

Valley Craft
BARREL HAWK
DRUM HANDLERS



MODEL 8575
RAPTOR WITH BEAK



MODEL 8576
HARRIER



MODEL 8577
RAPTOR WITH STRAPS

INSTRUCTION MANUAL

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Operation Instructions (MODEL 8575 – RAPTOR WITH BEAK)

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.

All personnel who are 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.

To **RAISE** beak assembly:

With the release lever on top of the hand pump in the vertical position, move the hand pump handle up and down.

To **LOWER** the beak assembly:

Flip the release lever on top of the hand pump to the horizontal position. To stop lowering, return the release lever to its “original” vertical position.

- Raise/Lower the beak to a height slightly above the top of the drum.
- Move the Raptor forward until the backplate comes in contact with the drum.
- Flip the release lever on the hand pump to the horizontal position and lower the beak over the lip of the drum.
- When the beak has engaged the lip of the drum, return the release lever to the vertical “lifting” position.
- Raise the drum by operating the hand pump until the desired lifting height is achieved.
- To release the drum, lower the drum to the floor and simultaneously back the Raptor away from the drum.
- **Read and comply with all instructions and recommendations prior to operating unit.**

Note: To handle 55 and 85 gallon drums, the beak should be attached through the upper two holes of the backplate. To handle 30 gallon drums, the beak should be attached through the lower two holes of the backplate.

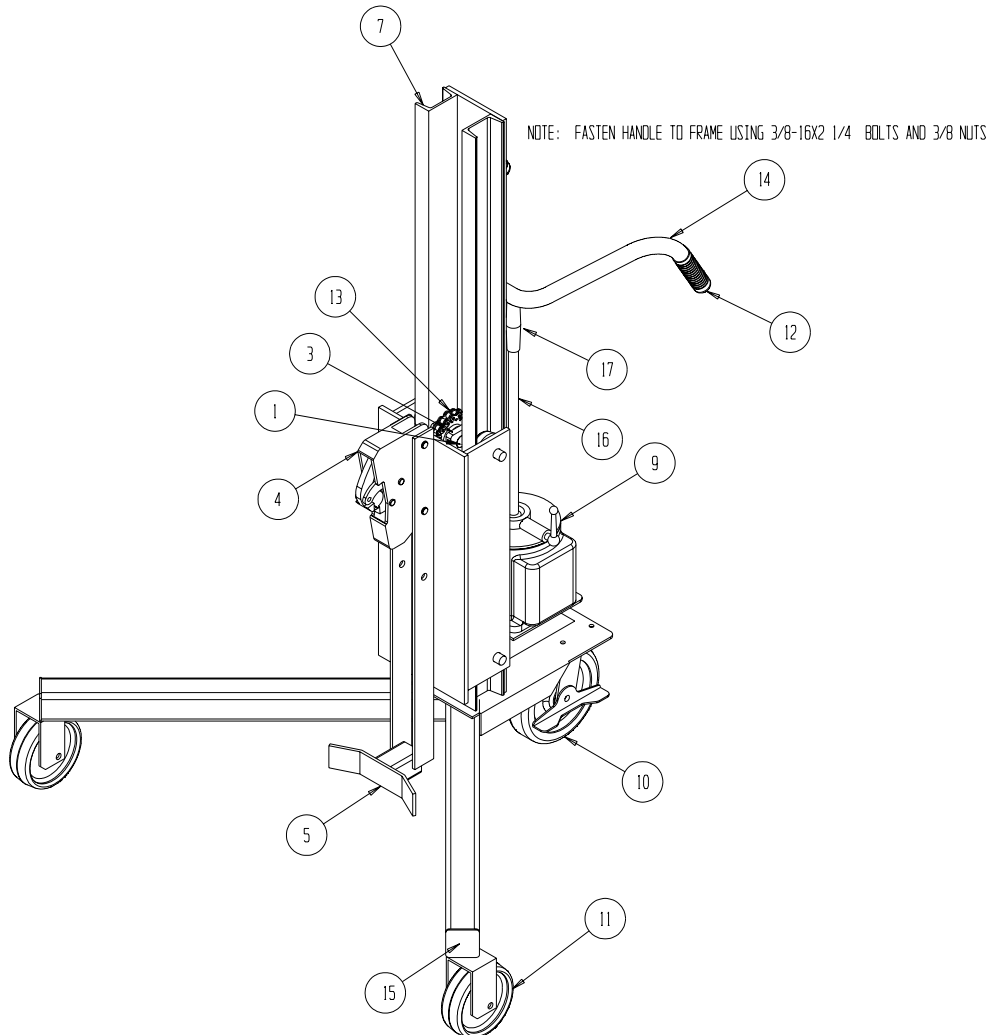
Safety Information (MODEL 8575)

- When transporting a load, it is recommended that the drum is lowered as close to the floor as possible to reduce the chances of accidents during transport.
- Do not leave load suspended for an extended period of time or premature wear to the lifting cylinder may occur.

