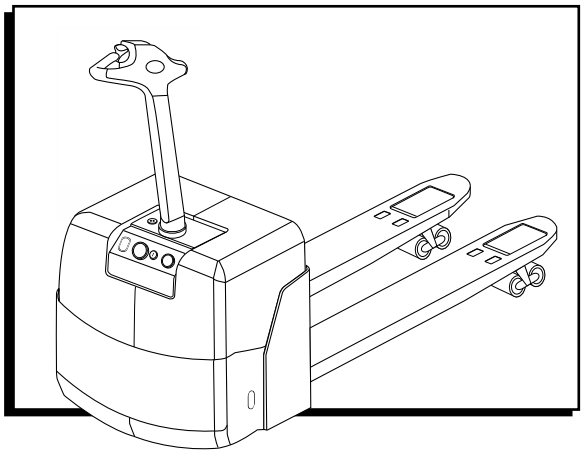
ULINE H-2302
ELECTRIC PALLET TRUCK

1-800-295-5510
uline.com



OPERATING INSTRUCTIONS

SAFETY GUIDELINES

WARNING! Do not operate this truck unless you have been trained to use it, authorized to do so and have checked it is in good condition. The operator should read all of the warning signs and instructions here and on the truck before using it. The truck is strictly forbidden to lift or carry a person.

1. In case of any failure or fault, please stop using the truck until it can be properly repaired.
2. Do not repair the truck without professional training and authorization.
3. Keep a two foot distance between the truck and any person not operating it.
4. Do not operate on uneven ground or in a dangerous environment.
5. The truck should not be driven on public roads.
6. The truck may only be driven into an elevator or loading platform with enough load capacity to support the truck. The operator must confirm this point before entering elevator or loading platform. Passengers must enter the elevator after proper parking of the truck and walk out of the elevator before moving the truck.
7. The truck should always be driven with the height of the forks in the lowest position except when placing or moving a load.

TRUCK ON ANOTHER VEHICLE'S LOADING PLATFORM OR ON A GANGWAY

1. Before the truck is driven from a loading bay and onto a vehicle, the operator must always check the maximum load capacity of the gangway. There should also be suitable devices that prevent the gangway from sliding.
2. The operator must also check the maximum load capacity of the vehicle. There should also be suitable devices to prevent the vehicle from moving.
3. The truck should always be parked on a level surface. The forks must be lowered to their lowest position. Always turn the ignition to the "OFF" position. Always remove the ignition key from the electrical lock when leaving the truck.

NOTE: If the truck is left unused for a prolonged period without being recharged, the battery plug should be disconnected.

4. Protective shoes should be worn when working with this truck according to local safety regulations.

ROUTINE CHECKLIST BEFORE STARTUP

__ Check for any defect of truck (especially on the wheels).

__ Check if battery is fixed firmly and cable connected properly.

STARTUP OF TRUCK

__ Rotate and turn off emergency shut-off switch.

__ Insert key into electric lock switch and turn right to position "I".

__ Battery capacity meter should indicate the current capacity.

__ Check to ensure the horn is working correctly.

__ Check the brake function on the control handle.

OPERATION OF THE TRUCK

EMERGENCY SHUT-OFF SWITCH

__ All electric control functions are cut off when the emergency shut-off switch is pressed.

FORCED BRAKING

__ Release the control handle, and the truck automatically brakes (emergency stop).

__ The control handle will return to upright position.

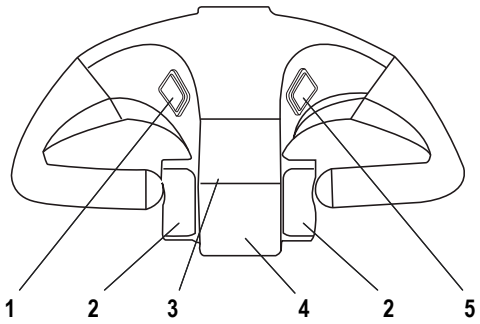
DRIVING

__ Drive speed is controlled by the FWD/BWD control wheel.

CARGO LOADING/UNLOADING

CAUTION! Before loading the cargo, the operator must check to confirm the cargo is properly placed on the pallet and the weight of cargo within load capacity of the truck. Load weight should be evenly distributed between the two forks.

