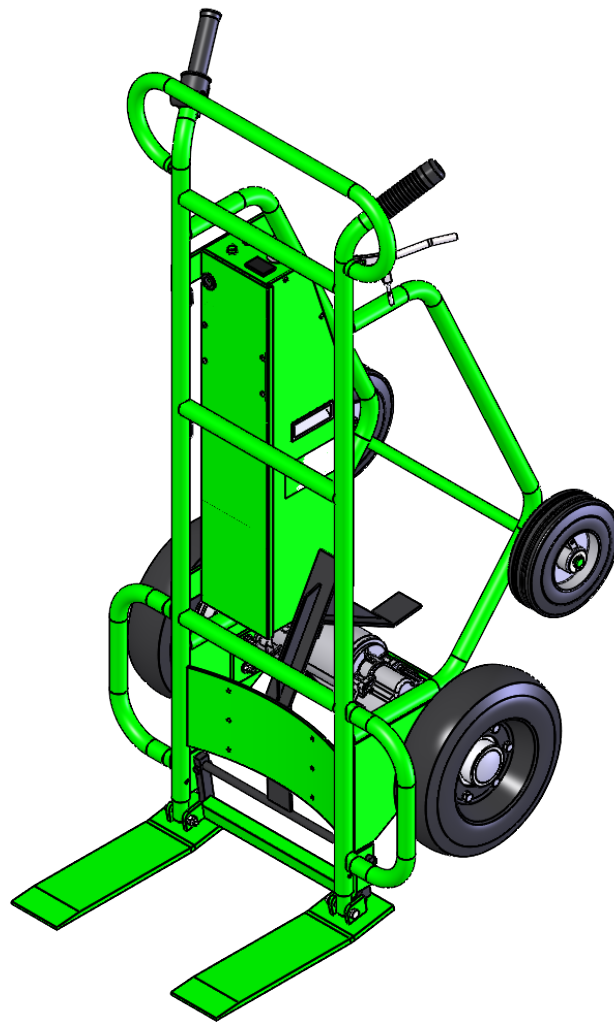




PHT-800# 12 AIR WHL W/FORKS F89086



Notice to Purchaser

All statements, technical information, and recommendations related to Valley Craft's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must determine if it is suitable for your intended application or situation. You assume all risks and liability associated with such use or implementation.

Product Testing

We perform vigorous in-house safety and durability testing to ensure that the performance of our products meets the demands of the workplace. We also expect the same from manufacturers who supply components for our products. We do this to ensure that Valley Craft is a name that our customers trust and associate with quality.

Publication Revision Notice

Following is a history of changes to this publication, including the current revision.

Previously Updated:

Last Updated: 01/25

Copyright Notice

© Valley Craft, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of Valley Craft.

Trademarks

The Valley Craft logo is a Valley Craft Trademark. All other company or product names are trademarks or registered trademarks of their respective owners. Use of a term in this document should not be regarded as affecting the validity of any trademark or service mark.

■ Table of Contents

Safety	4-6
• Safety Overview	4
• Safety Message Conventions	5
• Material Safety Data	6
Product Description	7
• Specifications	7
• Features	7
Operation	8-11
• Operating Procedures	8-11
Maintenance and Adjustments	12
• Maintenance and Adjustment Procedures	12
Troubleshooting	13-14
• Trouble Shooting Procedures	13-14
Replacement	15
• Replacement Procedures	15
Parts List	16-20
• Replacement Parts	16-17
• Parts List	18
• Control Box Exploded View	19
• Control Box Parts List	20
Equipment Drawings	21
• Wiring Diagram	21
Waranty	22
• Waranty	22

Safety

Read and understand all safety information and become familiar with all safety symbols contained in this section before moving, operating or performing maintenance on this equipment.

■ Safety Overview

The following general safety precautions must be observed during all phases of operation, service, and repair of this equipment. Failure to comply with these precautions or with specific safety messages elsewhere in this manual may impair the protection provided by the equipment. Such noncompliance would also violate safety standards of design, manufacture, and intended use of the instrument.

