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OWNER'S MANUAL

MODEL BZLTT GROUND-CLEARANCE LIFT-AND-TILT TABLE

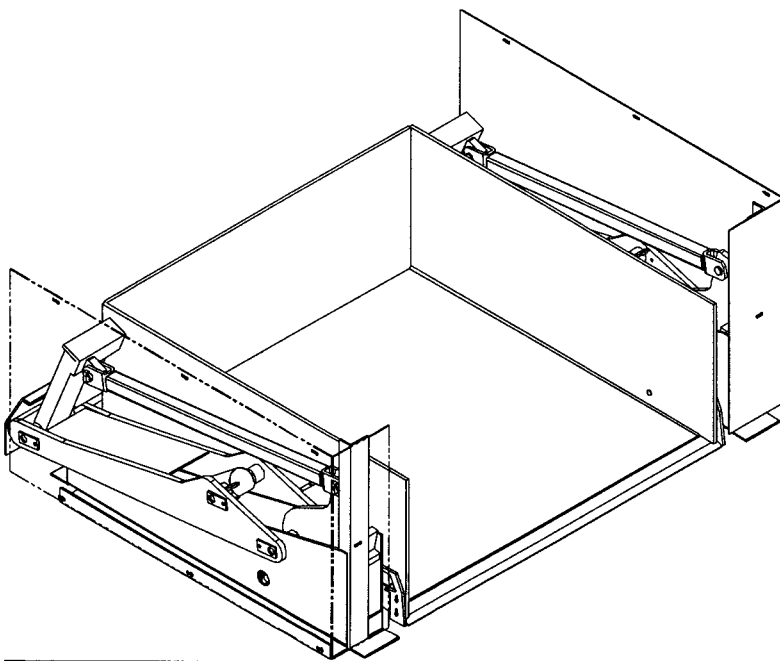
Serial number: _____

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WARNINGS AND SAFETY INSTRUCTIONS

Ensure that all employees understand and follow the following.

- Read and understand the owner's manual before using or servicing the lift.
- The load must be removed and the platform fully lowered before any work is performed on the lift.
- Ensure that all safety and warning labels stay in place and are legible.
- Do not use the lift if any damage or unusual noise is observed.
- Always watch the platform and the container carefully when the lift is in operation.
- Do not perform any modifications to the lift without the manufacturer's approval. Failure to receive authorization for changes to the equipment could void the warranty.
- Maintenance and repairs are to be done only by personnel qualified to perform the required work.
- Do not use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100° F, (ISO 32 cSt @ 40° C), or Dexron transmission fluid.



WHEN ORDERING

REPLACEMENT PARTS:

We take pride in using quality parts on the equipment we manufacture. We are not responsible for equipment problems resulting from the use of unapproved replacement parts.

To order replacement or spare parts for this equipment, contact the factory.

In any communication with the factory please be prepared to provide the machine's serial number, which is indicated on the machine dataplate.

RECEIVING INSTRUCTIONS

Every unit is thoroughly tested and inspected prior to shipment. However, it is possible that the unit could incur damage during transit.

Inspect the unit closely when it arrives. *If you see evidence of damage or rough handling to either the packaging or to the product when it is being unloaded, immediately make a note of it on the Bill Of Lading!*

It is important that you remove the product's packaging upon its arrival to ensure that there is no concealed damage or to enable a timely claim with the carrier for freight damage.

Also, verify that the product and its specifications are as ordered.

INSTALLATION INSTRUCTIONS – MODEL BZLTT

Review this entire page before installing the lift. Consult the factory in the event there are any questions or problems at the time of installation.

The lift-and-tilt table must be removed from the shipping wood and securely anchored to the floor before use!

- The standard model ground-clearance lift-and-tilt table is suitable for use indoors in most industrial locations and many commercial locations, and is typically provided as a turnkey system. Anchoring the unit to the floor and an electrical supply to the remote power unit is typically all that is required for installation.
- Modifications or additions to the lift without prior manufacturer's authorization may void the lift's warranty (see ANSI MH29.1, Safety Requirements for Scissor Lifts, section 12.6.) The addition of ancillary equipment to the platform may necessitate that its load capacity be reduced.
- The installation must be made so that it complies with all the regulations applicable to the machine and its location. The end-user must verify that the supplied equipment is installed so it will be suited to the environment in which it will be used.
- Installation must be performed by suitably trained personnel with access to the appropriate equipment. The electrical aspects of the installation should be performed by an electrician.

