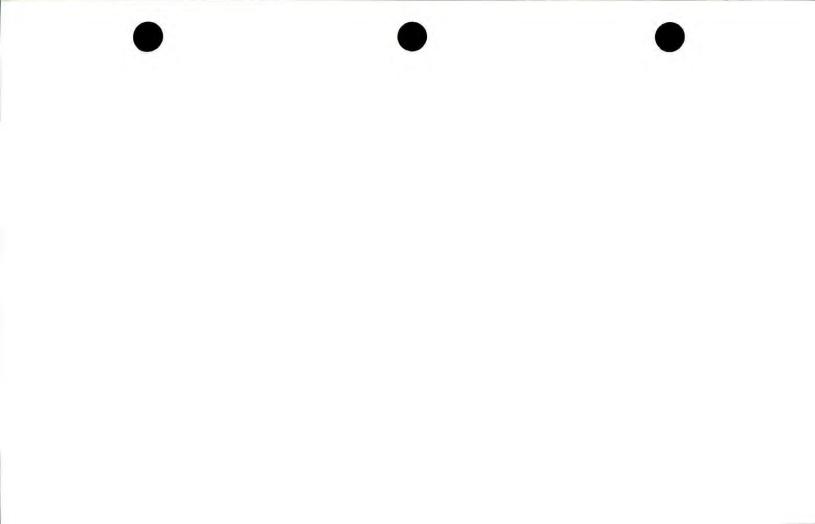
# LIGHT DUTY

# OPERATIONS, MAINTENANCE AND PARTS MANUAL



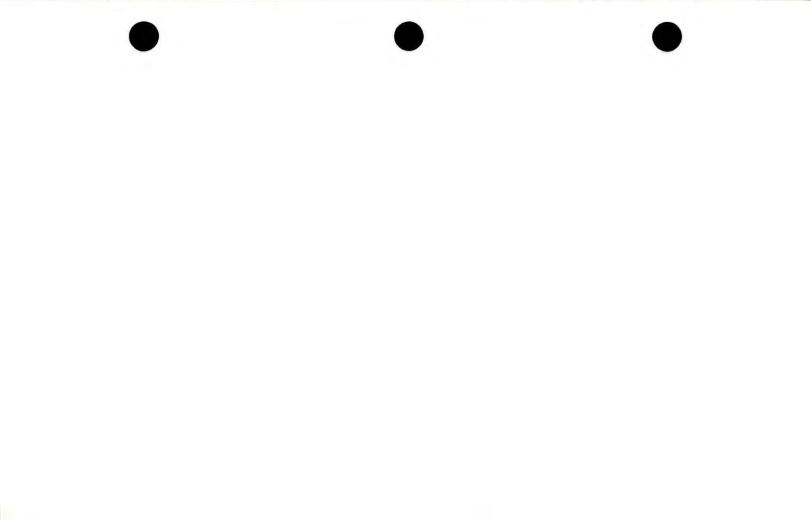
An Oshkosh Corporation Company

1080 Hykes Road Greencastle, PA 17225 Phone (717) 597-7111 www.jerr-dan.com



## **TABLE OF CONTENTS**

Warranty	0.1
Certification Notice	0.5
Safety	1.0
Decal Group	1.5
Operation	2.0
Maintenance and Lubrication	3.0
Lubrication Chart	3.2
Troubleshooting	3.3
Parts	4.0
Rustler Deck	4.2
Wrangler Lite Deck	4.3
Viper Deck	4.6-
Final Assembly Basic Unit	4.7
Dual Controls	4.10
Hydraulic Towbar (1,500 lb.)	4.11
Hydraulic Towbar (with and without IRL)	4.14
Hydraulic Wheellift Towbar (with and without IRL)	4 15
Lo-Profile Hydraulic Wheellift Towbar (with and without IRL)	4 18
Hydraulic Towbar Wheelgrid Assembly	4 19
Lo-Profile Hydraulic Towbar Wheelgrid Assembly	4 22
Hydraulic Components	1 23
Hydraulic Components Hydraulic Towbar	1 26
Hydraulic Components Hydraulic Towbar with IRL	1 27
Hydraulic Components Hydraulic Towbar with Inc	4.20
Light and Wiring	4.00
Rollback Cylinder	4.04
Tilt Cylinder	4.00-
Towbar Cylinder	4.30
Wheellift Towbar Cylinder	4.38
IRL Cylinder	4.40
Winch Assembly (8,000 lb. Worm Gear)	4.42
Winch Assembly (8,000 lb. Planetary)	4.43
Dual Controls (ZOD)	4.46
Hydraulic Wheellift Towbar (ZOD)	4.47
Hydraulic Towbar Wheelgrid Assembly (ZOD)	4.50
Hydraulic Components (ZOD)	4.51
BTI Cylinder (ZOD)	4.54
Wheellift Towbar Cylinder (ZOD)	4.55
Wheellift Cylinder (ZOD)	4.58





# RR-DAR

1080 Hykes Road Greencastle, PA 17225 (717) 597-7111

# LIMITED WARRANTY **Coverage and Procedures**

Like our wheel lift and car carrier products, Jerr-Dan warranty programs are designed for the long haul.

Whether you own a wheel lift or car carrier, you are assured that your equipment is of the highest quality, and is covered under this limited warranty."

Our one-year unlimited mileage plan is offered for wheel lifts and car carriers. This warranty is designed for the most comprehensive protection of your specific equipment.

#### WHEEL LIFT:

The Jerr-Dan one-year warranty covers material and workmanship including the following:

- I. Body
- II. Substructure
- III. Wheel lift assembly IV. Wrecker boom assembly
- V. Winch and winch components (excluding cable)
- VI. Hydraulics
- VII. Electrical wiring assembly.

#### CAR CARRIERS:

The Jerr-Dan one-year warranty covers material and workmanship including the following:

- I. Deck
- II. Winch and winch components (excluding cable)
- III. Substructure
- IV. Hydraulics
- V. Electrical wiring assembly

Rev.	2			

#### Procedures for warranty coverage:

- Contact Jerr-Dan for the distributor nearest you Call 1-800-926-9666.
- If there is not an authorized Jerr-Dan warranty service center nearby, find a convenient, qualified non-Jerr-Dan service center and send in their estimate of repair cost before any work is performed to:

Jerr-Dan Corporation A Subsidiary of Durakon Industries, Inc. Warranty Department 1080 Hykes Road Greencastle, PA 17225

Be sure to include your daytime phone number.

- Authorization for repairs under this limited warranty will be provided by telephone within 24 hours of receipt of valid warranty claims.
- \*4. This outlines the Jerr-Dan One-Year Warranty Plan. For exact coverages, please consult your limited warranty and/or vehicle service contract. Coverage does not include damages caused by excessive abuse or consequential damages resulting from the lack of proper service, maintenance or need for repairs. All plans begin at original retail purchase date.

Rev. \_\_\_\_2

Date \_\_\_11-15-97



# JERR-DAN

Subsidiary of Durakon Industries, Inc 1080 Hykes Road Greencastle, PA 17225 (717) 597-7111

# LIMITED WARRANTY

Manufacturer's Warranty. Manufacturer's sole warranty shall be the following, which Distributor shall make on behalf of Manufacturer by conspicuous notice in writing accompanying each contract or memorandum of sale:

- 1. Warranty. Jerr-Dan Corporation, ("Manufacturer") warrants each new product made by it to be free from defects in material or workmanship for one year from the date of initial sale, lease, rental, or other disposition of such product, and agrees only to repair or replace at its own expense, t.o.b. the place or places of manufacture, at manufacturer's option, any part or parts of the product found to be defective in material or workmanship, provided Manufacturer is notified of such defect or defects within the one year warranty period and given a reasonable time to correct the defect. In no case, shall the warranty extend to defects in materials, components, or services furnished by third parties. Defects caused by chemical action, or the presence of abrasive materials and defects arising following the operation beyond rated capacity or the improper use or application of any Products shall not be considered defects within the scope of the foregoing warranty. If any repairs or alterations are made or any parts are replaced during the period covered by any warranty above mentioned by other than an authorized Manufacturer's Distributor in accordance with authorized Manufacturer's service manuals or with other than parts, accessories, or attachments authorized by Manufacturer for use in its products, customer shall pay for all such repairs or parts without recourse against Manufacturer, and Manufacturer shall be relieved of responsibility for fulfillment of this warranty with respect to parts or components of all repairs, alterations or replacements so made. No claims for labor shall be considered unless authorized by Manufacturer.
- 2. Disclaimer as to Consequential or Special Damages. Under no circumstances shall Manufacturer be liable for any consequential or special damage which any person, firm, corporation, or other entity may suffer or claim to suffer or incur or claim to incur as a result of any defect in the product or in any correction or alteration thereof made or furnished by Manufacturer or others. "Consequential" or "special damages" as used herein includes but is not limited to costs of transportation, lost sales, lost orders, lost profits, lost income, increased overhead, labor and material costs and cost of manufacturing variances and operational inefficiencies.
- 3. Maximum Liability. The maximum liability of Manufacturer under the exclusive warranty set forth herein shall be the amount peid to Manufacturer by the vendor of the component with respect to the product to which such vendor warranty applies.
- 4. Limitation of Liability. The limitation of liability provisions herein shall apply to any and all claims or suits brought against Manufacturer, including any claim based upon negligence, breach of contract, breach of warranty, strict liability or any other theories upon which liability may be asserted against Manufacturer.

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5. Exclusive and Entire Warranty. The warranty constitutes Manufacturer's entire warranty as to the product and it is expressly agreed that the remedies of dealer and those claiming under dealer as stated in this warranty are exclusive. Manufacturer does not assume (and has not authorized any other person to assume on its behalf) any other warranty or liability in connection with any product covered by this warranty.

MANUFACTURER EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES OF ANY KIND WHATSOEVER AS TO THE PRODUCT FURNISHED HEREUNDER, INCLUDING BUT NOT LIMITED TO EXPRESS OR IMPLIED WARRANTIES AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSES SOLD, DESCRIPTION OR QUALITY OF THE PRODUCT FURNISHED HEREUNDER.

- 6. Notice of Occurrence. This warranty shall be void if, upon the occurrence of any incident involving any product made by Manufacturer, and resulting in any personal injury or property damage, customer shall fail to notify Manufacturer within 24 hours of such occurrence or permit Manufacturer audit representatives to have immediate access to such product and to all records of and within the control of the customer and/or distributor relating to the product and the occurrence.
- 7. Filing of Warranty Claim. Upon notifying the Manufacturer of a failure, the Manufacturer or its representative will verbally authorize and confirm by letter the repairs to be made. Verbal authorization will require the following information:
  - A) Owner's name and telephone number.
  - B) The dealer's name from whom it was purchased.
  - C) The Manufacturer's unit serial number.
  - D) Telephone number of the party making the repairs.
  - E) The part numbers needed to make repairs.
  - F) Owner to be informed of C.O.D. on parts, 50% to assure return of defective parts.

At this time, the Manufacturer will ship as soon as practical the parts needed to make the repair. Included with the parts will be the invoice for the parts and a Request for Warranty form, with the Warranty Return Tags.

The vehicle owner/dealer will complete the Request for Warranty form and the Warranty Return Tag marked "Return with Shipping Notice." Both documents should be attached to the shipping notice and returned to the Manufacturer by mail. The parts to be returned shall be tagged with the Warranty Return Tag (more than one part pertaining to the same warranty claim shall be identified with the same warranty claim number—see number on Warranty Return Tag). All parts under this claim shall be returned to the Manufacturer pre-paid for warranty evaluation.

Upon receiving the part or parts for warranty evaluation, the part will be inspected and tested. After being inspected and tested, the decision to honor or deny warranty claim shall be based on analysis of all available information.

When warranty is honored, the Manufacturer, will reimburse the owner/dealer in the amount agreed to by both parties.

If warranty is denied, the owner and distributor will be notified in writing of the decision and a full explanation for the decision will be given.

8. Manufacturer may at any time amend the foregoing form of warranty without prior notice.

Rev	2
Date	11-15-97

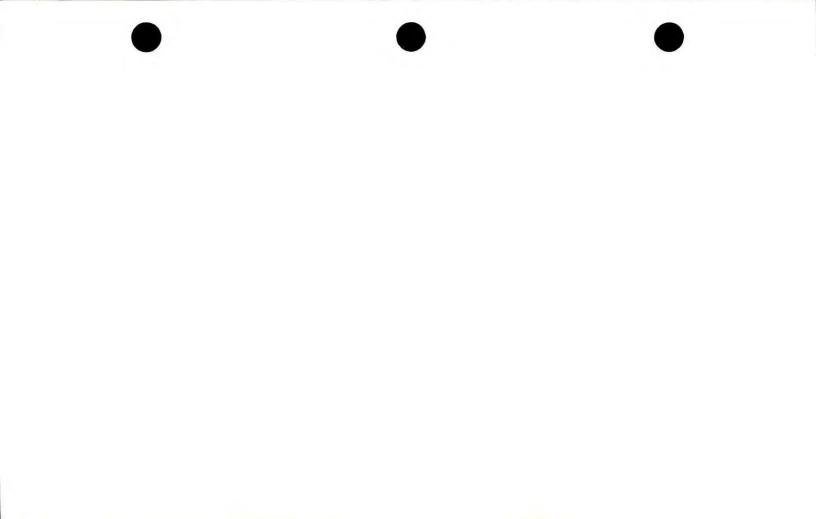
#### NOTICE

MANUFACTURED BY:	
DATE OF MANUFACTURE	moyr.
INCOMPLETE VEHICLE MANUFA	CTURED BY:
DATE INC. VEH. MFD.	moyr.
GVWR	
GAWR FRONT	
rims, @ psi cold	tires,
GAWR INTERMEDIATE (1)	
rims, @ psi colo	
GAWR INTERMEDIATE (2)	with tires.
rims, @ psi cok	
GAWR REAR	with tires
rims, @ psi cold	
Conformity of the chassis-cab to Vehicle Safety Standards, which I ously fully certified by the Inc	nave been previ
manufacturer or intermediate vehic has not been affect-ted by final ture. The vehicle has been corr dance with the prior manufactur where applicable. This vehicle other applicable Federal Motor Standards in effect in:	tle manufacturer stage manufac upleted in accor- er's instructions conforms to al
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This certification sticker appears on every Jerr-Dan unit mounted on a new chassis and is required by law. Jerr-Dan Corporation will not certify any unit for a capacity greater than the chassis manufacturer's specified rating. The capacity ratings of Jerr-Dan units do not imply that vehicles can be used without regard to gross vehicle weight ratings (GVWR) or gross exterating limitations.

The payload carrying capacity of any truck is determined by the GVWR of the cab chassis, the curb weight of the cab chassis and the weight of the body. It is important that you determine that your truck has satisfactory carrying capacity and axle ratings for your specific application. Jerr-Dan's authorized sales representatives are available to assist you in this regard.

Rev	2	
Date	11-15-97	



#### SAFETY

Safety is all-important when working with machinery. Accidents happen when established safety practices have been overlooked.

Read and practice all safety points listed in this manual. Safety is the prime responsibility of the operator.

- Read operating and loading instructions thoroughly.
- Review the Safe Towing Application Rating (S.T.A.R.) placard located on the headboard of the deck, and become familiar with the loads that your unit can safely transport.
- 3. Observe all warning decals.
- Make sure you are clear of oncoming traffic. Dual controls (driver's side and passenger's side) are standard on all Jerr-Dan roll back units.

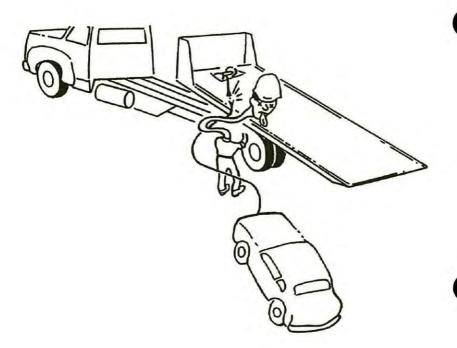
 Always put bumper on the ground to support the body and truck frame.



 Never exceed the rated capacity of the body or truck chassis or use tow bar/wheel lift without a vehicle on the deck.

Rev.		
21.25		

Never winch from the side of the bed. Winch only from the rear with load in line of winch.

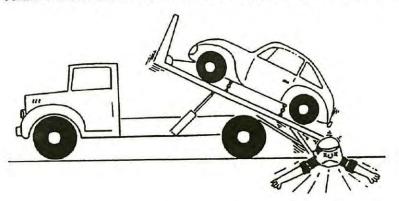


- 8. Always try to winch from the center of the load.
- Maintain winch cable in good condition. Replace when worn, kinked or frayed. Do not use cable clamps.

Rev. \_\_\_\_\_

Date \_\_\_\_\_

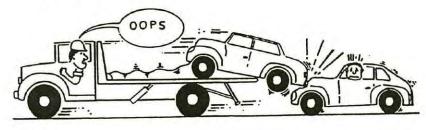
 When loading or unloading the deck and operating the winch, make certain the area behind the load is clear of personnel and obstacles.



11. Distribute load evenly on the deck. Do not concentrate the load on one section of the deck, to the rear of the truck axles, or use tow bar/wheel lift without a load on the deck.

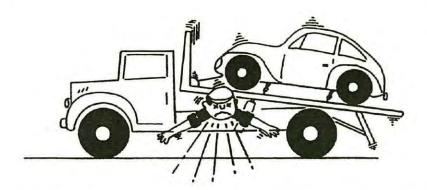


 Secure cargo to the deck at both the front and rear before the truck is driven. Do not rely on the winch as the only means of holding the load.

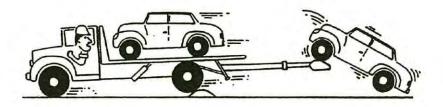


Rev.	
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13. Keep alert. Do not be distracted during any operating sequences.



- Do not work behind truck with vehicle on deck unless vehicle is secured at front of deck. (Do not rely on winch.)
- 15. Read and follow tow bar instructions for proper towing.
- Do not exceed tow bar/wheel lift ratings. Overloading can cause unsafe steering and braking conditions.
- 17. Always use both wheel straps on wheel lift tow bar.



 Use separate safety chains from towed vehicle to subframe for standard tow bar and wheel lift tow bar.

Rev. \_\_\_\_\_

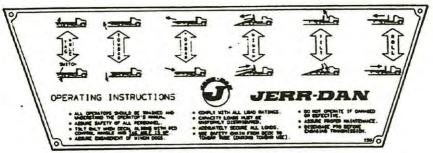
- 19. Insure deck is in the locked position before traveling.
- Review operator's pre-transport checklist located on the headboard of the deck each time you move a vehicle.
- 21. Block up deck before performing any service or maintenance work under deck.

