

SERVICE MANUAL (ANSI)

TELEHANDLERS

MODEL ZB2044

207053AB July 15 2025

SKYJACK

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Section 1
SCHEDULED MAINTENANCE

Table of Contents

Operator's Responsibility for Maintenance

Telehandler Definition 7
Purpose of Equipment 7
Use of Equipment 7
Manual 7
Operator 7
Service Policy and Warranty 7
Optional Accessories 7
Scope of this Manual 7
Operator Safety Reminders 8
Electrocution Hazard 9
Safety Precautions 10
Maintenance and Inspection Schedule 15
Owner's Annual Inspection Record 15
Replacement Parts 15
Maintenance and Service Safety Tips 15
Hydraulic System & Component Maintenance and Repair 16
Maintenance Hints 16

Service and Maintenance

About this Section 17
Service Bulletins 17
Maintenance and Inspection 17
Maintenance Instructions 17

Tables

1.1 Maintenance and Inspection Checklist 18

Scheduled Maintenance Inspections

1.1 Scheduled Maintenance Inspections 19
1.2 Coolant Level Maintenance 27
1.3 Function Tests 28

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Table 2.1 Telehandler Specifications and Features

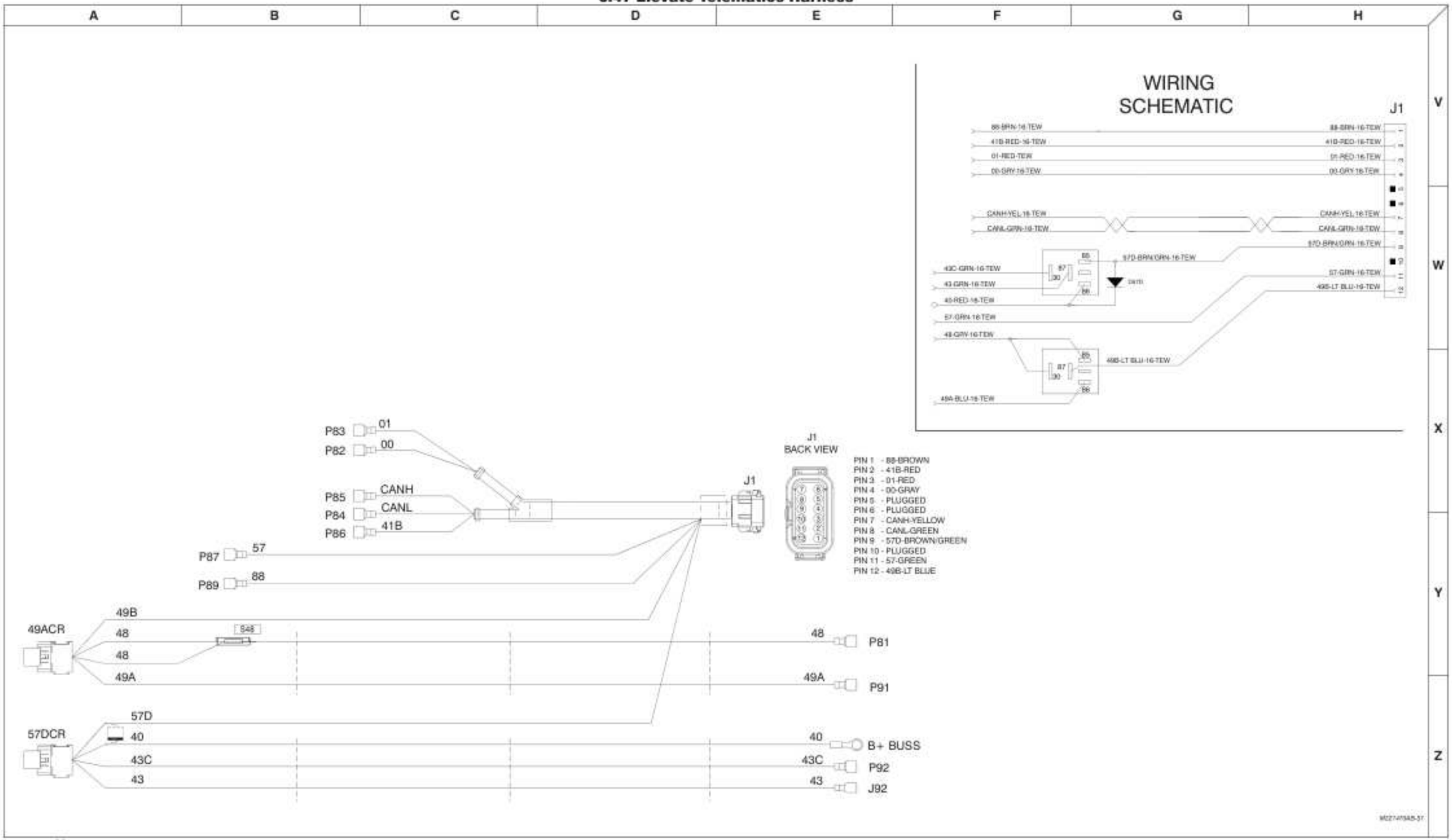
MODEL	ZB2044
Engine	
Type	Cummins Turbo Diesel QSB4.5
Cylinders	4
Capacity	275 cu. in. (4.5 Liters)
Horsepower @ 2200 RPM	110 HP
Horsepower @ 2500 RPM	173 HP
Torque @ 1500 RPM	305 lb. ft (414 N·m)
Fuel type	Ultra Low Sulfur Diesel (EN 590, ASTM D975)
Transmission	
Type	DANA T32000
Speeds forward	3
Speeds Reverse	3