For a standard installation you will need the following:

1. A smooth, level concrete surface on which to mount the lift.
2. A fork truck with fork extensions, or a hoisting means to unload the lift and its power unit from the freight truck and set it into place.
Caution: To prevent damage to the unit, careful consideration must be used when choosing a lifting method.
Note: *The unit must only be lifted when in the level and fully lowered position and fully supported underneath, across its width.*
3. Concrete anchors, a masonry drill, a masonry bit, hand tools, grout, steel shims, and tools to square up the frame before anchoring. Consult the building's architect or facility engineer to determine the best size and type of hardware with which to anchor the machine to the floor.
4. A power supply circuit and disconnect matching the motor voltage and current requirements. Refer to the labels on the control enclosure and to the electrical section in this manual for more information. The end-user is responsible for supplying the branch circuit's required overcurrent and short-circuit protection.

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1. Move the lift into place with forks placed under the unit's frame from the side. Use fork extensions if necessary. Use care to avoid damage to the electrical and hydraulic components mounted to the lift.
Note: *The lift must only be lifted when in the lowered position and fully supported underneath, across its width.*
 2. Temporarily connect the power supply to the pigtail cord supplied with the table, and raise the platform so the table's safety maintenance props can be utilized. Lower the platform so the unit is supported by the props.
 3. Square the frame to ensure the frame sides are parallel and square with each other.
 4. Use appropriate concrete fasteners to anchor the lift's frame to the floor, at each corner.
 5. Shim and/or grout under the full length of the frame sides.
 6. Make permanent connection to the power supply, using an appropriate wiring method.
 7. Raise and tilt the unit through several full up/down cycles. Verify that the upper travel limit switches (lifting and tilting) and the toe guard switch function properly.
 8. Check the hydraulic oil level. It should be filled to within 1" to 1½" of the reservoir's fill hole. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F (ISO 32 at 40°C) or a non-synthetic automatic transmission fluid.
 9. Clean up any debris or spilled oil, and verify that all of the warning and safety labels are intact.

WARNINGS AND SAFETY INSTRUCTIONS, MODEL BZLTT

Ensure that all employees understand and follow the following instructions.

- Read and understand the owner's manual before using or servicing the lift.
- The load must be removed from the platform and the maintenance props installed before any work is performed on the lift.
- Ensure that all safety and warning labels stay in place and are legible. See the labels page in this manual.
- The lift's frame must be securely anchored to the floor. See the installation instructions.
- Do not use the lift if any damage or unusual noise is observed.
- Always watch the lift and any load on it carefully when it is in operation.
- The platform's load must be centered and evenly distributed on the platform.
- Do not perform any modifications to the lift without the manufacturer's approval. Failure to receive authorization for changes to the equipment could void the warranty.
- Maintenance and repairs are to be done only by personnel qualified to perform the required work.
- Do not use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 @ 40°C), or a non-synthetic automatic transmission fluid.
- Use only replacement parts either supplied or approved by the manufacturer.

OPERATION INSTRUCTIONS – MODEL BZLTT

- *Ensure that all employees involved in the operation of this lift-and-tilt understand and follow these instructions!*

Loading:

The load rating, in pounds, is shown on the machine dataplate located on the torsion rod at the operator's right side corner. It indicates the net capacity of the BZLTT with the load centered and evenly distributed.

Warning: The vertical center-of-gravity of the load on the platform should be at least 12" inside the main box pivot point when the platform is tilted.

Note: The addition of any ancillary equipment to the platform by third parties must be taken into account when determining the maximum working load.

Warning: Do not exceed the platform's load ratings. Permanent damage to the equipment or injury to personnel could result from exceeding the listed capacity.

Operation:

Inspect the perimeter pinch point guards' operation daily.