- Observe all safety signs posted in your facility.
- Observe warnings, cautions, handling information, storage requirements and other information on all container labels.
- Wear safety glasses with side shields.
- Wear the proper protective clothing, gloves and other protective equipment before handling any chemicals.
- Group the containers for the move by Hazard Class. Do not move acids with toxics, or oxidizers.
- Use maximum care and good judgment in preventing accidents and injuries and seeking first aid.
- Report unsafe conditions, equipment, practices, and on-job injuries.
- Understand your supervisor's instructions. Ask questions if you do not know how to do the job safely.
- Do not engage in tasks which you believe might be unsafe without consulting your supervisor.
- Clean up the work area and equipment upon job completion.
- Before you start work on any electrical system or circuit, check all power sources to ensure that the system or circuit is de-energized.
- Know the hazardous or potentially hazardous substances you work with or are present in your work area. Review Safety Data Sheets (SDS) on these substances, or contact your supervisor.

■ **Safety Message Conventions**

Three types of safety notices may be contained in this manual: **Danger**, **Warning** and **Caution** notices. These notices precede the procedural step or portion of text that presents the safety hazard.



DANGER

- **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.
-



WARNING

- **WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
-



CAUTION

- **CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices
-

■ Safety Data Sheets (SDS)

A Safety Data Sheet (SDS) provides information on the safe use, handling and potential hazards of a product. This information assists with the proper response in the event of an emergency.

Valley Craft maintains safety data sheets (SDSs) on all our products. You are urged to obtain copies of the relevant SDSs before using our products to protect yourself and others against any known health or safety hazards described in these SDSs. Valley Craft strives to make safety a top priority. Do not hesitate to contact us to discuss any safety aspects of our products.

The relevant SDS codes for Valley Craft products are listed below.

- www.conocophillips.com
Super ATF Transmission Oil, SDS Code 778846
Super-Sta Grease, SDS Code 775440
- www.batteriesplus.com
Sealed Lead Acid Battery
SLA for English version
SLA Sp for the Spanish version
- [Paint](#)
Contact Valley Craft Customer Service at 1-800-328-1480 or on the Web at customerservice@valleycraft.com

■ Additional Safety Information

As with any mechanical device, care must be taken during the installation, operation, and maintenance of the device in order to realize the maximum benefit from its ownership.

Note: All personnel involved in the use and maintenance of this device should be thoroughly familiar with the information contained in this manual. Furthermore, it is recommended that all personnel be given adequate instruction and a sufficient period of training in its actual use to insure safety of personnel and proper care of the equipment. It is suggested that the units be initially operated empty until becoming familiar with operation of this unit.

Product Description

The **Powered Fork Truck** is a battery powered, 4-wheel pallet truck designed to reduce operator strain and fatigue when moving pallets.

■ Specifications

The **Powered Fork Truck** specifications are shown in Table 1.

Table 1. Specifications

F89086 Powered Fork Truck	
Dimensions	57" H X 27" W X 22" D
Weight	175 lbs
Load Capacity	800 lbs

■ Features

The **Powered Fork Truck** offers state-of-the-art design with many advanced features.

- Motor Control with variable forward and reverse speeds
- Powerful transaxle motor with differential drive
- Hand Brake
- Built in battery charger with battery discharge gauge
- Reverse activated Safety Horn
- 12" Long Forks with Trip Pedal

■ **Operating Procedures**

NOTE: Only trained and authorized personnel are permitted to use the **Powered Fork Truck**

- **Loading Pallet**

1. Pull up to the pallet you wish to move and release the forks by stepping down on the trip pedal
2. Slide the forks under the pallet until the forks are fully inserted into the pallet
3. Tip the hand truck forward to lock the forks into place
4. Break-over the load by pulling back on the handle and let the hand truck sit on all four wheels.

- **Unloading Pallet.**

1. Tip the hand truck and load up so the forks and pallet are resting on the ground
2. Step down on the trip pedal and allow the hand truck to tip back to release the forks (the hand truck may need to be pushed forward slightly to release pressure to allow the forks to be released)
3. Lean the hand truck back onto its wheels
4. Back the hand truck away from the pallet

■ Operating Procedures Cont.

- Driving the Powered Fork Truck
 1. Ensure the load is secure on the pallet and truck.
 2. On the control panel, turn the key switch to the on position.
 3. Check that the forward/reverse switch is in the proper position for the direction you want to go.

NOTE: An audible horn will sound when the truck is placed into reverse.

4. With both hands on the handles, twist the throttle to move the truck.

The throttle is a variable speed control for the motor; the more the throttle is twisted, the faster the drum truck will travel.

5. To stop, release the throttle; the electric motor will offer some braking. If necessary, use the hand brake to come to a complete stop.