PARTS LAYOUT (MODEL 8575 – RAPTOR WITH BEAK)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	F52067A6	CLEVIS PIN	1
2*	Z20736A8	HOSE-20"	1
3	F63091A3	SPROCKET ASSEMBLY	1
4	F63877A5	BEAK ASSEMBLY	1
5	F64982A8	BACK PLATE ASSEMBLY	1
6*	Z20755A8	CYLINDER ASSEMBLY	1
7	F74985A5	FRAME	1
8*	Z20734A0	BREATHER VENT	1
9	Z20745A8	HAND PUMP	1
10	Z30538A8	SWIVEL CASTER 8X2	1
11	Z30552A4	WHEEL 6 X 2	2
12	Z50085A5	HAND GRIP 1 ¼"	2
13	F63848A5	ROLLER CHAIN ASSEMBLY	1
14	F75998A9	HANDLE	1
15	Z30083a6	CAPLUG	2
16	F58821A4	HAND PUMP HANDLE	1
17	Z50051A2	HANDL GRIP ½"	1

*NOT SHOWN



Operating Instructions (MODEL 8576 - HARRIER)

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.

All personnel who are 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.

To **RAISE** ratchet assembly:

With the release lever on top of the hand pump in the vertical position, move the hand pump handle up and down.

To **LOWER** the ratchet assembly:

Flip the release lever on top of the hand pump to the horizontal position. To stop lowering, return the release lever to its “original” vertical position.

To Handle Gas Cylinders:

- Turn Hook sideways (perpendicular) to the Cylinder Cradle. *Note: Hook is not used with gas cylinders.*
- Raise/Lower cylinder cradle to a position that is centered on the cylinder.
- Move the Harrier forward until the cylinder makes contact with the rubber pads of the cylinder cradle.
- Wrap the nylon straps of the ratchet tighteners around the cylinder, hook onto the welded “T”, and ratchet straps until tight.
- Raise cylinder and transport as needed.
- Release the cylinder by setting to the floor, depressing the release on the Ratchet, and unhooking the strap from the welded “T”.

To Handle Cryogenic Cylinders:

- Place hook facing forward at the top of the cylinder cradle.
- Raise/Lower cylinder cradle in order to engage the “eye-hole” near the top of the cylinder. *Note: The ratchet tighteners do not need to be used, but are recommended when transporting great distances or over rough surfaces (See above steps for ratchet instructions).*
- Raise cylinder and transport as needed.