Warning: Keep all personnel clear of the machine when it is in operation. Be certain no part of any person or object is under any part of the platform before lowering the unit.

Caution: Always carefully watch the platform and any load on it when it is in operation.

The ground-clearance lift-and-tilt table is furnished with either a constant-pressure (dead-man style) pushbutton (standard) or dual twin foot switch (optional) control.

Pressing either the "LIFT RAISE" or "TILT RAISE" pushbutton or foot switch will turn on the power unit to raise or tilt the platform, respectively. The platform will move only while the control is pressed. Upon releasing the control, the platform will stop and hold its position.

Pressing the "LIFT LOWER" or "TILT LOWER" pushbutton or foot switch will energize the corresponding lowering valve to allow the platform to descend by gravity (the motor does not run). Again, releasing the control will stop the platform movement, and the unit will hold its position.

Caution: Never use the lift if any damage or unusual noise is observed, if it is in need of repairs, or if it seems to be malfunctioning. Notify your supervisor or maintenance personnel if you notice anything out of the ordinary.

Ensure that all safety and warning labels stay in place and are legible. Refer to the labels page in this manual.

ROUTINE MAINTENANCE & SAFETY CHECKS – BZLTT

- *Warning: Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work.*
- *Warning: Raise the platform and install the maintenance props before beginning any inspections or work on the unit.*
- *Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits should attempt troubleshooting and repair of this equipment.*

(A) Before each use inspect for the following:

- 1.) Frayed wires.
- 2.) Oil leaks.
- 3.) Pinched or chafed hoses.
- 4.) Damage or structural deformation to the structural members, cylinder brackets, etc.
- 5.) Unusual noise or binding, or evidence thereof.
- 6.) Proper functioning of all limit switches, including those on the loading-side pinch point guard or photoswitch.

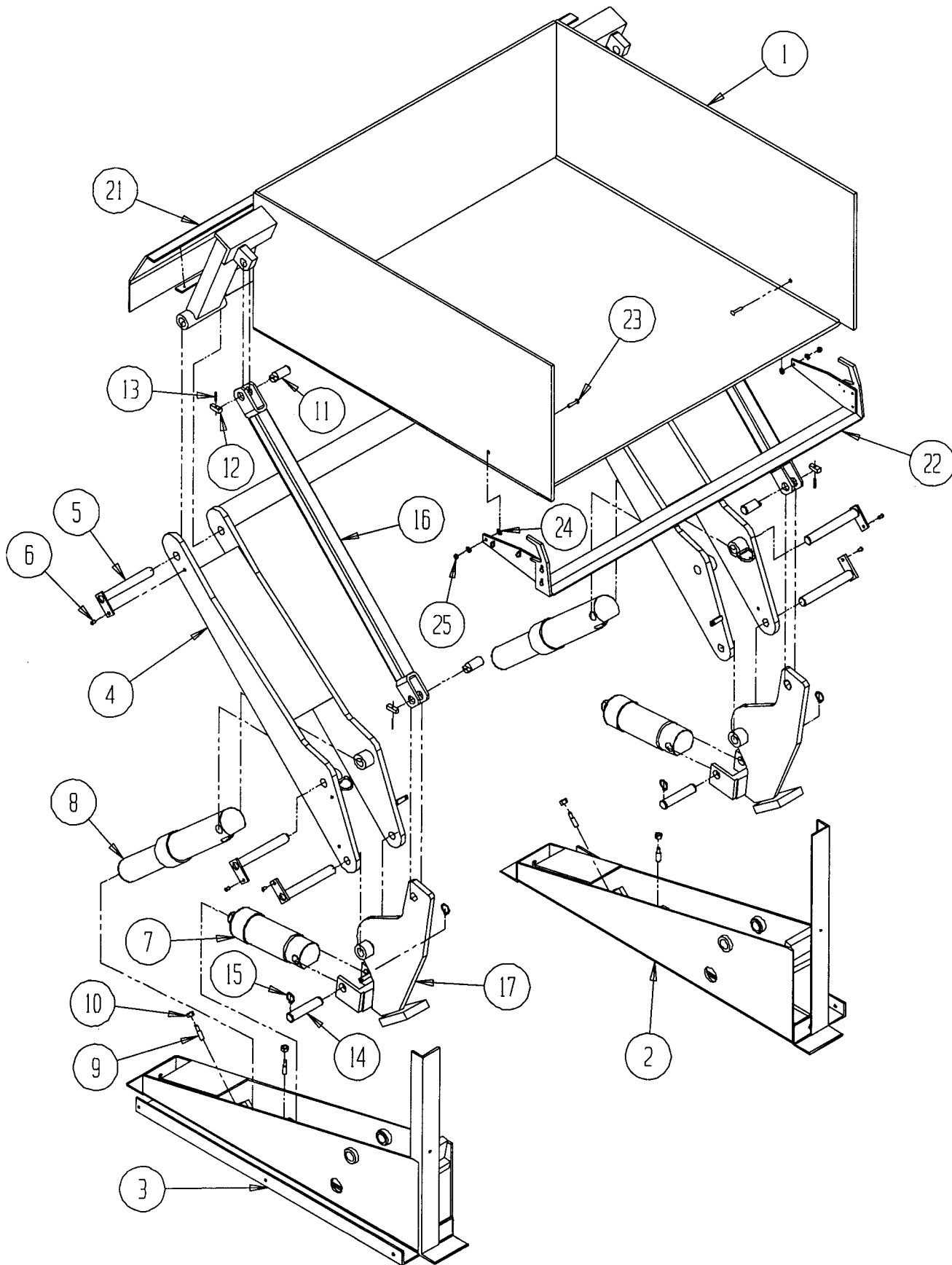
(B) Inspect monthly for:

