/YELLOW wire from fuel pump relay (56CR) to fuse (F11).
   -Check continuity. Replace if defective.
21. Defective fuse (F11).
   -Check fuse. Replace if defective.
22. Loose or broken PINK/YELLOW wire from fuse (F11) to fuel pump (FP).
   -Check continuity. Replace if defective.
23. Loose or broken PINK/YELLOW wire from fuse (F11) to ECU connector pin #85.
   -Check continuity. Replace if defective
24. Defective fuel pump (FP).
   -Check fuel pump by putting 12 volts and a ground to it. Replace if defective.
25. Loose or broken wire #3002 from fuel pump (FP) to GM engine connector 1.
   -Check continuity. Replace if defective.
26. Loose or broken BLACK/RED wire from GM engine connector to ECU connector pin #86.
   -Check continuity. Replace if defective.

(PROPANE ONLY)

NOTE

The fuel select switch is defaulted to gasoline. The engine will run on gasoline if propane is selected from the switch and either the switch is bad or a wire is loose or broken from the switch. This is providing there is nothing wrong on the gasoline side of the system. Disconnect fuel pump to test propane side.

27. Loose or broken wire #10A from engine harness plug to fuel select switch (S33).
   -Check continuity. Replace if defective.
28. Defective fuel select switch (S33).
   -Check switch. Replace if defective.

29. Loose or broken wire #50 from fuel select switch (S33) to GM engine connector 1.
    -Check continuity. Replace if defective.
30. Loose or broken TAN/BROWN wire from GM engine connector 1 to ECU connector pin #42.
    -Check continuity. Replace if defective.
31. Loose or broken PINK/TAN wire from fuse (F7) to propane lock off (2P-56).
    -Check continuity. Replace if defective.
32. Loose or broken WHITE/BLACK wire from ECU connector pin #75 to propane lock off (2P-56).
    -Check continuity. Replace if defective.
33. Defective propane lock off (2P-56).
    -Check lock off. Replace if defective.
34. Loose or broken PINK/DR GREEN wire from fuse (F10) to fuse (F9).
    -Check continuity. Replace if defective.
35. Defective fuse (F9).
    -Check fuse. Replace if defective.
36. Loose or broken RED/LT BLUE wire from fuse (F9) to propane regulator (PRV1).
    -Check continuity. Replace if defective.
37. Loose or broken BLACK wire from engine ground to propane regulator (PRV1).
    -Check continuity. Replace if defective.

4.1-15. Glow Plugs Inoperative From Engine Controls (Diesel Models)

1. Loose or broken wire #31A from glow plug switch (S31) to glow plug relay (31ACR).
   -Check continuity. Replace if defective.
2. Loose or broken wire #02 from glow plug relay (31ACR) to base terminal block (TB1).
   -Check continuity. Replace if defective.
3. Loose or broken wire #91 from base terminal block (TB1) to relay (31ACR).
   -Check continuity. Replace if defective.
4. Loose or broken wire #91A from relay (31ACR) to engine glow plugs (EGP1).
   -Check continuity. Replace if defective.
5. Defective glow plug relay (31ACR).
   -Check relay. Replace if defective.
6. Defective glow plugs.
   -Check glow plugs. Replace if defective.

4.1-16. Glow Plugs Inoperative From Platform (Diesel Models)

1. Loose or broken wire #10 from key selector switch (S3) to glow plug switch (S13).
   -Check continuity. Replace if defective.
2. Defective glow plug switch (S13).
   -Check switch. Replace if defective.
3. Loose or broken wire #31 from glow plug switch (S13) to glow plug relay (31CR).
   -Check continuity. Replace if defective.
4. Loose or broken wire #02 from relay (31CR) to base terminal block (TB1).
   -Check continuity. Replace if defective.
5. Loose or broken wire #05 from base terminal block (TB1) to relay (31CR).
   -Check continuity. Replace if defective.
6. Loose or broken wire #31A from relay (31CR) to base terminal block (TB1).
   -Check continuity. Replace if defective.
7. Loose or broken wire #31A from base terminal block (TB1) to glow plug relay (31ACR).
   -Check continuity. Replace if defective.
8. Defective relay (31CR).
   -Check relay. Replace if defective.

9. Loose or broken wire #02 from relay (31ACR) to base terminal block (TB1).
   -Check continuity. Replace if defective.
10. Loose or broken wire #91 from base terminal block (TB1) to relay (31ACR).
   -Check continuity. Replace if defective.
11. Loose or broken wire #91A from relay (31ACR) to engine glow plugs (EGP1).
   -Check continuity. Replace if defective.
12. Defective glow plug relay (31ACR).
   -Check relay. Replace if defective.
13. Defective glow plugs.
   -Check glow plugs. Replace if defective.

4.1-17. Mid Throttle Inoperative (On Demand)

1. Defective diode (D17A) or (D18A).
   -Check diode. Replace if defective.
2. Loose or broken wire #33 from base terminal strip (TB1) to engine plug.
   -Check continuity. Replace if defective.
3. Loose or broken wire #33 from engine harness plug to white ECU connector at pin #17.
   -Check continuity. Replace if defective.

4.1-18. Mid Throttle Inoperative (On Demand) (GM Engine)

1. Open diode (D17A) or (D18A).
   -Check diode. Replace if defective
2. Loose or broken wire #33 from base terminal block (TB1) to engine harness plug.
   -Check continuity. Replace if defective.
3. Loose or broken wire #33 from engine harness plug to GM engine connector 2.
   -Check continuity. Replace if defective.
4. Loose or broken GRAY/DR BLUE wire from GM engine connector to ECU connector pin #51.
   -Check continuity. Replace if defective.
5. Loose or broken PURPLE/LT BLUE wire from ECU connector pin #5 to throttle actuator (RA1).
   -Check continuity. Replace if defective.

4.1-19. High Throttle Inoperative (Machines without base control box option)

NOTE

If machine is in drive mode and is elevated above high speed limit switch, high throttle is inoperative.

1. Loose or broken wire #10 from key select switch (S3) to LOW/HIGH throttle switch (S14).
   -Check continuity. Replace if defective.
2. Defective high/low throttle switch (S14).
   -Check switch. Replace if defective.
3. Loose or broken wire #34 from LOW/HIGH throttle switch (S14) to relay (35ACR).
   -Check continuity. Replace if defective.
4. Open diode (D09) “when in lift only”
   -Check diode. Replace if defective.
5. Open diode (D35-2) “when in drive only”
   -Check diode. Replace if defective.
6. Loose or broken wire #35A From diode (D09) to relay (35ACR).
   -Check continuity. Replace if defective.
7. Defective relay (35ACR).
   -Check relay. Replace if defective.

8. Loose or broken wire #02 from relay (35ACR) to terminal block (TB1).
   -Check continuity. Replace if defective.
9. Loose or broken wire #34B from relay (35ACR) to relay (34BCR).
   -Check continuity. Replace if defective.
10. Defective relay (34BCR).
    -Check relay. Replace if defective.
11. Loose or broken wire #42 from relay (34BCR) to relay (10BCR2).
    -Check continuity. Replace if defective.
12. Defective relay (10BCR2).
    -Check relay. Replace if defective.
13. Loose or broken wire #02 from relay (10BCR2) to base terminal block (TB1).
    -Check continuity. Replace if defective.
14. Loose or broken wire #05 from base terminal block (TB1) to relay (32CR).
    -Check continuity. Replace if defective.
15. Defective relay (32CR).
    -Check relay. Replace if defective.
16. Loose or broken wire #43 from relay (32CR) to relay (34BCR).
    -Check continuity. Replace if defective.
17. Loose or broken wire #34A from relay (34BCR) to engine harness plug.
    -Check continuity. Replace if defective.
18. Loose or broken wire #34A from engine harness plug to white ECU connector at pin #19.
    -Check continuity. Replace if defective.
19. Loose or broken wire #2A from relay (10BCR2) to engine harness plug.
    -Check continuity. Replace if defective.
20. Loose or broken wire #2A engine harness plug to the white ECU connector at pin #14.
    -Check continuity. Replace if defective.

4.1-20. High Throttle Inoperative (Machines with base control box option)

NOTE

If machine is in drive mode and is elevated above high speed limit switch, high throttle is inoperative.

1. Loose or broken wire #10 from key select switch (S3) to LOW/HIGH throttle switch (S14).
   -Check continuity. Replace if defective.
2. Defective LOW/HIGH throttle switch (S14).
   -Check switch. Replace if defective.
3. Loose or broken wire #34 from LOW/HIGH throttle switch (S14) to diode (D34).
   -Check continuity. Replace if defective.
4. Diode (D34) open.
   -Check diode. Replace if defective.
5. Diode (D34) loose or broken at relay (35ACR).
   -Tighten diode. Replace if broken.
6. Open diode (D09) (when in lift only).
   -Check diode. Replace if defective.
7. Open diode (D35-2) (when in drive only).
   -Check diode. Replace if defective.
8. Loose or broken wire #35A from diode (D09) to relay (35ACR).
   -Check continuity. Replace if defective.
9. Defective relay (35ACR).
   -Check relay. Replace if defective.
10. Loose or broken wire #02 from relay (35ACR) to terminal block (TB1).
    -Check relay. Replace if defective.

11. Loose or broken wire #34B from relay (35ACR) to relay (34BCR).
    -Check continuity. Replace if defective.
12. Defective relay (34BCR).
    -Check relay. Replace if defective.
13. Loose or broken wire #42 from relay (34BCR) to relay (10BCR2).
    -Check continuity. Replace if defective.
14. Defective relay (10BCR2).
    -Check relay. Replace if defective.
15. Loose or broken wire #02 from relay (10BCR2) to base terminal block (TB1).
    -Check continuity. Replace if defective.
16. Loose or broken wire #05 from base terminal block (TB1) to relay (32CR).
    -Check continuity. Replace if defective.
17. Defective relay (32CR).
    -Check relay. Replace if defective.
18. Loose or broken wire #43 from relay (32CR) to relay (34BCR).
    -Check continuity. Replace if defective.
19. Loose or broken wire #34A from relay (34BCR) to high throttle solenoid (HTS34A).
    -Check continuity. Replace if defective.
20. Defective high throttle solenoid (HTS34A).
    -Check solenoid. Replace if defective.
21. Loose or broken wire #02 from high throttle solenoid (HTS34A) to engine terminal block.
    -Check continuity. Replace if defective.

4.1-21. High Throttle On Demand Inoperative (Kubota Dual Fuel)

NOTE

If machine is in drive mode and is elevated above high speed limit switch, high throttle is inoperative

NOTE

If the above does not repair the high throttle on demand, refer to high throttle inoperative in this section.

1. Throttle switch (S14) in low throttle position.
   -Select high throttle position on switch.
2. Open or defective diode (D17A) or (D18A).
   -Check diodes. Replace if defective.
3. Loose or broken wire #33 from terminal strip (TB1) to power on demand relay (33CR).
   -Check continuity. Replace if defective.
4. Loose or broken wire #02 from engine harness plug to power on demand relay (33CR).
   -Check continuity. Replace if defective.
5. Defective power on demand relay (33CR).
   -Check relay. Replace if defective.
6. Loose or broken wire #34A from engine harness plug to power on demand relay (33CR).
   -Check continuity. Replace if defective.
7. Loose or broken wire #34C from power on demand relay (33CR) to high throttle solenoid (HTS-34C).
   -Check continuity. Replace if defective.

4.1-22. High Throttle Inoperative (Additional for GM Dual Fuel)

1. Loose or broken wire #34A from engine harness plug to GM engine connector 2.
   -Check continuity. Replace if defective.
2. Loose or broken GRAY/ORANGE wire from GM engine connector 2 to ECU connector pin #52.

-Check continuity. Replace if defective.

3. Loose or broken LT BLUE/DR BLUE wire from ECU connector pin #6 to throttle actuator (RA1).
   -Check continuity. Replace if defective.
4. Defective throttle actuator (RA1).
   -Check actuator. Replace if defective.

NOTE

For more troubleshooting information, refer to Manufacture Engine Manual.

4.1-23. Drive And Steer Inoperative (Machines without outriggers option)

1. Key select switch (S3) in lift position.
   -Turn switch to drive position.
2. Defective drive switch in key select switch (S3).
   -Check switch. Replace if defective.
3. Loose or broken wire #12 from key select switch (S3) to joystick controller enable switch (S7-7).
   -Check continuity. Replace if defective.
4. Defective joystick enable switch (S7-7).
   -Check switch. Replace if defective.
5. Loose or broken wire #12A from joystick enable relay (12BCR) to speed, steer and direction switches (S7-1 to S7-6).
   -Check continuity. Replace if defective.
6. Loose or broken wire #12B from joystick enable switch (S7-7) to joystick enable relay (12BCR).
   -Check continuity. Replace if defective.
7. Defective joystick enable relay (12BCR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #02 from joystick enable relay (12BCR) to joystick harness.
   -Check continuity. Replace if defective.
9. Loose or broken wire #10A from base terminal block to relay (28CR).
   -Check continuity. Replace if defective.
10. Defective relay (28CR).
    -Check relay. Replace if defective.
11. Loose or broken wire #1 from relay (28CR) to terminal block (TB2).
    -Check continuity. Replace if defective.
12. Loose or broken jumper wire from #1 to #1A on terminal block (TB2).
    -Check continuity. Replace if defective.
13. Loose or broken jumper wire from #1A to #4 on terminal block (TB2).
    -Check continuity. Replace if defective.

4.1-24. Drive And Steer Inoperative (Machines with outriggers option)

1. Outriggers not fully retracted
   -Fully retract outrigger cylinders
2. Key select switch (S3) in lift position.
   -Turn switch to drive position.
3. Defective drive switch in key select switch (S3).
   -Check switch. Replace if defective.
4. Loose or broken wire #12 from key select switch (S3) to joystick controller enable switch (S7-7).
   -Check continuity. Replace if defective.
5. Defective joystick enable switch (S7-7).
   -Check switch. Replace if defective.
6. Loose or broken wire #12B from joystick enable switch (S7-7) to joystick enable relay (12BCR).
   -Check continuity. Replace if defective.

7. Defective joystick enable relay (12BCR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #02 from joystick enable relay (12BCR) to joystick harness.
   -Check continuity. Replace if defective.
9. Loose or broken wire #12A from joystick enable relay (12BCR) to speed, steer and direction switches (S7-1 to S7-6).
   -Check continuity. Replace if defective.
10. Loose or broken wire #10A from base terminal block to relay (28CR).
    -Check continuity. Replace if defective.
11. Defective relay (28CR).
    -Check relay. Replace if defective.
12. Loose or broken wire #1 from relay (28CR) to terminal block (TB2).
    -Check continuity. Replace if defective.
13. Loose or broken wire #1 from terminal block (TB2) to pin #7 on connector (CN14) at the outrigger board.
    -Check continuity. Replace if defective.
14. Left rear outrigger limit switch (LS64) is out of adjustment or defective.
    -Check continuity through switch. Adjust switch if out of adjustment. Replace if defective.
15. Right rear outrigger limit switch (LS63) is out of adjustment or defective.
    -Check continuity through switch. Adjust switch if out of adjustment. Replace if defective.
16. Right front outrigger limit switch (LS62) is out of adjustment or defective.
    -Check continuity through switch. Adjust switch if out of adjustment. Replace if defective.
17. Left front outrigger limit switch (LS61) is out of adjustment or defective.
    -Check continuity through switch. Adjust switch if out of adjustment. Replace if defective.
18. Defective drive enable relay (61CR).
    -Check relay. Replace if defective.
19. Loose or broken wire #1A from pin #1 on connector (CN14) at the outrigger board to terminal block (TB2).
    -Check continuity. Replace if defective.
20. Loose or broken jumper wire from #1A to #4 on terminal block (TB2) "Machines without 26' drive cutout option only"
    -Check continuity. Replace if defective.
21. 26" Drive cutout limit switch out of adjustment or is defective.21.
    -Adjust switch. Check continuity through switch. Replace if defective.

4.1-25. Brakes Will Not Release

1. Loose or broken wire #30 from diodes (D15A-2) and (D16A-2) to relay (30CR).
   -Check continuity. Replace if defective.
2. Defective relay (30CR).
   -Check relay. Replace if defective.
3. Loose or broken wire #02 from relay (30CR) to base terminal block (TB-1).
   -Check continuity. Replace if defective.
4. Loose or broken wire #10A from base terminal block to relay (30CR).
   -Check continuity. Replace if defective.
5. Loose or broken wire #30A from relay (30CR) to base terminal block (TB-1).
   -Check continuity. Replace if defective.
6. Loose or broken wire #30A from base terminal block (TB-1) to brake dump valve (2H-30A-1) or brake feed valve (2H-30A-2).
   -Check continuity. Replace if defective.
7. Defective valve coil (2H-30A-1) brake dump or (2H-30A-2) brake feed.
   -Check continuity through coil. Replace if defective.
8. Loose or broken wire #02 from (2H-30A-1) brake dump or (2H-30A-2) brake feed coil to base terminal block (TB-1).

-Check continuity. Replace if defective.

9. Open diode (D30).
   -Check diode. Replace if defective.
10. Loose or broken wire #25 from diode (D30) to base terminal block (TB-1).
    -Check continuity. Replace if defective.
11. Loose or broken wire #25 from base terminal block (TB-1) to quick brake valve coil (2H-25).
    -Check continuity. Replace if defective.
12. Defective quick brake valve coil (2H-25).
    -Check continuity through coil. Replace if defective.
13. Loose or broken wire #02 from quick brake valve (2H-25) to base terminal block (TB-1).
    -Check continuity. Replace if defective.

4.1-26. Steer Right Inoperative

1. Defective steer right switch (S7-2) in joystick controller (S7).
   -Check switch. Replace if defective.
2. Loose or broken wire #23 from steer right switch (S7-2) to platform terminal block.
   -Check continuity. Replace if defective.
3. Loose or broken wire #23 from platform terminal block to relay (23CR).
   -Check continuity. Replace if defective.
4. Defective relay (23CR).
   -Check relay. Replace if defective.
5. Loose or broken wire #04 from base terminal block to relay (23CR).
   -Check continuity. Replace if defective.
6. Loose or broken wire #23A from relay (23CR) to base terminal block.
   -Check continuity. Replace if defective.
7. Loose or broken wire #02 from relay (23CR) to base terminal block.
   -Check continuity. Replace if defective.
8. Loose or broken wire #23A from base terminal block to steer right valve coil (4H23A).
   -Check continuity. Replace if defective.
9. Defective steer right valve coil (4H23A).
   -Check coil. Replace if defective.
10. Loose or broken wire #02 from steer right valve coil (4H23A) to base terminal block.
    -Check continuity. Replace if defective.
11. Open diode (D23A).
    -Check diode. Replace if defective.

4.1-27. Steer Left Inoperative

1. Defective steer left switch (S7-3) in joystick controller (S7).
   -Check switch. Replace if defective.
2. Loose or broken wire #24 from steer left switch (S7-3) to platform terminal block.
   -Check continuity. Replace if defective.
3. Loose or broken wire #24 from platform terminal block to relay (24CR).
   -Check continuity. Replace if defective.
4. Defective relay (24CR).
   -Check relay. Replace if defective.
5. Loose or broken wire #04 from base terminal block to relay (24CR).
   -Check continuity. Replace if defective.
6. Loose or broken wire #24A from relay (24CR) to base terminal block.
   -Check continuity. Replace if defective.
7. Loose or broken wire #02 from relay (24CR) to base terminal block.
   -Check continuity. Replace if defective.

8. Loose or broken wire #24A from base terminal block to steer left valve coil (4H24A).
   -Check continuity. Replace if defective.
9. Defective steer left valve coil (4H24A).
   -Check coil. Replace if defective.
10. Loose or broken wire #02 from steer left valve coil (4H24A) to base terminal block.
    -Check continuity. Replace if defective.
11. Open diode (D24A).
    -Check diode. Replace if defective.

4.1-28. Reverse Drive Inoperative

1. Defective drive/reverse switch (S7-4) in joystick controller (S7).
   -Check switch. Replace if defective.
2. Defective joystick controller (S7).
   -Check joystick. Replace if defective.
3. Loose or broken wire #15 from joystick (S7) to platform terminal block.
   -Check continuity. Replace if defective.
4. Loose or broken wire #15 from platform terminal block to relay (15CR).
   -Check continuity. Replace if defective.
5. Defective relay (15CR).
   -Check relay. Replace if defective.
6. Loose or broken wire #02 from relay (15CR) to base terminal block.
   -Check continuity. Replace if defective.
7. Loose or broken wire #04 from base terminal block to relay (15CR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #15A from relay (15CR) to time delay relay (1TD).
   -Check continuity. Replace if defective.
9. Defective time delay relay (1TD).
   -Check relay. Replace if defective.
10. Loose or broken wire #15B from time delay relay (1TD) to reverse valve coil (4H15B).
    -Check continuity. Replace if defective.
11. Defective reverse valve coil (4H15B).
    -Check coil. Replace if defective.
12. Loose or broken wire #02 from reverse valve coil (4H15B) to base terminal block.
    -Check continuity. Replace if defective.
13. Open diode (D15A-1) or (D15A-2).
    -Check diodes. Replace if defective.

4.1-29. Forward Drive Inoperative

1. Defective drive forward switch (S7-5) in joystick controller (S7).
   -Check switch. Replace if defective.
2. Defective joystick controller (S7).
   -Check joystick. Replace if defective.
3. Loose or broken wire #16 joystick controller (S7) to platform terminal block.
   -Check continuity. Replace if defective.
4. Loose or broken wire #16 from platform terminal block to relay (16CR).
   -Check continuity. Replace if defective.
5. Defective relay (16CR).
   -Check relay. Replace if defective.
6. Loose or broken wire #02 from relay (16CR) to base terminal block.

-Check continuity. Replace if defective.

7. Loose or broken wire #04 from base terminal block to relay (16CR).
   -Check continuity. Replace if defective.
8. Loose or broken wire #16A from relay (16CR) to time delay relay (1TD).
   -Check continuity. Replace if defective.
9. Defective time delay relay (1TD).
   -Check relay. Replace if defective.
10. Loose or broken wire #16B from time delay relay (1TD) to forward valve coil (4H16B).
    -Check continuity. Replace if defective.
11. Defective forward valve coil (4H16B).
    -Check coil. Replace if defective.
12. Loose or broken wire #02 from forward valve coil (4H16B) to base terminal block.
    -Check continuity. Replace if defective.
13. Open diode (D16A-1) or (D16A-2).
    -Check diodes. Replace if defective.

4.1-30. First Drive Speed And Steering Inoperative

1. Loose or broken wire #21 from base terminal block to relay (17ACR).
   -Check continuity. Replace if defective.
2. Defective relay (17ACR).
   -Check relay. Replace if defective.
3. Loose or broken wire #18A from relay (17ACR) to small pump dump valve solenoid. (2H18A)
   -Check continuity. Replace if defective.
4. Defective small pump dump valve coil (2H18A).
   -Check coil. Replace if defective.
5. Loose or broken wire #02 from small pump dump solenoid (2H18A) to base terminal block.
   -Check continuity. Replace if defective.

4.1-31. Second Drive Speed Inoperative

1. Defective second speed switch (S7-1) in joystick controller (S7).
   -Check switch. Replace if defective.
2. Defective joystick controller (S7).
   -Check joystick. Replace if defective.
3. Loose or broken wire #19 from joystick controller (S7-1) to platform terminal block.
   -Check continuity. Replace if defective.
4. Loose or broken wire #19 from platform terminal block to relay (35CR).
   -Check continuity. Replace if defective.
5. Defective relay (35CR).
   -Check relay. Replace if defective.
6. Loose or broken wire #10A from base terminal block to high drive/tilt override limit switch (LS5).
   -Check continuity. Replace if defective.
7. Misadjusted or defective high drive/tilt override limit switch (LS5).
   -Adjust switch. Replace if defective.
8. Loose or broken wire #35 from high drive/tilt override limit switch (LS5) to base terminal block.
   -Check continuity. Replace if defective.
9. Loose or broken wire #35 from base terminal block to relay (35CR).
   -Check continuity. Replace if defective.
10. Loose or broken wire #02 from relay (35CR) to base terminal block.
    -Check continuity. Replace if defective.
11. Defective relay (35CR).

-Check relay. Replace if defective.

12. Open diode (D19A)
    -Check relay. Replace if defective.
13. Loose or broken wire #17 from diode (D19A) to relay (17CR).
    -Check continuity. Replace if defective.
14. Defective relay (17CR).
    -Check relay. Replace if defective.
15. Loose or broken wire #02 from relay (17CR) to base terminal block.
    -Check continuity. Replace if defective.
16. Loose or broken wire #10A from base terminal block to relay (17CR).
    -Check continuity. Replace if defective.
17. Loose or broken wire #17A from relay (17CR) to base terminal block.
    -Check continuity. Replace if defective.
18. Loose or broken wire #17A from relay (17CR) to relay (17ACR).
    -Check continuity. Replace if defective.
19. Defective relay (17ACR).
    -Check relay. Replace if defective.
20. Loose or broken wire #02 from relay (17ACR) to base terminal block.
    -Check continuity. Replace if defective.
21. Loose or broken wire #17A from base terminal block to large pump dump valve solenoid (2H17A).
    -Check continuity. Replace if defective.
22. Loose or broken wire #02 from large pump dump valve solenoid (2H17A) to base terminal block.
    -Check continuity. Replace if defective.
23. Defective large pump dump valve solenoid (2H17A).
    -Check solenoid. Replace if defective.

4.1-32. Third Drive Speed Inoperative

1. LOW/HIGH torque switch (S41) in high position or defective.
   -Turn LOW/HIGH switch to low position. Replace if defective.
2. Defective third speed switch (S7-6) in joystick controller (S7).
   -Check switch. Replace if defective.
3. Defective joystick controller (S7).
   -Check joystick. Replace if defective.
4. Loose or broken wire #18B from joystick controller (S7-6) to LOW/HIGH torque switch (S41).
   -Check continuity. Replace if defective.
5. Loose or broken wire #18 from LOW/HIGH torque switch (S41) to platform terminal block.
   -Check continuity. Replace if defective.
6. Loose or broken wire #18 from platform terminal block to relay (18CR).
   -Check continuity. Replace if defective.
7. Defective relay (18CR).
   -Check relay. Replace if defective.
8. Loose or broken wire #02 from relay (18CR) to base terminal block.
   -Check continuity. Replace if defective.
9. Loose or broken wire #10A from base terminal block to relay (18CR).
   -Check continuity. Replace if defective.
10. Loose or broken wire #18A from relay (18CR) to small pump dump valve (2H18A).
    -Check continuity. Replace if defective.
11. Loose or broken wire #02 from small pump dump valve (2H18A) to base terminal block.
    -Check continuity. Replace if defective.
12. Defective small pump dump valve solenoid (2H18A).
    -Check solenoid. Replace if defective.

4.1-33. HI/LOW Range Speed Inoperative

1. Loose or broken wire #12A from Joystick enable relay (12BCR) to LOW/HIGH range switch (S29).
   -Check continuity. Replace if defective.
2. Defective LOW/HIGH range switch (S29).
   -Check switch. Replace if defective.
3. Loose or broken wire #20B from LOW/HIGH range switch (S29) to LOW/HIGH torque switch (S41).
   -Check continuity. Replace if defective.
4. Defective LOW/HIGH torque switch (S41).
   -Check switch. Replace if defective.
5. Loose or broken wire #20 from high/low torque switch (S41) to relay (20CR).
   -Check continuity. Replace if defective.
6. Defective relay (20CR).
   -Check relay. Replace if defective.
7. Loose or broken wire #02 from relay (20CR) to base terminal block.
   -Check continuity. Replace if defective.
8. Loose or broken wire #04 from base terminal block to relay (35CR).
   -Check continuity. Replace if defective.
9. Defective relay (35CR).
   -Check relay. Replace if defective.
10. Loose or broken wire #44 from relay (35CR) to relay (20CR).
    -Check continuity. Replace if defective.
11. Loose or broken wire #20A from relay (20CR) to base terminal block.
    -Check continuity. Replace if defective.
12. Loose or broken wire #20A from base terminal block to series parallel valve coil (3H20A).
    -Check continuity. Replace if defective.
13. Defective series/parallel valve coil (3H20A).
    -Check coil. Replace if defective.
14. Loose or broken wire #02 from series/parallel valve coil (3H20A) to base terminal block.
    -Check continuity. Replace if defective.

4.1-34. Up Circuit Inoperative From Platform Or Base (Machines Without Outriggers)

1. LIFT/OFF/DRIVE switch (S3) in drive position or defective.
   -Select lift position. Check switch. Replace if defective.
2. Loose or broken wire #09 from OFF/LIFT/DRIVE switch (S3) to lift enable switch (S9).
   -Check continuity. Replace if defective.
3. Defective lift enable switch (S9).
   -Check switch. Replace if defective.
4. Loose or broken wire #9A from lift enable switch (S9) to UP/OFF/DOWN switch (S5).
   -Check continuity. Replace if defective.
5. Defective UP/OFF/DOWN switch (S5).
   -Check switch. Replace if defective.
6. Loose or broken wire #14 from UP/OFF/DOWN switch (S5) to diode (D14). (CE Only)
   -Check continuity. Replace if defective.
7. Diode (D14) open. (CE Only)
   -Check diode. Replace if defective.
8. Loose or broken wire #14 from diode (D14) to base terminal block. (CE Only)
   -Check continuity. Replace if defective.
9. Loose or broken wire #14 from base terminal block to relay (14CR).
   -Check continuity. Replace if defective.
10. Loose or broken wire #02 from relay (14CR) to base terminal block.

-Check continuity. Replace if defective.

11. Defective relay (14CR).
    -Check relay. Replace if defective.
12. Loose or broken wire #10A from terminal block (TB1) to terminal block (TB2).
    -Check continuity. Replace if defective.
13. Loose or broken jumper wire from #10A to #36A on terminal block (TB2).
    -Check continuity. Replace if defective.
14. Loose or broken wire #36A from terminal block (TB2) to end of stroke limit switch (LS4).
    -Check continuity. Replace if defective.
15. Defective end of stroke limit switch (LS4).
    -Check switch. Replace if defective.
16. Loose or broken wire #36B from end of stroke limit switch (LS4) to terminal block (TB2).
    -Check continuity. Replace if defective.
17. Loose or broken wire #36B from terminal block (TB2) to relay (14CR).
    -Check continuity. Replace if defective.
18. Loose or broken wire #14A from relay (14CR) to relay (28CR).
    -Check continuity. Replace if defective.
19. Loose or broken wire #14B from relay (28CR) to base terminal block.
    -Check continuity. Replace if defective.
20. Loose or broken wire #14B from base terminal block to lift valve solenoid (2H14B).
    -Check continuity. Replace if defective.
21. Loose or broken wire #02 from lift valve solenoid (2H14B) to base terminal block.
    -Check continuity. Replace if defective.
22. Defective lift valve solenoid (2H14B).
    -Check solenoid. Replace if defective.

4.1-35. Up Circuit Inoperative From Base

1. Loose or broken wire #10A from base terminal block to base up switch (S16)
   -Check continuity. Replace if defective.
2. Loose or broken wire #14 from base up switch (S16) to base terminal block.
   -Check continuity. Replace if defective.
3. Defective base up switch (S16).
   -Check switch. Replace if defective.

4.1-36. Up Circuit Inoperative From Base (Base Control Box Option)

1. Loose or broken wire #10E from base terminal block to UP/OFF/DOWN switch (S2)
   -Check continuity. Replace if defective.
2. Loose or broken wire #14E from UP/OFF/DOWN switch (S2) to base terminal block.
   -Check continuity. Replace if defective.
3. Defective UP/OFF/DOWN switch (S2).
   -Check switch. Replace if defective.
4. Open diode (D14E-1 or D10E).
   -Check diode. Replace if defective.

4.1-37. Platform Will Not Lift From Platform Or Base Controls With Outriggers Retracted (Lift Operates Correctly With Outriggers Extended)

1. Outriggers not fully retracted.
   -Fully retract outrigger cylinders.
2. Loose or broken wire #1 from terminal block (TB2) to pin #7 on connector (CN14) at the outrigger board.
   -Check continuity. Replace if defective.
3. Loose or broken wire #1 from outrigger board to outrigger limit switch (LS64).

-Check continuity. Replace if defective.

4. Defective outrigger limit switch (LS64).
   -Check switch. Replace if defective.
5. Loose or broken wire #64 from outrigger limit switch (LS64) to outrigger board.
   -Check continuity. Replace if defective.
6. Loose or broken wire #64 from outrigger board to outrigger limit switch (LS63).
   -Check continuity. Replace if defective.
7. Defective outrigger limit switch (LS63).
   -Check continuity. Replace if defective.
8. Loose or broken wire #63 from outrigger limit switch (LS63) to outrigger board.
   -Check continuity. Replace if defective.
9. Loose or broken wire #63 from outrigger board to outrigger limit switch (LS62).
   -Check continuity. Replace if defective.
10. Defective Limit Switch (LS62).
    -Check switch. Replace if defective.
11. Loose or broken wire #62 from outrigger limit switch (LS62) to outrigger board.
    -Check continuity. Replace if defective.
12. Loose or broken wire #62 from outrigger board to outrigger limit switch (LS61).
    -Check continuity. Replace if defective.
13. Defective outrigger limit switch (LS61).
    -Check switch. Replace if defective.
14. Loose or broken wire #61 from outrigger limit switch (LS61) to outrigger board .
    -Check continuity. Replace if defective.
15. Open diode (D36) on outrigger board.
    -Check diode. Replace if defective.

4.1-38. Platform Will Not Lift From Platform Or Base Controls With Outriggers Extended

1. Outriggers not extended enough.
   -Extend outriggers to take weight off tires (Refer to operator section).
2. Loose or broken wire #10A from terminal block (TB2) to pin #4 on connector (CN14) at the outrigger board.
   -Check continuity. Replace if defective.
3. Loose or broken wire #10A from outrigger board to outrigger limit switch (LS68).
   -Check continuity. Replace if defective.
4. Defective outrigger limit switch (LS68).
   -Check switch. Replace if defective.
5. Loose or broken wire #68A from outrigger limit switch (LS68) to outrigger control module at pin P2-1.
   -Check continuity. Replace if defective.
6. Loose or broken wire #10A from outrigger board to outrigger limit switch (LS67).
   -Check continuity. Replace if defective.
7. Defective outrigger limit switch (LS67).
   -Check switch. Replace if defective.
8. Loose or broken wire #67A from outrigger limit switch (LS67) to outrigger control module at pin P2-2.
   -Check continuity. Replace if defective.
9. Loose or broken wire #10A from outrigger board to outrigger limit switch (LS66).
   -Check continuity. Replace if defective.
10. Defective outrigger limit switch (LS66).
    -Check switch. Replace if defective.
11. Loose or broken wire #66A from outrigger limit switch (LS66) to outrigger control module at pin P2-3.
    -Check continuity. Replace if defective.
12. Loose or broken wire #10A from outrigger board to outrigger limit switch (LS65).
    -Check continuity. Replace if defective.
13. Defective outrigger limit switch (LS65).
    -Check switch. Replace if defective.

14. Loose or broken wire #65A from outrigger limit switch (LS65) to outrigger control module at pin P2-4.
 -Check continuity. Replace if defective.
15. Check for power on wire #65 at outrigger control module at pin P2-8.
 -If no voltage present, proceed to Outrigger Control Module Troubleshooting.
16. Loose or broken wire #65 from outrigger control module at pin P2-8 to outrigger board CN.
 -Check continuity. Replace if defective.
17. Defective lift enable relay (65CR)
 -Check relay. Replace if defective.
18. Defective lift disable relay (17BCR)
 -Check relay. Replace if defective.
19. Loose or broken wire #36A from pin #10 on connector (CN14) at the outrigger board to terminal block (TB2).
 -Check continuity. Replace if defective.
20. Loose or broken wire #36A from terminal block (TB2) to end of stroke limit switch (LS4).
 -Check continuity. Replace if defective.
21. Defective end of stroke limit switch (LS4).
 -Check switch. Replace if defective.
22. Loose or broken wire #36B from end of stroke limit switch (LS4) to terminal block (TB2).
 -Check continuity. Replace if defective.
23. Loose or broken wire #36B from terminal block (TB2) relay (14CR).
 -Check continuity. Replace if defective.
24. Defective relay 14CR.
 -Check relay. Replace if defective.
25. Loose or broken wire #14A from relay (14CR) to relay (28CR).
 -Check continuity. Replace if defective.
26. Loose or broken wire #14B from relay (28CR) to base terminal block.
 -Check continuity. Replace if defective.
27. Loose or broken wire #14B from base terminal block to lift valve solenoid (2H14B).
 -Check continuity. Replace if defective.
28. Loose or broken wire #02 from lift valve solenoid (2H14B) to base terminal block.
 -Check continuity. Replace if defective.
29. Defective lift valve solenoid (2H14B).
 -Check solenoid. Replace if defective.

4.1-39. Down Circuit Inoperative From Platform Or Base

1. Lift/off/drive switch (S3) in drive position or defective.
 -Select lift position. Check switch. Replace if defective.
2. Loose or broken wire #09 from OFF/LIFT/DRIVE switch (S3) to lift enable switch (S9).
 -Check continuity. Replace if defective.
3. Defective lift enable switch (S9).
 -Check switch. Replace if defective.
4. Loose or broken wire #13 from UP/DOWN switch (S5) to diode (D13). (CE only)
 -Check continuity. Replace if defective.
5. Diode (D13) Open. (CE only)
 -Check diode. Replace if defective.
6. Loose or broken wire #13 from diode (D13) to base terminal block. (CE only)
 -Check continuity. Replace if defective.
7. Loose or broken wire #13 from UP/DOWN switch (S5) to control box terminal block.
 -Check continuity. Replace if defective.
8. Loose or broken wire #13 from control box terminal block to base terminal block.
 -Check continuity. Replace if defective.

9. Loose or broken wire #13 from base terminal block to relay (13CR).
   -Check continuity. Replace if defective.
10. Loose or broken wire #02 from relay (13CR) to base terminal block.
   -Check continuity. Replace if defective.
11. Defective relay (13CR).
   -Check relay. Replace if defective.
12. Loose or broken wire #10A from base terminal block to relay (13CR).
   -Check continuity. Replace if defective.
13. Loose or broken wire #13A from relay (13CR) to base terminal block.
   -Check continuity. Replace if defective.
14. Loose or broken wire #13A from base terminal block to holding valve solenoid (2H13B-1) or (2H13B-2).
   -Check continuity. Replace if defective.
15. Loose or broken wire #02 from holding valve solenoid (2H13A-1) or (2H13A-2) to base terminal block.
   -Check continuity. Replace if defective.
16. Defective holding valve solenoid (2H13A-1) or (2H13A-2).
   -Check solenoid. Replace if defective.
17. Loose or broken wire #13A from base terminal block to lowering valve solenoid (2H13A).
   -Check continuity. Replace if defective.
18. Loose or broken wire #02 from lowering valve solenoid (2H13A) to base terminal block.
   -Check continuity. Replace if defective.
19. Defective lowering valve solenoid (2H13A).
   -Check solenoid. Replace if defective.
20. See Overload for additional information (CE only).

4.1-40. Down Circuit Inoperative From Base

1. Loose or broken wire #05 from base terminal block to base down switch (S17).
   -Check continuity. Replace if defective.
2. Loose or broken wire #13 from base down switch (S17) to base terminal block.
   -Check continuity. Replace if defective.
3. Defective base down switch (S17).
   -Check switch. Replace if defective.

4.1-41. Down Circuit Inoperative From Base (Base Control Box Option)

1. Loose or broken wire #10E from base key switch (S10) to UP/OFF/DOWN switch (S2).
   -Check continuity. Replace if defective.
2. Loose or broken wire #13D from UP/OFF/DOWN switch (S2) to base terminal block.
   -Check continuity. Replace if defective.
3. Defective base UP/OFF/DOWN switch (S2).
   -Check switch. Replace if defective.

4.1-42. Powered Extension Deck Inoperative

1. Loose or broken battery cable from main power disconnect switch (S1) to 100 Amp. fuse (F2).
   -Check continuity. Replace if defective.
2. Open 100 Amp. fuse (F2).
   -Check fuse. Replace if open.
3. Loose or broken battery cable #103A from fuse (F2) to contactor (9CR1).
   -Check continuity. Replace if defective.
4. Defective contactor (9CR1).
   -Check contactor. Replace if defective.

5. Loose or broken battery cable #103B from contactor (9CR1) to motor contactor (99CR).
   -Check continuity. Replace if defective.
6. Defective motor contactor (99CR).
   -Check contactor. Replace if defective.
7. Loose or broken wire #103B from battery cable #103B to fuse (F5).
   -Check continuity. Replace if defective.
8. Defective fuse (F5).
   -Check fuse. Replace if defective.
9. Loose or broken wire #103C from fuse (F5) to powered platform enable switch (S34).
   -Check continuity. Replace if defective.
10. Loose or broken wire #103D from enable switch (S34) to platform extend retract switch (S11).
   -Check continuity. Replace if defective.
11. Defective platform extend/retract switch (S11).
   -Check switch. Replace if defective.
12. Defective platform enable switch (S34).
   -Check switch. Replace if defective.
13. Loose or broken battery cable #00 from platform power unit (DCM1) to battery (B1).
   -Check continuity. Replace if defective.
14. Defective platform power unit (DCM1).
   -Check power unit. Repair or replace if defective.

4.1-43. Powered Extension Deck Will Not Extend

1. Defective platform extend/retract switch (S11).
   -Check switch. Replace if defective.
2. Loose or broken wire #26 from platform extend/retract switch (S11) to platform extend valve coil (4H26).
   -Check continuity. Replace if defective.
3. Diode (D26) open.
   -Check diode. Replace if defective.
4. Defective platform extend valve coil (4H26).
   -Check coil. Replace if defective.
5. Loose or broken wire #00 from platform extend valve coil (4H26) to battery cable #00.
   -Check continuity. Replace if defective.

4.1-44. Powered Extension Deck Will Not Retract

1. Defective platform extend/retract switch (S11).
   -Check switch. Replace if defective.
2. Loose or broken wire #27 from platform extend/retract switch (S11) to platform retract valve coil (4H27).
   -Check continuity. Replace if defective.
3. Diode (D27) open.
   -Check diode. Replace if defective.
4. Defective platform retract valve coil (4H27).
   -Check coil. Replace if defective.
5. Loose or broken wire #00 from platform retract valve coil (4H27) to battery cable #00.
   -Check continuity. Replace if defective.

4.1-45. Hydraulic Generator Inoperative

1. Key select switch (S3) in drive position.
   -Turn switch to lift position.

2. Loose or broken wire #9 from base terminal block (TB1) to generator relay (86BCR).
   -Check continuity. Replace if defective.
3. Loose or broken wire #9 from generator relay (86BCR) to generator Switch (S12)
   -Check continuity. Replace if defective.
4. Defective generator switch (S12).
   -Check switch. Replace if defective.
5. Loose or broken wire #85 from generator Switch (S12) to generator relay (86ACR).
   -Check continuity. Replace if defective.
6. Loose or broken wire #85 from generator relay (86ACR) to generator relay (86BCR).
   -Check continuity. Replace if defective.
7. Loose or broken wire #86B from generator relay (86ACR) to generator relay (86BCR).
   -Check continuity. Replace if defective.
8. Defective relay (86ACR).
   -Check relay. Replace if defective.
9. Defective relay (86BCR).
   -Check relay. Replace if defective.
10. Open diode (D86B-1).
   -Check diode. Replace if defective.
11. Open diode (D2C).
   -Check diode. Replace if defective.
12. Loose or broken wire #17 from diodes (D86B-1) to relay (17CR)
   -Check continuity. Replace if defective.
13. Loose or broken wire #2A from diodes (D2C) to relay (10BCR-2)
   -Check continuity. Replace if defective.
14. Loose or broken wire #85A from circuit breaker (CB4) to relay (86BCR)
   -Check continuity. Replace if defective.
15. Tripped or defective circuit breaker (CB4)
   -Reset circuit breaker. Replace if defective.
16. Loose or broken wire #3 from circuit breaker (CB4) to circuit breaker (CB1)
   -Check continuity. Replace if defective.
17. Loose or broken wire #86C from relay (86BCR) to generator valve coil (2H-86C)
   -Check continuity. Replace if defective.
18. Loose or broken wire #02 from base terminal block to generator valve coil (2H-86C)
   -Check continuity. Replace if defective.
19. Defective generator valve coil (2H86C).
   -Check coil. Replace if defective.

4.1-46. Generator Will Not Shut Off From Generator Switch

1. Defective generator switch (S12).
   -Check switch. Replace if defective.
2. Loose or broken wire #86 from generator Switch (S12) to diode (D86)
   -Check continuity. Replace if defective.
3. Open diode (D86).
   -Check diode. Replace if defective.
4. Defective relay (86ACR).
   -Check relay. Replace if defective.
5. Loose or broken wire #02 from base terminal block to relay (86ACR)
   -Check continuity. Replace if defective.

4.1-47. All Outriggers Inoperative (Auto Level and Manual)

WARNING

Scissors lift must be below high speed limit switch for outriggers to function.

NOTE

For the outriggers to function the upper control box must be in the lift position and the scissor stack stowed or fully retracted.

1. No power on wire #44 at relay (35CR).
   -If no power is present ensure there is power on wire #35 and relay (35CR) operates correctly.
2. Loose or broken wire #44 from relay (35CR) to terminal block (TB2).
   -Check for continuity. Replace if defective.
3. Loose or broken wire #44 from terminal block (TB2) to pin #6 on connector (CN14) on outrigger board.
   -Check for continuity. Replace if defective.
4. No power at wire #9 at pin #5 on connector (CN14) on outrigger board.
   -If no power is present check for continuity on wire #9 back to the terminal block (TB2) or on wire #9 back to the main terminal block (TB1). Replace if defective.
5. Defective relay (9CR2) or (9CR3) on outrigger board.
   -Check relays. Replace if defective.
6. Open diode (D17B) on outrigger board.
   -Check diode. Replace if defective.
7. Loose or broken wire #17 from pin #2 on connector (CN14) on outrigger board to terminal block (TB2).
   -Check for continuity. Replace if defective.
8. Loose or broken wire #17 from terminal block (TB2) to relay (17CR).
   -Check for continuity. Replace if defective.
9. Loose or broken wire #17B or wire #02 from pin #1 (17B) or pin #2 (02) on connector (CN21) on outrigger board to outrigger holding valve coil (2H17B).
   -Check for continuity. Replace if defective.
10. Defective outrigger holding valve coil (2H17B).
    -Check coil. Replace if defective.

4.1-48. All Outriggers Inoperative (Auto Level and Manual from Platform Controls)

1. Loose or broken wire #35C from pin #1 on connector (CN20) on outrigger board through outrigger cables and plugs to the outrigger enable switch (S9A) in the control box.
   -Check for continuity. Replace if defective.
2. Loose or broken wire #35D from outrigger enable switch (S9A) to pin #5 on the outrigger control box plug.
   -Check for continuity. Replace if defective.
3. Defective outrigger enable switch (S9A).
   -Check switch. Replace if defective.

4.1-49. All Outriggers Inoperative (Base Controls Only)

1. Defective outrigger enable switch (S9B).
   -Check switch. Replace if defective.

4.1-50. All Outriggers Inoperative (Auto Level Only)
A: Led Power Indicator Light at Outrigger Control Module (OCM1) Not On (Constant)

1. Loose or broken wire #10A from pin #1 of the tilt switch connector to pin P2-12 on the outrigger control module (OCM1).
   -Check for continuity. Replace if defective.

2. Loose or broken wire #10A from pin #1 of the tilt switch connector to main terminal block (TB1).
   -Check for continuity. Replace if defective.
3. Loose or broken wire #02 from pin #3 of the tilt switch connector to pin P2-11 on the outrigger control module (OCM1).
   -Check for continuity. Replace if defective.
4. Loose or broken wire #02 from pin #3 of the tilt switch connector to main terminal block (TB1).
   -Check for continuity. Replace if defective.
5. Defective outrigger control module (OCM1).
   -Replace.

4.1-51. All Outriggers Inoperative (Auto Level Only)
B: Led Power Indicator Light at Outrigger Control Module (OCM1) Flashing

Flash Code	Probable Cause	Remedy
1/1	1. Outriggers are all up and machine is tilted.	1. Level the machine.
1/2	1. Machine is elevated. 2. Loose or broken wire # 35.	1. Lower the scissor stack below high speed limit switch. 2. Check for input voltage on wire #35 at pin P2-10 of the outrigger control module (OMC1). Replace if defective.
2/2	1. At least one outrigger is not fully retracted. 2. Defective outrigger rod limit switch (LS61, LS62, LS63, LS64) or wiring. 3. Defective diode (D36) on outrigger board.	1. Fully retract all outriggers. 2. Replace defective or damaged switch(es) or wiring. 3. Check for continuity. Replace if defective.
2/1	1. Outriggers are all down and the machine is not fully level.	1. Move machine to less sloped terrain if it will not lift.
5/5	1. Power on wire #70 or #79 at power on. 2. Power on wire #70 or #79 when manually operating outriggers.	1. Check for power on wire #70 or #79 at pin P2-5 or P2-6 of the outrigger control module. Replace defective component. 2. Check for power on wire #70 or #79 while manually operating an outrigger.
5/2	1. Low or no voltage on wire #35c. 2. Loose or broken wire on #35c.	1. Check battery and charging system to ensure minimum 9 volts. 2. Check for input voltage on wire #35c at pin P4-9 of outrigger control module (OCM1).
7/1	1. Excessive vibration. 2. Defective outrigger control module.	1. Outrigger control module cannot read tilt sensor. 2. Replace.
6/6	1. Outriggers are being manually controlled.	1. Indicates function activated. No repair necessary.
7/8	1. Error occured while self diagnosing the hardware fail safe.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
5/1	1. Low input voltage to outrigger control module.	1. Check for minimum 9 volts between wire #02 at pin P2-11 and wire #10A at pin P2-12 at outrigger control module.
7/7	1. Startup error occurred while self diagnosing.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
7/5	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
7/2	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
8/1	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
8/2	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
8/3	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
8/4	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
8/5	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.
7/6	1. Internal failure of OCM1.	1. Turn off power to reset the outrigger control module. Turn power back on and see if the code has cleared. If problem persists, replace outrigger control module.

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4.1-52. Left Front Outrigger Inoperative Manually

1. Defective left front outrigger switch (S20 at platform or S20A at base).
   -Check switch. Replace if defective.
2. Loose or broken wire #71(up) or #75 (down) from outrigger control box to pin #6 (up) or pin #7 (down) on connector (CN20) at outrigger board.
   -Check continuity. Replace if defective.
3. Open diode (D71) up or (D75) down on outrigger board.
   -Check diode. Replace if defective.
4. Loose or broken wire #71(up) or #75 (down) from pin #7 (up) or pin #8 (down) on connector (CN21) at outrigger board to valve coil (4H-71) up or (4H-75) down.
   -Check continuity. Replace if defective.
5. Loose or broken wire #02 from valve coil (4H-71) up or (4H-75) down to pin #2 on connector (CN21) at the outrigger board.
   -Check continuity. Replace if defective.

4.1-53. Right Front Outrigger Inoperative Manually

1. Defective right front outrigger switch (S21 at platform or S21A at base).
   -Check switch. Replace if defective.
2. Loose or broken wire #72(up) or #76 (down) from outrigger control box to pin #8 (up) or pin #9 (down) on connector (CN20) at outrigger board.
   -Check continuity. Replace if defective.
3. Open diode (D72) up or (D76) down on outrigger board.
   -Check diode. Replace if defective.
4. Loose or broken wire #72(up) or #76 (down) from pin #9 (up) or pin #10 (down) on connector (CN21) at outrigger board to valve coil (4H-72) up or (4H-76) down.
   -Check continuity. Replace if defective.
5. Loose or broken wire #02 from valve coil (4H-72) up or (4H-76) down to pin #2 on connector (CN21) at the outrigger board.
   -Check continuity. Replace if defective.

4.1-54. Right Rear Outriggers Inoperative Manually

1. Defective right rear outrigger switch (S22 at platform or S22A at base).
   -Check switch. Replace if defective.
2. Loose or broken wire #73(up) or #77 (down) from outrigger control box to pin #3 (up) or pin #4 (down) on connector (CN20) at outrigger board.
   -Check continuity. Replace if defective.
3. Open diode (D73) up or (D77) down on outrigger board.
   -Check diode. Replace if defective.
4. Loose or broken wire #73(up) or #77 (down) from pin #4 (up) or pin #5 (down) on connector (CN21) at outrigger board to valve coil (4H-73) up or (4H-77) down.
   -Check continuity. Replace if defective.
5. Loose or broken wire #02 from valve coil (4H-73) up or (4H-77) down to pin #2 on connector (CN21) at the outrigger board.
   -Check continuity. Replace if defective.

4.1-55. Left Rear Outriggers Inoperative Manually

1. Defective left rear outrigger switch (S23 at platform) (S23A at base).
   -Check switch. Replace if defective.

2. Loose or broken wire #74(up) or #78 (down) from outrigger control box to pin #5 (up) or pin #2 (down) on connector (CN20) at outrigger board.
   -Check continuity. Replace if defective.
3. Open diode (D74) up or (D78) down on outrigger board.
   -Check diode. Replace if defective.
4. Loose or broken wire #74(up) or #78 (down) from pin #6 (up) or pin #3 (down) on connector (CN21) at outrigger board to valve coil (4H-74) up or (4H-78) down.
   -Check continuity. Replace if defective.
5. Loose or broken wire #02 from valve coil (4H-74) up or (4H-78) down to pin #2 on connector (CN21) at the outrigger board.
   -Check continuity. Replace if defective.

4.1-56. Individual Outrigger Functions Inoperative (Auto Level)

1. Loose or broken wire #71- #75 (depending on function not working) at outrigger control module plug (P4) pins 1-8.
   -Check connections of outrigger functions not working (refer to Section 5 for pin reference chart). Replace if defective.
2. No output from outrigger control module (OCM1) at plug (P4) pins 1-8.
   -Turn off power to reset the outrigger control module. Turn power back on and retest. If problem persists, replace outrigger control module.

4.1-57. Auto Level Inoperative

1. Loose or broken wire #35D from outrigger enable switch (S9A) to auto mode outrigger switch (S24).
   -Check continuity. Replace if defective.
2. Defective auto mode outrigger switch (S24).
   -Check switch. Replace if defective.
3. Loose or broken wire #10A at PIN#P2-12 on outrigger control module (OCM1).
   -Check for power at P2-12. If no voltage present, check continuity of wire. Replace if defective.
4. Loose or broken wire #35 at PIN#P2-10 on outrigger control module (OCM1).
   -Check for power at P2-10. If no voltage present, check continuity of wire. Replace if defective.
5. Loose or broken wire #02 at PIN#P2-11 on outrigger control module (OCM1).
   -Check for ground at P2-11. If no ground present, check continuity of wire. Replace if defective.
6. Loose or broken wire #70 from auto mode outrigger switch (S24) to PIN#P2-5 on outrigger control module (OCM1).
   -Check continuity. Replace if defective.
7. For additional information, refer to sections 4 & 5 “Outrigger Control Module - Troubleshooting.”

4.1-58. Auto All Up Inoperative (Retract)

1. Loose or broken wire #35D from outrigger enable switch (S9A) to auto mode outrigger switch (S24).
   -Check continuity. Replace if defective.
2. Defective auto mode outrigger switch (S24).
   -Check switch. Replace if defective.
3. Loose or broken wire #10A at PIN#P2-12 on outrigger control module (OCM1).
   -Check for power at P2-12. If no voltage present, check continuity of wire. Replace if defective.
4. Loose or broken wire #35 at PIN#P2-12 on outrigger control module (OCM1).
   -Check for power at P2-10. If no voltage present, check continuity of wire. Replace if defective.
5. Loose or broken wire #02 at PIN#P2-11 on outrigger control module (OCM1).
   -Check for ground at P2-11. If no ground present, check continuity of wire. Replace if defective.

6. Loose or broken wire #70 from auto mode outrigger switch (S24) to PIN#P2-5 on outrigger control module (OCM1).
   -Check continuity. Replace if defective.
7. For additional information, refer to section 5 “Outrigger Control Module.”

4.1-59. EMS Troubleshooting and Flash Codes

Trouble	Probable Cause	Remedy
Engine cranks but will not start. No spark.	1. Loose or broken wire # 2002 from relay (10BCR) to ignition coil. 2. Check ignition system components.	1. Check for continuity. Replace if defective. 2. Replace as required.
No fuel at injector.	1. Fuel level low. 2. Loose or broken wire #56 from white ECU connector at pin #4 to fuel selector switch (S33). 3. Loose or broken wire #11 from fuel selector switch (S33) to fuel pump (gas only) or wire #50 from fuel selector switch (S33) to propane lock valve (SP-50) (propane only). 4. Loose or broken wire #00 from chassis ground to fuel pump (gas only) or wire # 00 from chassis ground to propane lock valve. 5. Defective fuel pump (gas only) or propane lock valve (SP-50) (propane only). 6. Loose or broken wire # 1006 from ignition coil to the white ECU connector at pin #19. 7. Loose or broken wire #1002 from white ECU connector at pin #15 to the gas injector at pin A (gas only) or to the propane injector at pin A (propane only). 8. Loose or broken wire #2001 from white ECU connector at pin #3 to the gas injector at pin B (gas only) or wire # 1001 from the white ECU connector at pin #2 to the propane injector at pin B (propane only). 9. Loose or broken wire #1008 from white ECU connector at pin #5 to the throttle actuator at pin A. 10. Loose or broken wire #00 from chassis ground to the throttle actuator . 11. Defective throttle actuator or fuel selector. 12. Defective ECU.	1. Check fuel level. 2. Check for continuity. Replace if defective. 3. Check for continuity. Replace if defective. 4. Check for continuity. Replace if defective. 5. Check fuel pump (gas only) or propane lock valve (propane only). Replace if defective. 6. Check for continuity. Replace if defective. 7. Check for continuity. Replace if defective. 8. Check for continuity. Replace if defective. 9. Check for continuity. Replace if defective. 10. Check for continuity. Replace if defective. 11. Refer to Section 5 of this manual. 12. Once all above tests have been performed, suspect defective ECU.

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Diagnostic Flash Codes

The check engine light is located near the base start switch at the front of the machine. Below you will find the operation of the light.
Note: It is normal for a 12 flash code at power up, but not started.

Trouble Code Operation

When the engine check light is on continuous there will be trouble codes stored to retrieve.
To retrieve codes:

1. With the engine off, turn the key to the on position.
2. The engine check light will flash once pause and flash twice to indicate a code 12. Code 12 indicates that the fault system is functioning. Code 12 will be flashed 3 times with a double pause between each.
3. The next trouble code will be displayed in the order of occurrence. It will also be flashed three times with a double pause between each.
4. After all trouble codes have been flashed three times, the codes will repeat starting with code 12.

To clear the codes:

1. After all of the codes have been retrieved and conditions repaired, start the engine. With the engine running, momentarily ground the self learn wire #203. You will hear the engine hesitate as the ground is made and the engine check light will go out.
2. To verify the problem has been corrected, shut off the engine. Turn power on and observe flash code.

Flash Code	Trouble	Probable Cause	Remedy
None	**Engine shuts down after 5 seconds. Oil pressure switch indicates low oil pressure for one complete second.**	1. Engine oil level low. 2. Defective oil pressure switch OPS1.	1. Check oil level. Fill if necessary. 2. Disconnect wire at oil pressure switch. If engine runs normally, replace oil pressure switch.
None	**Engine RPM limited to 950 RPM for 60 seconds then engine shuts down (detects coolant temperature above 239°F).**	1. Low coolant level. 2. Blocked radiator. 3. Defective thermostat.	1. Check and fill if necessary. 2. Check for debris or blocked cooling fins. Clean and free debris. 3. Ensure thermostat is working correctly. Replace if defective.
None	**Engine RPM limited to 950 RPM for 60 seconds then engine shuts down (detects coolant temperature above 266°F).**	1. Coolant temperature sensor short circuit. 2. Wire #105 shorted to ground.	1. Check resistance of sensor. Refer to Section 5 of this manual. 2. Check the condition of the wire from pin #1 of the black ECU connector to the coolant temperature sensor.
None		1. Coolant temperature sensor open circuit. 2. Loose or broken wire #1100 from pin #11 of the black ECU plug to the coolant temperature sensor TPS1. 3. Loose or broken wire #105 from pin #1 of the black ECU connector to the coolant temperature sensor TPS1.	1. Check resistance of sensor. Refer to Section 5 of this manual. 2. Check for continuity. Replace if defective. 3. Check for continuity. Replace if defective.

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Flash Code	Trouble	Probable Cause	Remedy
23	Note: Always be sure that proper air filter maintenance has been performed and that the air filter and air intake are free of debris.	1. Air intake temperature sensor open circuit. 2. Loose or broken wire #1100 from pin #11 of the black ECU connector to the air intake temperature sensor TPS2. 3. Loose or broken wire #106 from pin #9 of the black ECU connector to the air intake temperature sensor TPS2.	1. Check resistance of sensor. Refer to Section 5 of this manual. 2. Check for continuity. Replace if defective. 3. Check for continuity. Replace if defective.
24	Note: Always be sure that proper air filter maintenance has been performed and that the air filter and air intake are free of debris.	1. Air intake temperature sensor short circuit. 2. Wire #106 shorted to ground.	1. Check resistance of sensor. Refer to Section 5 of this manual. 2. Check the condition of the wire from pin #9 of the black ECU connector to the air temperature sensor.
33		1. Map sensor indicates high voltage on wire #105 at the map sensor (voltage above 4.98 volts).	a. Check all wire connections at map sensor. b. Check voltage signals for map sensor. Refer to Section 5 of this manual. c. If voltages and connections are OK, replace map sensor.
34		1. Map sensor detects short to ground.	a. Check all wire connections at map sensor. b. Check voltage signals for map sensor. Refer to Section 5 of this manual. c. If voltages and connections are OK, replace map sensor.
44		1. Oxygen sensor detects lean condition.	1. Check for correct fuel pressure at the throttle body (gas–14psi, propane-15psi). Incorrect pressure may require replacing of the following components: a. Fuel filter b. Fuel pump c. Fuel pressure regulator d. Fuel lines e. Oxygen sensor. Refer to Section 5 of this manual. 2. Clean injector. If cleaning does not clear fault, replace injector. 3. Oxygen sensor out of range. Refer to Section 5 of this manual.
45		1. Oxygen sensor detects rich condition.	1. Check for correct fuel pressure at the throttle body (gas–14psi, propane-15psi). 2. Check injector o-rings to ensure proper position. 3. Clean injector. If cleaning does not clear fault, replace injector.

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4.2-1. All Functions Inoperative

1. Hydraulic oil level low.
   -Refill tank to proper level.
2. Defective pump (P1).
   -Check pump. Repair or replace if defective.
3. Broken engine to pump coupler.
   -Check coupler. Replace if defective.
4. Relief valve (R1) open
   -Check valve. Replace if defective.

4.2-2. Steering Inoperative

1. Stuck or defective brake feed valve (2H30A-2).
   -Check valve. Repair or replace if defective.
2. Stuck or defective steer right valve (4H23A) or steer left valve (4H24A).
   -Check valves. Replace if defective.
3. Steer cylinder (C7) damaged or bypassing internally.
   -Check cylinder. Repair or replace if defective.

4.2-3. Lift, Steer And First Drive Speed Inoperative

1. Small pump dump valve (2H18A) stuck open.
   -Check valve. Repair or replace if defective.
2. Worn or defective small pump section of pump (P1).
   -Check pump. Repair or replace if defective.
3. Check valve (CV1) or (CV2) stuck.
   -Check valves. Clean or replace if defective.

4.2-4. Second Drive Speed Inoperative

1. Large pump dump valve (2H17A) stuck open.
   -Check valve. Repair or replace if defective.
2. Worn or defective large pump section of pump (P1).
   -Check pump. Repair or replace if defective.
3. Check valve (CV1) or (CV2) stuck.
   -Check valves. Clean or replace if defective.

4.2-5. Drive Inoperative

1. Stuck or defective drive reverse valve (4H15B) or drive forward valve (4H16B).
   -Check valves. Repair or replace if defective.
2. Defective motion control valve (MC1).
   -Check valve. Repair or replace if defective.
3. Missing or defective check balls in series/parallel valve manifold (3H20A).
   -Repair or replace balls. Refer to Section 5 for proper location.
4. Stuck or defective main series/parallel valve spool (V3) in drive motor.
   -Check valve. Repair or replace if defective.
5. Defective drive motor (M1).
   -Check motor. Repair or replace if defective.
6. Free wheeling valve (2H30A) stuck.
   -Check valve. Repair or replace if defective.

7. Cushion cylinder (C8) bypassing internally.
   -Check cylinder. Repair or replace if defective.

4.2-6. Reverse Drive Inoperative

1. Stuck or defective drive valve (4H15B).
   -Check valve. Repair or replace if defective.
2. Stuck or defective check valve in motion control assembly (MC1).
   -Check valves. Clean or replace if defective.

4.2-7. Forward Drive Inoperative

1. Stuck or defective drive valve (4H16B).
   -Check valve. Repair or replace if defective.
2. Stuck or defective check valve in motion control assembly (MC1).
   -Check valves. Clean or replace if defective.

4.2-8. Brakes Will Not Release

1. Stuck or defective brake feed valve (2H30A-2).
   -Check valve. Repair or replace if defective.
2. Stuck or defective brake dump valve (2H30A-1).
   -Check valve. Repair or replace if defective.
3. Stuck or defective brake valve (2H25).
   -Check valve. Repair or replace if defective.
4. Stuck or defective auto reset valve (V6).
   -Check valve. Repair or replace if defective.
5. Defective disc brake cylinder (C5)
   -Check cylinder. Repair or replace if defective.

4.2-9. Brakes Will Not Release (Internal Brake)

1. Bad o-rings internal to brake. (If release piston will not hold pressure, brake will not release.)
   -Check for hydraulic oil in axle. Replace o-rings if defective.
2. Discs frozen. (These brakes are designed for only limited dynamic braking. A severe emergency stop or prolonged reduced release pressure operation may result in this type of damage.)
   -Check for abnormal wear. Replace disc stack if defective.

4.2-10. Brake Slips

1. Excessive pressure in hydraulic system. (If there is back pressure in the actuation line of the brake, holding torque will be reduced.)
   -Check filters, hose size, restrictions in other hydraulic components.
2. Oil in brake if designed for dry use. (Wet linings generate 67% of the dry torque rating. If the brake has oil in it, check the type of oil hydraulic or gearbox. i. Gearbox oil ii. Hydraulic oil)
   -Replace oil seal in brake. Check motor seal. Check piston seals.

NOTE

Internal components will need to be inspected, cleaned and replaced as required.

3. Disc plates worn. (The thickness of the disc stack sets the torque level. A thin stack reduces torque).
   -Check brake's holding torque is sufficient.
   i) Make sure the machine is parked on level ground.

ii) Locate the brake feed valve (2H30A-2) on the main manifold. Disconnect the electrical connectors from this valve. This will prevent the hydraulic system from releasing the brake.
iii) With the engine running, machine in drive mode, engine on high idle, high torque selected and low speed range selected, hold the enable switch on the joystick and push the joystick forward as if you were to drive forward. This provides torque from the drive motor to the unreleased brake.
iv) If the brake slips and the machine starts to move in this condition, either the brake plates are worn or the springs have broken. Both the springs and the brake plates must be replaced to return the brake to its original holding torque.

4.2-11. Brake Drags Or Runs Hot

1. Low brake pressure
   -Place pressure gauge in brake line. Brakes use system pressure. (Minimum 335 psi required)
2. Bearing failure (If the bearing should fail, a large amount of drag can be generated)
   -Replace bearing

4.2-12. Up Circuit Inoperative

1. Stuck or defective lift valve (2H14B).
   -Check valve. Repair or replace if defective.
2. Stuck check valve (CV3).
   -Check valve. Replace if defective.
3. Misadjusted or defective lift relief valve (R2).
   -Adjust valve. Replace if defective.
4. Stuck or defective lowering valve (2H13A).
   -Check valve. Repair or replace if defective.
5. Stuck or defective manual lowering valve (V1).
   -Check valve. Repair or replace if defective.
6. Open or defective brake feed valve (2H30A-2).
   -Check valve. Repair or replace if defective.
7. Open manual override on holding valve (2H13A-1) or (2H13A-2).
   -Depress and turn manual override clockwise to close. Replace if defective.
8. Stuck holding valve (2H13A-1) or (2H13A-2)
   -Check valves. Repair or replace if defective.

4.2-13. Down Circuit Inoperative

1. Stuck or defective lowering valve (2H13A).
   -Check valve. Repair or replace if defective.
2. Stuck holding valve (2H13A1) or (2H13A2).
   -Check valves. Repair or replace if defective.
3. Plugged lowering orifice (O1).
   -Clean or replace orifice.

4.2-14. Powered Extension Deck Inoperative

1. Defective powered extension pump (P3).
   -Check pump. Repair or replace if defective.
2. Misadjusted or defective relief valve (R5).
   -Adjust valve. Replace if defective.
3. Stuck or defective deck extend valve (4H26) or retract valve (4H27).
   -Check valves. Repair or replace if defective.

4. Defective powered extension cylinder (C3).
   -Check cylinder. Repair or replace if defective.

4.2-15. Hydraulic Generator Inoperative

1. Stuck or defective hydraulic generator valve (2H86).
   -Check valve. Repair or replace if defective.
2. Misadjusted or defective flow control valve (FC1).
   -Adjust valve. Replace if defective.
3. Stuck or defective large pump dump valve (2H17A).
   -Check valve. Repair or replace if defective.
4. Defective hydraulic generator hydraulic motor (GM1).
   -Check motor. Repair or replace if defective.

4.2-16. All Outriggers Inoperative

1. Stuck or defective outrigger holding valve (2H-17B).
   -Check valve. Repair or replace if defective.

4.2-17. Left Front Outriggers Inoperative

1. Stuck or defective retract valve (4H-71) or extend valve (4H-75).
   -Clean valve. Replace if defective.
2. Stuck or defective check valve (CV7).
   -Check valve. Replace if defective.
3. Bypassing outrigger cylinder (C9).
   -Repack cylinder. Replace if defective.

4.2-18. Right Front Outriggers Inoperative

1. Stuck or defective Retract Valve (4H-72) or Extend Valve (4H-76).
   -Clean valve. Replace if defective.
2. Stuck or defective Check Valve (CV8).
   -Check valve. Replace if defective.
3. Bypassing Outrigger Cylinder (C10).
   -Repack cylinder. Replace if defective

4.2-19. Right Rear Outriggers Inoperative

1. Stuck or defective Retract Valve (4H-73) or Extend Valve (4H-77).
   -Clean valve. Replace if defective.
2. Stuck or defective Check Valve (CV9).
   -Check valve. Replace if defective.
3. Bypassing Outrigger Cylinder (C11).
   -Repack cylinder. Replace if defective

4.2-20. Left Rear Outriggers Inoperative

1. Stuck or defective retract valve (4H-74) or extend valve (4H-78).
   -Clean valve. Replace if defective.
2. Stuck or defective check valve (CV10).
   -Check valve. Replace if defective.

3. Bypassing outrigger cylinder (C12).
   -Repack cylinder. Replace if defective

4.2-21. Outriggers Drift In

1. Defective check valve left front (CV7), right front (CV8), right rear (CV9) or left rear (CV10)
   -Clean valve. Replace if defective.
2. Outriggers cylinder bypassing left front (C9), right front (C10), right rear (C11) or left rear (C12).
   -Repack cylinder. Replace if defective

Section 5
Maintenance and Service

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Maintenance and Inspection

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

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

Even if the operator is not responsible for the maintenance of this work platform, the operator should perform the daily inspections found in Table 2.7 - Maintenance and Inspection Schedule.

IMPORTANT NOTE

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

WARNING

Maintenance must be performed by trained and competent personnel who are familiar with mechanical procedures.

Death or serious injury could result from the use of an aerial platform that is not properly maintained or kept in good working condition.

WARNING

Do not reach through the scissor assembly when the platform is raised without the maintenance support properly positioned. Failure to avoid this hazard could result in death or serious injury.

Maintenance and Inspection Schedule

- The inspection points covered in Table 2.7 indicate the areas of the aerial platform to be maintained or inspected and at what intervals the maintenance and inspections are to be performed.
- The actual operating environment of the aerial platform may affect the maintenance schedule.

WARNING

Use original or manufacturer-approved parts and components for the aerial platform.

Owner's Inspections

It is the responsibility of the owner to arrange daily, quarterly (or 150 hours) and annual inspections of the aerial platform. Refer to Table 2.8 for recommended maintenance and inspection areas and intervals. A record of annual inspection is kept on a label located on the scissor assembly. Refer to Table 2.2 - Owner's Annual Inspection Record in section 2 is to be used for recording the date of inspection, owner's name and the person responsible for the inspection of this work platform.

General Maintenance Hints

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

5.1 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			Mid Size RT's 7127	Mid Size RT's 7135	Mid Size RT's 8243	Mid Size RT's 8850	Full Size RT's 8831	Full Size RT's 8841	Full Size RT's 9250
System Relief Pressure Setting			Refer to Serial Number Plate						
Lift Relief Pressure Setting			Refer to Serial Number Plate						
Hydraulic Pump			Kubota DF972: 0.671 ci/rev (8 cm3/rev) / 0.366 ci/rev (14 cm3/rev)		Nissan, GM, Kubota 1105: 0.488 ci/rev (8 cm^3/rev) / 0.854 ci/rev (14 cm^3/rev)				
Hydraulic Tank Capacity			16 gal. (60.5L)				20.5 gal. (77.6L)		18.5 gal. (70L)
Hydraulic System Capacity			18 gal. (68.14L)				22 gal. (83.3L)		20 gal. (75.7L)
Turning Radius	2WD	Inside	8 ft. (2.4m)				10.3 ft. (3.1m)		17.5 ft. (5.3m)
Turning Radius	2WD	Outside	15 ft. (4.6m)				18.7 ft. (5.7m)		25.9 ft. (7.9m)
Turning Radius	4WD	Inside	10 ft. (3m)		12.25ft (3.7m)	12.2 ft (3.7m)	10.8 ft. (3.3m)		18.6 ft. (5.7m)
Turning Radius	4WD	Outside	17 ft. (5.2m)		20.1 ft (6.1m)	20.4 ft (6.2m)	19.7 ft. (6m)		29.3 ft. (9m)
Tires			Please refer to Table 2-5a or Table 2-5b for tire specification and usage.						
Ground Clearance			8in (0.20m)		8.13in (0.21m)	7in (0.178m)			8in (0.20m)
High Speed Drive Cut-Out Height			10 ft. (3.05m)						
Engine *	RPM	Nissan Dual Fuel / GM	N/A		900 (Idle) / 1400 (Low) / 2800 (High)				
Engine *	RPM	Kubota Diesel	1400 (Low) / 2800 (High)		N/A		1400 (Low) / 2800 (High)		
Engine *	RPM	Kubota Dual Fuel	2050 (Low) / 3500 (High)		N/A				
Engine *	Power	Nissan Dual Fuel	43 hp (as used) water cooled						
Engine *	Power	GM	65 hp water cooled						
Engine *	Power	Kubota Diesel	25.5 hp water cooled						
Engine *	Power	Kubota Dual Fuel	31 hp		N/A				
Engine *	Fuel	Nissan Dual Fuel / GM	Non-Blended Unleaded Gasoline / HD5 Grade Liquid Propane						
Engine *	Fuel	Kubota Diesel	No. 2 Diesel		N/A		No. 2 Diesel		
Engine *	Fuel	Kubota Dual Fuel	Non-Blended Unleaded Gasoline / HD5 Grade Liquid Propane						
Engine *	Engine Temp. Cutout	Nissan Dual Fuel / GM	N/A		230°F (110°C)				
Engine *	Engine Temp. Cutout	Kubota Diesel	230°F (110°C)		N/A	230°F (110°C)			
Engine *	Engine Temp. Cutout	Kubota Dual Fuel			N/A				
Engine *	Fuel Tank Capacity		20 gal. (75.71 L)			13.5 gal. (51.1 L)			17.5 gal. (66.2 L)
Engine *	Battery (Main)		12 Volt, 60 Ampere Hour (Type 27F700)						
Engine *	Battery (Emergency Lowering System)		N/A						12 Volt (Type 12N14-3A) (If Equipped)

*For additional engine specifications and service information, consult the engine manufacturer's documentation.

60400AD

Table 5-2 Torque Specifications

Cartridge						
Torque	Size					
	8	38	58	10	12	16
Lbf.ft (max)	20			25	35	50
Lbf.in (max)	240			300	420	600
Nm (max)	27.12			33.9	47.46	67.8

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

SAE Plugs								
Torque	Size							
	2	4	5	6	8	10	12	16
Lbf.ft (max)	3	10	15		25		30	35
Lbf.in (max)	36	120	180		300		360	420
Nm (max)	4.07	13.56	20.34		33.9		40.68	47.46

Type of Bolt	Torque (ft-lb)	Torque (Nm)
Directional valve mounting bolts	2.33 (28-32 in-lb)	3.16 - 3.61

Table 5-3 Rough Terrain Scissor Fluids

AXLE OIL						
Axle Type		*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.	Recommended Equivalent Oil
Cushman	Front	2.4	0.634	Gear Oil, 80W-90 GL5	134612	-
Dana	Front / Rear					
Cushman	Rear	1	0.264	Gear Oil, ESI 80W-90	133461	Chevron Gear Lubricant Delo ESI 80W-90, Caltex Gear Lubricant ESI 80W-90, Caltex RPM Borate EP 80W-90, Texaco Star Gear Lubricant 80W-90

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

CENTER DRIVE OIL					
Center Drive Type	*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.	Recommended Equivalent Oil
Center Drive	1	0.26	Gear Oil, 80W-90 GL5	134612	-

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

HYDRAULIC OIL				
Model	*Qty. (Liters)	*Qty. (Gallons)	Oil Type	Skyjack Part No.
SJRT-68xx	86.88	22.95	ATF Dexron III	119309
SJRT-7127	80.48	21.26		
SJRT-7135				
SJRT-8243				
SJRT-8850				
SJRT-8831	75.71	20		
SJRT-8841				
SJRT-8831E				
SJRT-8841E				
SJRT-9250	67.38	17.8		

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

Table 5-3 Rough Terrain Scissor Fluids

<table>
<tr><th colspan="6">ENGINE OIL</th></tr>
<tr><th>Engine Type</th><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>Oil Type, Viscosity</th><th>Skyjack Part No.</th><th>Recommended Equivalent Oil (Viscosity - API Service Designation)</th></tr>
<tr><td>Kubota D902</td><td>3.9</td><td>1.03</td><td rowspan="5">Engine Oil, SAE 10W-30</td><td rowspan="4">105287</td><td rowspan="4">10W30 - API Service Designation CG-4, CF-4, CF, CD, SH.</td></tr>
<tr><td>Kubota D1105</td><td>5.1</td><td>1.35</td></tr>
<tr><td>Kubota DF972</td><td>3.4</td><td>0.9</td></tr>
<tr><td>Nissan A15</td><td rowspan="2">3.5</td><td rowspan="2">0.98</td></tr>
<tr><td>GM 1.6</td><td>142454</td><td>10W30 - API Service Designation SF/CC.</td></tr>
</table>

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

<table>
<tr><th colspan="5">ENGINE COOLANT</th></tr>
<tr><th>Component Type</th><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>**Coolant Type</th><th>Skyjack Part No.</th></tr>
<tr><td>Kubota D902</td><td rowspan="3">3.1</td><td rowspan="3">0.82</td><td rowspan="4">Antl-freeze / Water</td><td rowspan="4">125985</td></tr>
<tr><td>Kubota D1105</td></tr>
<tr><td>Kubota DF972</td></tr>
<tr><td>Nissan A15</td><td rowspan="2">11.4</td><td rowspan="2">3.01</td></tr>
<tr><td>GM 1.6</td><td>Extended life antl-freeze / Water</td><td>142208</td></tr>
</table>

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

<table>
<tr><th colspan="8">ENGINE FUEL</th></tr>
<tr><th rowspan="2">Model</th><th colspan="2">Tank</th><th colspan="2">Diesel</th><th colspan="3">Gasoline / Liquid Propane</th></tr>
<tr><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>Kubota D902</th><th>Kubtoa D1105</th><th>Kubota DF972</th><th>GM 1.6</th><th>Nissan A15</th></tr>
<tr><td>SJRT-68xx</td><td>86.88</td><td>22.95</td><td>✓</td><td>N/A</td><td rowspan="3">✓</td><td colspan="2" rowspan="3">N/A</td></tr>
<tr><td>SJRT-7127</td><td rowspan="4">80.48</td><td rowspan="4">21.26</td><td rowspan="7">N/A</td><td rowspan="7">✓</td></tr>
<tr><td>SJRT-7135</td></tr>
<tr><td>SJRT-8243</td><td rowspan="5">N/A</td><td colspan="2" rowspan="5">✓</td></tr>
<tr><td>SJRT-8850</td></tr>
<tr><td>SJRT-8831</td><td rowspan="2">49.21</td><td rowspan="2">13</td></tr>
<tr><td>SJRT-8841</td></tr>
<tr><td>SJRT-9250</td><td>64.35</td><td>17</td></tr>
</table>

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

5.2 Hydraulic System and Brake Adjustment Procedures (If Equipped)

1. Place machine on level surface and block wheels to prevent rolling in either direction.

2. Turn battery disconnect off.

3. Locate brake manifold in hydraulic/electric side cabinet.

4. Depress and turn the red knurled knob on the brake valve counter-clockwise to a fully closed position or depress black knob (current manifold).

5. Grasp the red plunger and rapidly depress until plunger can no longer be depressed and the brake is fully released.

6. Inspect caliper and brake pads for binding. Pads should move freely on the pins.

7. Remove pin from brake cylinder clevis and brake actuating lever. Rotate actuating lever counter-clockwise to the end of its stroke.

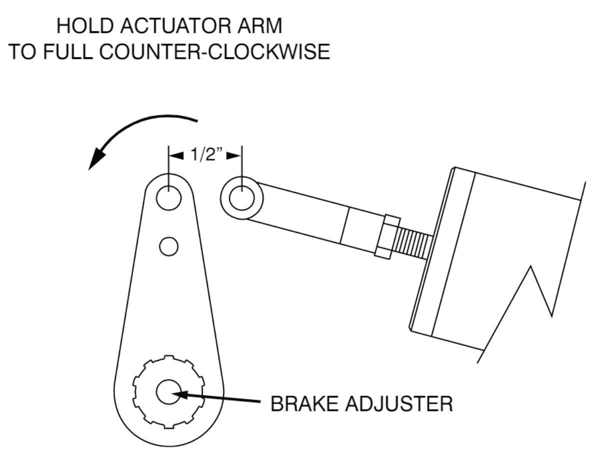


Figure 5-1-1. Brake Adjustment

9. Reinstall clevis pin back into the clevis actuating lever.
10. Remove plastic plug located on the end of the caliper shaft. See Figure 5.1-2.

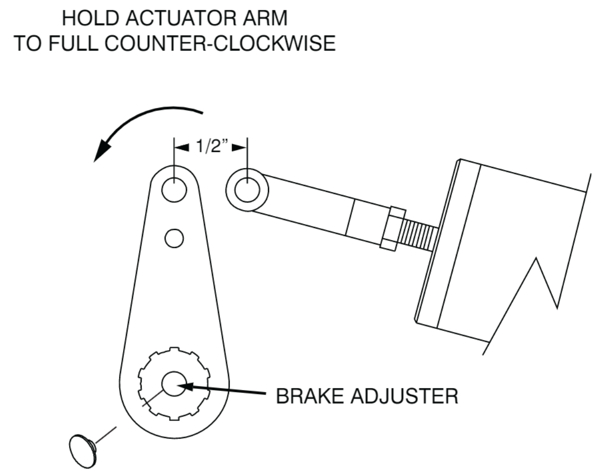


Figure 5-1-2. Plug Removal and Replacement

11. Using a 1/4” Allen wrench, turn brake adjuster counter-clockwise until it bottoms out. Turn Allen wrench clockwise 1/2 turn clockwise to set adjustment.

12. Replace plastic plug back into the end of the caliper shaft.

13. Depress red knurled knob on brake valve and turn clockwise to a fully open position.

14. Remove Wheel blocks. Turn emergency power disconnect switch on. Operate drive several times to seat pads to brake disc.

5.3 Brake Assembly and Disassembly (If Equipped)

NOTE

This literature services various models in this brake series. The components shown in Figure 5.1-3 may appear different than what is found in your brake.

Disassembly

(Refer to Figure 5.1-3)

1. Remove pressure plate from cover by removing cap screws.

CAUTION

Pressure plate is under spring tension of approximately 1633 kgf (3600 lb). The two cap screws must be loosened evenly to relieve this force. If a hydraulic press is available, 2041 kgf (4500 lb) minimum, the pressure plate can be held in position while removing the cap screws.

2. Remove case seal from cover.

3. Remove piston from pressure plate.

4. Remove o-rings and back-up rings from piston).

5. Before removing stator discs and rotor discs, record the stacking arrangement for reassembly purposes. Remove stator discs, rotor discs, return plate and shaft from cover.

6. Before removing springs, record the pattern and color for reassembly purposes. Remove dowel pins, springs and spring retainer from cover.

7. Press oil seal from cover.

Spring Chart

Model	Yellow Springs (14)	Red Springs (14)	Blue Springs (14)
21-100-114	16	0	0

Assembly

(Refer to Figures 5.1-3)

1. Use an alkaline wash to clean parts before assembly.

2. Press new oil seal into cover until it is flush with bearing shoulder. Note direction of seal.
3. Install shaft, dowel pins, spring retainer and new spring in cover. Be sure to install springs according to pattern and color recorded during disassembly.

4. Position new return plate on springs.
NOTE: Be careful to avoid contaminating friction surfaces with oil.

5. Install new rotor discs and new stator discs in the same sequence as recorded during disassembly.

6. Install new back-up rings and new 0-rings on piston. Note order of o-rings and back-up rings. Insert piston into pressure plate.

7. Install new case seal on cover.

8. Position pressure plate on cover aligning dowel pins with holes in pressure plate.

9. Install cap screws and tighten evenly to draw pressure plate to cover. Torque cap scerws 74.6 N-m (55 lb-ft). NOTE: A hydraulic press will simplify installation of pressure plate on cover. Clamp pressure plate in position while tightening cap screws.

CAUTION

If hydrostatic testing is performed on brake assembly, release pressure must not exceed 68.9 bar (1000 psi) unless six additional bolts are used for supplemental clamping.

Holding Torque Testing Procedure

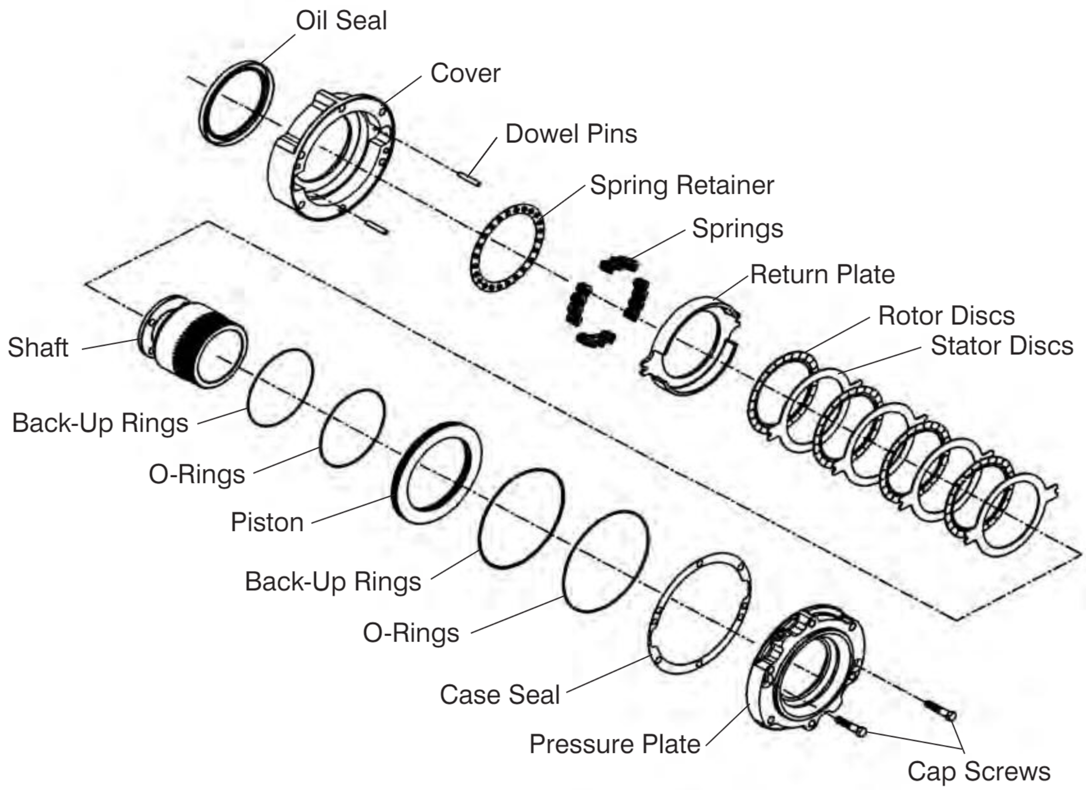
1. Make sure the machine is parked on level ground.

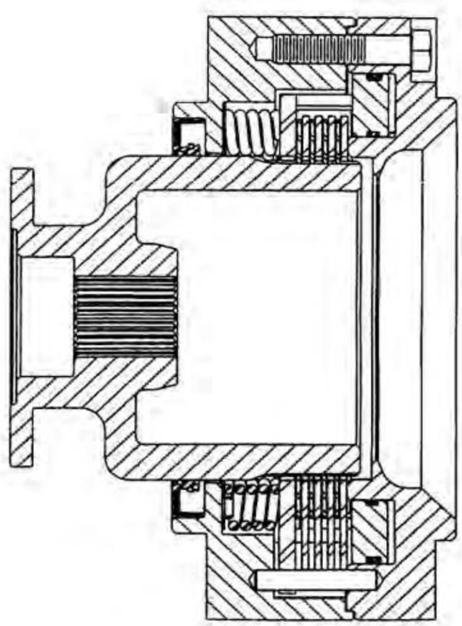
2. Locate the brake feed valve (2H30A-2) on the main manifold. Disconnect the electrical connectors From this valve. This will prevent the hydraulic system from releasing the brake.

3. With the engine running, machine in drive mode, engine on high idle, high torque selected and low speed range selected, hold the enable switch on the joystick and push the joystick forward as if you were to drive forward. This provides torque from the drive motor to the unreleased brake.

4. If the brake slips and the machine starts to move in this condition, either the brake plates are worn or the springs have broken. Both the springs and the brake plates must be replaced to return the brake to its original holding torque.

Figure 5.1-3 Multiple Disc Brake Assembly





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5.4 Winching and Towing Procedures and Parking Brake System

WARNING

When towing, do not drive onto a downward slope or brake the towing vehicle rapidly.

Parking Brake System

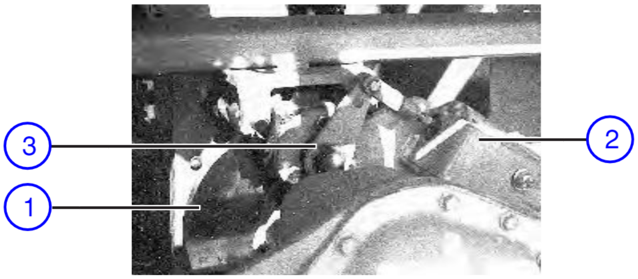


Figure 5.1-4. Disc Parking Brake

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

WARNING

Do not manually disengage parking brakes if work platform is on a slope.

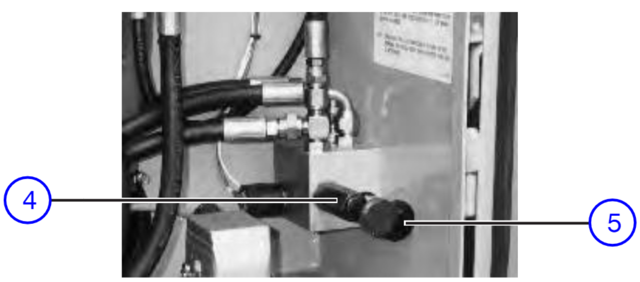


Figure 5.1-5. Parking Brake Release Hand Pump and Brake Valve Plunger

1. Make sure the machine is parked on level ground.

2. Locate the brake feed valve (2H30A-2) on the main manifold. Disconnect the electrical connectors From this valve. This will prevent the hydraulic system from releasing the brake.

3. With the engine running, machine in drive mode, engine on high idle, high torque selected and low speed range selected, hold the enable switch on the joystick and push the joystick forward as if you were to drive forward. This provides torque from the drive motor to the unreleased brake.

4. If the brake slips and the machine starts to move in this condition, either the brake plates are worn or the springs have broken. Both the springs and the brake plates must be replaced to return the brake to its original holding torque.

