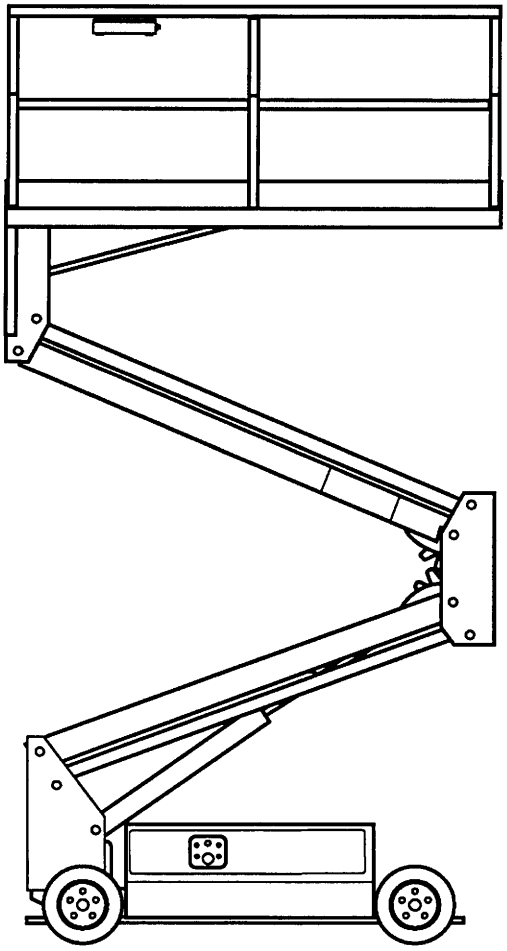
FALCON
2548
VERTICAL LIFT

SERVICE MANUAL

For Service Concerns Only:
Direct Phone Line to
Service Department,
8:00 AM to 5:00 PM
Central Time,
Monday thru Friday.

Phone (414) 355-3181



Art #A00.00029 E

Part No. 89-755007 • Initial Issue, dated December, 1992 •

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To adjust the Drive/ Lift valve:

1. Install a pressure gauge in Port DG.
2. Loosen lock nut.
3. Lift the platform fully in low speed, while continuing to dead head lift, and use a hex key to adjust pressure. Backing out hex socket screw decreases pressure set to unlock valve.
4. Tighten lock nut.

To set the Steer relief valve:

1. Install a pressure gauge in Port SG.
2. Loosen lock nut.
3. Steer fully in either direction. While continuing to dead head steer, use a hex key to adjust pressure. Backing out hex socket screw decreases pressure set to unlock valve.
4. Tighten lock nut.

LIFT VALVE

This valve, located in port V1 on the control assembly, is a solenoid-operated, 4-way, direct-acting valve. It is a screw-in, cartridge-style, and spool-type valve. When lifting this valve directs flow to the lift cylinder. When driving, this valve directs flow to the drive circuit. When lowering the platform, this valve directs flow from the cylinder through restricter (FR1) at a rate of 3.0 GPM. There are no adjustments to this valve, but the solenoid can be replaced if it malfunctions. A seal kit is also available.

HIGH SPEED DRIVE VALVE

This valve, located in port SV2 on control assembly, is a solenoid-operated, 3-way, spool-type valve. It is a screw-in, cartridge-style valve used to allow hydraulic fluid to drive rear hydraulic motors. In one position it allows high speed, while in the other position it directs flow through a restricter (FR2) which decreases flow to 1.3 GPM (creep speed). It requires no adjustments, but the solenoid can be replaced if it malfunctions.

DIRECTIONAL DRIVE VALVE

This valve, located mounted on top of the control assembly, is a solenoid-operated, 4-way, 3- position, spool-type valve. It allows hydraulic fluid to drive rear hydraulic motors. In one position it drives the hydraulic motors in the forward direction, while in the other position it drives the hydraulic motors in reverse. It requires no adjustments, but the solenoids can be replaced if it malfunctions.

MECHANICAL COMPONENTS

Following is a description of the major mechanical components of the Falcon 2548.

UNDERCARRIAGE

Two removable covers are used to protect the items mounted on the undercarriage.

⚠ CAUTION

When steam cleaning the undercarriage, cover the electrical components, to prevent water damage.

Steam clean the undercarriage once a year, and inspect all welds and brackets. Check for cylinder pins that turn in their mountings, which will indicate sheared pin lock pins.