- 1.) The oil level. Oil should be 1½” to 2” below the reservoir’s fill hole with the lift in the fully raised position. See below for oil specification.
- 2.) Worn or damaged hydraulic hoses and electrical wires.
- 3.) Pivot point wear.
- 4.) Rollers’ looseness and wear.
- 5.) Integrity of the retaining rings on all rollers and on all pivot point pins.
- 6.) The integrity of the frame anchor bolts, and for cracks in the concrete around them.
- 7.) Proper functioning of any hand- or foot-operated mechanisms.
- 8.) Unusual noises or movement during operation.
- 9.) All the information, safety, and warning labels being in place and in good condition.
- 10.) The need to clean off dirt and debris.

(C) Yearly inspection

The oil should be changed if the oil darkens, becomes gritty, or turns a milky color (indicating the presence of water). Replace with an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 at 40°C). Ex: AW 32 or HO 150 hydraulic oil, or a non-synthetic transmission fluid. You may use a synthetic transmission fluid if you flush the system with the synthetic fluid before filling the reservoir.

EXPLODED PARTS VIEW AND BILL OF MATERIALS -- MODEL BZLTT



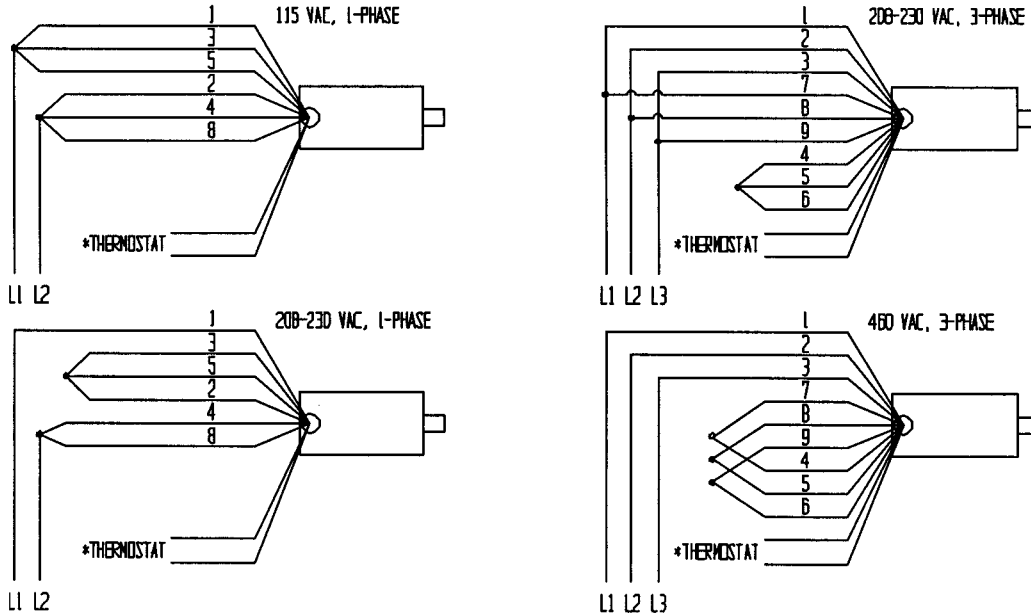
BILL OF MATERIALS -- MODEL BZLTT

25	N/A	NUT, HEX, NYLOCK, ϕ 5/16 - 18 UNC	2
24	N/A	WASHER, FLAT, 5/16 I.D.	4
23	N/A	BOLT, CARRIAGE, ϕ 5/16 - 18 UNC x 1 1/2 LG, ZINC PLATED	2
22	04-515-031	TOE GUARD WELDMENT	1
21	04-024-019	GUARD/ COVER PVC 16 GA. x 12 x 74 LG.	1
20	04-024-013	SHROUD / COVER OPTIONAL 10 GA. x 22 x 54 LG. (NOT SHOWN)	2
19	N/A	SCREW, SELF TAPPING 5/16 - 18 UNC x 1/2 LG. (NOT SHOWN)	12
18	04-024-012	SHROUD / SIDE COVER, FORMED (NOT SHOWN)	2
17	04-514-024	FRAME, ASSEMBLY PIVOT ARM	2
16	04-514-023	FRAME, ASSEMBLY LINKAGE ARM	2
15	15-117-001	SNAP RING, TRIARC NO. 5100-112	4
14	15-112-002	PIN, CYLINDER (TM) ϕ 1 1/8 x 5.28 LG.	2
13	N/A	PIN, ROLL PIN, ϕ 3/16 x 1 1/4 LG. (FN64135)	4
12	01-020-003	BOSS, PIN 1/2 x 1/2 x 1 1/2 LG.	4
11	01-112-008	BOLT, CYLINDER RETAINING	4
10	N/A	NUT, JAM 1/2 - 13 UNC	4
9	01-118-001	BOLT, CYLINDER RETAINING	4
8	99-021-901	CYLINDER 3 x 10	2
7	99-021-907	CYLINDER 3 x 7	2
6	N/A	SCREW, SELF TAPPING, 5/16 - 18 UNC x 1/2 LG.	6
5	04-612-006	PIN, RETAINING SUBASSEMBLY	6
4	N/A	RIGHT AND LEFT SIDE LEG WELDMENT WITH CROSSBAR	2
3	04-514-027	FRAME, WELDMENT RIGHT SIDE	1
2	04-514-026	FRAME, WELDMENT LEFT SIDE	1
1	N/A	DECK WELDMENT, W/TOE GUARD	1
ITEM NO.	PART NO.	DESCRIPTION	QTY.

MOTOR & TRANSFORMER CONNECTION DIAGRAMS

CAUTION! *If the motor voltage is changed, the wire on the control transformer's primary wire has to be changed to match the new motor voltage also.*

MOTOR LEAD CONNECTION DIAGRAM FOR ALL
.5HP, .75HP AND 3HP SINGLE-PHASE MOTORS AND FOR
ALL 2HP, 5.5HP, AND 6.5HP THREE-PHASE MOTORS