Rev.		

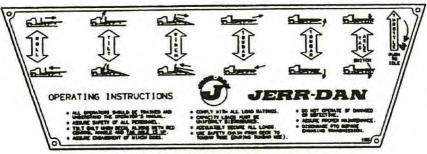
## **DECAL GROUP**

# JERR-DAN

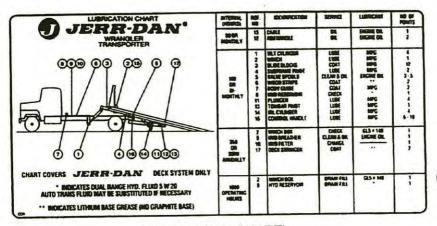
(LOGO)



(STANDARD DECAL, RIGHT SIDE)



(STANDARD DECAL, LEFT SIDE)



(LUBRICATION CHART)

Rev	
Date	

# **A WARNING**

5 WRAPS MIN. OF CABLE MUST BE I FFT ON DRUM TO ACHIEVE RATED LOAD. NOT TO BE USED IN THE MOVING OR LIFTING OF PERSONS.

(WINCH)

(HYDRAULIC OIL LEVEL)

MANUFACTURED BY

## JERR-DAN CORPORATION

MFG. UNDER ONE OR MORE OF THE FOLLOWING PATENTS:

> 3,430,792 3,450,282

4,239,275 4,353,597

4,368,002

OTHER PATENTS PENDING

(PATENT)



(SERIAL NUMBER)



(DECK ALIGNMENT)

Rev.

1.6



DO NOT EXCEED
WHEELLIFT/TOWBAR
CAPACITIES AS
OVERLOADING MAY RESULT
IN AN UNSAFE STEERING
AND/OR BRAKING
CONDITION.

# A CAUTION A

INSTALL
WHEELLIFT/TOWBAR SAFETY
PINS THROUGH HOLES IN
REAR BUMPER ANGLES AND
CORRESPONDING BOOM
LUGS PRIOR TO LEAVING
LOADING SITE.

(WHEEL LIFT WARNING)

# A WARNING A

VEHICLE MUST BE SECURED
TO WHEEL GRID USING BOTH TIE DOWN
STRAPS PRIOR TO LEAVING LOADING SITE.

(WHEEL LIFT WARNING)

# **⚠** WARNING **⚠**

FULLY RETRACT WHEELLIFT OR TOWBAR BOOM BEFORE SLIDING DECK REARWARD. OTHERWISE DAMAGE COULD OCCUR TO DECK BEAMS OR HYDRAULIC CYLINDER ROD.

(WHEEL LIFT WARNING)

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Date	



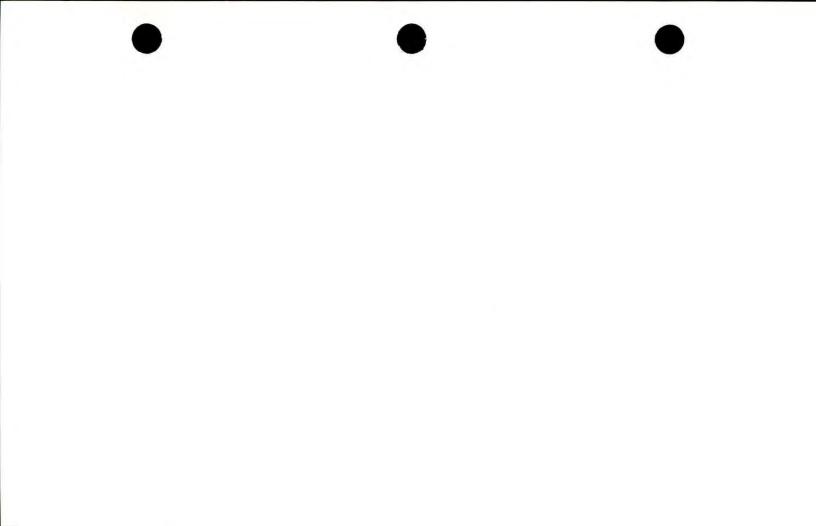
# (S.T.A.R. PLACARD)

PRE-TRANSPORT CHECKLIST  A CAUTION A  Reven has dequast mirely as now have has dequast mode as now have has dequast mode as now have has dequast no patient and desired and de		- Acquired to the second		
	-	HACK ON NOW MAN CHACAST  ON TO WINE THEMSE CLAWACT ON TOWN OF STORY OF STOR	AND THE CONTROL OF TH	PRE-TRANSPORT CHECKLIST  A CAUTION  Reven has concust serious user town found ordered surprises of the concust serious consistence of the concustors of the concust serious ordered surprises and redistrant, and consist result in serious action of each register to present so determine the consistence of the concust of the concust of the consistence of the consistence of the concust o

(CHECKLIST)

Rev.

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#### **OPERATION**

#### A. Controls

The operating controls for the deck are conveniently located in the control box at the sides of the deck on both the driver's and passenger's side.

All operators must be trained and understand the contents of the operator's manual before operating any controls.

Assure adequate operating clearance and the safety of all personnel before operating the rollback deck.

The following controls are provided:

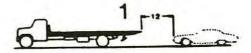
- 1. Power-take-off (push-pull knob in truck cab)
- 2. Auxiliary engine throttle control
- 3. Rollback control (first handle in control box)
- 4. Tilt control (second handle in control box)
- 5. Winch control (third handle in control box)
- 6. Tow bar Extend/Retract (fourth handle in control box)
- 7. Tow bar Raise/Lower (fifth handle in control box)

## B. Tilting the Deck/Loading

#### 1. Position

Park the truck with the rear of the deck approximately 12 feet from the object to be loaded and in line with that object.

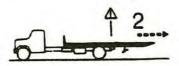
- 1a. Set the parking brake.
- 1b. With the engine running, engage the PTO per instructions in the truck cab.
- Set the auxiliary throttle. After operating the unit several times, one will establish a feel for the optimum speed. DO NOT OVERSPEED.



Rev.			

#### 2. Roll

Raise the rollback handle and the deck will slide back. Roll the deck rearward approximately 12 inches to clear the mechanical hold downs at the front of the frame. A decal is provided on the rubrail to aid in determining the amount to roll. Align the decal pointer with the red control handle.





#### 3. Tilt

Raise the tilt control lever, raising the forward end of the deck until the rear bumper rests firmly on the ground.



#### 4. Roll

Raise the roll handle and the deck will slide back. Continue this operation until the approach plate of the deck has contacted the ground.

Make sure that the rear bumper and the approach plate are both in firm contact with the ground before loading. There should be an equal weight distribution between the rear bumper and the end of the deck.



Rev.		

5. Winch

Attach winch cable to object, or if vehicle to the "T" slots in the frame If the vehicle does not have "T" slots, attach "J" hooks to the vehicle's frame only. With the towed vehicle's transmission in neutral and brakes released, winch the vehicle onto the deck to its transport position (See winch operating instructions). Secure the load against movement in all directions. Set brakes if a vehicle.



CAUTION: Leave winch cable attached and taut. Anchor front of

vehicle or load with safety tie downs to keyslots provided in front of the deck. Winch cable is not intended to tie

down load.

CAUTION: Always winch load onto deck, never drive a vehicle onto

the tilted deck.

CAUTION: Make sure that the load is side-to-side centered.

CAUTION: Remain clear of load when winching onto deck.

6. Roll

Lower the roll control handle to roll the deck up the incline until the deck is in the proper position for tilting.

NOTE: The alignment decal on the rubrail must be even with the red control handle, or slightly behind that handle, when leveling

the deck.



SLIDE DECK UNTIL ANNOW ALLONS WITH RED HYD. LEVER BEFORE TILTING

7. Tilt

Lower the front of the deck until the deck supports align with the wood strips on the frame.



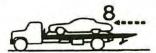
NOTE: The deck must not be fully forward when tilting or it wil

damage the hold downs.

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#### 8. Roll

Roll the deck forward until it is in the full forward position and under the hold downs.



#### 9. Secure Load

Securely fasten the load to be transported with safety tie downs to keyslots provided in rear of deck. Set brakes (if a vehicle) and use wheel blocks and tie downs for safe transport.

NOTE: Use safety tie downs at front of load. Do not rely on winch cable alone.

#### 10. Disconnect PTO

Disconnect the power-take-off before engaging the transmission. Overspeeding of the pump will greatly shorten its life or ruin it completely.

## C. Operating the Winch

- Raise the winch control handle to power unreel the cable while a second person keeps the cable taut.
- NOTE: If a one-man operation exists, disengage the spool and unreel the cable while keeping it taut. Re-engage the spool after unreeling and attaching the cable.
- NOTE: The winch clutch allows rapid unspooling of the cable, from cable drum, for hooking onto the load. The clutch is operated by the shifter lever located on the side of the winch.
- NOTE: TO DISENGAGE CLUTCH simply pull out on the "T" handle and rotate 90° counter-clockwise and release to lock in the "OUT" position. The cable may now be free-spooled from the drum.

Rev	
2000	

NOTE: TO ENGAGE CLUTCH simply pull out on the "T" handle and rotate 90° clockwise and release. If the clutch does

not engage, operate the valve winch control until the clutch engages. The winch is now ready for pulling. DC NOT attempt to pull a load unless the handle is fully a

the "IN" position.

Lower the winch control handle to wind the cable and pull the load onto the deck.

CAUTION: Clutch must be totally engaged before starting winch.

CAUTION: Do not disengage clutch under load.

CAUTION: Also remember that cables can break, winches fail and

hooks become disengaged. DO NOT WORK BELOW

THE LOAD!

CAUTION: Replace cable when worn or damaged. Always wea

gloves when handling cable. DO NOT USE CABLE

CLAMPS.

CAUTION: Maintain a minimum of 5 turns of cable on the spool at a

times. Also maintain a uniform wrap of the cable on the

spool.

### D. Tilting the Deck/Unloading

#### 1. Position

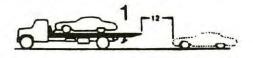
Park the truck with the rear of the deck approximately 12 feet from desired position of vehicle being unloaded.

1a. Set the parking brake.

 With the engine running, engage the PTO per instructions in the truck cab.

 Set the auxiliary throttle. After operating the unit several time one will establish a feel for the optimum speed. DO NO OVERSPEED.

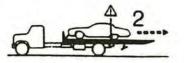
 Partially release bindings of the load but maintain restrair against movement of the load in any direction.



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Aller.		
Date		

#### 2. Roll

Raise the rollback handle and the deck will slide back. Roll the deck rearward approximately 12 inches to clear the mechanical hold downs at the front of the frame. A decal is provided on the rubrail to aid in determining the amount to roll. Align the decal pointer with the red control handle.





#### 3. Tilt

Raise the tilt control handle, raising the forward end of the deck until the rear bumper rests firmly on the ground.



#### 4. Roll

Raise the roll handle and the deck will slide back. Continue this operation until the approach plate has contacted the ground.

Make sure that the rear bumper and the approach plate are both in firm contact with the ground before unloading. There should be an equal weight distribution between the rear bumper and the end of the deck.



## 5. Winch

Securely tighten the winch cable and finish unbinding the load. Winch off the load (See winch operating instructions). Store the winch cable by fastening the hook to the deck and winching the cable taut.

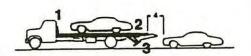
**CAUTION:** Remain clear of load when unbinding and winching off the deck.



Rev	
14	

## E. Operation of the Tow Bar (Option)

- Position the truck approximately 4 feet ahead of the vehicle to be towed. Engage PTO and set truck's parking brake.
- 2. Raise the tow bar control handle to fully extend the tow bar.
- 3. Roll deck until red arrow is aligned with the red valve lever.





- 4. Tilt deck until tow bar is even with or below bumper of vehicle that is to be towed. Tow bar may now be positioned higher or lower by repositioning the pins above or below the support tube.
- 5. Attach chains with "J" hooks to appropriate frame members of vehicle to be towed and to tow bar straps. If tow bar straps are used it may be necessary to shorten them by wrapping them around the hitch bar and reconnecting chain.



- 6. Level the main deck and check for adequate wheel clearance under towed vehicle. Check hitch bar location and be certain tha it is even with or below bumper of towed vehicle. Retilt and readjust the chains and/or straps if necessary. Roll deck fully forward to engage hold downs.
- Connect all electrical connections for lights of towed vehicle Attach safety chains from the bumper to the tow bar.



NOTE: IRL option allows the tow bar to be raised or lowere independent of the deck for ease of operation.

CAUTION: Always tow with the tow bar extended so that adequat clearance is maintained between deck and towed vehicle

Rev	
2000	

CAUTION: Properly secure the vehicle being towed. Use separate safety chains from towed vehicle to truck sub-frame.

CAUTION: After unloading the vehicle being towed, retract the tow bar before tilting or rolling the deck.

CAUTION: When not in use, tow bar must be in upper position and

fully retracted.

CAUTION: Always use safety pin while tow bar is being used to prevent damage to vehicles in the event of a hydraulic

failure.

CAUTION: The tow bar option is designed for the transport of a second

vehicle only. Under no circumstances should a single vehicle recovery be transported on the tow bar as it may cause unsafe steering and braking conditions. Single

vehicle recovery should be on the deck only.

8. Disengage the PTO.

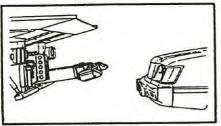
Rev.			

## F. Operation of the Wheel Lift Tow Bar (Option)

The wheel lift tow bar allows a second vehicle to be towed damage free on its own suspension by utilizing a wheel grid similar to the Jerr-Dan HPL wheel lift. It may be purchased with or without the IRL (Independent Raise, Lower) feature. The wheel lift cross bar may also be used as a conventional tow bar for badly damaged or heavier vehicles.

#### CAUTION:

Because of the additional boom extension and load point of the towed vehicle, the wheel lift tow bar places more load on the rear axle and unloads the front axle more than a conventional tow bar. Overloading wheel lift tow bar may result in unsafe steering and braking conditions and may damage truck frame. Also, never use wheel lift without a vehicle on the deck. Single vehicle recovery should utilize the deck only.

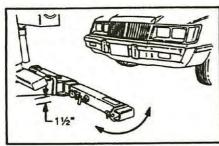


 Position the truck within 3 to 4 ft. of the subject vehicle and as close to the direction of the pull as possible.

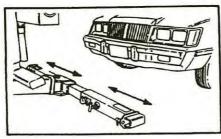


Confirm the truck's position in relation to the vehicle to be towed. Three (3) to four (4) feet is recommended.

Be sure the towed vehicle is not in gear or park. Keep the brake set.

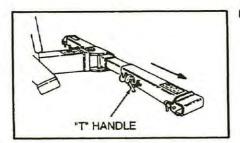


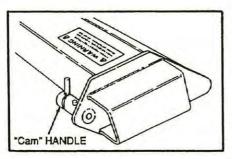
 Lower the lift arm to about 1-1/2" from the ground and swing the cross bar parallel to the tires.

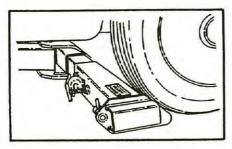


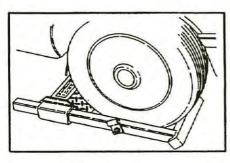
 Set the grid width as required for the vehicle to be towed. Be sure both grids are as close to the center of the boom as possible.

Rev.









- the "T" handles on the front of the grid arms and pull the grids out. Be sure both grids are as close to the center of the boom as possible, and wide enough to allow the "L" arms to slide into their channels. Tighten the "T" handles to secure the grids.
- Retract the "Cam" handle locking pin on the grid by turning it a half turn. It should remain in the open position.
- 8. Extend the lift arm under the vehicle being sure that all under carriage parts are cleared and that the front portion of the grid is in contact with both tires. Lower the grid fully to the ground. There is no reason for the operator to get under the vehicle.
- Visually inspect the tire to grid contact before proceeding.
- 10. Take the "L" arms and slide them into the channels on the side of the grid. Insure that they are resting snugly against the tires, with the "L" arms in close contact with the tires, reset the locking pin by turning the "Cam" handle back to the original position. Be sure that the pin seats in one of the holes. The tires are now confined front and back.

Rev.	 

11. After securing the grid arm around the towed vehicles tires and before making the actual lift, check to be sure the towed vehicle's parking brake is released, the transmission is in neutral, and the wheels are straight.

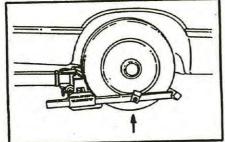
NOTE: If vehicle to be towed is on a slope, do not release the brake until the tie-down straps are installed. Observe the wheels in the grid for any slippage.

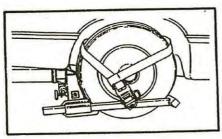
 It is recommended that the steering wheel be secured by a steering wheel strap for any tow.

Lift the vehicle high enough to allow tires to clear ground.

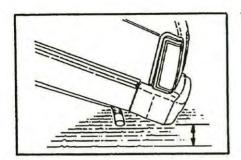
 Remove the tie down straps from toolboxes and attach the tie down straps. (See the following section on the tie-down straps.)

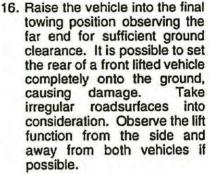
15. With the straps in place, the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled.

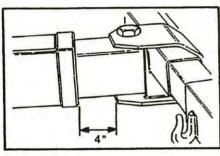




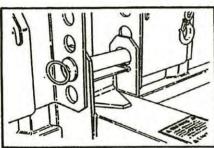
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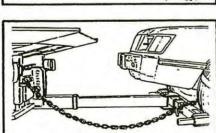




17. Power retract the grid boom until the towed vehicle is about 3 to 4 feet from the back of the truck. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the boom is extended at least 4" to insure unobstructed crossbar pivoting.



 Be sure to maintain sufficient clearances with the bottom of the towed vehicle.



 Install safety pin to insure mechanism does not drop in the event of a hydraulic failure.

 Attach the safety chains and magnetic towing lights.

Rev.	

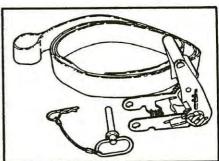
#### **TIE DOWN STRAPS**

Your carrier is supplied with a set of high strength polyester web tie down straps. They are to be used to secure wheels of the towed vehicle to the wheel lift grid. NEVER TOW A VEHICLE WITHOUT THE TIE DOWN STRAPS INSTALLED.