5.5 System Lift and Pressure Adjustment

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

System Relief Pressure Adjustment

1. Locate the Right Steer Hydraulic line at the Main Manifold. (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)

2. Tee in a Calibrated 3000 PSI Gauge into the Right Steer line.

3. Remove the Operator's Control Box from the guardrail and disconnect it from the Scissors Control Cable.

4. Locate the Electrical Panel Cable Plug in the Hydraulic/Electric Cabinet.

5. Disconnect the Scissors Control Cable and connect the Operator's Control Box Cable.

6. At the Main Manifold, loosen the locknut on the System Relief Valve (R1). (Refer to Hydraulic Manifold Component and Port Identification found in SECTION 3 for location.)

7. Select "DRIVE" position with the Lift/Drive Select Switch on the Platform Control Box.

8. Engage Steer Right Switch on the top of the Controller Handle and hold.

9. Check the reading on Pressure Gauge. Adjust the System Relief Valve (R1) to the pressure listed on the Serial Number Nameplate.

NOTE

Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counter-clockwise decreases pressure.

10. Release the Steer Switch and retighten the locknut on the System Relief Valve (R1).

11. Remove the gauge from the Steer line.

Lift Pressure Adjustment

WARNING

Fully lower the platform.

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

NOTE

Turning the stem on the Relief Valve clockwise increases pressure. Turning the stem counter-clockwise decreases pressure.

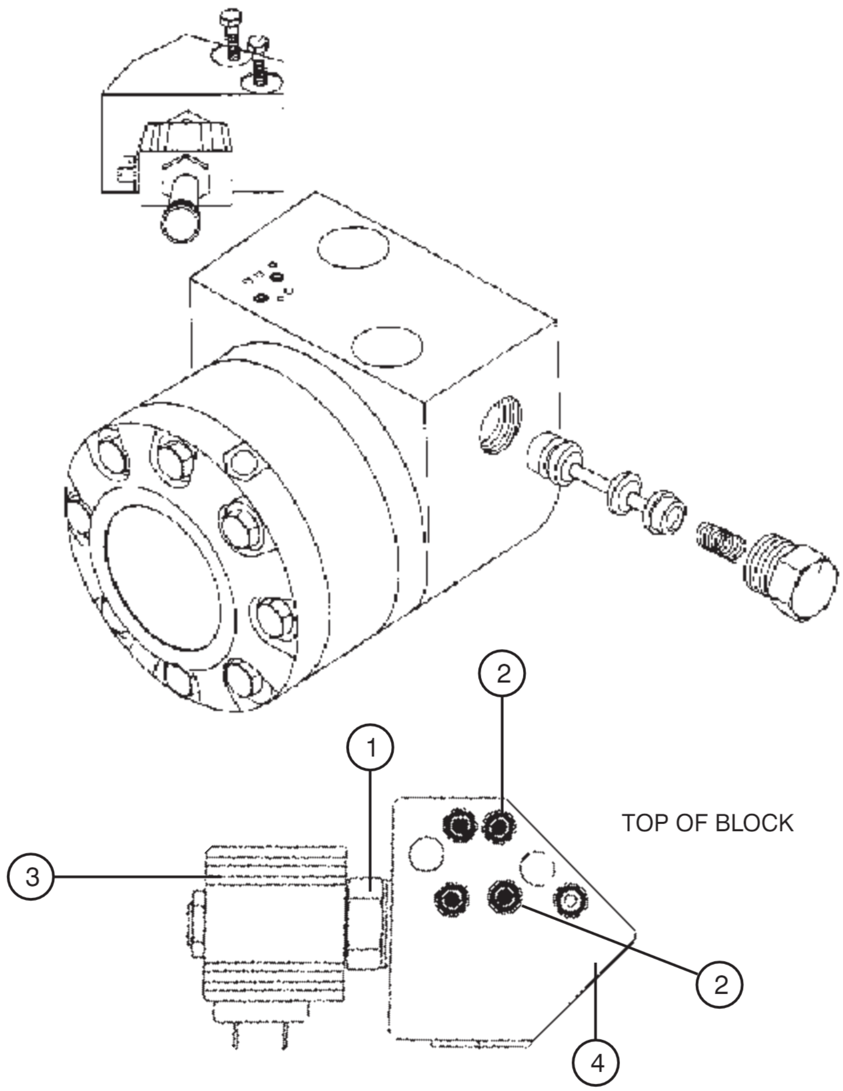
7. Release the Up Push-Button and retighten the locknut on the Lift Relief Valve (R2).

8. Remove the gauge from the Lift line port fitting and reinstall the Lift line.

WARNING

Ensure machine does not lift more than rated load.

Figure 5.1-6 Drive Motor



Index No.	Skyjack Part No.	Qty.	Description
A	109311	1	MOTOR, Drive - 2 Speed
1	103623	1	• VALVE, Series/parallel
2	115340	4	• VALVE, Check Ball
3	103613	1	• COIL, Series/parallel valve
4	355113	1	• MANIFOLD, Motor
	115338	1	• KIT, Seal

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

5.6 Wheel Bolt/Nut Inspection and Torquing Procedure

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

1. Confirm that each wheel fastener is torqued to 140 ft. lbs. (± 5 ft. lbs.) using a suitable torque wrench of known accuracy. If any fastener falls outside of the specified tolerance, ALL fasteners MUST be torqued using the tightening sequence shown in Figure 5.1-6.

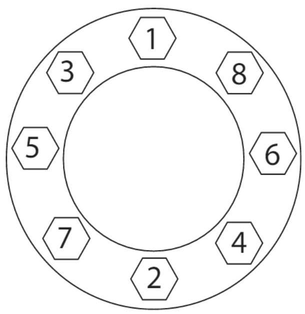


Figure 5.1-7. Wheel Fastener Tightening Sequence

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

5.7 Wheel Reinstallation and Torquing Procedure

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

1. Inspect wheel fastener threads for damage of defects. Replace if defective.

2. Clean the mounting surfaces of the hub and wheel rim of debris, rust, excess paint, etc.

3. Mount wheel on the hub, centering mounting holes on the wheel studs or bolt holes. Use appropriate lifting device as required.

4. Install the wheel nuts or wheel bolts and hand tighten to center the rim.

5. Tighten the nuts or bolts to approximately 50 ft. lbs. torque using the tightening sequence in Figure 5.1-6. above.

6. Tighten to 100 ft. lbs. using the same sequence.

7. Tighten to 140 ft. lbs. using the same sequence.

8. Repeat the tightening sequence to confirm that none have changed from 140 ft. lbs. If any are found below 140 ft. lbs., repeat complete sequence until there is no change in torque values. If possible, drive the machine prior to checking torques.

9. Check torque values after 8 hours of operation and then at weekly intervals.

Figure 5.1-8 Auto-Leveling Outrigger PC Board Layout

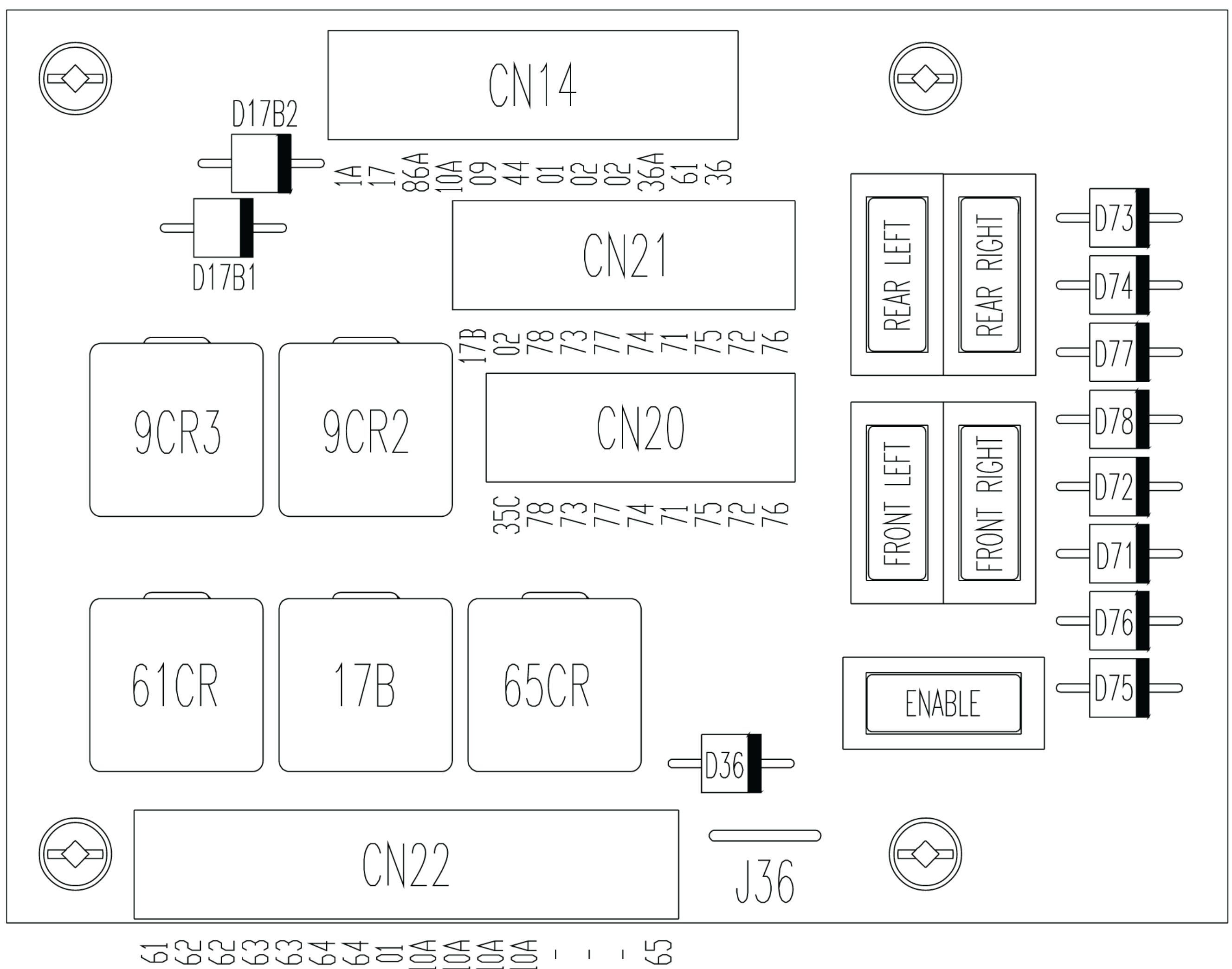


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Figure 5.1-9 Outrigger Mechanical Limit Switch Wiring

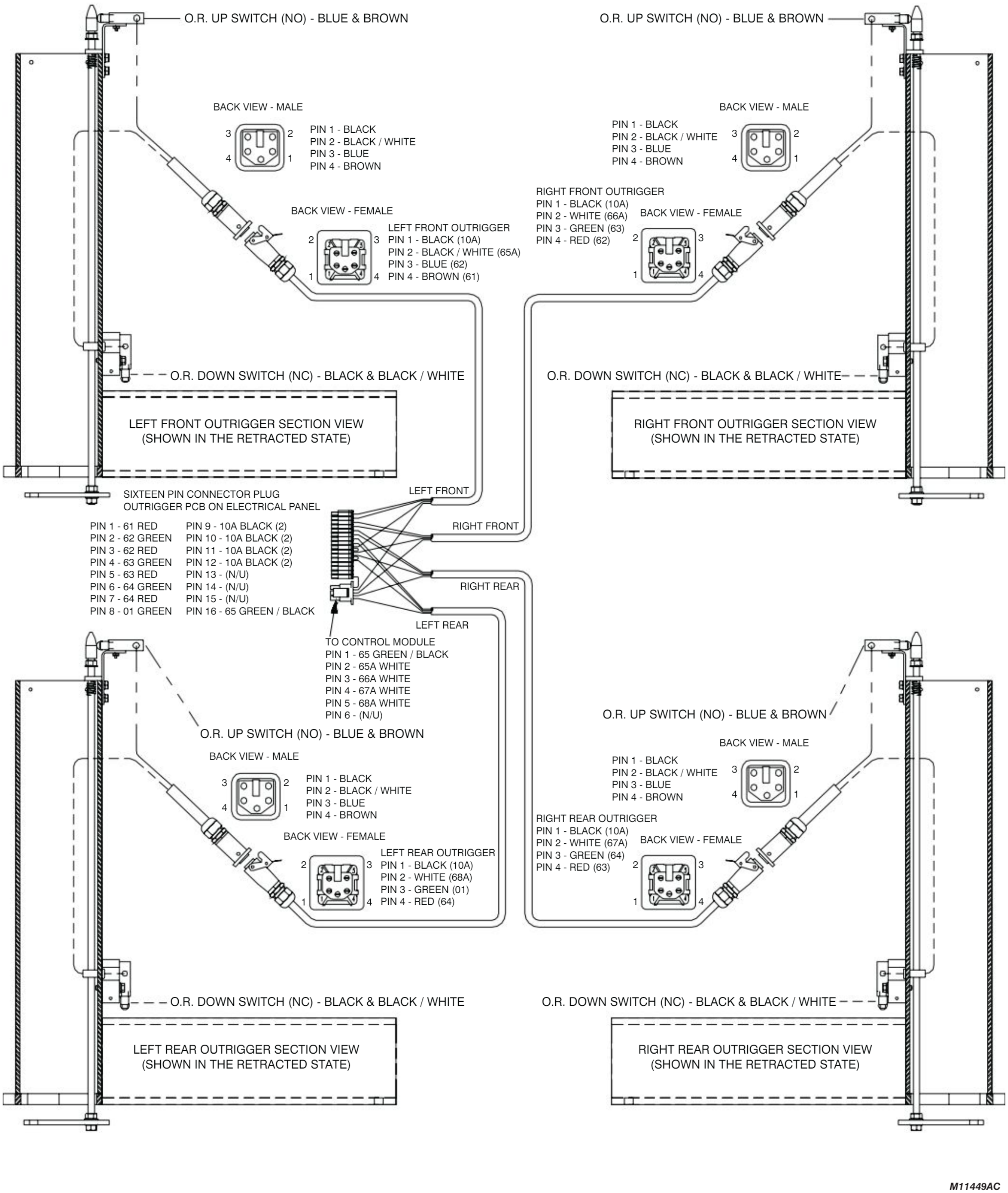

Table 5-4 Auto-Leveling Outrigger Setting and Error Codes

Reading the Codes:
In order to read the fault codes, a sequence of pauses and flashes can be seen on the LED mounted on the outrigger control module. The codes are continuously displayed by the LED until the fault is cleared, the outrigger control module is reset and no longer detects the fault, or idle timeout becomes active.
The sequence is as follows:

1. Half second flashes followed by half second pauses indicate the first digit.
2. A 2.5 second pause.
3. Half second flashes followed by half second pauses indicate the second digit
4. A 5 second pause.

Repeat steps 1-4

Since the outrigger control module only reports one error, only one code can be read from the LED per instance. If the error is cleared and another error is present, it will then be presented.

LED ERROR CODES

EVERYTHING OK	ON
VEHICLE TILTED	1/1
OUTRIGGERS CANNOT BE MOVED!	1/2
OUTRIGGERS NOT HOME	2/2
NOT FULLY LEVEL	2/1
RELEASE OUTRIGGER DEMAND!	5/5
CHECK OUTRIGGER SUPPLY (P4-9)	5/2
CANNOT LEVEL : BAD TILT SENSOR	7/1
OUTRIGGERS MANUALLY CONTROLLED!	6/6
TESTING HWFS	7/8
B+ SUPPLY TOO LOW	5/1
STARTUP!	7/7
FAULT: BAD SLAVE MICRO	7/5
FAULT: BAD TILT SENSOR	7/1
FAULT: BAD HWFS	7/2
FAULT: P2-5 FAULTY	8/1
FAULT: P2-6 FAULTY	8/2
FAULT: P2-8 STUCK ON	8/3
FAULT: P2-8 ALWAYS ON	8/4
FAULT: P2-8 ALWAYS OFF	8/5
FAULT: HWFS STALLED!	7/6

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Table 5-5 Auto-Leveling Outrigger Error Code Breakdown

RELEASE OUTRIGGER DEMAND!	5/5

Check inputs on P2 pins 5 & 6 - the “auto-level” or “auto-retract” input is active at power-on or when it is not allowed to carry out the function.

OUTRIGGERS CANNOT BE MOVED!	1/2

Check input on P2 pin 10 – “auto-level” or “auto-retract” has been requested but the platform is elevated.

NOT FULLY LEVEL	2/1

The outrigger legs are all down (touching the ground) but the platform is not fully level.

OUTRIGGERS NOT HOME	2/2

The outrigger legs are not all down (touching the ground) and also are not all home (fully retracted).

B+ SUPPLY TOO LOW	5/1
CHECK OUTRIGGER SUPPLY (P4-9)	5/2

Check that the battery voltage is not too low.

VEHICLE TILTED	1/1

These is not a true fault – move the vehicle to level ground!

TESTING HWFS	7/8
STARTUP!	7/7

These are not true faults unless they do not clear – the start-up tests should only occur for a short time.

OUTRIGGERS MANUALLY CONTROLLED!	6/6

This is not a true fault – the outriggers are being manually operated (one or more outrigger legs on P4 pins 1-8 is high, when the outrigger control module is not active.

CANNOT LEVEL (BAD TILT SENSOR)	7/1
FAULT: BAD TILT SENSOR	7/1
FAULT: BAD HWFS	7/2
FAULT: BAD SLAVE MICRO	7/5
FAULT: HWFS STALLED!	7/6
FAULT: P2-5 FAULTY	8/1
FAULT: P2-6 FAULTY	8/2
FAULT: P2-8 STUCK ON	8/3
FAULT: P2-8 ALWAYS ON	8/4
FAULT: P2-8 ALWAYS OFF	8/5

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These are internal faults. If the fault persists after the power has been reset, the outrigger control module may need to be replaced.

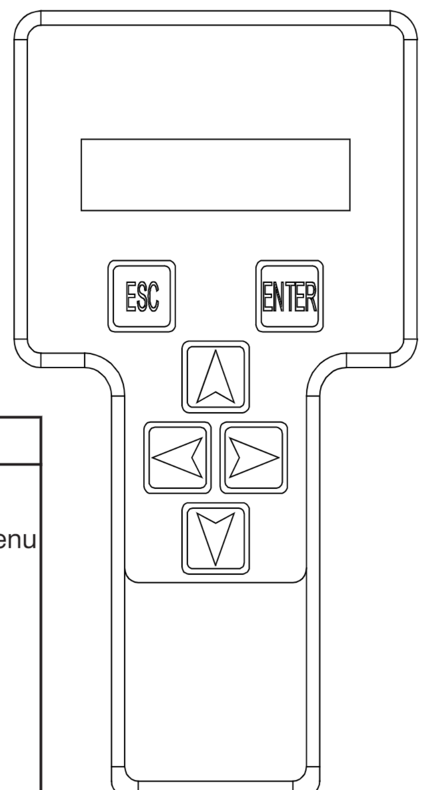
5.3-5 Hand Held Calibration/Diagnostic Tool Key Functions

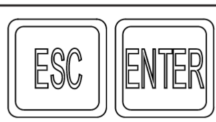
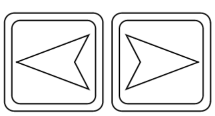
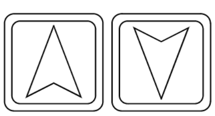
WARNING

Only trained and authorized personnel shall be permitted to service an aerial platform.

WARNING

Read all instructions closely before attempting each phase of this procedure.



SYMBOL	KEY FUNCTIONS
	**ESC/ENTER BUTTONS** To move back and forth between menu and sub-menu
	**LEFT/RIGHT BUTTONS** Select menus and setting to be adjusted
	**UP/DOWN BUTTONS** Adjust setting values

Outrigger Settings

Model	7027	7127	7135	8243	8850
O.R. Settings	5	4	4	4	4

5.8 Outrigger Control Module Instructions

When **EZcal** hand-held device is connected to the OCM1 control module, a two line displays shows various menus and settings. At any time the top line of the display describes the currently selected menu and the bottom line shows the currently selected item in that menu.

Six buttons on **EZcal** allow easy navigation through the menus:

- ← and → change the selected item (the bottom line display)
- ENTER enters the selected new menu when available (top line display changes)
- ↑ and ↓ adjusts the selected item when available
- ESC exits the current menu back to the previous menu

TOP LEVEL MENU OPTIONS

HELP	Select this menu to see a description of current OCM1 status
DIAGNOSTICS	Select this menu to see switch input status & logged data
ACCESS LEVEL	Select this menu & enter correct code to enable adjustments and calibrations
ADJUSTMENTS	Select this menu to see and adjust OCM1 settings NOTE: this menu provides for adjustments which might be needed for different work activities
SETUPS	Select this menu to carry out initial set-up of the OCM1 NOTE: this menu provides for set-ups which are needed to configure the OCM1 for a particular vehicle

HELP MENU OPTIONS

(help message)	A message displays current OCM1 status, indicating if everything is OK or if there is an error code (see LED Error Codes - Table 5.3)

DIAGNOSTIC MENU OPTIONS

SYSTEM	Select this menu to see general OCM1 system information
SWITCHES	Select this menu to see switch input status
OUTPUTS	Select this menu to see OCM1 output status
LOG	Select this menu to see logged information

DIAGNOSTIC / SYSTEM MENU OPTIONS

OUTRIGGERS	Displays various status during the auto-level function
TILT	Displays vehicle tilt in “X” and “Y” orientations measured by integral sensor
TILTED	Displays whether vehicle is tilted (YES or NO)
BATTERY	Displays battery supply voltage (on P2-12)

DIAGNOSTIC / SWITCHES MENU OPTIONS

LR/P2-1	High when the left rear outrigger is in contact with the ground
RR/P2-2	High when the right rear outrigger is in contact with the ground
RF/P2-3	High when the right front outrigger is in contact with the ground
LF/P2-4	High when the left front outrigger is in contact with the ground
EXTEND/P2-5	High to activate the auto-level function
RETRACT/P2-6	High to activate the auto-retract function
ELEV/P2-10	High when the scissor stack is stowed (“elevated” input indicates that the vehicle is s towed).

DIAGNOSTIC / OUTPUTS MENU OPTIONS

LAMP/P2-7	Displays state of outrigger control box light
STABLE/P2-8	Displays state of stable (all legs touching the ground) output
TILT/P2-9	Displays state of tilt
LRe/P4-1	Displays state of left rear outrigger extend valve
RRe/P4-2	Displays state of right rear outrigger extend valve
RFe/P4-3	Displays state of right front outrigger extend valve
LFe/P4-4	Displays state of left front outrigger extend valve
LRr/P4-5	Displays state of left rear outrigger retract valve
RRr/P4-6	Displays state of right rear outrigger retract valve
RFr/P4-7	Displays state of right front outrigger retract valve
LFr/P4-8	Displays state of left front outrigger retract valve
P4-9 MON	Displays the voltage to the outrigger valve (can only be seen when operating in auto-level or retract)

DIAGNOSTIC / LOG MENU OPTIONS

MAX.BATTERY	Displays maximum recorded battery supply voltage
OCM1 version	Displays part number and software version of GP106
EZcal version	Displays software version of EZcal

ACCESS LEVEL MENU OPTIONS

CODE xxxx	"ACCESS LEVEL" 3 (allows viewing only) "ACCESS LEVEL" 2 (allows setup on OCM1)

ADJUSTMENTS MENU OPTIONS (factory set - not adjustable)

Xtilt TRIP	Displays the tilt trip point in the "X" orientation
Ytilt TRIP	Displays the tilt trip point in the "Y" orientation
TILT ENTRY	Displays the tilt delay time
TILT EXIT	Displays the tilt delay time
Xlevel TRIP	Displays the tilt trip point in the "X" orientation during the auto-level function
Ylevel TRIP	Displays the tilt trip point in the "Y" orientation which applies during the auto-level function

MACHINE SETUP MENU OPTIONS (factory set - not adjustable)

DEFAULTS	Allows all adjustments & machine settings to be set to defaults WARNING: all GP106 settings will be changed; use with caution!
CALIBRATE LEVEL	Allows levelling of the integral tilt sensor of the GP106, when the vehicle is positioned on level ground (see Appendix Four)
TILT MODE	Allows configuration of the GP106 tilt output (P2-9): 1 – output turns on to light lamp when tilted 2 – output turns off to cutout functions when tilted 3 – output turns off to cutout functions when tilted AND elevated
TILT FILTER	Displays the filter applied to the tilt measurements during the auto-level function (used to minimize the effect of vehicle vibrations on the tilt measurement)
Xlevel TARGET	Displays the tilt in the "X" orientation at which the auto-level function will complete.
Ylevel TARGET	Displays the tilt in the "Y" orientation at which the auto-level function will complete.
tilt SLACK	Displays the amount of vehicle tilt exceeding the Xtilt TARGET and/or Ytilt TARGET in which the auto-level function will not attempt to level EXAMPLE: Xtilt TARGET=0.3°, Ytilt TARGET=0.7°, tilt SLACK=0.5° If machine is tilted to 1.0° in the X and Y orientations, the auto-level function will attempt to level the X orientation (0.3+0.5<1.0) but will not attempt to level the Y orientation (0.7+0.5>1.0) RANGE: 0.0° to 1.0°, default 0.3°

IMPORTANT

Each phase must be completed before the next phase can be carried out.
All phases must be completed before the aerial platform can be operated.
Always follow the instructions of the Calibration instrument.

1. Ensure the aerial platform is parked on a firm, level surface.

2. Elevate the scissors high enough to lay a level accross the base tubes. Ensure there is no debris on the base and the level sits flat. Do not elevate the machine higher than the high speed/tilt override limit switch.

3. Manually operate the outriggers and level the machine in 4 places: left side, right side, front and rear. All 4 outriggers must be firmly placed and all 4 tires are off the ground.

4. Double check that the machine is level at all 4 points.

5. Connect the EZcal tool to the P1 connector on the CONTROL MODULE.

6. The display will show "Help: Press Enter".
   By using Left/Right buttons, select the "Access Level (3)" from the menu and press the ENTER button.

7. The display will show "Access Level: Code (0000)".
   By using the Up/Down buttons, enter the Access Level Code (1 ➔1 ➔ 2 ➔ 2) followed by pressing the ENTER button.

8. The display will show "Access Level 2".
   By using Left/Right buttons, select the "Setups" from the menu and press the ENTER button.

9. The display will show "Setups: Change Defaults".
   Select the "Change Defaults" from the menu and press the ENTER button.

10. The display will show "Defaults, 0 = Custom".
    By using Up/Down buttons, select the "Defaults: Code Setting for your Model (For Default Code Refer to Table 5-3)" from the menu and press the ENTER button and followed by ESCAPE button.

11. The display will show "Setups Change Defaults".
    By using Left/Right buttons, select the "Calibrate Level" from the menu and press the ENTER.

12. The display will show "Calibrate Level: Yes: Enter, No: ESC".
    Select the "Yes" from the menu by press the ENTER button.

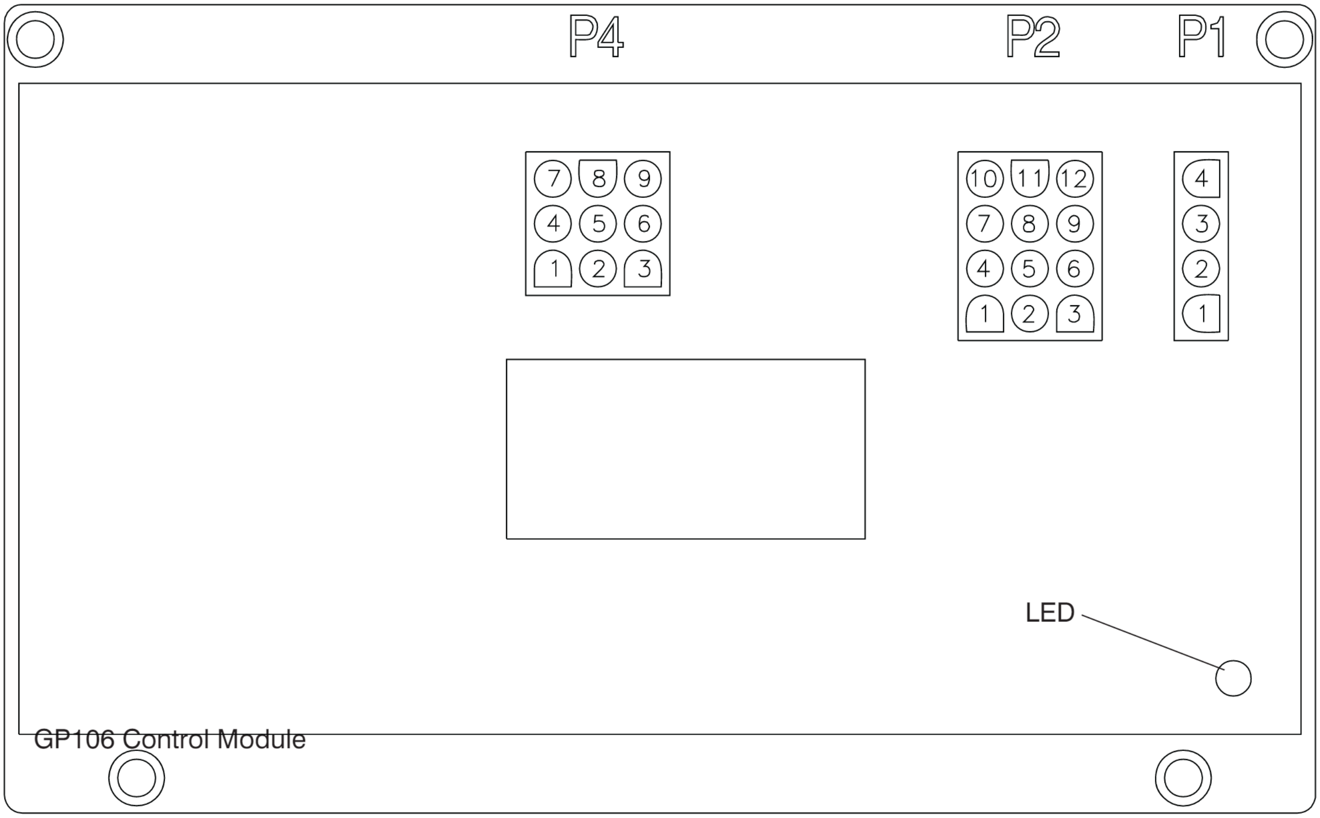
13. The display will show "Calibrate Level: Tilt 0.0' , 0.0'".
    Select the "ESCAPE" from the menu once.

14. The display will show "Setups Calibrate Level".
    Select the "ESCAPE" from the menu once again.

15. The Calibration procedure is complete, unplug and remove the EZ-Cal.

16. Close the hydraulic/electric cabinet.

Figure 5.1-11 Auto-Leveling Outrigger Control Module Pin Reference Chart



PLUG	PIN #	WIRE # AND CO-LOUR	WIRE FUNCTION
P1			The Calibration Connection
P2	1	68A White	Input indicating that the LEFT REAR outrigger is in contact with the ground
P2	2	67A Red/White	Input indicating that the RIGHT REAR outrigger is in contact with the ground
P2	3	66A Blue/White	Input indicating that the RIGHT FRONT outrigger is in contact with the ground
P2	4	65A Green/White	Input indicating that the LEFT FRONT outrigger is in contact with the ground
P2	5	70 Green/Black	Input for AUTO-LEVEL function to extend the outriggers to level the machine
P2	6	79 Green	Input for AUTO-RETRACT function to retract the outriggers until the switch is released
P2	7	70A Red/White	Outrigger Light on Outrigger Control Box
P2	8	65 Green/Black	STABLE output to indicate that all outriggers are in contact with the ground
P2	9	28 Green	TILT output to indicate that the machine is level (ANSI/CSA only)
P2	10	35 Green	Tilt override / High Drive Cutout
P2	11	02 White	Negative Input
P2	12	10A Black	Main Power Input
P4	1	78 Black/White	Output used to extend the LEFT REAR outrigger
P4	2	77 Blue/Black	Output used to extend the RIGHT REAR outrigger
P4	3	76 Red/Black	Output used to extend the RIGHT FRONT outrigger
P4	4	75 Orange/Black	Output used to extend the LEFT FRONT outrigger
P4	5	74 Black	Output used to retract the LEFT REAR outrigger
P4	6	73 Blue	Output used to retract the RIGHT REAR outrigger
P4	7	72 Red	Output used to retract the RIGHT FRONT outrigger
P4	8	71 Orange	Output used to retract the LEFT FRONT outrigger
P4	9	35C White/Black	Power input for outriggers

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Figure 5.1-12 ECU Pin Reference Chart (Nissan)

Diagnostics

White Connector				Black Connector			
Pin#	Wire#	Wire Color	Description	Pin #	Wire#	Wire Color	Description
1	50	Orange	12V to LP lock off	1	105	Green	Coolant Sensor
2	1001	Brown/White	LP Injector (Ground)	2	N/U	Empty	
3	2001	Brown	Gas Injector (Ground)	3	N/U	Empty	
4	56	Orange/ Green	12V to Gas/Propane switch	4	1103	Orange	5V to (MAP)
5	1008	Gray	Signal to Throttle/Actuator	5	N/U	Empty	
6	N/U	Empty		6	N/U	Empty	
7	N/U	Empty		7	102	Pink	Oil pressure switch
8	2008	Gray	12V thru 10K resistor to pin 11	8	203	Orange/ Black	Fault lamp reset
9	34A	Green/White	12V+high speed input	9	106	Blue	Air Temp sensor (5volts)
10	N/U	Empty		10	209	White/Black	Oxygen sensor sense input(1V+)
11	3008	Gray	5V from resistor pin 8	11	1100	Black	Ground to all sensors
12	1003	Orange	Ground to diagnostic light	12	200	Black/White	Signal ground for oxygen sensor
13	N/U	Empty		13	N/U	Empty	
14	2A	Black/Red	Ground for relay 10BCR2	14	N/U	Empty	
15	1002	Red/Black	12V for both Injectors	15	N/U	Empty	
16	N/U	Empty		16	N/U	Empty	
17	33	Green	12V+Mid speed input	17	205	Green	MAP Sensor signal
18	N/U	Empty		18	N/U	Empty	
19	1006	Blue	Distributor input (Tach signal)	19	N/U	Empty	
20	00	White	Ground	20	N/U	Empty	
21	00	White	Ground	21	N/U	Empty	
22	2002	Red	Power	22	N/U	Empty	
23	2002	Red	Power	23	N/U	Empty	

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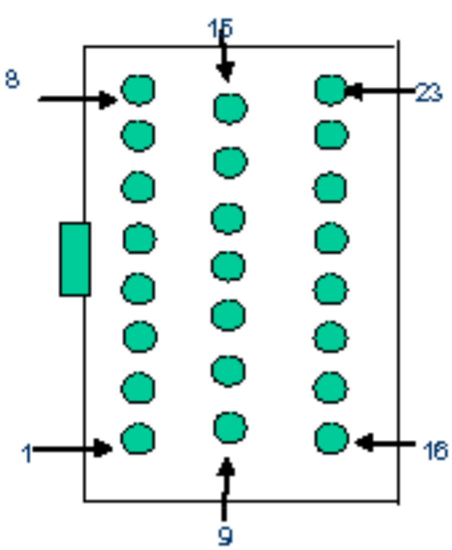
ECU Black & White Connector Plug



P/N 137928 ....

- NISSAN A 15 Diagnostic Engine Kit
  - Software
  - Interface box
  - RS232 Cable
  - Instructions

(Components of kit not sold separately)

Figure 5.1-13a Fuel Injector and Throttle Actuator Testing (Voltage Tests) (Nissan)

NOTE: Control box must be powered up and either lift or drive selected. All tests are to be completed with the actuator and injector connectors disconencted.

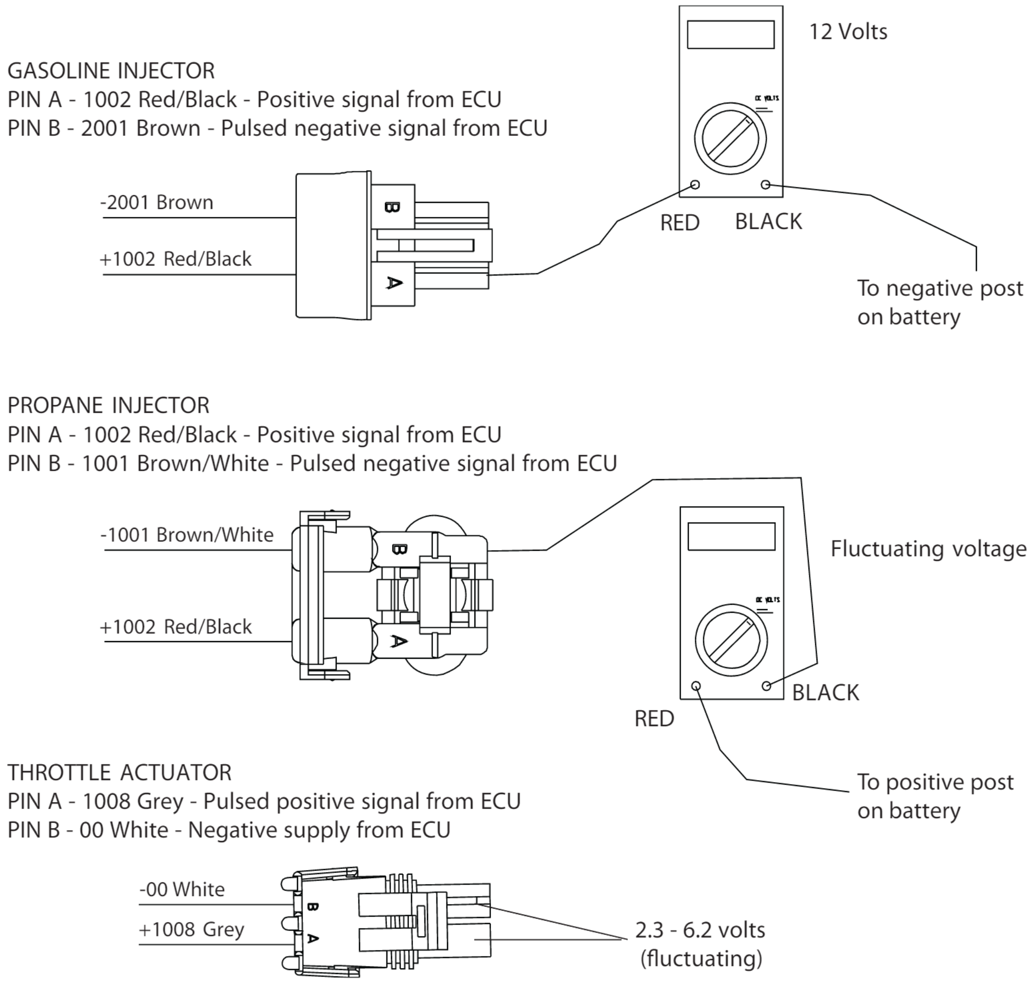


Figure 5-1-12a. Voltage Tests

- Test for 12 volts on the suspect injector as shown above on the gasoline injector connector. Red lead to wires 1002 and the black lead to the negative post on the battery. Base engine switch to the ON position.

- Test for a fluctuating voltage on the suspect injector as shown above on the propane injector connector. Black lead to wires 1001 (propane) or 2001 (gasoline) and the red lead to the positive post on the battery. Turn the base engine switch to the START position while observing the multimeter.

- Test for voltage at the throttle actuator connector with a multimeter as shown above. Voltage should fluctuate between 2.3 and 6.2 volts with the base engine switch ON.

Figure 5.1-13b Fuel Injector and Throttle Actuator Testing (Ohm Tests) (Nissan)

NOTE

All tests are to be completed with the actuator and injector connectors disconenected.

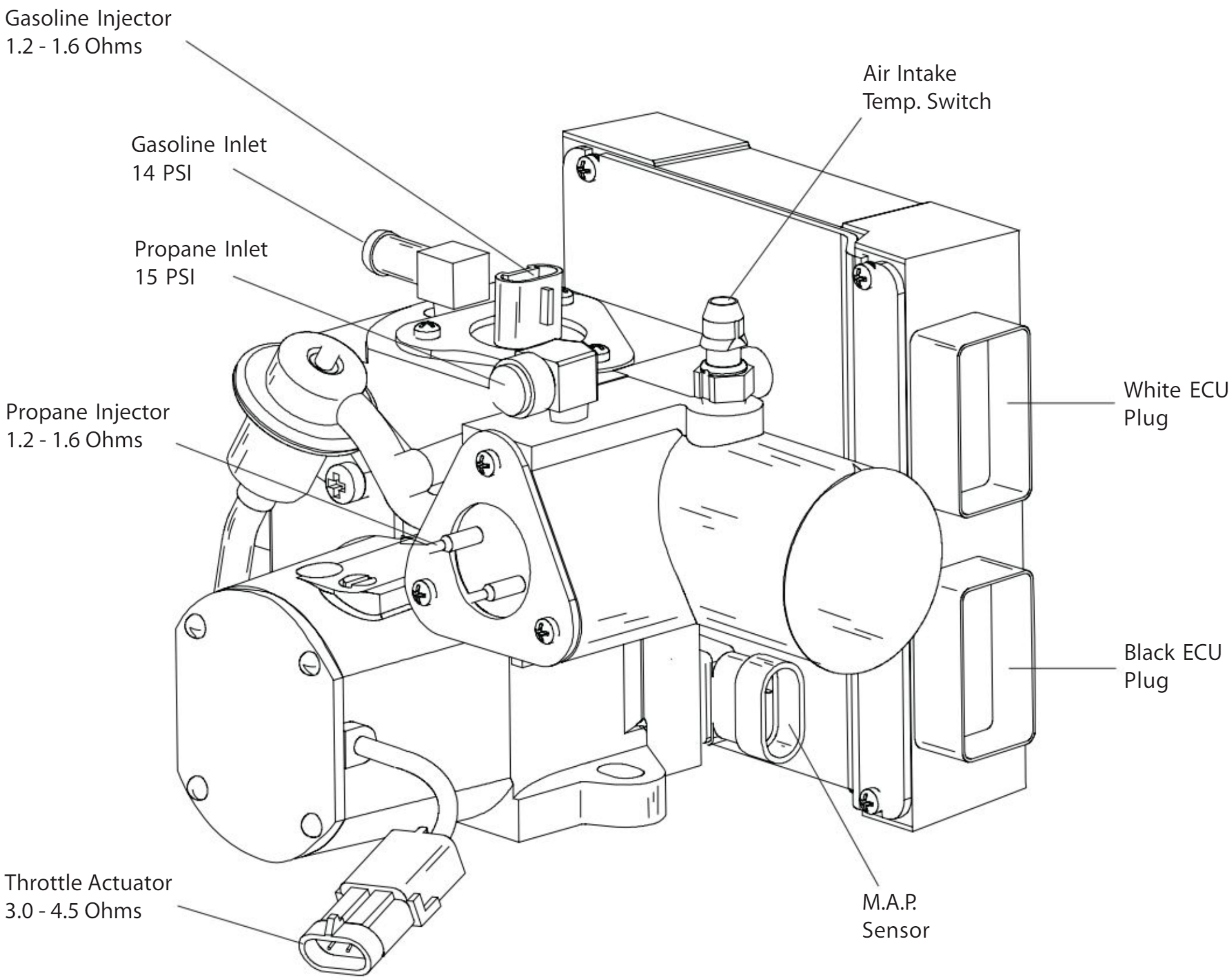


Figure 5-1-12b. Ohm Tests

- Gasoline and propane injectors should read 1.2 - 1.6 ohms between the 2 pins.
- Throttle actuator should read 3.0 - 4.5 ohms between the 2 pins.

5.9 Air Intake Temperature Sensor and Coolant Temperature Sensor Testing (Nissan)

- Remove wiring harness from sensor/s
- Measure the resistance values in Ohms and compare to chart below

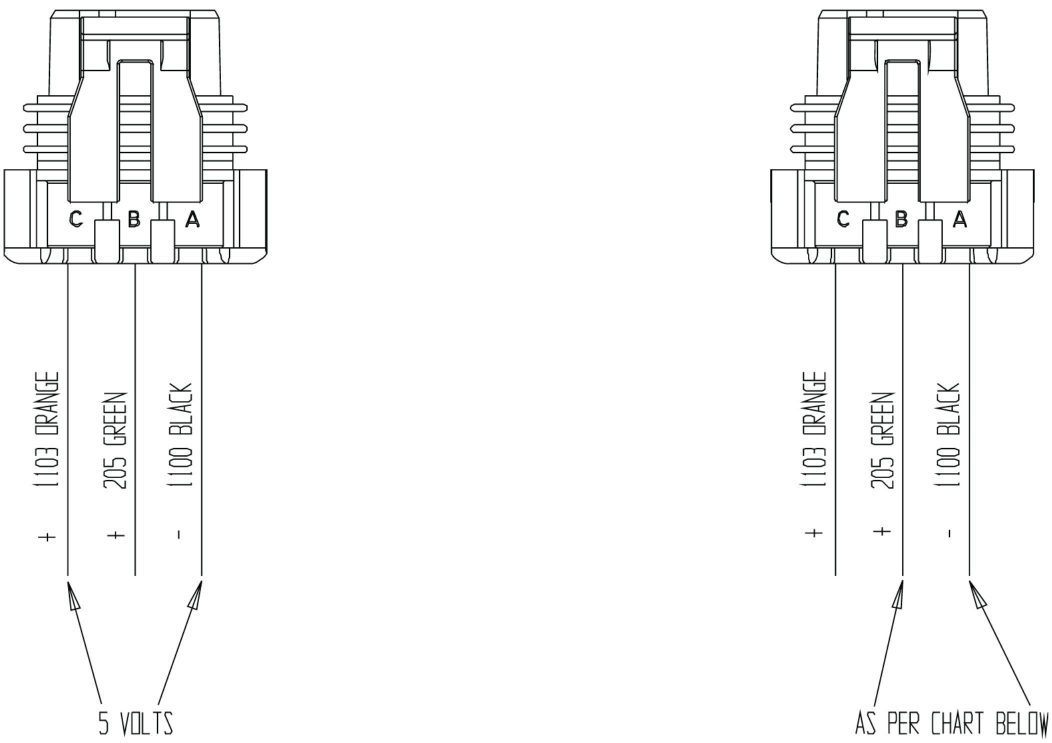
Temp F	Temp C	Nominal Resistance	Minimum Resistance	Maximum Resistance
266	**130**	**84**	80	88
230	**110**	**144**	139	151
212	**100**	**189**	182	199
176	**80**	**349**	334	369
140	**60**	**693**	657	734
104	**40**	**1484**	1398	1579
68	**20**	**3481**	3254	3719
32	**0**	**9099**	8442	9767
-4	**-20**	**27050**	24910	2910
-40	**-40**	**93630**	85570	101400

Figure 5.1-14 MAP Sensor Testing (Nissan)

Test with the MAP Sensor Connected "in circuit"

MAP SENSOR

PIN A	- 100 BLACK	Negative supply from ECU
PIN B	- 205 GREEN	Positive signal from MAP Sensor to ECU
PIN C	- 1103 ORANGE	Positive supply from ECU



NOTE: These voltages will vary according to the current weather conditions at your location.

ALTITUDE ABOVE SEA LEVEL IN FEET	NOMINAL VOLTAGE DC
0-1000	5.00-4.60
1000-2000	4.60-4.10
2000-3000	4.10-3.60
3000-4000	3.60-3.20

Figure 5.1-15 Oxygen Sensor Testing (Nissan)

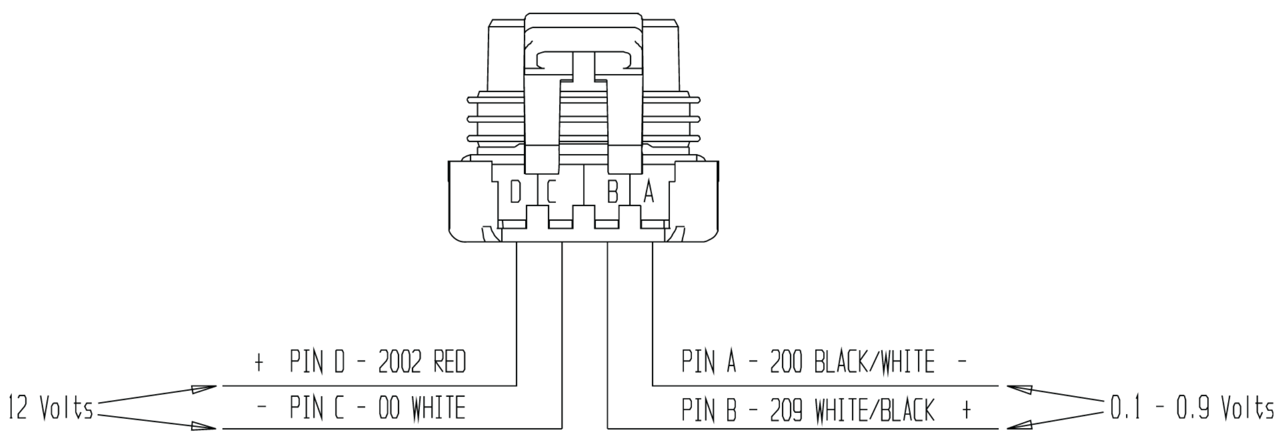
Test with the Oxygen Sensor connected "in circuit"

CAUTION

This is a Heated Oxygen Sensor

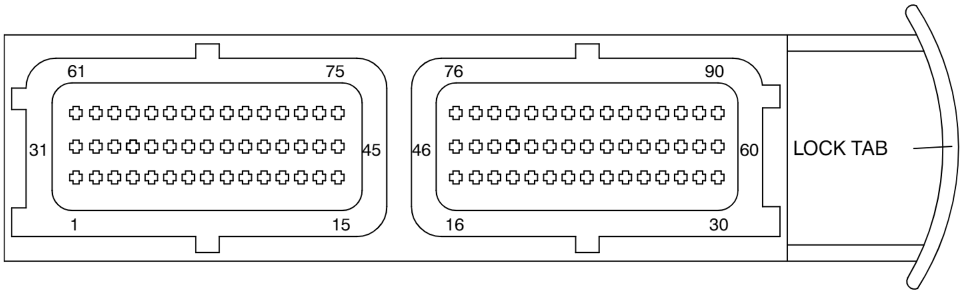
HEATED OXYGEN SENSOR

PIN A - 200 BLACK/WHITE	Negative supply to ECU
PIN B - 209 WHITE/BLACK	Positive signal from ECU
PIN C - 00 WHITE	System ground for heater
PIN D - 2002 RED	System positive for heater



NOTE - Check voltages with engine running up to operating temperature and harness connected.

Figure 5.1-16 ECU Pin Reference Chart (GM)



Diagnostics

Pin #	Wire Color	Description	Pin #	Wire Color	Description
1	DK GRN/ORN	EGO1 Signal	46	DK BLU/YEL	Not used
2	DK GRN/WHT	EGO2 Signal	47	YEL/DK BLU	Not used
3	EMPTY		48	LT GRN/WHT	Output to gasoline temp sensor
4	EMPTY		49	LT GRN/PPL	Not used
5	PPL/LT BLUE	Throttle position 1 signal	50	LT GRN/BLK	Not used
6	LT BLU/DK BLU	Throttle position 2 signal	51	GRY/DK BLU	Mid throttle input
7	LT GRN	MAP Signal	52	GRY/ORN	High throttle input
8	TAN/DK GRN	Not Used	53	LT BLU	Input from oil pressure switch
9	DK BLU/ORN	Not Used	54	WHT/LT GRN	Signal from gasoline pressure sensor
10	PPL/YEL	Not Used	55	DK GRN	To diagnostic connector (PC)
11	EMPTY		56	ORN	To diagnostic connector (PC)
12	EMPTY		57	EMPTY	
13	WHT/ORN	Connected to pin #14 below	58	GRY	Not used
14	BLU/PNK	CAN + to propane regulator	59	EMPTY	
15	BLU/WHT	CAN – from propane regulator	60	RED/TAN	Battery positive
16	EMPTY		61	BRN/LT BLU	To injector #1 and #4
17	EMPTY		62	BRN/LT GRN	To injector #2 and #3
18	EMPTY		63	EMPTY	
19	LT GRN/RED	5 volt + from ECU to sensors	64	EMPTY	
20	BLK/LT GREEN	5 volt – to ECU from sensors	65	EMPTY	
21	PPL/WHT	+V from crank position sensor	66	EMPTY	
22	WHT/PPL	-V from crank position sensor	67	EMPTY	
23	EMPTY		68	EMPTY	
24	EMPTY		69	BLK	Ground from engine block
25	RED/WHT	Not used	70	EMPTY	
26	RED/BLK	Not used	71	WHT/LT BLU	Negative supply to power relay 2002CR
27	EMPTY		72	BLK/WHT	EGO 1 Heater ground
28	EMPTY		73	BLK/YEL	EGO 2 Heater ground
29	EMPTY		74	EMPTY	
30	EMPTY		75	WHT/BLK	Negative supply to propane lock off
31	YEL	Output to spark coil 1	76	EMPTY	
32	EMPTY		77	BRN/WHT	Negative supply to relay 10BCR2
33	YEL/RED	Output to spark coil 2	78	WHT/BRN	Not used
34	EMPTY		79	RED/TAN	Battery positive
35	EMPTY		80	GRN/YEL	To check engine light (MIL)
36	EMPTY		81	BLK	Ground from engine block
37	EMPTY		82	PNK/WHT	Positive to throttle actuator motor
38	EMPTY		83	TAN/ORN	Negative from throttle actuator motor
39	YEL/GRY	Output to IAT (part of MAP)	84	TAN/BLK	Negative supply to fuel pump relay 56CR
40	TAN/WHT	Output to ECT	85	PNK/YEL	Fuel pump excite wire
41	WHT/RED	Output to EGT	86	BLK/RED	Negative supply to fuel pump
42	TAN/BRN	Propane selected	87	TAN	Not used
43	TAN/RED	Not used	88	DK BLU	Not used
44	TAN/BLK	Not used	89	PNK/BLK	Negative supply to starter relay 32ACR
45	PNK/TAN	12 volt input	90	EMPTY	

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Figure 5.1-17 Throttle Actuator (GM)

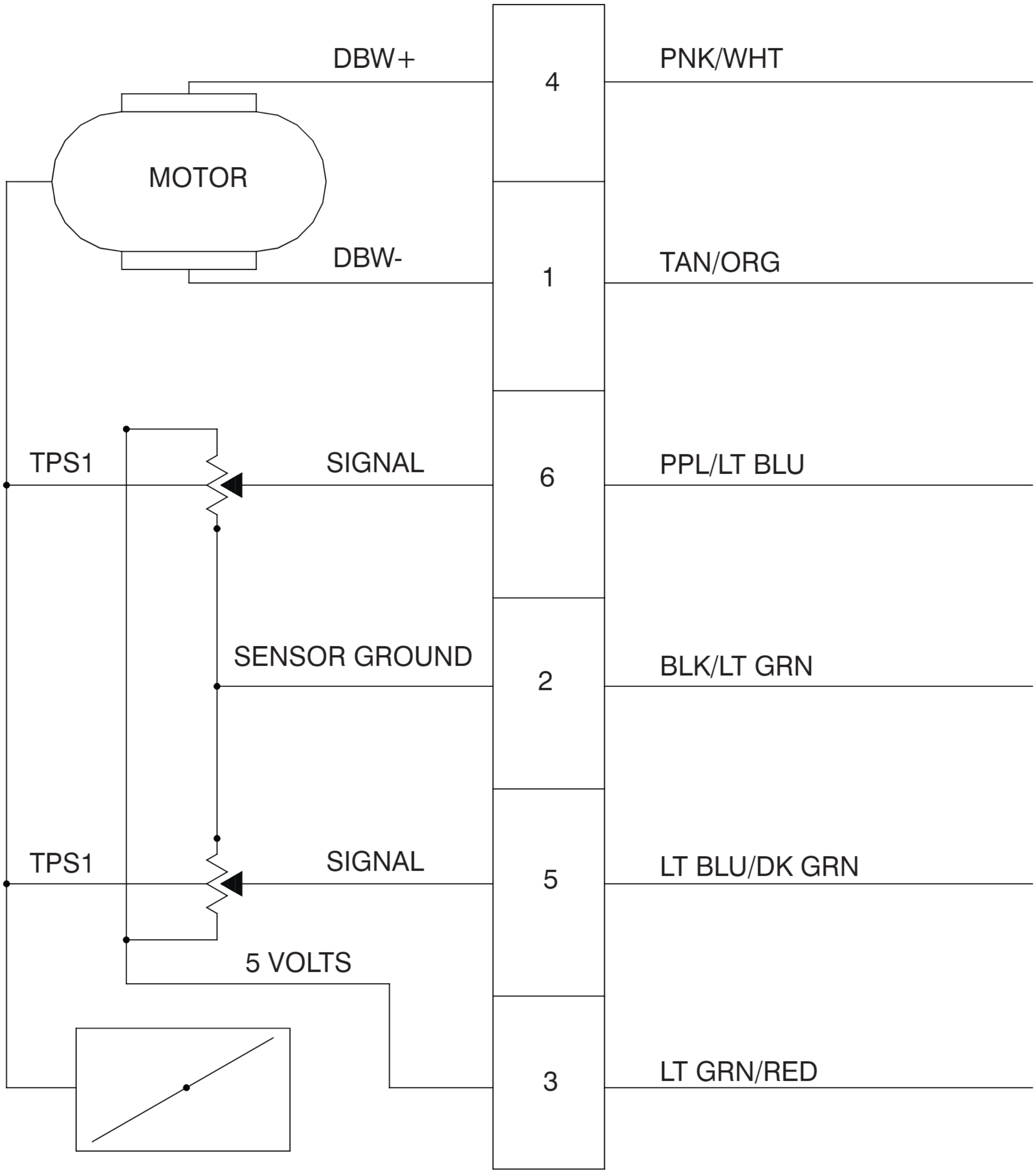
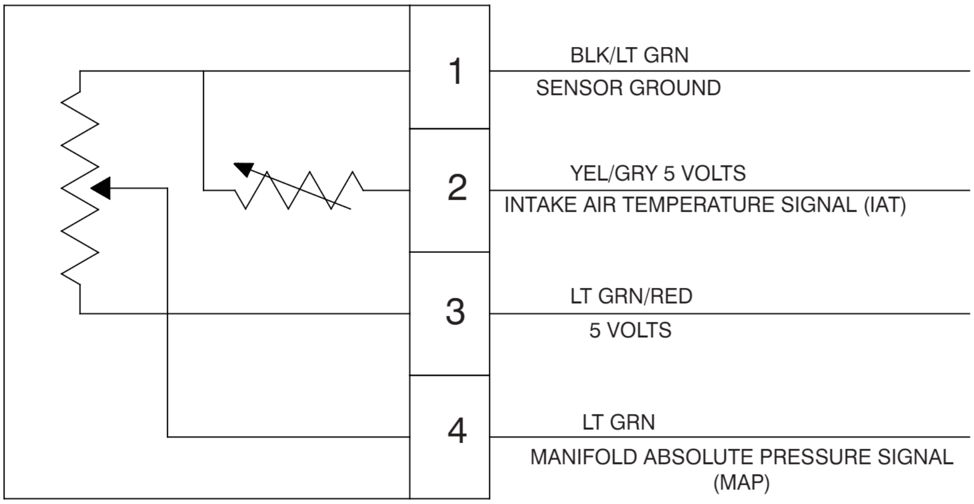


Figure 5.1-18 GM Map and IAT Sensor (GM)



IAT Sensor Resistance

TEMPERATURE ° F	TOLERANCE ±10% OHMS
248	110
239	125
221	162
203	214
185	284
167	383
149	522
131	721
104	1,200
77	2,063
50	3,791
23	7,419
-4	15,614
-22	26,854
-31	35,763
-40	48,153

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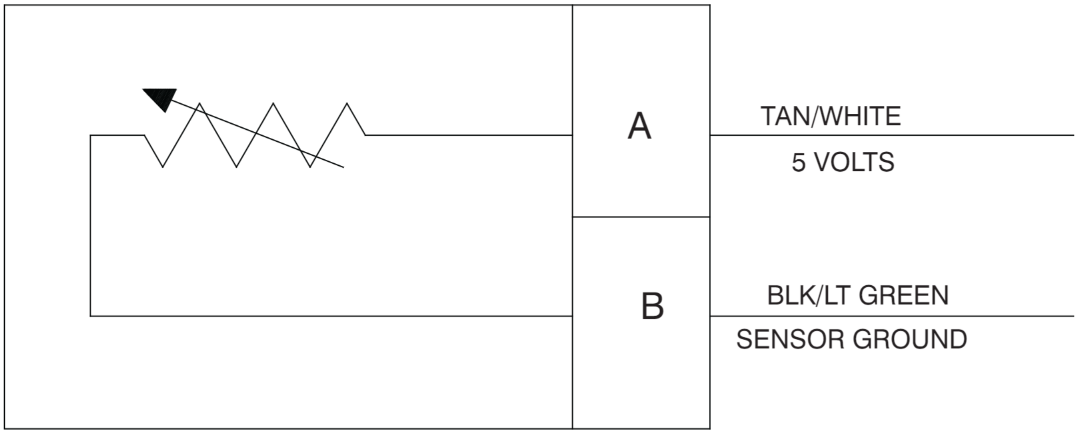
Figure 5.1-19 Engine Coolant Temperature Sensor (GM)



TEMPERATURE SENSOR RESISTANCE

TEMPERATURE ° F	TOLERANCE ±10% OHMS
242.4	101
231.9	121
211.6	175
201.4	209
181.9	302
163.1	434
144.9	625
127.4	901
102.4	1,556
78.9	2,689
49.9	5,576
23.5	11,562
-5.7	28,770
-21.7	49,715
-30.8	71,589
-40	99,301

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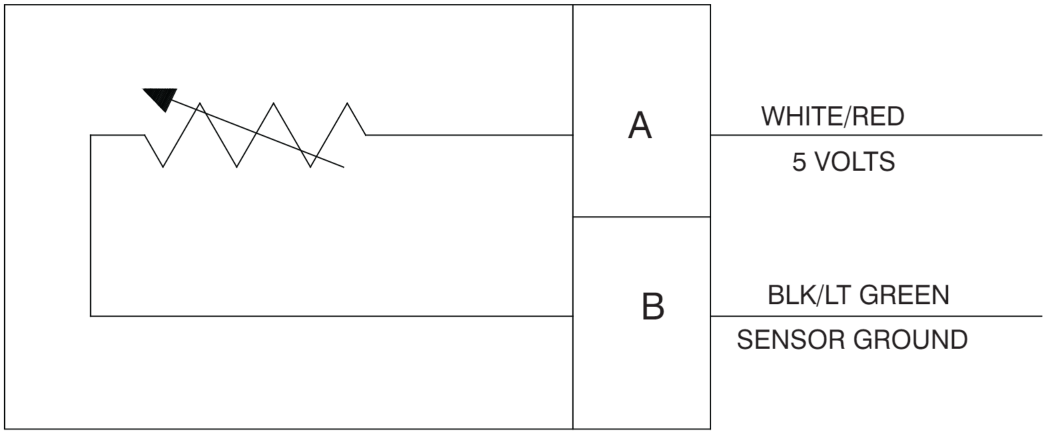
Figure 5.1-20 LPG Temperature Sensor (GM)



Temperature Sensor Resistance

TEMPERATURE DEGREES F	TOLERANCE ±10% OHMS
220	153.7
200	214.6
190	255.4
180	305.5
170	367.3
160	444.1
140	660.6
120	1008
100	1582
80	2554
70	3284
60	4259
40	7357
20	13214
0	24705
-20	48300
-40	99318

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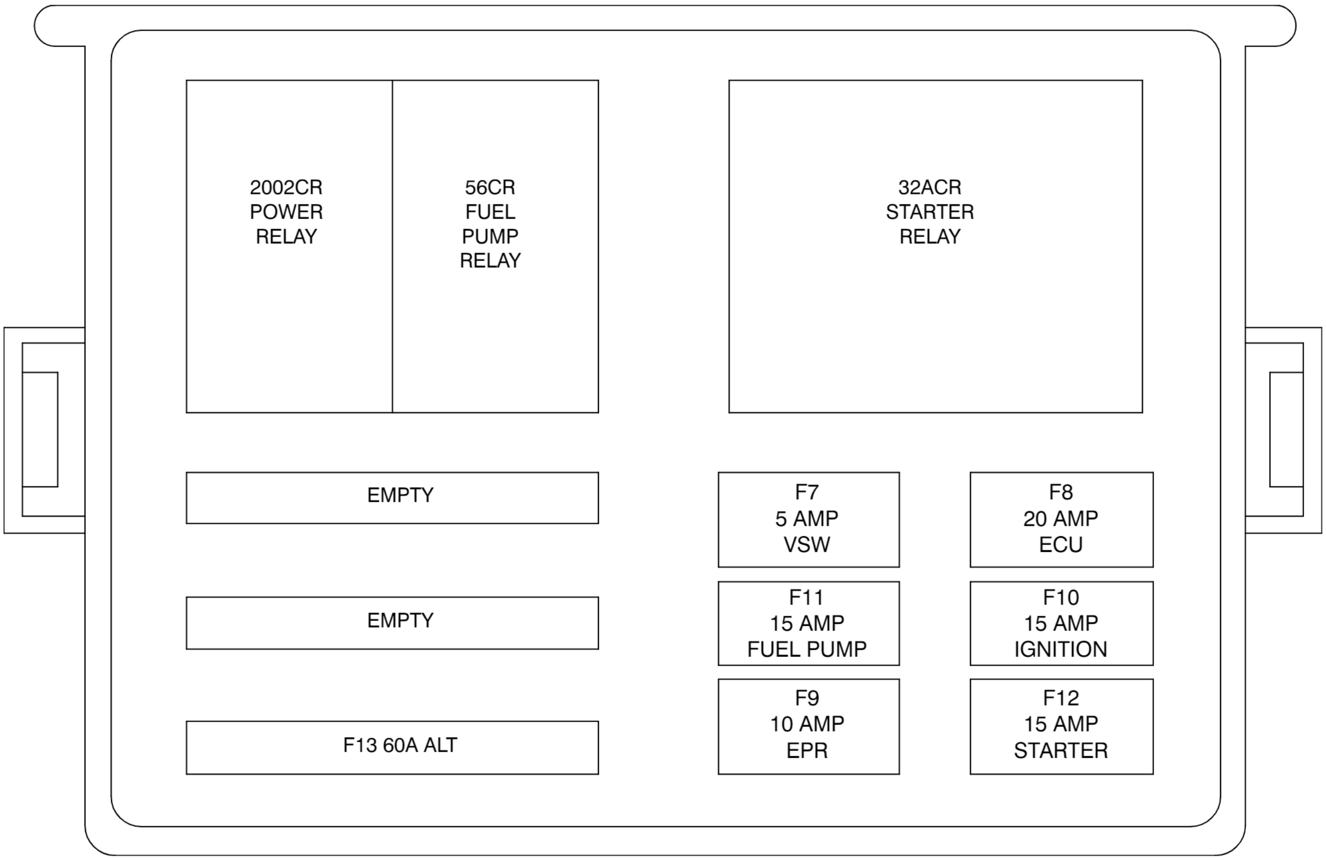
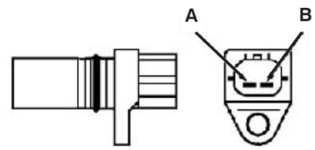
Figure 5.1-21 Fuse Block Layout (GM)



5.10 Kubota Dual Fuel (DF972) Resistance Checks

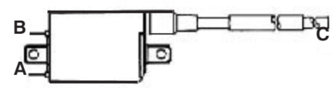
Resistance of Pick-Up Sensor



1. Disconnect the connector.
2. Measure the resistance with the ohmmeter.
3. If the resistance is not within the factory specifications, replace it.

Resistance	Factory Spec.	**A - B**	1.85 to 2.45kΩ at 20°C

Resistance of Ignition Coil

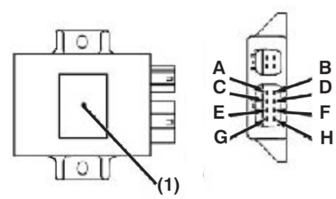


1. Disconnect the connector.
2. Measure the resistance with an ohmmeter.
3. If the resistance is not within the factory specifications, replace it.

Resistance	Factory Spec.	**A - B**	1.87 to 2.53Ω at 20°C
		A - C	10.4 to 15.6Ω at 20°C

A: Terminal (+) C: High Tension Cord
B: Terminal (-)

Resistance of Ignitor



1. Disconnect the connector.
2. Measure the resistance with an ohmmeter.
3. If the resistance is not within the factory specifications, replace it.

Important:
To replace the ignitor with a service part, make sure the ignitor has the same part cord No / ID mark as the old one. (See the information label (1).)

Ignitor Check Chart

Negative Positive	A	B	C	D	E	F	G	H
A		10 to 40 kΩ	10 to 40 kΩ	11 to 47 kΩ	infinity	infinity	infinity	infinity
B	10 to 40 kΩ		0.33 to 1.3 kΩ	1.8 to 7.3 kΩ	infinity	infinity	infinity	infinity
C	10 to 40 kΩ	0.33 to 1.3 kΩ		1.5 to 6.0 kΩ	infinity	infinity	infinity	infinity
D	11 to 47 kΩ	1.8 to 7.3 kΩ	1.5 to 6.0 kΩ		infinity	infinity	infinity	infinity
E	infinity	infinity	infinity	infinity		infinity	infinity	infinity
F	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	infinity		infinity	infinity
G	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	infinity	infinity		infinity
H	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	2 megohm (minimum)	infinity	infinity	infinity	

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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

Table of Contents

Platform And Related Parts

Control Box Assemblies

Scissor And Related Parts

Base, Axles And Wheels

Drivetrain Components

Engines And Related Parts

Optional Equipment

Labels

Tables

Figure 6.1-1. Entrance Gates

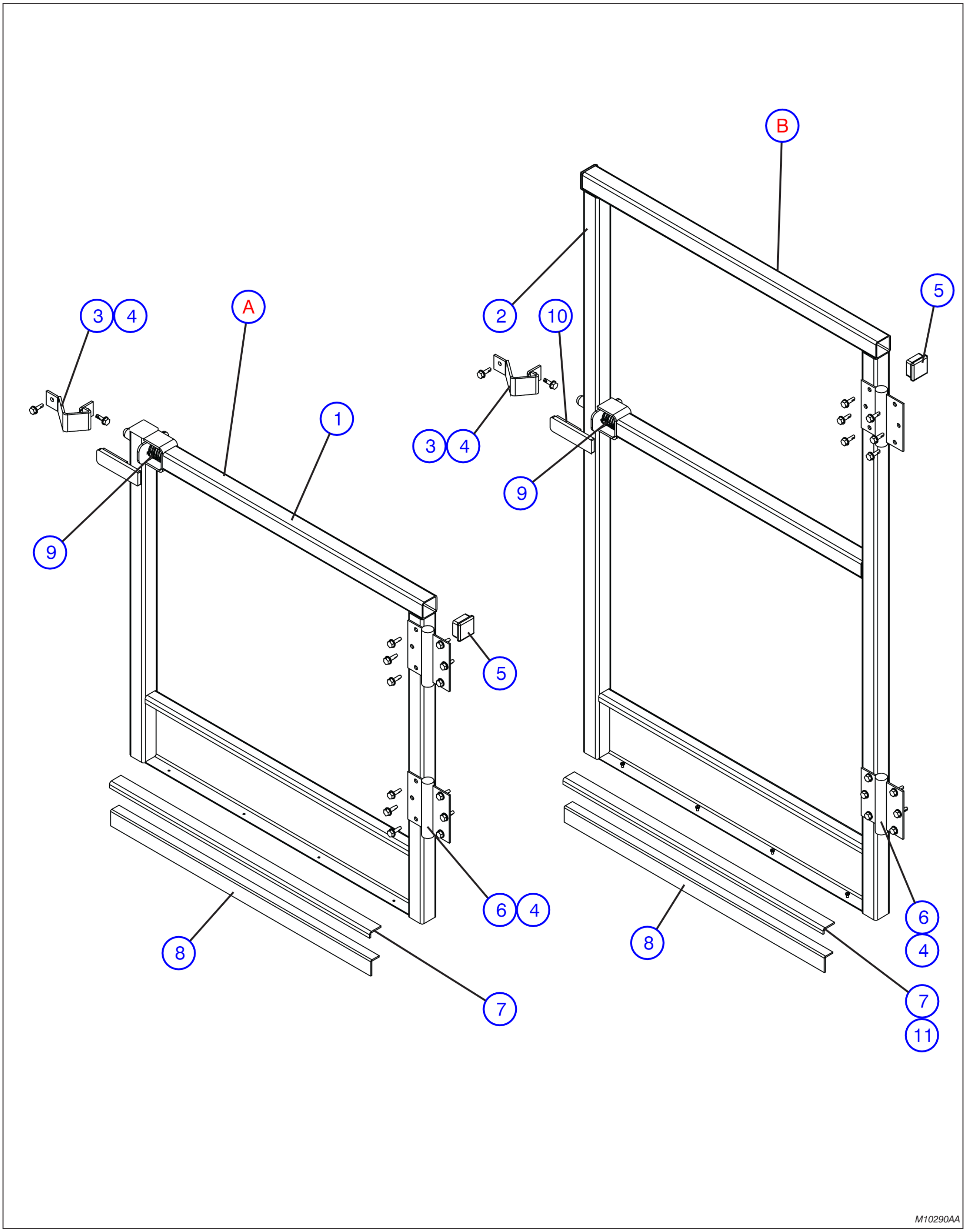
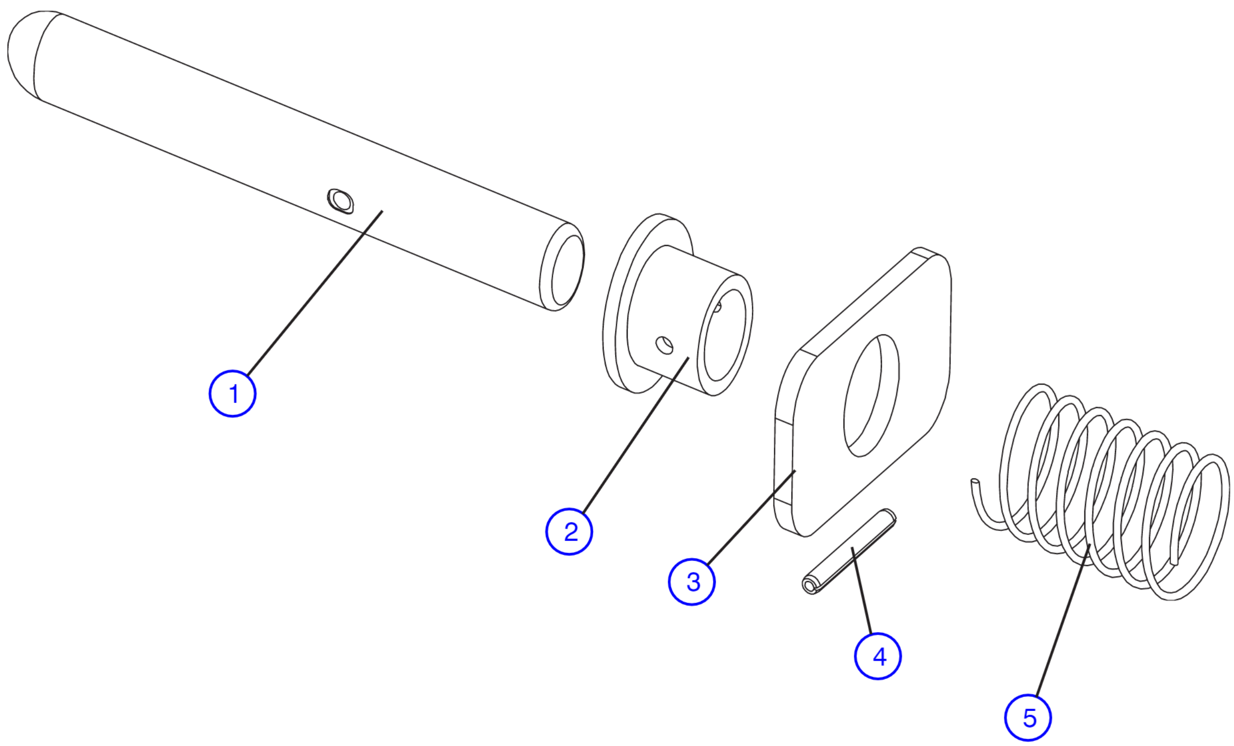


Figure 6.1-1. Entrance Gates

Index No.	Skyjack Part No.	Qty.	Description
A	126629	1	GATE, Half **(ANSI/CSA)**
	126631	1	GATE, Half **(CE)**
B	126630	1	GATE, Solid full **(ANSI/CSA)**
	126632	1	GATE, Solid full **(CE)**
1	117278	1	• WELDMENT, Half gate
2	117279	1	• WELDMENT, Solid full gate
3	110693	1	• GATE, Latch
4	103632	AR	• SCREW, Self tapping ¼ - 14 x ¾”
5	100702	AR	• PLUG, Tube
6	117277	2	• HINGE, Spring (Stanley 2060R)
7	119943	1	• PLATE, Gate clamp **(CE)**
8	119941	1	• STRIP, Door sweep rubber **(CE)**
9	(Ref.)	-	• LATCH ASSEMBLY
		-	(For components, refer to Figure 6.1-2)
10	125577	1	• BUMPER, Door
11	119945	4	• RIVET, Pop Wide Head **(CE)**

Figure 6.1-2. Gate Latch Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	110824	-	ASSEMBLY, Latch pin spring
1	109377	1	• PIN, Latch
2	105312	1	• GUIDE, Nylon spring
3	105307	1	• PLATE, Gate latch release
4	105310	1	• PIN, Roll
5	103107	1	• SPRING, Compression

Figure 6.1-3. Railings - Main Platform

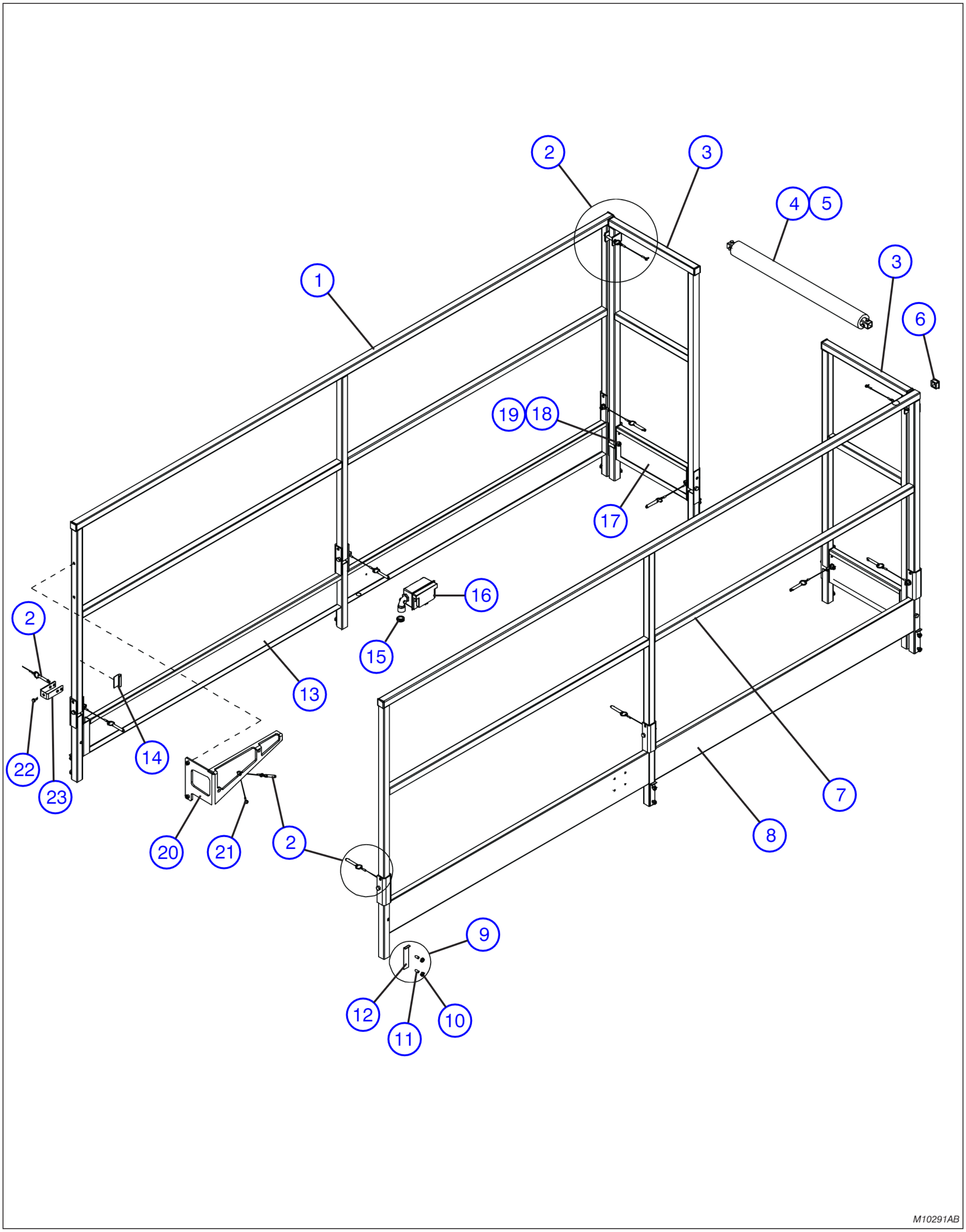


Figure 6.1-3. Railings - Main Platform

Index No.	Skyjack Part No.	Qty.	Description
A	133081	1	RAILING ASSEMBLY
1	115249	1	• ASSEMBLY, Right hand side rail
2	(Ref.)	AR	• PIN ASSEMBLIES, Quick release (For components, refer to Figure 6.1-5)
3	111042	2	• ASSEMBLY, Rear railing
4	126443	1	• RAILING, Top gate
5	126445	1	• PAD, Entry insulation
6	100702	8	• CAP, Plastic end
7	115247	1	• ASSEMBLY, Left hand side rail
8	115238	1	• ASSEMBLY, Left hand side lower kick rail
9	126929	10	• KIT, Railing Shim Clamp
10	104265	2	• • SCREW, Set 3/8-16 x 5/8”
11	108575	2	• • NUT, Hex head 3/8-16 Grd. 5
12	107614	1	• • SHIM, Retaining
13	115239	1	• ASSEMBLY, Right hand side lower kick rail
14	108791	2	• CLIP, Wire
15	103014	1	• GROMMET, Rubber 5/8”- 7/8”
16	(Ref.)	-	• OUTLET, Platform AC (For components, refer to Figure 6.1-15)
17	111041	2	• ASSEMBLY, Rear lower kick rail
18	103914	AR	• BOLT, Hex head 3/8”-16 x 3-3/4” Grd. 5
19	104606	AR	• NUT, Hex head nylon lock 3/8”-16 Grd. 5
20	132816	1	BRACKET, Main Control Box Mounting
	103865	2	• BOLT, Hex head 5/16”-18 x 2” Grd. 5
	103996	2	• WASHER, Flat 5/16”
	103984	2	• NUT, Lock 5/16”-18
21	120277	1	LANYARD, Eyelet Attachment **(w/ Outrigger or Hyd. Generator Control Box)**
22	103632	1	SCREW, Self tapping hex head 1/4-14 x 3/4”
23	113164	1	CLAMP, Cable **(If Equipped)**

Figure 6.1-4. Railings - Extension Platform

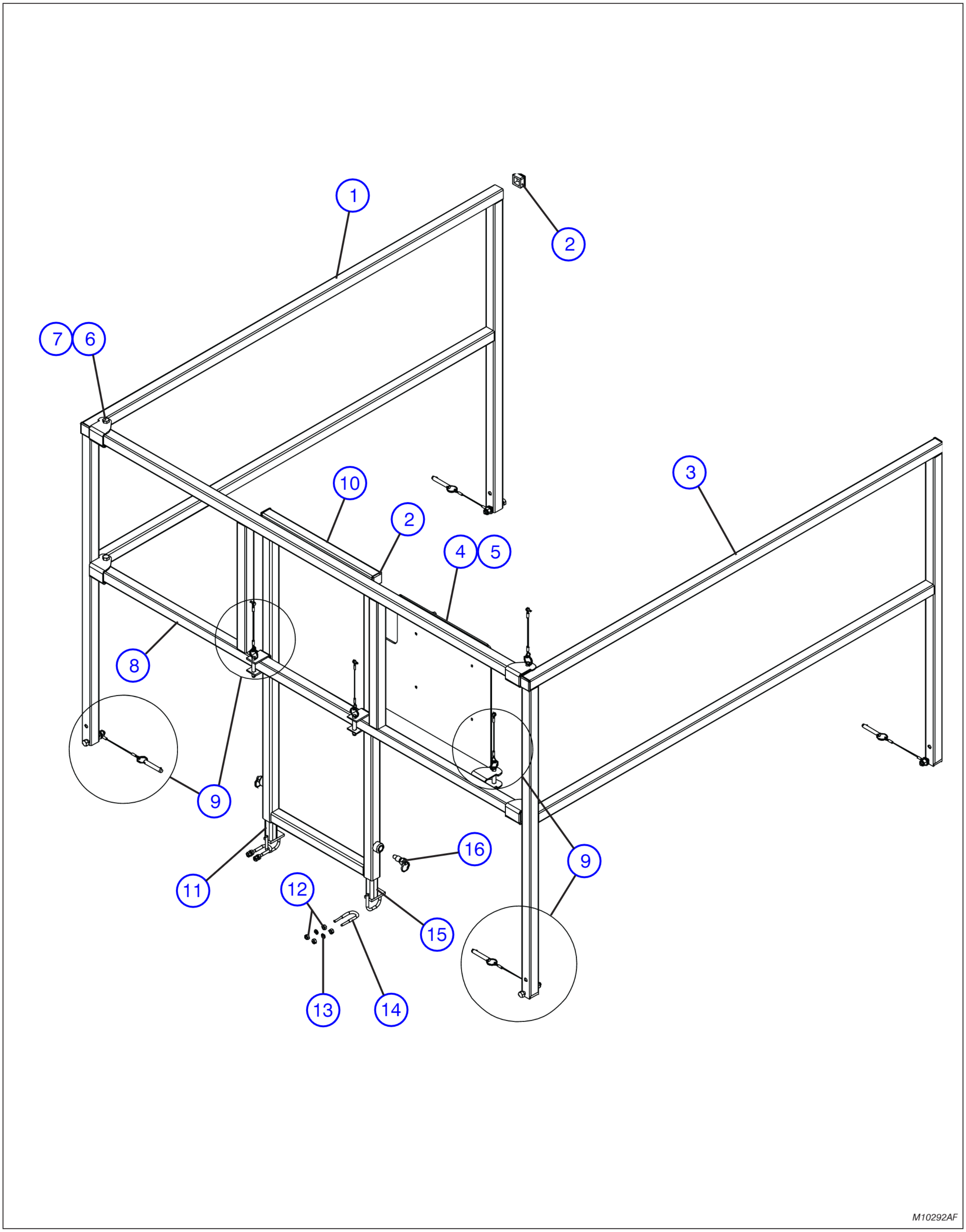


Figure 6.1-4. Railings - Extension Platform

Index No.	Skyjack Part No.	Qty.	Description
A	126921	1	RAILING ASSEMBLY, Extension platform
1	126923	1	• RAILING ASSEMBLY, RH Extension platform
2	100702	8	• CAP, Plastic end
3	126924	1	• RAILING ASSEMBLY. LH Extension platform
4	130229	1	• PLATE, Warning label **(Later Models)**
5	103632	AR	• SCREW, Self tapping hex head 1/4-14 x 3/4"
6	103872	2	• BOLT, Hex Head 3/8-16 2 1/4" Grd. 5
7	104606	2	• NUT, Nylon lock hex head 3/8-16 Grd. 5
8	126922	1	• RAILING ASSEMBLY, Front extension platform
9	(Ref.)	AR	• PIN ASSEMBLIES, Quick release
		-	(For components, Refer to Figure 6.1-5)
B	126376	1	BAR ASSEMBLY, Extension platform push
10	115014	1	• WELDMENT, Upper push bar
11	115015	1	• WELDMENT, RH Push bar arm
12	103980	8	• NUT, Hex Head 1/4-20 Grd. 5
13	104000	4	• WASHER, 1/4" Lock
14	106432	2	• U-BOLT, 1/4-20 x 3/4" I.D.
15	115016	1	• WELDMENT, LH Push bar arm
16	112467	2	• PLUNGER, Stubby pull-ring

Figure 6.1-5. Pin Assemblies - Quick Release

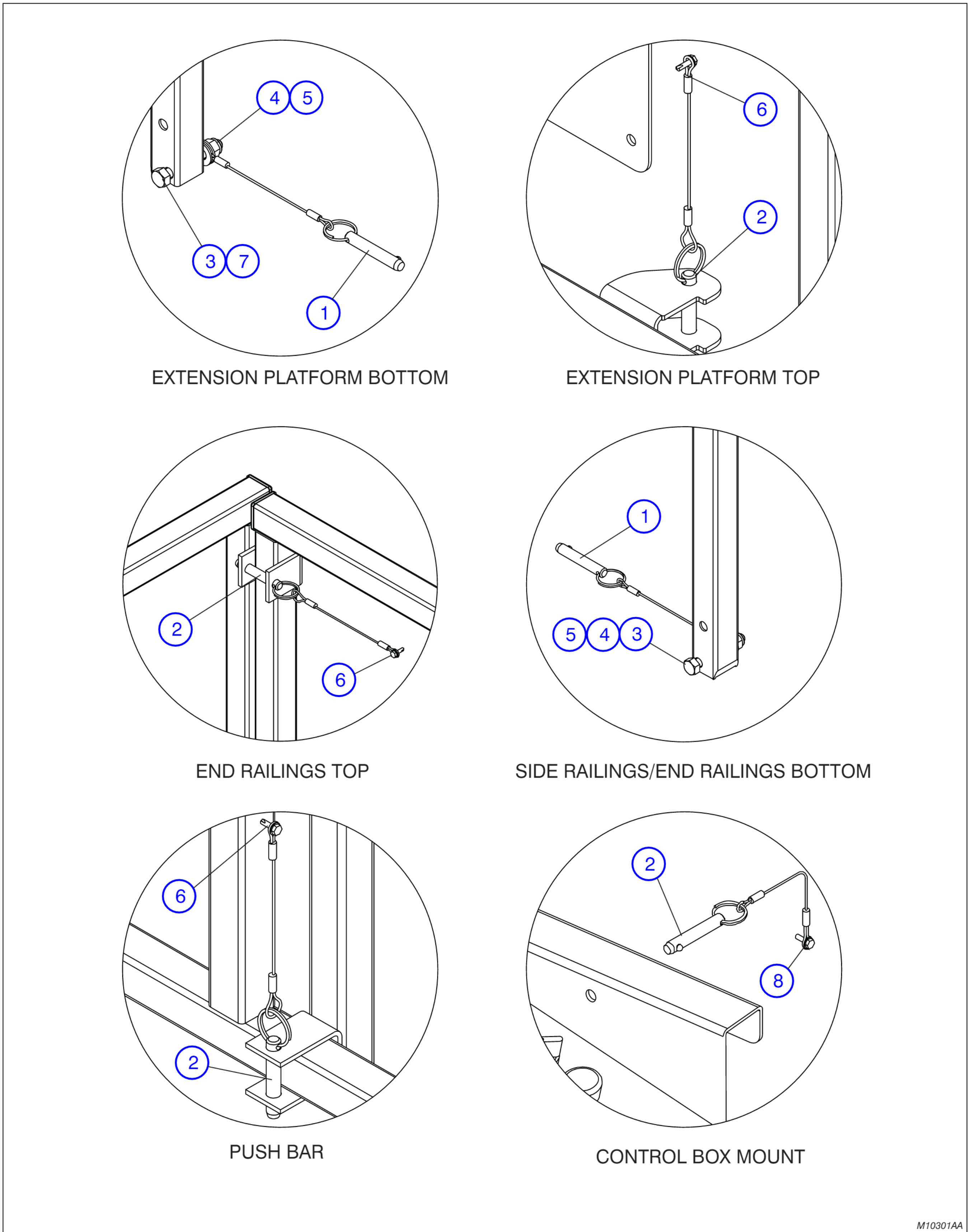
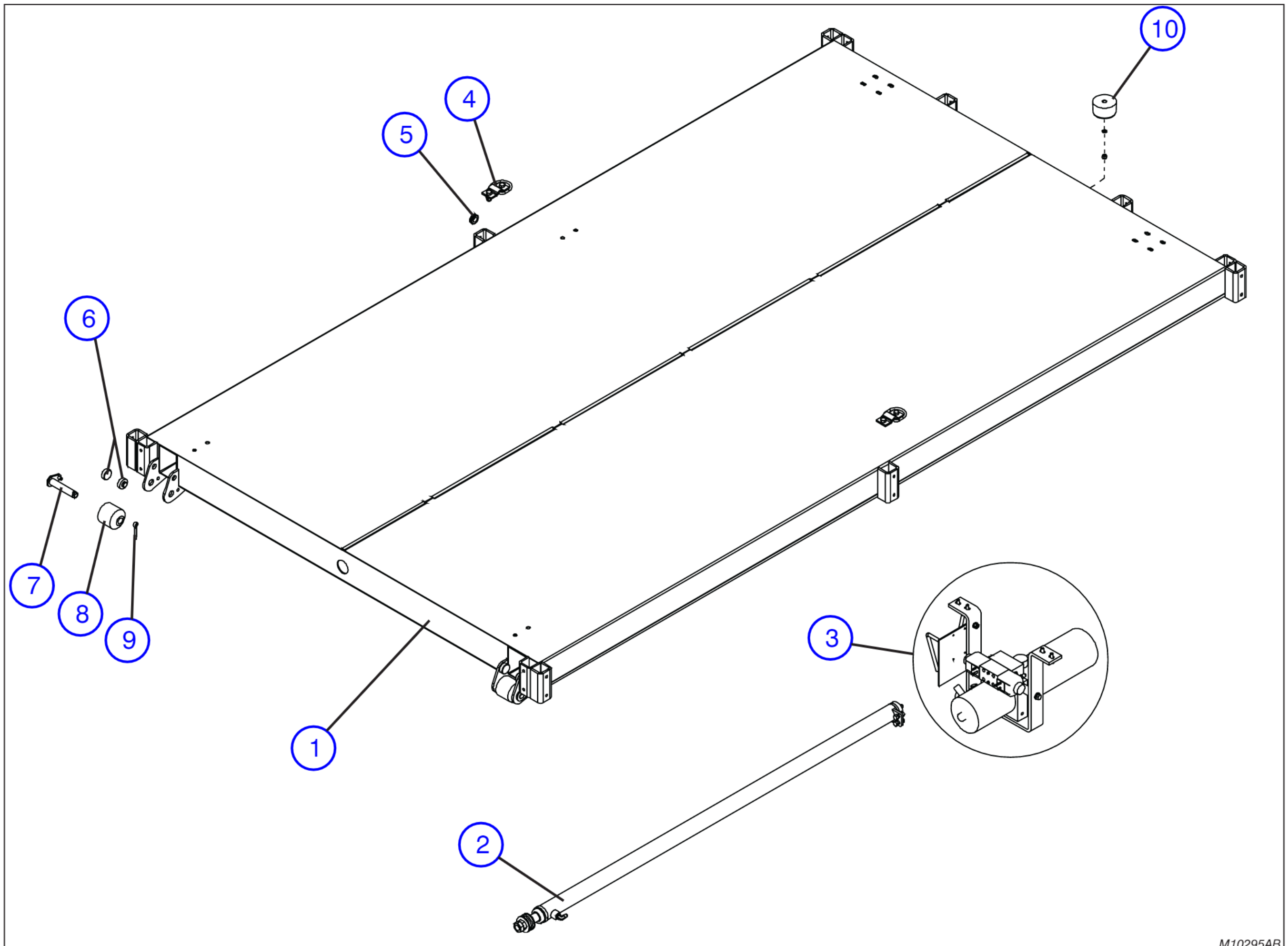