WARNING

Always keep both hands on the handles while driving; if the pallet contents shift and/or incline changes the truck may want to brake over. Failure to do so could result in the truck braking over unexpectedly, causing equipment damage and/or physical injury.

WARNING

Never leave the powered fork truck parked on an incline. The electric motor is NOT equipped with a parking brake.

■ Operating Procedures Cont.

- **Adjusting the brake bands**

Valley Craft's Powered Hand Truck is equipped with a band braking system present on both drive wheels. When the hand brake is activated, both brake bands clamp down on the drive wheel hubs, causing the truck to slow and stop.

Over time, with use and wear, the band brake tension may need to be adjusted to ensure proper stopping power.

To do so:

1. Unload the fork truck.
2. Safely tip the truck over so the drive wheels are off the ground and you have access to the brake bands.
3. There are two methods to adjust the band brake tension; a combination of the two is typically recommended.
 - A. The first method is to adjust the hand brake cable length.
 - I. Loosen the nut and remove the bolt securing the brake cable clevis.
 - II. Screw or unscrew the brake clevis to adjust the cable length as needed.
 - III. Re-attached the brake clevis.
 - B. The second method is to adjust the brake band diameter.
 - I. Loosen the nut on the eccentric brake bolts. (Both Drive Wheels).
 - II. Turn the eccentric brake bolts to adjust the band brake diameter.
 - III. When tensioned properly, re-tighten the nuts to fix the eccentric bolts in place.
4. Tip the truck back onto its wheels and test brake tension; repeat one or both methods if necessary.



CAUTION

Always check that the band brakes on both drive wheels are tensioned evenly before loading the fork truck. Failure to do so can cause unsafe tracking of the fork truck.

■ **Operating Procedures Cont.**

- **Charging the Batteries (Built in Charger)**
 1. Turn the key on the control panel to the 'off' position.
 2. Plug a grounded extension cord into the built-in receptacle on control box.
 3. The lift will charge automatically.
 4. Once batteries are charged, the extension cord can be removed, and the unit returned to service.

Maintenance and Adjustments

■ Maintenance and Adjustment Procedures

To keep the **Powered Fork Truck** operating properly, timely maintenance and adjustments are required. These procedures should be performed only by qualified personnel who are familiar with the equipment.

Maintenance and adjustment procedures are shown in Table 1.

Table 1. Maintenance and Adjustment Procedures

Component	Frequency	Operation	Procedure
Rear Wheels	Quarterly	Visual Inspection	Inspect wheel axle for signs of wear or damage
	Quarterly	Grease	Pump grease into zerk in both follower wheels
Hand Brake System	Quarterly	Visual Inspection	Inspect Hand Brake, Clevis, and cable for damage or wear
		Visual Inspection	Inspect band brakes, eccentric bolts, and nuts on both drive wheels. Ensure all nuts and bolts are tight.

Troubleshooting

■ Troubleshooting Procedures

The **Powered Fork Truck** is a quality product that is designed and manufactured to provide prolonged service under normal operating conditions. If troubleshooting is required, it should be performed only by qualified personnel who are familiar with the equipment.

Fork Truck will not run	Motor not getting power.	Ensure key switch is on. Check battery gauge, if battery charge is low connect charger to appropriate power source.
	Blown Fuse	Check fuse located on control panel. Replace if blown.
	Failed switch or wiring.	Check indicator LED on control panel. If flashing see table 5 on following page for code information.
	Failed Electric Motor	Check indicator LED on control panel. If flashing see table 5 on following page for code information.
Batteries not charging	Batteries Not Hooked Up	Check to see that the batteries are both connected
	Charger Setting Incorrect	Plug the battery charger in and check to see if the charger is set to 24V and AMG. If it is not unplug the batteries from the charger and use the "Voltage" and "Battery" buttons on the charger to select the correct settings. Re-connect batteries when done
	Blown charging fuse	Check charger fuse located inside control box. Replace if blown
Hand Brake not stopping truck	Brake bands not tensioned properly	See page 10 for instructions on how to properly adjust brake tension
	Fork truck is overloaded	Remove overload; 800 lbs. maximum capacity
Battery Gauge not displaying correctly	Battery Gauge needs to be reset	Turn key switch "ON" and leave on for 15-20 minutes or until the battery gauge resets and displays correctly

Troubleshooting Cont.

