

ROTOGRIP CW BATTERY POWERED



INSTRUCTION MANUAL

VALLEY CRAFT, INC. 2001 SOUTH HWY. 61, LAKE CITY, MN 55041 PH: 1-800-328-1480

Last Updated 12/06

Z41996A1

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A. Operating Instructions

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

1. **IMPORTANT!** Remove solid plug on hydraulic reservoir and install breather cap (included in the Power Pak) for proper air venting.
2. 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.
3. Move the Rotogrip forward, straddling the drum, and center the rotating jaws to the drum using the “UP/DOWN” switch on the control panel.
4. After jaws are centered on drum, push the unit forward the rest of the way so the drum touches the rear of the jaws.
5. By simultaneously depressing the “ON” button and the “CLAMP” switch on the control panel securely squeeze the drum.
NOTE: The “ON” button must be depress before the clamping mode is operational.
6. With the drum clamped, raise the drum by using the “UP” switch.
7. 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.

B. Safety Instructions

1. 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.
2. Do not leave load suspended for an extended period of time or premature wear to the lifting cylinder will occur.
3. Maximum lifting capacity is 800 pounds.

C. Maintenance Information

1. Use 12 Volt 80AH sealed lead acid AGM battery. Approximate dimensions of the battery is 10 ¼ long x 6 ¾ wide x 8 3/8 high (to top of terminals). Battery warranty is free replacement within one year of purchase.
2. Check hydraulic fluid every 40 hours or before using the machine after long set-aside periods. Three quarts of hydraulic fluid is sufficient to operate the system properly. Do not overfill. Use Dexron automatic transmission fluid only!
3. The lifting chain should be oiled periodically as needed. This is best accomplished by lowering the backplate completely and spraying lubricant onto the chain.
4. The front section assembly has two grease zerks on the backplate and should be greased every 100 hours of use.
5. Check rubber lining on jaws occasionally to insure they are in good condition (not worn, ripped, etc.) or drums may slip from the grip.

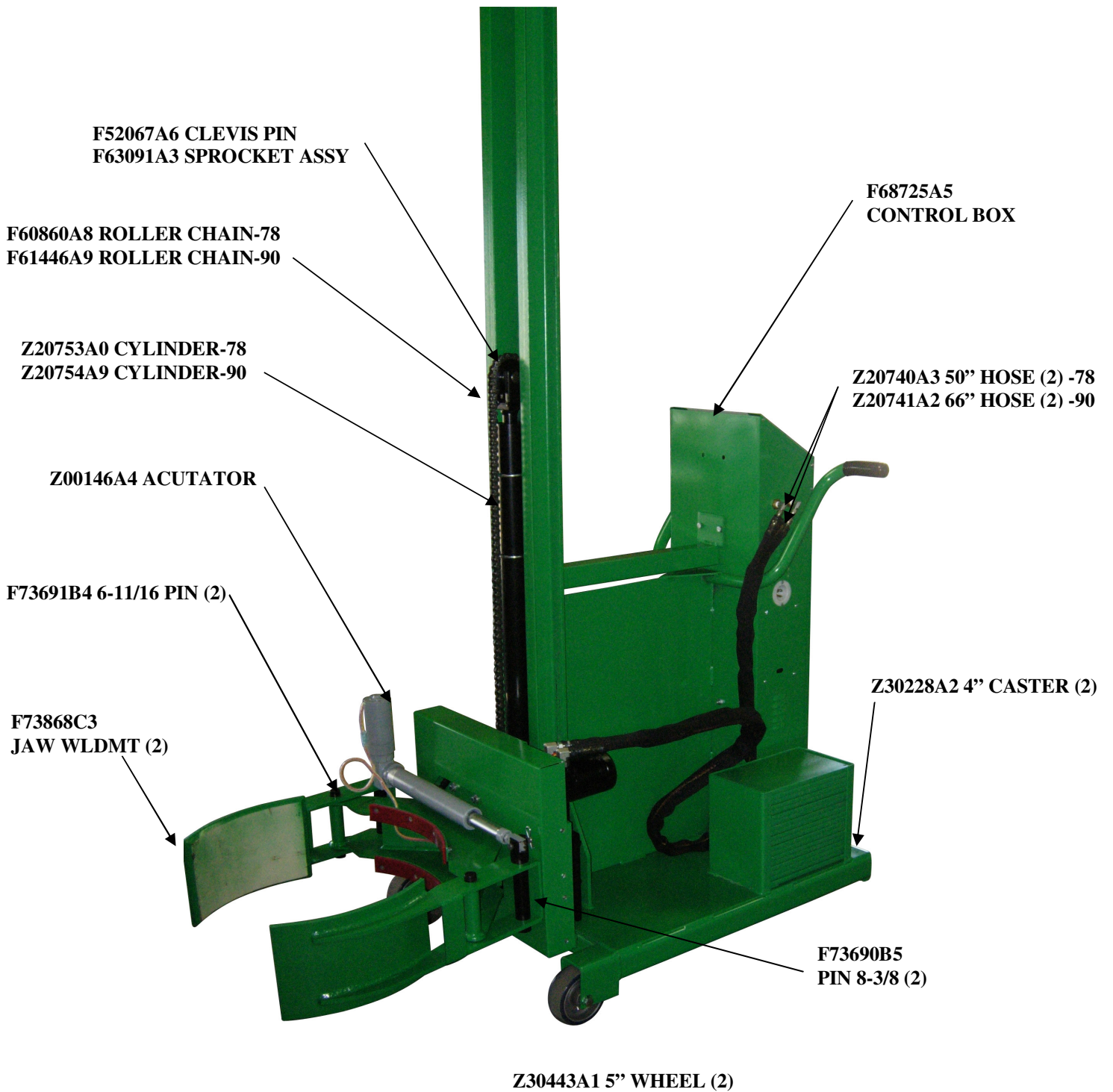
E. Battery Charging Instructions

1. Plug a grounded extension cord into built-in receptacle in Control Box and plug into outlet.
2. The Roto Grip is charged automatically, and can be left unattended while charging.
3. When re-charging is accomplished, unplug extension cord from Control Box.