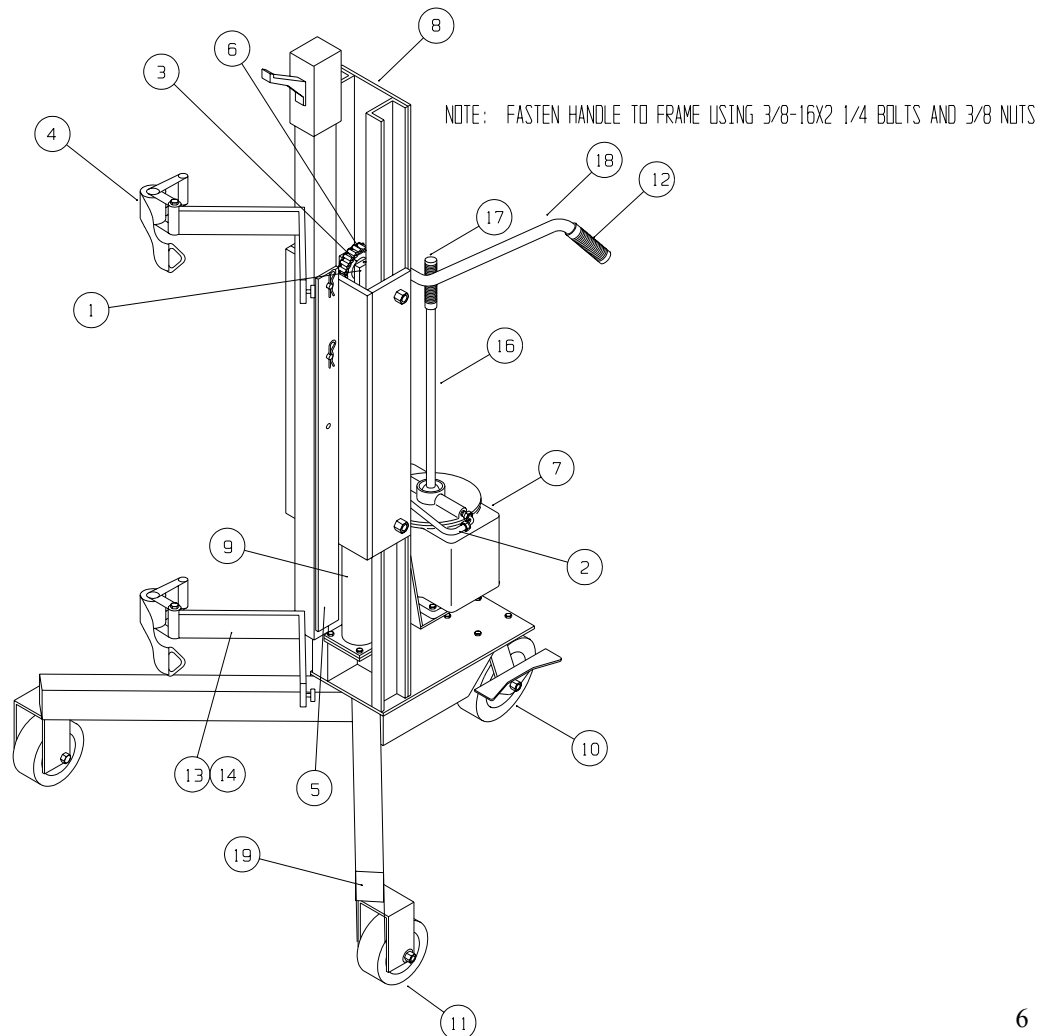
Safety Information (MODEL 8576)

- When Transporting a load, it is recommended that the cylinder is lowered as close to the floor as practical, to reduce the chances of accidents during transport.
- Activate safety brake on the swivel caster when Harrier is not in use.

PARTS LAYOUT (MODEL 8576 – HARRIER)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	F52067A6	CLEVIS PIN	1
2	F61334A5	HOSE 20"	1
3	F63091A3	SPROCKET ASSEMBLY	1
4	F62980A9	RATCHET ASSEMBLY	2
5	F64984A6	BACK PLATE ASSEMBLY	1
6	F63858A5	ROLLER CHAIN ASSEMBLY	1
7	Z20745A8	HAND PUMP	1
8	F74986A4	FRAME	1
9	Z20755A8	CYLINDER	1
10	Z30538A8	SWIVEL CASTER 8 X 2	1
11	Z30552A4	WHEEL 6 X 2	2
12	Z50085A2	HAND GRIP 1 1/4"	2
13	Z50037A1	RUBBER PAD	2
14	F74499B6	CRADLE	1
15	F74498B7	HOOK	1
16	F58821A4	HAND PUMP HANDLE	1
17	Z50051A2	HAND GRIP 1/2"	1
18	F75998A9	HANDLE	1
19	Z30083A6	CAPLUG	2
20*	Z20734A0	BREATHER VENT	1

*NOT SHOWN



Operating Instructions (MODEL 8577 – RAPTOR WITH STRAPS)

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.

All personnel who are 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.

To **RAISE** ratchet assembly:

With the release lever on top of the hand pump in the vertical position, move the hand pump handle up and down.

To **LOWER** the ratchet assembly:

Flip the release lever on top of the hand pump to the horizontal position. To stop lowering, return the release lever to its “original” vertical position.

- Lower the ratchet to the lowest position.
- Move the Raptor forward until the backplate comes in contact with the drum.
- Raise drum by operating the hand pump until the desired lifting height is achieved.
- **Read and comply with all instructions and recommendations prior to operating unit.**

Note: To handle 55 and 85 gallon drums, the beak should be attached through the upper two holes of the backplate. To handle 30 gallon drums, the beak should be attached through the lower two holes of the backplate.