■ Troubleshooting Chart

Your **Powered Fork Truck** is equipped with an LED Indicator light that will display fault codes if a problem occurs. See Table 5 below for fault code information and possible causes.

Use this table as a guide when troubleshooting problems and contact Valley Craft for additional information.

Table 5. Maintenance and Adjustment Procedures

LED Codes	Sequence	Explanation
LED off	-	No power or damaged controller
LED Solid On	-	Unit Operational; No faults
1,1	* *	Thermal Cutback Excessive Load on Truck Operating in Extreme Environment
1,2	* * *	Throttle Fault Throttle Input Wire open or shorted Throttle damaged
1,4	* * * * *	Under voltage Fault Battery Voltage <17V Battery Connection Bad or Damaged
1,5	* * * * *	Over voltage Fault Battery Voltage >36V Vehicle Operating with charger attached
4,1	* * * * *	Current Sense Fault Short in motor or in motor wiring

Replacement

■ Replacement Procedures

Occasionally, it will be necessary to replace a part that has been Damaged or worn. Many parts on this Powered Fork Truck are replaceable. If Replacement of a part is required, it should be performed only by Qualified personnel who are familiar with the equipment.

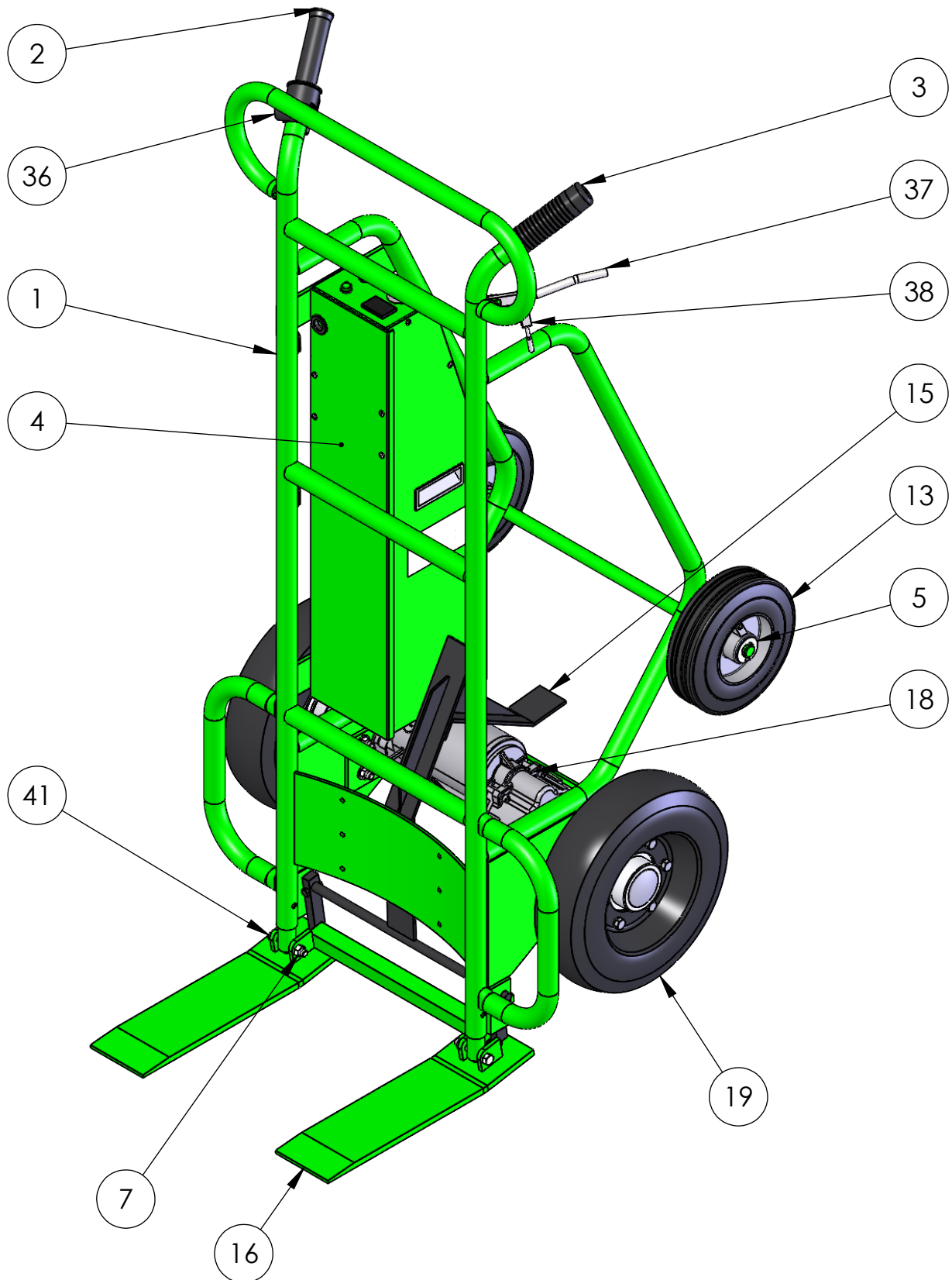
See Sheet 16-20 for available replacement parts. Identify the part number you need. Contact Valley Craft Customer Service at 1-800-328-1480 or on the Web at customerservice@valleycraft.com.