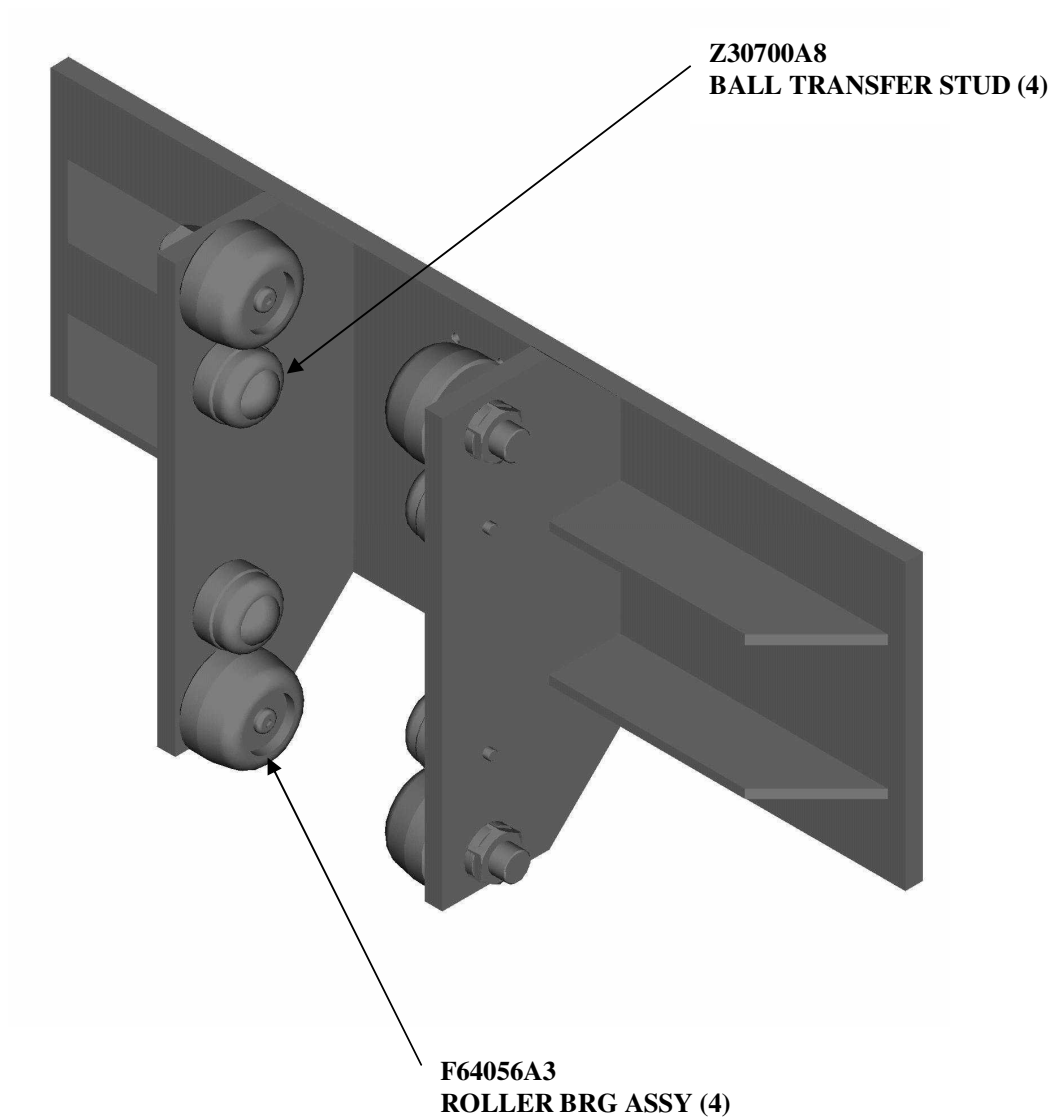
NOTES:

- A. Generally, batteries will require equal charging to work time (ex. One hour of machine use = one hour of re-charging time).
- B. It is not recommended that alternate charging devices be used.
- C. **CAUTION!** To avoid shock or burn, **NEVER** touch the unit while recharging.

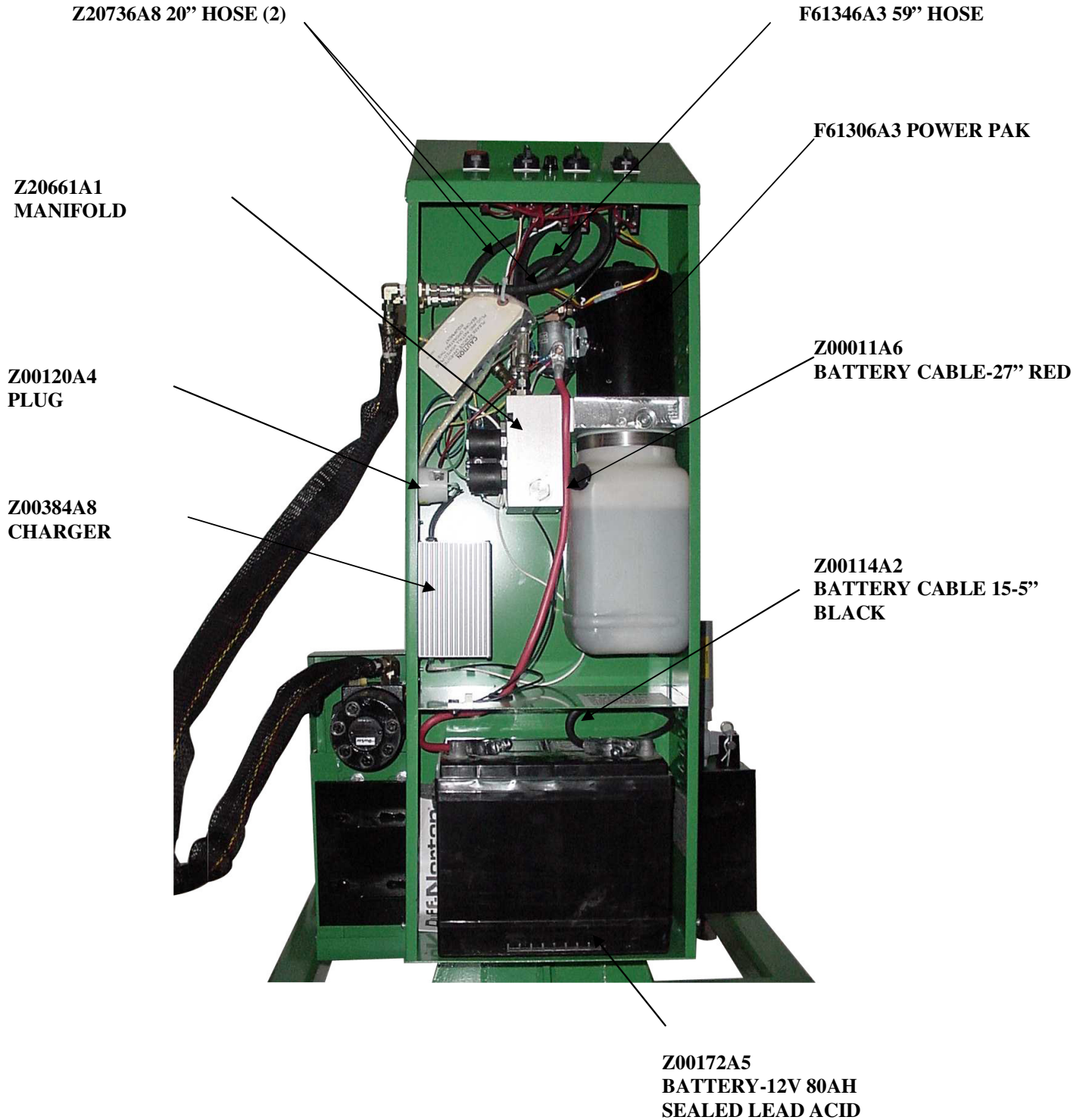
PARTS BREAKDOWN
F88587C1 ROTOGRIP-78 CW
F58588C0 ROTOGRIP-90 CW