Figure 6.1-5. Pin Assemblies - Quick Release

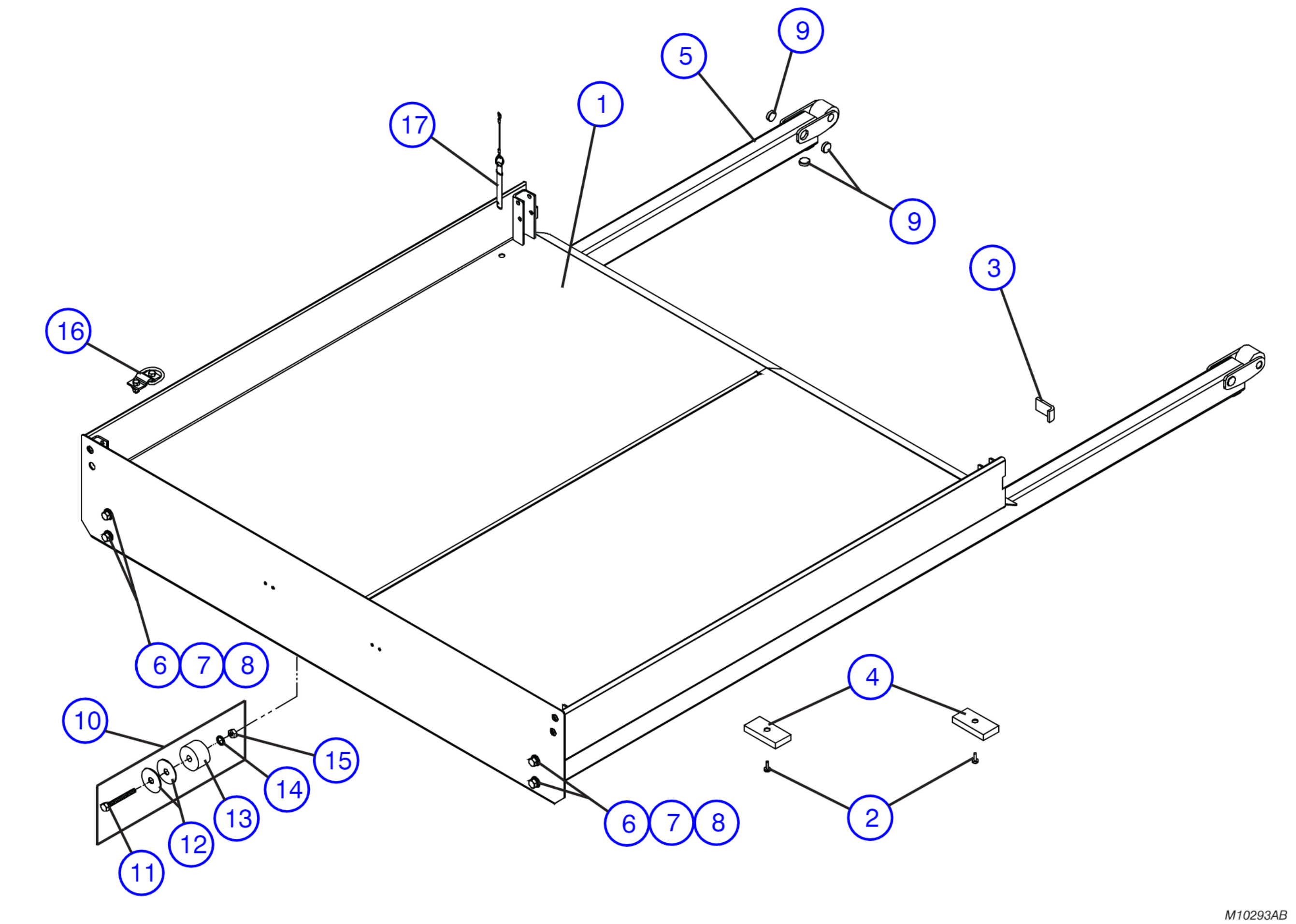
Index No.	Skyjack Part No.	Qty.	Description
1	124548	AR	PIN ASSEMBLY, Quick release large loop
	100509	AR	• PIN, Quick release 3/8” dia x 2” lg.
	105807	AR	• LANYARD, 6” lg.
2	124547	AR	PIN ASSEMBLY, Quick release small loop
	100509	AR	• PIN, Quick release 3/8” dia x 2” lg.
	105807	AR	• LANYARD, 6” lg.
3	103874	AR	BOLT, Hex head 3/8 - 16 x 2 3/4” Grd. 5
4	104606	AR	NUT, Hex head nylon lock 3/8 - 16 Grd. 5
5	103472	AR	WASHER, Flat 3/8”
6	112327	AR	SCREW, Self tapping hex head 3/8 - 18 x 1/2” lg.
7	103874	AR	BOLT, Hex head 3/8 - 16 x 2 3/4” lg. **(Extension platform left rear)**
8	103856	1	BOLT, Hex head 1/4 - 20 x 3/4”

Figure 6.1-6. Main Platform Assembly



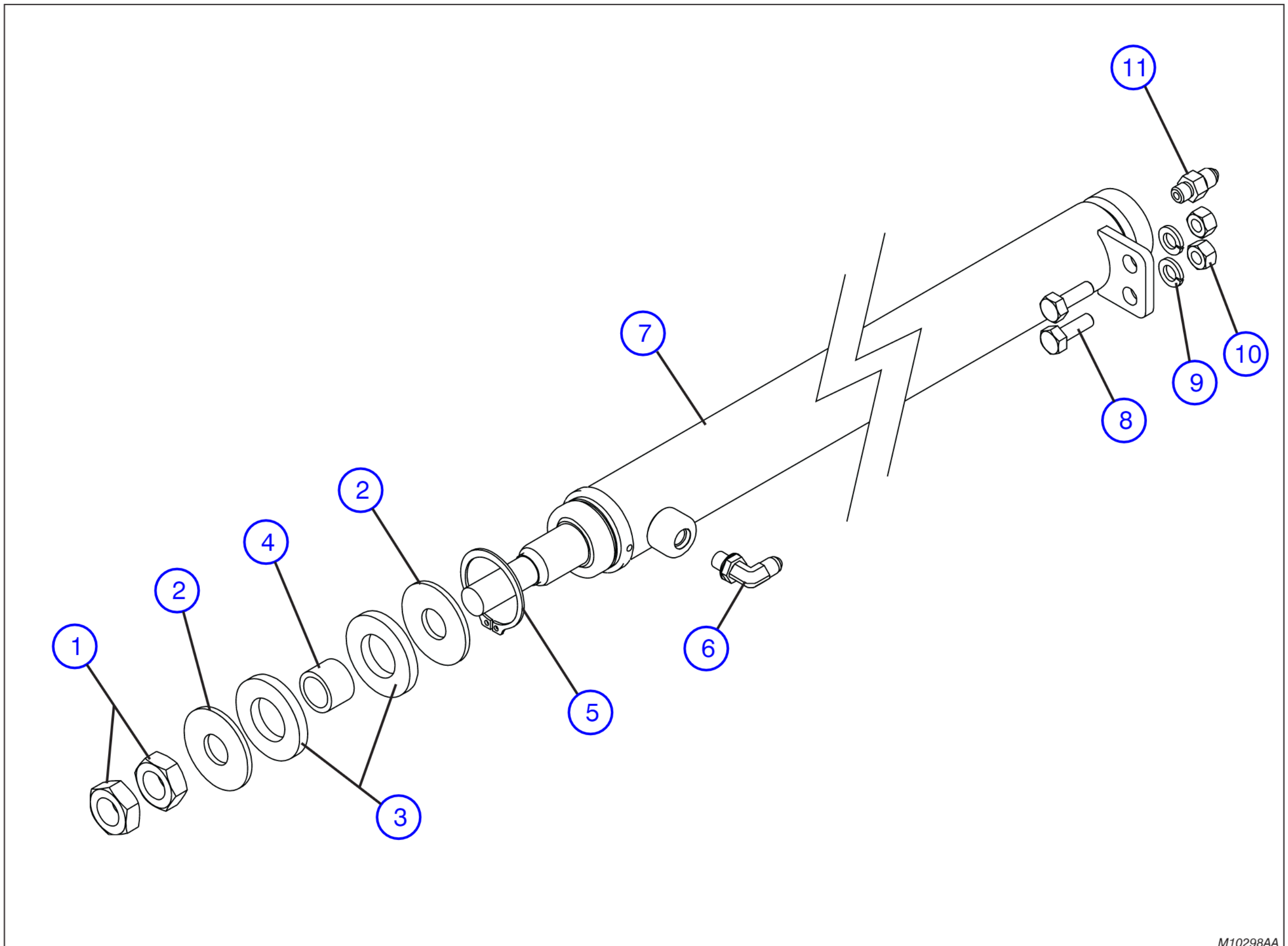
Index No.	Skyjack Part No.	Qty.	Description
1	132270	1	WELDMENT, Main platform assembly
2	(Ref.)	1	HYDRAULIC CYLINDER ASSEMBLY, Extension platform
		-	(For components, refer to Figure 6.1-8)
3	(Ref.)	1	POWER UNIT ASSEMBLY
		-	(For components, refer to Figure 6.1-10)
4	(Ref.)	2	KIT, Safety D-Ring
		-	(For components, refer to Figure 6.1-14)
5	103014	1	GROMMET, Rubber 5/8 - 7/8
6	126258	4	PAD, Slider
7	120958	2	PIN ASSEMBLY, Inside
8	126253	2	ROLLER, Main platform
9	121874	2	PIN, Cotter 1/4” x 1 1/4”
10	105395	1	BUMPER, Scissor
	104000	1	• WASHER, Lock 1/4”
	115649	1	• NUT, Hex Nylon Lock 0.250-20 Grd.5

Figure 6.1-7. Extension Platform Assembly



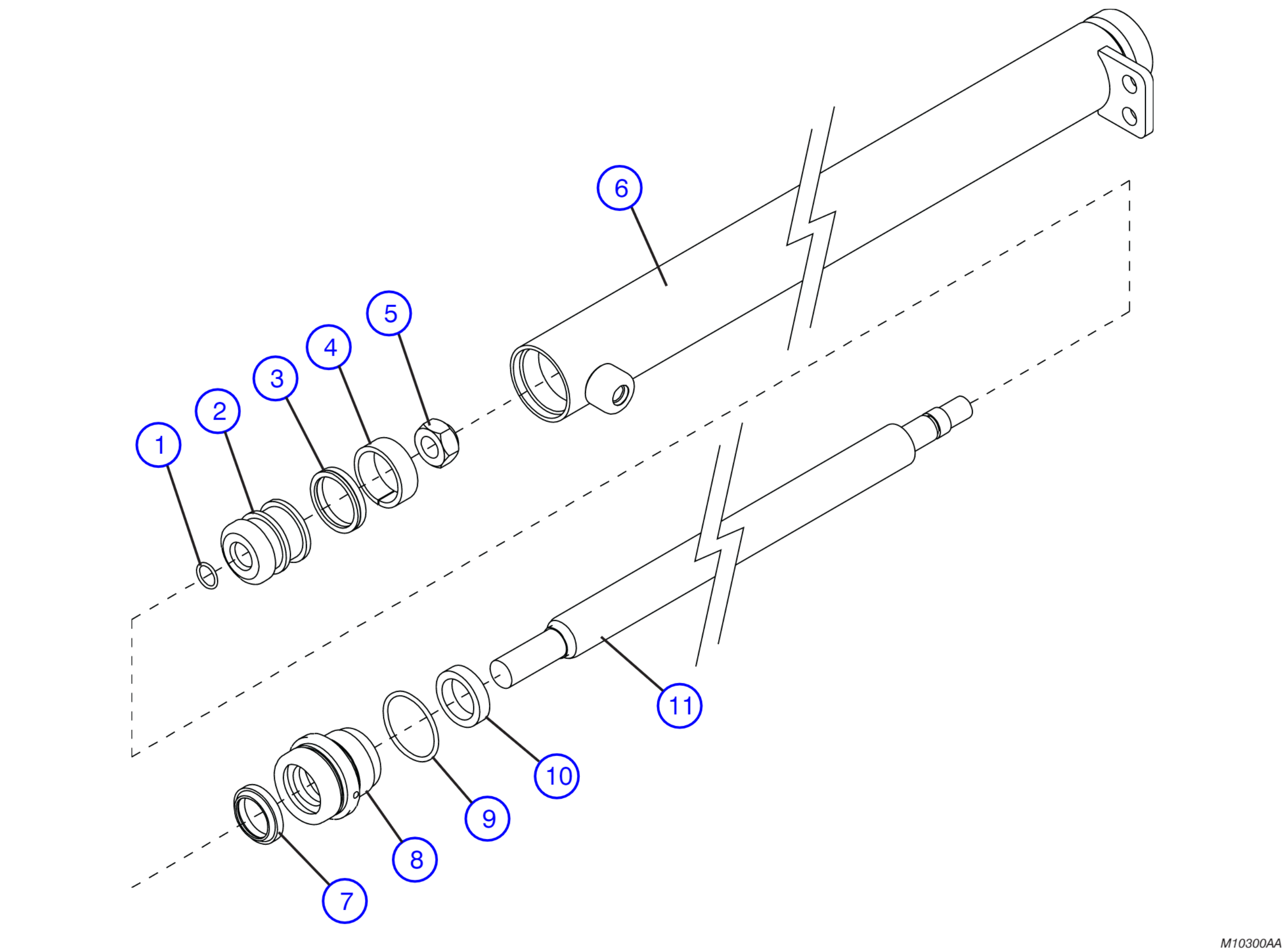
Index No.	Skyjack Part No.	Qty.	Description
1	126148	1	WELDMENT, Extension platform assembly
2	103632	AR	SCREW, Hex head self tapping 1/4 - 14 x 3/4” lg.
3	126285	2	STOP, Extension platform
4	128354	3	PAD, Slider
(Ref)	126217	1	TUBE ASSEMBLY, Extension platform
5	126189	2	• TUBE, Extension platform
	195411	1	• • PIN, Extension deck
	100141	1	• • ROLLER, Rear
	195575	1	• • WELDMENT, Extension deck tube
6	103911	AR	• BOLT, Hex head 1/2 - 13 x 1” Grd. 5
7	103468	AR	• WASHER, Flat 1/2”
8	103470	AR	• WASHER, Lock 1/2”
9	110425	6	• PAD, Extension platform slider
10	(Ref.)	-	BUMPER ASSEMBLY (Powered Extension Deck Only)
11	103860	AR	• BOLT, Hex Head 1/4”- 20 x 1 3/4” Grd. 5
12	131952	4	• SPACER, Bumper
13	105395	1	• BUMPER, Scissor
14	104000	AR	• WASHER, Lock 1/4”
15	103980	AR	• NUT, Hex Head 1/4”-20 Grd. 5
16	(Ref.)	2	KIT, Safety D-Ring
		-	(For components, refer to Figure 6.1-14)
17	126974	1	PIN, Large detent

Figure 6.1-8. Powered Extension Cylinder Mounting Hardware



Index No.	Skyjack Part No.	Qty.	Description
1	106450	2	NUT, Hex head jam 3/4-16
2	113304	2	WASHER, Plated steel
3	113305	2	ISOLATOR, Noise
4	125664	1	SPACER
5	106446	1	RING, Retaining
6	113348	1	FITTING, Elbow 90°
7	(Ref.)		CYLINDER ASSEMBLY, 5' Power extension platform (For components, refer to Figure 6.1-9)
8	103473	2	BOLT, Hex head 3/8-16 x 1" lg.
9	103999	2	WASHER, Lock 3/8
10	103978	2	NUT, Hex head 3/8-16
11	126346	1	FITTING, Straight #6

Figure 6.1-9. Powered Extension Cylinder Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	126421	1	CYLINDER ASSEMBLY, 5' Power extension platform
*1	110976	1	SEAL, O-Ring
2	117942	1	PISTON, Cylinder
*3	103825	1	SEAL, Piston
*4	106452	1	SEAL, Piston wear
5	103830	1	NUT, Crownlock 5/8 - 11
6	126422	1	WELDMENT, Cylinder
*7	106449	1	SEAL, Rod wiper
8	125698	1	GLAND, Cylinder
*9	120436	1	SEAL, O-Ring
*10	108798	1	SEAL, Rod
11	126423	1	ROD, Cylinder
*	107396	AR	KIT, Seal repair * Part of Seal Kit

Figure 6.1-10. Powered Extension Power Unit Assembly

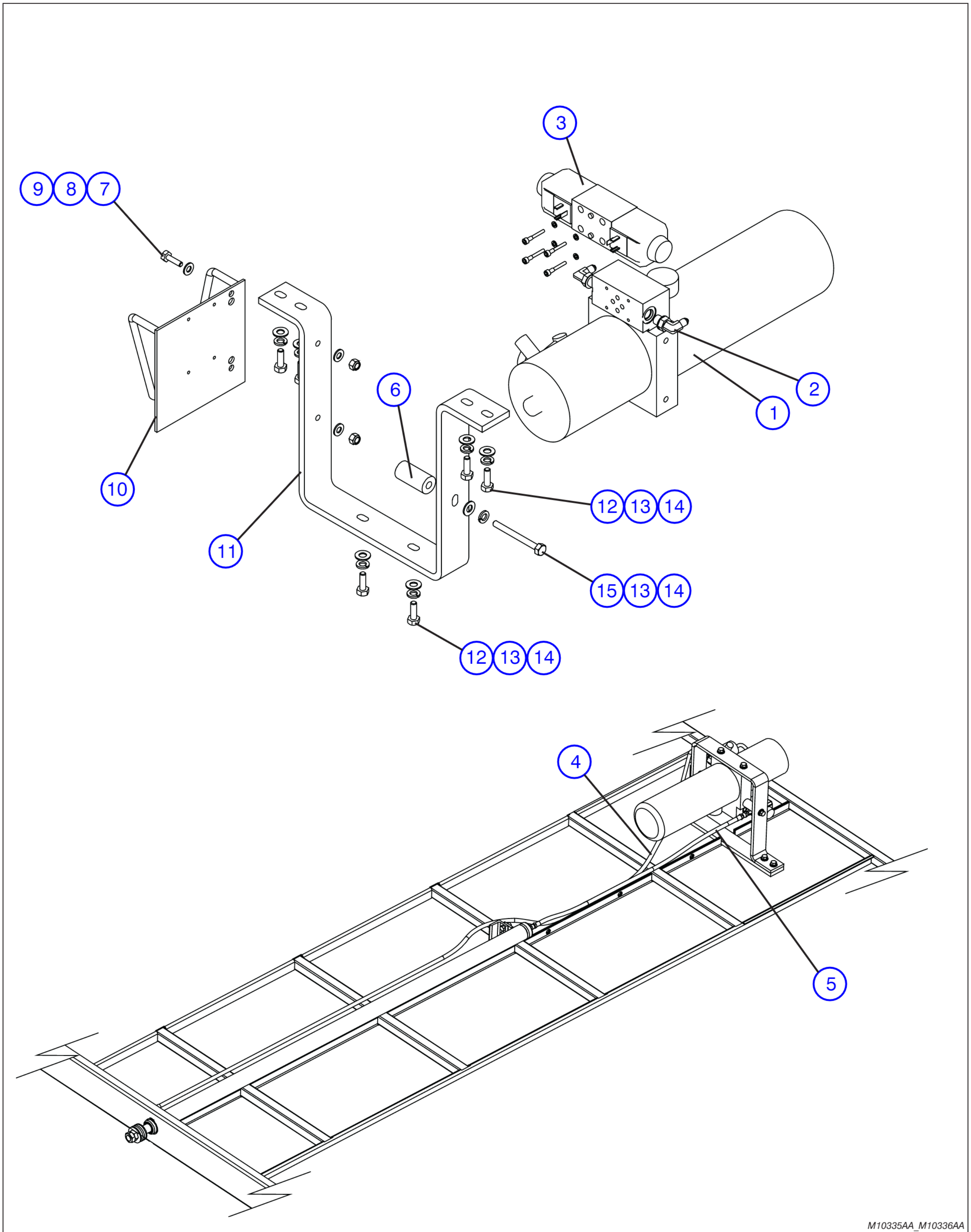
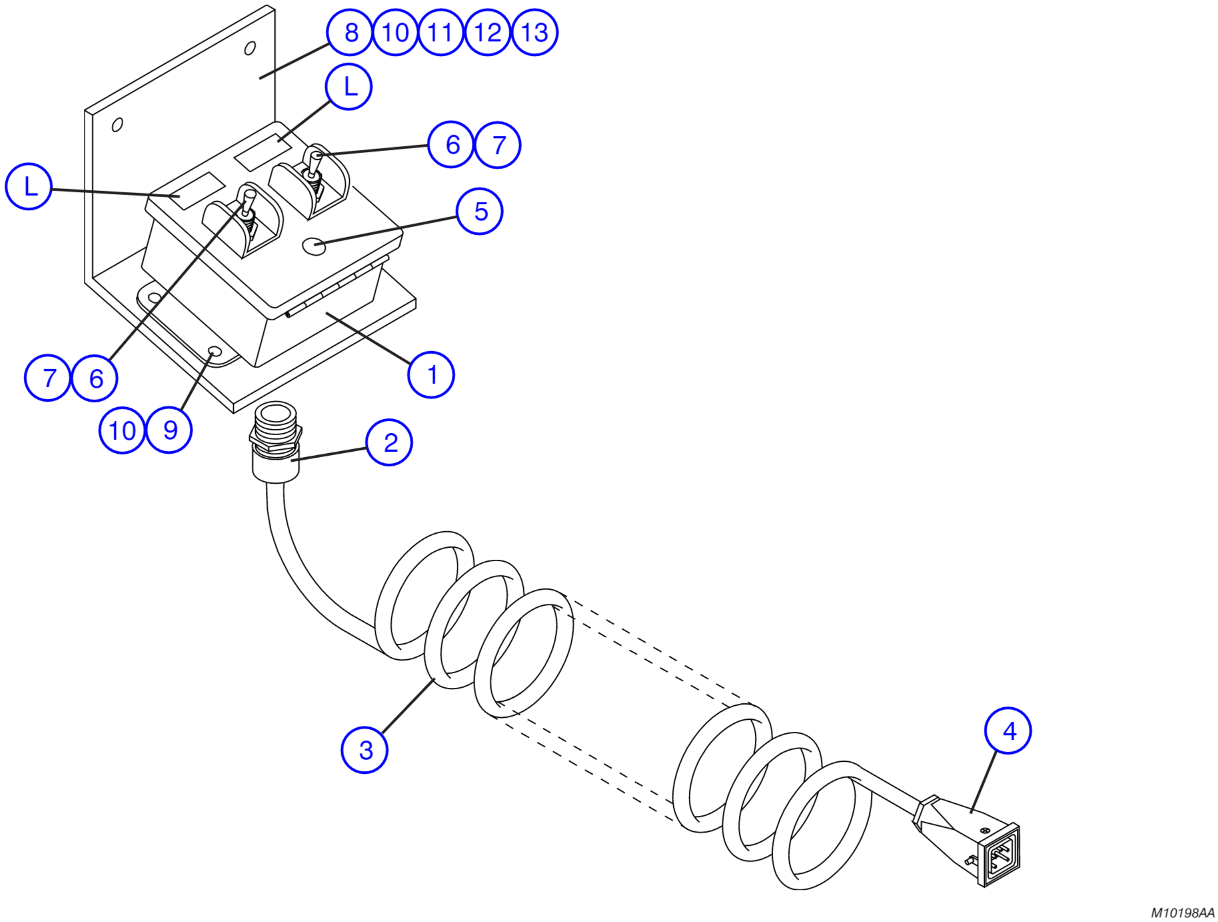


Figure 6.1-10. Powered Extension Power Unit Assembly

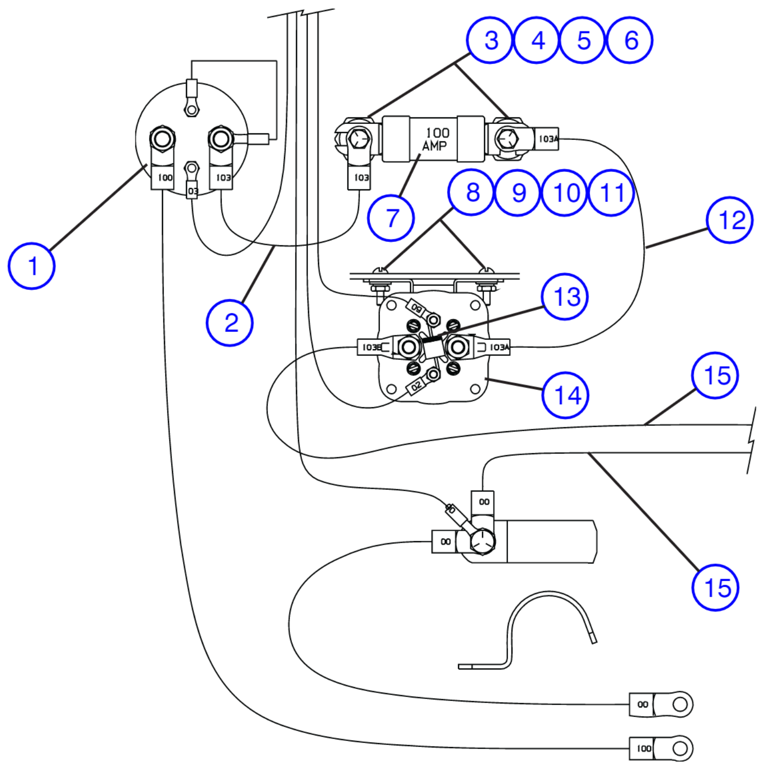
Index No.	Skyjack Part No.	Qty.	Description
1	111289	1	POWER UNIT ASSEMBLY, 12 Volt (J.S. Barnes)
	300243	1	• CAP, Filler/breather
	113173	1	• PUMP, Hydraulic 1.2 gpm
	300248	1	• MOTOR, 12 VDC
	113172	AR	• • BRUSH SET, Motor
	300242	1	• • SOLENOID, 12 VDC
	111290	1	• BLOCK, Manifold
2	114578	2	FITTING, 6-6 O-ring 90° elbow
3	128797	1	VALVE ASSEMBLY, "Hytos"
	128318	1	• VALVE, Directional spool
	128321	2	• • COIL, 12 Volt Spool Valve
	103920	4	• BOLT, Socket head #10-24 x 2" Grd. 5
	104185	4	• WASHER, Lock #10
4	111372	1	HOSE, 1/4 x 88, 2 #6 STR. Swivel
5	104487	1	HOSE, 1/4 x 32, 2 #6 STR. Swivel
6	111586	1	SPACER, Power deck power pack
7	103864	2	BOLT, Hex Head 5/16-18 x 1.00" Grd. 5
8	103984	2	NUT, Hex Nylon Lock 1/16"-18 Grd. 5
9	103996	4	WASHER, Flat 1/16"
10	122169	1	BRACKET, Power deck PCB SJ
11	110583	1	BRACKET, Power deck power pack
12	103473	6	BOLT, Hex head 3/8-16 x 1" Grd. 5
13	103999	7	WASHER, Lock 3/8"
14	103472	7	WASHER, Flat 3/8"
15	103916	1	BOLT, Hex Head 3/8-16 x 3 1/4" Grd. 5

Figure 6.1-11. 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
	103567	1	• • HOUSING, Base with Strain relief connector
	132790	1	• • • HOUSING
	132110	1	• • • CONNECTOR, Strain relief
	103569	1	• • INSERT, 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
9	103856	4	BOLT, Hex head 1/4-20 x .75” Grd. 5
10	104000	6	WASHER, 1/4” Lock
11	103995	2	WASHER, 1/4” Flat
12	103980	2	NUT, Hex head 1/4-20 Grd. B
13	103860	2	BOLT, Hex head 1/4-20 x 1.75” Grd. 5
L	(Ref.)	-	LABELS
		-	(Refer to Figure 6.8-3)

Figure 6.1-12. Powered Extension - Base Cabinet Electrical Connections



Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	MAIN DISCONNECT (For components, refer to Figure 6.4-6)
2	128587	1	CABLE ASSEMBLY, #4 Welding
	103148	4”	• CABLE, #4 Welding
3	103068	2	INSULATOR, Fuse
4	103855	4	BOLT, Hex head 1/4-20 x 0.5” Grd. 5
5	104000	4	WASHER, Lock 1/4”
6	103995	2	WASHER, Flat 1/4”
7	111282	1	FUSE, 100 Amp
8	104698	6	BOLT, #10-32 x 0.75” machine
9	104185	6	WASHER, #10 Lock
10	104694	6	WASHER, #10 Flat
11	104003	2	NUT, Machine #10-32 Grd. B
12	128589	1	CABLE ASSEMBLY, #4 Welding
	103148	10”	• CABLE, #4 Welding
13	102921	1	DIODE
14	111787	1	CONTACTOR, 12V S.P.N.O.
15	(Ref.)	-	CABLE ASSEMBLIES, Base cabinet to power unit contactor (For components, refer to Figure 6.1-13)

Figure 6.1-13. Powered Extension - Platform Electrical Connections

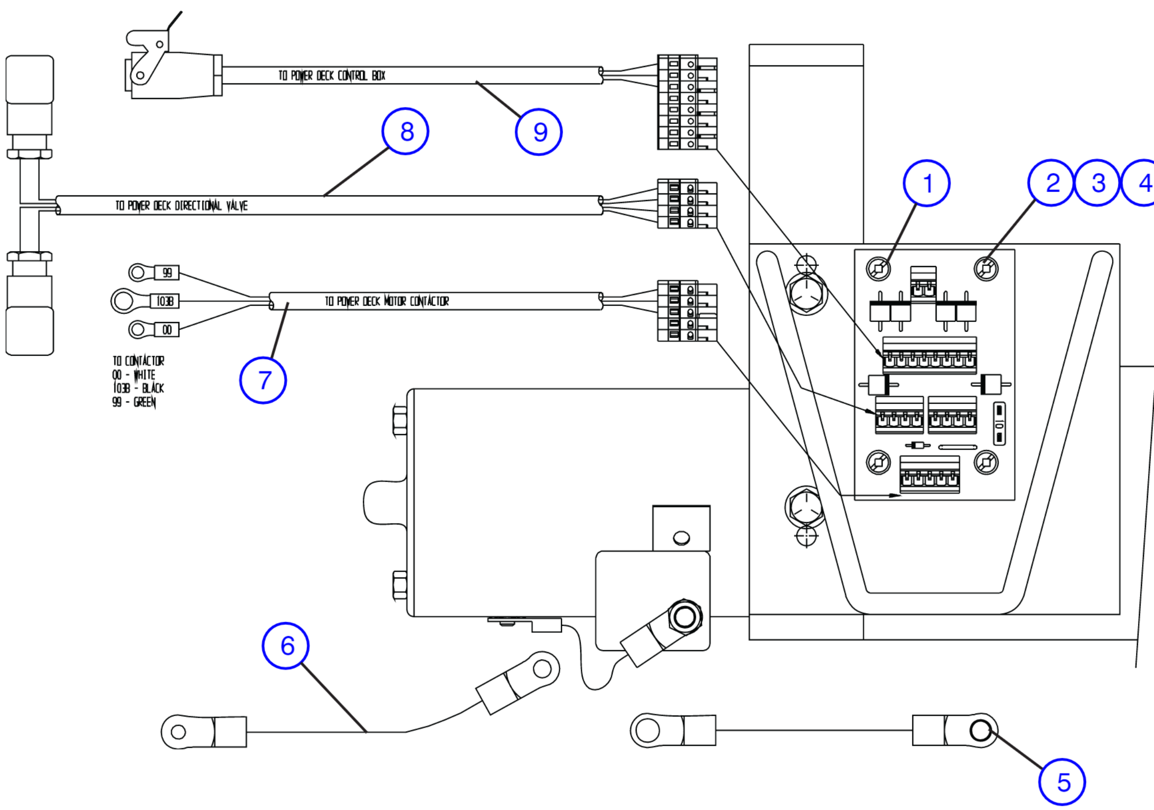


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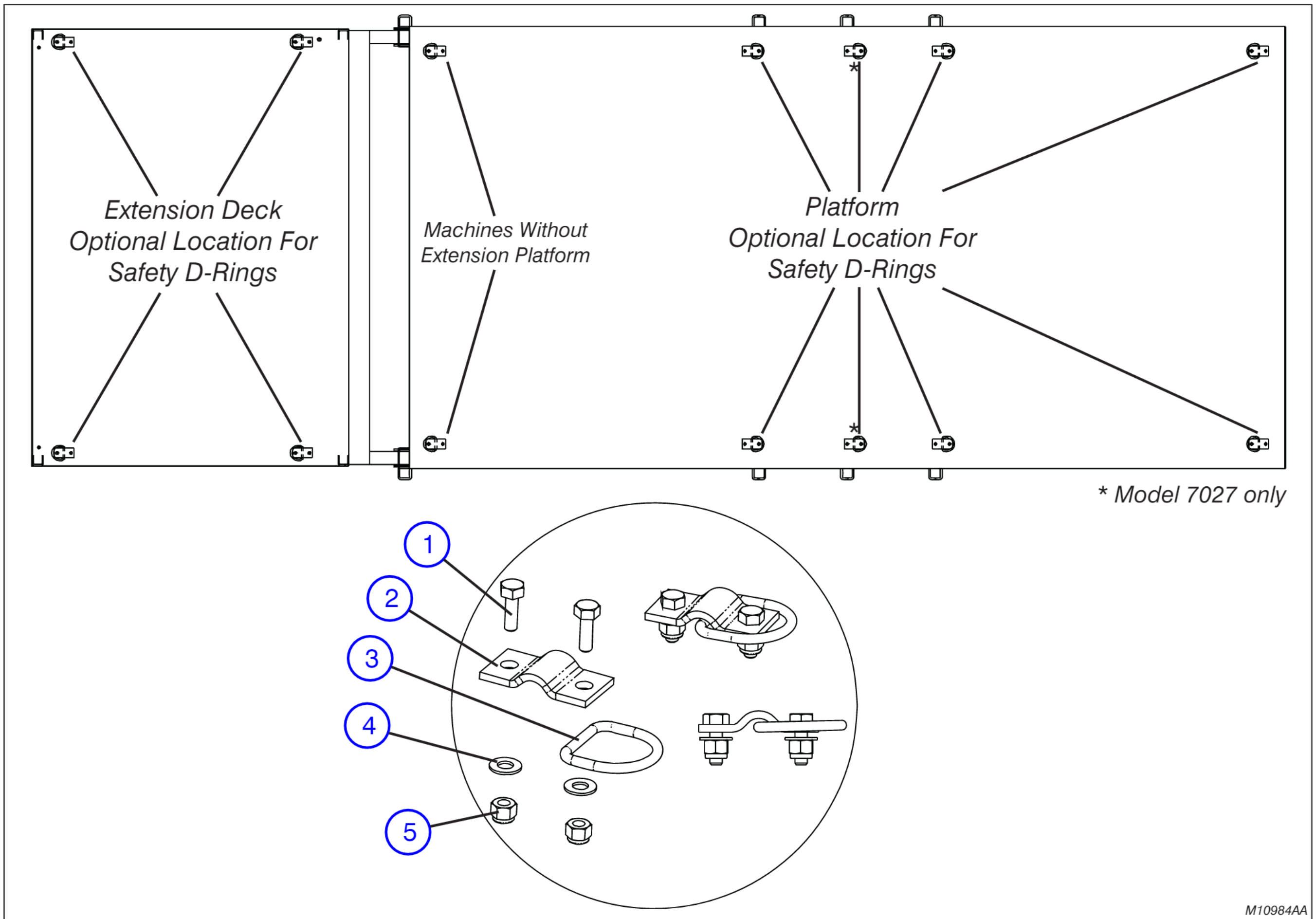
Figure 6.1-13. Powered Extension - Platform Electrical Connections

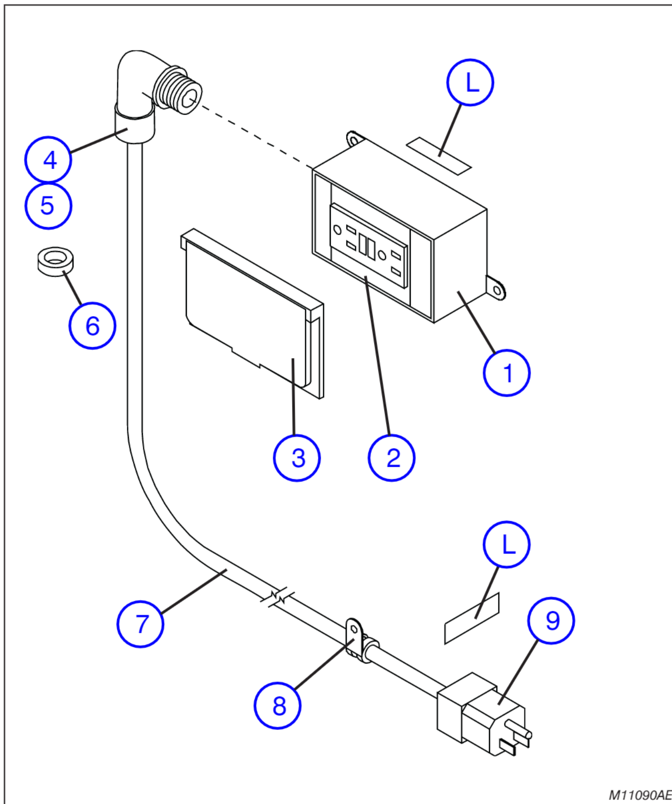
Index No.	Skyjack Part No.	Qty.	Description
1	120844	1	BOARD, Power deck option PC
2	104698	4	BOLT, #10-32 x 0.75" machine
3	104185	4	WASHER, #10 Lock
4	104694	4	WASHER, #10 Flat
5	128617	1	CABLE ASSEMBLY, #4 Welding, contactor to cabinet ground **(7127)**
	103148	552"	• CABLE, #4 Welding
	102938	1	• TERMINAL, 3/8" Battery
	102950	1	• TERMINAL, 5/16" Battery
	127058	1	CABLE ASSEMBLY, #4 Welding, contactor to cabinet ground **(7135)**
	103148	672"	• CABLE, #4 Welding
	102938	1	• TERMINAL, 3/8" Battery
	102950	1	• TERMINAL, 5/16" Battery
	132944	1	CABLE ASSEMBLY, #4 Welding, contactor to cabinet ground **(8243)**
	103148	792"	• CABLE, #4 Welding
	102938	1	• TERMINAL, 3/8" Battery
	102950	1	• TERMINAL, 5/16" Battery
	132948	1	CABLE ASSEMBLY, #4 Welding, contactor to cabinet ground **(8850)**
	103148	912"	• CABLE, #4 Welding
	102938	1	• TERMINAL, 3/8" Battery
	102950	1	• TERMINAL, 5/16" Battery
6	128618	1	CABLE ASSEMBLY, #4 Welding, contactor to contactor **(7127)**
	103148	552"	• CABLE, #4 Welding
	102951	1	• TERMINAL, 1/4" Battery
	102950	1	• TERMINAL, 5/16" Battery
	127057	1	CABLE ASSEMBLY, #4 Welding, contactor to contactor **(7135)**
	103148	672"	• CABLE, #4 Welding
	102951	1	• TERMINAL, 1/4" Battery
	102950	1	• TERMINAL, 5/16" Battery
	132946	1	CABLE ASSEMBLY, #4 Welding, contactor to contactor **(8243)**
	103148	792"	• CABLE, #4 Welding
	102951	1	• TERMINAL, 1/4" Battery
	102950	1	• TERMINAL, 5/16" Battery
	132947	1	CABLE ASSEMBLY, #4 Welding, contactor to contactor **(7127)**
	103148	912"	• CABLE, #4 Welding
	102951	1	• TERMINAL, 1/4" Battery
	102950	1	• TERMINAL, 5/16" Battery
7	122154	1	HARNESS, SJ Power deck pump contactor
	119897	1	• CONNECTOR, PC board 5 pin plug
	103257	24"	• CABTIRE, 18/3 SJ
8	122155	1	HARNESS, Power deck directional valve
	119896	1	• CONNECTOR, PC board 4 pin plug
	119825	2	• CONNECTOR, Solenoid w/diode
9	127059	1	HARNESS, Power deck control box
	119900	1	• CONNECTOR, PC board 8 pin plug
	103257	228"	• CABTIRE, 18/3
	107711	1	• CONNECTOR, 5 Pin female
	103568	1	• • HOUSING, with Strain relief connector
	132789	1	• • • HOUSING
	132110	1	• • • CONNECTOR, Strain relief
	103570	1	• • INSERT, Female

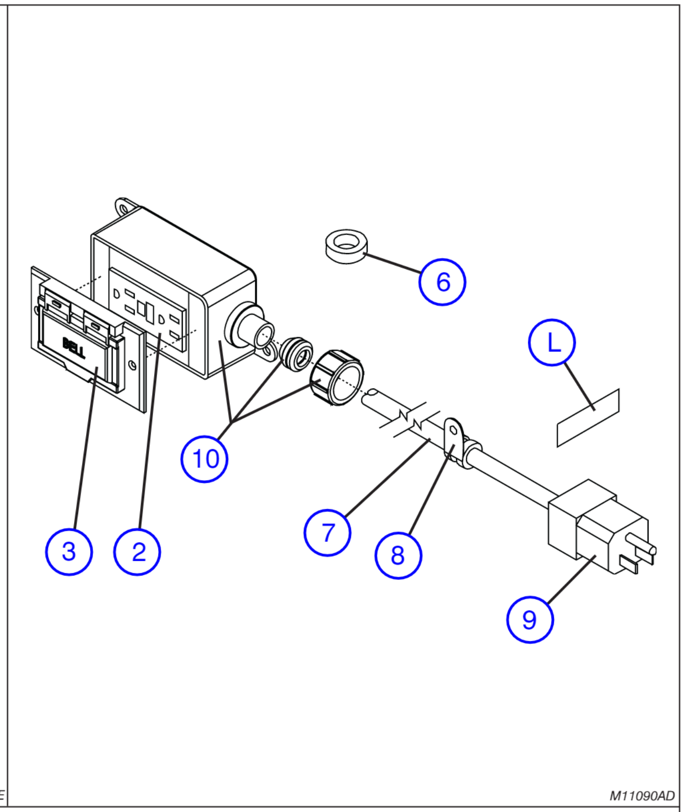
Figure 6.1-14. Safety D-Ring Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	125584	-	SAFETY D-RING KIT
1	103473	2	• BOLT, Hex head 3/8-16 x 1” Grd. 5
2	113122	1	• BRACKET, Safety ring
3	114989	1	• D-RING, Safety
4	103472	2	• WASHER, Flat 3/8”
5	104606	2	• NUT, Hex 3/8-16 Grd. 5 nylon lock

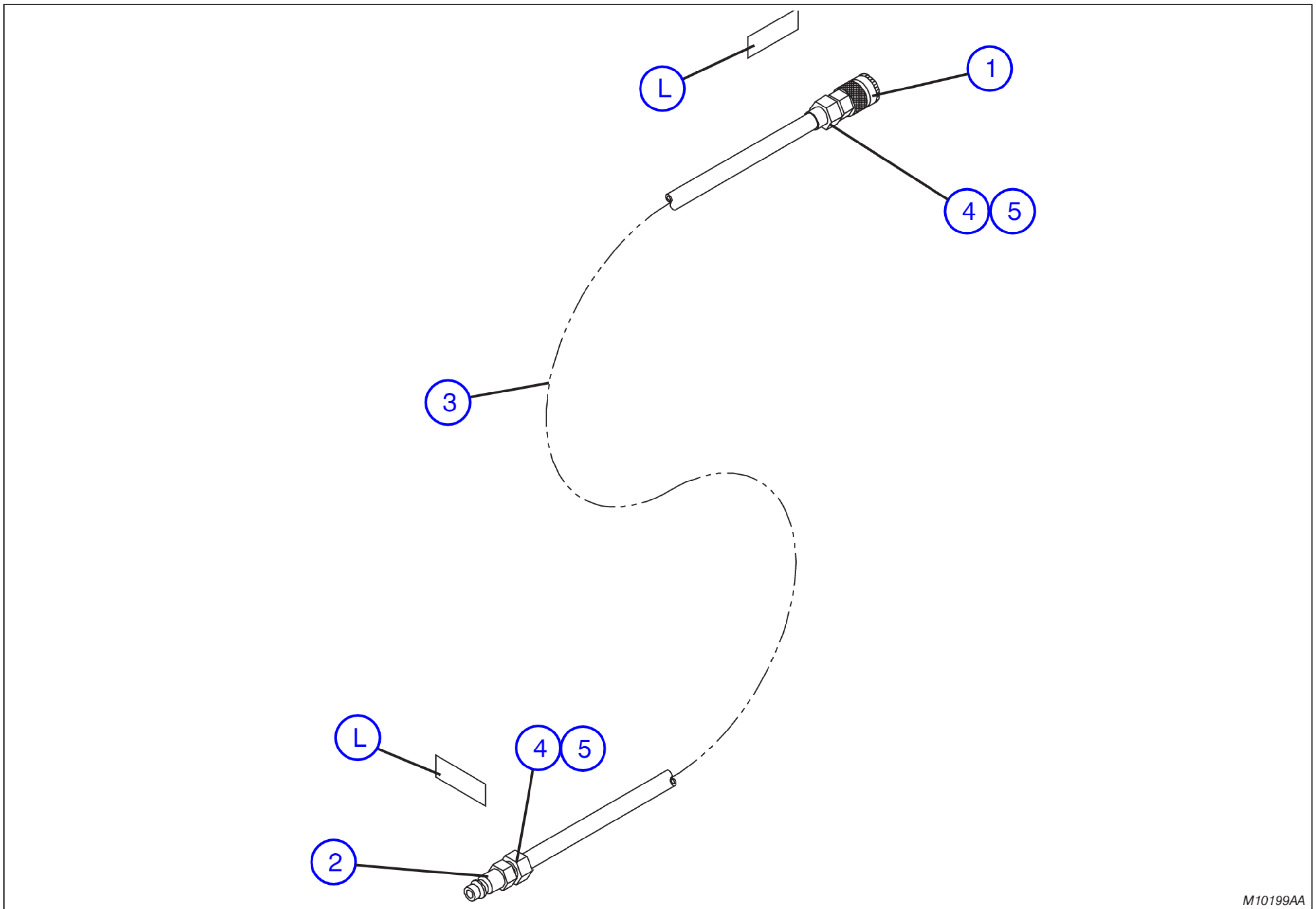
Figure 6.1-15. AC Outlet On Platform





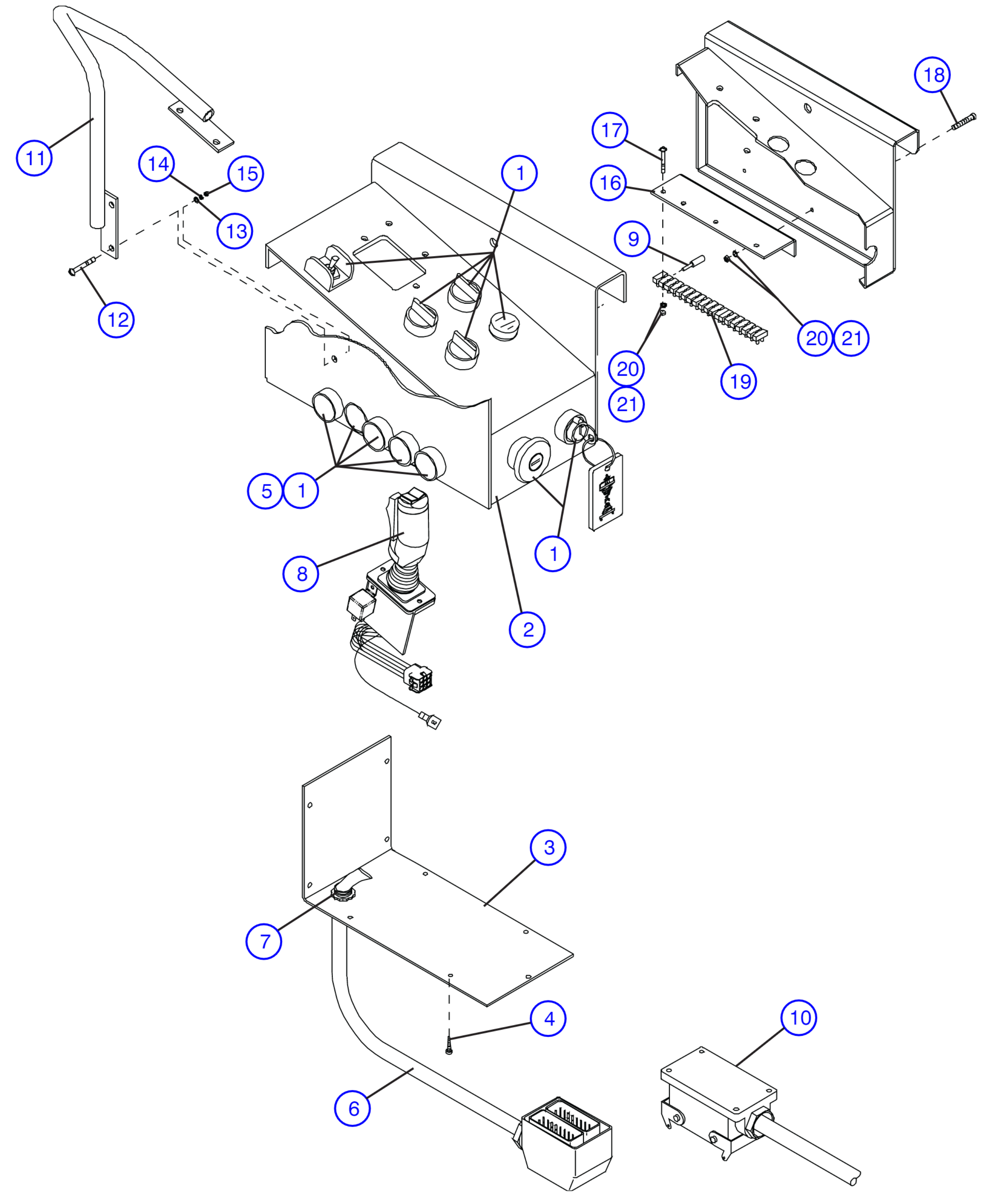
Index No.	Skyjack Part No.	Qty.	Description
1	131999	1	BOX, G.F.C.I. Receptacle
	132042	2	• RIVET, Pop 1/4" dia.
2	109698	1	RECEPTACLE, 125V G.F.C.I.
3	109699	1	PLATE, Weatherproof cover
4	103035	1	ELBOW, 90° Strain relief
5	123350	1	NUT LOCK, strain relief
6	103014	2	GROMMET, 7/8" Rubber
7	105269	492"	CABTIRE, 14/3 - Model 7127 **(ANSI & CSA)**
		650"	CABTIRE, 14/3 - Model 7135 **(ANSI & CSA)**
		600"	CABTIRE, 14/3 - Model 7127 **(ANSI & CSA)(Models w/ Generator or Inverter)**
		720"	CABTIRE, 14/3 - Model 7135 **(ANSI & CSA)(Models w/ Generator or Inverter)**
		696"	CABTIRE, 14/3 - Model 8243 **(ANSI & CSA)**
		816"	CABTIRE, 14/3 - Model 8850 **(ANSI & CSA)**
		840"	CABTIRE, 14/3 - Model 8243 **(ANSI & CSA)(Models w/ Generator or Inverter)**
		960"	CABTIRE, 14/3 - Model 8850 **(ANSI & CSA)(Models w/ Generator or Inverter)**
	117542	564"	CABTIRE, 14/3 - Model 7127 **(CE)**
		720"	CABTIRE, 14/3 - Model 7135 **(CE)**
		696"	CABTIRE, 14/3 - Model 8243 **(CE)**
		816"	CABTIRE, 14/3 - Model 8850 **(CE)**
		600"	CABTIRE, 14/3 - Model 7127 **(CE)(Models w/generator or inverter)**
		720"	CABTIRE, 14/3 - Model 7135 **(CE)(Models w/generator or inverter)**
8	114682	AR	CLIP, G8
9	104208	1	PLUG, 3-Prong Male
10	136328	1	BOX, Outlet with fitting
	134140	2	• RIVET, Open end dome 1/4" dia.
L	(Ref.)	-	LABEL, AC Outlet (Refer to Figure 6-8-3)

Figure 6.1-16. Air Hose To Platform Option



Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	1	HOSE ASSEMBLY, Air to platform
1	107882	1	• FITTING, Female disconnect
2	107883	1	• FITTING, Male disconnect
3	107884	AR	• HOSE, Air 1/2" ID
4	109050	2	• FITTING, Hose barb
5	107886	2	• CLAMP, Hose
L	138212	2	LABEL, Connect air here

Figure 6.2-1. Control Box Assembly - Hardware



Note: ***For CE machines equipped with Load Sensing System, refer to Load Sensing System Supplement Manual.***

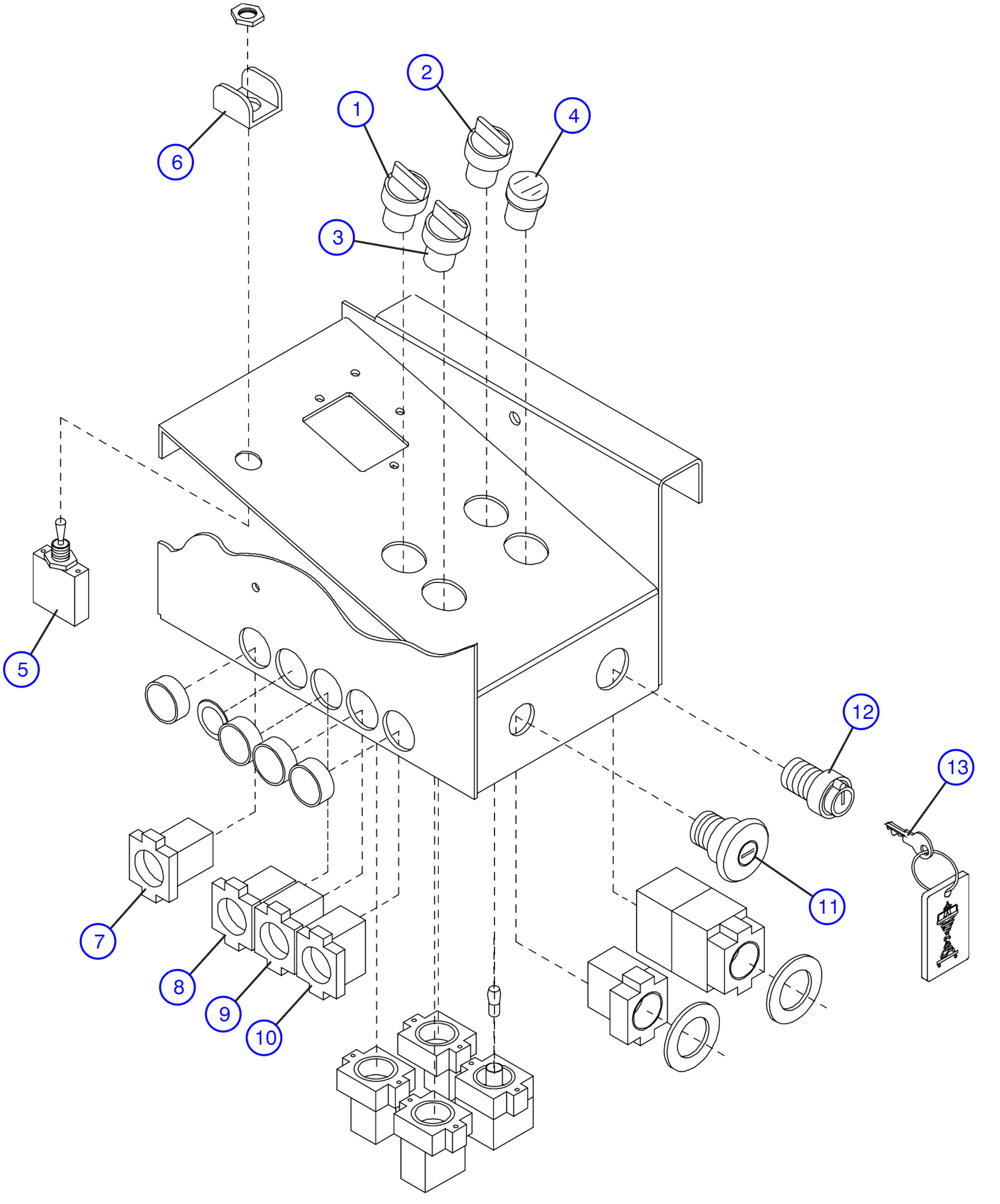
Figure 6.2-1. Control Box Assembly - Hardware

Index No.	Skyjack Part No.	Qty.	Description
-	114492	-	ASSEMBLY, Complete Control Box **(ANSI/CSA)**
-	130766	-	ASSEMBLY, Complete Control Box **(CE)**
1	(Ref.)	-	SWITCHES, Control
			(For components, refer to Figure 6.2-2)
2	128887	1	WELDMENT, Control box
3	128891	1	COVER, Control box bottom
4	112327	10	SCREW, Self-tapping #8-18 x 1/2” lg.
5	102956	AR	PLUG, 7/8” Hole **(If Equipped)**
6	115283	1	CABLE ASSEMBLY, Control box - 32 pole
	115274	88”	• CABLE, 18/30
	114475	1	• CONNECTOR ASSEMBLY, 32 pole
	114466	1	• • HOUSING w/ relief connector
	132788	1	• • • HOUSING
	132109	1	• • • CONNECTOR, Strain Relief
	114469	1	• • INSERT, Male (Pins 1-16)
	114470	1	• • INSERT, Male (Pins 17-32)
7	300788	1	STRAIN RELIEF, Straight 1/2”
8	(Ref.)	1	CONTROLLER ASSEMBLY, Drive/steer
			(For components, refer to Figure 6.2-3)
9	115401	AR	FERRULE, 18 Gauge
10	133311	1	CABLE ASSEMBLY, Scissor control 32 Pole **(Model 7127)**
	133312	1	CABLE ASSEMBLY, Scissor control 32 Pole **(Model 7135)**
	132302	1	CABLE ASSEMBLY, Scissor control 32 Pole **(Model 8243)**
	132952	1	CABLE ASSEMBLY, Scissor control 32 Pole **(Model 8850)**
	114476	1	• ASSEMBLY, 32 Pole female connector
	114465	1	• • HOUSING w/ relief connector
	132787	1	• • • HOUSING
	132109	1	• • • CONNECTOR, Strain Relief
	114467	1	• • INSERT, Female (Pins 1-16)
	114468	1	• • INSERT, Female (Pins 17-32)
	114475	1	• ASSEMBLY, 32 Pole male connector
	114466	1	• • HOUSING w/ relief connector
	132788	1	• • • HOUSING
	132109	1	• • • CONNECTOR, Strain Relief
	114469	1	• • INSERT, Male (Pins 1-16)
	114470	1	• • INSERT, Male (Pins 17-32)
	115274	612”	• CABLE, Control 18/30 **(Model 7127)**
	115274	732”	• CABLE, Control 18/30 **(Model 7135)**
	115274	852”	• CABLE, Control 18/30 **(Model 8243)**
	115274	972”	• CABLE, Control 18/30 **(Model 8850)**
	115401	60	• FERRULE, 18 Gauge
			Part list continued on the following page.

Figure 6.2-1. Control Box Assembly - Hardware (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
11	124153	1	GUARD, Joystick
12	103962	4	SCREW, Machine #10 - 32 x 1/2”
13	104694	2	WASHER, Flat #10 S.A.E.
14	104185	4	WASHER, Lock #10 nom
15	104003	2	NUT, Machine #10 - 32 Grd. B
16	124275	1	BRACKET, Terminal block mount
17	103955	4	SCREW, Machine #6-32 x .75
18	114678	2	SCREW, Machine #6-32 x .5”
19	103012	1.5	STRIP, Terminal block
20	103985	6	NUT, Machine #6-32
21	106099	6	WASHER, Lock #6

Figure 6.2-2. Control Box Assembly - Switches



Note: ***For CE machines equipped with Load Sensing System, refer to Load Sensing System Supplement Manual.***

Figure 6.2-2. Control Box Assembly - Switches

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	1	SWITCH ASSEMBLY, Low/High Range select
	102836	1	• HEAD, Select switch (2 position)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact
	100149	1	• WASHER, Flat
2	(Ref.)	1	SWITCH ASSEMBLY, Low/High Throttle Select
	102836	1	• HEAD, Select switch (2 position)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact
	100149	1	• WASHER, Flat
3	(Ref.)	1	SWITCH ASSEMBLY, Up/Down Selector
	102837	1	• HEAD, Selector switch (momentary)
	103100	1	• BASE, Contact Block
	103141	2	• SWITCH, N.O. Contact
	100149	1	• WASHER, Flat
4	(Ref.)	1	LIGHT ASSEMBLY, Power indicator
	103202	1	• LENS, Red
	102671	1	• BASE, Indicator light
	103221	1	• BULB, 12 Volt
5	114373	1	SWITCH, Torque toggle
6	111181	1	GUARD, Toggle switch
7	(Ref.)	1	SWITCH ASSEMBLY, Horn
	102851	1	• HEAD, Push-button switch (black)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact
8	(Ref.)	1	SWITCH ASSEMBLY, Glow Plug/Choke
	102851	1	• HEAD, Push-button switch (black)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact

Part list continued on the following page.

Figure 6.2-2. Control Box Assembly - Switches (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
9	(Ref.)	1	SWITCH ASSEMBLY, Start
	102851	1	• HEAD, Push-button switch (black)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact
10	(Ref.)	1	SWITCH ASSEMBLY, Lift Enable
	108854	1	• HEAD, Push-button switch (green)
	103100	1	• BASE, Contact Block
	103141	1	• SWITCH, N.O. Contact
11	(Ref.)	1	SWITCH ASSEMBLY, Emergency stop
	102769	1	• HEAD, Stop switch
	103100	1	• BASE, Contact Block
	103225	AR	• SWITCH, N.C. Contact
	100149	1	• WASHER, Flat
12	(Ref.)	1	SWITCH ASSEMBLY, Key select
	102753	1	• HEAD, 3-Position key select
	103100	1	• BASE, Contact Block
	103225	AR	• SWITCH, N.C. Contact
	103141	1	• SWITCH, N.O. Contact
	100149	1	• WASHER, Flat
13	104466	AR	KEY, #455

Figure 6.2-3. Drive/Steer Controller Assembly

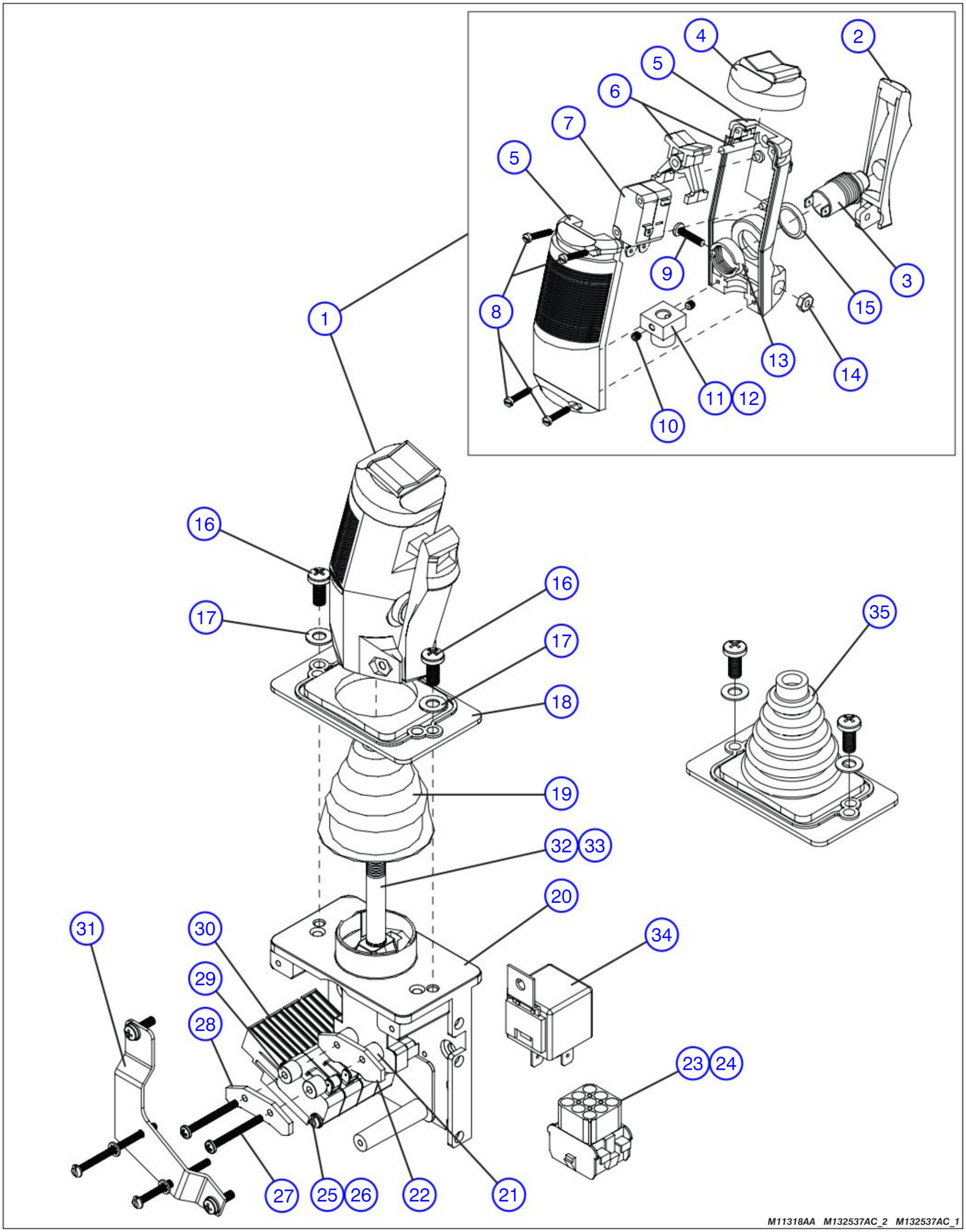


Figure 6.2-3. Drive/Steer Controller Assembly

Index No.	Skyjack Part No.	Qty.	Description
-	132537	1	CONTROLLER ASSEMBLY, Enable Joystick
1	122849	1	• HANDLE ASSEMBLY
2	122873	1	• • LEVER, Trigger
3	122872	1	• • SWITCH, Push button
4	122874	1	• • CAP, Rubber
5	134112	1	• • KIT, Handle
6	122876	1	• • ROCKER ASSEMBLY
7	122877	2	• • SWITCH ASSEMBLY, Micro
8	122879	4	• • SCREW, Joystick handle
9	122959	1	• • SCREW, Joystick lever
10	122960	2	• • SCREW, set
11	122961	1	• • COUPLING, 8mm
12	122962	1	• • COUPLING, 10mm
13	122963	1	• • NUT, Push button
14	122964	1	• • NUT, Joystick lever
15	122965	1	• • FITTING, O-Ring
16	122846	2	• SCREW
17	122847	2	• WASHER
18	122859	1	• GASKET (If equipped)
19	122848	1	• BOOT (If equipped)
20	122861	1	• BASE
21	122850	2	• SPACER
22	122862	1	• CAM
23	122840	1	• CONNECTOR ASSEMBLY, Male 9 pole
	116993	1	• • HOUSING, Connector Male 9 pole
	116990	9	• • PIN, Female wire
24	122841	1	• CONNECTOR ASSEMBLY, Female 9 pin
	122839	1	• • HOUSING, Connector Female 9 pin
	116989	9	• • PIN, Male wire
25	122870	2	• WASHER
26	122863	2	• SCREW
27	122866	2	• SCREW
28	122864	1	• CAM
29	122865	2	• SPACER
30	122869	4	• MICROSWITCH
31	139543	4	• BRACKET
32	124822	1	• SHAFT, Modified Joystick
33	127235	1	• SPRING, Torsion
34	127035	1	• RELAY, 12 V - 40 amp
35	127179	1	• BOOT & GASKET (If equipped)

Figure 6.3-1. Scissor Arm Assembly, Accessories And Hardware - Model 7127

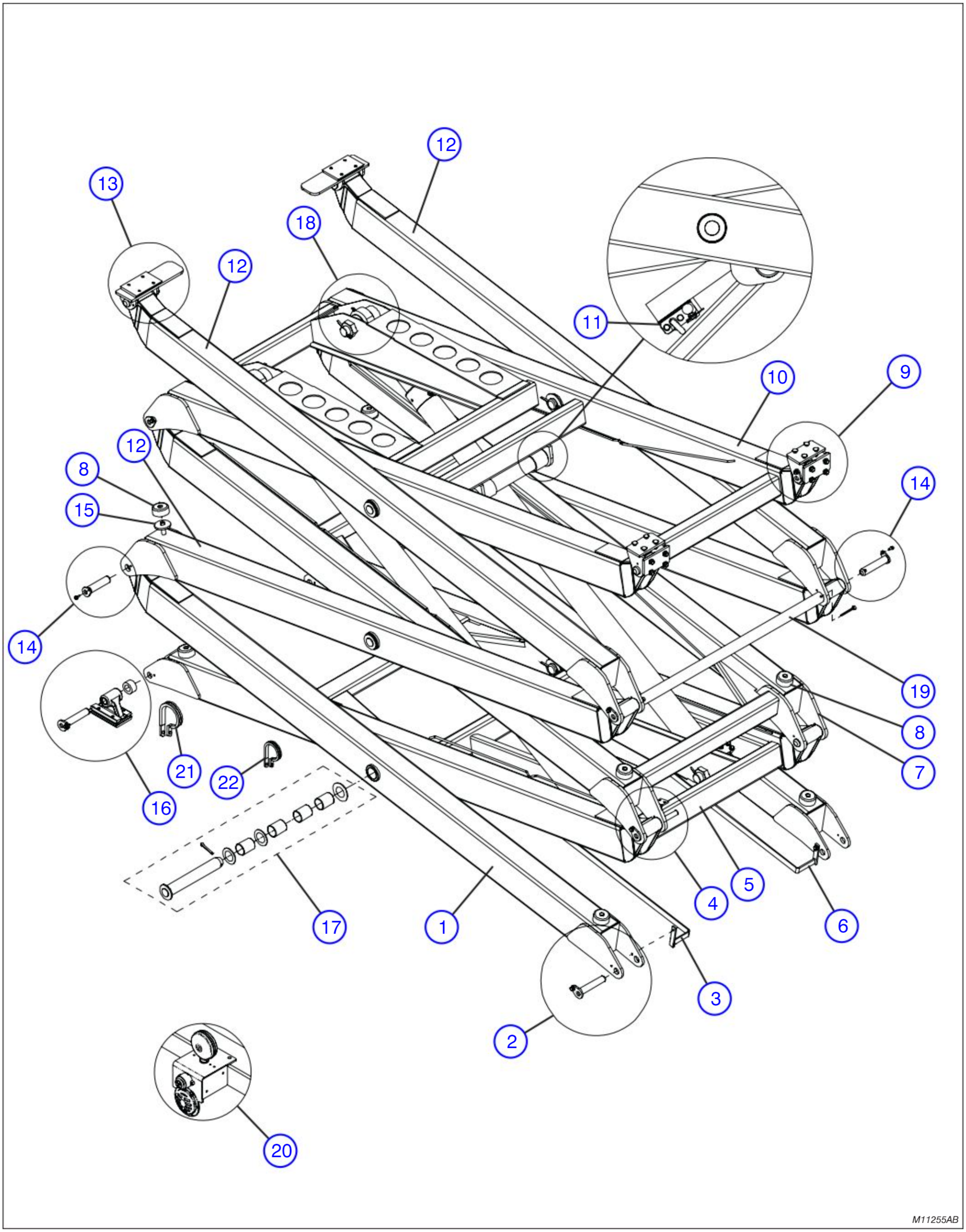


Figure 6.3-1. Scissor Arm Assembly, Accessories And Hardware - Model 7127

Index No.	Skyjack Part No.	Qty.	Description
1	126107	2	WELDMENT, Scissor Arm 1st Level
2	(Ref.)	-	PIN, Scissor to Base
			(For components, refer to Figure 6.3-5)
3	126945	1	WELDMENT, Bottom Cable Carrier - LH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
4	(Ref.)	-	PIN, Limit switches, cams
			(For components, refer to Figure 6.3-6)
5	132076	1	WELDMENT, Inside Scissor 1st Level
6	127391	1	WELDMENT, Bottom Cable Carrier - RH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
7	132080	1	WELDMENT, Inside Scissors 2nd Level
8	126743	8	ASSEMBLY, Scissor Bumper
	111135	1	• BUMPER, Rubber
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex 1/4”-20 Grd. B
9	(Ref.)	-	BRACKET Assembly, Platform Mounting
			(For components, refer to Figure 6.3-5)
10	133175	1	WELDMENT, Inside Scissor 3rd Level
11	111954	1	LATCH ASSEMBLY, Safety bar
	102780	1	• LATCH, Rotary RH
	111534	1	• KNOB, Latch
	103404	3	• WASHER, Lock 5/16”
	103864	3	• BOLT, Hex Hd 5/16”-18 x 1” Grd. 5
	103857	1	• BOLT, Hex Hd 1/4”-20 x 1” Grd. 5
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex Hd 1/4”-20 Grd. 5
12	126212	4	WELDMENT, Scissor Arm outside 2nd, 3rd level
13	(Ref.)	-	ASSEMBLY, Scissor to Platform Upper Slider
			(For components, refer to Figure 6.3-5)
14	(Ref.)	-	PIN, Scissor Stack Connecting
		-	(For components, refer to Figure 6.3-6)
15	111846	2	SPACER, Scissor Bumper
16	(Ref.)	-	PIN, Scissor to Base Bottom Slider
			(For components, refer to Figure 6.3-5)
			Parts list continued on the following page.

Figure 6.3-1. Scissor Arm Assembly, Accessories And Hardware - Model 7127 (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
17	(Ref.)	-	PIN, Center Pin
			(For components, refer to Figure 6.3-6)
18	(Ref.)	-	HARDWARE, Lift Cylinder Mounting
			(For components, refer to Figure 6.3-9)
19	126461	1	TUBE, Cross member
20	(Ref.)	-	ASSEMBLY, Horn, Light & Beeper
		-	(For components, refer to Figure 6.3-7)
21	103078	AR	CLIP, Double S344G10
	103887	1	• BOLT, Hex HD 5/16-18 X 3/4“ GRD. B
	103404	2	• WASHER, Flat 5/16”
	100397	1	• NUT, Hex HD 5/16-18 GRD. B
22	124445	AR	CLIP, Double S470G6-1
	103962	1	• SCREW, Machine #10-32*0.50 SOC RD HD
	104694	1	• WASHER, Flat #10 S.A.E
	104185	1	• WASHER, Lock #10 NOM
	104003	1	• NUT, Machine #10-32 Grade B

Figure 6.3-2. Scissor Arm Assembly, Accessories And Hardware - Model 7135

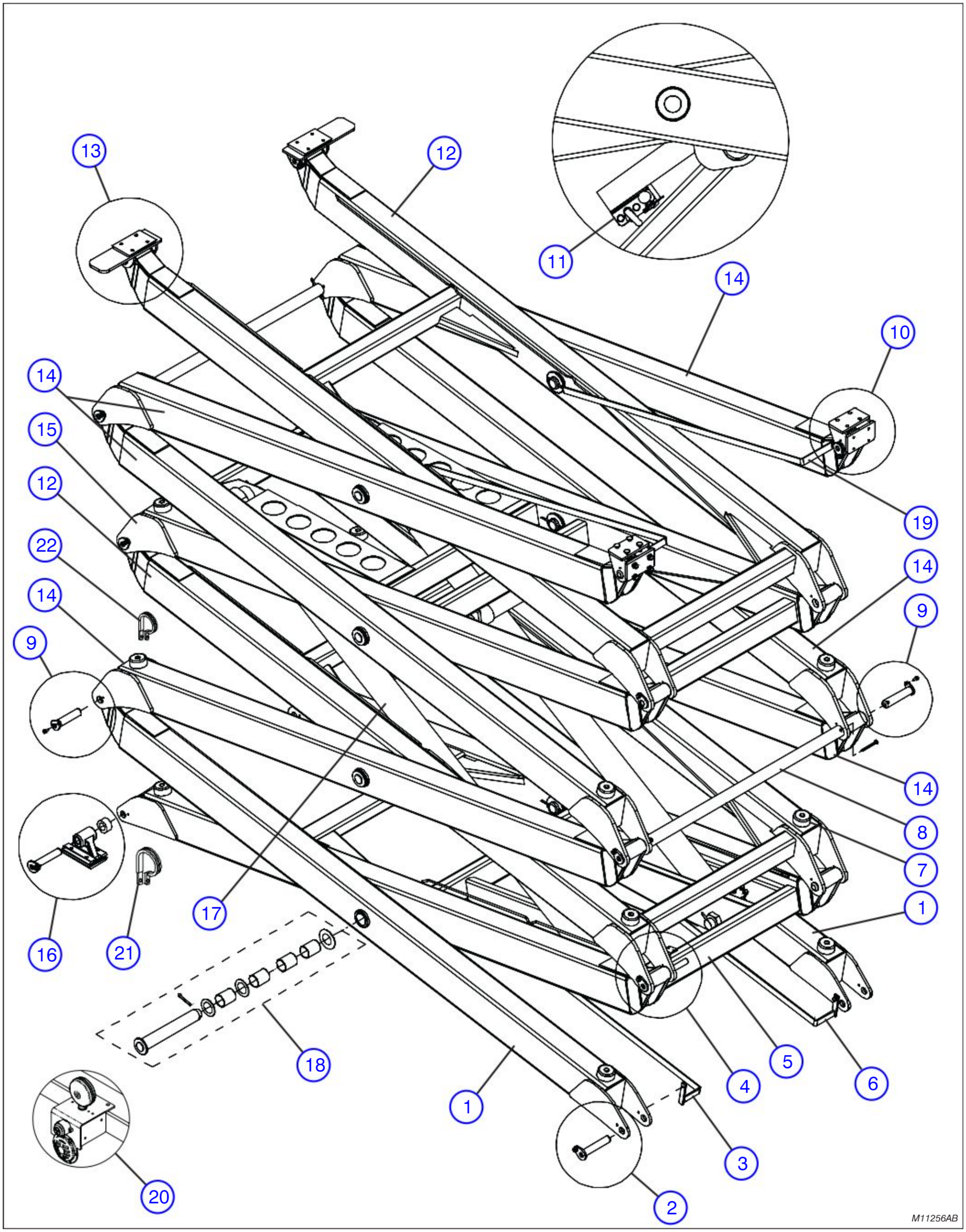


Figure 6.3-2. Scissor Arm Assembly, Accessories And Hardware - Model 7135

Index No.	Skyjack Part No.	Qty.	Description
1	126107	2	WELDMENT, Scissor Arm 1st Level
2	(Ref.)	-	PIN, Scissor to Base
		-	(For components, refer to Figure 6.3-5)
3	126945	1	WELDMENT, Lower Cable Carrier - LH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
4	(Ref.)	-	PIN, Limit switches, cams
		-	(For components, refer to Figure 6.3-6)
5	132076	1	WELDMENT, Inside Scissor 1st Level
6	127391	1	WELDMENT, Lower Cable Carrier - RH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
7	126743	8	ASSEMBLY, Scissor Bumper
	111135	1	• BUMPER, Rubber
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex 1/4”-20 Grd. B
8	126461	2	TUBE, Cross member
9	(Ref.)	-	PIN, Scissor Stack Connecting
		-	(For components, refer to Figure 6.3-6)
10	(Ref.)	-	BRACKET Assembly, Platform Mounting
			(For components, refer to Figure 6.3-5)
11	111954	1	LATCH ASSEMBLY, Safety bar
	102780	1	• LATCH, Rotary RH
	111534	1	• KNOB, Latch
	103404	3	• WASHER, Lock 5/16”
	103864	3	• BOLT, Hex Hd 5/16”-18 x 1” Grd. 5
	103857	1	• BOLT, Hex Hd 1/4”-20 x 1” Grd. 5
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex Hd 1/4”-20 Grd. 5
12	132080	2	WELDMENT, Inside Scissors 2nd Level
13	(Ref.)	-	ASSEMBLY, Scissor to Platform Upper Slider
			(For components, refer to Figure 6.3-5)
			Parts list continued on the following page.

Figure 6.3-2. Scissor Arm Assembly, Accessories And Hardware - Model 7135 (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
14	126212	6	WELDMENT, Scissor Arm outside 2nd, 3rd, & 4th level
15	133175	1	WELDMENT, Inside Scissor 3rd Level
16	(Ref.)	-	PIN, Scissor to Base Bottom Slider
			(For components, refer to Figure 6.3-5)
17	(Ref.)	-	HARDWARE, Lift Cylinder Mounting
			(For components, refer to Figure 6.3-9)
18	(Ref.)	-	PIN, Center Pin
			(For components, refer to Figure 6.3-6)
19	126623	2	WELDMENT, Upper Cable Carrier
20	(Ref.)	-	ASSEMBLY, Horn, Light & Beeper
		-	(For components, refer to Figure 6.3-7)
21	103078	AR	CLIP, Double S344G10
	103887	1	• BOLT, Hex HD 5/16-18 X 3/4“ GRD. B
	103404	2	• WASHER, Flat 5/16”
	100397	1	• NUT, Hex HD 5/16-18 GRD. B
22	124445	AR	CLIP, Double S470G6-1
	103962	1	• SCREW, Machine #10-32*0.50 SOC RD HD
	104694	1	• WASHER, Flat #10 S.A.E
	104185	1	• WASHER, Lock #10 NOM
	104003	1	• NUT, Machine #10-32 Grade B

Figure 6.3-3. Scissor Arm Assembly, Accessories And Hardware - Model 8243

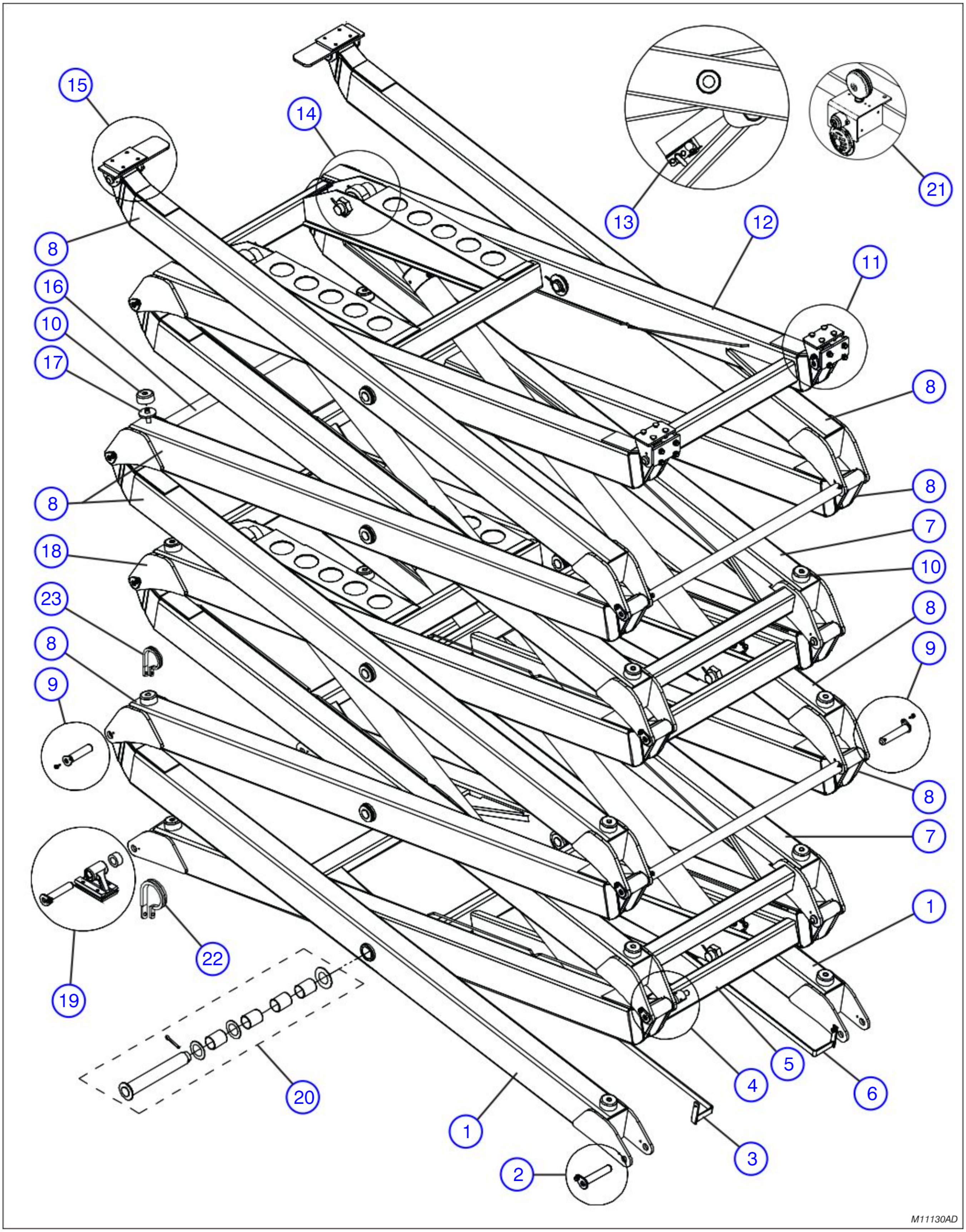


Figure 6.3-3. Scissor Arm Assembly, Accessories And Hardware - Model 8243

Index No.	Skyjack Part No.	Qty.	Description
A	132074	1	ASSEMBLY, Scissor Stack **(ANSI/CSA Models)**
B	132257	1	ASSEMBLY, Scissor Stack **(CE Models)**
1	126107	2	WELDMENT, Outside scissors - 1st level
2	(Ref.)	-	PIN, Scissor to Base
			(For components, refer to Figure 6.3-5)
3	126945	1	WELDMENT, Lower Cable Carrier - LH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
4	(Ref.)	-	PIN, Limit switches, cams
			(For components, refer to Figure 6.3-6)
5	132076	1	WELDMENT, Inside Scissor 1st Level
6	127391	1	WELDMENT, Lower Cable Carrier - RH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
7	132080	2	WELDMENT, Inside scissors - 2nd & 4th level
8	126212	8	WELDMENT, Outside scissor arm - 2nd, 4th, & 5th level
9	(Ref.)	-	PIN, Scissor Stack Connecting
			(For components, refer to Figure 6.3-6)
10	126743	16	ASSEMBLY, Scissor Bumper
	111135	1	• BUMPER, Rubber
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex 1/4”-20 Grd. B
11	(Ref.)	-	BRACKET Assembly, Platform Mounting
			(For components, refer to Figure 6.3-5)
12	132075	1	WELDMENT, Inside scissor 5th Level
13	111954	1	LATCH ASSEMBLY, Safety bar
	102780	1	• LATCH, Rotary RH
	111534	1	• KNOB, Latch
	103404	3	• WASHER, Lock 5/16”
	103864	3	• BOLT, Hex Hd 5/16”-18 x 1” Grd. 5
	103857	1	• BOLT, Hex Hd 1/4”-20 x 1” Grd. 5
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex Hd 1/4”-20 Grd. 5
			Parts list continued on the following page.