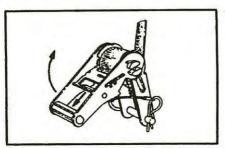
The tie down strap assembly is comprised of 3 basic components:

- 1. The Strap
- 2. The rachet spool mechanism
- The rachet retaining pin and cotter key

The following steps should be followed to properly install the tie down straps:



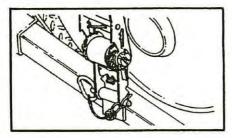
#### USING THE RACHET SPOOL MECHANISM

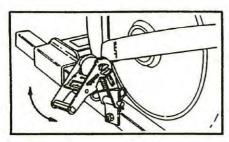


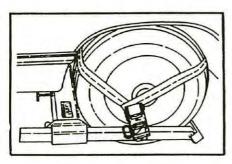
- 3.
- First the spool must be set into "free spool". This is done by pulling the lock bar out and swinging the handle upward until it rests in the free spool notch and then simply pulling out the amount of strap required to fit over the tire.
- Now pull on the lock bar and move it downward until it engages the rachet teeth on the take up spool. By pushing and pulling the handle up and down, the strap will be wound onto the spool.
  - To release the rachet, simply pull on the locking bar, disengaging the teeth and raise the handle to the "free spool" position.

Rev.	
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#### INSTALLING THE TIE DOWN STRAP







- With the vehicle lifted just barely off the ground, attach the strap to the wheel grid. Be sure the rachet pin is secured with the hairpin cotter pin.
  - Set the rachet spool in "free spool" position and pull the webbed strap out and form a loop which will wrap around the tire. Be sure the loop is over approximately 1/3 of the tire.
- Take up the slack in the strap by reattaching the takeup spool arm. Continue until the tires show some compression.
- 4. Raise the wheel grid to the towing position. RE-TIGHTEN THE RACHET PERIODICALLY AS TIRE SETTLES IN GRID FROM TOWING

Rev. \_\_\_\_\_

#### MAINTENANCE AND LUBRICATION

Jerr-Dan rollback truck decks are designed for years of service with little maintenance. This small amount of maintenance, however, is very important for durability and for safe operation of the deck.

Maintenance is an owner/user responsibility as neither the manufacturer nor the distributor can normally control this function.

Use only safe practices when maintaining this equipment. Never get under a tilted deck unless it is adequately supported (don't rely on the hydraulic system). Always shut off the engine before reaching into pinch areas as when checking the hydraulic oil level or greasing under the deck. Maintain a clean shop for safety. Clean up spilled oil immediately.

Inspect the vehicle and deck system periodically for damage or evidence of pending failure. Damaged or broken parts should be replaced immediately. Never operate a machine which is known to be defective or operating improperly. The cause of any binding or leakage should be determined immediately and the problem promptly fixed.

Silding surfaces are to be cleaned and coated with a heavy grease periodically. Cleaning every 6 months is recommended for normal highway operations, but this frequency will vary appreciably with the type of service. Silding on dirty wear surfaces will cause rapid wear. Fittings on linkage pivots should be greased every 2 months, again depending upon usage. See Lube Chart.

Check the hydrautic oil level bimonthly or after any leakage. Use 5W20 Dual Range hydrautic oil. (Automatic transmission fluid may be used in the hydrautic system if necessary.)

The proper oil level is best checked by rolling the deck back enough to gain access to the fill plug (unless the chassis configuration caused the oil tank to be mounted abnormally far to the rear). The oil tank should be about 2/3 full with the deck so positioned (shut off the engine after moving the deck). This will result in a 3/4 full tank with the cylinders fully retracted (deck fully forward). (Proper oil level is achieved when the hydraulic oil just covers the bottom of the screen in the filter neck.)

The hydraulic filter located on the return side of the hydraulic tank comes equipped with a restriction indicator gauge. This gauge shows the operator the condition of the filter element. When the needle reaches the red band (25 psi), the filter is starting to bypass and the element needs to be changed. Failure to change the element will result in premature wear and/or failure of any or all of the hydraulic components. Only check gauge with hydraulic fluid at operating temperatures. Cold oil is more dense and will give a false indicator gauge reading.

If a cylinder seal leaks, disassemble the cylinder and ascertain the cause of the leak. Small scores caused by chips or contaminated fluid can usually be worked out with fine emory cloth to avoid repetition of the trouble. Whenever any seal replacement is necessary, it is always advisable to replace all seals in that component. These seals are available in kits. Also, thoroughly clean all components before reassembly.

Rev		
Date		

#### NORMAL CARE AND CLEANING OF YOUR ALUMINUM DECK

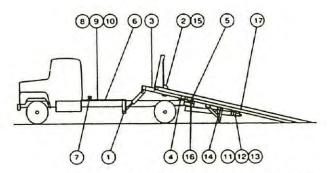
To retain the original appearance of all types of aluminum finishes, it is important to keep the finish clean and free of dirt accumulation. For periodic routine cleaning, we recommend washing with water containing any mild, non-abrasive soap or detergent such as those found around the house or recommended for washing automotive finishes, or any of the numerous non-etching, non-abrasive aluminum cleaners which are available at grocery stores, department stores, hardware stores, and automotive stores. To apply these cleaners use a soft cloth or sponge for smooth surfaces. Follow the cleaning with a thorough rinsing of the surface with clear water and drying with a chamols or cloth to prevent spotting or streaking. To help keep the surface clean, to protect the finish from minor scratches or abrasion, and to facilitate later cleaning, a coat of non-abrasive liquid or paste wax, such as those recommended for the care of automotive finishes, should be applied to the clean, dry surface.

Wax coatings should normally be replenished every three to six months. The exact life of the wax coating is dependent on the degree and severity of exposure and maintenance between waxings. To get the longest life from wax coatings, excessive grime and soil should not be allowed to accumulate, and the waxed surface should be washed as often as needed with clear, cool water and dried with a damp chamois or cloth. A protective wax coating is particularly important for preservation of the finish in seaboard localities and in Industrial areas where finish is exposed to industrial fallout.

Rev. \_\_\_\_\_

31

## JERR-DAN SWANGLER



## CHART COVERS JERR-DAN DECK SYSTEM ONLY

## \* INDICATES DUAL RANGE HYD. FLUID 5 W 20 AUTO TRANS FLUID MAY BE SUBSTITUTED IF NECESSARY

\*\* INDICATES LITHIUM BASE GREASE (NO GRAPHITE BASE)

INTERVAL (HOURS)	REF.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
50 OR MONTHLY	15 12	CABLE ADJ HANDLE	Off. Off.	ENGINE OIL ENGINE OIL	1 2
100 OR BI- MONTHLY	1 2 3 4 5 6 7 8 11 13 14 16	TILT CYLINDER WRICH SLIDE BLOCKS SLIDERAME PIVOT VALVE SPOOLS WOOD STRIPS BOOY GUIDE HYD RESERVOIR PLUNGER TOWBAR PIVOT BRI CYLINDER CONTROL HANDLE	LUBE LUBE COAT LUBE CLEAN & OHL COAT COAT CHECK LUBE LUBE LUBE LUBE	MPG MPG MPG MPG ENGINE OIL MPG MPG MPG MPG MPG	1 12 2 3-5 2 2 1 4 1 4 6-10
250 OR SEMI ANNUALLY	2 9 10 17	WINCH BOX HYD BREATHER HYD FILTER DECK STRINGER	CHECK CLEAN & OIL CHANGE CDAT	GL5 # 140 ENGINE DIL	1 1 1 2
1008 OPERATING HOURS	2 8	WINCH BOX HYD RESERVOIR	DRAIN-FILL DRAIN-FILL	GL5 # 140	1

Rev.			

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Date

## TROUBLESHOOTING

## PROBLEMS ENCOUNTERED WHILE UNIT IS IN TRANSIT

## PROBLEM

### CAUSE

### SOLUTION

Looseness and rattling of deck

- a. Loose Hold Down Blocks
- b. Rollback Cylinder Support not adjusted property
- a. Snug blocks against flange of "I" beam and tighten.
- Snug rubber belting against cylinder barrel and tighten.

a. Lubricate per lube chart

## WINCH FUNCTIONING IMPROPERLY

Winch screeches during operation Winch will not pull load

on deck

- a. Insufficient lubrication
  - a. Free spooling device dis-
  - engaged b. Insufficient Relief Valve
  - pressure c. Sheared keys or broken chain at coupling
  - d. Hydraulic pump wom

b. Broken relief spring a. Insufficient lubrication

a. Off centered load

ting

- a. Engage
- b. Reset to correct setting using gauge
- c. Inspect and replace
- d. Inspect and replace
- a. Recenter load il possible

Cable build-up on one side of spool or other

## VALVE BANK FUNCTIONING IMPROPERLY

a. Insufficient relief valve set-

Broken centering spring or

clogged with dirt at bottom

Valve bypasses oil or squeals during all operations

Valve handles stick,

tight or frozen

Valve leaks at top or

bottom of spools

- of spool a. Defective seals
- a. Reset to correct setting using gauge
- b. Inspect and replace

a. Replace

- a. Lubricate per lube chart
- b. Inspect, clean or replace

CYLINDERS FUNCTIONING IMPROPERLY

Cylinders leak oil Erratic operation of cylinders

- a. Defective seals or rod
- a. Air in hydraulic system
- b. Defective pump (Pulsating)
- a. Inspect and replace
- a. Cycle hydraulic system 10-15 times to remove air
- b. Replace If necessary

## HYDRAULIC SYSTEM FUNCTIONING IMPROPERLY

Slow Operation

- a. Low engine RPM b. Low oil level
- c. Blocked, restricted or collapsed hoses
- d. Dirty hydraulic oil
- e. Hydraulic pump wom
- f. Relief valve in valve bank bypassing
- a. Speed up engine
- b. Reservoir should be 3/4 full with cylinders retracted
- c. Inspect, remove blockage or reposition hoses affected
- d. Drain, flush and refill with clean oil
- e. Rebuild or replace
- 1. 1) Reset to correct pressure using gauge
  - 2) Check if relief spring is broken. Replace If necessary

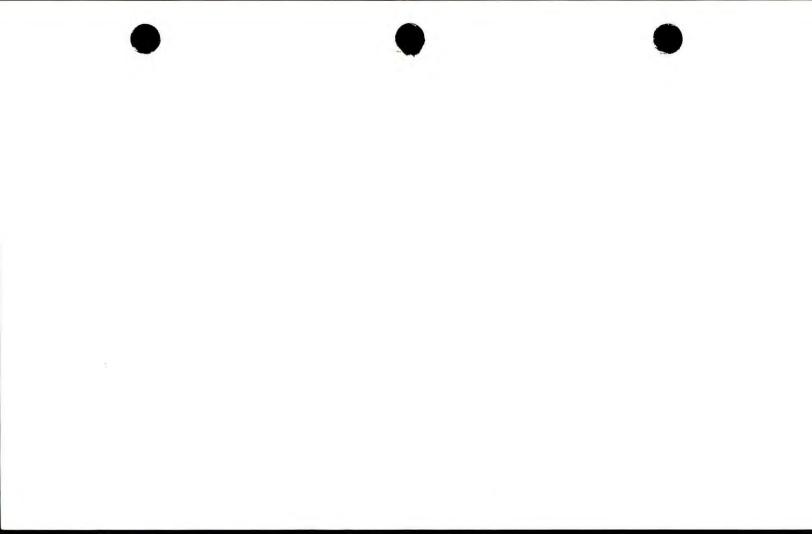
Rev	
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## TROUBLESHOOTING

## P.T.O. FUNCTIONING IMPROPERLY

PROBLEM		CAUSE		SOLUTION
Cable tight or frozen	a. b.	Cable kinked or bent Cable and P.T.O. connec-	a. b.	Straighten or replace Inspect and adjust
	C.	tion not adjusted properly Mounting bracket nuts are over tightened at P.T.O. knob	c.	Loosen if necessary
Rattling noise in P.T.O.	a.	P.T.O. backlash too loose	a.	Shims must be removed (Consult P.T.O. manual)
Howling noise in P.T.O.	a.	P.T.O. backlash too tight	a.	Shims must be added (Consult P.T.O. manual)
Gear oil leak between P.T.O. and pump	a.	Defective shaft seal	a.	Remove and replace
P.T.O. will not engage or		Cable and P.T.O. connec- tion not adjusted property	a.	Inspect and adjust
disengage	b.	Defective shifter cover plate	b.	Inspect and replace
HYDRAIII	IC	PUMP FUNCTIONING	ìII	MPROPERLY
Cavitation: pump usually		Low oil supply	a.	Fill to proper level
noisy	b.	Heavy oil	b.	Fill with proper oil
Holoy	C.	Dirty oil filter	C.	Clean or replace Remove
	-	Restriction in suction line	-	107344 Call
Pump takes too long to respond or falls to re-		Low oil supply Insufficient relief valve pres- sure		Fill to proper level  Reset to correct setting us- ing gauge
spond	-	Pump worn or damaged	C.	Repair or replace
Oil Heating up		Foreign material lodged in relief valve	a.	
	b	. Using too light oil		Drain and refill with clean oil
	C	. Dirty oil		Drain, flush, and refill with clean oil
	d	. Oil level too low		. Fill to proper level
	8	. Insufficient relief valve pres-	. 0	. Set to correct setting using gauge
	f.	sure Relief valve pressure too high	f.	Same as "e"
	0	. Pump worn (slippage)		. Repair or replace
Oil foaming		Air leaking into suction line from tank to pump		. Tighten all connections
	t	. Wrong kind of oil		<ul> <li>Drain and refill with non- foaming type hydraulic oil</li> </ul>
		. Oil level too low	-	. Fill to proper level
Hydraulic oil leak be- tween P.T.O. and pump		a. Defective shaft seal	8	a. Replace shaft seal
Pump leaks at front and rear covers		a. Defective seals	8	a. Replace seals

Rev		
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## PARTS

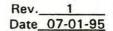
To order repair parts, call your nearest Jerr-Dan Distributor or call 800-876-1415 for further information.

Give Sales Order No., Serial No. and Model No. along with part number and description of part.

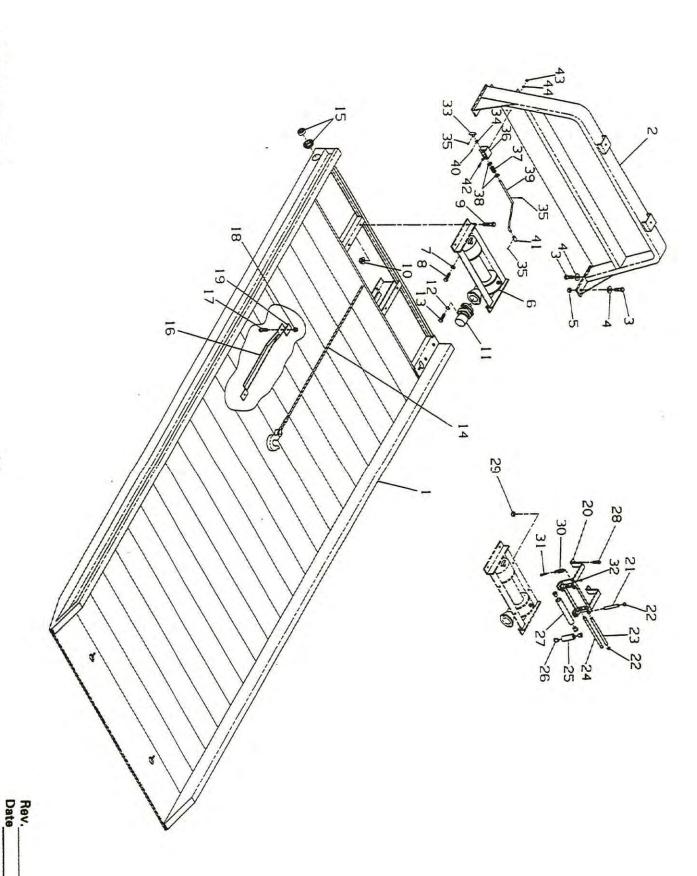
Rev.\_\_\_\_

## PARTS LIST -- RUSTLER DECK

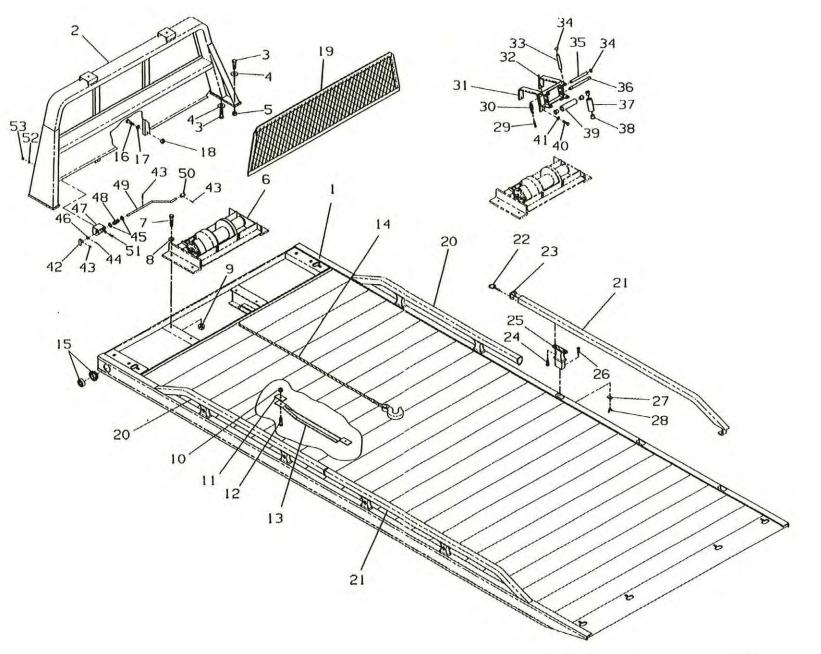
Ref. No.	Part No.	Description Q1	y.
1	3097000124	Steel Deck (17') (96" Wide)	1
	3097000123	Steel Deck (18') (96" Wide)	
	30970001221	Steel Deck (19') (96" Wide)	
	3097000064	Aluminum Deck (17')	
	3097000065	Aluminum Deck (18')	
	30970000671	Aluminum Deck (19')	
	30970001191	Aluminum Deck (19') (96" Wide)	
2	3241000029	Headboard (34.50")	4
2	3241000029	Headboard (34.50 )	1
	3241000030	Headboard (40.50")	
•		Headboard (45.50")	
3 4 5 6 7 8	7105201650	Hex Head Capscrew	4
4	7950200152	Flat Washer	4
5	7660200035	Hex Nut	2
6	7970000008	Winch Assembly	1
7	7950160050	Lock Washer	8
8	7115160850	Hex Head Capscrew	8
9	7115181450	Hex Head Capscrew	4
10	7660182301	Flanged Locknut	4
11	7626000008	Orbit Motor	1
12	7950180450	Lock Washer	42188441221212
13	7115181050	Hex Head Capscraw	2
14	7248000001	Cable	1
15	7590000010	Amber Light	2
16	3706000058	Tilt Lockout Striker Plate	1
17	7115161050	Hex Head Capscrew	2
	100000000000000000000000000000000000000	(Aluminum Decks Only)	-
18	7660162301	Flanged Locknut	2
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(Aluminum Decks Only)	-
19	4706000989	Plate (Aluminum Decks Only)	2
20	31780001362	Bracket Weldment	1
21	48060000112	Shaft	-
22	77540000222		2
23	48060000142	Retaining Ring Shaft	0
24	4806000015 <sup>2</sup>	Shaft	1
25	49120000872	Roller Tube	i
26	72000000113		2
20	72090000112	Bushing	8
27 28	49120001302	Roller Tube	2
28	71151812502	Hex Head Capscrew	4
29	7660182601	Locknut	4
30	78430000072	Extension Spring	2
31	71111414072	Flat Head Machine Screw	2
32	7660141600 <sup>2</sup>	Locknut	2
33	9551960017 <sup>3</sup>	Handle	1
34	92839600013	Collar	1
35	96919600013	Spring Pin	4
36	91789600073	Mounting Bracket	1
37	98439600133	Spring	21281128244222114112111224
38	99499600073	Flat Washer	2
39	97639600023	Shifter Rod	1
40	9691960011 <sup>3</sup>	Spring Pin	1
41	93096900043	Coupling	1
42	9120960015 <sup>3</sup>	Hex Head Capscrew	2
43	9661960010 <sup>3</sup>	Hex Nut	2
44	9949960008 <sup>3</sup>	Flat Washer	4
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<sup>&</sup>lt;sup>1</sup> Consult Factory for Foreign Chassis Components <sup>2</sup> Also Available as Assembly #2500900448 <sup>3</sup> Also Available as Assembly #7551000012



