

# SAFETY INSTRUCTIONS & OPERATING MANUAL POWERED PALLET TRUCK EPT-2047-30 • EPT-2547-30

*MADE IN P.R.C.*

**Contents**

Introduction .....	1	Battery & Battery Charger .....	2
Warnings and Safety Instructions .....	1	MSDS Sheets .....	4-7
Receiving Instructions .....	2	Warranty Policy .....	8
Operating Instructions.....	1-3	Duty Cycle / Capacity.....	2

.. SERVICE & MAINT. MANUAL AVAILABLE ONLINE @ [www.vestil.com](http://www.vestil.com)

**INTRODUCTION**

Welcome to our Series EPT Powered Pallet Trucks. Your truck is made of high quality steel and is designed for durable, reliable, and easy operation. It could be easily used in any place such as a factory, warehouse, supermarket, or distribution center to save energy and time with no pollution to the working environment. For your safety and correct operation, please carefully read this instruction book and warnings on the truck before using it.

*NOTE: All of the information reported herein is based on data available at the time of printing. We reserve the right to modify it without notice and without incurring any sanction. So, it is suggested to always verify possible updates.*

**WARNINGS & SAFETY INSTRUCTIONS**

**Read owner's manual completely before operating unit!**

- Do not operate this truck unless you are trained and authorized.
- Do not overload the truck. Check capacity plate for loading weight and lifting height. Do not handle unstable or loosely stacked loads.
- Operate truck only from designated operating load position. Never place any parts of your body under the truck or near moving parts. Do not ride or carry passengers.
- The weight of goods should be distributed evenly on two forks. Do not use only one fork or put the goods on the end of the forks.
- Before leaving the truck, remember to fully lower and set the parking brake by making sure the handle is in the vertical position. Turn off the power with the switch key.
- Travel slowly and with caution on slopes.

**RECEIVING INSTRUCTIONS**

Every unit is thoroughly tested and inspected prior to shipment. However, it is possible that the unit may incur damage during transit. If you see damage when unloading make a note of it on the SHIPPER RECEIVER.

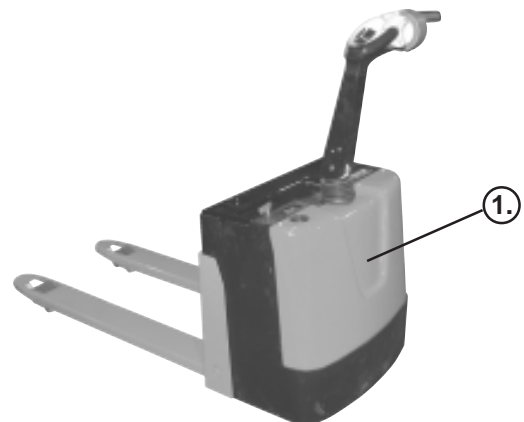
Remove all packing and strapping material, inspect for damage. IF DAMAGE IS EVIDENT, FILE A CLAIM WITH THE CARRIER IMMEDIATELY! Also, check the unit size, type of power unit, etc., to ensure the unit is correct for the intended application.

①.

**⚠ WARNING**

- Do not ride on equipment
- Do not operate without training.
- Do not use damaged trucks.
- Do not move truck if anyone is between truck and fixed object.
- Keep feet clear when lowering.
- Do not use on loads higher than 3 feet unless load is secured.
- Do not handle loosely stacked loads.
- Use extra care when handling tall, wide, and long loads.
- Avoid holes, slippery floors, and loose objects.
- Do not exceed rated capacity.
- Perform maintenance as shown in owners manual.
- Observe operating and maintenance instruction in owners manual.
- Disconnect batteries when servicing.
- Do not use on grades exceeding 6%.

**VESTIL MANUFACTURING CORPORATION**  
Angola, Indiana USA  
(260) 665-7586 • [www.vestil.com](http://www.vestil.com)



**ELECTRIC PALLET TRUCK  
EPT-2547-3**

## OPERATING INSTRUCTIONS

### TO RAISE AND LOWER:

There are four buttons located by the two sides of the handle. On each side, there is one button for raising the forks. The other button is for lowering the forks. Always make sure when lifting loads that the load is within the capacity rating of your truck and that the load has been stacked safely on the pallet. Also, make sure that there is no one standing near the forks or the load when raising or lowering. It is also important to make sure that the length of the forks corresponds to the opening in the bottom of the pallet. In this way, the load rollers will place themselves in the opening so that when you raise the forks, you will not break the bottom boards of the pallet. Always make sure when entering the pallet that the forks are in the fully lowered position. Be careful when lifting pallets that are too short or too long for the truck. Not only might you destroy your pallet by breaking the bottom boards, but if the forks project through the end of the pallet, the fork tips may enter a pallet behind the pallet that you are lifting. This may bend the tips of the forks and overload the capacity of the truck or damage the second pallet.