Top Speed	20.5 mph (33 km/h)
Gear Ratios	
1st Gear	4.64 : 1
2nd Gear	2.23 : 1
3rd Gear	0.82 : 1
Electrical	
System voltage	12 volts negative ground
Standard Batteries	
Type	HP-31E
Quantity	2
Cranking amperes at 0°F (-17°C)	725 A
Total cranking amps at 0°F (-17°C)	1450 A
Cranking amperes at 32°F (0°C)	1100 A
Reserve capacity	180 minutes
Dimensions	
Overall length (less forks)	243 in (617 cm)
Overall width	102 in (259 cm)
Overall Height	108 in (274 cm)
Curb weight (standard machine with open cab)	45,000 lbs. (20,000 kg)
Maximum capacity	20,000 lbs. (9,071 Kg)
Wheelbase	138 in (350 cm)
Round steer turning Radius (inside)	220 in (559 cm)
Boom	
Number of sections	3
Maximum lift height	44 ft. 10 in (1366 cm)
Maximum forward reach	27 ft 5 in (835 cm)
Standard Forks	2¾ x 6 x 60 in (6.9 x 15.2 x 152.4 cm)
Carriage rollback	19°
Carriage forward tilt	80°
Operating Times	
Boom extend (at max. boom angle)	13 seconds
Boom retract (at max. boom angle)	9.5 seconds
Boom raise*	19 seconds
Boom lower*	20 seconds
Carriage roll forward	12 seconds
Carriage roll back	12 seconds
Frame level right (stop to stop) **	15 - 20 seconds
Frame level left (stop to stop) **	15 - 20 seconds

238D

* Measured with boom fully retracted.

** Under no circumstances should the frame level cycle take less than 15 seconds to complete in either direction.

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Error Messages - Cummins QSB Engines - T4F - Continued