## WRANGLER LITE DECK



Rev.\_\_\_\_

## PARTS LIST -- WRANGLER LITE DECK

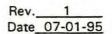
Ref. No.	Part No. 3097000058	Description Oty. Aluminum Deck (17")
1	30970000551	Aluminum Deck (18'-4")
2	3241000027	Headboard (34.50")
	3241000041	Headboard (40.50")
3	3241000025 7105201650	Headboard (45.50") Hex Head Capscrew 4
3	7103201030	(Alum, Decks Only)
4	7950200152	Flat Washer
4 5 6 7 8	7660200035	Hex Nut 2
6	7950000024 7115181450	Planetary Winch Assembly 1 Hex Head Capscrew 4
6	7950180153	Hat Washer 4
9	7660182301	Flanged Locknut 4
10	7660162301	
		(Alum. Decks Only)
11	4706000989 7115161050	Plate (Alum. Decks Only) 2 Hex Head Capscrew 2
12	/115161050	(Alum. Decks Only)
13	3706000058	Tilt Lockout Striker Plate 1
14	7248000001	Cable 1
15	7590000010	Amber Light 2
16	7115181050 7950180161	Hex Head Capscrew 2 Flat Washer 2
17 18	7660182601	Tilt Lockout Striker Plate 1 Cable 1 Amber Light 2 Hex Head Capscrew 2 Flat Washer 2 Locknut 2 Locknut 1 Headboard Screen (34.50") 1
19	3391000001	Headboard Screen (34.50")
	3391000002	Headboard Screen (40.50"&45.50")
20	3537300016	Front Raised Rail Tube Assembly 2 Rear Raised Rail Tube Assembly 2 Klik Pin 2 End Cap 4
21 22	3537300015 <sup>4</sup> 7391000003 <sup>4</sup>	Klik Pin 2
23	72540000024	End Cap 4
24	7118161025**	Bolt 16
25	72590000024*	Bolt 16 Post 8 Bolt 10
24 25 26 27 28 29 30 31	7111161051**	Bolt 10 Retaining Plate 10
27	4062000002** 7660162100**	Retaining Plate 10 Wing Nut 10
29	71111414072	Flat Head Machine Screw 2
30	78430000074	Extension Spring 2
31	35009000214	Bracket Weldment 1
32	7660141600*	Locknut 2
33 34	4806000011 <sup>2</sup> 7754000022 <sup>2</sup>	Shaft 2 Retaining Ring 8
35	4806000012 <sup>2</sup>	Shaft 1
35 36 37	4806000013*	Shaft 1
37	49120000872	Roller Tube 2
38	72090000112	Bushing 8 Roller Tube 2
39 40	4912000086 <sup>2</sup> 7115181050 <sup>2</sup>	Hex Head Capscrew 4
41	7950180000 <sup>2</sup>	Lock Washer 4
42	95519600173	Handle 1
43	9691960001	Spring Pin 4
44	9691960011 <sup>3</sup> 9949960007 <sup>3</sup>	Spring Pin 1 Plat Washer 2
45	9283960007 <sup>3</sup>	Collar 1
42 43 44 45 46 47 48 49 50 51 52 53	91789600073	Wing Nut         10           Flat Head Machine Screw         2           Extension Spring         2           Bracket Weldment         1           Locknut         2           Shaft         2           Retaining Ring         8           Shaft         1           Shaft         1           Roller Tube         2           Bushing         8           Roller Tube         2           Hex Head Capscrew         4           Lock Washer         4           Lock Washer         4           Spring Pin         1           Flat Washer         2           Collar         1           Mounting Bracket         1           Spring         1           Shifter Rod         1           Coupling         1           Hex Head Capscrew         2           Hat Washer         4           Hex Nut         2
48	9843960013	Spring 1
49	9763960003	Shifter Rod
50	9309960005 <sup>3</sup> 9120960015 <sup>3</sup>	Coupling 1 Hex Head Capscrew 2
52	99499600015	Flat Washer 4
53	9661960010 <sup>3</sup>	
Consult Fa	ectory for Foreign Com	ponents

Consult Factory for Foreign Components
Also Available as Assembly #2500900548
Also Available as Assembly #7551000009
Also Available in Rail Kit #9577790035
Also Available in Post Kit #9577790084

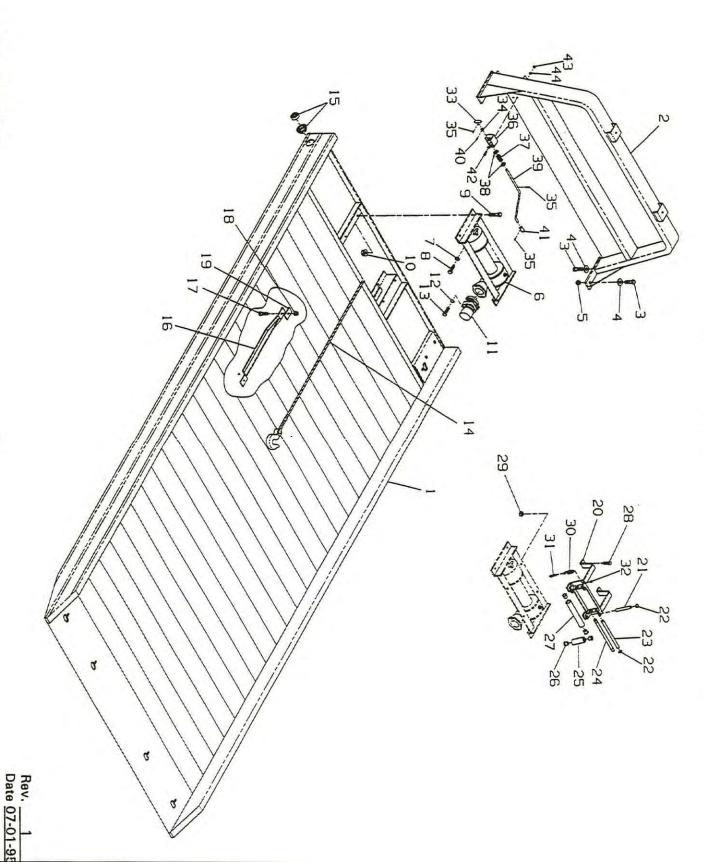
Date

## PARTS LIST -- ELITE DECK

3241000040 Headboard (40.50") 3241000030 Headboard (45.50") 3241000030 Headboard (45.50") 4 7950200152 Flat Washer 4 5 7660200035 Hex Nut 2 6 797000008 Winch Assembly 1 7 7950160050 Lock Washer 8 8 71151160850 Hex Head Capscrew 4 10 7660182301 Flanged Locknut 4 11 7626000008 Orbit Motor 1 12 7950180450 Lock Washer 2 13 7115181050 Hex Head Capscrew 4 14 7248000001 Cable 1 15 7590000010 Amber Light 2 16 370600058 Tilt Lockout Striker Plate 1 17 7115161050 Hex Head Capscrew 2 (Aluminum Decks Only) 18 7660162301 Flanged Locknut 2 18 7660162301 Flanged Locknut 2 19 4706000989 Plate (Aluminum Decks Only) 20 3178000136² Bracket Weldment 1 21 480600011² Shaft 2 22 775400022² Retaining Ring 8 23 480600014² Shaft 1 24 480600015² Shaft 1 25 4912000087² Roller Tube 2 26 7209000011² Bushing 8 27 4912000087² Roller Tube 2 28 7115181250² Hex Head Capscrew 4 29 7660182601² Bushing 8 27 4912000087² Roller Tube 2 28 7115181250² Hex Head Capscrew 4 29 7660182601² Locknut 4 30 784300007² Extension Spring 8 31 7111141407² Flat Head Machine Screw 2 32 7660141600² Locknut 2 33 9551960017³ Handle 1 34 9283960001³ Spring 1 35 969196001³ Spring 1 36 9178960007³ Handle 1 37 9843960001³ Spring 1 38 9949960007³ Spring Pin 1 39 97639600001³ Spring Pin 1 41 9309690004³ Coupling Pin 1 42 9120960015³ Hat Washer 4 44 9949960000³ Spring Pin 1 45 9949960000³ Spring Pin 1 46 9949960000³ Spring Pin 1 47 Washer 4 48 9949960000³ Spring Pin 1 49 9949960000³ Spring Pin 1 40 9949960000³ Spring Pin 1 41 9309690004³ Coupling Pin 1 42 9120960015³ Hex Head Capscrew 2 43 9661960010³ Hex Head Capscrew 2 44 9949960000³ Spring Pin 1 45 Plat Washer 4 46 Plat Washer 4	Ref. No.	Part No. 3097000121 <sup>1</sup> 3241000029	Description Aluminum Deck (19') Headboard (34.50")	Oty.
3241000030 Headboard (45.50") 3 7105201650 Hex Head Capscrew 4 4 7950200152 Flat Washer 4 5 7660200035 Hex Nut 2 6 797000008 Winch Assembly 1 7 7950160050 Lock Washer 8 8 7115160850 Hex Head Capscrew 8 9 7115181450 Hex Head Capscrew 4 10 7660182301 Flanged Locknut 4 11 7626000008 Orbit Motor 1 12 7950180450 Lock Washer 2 13 7115181050 Hex Head Capscrew 2 14 7248000001 Cable 1 15 759000010 Amber Light 2 16 3706000058 Tilt Lockout Striker Plate 1 17 7115161050 Hex Head Capscrew 2 (Aluminum Decks Only) 18 7660162301 Flanged Locknut 2 (Aluminum Decks Only) 19 4706000989 Plate (Aluminum Decks Only) 20 3178000136² Bracket Weldment 1 21 480600011² Shaft 2 22 7754000022² Retaining Ring 8 23 480600014² Shaft 1 24 480600015² Shaft 1 25 4912000037² Roller Tube 2 27 4912000130² Roller Tube 2 28 7115181250² Hex Head Capscrew 4 29 7660182601² Locknut 4 30 7843000007² Roller Tube 2 29 7660182601² Bushing 8 31 7111141407² Flat Head Machine Screw 2 32 7660141600² Locknut 4 30 7843000007² Flat Head Machine Screw 2 31 7111141407² Flat Head Machine Screw 2 32 7660141600² Locknut 2 33 9551960013³ Spring Pin 4 36 91789600013³ Spring Pin 1 36 917896000013 Spring Pin 1 37 98439600013 Spring Pin 1 38 99499600073 Shifter Rod 1 39 97639600023 Shifter Rod 1 40 96919600113 Spring Pin 1 41 93096900043 Hex Head Capscrew 4 42 9120960015³ Hex Head Capscrew 4 43 92839600013 Spring Pin 1 44 9209600015³ Spring Pin 1 45 9661960010³ Hex Head Capscrew 1 46 96919600113 Spring Pin 1 47 9009600015³ Spring Pin 1 48 9009600015³ Spring Pin 1 49 900960010³ Spring Pin 1 40 90091010° Hex Head Capscrew 1 41 93096900013 Spring Pin 1 42 9120960015³ Hex Head Capscrew 1 43 9009690013 Spring Pin 1 44 920960015³ Hex Head Capscrew 1 45 Plat Head Capscrew 1 46 Plat Head Capscrew 1 47 Plat Head Capscrew 1 48 Plate (Aluminum Decks Only) 49 Plate (Aluminum Decks Only) 40 Plate (Aluminum Decks Only) 41 Plate (Aluminum Decks Only) 42 Plate (Aluminum Decks Only) 43 Plate (Aluminum Decks Only) 44 Plate (Aluminum Decks Only) 45 Plate (Aluminum Decks Only) 46 Plate (Aluminum	2			
Total   Tota				
4 7950200152 Flat Washer 4 766020035 Hex Nut 2 766020035 Hex Nut 2 7970000008 Winch Assembly 1 1 7950160050 Lock Washer 8 7115160850 Hex Head Capscrew 4 7115181450 Hex Head Capscrew 4 7660182301 Flanged Locknut 4 762600008 Orbit Motor 1 1 762600008 Orbit Motor 1 1 762600001 Cable 1 7759000010 Amber Light 7248000001 Cable 1 759000010 Amber Light 2 759000010 Amber Light 2 759000010 Amber Light 2 759000010 Amber Light 1 7115161050 Hex Head Capscrew 2 7660162301 Flanged Locknut 2 7660162301 Flanged Locknut 2 7660162301 Flanged Locknut 2 7660162301 Flanged Locknut 2 77540000012 Flanged Locknut 2 7754000012 Flanged Locknut 1 7759000011 Flanged Locknut 1 77590000011 Flanged Locknut 1 7759000011 Flanged Locknut 1 7759000011 Flanged Locknut 1 7759000011 Flanged Locknut 1 7759000011 Flanged Flange	3			
10	4			4
10	5			2
10	6			1
10	7			8
10	8			8
10	9		Hex Head Capscrew	4
18			Flanged Locknut	4
18		7626000008		1
18		7950180450	Lock Washer	2
18	13	7115181050	Hex Head Capscrew	2
18		7248000001	Cable	1
18		7590000010		2
18	16	3706000058		1
(Aluminum Decks Only)  Flanged Locknut (Aluminum Decks Only)  19	17	7115161050		2
(Aluminum Decks Only)  19				A.
19	18	7660162301	Flanged Locknut	2
19			(Aluminum Decks Only)	
20	19			2
21	20			1
22 7754000022 <sup>2</sup> Retaining Ring 8 23 4806000014 <sup>2</sup> Shaft 1 25 491200087 <sup>2</sup> Roller Tube 2 26 7209000011 <sup>2</sup> Bushing 8 27 4912000130 <sup>2</sup> Roller Tube 2 28 7115181250 <sup>2</sup> Hex Head Capscrew 4 29 7660182601 <sup>2</sup> Locknut 4 30 784300007 <sup>2</sup> Extension Spring 2 31 7111141407 <sup>2</sup> Flat Head Machine Screw 2 32 7660141600 <sup>2</sup> Locknut 2 33 9551960017 <sup>3</sup> Handle 1 34 9283960001 <sup>3</sup> Collar 1 35 9691960001 <sup>3</sup> Spring Pin 4 36 9178960007 <sup>3</sup> Mounting Bracket 1 37 9843960013 Spring 1 38 9949960007 <sup>3</sup> Flat Washer 2 39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Head Capscrew 2 44 9949960008 <sup>3</sup> Hat Washer 4	21			2
23	22	77540000222		8
24		48060000142		
25	24	48060000152		1
26 7209000011 <sup>2</sup> Bushing 8 27 4912000130 <sup>2</sup> Roller Tube 2 8 7115181250 <sup>2</sup> Hex Head Capscrew 4 29 7660182601 <sup>2</sup> Locknut 4 30 7843000007 <sup>2</sup> Extension Spring 2 31 7111141407 <sup>2</sup> Flat Head Machine Screw 2 32 7660141600 <sup>2</sup> Locknut 2 33 9551960017 <sup>3</sup> Handle 1 34 9283960001 <sup>3</sup> Collar 1 35 9691960001 <sup>3</sup> Spring Pin 4 36 9178960007 <sup>3</sup> Mounting Bracket 1 37 9843960013 <sup>3</sup> Spring 1 38 9949960007 <sup>3</sup> Flat Washer 2 39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Head Capscrew 4 44 9949960008 <sup>3</sup> Flat Washer 4	25	4912000087		2
27	26		Bushing	8
28 7115181250° Hex Head Capscrew 4 29 7660182601° Locknut 4 30 7843000007° Extension Spring 2 31 7111141407° Flat Head Machine Screw 2 32 76601416000° Locknut 2 33 9551960017³ Handle 1 34 9283960001³ Collar 1 35 9691960001³ Spring Pin 4 36 9178960007³ Mounting Bracket 1 37 9843960013° Spring 1 38 9949960007³ Flat Washer 2 39 9763960002³ Shifter Rod 1 40 9691960011³ Spring Pin 1 41 9309690004³ Coupling 1 42 9120960015° Hex Head Capscrew 2 43 9661960010° Hex Nut 2 44 9949960008° Flat Washer 4	27			4
29 7660182501° Locknut 4 30 7843000007° Extension Spring 2 31 7111141407° Flat Head Machine Screw 2 32 7660141600° Locknut 2 33 9551960017° Handle 1 34 9283960001° Collar 1 35 9691960001° Spring Pin 4 36 9178960007° Mounting Bracket 1 37 9843960013° Spring 1 38 9949960007° Flat Washer 2 39 9763960002° Shifter Rod 1 40 9691960011° Spring Pin 1 41 9309690004° Coupling 1 42 9120960015° Hex Head Capscrew 2 43 9661960010° Hex Nut 2 44 9949960008° Flat Washer 4				4
30	29	7660182601		3
31 7111141407 Hat Head Machine Screw 2 32 7660141600 <sup>2</sup> Locknut 2 33 9551960017 <sup>3</sup> Handle 1 34 9283960001 <sup>3</sup> Collar 1 35 9691960001 <sup>3</sup> Spring Pin 4 36 9178960007 <sup>3</sup> Mounting Bracket 1 37 9843960013 <sup>3</sup> Spring 1 38 9949960007 <sup>3</sup> Flat Washer 2 39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		7843000007	Extension Spring	2
32		7111141407		5
33 9551950017 Handle 34 92839600013 Collar 1 35 96919600013 Spring Pin 4 36 91789600073 Mounting Bracket 1 37 98439600133 Spring 1 38 99499600073 Flat Washer 2 39 97639600023 Shifter Rod 1 40 96919600113 Spring Pin 1 41 93096900043 Coupling 1 42 91209600153 Hex Head Capscrew 2 43 96619600103 Hex Nut 2 44 99499600083 Flat Washer 4		7660141600		1
35 9691960001 <sup>3</sup> Spring Pin 4 36 9178960007 <sup>3</sup> Mounting Bracket 1 37 9843960013 <sup>3</sup> Spring 1 38 9949960007 <sup>3</sup> Flat Washer 2 39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4				1
35 96919600073 Spring Bracket 1 37 98439600073 Spring 1 38 99499600073 Flat Washer 2 39 97639600023 Shifter Rod 1 40 96919600113 Spring Pin 1 41 93096900043 Coupling 1 42 91209600153 Hex Head Capscrew 2 43 96619600103 Hex Nut 2 44 99499600083 Flat Washer 4				À
36 917895007 Modifing Blacket 37 9843960013 <sup>3</sup> Spring 1 38 9949960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4	35		Mounting Bracket	1
38 9949960007 <sup>3</sup> Flat Washer 2 39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		91/896000/		1
39 9763960002 <sup>3</sup> Shifter Rod 1 40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		99499600073		2
40 9691960011 <sup>3</sup> Spring Pin 1 41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		9763960007		î
41 9309690004 <sup>3</sup> Coupling 1 42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		96919600113		i
42 9120960015 <sup>3</sup> Hex Head Capscrew 2 43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		93096900043		1
43 9661960010 <sup>3</sup> Hex Nut 2 44 9949960008 <sup>3</sup> Flat Washer 4		91209600153		2
44 9949960008 <sup>3</sup> Flat Washer 4		9661960010 <sup>3</sup>		2
	44	99499600083		4