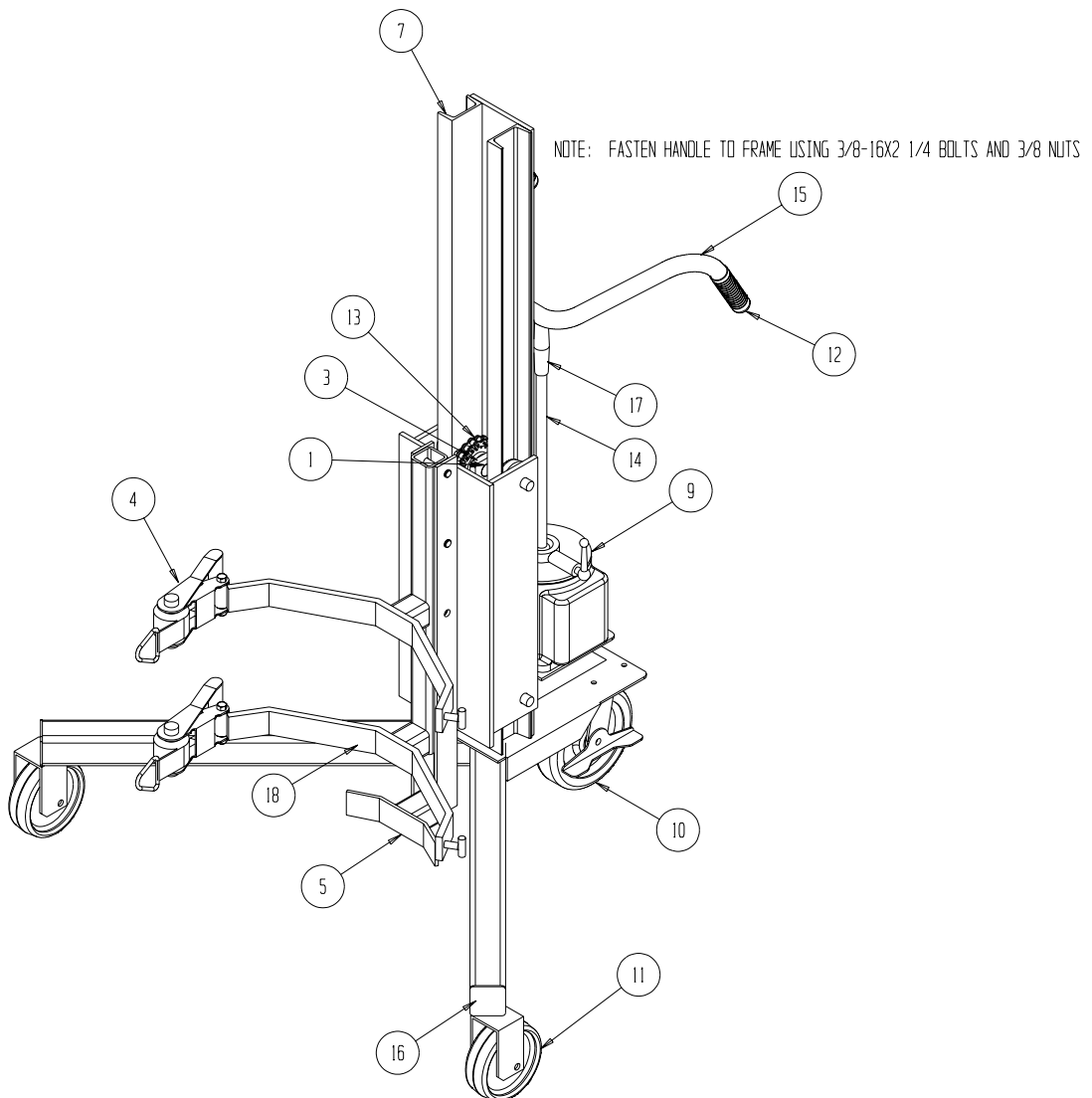
Safety Information (Model 8577)

- When transporting a load, it is recommended that the drum is lowered as close to the floor as possible to reduce the chances of accidents during transport.
- Do not leave load suspended for an extended period of time or premature wear to the lifting cylinder may occur.
- Release the ratchet by stretching the strap around the barrel and hooking to the far side of the ratchet assembly.
- Operating the Ratchet, tension the strap tight enough to hold the barrel, but not to the point of crushing it.

