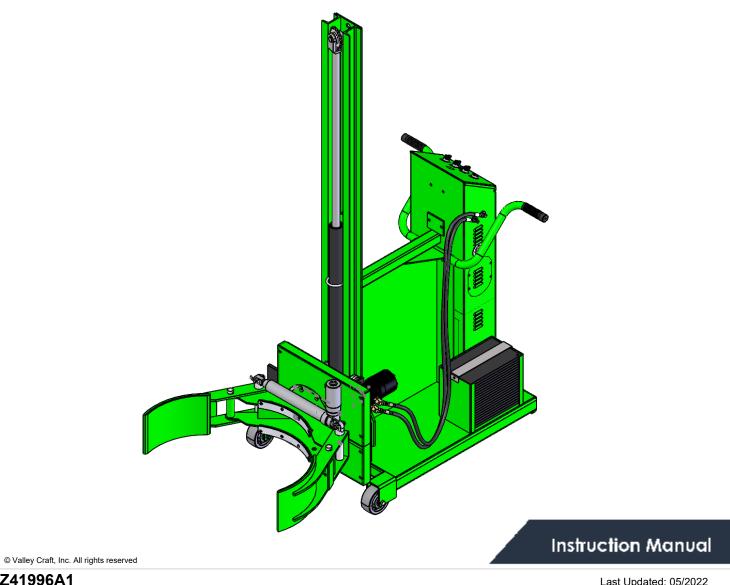


# 78/90 CW ROTOGRIP ELECTRIC GRIP



Z41996A1

#### **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 manufactures 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: 11/20

Last Updated: 05/22

## 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	
Safety Message Conventions	
Safety Data Sheet	6
Product Description	7
Specifications	
Features	7
Unpacking and Assembly	8
Receiving and Inspection	
Operation	8
Operating Procedures	
Maintenance and Adjustments	9-10
Maintenance and Adjustment Procedures	
Charging Battery	
Troubleshooting	11
Troubleshooting Procedures	
Replacement	12
Replacement Procedures	
Parts List	13-16
Rotolift Isometric & BOM	
Backplate Assy & BOM	15
Control Box & BOM	
Front Section & BOM	18
Equipment Drawings	19
Hydraulic Schematic	19
Electrical Diagram	19
Warranty Information	20
Warranty and Limitation of Liability	20
<ul> <li>Technical Assistance/Warranty Procedure</li> </ul>	20

# **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.
- Use maximum care and good judgment in preventing accidents and injuries and seeking first aid.
- Understand your supervisor's instructions. Ask questions if you do not know how to do the job safely.
- 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.
- When transporting a load, it is recommended that the drum is lowered as close to the floor as possible to reduce the chance of accidents during transport
- Do not leave load suspended for an extended period of time or premature wear to the lifting cylinder will occur.
- Maximum lifting capacity is 800 pounds.

# Safety Message Conventions

There are three types of safety notices that 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.



# MARNING

 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 (SDS) on all our products. You are urged to obtain copies of the relevant SDS before using our products to protect yourself and others against any known health or safety hazards described in the SDS. 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 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 the English version
   SLA Sp for the Spanish version
- Paint

Contact Valley Craft Customer Services 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 how the unit handles.

#### **ROTOGRIP-90/CW SAE**

# **Product Description**

The **Counter-Weighted Roto-Grip** drum handler is manually-propelled and designed to butt up against pallets for effective loading and unloading. Lifts and Rotates 360 degrees.

## Specifications

The **Roto-Grip** specifications are shown in Table 1.

Table 1. Specifications

Dimensions	Height: 78" or 90" Depending on
	Model
	Width: 30.38 in.
	Depth: 42 in.
Weight	1,150 & 1,185 lbs
Load Capacity	800 lbs
Power	12v deep cycle battery
Lift Travel	58" or 71"
Rotation	360 degrees continuous
Wheels	Caster 3 x 1 1/16 Polyolefin
	Wheel 3 x 1 ¼ polyurethane

#### Features

The **Roto-Grip** offers state-of-the-art design with many advanced features.

- 12v deep cycle battery
- Maintained contact switch (Rotate Switch)
- Emergency stop button
- Rear swivel polyolefin casters with front polyurethane wheels

#### **ROTOGRIP-90/CW SAE**

### Receiving and Inspecting

When unpacking this equipment, inspect the equipment for damage or mishandling. If damage is noted, file a damage claim with the carrier within 24 hours and call Valley Craft at 1-800-328-1480. Do not attempt to use the equipment.