<sup>&</sup>lt;sup>1</sup> Consult Factory for Foreign Chassis Components <sup>2</sup> Also Available as Assembly #2500900448 <sup>3</sup> Also Available as Assembly #7551000012



4.6

Landson .	PARTS LIST	FINAL ASSEMBLY BASIC UNIT
Ref. No.	Part No.	Description Qty.
1	3868000088	Subframe 1
2	3320000010 7115181450	Rollback Cylinder 1 Hex Head Capscrew 4
4	7950180000	Look Washer 8
Б	7880180000	Hex Nut 8
2 3 4 5 6 7 8	7680262031 4178000154 7115181250	Locknut 1
7	4178000154	Bracket Hex Head Capscrew
8	7116181260	Hex Head CapsoreW
10	7661000011 3636000038	Flanged Locknut 4 Hold Down Base 1
11	4679000079	Wood Blook 2
12	7120000010	Self-Drilling Sorew 6
13	46790000202	Hold Down Pad 2
11 12 13 14	7790151656*	Self-Tepping Screw 4
10	7105181450	Hex Head Capacrew 14
16	7660182333 4017000405	Flanged Looknut 14 Angle 2
17	327400000031	Retaining Clamp (Ford & IHC) 2
19	4017000457	Retaining Clamp (Chevys) 2 L.H. Saddle 1 R.H. Saddle 1 Pin Weldment 2
20	4178000178	L.H. Saddle
21 22	4178000179	R.H. Saddle
22	3691000092	Pin Weldment 2
23 24	7115160850 7660162301	Hex Head Cepscrew 4
25	3691000073	Flanged Looknut 4 Pin Weldment 2
26 26	3320000009	Tilt Cylinder 2
27	4209000020	Spacer (11/16") 2 Spacer (5/16") 4
	4209000084	Spacer (5/16") 4
28	7638000004	Mud Flap 2
28 29 30	4706000233 7111150813	Back-Up Strip 2 Truss Head Screw 8
31	7950150000	Lock Washer 8
32	7660150000	Hex Nut 8
32 33	3555184002	Bracket 1
34	7590000009	Clearance Light (Red) 4 Stop, Turn, Tall Lemp 2 Work Light 2
35	7500000011	Stop, Turn, Tall Lamp 2
36 37	7590000011 7590000007	Per Light
38	7790141056	Ber Light 1 Self-Tepping Screw 2
39 40	46790000162	Wear Pad 8
40	71151610232	Flat Head Capsorew 16
41	7950160000*	Look Washer 16
42	7660160000° 7118160623°	Hex Nut 16 Flat Head Capscrew 2
44	46790000192	Wear Pad 2
45	36910000822	Wear Pad 2 R.H. Trunnion Pin 1
	3691000080	R.H. Trunnion Pin (Chevy 3500HD)
46	36910000831	L.H. Trunnion Pin
47	3691000080	L.H. Trunnion Pin (Chevy 3500HD)
47 48	7949000003 7105201450	Washer Hex Head Capscrew 4
49	7660202331	Flanged Locknut 4
50	4706000964	Flanged Locknut 4 Fill Plate (Chevy 3500HD) 2
51	7105201650	Hex Head Capacrew 2
52	7660202331	Flanged Locknut 2
53	37500000021	Oil Reservoir
54 55	7183000002 4017000063	Filler Breather Cap
56	7111181650	Angle 2 Hex Head Capscrew 4
57	3899000009	Toolbox 1
	3899000011	Toolbox with Stainless Steel Door
58	7105222050	Hex Head Cepscrew 4
59	7660221338 7950220000	Hex Nut 8
60 61	3178000171	Lock Washer 4 R.H. Light Box 1
62	3178000172	Lock Washer Hex Nut Locknut Bracket Hex Head Capscrew Flanged Locknut Hold Down Base Wood Blook Self-Drilling Sorew Hold Down Pad Self-Tapping Sorew Hex Head Capscrew Flanged Locknut Angle Retaining Clamp (Ford & IHC) Retaining Clamp (Chevys) L.H. Saddle R.H. Saddle R.H
	51, 536411A	

Ref. No.	PARTS LIST Part No.	FINAL ASSEMBLY Description	BASIC UNIT Qty.
83	4811000032	Closure Plate	2
64	7661000019	Clip Nut	8
65	7111140513	Machine Screw	8

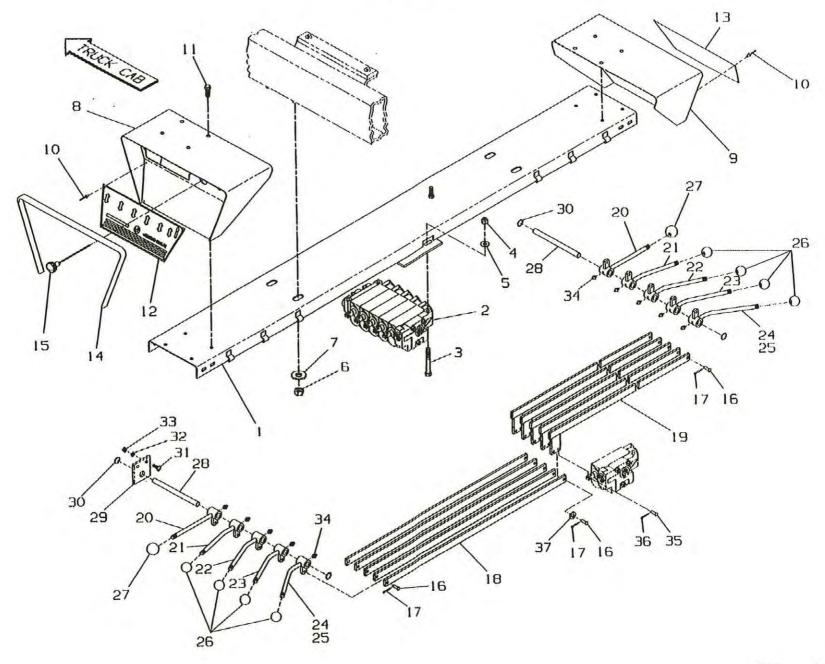
<sup>&</sup>lt;sup>1</sup> Consult Factory for Foreign Chassis Components <sup>2</sup> Available in Wear Pad Service Kit #9577650064

## PARTS LIST -- DUAL CONTROLS (5 BANK VALVE SHOWN)

1 3177000033	Ref. No.	Part No.	Description	Qty.
2 4935000050 Control Valve (5 Bank) 4935000049 Control Valve (4 Bank) 3 7111163250 Hex Head Capscrew 4 7660161605 Locknut 5 7950160151 Flat Washer 6 7660181600 Locknut 7 7950180161 Flat Washer 8 3177000030 L.H. Control Hood 9 3177000031 R.H. Control Hood 10 775900004 Pop Rivet 11 7115150625 Machine Screw 12 7330000155 L.H. Control Placard 13 733000156 R.H. Control Placard 14 463200004 Trim Molding 15 759000012 Light 16 7690151200 Clevis Pin 9,12,1 17 7690021610 Cotter Pin 9,12,1 18 4763000123 Control Rod 3,4, 20 3551000017 Handle Weldment 2,2, 21 3551000015 Handle Weldment 2,2, 22 3551000015 Handle Weldment 2,2, 23 3551000015 Handle Weldment 0,2, 24 3651000015 Handle Weldment 0,2, 25 420900021 Bushing 4,2, 26 7551000003 Red Knob 4,6, 27 7551000003 Red Knob 28 4691000141 Pin 29 4606000065 Lug 30 7754000009 Retaining Ring 31 711150864 Bolt 32 7950150000 Clevis Pin 3,4, 36 7690141200 Clevis Pin 3,4, 36 7690141200 Clevis Pin 3,4, 36 7690000810 Cotter Pin 3,4,	1	3177000033	Controls Support We	Idment 1
4935000049 Control Valve (3 Bank)  7111163250 Hex Head Capscrew  Locknut  7660161605 Locknut  7950180151 Flat Washer  Locknut  77950180161 Flat Washer  Locknut  83177000030 Locknut  10775900004 Pop Rivet  11715150625 Machine Screw  12733000155 L.H. Control Placard  1373000156 R.H. Control Placard  14463200004 Trim Molding  Light  759000012 Light  7690151200 Clevis Pin 9,12,1  7690021610 Cotter Pin 9,12,1  84763000123 Control Rod 3,4,  203551000017 Handle Weldment 2,2,2,  3551000017 Handle Weldment 2,2,2,  3551000015 Handle Weldment 0,2,2,  3551000016 Handle Weldment 0,2,2,  3551000017 Handle Weldment 0,2,2,  3551000018 Handle Weldment 0,2,2,  3551000019 Black Knob 4,6,7,7,5,5,7,5,7,5,5,7,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,5,7,7,5,7,5,7,7,5,7,7,5,7,7,5,7,7,5,7,7,7,5,7	2		Control Valve (5 Bank	k) 1
4935000049 3 7111163250			Control Valve (4 Banl	k)
3         7111163250         Hex Head Capscrew           4         7660161605         Locknut           5         7950160151         Flat Washer           6         7660181600         Locknut           7         7950180161         Flat Washer           8         3177000030         L.H. Control Hood           9         3177000031         R.H. Control Hood           10         7759000004         Pop Rivet           11         7115150625         Machine Screw           12         7330000155         L.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4           20         3551000017         Handle Weldment         2,2           21         3551000015         Handle Weldment         2,2           23         3551000015         Handle Weldment         0,2           24         3551000015		4935000049		
4         7660161605         Locknut           5         7950180161         Flat Washer           6         7660181600         Locknut           7         7950180161         Flat Washer           8         3177000030         L.H. Control Hood           9         3177000031         R.H. Control Hood           10         7759000004         Pop Rivet           11         7115150625         Machine Screw           12         7330000156         R.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pln         9,12,1           18         4763000123         Control Rod         3,4           20         3551000013         Handle Weldment         2,2           21         3551000017         Handle Weldment         2,2           22         3551000013         Handle Weldment         0,2           24         3551000013         Handle Weldment         0,2           24         3	3	7111163250		
6         7680181600         Locknut           7         7950180161         Flat Washer           8         3177000030         L.H. Control Hood           9         3177000031         R.H. Control Hood           10         7759000004         Pop Rivet           11         7115150625         Machine Screw           12         7330000156         L.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000017         Handle Weldment         2,2,           22         3551000013         Handle Weldment         0,0,           24         3551000014         Handle Weldment         0,0,           25         420900021         Bushing         4,2,           26         7551000003         Red Knob         4,6,     <	4			3 3 3
6         7680181600         Locknut           7         7950180161         Flat Washer           8         3177000030         L.H. Control Hood           9         3177000031         R.H. Control Hood           10         7759000004         Pop Rivet           11         7115150625         Machine Screw           12         7330000156         L.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000017         Handle Weldment         2,2,           22         3551000013         Handle Weldment         0,0,           24         3551000014         Handle Weldment         0,0,           25         420900021         Bushing         4,2,           26         7551000003         Red Knob         4,6,     <	5		Flat Washer	3
9 317700031 R.H. Control Hood 10 7759000004 Pop Rivet 11 7115150625 Machine Screw 12 7330000155 L.H. Control Placard 13 7330000156 R.H. Control Placard 14 4632000004 Trim Molding 15 7590000012 Light 16 7690151200 Clevis Pin 9,12,1 17 7690021610 Cotter Pin 9,12,1 18 4763000123 Control Rod 3,4, 19 3763000050 Control Rod 3,4, 20 3551000017 Handle Weldment 2,2, 21 3551000013 Handle Weldment 2,2,2, 22 3551000013 Handle Weldment 0,2,2, 23 3551000015 Handle Weldment 0,2,2,2,3,3551000015 Handle Weldment 0,2,2,4,4,2,6,6,7,551000002 Black Knob 4,6,7,7,551000003 Red Knob 26 4209000021 Bushing 4,2,2,6,6,7,7,551000003 Red Knob 27 7551000003 Red Knob 28 4691000141 Pin 29 4606000065 Lug 30 7754000009 Retaining Ring 31 7111150864 Bolt 32 7950150000 Lock Washer 33 7660152601 Locknut 34 7440030000 Grease Fitting 6,8,1,3,4,3,6,6,7,69000810 Cotter Pin 3,4,4,3,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,7,6,7,6,7,6,7,6,7,6,7,6,7	6		Locknut	4
9 317700031 R.H. Control Hood 10 7759000004 Pop Rivet 11 7115150625 Machine Screw 12 7330000155 L.H. Control Placard 13 7330000156 R.H. Control Placard 14 4632000004 Trim Molding 15 7590000012 Light 16 7690151200 Clevis Pin 9,12,1 17 7690021610 Cotter Pin 9,12,1 18 4763000123 Control Rod 3,4, 19 3763000050 Control Rod 3,4, 20 3551000017 Handle Weldment 2,2, 21 3551000013 Handle Weldment 2,2,2, 22 3551000013 Handle Weldment 0,2,2, 23 3551000015 Handle Weldment 0,2,2,2,3,3551000015 Handle Weldment 0,2,2,4,4,2,6,6,7,551000002 Black Knob 4,6,7,7,551000003 Red Knob 26 4209000021 Bushing 4,2,2,6,6,7,7,551000003 Red Knob 27 7551000003 Red Knob 28 4691000141 Pin 29 4606000065 Lug 30 7754000009 Retaining Ring 31 7111150864 Bolt 32 7950150000 Lock Washer 33 7660152601 Locknut 34 7440030000 Grease Fitting 6,8,1,3,4,3,6,6,7,69000810 Cotter Pin 3,4,4,3,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,90000810 Cotter Pin 3,4,4,5,6,7,6,6,7,6,7,6,7,6,7,6,7,6,7,6,7,6,7	7	7950180161	Flat Washer	4
10         7759000004         Pop Rivet           11         7115150625         Machine Screw           12         7330000156         R.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4           19         3763000050         Control Rod         3,4           20         3551000017         Handle Weldment         2,2           21         3551000013         Handle Weldment         2,2           22         3551000015         Handle Weldment         0,2           24         3551000015         Handle Weldment         0,0           25         4209000021         Bushing         4,2           26         7551000002         Black Knob         4,6           27         7551000003         Red Knob         4,6           28         4691000141         Pin         Pin           29         460600	8		L.H. Control Hood	
11         7115150625         Machine Screw           12         7330000155         L.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000017         Handle Weldment         2,2,           22         3551000013         Handle Weldment         0,2,           23         3551000015         Handle Weldment         0,2,           24         3551000031         Handle Weldment         0,2,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         Lock Washer		3177000031	R.H. Control Hood	1
12         7330000155         L.H. Control Placard           13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000013         Handle Weldment         2,2,           22         3551000015         Handle Weldment         0,2,           24         3551000031         Handle Weldment         0,0,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         Pin           29         4606000065         Lug         Lock Washer           30         7754000009         Retaining Ring         6,8,1			Pop Rivet	8
13         7330000156         R.H. Control Placard           14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000017         Handle Weldment         2,2,           22         3551000013         Handle Weldment         0,2,           23         3551000015         Handle Weldment         0,2,           24         3551000031         Handle Weldment         0,0,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         Pin           29         4606000065         Lug         Lug           30         775400000         Retaining Ring         6,8,			Machine Screw	. 8
14         4632000004         Trim Molding           15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4           19         3763000050         Control Rod         3,4           20         3551000017         Handle Weldment         2,2           21         3551000013         Handle Weldment         2,2           22         3551000013         Handle Weldment         0,2           23         3551000015         Handle Weldment         0,0           24         3551000031         Handle Weldment         0,0           25         4209000021         Bushing         4,2           26         7551000002         Black Knob         4,6           27         7551000003         Red Knob         4,6           28         4691000141         Pin         Pin           29         4606000065         Lug         Lug           30         7754000009         Retaining Ring         6,8,1           31         711150864         Bolt         Locknut	12		L.H. Control Placard	1
15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000013         Handle Weldment         2,2,           22         3551000015         Handle Weldment         0,2,           23         3551000031         Handle Weldment         0,0,           24         3551000031         Handle Weldment         0,0,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         29           29         4606000065         Lug         30           30         7754000009         Retaining Ring         31           31         711150864         Bolt         Locknut           34         7440030000         Grease		7330000156	R.H. Control Placard	1
15         7590000012         Light           16         7690151200         Clevis Pin         9,12,1           17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000013         Handle Weldment         2,2,           22         3551000015         Handle Weldment         0,2,           23         3551000015         Handle Weldment         0,2,           24         3551000031         Handle Weldment         0,0,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         29           29         4606000065         Lug         30           30         7754000009         Retaining Ring         31           31         711150864         Bolt         Lock Nut           32         7950150000         Lock W		4632000004	Trim Molding	2
17         7690021610         Cotter Pin         9,12,1           18         4763000123         Control Rod         3,4,           19         3763000050         Control Rod         3,4,           20         3551000017         Handle Weldment         2,2,           21         3551000013         Handle Weldment         2,2,           22         3551000015         Handle Weldment         0,2,           23         3551000031         Handle Weldment         0,0,           24         3551000031         Handle Weldment         0,0,           25         4209000021         Bushing         4,2,           26         7551000002         Black Knob         4,6,           27         7551000003         Red Knob         4,6,           28         4691000141         Pin         29           29         4606000065         Lug         30         7754000009         Retaining Ring           31         7111150864         Bolt         3         7660152601         Locknut           34         7440030000         Grease Fitting         6,8,1           35         7690141200         Clevis Pin         3,4,4           36         7690000810				1
17       7690021610       Cotter Pin       9,12,1         18       4763000123       Control Rod       3,4         19       3763000050       Control Rod       3,4         20       3551000017       Handle Weldment       2,2         21       3551000002       Handle Weldment       2,2         22       3551000015       Handle Weldment       0,2         24       3551000031       Handle Weldment       0,0         25       4209000021       Bushing       4,2         26       7551000002       Black Knob       4,6         27       7551000003       Red Knob       4,6         28       4691000141       Pin       Pin         29       4606000065       Lug       Solt         30       7754000009       Retaining Ring       31         31       711150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4         36       7690000810       Cotter Pin       3,4	16	7690151200	Clevis Pin	9,12,15
18       4763000123       Control Rod       3,4,         19       3763000050       Control Rod       3,4,         20       3551000017       Handle Weldment       2,2,         21       3551000002       Handle Weldment       2,2,         22       3551000015       Handle Weldment       0,2,         24       3551000031       Handle Weldment       0,0,         25       4209000021       Bushing       4,2,         26       7551000002       Black Knob       4,6,         27       7551000003       Red Knob       4,6,         28       4691000141       Pin       Pin         29       4606000065       Lug       Solt         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,			Cotter Pin	9,12,15
19			Control Rod	3,4,5
20         3551000017         Handle Weldment         2,2,2           21         3551000002         Handle Weldment         2,2,2           22         3551000015         Handle Weldment         0,2,2           23         3551000031         Handle Weldment         0,0,0           24         3551000031         Handle Weldment         0,0,0           25         4209000021         Bushing         4,2,0           26         7551000002         Black Knob         4,6,0           27         7551000003         Red Knob         4,6,0           28         4691000141         Pin         29           29         4606000065         Lug         30         7754000009         Retaining Ring           31         7111150864         Bolt         32         7950150000         Lock Washer           33         7660152601         Locknut         34         7440030000         Grease Fitting         6,8,1           35         7690141200         Clevis Pin         3,4,4           36         7690000810         Cotter Pin         3,4,4		3763000050	Control Rod	3,4,5
21       3551000002       Handle Weldment       2,2,2         22       3551000015       Handle Weldment       0,2,2         23       3551000031       Handle Weldment       0,0,0         24       3551000031       Handle Weldment       0,0,0         25       4209000021       Bushing       4,2,0         26       7551000002       Black Knob       4,6,0         27       7551000003       Red Knob       4,6,0         28       4691000141       Pin       Pin         29       4606000065       Lug       30         30       7754000009       Retaining Ring       31         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		3551000017	Handle Weldment	2,2,2
22       3551000013       Handle Weldment       2,2,2         23       3551000015       Handle Weldment       0,2,2         24       3551000031       Handle Weldment       0,0,2         25       4209000021       Bushing       4,2,2         26       7551000002       Black Knob       4,6,6,7         27       7551000003       Red Knob       2,2,4,6,6,7         28       4691000141       Pin       2,2,4,6,6,7         29       4606000065       Lug       30         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,4         36       7690000810       Cotter Pin       3,4,4		3551000002		2,2,2
23       3551000015       Handle Weldment       0,2,2         24       3551000031       Handle Weldment       0,0,0         25       4209000021       Bushing       4,2,2         26       7551000002       Black Knob       4,6,6,6         27       7551000003       Red Knob         28       4691000141       Pin         29       4606000065       Lug         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		3551000013		2,2,2
24       3551000031       Handle Weldment       0,0,0         25       4209000021       Bushing       4,2,2         26       7551000003       Red Knob       4,6,6         27       7551000003       Red Knob       46,6,7         28       4691000141       Pin       40,6,7         29       4606000065       Lug       40,6,7         30       7754000009       Retaining Ring       80,8,1         31       7111150864       Bolt       40,6,7         32       7950150000       Lock Washer       40,7         33       7660152601       Locknut       40,8,1         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,4         36       7690000810       Cotter Pin       3,4,4		3551000015	Handle Weldment	0,2,2
25 4209000021 Bushing 4,2,2 26 7551000002 Black Knob 4,6,6 27 7551000003 Red Knob 28 4691000141 Pin 29 4606000065 Lug 30 7754000009 Retaining Ring 31 7111150864 Bolt 32 7950150000 Lock Washer 33 7660152601 Locknut 34 7440030000 Grease Fitting 6,8,1 35 7690141200 Clevis Pin 3,4,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,		3551000031	Handle Weldment	0,0,2
26       7551000002       Black Knob       4,6,         27       7551000003       Red Knob         28       4691000141       Pin         29       4606000065       Lug         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		4209000021		4,2,0
27       7551000003       Red Knob         28       4691000141       Pin         29       4606000065       Lug         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		7551000002	Black Knob	4,6,8
29       4606000065       Lug         30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		7551000003	Red Knob	
30       7754000009       Retaining Ring         31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,			Pin	2 2 4
31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,			Lug	4
31       7111150864       Bolt         32       7950150000       Lock Washer         33       7660152601       Locknut         34       7440030000       Grease Fitting       6,8,1         35       7690141200       Clevis Pin       3,4,         36       7690000810       Cotter Pin       3,4,		7754000009	Retaining Ring	4
33 7660152601 Locknut 34 7440030000 Grease Fitting 6,8,1 35 7690141200 Clevis Pin 3,4, 36 7690000810 Cotter Pin 3,4,		7111150864		4
34     7440030000     Grease Fitting     6,8,1       35     7690141200     Clevis Pin     3,4,       36     7690000810     Cotter Pin     3,4,		7950150000	Lock Washer	4
35 7690141200 Clevis Pin 3,4 36 7690000810 Cotter Pin 3,4		7660152601	Locknut	4
35 7690141200 Clevis Pin 3,4 36 7690000810 Cotter Pin 3,4		7440030000	Grease Fitting	6,8,10
36 7690000810 Cotter Pin 3,4		7690141200		3,4,5
		7690000810	Cotter Pin	3,4,5
	37	7949000011	Flat Washer	3,4,5