### TO TRAVEL:

The butterfly switch controls the direction and speed of the lift truck. Rotate the butterfly controls located on the upper part of the handle. Rotate the butterfly control towards the forks to operate the truck in the forward direction. The speed of the truck is controlled by the degree of rotation in either direction.

### TO BRAKE:

This truck is equipped with a brake that is applied between 1-5 degrees of the vertical position and between 85-90 degrees of the lowered position in the vertical operating arc of the handle. The brake can be operated at any point in the lateral operating position of the handle. When you release your hand from the handle, it will resume the up position automatically, and the brake will set .

### DIRECTIONAL REVERSING SAFETY BUTTON:

At the top of the handle is a red reversing button that is designed to protect the operator from injury. If the top of the handle comes in contact with the operator's body during operation, the truck will automatically reverse direction and travel away from the operator. Immediately release the butterfly control and place the handle in the upright position , this will set the parking brake . The safety reversing button is spring-loaded, so it automatically resumes its original position after being activated.

### HORN:

A horn is located on the front side of the handle.

### KEY LOCK:

Before operating the truck, turn on the electric power . The key lock is located on the battery pack cover.

## TROUBLESHOOTING

### IF THE TRUCK FAILS ANY OF THESE TESTS, DO NOT OPERATE THE TRUCK UNTIL THE PROBLEM IS RESOLVED.

*Read and understand the Owner's Manual before using the truck.*

- Make sure that the battery cable connector is fully inserted into the battery compartment of the truck.
- Make sure there has not been any leakage of oil from previous use.
- Turn the key switch on and check the battery meter to insure that there is a full battery supply.
- Check that the raising and lowering of the forks are working properly. Give special attention to the horn, speed controller and steering system.
- Check the service brake operation by raising the handle to the vertical position and lowering it to the lowered position to see that it fully stops the truck in either position.
- Observe the condition of the truck for any other malfunction or defect.

## BATTERY & BATTERY CHARGER

### THE BATTERIES AND THE BATTERY CHARGER ARE PACKED INSIDE THE BATTERY PACK. FOLLOW THE OPERATING PROCEDURES TO CHARGE THE BATTERY:

- Turn switch key to off .
- Connect the AC extension cord from the charger into the outlet of a local power supply. This will automatically turn the charger on, and it will run at a rate commensurate with the requirements of the batteries. The charger will automatically control the charging procedure and when the batteries are fully charged, the charger will only supply enough current to maintain the batteries charge.
- When the charging cycle is completed, disconnect the AC plug from the power supply.

### DUTY CYCLE / CAPACITY

MODEL = EPT-2047-30  
= EPT-2547-30

Continuous Duty Capacity is 3000 lbs.  
Intermittent Duty Capacity is 3500 lbs.

INTERMITTENT CAPACITY IS RATED ON 75% RUN TIME

## MAINTENANCE

- Only trained and authorized personnel should be permitted to maintain, repair, and inspect the unit.
- Keep usage area dry, clean, and well ventilated.
- To avoid fire hazards, have fire protection equipment present at all times during any maintenance or repair. Do not use open pans or containers of flammable fluids.
- Safety devices shall be inspected at monthly intervals and maintained to a safe operating condition. A maintenance log must be kept.
- Electrical components shall be maintained and inspected for safe operation.
- The battery electrolyte level should be checked before charging the battery. The level should be maintained at 1/2 inch above the plates. If the level is low, add approved water before charging. Do not overfill. It is not necessary to charge the battery every day if there is more than 1/3 left, however the battery should be charged at least once a week.
- Disconnect batteries before working with the electrical system.
- When checking the hydraulic fluid level, make certain that the unit is fully lowered and on a level floor. Remove the filler cap and check the level of the fluid. Use a top quality hydraulic fluid. Do not use hydraulic brake fluid.
- Before leaving the unit, stop the unit, lower the forks fully, turn off the power, and remove the key.
- Before working on the unit, lower the forks fully, check that the brake is working properly, turn off the power, and restrain the unit using chocks or other restraining devices.