PARTS LAYOUT (MODEL 8577 – RAPTOR WITH STRAPS)

ITEM	PART NUMBER	DESCRIPTION	QTY
1	F52067A6	CLEVIS PIN	1
2*	Z20736A8	HOSE-20"	1
3	F63091A3	SPROCKET ASSEMBLY	1
4	F62980A9	RATCHET ASSEMBLY	2
5	F64982A8	BACK PLATE ASSEMBLY	1
6*	Z20755A8	CYLINDER ASSEMBLY	1
7	F74985A5	FRAME	1
8*	Z20756A7	BREATHER VENT	1
9	Z20745A8	HAND PUMP	1
10	Z30538A8	SWIVEL CASTER 8X2	1
11	Z30552A4	WHEEL 6 X 2	2
12	Z50085A5	HAND GRIP 1 1/4"	2
13	F63858A5	ROLLER CHAIN ASSEMBLY	1
14	F58821A4	HAND PUMP HANDLE	1
15	F75998A9	HANDLE	1
16	Z30083A6	CAPLUG	2
17	Z50051A2	HAND GRIP 1/2"	1
18	F71059B3	CRADLE	1

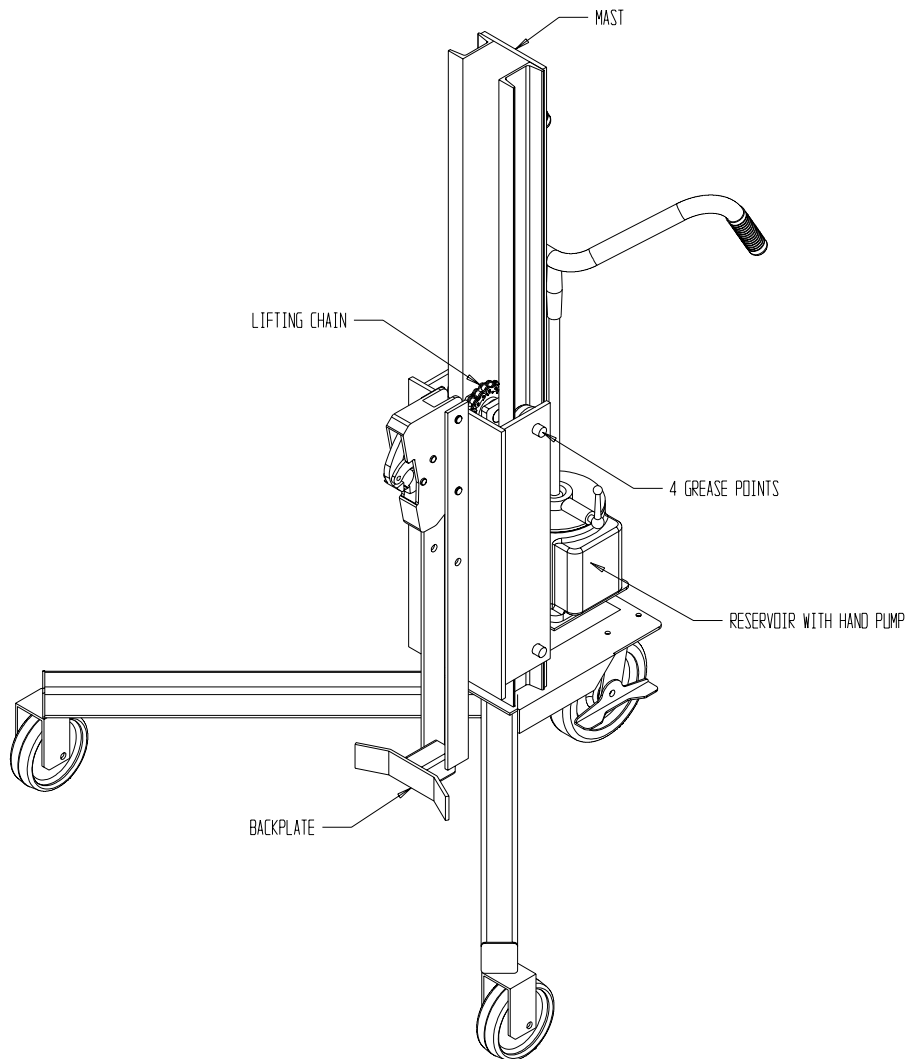
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MAINTENANCE INSTRUCTIONS

Note: Model 8575 is shown, but maintenance instructions also apply to Models 8576 and 8577.

- Check the hydraulic fluid every 40 hours or before using the Raptor/Harrier after long set-aside periods. Two quarts of fluid is sufficient to operate the system properly. Do not Overfill. Use Dexron automatic transmission fluid only.
- The lifting chain should be oiled periodically as needed. This is best achieved by lowering the backplate completely and spraying lubricant onto the chain.
- The Raptor/Harrier has four grease points on the backplate (which rides up and down on the mast) which should receive attention approximately every 100 hours.



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 IIIIB 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