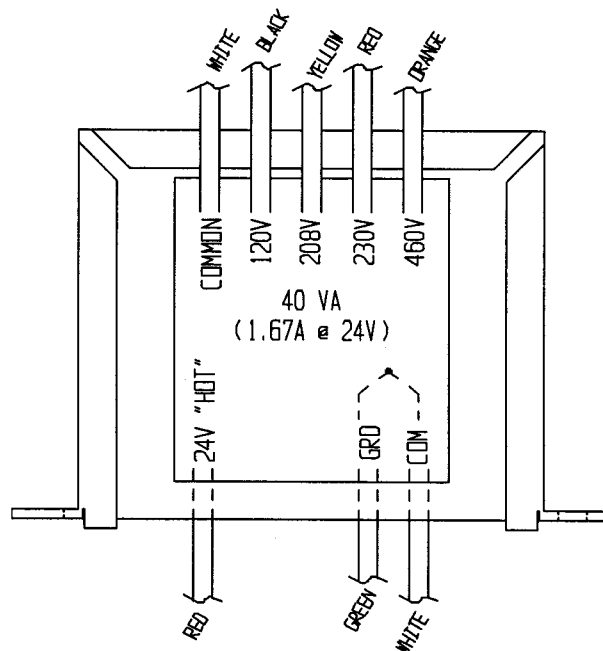


* The two thermostat leads go to: 1) the grounded side of the transformer secondary, and; 2) the motor relay coil, in either order.



BE SURE ALL POWER IS OFF BEFORE ATTEMPTING TO WORK ON THIS EQUIPMENT!

CAUTION: SERVICE WORK SHOULD BE PERFORMED ONLY BY TRAINED & QUALIFIED PERSONNEL.