Figure 1



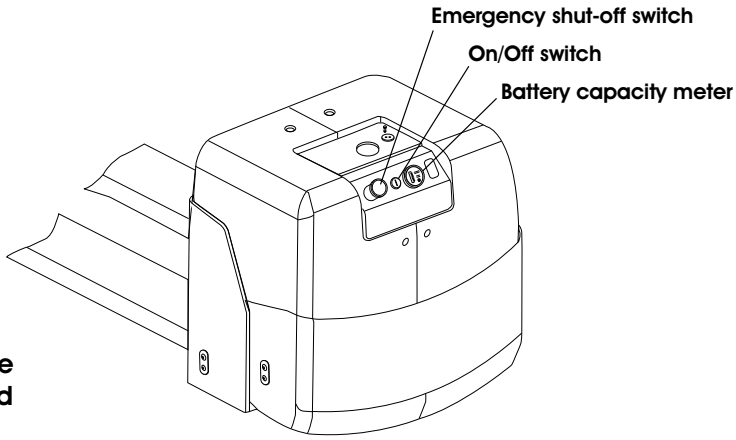
1	LOWER Button
2	FWD/BWD CONTROL Wheel
3	HORN Button
4	EMERGENCY SHUT-OFF Button
5	RAISE Button

LIFTING OF FORKS

— Press the "RAISE" button to raise the forks to required height.

LOWERING OF FORKS

— Press the "LOWER" button to lower the forks to required height.



TECHNICAL SPECIFICATIONS

Figure 2

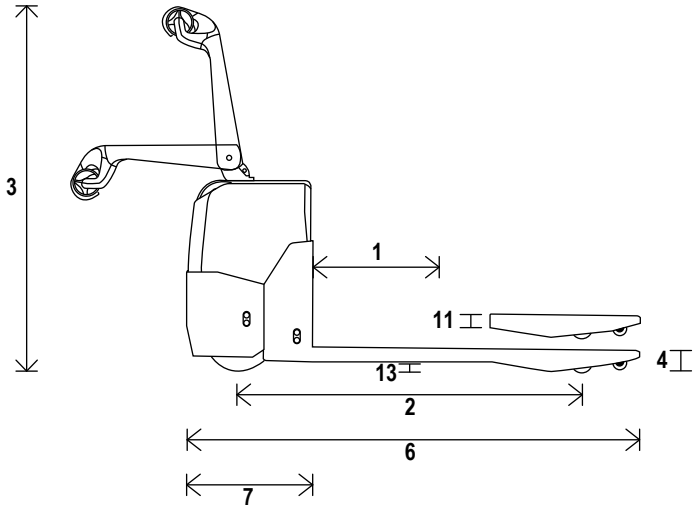
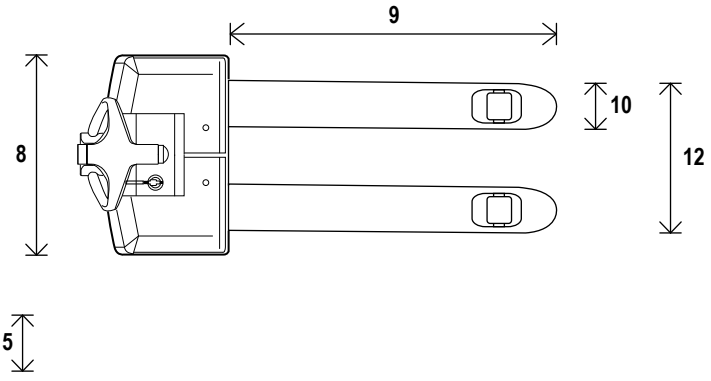


Figure 3



DESCRIPTION	KEY	SPECIFICATION
Model Number	----------	H-2302
Power Supply	----------	Electric
Type of Operation	----------	Pedestrian
Capacity/Rated Load	----------	3,300 lbs.
Load Center Distance	1	24"
Wheelbase	2	48"
Weight (including battery)	----------	630 lbs.
Tire Size - Drive End	----------	10 x 3.5"
Tire Size - Load End	----------	3.3 x 3.6"
Handle Height in Neutral Position	3	48.6"
Fork Height Lowered	4	3"
Fork Height Raised	5	7.5"
Overall Length	6	71"
Length of body	7	23"
Overall Width	8	27.5"
Fork Length	9	48.1"
Fork Width	10	6.4"
Fork Thickness	11	1.9"
Overall Fork Width	12	25.5"
Floor Clearance (center of wheelbase)	13	1.3"
Turning Radius	----------	59"
Travel Speed (laden/unladen)	----------	3.1/3.2 mph
Lifting Speed (laden/unladen)	----------	4.5/3.5 sec
Lowering Speed (laden/unladen)	----------	3.5/4.5 sec
Brakes	----------	Electric-magnetic
Drive Motor	----------	1.0 kw
Lifting Motor	----------	0.8 kw
Battery Voltage	----------	12v / 80Ah
Sound Level	----------	<70 db
Steering Arc	----------	205°

MAINTENANCE AND CHARGE OF BATTERY

1. A Various Rechargeable Sealed Lead Acid battery (VRLA) is used in this pallet truck.
2. The H-2302 pallet trucks are equipped with a specific charger to charge the battery. The charger can be plugged into a standard 120 volt outlet.