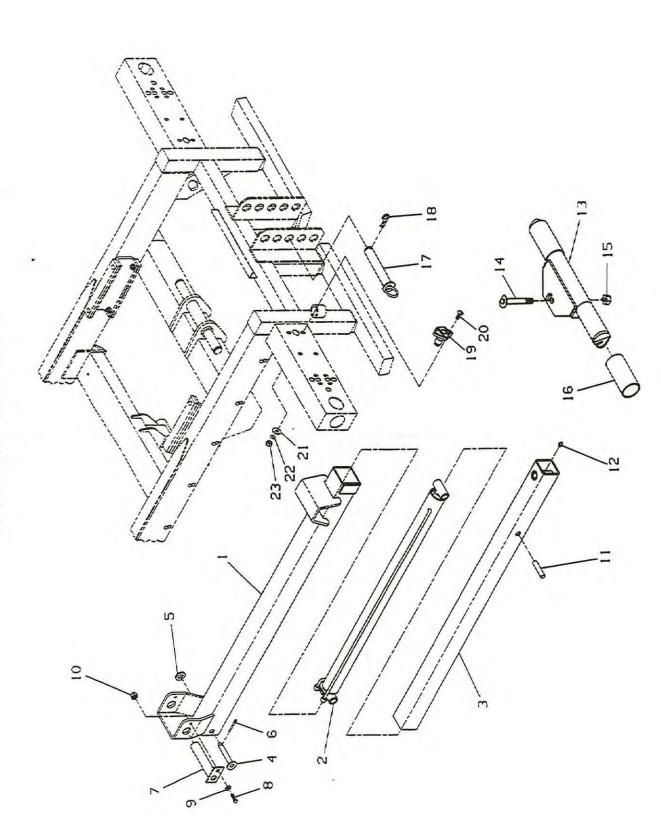
Rev. 1 Date 07-01-95

## **DUAL CONTROLS**



Rev. \_\_1 Date <u>07-01-95</u>

# 1500# HYDRAULIC TOW BAR



Rev. Date

## PARTS LIST -- 1500# HYDRAULIC TOW BAR INSTALLATION

Ref. No.	Part No.	Description	Qty.
1	3170000034	Outer Tube Weldment	1
2	3320000013	Tow Bar Cylinder	1
3	3170000035	Inner Tube Weldment	1
Ā	3691000025	Pin Weldment	1
<b>4 5</b>	7950220161	Flat Washer	1
6	7690144010	Cotter Pin	1
7	3691000093	Pin Weldment	1
8	7118151250	Hex Head Capscrew	1
9	7950150161	Flat Washer	1
10	7660152600	Locknut	1
11	4691000042	Pin	1
12	7440030000	Grease Fitting	1
13	3556000006	Tow Hitch	1
14	3691000026	Hitch Pin	1
15	7660261630	Locknut	1
16	7912000011	Rubber Tube	2
17	3691000097	Pin Weldment	1
18	7691000001	Hair Pin	1
19	7291000003	Female Receptacle	1
20	7111140613	Truss Head Screw	2
21	7950140161	Flat Washer	2
22	7950140000	Lock Washer	2
23	7660140000	Hex Nut	2

Rev.\_\_\_\_\_ Date\_\_\_\_\_

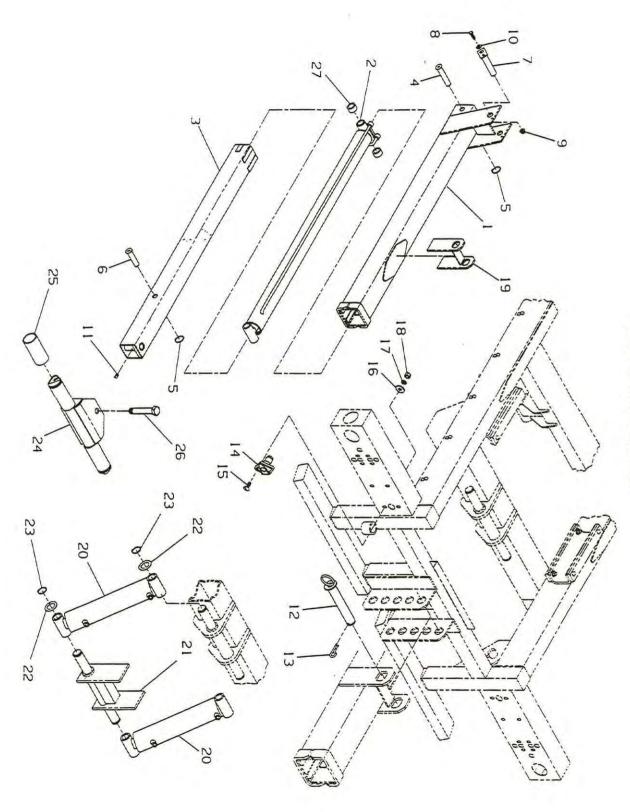
## PARTS LIST -- 3500# HYDRAULIC TOW BAR WITH AND WITHOUT IRL

Ref. No.	Part No.	Description	Qty.
1	3170000074	Outer Tube Weldment	1
2	3320000020	Tow Bar Cylinder	1
2	3170000048	Inner Tube Weldment	1
4	3691000042	Pin Weldment	1
5	7754000006	Retaining Ring	2
5	3691000011	Pin Weldment	1
7	3691000093	Pin Weldment	1
8	7115161250	Hex Head Capscrew	1
9	7660162301	Flanged Locknut	1
10	7950160161	Flat Washer	1
11	7440000200	Grease Fitting 45°	1
12	3691000097	Pin Weldment	1
13	7691000001	Hair Pin	1
14	7291000003	Female Receptacle	1
15	7111140613	Truss Head Screw	2
16	7950140161	Flat Washer	2
17	7950140000	Lock Washer	2 2 2
18	7660140000	Hex Nut	2
19	3606000012	Lug Weldment (Low)	1
	3606000017	Lug Weldment (High)	1
20	3320000041	IRL Cylinder	2
21	3178000155	Bracket	1
22	7949000008	Washer	4
23	7754000014	Retaining Ring	4
24	3556000023	Tow Hitch	1
25	7912000011	Rubber Tube	2
26	4120000008	Bolt	1
27	4209000020	Spacer	2

Rev.\_\_\_\_\_

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## 3500# HYDRAULIC TOW BAR WITH AND WITHOUT IRL

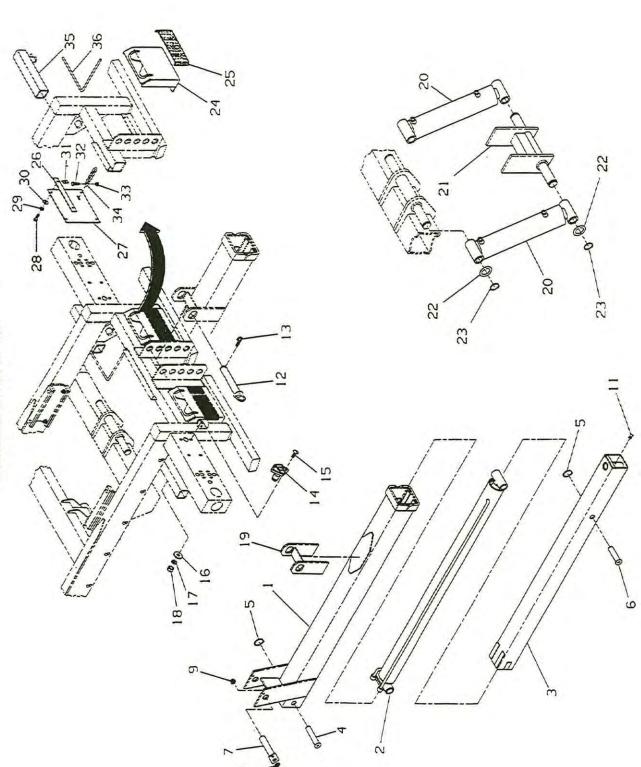


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Rev.

# 3500# HYDRAULIC WHEEL LIFT TOW BAR WITH AND WITHOUT IRL



Rev. Date

## PARTS LIST -- 3500# HYDRAULIC WHEEL LIFT TOW BAR WITH AND WITHOUT IRL

Ref. No.	Part No.	Description	Qty.
1	3170000074	Outer Tube Weldment	1
2	3320000021	Tow Bar Cylinder	1
3	3170000046	Inner Tube Weldment	1
4	3691000042	Pin Weldment	1
	7754000006	Retaining Ring	2
6	3691000011	Pin Weldment	1
5 6 7	3691000093	Pin Weldment	1
8	7115161250	Hex Head Capscrew	1
9	7660162301	Flanged Locknut	1
10	7950160161	Flat Washer	1
11	7440000200	Grease Fitting 45°	1
12	3691000097	Pin Weldment	1
13	7691000001	Hair Pin	1
14	7291000003	Female Receptacle	1
15	7111140613	Truss Head Screw	2
16	7950140161	Flat Washer	2
17	7950140000	Lock Washer	1 2 2 2 2 1
18	7660140000	Hex Nut	2
19	3606000012	Lug Weldment (Low)	
	3606000017	Lug Weldment (High)	1
20	3320000041	IRL Cylinder	1 2
21	3178000155	Bracket	1
22	7949000008	Washer	4
23	7754000014	Retaining Ring	4
24	7706001412	Chain Pocket	2 2 4
25	7679000008	Chain Rub Pad	2
26	4062000108	Bar	4
27	4811000030	Back Plate	2
28	7115140850	Hex Head Capscrew	8
29	7950140000	Lock Washer	8
30	7950140152	Flat Washer	8
31	7661000019	Clip Nut	8
32	7115171050	Hex Head Capscrew	2
33	7660172600	Locknut	2
34	7262000020	Chain Assembly	8 2 2 2 2
35	3913000043	L-Arm Storage Tube	
36	4495000007	Hose Guard	1

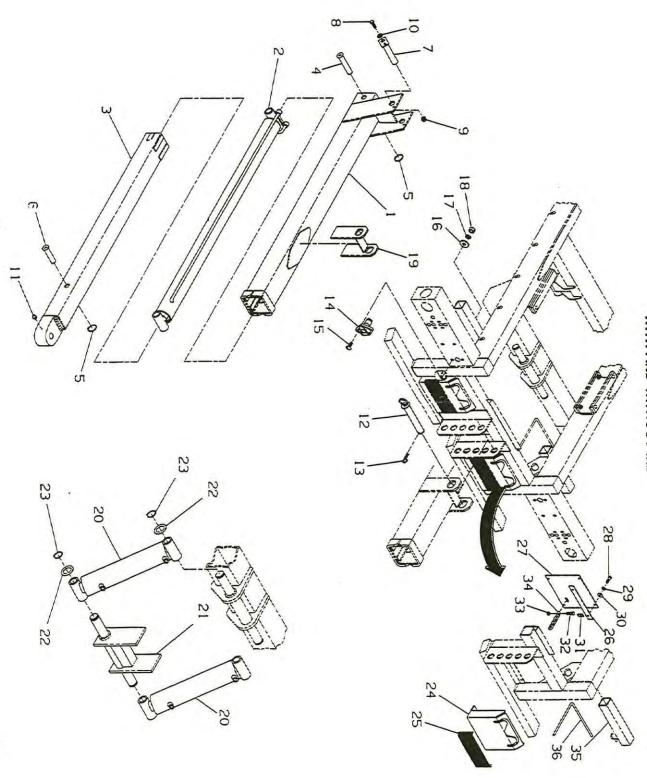
Rev.\_\_\_\_ Date

## PARTS LIST -- LO-PROFILE 3500# HYDRAULIC WHEEL LIFT TOW BAR WITH AND WITHOUT IRL

Ref. No.	Part No.	Description	Qty.
1	3170000074	Outer Tube Weldment	1 4
2	3320000021	Tow Bar Cylinder	1
2 3	3170000073	Inner Tube Weldment	1
4	3691000042	Pin Weldment	1
	7754000006	Retaining Ring	2
5 6	3691000011	Pin Weldment	
7	3691000093	Pin Weldment	1
8	7115161250	Hex Head Capscrew	1
9	7660162301	Flanged Locknut	1
10	7950160161	Flat Washer	1
11	7440000200	Grease Fitting 45°	1
12	3691000097	Pin Weldment	1
13	7691000001	Hair Pin	1
14	7291000003	Female Receptacle	1 1 2 2 2 2 2
15	7111140613	Truss Head Screw	2
16	7950140161	Flat Washer	2
17	7950140000	Lock Washer	2
18	7660140000	Hex Nut	2
19	3606000012	Lug Weldment (Low)	1
, 0	3606000017	Lug Weldment (High)	14
20	3320000041	IRL Cylinder	2
21	3178000155	Bracket	1
22	7949000008	Washer	4
23	7754000014	Retaining Ring	4
24	7706001412	Chain Pocket	2
25	7679000008	Chain Rub Pad	2
26	4062000108	Bar	4
27	4811000030	Back Plate	2
28	7115140850	Hex Head Capscrew	8
29	7950140000	Lock Washer	8
30	7950140152	Flat Washer	8
31	7661000019	Clip Nut	8
32	7115171050	Hex Head Capscrew	2
33	7660172600	Locknut	2
34	7262000020	Chain Assembly	2
35	3913000043	L-Arm Storage Tube	21442242888822222
36	4495000007	Hose Guard	1
50	,,0000007		

Rev.\_\_\_\_

## LO-PROFILE 3500# WHEEL LIFT TOW BAR WITH AND WITHOUT IRL



Rev.