Figure 6.3-3. Scissor Arm Assembly, Accessories And Hardware - Model 8243 (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
14	(Ref.)	-	HARDWARE, Lift Cylinder Mounting
			(For components, refer to Figure 6.3-9)
15	(Ref.)	-	ASSEMBLY, Scissor to Platform Upper Slider
			(For components, refer to Figure 6.3-5)
16	126461	3	TUBE, Cross member
17	111846	2	SPACER, Scissor Bumper
18	133157	1	WELDMENT, Inside Scissor 3rd Level w/ Safety Bar
19	(Ref.)	-	ASSEMBLY, Scissor to Base Bottom Slider
			(For components, refer to Figure 6.3-5)
20	(Ref.)	-	PIN, Center Pin
			(For components, refer to Figure 6.3-6)
21	(Ref.)	-	ASSEMBLY, Horn, Light & Beeper
	103887	1	• BOLT, Hex HD 5/16-18 X 3/4“ GRD. B
	103404	2	• WASHER, Flat 5/16”
	100397	1	• NUT, Hex HD 5/16-18 GRD. B
22	103078	AR	CLIP, Double S344G10
	103887	1	• BOLT, Hex HD 5/16-18 X 3/4“ GRD. B
	103404	2	• WASHER, Flat 5/16”
	100397	1	• NUT, Hex HD 5/16-18 GRD. B
23	124445	AR	CLIP, Double S470G6-1
	103962	1	• SCREW, Machine #10-32*0.50 SOC RD HD
	104694	1	• WASHER, Flat #10 S.A.E
	104185	1	• WASHER, Lock #10 NOM
	104003	1	• NUT, Machine #10-32 Grade B

Figure 6.3-4. Scissor Arm Assembly, Accessories And Hardware - Model 8850

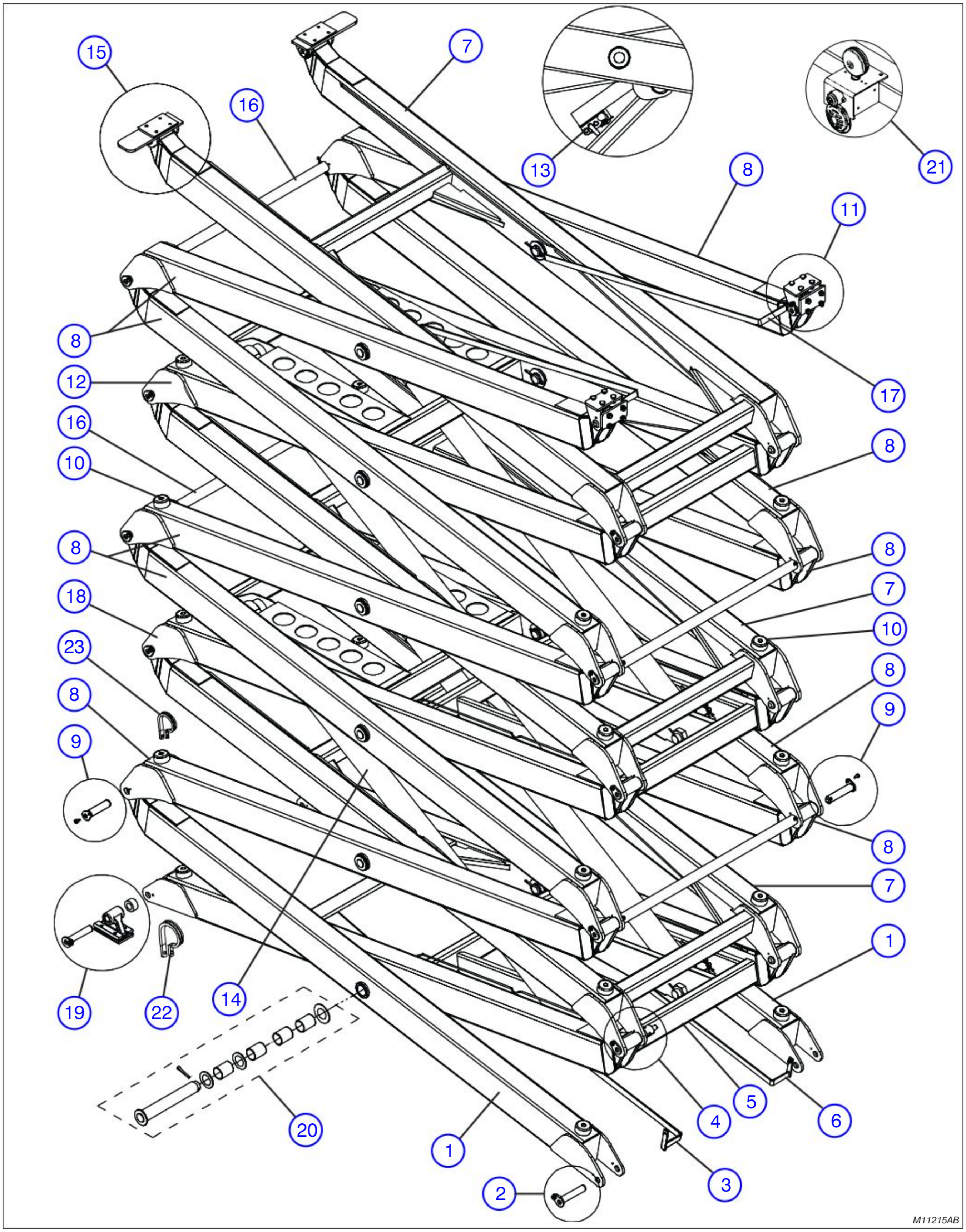


Figure 6.3-4. Scissor Arm Assembly, Accessories And Hardware - Model 8850

Index No.	Skyjack Part No.	Qty.	Description
1	126107	2	WELDMENT, Outside scissors - 1st level
2	(Ref.)	-	PIN, Scissor to Base Pin
			(For components, refer to Figure 6.3-5)
3	126945	1	WELDMENT, Lower Cable Carrier - LH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
4	(Ref.)	-	PIN, Limit switches, cams
			(For components, refer to Figure 6.3-6)
5	132076	1	WELDMENT, Inside Scissor 1st Level
6	127391	1	WELDMENT, Lower Cable Carrier - RH
	103887	1	• BOLT, Hex Hd 5/16”-18 x 3/4” Grd. 5
	103404	1	• WASHER, Lock 5/16”
	103996	1	• WASHER, Flat 5/16”
7	132080	3	WELDMENT, Inside scissors - 2nd & 4th level
8	126212	10	WELDMENT, Outside scissor arm - 2nd, 4th, & 5th level
9	(Ref.)	-	PIN, Scissor Stack Connecting
			(For components, refer to Figure 6.3-6)
10	126743	20	ASSEMBLY, Scissor Bumper
	111135	1	• BUMPER, Rubber
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex 1/4”-20 Grd. B
11	(Ref.)	-	BRACKET Assembly, Platform Mounting
			(For components, refer to Figure 6.3-5)
12	132075	1	WELDMENT, Inside scissor 5th Level
13	111954	1	LATCH ASSEMBLY, Safety bar
	102780	1	• LATCH, Rotary RH
	111534	1	• KNOB, Latch
	103404	3	• WASHER, Lock 5/16”
	103864	3	• BOLT, Hex Hd 5/16”-18 x 1” Grd. 5
	103857	1	• BOLT, Hex Hd 1/4”-20 x 1” Grd. 5
	104000	1	• WASHER, Lock 1/4”
	103980	1	• NUT, Hex Hd 1/4”-20 Grd. 5
			Parts list continued on the following page.

Figure 6.3-4. Scissor Arm Assembly, Accessories And Hardware - Model 8850 (continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
14	(Ref.)	-	HARDWARE, Lift Cylinder Mounting
			(For components, refer to Figure 6.3-9)
15	(Ref.)	-	ASSEMBLY, Scissor to Platform Upper Slider
			(For components, refer to Figure 6.3-5)
16	126461	4	TUBE, Cross member
17	126623	1	WELDMENT, Upper Cable Carrier
18	133157	1	WELDMENT, Inside Scissor 3rd Level w/ Safety Bar
19	(Ref.)	-	ASSEMBLY, Scissor to Base Bottom Slider
			(For components, refer to Figure 6.3-5)
20	(Ref.)	-	PIN, Center Pin
			(For components, refer to Figure 6.3-6)
21	(Ref.)	-	ASSEMBLY, Horn & Beeper
			(For components, refer to Figure 6.3-7)
22	103078	AR	CLIP, Double S344G10
	103887	1	• BOLT, Hex HD 5/16-18 X 3/4“ GRD. B
	103404	2	• WASHER, Flat 5/16”
	100397	1	• NUT, Hex HD 5/16-18 GRD. B
23	124445	AR	CLIP, Double S470G6-1
	103962	1	• SCREW, Machine #10-32*0.50 SOC RD HD
	104694	1	• WASHER, Flat #10 S.A.E
	104185	1	• WASHER, Lock #10 NOM
	104003	1	• NUT, Machine #10-32 Grade B

Figure 6.3-5. Scissor Stack Assembly Mounting

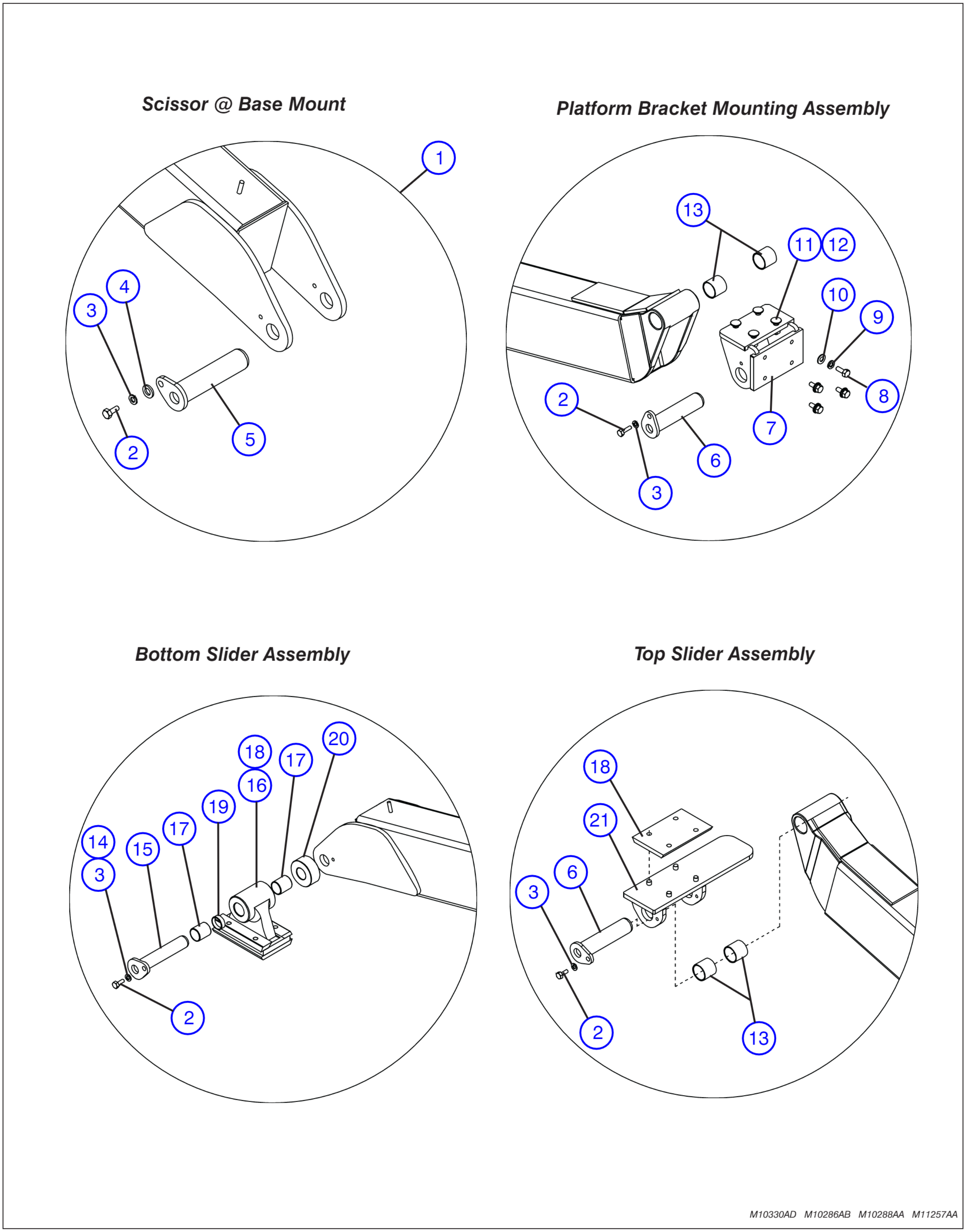


Figure 6.3-5. Scissor Stack Assembly Mounting

Index No.	Skyjack Part No.	Qty.	Description
1	126792	-	ASSEMBLY, Scissor to Base Pivot Pin
2	103887	1	• BOLT, Hex head 5/16 - 18 x 3/4”
3	103404	1	• WASHER. Lock 5/16
4	103996	1	• WASHER. Flat 5/16
5	111869	1	• PIN, Scissor end
6	110410	1	PIN, Scissor end
7	126129	1	WELDMENT, Platform Bracket Mount
8	125741	4	BOLT, Hex head 3/8” - 16 x 7/8”
9	103999	4	WASHER, Lock 3/8”
10	103472	4	WASHER, Flat 3/8”
11	127393	4	BOLT, Carriage 3/8”-16 x 1 1/4” lg.
12	104606	4	NUT, Hex head nylon lock 3/8” - 16
13	126937	2	BUSHING, 1 1/4” Dia. x 2” Fiberglide
14	103996	1	WASHER, Flat 5/16”
15	111869	1	PIN, Bottom slider
16	111225	2	SLIDER ASSEMBLY
	105549	1	• SLIDER, Casting
	101949	4	• PIN, 3/8” diameter
	103701	2	• PAD, Slider
17	101581	2	• BUSHING, 1” Dia. x 1 1/4” Fiberglide
18	101950	1	• PAD, Slider
19	117553	1	• BUSHING, 1” Dia. x 3/8” Fiberglide
20	126633	1	SPACER, Bottom slider
21	132653	1	WELDMENT, Top Slider

Figure 6.3-6. Scissor Arm Assembly Connecting Hardware

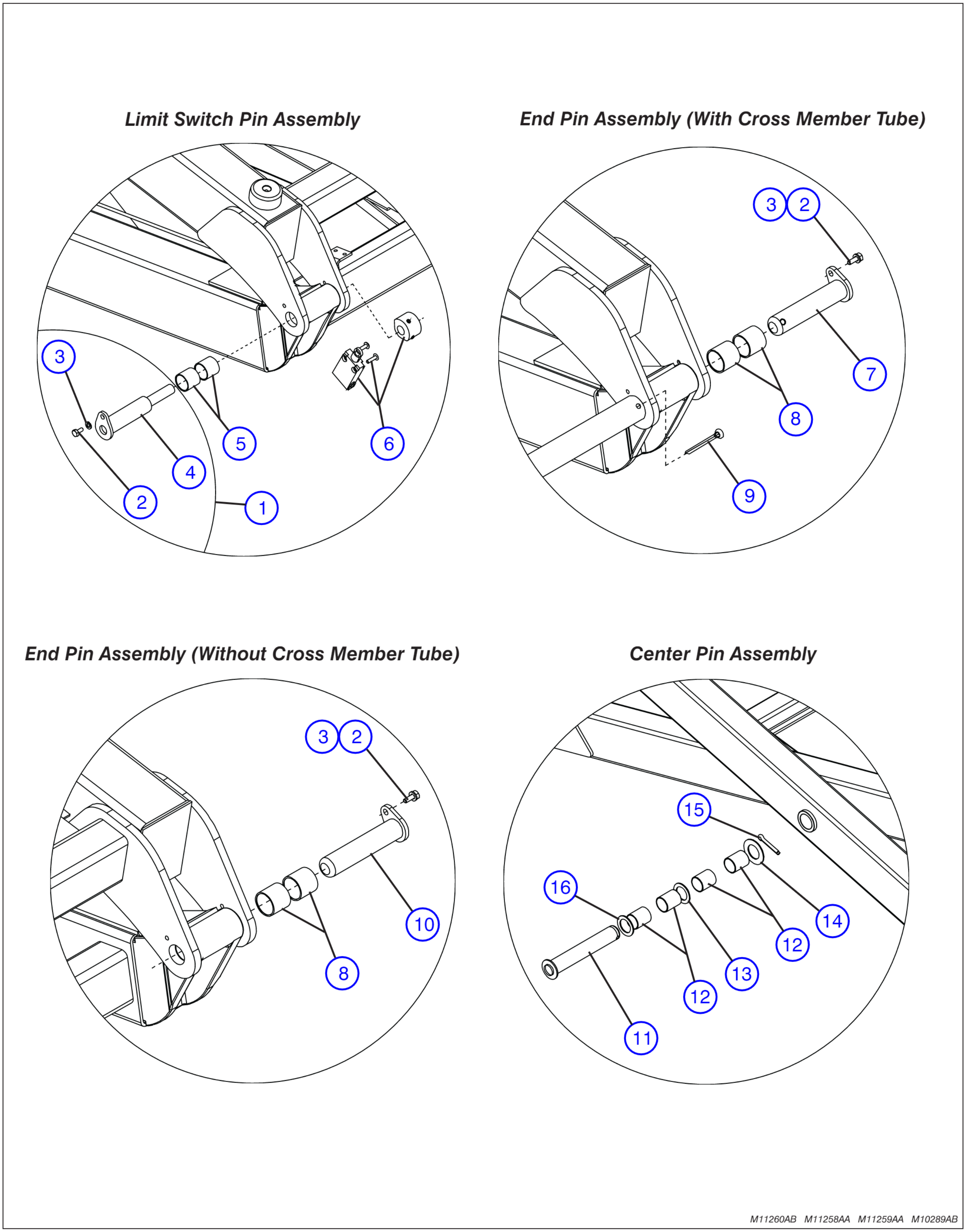
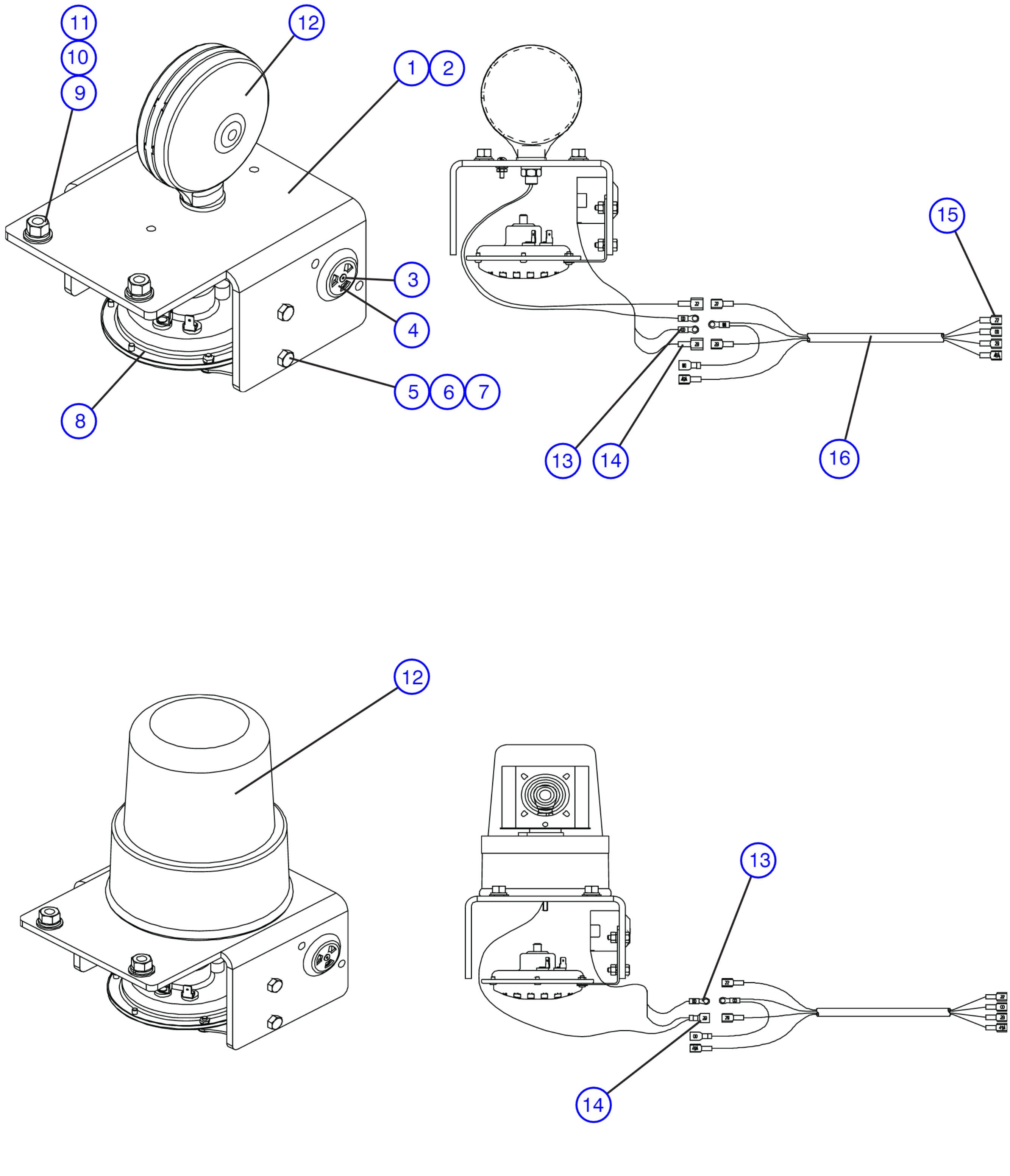


Figure 6.3-6. Scissor Arm Assembly Connecting Hardware

Index No.	Skyjack Part No.	Qty.	Description
1	126767	-	ASSEMBLY, Limit Switch Pin
2	103887	1	• BOLT, Hex head 5/16 - 18 x 3/4”
3	103404	1	• WASHER. Lock 5/16
4	110416	1	• PIN, Limit switch cam scissor end
5	126937	2	BUSHING, Scissor end
6	(Ref.)	-	ASSEMBLY, Scissor Limit Switches (For components, refer to Figure 6.3-8)
7	126453	1	PIN, Scissor End
8	126937	2	BUSHING, Scissor end
9	121875	1	PIN, Cotter 5/16 DIA. x 2”
10	110410	1	PIN, Scissor end
11	126682	1	PIN, Center
12	127038	4	BUSHING, 1 3/4” DIA. 1 1/2”
13	126770	1	THRUST WASHER, 1 3/4” Fiberglide
14	126899	1	WASHER, Center Pin
15	126926	1	PIN, Cotter 5/16” DIA. x 3”
16	126779	1	WASHER, Nylon

Figure 6.3-7. Horn, Light & Beeper Assemblies



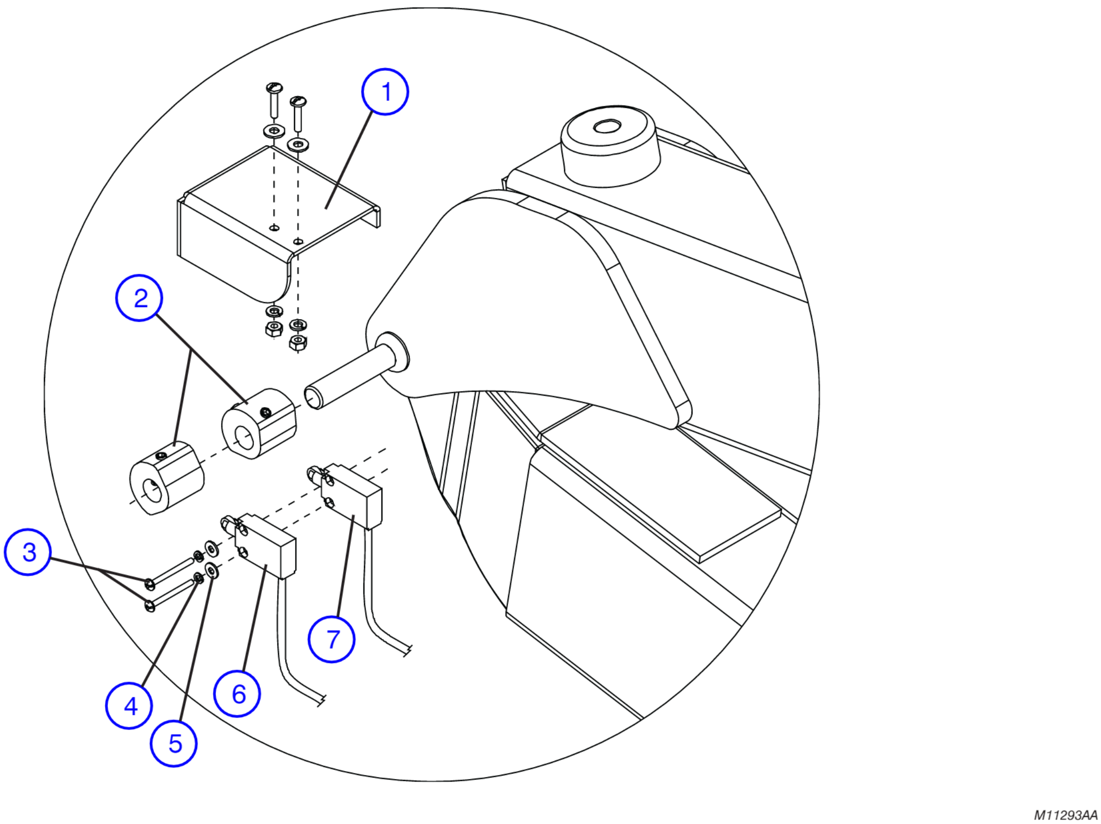
***Note:** For CE machines equipped with Load Sensing System, refer to Load Sensing System Supplement Manual.*

M11414AA M11415AA

Figure 6.3-7. Horn, Light & Beeper Assemblies

Index No.	Skyjack Part No.	Qty.	Description
A	133846	1	ASSEMBLY. Horn/light/beeper (Standard)
B	133828	1	ASSEMBLY, Horn/rotating beacon/beeper (Optional)
1	132295	1	PLATE, Horn / light mount
2	(Ref)	-	Ground Wire Hardware
	104698	1	SCREW, Round Hd machine 10-32 x 3/4”
	104694	1	WASHER, Flat # 10
	104185	1	WASHER, Lock # 10
	104003	1	NUT, Hex Head 10-32
3	129196	1	BOLT, Flat Head #4 x 40 x 1/2
4	103056	1	BEEPER, 7.5 - 16 VDC
5	103856	2	BOLT, Hex Head 1/4 - 20 x 3/4” Grd. 5
6	104000	2	WASHER, Lock 1/4”
7	103980	2	NUT, Hex head 1/4” - 20 Grd. 5
8	102850	1	HORN, 12 Volt
9	103987	2	NUT, Hex Head 3/8 -16 Grd. 5
10	103999	2	WASHER, Lock 3/8”
11	103472	2	WASHER, Flat 3/8”
12	126677	1	LIGHT, Beacon 12 V, **A**
	107098	1	BEACON, Rotating amber 12 V, **B**
13	119752	1	TERMINAL, 22 - 16GA #10 red ring
14	114594	1	TERMINAL, Male 18GA Pink, **A**
	105360	1	TERMINAL, Male 14 - 1/4 16GA 1/4 full Insl., **B**
15	114595	4	TERMINAL, Female 18GA red
16	127387	1	ASSEMBLY, Cabtire Beeper 18/4
	103255	240”	• CABTIRE 18/4

Figure 6.3-8. Scissor Limit Switch Assemblies



Index No.	Skyjack Part No.	Qty.	Description
A	126769	1	ASSEMBLY, High-Speed/Tilt Override/End of Stroke Limit Switches **(ANSI/CSA)**
B	133310	1	ASSEMBLY, High-Speed Cut Out **(CE)**
1	133130	1	• COVER, Limit Switch
	112449	2	• • SCREW, Hex head machine (1/4"-20 x 1")
	104000	2	• • WASHER, Lock 1/4"
	103995	4	• • WASHER, Flat 1/4"
	103980	2	• • NUT, Hex Hd 1/4"-20 Grd. 5
2	100967	2	• CAM, Limit Switch
3	133298	2	• BOLT, Machine #10-32 x 1.75", **A**
	105621	2	• BOLT, Machine #10-32 x 1", **B**
4	104694	2	• WASHER, Flat #10
5	104185	2	• WASHER, Lock #10
6	129358	1	• ASSEMBLY, End of Stroke Limit Switch & Harness, **A**
7	115598	1	• ASSEMBLY, High-Speed Cut-Out/Tilt Override Limit Switch & Harness, **A, B**

Figure 6.3-9. Lift Cylinder Assembly

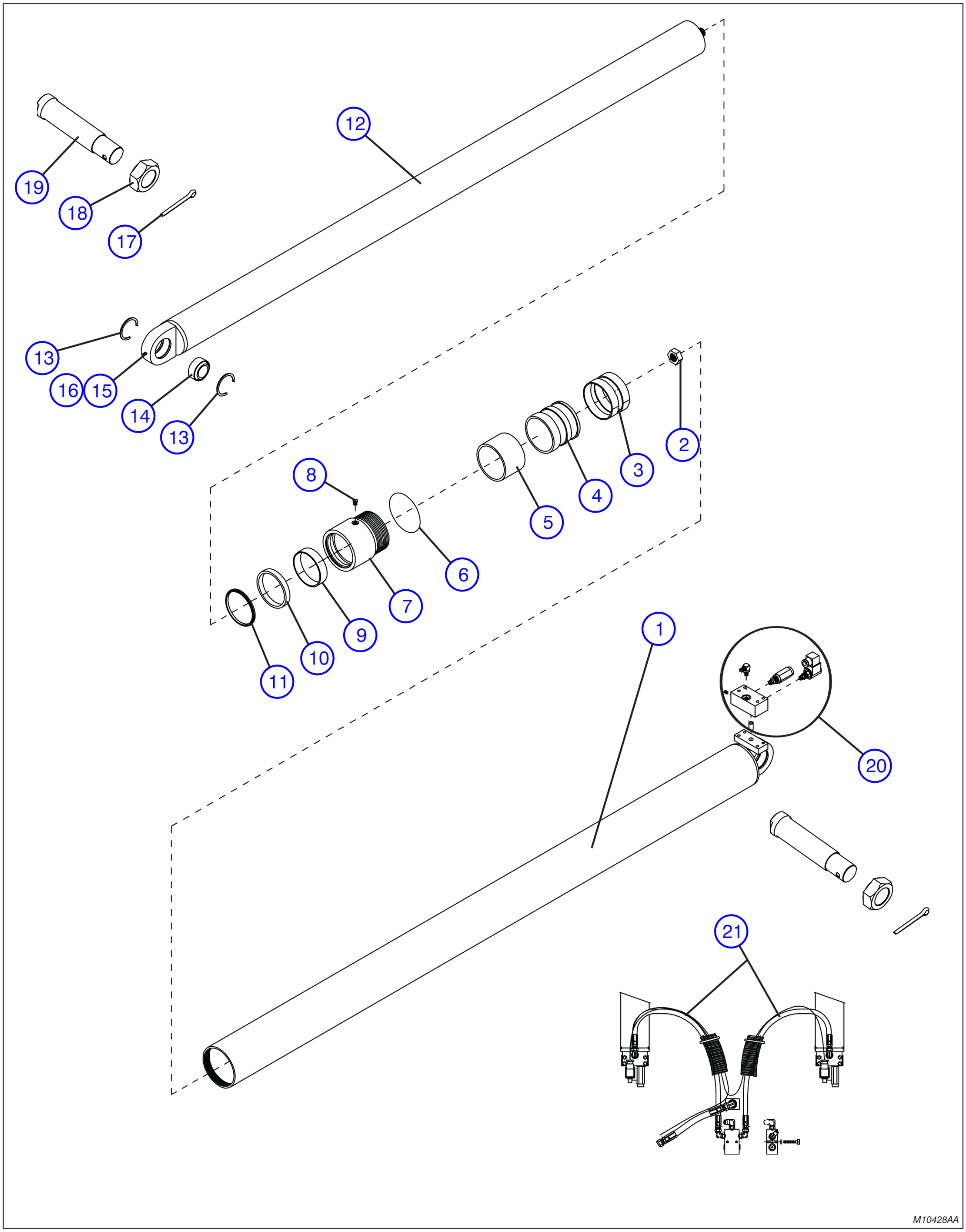
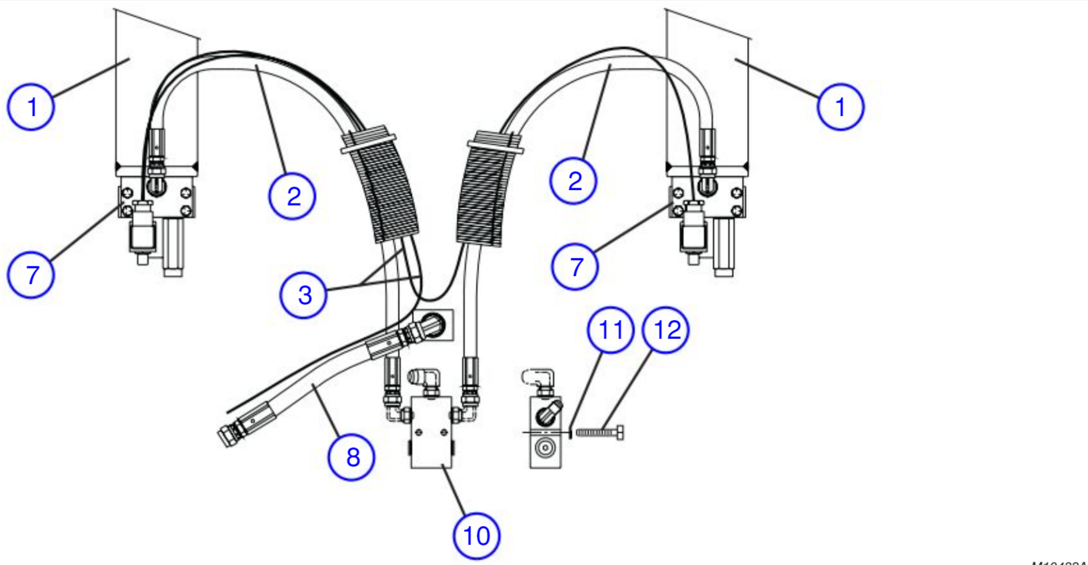


Figure 6.3-9. Lift Cylinder Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	121091	-	CYLINDER ASSEMBLY, Lift
1	121094	1	• WELDMENT, Cylinder barrel
2	104400	1	• NUT, Lock 1-14 Grd. C
*3	106220	2	• RING, Piston wear
4	113515	1	• WELDMENT, Piston
5	111102	1	• SPACER, Stroke limit
*6	120445	1	• O-RING, Gland
7	121092	1	• GLAND
8	102856	1	• PLUG, Socket head 3/8”-24
*9	106219	1	• RING, Rod wear
*10	106222	1	• SEAL, Rod
*11	106221	1	• WIPER, Rod
12	111094	1	• WELDMENT, Cylinder rod
13	109249	AR	• RING, Retaining
14	109250	2	• BEARING, Spherical
15	102027	2	• FITTING, Grease 1/8”
16	132565	2	• CAP, Grease fitting
17	115532	2	PIN, Cotter 1/4” x 2 1/2”
18	111137	2	NUT, Cylinder pin
19	111865	2	PIN, Scissor cylinder
20	(Ref.)	-	ASSEMBLY, Lift Cylinder Manifold Holding Valve (For components, refer to Figure 6.3-12 & 6.3-13)
21	(Ref.)	-	Lift Cylinder Hydraulic Hose and Electrical Connections (For components, refer to Figure 6.3-10)
*	121095	AR	KIT, Seal repair * Part of Seal Repair Kit

Figure 6.3-10. Lift Cylinder Hydraulic Hose and Electrical Connections

A ***- Model 71XX***



B ***- Model 8XXX***

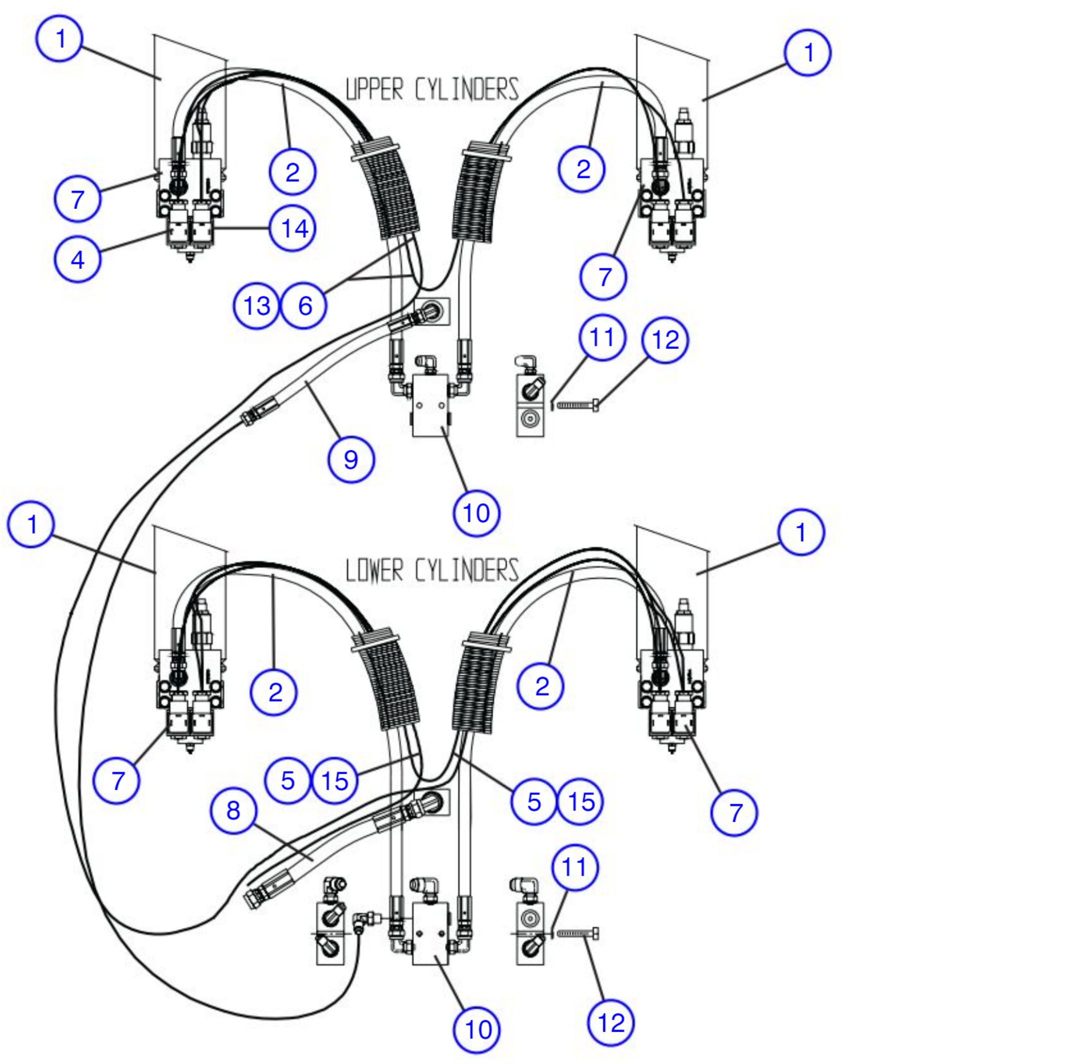


Figure 6.3-10. Lift Cylinder Hydraulic Hose and Electrical Connections

Index No.	Skyjack Part No.	Qty.	Description
A	127394	1	HYDRAULIC HOSE & ELECTRICAL CONNECTION ASSEMBLY **(Model 71XX)**
B	132240	1	HYDRAULIC HOSE & ELECTRICAL CONNECTION ASSEMBLY **(Model 8243 & 8850)**
1	(Ref.)	-	• LIFT CYLINDER ASSEMBLIES (For components, refer to Figure 3.9)
2	110592	AR	• HOSE, Lift Cylinder Holding Valve to Splitter Manifold
3	120021	1	• HARNESS, Lift cylinder holding valve **A**
	119825	2	• • CONNECTOR, Solenoid
	103256	370”	• • CABTIRE (18/2)
K1	151043	1	• KIT, Primary harness **B**
4	119825	1	• • CONNECTOR, Solenoid with diode (Primary Holding Valve) **B**
5	132293	1	• • HARNESS, Primary lower cylinder holding valve **B**
	119825	2	• • • CONNECTOR, Solenoid with diode
	103256	820”	• • • CABLE, Cabtire (18/2)
6	132294	1	• • HARNESS, Primary upper cylinder holding valve **B**
	119825	1	• • • CONNECTOR, Solenoid with diode
	103256	72”	• • • CABLE, Cabtire (18/2)
7	(Ref.)	-	• HOLDING VALVE MANIFOLD ASSEMBLY (For components, refer to Figure 3.11, 3.12 & 3.13)
8	112358	1	• HOSE, Lower splitter manifold to main manifold **A**
9	136232	1	• HOSE, Upper to lower splitter manifold hydraulic **B**
10	(Ref.)	1	• SPLITTER MANIFOLD ASSEMBLY (For components, refer to Figure 3.11)
11	104000	2	• WASHER, Lock (0.25)
12	103861	4	• BOLT, Hex head (0.25-20, Grade 5)
K2	151044	1	KIT, Auxiliary harness **B**
13	132929	1	• HARNESS, Auxiliary Upper Cylinder Holding Valve **B**
	127316	1	• • CONNECTOR, Solenoid with diode
	103256	72.5”	• • CABLE, Cabtire 18/2
14	127316	1	• CONNECTOR, Solenoid with diode (Auxiliary Holding Valve) **B**
15	132931	1	• HARNESS, Auxiliary lower cylinder holding valve **B**
	127316	2	• • CONNECTOR, Solenoid with diode
	103256	822”	• • CABLE, Cabtire (18/2)

Figure 6.3-11. Lift Cylinder Splitter Manifold Assembly

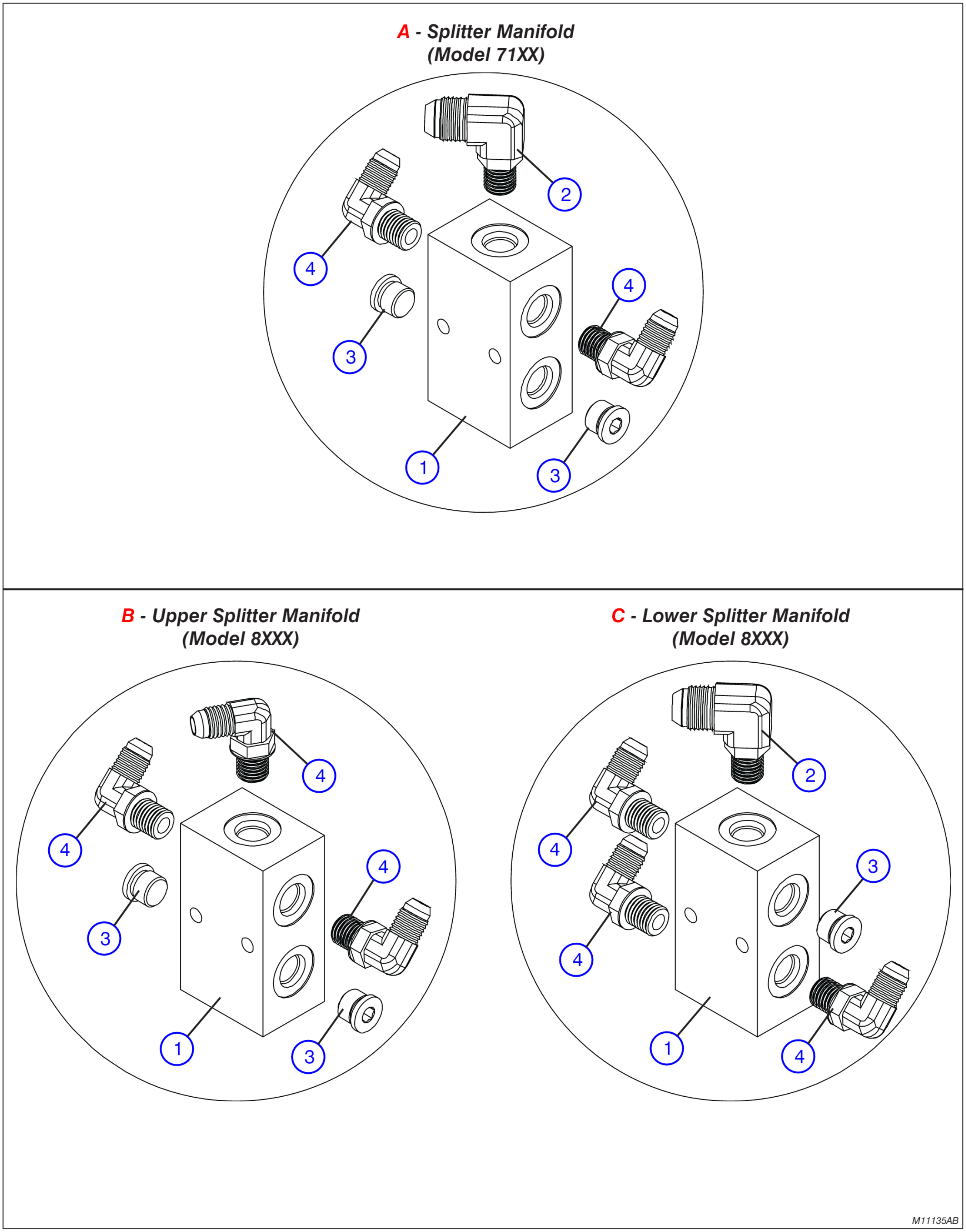
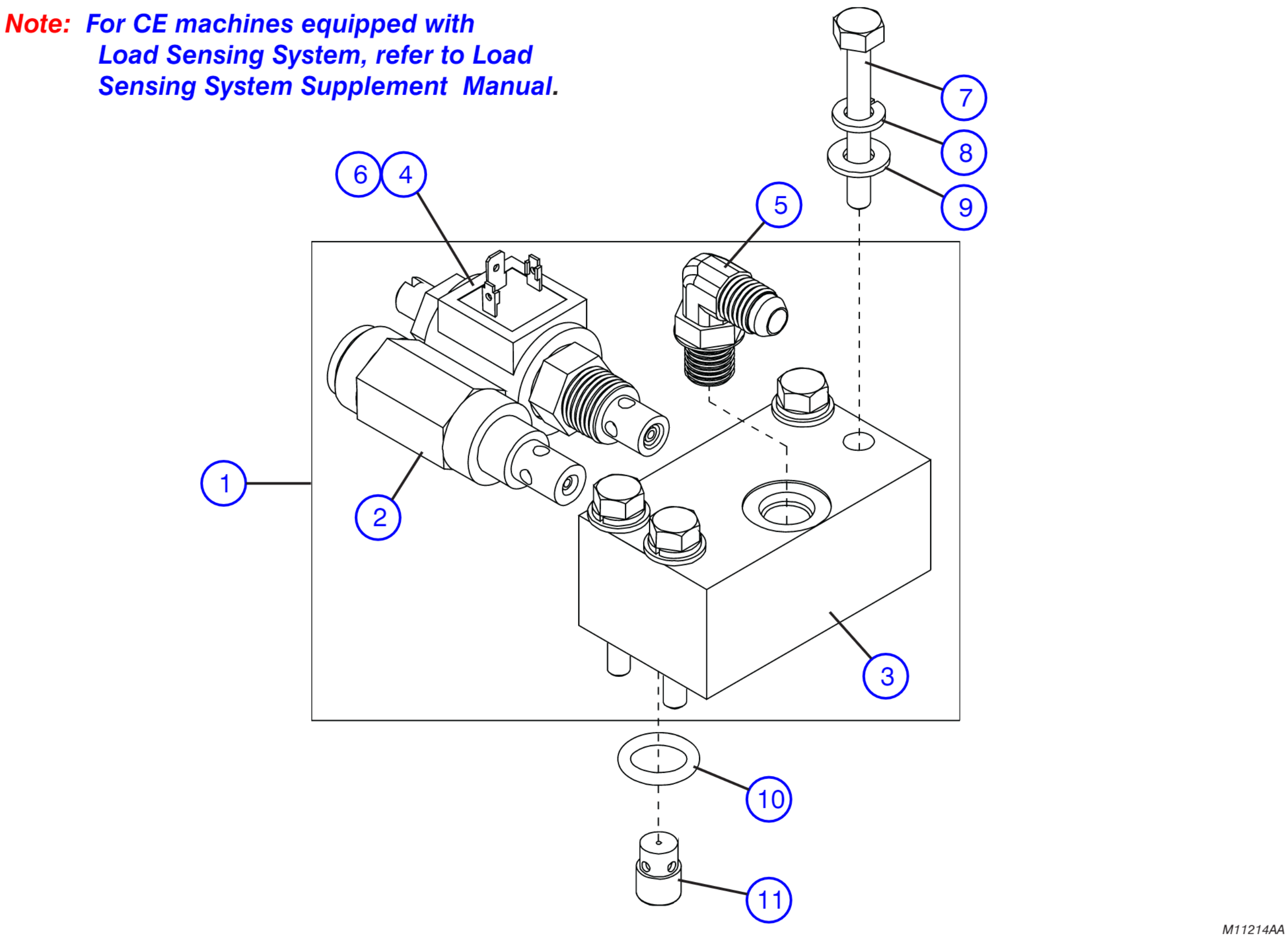


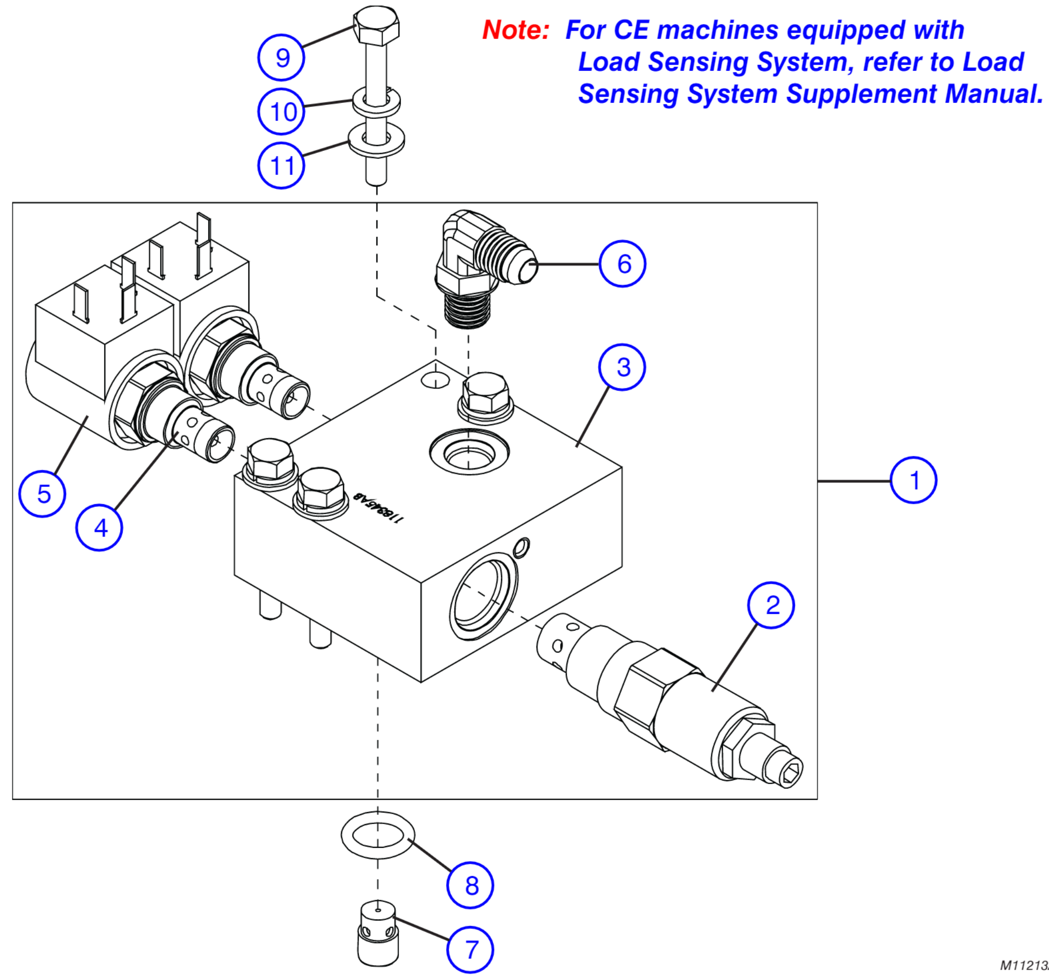
Figure 6.3-11. Lift Cylinder Splitter Manifold Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	400025	1	ASSEMBLY, Splitter Manifold **(Model 71XX only)**
B	132246	1	ASSEMBLY, Upper Splitter Manifold **(Model 8243 & 8850)**
C	132245	1	ASSEMBLY, Lower Splitter Manifold **(Model 8243 & 8850)**
1	125430	1	• MANIFOLD, Splitter
2	114582	1	• FITTING, Elbow 90°, **A, C**
3	104437	AR	• FITTING, Plug
4	114578	3	• FITTING, Elbow 90°



Index No.	Skyjack Part No.	Qty.	Description
1	127385	1	ASSEMBLY, Lift Cylinder Manifold Holding Valve
2	106557	1	• VALVE, Relief
3	106688	1	• BLOCK, Manifold with Plugs
	111316	1	• • BLOCK, Manifold
	108052	1	• • PLUG, Expander
4	107269	1	• VALVE, Holding Valve (N.C.)
5	114578	1	• FITTING, Hydraulic Elbow
6	104410	1	COIL, 12V
7	103931	4	BOLT, Socket (5/16”-18 x 2” Grade 5)
8	104637	4	WASHER, Lock (5/16” high collar 0.09)
9	103996	4	WASHER, Flat 5/16”
10	103403	1	SEAL, O-ring
11	108721	1	ORIFICE, One Way 0.055” dia.

Figure 6.3-13. Lift Cylinder Manifold Holding Valve Assembly - Model 8243 & 8850 (ANSI/CSA Models only)



Index No.	Skyjack Part No.	Qty.	Description
			Note: All quantities shown below are per one holding valve assembly.
1	132850	1	ASSEMBLY, Lift Cylinder Manifold Holding Valve
2	104534	1	• VALVE, Relief
3	118345	1	• BLOCK, Manifold with Plugs
	118298	1	• • BLOCK, Manifold
	108052	1	• • PLUG, Expander
4	103655	2	• VALVE, Holding Valve (N.C.)
5	104410	2	• COIL, 12V
6	114578	1	• FITTING, Hydraulic Elbow
7	108721	1	ORIFICE, One Way 0.055” dia.
8	103403	1	SEAL, O-ring
9	103931	4	BOLT, Socket (5/16”-18 x 2” Grade 5)
10	104637	4	WASHER, Lock (5/16” high collar 0.09)
11	103996	4	WASHER, Flat 5/16”

Figure 6.4-1. Base, Axles And Wheels

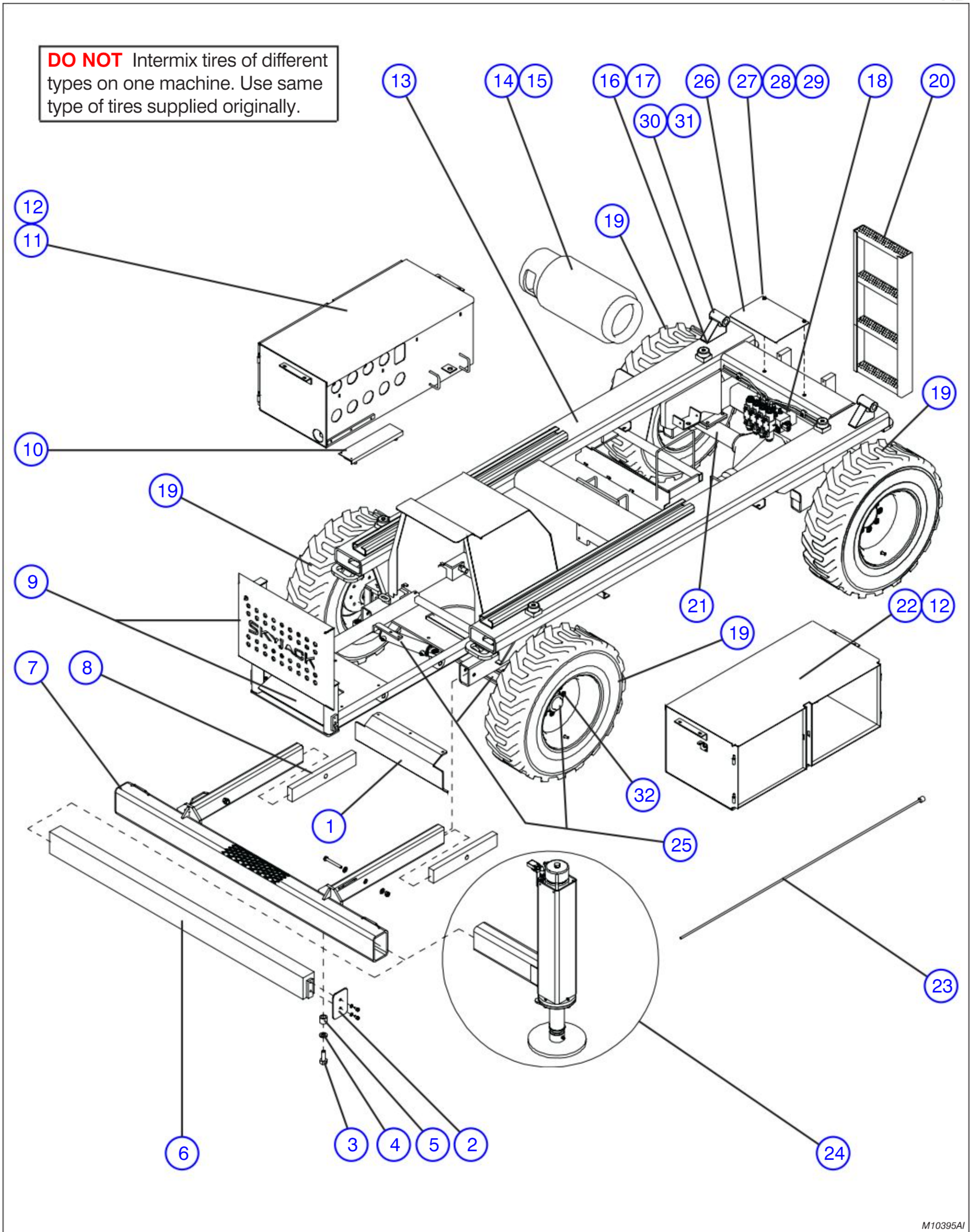


Figure 6.4-1. Base, Axles And Wheels **AD**

Index No.	Skyjack Part No.	Qty.	Description
1	128807	1	GUARD ASSEMBLY, Steer cylinder
	128802	1	• GUARD, Front axle
	103907	3	• BOLT, Hex head 1/2-13 Grd. 5 x 1.5”
	103471	3	• NUT, Hex head 1/2-13 Grd. B
	103470	3	• WASHER, Lock 1/2”
2	120562	2	• PLATE, Additional Weight Cover
	101632	4	• BOLT, Hex Hd 3/8”-16 x 3/4” Grd. 5
	103999	4	• WASHER, Lock 3/8”
3	103909	2	BOLT, Hex Hd 1/2-13 x 1.25” Grd. 5
4	103470	2	WASHER, Lock 1/2” Grd. 5
5	118387	2	SPACER, Outrigger
6	132955	1	WEIGHT, Additional **(Model 8XXX without Outrigger Option only)**
7	126697	1	WELDMENT, Front Outrigger Mount **(Model 71XX w/ Outrigger Option only)**
	126696	1	WELDMENT, Rear Outrigger Mount **(Model 71XX w/ Outrigger Option only)**
	132783	1	WELDMENT, Front Outrigger/Counterweight Mount - Model 8XXX
	132785	1	WELDMENT, Rear Outrigger/Counterweight Mount - Model 8XXX
	127060	2	• BOLT, Hex Hd 1/2”-13 x 4” Grd. 5
	103468	4	• WASHER, Flat 1/2”
	702507	2	• NUT, Hex Nylon Lock 1/2”-13 Grd. 5
8	132301	2	WEIGHT, Additional **(Model 8XXX without Outrigger Option only)**
9	(Ref.)	1	ENGINE GUARD, COVER AND ROLL-OUT ASSEMBLY **Nissan** (For components, refer to Figure 6.6-1) **Kubota** (For components, refer to Figure 6.6-2) **GM** (For components, refer to Figure 6.6-20)
10	133242	1	WELDMENT, Hose carrier
	101632	3	• BOLT, Hex head 3/8-16 x .75” Grd. 5
	103999	3	• WASHER, 3/8” Lock
11	126872	1	HARDWARE, Cabinet mounting
	101297	8	• BOLT, Hex head 3/8-16 x 1.25” Grd. 5
	103472	16	• WASHER, Flat 3/8”
	103999	8	• WASHER, Lock 3/8”
	103978	8	• NUT, Hex head 3/8-16 Grd. B
12	133181	1	CABINET. Hydraulic reservoir/fuel tank
13	132659	1	WELDMENT, Base
14	(Ref.)	-	TANK, Propane (For components, refer to Figure 6.4-14)
15	(Ref.)	-	PROPANE TRAY ASSEMBLY (For components, refer to Figure 6.4-14)
16	105395	4	BUMPER, Scissor
17	103938	4	SCREW, Socket Head 3/8” -16 x 1.5”
18	(Ref.)	-	MANIFOLD ASSEMBLY, Outrigger (For components, refer to Figure 6.7-6)
	103922	2	• BOLT, Socket Hd #10-24 x 3” Grd. 5
	103987	2	• NUT, Machine #10-24 Grd. B
	104694	2	• WASHER, Flat #10 SAE
	104185	2	• WASHER, Lock #10
			Parts list continued on the following page.

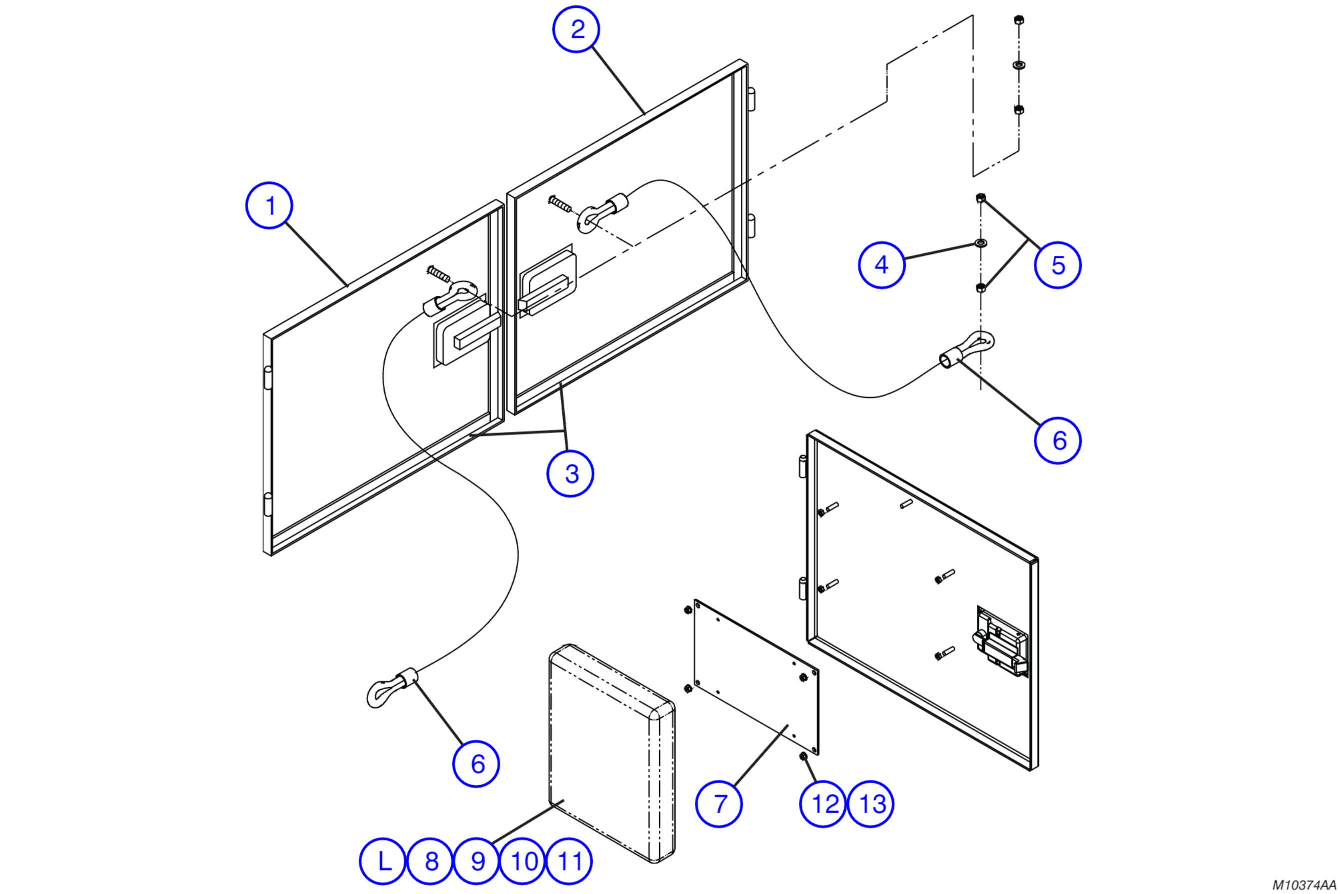
Figure 6.4-1. Base, Axles And Wheels (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
19	130034	1	WHEEL ASSEMBLY, #6 *"Carlisle"* 10 ply Foam Filled
	130033	2	• WHEELS, LH #6 3.75" backspace
	130032	2	• WHEELS, RH #6 3.75" backspace
	129390	1	WHEEL ASSEMBLY, #6 *"Carlisle"* 10 ply Air Filled
	129389	2	• WHEELS, LH #6 3.75" backspace 75 psi
	129388	2	• WHEELS, RH #6 3.75" backspace 75 psi
	129387	1	• • TIRE, 10 ply 75 psi
	103149	1	• • RIM, 3.75" backspace
	134401	1	WHEEL ASSEMBLY, #7 *"Goodyear"* 8 ply Foam Filled
	134399	2	• WHEELS, LH #7 4.375" backspace
	134400	2	• WHEELS, RH #7 4.375" backspace
	134402	1	WHEEL ASSEMBLY, #7 *"Goodyear"* 8 ply Air Filled
	134397	2	• WHEELS, LH #7 4.375" backspace 45 psi
	134398	2	• WHEELS, RH #7 4.375" backspace 45 psi
	130054	1	• • TIRE, 8 ply 45 psi
	134394	1	• • RIM, 4.375 backspace
	*134519	1	WHEEL ASSEMBLY, #6 *"OTR"* 10 ply Foam Filled Non-marking
	134517	2	• WHEELS, LH #6 3.75" backspace
	134516	2	• WHEELS, RH #6 3.75" backspace
	*134520	1	WHEEL ASSEMBLY, #6 *"OTR"* 10 ply Air Filled Non-marking
	134518	2	• WHEELS, LH #6 3.75" backspace 75 psi
	132515	2	• WHEELS, RH #6 3.75" backspace 75 psi
	134507	1	• • TIRE, "OTR"
	124672	1	• • RIM, 3.75" offset
			Parts list continued on the following page.
			*** Note: Non-marking tires are lighter in color**

Figure 6.4-1. Base, Axles And Wheels (Continued)

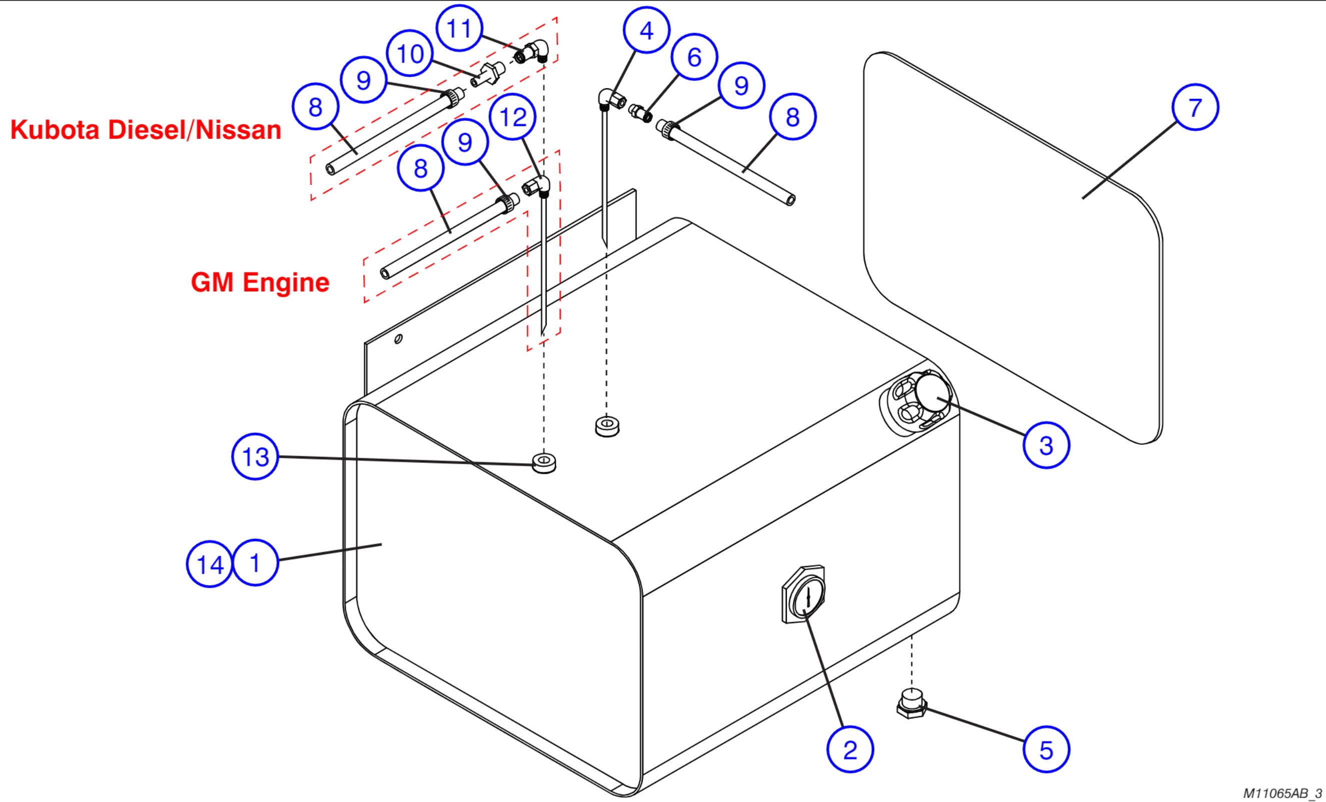
Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
20	128662	1	WELDMENT, Ladder **(Model 71XX)**
	132579	1	WELDMENT, Ladder with Handle Bars **(Model 8243)**
	132588	1	WELDMENT, Ladder with Handle Bars **(Model 8850)**
	103473	4	• BOLT, Hex Hd 3/8"-16 x 1 Grd. 5
	103472	4	• WASHER, Flat 3/8"
	103999	4	• WASHER, Lock 3/8"
21	(Ref.)	-	REAR DRIVE ASSEMBLY, Axle
			Cushman Axles (For components, refer to Figure 6.5-15)
			Dana Axles (For components, refer to Figure 6.5-19)
22	(Ref.)	-	ELECTRICAL/HYDRAULIC CABINET ASSEMBLY
			(For components, refer to Figure 6.4-6)
23	127708	1	LOWERING BAR ASSEMBLY
	132477	1	• BAR, Emergency lowering access
	119920	2	• CLIP, Coated spring
	103964	2	• BOLT, Machine #10-32 x .25"
	124160	2	• PIN ASSEMBLY, Locking
24	(Ref.)	-	ASSEMBLY, Outrigger Option
			(For components, refer to Figure 6.7-3)
25	(Ref.)	-	AXLE ASSEMBLY, 2WD Front
			(For components, refer to Figure 6.5-1)
			AXLE ASSEMBLY, 4WD Front
			Cushman Axles (For components, refer to Figure 6.5-3)
			Dana Axles (For components, refer to Figure 6.5-10)
26	134617	1	COVER, Manifold
27	103980	2	NUT, Hex head 1/4"-20 Grd.5
28	103995	2	WASHER, Flat 1/4"
29	104000	2	WASHER, Lock 1/4"
30	100309	2	BUSHING, 1" DIA x 1" Fiberglide
31	100695	4	BUSHING, 1" DIA x 1-1/2" Fiberglide
32	103315	16	NUT, Wheel 5/8"-18

Figure 6.4-2. Cabinet Door Assemblies



Index No.	Skyjack Part No.	Qty.	Description
1	112014	1	DOOR, Right hand (hydraulic reservoir/ fuel cabinet)
	126911	1	DOOR, Right hand (hydraulic/electric cabinet)
	101541	1	LATCH
	107578	2	HINGE
2	111152	2	DOOR, Left hand
	101541	1	LATCH
	107578	2	HINGE
3	103628	AR	SEAL, Rubber door
4	104000	AR	WASHER, Lock 1/4”
	103995	AR	WASHER, Flat 1/4”
5	103980	AR	NUT, 1/4”-20
6	116052	AR	LANYARD, 18”
7	117363	1	PLATE, Manual Box Mounting
8	117293	1	BOX, Manual
9	103962	4	SCREW, Machine #10-32*0.50 SOC RD HD
10	104185	4	WASHER, Lock #10
11	104694	4	WASHER, Flat #10
12	104000	4	WASHER, Lock
13	103980	4	NUT, Hex Head 1/4”-20 Gr. 5
L	(Ref.)	–	LABELS (Refer to Figure 6.8-3)

Figure 6.4-3. Fuel Tank Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	129849	1	TANK ASSEMBLY, Fuel
1	137520	1	• WELDMENT, Fuel Tank
			(Order Part # 132181 for Machines with Serial #'s 341849 and Below)
2	137522	1	• GAUGE, Mechanical Assembly
			(Order Part #** 126740 **for Machines with Serial #'s 341849 and Below)
3	132127	1	• CAP, Fuel Filter w/ vent **(Nissan, Kubota)**
	146084	1	• CAP, Fuel Filter **(GM)**
			(Order Part #** 132127 **for Machines with Serial #'s 343606 and Below)
4	132138	1	• TUBE, Fuel Withdraw
5	117701	1	• PLUG, Magnetic straight thread (with gasket)
6	112565	1	• FITTING, Hose Barb
7	146123	1	IINSULATION, Thermal
8	102660	-	HOSE, Fuel Line **(Diesel Engines)**
	(Ref)	-	HOSE, Fuel Line **(Dual Fuel Engines)**
			Nissan Dual Fuel (Refer to Figure 6-6-8)
			Kubota Dual Fuel (Refer to Figure 6.6-19**)**
			GM (Refer to Figure 6.6-25)
9	103321	AR	CLAMP, #4 Gear
10	103176	AR	FITTING, 1/4" NPT Male to 5/16" Hose Barb **(Kubota Diesel)**
11	102907	AR	FITTING, 1/4" NPT Male to 5/16" Hose Barb **(Nissan)**
	103164	AR	FITTING, Brass #116B **(Kubota Diesel)**
12	127593	1	WELDMENT, Fuel tube **(GM)**
13	102932	1	PLUG, Pressure **(Kubota Dual Fuel)**
14	-	-	MOUNTING HARDWARE
	101632	2	• BOLT, Hex head (3/8-16 x .75" Grade 5)
	103472	2	• WASHER, Flat (3/8")
	103999	2	• WASHER, Lock (3/8")
	112601	2	• NUT, Hex flanged lock (3/8"-16)

Figure 6.4-4. Hydraulic Reservoir Assembly

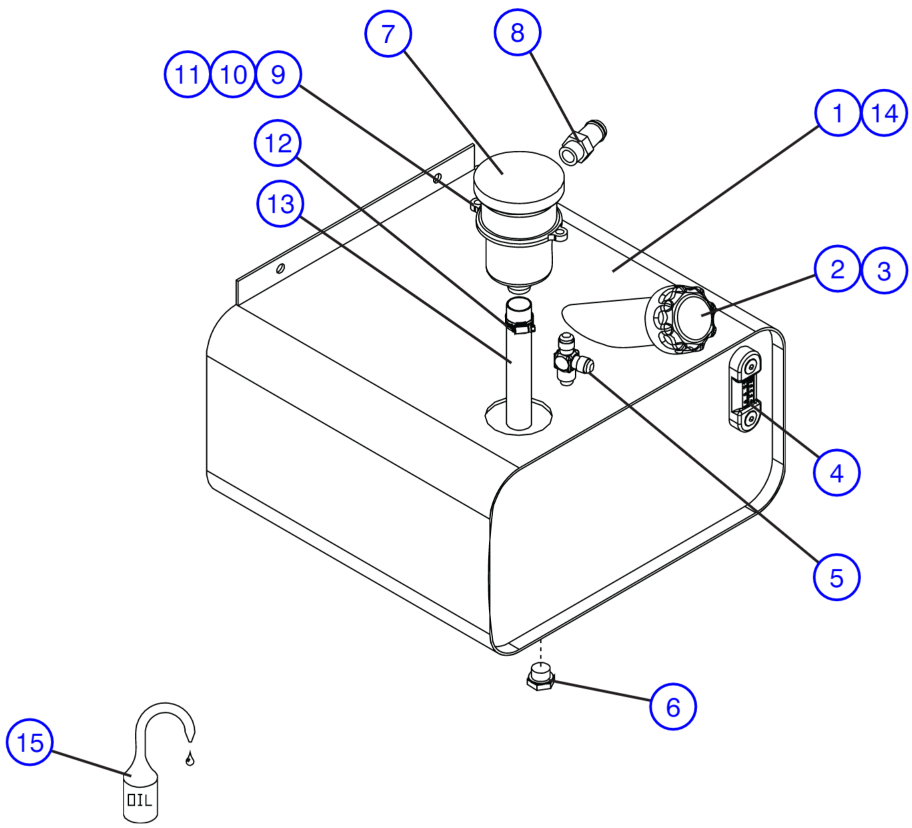
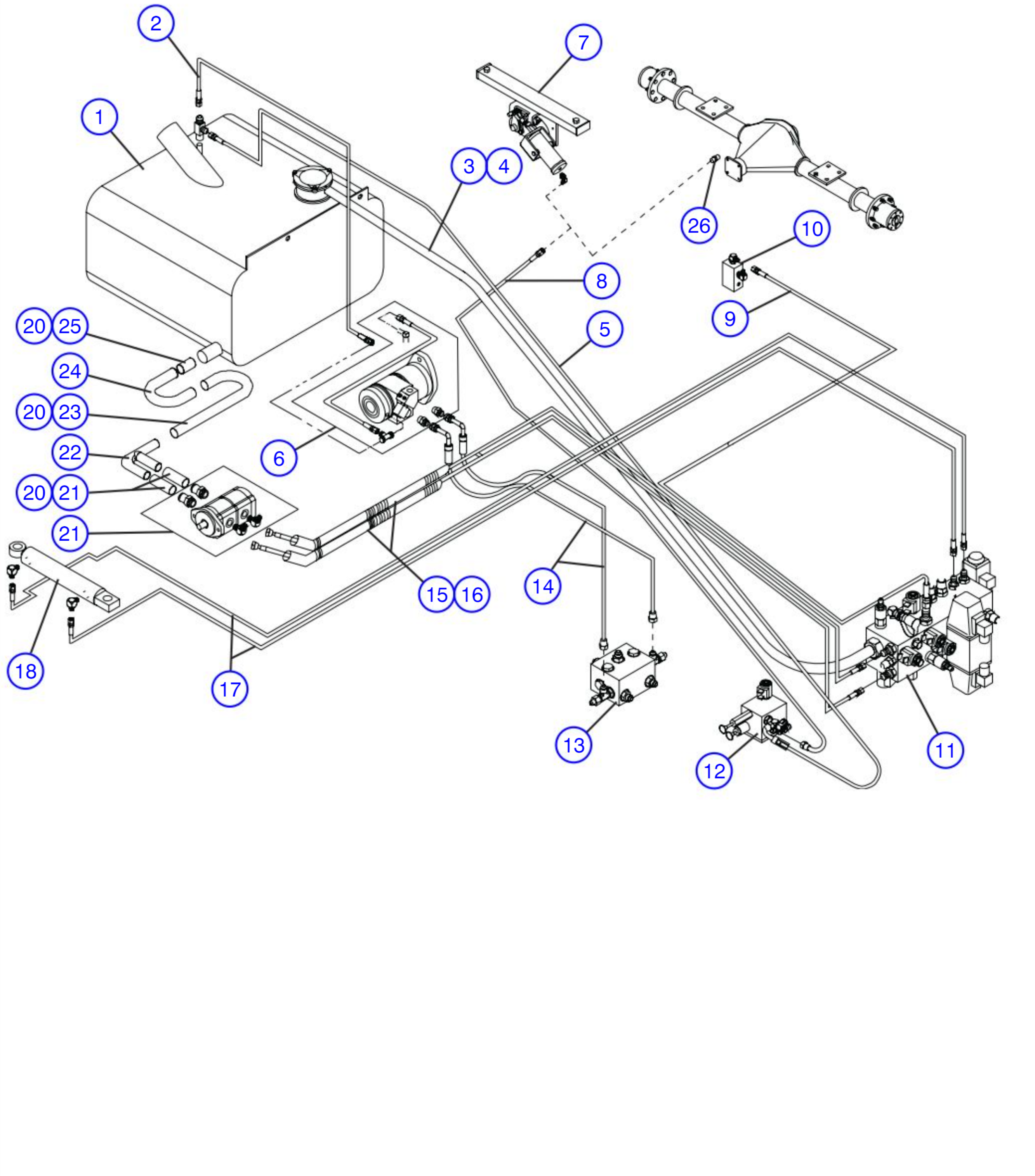


Figure 6.4-4. Hydraulic Reservoir Assembly

Index No.	Skyjack Part No.	Qty.	Description
-	129848	1	HYDRAULIC OIL TANK ASSEMBLY
1	132180	1	• WELDMENT, Oil Tank
2	139429	1	• CAP, Filler w/ Vent
			(Order Part #* 132127 *for Machines with Serial #'s 341849 and Below)
3	132128	1	• SCREEN, Filler Cap
4	103236	1	• INDICATOR, 3 Inch Level
5	113454	1	• FITTING, Female tee run (#8-#6-#8)
6	117701	1	• PLUG, Straight thread and gasket magnetic
7	109568	1	• FILTER, Hydraulic
	104254	1	• • ELEMENT, Filter
	121571	1	• • SCREW, Set
	122968	1	• • CASING, Filter
	122969	1	• • BOLT, Combined with washer
	122973	1	• • CASTING, Aluminum
	123020	1	• • FILTER SPRING ASSEMBLY
	123021	1	• • FILTER COVER ASSEMBLY
	123022	1	• • SEAL, Hydraulic filter element o-ring
8	112187	1	• FITTING, Hose barb
9	103864	2	• BOLT, Hex head (0.312-18 x 1, Grade 5)
10	104637	2	• WASHER Lock (0.312)
11	103996	2	• WASHER, Flat (0.312)
12	103320	1	• CLAMP, Gear (#16)
13	102918	6	• HOSE, Filter to tank (#pv2218-1)
14	-	-	MOUNTING HARDWARE
	101632	2	• BOLT, Hex head (0.375-16 x 0.75, Grade 5)
	103472	2	• WASHER, Flat (0.375)
	103999	2	• WASHER, Lock (0.375)
	112601	2	• NUT, Hex flanged lock (0.375-16)
15	(Ref.)	-	ATF DEXRON III (In Liters) (Refer to Table 1.1.)

Figure 6.4-5. Hydraulic Connections - Base



Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	-	Machines with Kubota Diesel/ GM/ Nissan Dual Fuel
B	(Ref.)	-	Machines with Kubota Dual Fuel Engine
1	(Ref.)	-	HYDRAULIC OIL RESERVOIR
			(For components, refer to Figure 6.4-4)
2	113352	1	HOSE, Hydraulic 3/8” dia x 56”
3	103033	63”	HOSE, Suction 1” I.D. (Diesel Engine Only)
4	103320	AR	CLAMP, #16 Gear (Diesel Engine Only)
5	114383	1	HOSE, Hydraulic 1/2” x 96”
6	(Ref.)	-	ASSEMBLY, Hydraulic Drive Motor
			(For components, refer to Figure 6.5-13)
7	(Ref.)	-	ASSEMBLY, Disc Brake (If equipped)
			Cushman Axles (For components, refer to Figure 6.5-18)
			Dana Axles (For components, refer to Figure 6.5-21)
8	102619	1	HOSE, Hydraulic 1/2” dia. x 70” (Dana Axles)
	114233	1	HOSE, Hydraulic 1/4” dia. x 100” (Cushman Axles)
9	(Ref.)	-	HOSE, Main manifold to lift manifold hydraulic
			(For components, refer to Figure 6.3-10)
10	(Ref.)	-	MANIFOLD, Lift
			(For components, refer to Figure 6.3-11)
11	(Ref.)	-	MAIN MANIFOLD
			(For components, refer to Figure 6.4-12)
12	(Ref.)	-	AUTO RESET BRAKE MANIFOLD
			(For components, refer to Figure 6.4-10)
13	(Ref.)	-	MOTION CONTROL MANIFOLD
			(For components, refer to Figure 6.4-11)
14	129179	2	HOSE, Hydraulic 1/2” x 45”
15	112545	2	HOSE, Hydraulic 1/2” 157”
16	103090	21”	PROTECTOR, 3/4” Wire
17	110697	2	HOSE, Hydraulic 1/4” x 82” (Cushman Axles)
	112543	2	HOSE, Hydraulic 1/4” x 116” (Dana Axles)
18	(Ref.)	-	ASSEMBLY, Steer Cylinder
			Cushman Axles (For components, refer to Figure 6.5-8)
			Dana Axles (For components, refer to Figure 6.5-11)
19	(Ref.)	-	HYDRAULIC PUMP ASSEMBLY
			(For components, refer to Figure 6.6-20)
20	114326	AR	CLAMP, Hose (1.58”)
21	132839	2	HOSE, Tank Truck 1.25” x 5.75” **A**
	119858	2	HOSE, Tank Truck 1-1/4” x 5-1/2” **B**
22	123676	1	TUBE, Pump suction
23	132825	1	HOSE, Suction 1-1/4” dia x 47-1/2” **A**
	128614	1	HOSE, Suction 1-1/4” dia x 51-1/2” **B**
24	127477	1	TUBE, Suction
25	128613	1	HOSE, Tank Truck 1.25” x 7”
26	141514	1	FITTING, Straight (Cushman Axles)

Figure 6.4-6. Hydraulic/Electrical Cabinet Assembly

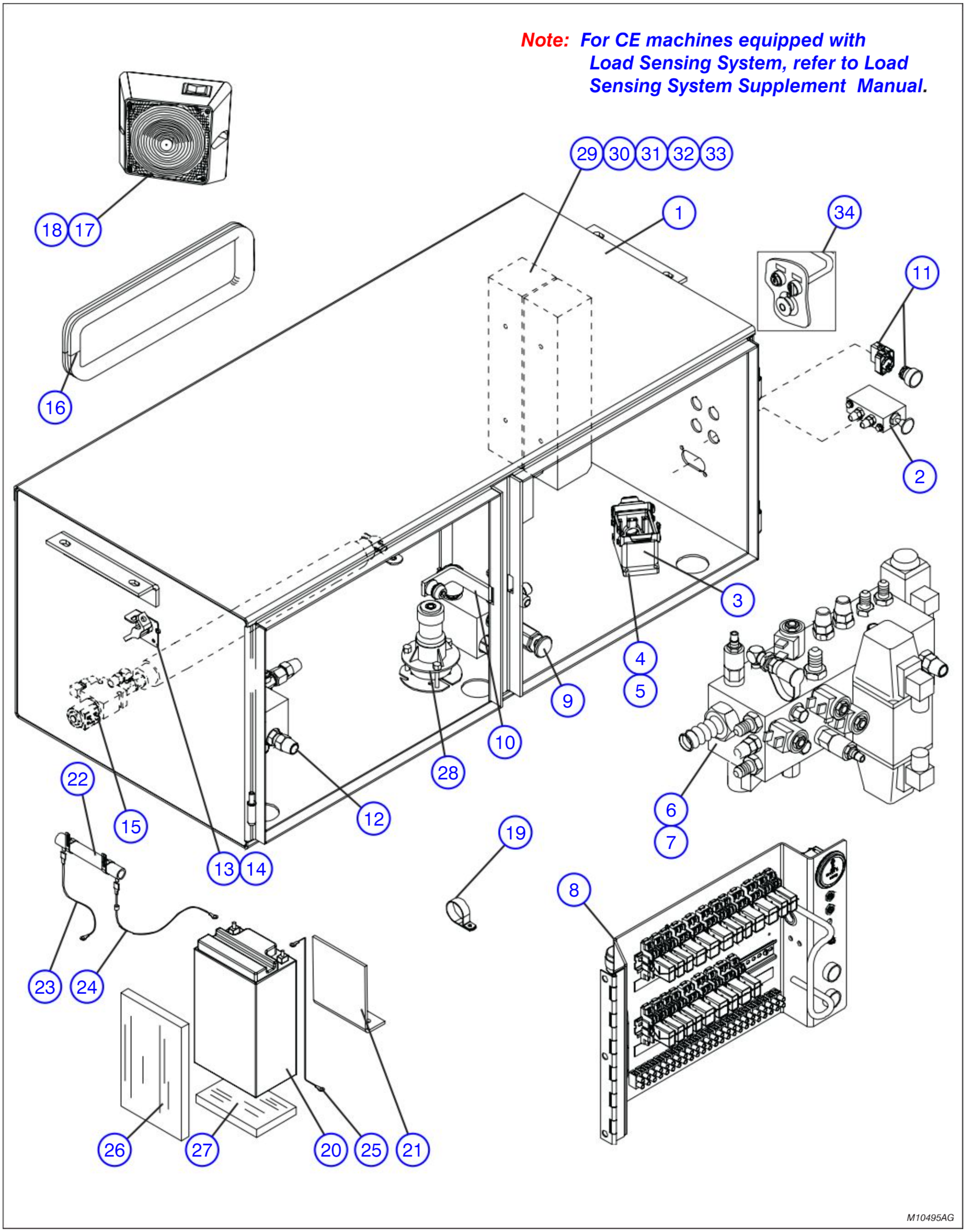


Figure 6.4-6. Hydraulic/Electrical Cabinet Assembly

Index No.	Skyjack Part No.	Qty.	Description
1	132689	1	WELDMENT, Electrical cabinet
2	(Ref.)	-	ASSEMBLY, Emergency lowering valve
			(For components, refer to Figure 6.4-9)
3	(Ref.)	-	CONTROL CABLE ASSEMBLY, Panel to connector
			(For components, refer to Figure 6.4-13)
4	104698	AR	BOLT, #10- 32 x 3/4” Machine
5	104185	AR	WASHER, #10 Lock
6	(Ref.)	-	MAIN MANIFOLD ASSEMBLY
			(For components, refer to Figure 6.4-12)
7	126951	1	MOUNTING HARDWARE, Main manifold assembly
	100397	8	• NUT, 5/16-18
	101446	4	• STUD, Mounting
	104637	4	• WASHER, 5/16” Lock
8	(Ref.)	-	PANEL ASSEMBLY, Electrical
			(For components, refer to Figure 6.4-13)
9	(Ref.)	-	ASSEMBLY, Auto/Manual brake valve
			(For components, refer to Figure 6.4-10)
10	126830	1	ASSEMBLY, Electrical panel bracket
	126820	1	• BRACKET, Rubber mount
	104000	1	• WASHER, 1/4” Lock
	105980	3	• NUT, 1/4-20 Grd. 5
	125892	1	• BUMPER, Rubber mail
	103940	1	• BOLT, S.H.C.S. 1/4-20 Grd. 5 x 1.25”
	103856	2	• BOLT, Hex head 1/4-20 Grd. 5 x .75”
	103995	2	• WASHER, 1/4 flat
11	(Ref.)	-	SWITCH ASSEMBLY, Emergency Lowering **(Model 8243 & 8850 only)**
	102765	1	• HEAD, Push Button (Red)
	103100	1	• BASE, Contact
	103141	1	• SWITCH, N.O. Contact
	103256	100”	• CABTIRE, 18/2
			Part list continued on the following page.