Compare the contents of the shipment with the bill of lading. Report any missing items to the carrier and to Valley Craft immediately.

### Operating Procedures

Only authorized personnel are permitted to use the **Rotogrip**. Every load and every situation is different. Every lift must be evaluated and planned. Observe the following procedures when using this equipment.

**NOTE:** IT IS RECOMMENDED THAT ALL OPERATORS FAMILIARIZE THEMSELVES WITH THE MACHINE AND DEVELOP SAFE WORKING HABITS.

- **IMPORTANT!** Remove solid plug on hydraulic reservoir and install breather cap (included in the Power Pak) for proper air venting.
- Install battery with the negative pole on the left hand side. Do not allow ground wire to come in contact with any other wires or a short will occur.
- Move the Rotogrip forward, straddling the drum, and center the rotating jaws to the drum using the "UP/DOWN" switch on the control panel.
- After jaws are centered on drum, push the unit forward the rest of the way so the drum touches the rear of the jaws.
- By simultaneously depressing the "ON" button and the "CLAMP" switch on the control panel securely squeeze the drum.
- NOTE: The "ON" button must be depressed before the clamping mode is operational.
- With the drum clamped, raise the drum by using the "UP" switch.
- To dump, raise the drum to the desired height and then depress the "ROTATE" switch, on top of the enclosure, in the direction you want the drum to dump.

# **Maintenance and Adjustments**

## Maintenance and Adjustment Procedures

To keep this equipment operating properly, timely maintenance and adjustments are required. These procedures should be performed only by qualified personnel who are familiar with the equipment. Ensure dumper is disconnected from power and chute is in down position prior to inspecting and performing maintenance and adjustment procedures.

Maintenance and adjustment procedures are shown in Table 2.

Table 2. Maintenance and Adjustment Procedures

Component	Frequency	Operation	Procedure
Bearings / Pivot Points	Monthly	Grease	Apply grease as required
Hydraulic Fluid Level	Monthly	Visually inspect	Should fluid level become low or appear dirty or "milky", replace fluid with Super ATF Transmission fluid. Fluid level should be approximately 1-1/2" below fill hole.
Structural components	Monthly	Visually inspect	Replace as required
Hydraulic System	Monthly	Visually Inspect	Inspect for leaks and damaged hydraulic lines and correct as required
	At Start of Shift	Operate	Fully extend lift cylinder to purge oil from rod end of the cylinder
Electrical System	Monthly	Visually Inspect	Inspect for damaged or frayed wires and correct as required

#### Charging Batteries

- 1. Always turn the key to the "off" position when unit is not in use.
- 2. To charge your battery, plug a grounded extension cord into the built-in receptacle in the Control Box and an outlet.
- 3. The battery will charge automatically after the charger is plugged in and can be left unattended.
  - Batteries will generally require equal charging to work time.
- 4. Keep the charger plugged in to maintain a full battery level when the unit is not being used.

#### NOTES:

- See charger MANUAL for SAFETY PRECAUTIONS and charger TROUBLESHOOTING.
- DO NOT USE BATTERIES UNTIL THEY ARE TOTALLY DISCHARGED.
  - i. Doing so may damage your battery.
  - ii. For maximum battery life, your unit is equipped with a charger that collects information from the battery and adjusts the current and voltage accordingly. If your battery voltage drops below a certain threshold the charger will not charge the battery.
- If the battery becomes discharged and won't charge by ordinary means, a suggested solution is to "trick" the charger into reading a higher voltage from the battery. To do this connect a second, well-charged battery (12.4 volts or greater) in parallel with the dead battery-positive to positive, negative to negative. Then plug in your charger and charge the combination until the dead battery has enough voltage to enable being charged by itself.

# **Troubleshooting**

# Troubleshooting Procedures

If troubleshooting or maintenance should be required, it should be performed only by qualified personnel trained to perform such procedures.