### EPT-2047-30 • EPT-2547-30 SPECIFICATIONS

Loading Capacity	3000 lbs.
Fork Service Range	3.1" - 7.8"
Fork Size (2048)	20"W x 47" L
Fork Size (2547)	25"W x 47" L
Fork Width	5.9"
Load Center	24"
Drive Wheel	3.1" x 3.75"
Load Wheel	3" x 3.75"
Overall Size	28"W x 65"L x 49"H
Walking Speed w/ Load	3.2 mph
Walking Speed Unloaded	3.8 mph
Drive Motor	0.7 kw
Lift Motor	1.3 kw
Controller	Micro-processor motor controller
Battery	2x12V/70 AH
Battery charger	25 amp
Net Weight	671 lbs.
Turning Radius	59.1"

Note: The load capacity is based on the situation when the center of gravity is located at the center of the length of the forks. When the load's center of gravity is past the center of the forks, the load capacity will be lessened compared to the center.



## FULLRIVER BATTERY MANUFACTURE CO.,LTD.

Add : Taishi Industrial Area, Yu Wo Tou Town, Panyu Zone, Guangzhou, China.

Tel : +86 20 84916671 / 84916661 Fax : +86 20 84916672

e-mail : battery@fullriver.com info@fullriver.com

www.fullriver.com

FR-001

Rcpt 8-30-04

## MATERIAL SAFETY DATA SHEET

Date Issued	Feb., 2001
Date Revised	July, 2004

## I. Product Identification

Chemical/Trade Name(identity used on label) <b>Absorbed Electrolyte Battery/HGL/HGXL/HL/HGHL/DC/FAT</b>		Chemical Family/Classification <b>Electric Storage Battery</b>
Synonyms/Common Name <b>Lead Acid Battery</b>	Shipping Regulations <b>See Section IX</b>	
Company Name <b>FULLRIVER BATTERY MANUFACTURE CO.,LTD.</b>	Address: <b>P.O.Box 511475 Taishi Industrial Area, Yuwotou Town, Panyu, Guangzhou, China</b>	

## II. Hazardous Ingredients

NOTE: The contents of this product are toxic chemicals that are subject to the reporting requirements of section 302 and 313 of the Emergency Planning and Community Right-to-know Act of 1986 ( 40CFR 355 and 372).

Material	% by Wt.	CAS Number	Exposure Limits		
			OSHA	ACGIH	Other
Specific Chemical Identity <b>Lead</b>	50	7439-92-1	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	NIOSH 100 µg/m <sup>3</sup>
Common Name <b>Grid</b>					
Specific Chemical Identity <b>Lead Dioxide</b>	22	1309-60-6	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	NIOSH 100 µg/m <sup>3</sup>
Common Name <b>Lead Oxide</b>					
Specific Chemical Identity <b>Lead Sulfate</b>	< 1	7446-14-2	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	NIOSH 100 µg/m <sup>3</sup>
Common Name <b>Anglisite</b>					
Specific Chemical Identity <b>Sulfuric Acid(40%)</b>	23	7664-93-9	2 mg/m <sup>3</sup>	1 mg/m <sup>3</sup>	NIOSH 1mg/m <sup>3</sup>
Common Name <b>Battery Electrolyte(Acid)</b>					
Specific Chemical Identity					
Common Name					

## III. Physical Data

Material(at normal temperatures) <b>/Solid / Liquid / Gas</b>	Appearance and color <b>Battery electrolyte(acid) is a clear to cloudy liquid absorbed by internal battery components. Acid saturated lead oxide is a dark reddish-brown to gray solid with slight acidic odor.</b>
Lowing Point <b>Lead 1755°C</b>	Melting Point <b>327.4°C</b>
<b>Batt. Electrolyte(Acid) 110-112°</b>	
Specific Gravity(H <sub>2</sub> O=1) <b>Battery Electrolyte (Acid) 1.300~1.302</b>	Vapor Pressure <input checked="" type="checkbox"/> (mm Hg at 20°C) <b>Battery Electrolyte(Acid)11.7</b>
Vapor Density(AIR=1) <b>Battery Electrolyte (Acid) 3.40~3.45</b>	Solubility in H <sub>2</sub> O <b>Battery Electrolyte(Acid)is 100% soluble in water Lead-Lead Oxide are not soluble.</b>
% Volatiles By weight <b>Not Determined</b>	Evaporation Rate(Butyl Acetate=1) <b>Not Determide</b>