Figure 6.4-6. Hydraulic/Electrical Cabinet Assembly (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
12	(Ref.)	-	ASSEMBLY, Motion control valve (For components, refer to Figure 6.4-11)
13	119726	1	SWITCH, 12V Main disconnect
14	105600	1	BOOT, Red battery
15	(Ref.)	-	ASSEMBLY, Cushion valve (For components, refer to Figure 6.4-8)
16	117398	33"	TRIM, Protective
17	130198	1	LIGHT ASSEMBLY, Cabinet
	130208	1	• LIGHT BULB, 12V
	127178	1	• LENS
	103256	60"	• CABTIRE, 18/2
18	115545	2	BOLT, Machine #10-32 x 0.375"
19	132792	AR	CLAMP, Cable Bundle (7/8")
	132793	AR	CLAMP, Cable Bundle (1 3/8")
20	108789	1	BATTERY, 12VDC-14 Amp - Emergency Lowering
21	132926	1	PLATE, Battery Holder
	103864	2	• BOLT, Hex Hd 3/8"-16 x 1" Grd. 5
	103472	2	• WASHER, Flat 3/8"
	103999	2	• WASHER, Lock 3/8"
	103978	2	• NUT, Hex Hd 3/8"-16 Grd. 5
22	108788	1	RESISTOR, 3 Ohm-100 Watt
	132791	2	• CLAMP, Plastic 3/4"
23	123944	1	WIRE, Auxiliary Battery Power
24	123414	1	WIRE, Auxiliary Charging Cable
25	123943	1	WIRE, Auxiliary Battery Ground
26	113456	1	SPACER, Battery Side Plywood
27	113455	1	SPACER, Battery Bottom Plywood
28	127853	1	ASSEMBLY, Tilt Alarm Switch **(ANSI/CSA, No Outriggers)**
	310585	1	• SWITCH, Tilt 8-28V Alarm
	103855	2	• Bolt, Hex Hd 1/4"-20 x 1/2" Grd. 5
	103980	2	• NUT, Hex Hd 1/4"-20 Grd. B
	104000	2	• WASHER, Lock 1/4"
29	133890	2	WEIGHT, Cabinet **(8XXX Models Only)**
30	120738	4	BOLT, Hex head 1/4"-20 x 4" Grd. 5 **(8XXX Models Only)**
31	103995	4	WASHER, Flat 1/4" **(8XXX Models Only)**
32	104000	4	WASHER. Lock 1/4" **(8XXX Models Only)**
33	103980	4	NUT, Hex head 1/4"-20 Grd.5 **(8XXX Models Only)**
34	(Ref.)	-	LOWER CONTROL STATION (For components, refer to Figure 6.4-13)

Figure 6.4-7. Hydraulic Connections - Cabinet

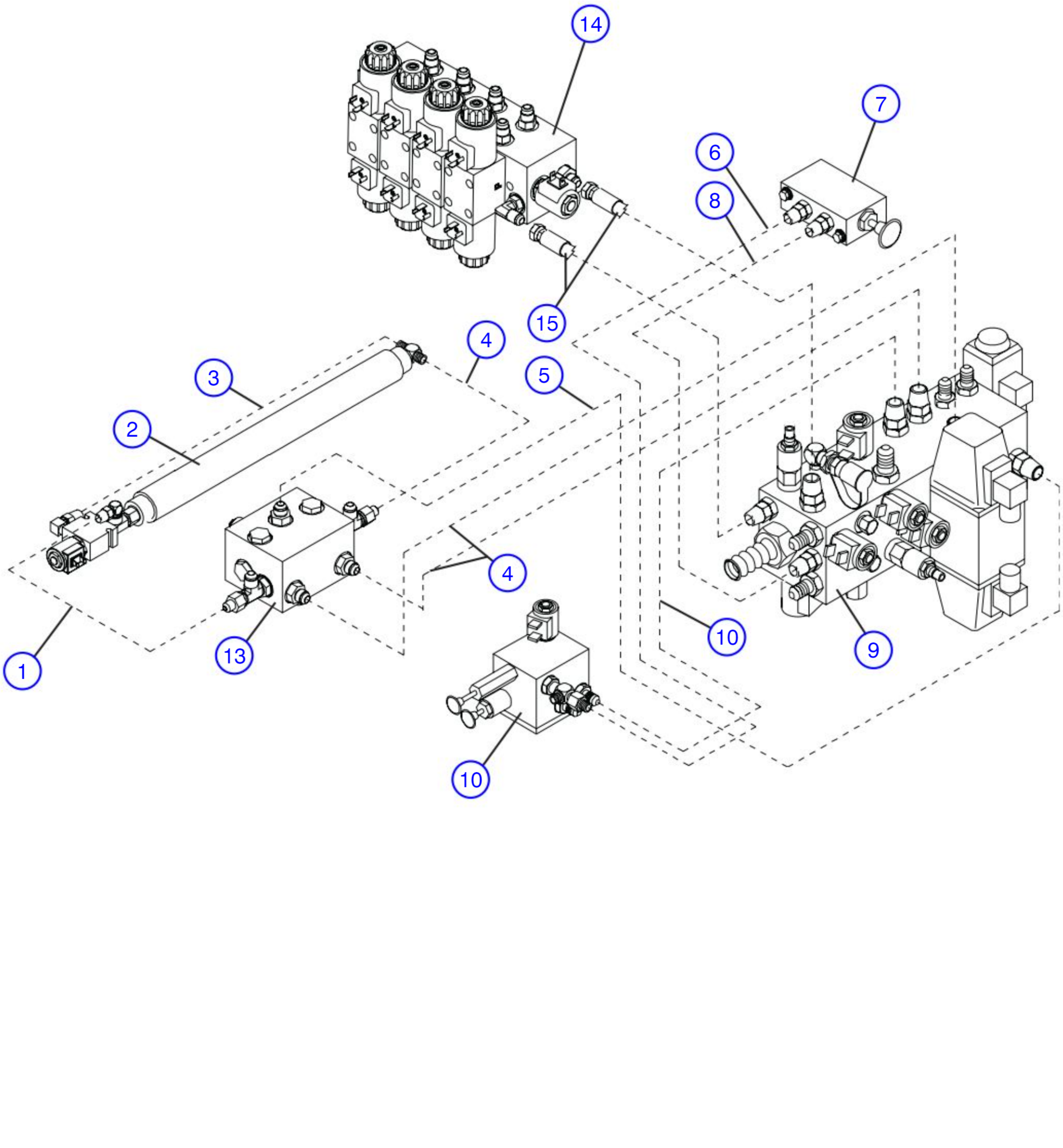
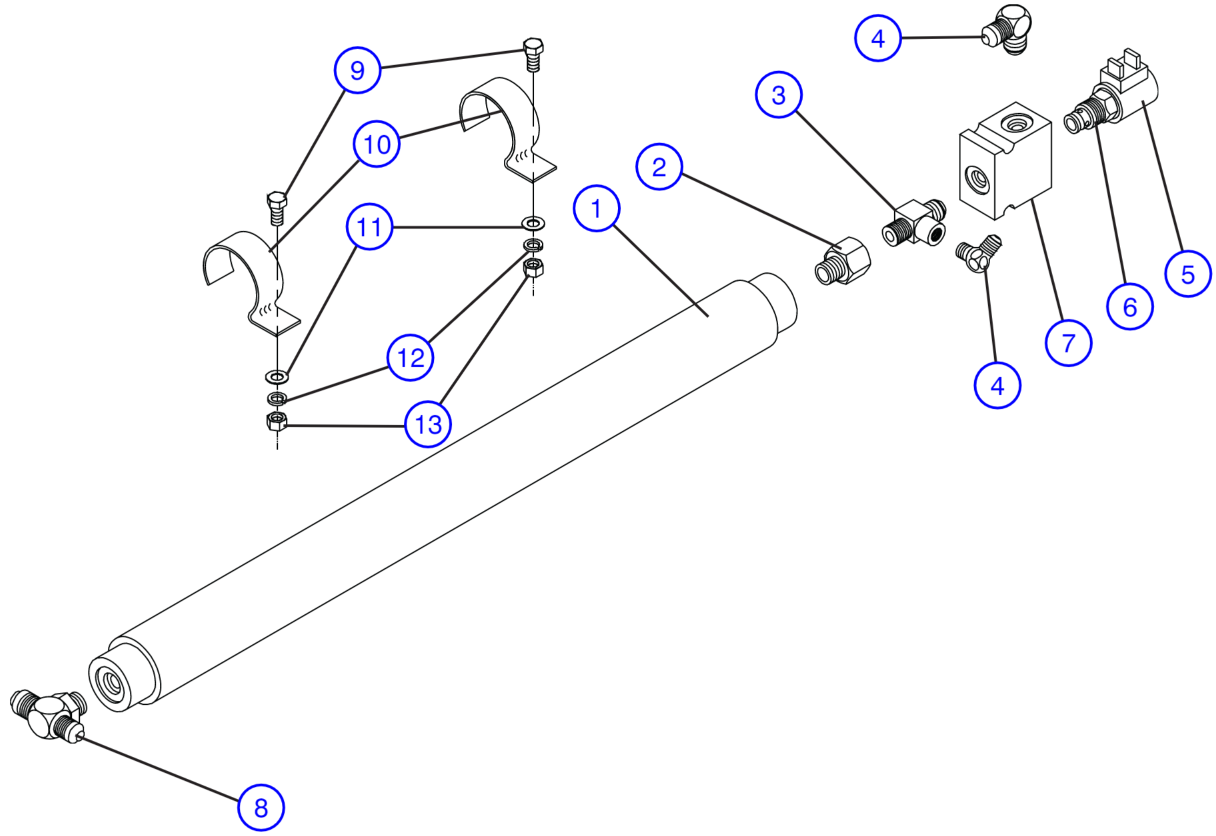


Figure 6.4-7. Hydraulic Connections - Cabinet

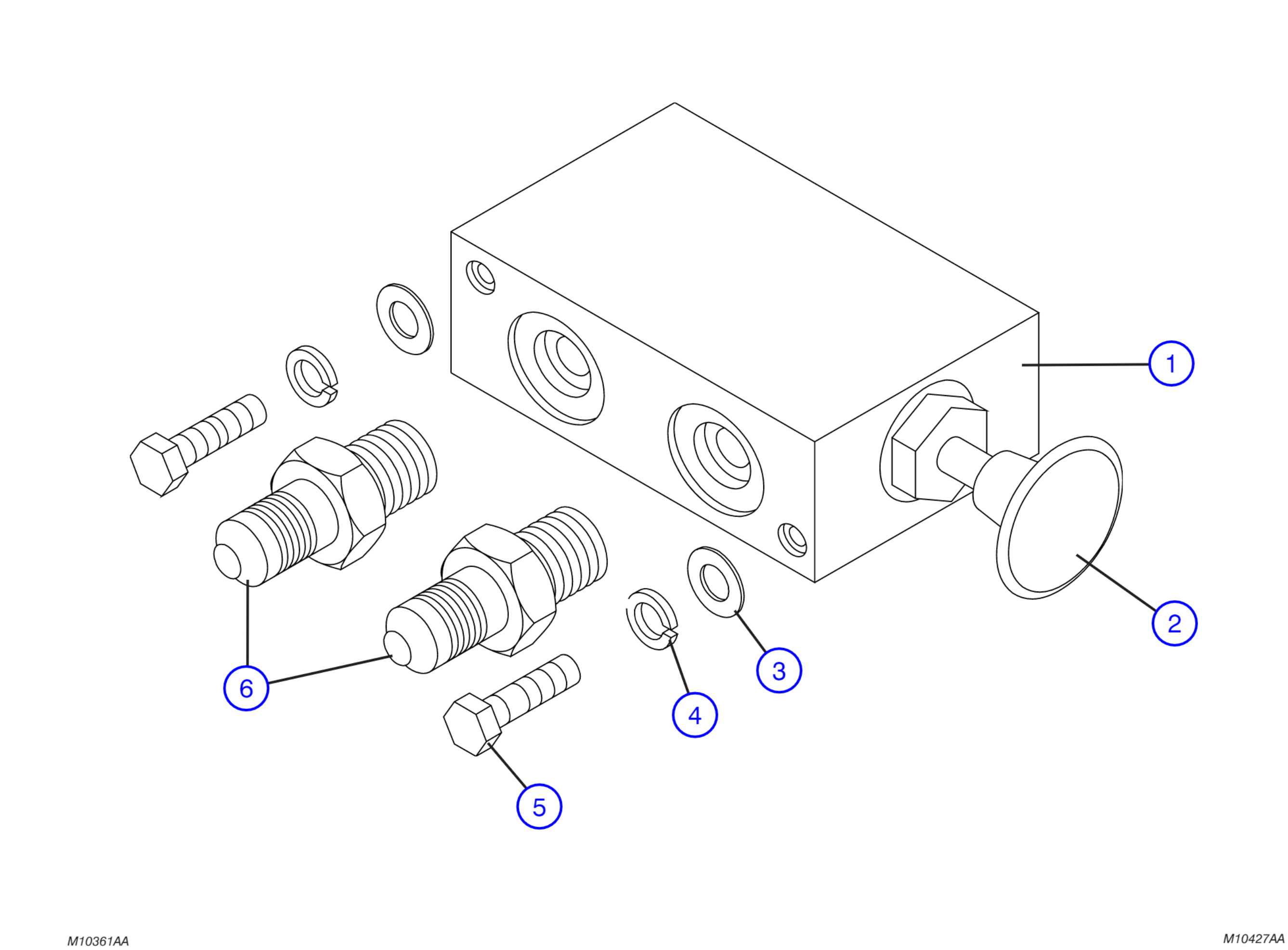
Index No.	Skyjack Part No.	Qty.	Description
1	102540	1	HOSE, Hydraulic line 1/4” dia x 13”
2	(Ref.)	-	CUSHION VALVE ASSEMBLY (For components, refer to Figure 6.4-8)
3	102522	1	HOSE, Hydraulic line 1/4” dia x 24.5”
4	106516	1	HOSE, Hydraulic line 1/4” dia x 27”
5	128574	1	HOSE, Hydraulic line 1/2” dia x 55”
6	128178	1	HOSE, Hydraulic line 3/8” dia x 22”
7	(Ref.)	-	EMERGENCY LOWERING VALVE ASSEMBLY (For components, refer to Figure 6.4-9)
8	128575	1	HOSE, Hydraulic line 3/8” dia x 72”
9	(Ref.)	-	MAIN MANIFOLD ASSEMBLY (For components, refer to Figure 6.4-12)
10	111863	1	HOSE, Hydraulic line 3/8” dia x 39”
11	(Ref.)	-	BRAKE VALVE ASSEMBLY (For components, refer to Figure 6.4-10)
12	119013	2	HOSE, Hydraulic line 1/2” dia x 40”
13	(Ref.)	-	MOTION CONTROL VALVE ASSEMBLY (For components, refer to Figure 6.4-11)
14	(Ref.)	-	OUTRIGGER MANIFOLD ASSEMBLY (Optional) (For components, refer to Figure 6.7-6)
15	(Ref.)	-	CONNECTIONS, Outrigger Hydraulic Hose (For components, refer to Figure 6.7-1)

Figure 6.4-8. Cushion Valve Assembly



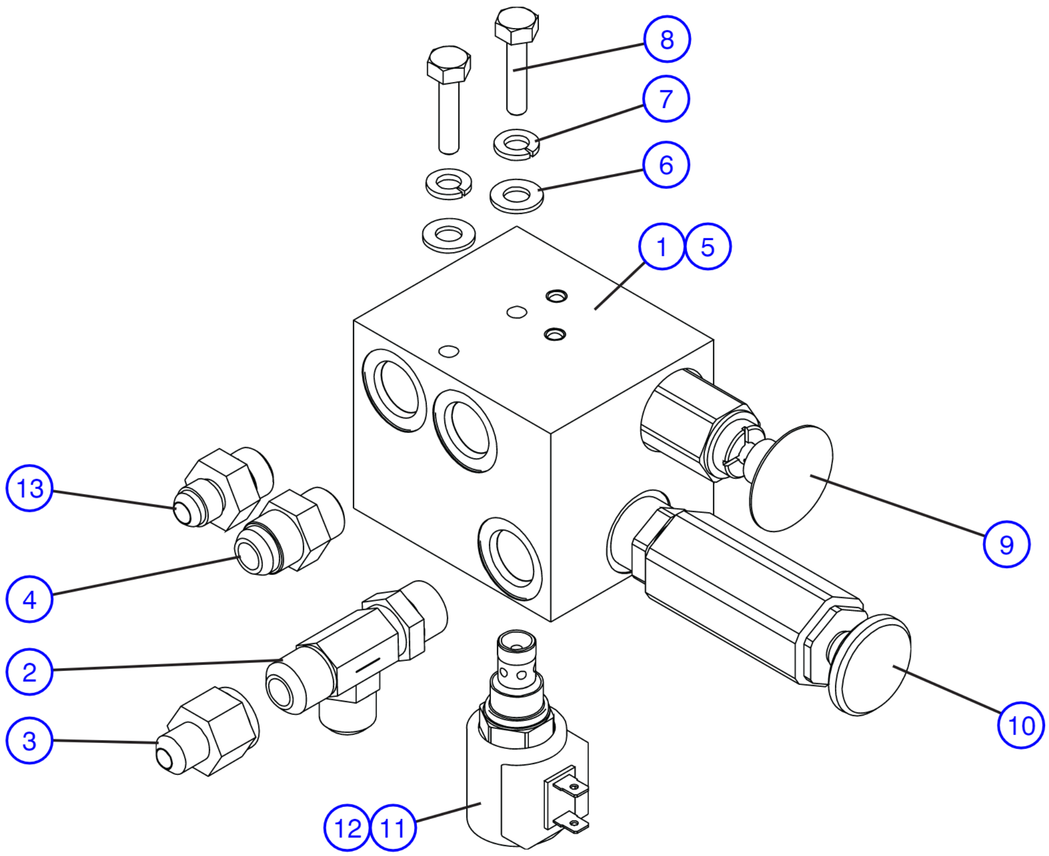
Index No.	Skyjack Part No.	Qty.	Description
A	127657	-	CUSHION VALVE ASSEMBLY
1	107752	1	• CYLINDER, Cushion
2	106554	1	• FITTING, #6-#4 I-pipe- O-ring reducer
3	103245	1	• FITTING, #4-#4-#4 E. pipe- I.Pipe tee
4	103324	2	• FITTING, 90° elbow #6-#4
5	103613	1	• COIL, 12V
6	112218	1	• VALVE, N.O. (Free wheeling)
7	103615	1	• MANIFOLD (Free wheeling)
8	104660	1	• FITTING, Tee #6 orb-#6-#6
B	127662	1	FASTENERS, Cushion cylinder
9	103887	2	• BOLT, Hex head 5/16-18 Grd. 5 x 0.75”
10	102971	2	• BRACKET, Conduit
11	103996	2	• WASHER, Flat 5/16”
12	104637	2	• WASHER, Lock 5/16”
13	100397	2	• NUT, Hex head 5/16-18 Grd. B

Figure 6.4-9. Emergency Lowering Valve Assembly



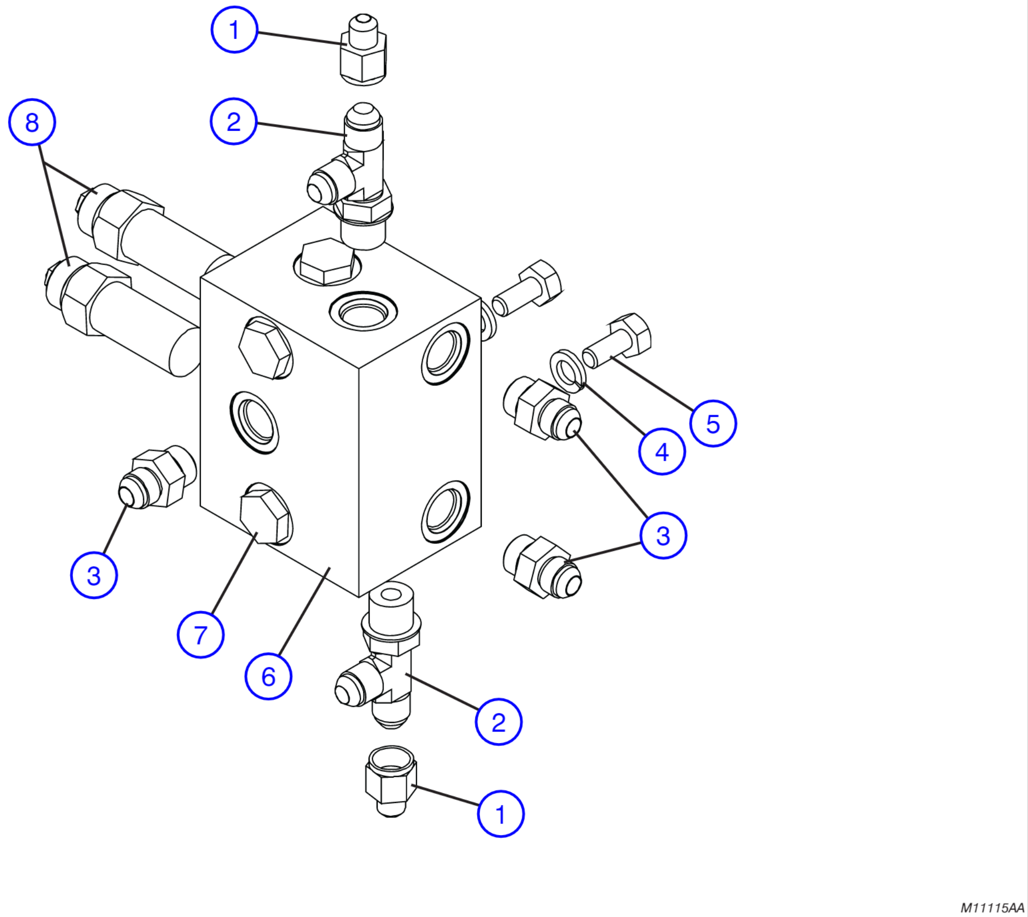
Index No.	Skyjack Part No.	Qty.	Description
A	127610	-	EMERGENCY LOWERING VALVE ASSEMBLY
1	119748	1	• BODY, Valve
2	107271	1	• VALVE, Manual Directional
3	103995	AR	• WASHER, Flat 1/4”
4	104000	AR	• WASHER, Lock 1/4”
5	103857	AR	• BOLT, Hex head 1/4”- 20 x 1” Grd. 5
6	103069	AR	• FITTING, #6 orb - #6

Figure 6.4-10 Brake Valve Assembly, Auto/Manual

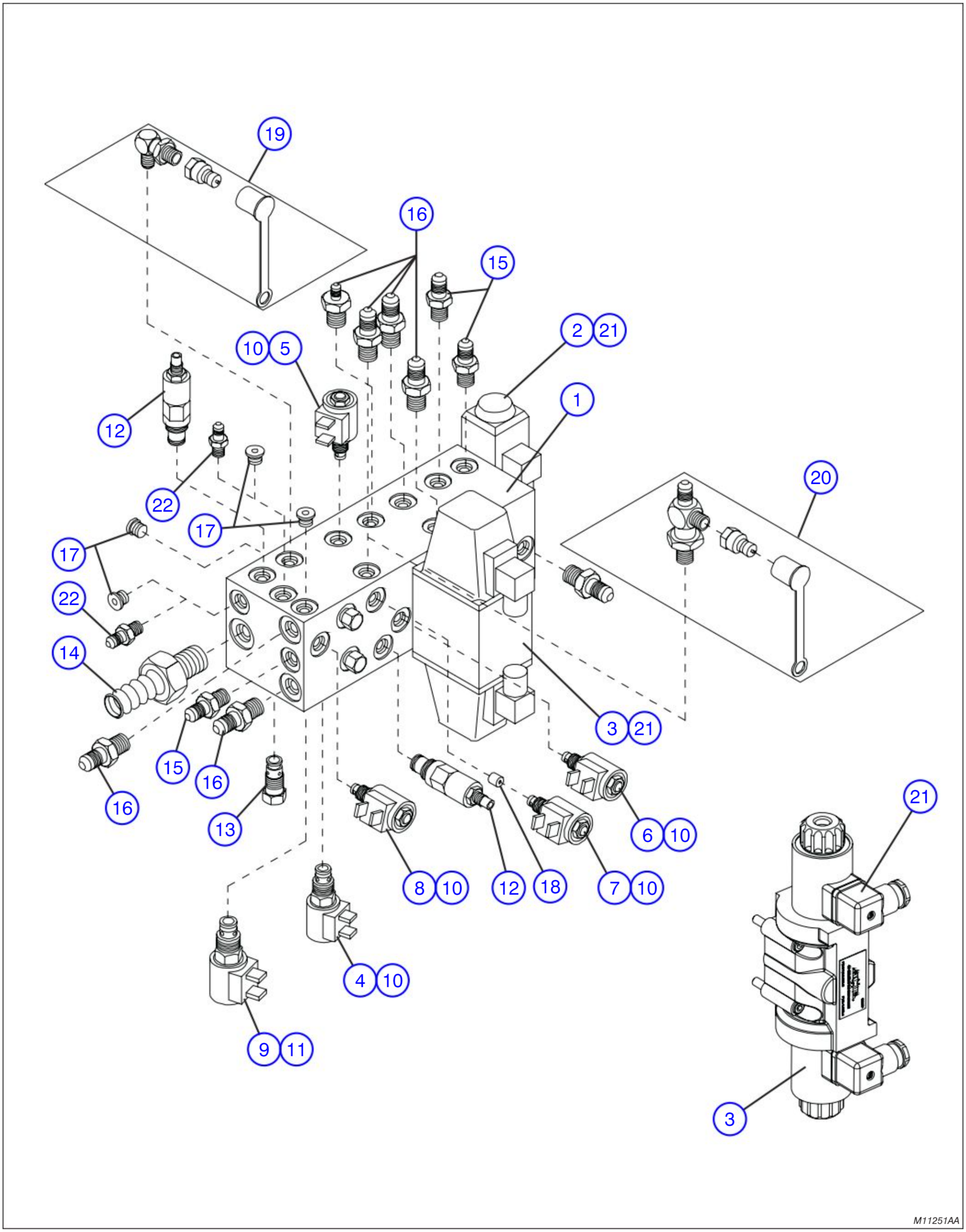


Index No.	Skyjack Part No.	Qty.	Description
A	400031	-	BRAKE VALVE ASSEMBLY
1	111943	1	• MANIFOLD, Auto/manual brake
2	110554	1	• FITTING, #8-#8-#8
3	110498	1	• FITTING, Reducer
4	102659	1	• FITTING, #8-#8
5	120039	1	• SPACER, Plate
6	103996	AR	• WASHER, Flat 5/16”
7	104637	AR	• WASHER, Lock 5/16”
8	103864	2	• BOLT, 5/16-18 x 1” Grd. 5
9	113752	1	• VALVE, Auto reset
10	110652	1	• PUMP, Cavity hand
11	102626	1	• VALVE, Spool
12	103613	1	• COIL, 12V-2 Prong valve
13	103070	1	• FITTING, O-ring

Figure 6.4-11. Motion Control Valve System



Index No.	Skyjack Part No.	Qty.	Description
A	132267	1	MOTION CONTROL VALVE ASSEMBLY
1	110498	2	• FITTING, Reducer connector
2	132255	2	• FITTING, Tee connector
3	103071	3	• FITTING, Straight Connector
4	103470	2	• WASHER, Lock 1/2” Grd. 5
5	103911	2	• BOLT, Hex Hd 1/2”-13 x 1.0” Grd. 5
(Ref.)	132244	1	• ASSEMBLY, Manifold Control Valve
6	132261	1	• • MANIFOLD, Control Valve
7	132248	2	• • VALVE, Check
8	132249	2	• • VALVE, Counterbalance


19
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M11251AA

Index No.	Skyjack Part No.	Qty.	Description
A	114366	-	MANIFOLD ASSEMBLY, Main
1	114178	1	• BLOCK, Main Manifold
2	128797	1	• VALVE ASSEMBLY, Steer "Hytos"
	128318	1	• • VALVE, Directional spool
	128321	2	• • • COIL, 12 Volt Spool Valve
	103920	AR	• • BOLT, Socket head #10-24 x 2" Grd. 5
3	139257	1	• VALVE ASSEMBLY, Drive "Hytos"
			(Machines with Serial No. 342297 & Above)
	139256	1	• • VALVE, Directional spool
	128321	2	• • • COIL, 12 Volt Spool Valve
	103942	AR	• • BOLT, Socket head 1/4"-20 x 1.75" Grd. 5
	128796	1	• VALVE ASSEMBLY, Drive "Hytos"
			(Machines with Serial number 342296 & Below)
	128319	1	• • VALVE, Directional spool
	128322	2	• • • COIL, 12 Volt Spool Valve
	103942	AR	• • BOLT, Socket head 1/4"-20 x 1.75" Grd. 5
4	103655	1	• VALVE, Brake Feed (N.C.)
5	103655	1	• VALVE, Lift (N.C.)
6	103656	1	• VALVE, Brake Dump (N.O.)
7	103655	1	• VALVE, Lowering (N.C.)
8	103656	1	• VALVE, Small Pump Dump (N.O.)
9	114365	1	• VALVE, Large Pump Dump (N.O.)
10	103613	5	• COIL, 12 Volt Valve
11	106272	1	• COIL, 12 Volt Valve
12	104534	2	• VALVE, Relief
13	104624	3	• VALVE, Pilot Check
14	112187	1	• FITTING, Hose Barb
15	103069	3	• FITTING, Connector #6orb- #6
16	102659	AR	• FITTING, Connector #8orb- #8
17	104437	4	• FITTING, Plug Hex-soc #6orb (Port)
18	134243	1	• ORIFICE, Lowering .113" dia.
19	122419	1	• ASSEMBLY, Quick Disconnect (System Pressure)
	122365	1	• • FITTING, #6-#6
	122385	1	• • COUPLER, Quick
	114521	1	• • DUST CAP, 600 Series
20	122418	1	ASSEMBLY, Optional Quick Disconnect (Lift Pressure)
	122366	1	• FITTING, #8-#8-#8
	122385	1	• COUPLER, Quick
	114521	1	• DUST CAP, 600 Series
21	(Ref.)	-	CONNECTORS, Electrical valve
	104345	AR	• CONNECTOR, Gray
	104409	AR	• CONNECTOR, Black
	119825	AR	• CONNECTOR, Clear with diode
22	103070	2	FITTING, Straight (If Equipped with Outrigger Option)

Figure 6.4-13. Electrical Panel Assembly

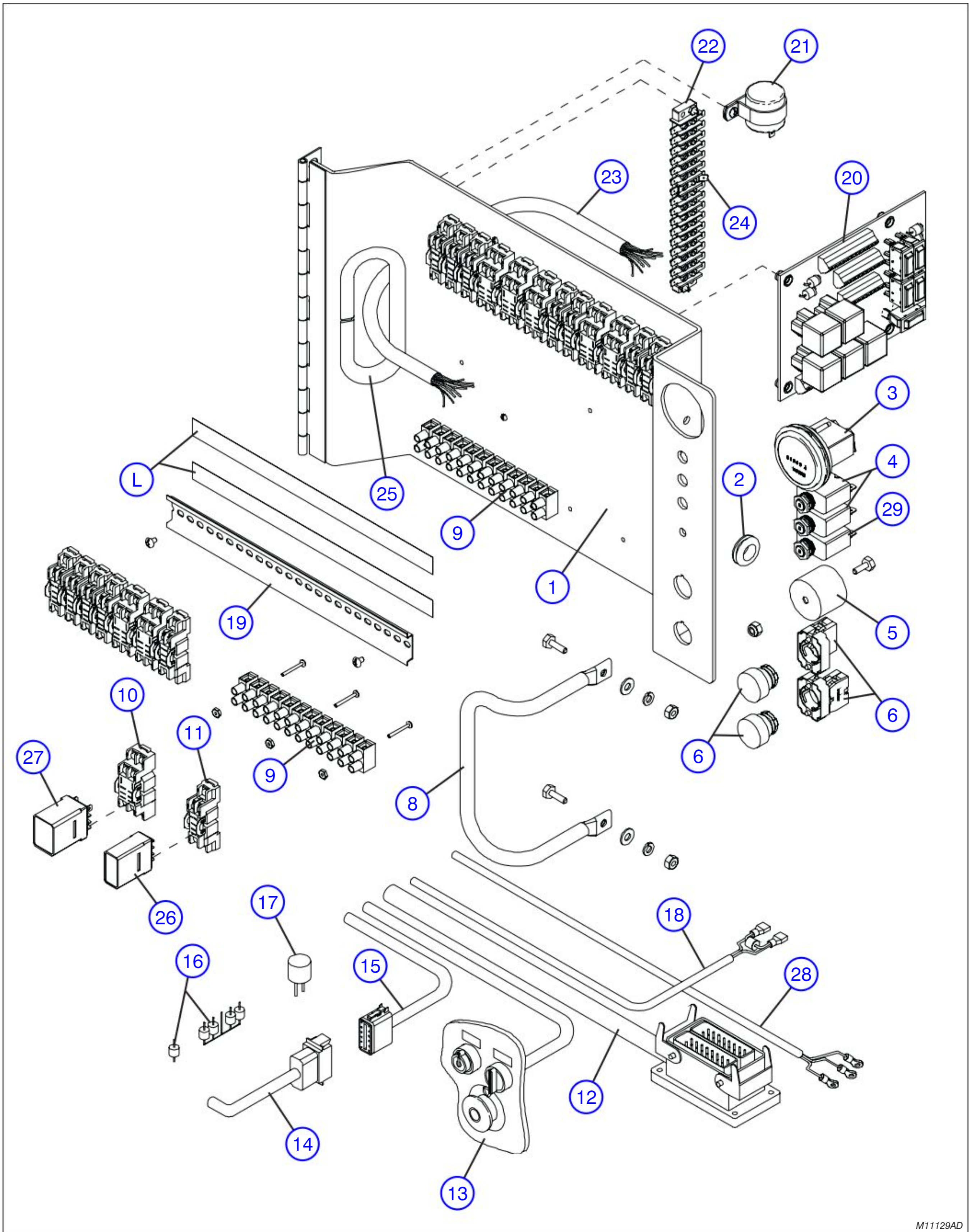
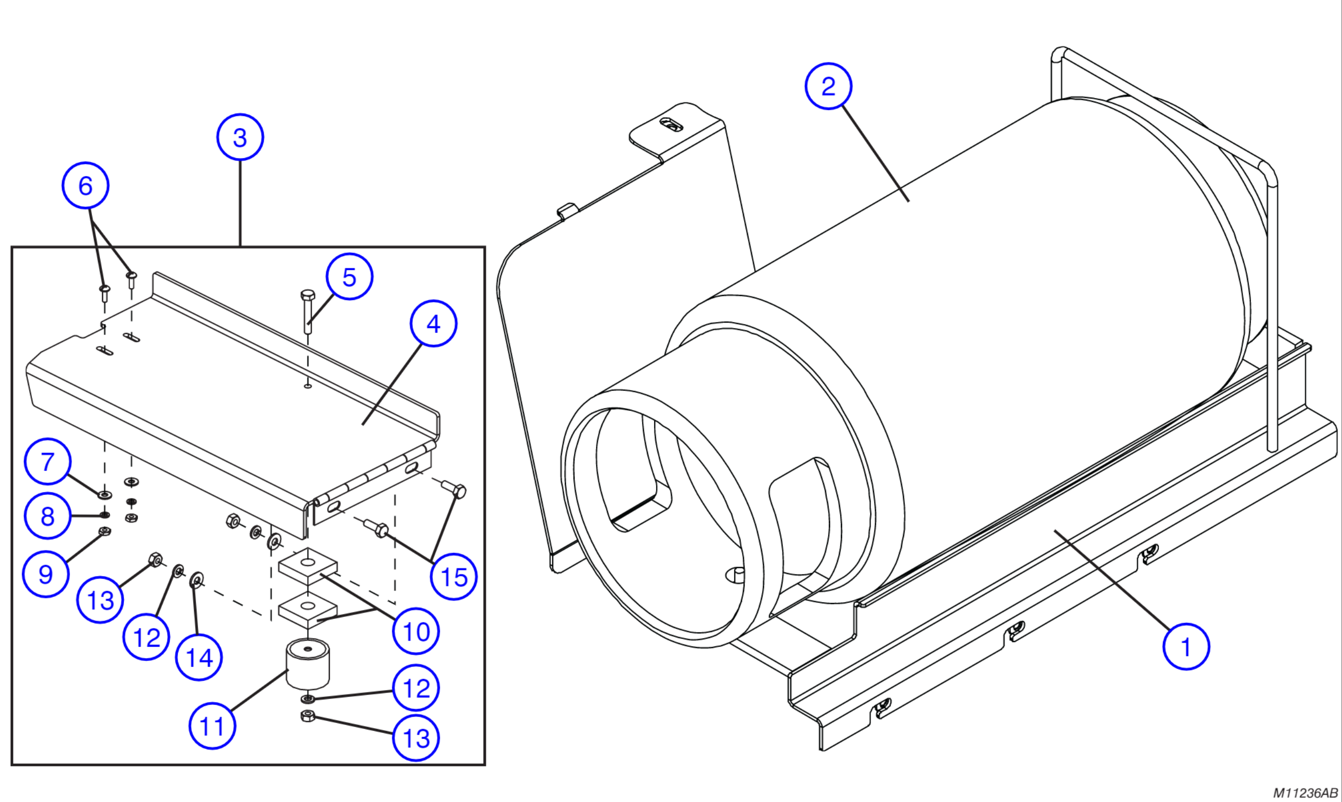


Figure 6.4-13. Electrical Panel Assembly

Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	-	PANEL ASSEMBLY, Electrical **(ANSI/SIA and CSA)**
B	(Ref.)	-	PANEL ASSEMBLY, Electrical **(CE)**
1	127499	1	WELDMENT, Electrical Panel
2	103014	1	GROMMET, Rubber 7/8
3	103336	1	GAUGE, Hour Meter
4	117326	2	BREAKER, 20 AMP Circuit Breaker
5	125893	1	BUMPER, Rubber , Female
	115649	1	• NUT, HEX Nylon Lock 1/4”-20 Grd. 5
	103892	1	• BOLT, HEX HD 1/4”-20 x 5/8” Grd. 5
6	103280	2	CONTACT ASSEMBLY, Switch
	103100	1	• BASE, Contact
	103141	1	• SWITCH, N.O. Contact
7	102851	2	PUSH BUTTON, SW. Head Black
8	130082	1	HANDLE, Electric panel (If Equipped)
	103980	2	• NUT, Hex head 0.25-20 Grd 5
	103995	2	• WASHER, Flat 0.250
	104000	2	• WASHER, Lock 0.25
	103856	2	• BOLT, Hex head 0.25-20 x 0.750 Grd 5
9	103011	2	TERMINAL BLOCK, 12P Large
	103956	6	• SCREW, RND HD Machine 6-32 x 1”
	103985	6	• NUT, HEX HD 6-32
10	103271	AR	SOCKET, Double relay
11	102479	AR	SOCKET, Single relay
12	129167	1	ELECTRICAL PANEL CONNECTOR ASSEMBLY
	115274	114”	• CABLE, 18/30
	114476	1	• ASSEMBLY, 32 Pole Female Connector
	114465	1	• • HOUSING with strain relief connector
	132787	1	• • • HOUSING
	132109	1	• • • CONNECTOR, Strain Relief
	114467	1	• • INSERT, Female (Pins 1-16)
	114468	1	• • INSERT, Female (Pins 17-32)
	115401	60	• FERRULE, 18 Gauge
13	(Ref.)	-	LOWER CONTROL STATION
	103278	1	• SWITCH ASSEMBLY, Platform Up/Down
	102837	1	• • HEAD, Selector Switch
	103100	2	• • BASE, Contact
	103141	2	• • BLOCK, N.O. Contact
	(Ref.)	1	• SWITCH ASSEMBLY, Emergency Stop
	102769	1	• • HEAD, Stop Switch
	103100	1	• • BASE, Contact
	103225	1	• • BLOCK, N.C. Contact
	(Ref.)	1	• SWITCH ASSEMBLY, Platform/Base select
	102754	1	• • HEAD, Selector Switch
	104466	AR	• • KEY, #455
	103100	1	• • BASE, Contact
	120292	1	• • BLOCK, N.O. Contact
	120293	1	• • BLOCK, N.C. Contact
			Part list continued on the following page.

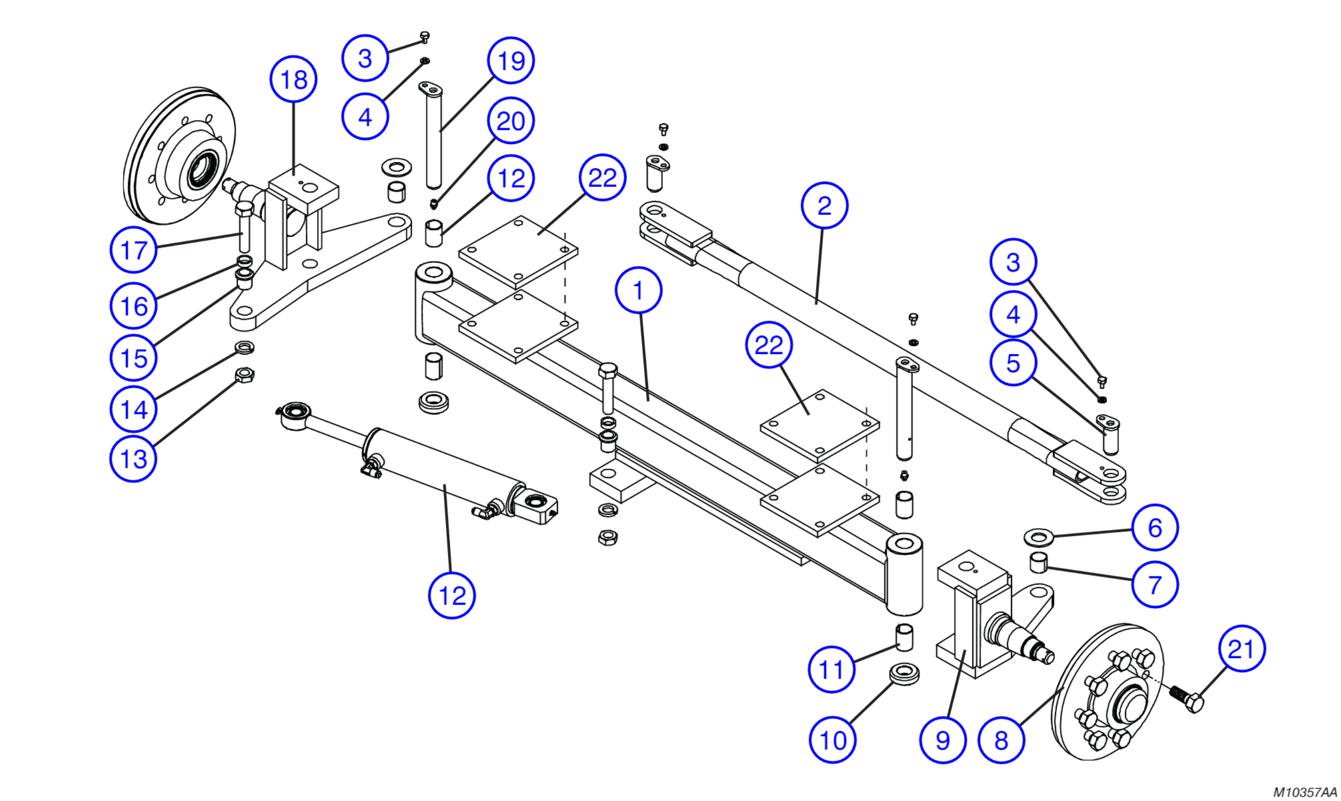
Figure 6.4-13. Electrical Panel Assembly (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from previous page.
14	(Ref.)	-	HARNESS, Engine Sensors and Control
			Nissan Dual Fuel (For components, refer to Figure 6.6-6)
			Kubota Diesel Fuel (For components, refer to Figure 6.6-12)
15	127692	1	HARNESS, Engine Pull-Out
	115664	200”	• CABLE, 14/12
	117587	1	• PLUG, Connector Pin
	117593	10	• SOCKET, Connector Contact 14-16
	117594	2	• PLUG, Connector Sealing
	117589	1	• WEDGE, Connector
16	104313	1	DIODE ASSEMBLY W/4 DIODES
	102921	AR	• DIODE, 6 Amp
17	103319	1	• CAPACITOR, 35 Volt, 1000UF
18	127679	AR	HARNESS, Motor 2-Speed
	103256	108”	• CABLE, 18/2 Cabtire
	102921	1	• DIODE
19	114694	2	TRACK, 12” Relay
	130660	2	TRACK, 12.5” Relay **(CE)**
	103964	4	• SCREW, Round Hd Machine 10-32 x 3/4”
20	(Ref.)	-	ASSEMBLY, Outrigger Electrical Panel
			(For components, refer to Figure 6.7-8)
21	103743	1	FLASHER, 12/24 Volt
	103962	1	• SCREW, Round Hd Machine 10-32 x 1/2”
	132793	1	• CLAMP, Plastic Clamp (1 1/4”)
22	103105	1	TERMINAL Block 16P.
	103955	2	• SCREW, RND HD Machine 6-32 x 3/4”
	103985	2	• NUT, Hex #6-32
23	128559	1	HARNESS, Main Manifolds and Cabinets, **A**
	119131	1	• KIT, 4 Pole tilt switch plug connector **(Mates w/ # 119130 receptacle)**
	127315	2	• CONNECTOR, Black Solenoid
	127316	2	• CONNECTOR, Gray Solenoid
	102921	AR	• DIODE
24	108170	1	TERMINAL, Double Bar
25	117398	1	TRIM, Protective Rubber
26	103316	13	RELAY, Single 12V S.P.D.T.
	121459	13	• CLIP, Single Relay mounting
27	103207	8	RELAY, Double 12V D.P.D.T.
	121460	8	• CLIP, Double Relay mounting
28	(Ref.)	-	HARNESS, Hydraulic Generator Option Control
			(For components, refer to Figure 6.7-9)
29	117325	1	BREAKER, 15 Amp Circuit **(Equipped w/ Hydraulic Generator Option only)**
L	(Ref.)	-	LABEL, Electrical Panel
			(Refer to Figure 6.8-3)



Index No.	Skyjack Part No.	Qty.	Description
A	126787	1	ASSEMBLY, Propane Tank Tray
1	126771	1	• WELDMENT, Propane Tank Tray
	104606	4	• NUT, Hex Nylon Lock 3/8”-16 Grd. 5
	103472	4	• WASHER, Flat 3/8”
2	145976	1	• TANK, Propane
			(Order Part #* 103028 *for Machines with Serial #'s 34000346 and Below)
3	127790	1	• ASSEMBLY, Propane Cover
4	127789	1	• • WELDMENT, Cover
5	103859	1	• • BOLT, Hex hd 1/4”-20 x 1.5” Grd. 5
6	103962	2	• • SCREW, Machine #10-32 x 1/2”
7	104694	2	• • WASHER, Flat #10
8	104185	2	• • WASHER, Lock #10
9	104003	2	• • NUT, Machine #10-32 Grd. B
10	128391	2	• • MOUNT, Generator vibration
11	125893	1	• • BUMPER, Rubber Female
12	104000	3	• • WASHER, Lock 1/4”
13	103980	3	• • NUT, Hex 1/4”-20 Grd. B
14	103995	2	• • WASHER, Flat 1/4”
15	103856	2	• • BOLT, Hex hd 1/4”-20 x 3/4” Grd. 5

Figure 6.5-1. Front Axle Assembly (2WD)



Index No.	Skyjack Part No.	Qty.	Description
A	126756	1	FRONT AXLE ASSEMBLY
1	126794	1	• WELDMENT, Front axle
2	126879	1	• WELDMENT, Tie rod
3	103845	AR	• BOLT, Hex Head 5/16-18 x 1/2” Grd. 5
4	103404	AR	• WASHER, 5/16” Lock
5	102229	2	• PIN, Weldment tie bar
6	103264	2	• WASHER, Bronze
7	100309	2	• BUSHING, Fiberglide
8	107908	2	• ASSEMBLY, Front hub
9	111755	1	• SPINDLE WELDMENT, Left hand
10	101801	2	• THRUST BEARING
11	100695	4	• BUSHING, Fiberglide
12	(Ref.)	1	• CYLINDER ASSEMBLY, Steering **Cushman Axles** (For components, refer to Figure 6.5-8) **Dana Axles** (For components, refer to Figure 6.5-11)
13	100252	AR	• NUT, Hex head jam 3/4”-10 Grd. 5
14	104002	AR	• WASHER, Lock 3/4”
15	113432	2	• PIN, Steering cylinder
16	102028	2	• SPACER, Steering clevis
17	103893	AR	• BOLT, Hex head 3/4-10 x 3 1/4” Grd. 8
18	111756	1	• SPINDLE WELDMENT, Right hand
19	102230	2	• PIN, Spindle weldment
20	102027	2	• FITTING, GREASE 1/8” NPT straight
21	103198	16	WHEEL BOLT, 5/8-18 x 1 1/2”
22	101741	AR	SHIM, Plate (If Equipped)

Figure 6.5-2 Front Axle Hardware Assembly - All Wheel Drive Option (Cushman Axles) **AC**

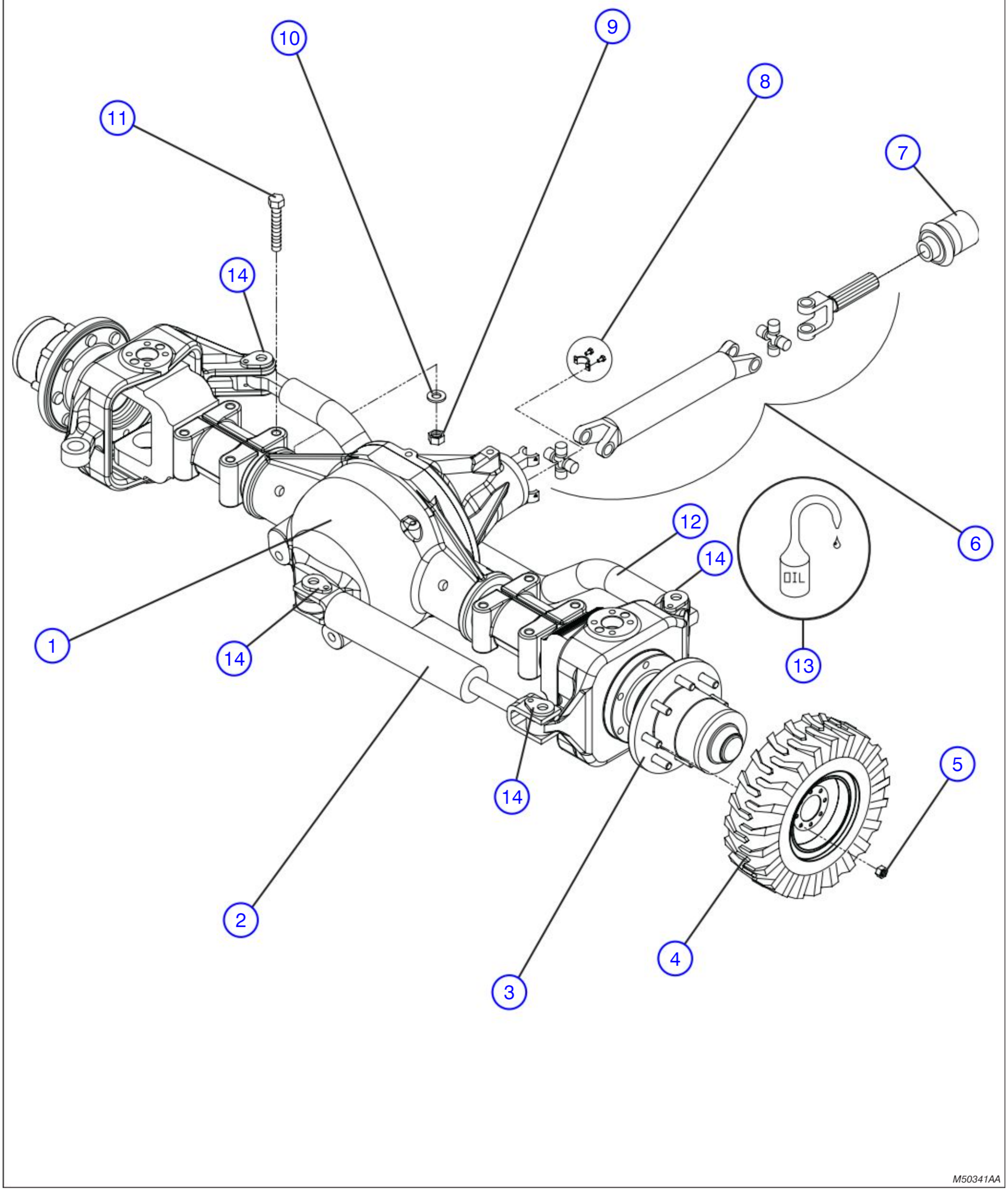


Figure 6.5-2 Front Axle Hardware Assembly - All Wheel Drive Option (Cushman Axles) AD

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	1	AXLE ASSEMBLY, Front **(Cushman Axles)** (For components, refer to Figure 6.5-3)
2	(Ref.)	1	ASSEMBLY, Cylinder Steering (For components, refer to Figure 6.5-8)
3	(Ref.)	1	ASSEMBLY Wheel Hub (For components, refer to Figure 6.5-6)
4	(Ref.)	4	WHEEL, Tire (For components, refer to Figure 6.4-1)
5	(Ref.)		NUT, Wheel (For components, refer to Figure 6.4-1)
6	126670	1	ASSEMBLY, Drive shaft
7	900542	1	BOOT, Rubber
8	(Ref.)	-	ASSEMBLY, Bearing strap (For components, refer to Figure 6.5-12)
9	123856	8	NUT, Hex 1/2”-13 Grade C
10	126286	8	WASHER, Lock 1/2” Heavy Duty
11	128828	8	BOLT, Hex Head 1/2”-13 Grade 8*5.0
12	(Ref.)	1	TIE ROD (For components, refer to Figure 6.5-3)
13	(Ref.)	-	OIL, Gear (Refer to Table 1.1.)
14	(Ref.)	4	ASSEMBLY, Pin (For components, refer to Figure 6.5-3)

Figure 6.5-3. Front Axle Assembly - All Wheel Drive Option (Cushman Axles)

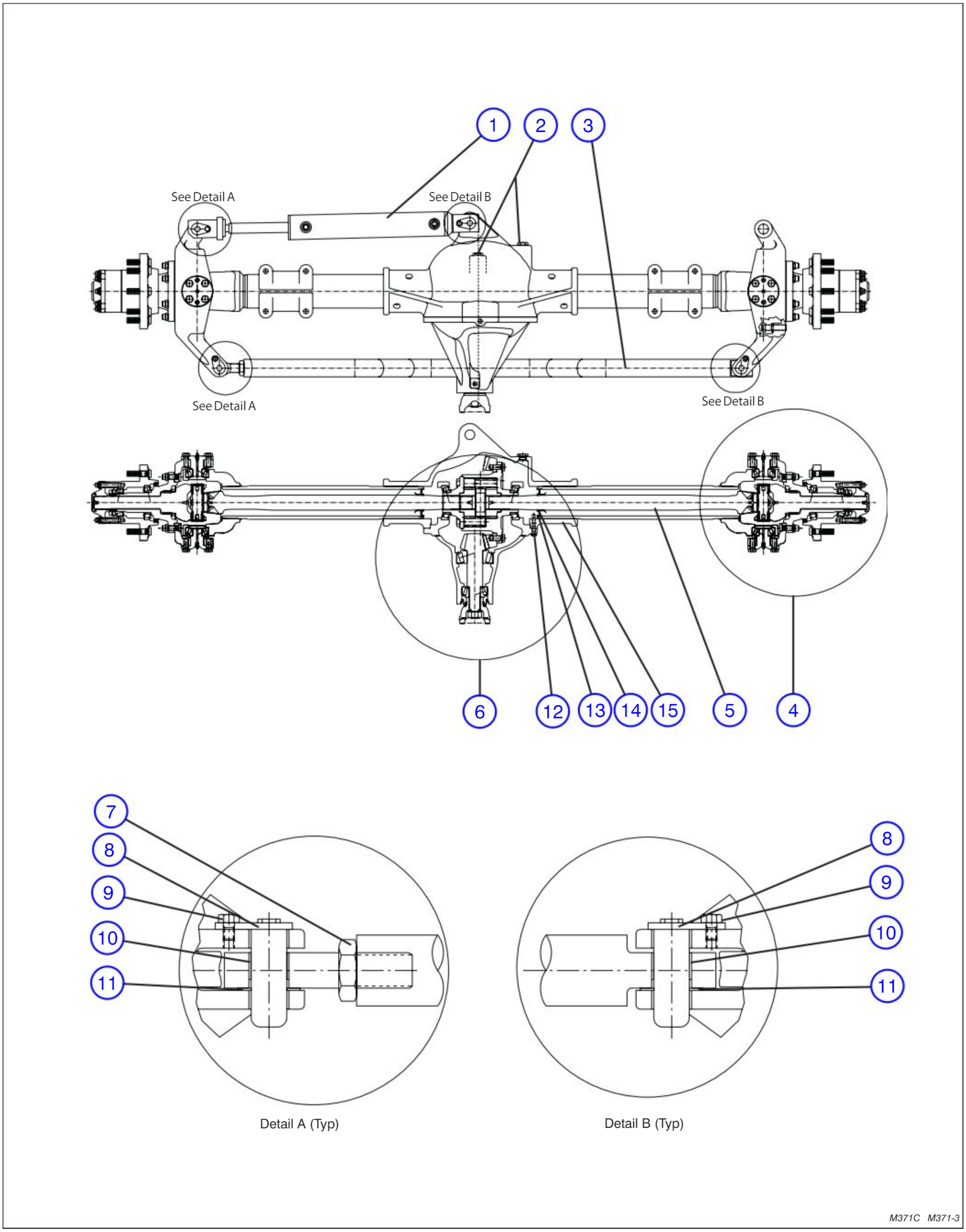


Figure 6.5-3. Front Axle Assembly - All Wheel Drive Option (Cushman Axles)

Index No.	Skyjack Part No.	Qty.	Description
A	128816	1	ASSEMBLY, Front Axle **(Cushman Axles) (Models 71XX)**
B	132515	1	ASSEMBLY, Front Axle **(Cushman Axles) (Models 8243)**
C	132641	1	ASSEMBLY, Front Axle **(Cushman Axles) (Models 8850)**
1	(Ref)	-	ASSEMBLY, Cylinder Steering (For components, refer to Figure 6.5-8)
2	133430	2	PLUG, Oil, straight thread
	133431	2	• GASKET, Oil plug
3	134669	1	TIE ROD **A**
	134670	1	TIE ROD **B**
	133443	1	TIE ROD **C**
4	(Ref)	-	AXLE END (For components, refer to Figure 6.5-4)
5	(Ref)	-	ASSEMBLY, Axle shaft (For components, refer to Figure 6.5-7)
6	(Ref)	-	ASSEMBLY, Differential (For components, refer to Figure 6.5-5)
7	106450	1	NUT, Hex Jam Nut, 3/4-16UNF
8	133475	4	PIN, Clevis
9	133481	2	BOLT, Hex head Cap 5/16-18*0.625 Gr 5
10	133485	4	BUSHING, DU Type
11	133486	4	WASHER, Thrust DU type
12	133422	12	BOLT, Hex head Cap 3/8-16*1.25,GR8
13	133383	AR	SEALANT, RTV
14	133469	2	SEAL, Oil C/W guide
15	133437	1	WELDMENT, Axle Cushman Front **A**
	133407	1	WELDMENT, Axle Cushman Front **B**
	133439	1	WELDMENT, Axle Cushman Front **C**

Figure 6.5-4. Front Axle Assembly (Axle End) - All Wheel Drive Option ***(Cushman Axles)***

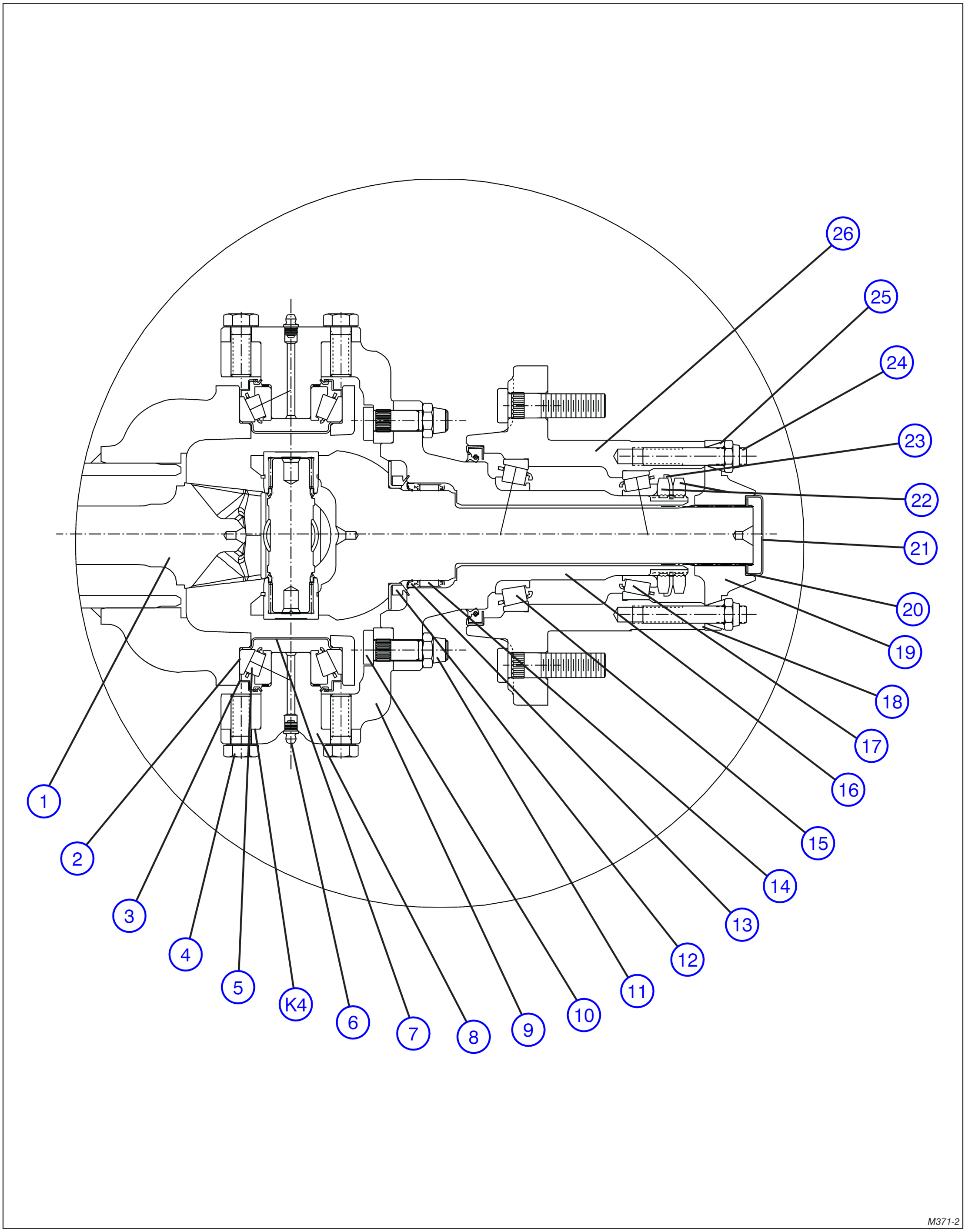


Figure 6.5-4. Front Axle Assembly (Axle End) - All Wheel Drive Option (Cushman Axles)

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref)	-	ASSEMBLY, Axle shaft (For components, refer to Figure 6.5-7)
2	133465	4	CUP, Tapered roller bearing
3	133471	4	SEAL, Oil
4	103910	16	BOLT, Hex Hd 1/2”-13 x 1-1/4” Grd. 8
5	133466	4	CONE, Tapered roller bearing C/W rollers
6	133484	4	FITTING, Grease 5/16 Drive
	133435	AR	• GREASE, Wheel Bearing
7	133483	4	CAP, Axle knuckle bearing
8	133442	4	KINGPIN
9	133450	2	KNUCKLE, Axle
10	133478	12	STUD, T-Head 1/2-20
11	133479	12	NUT, Lock, Nylon insert 1/2-13 GR8
12	133472	2	SEAL, Exclusion
13	133470	2	SEAL, Oil
14	133467	2	BEARING, Caged needle
	133435	AR	• GREASE, Wheel bearing
15	133464	2	CONE, Tapered roller bearing C/W rollers
	133435	AR	• GREASE, Wheel bearing
16	133444	2	SPINDLE, Wheel
17	133416	2	CONE, Tapered roller bearing C/W rollers
	133435	AR	• GREASE, Wheel Bearing
18	133433	2	GASKET, Wheel Hub
19	133445	2	ADAPTER, Flanged
20	133482	2	RING, Retaining
21	133454	2	END CAP, Axle
22	133418	4	NUT, Wheel Bearing
23	133419	2	WASHER, Tanged
24	133423	16	NUT, Lock, Nylon Insert 7/16-20 GR8
25	133428	16	BUSHING, Tapered
26	(Ref)	-	ASSEMBLY, Wheel hub (For components, refer to Figure 6.5-6)
K4	134614	AR	SHIM KIT, Kingpin

Figure 6.5-5. Front Axle (Differential Assembly) - All Wheel Drive Option (Cushman Axles)

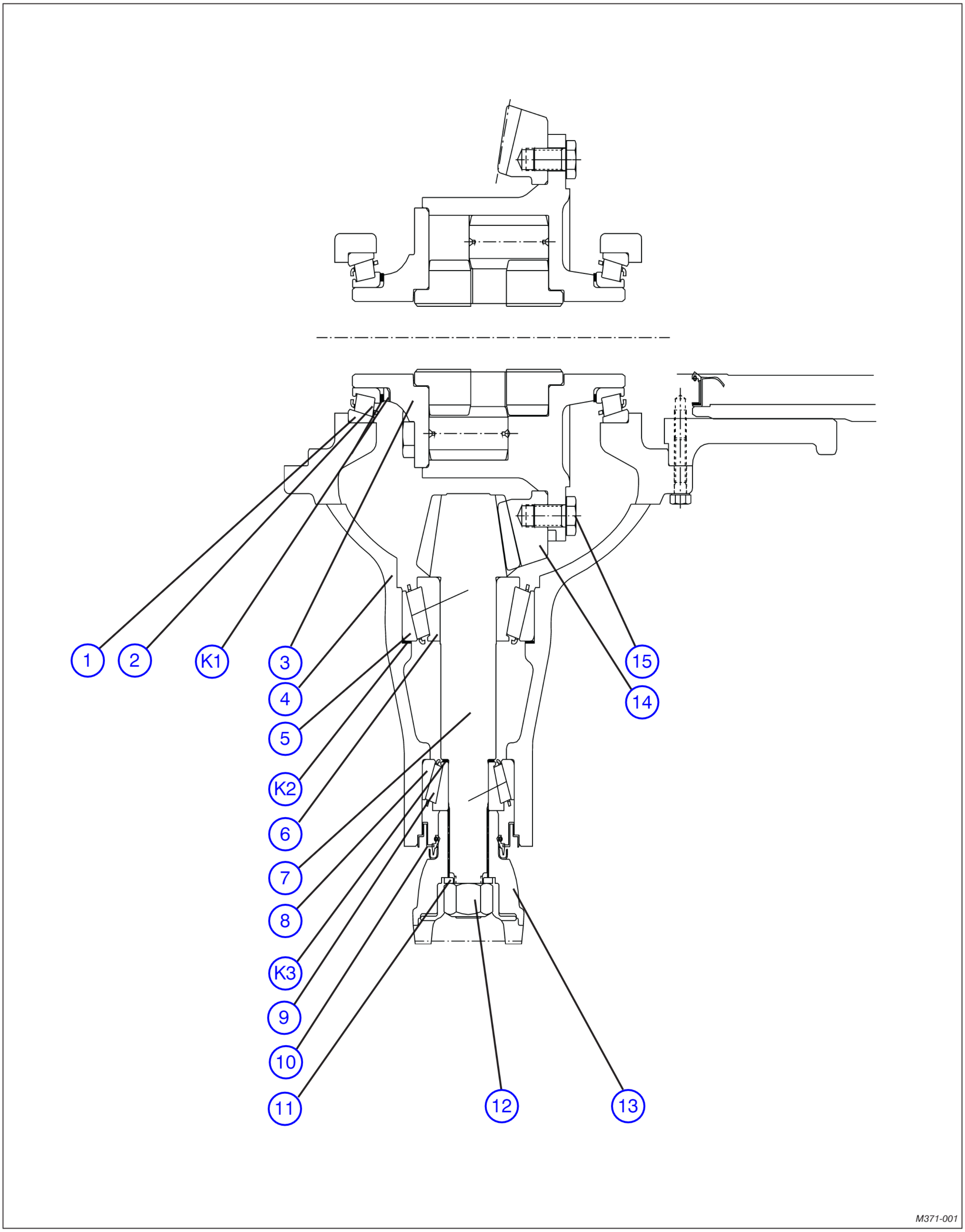
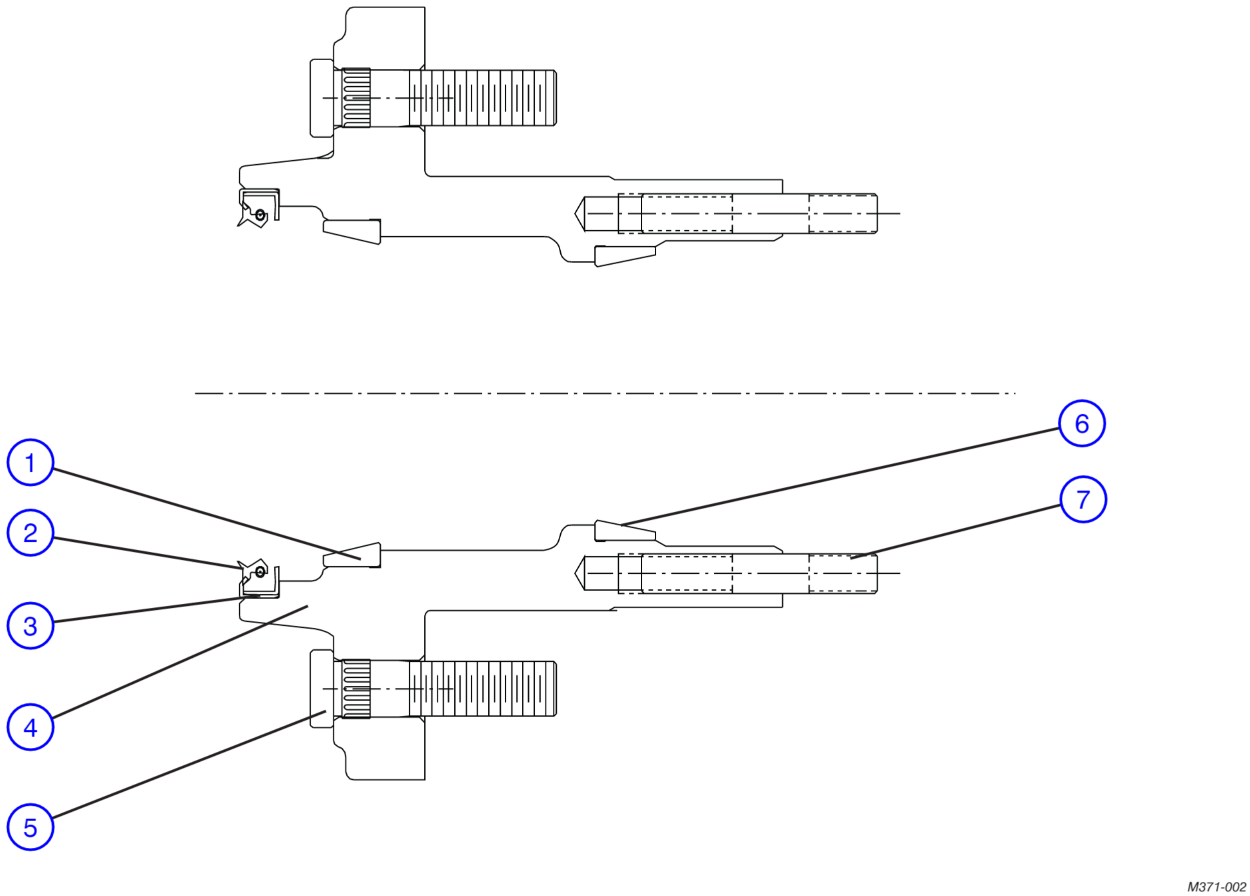


Figure 6.5-5. Front Axle (Differential Assembly) - All Wheel Drive Option (Cushman Axles)

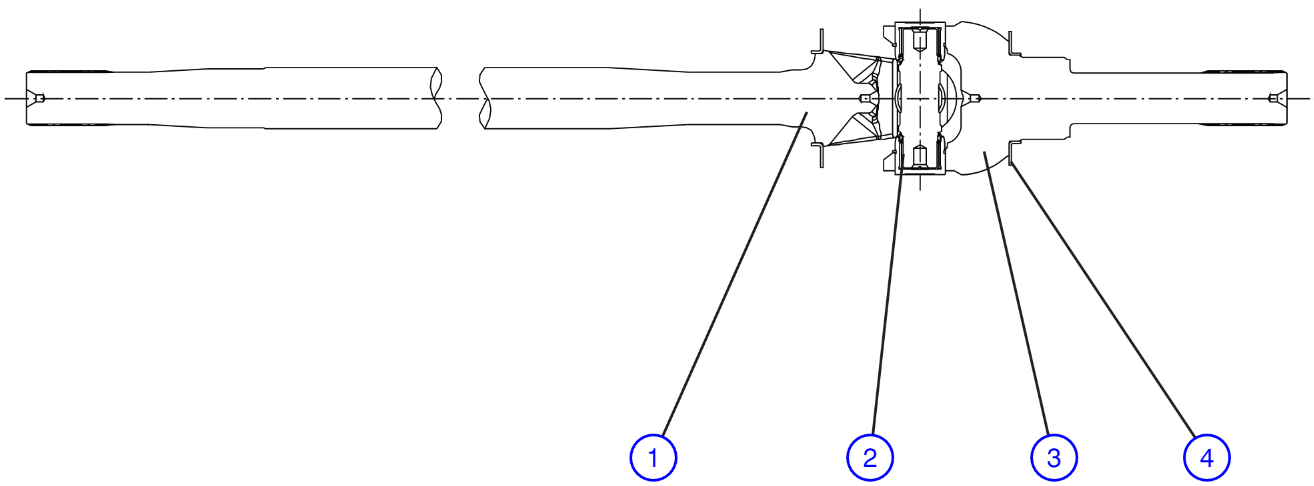
Index No.	Skyjack Part No.	Qty.	Description
A	136248	-	ASSEMBLY, Differential
1	133412	2	• CUP, Tapered Roller Bearing
2	133414	2	• CONE, Tapered Roller Bearing C/W Rollers
3	133473	1	• DIFFERENTIAL ASSY, for front cushman axle limited slip
4	136245	1	• DIFFERENTIAL, Housing front axle
5	133410	1	• CUP, Tapered roller bearing
6	133411	1	• CONE, Tapered roller bearing C/W rollers
7	133387	1	• PINION/SHAFT-Hypiod
8	133408	1	• CUP, Tapered Roller Bearing
9	133409	1	• CONE, Tapered roller bearing C/W rollers
10	133470	1	• SEAL, Oil
	133383	AR	• • SEALANT, RTV
11	133399	1	• WASHER, Flat
	133383	AR	• • SEALANT, RTV
12	133427	1	• NUT, Lock, Nylon Insert 7/8-14 GR8
13	136452	1	• END YOKE
14	133385	1	• GEAR, Hypoid
15	133424	12	• BOLT, Hex Head cap 1/2-20*1 LG. GR8
K1	133432	2	• SHIM KIT, Diff. Cone
	133435	AR	• • GREASE, Wheel Bearing
K2	133405	1	• SHIM KIT, Pinion Cup
K3	134614	1	• SHIM KIT, Input Cone

Figure 6.5-6. Front & Rear Axle (Wheel Hub Assembly) - All Wheel Drive Option (Cushman Axles)



Index No.	Skyjack Part No.	Qty.	Description
A	136244	2	ASSEMBLY, Wheel hub
1	133413	1	• CUP, Tapered roller bearing
2	133417	1	• SEAL, Oil
3	133383	AR	• SEALANT, RTV
4	133389	1	• HUB
5	133400	8	• STUD, Wheel
6	133418	1	• NUT, Wheel bearing
7	133457	8	• STUD, Axle

Figure 6.5-7. Front Axle (Axle Shaft Assembly) - All Wheel Drive Option (Cushman Axle)



Index No.	Skyjack Part No.	Qty.	Description
A	133449	1	ASSEMBLY, Axle shaft **(Models 71XX)**
B	133451	1	ASSEMBLY, Axle shaft **(Models 8243)**
C	133440	1	ASSEMBLY, Axle shaft **(Models 8850)**
1	133459	1	• SHAFT, Axle Cushman **A**
	133460	1	• SHAFT, Axle Cushman **B**
	133458	1	• SHAFT, Axle Cushman **C**
2	133468	1	• BEARING CROSS KIT
3	133452	1	• SHAFT, Axle
4	133436	2	• DEFLECTOR

Figure 6.5-8. Steer Cylinder Assembly (4WD / Cushman Front Axle - 4WD) (Cushman Axles)

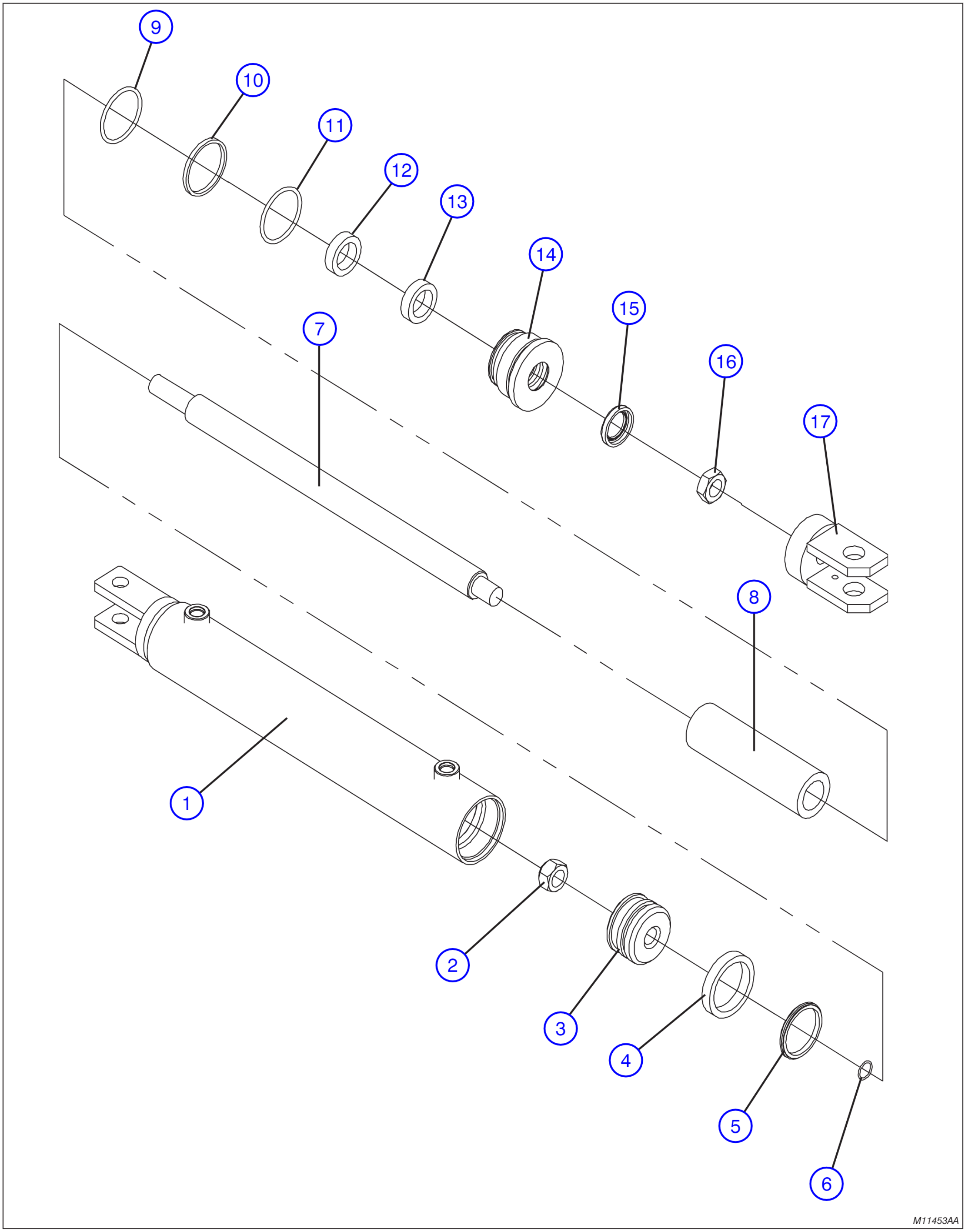


Figure 6.5-8. Steer Cylinder Assembly (4WD / Cushman Front Axle - 4WD) ***(Cushman Axles)***

Index No.	Skyjack Part No.	Qty.	Description
A	133474	1	CYLINDER ASSEMBLY, Steering **(Model 8850)**
B	133477	1	CYLINDER ASSEMBLY, Steering **(Models 71XX)**
C	133463	1	CYLINDER ASSEMBLY, Steering **(Model 8243)**
1	134652	1	• WELDMENT, Cylinder Barrel, **A**
	134665	1	• WELDMENT, Cylinder Barrel, **B**
	134668	1	• WELDMENT, Cylinder Barrel, **C**
2	134655	1	• NUT, Lock Nut, 3/4 - 16UNF
3	134654	1	• PISTON
*4	134636	1	• RING, Piston wear
*5	134633	1	• SEAL, Piston
*6	134638	1	• O-RING, Piston
7	134653	1	• ROD, **A**
	134664	1	• ROD, **B**
	134667	1	• ROD, **C**
8	134657	1	• SPACER, **A**
	134668	1	• SPACER, **C**
*9	134640	1	• O-RING, Gland
*10	134641	1	• BACKUP RING, Gland
*11	134639	1	• O-RING, Gland
` *12	134635	1	• WEAR RING, Rod
*13	134634	1	• SEAL, Rod
14	134651	1	• GLAND
*15	134637	1	• WIPER, Rod
16	106450	1	• NUT, Hex Jam Nut, 3/4-16UNF
17	134650	1	• CLEVIS, Rod End
*	134647	AR	Kit, Seal Repair
			*** Part of Seal Repair Kit.**

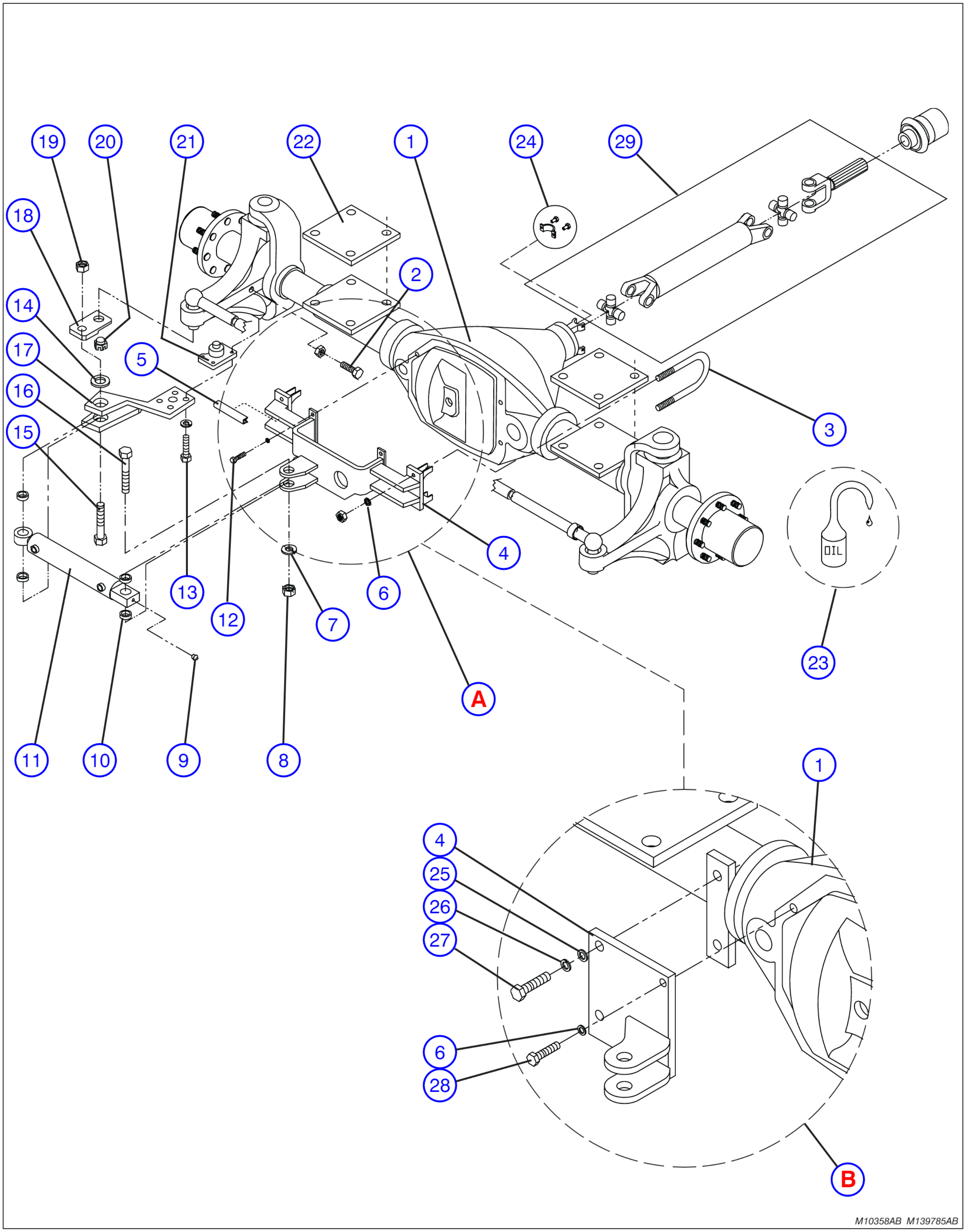

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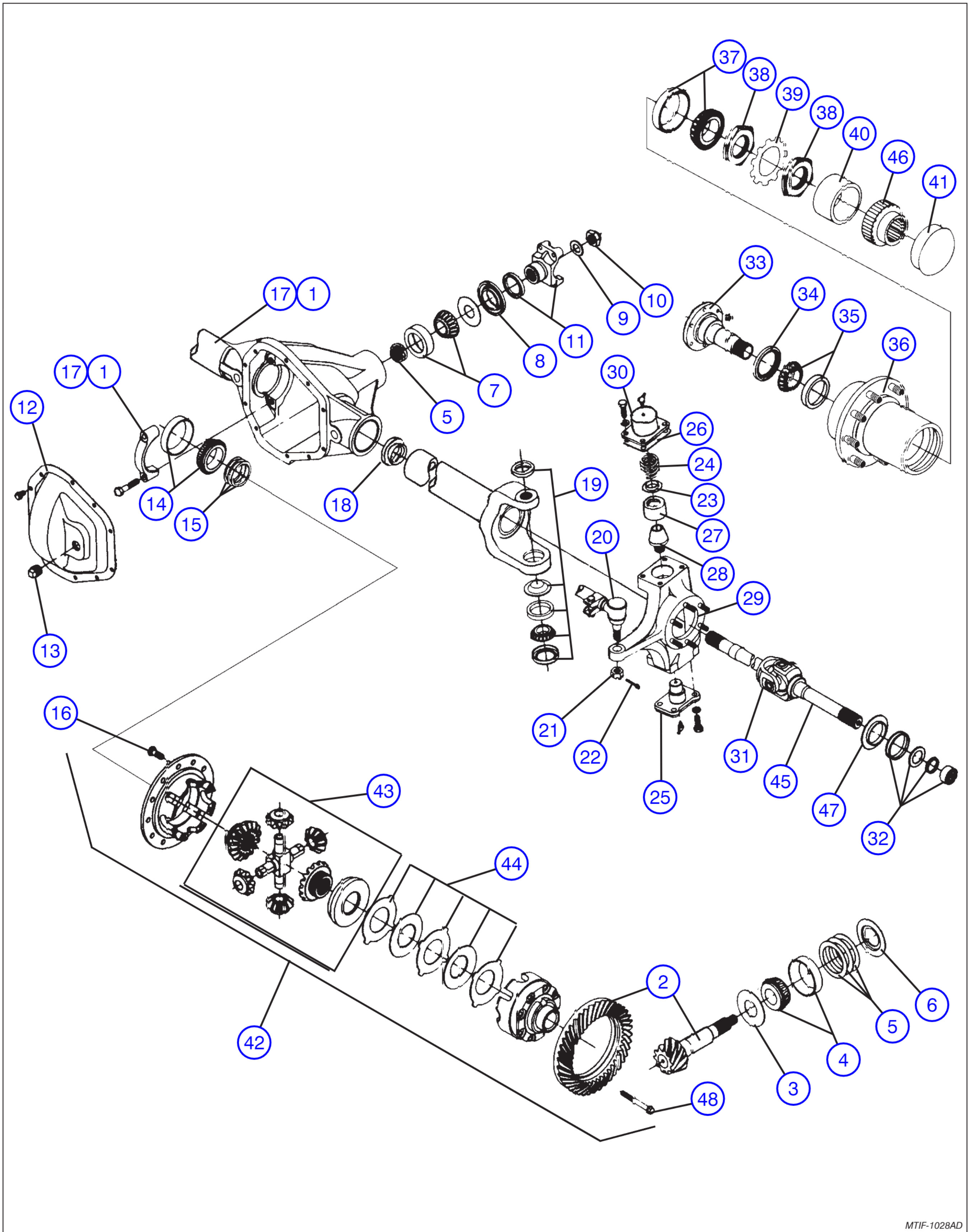
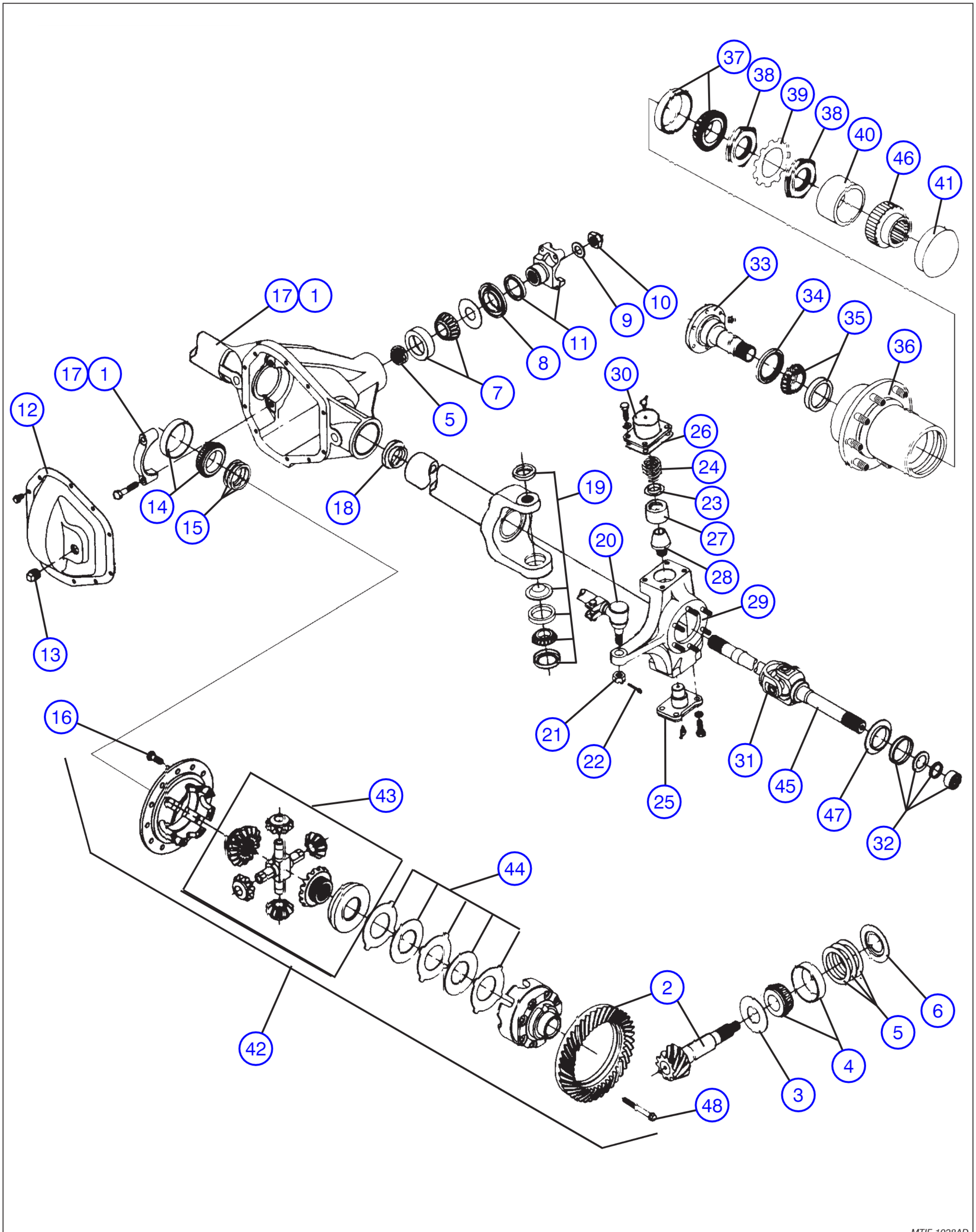
Figure 6.5-9. Front Axle Assembly - Hardware - All Wheel Drive Option (Dana Axles)

Index No.	Skyjack Part No.	Qty.	Description
A	126748	-	ASSEMBLY, FRONT AXLE 4 WHEEL DRIVE **(Model 71XX)**
B	139785	-	ASSEMBLY, FRONT AXLE 4 WHEEL DRIVE **(Model 8243)**
1	(Ref.)	1	• AXLE ASSEMBLY, Front **(Dana Axles)** (For components, refer to Figure 6.5-10)
2	114679	AR	• BOLT, Hex head 1/2”- 20 x 2-1/4”
3	300689	2	• 3” U-Bolt Clamp
4	129288	1	• BRACKET, Steering cylinder **A**
	141547	1	• BRACKET, Steering cylinder **B**
5	300690	4.5”	• TRIM, Loc B2 x 1/2
6	103999	AR	• WASHER, Lock 3/8”
7	104002	AR	• WASHER, Lock 3/4”
8	705240	AR	• NUT, Hex head 3/4”- 10
9	114699	AR	• CAP, 1/8” Plastic grease
10	102028	2	• SPACER, Steering clevis
11	(Ref.)	1	• CYLINDER ASSEMBLY, Steering (For components, refer to Figure 6.5-11)
12	103473	AR	• BOLT, Hex head 3/8”- 16 1” Grd. 5
13	114740	AR	• BOLT, Hex head 1/2”- 20 x 1-3/4”
14	101808	AR	• WASHER, Flat 1 S.A.E.
15	103893	AR	• BOLT, Hex head 3/4”- 10 x 3-1/2” Grd. 8
16	113489	AR	• BOLT, Hex head 3/4”- 10 x 3-1/4” Grd. 8
17	102030	1	• ARM, Steering
18	120845	1	• SUPPORT, Steer arm
19	100252	AR	• NUT, Hex head jam 3/4”-10
20	(Ref.)	-	• NUT, Castle tie rod (Refer to Figure 6.5-10)
21	102029	1	• CAP, Lower king pin – LH side
22	101741	AR	SHIM, Plate (If Equipped)
23	(Ref.)	-	OIL, Gear (Refer to Table 1.1.)
24	(Ref.)	-	ASSEMBLY, Bearing strap (For components, refer to Figure 6.5-12)
25	103468	2	• WASHER, Flat 1/2 S.A.E
26	103470	2	• WASHER, Lock 1/2
27	103907	2	• BOLT, Hex Head 1/2 - 13 x 1-1/2” Grd. 5
28	101297	2	• BOLT, Hex head 3/8”- 16 1-1/4” Grd. 5
29	(Ref.)	1	ASSEMBLY, Drive shaft (For components, refer to Figure 6.5-12)

Figure 6.5-10. Front Axle Assembly - All Wheel Drive Option (Dana Axles)