Table 3. Trouble Shooting Procedures

Problem	Possible Cause	Corrective Action
Batteries won't charge	Faulty Battery(s)	Load test Batteries to ensure it is good. If battery is bad see page 12 for replacement.
	Not following recharging directions	Refer to Battery Charging Instructions (Page 10)
	Improper grounding/wiring	Tighten Charger mounting bolts and check wiring
Unit not functioning	Low/Dead Batteries	Recharge Batteries
Tunetioning	Improper grounding	Check Motor & Battery wire connections. Tighten if necessary
	Damaged or loose wiring	Check wiring to switches in Control Box. Re-attach loose connections.
	Bad Switches	Call factory for replacement

# Replacement

# Replacement Procedures

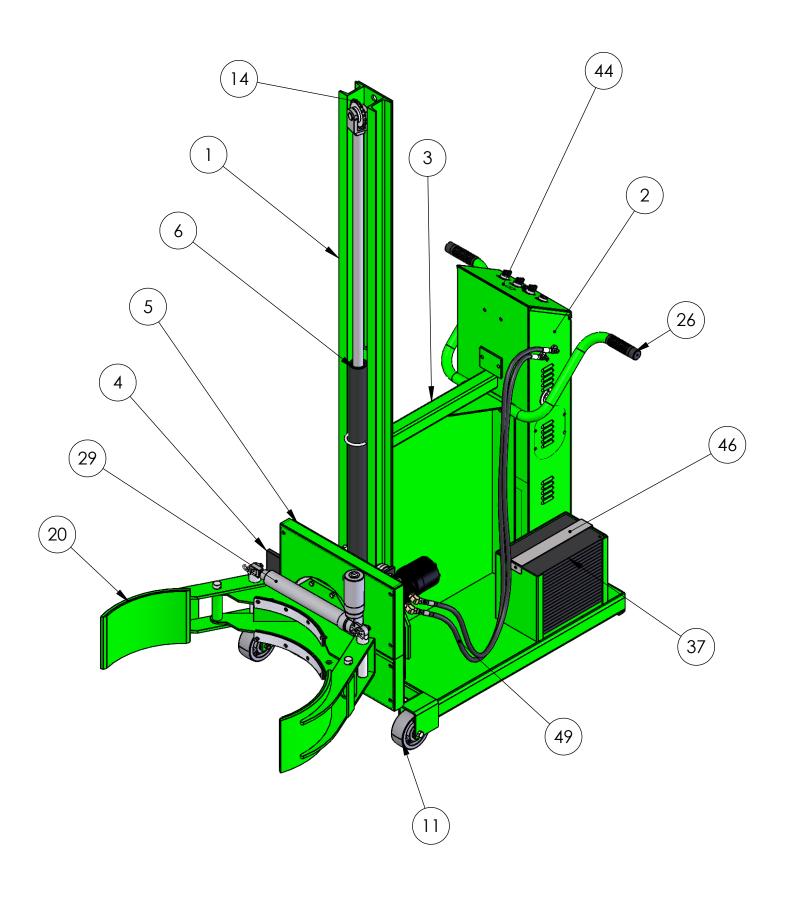
Occasionally, it will be necessary to replace a part that has been Damaged or worn. Many parts on this Rotolift are replaceable. If Replacement of a part is required, it should be performed only by Qualified personnel who are familiar with the equipment.

See Sheet 11-18 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:

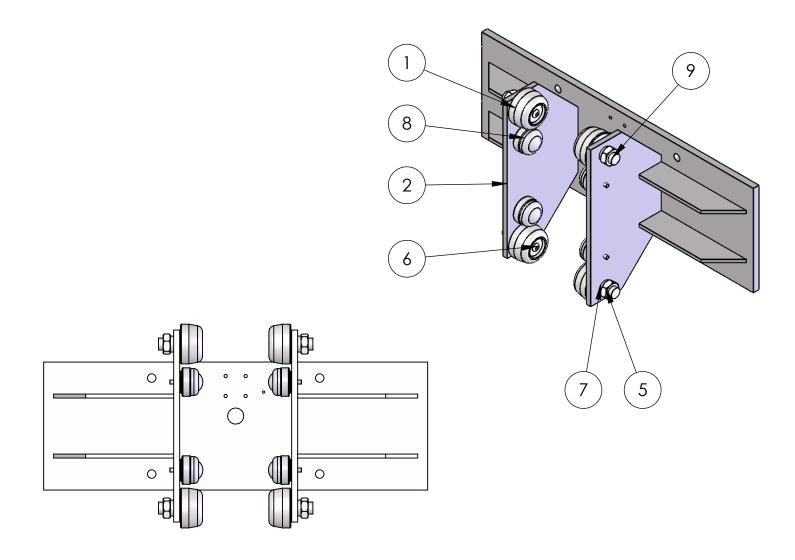
- A. Company name and address
- B. Contact persons name
- C. Telephone number
- D. E-Mail address
- E. Model Number
- F. Date of manufacture
- G. Part number of Parts ordering

The model number and date of manufacture is stamped on a metal tag located on the back side of the frame just above the push handle.