Fault Code (lamp flash)	J1939 SPN	J1939 FMI	Lamp Color	J1939 SPN Description	Cummins Description
6539	4765	2	None	Aftertreatment Diesel Oxidation Catalyst Intake Temperature	Aftertreatment 1 Diesel Oxidation Catalyst Intake Temperature - Data erratic, intermittent or incorrect
6551	3610	3	Amber	Aftertreatment Diesel Particulate Filter Outlet Pressure	Aftertreatment 1 Diesel Particulate Filter Outlet Pressure Sensor Circuit - Voltage above normal, or shorted to high source
6556	729	3	None	Engine Intake Air Heater Driver #1	Engine Intake Air Heater 1 Circuit - Voltage above normal, or shorted to high source
6557	729	4	None	Engine Intake Air Heater Driver #1	Engine Intake Air Heater 1 Circuit - Voltage below normal, or shorted to low source
6559	3031	4	None	Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature	Aftertreatment 1 Diesel Exhaust Fluid Tank Temperature Sensor - Voltage below normal, or shorted to low source
6562	1761	11	None	Aftertreatment 1 Diesel Exhaust Fluid Tank Level	Aftertreatment 1 Diesel Exhaust Fluid Tank Level Sensor - Root Cause Not Known
6563	976	2	None	PTO Governor State	Auxiliary Intermediate (PTO) Speed Switch Validation - Data erratic, intermittent or incorrect
6565	3226	10	None	Aftertreatment 1 Outlet NOx	Aftertreatment 1 Outlet NOx Sensor - Abnormal rate of change
6568	3695	2	None	Aftertreatment Regeneration Inhibit Switch	Aftertreatment Regeneration Inhibit Switch - Data erratic, intermittent or incorrect
6569	4363	3	None	Aftertreatment 1 SCR Catalyst Outlet Gas Temperature	Aftertreatment 1 SCR Outlet Temperature Sensor Circuit - Voltage above normal, or shorted to high source
6571	4363	4	None	Aftertreatment 1 SCR Catalyst Outlet Gas Temperature	Aftertreatment 1 SCR Outlet Temperature Sensor Circuit - Voltage below normal, or shorted to low source
6581	5031	10	None	Aftertreatment 1 Outlet Gas NOx Sensor Heater Ratio	Aftertreatment 1 Outlet NOx Sensor Heater - Abnormal rate of change
6597	6928	31	Amber	SCR System Cleaning Inhibited Due to System Timeout	SCR System Cleaning Inhibited Due to System Timeout - Condition Exists

284A-17

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Table 2.5 Pressure Settings

Models ZB2044			
Maximum Pump Pressure	P1		3150 psi
	P2		3200 psi
Stand-by Pump Pressure	P1		500 psi
	P2		550 psi
Lift	Maximum pump pressure controlled		3200 psi
			3200 psi
Extension	Maximum pump pressure controlled		3200 psi
			3200 psi
Carriage Tilt Cylinder	Port Relief	Rod End	3100 psi
		Base End	1500 psi
	Crossover Relief	Rod End	3400 psi
		Base End	1800 psi
Frame Level Cylinder	Port Relief	Rod End	1500 psi
		Base End	1500 psi
Auxiliary Hydraulics	Port Relief	Rod End	2000 psi
		Base End	2000 psi
Outrigger	Port Relief	Rod End	2500 psi
		Base End	2500 psi
Pressure Reducing Valve	Pilot Pressure		325 psi
Priority Valve Pressure Relief	Steering Pressure		2800 psi

Note: all pressure settings to be checked at idle

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Safety Precautions (Continued)

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

- **DRIVE UPHILL LOADED**. When holding a load, driving uphill decreases potential for load to slip out.



- **ALWAYS LEVEL FRAME** before elevating the boom



- **WHEN TRANSPORTING LOADS** fully retract the boom, keep the load low to the ground and forks tilted back slightly. This is the most stable position possible for the vehicle.



- **KEEP** forks close to the ground when in motion to increase telehandler stability and decrease potential for injury to others. When fully stopped, lower forks completely to the ground.



- **TILT** forks backwards slightly when traveling to decrease potential of load slipping off.



- **SECURE** loose loads with chains or straps to decrease potential of spills or injury to others.



- **TETHER LOADS** that may swing, keeping them close to the ground. Provide ample clearance for personnel to guide the load safely.



- **SLINGING LOADS** is acceptable only when the load is appropriately attached to a jib boom or the throat of a tilted fork, and the precautions outlined in Section 2.14-5 of the operating manual are followed.



- **BE AWARE** of the telehandler's travel envelope, especially when turning. Keep sufficient clearance at all times between the telehandler and any obstacles or people.



- **KEEP OTHERS AWAY** at all times during operation.