Index No.	Skyjack Part No.	Qty.	Description
A	111583	-	AXLE ASSEMBLY, Final front drive **(71XX)**
B	139783	-	AXLE ASSEMBLY, Final front drive **(8243)**
-	103337	1	• AXLE ASSEMBLY, Front drive (Dana 60) **A**
-	109279	1	• AXLE ASSEMBLY, Front drive (Dana 70) **B**
1	**	1	• • HOUSING W/BEARING CAPS, Front drive axle
2	113927	1	• • DRIVE GEAR AND PINION SET
3	113928	1	• • SLINGER, Inner pinion **A**
	113879	1	• • SLINGER, Inner pinion **B**
4	113880	1	• • BEARING ASSEMBLY, Inner pinion
5	113929	AR	• • KIT, Pinion adjusting shim **A**
	113881	AR	• • KIT, Pinion adjusting shim **B**
6	113930	1	• • SLINGER, Inner pinion bearing **A**
	113882	1	• • SLINGER, Inner pinion bearing **B**
7	113883	1	• • BEARING ASSEMBLY, Outer pinion
8	113884	1	• • SEAL, Pinion
9	113885	1	• • WASHER, Pinion nut
10	113886	1	• • NUT, Pinion
11	113887	1	• • YOKE ASSEMBLY, End
	133827	1	• • • KIT, Strap (If equipped) **B**
12	108394	1	• • COVER, Carrier
13	113888	1	• • PLUG, Carrier cover
14	113889	2	• • BEARING ASSEMBLY, Differential
15	113931	AR	• • KIT, Differential bearing shim **A**
	113890	AR	• • KIT, Differential bearing shim **B**
16	113932	12	• • BOLT, Drive gear **A**
	113891	12	• • BOLT, Drive gear **B**
17	113892	1	• • PLUG, Vent
18	113933	1	• • SEAL AND GUIDE ASSEMBLY **A**
	113893	1	• • SEAL AND GUIDE ASSEMBLY **B**
19	108392	AR	• • KIT, King pin seal and bearing
20	113934	1	• • TIE ROD ASSEMBLY **A**
	115373	1	• • TIE ROD ASSEMBLY **B**
	**	1	• • • TIE ROD **A**
	113792	1	• • • END, Tie rod RH
	113793	1	• • • END, Tie rod LH
21	120191	1	• • NUT, Castle tie rod
22	122071	2	• • COTTER PIN (1/8”x2”)
			** Not available separately
			Part list continued on the following page.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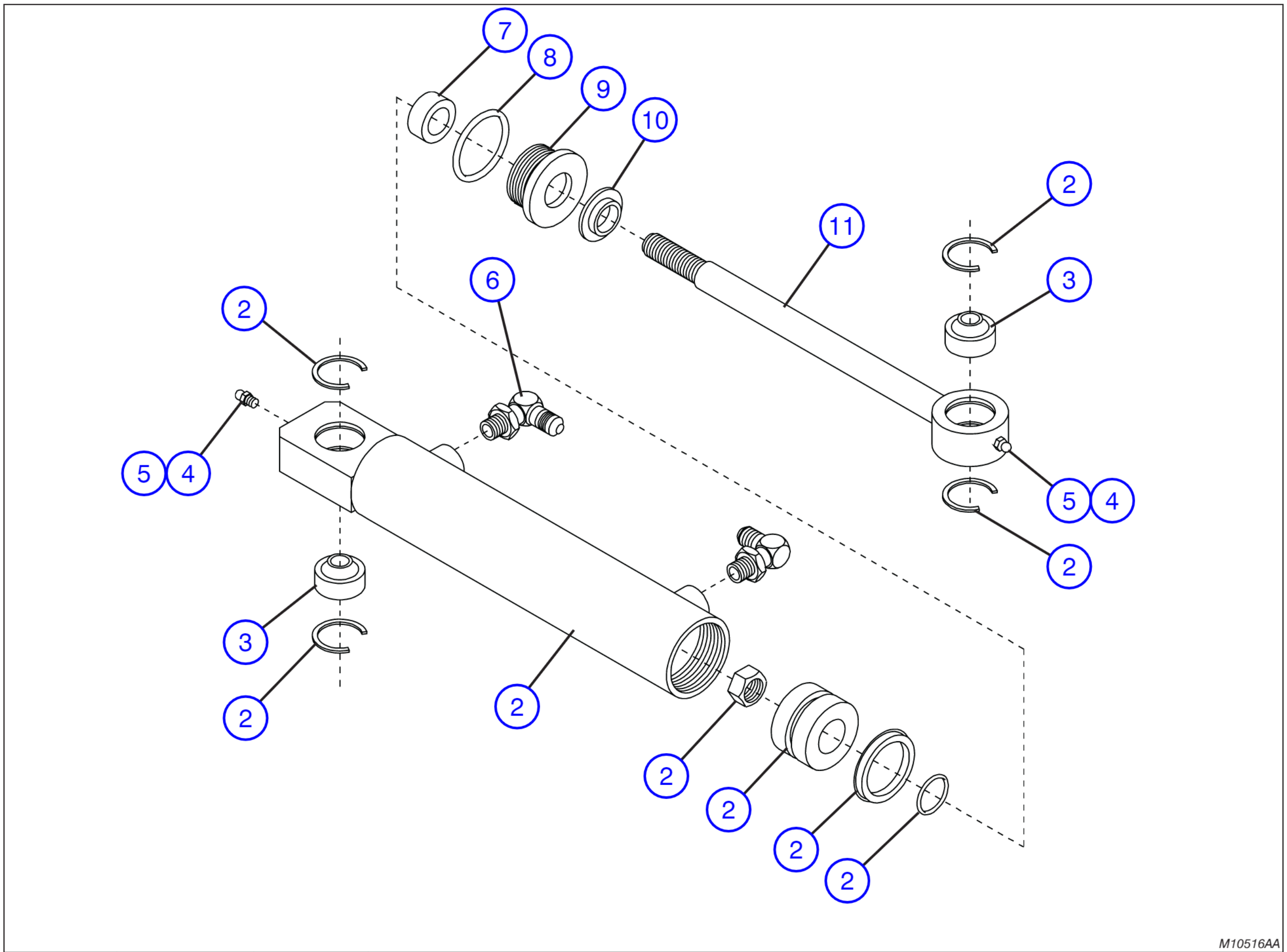
MTIF-1028AD

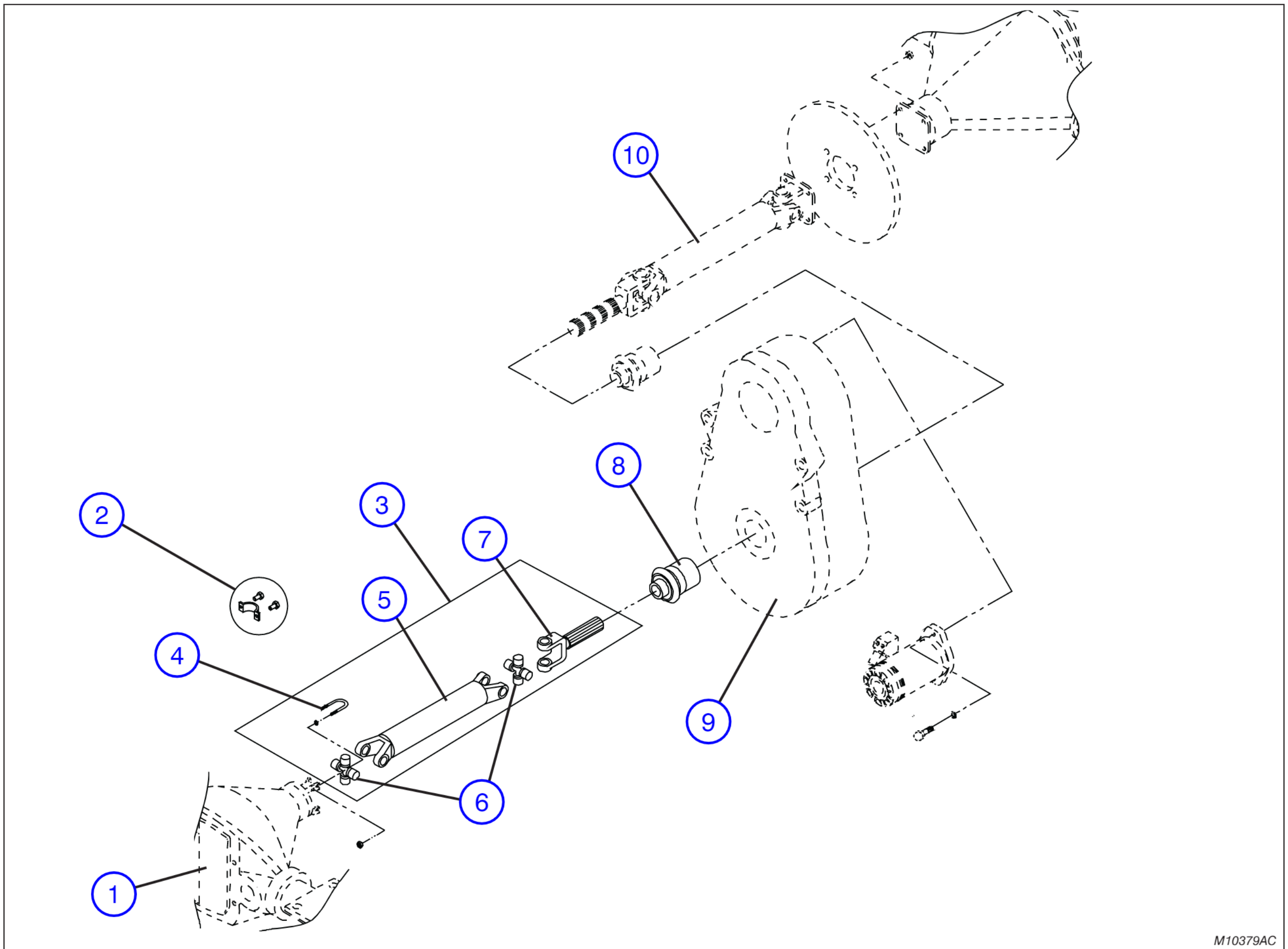
Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from previous page.
23	113895	2	• • RETAINER, Spring
24	113896	2	• • SPRING, Upper king pin
25	113897	1	• • CAP, Lower king pin – RH side
	102029	1	• • CAP, Lower king pin – LH side
26	113898	2	• • GASKET, Upper king pin
27	108388	2	• • BUSHING, Upper king pin
28	105817	2	• • PIN, Upper king
29	113732	1	• • KNUCKLE, Steering LH (shown)
	113733	1	• • KNUCKLE, Steering RH (opposite)
30	113899	2	• • CAP, Upper king pin
31	113900	2	• • JOINT, Universal drive
32	113901	AR	• • KIT, Spindle bearing and seal
33	113902	2	• • SPINDLE ASSEMBLY
34	108393	2	• • SEAL, Wheel hub
35	108390	2	• • BEARING ASSEMBLY, Inner hub
36	113903	2	• • HUB, Wheel
	111719	16	• • • STUD, Wheel
37	108391	2	• • BEARING ASSEMBLY, Outer hub
38	113904	2	• • NUT, Bearing retaining
39	113905	2	• • WASHER, Retaining nut lock
40	119180	2	• • SPACER, Drive gear
41	113907	2	• • CAP, Hub
42	113935	1	• • DIFFERENTIAL ASSEMBLY **A**
	113908	1	• • DIFFERENTIAL ASSEMBLY **B**
43	113936	1	• • • GEAR SET, Internal differential **A**
	115371	1	• • • GEAR SET, Internal differential **B**
44	113937	AR	• • • KIT, Disc and plate **A**
	113909	AR	• • • KIT, Disc and plate **B**
45	117082	2	• • SHAFT AND JOINT ASSEMBLY (Includes item #29) **A**
	129974	1 -	• • AXLE SHAFT ASSEMBLY, Left Hand - 37” long (30 teeth spline) **B** (Includes item #47)
	129975	1 -	• • AXLE SHAFT ASSEMBLY, Right Hand - 47” long (30 teeth spline) **B** (Includes item #47)
46	119179	1	• • GEAR, Drive (30 teeth)
	113906	1	• • GEAR, Drive (35 teeth)
	119181	2	• • • RING, Snap **A**
	134763	2	• • • RING, Snap **B**
47	708440	1	• • SLINGER
48	113910	8	• • BOLT, Differential case bolt

Figure 6.5-11. Steer Cylinder Assembly (2WD / Dana Front Axle - 4WD)



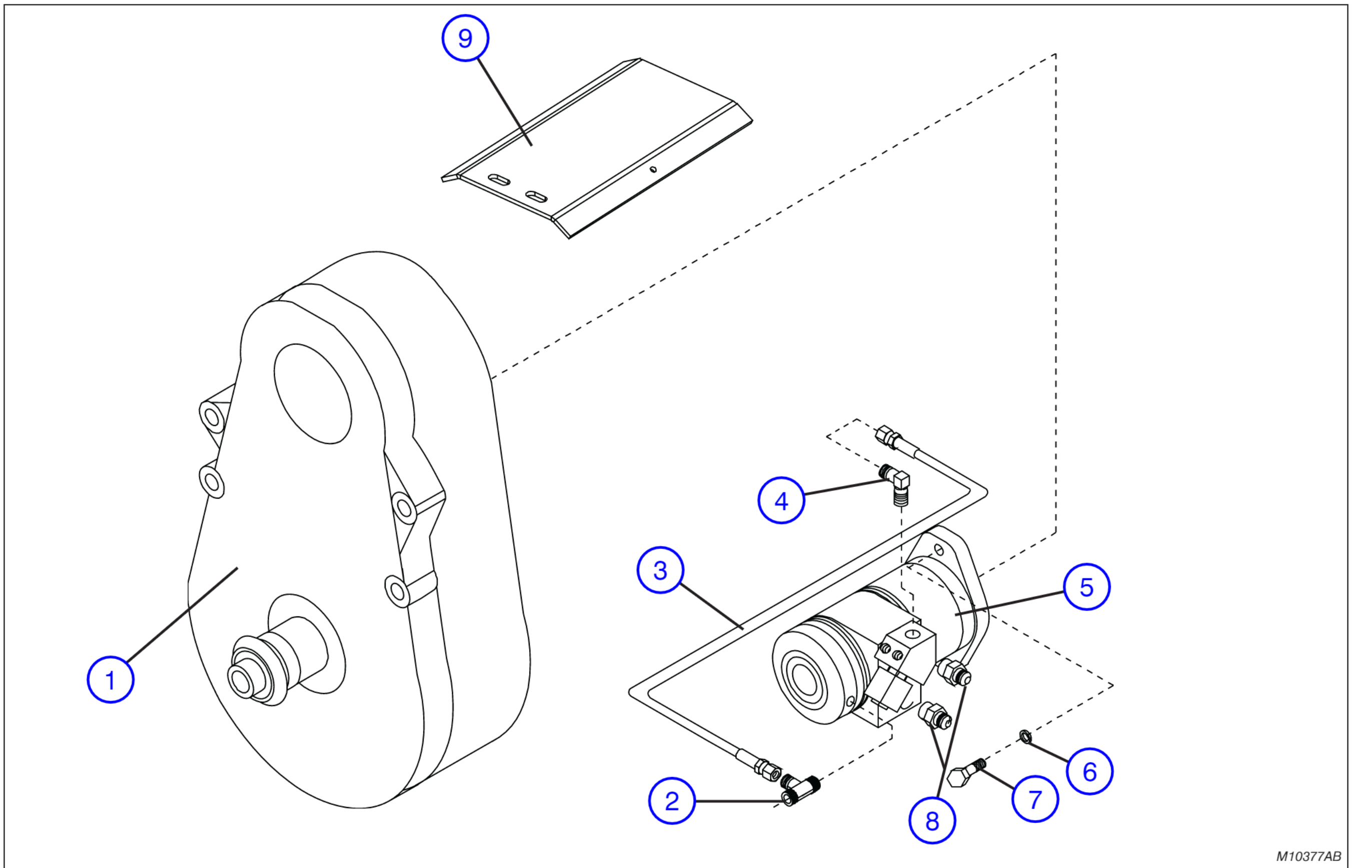
Index No.	Skyjack Part No.	Qty.	Description
A	120405	-	CYLINDER ASSEMBLY, Steer (2WD/Dana Front Axle - 4WD)
1	120404	1	• WELDMENT, Cylinder barrel
2	104114	AR	• RING, Retaining
3	102025	2	• BEARING, Spherical
4	103513	2	• FITTING, Grease
5	132565	2	• CAP, Grease fitting (not shown)
6	114578	2	• FITTING, 6-6 orb 90° elbow
*7	113350	1	• SEAL, Steering rod
*8	120438	1	• O-RING, Gland
9	120401	1	• GLAND, Front end
*10	113349	1	• WIPER, Rod
11	113347	1	• ROD, Steering
*12	110976	1	• O-RING, Piston
*13	107935	1	• SEAL, Piston
14	120633	1	• PISTON, Cylinder
15	103830	1	• NUT, Lock 5/8-11 Grd. C
*	121108	1	KIT, Seal Repair *** Part of Seal Repair Kit.**

Figure 6.5-12. Front Driveshaft Assembly



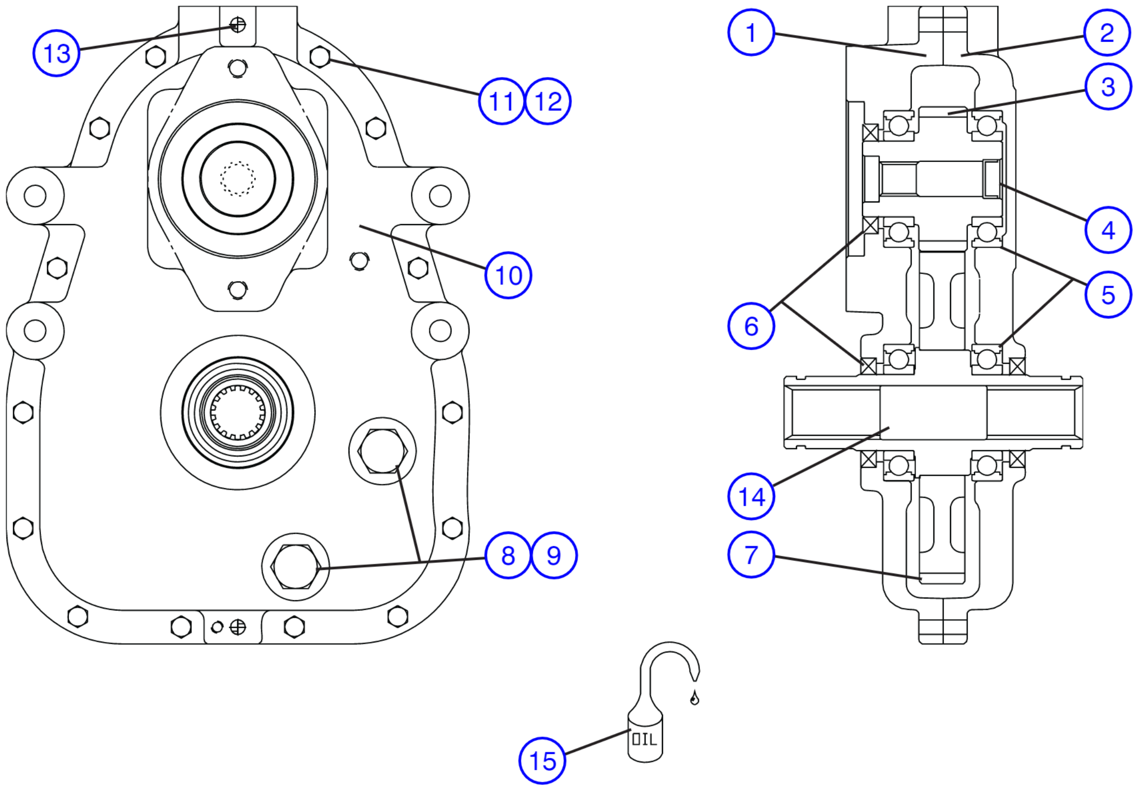
Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	AXLE ASSEMBLY, Front wheel drive (Option) **Cushman Axles** (For components, refer to Figure 6..5-3) **Dana Axles** (For components, refer to Figure 6.5-10)
2	136265	1	ASSEMBLY, Bearing strap (If Equipped)
3	126670	1	ASSEMBLY, Front Driveshaft
4	103084	1	• U-BOLT KIT (If Equipped)
5	126356	1	• SHAFT, Front drive
6	105863	2	• KIT, Universal joint
7	103099	1	• YOKE, Shaft
8	900542	1	BOOT, Output Shaft
9	(Ref.)	-	CENTER DRIVE ASSEMBLY (For components, refer to Figure 6.5-14)
10	(Ref.)	-	ASSEMBLY, Rear Drive Shaft & Axle **Cushman Axles** (For components, refer to Figure 6.5-15) **Dana Axles** (For components, refer to Figure 6.5-19)

Figure 6.5-13. Drive Motor Assembly



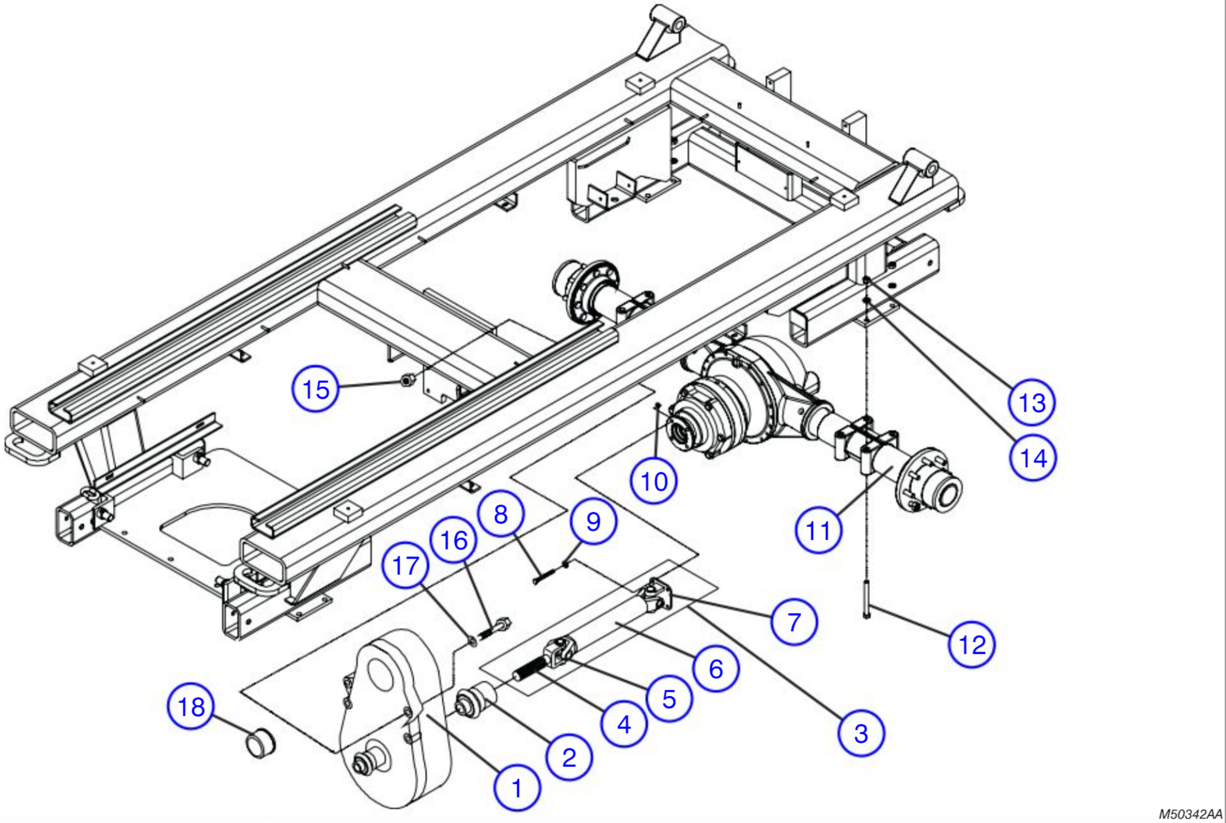
Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	CENTER DRIVE ASSEMBLY (For components, refer to Figure 6.5-14)
2	121602	1	FITTING, #6-#4-#6
3	121601	1	HOSE, Hydraulic line 6”
4	113348	1	FITTING, #6-#4 Elbow
5	109311	1	MOTOR, 2 Speed drive
	103623	1	• VALVE, Series/parallel
	355113	1	• MANIFOLD, Motor
	103613	1	• COIL, Series/parallel valve
	115340	4	• CHECK BALL
	115338	1	• SEAL KIT
6	103470	2	WASHER, 1/2” Lock
7	103910	2	BOLT, 1/2”-13 x 1.25” Grd. 8 (Use Loctite 242 or equivalent)
8	103071	2	FITTING, #8-#10
9	128788	1	ASSEMBLY, Hydraulic Motor Cover
	114148	1	• COVER, Hydraulic motor
	101632	2	• BOLT, Hex head 3/8”-16 x .75” Grd. 5
	103472	2	• WASHER, 3/8” Flat
	103999	2	• WASHER, 3/8” Lock

Figure 6.5-14. Center Drive Assemblies



Index No.	Skyjack Part No.	Qty.	Description
A	130263	1	CENTER DRIVE ASSEMBLY, (71XX equipped with Cushman Axle)
B	128283	1	CENTER DRIVE ASSEMBLY, (71XX/8243 equipped with Dana Axle, 8243/8850 equipped with Cushman Axle)
1	128274	1	• HOUSING, Transfer case, front
2	128275	1	• HOUSING, Transfer case, rear
3	130265	1	• GEAR, Input Shaft, **A**
	128279	1	• GEAR, Input shaft, **B**
4	900746	1	• PLUG, Frost
5	900321	4	• BEARING, 6210
*6	900328	3	• SEAL, Lip
7	130264	1	• GEAR, Spur, **A**
	128277	1	• GEAR, Spur, **B**
*8	128285	2	• GASKET, Drain plug
9	128284	2	• PLUG, Oil drain
10	103165	1	• PLUG, NPT 1/8”
11	103886	14	• BOLT, Hex head 5/16”-18 Gr. 5
12	103984	14	• NUT-LOCK, Hex head 5/16”-18 Gr. 8
13	128286	2	• PIN, Dowel 3/8” dia x 1 1/4”
14	900396	1	• SHAFT, Output Center Drive
15	(Ref.)	-	• OIL, Gear (Refer to Table 1.1.)
*	900655		KIT, Service

Figure 6.5-15. Rear Drive Assembly - Without Disc Brake Assembly ***(Cushman Axles)*** ***AC***



Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	1	ASSEMBLY, Center Drive and hydraulic motor (For components, refer to Figure 6.5-13)
2	900542	1	BOOT, Output Shaft
3	126669	1	ASSEMBLY, Rear Driveshaft
4	103099	1	• YOKE, Shaft
5	105863	2	• KIT, Universal joint
6	126358	1	• SHAFT, Differential Rear
7	111159	1	• FLANGE, Yoke
8	103877	4	BOLT, Hex Hd 7/16”-14 x 1-1/4” Grd. 5
9	104636	4	WASHER, Lock 7/16”
10	103977	4	NUT, Hex Hd 7/16”-14 Grd. B
11	(Ref.)	-	AXLE ASSEMBLY, Rear Wheel (For components, refer to Figure 6.5-16)
12	128828	8	BOLT, Hex Hd 1/2”-13 x 5” Grd. 8
13	126286	8	WASHER, Lock 1/2”
14	123856	8	NUT, Hex 1/2”-13 Grd. C
15	107949	4	NUT, Hex Hd Jam 1/2”-13
16	111420	4	BOLT, Hex Hd 1/2”-13 x 4-1/2” Grd. 5
17	103470	4	WASHER, Lock 1/2”
18	121629	1	CAP, Output Shaft **(2WD machines only)**

Figure 6.5-16. Rear Axle Assembly (Cushman Axles) **AD**

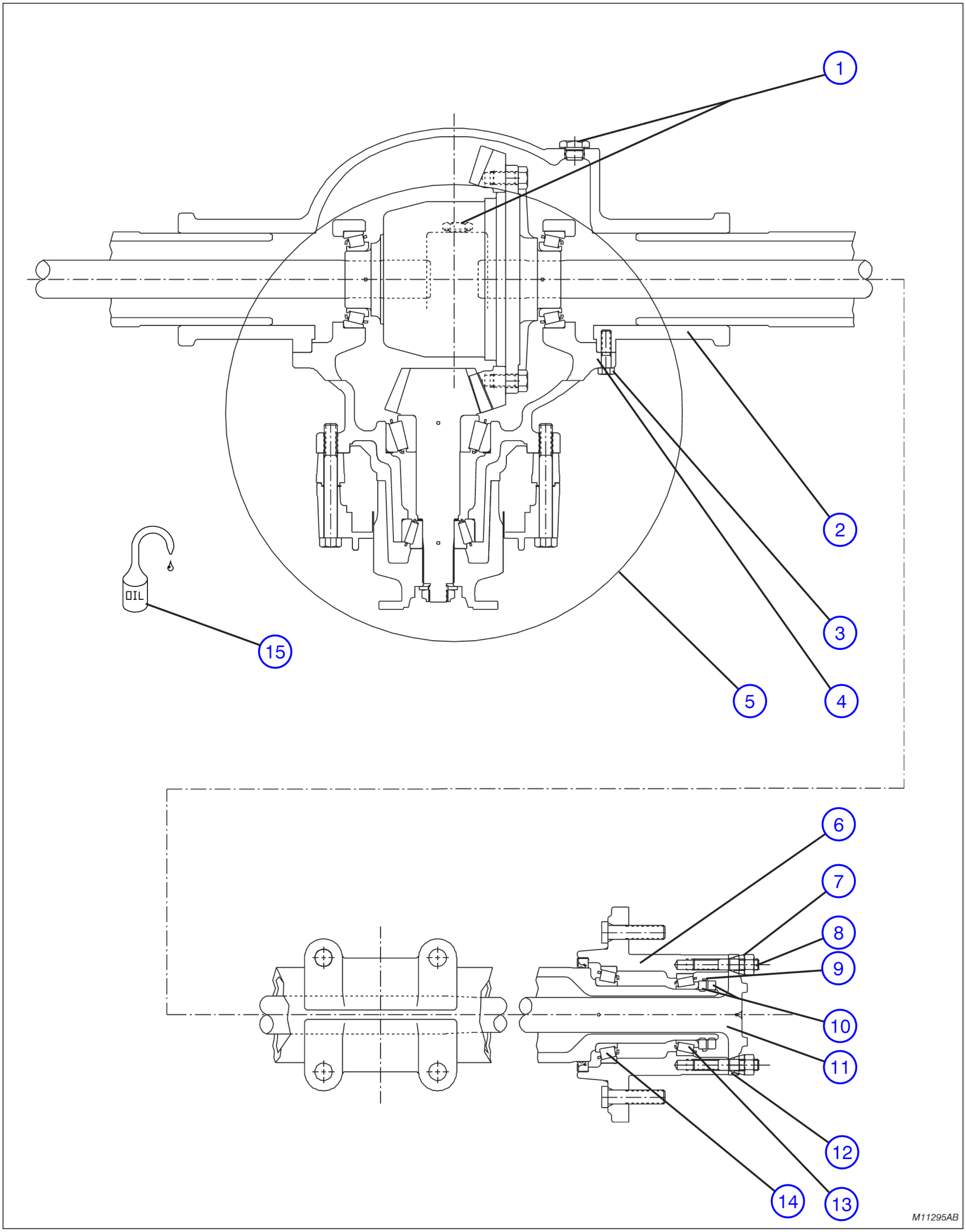


Figure 6.5-16. Rear Axle Assembly (Cushman Axles)

Index No.	Skyjack Part No.	Qty.	Description
A	128817	1	ASSEMBLY, Rear Axle (Cushman) **(Models 71XX)**
B	132516	1	ASSEMBLY, Rear Axle (Cushman) **(Model 8243)**
C	132642	1	ASSEMBLY, Rear Axle (Cushman) **(Model 8850)**
1	133430	4	PLUG, Oil, straight thread
	133431	4	• GASKET, Oil plug
2	133381	1	WELDMENT, Axle Cushman Rear **A**
	133406	1	WELDMENT, Axle Cushman Rear **B**
	133402	1	WELDMENT, Axle Cushman Rear **C**
3	133422	12	BOLT, Hex Hd 3/8”-16 x 1-1/4” Grd. 8
4	133383	AR	SEALANT, RTV
5	(Ref)	-	ASSEMBLY, Rear Differential (For components, refer to Figure 6.5-17)
6	(Ref)	-	ASSEMBLY, Wheel Hub (For components, refer to Figure 6.5-6)
7	133428	16	BUSHING, tapered
8	133423	16	NUT, Lock nylon Insert 7/16-20 GR8
9	133419	2	WASHER, tanged
10	133418	8	NUT, Wheel bearing
11	133453	2	SHAFT, Axle Cushman **A**
	133455	2	SHAFT, Axle Cushman **B**
	133386	2	SHAFT, Axle Cushman **C**
12	133433	2	GASKET, Wheel Hub
13	133416	2	CONE, Tapered Roller Bearing C/W Rollers
	133435	AR	• GREASE Wheel bearing
14	133464	2	CONE, Tapered Roller Bearing C/W Rollers
	133435	AR	• GREASE Wheel bearing
15	(Ref.)	-	OIL, Gear (Refer to Table 1.1.)

Figure 6.5-17. Rear Axle (Differential Assembly) (Cushman Axles)

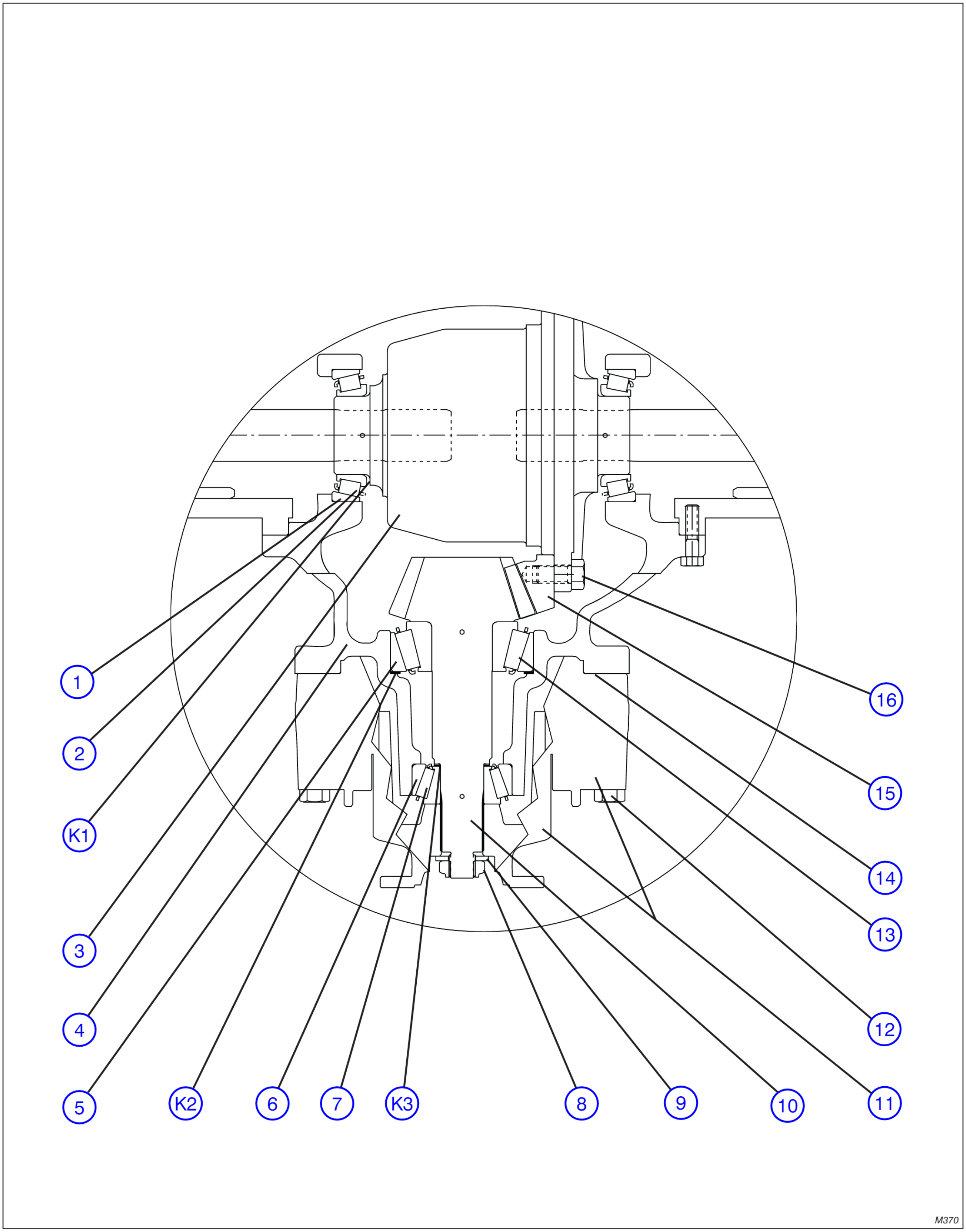


Figure 6.5-17. Rear Axle (Differential Assembly) (Cushman Axles)

Index No.	Skyjack Part No.	Qty.	Description
A	136249	1	ASSEMBLY, Rear Axle (Cushman) **(Models 71XX, 8243)**
B	136250	1	ASSEMBLY, Rear Axle (Cushman) **(Models 8850)**
1	133412	2	• CUP, Tapered roller bearing
2	133414	2	• CONE, Tapered roller bearing C/W rollers
3	133388	1	• DIFF ASSY, Rear cushman, Detroit Locker
4	133410	1	• CUP, Tapered roller bearing
5	136246	1	• DIFFERENTIAL HOUSING, Rear axle
6	133408	1	• CUP, Tapered roller bearing
7	133409	1	• CONE, Tapered roller bearing C/W rollers
8	133427	1	• NUT, Lock nylon insert 7/8-14 GR8
9	133399	1	• WASHER, Flat
	133383	AR	• • SEALANT, RTV
10	133387	1	• PINION/SHAFT-Hypiod
11	(Ref)	1	• ASSEMBLY, Brake (For components, refer to Figure 6.5-18)
12	133426	6	• BOLT, Hex head cap 1/2-13*4.25,GR8
13	133411	1	• CONE, Tapered roller bearing C/W rollers
14	133383	AR	• SEALANT, RTV
15	133385	1	• GEAR Hypoid
16	133424	12	• BOLT, Hex head cap 1/2-20*1 LG. GR8
K1	133432	2	• SHIM KIT, Diff. Cone
	133435	AR	• • GREASE, Wheel Bearing
K2	133405	1	• SHIM KIT, Pinion Cup
K3	134614	1	• SHIM KIT, Input Cone

Figure 6.5-18. Rear Axle (Brake Assembly) (Cushman Axles)

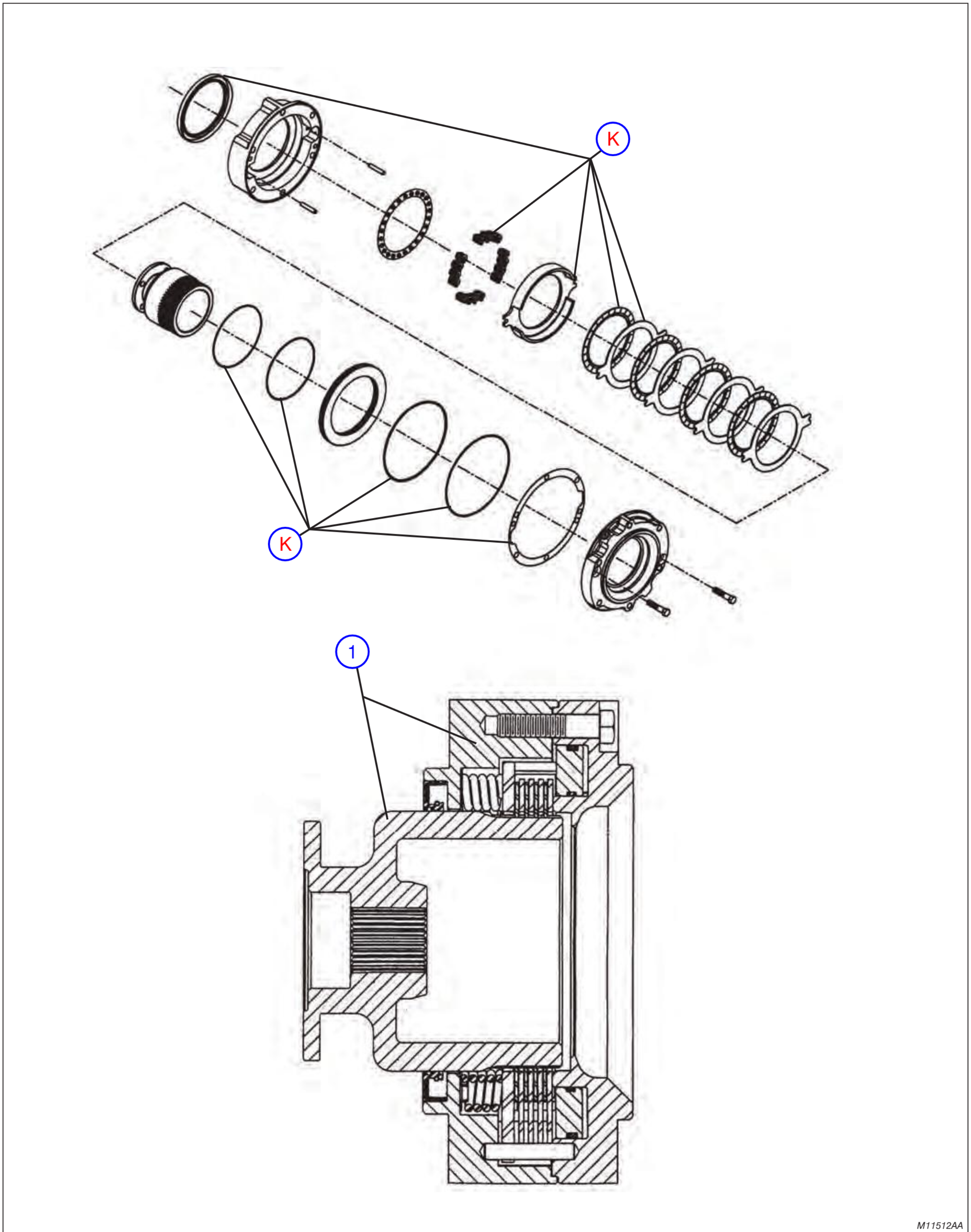
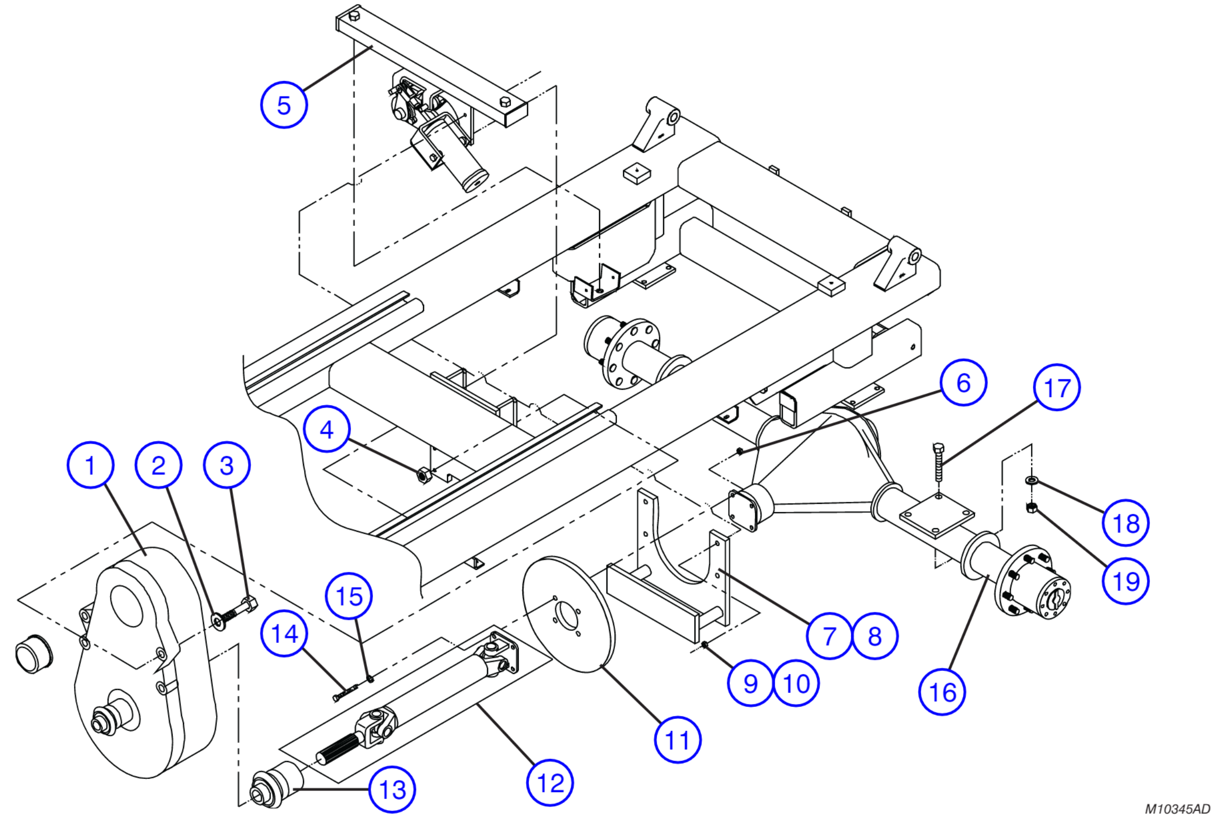


Figure 6.5-18. Rear Axle (Brake Assembly) (Cushman Axles)

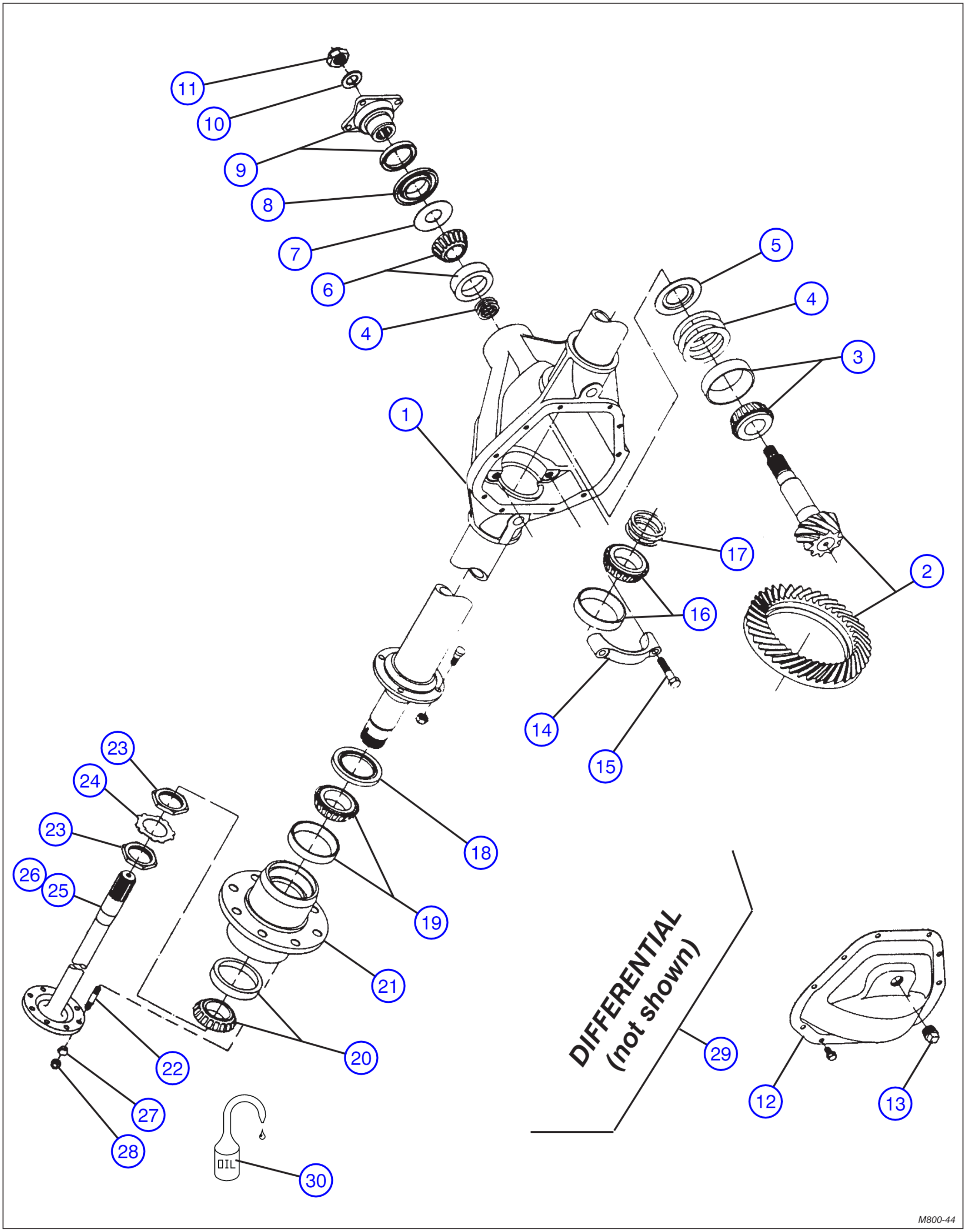
Index No.	Skyjack Part No.	Qty.	Description
1	133441	1	BRAKE ASSEMBLY, 22,000 in-lb (Cushman Axles)
K	133403	1	• KIT, Brake repair

Figure 6.5-19. Rear Drive Assembly - Equipped with Disc Brake Assembly (Dana Axles) *AD*



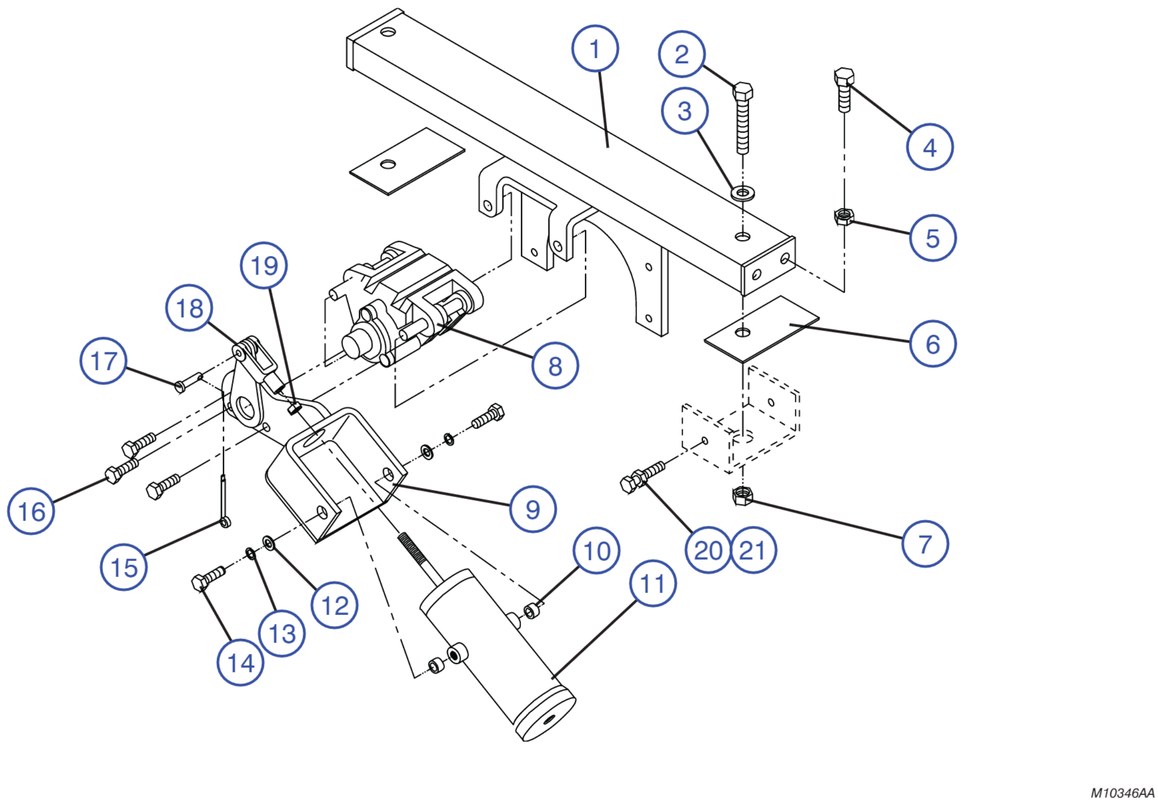
Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	1	ASSEMBLY, Center Drive and hydraulic motor (For components, refer to Figure 6.5-13)
2	111420	4	BOLT, Hex Hd 1/2”-13 x 4-1/2” Grd. 5
3	103470	4	WASHER, Lock 1/2”
4	107949	4	NUT, Hex Head 1/2”-13
5	(Ref.)	-	ASSEMBLY, Brake Mount and Brake (For components, refer to Figure 6.5-21)
6	702960	4	NUT, Hex Head 7/16”-20 Grd. 8
7	111117	1	WELDMENT, Brake Skid Bottom
8	128801	4	• BOLT, Hex head 7/16” - 14 x 1-3/4” Grd. 5
9	103977	4	• NUT, Hex Head 7/16” - 14 Grd. B
10	104636	4	• WASHER, 7/16” Lock
11	110529	1	BRAKE, Disc
12	126669	1	ASSEMBLY, Rear Driveshaft
13	121629	1	CAP, Output Shaft (2WD machines only)
14	300603	4	BOLT, Hex Hd 7/16”-20 x 2” Grd. 8
15	104636	4	WASHER, Lock 7/16”
16	(Ref.)	-	AXLE ASSEMBLY, Rear (For components, refer to Figure 6.5-20)
17	126361	8	BOLT, Hex Hd 1/2”-13 x 1-3/4” Grd. 8
18	126286	8	WASHER, Lock 1/2”
19	123856	8	NUT, Hex 1/2”-13 Grd. C

Figure 6.5-20. Rear Axle Assembly (Dana Axles)



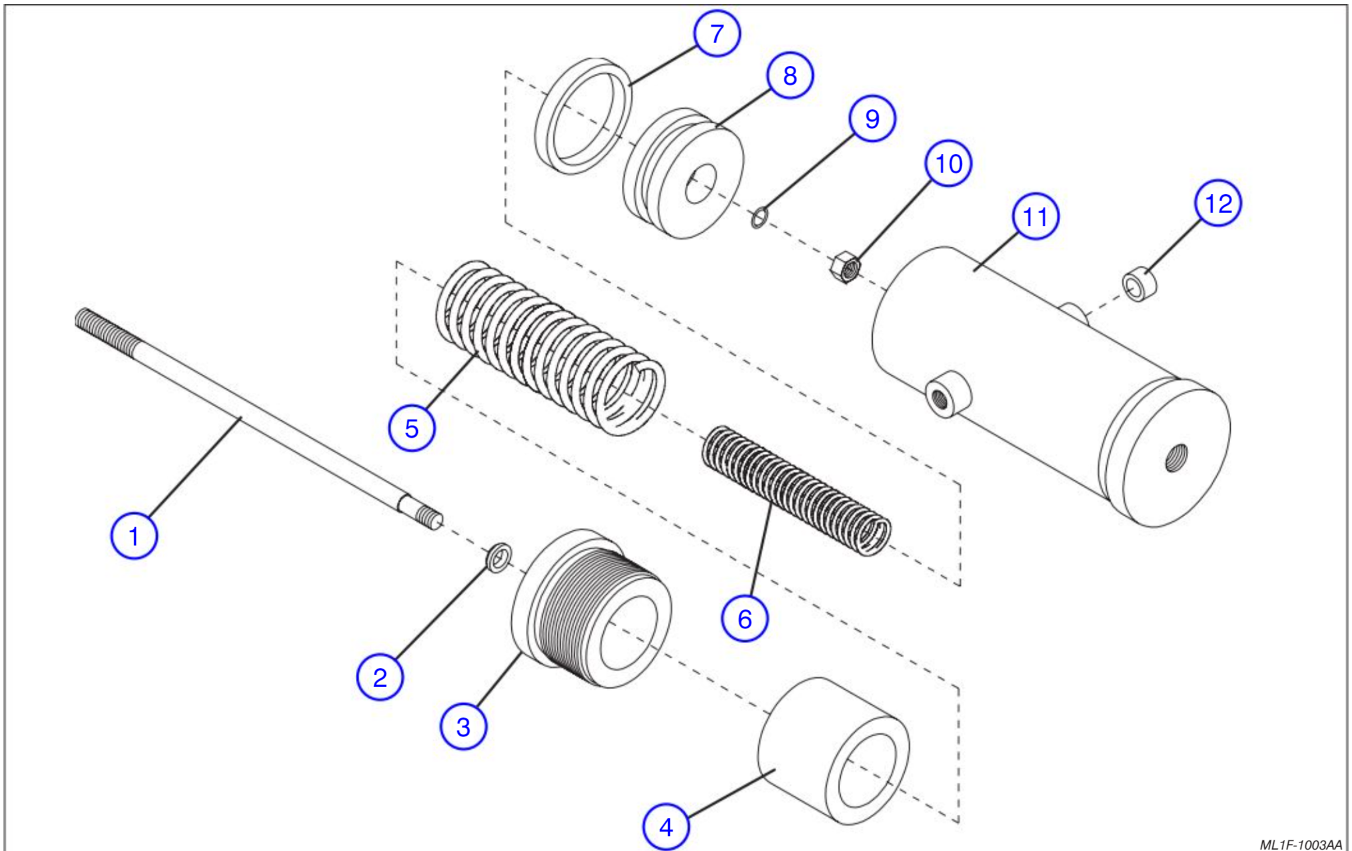
Index No.	Skyjack Part No.	Qty.	Description
A	111589	-	AXLE ASSEMBLY, Final Rear drive **(71XX)** **(Complete with cylinder bracket, mounting plates and reinforcement plates)**
B	139782	-	AXLE ASSEMBLY, Final Rear drive **(8243)** **(Complete with cylinder bracket, mounting plates and reinforcement plates)**
-	106383	1	• AXLE ASSEMBLY, Rear drive (Dana 60) **A**
-	109278	1	• AXLE ASSEMBLY, Rear drive (Dana 70) **B**
1	$	1	• • HOUSING W/BEARING CAPS, Rear drive axle
2	113938	1	• • DRIVE GEAR AND PINION ASSEMBLY **A**
	117130	1	• • DRIVE GEAR AND PINION ASSEMBLY **B**
3	113939	1	• • BEARING ASSEMBLY, Inner pinion (Includes item 4) **A**
	113880	1	• • BEARING ASSEMBLY, Inner pinion (Includes item 4) **B**
4	113940	AR	• • KIT, Pinion adjusting shim **A**
	113881	AR	• • KIT, Pinion adjusting shim **B**
5	113882	1	• • SLINGER, Inner pinion
6	113883	1	• • BEARING ASSEMBLY, Outer pinion
7	113930	1	• • SLINGER, Inner pinion bearing **A**
	113913	1	• • SLINGER, Inner pinion bearing **B**
8	113884	1	• • SEAL, Pinion
9	113914	1	• • YOKE ASSEMBLY, End
			• • • KIT, Strap (If equipped) B
10	113885	1	• • WASHER, Pinion nut
11	113886	1	• • NUT, Pinion
12	108394	1	• • COVER, Carrier
13	113888	1	• • PLUG, Carrier cover
14	$	2	• • CAP, Differential bearing (part of item #1)
15	$	4	• • BOLT, Differential bearing cap (part of item #1)
16	113889	2	• • BEARING ASSEMBLY, Differential
17	113912	AR	• • KIT, Differential shim
18	113941	2	• • SEAL, Hub **A**
	113917	2	• • SEAL, Hub **B**
19	113942	2	• • BEARING ASSEMBLY, Inner wheel **A**
	113915	2	• • BEARING ASSEMBLY, Inner wheel **B**
20	113943	2	• • BEARING ASSEMBLY, Outer wheel A
	113916	2	• • BEARING ASSEMBLY, Outer wheel B
	$		Not available, order complete assembly.
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from previous page.
21	113944	2	• • HUB, Wheel **A**
	113918	2	• • HUB, Wheel **B**
22	113919	16	• • STUD, Axle hub
23	113945	4	• • NUT, Spindle **A**
	113920	4	• • NUT, Spindle **B**
24	113946	2	• • WASHER, Spindle **A**
	113921	2	• • WASHER, Spindle **B**
25	114903	1	• • SHAFT, Flanged axle LH **(Shown)** **A**
	109137	1	• • SHAFT, Flanged axle LH **(Shown)** **B**
26	113947	1	• • SHAFT, Flanged axle RH **A**
	109137	1	• • SHAFT, Flanged axle RH **B**
27	113924	16	• • ADAPTER, Stud nut
28	113925	16	• • NUT, Stud
29	113948	1	• • DIFFERENTIAL ASSEMBLY (Detroit Locker) **A**
	113926	1	• • DIFFERENTIAL ASSEMBLY (Detroit Locker) **B** (Service parts not available at time of printing)
30	(Ref.)	-	• • OIL, Gear (Refer to Table 1.1.)



Index No.	Skyjack Part No.	Qty.	Description
A	126722	-	BRAKE MOUNT AND BRAKE ASSEMBLY (71XX)
B	141542	-	BRAKE MOUNT AND BRAKE ASSEMBLY (8243)
1	126931	1	• MOUNT, Brake A
	141538	1	• MOUNT, Brake B
2	100845	AR	• BOLT, Hex head 5/8-11 x 3 1/2” Grd. 8
3	100352	AR	• WASHER, 5/8” Flat
4	103907	AR	• BOLT, Hex head 1/2-13 x 1 1/2” Grd. 5
5	107949	AR	• NUT, Hex head jam 1/2-13
6	111961	2	• MOUNT, 1/8” Neoprene BRAKE
7	111577	AR	• NUT, 5/8-11 Steel zinc plated lock
8	109602	1	• CALIPER, Brake
	120996		• • KIT, Brake pad
9	109580	1	• BRACKET, Brake cylinder mounting
10	109579	2	• SPACER, Brake cylinder mounting
11	(Ref.)	-	• CYLINDER, Brake (For components, refer to Figure 6.5-22)
12	103468	AR	• WASHER, 1/2” Flat
13	103470	AR	• WASHER, 1/2” Lock
14	103911	AR	• BOLT, Hex Head 1/2-13 x 1” Grd. 5
15	109601	1	• PIN, #CP-17 Cotter
16	103909	AR	• BOLT, Hex Head 1/2-13 x 1-1/4” Grd. 5
17	109600	1	• PIN, Clevis
18	109599	1	• ROD, End
19	109598	1	• NUT, Hex head 1/2-20 jam
20	101297	4	BOLT, Hex head 3/8-16 x 1-1/4” Grd. 5
21	103978	4	NUT, Hex head 5/8-16 Grd. B

Figure 6.5-22. Brake Cylinder Assembly (If Equipped)



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

Figure 6.6-1. Engine Roll Out Tray & Cover Assembly (Nissan Dual Fuel Engine)

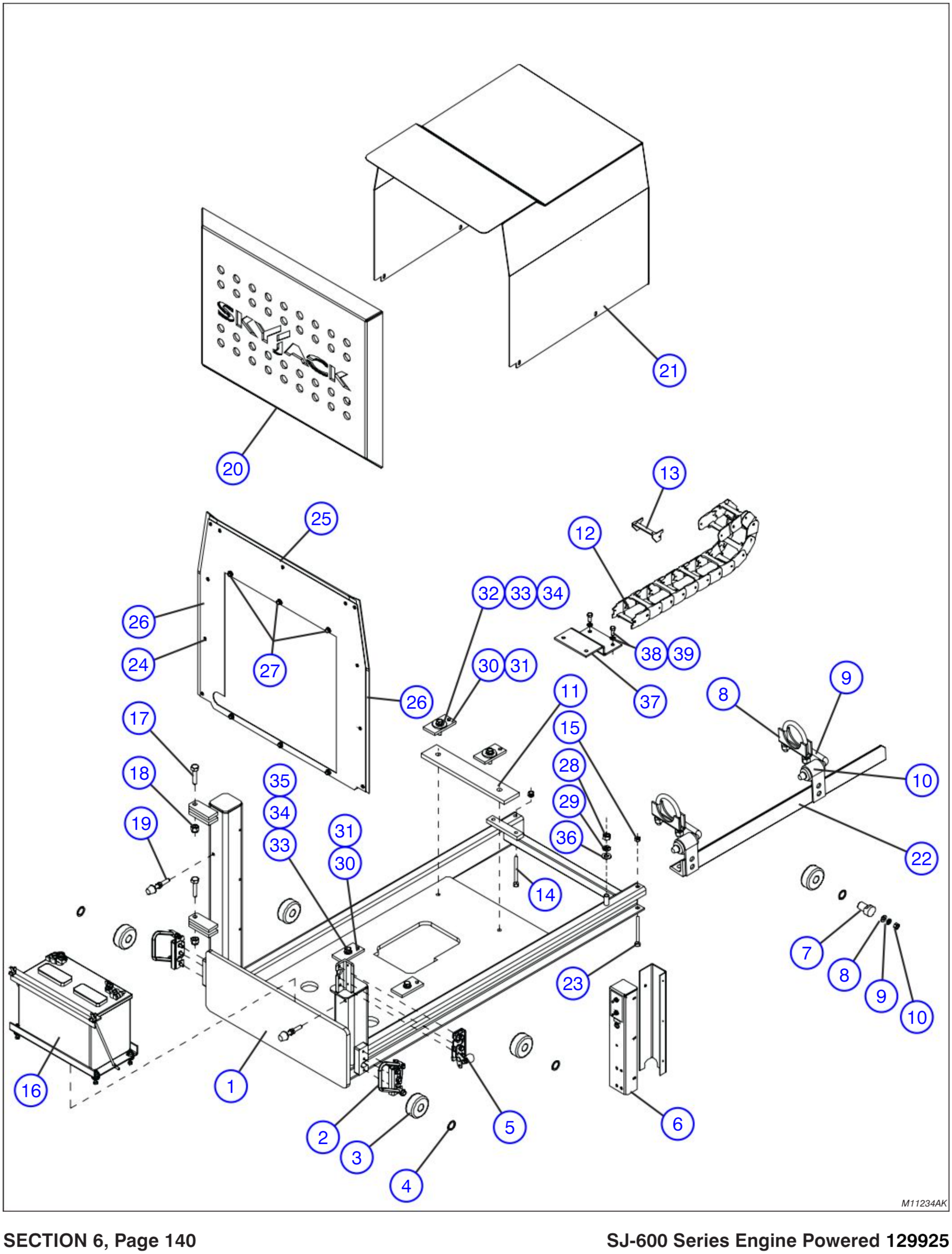


Figure 6.6-1. Engine Roll Out Tray & Cover Assembly ***(Nissan Dual Fuel Engine)***

Index No.	Skyjack Part No.	Qty.	Description
1	139347	1	TRAY WELDMENT, ENGINE, ***(Machines with Serial #'s 342805 and Above)***
	136689	1	TRAY WELDMENT, ENGINE, ***(Machines with Serial #'s 341851 to 342804)***
	132663	1	TRAY WELDMENT, ENGINE, ***(Machines with Serial #'s 341850 and Below)***
	103078	1	• CLIP, Double S344G10
2	(Ref.)	-	ASSEMBLY, Engine tray lock L.H./R.H. (For components, refer to Figure 6.6-5)
3	111351	4	ROLLER, 2 3/4" OD x 7/8" ID x 1 3/16"
4	116621	4	SHIM, Slide out pin
5	111954	1	LATCH ASSEMBLY, R.H.
6	(Ref.)	-	PANEL, Engine Control Post (For components, refer to Figure 6.6-4)
	103855	2	• BOLT, Hex Head 1/4"-20 x 1/2" Gr. 5
	103995	2	• WASHER, Flat 1/4"
	104000	2	• WASHER, Lock 1/4"
7	133870	1	PIN, Engine Roll-out Roller
8	136030	1	CLAMP, Exhaust 1-7/8"
9	133293	1	HANGER, Wire
10	133292	1	BRACKET, w/rubber for 5/16" or 3/8"
11	133168	1	SHIM, BAR Flat 1/2" x 2-1/2"
12	132935	1	ASSEMBLY, Energy Chain
	132973	1	• CARRIER ASSEMBLY, 14 Link hose
	103864	6	• BOLT, Hex head 5/16"-18 x 1" Gr. 5
	103996	6	• WASHER, 5/16" flat
	103984	4	• NUT, 5/16"-18 Hex lock Gr. B
13	122998	1	BRACKET, Carrier assembly mounting (male)
	122999	1	BRACKET, Carrier assembly mounting (female)
14	103914	1	BOLT, Hex hd 3/8"-16 x 3.75" Gr. 5
15	104606	2	NUT, Hex Nylon Lock 3/8"-16 Gr. 5
16	(Ref.)	-	ASSEMBLY, 12V Battery Tie-Down (For components, refer to Figure 6.6-3)
17	103904	2	BOLT, Hex head 1/2"-13 x 2" Gr. 5
18	702507	2	NUT, Lock 1/2"-13
19	116494	2	BUMPER, Rubber
20	129769	1	GUARD, Engine front
21	133231	1	COVER, Nissan Engine
22	133717	1	SUPPORT, Exhaust pipe
	133325	1	• WELDMENT, Exhaust support
	133294	2	• ASSEMBLY, Exhaust Hanger
23	123708	1	BOLT, Hex Hd 3/8"-16 x 4 -1/4" Grd. 5
	105995	11	• RIVET, Aluminum Large

Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
24	133792	1	ASSEMBLY, Radiator Shield Plate
	133781	1	• PLATE, Radiator Shield
	133793	1	• SUPPORT, Wiper - Top
	133794	2	• SUPPORT, Wiper - Sides
25	133795	1	• STRIP, Rubber - Top
26	133796	2	• STRIP, Rubber - Sides
27	103855	6	• BOLT, Hex head 1/4”-20 x 1/2” Gr. 5
	104000	6	• WASHER, 1/4” Lock
	103995	6	• WASHER, 1/4” Flat
28	103978	1	NUT, Hex head 3/8”-16 Grd.5
29	103999	1	WASHER, Lock 3/8”
30	132821	4	MOUNT, Isolation
31	116129	4	BUSHING, Engine mount
32	103904	2	BOLT, Hex head 1/2”-13 x 2 Grd.5
33	103470	4	WASHER, Lock 1/2”
34	128352	4	WASHER, Flat 1/2” style BB
35	103909	2	BOLT, Hex head 1/2”-13 x 1.25” Grd.5
36	103472	1	WASHER, Flat 3/8”
37	133789	1	BRACKET, E-chain
38	103887	2	BOLT, Hex head 5/16”-17 x 3/4” Grd. 5
39	103404	2	WASHER, Lock 5/16”

Figure 6.6-2. Engine Roll Out Tray & Cover Assembly (Kubota Dual Fuel / Diesel Engine) **AE**

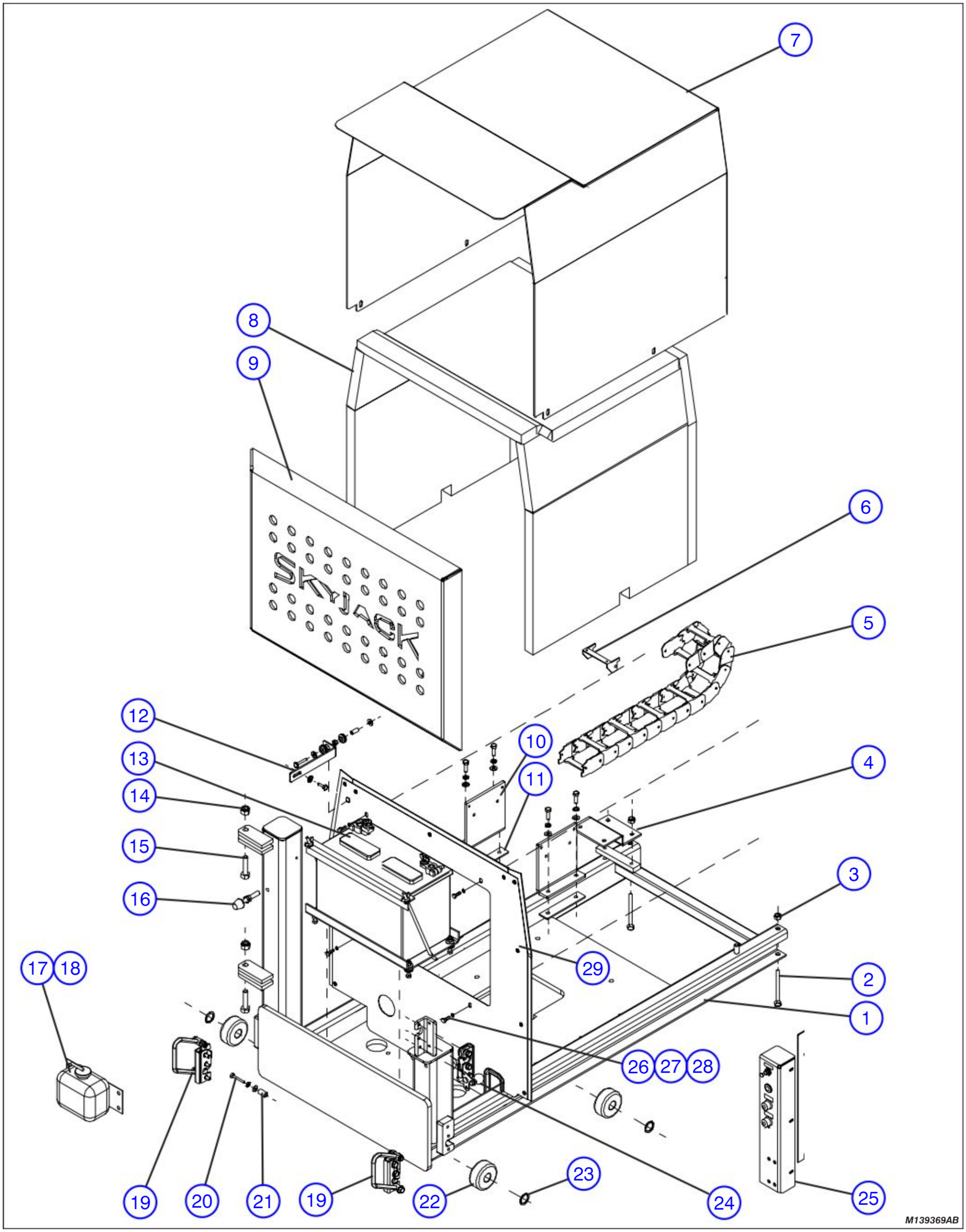


Figure 6.6-2. Engine Roll Out Tray & Cover Assembly (Kubota Dual Fuel / Diesel Engine) **AF**

Index No.	Skyjack Part No.	Qty.	Description
A	-	-	ASSEMBLY, Engine tray **(Kubota diesel engine)**
B	-	-	ASSEMBLY, Engine tray **(Kubota dual fuel engine)**
1	142273	1	TRAY WELDMENT, Engine, **A, B** ***(Machines with Serial #'s 34000545 and Above)***
	139347	1	TRAY WELDMENT, Engine, **A, B** ***(Machines with Serial #'s 342805 to 34000544)***
	136689	1	TRAY WELDMENT, Engine, **A** ***(Machines with Serial #'s 341851 to 342804)***
	136689	1	TRAY WELDMENT, Engine, **B** ***(Machines with Serial #'s 342804 and Below)***
	132663	1	TRAY WELDMENT, Engine, **A** ***(Machines with Serial #'s 341850 and Below)***
2	103914	AR	BOLT, Hex head (0.375-16 x 3.75, Grade 5), **A**
	123708	2	BOLT, Hex head (0.375-16 x 4.25, Grade 5), **B**
3	104606	AR	NUT, Hex head, nylon lock (0.375-16, Grade 5)
4	133789	1	BRACKET, E-chain
	103887	2	• BOLT, Hex head (0.312-18 x 0.75, Grade 5)
	103404	2	• WASHER, Lock (0.312)
5	132935	-	ENERGY CHAIN ASSEMBLY
	132973	1	• HOSE CARRIER ASSEMBLY (14 Link)
	103864	6	• BOLT, Hex head (0.312-18 x 1, Grade 5)
	103996	6	• WASHER, Flat (0.312)
	103984	4	• NUT, Hex head, nylon lock (0.312-18, Grade 5)
6	122998	1	BRACKET, Carrier assembly mounting (Male)
	122999	1	BRACKET, Carrier assembly mounting (Female)
7	133231	1	COVER, Engine
	124037	1	COVER, Kubota engine (Models equipped with Purifier)
8	134175	1	SOUND PROOFING ASSEMBLY
	134172	1	• INSULATION, LH Sound proofing
	134173	1	• INSULATION, RH Sound proofing
	134174	1	• INSULATION, Rear sound proofing
	134179	1	• INSULATION, Top sound proofing
9	129769	1	GUARD, Engine front
10	136077	2	BRACKET, Regulator, **B**
	103864	4	• BOLT, Hex head (0.312-18 x 1, Grade 5)
	103404	4	• WASHER, Lock (0.312)
	103996	4	• WASHER, Flat (0.312)
	100397	2	• NUT, Hex head (0.312-18, Grade 5)
11	136976	2	PAD, Rubber

Parts list continued on the following page.

Figure 6.6-2. Engine Roll Out Tray & Cover Assembly (Kubota Dual Fuel / Diesel Engine) (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
12	133851	1	BRACKET, Radiator plate support
	103858	1	BOLT, Hex head (0.25-20 x 1.25, Grade 5) **A**
	103857	1	BOLT, Hex head (0.25-20 x 1, Grade 5) **B**
	103980	1	NUT, Hex head (0.25-20, Grade 5)
	103995	2	WASHER, Flat (0.25)
	100616	2	GROMMET, Rb-220
	133796	2	STRIP, Rubber side
	128571	1	SLEEVE, Anti-vibration mount **A**
	115649	1	NUT, Hex head, nylon lock (0.25-20, Grade 5)
13	(Ref.)	-	BATTERY, 12V (WET)
			(For components, refer to Figure 6.6-3)
14	702507	2	NUT, Lock (0.5-13)
15	103904	2	BOLT, Hex head (0.5-13 x 2, Grade 5)
16	116494	2	BUMPER, Rubber
17	147142	1	RESERVOIR, Coolant
			(Order Part # 132519 for Machines with S/N 34001129 and Below).
18	-	-	HARDWARE, Coolant reservoir ***(Machines with 34001130 and Above).***
	103887	2	• BOLT, Hex head (5/16-18 x 0.75, Grade 5)
	103996	2	• WASHER, Flat (5/16)
	100397	2	• NUT, Hex head (5/16-18 Grade 5)
	103404	2	• WASHER, Lock (5/16)
	-	-	HARDWARE, Coolant reservoir ***(Machines with S/N 34001129 and Below).***
	103892	2	• BOLT, Hex head (1/4-20 x 0.625 Grade 5)
	103995	2	• WASHER, Flat (1/4”)
	103980	2	• NUT, Hex head (1/4-20 Grade B)
	104000	2	• WASHER, Lock (1/4” NOM*0.060)
19	(Ref.)	-	ENGINE TRAY LOCK ASSEMBLY (Left Hand / Right Hand)
			(For components, refer to Figure 6.6-5)
20	800353	6	BOLT, Hex head (M6 x 1 x 12)
	103996	6	WASHER, Flat (0.312)
	121758	6	WASHER, Lock (M6 Plated)
	134202	2	STRIP, Foam
	115649	1	NUT, Hex head, nylon lock (0.25-20, Grade 5)
21	128621	1	SPACER, (If equipped)
22	111351	AR	ROLLER (2.75 outer diameter x 0.875 inner diameter x 1.187 long)
23	116621	AR	SHIM, Slide out pin
24	111954	1	RIGHT HAND LATCH ASSEMBLY
	103404	3	WASHER, Lock (0.312)
	103864	3	BOLT, Hex head (0.312-18 x 1, Grade 5)
	103857	1	BOLT, Hex head (0.25-20 x 1, Grade 5)
	104000	1	WASHER, Lock (0.25)
	103980	1	NUT, Hex head (0.25-20, Grade 5)
	111534	1	KNOB, Black
			Parts list continued on the following page.