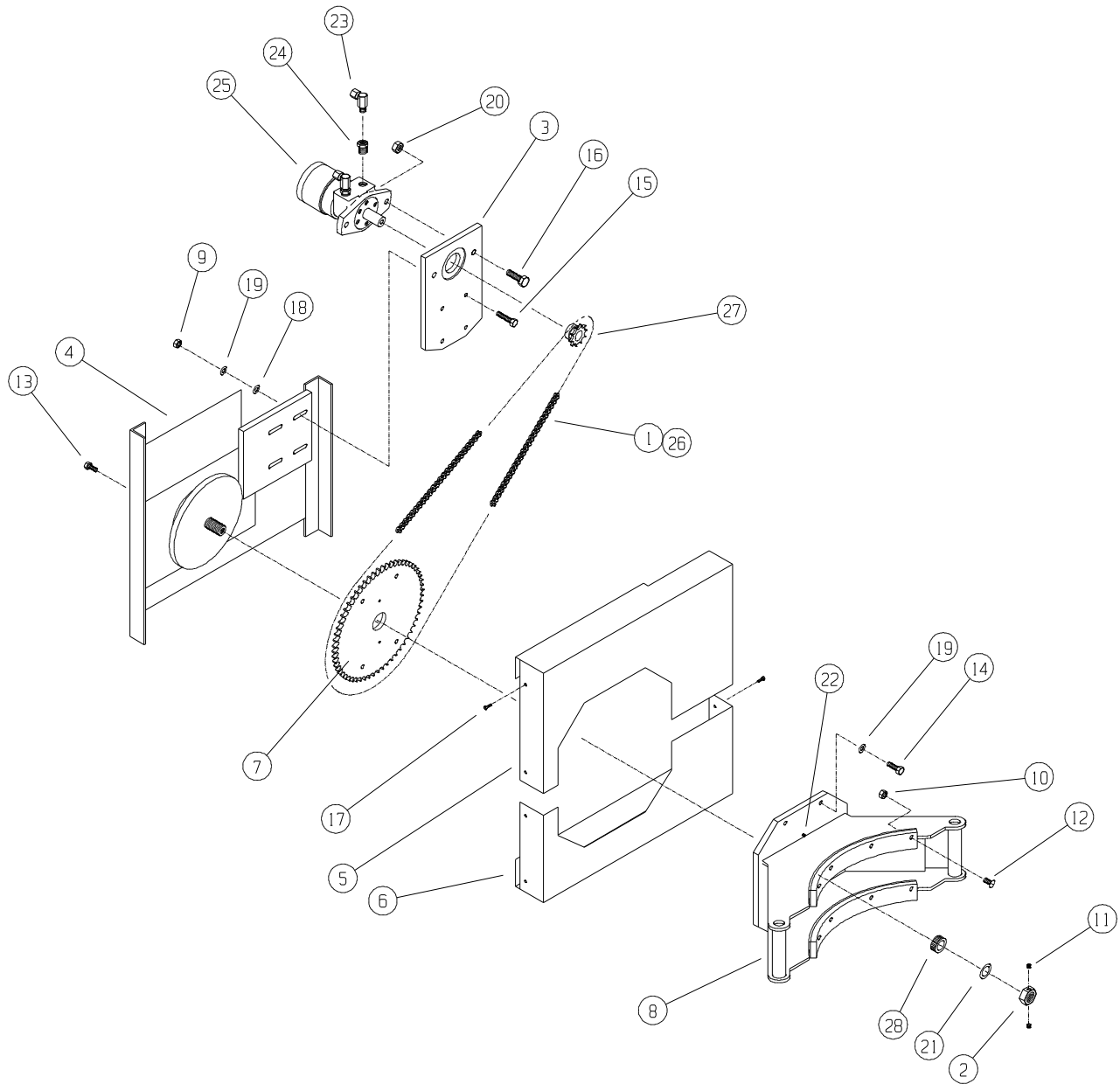
BACKPLATE ASSEMBLY
F64367A4



CONTROL BOX ASSY
F68725A5



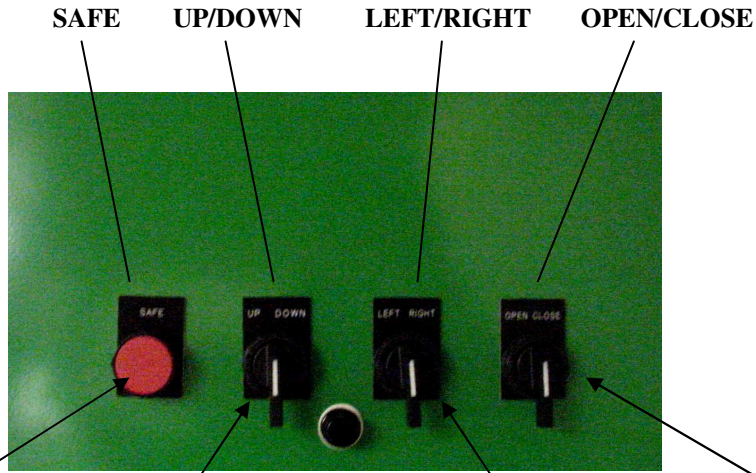
PARTS BREAKDOWN
FRONT SECTION ASSEMBLY
F63161B8



PARTS LIST

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	F30214A4	CHAIN-ROLLER	1
2	F52527A0	NUT-LOCK 1-14	1
3	F70072C7	MOTOR MOUNT	1
4	F72630C8	BACK SECTION	1
5	F72648C8	TOP-CHAIN GUARD	1
6	F72649C7	BOTTOM-CHAIN GUARD	1
7	F72650B5	SPROCKET-LARGE	1
8	F73790C3	ARM WELDMENT	1
9	Z10026A8	HEX JAM NUT 3/8-16	4
10	Z10035A7	NUT-HEX KEPS 1/4-20	8
11	Z10090A9	S-SHS 5/16-18X3/8	2
12	Z10099A0	FLAT HD SCREW 1/4-20X3/4	8
13	Z10122A1	S-HHC 5/16-18X3/4	2
14	Z10132A9	S-HHC 3/8-16X1	4
15	Z10134A7	HEX SCREW 3/8-16X1-1/2	4
16	Z10148A1	HEX SCREW 1/2-13X1-1/2	2
17	Z10166A8	SCREW #10-24X1/2	8
18	Z10202A4	FLAT WASHER 3/8 SAE	4
19	Z10214A0	LOCKWASHER 3/8	8
20	Z10393A3	NUT-LOCK 1/2-13	2
21	Z10430A5	BUSH-MACH 1X14GAX2	1
22	Z10627A7	GREASE ZERK	2
23	Z20701A3	FTG 90 6801-6-10 NOW	2
25	Z20656A6	HYDRAULIC MOTOR	1
26	Z30059A6	CONNECTING LINK	1
27	Z30400A2	SPROCKET SMALL	1
28	Z30420A8	1" TAPERED ROLLER BRG	1
29	Z41024A4	RED URETHANE	2