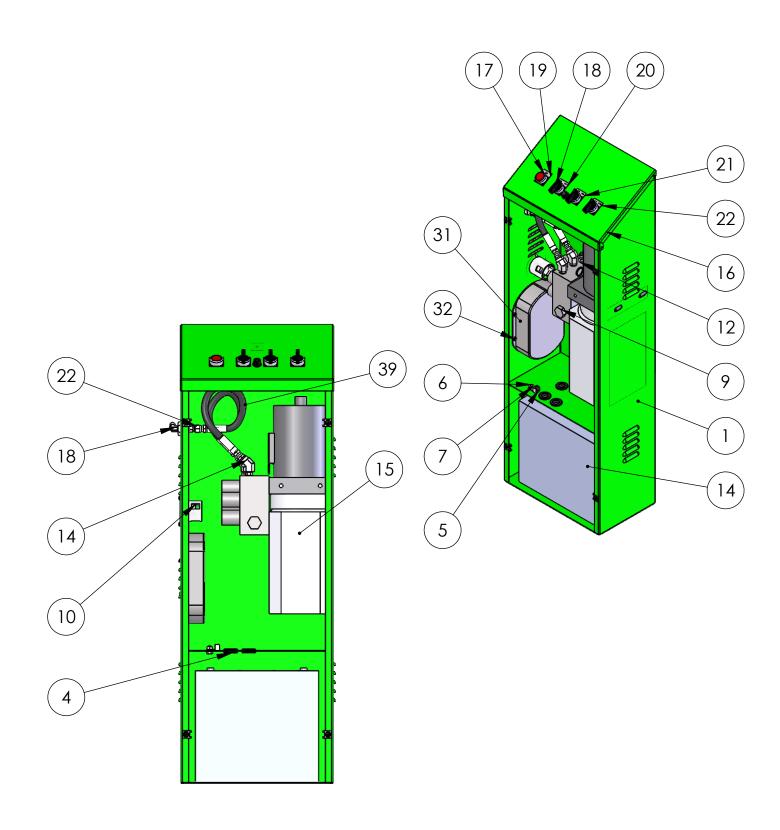


### **ROTOGRIP-90/CW SAE**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F64333A8	SL WLDMT-78 C/W ROTO	1
I	F64330A1	SL WLDMT-90 C/W ROTO	'
2	F68725A5	CTRL BOX ASSY/SL MOD	1
3	F63084A2	HOSE CHASE WLDMT	1
4	F64367A4	BACK PL ASSY	1
5	F69394A9	FRT SECT ASSEMBLY/ROTOGRIP	1
,	Z20753A0	CYL-ASSY-78 SAE	1
6	Z20754A9	CYL-ASSY-90 SAE	1
7	Z10241A7	BOLT-U 5/16-18 X 2-1/2	1
9	Z30475A9	CSTR-4X2 SWL ELASTOMER	2
10	Z10123A0	S-HHC 5/16-18X1	8
11	Z30443A1	WHL-5 x 2 SEB	2
12	Z10458A5	S-HHC 1/2-13x3-1/2	2
14	F63091A3	SPROCKET ASSY-50C18 BRG 1.01	1
15	F52067A6	PIN-CLEVIS 1.00X2.375	1
16	Z10072A1	PIN-SPG 1/4X1-1/2	1
19	F61306A3	PP-4SOL/3PORT 12V	1
20	F63868A5	JAW WLDMT/RGRIP (8") (STK)	2
21	F53691A8	PIN 6 11/16 RGRIP	2
22	Z10353A1	PIN-SPG 3/16X1-1/4	4
23	F53690A9	PIN 8 3/8 /RGRIP (STK)	2
24	Z30561A5	PIN-CLEVIS 1/2 X 2	2
25	Z10064A1	PIN-HITCH CLIP #16 1/8 X 1.44	2
26	Z50085A2	GRIP-HDL 1-1/4" BLK	2
27	Z20243A4	FTG PIPE BULKHEAD 1/4 MPT x.92	2
29	Z00146A4	ACTUATOR-LINEAR 12DC 500#-12	1
30	Z20586A6	FTG 90 2501-4-4	2
31	F57738	FRT-CTRL BOX	1
32	Z10074A9	PIN-SPG 1/4X2	2
33	Z00172A5	BATTERY-12V 80AH SEALED LEAD	1
34	Z30415A5	HDL PCKT PULL PLST 3.25X1.41	1
37	F53397A5	WGT	38
40	Z20600A2	FTG STR 2404-4-4	2
41	Z20734A0	BREATHER 4 SAE SINTERED	1
40	F60860A8	RLR CHAIN ASSY-78	1
42	F61446A9	RLR CHAIN ASSY-84	1
44	F68729A1	PANEL ASSY ROTO-GRIP	1
45	Z20810A3	HARNESS-PUMP -/POWER DRIVE	1
46	F57560	COVER-WGT BOX	2
48	F61346A3	HOSE-59.00/604/613	1
	Z20741A2	HOSE-66.00/613/682	_
49	F61345A4	HOSE-84.00/613/682	2
52	F57496	CHAIN SPACER (KAN BAN)	1
53	Z11690A5	S-SHC 1/4-20X1-1/2 ASTM A574	4