Figure 6.6-2. Engine Roll Out Tray & Cover Assembly (Kubota Dual Fuel / Diesel Engine) (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
25	(Ref.)	-	PANEL, Engine Control Post
			(For components, refer to Figure 6.6-4)
26	104608	4	BOLT, hex Head (M6-1.0 x 16)
27	133219	4	WASHER, Flat (M6)
28	121758	4	WASHER, Lock (M6)
29	133942	1	RADIATOR PLATE ASSEMBLY **A**
			(Machines with Serial #s 342867 and Below)
	136059	1	RADIATOR PLATE ASSEMBLY **B**
			(Machines with Serial #s 34000399 and Below)
	133941	1	• PLATE, Radiator **A**
	136058	1	• PLATE, Radiator **B**
	133793	1	• SUPPORT, Top wiper
	133795	1	• STRIP, Top rubber
	133796	2	• STRIP, Rubber side
	133794	4	• SUPPORT. Side wiper
	133947	1	• TRIM
	120948	11	• RIVET, Pop (0.187 x 0.44)
	-	-	RADIATOR PLATE ASSEMBLY **A**
			(Machines with Serial #s 342868 and Above)
	-	-	RADIATOR PLATE ASSEMBLY **B**
			(Machines with Serial #s 34000400 and Above)
	139308	1	• PLATE, Radiator **A**
	139362	1	• TRIM, Rubber **A**
	139367	2	• STRIP, Sound proofing foam **A**
	133947	1	• TRIM **A, B**
	143705	1	• PLATE, Radiator **B**
	143676	1	• TRIM **B**

Figure 6.6-3. Battery Assembly & Battery Cables

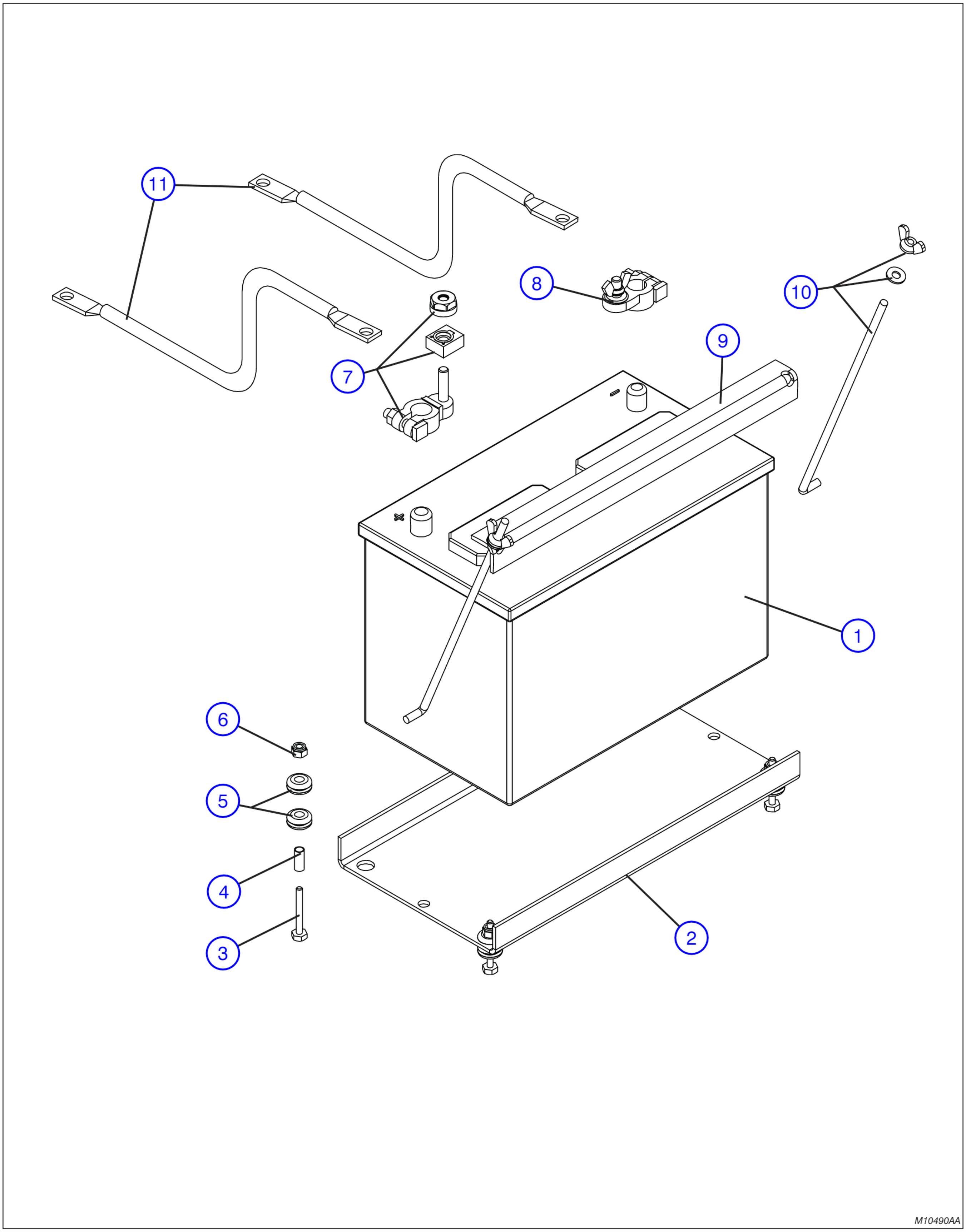


Figure 6.6-3. Battery Assembly & Battery Cables

Index No.	Skyjack Part No.	Qty.	Description
A	128635	-	ASSEMBLY, Battery
1	103295	1	• BATTERY, 12V (WET)
2	128565	1	• TRAY, Battery
3	103860	4	• BOLT, Hex Hd 1/4-20 x 1.75” grade 5
4	128571	4	• SLEEVE, Battery tray anti-vibration
5	100616	8	• GROMMET, RB-220
6	115649	4	• NUT, Hex nylon lock 1/4-20 grade 5
7	128632	1	• ADAPTER ASSEMBLY, 300A fuse positive battery post
	128596	1	• • CLAMP, Battery post single
	128595	1	• • FUSE, 300A
	128597	1	• • NUT, Battery post insulated
8	128620	1	• ADAPTER, Negative battery post to 5/16” stud
9	128570	1	• BRACKET, Battery hold down
10	128572	1	• ROD ASSEMBLY, Battery hold down
*11	(Ref.)	-	BATTERY CABLES
	128582	1	CABLE ASSEMBLY, Positive, battery to starter
	104533	35”	• CABLE, #2 Welding
	128578	1	CABLE ASSEMBLY, Positive, starter to emergency disconnect
	124533	181”	• CABLE, #2 Welding
	119572	1	CABLE ASSEMBLY, Positive, alternator to starter
	103147	20”	• CABLE, #6 Welding
	128583	1	CABLE ASSEMBLY, Negative, battery to engine block
	104533	62”	• CABLE, #2 Welding
	355096	1	CABLE ASSEMBLY, Negative, engine block to carrier track ground
	104533	70”	• CABLE, #2 Welding
	128822	1	CABLE ASSEMBLY, Negative, carrier track ground to cabinet ground
	124533	120”	• CABLE, #2 Welding
			*** Not part of assembly A**

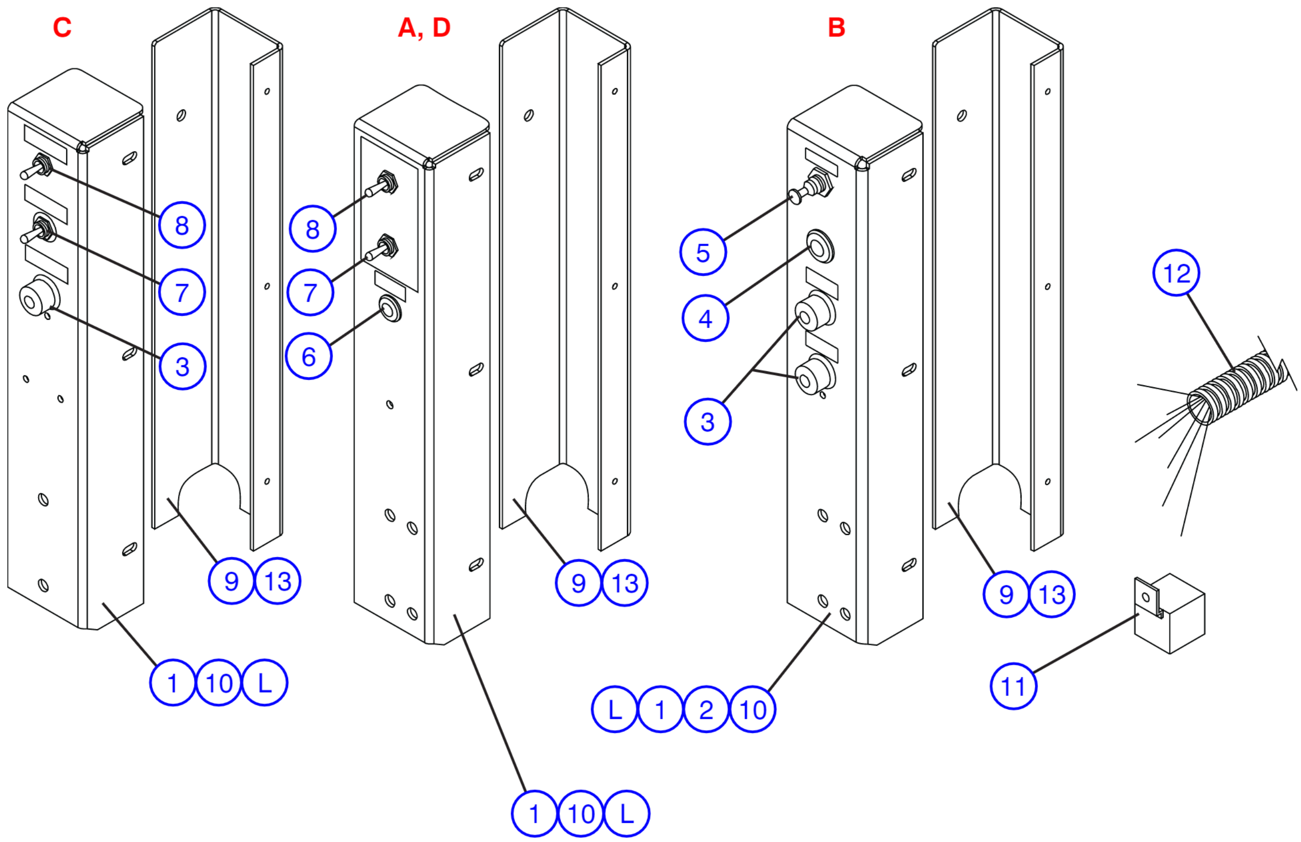
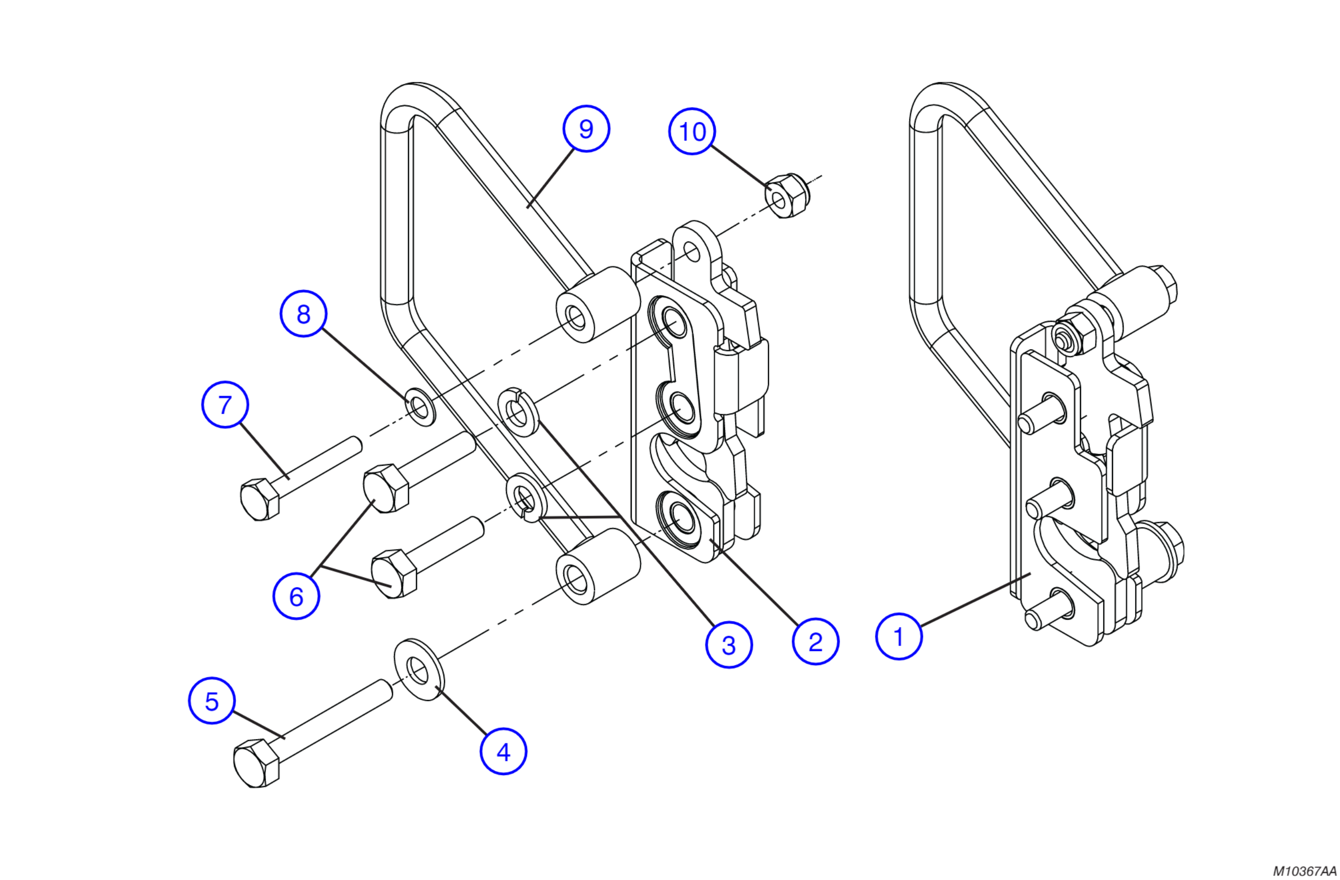

C
A, D
B
8
7
3
9
13
1
10
L
8
7
6
9
13
1
10
L
5
4
3
9
13
L
1
2
10
12
11
M10402AA

Figure 6.6-4. Engine Control Panel

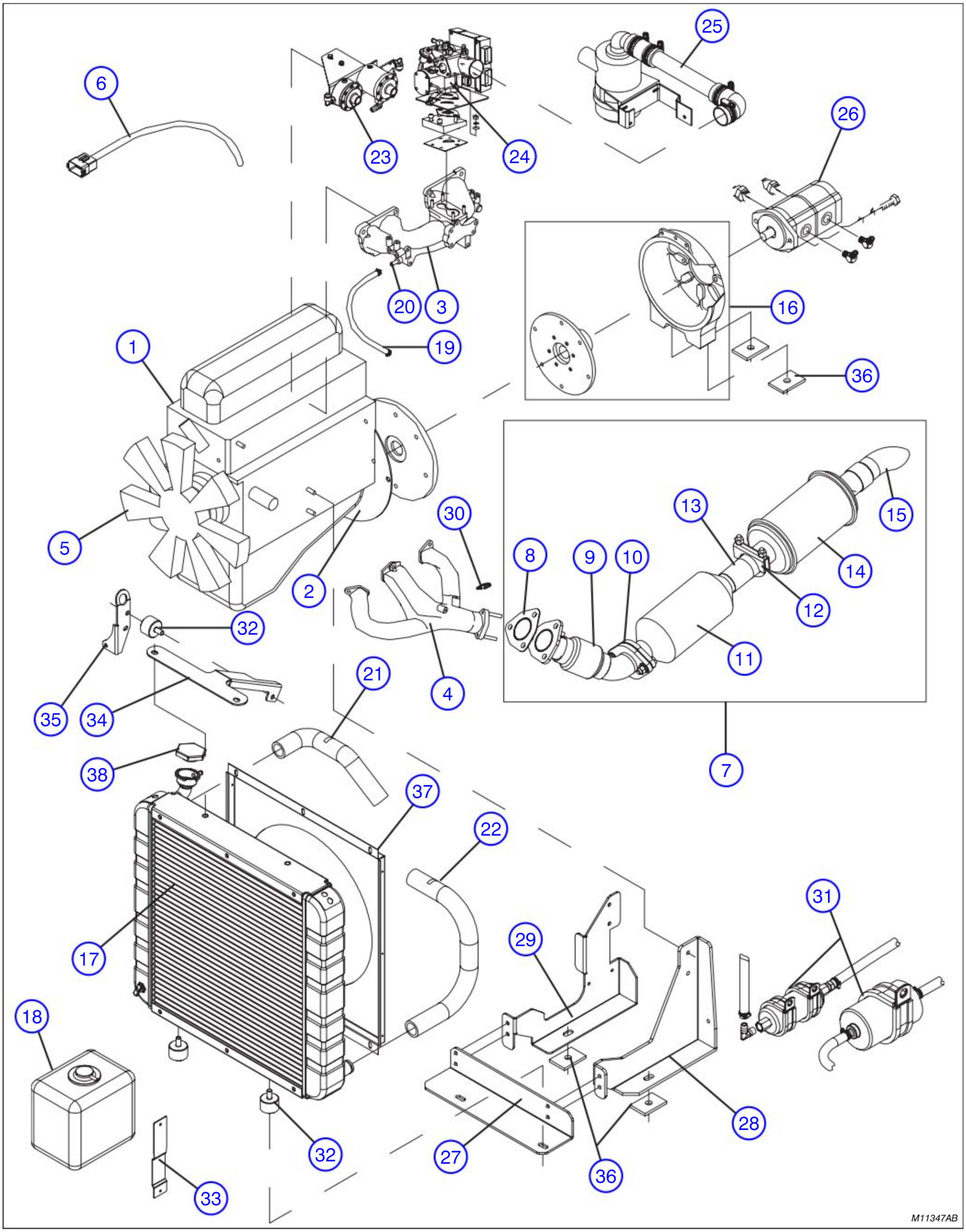
Index No.	Skyjack Part No.	Qty.	Description
A	133047	1	ENGINE ELECTRICAL ASSEMBLY, Dual Fuel **(Nissan)**
B	128584	1	ENGINE ELECTRICAL ASSEMBLY, Diesel Fuel **(Kubota)**
C	136159	1	ENGINE ELECTRICAL ASSEMBLY, Dual Fuel **(Kubota)**
D	141841	-	ENGINE ELECTRICAL ASSEMBLY, Dual fuel **(GM)**
1	133136	1	PANEL, Engine control front, **A**
	120618	1	PANEL, Engine control front, **B**
	136668	1	PANEL, Engine control front, **C**
	141840	1	PANEL, Engine control front, **D**
2	132883	1	TIMER, Glow plug (not shown), **B**
3	102692	2	SWITCH, Push-button , **B, C**
4	132884	1	INDICATOR, Glow plug, **B**
5	102572	1	SWITCH, Engine off/on, **B**
6	133133	1	LIGHT, Check Engine Indicator, **A, D**
7	115747	1	SWITCH, Gas/Propane Toggle, **A, C**
	115574	1	SWITCH, Toggle, **D**
8	124446	1	SWITCH, Off/On/Start Toggle, **A, C, D**
9	120617	1	COVER, Engine control panel rear, **A, B, C**
	141838	1	COVER, Engine control panel rear, **D**
10	(Ref.)	-	PANEL ASSEMBLY HARDWARE
	103962	AR	• SCREW, Machine (#10-32 x 0.5”)
	104185	AR	• WASHER, Lock (#10)
	104003	AR	• NUT, Machine (#10-32 grade B)
11	127035	1	RELAY, 12 Volt, 40A
12	(Ref).	-	HARNESS, Engine Wiring (For components, refer to Figure 6.6-6) **(Nissan)** (For components, refer to Figure 6.6-12) **(Kubota diesel)** (For components, refer to Figure 6.6-16) **(Kubota dual fuel)** (For components, refer to Figure 6.6-22) **(GM)**
13	117398	4	TRIM, Protective
L	(Ref)	-	LABEL, Engine Control Panel (Refer to Figure 6.8-3)

Figure 6.6-5. Engine Tray Lock Assembly



Index No.	Skyjack Part No.	Qty.	Description
A	126641	AR	LOCK ASSEMBLY, Engine Tray
1	112308	1	• LATCH, Rotary R.H.
2	112307	1	• LATCH, Rotary L.H.
3	103404	AR	• WASHER, Lock 5/16”
4	126643	AR	• WASHER, Flat 5/16”
5	103865	AR	• BOLT, Hex Head 5/16”- 18 2” Grd. 5
6	112532	AR	• BOLT, Hex Head 5/16”- 18 1 1/4” Grd. 5
7	103859	AR	• BOLT, Hex Head 1/4”- 20 x 1 1/2” Grd. 5
8	112378	AR	• WASHER, Flat Brass 1/4”
9	126634	2	• HANDLE WELDMENT, Tray Lock
10	115649	AR	• NUT, Hex Nylon Lock 1/4”- 20 Grd. 5

Figure 6.6-6. Dual Fuel Engine Assembly (Nissan Engine A15)



Index No.	Skyjack Part No.	Qty.	Description
1	132186	1	ASSEMBLY, Engine
	132335	1	• ENGINE, Nissan A15 (Crate)
	132336	1	• STARTER
	132337	1	• FLYWHEEL
	132339	1	• ALTERNATOR, 12V 32 amp.
	133872	1	• • NUT, Hex M5-0.80
	133339	1	• • WASHER, External tooth M5
	132340	1	• IGNITION COIL
	132341	1	• DISTRIBUTOR (complete)
	103887	2	• • BOLT, Hex head 5/16”-18 x 3/4” Grd. 5
	103996	2	• • WASHER, Flat 5/16” S.A.E.
	103404	2	• • WASHER, Lock 5/16”
	132348	1	• DISTRIBUTOR ROTOR BUTTON
	132349	1	• DISTRIBUTOR CAP
	132342	1	• THERMOSTAT, Water
	132346	1	• ENGINE WATER PUMP
	132347	1	• OIL FILTER
	133132	1	• SWITCH, Oil Pressure
	134607	1	• • TIP, Rubber
	132350	1	• IGNITION WIRE SET
	132351	4	• PLUG, Spark
	132352	1	• BELT, Alternator Drive
	134797	1	• FITTING, 1/4” Hex 1.45” lg.
L	(Ref.)	-	• LABEL, Emission control information (Refer to Figure 6.8-3)
2	132338	1	• PLATE, Flywheel Back
3	132343	1	• MANIFOLD, Intake
4	132344	1	• MANIFOLD, Exhaust
5	132345	1	• FAN, Engine Cooling
6	132499	1	• HARNESS, Engine Electrical Wiring
	119134	1	• • KIT, 12 Pole Receptacle Assembly
	119293	1	• • HOLDER, Fuse (with Cover)
	121504	1	• • FUSE, 20A
	133032	1	• • CONNECTOR, Alternator with pins
	133049	1	• • RESISTOR, 1K Ohms 1 Watt
	133050	1	• • RESISTOR, 10K Ohms 1 Watt
	123849	1	• • CONNECTOR, ECU Plug 23 Position - White
	124373	17	• • • TERMINAL, Wire Ampseal gold plated
	123847	1	• • CONNECTOR, ECU Plug 23 Position - Black
	124372	9	• • • TERMINAL, Wire Ampseal Tin plated
	124069	1	• • CONNECTOR, MAP Sensor
	124365	3	• • • TERMINAL, Wire Terminal 150 Female
	124366	3	• • • SEAL, Wire 150
	124367	1	• • • ASSURANCE, Terminal Position
	124034	1	• • CONNECTOR, Fuel Injector - Liquid Propane
	124370	2	• • • TERMINAL, Wire Terminal Female
	124369	2	• • • SEAL, Wire W-P
	124040	1	• • CONNECTOR, Fuel Injector - Gasoline Fuel
	124376	2	• • • TERMINAL, Wire Terminal Female

Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
	124377	1	• • WEDGE
	124036	1	• • CONNECTOR, Electric Governor Sensor
	124368	2	• • TERMINAL, Wire Terminal Female
	124369	2	• • SEAL, Wire W-P
	123850	1	• • CONNECTOR, Air/Coolant Temperature Sensor
	124363	2	• • TERMINAL, Wire Terminal Female
	124364	1	• • COVER, Sealant
	133030	1	• • CONNECTOR, 4-Pin Oxygen Sensor
	133031	1	• • ASSURANCE, Terminal Position
	124365	4	• • TERMINAL, Wire Terminal 150 Female
	124366	4	• • SEAL, Wire 150
7	134420	1	ASSEMBLY, Exhaust
8	132614	1	• GASKET, Down Pipe to Manifold
9	133345	1	• ASSEMBLY, Down Pipe with Flex Pipe
	134364	1	• • PIPE, Exhaust
	(Ref)	-	• HARDWARE, Upper Stream Flange
	103876	2	• • Bolt Hex Hd, 7/16”-20 x 1.5” Grd. 5
	104636	2	• • WASHER, Lock 7/16”
	103976	2	• • NUT, Hex Hd 7/16”
	(Ref)	-	• HARDWARE, Lower Stream Flange
	103870	2	• • BOLT, Hex Hd 3/8”-16 x 1.5” Grd. 5
	103978	2	• • NUT, Hex Hd 3/8”-16 Grd. 5
	103999	2	• • WASHER, Lock 3/8”
10	132619	1	• GASKET, Down Pipe to Catalyst
11	132620	1	• CATALYST, In-Line
12	136030	1	• CLAMP, Exhaust 1-7/8” dia.
13	132621	1	• PIPE, Straight
14	102286	1	• MUFFLER
15	133341	1	• TAILPIPE
16	(Ref)	-	ASSEMBLY, Bell Housing (For components, refer to Figure 6.6-7)
17	132511	1	RADIATOR, Engine (includes radiator cap and fan guard)
18	132519	1	RESERVOIR, Coolant
19	132848	1	HOSE, 3/8” x 14” Long
	102519	2	• CLAMP, Gear #6
20	103160	1	FITTING, 3/8” Bar- 3/8” NPT
21	132517	1	HOSE, Upper Radiator
	133696	2	• CLAMP, Gear
22	132518	1	HOSE, Lower Radiator
	133696	2	• CLAMP, Gear
23	(Ref.)	-	ASSEMBLY, Regulator/Vaporizer (For components, refer to Figure 6.6-11)
24	(Ref.)	-	ASSEMBLY, EFI System Components (For components, refer to Figure 6.6-9)
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued on the previous page.
25	(Ref.)	-	ASSEMBLY, Air Intake
			(For components, refer to Figure 6.6-10)
	133223	1	• BOLT, Hex Head Cap Screw M6 -1 x 20mm Grd. 5
	133219	2	• WASHER, Flat M6
	121758	2	• WASHER, Lock M6
	133220	1	• BOLT, Hex Socket Cap Screw M6-1 x 16mm Grd. 5
26	(Ref.)	-	ASSEMBLY, Hydraulic Pump
			(For components, refer to Figure 6.6-19)
27	132587	1	MOUNT, Radiator
	(Ref.)	-	• HARDWARE, Radiator mount to Engine mounts
	111710	4	• • BOLT, Hex Hd 5/16”-18 x 1.25” Grd. 5
	127940	4	• • WASHER, M8 Flat
	116218	4	• • WASHER, Lock M8
	123012	4	• • NUT, 5/16”-18
28	132585	1	MOUNT, Left Engine
	(Ref.)	-	• HARDWARE, Engine mount to roll-out tray
	103911	2	• • BOLT, Hex Hd 1/2”-13 x 1” Gr. 5
	103468	2	• • WASHER, Flat 1/2”
	103470	2	• • WASHER, Lock 1/2”
	(Ref.)	-	• HARDWARE, Engine mount to engine block
	121059	2	• • NUT, Hex M8-1.25
	116218	2	• • WASHER, M8 Lock
	127940	2	• • WASHER, M8 Flat
29	132586	1	MOUNT, Right Engine
	(Ref.)	-	• HARDWARE, Engine mount to roll-out tray
	103911	2	• • BOLT, Hex Hd 1/2”-13 x 1” Gr. 5
	103468	2	• • WASHER, Flat 1/2”
	103470	2	• • WASHER, Lock 1/2”
	(Ref.)	-	• HARDWARE, Engine mount to engine block
	121059	2	• • NUT, Hex M8-1.25
	116218	2	• • WASHER, M8 Lock
	127940	2	• • WASHER, M8 Flat
30	132819	1	SENSOR, Heated Exhaust Oxygen
31	(Ref.)	-	PUMP/FILTER, Gasoline and Liquid Propane
			(For components, refer to Figure 6.6-8)
32	132945	3	MOUNT, Radiator Rubber Isolation
	300437	3	• BOLT, Hex head cap 3/8”-16 x 7/8” Grd. 5
	103999	4	• WASHER, Lock 3/8”
	103472	4	• WASHER, Flat 3/8”
			Part list continued on the following page

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page
33	133140	1	BRACKET, Coolant Reservoir
	112327	2	• SCREW, Self-Tapping #8-18 x 1/2”
34	132940	1	BRACKET, Top Radiator
	300437	2	• BOLT, Hex Hd 3/8”-16 x 7/8” Gr. 5
	103999	2	• WASHER, Lock 3/8”
	103472	2	• WASHER, Flat 3/8”
	103978	1	• NUT, Hex 3/8” Gr. 5
35	133131	1	BRACKET, Engine Lift
	133174	1	• BOLT, M8-1.25 x 20mm
	701056	1	• WASHER, M8 Lock
	127940	1	• WASHER, M8 Flat
	133869	2	• BOLT, Hex head M8-1.25x25mm Gr. 5
	116218	1	• WASHER, Lock M8
36	132821	4	MOUNT, Engine/Bell Housing Rubber Isolation
37	132510	1	GUARD, Radiator Fan
38	132509	1	CAP, Radiator

Figure 6.6-7. Bell Housing Assembly (Nissan Dual Fuel Engine A15)

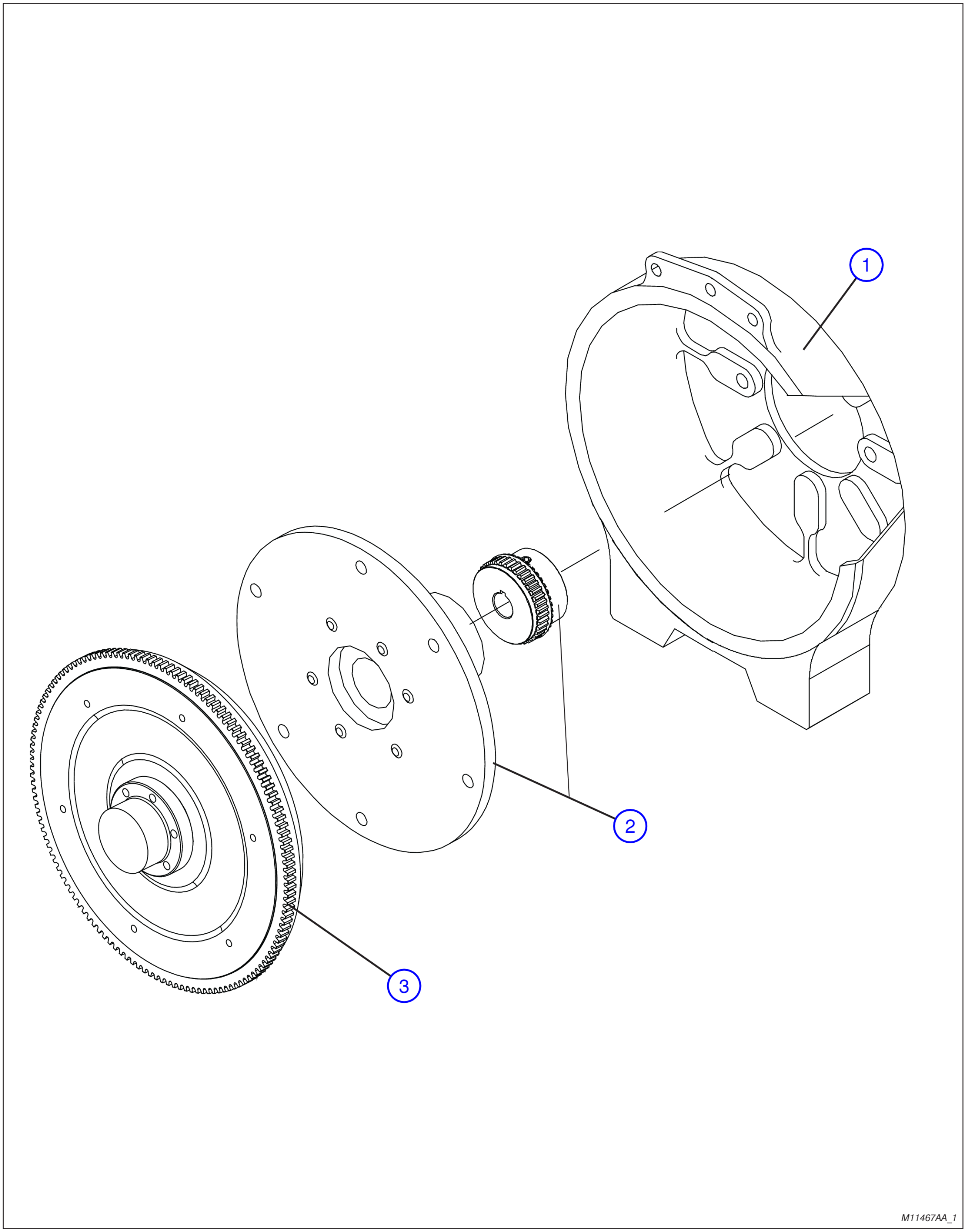


Figure 6.6-7. Bell Housing Assembly ***(Nissan Dual Fuel Engine A15)***

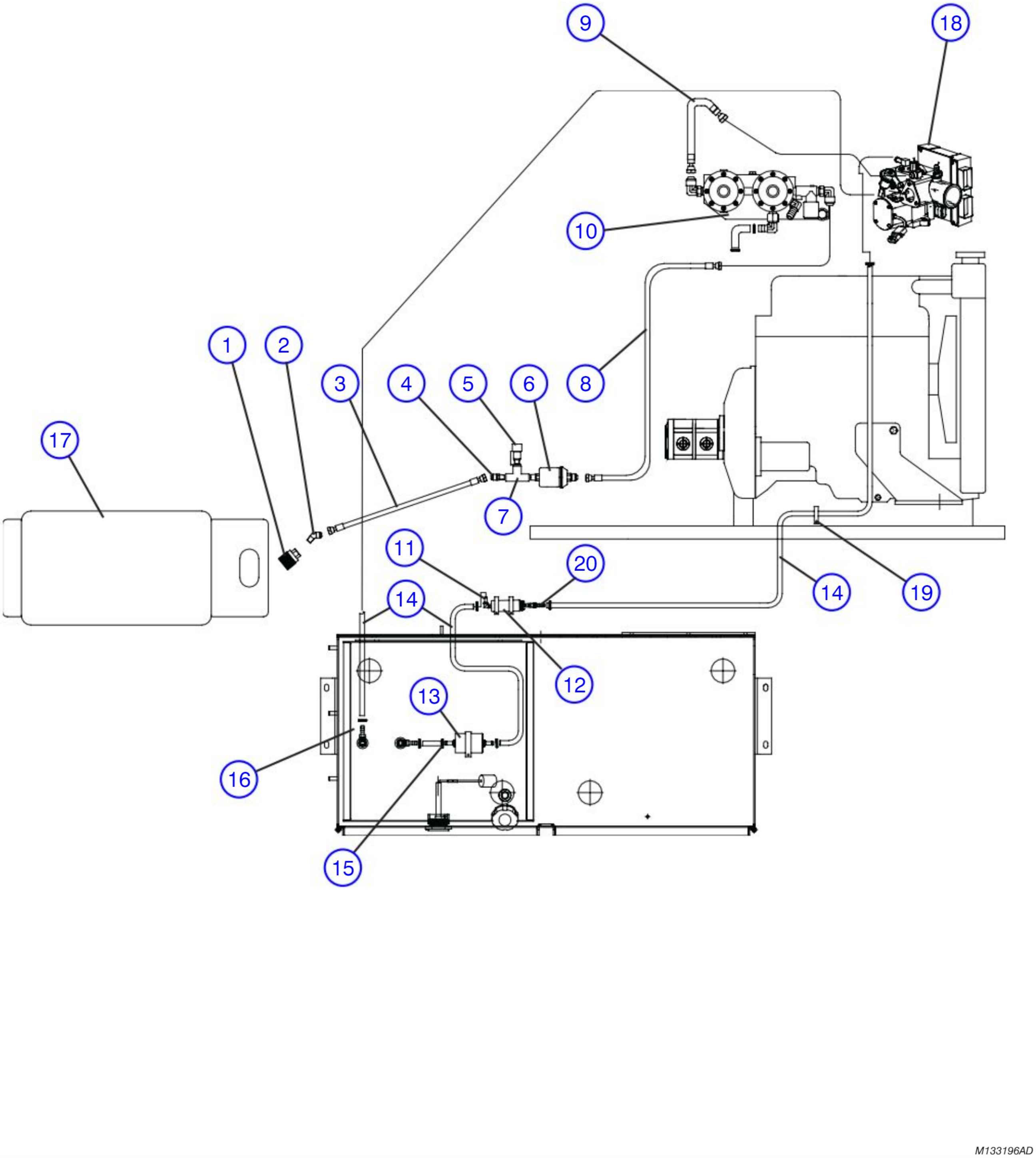
Index No.	Skyjack Part No.	Qty.	Description
A	132194	AR	ASSEMBLY, Bell Housing Kit - Standard
***B**	134770	AR	ASSEMBLY, Bell Housing Kit - With thinner flywheel
			***(External Splined Adapter thickness of 1.476”)** *(Refer to table below.)*
-	132523	1	• KIT, Bolts - Housing to Engine, **A & B**
1	132508	1	• HOUSING, Bell, **A & B**
	103904	2	• • BOLT, Hex Hd 1/2”-13 x 2” Gr. 5
	103468	2	• • WASHER, Flat 1/2”
	103470	2	• • WASHER, Lock 1/2
2	132522	1	• ASSEMBLY, Coupling, **A**
	134771	1	• ASSEMBLY, Coupling, **B**
	134769	1	• • Internal Coupling Assembly, **A & B**
	134752	1	• • External Splined Adapter Assembly, **A**
	129524	1	• • External Splined Adapter Assembly, **B** (Shown)
3	143572	1	• RING GEAR, Flywheel, **A, B**

***Note:** **Part No. 134770 is used only for machines in the table below.**

SERIAL BREAKDOWN TABLE	
Model	**Serial Numbers**
SJ-7127	341081 to 341083
	341091
	341094 to 341105
	341114 to 341118
	341129 to 341131
SJ-7135	341068
	341088 to 341090
	341092 to 341093
	341119
	341122 to 341123
SJ-8243	340821

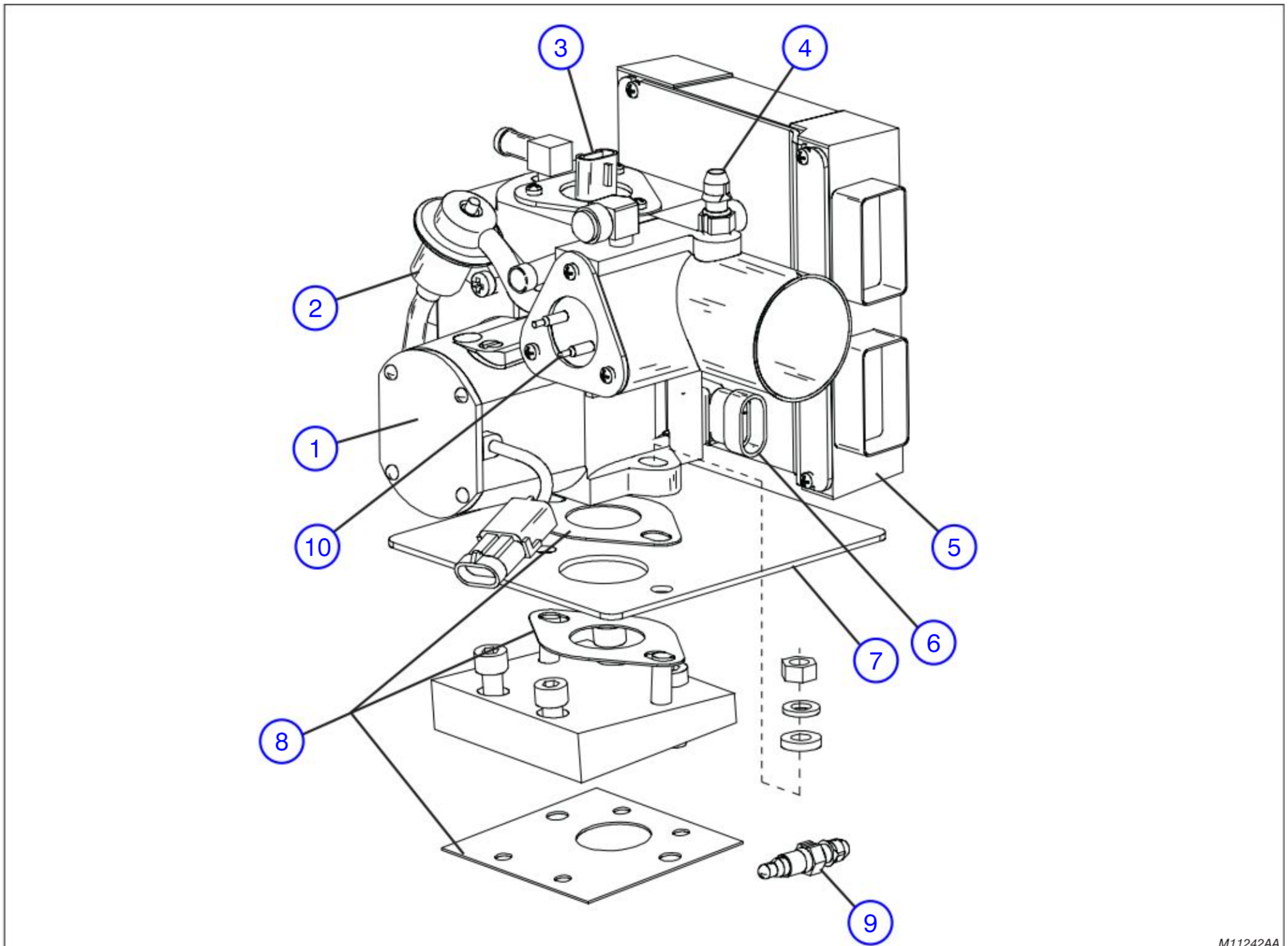
60415AA - 600

Figure 6.6-8. Dual Fuel System (Nissan Dual Fuel Engine A15)



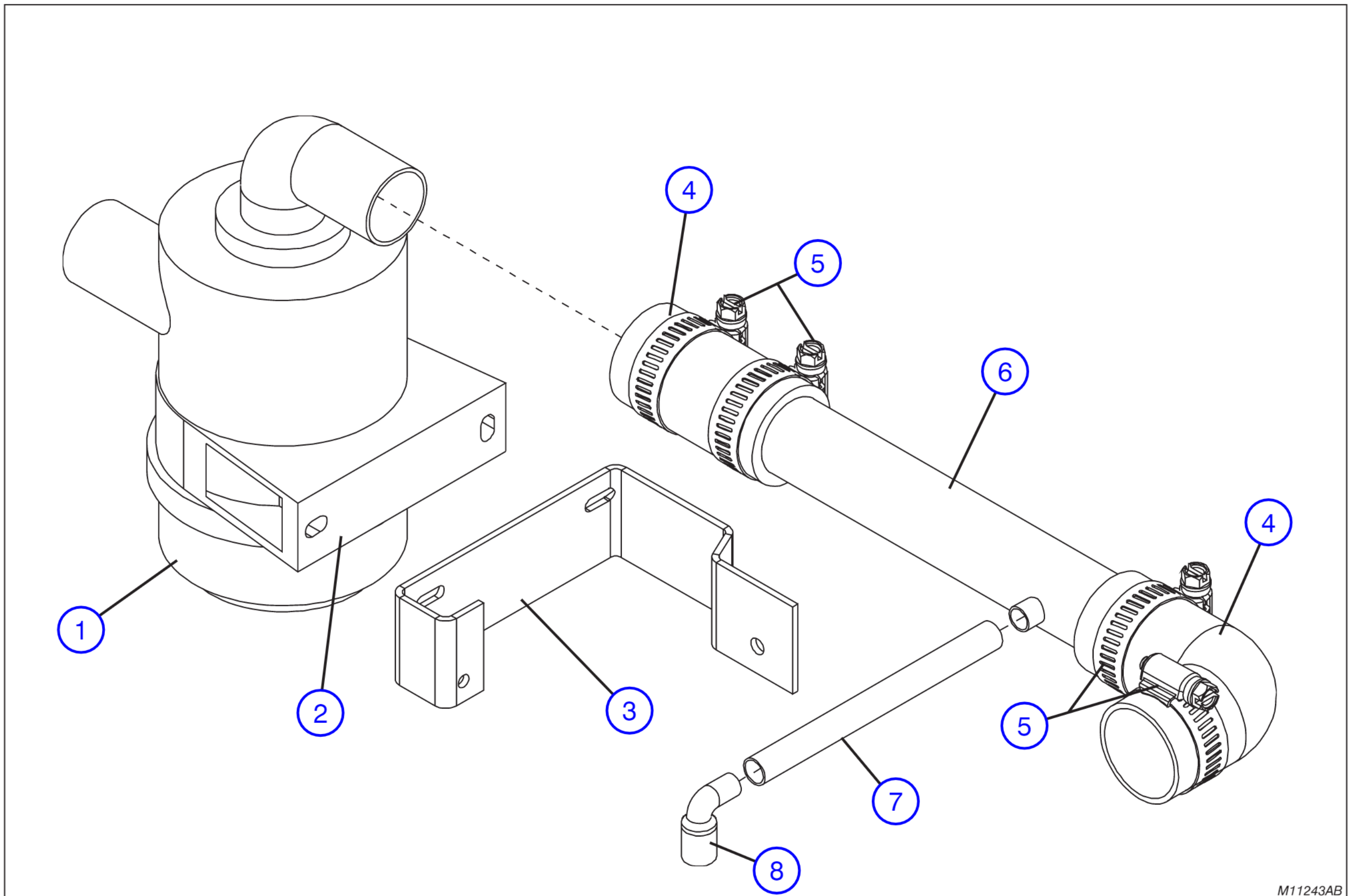
Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	-	SYSTEM, Gasoline Fuel
B	(Ref.)	-	SYSTEM, Liquid Propane Fuel
1	103006	1	COUPLING, Quick attach LPG, **B**
2	103159	1	FITTING, Brass 45°, **B**
3	103098	1	HOSE, Tank to filter, **B**
4	103156	1	FITTING, Straight Brass, **B**
5	300799	1	VALVE, Propane Relief, **B**
	111622	1	• CAP, Plastic Rain
6	(Ref.)	-	FILTER, LPG, **B**
			(For components, refer to Figure 6.6-19)
7	132919	1	TEE, Female Pipe, **B**
8	103097	1	HOSE, Filter to vaporizer/regulator assembly, **B**
9	133141	1	HOSE, Vaporizer/regulator assembly to EFI system assembly, **B**
10	(Ref.)	-	ASSEMBLY, Vaporizer/Regulator
			(For components, refer to Figure 6.6-11)
11	113467	1	FITTING, Elbow 90°, **A**
12	132365	1	PUMP, Gasoline Fuel, **A**
	133241	1	• CLIP, Single G26
	103983	2	• NUT, Hex 1/4”-20
	103995	3	• WASHER, Flat 1/4”
	104000	2	• WASHER, Lock 1/4”
13	132366	1	FILTER, Gasoline Fuel, **A**
	133248	1	• CLIP, Single G34
14	102984	411”	HOSE, Gasoline Fuel, **A**
15	103321	AR	CLAMP, Gear #4, **A**
16	(Ref.)	-	ASSEMBLY, Gasoline Fuel Tank, **A**
			(For components, refer to Figure 6.4-3)
17	(Ref.)	-	ASSEMBLY, Propane Tank, **B**
			(For components, refer to Figure 6.4-14)
18	(Ref.)	-	ASSEMBLY, EFI System
			(For components, refer to Figure 6.6-9)
19	133319	1	CLIP, Single G12
20	103154	1	FITTING, Brass #125-5A

Figure 6.6-9. EFI System Components (Nissan Dual Fuel Engine A15)

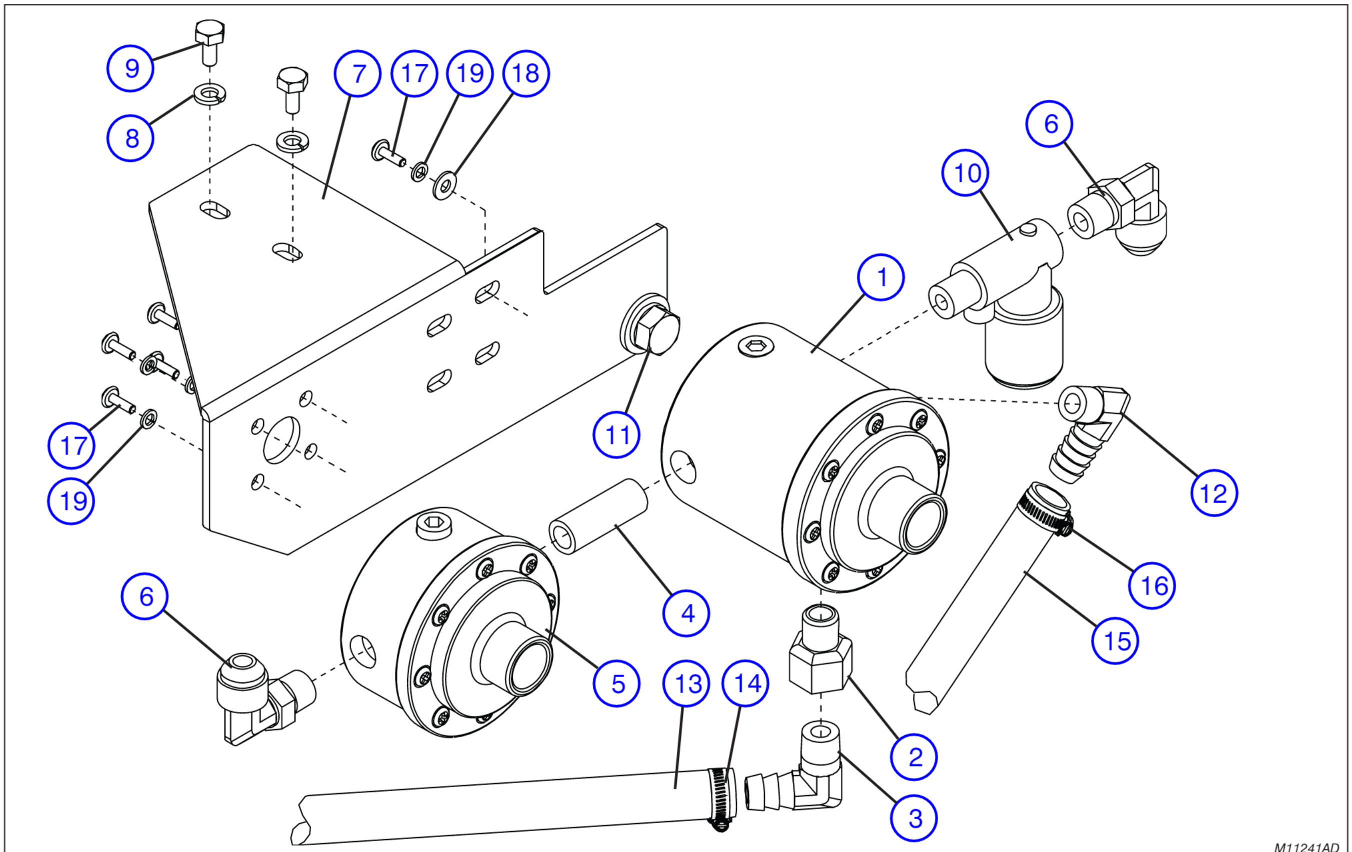


Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	1	ASSEMBLY, EFI System Components
1	132353	1	• THROTTLE BODY
2	132359	1	• REGULATOR, Gasoline Fuel Pressure
3	132358	1	• INJECTOR, Gasoline Fuel with O-ring
4	132357	1	• SENSOR, Air Temperature
5	132354	1	• UNIT, Engine Control (ECU)
6	132356	1	• SENSOR, Manifold Absolute Pressure (MAP)
7	132363	1	• SHIELD, Heat
*8	133290	1	• KIT, Throttle Body Gasket
9	132360	1	• SENSOR, Engine Coolant Sensor (ECT)
10	132355	1	• INJECTOR, Liquid Propane w/ O-ring
*	132361	1	• KIT, Manifold Adaptor (with hardware and gasket included)

Figure 6.6-10. Air Intake Filter Assembly (Nissan Dual Fuel Engine A15)



Index No.	Skyjack Part No.	Qty.	Description
A	133218	1	ASSEMBLY, Air Intake Filter
1	128601	1	• ASSEMBLY, Air Intake Filter & Housing
	133289	1	• • HOUSING, Air Filter
	132913	1	• • ELEMENT, Filter
	600184	1	• • WASHER, Flat M8
	116218	1	• • WASHER, Lock M8
2	128602	1	• BRACKET, Air Intake Holding
	103980	2	• • NUT, Hex Hd 1/4”-20 Grd. B
	103995	4	• • WASHER, Flat 1/4”
	103858	2	• • BOLT, Hex head 1/4”-20 x 1.25” Grd. 5
	104000	2	• • WASHER, Lock 1/4”
3	133183	1	• BRACKET, Air Intake Mounting
	134802	1	• • BOLT, Hex Hd M8-1.25 Grd. 8. 8 x 16mm
	133219	1	• • WASHER, Flat M6
	121758	1	• • WASHER, Lock M6 Plated
	103220	1	• • BOLT, S.H.C.S. M6-1 Grd. 8 x 16mm
4	115525	1	• HOSE, Rubber (cut as required)
5	133222	4	• CLAMP, Gear #32 (2”)
6	133214	1	• TUBE, Air Intake
7	133225	1	• HOSE, Rubber
8	133224	1	• ELBOW, Rubber



Index No.	Skyjack Part No.	Qty.	Description
-	132367	-	ASSEMBLY, Regulator/Vaporizer
1	132323	1	• REGULATOR/VAPORIZER, Primary
2	115810	2	• FITTING, Reducer 3/8” to 1/4”
3	103169	1	• FITTING, Elbow 3/8”-18 NPT x 1/2”hose
4	132390	1	• PIPE, Straight 1/4”-18 NPT x 1.5”long
	134797	1	• FITTING, Hex NPT 1/4” **(If Equipped)**
5	132324	1	• REGULATOR, Secondary
6	103324	2	• FITTING, Elbow 1/4” NPT
7	132188	1	• BRACKET, Mounting
8	121758	2	• WASHER, Lock M6
9	800353	2	• BOLT, Hex Hd M6 x 1 x 12mm
10	132393	1	• VALVE, LPG Shut off
11	103847	1	• BOLT, Hex Head M10 x 1.5 x 20mm Gr. 9.8
	132497	1	• WASHER, Lock M10
	600572	1	• WASHER, Flat M10
12	132391	1	• FITTING, Elbow 90° 1/4”-18NPT to 3/8” hose
13	132847	1	HOSE, 1/2” x 9.5” long
14	116342	2	CLAMP. Gear #8
15	132849	1	HOSE, 3/8” x 18” long
16	102519	2	CLAMP, Gear #6
17	103960	8	SCREW, Round head machine 10-24 x 0.500
18	104694	4	WASHER, Flat #10
19	104185	8	WASHER, Lock #10

Figure 6.6-12. Diesel Engine Assembly (Kubota Engine D1105) **AE**

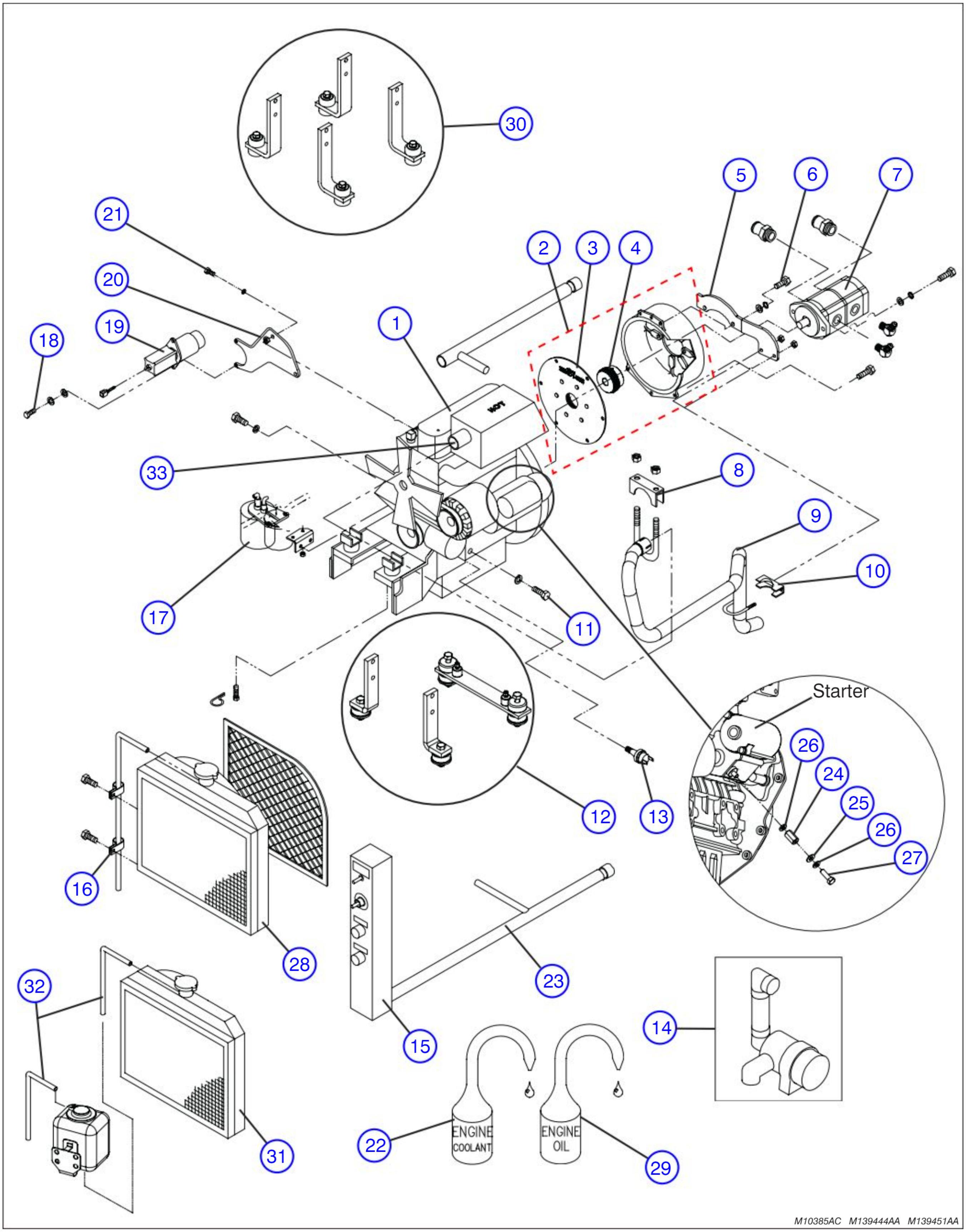
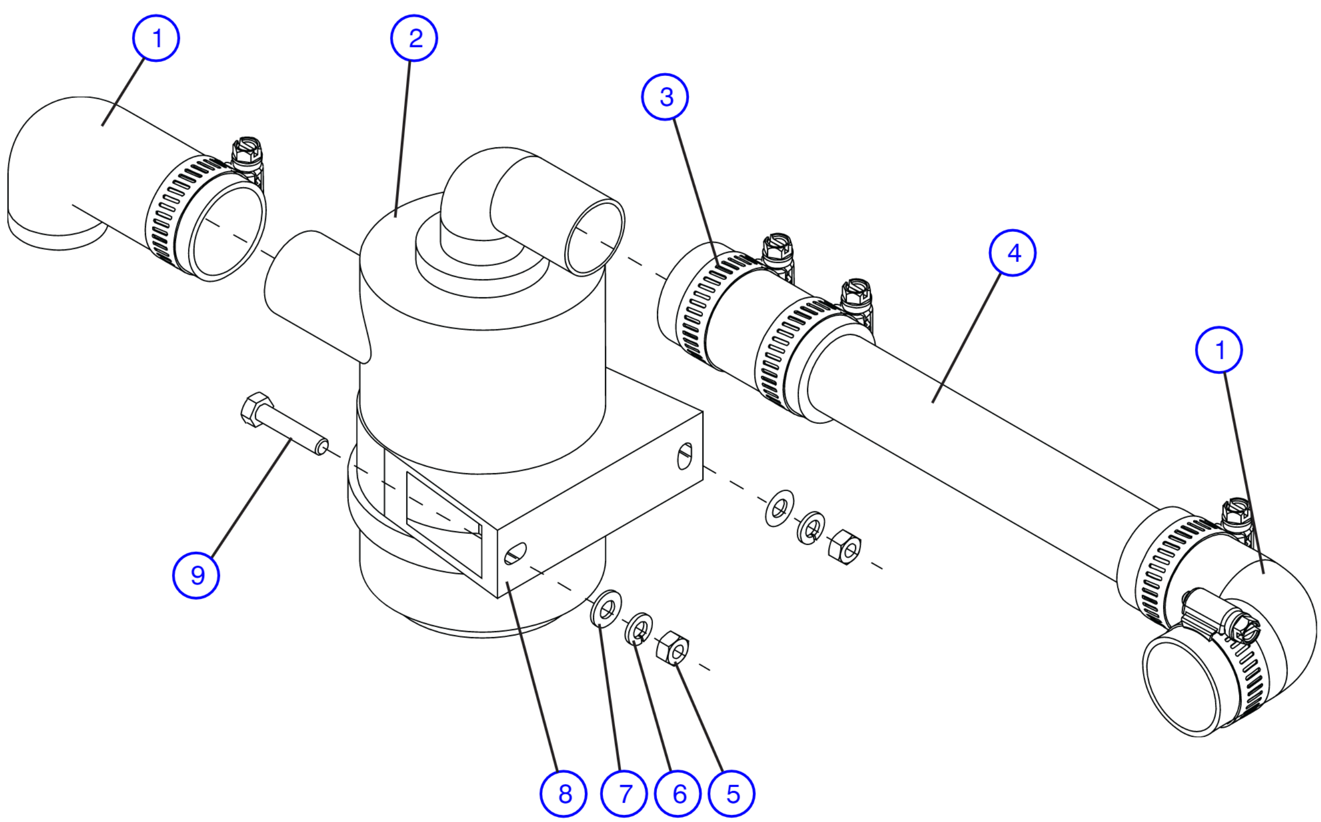


Figure 6.6-12. Diesel Engine Assembly (Kubota Engine D1105) AE

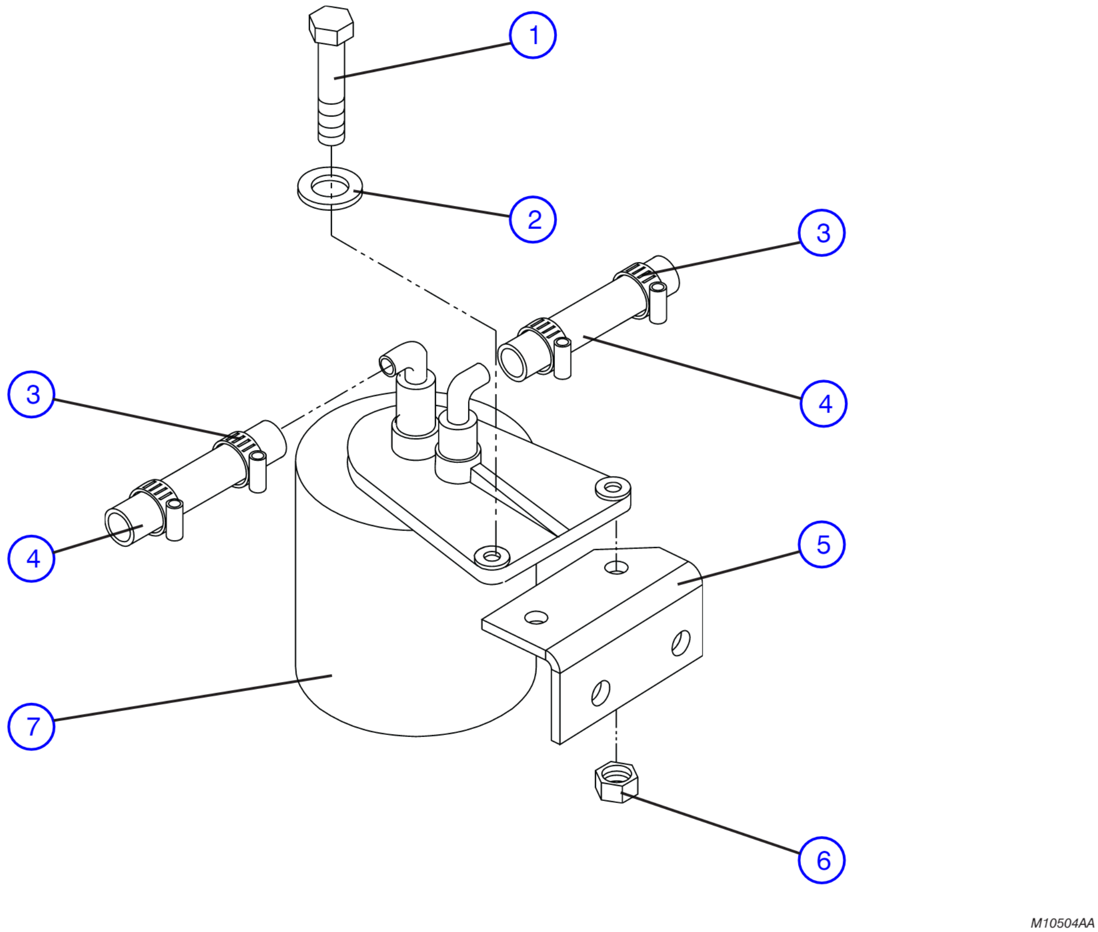
Index No.	Skyjack Part No.	Qty.	Description
1	112696	1	ENGINE, Kubota diesel (D1105)
	119930	1	• V-BELT
	130910	1	• • HARNESS, Shutdown solenoid
	130906	1	• • • KIT, Connector assembly
	132907	1	• COVER, Fan
			(Tier 1 Engine components shown below)
	115457	1	• STARTER, Assembly
	115839	1	• ALTERNATOR, Assembly
	132887	1	• • ASSEMBLY, Alternator coupler
	132888	1	• • ASSEMBLY, Alternator terminal
	119932	1	• FILTER, Oil
	130905	1	• SOLENOID, Shutdown **(On Engine)**
			(Tier 2 Engine components shown below)
	137142	1	• SOLENOID, Shutdown **(On Engine)**
	137137	1	• STARTER, Assembly
	137138	1	• ALTERNATOR, Assembly
	137139	1	• • BRACKET, Alternator
	139140	1	• • GUARD, Alternator
	137141	1	• PLUG, Glow
	137143	1	• PUMP, Water
	137144	1	• THERMOSTAT, Coolant
	137145	1	• FAN, Cooling
	137147	1	• PUMP, Fuel
	137148	1	• GAUGE, Oil
	113400	1	• SWITCH, Engine Temperature
	137136	1	• FILTER, Oil
	137146	1	• BELT, Fan
2	112746	1	BELL HOUSING KIT
3	142250	1	• FLANGE (106/150)
			(Order Part # 129526 for Machines with Serial #'s 342804 and Below)
4	142251	1	• HUB, M-42 (0.75" bore)
			(Order Part # 129524 for Machines with Serial #'s 342804 and Below)
	142249	1	• HOUSING, Kubota diesel engine bell
			(Order Part # 128634 for Machines with Serial #'s 342804 and Below)
	142252	1	• HARDWARE KIT
5	133787	1	ASSEMBLY, Carrier support bracket
	133788	1	• SUPPORT, Carrier
	103473	2	• BOLT. Hex head 3/8"-16 Grd. 5 x 1.00
	103999	4	• WASHER, Lock 3/8"
	103472	4	• WASHER, Flat 3/8"
	103870	2	• BOLT, Hex head 3/8-16 Grd. 5 x 1.50
6	103473	2	BOLT, Hex head 3/8-16 x 1 grade 5
	103472	2	• WASHER, Flat 3/8
	103999	2	• WASHER, Lock 3/8
7	(Ref.)	1	HYDRAULIC PUMP ASSEMBLY
			(For components, refer to Figure 6.6-20)
8	113650	1	CLAMP, 1 3/8 Exhaust pipe
9	128344	1	PIPE, Exhaust
10	113653	1	CLAMP, 1 1/8 Exhaust pipe
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
11	114720	4	BOLT, Hex head M10-1.25 x 30
	127607	AR	• WASHER, Lock M10
12	133816	-	ASSEMBLY, Engine Mount ***(Machines with Serial #'s 342804 and Below)***
	133791	1	• BAR, Spacer
	108818	4	• BOLT, Hex head 1/2"-13 x 2/750 Gr.5
	128352	4	• WASHER, Flat 1/2" Style BB
	125525	2	• BOLT, Hex head 1/2"-13 x 3.5" Gr.5
	103471	2	• NUT, Hex head 1/2"-13 Gr.5
	103470	6	• WASHER, Lock 1/2" Gr.5
	103468	2	• WASHER, Flat 1/2"
	133790	2	• SPACER
	133797	2	• BRACKET, Engine Mount
	147634	4	• MOUNT, Engine vibration control
13	102838	1	SWITCH, Oil pressure
14	(Ref.)	1	CLEANER ASSEMBLY, Air (For components, refer to Figure 6.6-13)
15	(Ref.)	1	PANEL, Engine Control (For components, refer to Figure 6.6-4)
16	114682	2	CLAMP. #8 (vent hose)
17	(Ref.)	1	FUEL LINE AND FILTER MOUNTING ASSEMBLY (For components, refer to Figure 6.6-14)
18	103856	2	BOLT, Hex head 1/4-20 x 0.75 grade 5
	104000	2	• WASHER, Lock 1/4"
	103995	2	• WASHER, Flat 1/4
19	106370	1	SOLENOID, Throttle
	112721	1	• SOLENOID, 12V
20	112769	1	PLATE, Mount solenoid
21	103864	1	BOLT, Hex head 5/16-18 x 1 grade 5
	103996	1	• WASHER, 5/16" Flat
	103984	1	• NUT, Hex lock 5/16-18 grade b
22	(Ref.)	-	• SOLUTION, engine coolant (antifreeze) (Refer to Table 1.1.)
23	130911	1	HARNESS, Engine wiring
	108171	5	• TERMINAL, 10-12GA #10 ring yellow
	105359	4	• TERMINAL, Female 14-16GA insl. blue
	103370	4	• HEATSHRINK, 3/8 dia. polyofin
	102871	2	• SPLICE, Parallel
	105568	7	• TERMINAL, Female 12-10GA*1/4
	102940	1	• TERMINAL, 10-12GA 5/16 ring yellow
	105360	2	• TERMINAL, Male 14-16GA*1/4 full insl.
	102921	AR	• DIODE, 6 Amp
	117586	1	• RECEPTACLE, Connector 12-Pin
	109210	1	• TERMINAL, 14-16GA*5/16 ring blue
	102936	5	• TERMINAL, 14-16GA #10 ring blue
	117588	1	• WEDGE, Connector Receptacle 12-Pin
	119431	1	• SPLICE, Parallel 10-12GA non insl.
	108878	4	• HEATSHRINK, 5/16 dia. polyofin
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
	117592	8	• PIN, Connector contact 14-16
	102939	1	• TERMINAL, 14-16GA*1/4 ring blue
	117594	4	• PLUG, Connector Sealing
	126808	5	• TERMINAL, 14-18GA*1/4 non insl.
24	134372	1	NUT, Coupling M8 x 1.25 x 24MM
25	127940	1	WASHER, Flat M8 Zinc PL
26	116218	2	WASHER, Lock M8
27	133174	1	BOLT, Hex Hd Cap Screw M8-1.25 x 20MM
28	-	-	RADIATOR ASSEMBLY ***(for Machines with Serial #'s 342867 and Below)***
	132891	1	• ASSEMBLY, Radiator
	132893	1	• PIPE, Lower water
	132894	1	• PIPE, Upper water
	132898	2	• CUSHION, Radiator
	132899	2	• CUSHION, Radiator
	132901	1	• SUPPORT, Radiator
	132902	1	• SUPPORT, Radiator
	132903	2	• STAY, Radiator
	132904	1	• STAY, Radiator
29	(Ref.)	-	• OIL, Engine (Refer to Table 1.1.)
30	139344	-	ASSEMBLY, Engine Mount ***(Machines with Serial #'s 342805 and Above)***
	147634	4	• MOUNT, Engine vibration control
	133797	4	• BRACKET, Engine Mount
	108818	4	• BOLT, Hex head 1/2"-13 x 2/750 Gr.5
	103470	4	• WASHER, Lock 1/2" Gr.5
	137241	5	• WASHER, Fender 0.5 ID
31	-	-	RADIATOR ASSEMBLY ***(for Machines with Serial #'s 342868 and Above)***
	139380	1	• ASSEMBLY, Radiator
	139467	1	• PIPE, Lower water
	139381	1	• PIPE, Upper water
	132898	2	• CUSHION, Radiator
	132899	2	• CUSHION, Radiator
	132901	1	• SUPPORT, Radiator
	132902	1	• SUPPORT, Radiator
	132903	2	• STAY, Radiator
	132904	1	• STAY, Radiator
32	102984	49"	FUEL LINE, (5/16) ***(Machines with Serial #'s 342868 and Above)***
33	(Ref.)	-	EXHAUST MANIFOLD ASSEMBLY (For components, refer to Figure 6.6-15)

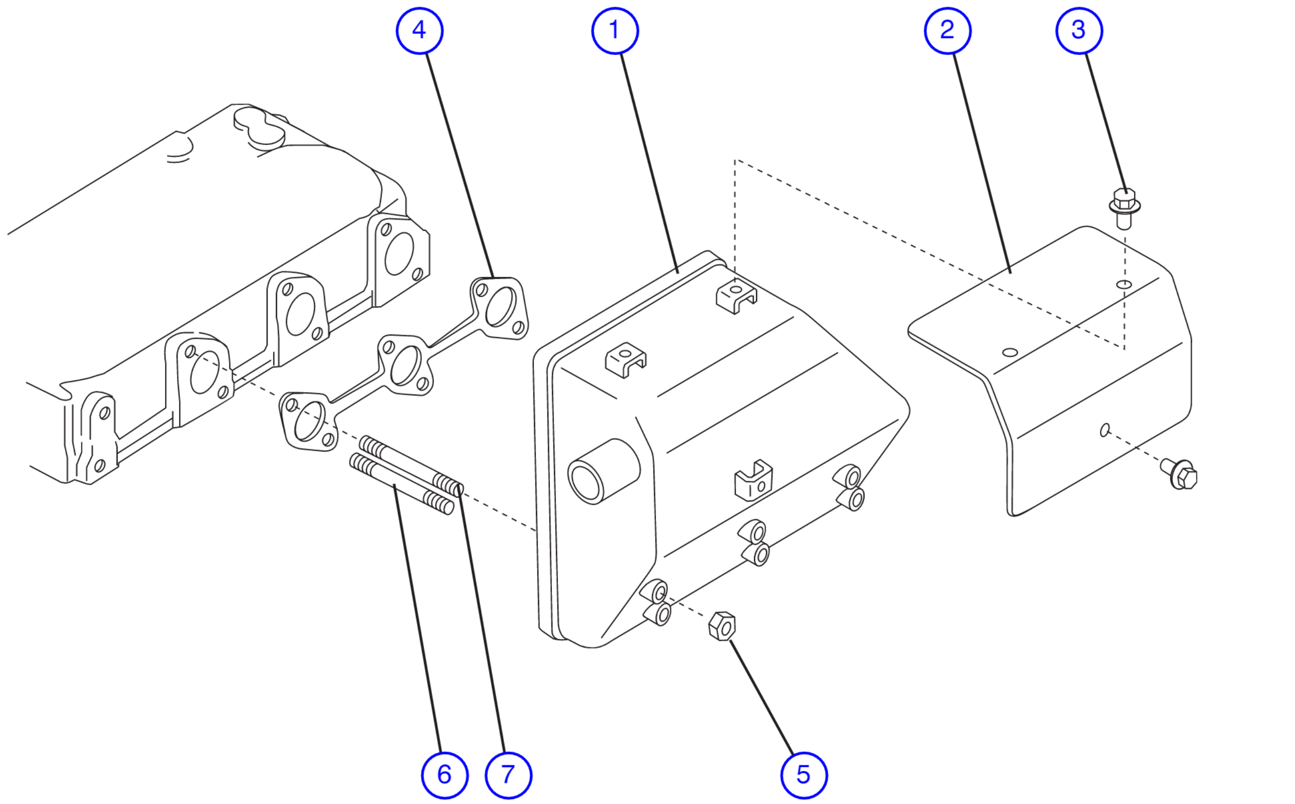


Index No.	Skyjack Part No.	Qty.	Description
A	128639	1	ASSEMBLY, Kubota diesel air intake
1	116147	2	• HOSE, 90° Rubber (One is cut to be used in two locations)
2	128601	1	• AIR CLEANER, Donaldson
	132913	AR	• • ELEMENT, Air filter
3	104528	5	• CLAMP, #28 (1 3/4") Gear
4	128638	1	• TUBE, Air intake
5	100397	2	• NUT, Hex head 5/16" -18
6	103996	2	• WASHER, 5/16" Flat
7	103404	2	• WASHER, 5/16" Lock
8	128602	1	• BAND, Air cleaner mounting
9	103886	2	• BOLT, Hex head 5/16"-18 x 1.5" Gr. 5



Index No.	Skyjack Part No.	Qty.	Description
A	127637	1	FUEL LINE AND FILTER ASSEMBLY
	132889	1	• ASSEMBLY, Fuel filter
1	103864	2	BOLT, Hex head 5/16”-18 x 1” Gr. 5
2	103996	2	WASHER, Flat 5/16”
3	103321	4	CLAMP, #4 Gear
4	102984	AR	HOSE, Fuel line 5/16”
5	128646	1	BRACKET, Fuel filter
6	103984	2	NUT, Lock (hex) 5/16”-18 Gr. B
7	119105	1	FILTER, Fuel (Part of engine kit)
	132890	1	• ELEMENT, Fuel filter

Figure 6.6-15. Exhaust Manifold Assembly (Kubota Diesel Engine D1105)



Index No.	Skyjack Part No.	Qty.	Description
-	146682	1	EXHAUST MANIFOLD ASSEMBLY
1	146677	1	• MUFFLER, Kubota Diesel
2	132885	1	• COVER, Muffler
3	146687	3	• BOLT, Head flanged (M6-1.00 x 12mm long)
4	146678	1	• GASKET, Exhaust manifold
5	146688	6	• NUT, Flanged (M7-1.00)
6	146679	3	• STUD (M7-1.00 x 112mm long)
7	146680	3	• STUD (M7-1.00 x 1.00 x 90mm long)

Figure 6.6-16. Dual Fuel Engine Assembly (Kubota Engine DF972)

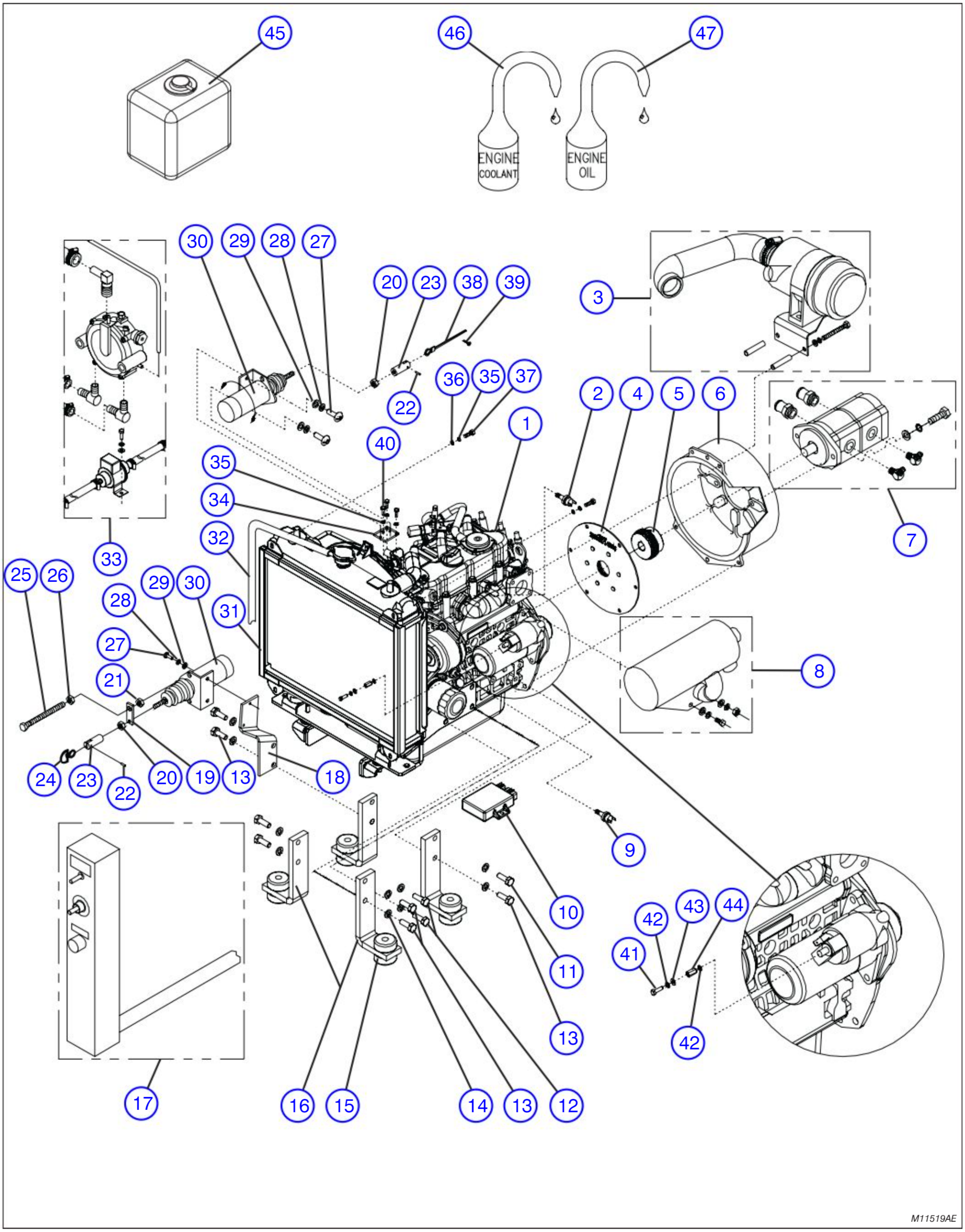


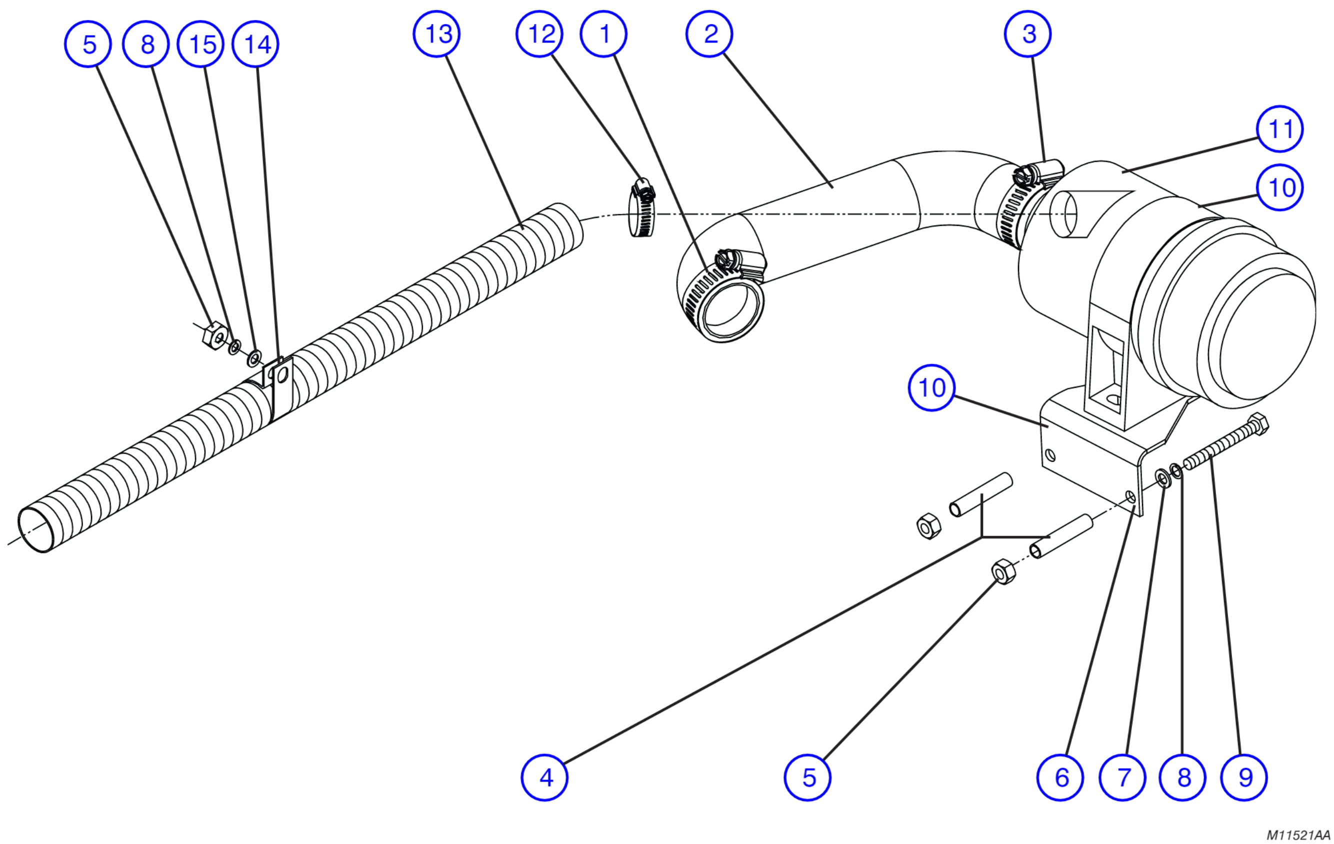
Figure 6.6-16. Dual Fuel Engine Assembly (Kubota Engine DF972)

Index No.	Skyjack Part No.	Qty.	Description
1	136036	1	ENGINE, Kubota dual fuel DF972
	136095	1	• ASSEMBLY, Carburetor
	198781	1	• • GASKET, Air cleaner
	198782	1	• • FLANGE, Carburetor
	136083	1	• MANIFOLD, Inlet
	136084	1	• GASKET, Muffler
	136085	1	• MANIFOLD, Exhaust
	136086	1	• SHIELD, Exhaust manifold heat
	136088	1	• ASSEMBLY, Idler gear
	136089	1	• SHAFT, Idler gear
	136091	1	• PLATE, Rear end
	136174	1	• TUBE, Oil pick up
	136092	1	• CARTRIDGE, Oil filter
	136093	1	• GAUGE, Oil (Dipstick)
	136097	1	• SPRING, Governor
	136098	1	• LEVER, Speed control
	136100	1	• STARTER, Engine
	136101	1	• ALTERNATOR
	136102	1	• • BRACKET, Alternator
	136103	1	• • GUARD, Alternator
	136104	1	• PLUG, Spark
	136105	1	• • CAP, Spark plug
	136172	1	• SENSOR
	136109	1	• THERMOSTAT, Engine
	136110	1	• COVER, Thermostat
	136111	1	• FAN, Cooling
	136112	1	• • PULLEY, Fan
	136113	1	• • PULLEY, Fan drive
	136114	1	• • BELT, Fan
	136115	1	• MANUAL, Operators
	136117	1	• LABEL, CSA
	136099	1	• HARNESS, Wiring
	136118	1	• FILTER, Fuel
	136119	1	• KIT, Electric fuel pump
	136106	3	• COIL, Ignition
	136122	1	• VAPORIZER
2	113400	1	SWITCH, Temperature
3	(Ref.)	-	ASSEMBLY, Air cleaner (For components, refer to Figure 6.6-17)
4	136090	1	FLYWHEEL, Comp.
5	136440	1	HUB, Coupling
6	136437	1	HOUSING
	136439	1	• FLANGE
	136438	1	• KIT, Hardware
7	(Ref.)	1	ASSEMBLY, Hydraulic Pump (For components, refer to Figure 6.6-20)

Part list continued on the following page.

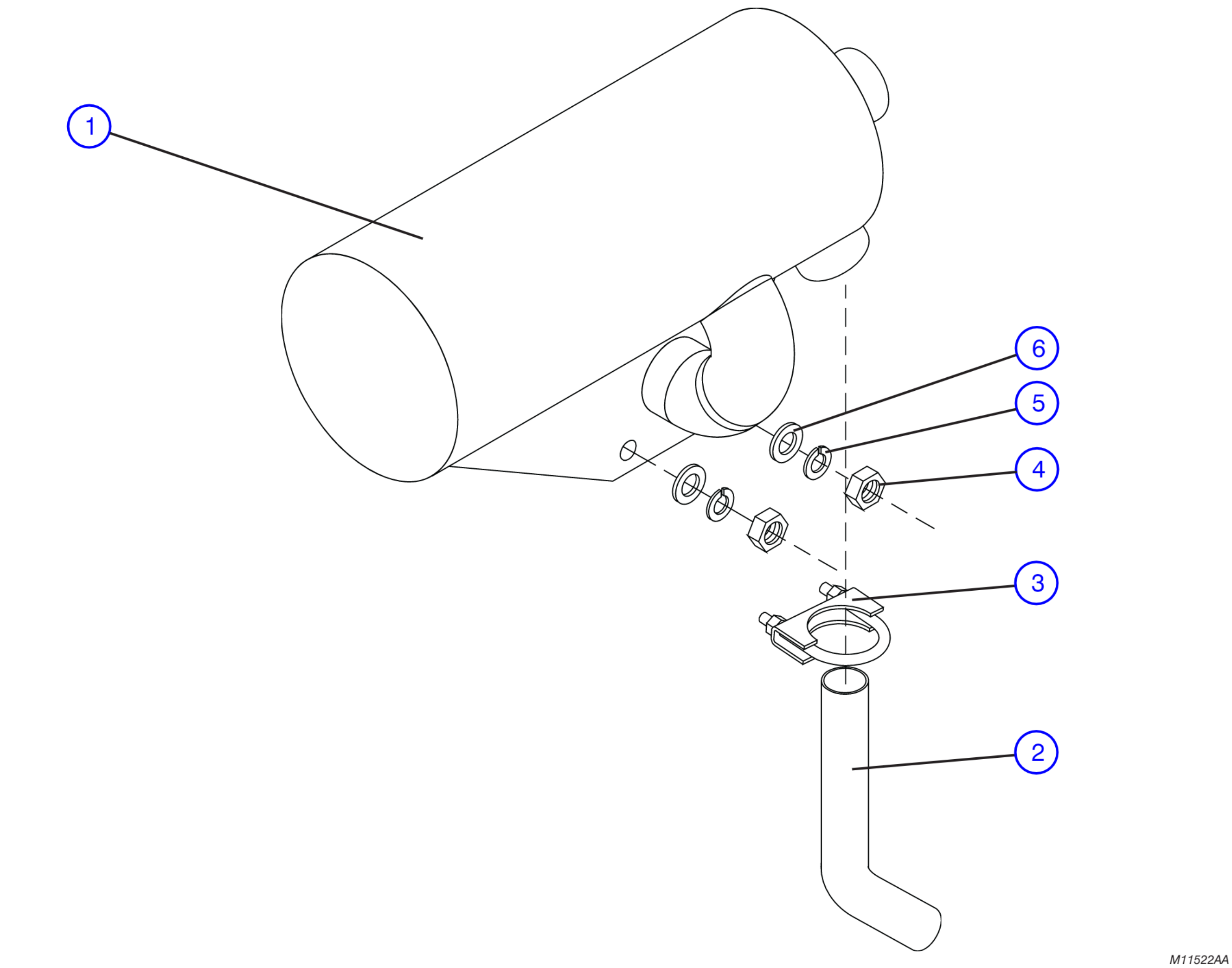
Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
8	(Ref.)	-	ASSEMBLY, Exhaust System DF972/D902
			(For components, refer to Figure 6.6-18)
9	102838	1	SWITCH, Oil pressure
10	136121	1	MODULE, Igniter
11	103850	1	BOLT, Hex head M10 x 1.25 x 30mm Grd. 8.8
12	103848	4	BOLT, Hex Head M10*1.25 x 20mm
13	136665	7	BOLT, Hex head M10 x 1.25 x 35mm Grd. 8.8
14	130884	8	WASHER, Lock M10
15	147634	4	MOUNT, Engine vibration control
16	136033	2	BRACKET, Engine mount FR/RL
	136032	2	BRACKET, Engine mount FL/RR
17	137133	1	HARNESS, Engine
	136179	1	• ASSEMBLY, Coupler alternator
	136178	1	• ASSEMBLY, Coupler
	108171	6	• TERMINAL, 10-12GA #10 ring yellow
	105359	14	• TERMINAL, Female 14-16GA insl. blue
	102921	3	• DIODE
	105568	4	• TERMINAL, Female 12-10GA*1/4
	109210	1	• TERMINAL, 14-16GA*5/16 ring blue
	102936	1	• TERMINAL, 14-16GA*#10 ring blue
	102955	1	• TERMINAL, 14-16GA, #6 ring blue
	117954	3	• CONNECTOR, Sealing Plug
	117592	9	• CONNECTOR, Contact pin 14-16
	103368	2	• HEATSHRINK, 3/16” dia. black polyolfin
	103370	8	• HEATSHRINK, 3/8 dia
	117588	1	• CONNECTOR, Receptacle 12-pin wedge
	102871	4	• SPLICE, Parallel
	117586	1	• CONNECTOR, Receptacle 12-pin
	102934	1	• TERMINAL, Male 12-10GA*1/4
	102944	1	• TERMINAL, 10-14GA*3/8
	(Ref.)	-	ASSEMBLY, Engine control panel
			(For components refer to figure 6.6-4)
18	136264	1	MOUNT, Lower solenoid
19	113582	1	LIMITER, Solenoid
20	114709	2	NUT, FHN 1/4”-28
21	115649	1	NUT, 1/4”-20 nylon lock
22	114684	2	PIN, Roll 1/8 Dia. X 7/16
23	101860	2	ATTACHMENT, Throttle linkage
24	116031	1	SWIVEL, Solenoid contactor
25	120738	1	BOLT, HHCS 1/4”-20 x 4
26	103980	1	NUT, Hex head 1/4”-20 Grd. B
27	103962	4	SCREW, Machine #10-32 x 1/2” SOC Round head
28	104185	4	WASHER, Lock #10
29	104694	4	WASHER, Flat #10
30	103007	2	SOLENOID, DC 12V
			Part list continued on the following page.

Index No.	Skyjack Part No.	Qty.	Description
			Part list continued from the previous page.
31	136037	1	ENGINE KIT, Kubota DF972/D902 Radiator Kit, Alum.
	136123	1	• ASSEMBLY, Radiator
	136124	1	• LABEL, Caution
	136125	1	• LABEL, Caution
	136126	1	• HOSE, Water
	136127	1	• HOSE, Water
	103320	4	• CLAMP, Gear #16
	136130	2	• CUSHION
	136131	1	• SUPPORT 1, Radiator
	136132	1	• SUPPORT 2, Radiator
	136133	1	• BRACKET, Radiator
	136134	2	• BRACKET 1, Radiator
	136135	4	• BOLT, Hex HD M8-1.25 x 18mm LG, GR8.8, ZP
	136136	2	• CUSHION
	121059	4	• NUT, Hex M8-1.25
	116218	8	• WASHER, Lock M8
	136139	1	• BRACKET 2, Radiator
	136667	2	• BOLT, Hex-HD M8-1.25 x 30mm
	136141	1	• CUSHION
	800354	2	• NUT, M6
	121758	2	• WASHER, Lock M6
	136183	1	• SUPPORT IN, Radiator
	136184	4	• COLLAR
	136185	4	• BOLT, Hex-HD M6-1.0 x 30mm, GR 8.8-ZP
	136186	1	• SUPPORT EX, Radiator
	104608	8	• BOLT, Hex HD M6-1.0 x 16mm
	136188	1	• COVER, Fan
	133219	4	• WASHER, Flat M6
	136190	2	• STOPPER, Radiator
32	102984	51”	LINE, 5/16” Fuel
33	(Ref.)	-	ASSEMBLY, Fuel line (For components refer to Figure 6.6-19)
34	136974	1	BRACKET, Choke solenoid
35	121758	7	WASHER, Lock 6mm
36	133219	4	WASHER, Flat M6
37	136185	4	BOLT, Hex Head M6-1 x 30mm
38	116467	1	CABLE, Choke
39	137525	1	SCREW, Pan HD, ZP, M4 X 6, DIN 85
40	104608	3	BOLT, M6 x 1.00 x 16mm hex head
41	133174	1	BOLT, Hex Hd Cap Screw M8-1.25 x 20MM
42	116218	2	WASHER, Lock M8
43	127940	1	WASHER, Flat M8 Zinc PL
44	134372	1	NUT, Coupling M8 x 1.25 x 24MM
45	(Ref.)	-	RESERVOIR, Coolant (For components refer to Figure 6.6-2)
46	(Ref.)	-	SOLUTION, Engine coolant (antifreeze) (Refer to Table 1.1.)
47	(Ref.)	-	OIL, Engine (Refer to Table 1.1.)