TOP PANEL CONTROL BOX F68729A1



Z00522A8
RED PUSHBUTTON

Z00524A6
CONTACT BLOCK N/O

Z300523A7
3-POSITION SWITCH

Z00524A6
CONTACT BLOCK N/O

Z00542A8
CONTACT BLOCK 2 N/O

Z00523A7
3-POSITION SWITCH

Z00542A8 (2)
CONTACT BLOCK 2 N/O

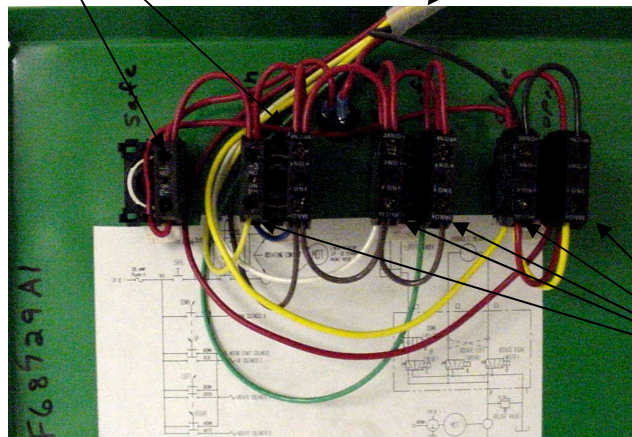
Z00523A7
3-POSITION SWITCH

Z00542A8 (2)
CONTACT BLOCK 2 N/O

CONTACT BLOCK LOCATIONS

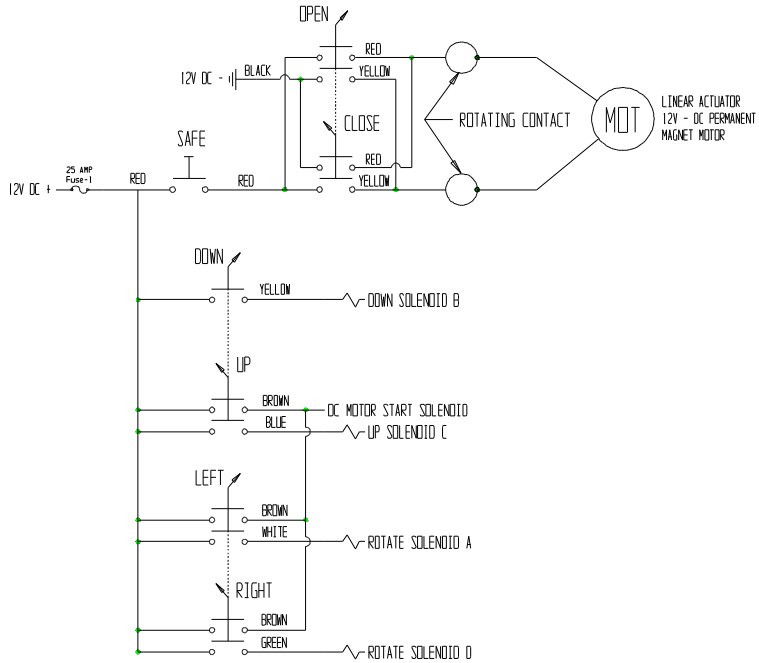
Z00524A6
CONTACT BLOCK N/O

F68726A4
WIRE HARNESS

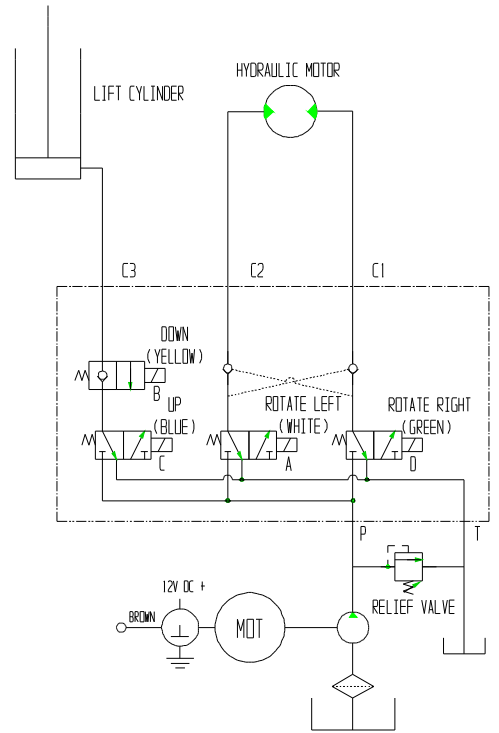


Z00542A8
CONTACT BLOCK 2 N/O

HYDRAULIC/ELECTRICAL SCHEMATIC



ELECTRICAL WIRING



HYDRAULIC SCHEMATIC

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Batteries won't charge	Faulty Battery(s) Not following recharging directions Improper grounding/wiring	Load test Batteries to ensure it is good. If battery is bad see page 7 for replacement. Refer to Battery Charging Instructions (Page 4) Tighten Charger mounting bolts and check wiring
Unit not functioning	Low/Dead Batteries Improper grounding Damaged or loose wiring Bad Switches	Recharge Batteries Check Motor & Battery wire connections. Tighten if necessary Check wiring to switches in Control Box. Re-attach loose connections. Call factory for replacement

Warranty & 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 operating 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 FOR 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, 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.

Or

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

Z4008 1A7

DEXRON III AND MERCON

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

DEXRON III AND MERCON AUTOMATIC TRANSMISSION FLUID

MSDS Code: ATFC0051

Revised: 02-Aug-2000

"DEXRON" is a registered trademark of General Motors Corp.

"MERCON" is a registered trademark of Ford Motor Company.

Conoco Blend Code: 6682

MANUFACTURER/DISTRIBUTOR

Conoco Inc.
P.O. Box 2197
Houston, TX 77252

PHONE NUMBERS

Product Information: 1-281-293-5550

Transport Emergency: CHEMTREC 1-800-424-9300 (U.S. & Canada)
703-527-3887 (elsewhere; call collect)

Medical Emergency: 1-800-342-5119 or 281-493-2767

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	%
Highly refined base oils	>70
Proprietary Additives	<30

If oil mist is generated, exposure limits apply. (See Section 8.)

3. HAZARDS IDENTIFICATION

--- EMERGENCY OVERVIEW ---

APPEARANCE / ODOR

Red liquid / mild petroleum hydrocarbon odor.