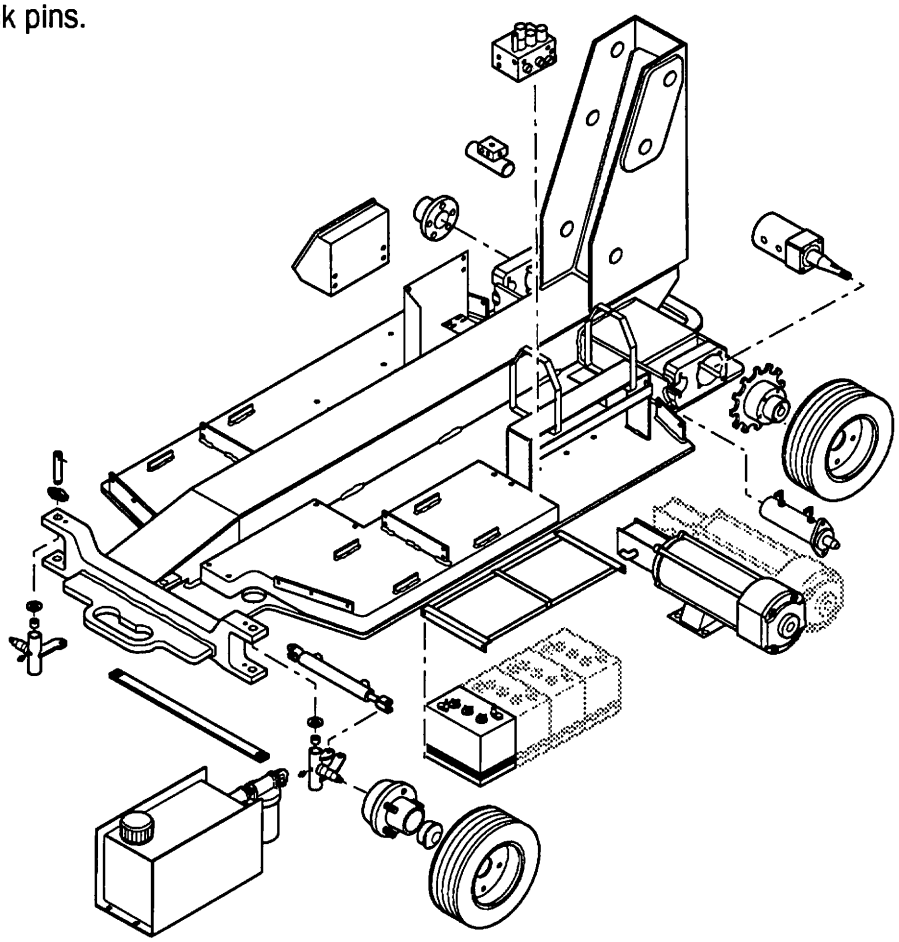
TIRES

The Falcon 2548 uses 5.0" x 8-3.75" (127 mm x 203.4 mm-95.3 mm) solid rubber tires. Inspect tires for cuts, chunking, sidewall damage or abnormal wear. Any tire faults MUST BE CORRECTED before further machine operation.

CHANGING TIRES

When a tire change is necessary, ALWAYS BLOCK THE WHEELS before you raise the machine. Loosen and remove lug nuts (bolts on rear tires), and pull off the wheel. nstall the replacement wheel. Fasten lug nuts or bolts, and tighten to proper torque (see Machine Specifications). Lower the machine and remove the blocks.

WHEELS AND LUG NUTS



Components Found on the Undercarriage.

TROUBLESHOOTING CHART (CONTINUED)

Problem	Probable Cause	Solution
• No high speed function for lift or drive.	• Emergency Stop Button, Key Switch, High/ Low Speed Toggle Switch, high speed coil, high speed valve, no pump output, only one pump functional.	• A breakdown of any one of these components will cause the high speed function to be inoperable.
• No high speed function for drive only.	• Pressure switch.	• Check pressure switch by wiring around component, and replace if faulty.
• Movement alarm will not sound.	• Movement alarm relay, or the travel alarm itself is faulty.	• A breakdown in any one of these components will cause the alarm not to function. Trace the available voltage to the horn. Replace the component(s) that are bad.
• Lift cylinder drifts down.	1. Holding valve cartridge dirty or faulty. 2. Cylinder packing is damaged. 3. Manual release knob not fully engaged.	1. Clean, repair or replace the holding valve. 2. Replace cylinder packing. 3. Reseat manual release knob.

APPENDIX