Index No.	Skyjack Part No.	Qty.	Description
-	136038	-	ENGINE KIT, Kubota 972DF, Air Cleaner Kit
1	104528	1	• CLAMP, Gear #28
2	136145	1	• HOSE, Inlet
3	133222	1	• CLAMP, Gear #32
4	136155	2	• SLEEVE, 40mm LG, 10.65mm OD, 8.38mm ID
5	121059	AR	• NUT, Hex M8-1.25
6	136153	1	• BRACKET, Air cleaner
7	127940	AR	• WASHER, Flat M8 - ZN
8	116218	AR	• WASHER, Lock M8
9	136154	AR	• BOLT, HD M8-1.5 x 75mm, GRD 8.8 ZP
10	136148	1	• BRACKET, Air cleaner band
	136667	AR	• • BOLT, HD M8-1.25-30mm
11	136144	1	ASSEMBLY, Air cleaner (Kubota)
	137924	1	• FILTER ELEMENT (Kubota)
12	104528	1	CLAMP, Gear #28
13	136980	27”	HOSE, Air intake
14	136990	1	CLIP, Cable and wire
15	127940	AR	WASHER, Flat M8

Figure 6.6-18. Exhaust System Assembly (Kubota Dual Fuel Engine DF972 / D902)



Index No.	Skyjack Part No.	Qty.	Description
1	136039	1	MUFFLER, Horizontal
2	136951	1	TUBE, Exhaust
3	136969	1	CLAMP, Exhaust 1-1/4”
4	121059	2	NUT, Hex Head M8-1.25mm
5	116218	2	WASHER, Lock M8
6	127940	2	WASHER, Flat 8mm

Figure 6.6-19. Dual Fuel System *(Kubota Dual Fuel Engine DF972)*

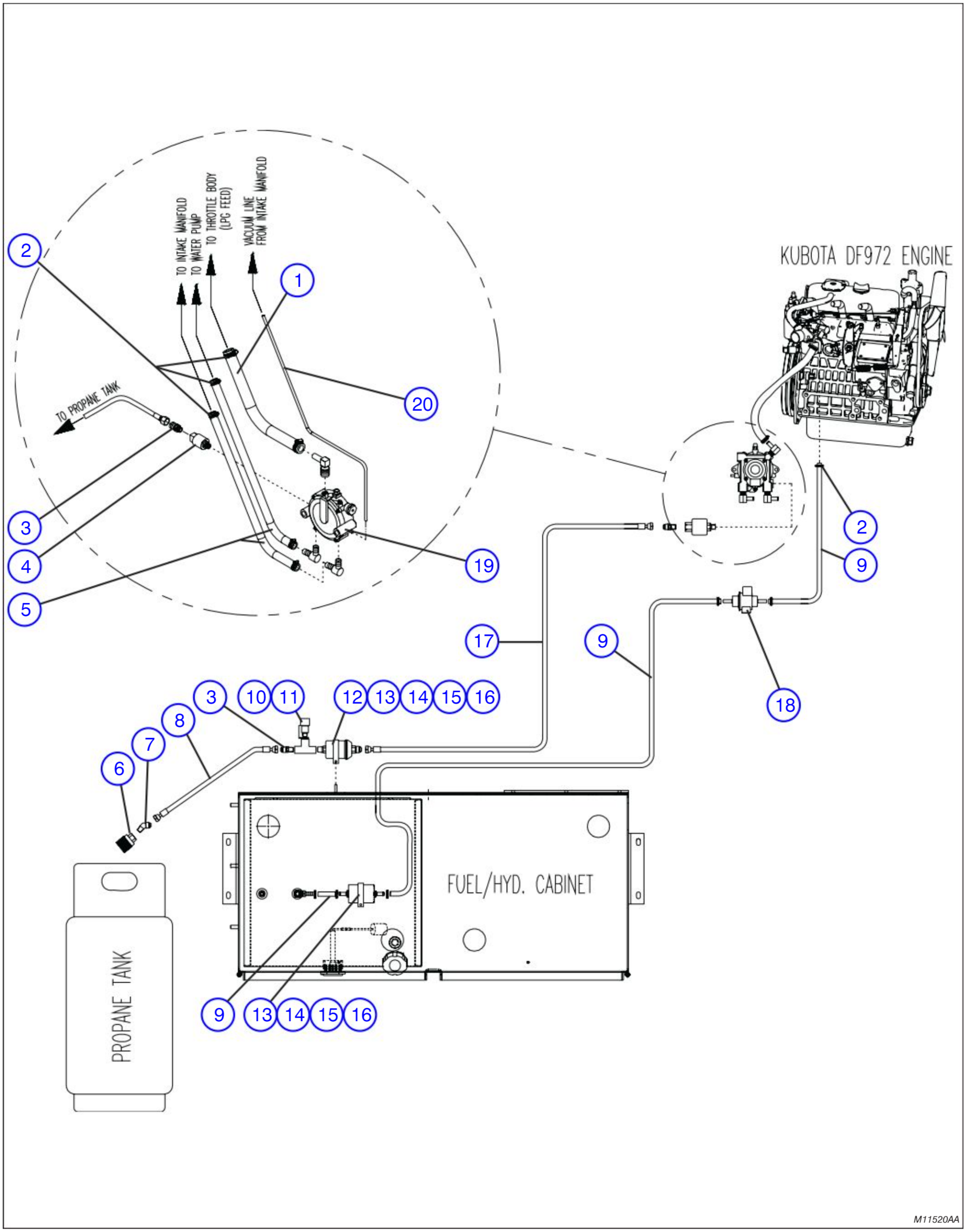
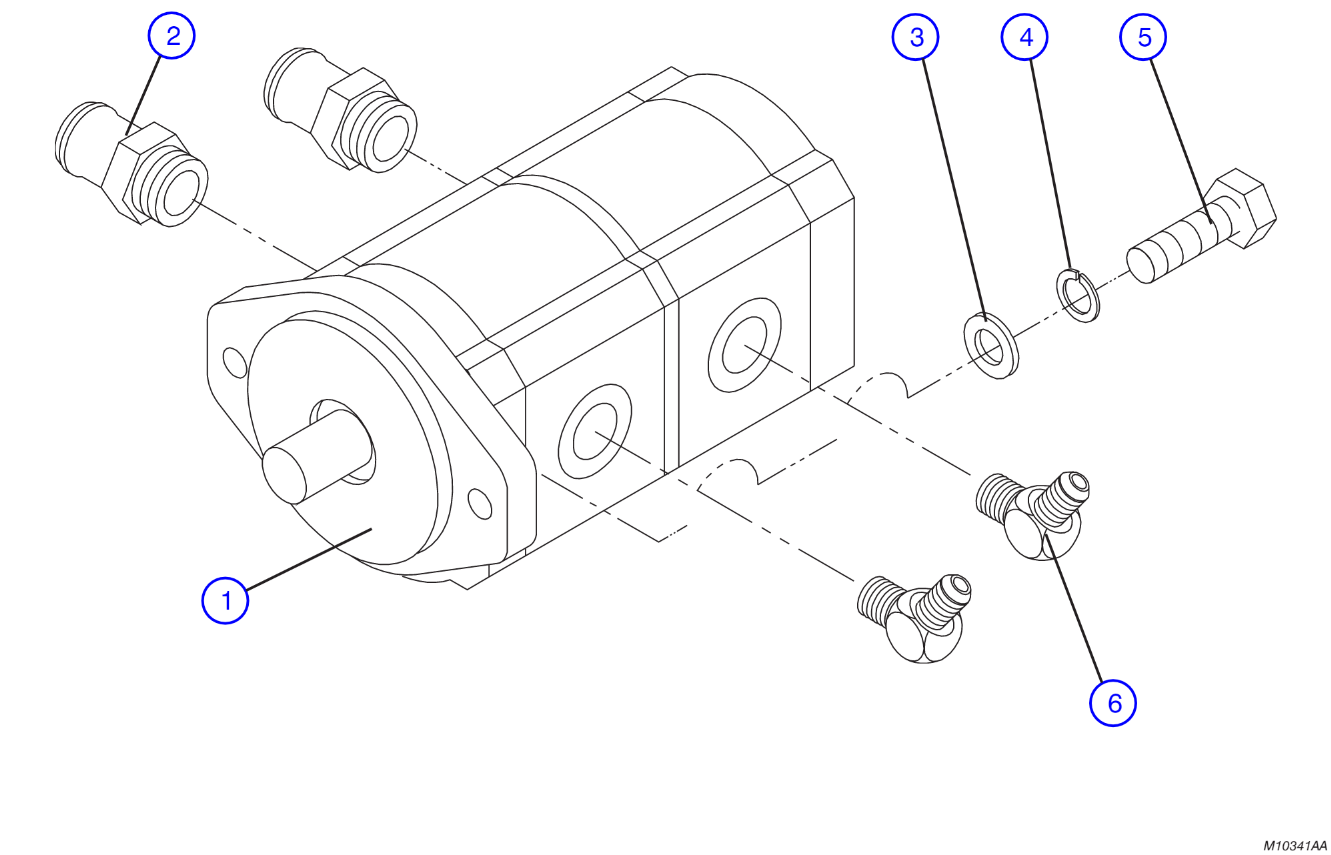


Figure 6.6-19. Dual Fuel System (Kubota Dual Fuel Engine DF972) *AC*

Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	-	ASSEMBLY, Propane fuel
B	(Ref.)	-	ASSEMBLY, Gasoline fuel
1	128917	11”	HOSE, 1/2”ID, A
2	102519	3	CLAMP, #6 Gear
3	103156	2	FITTING, Brass 48-6B, A
4	125793	1	VALVE, Shut-off (propane), A
5	300797	2	HOSE, 3/8” 200psi, A
6	103006	1	COUPLER, Quick female, A
7	103159	1	FITTING, 45deg 1/4” pipe, A
8	103098	42”	HOSE, Propane, A
9	102984	240”	LINE, 5/16” fuel, B
10	111622	1	CAP, Rain, A
11	300799	1	VALVE, Propane relief, A
12	137566	1	FILTER, LPG, A
13	124433	2	CLIP, Single
14	103983	2	NUT, 1/4”-20
15	103995	2	WASHER, 1/4”
16	104000	2	WASHER, Lock 1/4”
17	103097	144”	HOSE, Propane Fuel Assembly A
18	136119	1	PUMP, Electric fuel, B
19	136122	1	VAPORIZER, LPG, A
20	102660	24”	HOSE, Fuel Line 1/8” A



Index No.	Skyjack Part No.	Qty.	Description
A	(Ref.)	1	ASSEMBLY, Hydraulic Pump **(Nissan/ GM / Kubota diesel engines)**
B	(Ref.)	1	ASSEMBLY, Hydraulic Pump **(Kubota dual fuel engine)**
1	110460	1	PUMP, .488/.854 Dual Hydraulic, **A**
	114201	1	PUMP, .671/.366 Dual Hydraulic, **B**
2	114325	2	FITTING, Suction Pump
3	103472	AR	WASHER, 3/8" Flat
4	103999	AR	WASHER, 3/8" Lock
5	101297	AR	BOLT, Hex Head 3/8-16 grade 5 x 1.25"
6	120054	2	FITTING, SAE O-Ring 37 45 10-8

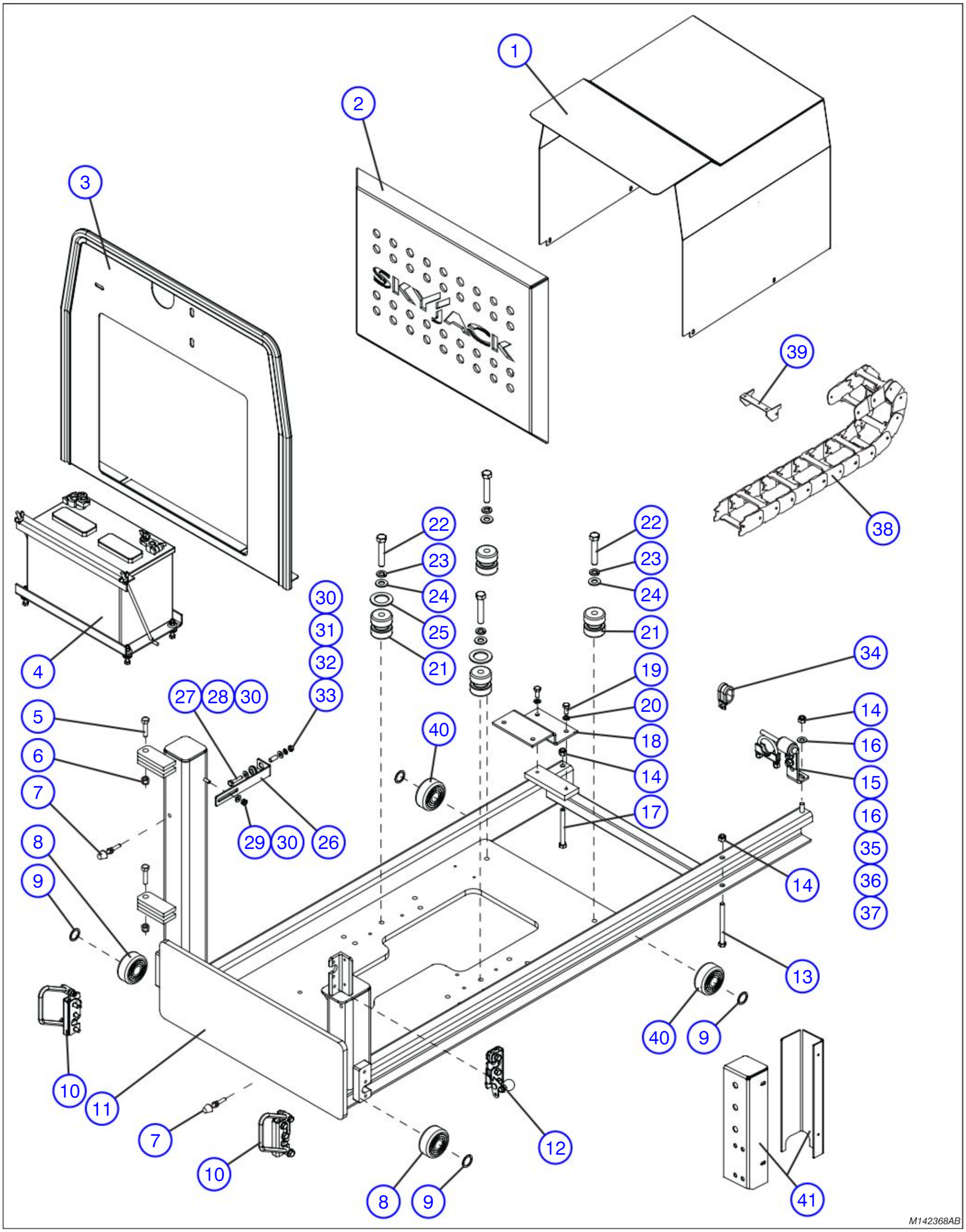

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Figure 6.6-21. Engine Roll-Out Tray & Cover Assembly (GM Dual Fuel Engine)

Index No.	Skyjack Part No.	Qty.	Description
1	133231	1	COVER, GM engine
2	129769	1	GUARD, Engine front
3	142369	1	ASSEMBLY, Air dam
	142370	1	• PLATE, Air dam
	142266	1	• TRIM, Air dam rubber
	103628	2	• RUBBER, Self seal (20.75”)
	103628	2	• RUBBER, Self seal (17.50”)
4	(Ref.)	-	ASSEMBLY, Battery (For components, refer to Figure 6.6-3)
5	103904	2	BOLT, Hex head 1/2”-13 x 2” Gr. 5
6	702507	2	NUT, Lock 1/2”-13
7	116494	2	BUMPER, Rubber
8	142360	2	ROLLER, Engine plate
9	116621	4	SHIM, Slide out pin
10	(Ref.)	-	ASSEMBLY, Lock engine tray (For components, refer to Figure 6.6-5)
11	142273	1	WELDMENT, Tray engine
12	111954	1	LATCH ASSEMBLY, RH
	102780	1	• LATCH, Right hand rotary
	103404	3	• WASHER, Lock (5/16”)
	103864	3	• BOLT, Hex head (5/16”-18 x 1” Grade 5)
	103857	1	• BOLT, Hex head (1/4”-20 x 1” Grade 5)
	104000	6	• WASHER, Lock (1/4”)
	103980	1	• NUT, Hex head (1/4”-20 Grade B)
	111534	1	• KNOB, Rotary latch
13	123708	1	BOLT, Hex head (0.375-16 x 4.25 grade 5)
14	104606	3	NUT, Hex nylon lock (0.375-16 grade 5)
15	143617	1	WELDMENT, Exhaust hanger
16	103472	3	WASHER, Flat (0.375)
17	103914	1	BOLT, Hex head (0.375-16 x 3.75 grade 5)
18	133789	1	BRACKET, E-chain
19	103887	2	BOLT, Hex head (0.312-18 x 0.750 grade 5)
20	103404	2	WASHER, Lock (0.312)
21	147634	4	MOUNT, Engine vibration control
22	108818	4	BOLT, Hex head (0.5-13 x 2.750 grade 5)
23	103470	4	WASHER, Lock (0.5 grade 5)
24	103468	4	WASHER, Flat (0.5)
25	101520	2	WASHER, Flat nylon (1.28 ID x 2 OD x 0.12)
26	133851	1	BRACKET
27	100616	1	GROMMET, (RB-220 9/16”)
28	103858	1	BOLT, Hex head (0.25-20 x 1.25 grade 5)
29	115649	1	NUT, Hex nylon lock (0.25-20 grade 5)
			Parts list continued on the following page.

Figure 6.6-21. Engine Roll-Out Tray & Cover Assembly (GM Dual Fuel Engine) (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
30	103995	3	WASHER, Flat (0.25)
31	128571	1	SLEEVE, Anti-vibration mount battery
32	104000	1	WASHER, Lock (0.25)
33	103980	1	NUT, Hex head (0.25-20 grade 5)
34	103078	1	CLIP, Double
35	142243	1	BRACKET
36	112601	2	NUT, Hex flange lock (0.375-16)
37	300437	2	BOLT, Hex head (0.375-16 x 0.875 grade 5)
38	132935	1	ASSEMBLY, Energy Chain
	132973	1	• CARRIER ASSEMBLY, 14 Link hose
	103864	6	• BOLT, Hex head (5/16”-18 x 1” grade 5)
	103996	6	• WASHER, Flat (5/16”)
	103984	4	• NUT, Hex lock (5/16”-18 grade B)
39	122998	1	BRACKET, Carrier assembly mounting (male)
	122999	1	BRACKET, Carrier assembly mounting (female)
40	111351	2	ROLLER, Engine plate
41	(Ref.)	-	PANEL, Engine control post (For components, refer to Figure 6.6-4)

Figure 6.6-22. Dual Fuel Engine Assembly (GM Engine)

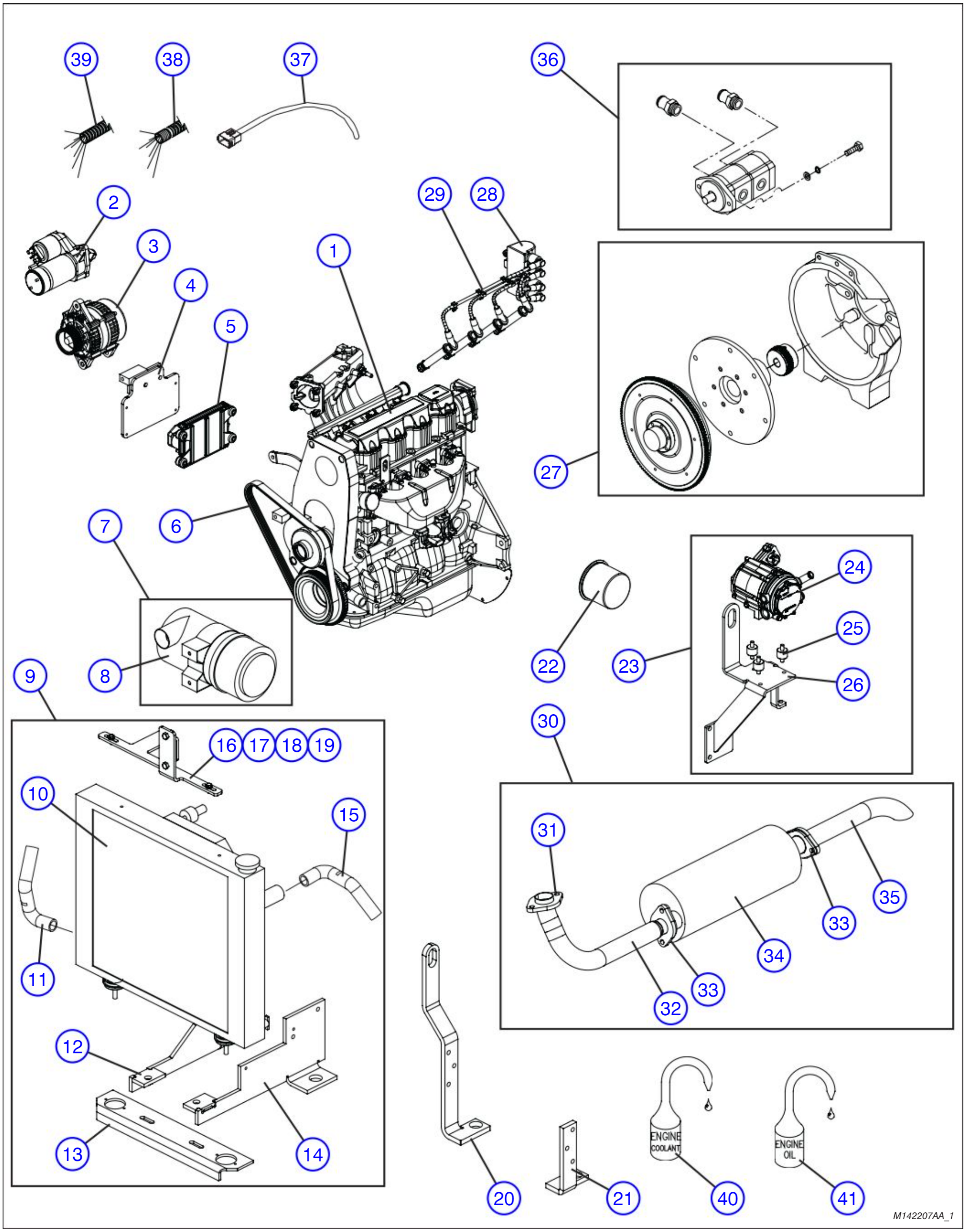


Figure 6.6-22. Dual Fuel Engine Assembly (GM Engine)

Index No.	Skyjack Part No.	Qty.	Description
1	142230	1	GM 1.6L DUAL FUEL ENGINE ASSEMBLY
	142315	1	• SENSOR , Precat
	103473	AR	• BOLT, Head (3/8-16 x 1 grade 5)
	103999	AR	• WASHER, Lock (3/8)
	142377	1	• FAN, Puller (16”)
	143520	1	• MIXER, Cert 60 series with fitting
	143521	1	• ENGINE BLOCK 1.6 L
	143522	1	• THERMOSTAT
	143524	1	• THROTTLE BODY, Bosch 40 mm
	143525	1	• RAIL, Fuel & injector assembly
	143528	1	• TIMING BELT
	143530	1	• SENSOR, Crankshaft position
	143535	4	• SPARK PLUG
	143537	1	• DIPSTICK OIL
	143738	1	• PUMP, Oil
	143523	1	• PUMP, Water
	143827	1	• SENSOR, LPG temp
	143743	1	• SENSOR, Coolant temp
	143803	1	• SWITCH, Oil pressure
	143518	1	• SENSOR, T map
	147305	1	• BEARING, Fan
2	142308	1	• STARTER
3	142309	1	• ALTERNATOR
4	142351	1	• BRACKET, Alternator & ECU mount
5	146085	1	• ECU
			(Order Part # 142328 for Machines with Serial #’s 343606 and Below)
6	142376	1	• BELT, Fan poly-6V 39
7	142234	1	• ASSEMBLY, Air intake GM1.6
8	142305	1	• • ASSEMBLY, Air filter
	142330	1	• • • ELEMENT, Air filter primary
	142352	1	• • • ELEMENT, Air filter safety
	142335	1	• • ELBOW, Plastic /w clamp
	142336	1	• • ELBOW, Steel air intake
	133222	4	• • CLAMP, Gear #32
	142337	2	• • CONNECTOR, Rubber
	142338	1	• • HOSE, Crankcase vent
	142359	1	• • CLAMP, Gear #10
	102854	1	• • CLAMP, Gear #12
	103864	2	• • BOLT, Head (5/16-18 x1)
	300122	4	• • WASHER, (5/16)
	103404	2	• • WASHER, Lock (5/16)
	123012	2	• • NUT, (5/16-18)
9	142233	1	• ASSEMBLY, Radiator GM1.6
	104528	2	• • CLAMP, Gear#28
	142415	4	• • CLAMP, Gear#20 (1.25”)
	142359	4	• • CLAMP, Gear #10
	142322	2	• • ISOLATOR, Under radiator
	142323	1	• • ISOLATOR, Radiator mount to engine
	142326	1	• • RESERVOIR, Coolant
	141769	1	• • SPACER, Radiator upper bracket
	143596	1	• • VALVE, Drain assembly
			Parts list continued on the following page.

Figure 6.6-22. Dual Fuel Engine Assembly (GM Engine) (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
	115745	4	• • BOLT, Head (M10-1.50 x 30 grade 8.8)
10	142317	1	• • RADIATOR
11	142320	1	• • HOSE, Lower
12	141756	1	• • BRACKET, RH front engine mount
13	141754	1	• • BRACKET, Radiator support
14	141752	1	• • BRACKET, LH front engine mount
15	142318	1	• • HOSE, Upper
16	141768	1	• • BRACKET, Radiator /air cleaner
17	103856	AR	• • BOLT, (1/4-20 x 3/4")
18	801305	AR	• • WASHER, Lock (1/4")
19	103995	AR	• • WASHER, (1/4")
20	141728	1	• BRACKET, RH rear engine mount
21	141739	1	• BRACKET, LH rear engine mount
22	143538	1	• FILTER, Oil
23	142236	1	• FUEL ASSEMBLY, Propane GM1.6
	702236	1	• • FITTING, Brass elbow (90deg 1/4NPT)
	142324	1	• • VALVE, Lock-off
	103156	1	• • FITTING, Brass (#48 - 6B)
	142346	1	• • HOSE, EPR to mixer
	142359	2	• • CLAMP, Gear #10
	103847	3	• • BOLT, (M10-1.5 x 20MM grade 5)
	130884	3	• • WASHER, Lock (M10)
24	142340	1	• • ELECTRONIC PRESSURE REGULATOR (EPR)
25	142341	3	• • ISOLATOR, Rubber
26	141688	1	• • BRACKET, Electronic pressure regulator
27	(Ref.)	1	• ASSEMBLY, Bell housing (For components, refer to Figure 6.6-23)
28	143527	1	• COIL, Ignition
29	143534	1	• WIRES, Ignition
30	142294	1	ASSEMBLY, Exhaust
	142299	1	• SENSOR, O2 post catalyst
	300705	AR	• BOLT, HHCS (3/8-16x1.25)
	103978	AR	• NUT, (3/8-16)
	103472	AR	• WASHER, (3/8)
31	142296	1	• GASKET, Seal for manifold
32	142297	1	• PIPE, Exhaust manifold to catalyst
33	142298	2	• GASKET, Exhaust catalyst
34	143595	1	• MUFFLER, Catalyst
			(Order Part # 141742 for Machines with Serial #'s 343606 and Below)
35	146099	1	• PIPE, Exhaust tailpipe
			(Order Part # 142213 for Machines with Serial #'s 343606 and Below)
36	(Ref.)	-	ASSEMBLY, Hydraulic pump and fittings (For components, refer to Figure 6.6-20)
37	142394	1	HARNESS, Fuel cabinet
38	142448	1	HARNESS, Engine
39	(Ref.)	-	HARNESS, Engine interface (For components, refer to Figure 6.6-24)
40	(Ref.)	-	SOLUTION, Engine coolant (extended life - antifreeze) (Refer to Table 1.1.)
41	(Ref.)	-	OIL, Engine (Refer to Table 1.1.)

Figure 6.6-23 Bell Housing Assembly (GM Dual Fuel Engine)

Index No.	Skyjack Part No.	Qty.	Description
-	142232	-	ASSEMBLY, Bell housing
1	142423	1	• BELL HOUSING
2	143583	1	• GEAR, Ring
3	143486	1	• PLATE, Flywheel
4	143481	1	• O-RING
5	143488	1	• SCREW, Socket set (5/16-18 x 5/8”)
6	143489	1	• SCREW, Socket set (5/16-18 x 3/4”)
7	143484	1	• HUB, External
8	143483	AR	• BUSHING, Threaded
9	143482	AR	• INSERT, Neoprene
10	143485	1	• HUB, Internal
11	143491	AR	• BOLT, Hex head (5/16-24 x 5/8”)
12	143480	1	• O-RING

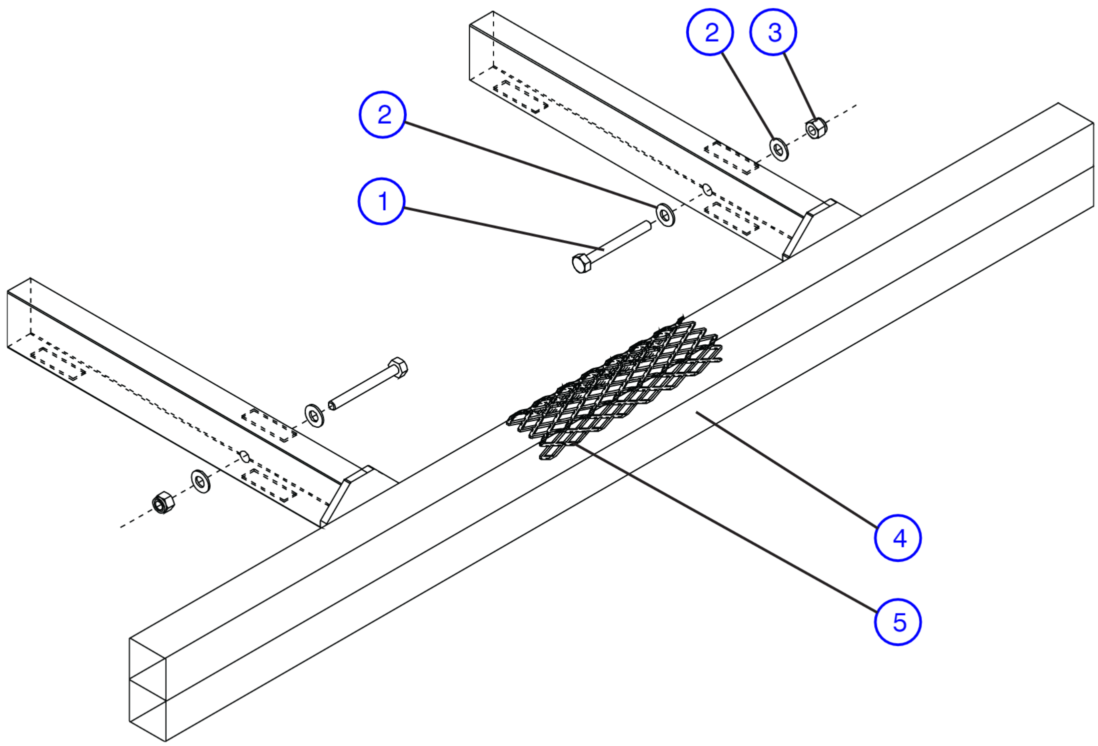
Figure 6.6-24 Engine Interface Harness (GM Dual Fuel Engine)

Index No.	Skyjack Part No.	Qty.	Description
-	142399	-	HARNESS, Engine interface
1	117586	1	• CONNECTOR, Receptacle 12-pin
2	117588	1	• CONNECTOR, Receptacle 12-pin
3	117590	AR	• CONNECTOR, Contact pin 16-18
4	117592	2	• CONNECTOR, Contact pin 14-16
5	117594	4	• CONNECTOR, Sealing plug
6	142361	1	• HOUSING, Female 150 gt sealed 16 way
7	142362	3	• TERMINAL, Female 150 GT series
8	142365	AR	• SEAL, Wire 150 GT series
9	142366	AR	• PLUG CAVITY, 150 GT series
10	142363	1	• HOUSING, Male 150 GT sealed 16 way
11	142364	AR	• TERMINAL, Male 150 GT series
12	117597	1	• CONNECTOR, Plug 2-pin
13	117599	1	• CONNECTOR, Plug 2-pin wedge
14	117591	2	• CONNECTOR, Contact socket 16-18
15	114595	1	• TERMINAL, Female 18-22 AWG red
16	105359	1	• TERMINAL, Female 14-16GA insl.blue
17	119749	1	• TERMINAL, 22-18AWG #6 ring red
18	102955	AR	• TERMINAL, 14-16GA #6 RING blue

Figure 6.6-25. Dual Fuel System (GM Dual Fuel Engine)

Index No.	Skyjack Part No.	Qty.	Description
1	(Ref.)	-	TANK, Propane w/coupling (Refer to Figure 6.4-14)
2	103006	1	COUPLER, Quick female
3	103159	1	FITTING, 45deg ¼” pipe
4	103098	42”	HOSE, Propane
5	103156	AR	FITTING, Brass (48-6B)
6	111622	1	CAP, Rain
7	300799	1	VALVE, Propane relief
8	132919	1	TEE, Female pipe (¼)
9	143478	1	NIPPLE, Long (1/4”-2)
10	142300	1	FILTER, Liquid propane
11	143477	1	FITTING, (3/8 SAE 45deg-M, 1/4 NPT-F)
12	103097	1	HOSE, Propane fuel assembly
13	142397	AR	CONNECTOR, Straight fuel quick
14	142405	AR	HOSE, Fuel line (5/16)
15	142451	1	FITTING, Fuel manifold (out)
16	142303	1	MANIFOLD, Fuel
17	103995	AR	WASHER, (1/4”)
18	104000	AR	WASHER, Lock (1/4”)
19	103983	AR	NUT, (1/4”-20)
20	142452	1	FITTING, Fuel manifold (in)
21	142301	1	FILTER, Fuel
22	103472	1	WASHER, Flat (3/8”)
23	103999	1	WASHER, Lock (3/8”)
24	103978	1	NUT, Hex head (3/8-16 grade B)
25	142353	1	WELDMENT, Fuel component plate
26	114270	AR	CLIP, Single
27	142302	1	PUMP, Fuel
28	118367	1	NUT, (M4)
29	133872	1	NUT, Hex (M5-0.8)
30	142453	1	FITTING, Fuel pump
31	103321	AR	GEAR, Clamp (#4)
32	(Ref.)	-	WELDMENT, Fuel tube (For components, refer to Figure 6.4-3)
33	(Ref.)	-	ASSEMBLY, Fuel tank (For components, refer to Figure 6.4-3)

Figure 6.7-2. Front And Rear Weight Assembly - Models 8243 & 8850 (No Outrigger Option)



Index No.	Skyjack Part No.	Qty.	Description
A	133862	-	ASSEMBLY, No outrigger installation **(Rear)**
B	133841	-	ASSEMBLY, No outrigger installation **(Front)**
1	127060	2	• BOLT, Hex head 1/2”-13 x 4” Grd.5
2	103468	4	• WASHER, Flat 1/2”
3	702507	2	• NUT, Hex nylon lock 1/2”-13 Grd.5
4	133856	1	• SUB-WELDMENT, Additional weight, **A**
	133833	1	• SUB-WELDMENT, Additional weight, **B**
5	133859	1	STEP, Outrigger, **A**
			***Note:* Shims are shown in both front and rear locations.**

Figure 6.7-7. Outrigger/Hydraulic Generator Control Box Assembly

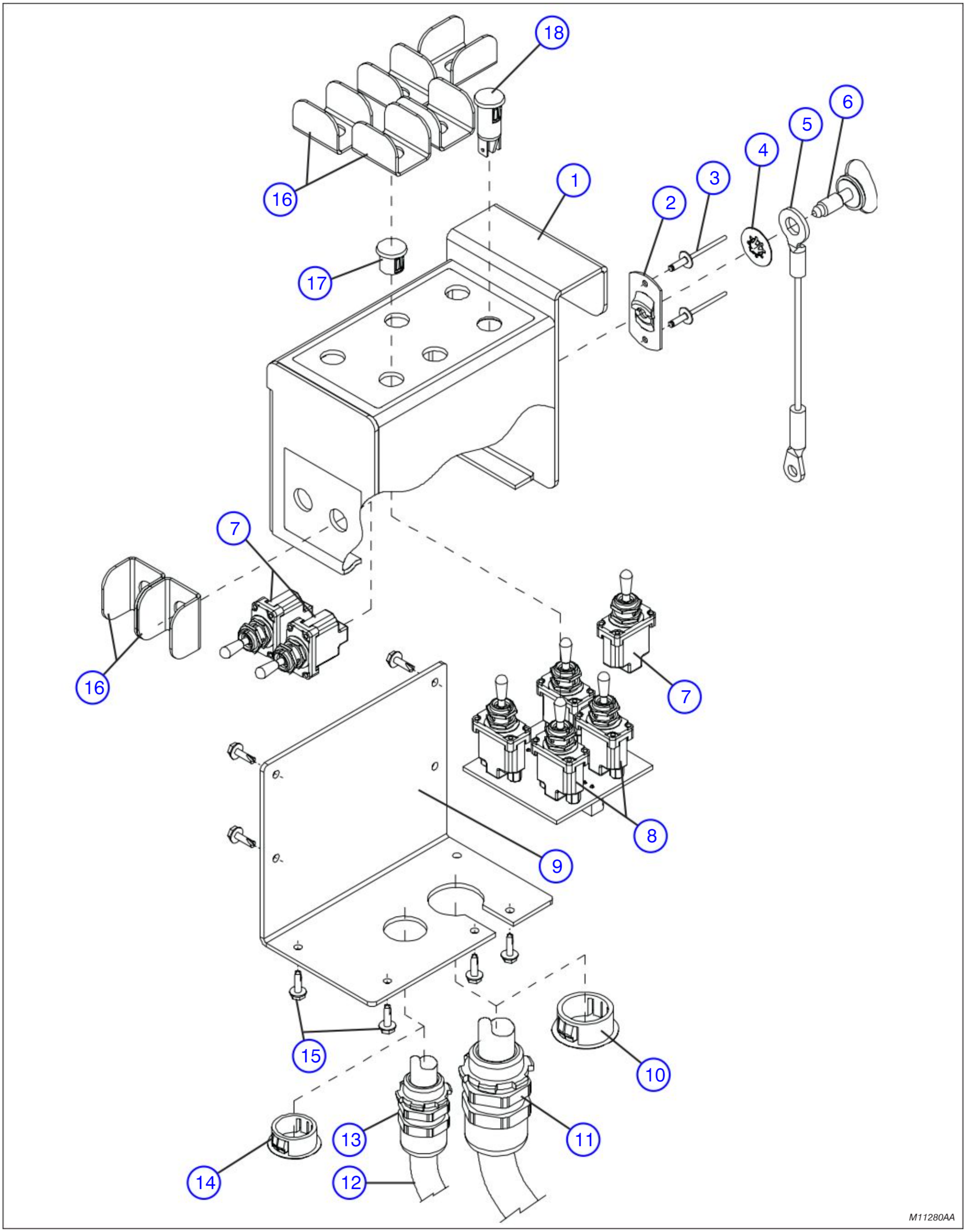


Figure 6.7-8. Outrigger Electrical Connections

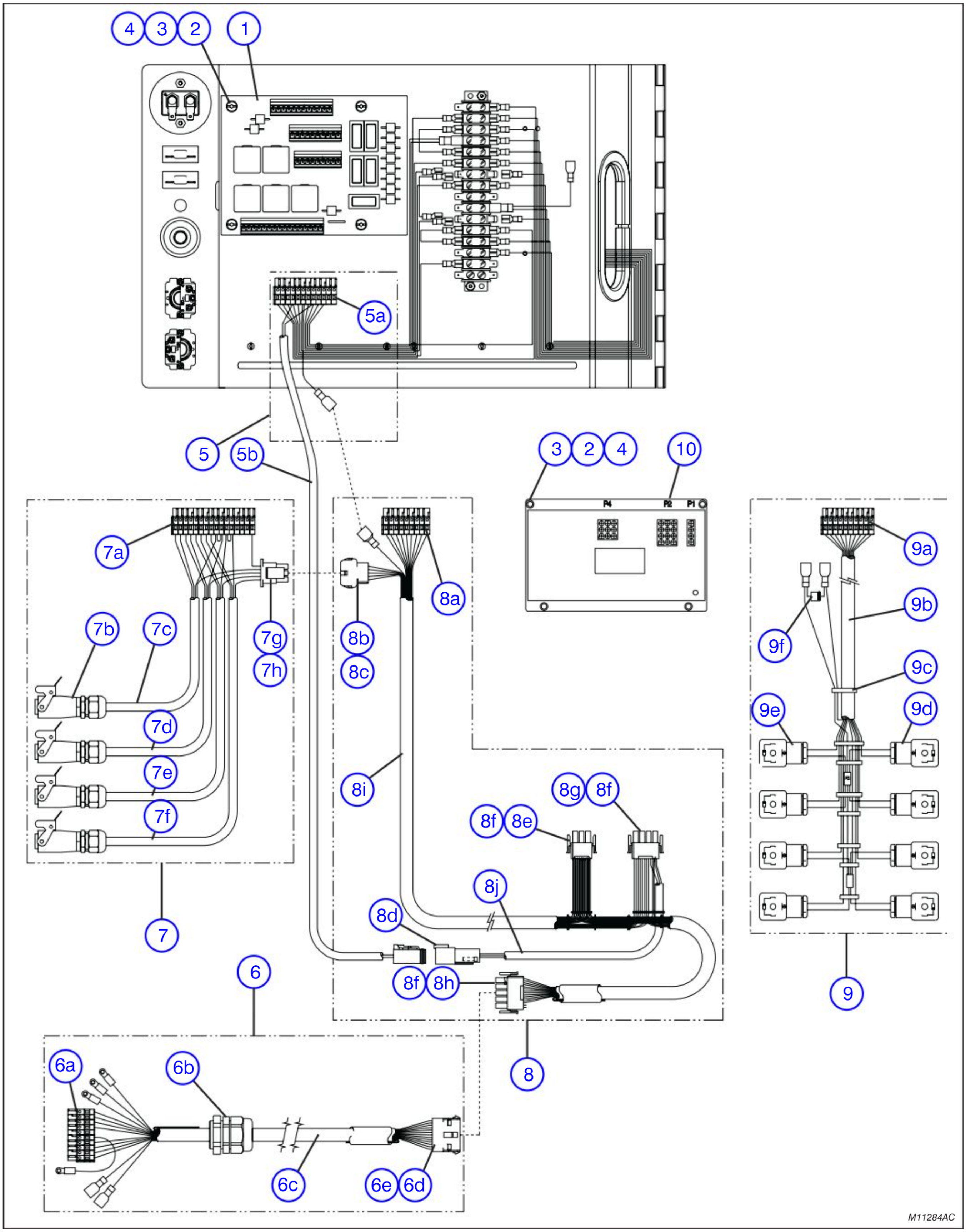
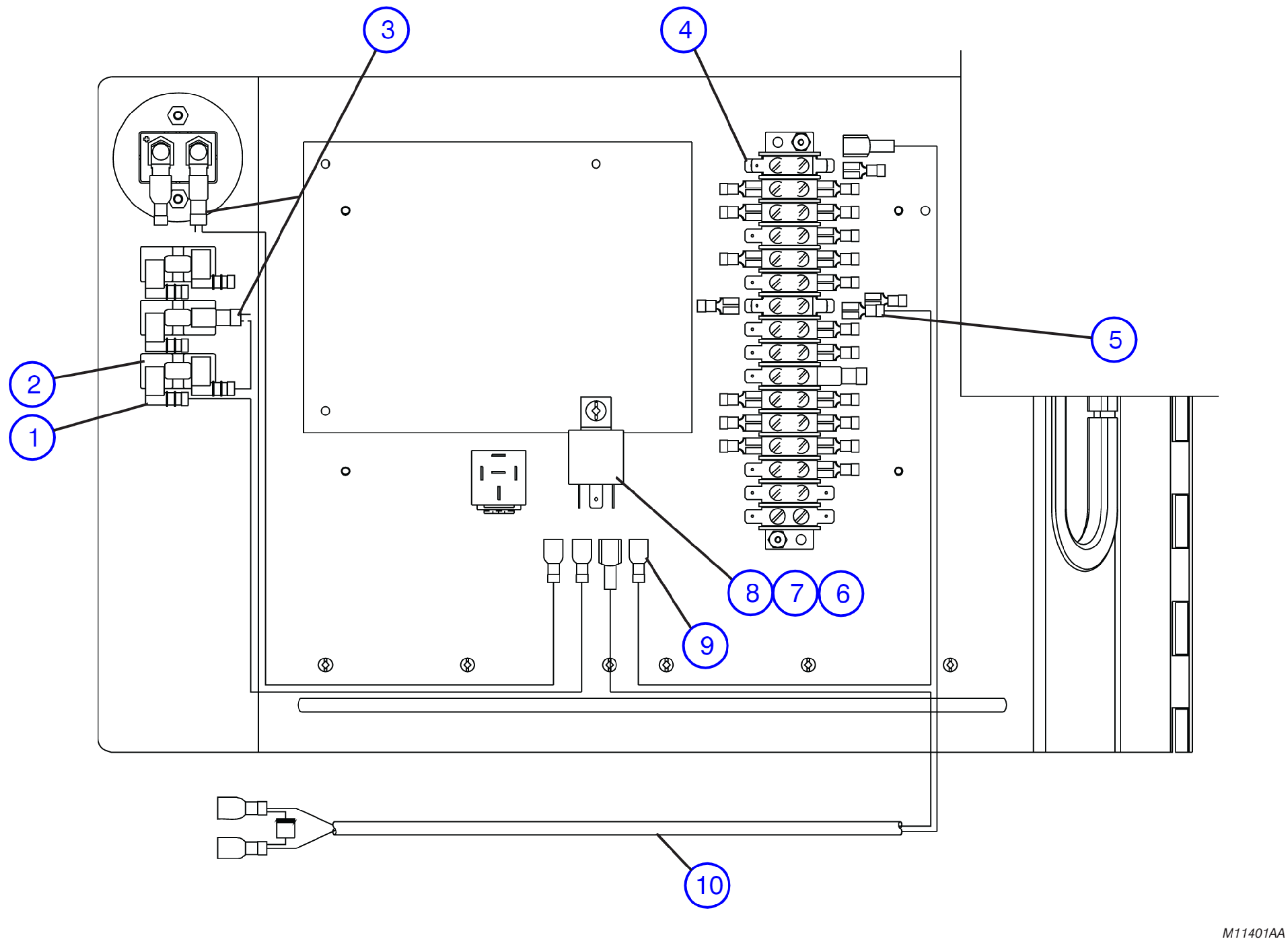


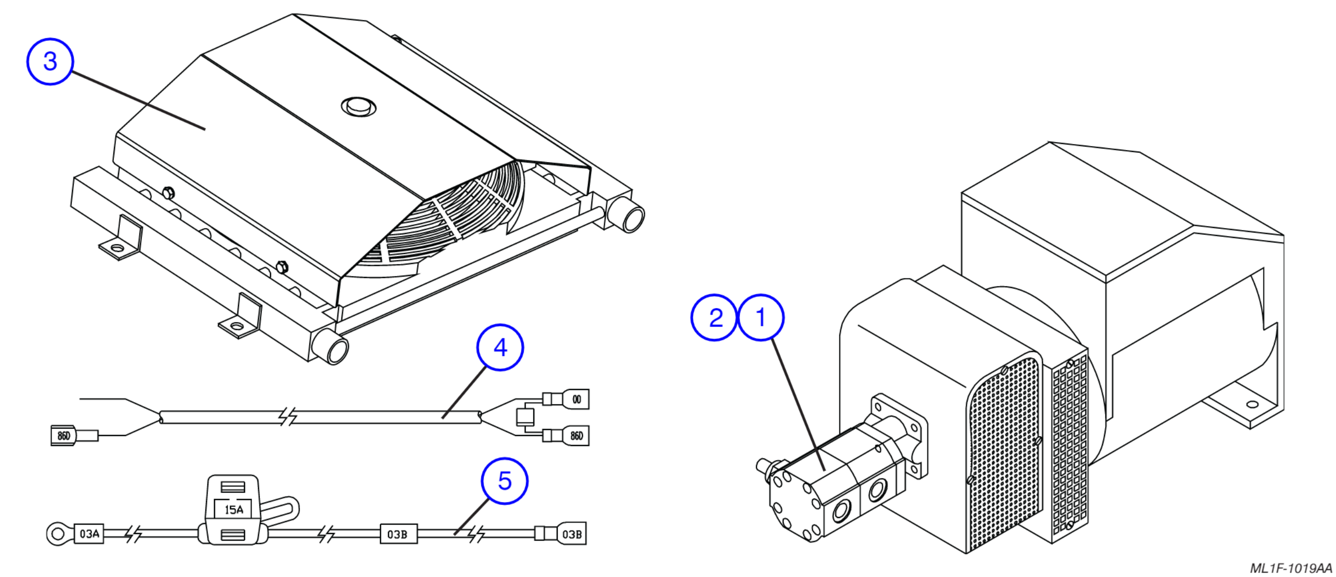
Figure 6.7-8. Outrigger Electrical Connections **AE**

Index No.	Skyjack Part No.	Qty.	Description
1	127036	1	PC BOARD, Outrigger Option 12 V
	127131	5	• RELAY, 12V (40 Amp)
	127132	5	• SWITCH (3 position)
2	104698	8	BOLT, Machine #10-32 x 3/4
3	104694	8	WASHER, Flat #10 S.A.E
4	104185	8	WASHER, Lock #10 Nom
5	127624	1	HARNESS, Outrigger Terminal Strip
5a	119904	1	• PLUG, PC Board 12-Pin Connector
5b	134759	1	• HARNESS, Auto-level panel **(CE)**
6	129292	1	HARNESS, Outrigger Control Cable **(Model 7127)**
	129293	1	HARNESS, Outrigger Control Cable **(Model 7135)**
	133206	1	HARNESS, Outrigger Control Cable **(Model 8243)**
	133207	1	HARNESS, Outrigger Control Cable **(Model 8850)**
6a	119902	1	• PLUG, PC Board 10-pin Connector
6b	300788	1	• CONNECTOR, Strain Relief
6c	102887	AR	• CABLE, Control 16/15
6d	132800	1	• HOUSING, 15-Pole Male Plug
6e	116989	13	• PIN, Male Wire
7	132801	1	HARNESS, Outrigger Auto-Level Limit Switch
7a	119908	1	• PLUG, PC Board 16-Pin Connector
7b	107711	4	• CONNECTOR, 5-Pin Female
7c	103255	205”	• CABTIRE, 18/4 (Left front)
7d	103255	142”	• CABTIRE, 18/4 (Right front)
7e	103255	148”	• CABTIRE, 18/4 (Right rear)
7f	103255	131”	• CABTIRE, 18/4 (Left rear)
7g	130445	1	• HOUSING, 6-Pole Male Plug
7h	116990	5	• PIN, Female Wire
8	132803	1	HARNESS, Outrigger Auto-Level Control Module
8a	119901	1	• PLUG, PC BOARD 9-Pin Connector
8b	132799	1	• HOUSING, 6-Pole Female Plug
8c	116989	5	• PIN, Male Wire
8d	119130	1	• KIT, 4-Pin Recepticle
8e	116993	1	• HOUSING, 9-Pole Male Plug
8f	116990	34	• PIN, Female Wire
8g	130449	1	• HOUSING, 12-Pole Male Plug
8h	116994	1	• HOUSING, 15-Pole Male Plug
8i	102887	68”	• CABLE, Control 16/15
8j	103257	36”	• CABTIRE, 18/3
9	129220	1	HARNESS, Outrigger Manifold
9a	119902	1	• PLUG, PC Board 10-Pin Connector
9b	102888	148”	• CABLE, Control 16/10
9c	113719	8	• TIEWRAP, 3-5/8” Long Black
9d	127315	4	• CONNECTOR, Solenoid with Diode (Black)
9e	127316	4	• CONNECTOR, Solenoid with Diode (Grey)
9f	102921	1	• DIODE
10	132804	1	MODULE, Outrigger Auto-Levelling Controller

Figure 6.7-10. Oil Cooler Electrical Hardware



Index No.	Skyjack Part No.	Qty.	Description
1	300772	2	TERMINAL, Female 14-16ga. insulated blue
2	117325	1	BREAKER, 15Amp circuit
3	105568	2	TERMINAL, 12-10ga 1/4
4	108170	1	BAR, Double terminal
5	102903	1	TERMINAL, 14-16ga 1/4
6	104185	1	WASHER, Lock #10 NOM
7	103964	1	BOLT, Machine #10-32x0.25
8	127035	1	RELAY, 12V 40 Amp
9	105539	3	TERMINAL, Female 14-16ga insulated blue
10	(Ref.)	-	HARNESS, Oil cooler fan (For components, refer to Figure 6.7-11)



Index No.	Skyjack Part No.	Qty.	Description
A	106216	-	GENERATOR, 3500W Hydraulic (60Hz)
B	118684	-	GENERATOR, 3500W Hydraulic (50Hz)
1	(Ref.)	-	GENERATOR ASSEMBLY
	113875	1	• MOTOR, Hydraulic
	106673	1	• COUPLING, Pump 1/2”
	103026	1	• SPIDER, Coupling
	113876	1	• COUPLING, Generator 14mm
	113877	1	• FLOW CONTROL, 8 GPM, **A**
	125390	1	• FLOW CONTROL, 6.5 GPM, **B**
	103938	4	• BOLT, Soc-Hd 3/8”-16 x 1-1/2” lg.
	103999	4	• WASHER, Lock 3/8”
	103472	4	• WASHER, Flat 3/8”
	103978	4	• NUT, Hex 3/8”-16
	128374	1	• CABLE, Control **(Model 7127)**
	103257	732”	• • CABTIRE, 18/3
	127874	1	• CABLE, Control **(Model 7135)**
	103257	852”	• • CABTIRE, 18/3
	133201	1	• CABLE, Control **(Model 8243)**
	103257	972”	• • CABTIRE, 18/3
	133202	1	• CABLE, Control **(Model 8850)**
	103257	1092”	• • CABTIRE, 18/3
2	103035	1	CONNECTOR, 90° strain relief
3	138122	-	ASSEMBLY, Oil cooler
	136687	1	• PLATE, Oil cooler cover
	114284	1	• OIL COOLER
	115384	1	• • FAN, Oil cooler
	103938	4	• BOLT, Soc-Hd 3/8”-16 x 1-1/2” lg.
	103999	4	• WASHER, Lock 3/8”
	103472	4	• WASHER, Flat 3/8”
	103978	4	• NUT, Hex 3/8”-16
4	134177	1	HARNESS, Oil cooler fan **(If Equipped)**
	103256	118”	• CABTIRE, 18/2
5	137095	1	HARNESS, Oil cooler fan **(If Equipped)**
	102721	42”	• Wire, Yellow TEW 16 AWG 26 BC

Figure 6.7-12. 1500W Inverter Option

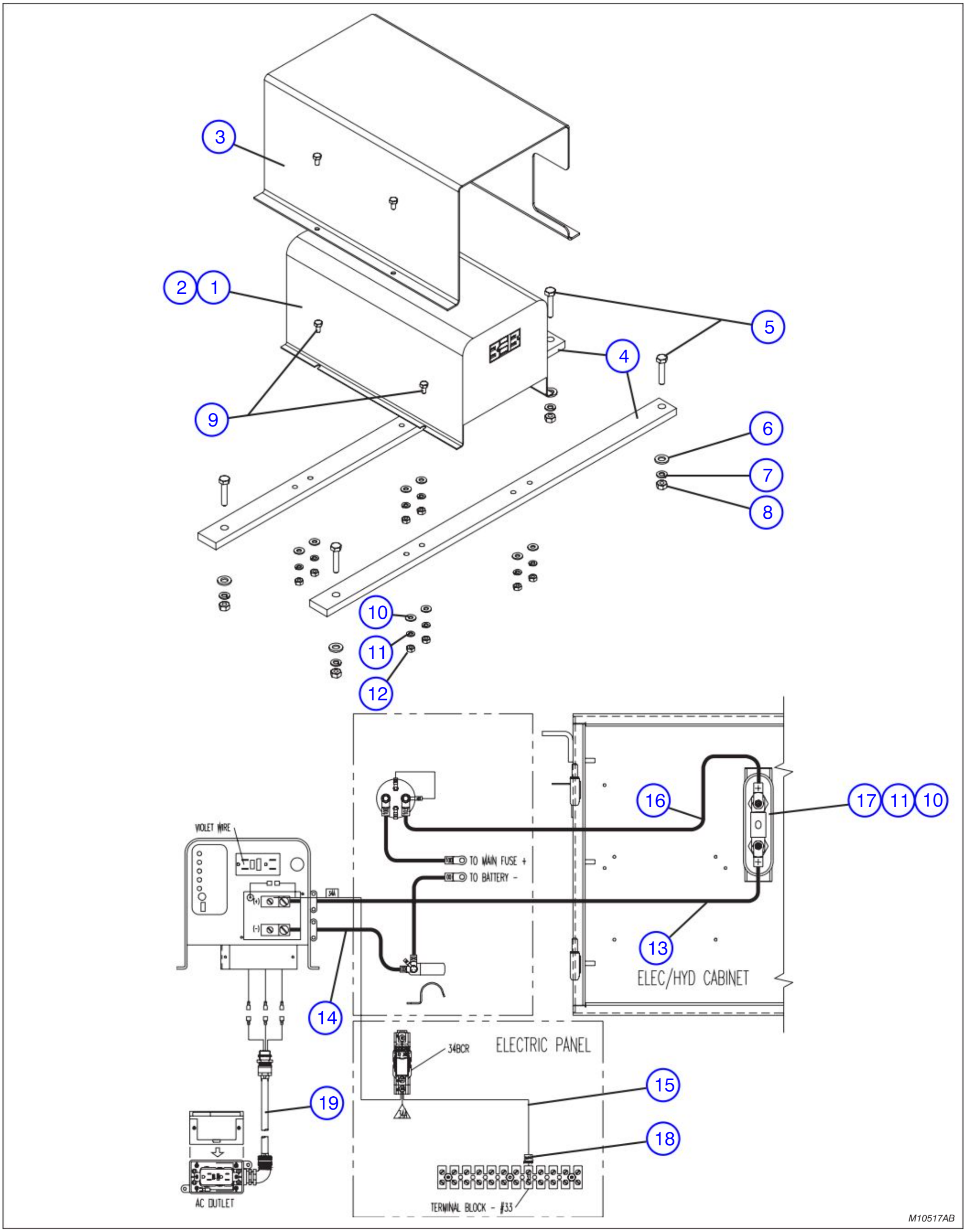
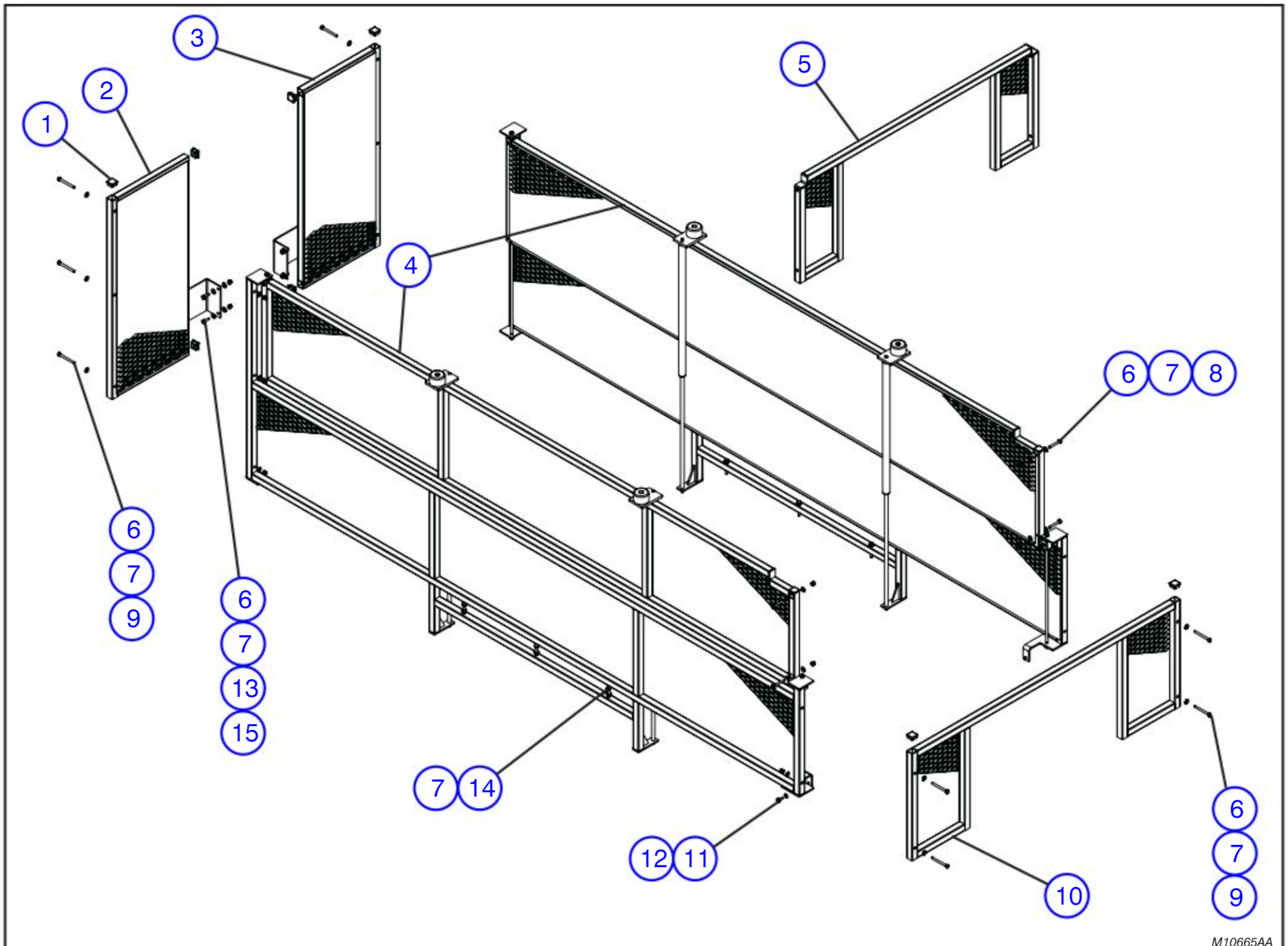
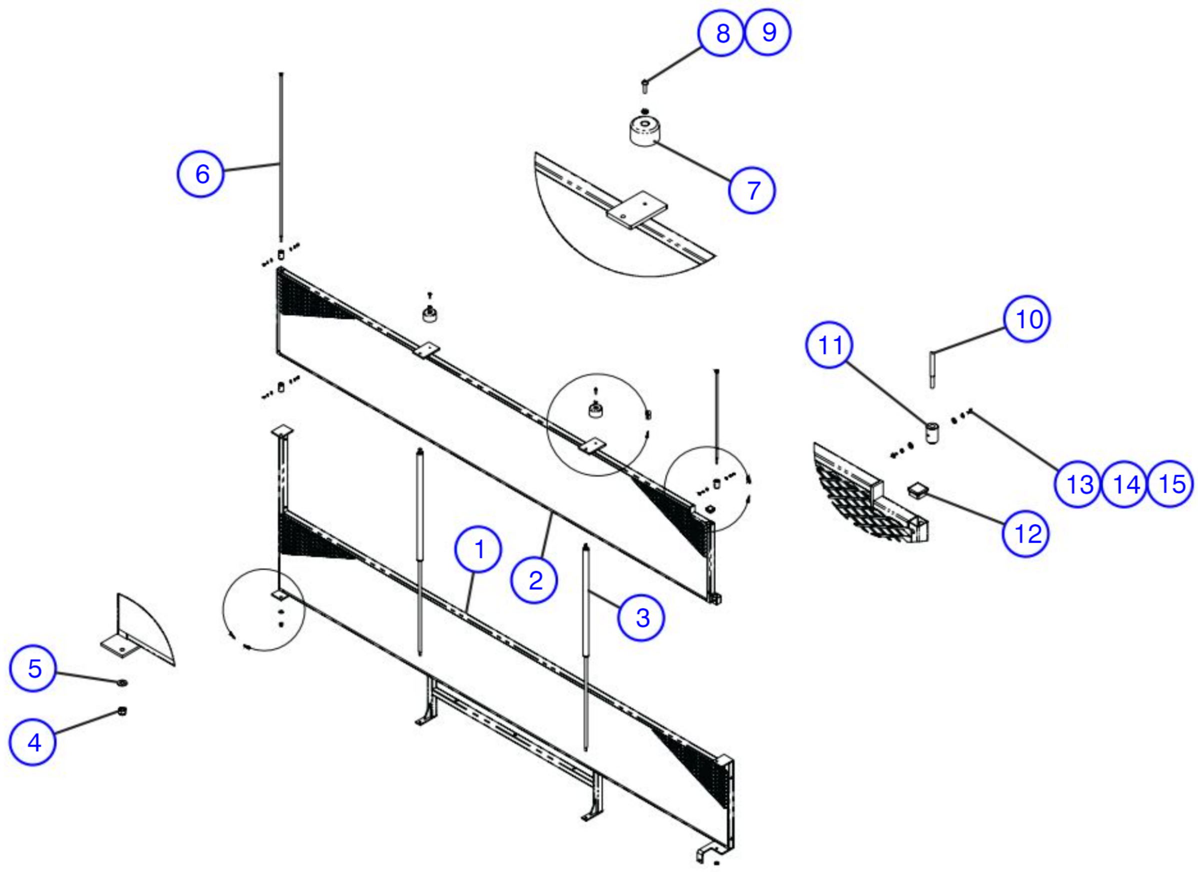


Figure 6.7-13. Scissor Guard Assembly



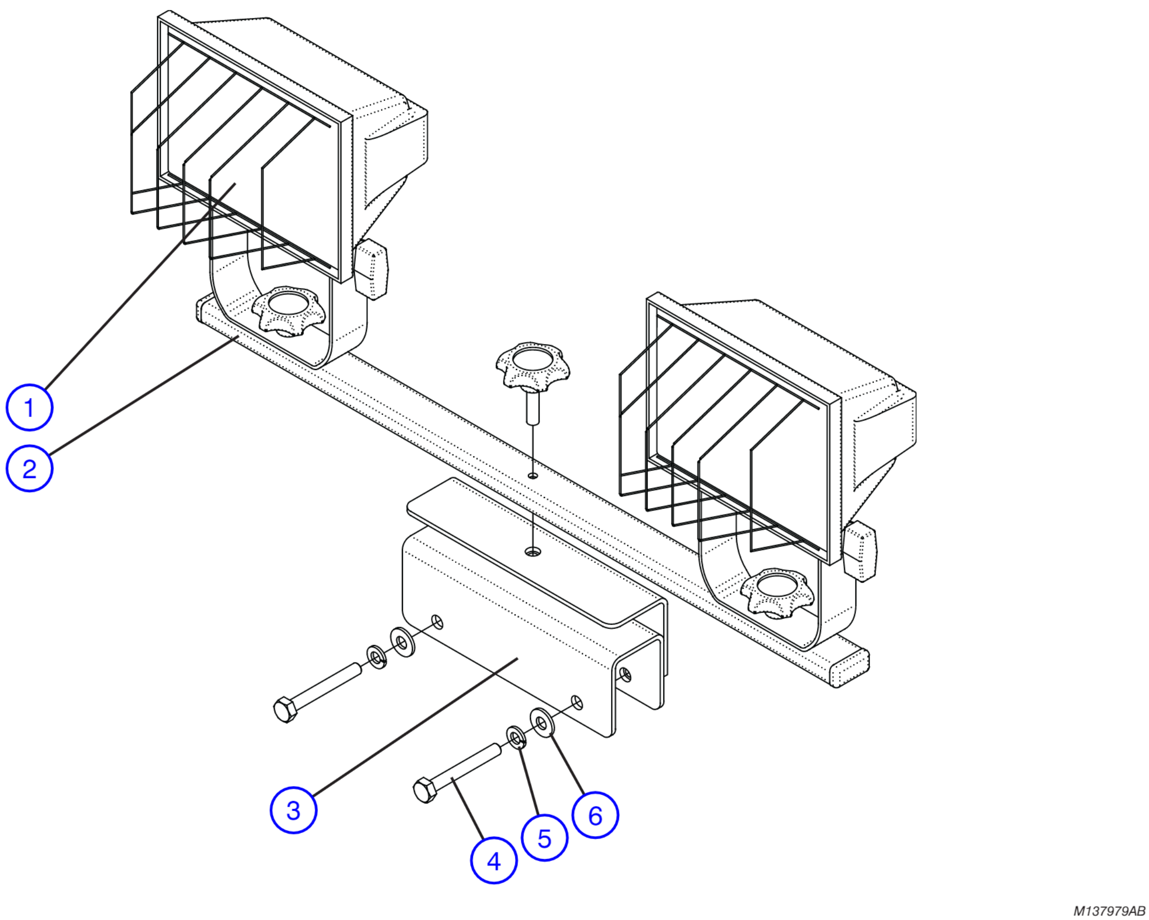
Index No.	Skyjack Part No.	Qty.	Description
A	126815	-	SCISSOR GUARD ASSEMBLY
1	100702	AR	• CAP, Plastic end
2	126812	1	• WELDMENT, 600, Scissor guard right hand rear
3	126814	1	• WELDMENT, 600, Scissor guard left hand rear
4	(Ref.)	-	• ASSEMBLY, Left and right scissor guard (For components, refer to Figure 6.7-14)
5	129892	1	• WELDMENT, 600, Scissor guard front inside
6	104606	AR	• NUT, 3/8”- 16 grade 5 Hex nylon lock
7	103472	AR	• WASHER, 3/8” Flat
8	103872	AR	• BOLT, Hex Head 3/8”-16 x 2 1/4” grade 5
9	103916	AR	• BOLT, Hex Head 3/8”- 15 x 3 1/4” grade 5
10	115502	1	• WELDMENT, 600, Scissor guard front
11	101632	AR	• BOLT, Hex Head 3/8”-16 x 3/4” grade 5
12	103999	AR	• WASHER, 3/8” Lock
13	103473	AR	• BOLT, Hex Head 3/8”-16 x 1” grade 5
14	130023	AR	• BOLT, Hex Head M10 x 1.2 x 60mm CL 8.8 ZP
15	103781	4	• BOLT, Hex Head 3/8” x 1 3/4 **(If Equipped)**
	117334	4	• • SPACER **(If Equipped)**

Figure 6.7-14. Side Scissor Guard Assembly- Left & Right Side



Index No.	Skyjack Part No.	Qty.	Description
A	126821	-	RIGHT SIDE SCISSOR GUARD ASSEMBLY
B	126822	-	LEFT SIDE SCISSOR GUARD ASSEMBLY
1	126755	1	• WELDMENT, Right Side Bottom Scissor Guard, A
	126763	1	• WELDMENT, Left Side Bottom Scissor Guard, B
2	126764	1	• WELDMENT, Right Side Top Scissor Guard, A
	126765	1	• WELDMENT, Left Side Top Scissor Guard, B
3	110499	4	• SPRING, Gas
4	104606	AR	• NUT, Hex Nylon Lock, 3/8”- 16 grade 5
5	103472	AR	• WASHER, Flat 3/8”
6	111680	2	• WELDMENT, Slider Rod- Long
7	105395	4	• BUMPER, Scissor Guard
8	111231	AR	• BOLT, Hex Head 1.4”-20 x 1 3/4” grade 5
9	103404	AR	• WASHER, 1/4” Lock
10	115524	2	• WELDMENT, Slider Rod- Short
11	111651	6	• SLIDER, Round 600 Scissor Guard
12	100702	2	• CAP, Plastic End
13	115545	AR	• SCREW, Machine Round Head 10-32 x 3/8”
14	104185	AR	• WASHER, Lock #10
15	104694	AR	• WASHER, Flat #10

Figure 6.7-15. Work Light Option



Index No.	Skyjack Part No.	Qty.	Description
-	137979	-	ASSEMBLY, Work light
1	141732	1	• BULB, 150 Watt halogen, 78 mm
2	141701	1	• WORK LIGHT, Dual 250 Watt halogen
3	138050	1	• BRACKET, Work light
4	103861	2	• BOLT, Hex head (0.25-20 x 2 grade 5)
5	104000	2	• WASHER, Lock (0.25)
6	103995	2	• WASHER, Flat (0.25)

Figure 6.8-1.   Label Kit

Label Kits

The following label kits are for models SJ 7127 and 7135. Each contains labels that are common to both machines.

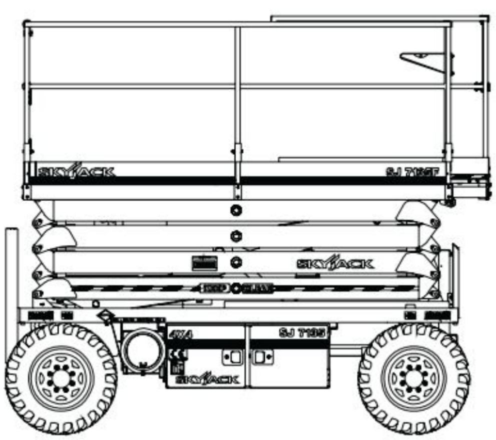
It excludes:

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

There are four kits for these machines depending on the elevating work platform standard and the Skyjack logo. 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 # 129998	Part # 133550
SJ 7127	341124 & Above	341124 & Above
SJ 7135	341129 & Above	341129 & Above

60407AA



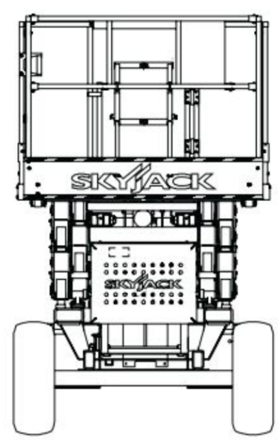


Figure 6.8-2. Labels - Main Control Box

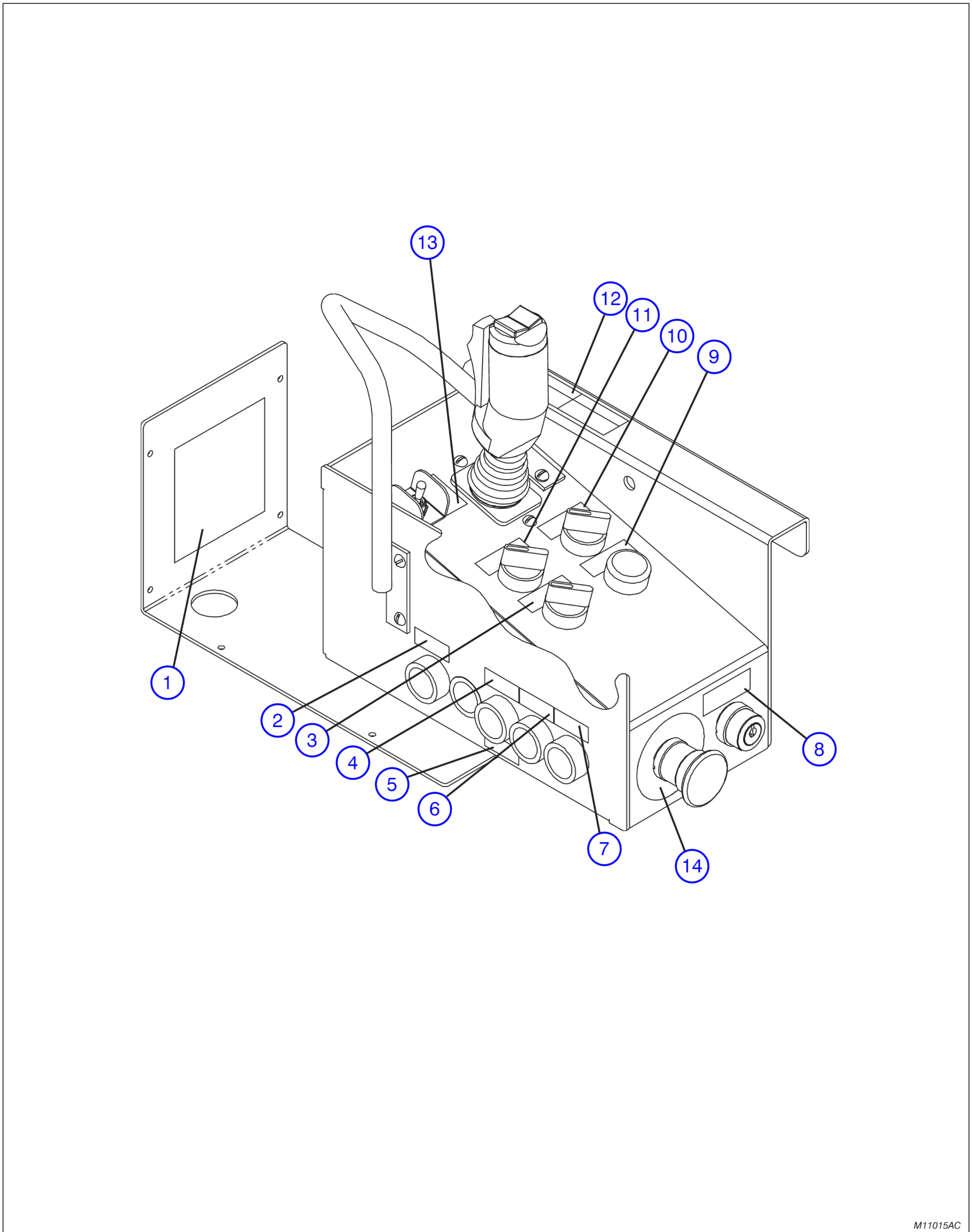


Figure 6.8-2. Labels - Main Control Box

Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.8-1)
*1	124207	1	LABEL, Joystick connector
*2	105352	1	LABEL, Horn
*3	130792	1	LABEL, Up/Off/Down
*4	130805	1	LABEL, Choke
*5	130788	1	LABEL, Glow plug (Diesel engines)
*6	130789	1	LABEL, Start
*7	130790	1	LABEL, Lift Enable
*8	130798	1	LABEL, Lift/Off/Drive
*9	130802	1	LABEL, Power on/overload indicator **(ANSI/CSA)**
	130797	1	LABEL, Power on/overload indicator **(CE)**
*10	130793	1	LABEL, Low/High Throttle
*11	130791	1	LABEL, Low/High range
*12	130800	1	LABEL, Enable joystick **(Machines with Proportional Joystick)**
*13	130799	1	LABEL, High/Normal Torque
*14	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 6.8-3. Labels - Misc

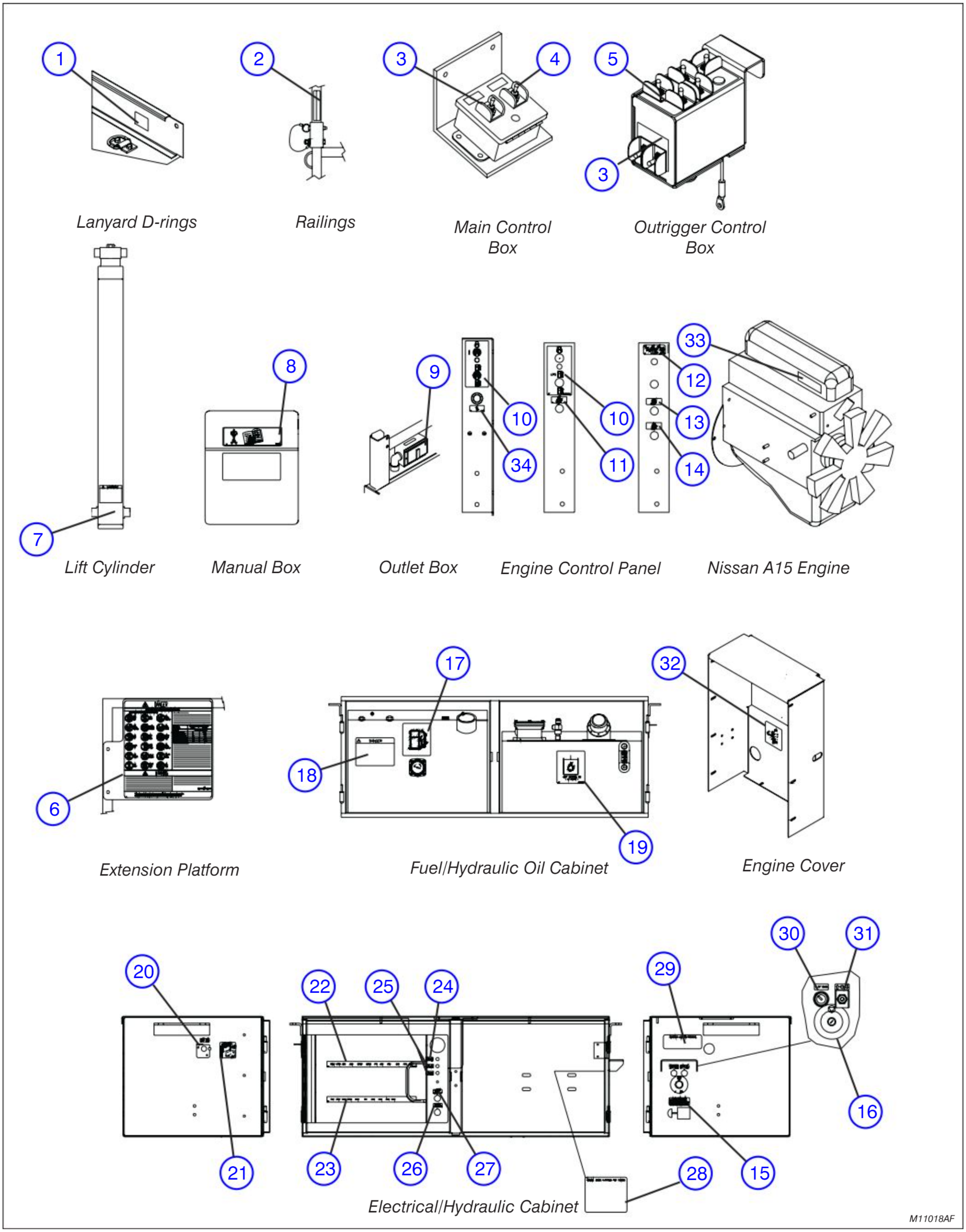


Figure 6.8-3. Labels - Misc

Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.8-1)
*1	130018	6	LABEL, Anchorage Harness
*2	115531	18	LABEL, Warning! Falling Hazard **(ANSI/CSA)**
	126056	12	LABEL, Warning! Falling Hazard (Vertical Pictorial) - **(CE)**
	126057	9	LABEL, Warning! Falling Hazard (Horizontal Pictorial) - **(CE)**
*3	133228	1	LABEL, Enable/Auto-Level
*4	108328	1	LABEL, Platform extend/retract
*5	133227	1	LABEL, Outrigger/Hydraulic Generator Switches
*6	146526	1	LABEL, Danger/Warning Info
			(Order Part # 128742 for Machines with Serial #'s 34000045 and Below)
*7	106703	1	LABEL, Orifice Decal
*8	123628	1	LABEL, Manual Enclosed
*9	201446	1	LABEL, 110 VAC **(ANSI/CSA)**
	201447	1	LABEL, 220 VAC **(CE)**
*10	124882	1	LABEL, Start/on/off/LP. Gas/gasoline - Nissan/ GM Engines
*11	132601	1	LABEL, Check Engine Indicator - Nissan/ GM Engines
*12	116787	1	LABEL, Power Off/Pull On - Kubota Diesel Engine
*13	130788	1	LABEL, Engine Preheat - Kubota Diesel Engine
*14	130789	1	LABEL, Engine Start - Kubota Diesel Engine
*15	111605	1	LABEL, Emergency lowering
	109443	1	LABEL, Emergency lowering **(Model 8243 & 8850)**
*16	111814	1	LABEL, Emergency Stop
*17	102960	1	LABEL, "Use Gasoline Only"
	102962	1	LABEL, "Use Diesel Fuel Only"
	132400	1	LABEL, "Unleaded Fuel Only"
*18	106694	1	LABEL, Warning! Explosive Fumes
*19	102961	1	LABEL, "Use Hydraulic Oil"
*20	105983	1	LABEL, Power On/Off
*21	119674	1	LABEL, Battery disconnect switch
*22	127418	1	LABEL, Upper relay identification **(ANSI/CSA)**
	130662	1	LABEL, Upper relay identification **(CE)**
*23	127417	1	LABEL, Lower relay identification **(ANSI/CSA)**
	130661	1	LABEL, Lower relay identification **(CE)**
*24	117389	1	LABEL, Ground reset
*25	117387	1	LABEL, Power reset
*26	102667	1	LABEL, Down
*27	103081	1	LABEL, Up
*28	113846	1	LABEL, Manual brake release
*29	127338	1	LABEL, On/Off Slab
*30	130742	1	LABEL, Platform/base select **(CE)**
*31	130792	1	LABEL, Up/Off/Down **(CE)**
*32	128827	1	LABEL, Fuse Warning
*33	134425	1	LABEL, Emission control information - Nissan Engine
34	130805	1	LABEL, Choke
			***Included in the label kit**
			NOTE: ***Supply Model Number, Serial Number, Country and Language when ordering complete machine labels.***

Figure 6.8-4. Labels - Chassis

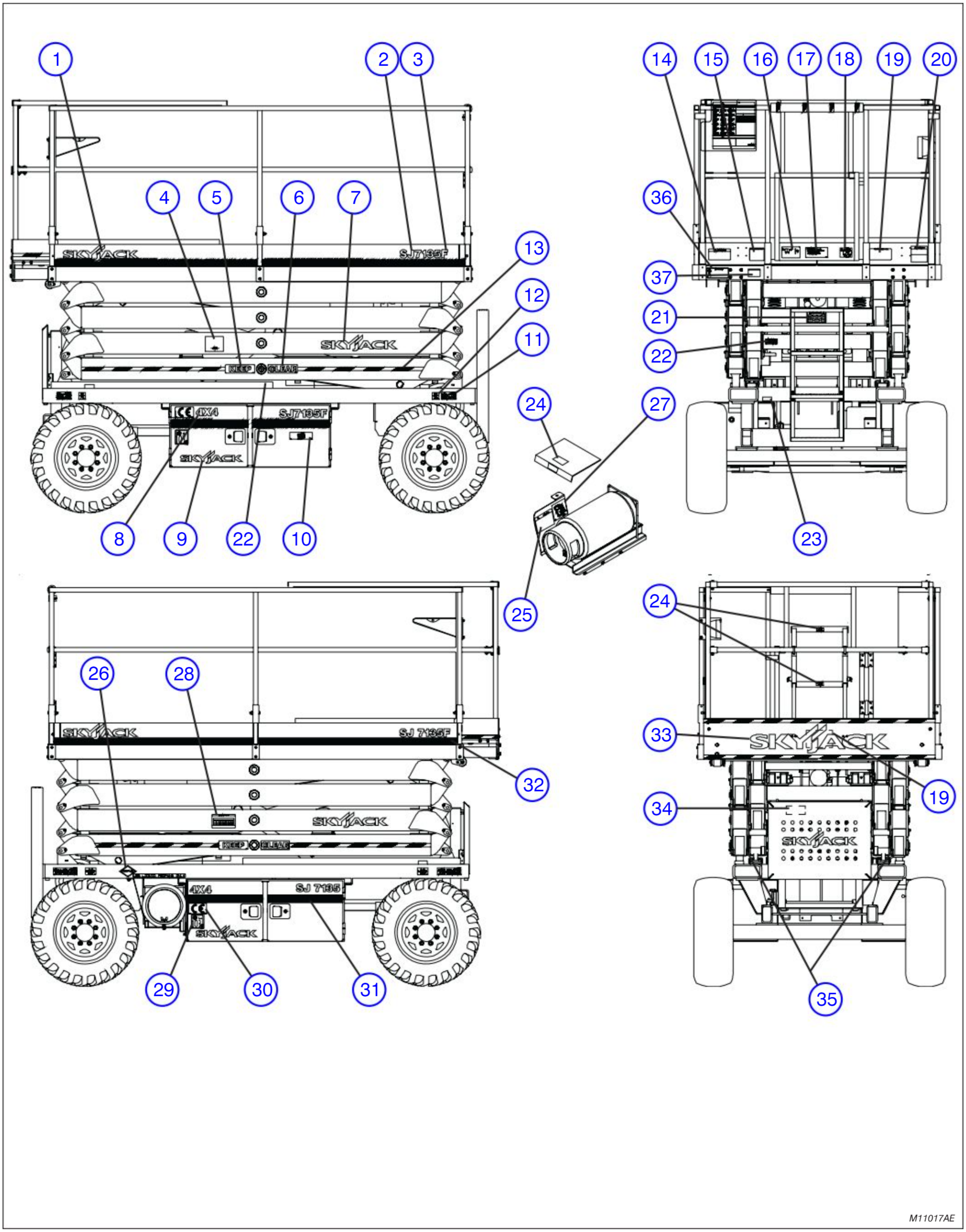


Figure 6.8-4. Labels - Chassis

Index No.	Skyjack Part No.	Qty.	Description
-	(Ref)	-	(To order a complete label kit, refer to Figure 6.8-1)
*1	129773	2	LABEL, "Skyjack" Medium all blue
2	129804	4	LABEL, "SJ-7127"
	129805	4	LABEL, "SJ-7135"
	132716	4	LABEL, "SJ-8243"
	132715	4	LABEL, "SJ-8850"
3	129824	2	LABEL, "F" **(Model 71XXF)**
*4	106406	1	LABEL, Maintenance support
*5	129838	2	LABEL, "KEEP"
*6	129839	2	LABEL, "CLEAR"
*7	129760	2	LABEL, "Skyjack" Medium
8	129810	2	LABEL, "4 x 4"
*9	129759	2	LABEL, "Skyjack" Small
*10	123628	1	LABEL, Manual Enclosed
*11	124631	4	LABEL, Wheel offset/pressure/torque pictorial
12	125024	4	LABEL, Tire pressure 70 PSI
	126928	4	LABEL, Tire pressure 75 PSI
	132736	4	LABEL, Wheel Load **(Models 7127 & 7135)**
	132737	4	LABEL, Wheel Load **(Model 8243)**
	132738	4	LABEL, Wheel Load **(Model 8850)**
13	119803	AR	TAPE, Safety Caution
*14	108666	1	LABEL, Warning label (Replacement Parts)
*15	106691	1	LABEL, Operator's Check list
*16	124465	1	LABEL, Side Force/Outdoor
*17	115982	1	LABEL, Warning! Full Torque
*18	124362	1	LABEL, Warning! Do not wear jewelry
19	130383	2	LABEL, Platform cap. 1500 (1000/500) **(Models 7127 & 7127F)**
	130366	2	LABEL, Platform capacities 1000 (650/350) **(Model 7135, 7135F & 8243)**
	130365	2	LABEL, Platform cap. 1500 (1000/500) **(Model 7127 w/otr non-marking tires)**
	130364	2	LABEL, Platform capacities 850 (600/250) **(Model 7135 w/McCrear 45 psi tires)**
	133067	2	LABEL, Platform cap. 900 (600/300) **(Model 7135 w/Goodyear Xterra tires)**
	130374	2	LABEL, Platform cap. 800 (500/300) **(Model 8850 w/Carlisle foam filled tires)**
	132717	2	LABEL, Platform cap. 1000 (650/350) **(Model 8243 w/otr air/foam non-marking tires)**
	132718	2	LABEL, Platform cap. 800 (500/300) **(Model 8850 w/otr foam non-marking tires)**
*20	106693	1	LABEL, Danger! Urethane Filled Tires
21	-	-	NAMEPLATE, Identification plate (Contact Skyjack)
*22	106705	6	LABEL, Do not alter
*23	110333	1	LABEL, Connect Platform AC Supply Here

Parts list continued on the following page.

Figure 6.8-4. Labels - Chassis (Continued)

Index No.	Skyjack Part No.	Qty.	Description
			Parts list continued from the previous page.
*24	115543	3	LABEL, No step
*25	106694	1	LABEL, Danger! Explosive Fumes
*26	120390	1	LABEL, “Propane”
*27	103023	1	LABEL, Liquid propane pictorial
*28	109985	1	LABEL, Annual Inspection
*29	128226	2	LABEL, “103 db” Noise Level **(CE)**
*30	117023	2	LABEL, “CE”
31	103110	AR	STRIPE, Red/Blue/Red
32	103125	AR	STRIPE, White/Blue
*33	129758	1	LABEL, “Skyjack” Small
*34	124883	1	LABEL, Fuel switch Sequence (Dual Fuel)
*35	124767	4	LABEL, Tie down/lift lugs pictorial
*36	146525	1	LABEL, On/Off Slab **(ANSI/CSA)**
			(Order Part # 129999 for Machines with Serial #’s 34000045 and Below)
	129772	1	LABEL, On/Off Slab **(CE)**
37	114252	1	LABEL, California proposition 65 **(ANSI/CSA)**
	132209	1	LABEL, Registration **(For Australia/New Zealand machines 71XX models)**
	145986	1	LABEL, Registration **(For Australia/New Zealand 8850 & 8243 models)**

***Included in the label kit**

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

Figure 6.8-5. Labels - Outrigger

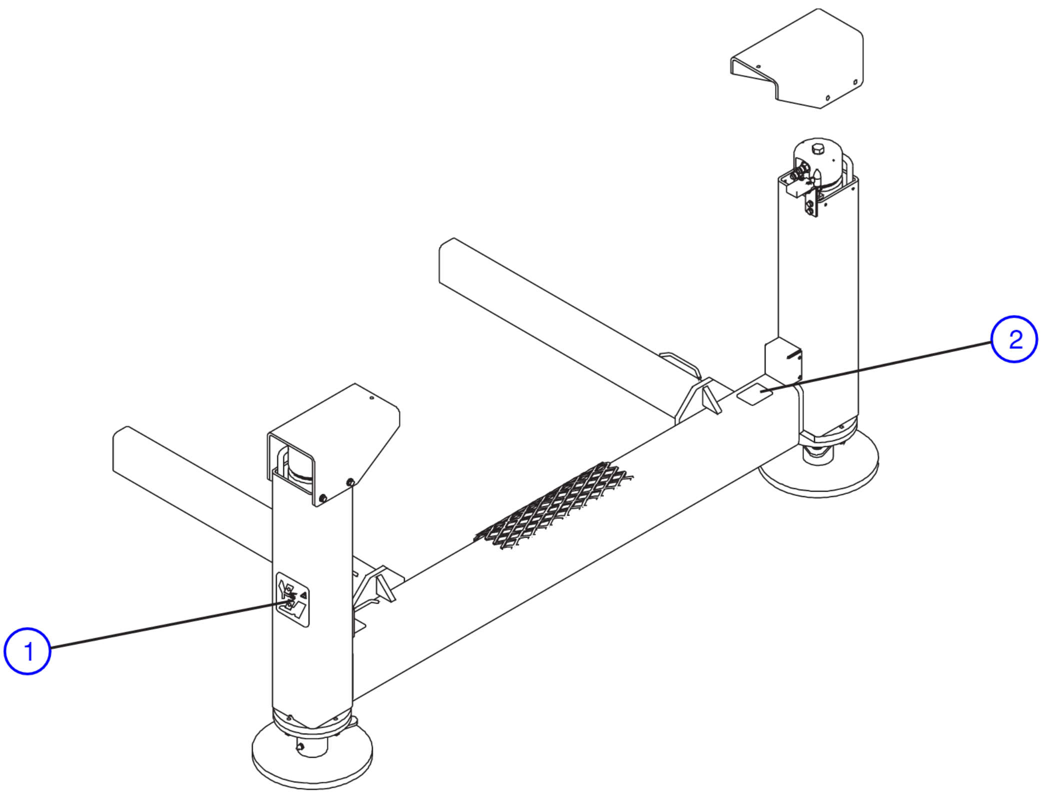


Figure 6.8-5. Labels - Outrigger

Index No.	Skyjack Part No.	Qty.	Description
1	119866	4	LABEL, Danger! Hand/foot pinch
2	106705	4	LABEL, Do not alter
			NOTE: ***Supply Model Number, Serial Number, Country and Language when ordering complete machine labels.***

Table continued on the following page.

AXLE OIL						
Axle Type		***Qty. (Liters)**	***Qty. (Gallons)**	**Oil Type**	**Skyjack Part No.**	**Recommended Equivalent Oil**
Cushman	Front	2.4	0.634	Gear Oil, 80W-90 GL5	134612	-
Dana	Front / Rear					
Cushman	Rear	1	0.264	Gear Oil, ESI 80W-90	133461	Chevron Gear Lubricant Delo ESI 80W-90, Caltex Gear Lubricant ESI 80W-90, Caltex RPM Borate EP 80W-90, Texaco Star Gear Lubricant 80W-90

CENTER DRIVE OIL					
Center Drive Type	***Qty. (Liters)**	***Qty. (Gallons)**	**Oil Type**	**Skyjack Part No.**	**Recommended Equivalent Oil**
Center Drive	1	0.26	Gear Oil, 80W-90 GL5	134612	-

HYDRAULIC OIL				
Model	***Qty. (Liters)**	***Qty. (Gallons)**	**Oil Type**	**Skyjack Part No.**
SJRT-68xx	86.88	22.95	ATF Dexron III	119309
SJRT-7127	80.48	21.26		
SJRT-7135				
SJRT-8243				
SJRT-8850				
SJRT-8831	75.71	20		
SJRT-8841				
SJRT-8831E				
SJRT-8841E				
SJRT-9250	67.38	17.8		

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

Table continued from the previous page.

<table>
<tr><th colspan="7">ENGINE OIL</th></tr>
<tr><th>Engine Type</th><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>Oil Type, Viscosity</th><th>Skyjack Part No.</th><th>Recommended Equivalent Oil (Viscosity - API Service Designation)</th></tr>
<tr><td>Kubota D902</td><td>3.9</td><td>1.03</td><td rowspan="5">Engine Oil, SAE 10W-30</td><td rowspan="4">105287</td><td rowspan="4">10W30 - API Service Designation CG-4, CF-4, CF, CD, SH.</td></tr>
<tr><td>Kubota D1105</td><td>5.1</td><td>1.35</td></tr>
<tr><td>Kubota DF972</td><td>3.4</td><td>0.9</td></tr>
<tr><td>Nissan A15</td><td rowspan="2">3.5</td><td rowspan="2">0.98</td></tr>
<tr><td>GM 1.6</td><td>142454</td><td>10W30 - API Service Designation SF/CC.</td></tr>
</table>

<table>
<tr><th colspan="5">ENGINE COOLANT</th></tr>
<tr><th>Component Type</th><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>**Coolant Type</th><th>Skyjack Part No.</th></tr>
<tr><td>Kubota D902</td><td rowspan="3">3.1</td><td rowspan="3">0.82</td><td rowspan="4">Antl-freeze / Water</td><td rowspan="4">125985</td></tr>
<tr><td>Kubota D1105</td></tr>
<tr><td>Kubota DF972</td></tr>
<tr><td>Nissan A15</td><td rowspan="2">11.4</td><td rowspan="2">3.01</td></tr>
<tr><td>GM 1.6</td><td>Extended life antl-freeze / Water</td><td>142208</td></tr>
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<table>
<tr><th colspan="8">ENGINE FUEL</th></tr>
<tr><th rowspan="2">Model</th><th colspan="2">Tank</th><th colspan="2">Diesel</th><th colspan="3">Gasoline / Liquid Propane</th></tr>
<tr><th>*Qty. (Liters)</th><th>*Qty. (Gallons)</th><th>Kubota D902</th><th>Kubtoa D1105</th><th>Kubota DF972</th><th>GM 1.6</th><th>Nissan A15</th></tr>
<tr><td>SJRT-68xx</td><td>86.88</td><td>22.95</td><td>✓</td><td>N/A</td><td rowspan="3">✓</td><td colspan="2" rowspan="3">N/A</td></tr>
<tr><td>SJRT-7127</td><td rowspan="4">80.48</td><td rowspan="4">21.26</td><td rowspan="7">N/A</td><td rowspan="7">✓</td></tr>
<tr><td>SJRT-7135</td></tr>
<tr><td>SJRT-8243</td><td rowspan="5">N/A</td><td colspan="2" rowspan="5">✓</td></tr>
<tr><td>SJRT-8850</td></tr>
<tr><td>SJRT-8831</td><td rowspan="2">49.21</td><td rowspan="2">13</td></tr>
<tr><td>SJRT-8841</td></tr>
<tr><td>SJRT-9250</td><td>64.35</td><td>17</td></tr>
</table>

*All fuel capacity quantities are in standard liter or US gallons (liquid).

**Use distilled water and 50/50 mix of anit-freeze/water.

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