OSHA REGULATORY STATUS

This material is classified as nonhazardous under OSHA Regulations.

HMIS RATING

Health: 1; Flammability: 1; Reactivity: 0

Potential Health Effects

Primary Route of Entry: Skin

The product, as with many petroleum products, may cause minor skin, eye, and lung irritation, but good hygienic practices can minimize these effects.

Normal use of this product does not result in generation of an oil mist. However if an oil mist is generated, overexposure can cause minor and reversible irritation to the eyes, skin, and especially

the lungs. Proper personal protective equipment and sufficient ventilation can provide adequate protection.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES

Inhalation

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Skin Contact

Wash skin thoroughly with soap and water. If irritation develops and persists, consult a physician.

Eye Contact

In case of contact, immediately flush eyes with plenty of water at least 15 minutes. Call a physician.

Ingestion

Material poses an aspiration hazard. If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration.

Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point (minimum) : 351 F (177 C)
(typical) : 356 F (180 C)
Method : COC

NFPA Classification : Class **IIIB** Combustible Liquid.
NFPA Rating : Health 0; Flammability 1; Reactivity 0

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water may be used to flush spills away from exposures.

Products of combustion may contain carbon monoxide, carbon dioxide, **and** other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Remove source of heat, sparks, and flame.

Initial Containment

Dike spill. Prevent material from entering sewers, waterways, or low areas.

Spill Clean Up

Recover free liquid for reuse or reclamation. Soak up with sawdust, sand, oil dry or other absorbent material.

7. HANDLING AND STORAGE

Handling (Personnel)

Avoid breathing vapors or mist. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Wash contaminated clothing prior to reuse.

Handling (Physical Aspects)

Close container after each use. Do not pressurize, cut, weld, braze, solder, grind, or drill on or near full or empty container. Empty container retains residue (liquid and/or vapor) and may explode in heat of a fire.

Storage

Store in accordance with National Fire Protection Association recommendations. Store in a cool, dry place. Store away from heat, sparks and flames, oxidizers. Close container after each use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

VENTILATION

Normal shop ventilation.

Personal Protective Equipment

RESPIRATORY PROTECTION

None normally required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Select appropriate NIOSH-approved respiratory protective equipment when exposed to sprays or mists. Proper respirator selection should be determined by adequately trained personnel **and** based on the contaminant(s), the degree of potential exposure, **and** published respirator protection factors.

PROTECTIVE GLOVES

Should be worn when the potential exists for prolonged or repeated skin contact. NBR or neoprene recommended.

EYE PROTECTION

Safety glasses with side shields.

OTHER PROTECTIVE EQUIPMENT

Coveralls with long sleeves if splashing is probable.

Applicable Exposure Limits

If oil mist is generated, exposure limits apply.

PEL (OSHA) : 5 mg/m³, 8 Hr. TWA
TLV (ACGIH) : 5 mg/m³, 8 Hr. TWA, STEL 10 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : 650-950 F (343-510 C).
Vapor Pressure : Nil.
Vapor Density : >1 (Air=1.0)
% Volatiles : Nil.
Evaporation Rate : Nil.
Solubility in Water : Insoluble.
Odor : Petroleum Hydrocarbon (mild).
Form : Liquid.
Color : Red.
Specific Gravity : 0.86-0.87 @ 60 F (16 C).
Pounds per Gallon : 7.2 @ 60 F (16 C)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable.

Conditions to Avoid

Heat, sparks, and flames.

Incompatibility with Other Materials

Incompatible or can react with oxidizers.

Decomposition

Normal combustion forms carbon dioxide; incomplete combustion may produce carbon monoxide.

Polymerization

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Animal Data

Mouse skin painting studies have shown that highly solvent-refined petroleum distillates similar to ingredients in this product have not caused skin tumors.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

No specific aquatic data available for this product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

Container Disposal

Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner.

14. TRANSPORTATION INFORMATION

Shipping Information

DOT: Not regulated.
ICAO/IMO: Not restricted.

15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD DETERMINATION (29 CFR 1910.1200)

Under normal conditions of use, this material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA/SUPERFUND (40 CFR 302)

Not applicable; this material is covered by the CERCLA petroleum exclusion.

SARA, TITLE **III**, 302/304 (40 CFR 355)

This material is not known to contain extremely hazardous Substances.

SARA, TITLE **III**, 311/312 (40 CFR 370)

Acute : No
Chronic : No
Fire : No
Reactivity : No
Pressure : No

SARA, TITLE **III**, 313 (40 CFR 372)

This material is not known to contain any chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and subject to release reporting requirements.

TSCA (40 CFR 710)

Material and/or components are listed in the TSCA Inventory of Chemical Substances (40 CFR 710).

RCRA (40 CFR 261)

This material has been evaluated for RCRA characteristics **and** does not meet hazardous waste criteria if discarded in its purchased form. Because of product use, transformation, mixing, processing, etc., which may render the resulting material hazardous, it is the product user's responsibility to determine at the time of disposal whether the material meets RCRA hazardous waste criteria.

CLEAN WATER ACT (40 CFR 116.4a)

The material contains the following ingredient(s) which is considered hazardous if spilled into navigable waters and therefore reportable to the National Response Center (1-800-424-8802).

Ingredient : Petroleum Hydrocarbons.
Reportable Quantity : Film or sheen upon or discoloration of any water surface.

State Regulations (U.S.)

CALIFORNIA "PROP 65"

The material contains ingredient(s) known to the State of California to cause cancer, birth defects, or other reproductive harm. Read **and** follow all label directions.

Ingredient	: Benzene	(CAS # 71-43-2)	<0.0001%
Ingredient	: Aniline	(CAS # 62-53-3)	<0.0001%
Ingredient	: o-Toluidine	(CAS # 95-53-4)	<0.0001%
Ingredient	: Ethyl acrylate	(CAS # 140-88-5)	<0.03%

PENNSYLVANIA WORKER & COMMUNITY RIGHT TO KNOW ACT

This material is not known to contain any ingredient(s) subject to the Act.

Canadian Regulations

This is not a WHMIS Controlled Product.

16. OTHER INFORMATION

NOTE: This product or any other hydrocarbon-based lubricant should not be used in non-diaphragm compressors that produce "breathing air" unless the outlet is monitored continuously for carbon monoxide. These lubricants can produce carbon monoxide when subjected to high temperatures.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator
Address : Conoco Inc.
> : PO Box 2197
> : Houston, TX 77252
Telephone : 1-281-293-5550
Web Site : www.conoco.com

Indicates updated section.

End of MSDS

Material Safety Data Sheet

SUPER-STA GREASE

1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

SUPER-STA Grease

MSDS Code: GREC0290

Revised: 05-Oct-2000

"SUPER-STA" is a registered trademark of Conoco.

Grade: No. 1, No. 2

Conoco Base Codes: 9029, 9030

MANUFACTURER/DISTRIBUTOR

Conoco Inc.