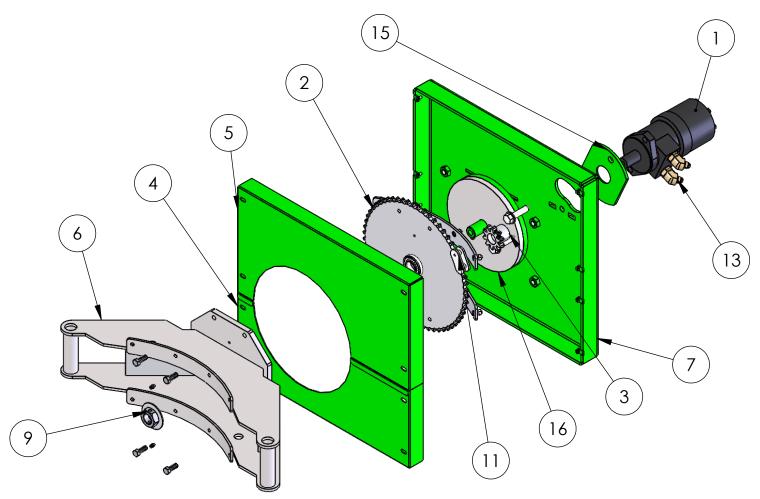


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F64056A3	GUIDE RLR-BRG ASSY	4
2	F64335A6	BACK PL WLDMT	1
3	Z10008A0	BUSH-MACH 6H 3/4x18GAx1-1/4 OD	4
4	Z10042A8	WASHER-5/16 FNDR X 1-1/4 OD	8
5	Z10461A0	NUT-HEX JAM 3/4-16	4
6	Z10539A9	S-BHSC 5/16-18x3/4	4
7	Z10594A0	WASHER-3/4 LOCK MD	4
8	Z30700A8	BALL TRANSFER-STUD MNT 1/4-20	4
9	Z51355A9	GUIDE BOLT-3/4-16 1.00X1.14	4