Information required when contacting Valley Craft:

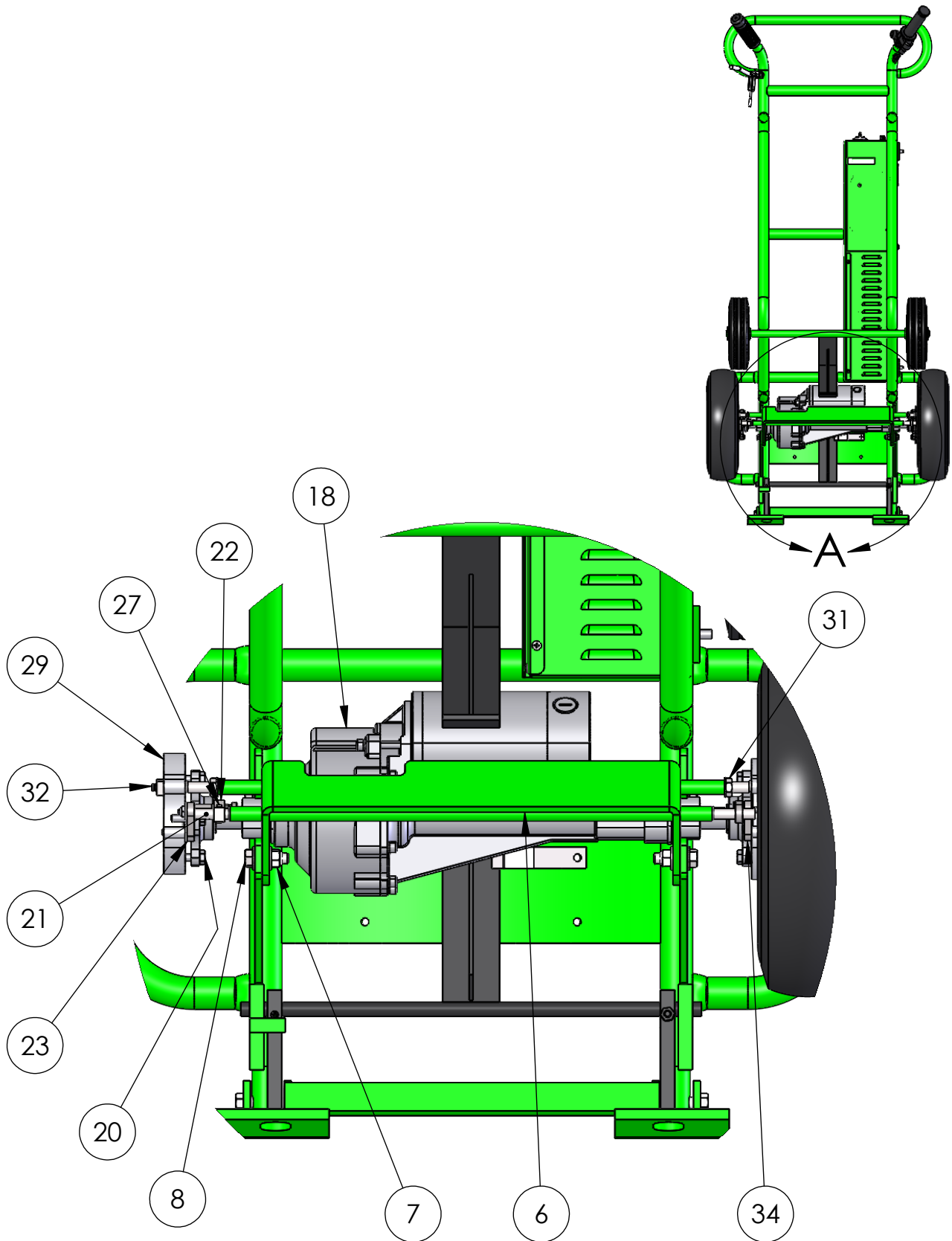
- A. Company name and address
- B. Contact persons name
- C. Telephone number
- D. E-Mail address
- E. Model Number
- F. Date of manufacture
- G. Part number(s) of part(s) to be ordered