PO Box 2197

Houston, TX 77252

PHONE NUMBERS

Product Information : 1-281-293-5550

Transport Emergency : 1-800-424-9300 or
1-703-527-3887 (call collect)

Medical Emergency : 1-800-342-5119 or 1-281-493-2767

2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	%
Highly Solvent-Refined Base Oils		>85
Lithium Stearate Soap	7620-77-1	<10
Zinc Compound		0-1
Proprietary Additives		<10

3. HAZARDS IDENTIFICATION

--- EMERGENCY OVERVIEW ---

APPEARANCE / ODOR

Amber solid / mild petroleum hydrocarbon odor.

OSHA REGULATORY STATUS

This material is not known to be hazardous as defined under OSHA regulations.

HMIS RATING

Health: 1; Flammability: 1; Reactivity: 0

Potential Health Effects

Primary Route of Entry: Skin

The product, as with many petroleum products, may cause minor skin, eye, and lung irritation, but good hygienic practices can minimize these effects.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

4. FIRST AID MEASURES

First Aid

INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

Wipe off excess with towel. Wash skin thoroughly with soap and water. If irritation develops and persists, consult a physician. If injected under the skin, necrosis could occur. See physician.

EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

High velocity injection under the skin can cause a bloodless puncture wound and result in necrosis. Immediate attention by a surgical specialist is recommended.

5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : 500 F (260 C) (Base Oil)
Method : Cleveland Open Cup - COC.
Autoignition : Not Available
NFPA Classification : Class IIIB Combustible Liquid.
NFPA Rating : Health 0; Flammability 1; Reactivity 0.

Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Fire Fighting Instructions

Water or foam may cause frothing. Use water to keep fire-exposed containers cool. Water may be used to flush spills away from exposures.

Products of combustion may contain carbon monoxide, carbon dioxide, and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Recover undamaged and minimally contaminated material for reuse and reclamation. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up.

7. HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Wash contaminated clothing prior to reuse.

Handling (Physical Aspects)

Close container after each use. Do not pressurize, cut, weld, braze, solder, grind, or drill on or near full or empty container. Empty container retains residue (liquid and/or vapor) and may explode in heat of a fire.

Storage

Store in accordance with National Fire Protection Association recommendations. Store away from oxidizers, heat, sparks and flames.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

VENTILATION

Normal shop ventilation.

Personal Protective Equipment

RESPIRATORY PROTECTION

None normally required except under unusual circumstances such as described under fire fighting measures.

PROTECTIVE GLOVES

Should be worn when the potential exists for prolonged or repeated skin contact. NBR or neoprene recommended.

EYE PROTECTION

Safety glasses with side shields.

OTHER PRECAUTIONS

Avoid prolonged skin contact by practicing good personal hygiene and laundering contaminated clothing.

Exposure Limits

PEL (OSHA) : None Established
TLV (ACGIH) : None Established

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point : Not Applicable
Vapor Pressure : Nil
Vapor Density : >1 (Air=1.0)
% Volatiles : Nil
Evaporation Rate : Nil
Solubility in Water : Insoluble
Odor : Petroleum Hydrocarbon (mild).
Form : Solid.
Color : Amber.
Specific Gravity : Not Available
Density : 7.1-7.2 lb/gal @ 60 F (16 C)

10. STABILITY AND REACTIVITY

Chemical Stability

Stable.

Conditions to Avoid

Heat, sparks, and flames.

Incompatibility with Other Materials

Incompatible or can react with strong oxidizers.

Decomposition

Normal combustion forms carbon dioxide; incomplete combustion may produce carbon monoxide.

Polymerization

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Animal Data

Mouse skin painting studies have shown that highly refined petroleum lube base oils similar to ingredients in this product have not caused skin tumors.

Animal skin exposure studies show high concentrations of zinc organic phosphates cause testicular atrophy, but this effect appears related to stress from the chemical causing severe skin irritation. Low concentrations of the zinc component, as occurs in lubricant products, would be unlikely to cause testicular damage.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information

No specific aquatic data available for this product.

13. DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Incinerate material in accordance with Federal, State/Provincial and Local requirements. Do not flush to surface water or sanitary sewer system.

Container Disposal

Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner.

14. TRANSPORTATION INFORMATION

Shipping Information

DOT: Not regulated.
ICAO/IMO: Not restricted.
Canada: Not regulated.

15. 15. REGULATORY INFORMATION

U.S. Federal Regulations

OSHA HAZARD DETERMINATION

This material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA/SUPERFUND

Not applicable; this material is covered by the CERCLA petroleum exclusion.

SARA, TITLE III, 302/304

This material is not known to contain extremely hazardous substances.

SARA, TITLE III, 311/312

Acute : No
Chronic : No
Fire : No
Reactivity : No
Pressure : No

SARA, TITLE III, 313

This material contains the following chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and is subject to toxic chemical release reporting requirements:

Toxic Chemical : Zinc Compound.
CAS Number : Not available.

TSCA

Material and/or components are listed in the TSCA Inventory of Chemical Substances (40 CFR 710).

RCRA

This material has been evaluated for RCRA characteristics and does not meet hazardous waste criteria if discarded in its purchased form. Because of product use, transformation, mixing, processing, etc., which may render the resulting material hazardous, it is the product user's responsibility to determine at the time of disposal whether the material meets RCRA hazardous waste criteria.

CLEAN WATER ACT

The material contains the following ingredient(s) which is considered

hazardous if spilled into navigable waters and therefore reportable to the National Response Center (1-800-424-8802).

Ingredient : Petroleum Hydrocarbons.
Reportable Quantity : Film or sheen upon or discoloration of any water surface.

State Regulations (U.S.)

CALIFORNIA "PROP 65"

This material is not known to contain any ingredient(s) subject to the Act.

PENNSYLVANIA WORKER & COMMUNITY RIGHT TO KNOW ACT

This material may contain the following ingredient(s) subject to the Pennsylvania Worker and Community Right to Know Hazardous Substances List.

Ingredient : Zinc Compound.
CAS Number : Not available.
Category : Environmental Hazardous Substance.

Canadian Regulations

This is not a WHMIS Controlled Product.

16. OTHER INFORMATION

Sales Office Numbers:

Australia	India
Office Manager	Tel: 91-80-227 7462/7463
Office Hours 8 a.m.-5 p.m.	Fax: 91-80-221 5513
Monday-Friday (excluding holidays)	
Tel: 61-7-5452 9900	
Fax: 61-7-5452 9999	
Malaysia	Mexico
Tel: 60-3-202 5233	Tel: 0-1-800-709-1200
Fax: 60-3-202 5266	Fax: 52-5-722-1455
Singapore	Thailand
Tel: 65-536 0010	Tel: 66-2-955-0195
Fax: 65-536 0012	Fax: 66-2-955-0190
Other	
Tel: 281-293-5768	
Fax: 281-293-2287	

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator
Address : Conoco Inc.
> : PO Box 2197
> : Houston, TX 77252
Telephone : 1-281-293-5550

Indicates updated section.