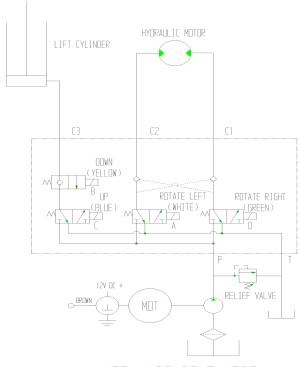


### **ROTOGRIP-90/CW SAE**

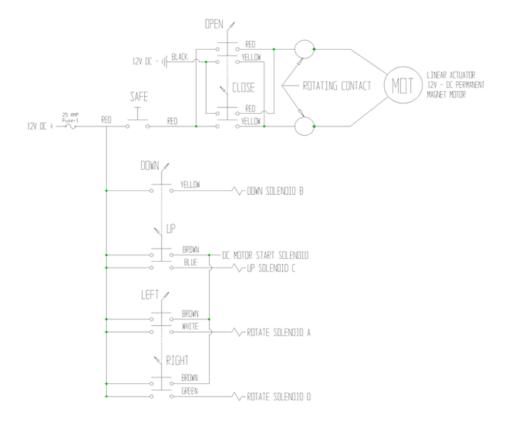
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	F69485A0	CTRL BOX WLDMT	1
4	Z00116A0	GROMMET625ID SBR	3
5	Z10708A3	LUG-SET SCREW 1/4	1
6	Z10109A8	S-HHC 1/4-20X1/2	1
7	Z10385A3	S-PTHTC #8x3/8 LG	2
8	Z10207A9	WASHER-1/4 LOCK INT TOOTH	1
9	Z10035A7	NUT-HEX KEPS 1/4-20	1
10	Z00120A4	PLUG-FLGD INLET 125V	1
11	Z20361A1	BATTERY CHARGER, DELTRAN 12/24v	1
12	Z10463A8	S-PTHM #8-32x3/8	4
13	Z20661A1	MANIFOLD-4SOL/3PORT 12V	1
14	Z20015A0	FTG 45 6802-4-6	2
15	Z20658A4	PP-BASE/12V	1
16	Z20107A9	O'RING-ARP116	1
17	Z20597A5	FTG STR 6400-4-6-O	1
18	Z20586A6	FTG 90 2501-4-4	2
19	F57738	FRT-CTRL BOX	1
20	Z00172A5	BATTERY-12V 80AH SEALED LEAD	1
21	Z30415A5	HDL PCKT PULL PLST 3.25X1.41	1
22	Z20600A2	FTG STR 2404-4-4	2
23	F58824A7	TOP-CTRL BOX (KAN BAN)	1
24	Z00463A9	BASE-ADH MNT 1 x 1	1
25	Z00522A8	PB-22MM MOM RED	1
26	Z00523A7	SWITCH-3 POS MOM SPR RTN	3
27	Z00524A6	CONTACT BLOCK N/O	2
28	Z00525A5	LEGEND-22MM "SAFE"	1
29	Z00526A4	LEGEND-22MM "UP/DOWN"	1
30	Z00527A3	LEGEND-22MM "LEFT-RIGHT"	1
31	Z00528A2	LEGEND-22MM "OPEN-CLOSE"	1
32	Z00530A0	FUSE HOLDER PANEL MNT	1
33	Z00542A8	CONTACT BLOCK 2 N/O	5
34	Z00543A7	FUSE-AGC 25 AMP	1
35	Z11698A3	CLIP ON RETAINER	4
36	Z11701A6	RETAINER 1/4 TURN	4
37	Z11700A5	PUSH-ON RETAINER	4
38	Z11699A4	EJECTOR SPRING	4
39	F61310A9	HOSE-13.00/613	2
	•		



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	Z20656A6	MOTOR-HYD/SAE	1
2	F52650A9	SPROCKET-LARGE	1
3	Z30400A2	SPROCKET-SM W/SHS	1
4	F57633	BTM SPROCKET GUARD/ROTOLIFT	1
5	F57632	TOP SPROCKET GUARD/ROTOLIFT	1
6	F63790A3	ARM WLDMT/RGRIP	1
7	F69432A8	BACK SECTION WLDMT/ROTO-LIFT	1
8	Z30420A8	BRG-TAPER ROLL 1"BOR	1
9	F52527A0	NUT-LOCK 1-14/DT (KAN BAN)	1
10	Z10627A7	ZERK-GREASE .188 DRIVE	2
11	F30214A4	CHAIN-RS 50/46" (PURCH)	1
12	Z10620A4	S-HHC 1/2-13X2 GR 5	2
13	Z20891A6	FTG 45 6802-6-10 NWO	2
14	Z10013A3	WASHER-1 ID X 2-7/16 X 5/64	1
15	F57403	MOTOR MOUNT PLATE	1
16	F57491	SPACER PLATE-1/2X 8-1/2RD	1
17	Z41024A4	URETHANE-RED 1/4X1-1/2x13	2
18	Z10099A0	S-FHM 1/4-20x3/4	8
27	Z10036A6	NUT-HEX KEPS 5/16-18	1
28	A70898-52	S-HHC 5/16-18X3 Z5 FULL TH	1



HYDRAULIC SCHEMATIC



ELECTRICAL WIRING

## 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. VALUEY CRAFT WILL IN NO EVENT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, NOR FOR ANY SUM IN EXCESS OF THB 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 property 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, freight prepaid. Otherwise, customer may call local authorized service technician for assistance. Under this arrangement, replacement parts will be sent at no charge but labor costs will NOT be covered.

#### Items NOT Under Warranty (greater than one year old or "having warranty voided):

Customer will return item to valley Craft, freight prepaid, for troubleshooting and/or repair. Valley Craft will call customer with \$\$ estimate of parts and labor for approval before repairing. Product will be returned to customer, freight collect.

0

Customer may call local authorized service technician for repairs at their own expense.



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