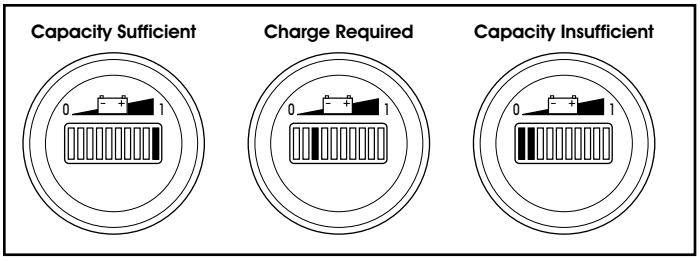
CAUTION! Before connecting the charger to the battery, make sure the battery charger emergency shut-off switch and key switch are in the off position. Please charge the battery in a dry, well ventilated area and keep away from any source of fire. If the truck is not in use, battery charges should be performed no less than once per month.

3. The battery of the pallet truck should be charged fully and regularly. When "Capacity Insufficient" alarm flashes on battery capacity meter during operation, please charge the battery immediately.
4. The charger will adjust the current according to residual capacity of the battery automatically, which ensures the battery is charged correctly. After charging the battery, the charger indicator lights turn green and charger stops automatically. Charging generally lasts 5-7 hours.

BATTERY INDICATOR

1. BATTERY CAPACITY METER – The charge status of battery is indicated on battery capacity meter with ten indicator bars for each 10% increase. With the consumption of battery capacity, the lighting bars will descend downwards from the top. (See Figure 4)
2. The truck will automatically cut off lifting functions when the battery reaches 20%.

Figure 4



PREPARATION OF TRUCK TO BE REPAIRED OR MAINTAINED

Prepare all necessary safety measures to avoid a possible accident during the course of repair and maintenance by taking the following preparations:

1. Parking the truck safely.
2. Press emergency shut-off switch and disconnect the battery.

INSPECTION OF HYDRAULIC OIL CAPACITY

1. Remove the four screws (1) and (2). (See Figure 5)
2. Open the left and right half cover (3) and (4).
3. Check the capacity of hydraulic oil in oil tank.

NOTE: During inspection of hydraulic oil capacity, forks and carriage must be lowered to the minimum height.

INSPECTION OF ELECTRIC FUSE

1. Remove the four screws (1) and (2). (See Figure 5)
2. Open the left and right half cover (3) and (4).
3. Consult the chart to check the current rating of all fuses, and replace if necessary.

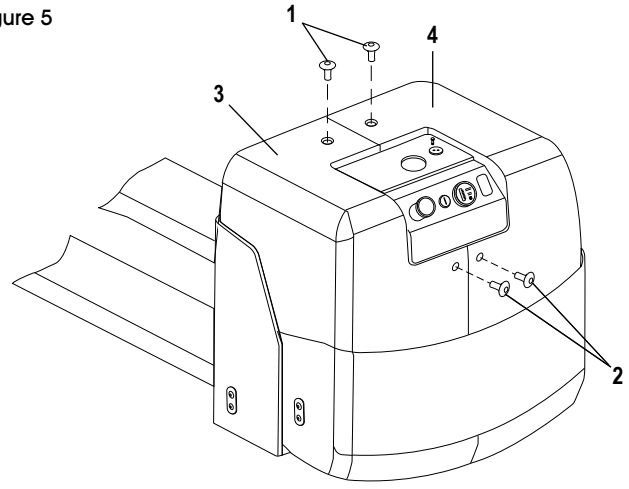
CODE	PROTECTION PURPOSE	CURRENT RATING
FU	Main Circuit Fuse	200A
FU1	Traveling Control Fuse	10A
FU2	Lifting Control Fuse	6A

USE OF TRUCK AFTER MAINTENANCE

Finish the following operation before use of truck:

1. Clean the truck.
2. Check the brakes.
3. Check the emergency shut-off switch.
4. Check the horn.

Figure 5



MAINTENANCE OF THE TRUCK

SAFETY OPERATION AND ENVIRONMENTAL PROTECTION

1. The instructions in the table titled "H-2302 Maintenance List" should be performed based on the time interval specified.
2. To ensure the safety and reliability of truck operation, only spare parts from manufacturer should be used.
3. Any parts replaced, including oils, must be disposed of according to related environmental protection regulations.