2

6

9

8

## PARTS LIST -- HYDRAULIC TOW BAR WHEEL GRID ASSEMBLY

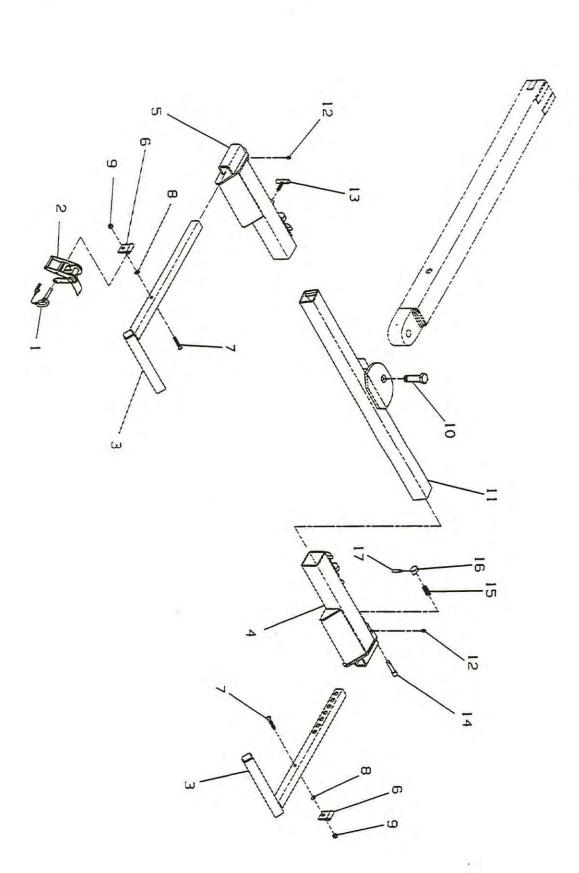
Ref. No.	Part No.	Description	Qty.
1	7691000011	Hitch Pin	2
2	7894000002	Tie Down Strap	2
3	3511880049*	L-Arm	2
4	3511880080	R.H. Grid Weldment	1
5	3511880081	L.H. Grid Weldment	1
6	3178000001*	Anchor Bracket	2
7	7118182418*	<b>Button Head Capscrew</b>	2
8	7950180153*	Flat Washer	2
9	7660181630*	Hex Locknut	2
10	4120000008	Bolt	1
11	3500880056	Pivot Tube	1
12	7440030000	Grease Fitting	2
13	3551000026	T-Handle	2
14	4691000188	Pin	2
15	7843000006	Spring	2
16	4254000006	Cap	2
17	4763000184	Rod	2

<sup>\*</sup>Also available in L-Arm Replacement Kit #9577000002

## PARTS LIST -- LO-PROFILE HYDRAULIC TOW BAR WHEEL GRID ASSEMBLY

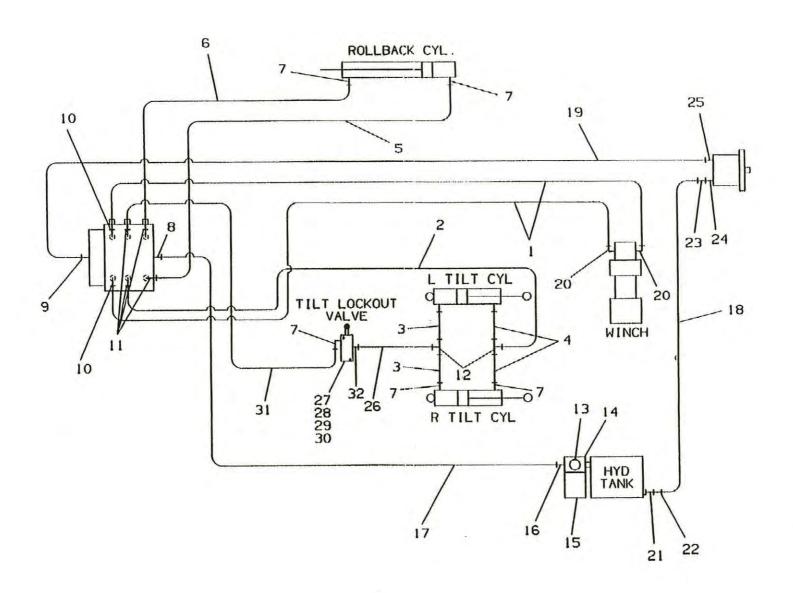
Ref. No.	Part No.	Description	Qty.
1	7691000011	Hitch Pin	2
2	7894000002	Tie Down Strap	2
3	3511880049*	L-Arm	2
4	3511880080	R.H. Grid Weldment	1
5	3511880081	L.H. Grid Weldment	1
6	3178000001*	Anchor Bracket	2
7	7118182418*	<b>Button Head Capscrew</b>	2
8	7950180153*	Flat Washer	2
9	7660181630*	Hex Locknut	2
10	4120000011	Bolt	1
11	3500880062	Pivot Tube	1
12	7440030000	Grease Fitting	2
13	3551000026	T-Handle	2
14	4691000188	Pin	2
15	7843000006	Spring	2
16	4254000006	Cap	2
17	4763000184	Rod	2

<sup>\*</sup>Also available in L-Arm Replacement Kit #9577000002



LO-PROFILE
HYDRAULIC WHEEL LIFT TOW BAR
WHEEL GRID ASSEMBLY

## **HYDRAULIC COMPONENTS**



Rev.\_\_\_\_

## PARTS LIST -- HYDRAULIC COMPONENTS

Ref. No.	Part No.	Description	Qty.
1	4567132178	Winch Hose (17'Deck)	2
	4567132190*	Winch Hose (18'Deck)	
	4567132198*	Winch Hose (19' Deck)	
2	4567122100	Tilt Supply Hose	1
3	4567120020	Tilt Base Hose	2
4	4567120038	Tilt Rod Hose	2
2 3 4 5 6	4567122104	Rollback Base Hose	2 2 1 1
6	4567122047	Rollback Rod Hose	1
7	7445060645	90° Elbow	7
8	7445121245	90° Elbow	7
9	7445081245	90° Elbow	1
10	7445081043	Straight Adapter	2
11	7445061043	Straight Adapter	4
12	7445060637	Tee	2
13	7470000002	Gauge	1 2 4 2 1
14	7430000003	Filter Assembly	1
15	7431000001	Filter Element	1
16	**	Fitting	
17	**	Return Hose	1
18	**	Suction Hose	1
19	• •	Pressure Hose	1
20	••	Fitting	
21	••	Fitting	
22	**	Fitting	
23	**	Fitting	
24	**	Fitting	
25		Fitting	
26	4567122034	Tilt Supply Hose	1
27	7935000102	Tilt Lockout Valve	1
28	7115161650	Hex Head Capscrew	2
29	7660162601	Locknut	2
30	7950160161	Flat Washer	2 2 2
31	4570000064	Tilt Supply Hose	1
32	7445060643	Straight Adapter	1

<sup>\*</sup>Consult Factory for Foreign Chassis Components \*\*Consult Factory for Part Numbers and Quantities

Rev. Date

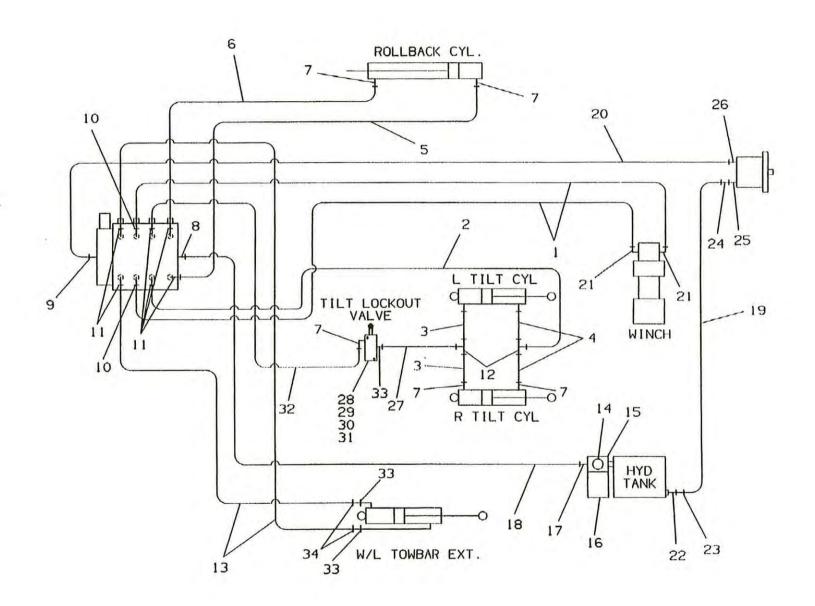
## PARTS LIST -- HYDRAULIC COMPONENTS HYDRAULIC TOWBAR

Ref. No.	Part No.	Description	Qty.
1	4567132178	Winch Hose (17'Deck)	2
•	4567132190*	Winch Hose (18'Deck)	
	4567132198*	Winch Hose (19' Deck)	
2	4567122100	Tilt Supply Hose	1
3	4567120020	Tilt Base Hose	2
4	4567120038	Tilt Rod Hose	2
5	4567122104	Rollback Base Hose	2 2 1 1
2 3 4 5 6 7	4567122047	Rollback Rod Hose	1
7	7445060645	90° Elbow	7
8	7445121245	90° Elbow	1
9	7445081245	90° Elbow	1
10	7445081043	Straight Adapter	2
11	7445061043	Straight Adapter	6
12	7445060637	Tee	2
13	4567122040	<b>Towbar Supply Hose</b>	2
14	7470000002	Gauge	1 1 2 6 2 2 1 1
15	7430000003	Filter Assembly	1
16	7431000001	Filter Element	1
17		Fitting	
18		Return Hose	1 1 1
19	**	Suction Hose	1
20	**	Pressure Hose	1
21	**	Fitting	
22	**	Fitting	
23	**	Fitting	
24	**	Fitting	
25	**	Fitting	
26	**	Fitting	
27	4567122034	Tilt Supply Hose	1
28	7935000102	Tilt Lockout Valve	1
29	7115161650	Hex Head Capscrew	2
30	7660162601	Locknut	2
31	7950160161	Flat Washer	2 2 2 1 3 2
32	4570000064	Tilt Supply Hose	1
33	7445060643	Straight Adapter	3
34	7445060672	90° Elbow	2

<sup>\*</sup>Consult Factory for Foreign Chassis Components \*\*Consult Factory for Part Numbers and Quantities

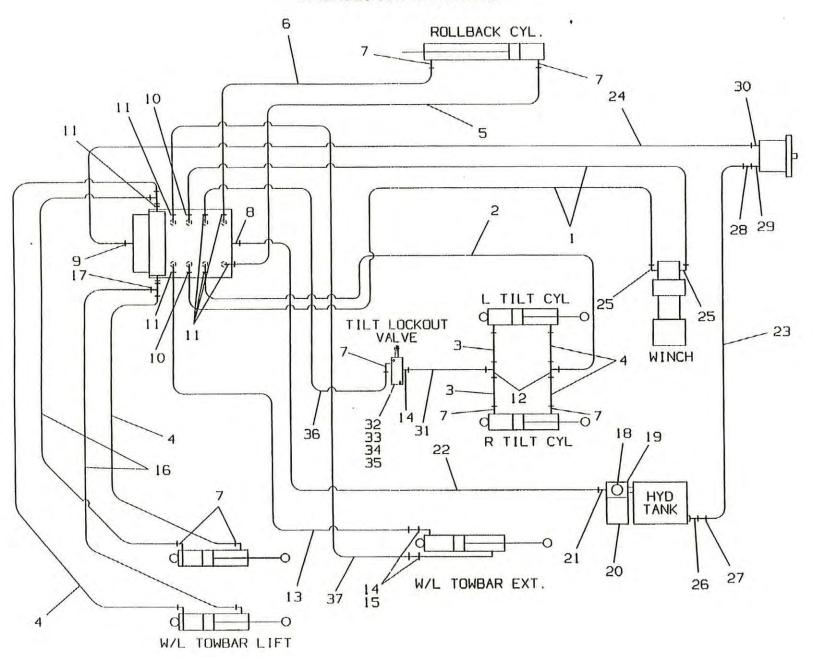
Rev. Date

## HYDRAULIC COMPONENTS HYDRAULIC TOW BAR



Rev.\_\_\_\_

## HYDRAULIC COMPONENTS HYDRAULIC TOW BAR WITH IRL



Rev. \_\_1 Date 07-01-95

## PARTS LIST -- HYDRAULIC COMPONENTS HYDRAULIC TOWBAR WITH IRL

Ref. No.	Part No.	Description	Qty.
1	4567132178	Winch Hose (17'Deck)	2
	4567132190*	Winch Hose (18'Deck)	
	4567132198*	Winch Hose (19'Deck)	
2	4567122100	Tilt Supply Hose	1
3	4567120020	Tilt Base Hose	2
2 3 4 5 6	4567120038	Tilt Rod/Towbar Lift Hose	4
5	4567122104	Rollback Base Hose	1
6	4567122047	Rollback Rod Hose	1
7	7445060645	90° Elbow	11
8	7445121245	90° Elbow	1
9	7445081245	90° Elbow	1
10	7445081043	Straight Adapter	2
11	7445061043	Straight Adapter	8
12	7445060637	Tee	2
13	4567122040	Towbar Base Hose	1
14	7445060643	Straight Adapter	3
15	7445060672	90° Elbow	1 2 8 2 1 3 2 2 2
16	4567122043	Towbar Lift Hose	2
17	7443000030	Tee	2
18	7470000002	Gauge	1
19	7430000003	Filter Assembly	1
20	7431000001	Filter Element	1
21	**	Fitting	
22	**	Return Hose	1
23	••	Suction Hose	1
24		Pressure Hose	1
25	• •	Fitting	
26	**	Fitting	
27	••	Fitting	
28	**	Fitting	
29	**	Fitting	
30	**	Fitting	
31	4567122034	Tilt Supply Hose	1
32	7935000102	Tilt Lockout Valve	1
33	7115161650	Hex Head Capscrew	2
34	7660162601	Locknut	1 2 2 2
35	7950160161	Flat Washer	2
36	4570000064	Tilt Supply Hose	1
37	4567123040	Towbar Lift Hose	1

Rev. Date

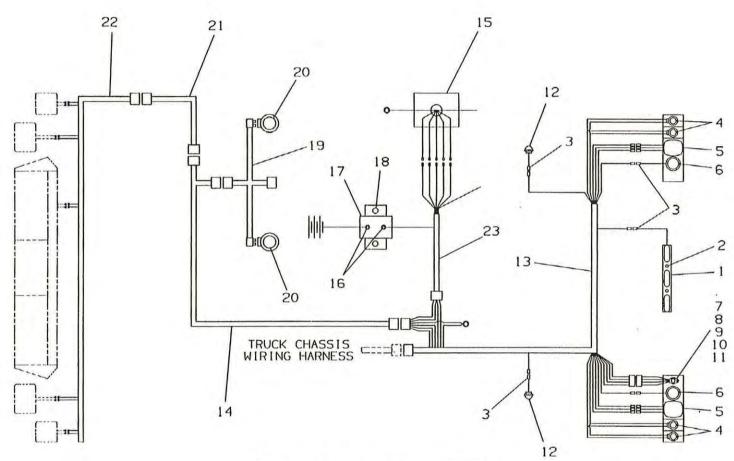
<sup>\*</sup>Consult Factory for Foreign Chassis Components
\*\*Consult Factory for Part Numbers and Quantities