The model number and date of manufacture is stamped on a metal tag located on the back side of the control box

PARTS BREAKDOWN
GENERAL



PHT-800# 12 AIR WHL W/FORKS



DETAIL A
SCALE 1 : 5

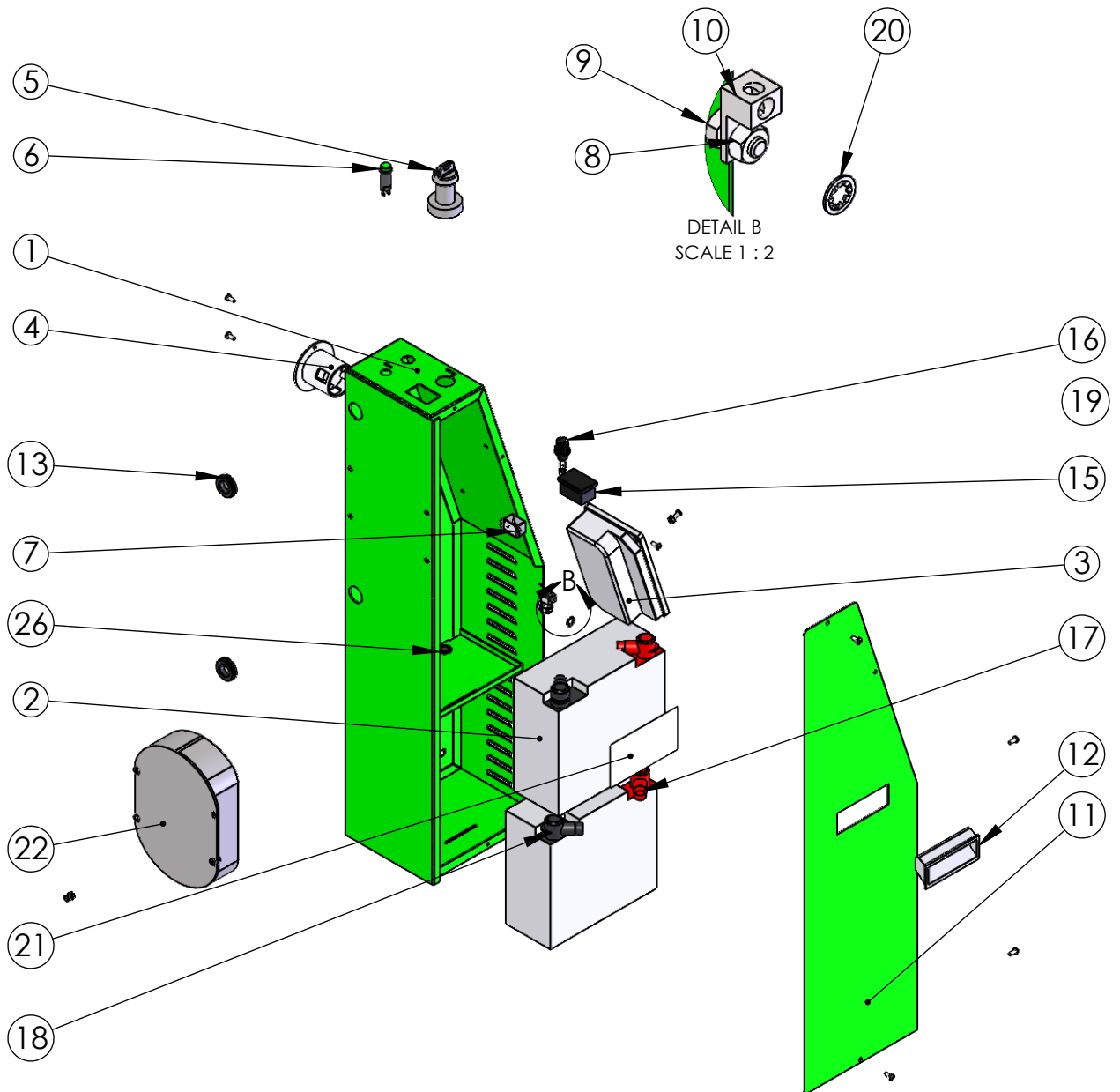
PHT-800# 12 AIR WHL W/FORKS

GENERAL AND BRAKE COMPONENT PARTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F69481A4	FRAME WLDMT/PPT	1
2	Z00591A7	THROTTLE TWIST MAGURA 0-5K	1
3	Z50007A7	GRIP-HDL 1-1/8" BLK	1
4	F69046A6	PHT CONTROL BOX ASSEMBLY	1
5	Z10251A6	RING-RTNG 3/4	2
6	F69456A2	MOTOR MT WLDMT	1
7	Z10047A3	NUT-NYL NE 3/8-16	8
8	Z10530A8	S-HHC 3/8-16x1-1/4	6
9	Z10202A4	WASHER-3/8 FLAT SAE	12
10	Z10491A6	BUSH-MACH 3/4x18GAx1-1/2 OD	4
11	Z00116A0	GROMMET-.625ID SBR	4
12	Z40473A3	TAG/SERIAL NUMBER/PRINT 2 COLORS	1
13	Z31626A5	WHL-8X2-1/2 HD RBR	2
14	Z10511A7	S-CRG 5/16-18x3/4	4
15	F69483A2	TRIP PDL WLDMT/PPT	1
16	F69482A3	SHOE WLDMT/PPT	1
17	F30212A6/R70212	SPG-TRIP PDL (STK) -- CS, use R70212 for RPMTS	2
18	Z20912A7	TRANSAXLE-0.44HP/14" FLANGE	1
19	F51841	WHL-12 PHT MACH	2
20	Z10112A3	S-HHC 1/4-20X1	10
21	F69455A1	BRK ROD WLDMT-PHT	1
22	F51830	LINK-BRAKE ROD PHT	1
23	F69457A3	EXTENDED BRK LINKAGE WLDMT	1
24	Z10531A7	WASHER-.260x.687x.062 THK NYL	5
25	91259A544	SHLDR 1/4 X 1-1/4 #10-24	1
26	Z10575A9	NUT-NYLOCK #10-24	1
27	Z10069A6	PIN-SPG 3/16X5/8	1
28	Z11616A1	SHLDR1/4"X1/4"X#10-24THR	1
29	F62177A2	BRK BAND ASSY	2
30	Z10209A7	WASHER-3/8 LOCK INT TOOTH	2
31	Z10030A2	NUT-HEX JAM 3/8-24	2
