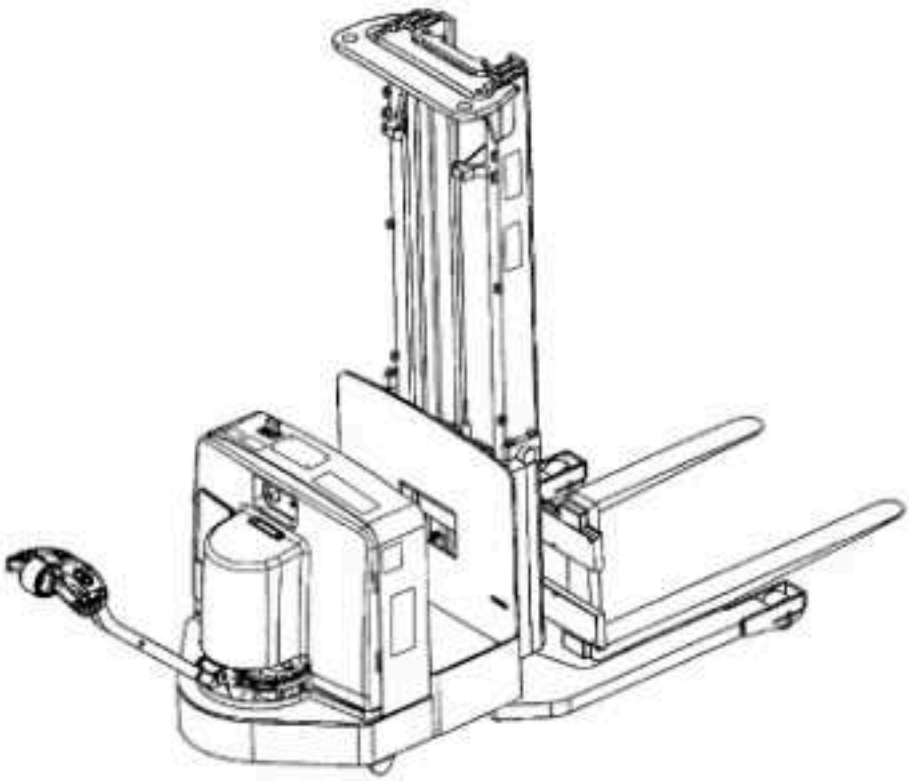
SERVICE MANUAL

B455 (W20-30ZR)



FORM 1524247-B455 Rev. 07/14

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This section is for the following models:

All Electric Lift Trucks

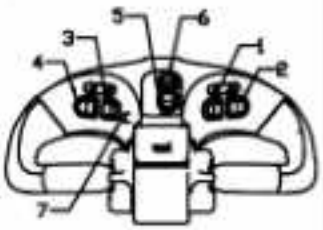
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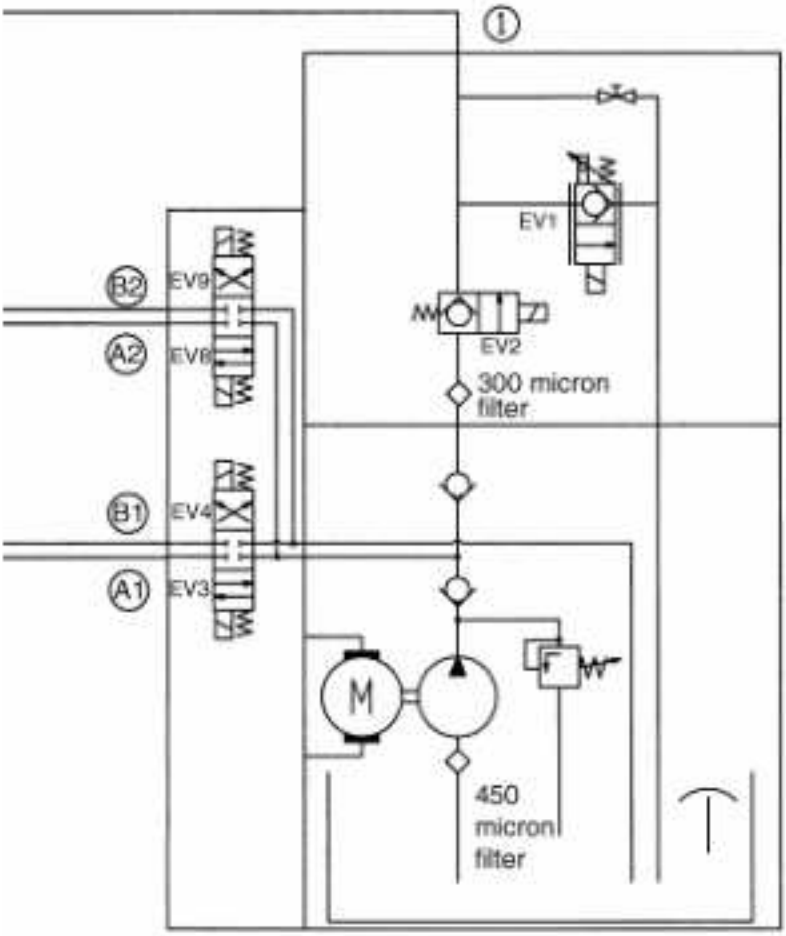
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C/B STACKER WITH SIDESHIFTER & AUX											
PUSH BUTTON	FUNCTION	PUMP	EV1	EV2	EV3	EV4	EV5	EV6	EV7	EV8	EV9
1	LIFT MAST	1		1							
2	LOWER MAST		1								
3	SIDESHIFT RIGHT	1							1	1	
4	SIDESHIFT LEFT	1							1		1
5	TILT BACK	1			1						
6	TILT FORWARD	1				1					
5+7	AUX BACK	1						1		1	
6+7	AUX FWD	1						1			1