End of MSDS

1

Ascent Battery Supply, LLC
925 Walnut Ridge Drive
Hartland, Wisconsin 53029

Material Safety Data Sheet Sealed Lead Acid

The information and recommendations below are believed to be accurate at the date of preparation. Ascent Battery makes no warranty of merchantability or any other warranty, express or implied, with respect to such information and we assume no liability resulting from its use. This MSDS sheet provides guidelines for safe use and handling of the product. It does not and cannot advise all possible situations. Your specific use of this product should be evaluated to determine if additional precautions must be taken.

Company Ascent Battery Supply, LLC

Emergency

Number CHEMTREC (800) 424-9300

Address

Ascent Battery Supply, LLC
925 Walnut Ridge Dr.

Hartland, WI 53029

Overseas

Emergency

Number CHEMTREC (703) 527-3887

Date Prepared 1/23/03

SECTION 1 - IDENTITY

Product Name Sealed Lead Acid Battery

Common

Synonyms

SLA, VRLA, AGM

DOT Description Wet Battery, non-spillable

Chemical Name Sealed Lead Acid; Secondary Battery
Battery

SECTION 2 - HAZARDOUS INGREDIENTS

Chemical Name CAS No. Percentage %

Lead 7439-92-1 50

Lead Dioxide 1309-60-0 21

Lead Sulfate 7446-14-2 1

Sulfuric Acid 7664-93-9 22

Case Material N/A 6

SECTION 3 - PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point NA Melting Point Polypropylene > 320° F

Vapor Pressure NA Vapor Density NA
Specific Gravity Lead, approx. 13 Percent Volatile By Volume None
Solubility in Water NA Reactivity in Water NA
Appearance and Odor Rectangular polypropylene
or polystyrene case with lead
terminals
Evaporation Rate NA
Flash Point Polypropylene case
675° F
Flammable Limits in Air %
by Volume
NA
Extinguisher Media Halon, dry chemical Auto-Ignition Temperature NA
Special Fire
Fighting
Procedures
Extinguish fire with agent suitable for surrounding combustible materials.
Cool exterior of battery if
exposed to fire to prevent or stop release of lead chemicals and fumes.
Unusual Fire and
Explosion Hazards
None

2

SECTION 4 - PHYSICAL HAZARDS

Stable or Unstable Stable Conditions to Avoid Electrical shorting the
battery.

Incompatibility

(Materials to Avoid)

Keep battery clear of strong oxidizers and solvents.

Hazardous

Decomposition

NA

Hazardous

Polymerization

Will Not Occur

SECTION 5 - HEALTH HAZARDS

Threshold

Limit Value

Permissible exposure limits Lead TVL 0.15mg/m³ PEL 0.05mg/m³

Sulfuric Acid TVL 1 mg/m³ PEL 1mg/m³

Signs and Symptoms

of Exposure

Exposure to sulfuric acid, lead, lead dioxide, or lead sulfate may occur if
the sealed battery case
is damaged.

Exposure to lead may include:

Chronic over exposure: Tire easily, loss of appetite, irritability, metallic
taste, insomnia; toxic to
nervous system, kidneys and reproductive system.

Acute overexposure: Constipation, vomiting, blue line on gums, weak wrists
and ankles, weight
loss, yellowish skin.

Exposure to sulfuric acid:

Chronic over exposures: inhalation-erosion of teeth, inflammation of nose,
throat and bronchial
tubes.

Acute overexposure: Eyes - severe burns, cornea damage, blindness. Skin -
severe irritation,
burns, ulceration. Inhalation - respiratory irritation, inflammation of
bronchial membranes.

Ingestion- severe burns of the mouth, throat, esophagus and stomach, damage to kidney and intestinal tract.

Medical Conditions

Generally Caused by

Exposure

Respiratory exposure to airborne sulfuric acid will increase damaged to lungs and other pulmonary conditions. Harmful effects of lead are increased for a person with dietary deficiencies in calcium, iron and zinc.

Routes of Entry Skin, Eyes, Swallowing

Emergency and First

Aid Procedures for

Lead and Sulfuric Acid

1. Inhalation Get fresh air. If symptoms persist seek medical attention

2. Eyes and Skin If a cell ruptures flush, with copious quantities of flowing lukewarm water for a minimum of 15

minutes. Get immediate medical attention for eyes. Wash skin with soap and water. Remove all contaminated clothing.

4. Ingestion Ingestion of battery chemicals can be harmful. Call The National Battery Ingestion Hotline

(202-625-3333) 24 hours a day, for procedures treating ingestion of chemicals. Do not induce

vomiting. Dilute by giving milk and water. Do not give anything by mouth to an unconscious person.

SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory

Protection

If product is involved in fire, it may cause the release of dust and fumes and the use of a face mask is recommended.

Ventilation Charge batteries in a well ventilated area.

Local

Exhaust

NA

Mechanical

(General)

NA

Gloves Use gloves when handling

SLA batteries.

Safety Glasses Always wear safety glasses when working with batteries and cells.

SECTION 7 - SPECIAL PRECAUTIONS - SPILL AND LEAKAGE PROCEDURES

Storing Procedures Store in dry and ventilated area.

Other Precautions Do not store in air tight container. Do not allow metal or other conductive materials to short circuit terminals

Steps if chemicals are spilled

Will not occur unless case is damaged or vents. Pick up and place in materials in container.

Neutralize sulfuric acid with lime, soda ash or sodium bicarbonate.

Waste Disposal Batteries must be recycled.

Transportation Considered to be "Wet Batteries" but are non-spillable. All of our lead acid batteries are unregulated

by DOT for transportation by truck, rail, ocean and air transportation because they meet the requirements of 49 CFR 173.159 (d). The only transportation requirements are :

- 1) The battery must be securely packaged in such a way to prevent the possibility of short circuiting.
- 2) The battery and the outer most packaging must be labeled "NONSPILLABLE" or "NONSPILLABLE BATTERY".



Supply, LLC
Drive
53029

Ascent Battery
925 Walnut Ridge
Hartland, Wisconsin

Hoja Informativa de Sustancias Peligrosas (Hoja MSDS) Batería Sellada de Plomo Ácido – Tipo AGM

La información y las recomendaciones que se encuentran abajo se consideran que son precisas a la fecha de su preparación. Ascent Battery no hace garantías de comercialidad o ningún otro tipo de garantía, explícita o implícita, en relación con dicha información y no nos hacemos responsables como resultado de su uso. Esta Hoja MSDS proporciona lineamientos para el uso y manejo seguros del producto. No proporciona ni podrá proporcionar información de todas las posibles situaciones. Usted debe evaluar el uso en particular que le quiere dar a este producto para determinar si debe tomar precauciones adicionales.