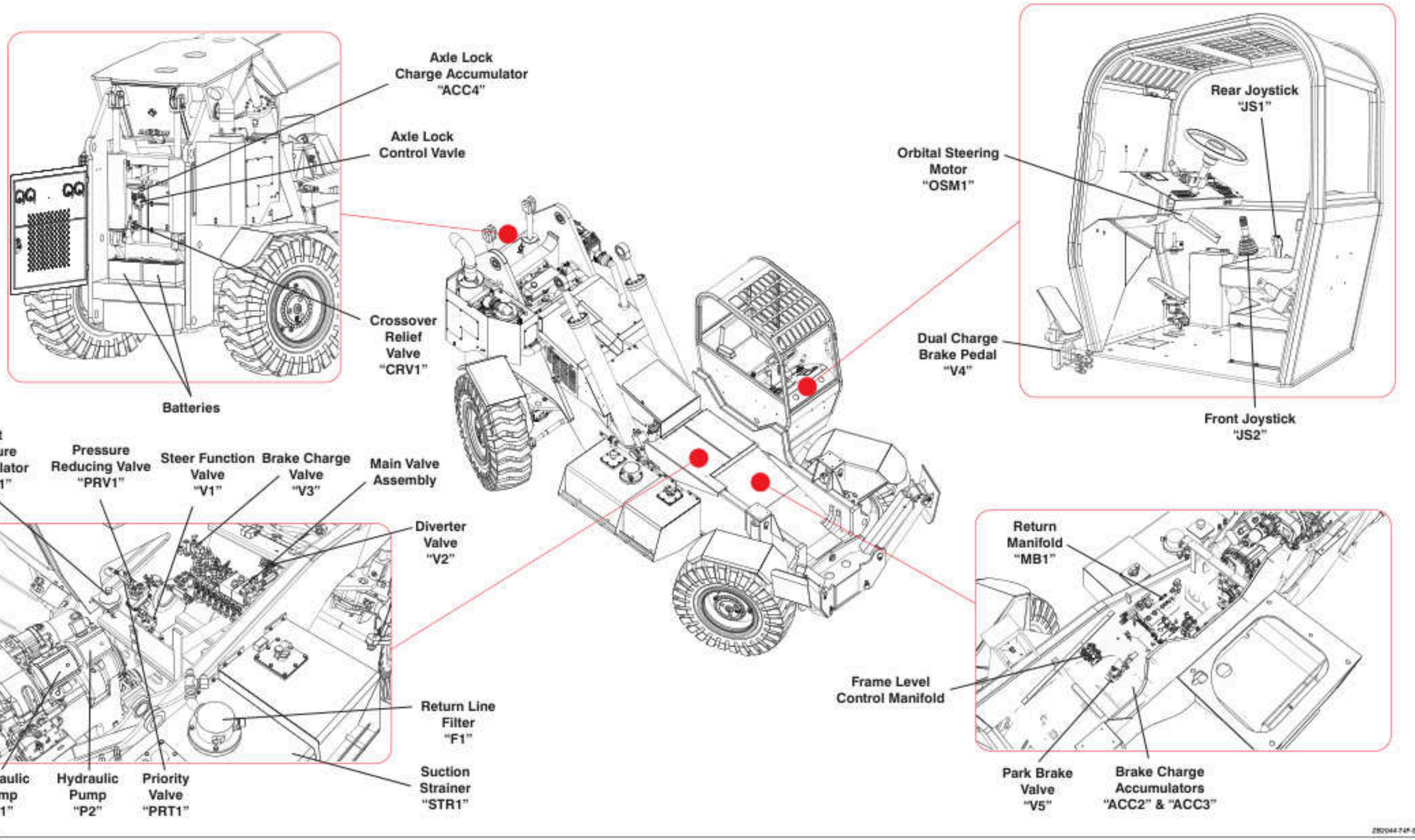
- **CHECK** lights (if equipped) for proper function before operating.



- **ENSURE ALL** tires are in good condition and lug nuts are properly tightened.

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3.17 Hydraulic Manifolds Location



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