NOTES:
1. NUMBERS ON HANDLE INDICATE DESIGNATED PUSH BUTTONS.
2. EV (X) DENOTES THE SOLENOID BEING ACTIVATED TO CREATE THE FUNCTION.
3. SEE LEGEND BELOW FOR SYMBOLS USED.

LEGEND:
1 ' DENOTES ON/OFF FUNCTION
1 ' DENOTES VARIABLE/ PROPORTIONAL FUNCTION





POWERPACK W/ INTEGRAL HYDRAULIC TANK

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BS089069

Figure 22. Hydraulic Schematic W25/30/40ZC (With Side-shift and Aux)

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11. Tow the lift truck slowly.

12. If another lift truck that has the drive wheels near the forks is used to tow the disabled lift truck, that lift truck must have weight added to the forks. The total weight of the lift truck and load must be equal to or greater than the weight of the disabled lift truck. Install a load of approximately half the maximum capacity on the forks of the lift truck that is used for towing. This load will increase the traction of the lift truck. Keep the load on the forks lowered as much as possible.

If the lift truck used for towing has a master drive unit (MDU) or drive unit similar to this lift truck, **DO NOT** add weight to the forks. Additional weight on the forks may DECREASE the traction of the drive wheel(s). Make sure that the lift truck has a total weight equal to or greater than the weight of the disabled lift truck.

WARNING

Always unplug the Brake Override Circuit and connect the Brake Harness prior to operating the lift truck.

13. Make sure the Brake Override Circuit is disconnected from the Brake Harness prior to operating the lift truck.

HOW TO PUT THE LIFT TRUCK ON BLOCKS

WARNING

DO NOT put the lift truck on blocks if the surface is not solid, even, and level. Make sure that any blocks used to support the lift truck are solid, one-piece units. Put a block in front and back of the tires touching the ground to prevent movement of the lift truck.

DO NOT raise the lift truck by attaching an overhead lifting device to areas that can be damaged. Some of these points are not designed to support the weight of the lift truck. The lift truck can be damaged or it can fall, causing serious injury. Attach the chain or sling to a support structure of the lift truck frame.

DO NOT make repairs or adjustments unless specifically authorized to do so. Repairs and adjustments must be performed by trained service technicians.

How to Raise the Drive/Steer Tire

1. Put blocks on both the front and back sides of the load wheels to prevent movement of the lift truck. Refer to Figure 3 and Figure 4.

   Use a special low-clearance hydraulic jack, crane, or another lift truck to raise the drive tire. Make sure that the jack, crane, or other lift truck has the correct capacity rating. The capacity must equal at least two-thirds (2/3) the weight of the lift truck, including the battery. See the nameplate for the lift truck weight.

NOTE: Perform Step 2 for lift truck models (W25-30-40ZC).

2. Raise the lift truck enough to suspend the drive tire.

WARNING

DO NOT lift both ends at once.

NOTE: Perform Step 3 for lift truck models (W30-40ZA and W20-30ZR).

3. To raise drive end of lift truck, hook a lift strap under the bumper on both sides or hook the lift strap under the drive frame cowl. Raise the lift truck only enough to suspend the drive tire. See Figure 2.

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Troubleshooting

Dash Display	Controller LED	Handset or PC
LCD display Red LED Fault Indicator (Trucks equipped with optional dash display)	Red LED Located at base of motor controller. (Trucks without dash display)	Error codes stored under Main Menu Alarms Message displayed on Handset or PC
		CORRESPONDING SCHEMATIC SHOWING CIRCUITS TO BE CHECKED OR COMPONENTS AFFECTED
CONDITION **TRUCK RESPONSE** **POSSIBLE CAUSES AND TEST PROCEDURES**		**LOGIC** (Brief description of the reason behind truck exhibited malfunction.)

NOTE: General error code information is provided by the Dash Display and Red LED at the base of the controller. In most instances, it will be necessary to use a handset or a PC to further define the possible causes and test procedures.

NOTE: The dash indicator will display the code: EP 107 (or a higher number) for 1 to 2 seconds every time the key switch is turned to the ON position. This code represents the EEPROM software version and DOES NOT INDICATE A FAULT CODE.

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