Compañía	Ascent Battery Supply, LLC	Número de Emergencia	INFOTRAC 800-535-5053
Dirección	Ascent Battery Supply, LLC 925 Walnut Ridge Dr. Hartland, WI 53029	Número de Emergencia Internacional	INFOTRAC 800-535-5053
Fecha de revisión	Sept/05		

SECCIÓN 1 – IDENTIFICACIÓN

Nombre del Producto	Batería Sellada de Plomo Ácido
Sinónimos Comunes	SLA, VRLA, AGM, Sellada Recombinante
Descripción DOT	Batería mojada, no derramable
Nombre Químico	Batería Sellada de Plomo Ácido, Batería Secundaria, Batería

SECCIÓN 2 – INGREDIENTES PELIGROSOS

Nombre Químico	No. del CAS	Porcentaje %
Plomo	7439-92-1	50
Dióxido de plomo	1309-60-0	21
Sulfato de plomo	7446-14-2	1
Ácido sulfúrico	7664-93-9	22
Material del armazón	N/A	6

SECCIÓN 3 – CARACTERÍSTICAS FÍSICAS Y QUÍMICAS

Punto de ebullición	NA	Punto de fusión	Polipropileno 320°F
Presión de vapor	NA	Densidad de vapor	NA
Peso específico	Plomo, aprox. 13	Porcentaje volátil por volumen	Nada
Solubilidad en agua	NA	Reactividad en agua	NA
Aspecto y olor	Armazón rectangular de	Tasa de evaporación	NA

	polipropileno o poliestireno con terminales de plomo		
Punto de inflamación	Armazón de polipropileno 675° F	Límites inflamables en aire % por volumen	NA
Medios de extinción	Halón, producto químico en polvo	Temperatura de autoencendido	NA
Procedimientos especiales para la extinción de incendios	Apague el fuego con un agente apto para los materiales combustibles que se encuentran cerca. Enfríe el exterior de la batería si está expuesta al fuego para prevenir o detener la liberación de sustancias químicas de plomo y emanaciones.		
Peligros poco comunes de incendio y explosión	Ningunos		

SECCIÓN 4 – PELIGROS FÍSICOS

Estable o inestable	Estable	Condiciones que se deben evitar	Cortocircuito eléctrico de la batería	
Incompatibilidad (Materiales que se deben evitar)	Mantenga la batería lejos de oxidantes y solventes fuertes			
Descomposición peligrosa	NA			
Polimerización peligrosa	No sucederá			

SECCIÓN 5 – PELIGROS PARA LA SALUD

Valor límite umbral (TVL)	Límites permisibles de exposición	Plomo	TVL 0.15mg/m ³	PEL
		Ácido sulfúrico	TVL 1 mg/m ³	PEL
	1mg/m ³			
Signos y síntomas de exposición	Exposición a ácido sulfúrico, plomo, dióxido de plomo, o sulfato de plomo puede suceder si se daña el armazón sellado de la batería. Exposición al plomo puede incluir: Sobre exposición crónica: La persona se cansa fácilmente, pérdida del apetito, irritabilidad, sabor metálico, insomnio, tóxico al sistema nervioso, riñones y sistema reproductivo. Sobre exposición aguda: Constipación, vómitos, línea azul en las encías, muñecas y tobillos débiles, pérdida de peso, piel amarillenta. Exposición al ácido sulfúrico: Sobre exposición crónica: Inhalación – erosión de los dientes, inflamación de la nariz, garganta y bronquios Sobre exposición aguda: Ojos – quemaduras severas, daños a la córnea, ceguera. Piel – irritación severa, quemaduras, ulceraciones. Inhalación – irritación respiratoria, inflamación de las membranas bronquiales. Ingestión – quemaduras severas de la boca, garganta, esófago y estómago, daños al riñón y sistema intestinal.			
Condiciones médicas causadas generalmente debido a la exposición	Exposición respiratoria al ácido sulfúrico en el aire aumentará el daño a los pulmones y otras condiciones pulmonares. Los efectos dañinos del plomo aumentan para personas con deficiencias alimenticias de calcio, hierro y zinc.			
Vías de entrada	Piel, ojos, ingestión			

Procedimientos de emergencia y primeros auxilios para:	Plomo y ácido sulfúrico
1. Inhalación	Sálgase al aire fresco. Si persisten los síntomas, obtenga atención médica
2. Ojos y piel	Si estalla una celda, enjuague con cantidades abundantes de agua tibia corriendo durante un período máximo de 15 minutos. Obtenga atención médica inmediatamente para los ojos. Lave la piel con agua y jabón. Quite todas las prendas contaminadas.
4. Ingestión	La ingestión de sustancias químicas de las baterías puede ser dañina. Llame a la Línea Directa Nacional para la Ingestión de Sustancias de Baterías(202-625-3333) las 24 horas del día, para los procedimientos para responder a la ingestión de sustancias químicas. No provoque el vómito. Diluya al dar leche y agua. No proporcione nada por vía oral a una persona inconsciente.

SECCIÓN 6 – INFORMACIÓN ESPECIAL DE PROTECCIÓN PERSONAL

Protección respiratoria	Si el producto está involucrado en un incendio, puede causar la liberación de polvo y emanaciones y se recomienda el uso de una máscara facial.				
Ventilación	Cargue las baterías en un lugar bien ventilado.	Escape local	NA	Mecánica (General)	NA
Guantes	Use guantes siempre al manejar las baterías SLA.	Lentes/gafas de seguridad		Use siempre lentes/gafas de seguridad al trabajar con baterías y celdas.	

SECCIÓN 7 – PRECAUCIONES ESPECIALES – PROCEDIMIENTOS EN CASO DE DERRAMES Y FUGAS

Procedimientos de almacenamiento	Almacene en un lugar seco y ventilado.
Otras precauciones	No almacene en un recipiente hermético. No permita que materiales metálicos u otros materiales conductivos hagan cortocircuito con las terminales.
Manejo de derrames químicos	No sucederá a menos que el armazón sea dañado o tenga fuga. En este caso, levante los materiales dañados y colóquelos en un recipiente, luego neutralice el ácido sulfúrico con cal, carbonato de sodio o bicarbonato de sodio.
Eliminación final	Las baterías se deben reciclar.
Transporte	Son consideradas como “Baterías Mojadas” pero no son derramables. Todas nuestras baterías de ácido de plomo no están reglamentadas por el DOT en cuanto a su transporte por camión, ferrocarril, mar y aéreo puesto que cumplen con los requisitos de la norma 49 CFR 173.159 (d). Los únicos requisitos de transporte incluyen: 1) La batería debe ser debidamente empaquetada de tal manera para prevenir la posibilidad de crear un cortocircuito. 2) La batería y la envoltura exterior deben tener una etiqueta que dice “NONSPILLABLE” (No derramable) o “NONSPILLABLE BATTERY” (Batería no derramable).