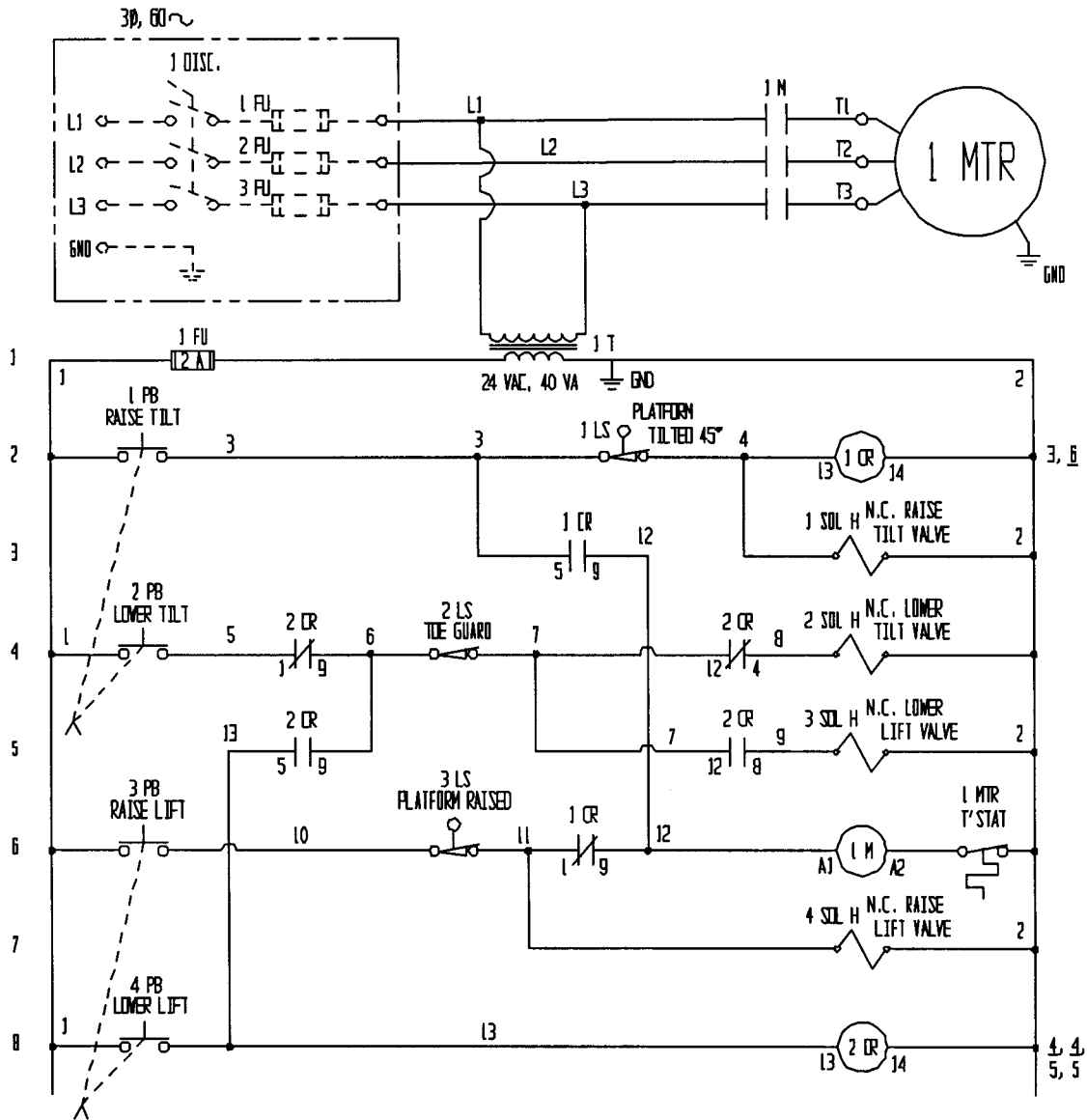
ELECTRIC / HYDRAULIC BOM -- MODEL BZLTT

Item #:	Qty.:	Part number:	Part description:
		Electrical parts:	
1	1	01-135-xxx	Motor, varies by request; consult factory
2	1	LC1-D1810-24V	Motor contactor, 30A, w/ 24 VAC coil
3	1	01-129-001	Transformer, control; w/ 24 VAC secondary
4	1	AGC 2	Fuse, for control circuit
5	1	01-029-006	Enclosure, control, 6" x 6" x 4" D
6	4	99-034-008	Solenoid coil, 24 VAC
7	4	01-533-xxx	Connector cord, for solenoid coil; can vary by model
8	1	01-029-025	Pushbutton control, 4-button
9	1	99-033-911	Cord, 18/5, 8' long
10	1	A-402DSC	Enclosure, junction box, 2" x 2" x 4" D
11	2	01-022-001	Switch, limit, roller-arm (N.C.)
12	1	01-022-022	Switch, micro (front toe guard)
		Hydraulic parts:	
13	1	99-153-005	Valve, relief, 210 bar
14	4	99-153-015	Valve, solenoid, N.C.
15	2	99-153-011	Valve, check
16	2	99-153-041	Flow control spool, 3 gpm
17	2	99-021-901	Cylinder, lift, displacement-style, 3" x 10"
18	2	99-021-907	Cylinder, tilt, displacement-style, 3" x 7"
19	1	99-127-005D	Manifold, zero lift-and-tilt
20	1	01-143-xxx	Pump, hydraulic, varies by voltage; consult factory
21	1	04-023-001	Reservoir, 6" x 6" x 16"
22	1	DPS-40-N06	Breather plug
23	1	01-031-005	Fitting, intake screen
24	2	HO 150	Hydraulic fluid (gallons)

ELECTRICAL DIAGRAM -- MODEL BZLTT

- *Warning: Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. The platform must be fully lowered and resting on the floor, and the system pressure and power supply must be removed, before attempting to work on any part of the hydraulic system!*
- *Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits should attempt troubleshooting and repair of this equipment*

OVERCURRENT & SHORT-CIRCUIT PROTECTION, AND DISCONNECT ARE TO BE PROVIDED BY THE END-USER PER THE NEC (NFPA 70) AND LOCAL CODES.