SAFETY RULES FOR PALLET TRUCK MAINTENANCE

1. MAINTENANCE STAFF – Repair and maintenance of the truck should only be performed by qualified professionals.
2. CLEANING OPERATION – Flammable fluid is strictly forbidden in the cleaning of the truck. Before cleaning starts, safety measures must be taken to avoid sparking caused by a short circuit. Any cleaning should be performed after disconnecting the battery. All electric elements and electronic assemblies can only be cleaned by compressed air or by an anti-static brush.
3. OPERATION OF ELECTRICAL SYSTEM – Maintenance of electrical system of the truck should be performed by trained professionals only. Before any maintenance of electric system, protection measures to avoid electric shock should be taken by disconnecting the battery from the truck.
4. WHEELS – The condition of the wheels will greatly affect stability and driving performance. Wheels should be replaced in pairs, e.g. both left and right.
5. LIFTING CHAINS – Without lubrication, the lifting chains will wear out prematurely. The time interval in maintenance manual is applicable for normal operation. In case of poor operating conditions (dust, temperature), it is necessary to increase lubrication accordingly.
6. HYDRAULIC OIL PIPE – The oil pipe should be replaced every six years.

NOTE: The maintenance cycle stated in instruction manual refers to the normal conditions with single shift operating. Under dusty conditions, extreme temperatures or under multiple operating shifts, the maintenance cycle should be shortened accordingly.

7. Please perform maintenance according to the following table:

CODE	MAINTENANCE SCHEDULE
W1	Every 50 working hours, at least once per week
M3	Every 500 working hours, at least once per 3 months
M6	Every 1,000 working hours, at least once per 6 months
M12	Every 2,000 working hours, at least once per 12 months

TROUBLESHOOTING

OPERATING ISSUE	CAUSES	RECOMMENDATIONS
Truck does not move.	Disconnection of battery.	Check connection of battery and reconnect it if necessary.
	Key switch at "0" position.	Put key switch at "I" position.
	Emergency shut-off switch on.	Release the emergency shut-off switch.
	Battery capacity con sumed.	Check battery capacity and charge battery if necessary.
	Fuse damaged.	Check fuses.
Forks will not raise.	Control valve is blocked by dirty fluid.	Check hydraulic oil and clean control valve. Replace hydraulic oil if necessary.
Traveling too slow.	Battery capacity low.	Check battery capacity indicator, charge if necessary.

For all other issues please contact Uline.

MAINTENANCE LIST

			Maintenance Time Interval			
		Standard = ●	W	M	M	M
		Refrigerated Location = ■	1	3	6	12
Chassis and Truck Frame	1.1	Inspection of any damage of bearings		●		
	1.2	Inspection of all joints and bolts		●		
Drive Train	2.1	Inspection for any leakage in the driving system		●		
	2.2	Inspection of oil level of driving system		●		
	2.3	Lubricate moving parts			■	●
Wheels	3.1	Inspection for general wearing and damage		●		
	3.2	Inspection of bearings inside wheels and ensure fit with wheels		●		
Steering System	4.1	Inspection of steering operation motion		●		
Braking System	5.1	Inspection of reset function		●		
	5.2	Inspection of wear of brake wheel		●		
	5.3	Inspection of brake connection, adjust if necessary		●		
Lifting Equipment	6.1	Inspection for of any blockage of loading wheel		●		
	6.2	Inspection of any wearing or damage of edge of forks	■	●		
Hydraulic System	7.1	Inspection of any leakage or damage of all joints	■	●		
	7.2	Inspection of any leakage or damage of hydraulic cylinder	■	●		
	7.3	Inspection of oil capacity	■	●		
	7.4	Replace hydraulic oil and filter			■	●
	7.5	Inspection of adjustment function of pressure regulator			■	●

MAINTENANCE LIST CONTINUED

			Maintenance Time Interval			
		Standard = ●	W	M	M	M
		Refrigerated Location = ■	1	3	6	12
Electrical System	8.1	Inspection of connection of all cables		●		
	8.2	Inspection of Amperage of fuse		●		
	8.3	Inspection of safety, reliability and function of switches and unlocking cam equipment		●		
	8.4	Inspection of connector, replace the worn part if necessary		●		
	8.5	Inspection of function of alarm equipment	■	●		
Motor	9.1	Inspection of wearing state of carbon brush		●		
	9.2	Inspection of safety of motor attachment		●		
	9.3	Clean motor frame, inspection of wear of commutator		■	●	
Battery	10.1	Inspection of capacity of acid and voltage of battery	■	●		
	10.2	Inspection of safety device of connection terminal, apply grease if necessary	■	●		
	10.3	Clean connector of battery, inspection of compactness of fit	■	●		
	10.4	Inspection of damage of battery cable, replace it if necessary		●		
Lubrication	11.1	Inspect and lubricate all parts as necessary	■	●		
Integrated Measurement	12.1	Inspection of the grounding of electrical system				●
	12.2	Inspection of driving speed and braking distance				●
	12.3	Inspection of lifting and lowering speed				●
	12.4	Inspection of emergency shut-off		●		