32	Z30012A2	ECC-BRK SHORT	2
33	Z11624A9	RING-RTNG 3/8	2
34	F69051A1	BRK LINKAGE WLDMT	1
35	Z11617A2	SHLDR1/4"X5/8"X#10-24	1
36	Z00592A8	SWITCH-MOTOR REVERSE	1
37	F30013A7	HDL-BRK/825	1
38	F30014A6	CLEVIS-BRK CABLE	1
39	Z30047A1	TERM-CA LG	1
40	Z10043A7	NUT-NYL NE 1/4-20	2
41	Z10136A5	S-HHC 3/8-16X2-1/4	2

PHT-800# 12 AIR WHL W/FORKS

PARTS BREAKDOWN
CONTROL BOX
F69046A6



PHT-800# 12 AIR WHL W/FORKS

**PARTS BREAKDOWN
CONTROL BOX
F69046A6**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F69448A4	PHT CONTROL BOX WLDMT	1
2	Z00558A4	BATTERY-12V 18AH	2
3	Z11663A8	CURTIS MTR CNTLR PROG-PHT	1
4	Z00120A4	PLUG-FLGD INLET 125V	1
5	Z00561A7	SWITCH-KEY ON/OFF 24VDC PT, MFR # 84828-07	1
6	Z20817A6	LIGHT-INDICATOR LED GRN 24V	1
7	Z11613A8	BUZZER-24VDC FLANGE MNT	1
8	Z10035A7	NUT-HEX KEPS 1/4-20	1
9	Z10109A8	S-HHC 1/4-20X1/2	1
10	Z10708A3	LUG-SET SCREW 1/4	1
11	F51823	CONTROL BOX COVER	1
12	Z30415A5	HDL PCKT PULL PLST 3.25X1.41	1
13	Z00116A0	GROMMET-.625ID SBR	2
14	Z10385A3	S-PTH #8x3/8 LG	7
15	Z00584A0	CURTIS BATTERY DISCHARGE GAUGE	1
16	Z00530A0	FUSE HOLDER PANEL MNT	1
17	Z00594A0	BATT TERM COVER RD	2
18	Z00595A1	BATT TERM COVER BLK	2
19	Z00613A9	FUSE-AGC 30 AMP	1
20	Z10207A9	WASHER-1/4 LOCK INT TOOTH	1
21	Z40998A9	DECAL-12V BATTERY	1
22	Z20361A1	BATTERY CHARGER, DELTRAN 12/24v	1
23	Z10381A7	S-PTH #8-32x5/8	2
24	Z10382A6	NUT-HEX KEPS #8-32 ZP	6
25	Z10463A8	S-PTHM #8-32x3/8	4
26	Z00148A2	GROMMET 1/2 DIA	1