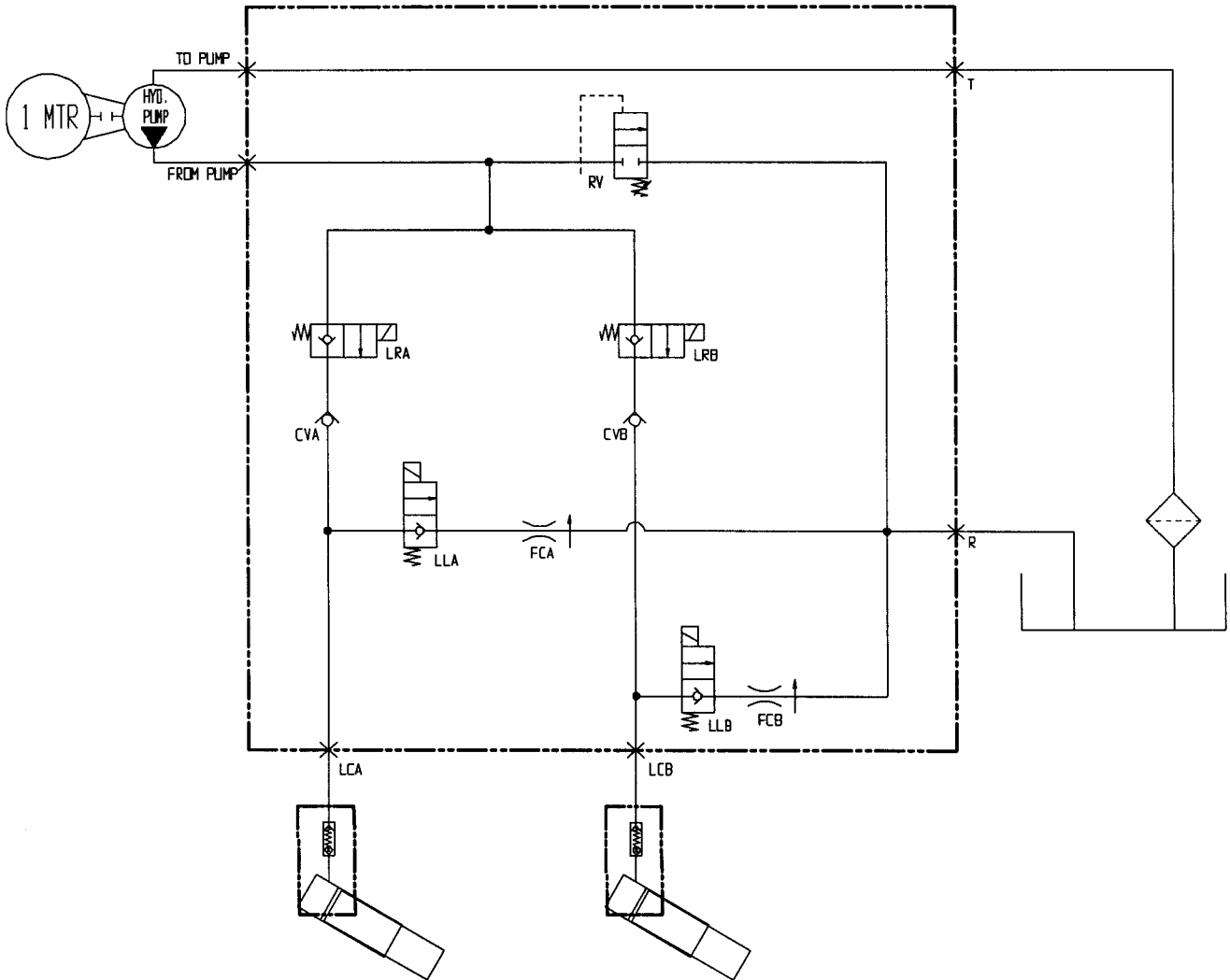


BE SURE ALL POWER IS OFF BEFORE ATTEMPTING TO WORK ON THIS EQUIPMENT!

CAUTION: SERVICE WORK SHOULD BE PERFORMED ONLY BY TRAINED & QUALIFIED PERSONNEL

HYDRAULIC DIAGRAM – MODEL BZLTT

- *Warning: Care should be taken to identify all potential hazards and comply with applicable safety procedures before beginning work. The platform must be fully lowered and resting on the floor, and the system pressure and power supply must be removed, before attempting to work on any part of the hydraulic system!*
- *Only qualified individuals trained to understand mechanical devices and their associated electrical and hydraulic circuits should attempt troubleshooting and repair of this equipment*



Caution: Do not use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity of 150 SUS at 100°F (ISO 32 @ 40°C), or non-synthetic transmission fluid.