Form 9701(Rev.1/97)

IV. Health Hazard Information

<p><b>NOTE:</b> Under normal conditions of battery use, internal components will not present a health hazard.</p> <p>The following information is provided for battery electrolyte (acid) and lead for exposure that may occur during battery production of container breakage or under extreme heat conditions such as a fire.</p>
<p>ROUTES AND METHODS OF ENTRY</p>
<p>Installation</p> <p>Acid mist generated during battery formation may cause respiratory irritation.</p>
<p>Skin Contact</p> <p>Battery electrolyte is not a significant route of entry.</p>
<p>Eye Contact</p> <p>Hands contaminated by contact with internal components of a battery can cause ingestion of lead/lead compounds. Hands should be washed prior to eating, drinking, or smoking.</p>
<p>SIGNS AND SYMPTOMS OF OVEREXPOSURE</p>
<p>Acute Effects</p> <p>Acute effects of overexposure to lead are GI (gastrointestinal) upset which may be loss of appetite, diarrhea and/or constipation with cramping, difficulty in sleeping, and fatigue. Exposure to acid mist may lead to acute irritation of the skin, corneal damage of the eyes if not washed immediately, and irritation of the mucous membranes of the eyes and upper respiratory system including lungs.</p>
<p>Chronic Effects</p> <p>Lead and its compounds may cause chronic anemia, damage to the kidneys and nervous system. Lead may also cause reproductive system damage and can affect developing fetuses in pregnant women. Battery electrolyte (acid) may lead to scarring of the cornea and chronic bronchitis as well as erosion of tooth enamel in mouth breathers in repeated exposures.</p>
<p>POTENTIAL TO CAUSE CANCER</p>
<p>The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as a Category 1 carcinogen, a substance that is carcinogenic to humans.</p> <p>This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of the product, such as overcharging, may however result in the generation of sulfuric acid mist.</p>
<p>EMERGENCY AND FIRST AID PRODUCTS</p>
<p>Installation</p> <p>Remove from exposure and consult a physician if any of the acute effects listed above develop.</p>
<p>Skin</p> <p>Wash thoroughly with soap and water. If electrolyte comes into contact with clothing, remove and discard.</p>
<p>Eyes</p> <p>IMMEDIATELY rinse with cool running water for at least 15 minutes. Seek medical attention after rinsing.</p>
<p>Ingestion</p> <p>Lead/lead compounds: Consult a physician</p> <p>Electrolyte: Do not induce vomiting. Refer to a physician immediately.</p>
<p>MEDICAL CONDITIONS WHICH CAN BE AGGRAVATED BY EXPOSURE</p>
<p>Inorganic lead and its compounds can aggravate chronic forms of kidney, liver, and neurologic diseases.</p> <p>Contact of battery electrolyte (acid) with the skin may aggravate skin diseases such as eczema and contact dermatitis.</p>

V. Fire and Explosion Data

Flash Point(test method)	Autoignition Temperature	Flammable limits in Air,% by %Vol(Hydrogen)	
Hydrogen-259°C	Hydrogen 580°	Lower 4.1	Upper 74.2
Extinguishing Media			
Dry chemical,foam,or CO2			
Special Fire Fighting Prodecures			
Use positive pressure,self-contained breathing apparatus.			
Unusual Fire and Explosion Hazard			
Hydrogen and oxygen gases are produced in the cells during normal battery operation (hydrogen is frammable and oxygen supports combustion).These gases enter the air through the vent caps. To avoid the chance of a fire of explosion,keep sparks and other sources of ignition away from the battery.			

VI. Reactivity Data

Stability <input type="checkbox"/> Unstable <input checked="" type="checkbox"/> Stable	Conditions to avoid Sparks and other sources of ignition
Incompatibility(material to avoid) Lead/lead compounds: Potassium,carbides,sulfides,peroxides,phosphorus,sulfur. Battery electrolyte(acid): Combustible material,strong reducing agents, most metals, carbides, organic materials,chlorates,nitrates,picrates,and fulminates.	
Hazardous Decomposition Products Lead/lead copounds:Oxides of lead and sulfur. Battery electrolyte(acid):Hydrogen,sulfur dioxide,sulfur trioxide.	
Hazardous polymerization <input type="checkbox"/> May Occur <input checked="" type="checkbox"/> Will Not Occur	Conditions to avoid High temperature.Battery electrolyte(acid)will react with water to produce heat.Can react with oxidizing or reducing agents.