Warranty and Limitation of Liability

Valley Craft products are warranted for a period of one (1) year from date of shipment from Valley Craft's plant to be free from defects in material and workmanship under correct use, normal operation and proper application. However, parts of other than Valley Craft manufacture are subject ONLY to the original manufacturer's warranty. Valley Craft's obligation under warranty shall be limited to repair or exchange, at Valley Craft's option, FOB origin factory, of any Valley Craft product or part which proves to be defective as provided herein. Valley Craft reserves the right to either inspect the product at Buyer's location, or require it to be returned to the factory for inspection. The warranty contained herein does not extend to goods damaged, or subject to accident, abuse or misuse after shipment from Valley Craft's factory, nor to goods altered or repaired by anyone other than an authorized Valley Craft representative.

Buyer or user shall not alter, modify or use a Valley Craft product for anything other than its intended function. Valley Craft shall not in any way be responsible for the consequences of any such alteration, modification or misuse.

VALLEY CRAFT MAKES NO EXPRESS WARRANTIES OTHER THAN THOSE WHICH ARE SPECIFICALLY DESCRIBED HEREIN. Any description of the goods sold hereunder, including any references to Buyer's specifications and any descriptions in catalogs, circulars and other written material published by Valley Craft, is for the sole purpose of identifying such goods and shall not create an express warranty that the goods shall conform to such descriptions.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY STATES VALLEY CRAFT'S ENTIRE AND EXCLUSIVE LIABILITY AND BUYER'S EXCLUSIVE REMEDY FOR ANY CLAIM OR DAMAGES IN CONNECTION WITH VALLEY CRAFT PRODUCTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION OR OPERATION OR FOR ANY CLAIMED DEFECTS. VALLEY CRAFT WILL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, NOR FOR ANY SUM IN EXCESS OF THE PRICE RECEIVED FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

Technical Assistance/Warranty Procedure

What's Covered:

- Parts and Labor to correct manufacturer's defect within one year of purchase.
- Freight Cost

What's Not:

- Normal wear items (seal kits, bearings, tires, etc.)

What Voids the Warranty:

- Dirt/Grime that directly causes malfunction of product
 - Abuse (i.e. Overloading, damaged, not properly maintained, etc.)
 - Product altered by customer
- *See "Items not Under Warranty" below for items that have the warranty voided.

Items Under Warranty (less than one year old):

- Warranty replacement parts are provided only when the problem can be identified with near certainty. If not, the customer will return item to Valley Craft, freight collect, for troubleshooting and/or repair. When repaired, product will be returned to customer,



Valley Craft is a family-owned company based in Minnesota. Founded in 1953 with the introduction of the first hand truck with a brake, Valley Craft has grown to be a world class manufacturer known for producing material handling, storage, and safety solutions that truly stand the test of time.

Our commitment to building only the most rugged and reliable products - together with a relentless and uncompromising dedication to customer satisfaction is what sets Valley Craft apart.

Through thoughtful and intelligent design, we have helped transform the way people work. Over the years, we have helped solve some of the most complex material handling challenges. We help our customers to become better organized and to work smarter, safer, and more efficiently. As our breadth of products continues to evolve with every new innovation, our core values stay the same:

Professional Grade Quality.... Built to Last.... Made in the U.S.A.

Valley Craft, Inc.

2001 South Highway 61

Lake City, Minnesota 55401 U.S.A.

www.valleycraft.com 

customerservice@valleycraft.com 

651-345-3386 