VII.Control Measures

Engineering Controls Store lead/acid batteries with adequate ventilation.Room ventilation is required for batteries utilized for standby power generation.Never re-charge batteries in an unventilated, enclosed space.
Work Practices Do not remove vent caps.Following shipping and handing instructions which are applicable to the battery type. To avoid damage to terminals and seals,do not double-stack industrial batteries.
PERSONAL PROTECTIVE EQUIPMENT
Respiratory Protection None required under normal handling conditions.During battery formation (high-rate charge condition) acid mist can be generated which may cause respiratory irritation.If irritation orrcurs,wear a respirator suitable for protection against acis mist.
Eyes and Face Chemical splash goggles are preferred.Also acceptable are"visor-gogs"or a chemical face shield worn over safety glasses.
Hands.Arms.Body Vinyl coated,PVC,gauntlet type gloves with rough finish are preferred.
Other Special Clothing and Equipment Safety shoes are recommended when handling batteries.All footwear must meet requirements of ANSI Z41.1-Rev.1972

VIII. Safe handling Precautions

Hygiene Practices

Following contact with internal battery components, wash hands thoroughly before eating, drinking, or smoking.

Protective Measures to be taken Non-routine Tasks including Equipment Maintenance

Wear safety glasses. Do not permit flames or sparks in the vicinity of battery(s). If acid comes in contact with clothing, discard clothing.

SPILL OF LEAK PROCEDURES

Protective Measures to be taken in Material is Released or Spilled

Remove combustible materials and all sources of ignition. Cover spill with soda ash (sodium carbonate) or quicklime (calcium oxide). Mix well. Make certain mixture is neutral then collect residue and place in a drum or other suitable container. Dispose of as hazardous waste.

Wear acid-resistant boots, chemical faceshield, chemical splash goggles, and acid-resistant gloves.  
DO NOT RELEASE UNNEUTRALIZED ACID!

Waste Disposal Method

Battery electrolyte (acid): Neutralize as above for a spill, collect residue, and place in a drum or suitable container. Dispose of as hazardous waste.

DO NOT FLUSH LEAD CONTAMINATED ACID TO SEWER.

Batteries: Send to lead smelter for reclamation following applicable Federal, state and local regulations.  
Product can be recycled along with automotive (SLI) lead acid batteries.



OTHER HANDLING AND STORAGE PRECAUTIONS

None Required.

IX. Department of Transportation and International Shipping Regulations

DOT-Battery, wet non-spillable, not subject to regulations

IATA-Not restricted for air transport-complies with IATA/ICAO Special Provision A67

IMO-Battery, wet non-spillable, not subject to regulations.

## LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective original part if the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service.

### Who may request service?

Only a warrantee may request service. *You are a warrantee if* you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### What is an "original part"?

An original part is a part used to make the product as shipped to the warrantee.

### What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

<u>Mail</u>	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation 2999 North Wayne Street, PO Box 507 Angola, IN 46703	(260) 665-1339 <u>Phone</u> (260) 665-7586	sales@vestil.com

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

### What is covered under the warranty?

After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following *original* dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in *original* parts that wear under normal usage conditions ("wearing parts"): bearings, hoses, wheels, seals, brushes, batteries, and the battery charger.

### How long is the warranty period?

The warranty period for original dynamic components is 1 year. For wearing parts, the warranty period is 90 days. Both warranty periods begin on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the periods began when the distributor shipped the product. Vestil may extend the warranty period for products shipped from authorized distributors by *up to* 30 days to account for shipping time.

### If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any *covered* part. An authorized representative of Vestil will contact you to discuss your claim.

### What is not covered by the warranty?

1. Labor;
2. Freight;
3. Occurrence of any of the following, which automatically voids the warranty:
  - Product misuse;
  - Negligent operation or repair;
  - Corrosion or use in corrosive conditions;
  - Inadequate or improper maintenance;
  - Damage sustained during shipping;
  - Accidents involving the product;
  - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification(s) might make the product unsafe to use or might cause excessive and/or abnormal wear.

### Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty.