## **PARTS LIST -- LIGHTS AND WIRING**

Ref. No.	Part No.	Description	Qty.
1	7590000007	Bar Lamp	1
2	7790141056	Self-Tapping Screw	2
3	7345001703	Terminal Pin	16
2 3 4	7590000009	Red Light	4
5		Stop-Tail-Turn Light	2
6	7590000011	Work Light	2
6	7291000003	Female Receptacle	1
8	7111140613	Truss Head Screw	2
9	7660140000	Nut	2
10	7950140000	Lock Washer	2 1 2 2 2 2 2 1
11	7950140161	Flat Washer	2
12	7590000012	Light	2
13	7552000005	Wiring Harness	1
14	7552000007	Wiring Harness (Units	1
	1,000,000	without Emergency Lights	()
	7552000006	Wiring Harness (Units	1
		with Emergency Lights)	
15	7870000017	Switch Box	1
16	7345211901	Terminal Ring	4
17	7457000004	Circuit Breaker	1
18	7790100856	Self-Tapping Screw	1 2 1
19	7552000021	Wiring Harness	
20	7590000010	Amber Light	2
21	7552000009	Wiring Harness	1
22	7552000004	Wiring Harness	1
23	7552000010	Wiring Harness	1

Rev.\_\_\_\_\_ Date\_\_\_\_\_

## LIGHTS AND WIRING



WIRE COLOR	FUNCTION
ORANGE	BEACON LIGHTS
PURPLE	FLOOD LIGHTS
BLUE	TRACTOR LIGHTS
BROWN	PARKING LIGHTS
RED	POWER (HOT)
GREY	EXTRA
BLACK	BACK-UP LIGHTS
GREEN	RIGHT TURN
YELLOW	LEFT TURN
WHITE	GROUND

Rev.\_\_\_\_

4.31

Rev. Date

#### PARTS LIST -- ROLLBACK CYLINDER 3320000010

Ref. No.	Part No.	Description	Qty.
1	3071000010	Barrel ("A" = 102.38)	1
2	4763000106	Rod ("A" = $109.50$ )	1
3	4698000007	Piston	1
4	4553000008	Head	1
5	7754000003*	Ring, Wear	2
6	7754000004*	Ring, Wear	1
7	7796000006*	Seal, Piston	1
8	7796000024*	Seal, Rod	1
9	7755224000*	"O" Ring	1
10	7755334000*	"O" Ring	1
11	7796000008*	Seal, Rod Wiper	1
12	7754000002*	Ring, Retaining	1
13	7660262031	Locknut	2
14	7755334609*	Ring, Back-up	1
15	7755224609*	Ring, Back-up	2
16	7754000026	Ring, Retaining	1

<sup>\*</sup>Available only in service kit #7577250024

Rev.\_\_\_\_ Date\_\_\_\_

#### PARTS LIST -- TILT CYLINDER 3320000009

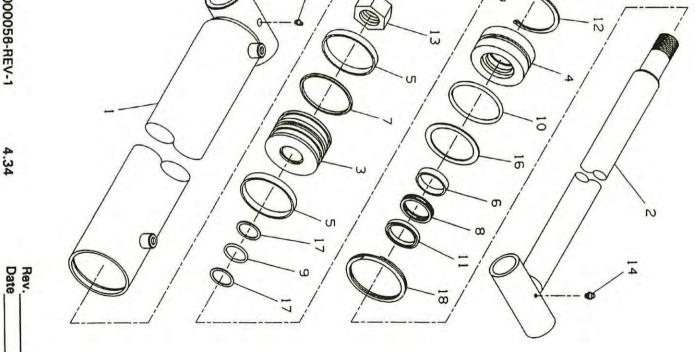
Ref. No.	Part No.	Description	Qty.
1	3071000009	Barrel Weldment	1
2	3763000033	Rod	1
3	4698000007	Piston	1
4	4553000008	Head	1
5	7754000003*	Ring, Wear	2
6	7754000004*	Ring, Wear	1
7	7796000006*	Seal, Piston 'T'	1
8	7796000024*	Seal, Rod	1
9	7755224000*	"O" Ring	1
10	7755334000*	"O" Ring	1
11	7796000008*	Seal, Rod Wiper	1
12	7754000002*	Ring, Retaining	1
13	7660262031	Locknut	1
14	7440000000	Fitting, Grease	1
15	7440000200	Fitting, Grease 45°	1
16	7755334609*	Ring, Back-up	1
17	7755224609*	Ring, Back-up	2
18	7754000026*	Ring, Retaining	1

<sup>\*</sup>Available only in service kit #7577250024

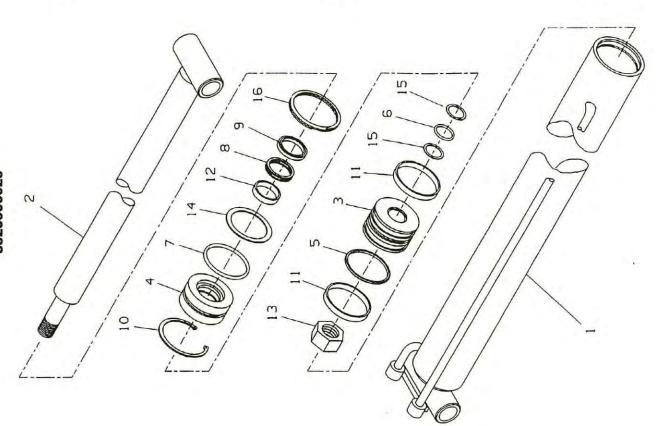
Rev.\_\_\_\_

4.33





# TOW BAR CYLINDER 332000013 332000020



Rev. Date

5-375-000057-REV-1

10

4.35

#### PARTS LIST -- TOW BAR CYLINDER 3320000013

Ref. No.	Part No.	Description	Qty.
1	3071000014	Barrel	1
2	3763000034	Rod	1
3	4698000011	Piston	-1
4 5	4553000011	Head	1
5	7796000026*	Seal, Piston	1
6	7755214000*	"O" Ring	1
7	7755327000°	"O" Ring	1
8	7796000023*	Seal, Rod	1
9	7796000005*	Seal, Wiper	1
10	7754000001*	Ring, Retaining	1
11	7796000030*	Ring, Wear	2
12	7754000036*	Ring, Wear	1
13	7660202031	Locknut	1
14	7755327609*	Ring, Back-up	1
15	7755214609*	Ring, Back-up	2
16	7754000025*	Ring, Retaining	1

<sup>\*</sup>Available only in service kit #7577250023

## PARTS LIST -- TOW BAR CYLINDER 3320000020

Ref. No.	Part No.	Description	Qty.
1	3071000020	Barrel	1
2	3763000035	Rod	1
3	4698000007	Piston	1
	4553000008	Head	1
4 5 6	7796000006*	Seal, Piston	1
6	7755224000*	"O" Ring	1
7	7755334000*	"O" Ring	1
8	7796000024*	Seal, Rod	1
9	7796000008*	Seal, Wiper	1
10	7754000002*	Ring, Retaining	1
11	7754000003*	Ring, Wear	2
12	7754000004*	Ring, Wear	1
13	7660262031	Locknut	1
14	7755334609*	Ring, Back-up	1
15	7755224609*	Ring, Back-up	2
16	7754000026*	Ring, Retaining	1

<sup>\*</sup>Available only in service kit #7577250024

Rev.\_\_\_\_ Date

## PARTS LIST -- WHEEL LIFT TOW BAR CYLINDER 3320000021

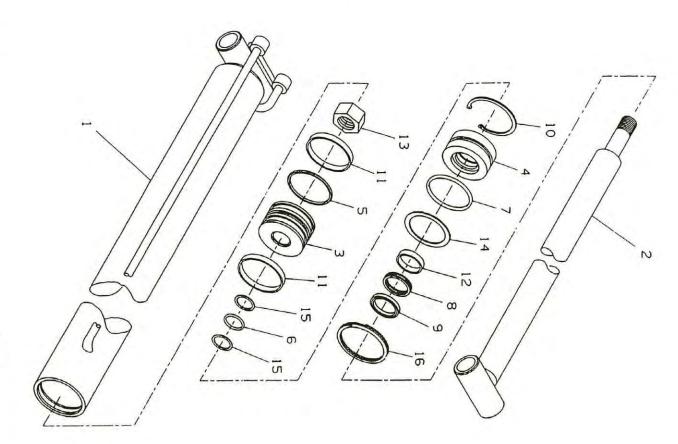
Ref. No.	Part No.	Description	Qty.
1	3071000021	Barrel	1
2	3763000036	Rod	1
3	4698000007	Piston	1
4	4553000008	Head	1
5	7796000006*	Seal, Piston 'T'	1
6	7755224000*	"O" Ring	1
7	7755334000*	"O" Ring	1
8	7796000024*	Seal, Rod	1
9	7796000008*	Seal, Rod Wiper	1
10	7754000002*	Ring, Retaining	1
11	7754000003*	Ring, Wear	1.
12	7754000004*	Ring, Wear	1
13	7660262031	Locknut	1
14	7755334609*	Ring, Back-Up	1
15	7755224609*	Ring, Back-Up	2
16	7754000026*	Ring, Retaining	1

<sup>\*</sup>Available only in service kit #7577250024

Rev.\_\_\_\_ Date

4.37

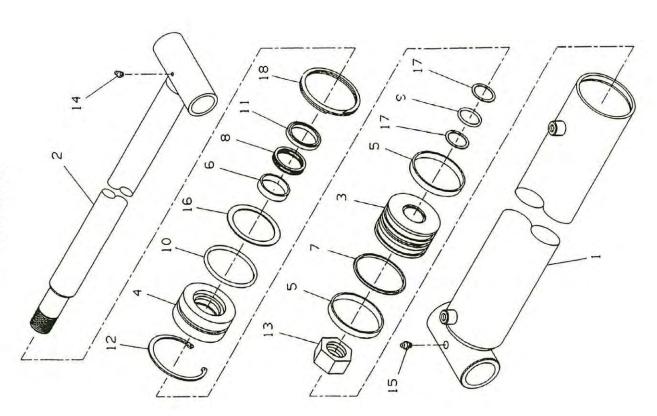
# WHEEL LIFT TOW BAR CYLINDER 3320000021



5-375-000057-REV-1

. 8

Rev.



Rev. Date

#### PARTS LIST -- IRL CYLINDER 3320000041

Ref. No.	Part No.	Description	Qty.
1	3071000040	Barrel	1
2	3763000053	Rod	1
3	4698000007	Piston	1
4	4698000008	Head	1
5	7754000003*	Ring, Wear	2
6	7754000004*	Ring, Wear	1
7	7796000006*	Seal, Piston "T"	1
8	7796000024*	Seal, Rod	1
9	7755224000*	"O" Ring	1
10	7755334000*	"O" Ring	1
11	7796000008*	Seal, Wiper	1
12	7754000002*	Ring, Retaining	1
13	7660262031	Nut, Lock	1
14	7440000200	Fitting, Grease 45°	1
15	7440000000	Fitting, Grease	1
16	7755334609*	Ring, Back-up	1
17	7755224609*	Ring, Back-up	2
18	7754000026*	Ring, Retaining	1

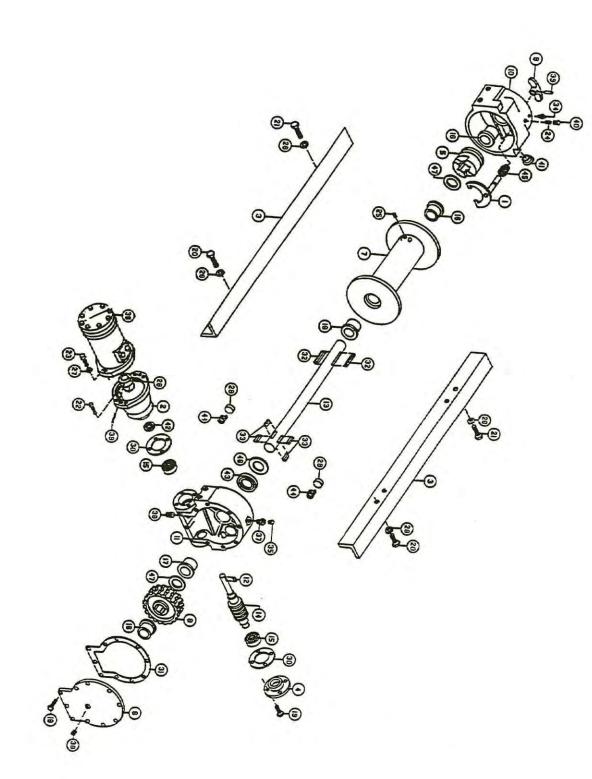
<sup>\*</sup>Available only in service kit #7577250024

Rev.\_\_\_\_

#### PARTS LIST -- MODEL H-200 RAM-LOK

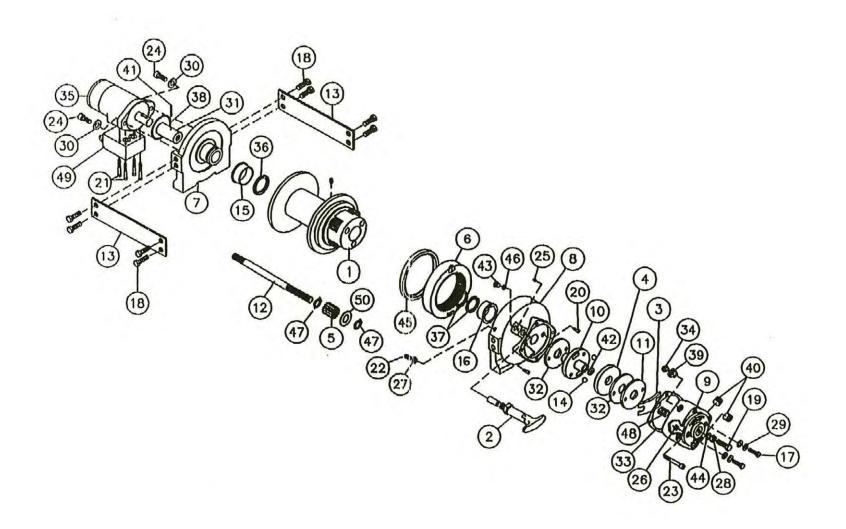
Ref. No.	Part No.	Description	Qty.
1	276028	Shifter Assembly	1
2 3	300057	Adapter	1
3	302809	Angle-Std.	2
1.2/	302810	Angle-Y	221111111111111111111111111111111111111
4 5 6 7	316083	Bearing Cap	1
5	324160	Jaw Clutch	
6	328134	Cover	
1	332007	Drum-"Y"	1
	332105	Drum-"Std."	1
8	334161	Gear R.H. 60:1	
	334163	Gear R.H. 46:1	1
	334165	Gear R.H. 30:1	1
9	336010	Handle	1
11	338208	Housing-Clutch	
112	338273	Housing-Gear	1
12	342027 357479	Key Shaft-Drum-"Std"	1
13	357481	Shaft-Drum-"Y"	1
14			1
14	368002 368007	Worm R.H. 46:1 Worm R.H. 60:1	
	368011	Worm R.H. 30:1	1
15	402002	Bearing-Ball	2
16	412003	Bushing	4
17	412045	Bushing	1
18	414038	Capscrew 1/4- 20NCx3/4 LG.	10
19	414045	Capscrew 1/4- 20NCx7/8 LG.	4
20	414279	Capscrew 3/8- 16NCx3/4 LG.	2
21	414282	Capscrew 3/8- 16NCx1-1/4 LG.	6
22	414842	Capscrew 1/4- 20NCx1-3/4 LG.	4
23	414952	Capscrew 1/2- 13NCx1-1/2 LG.	2
23 24	416030	Satscraw 1/4- 20NCv3/R I G	1
25	416059	Setscrew 1/4- 20NCx3/8 LG. Setscrew 3/8- 16NCx1/2 LG.	i
26	418177	Lockwasher 3/8	8
27	418218	Lockwasher 1/2	2
28	431008	Coupling	ī
29	438014	Disc-Brake	2
30	442184	Gasket	2
31	442205	Gasket	1
32	450006	Key-Barth	2
33	450016	Key-Barth	4
34	456001	Fitting-Lube	1
35	456008	Fitting-Relief	1
36	458050	Motor-Hyd.	1
37	468002	Reducer	1
38	468011	Pipe Plug	2
39	470033	Spirol Pin	1042642118212212411112211112112
40	472012	Plug-Rubber	1
41	472013	Plastic Plug	1
42	486009	Oil Seal	1
43	486017	Oil Seal	1
44	494002	Spring	2
45	494053	Spring	1
46	518014	Thrust Washer	1
47	518015	Thrust Washer	2

Rev.\_\_\_\_ Date



Rev. Date

#### WINCH ASSEMBLY 8000# PLANETARY GEAR



Rev.\_\_\_\_

#### PARTS LIST -- RPH 8000 WITH MANUAL CLUTCH SHIFTER

Ref. No.	Part No.	Description Oty.
	234165	Drum Ass'y "Y"
2	276048	Shifter Ass'v
3	306035	Spring-Flat Brk.
4	314015	Cam Plate-Brake
Ē	334174	Gear-Output, Sun
6	334175	Gear-Ring 1
7	338286	End Bearing-Motor
1 2 3 4 5 6 7 8 9	338287	Housing-Gear, End Bearing
8	338288	Housing-Brake 1
10	340074	Hub-Brake
ii	352021	Retainer Plate
12	357489	Shaft-Input "Y" 1
13	395163	Tie Plate "Y" 2
14	400007	Bell 2
15	412084	Bushing-Drum, Motor End 1
16	412085	Bushing-Drum, Gear 1
17	414273	Capscrew 3/8-16NC x 1-3/4 LG. 2
18	414581	Capscrew 1/2-13NC x 3/4 LG. 8
19	414622	Capscrew 1/2-13NC x 2-1/4 LG. 1
20	414836	Capscrew 1/4-20NC x 1/2 LG. 2
21	414868	Capscrew 5/16-18NC x 2-1/2 LG. 4
22	414926	Setscrew 3/8-16NC x 1 LG.
23	414934	Capscrew 3/8-16NC x 2-3/4 LG. 4
24	414948	Capscrew 1/2-13NC x 1-1/4 LG. 2
25	416030	Setscrew 1/4-20NC x 3/8 LG.
26	418034	Nut 3/8 - 16NC 2
27	418036	Nut 3/8-16NC 1
28	418061	Nut 1/2-13NC
29	418184	Washer 3/8 ID
30	418218	Lockwasher 1/2 ID 2
31	431013	Coupling-Hyd. Motor 1
32	438018	Plate-Brake 2
33	442212	Shaft-Input "Y" Tie Plate "Y" Ball Bushing-Drum, Motor End Bushing-Drum, Gear Capscrew 3/8-16NC x 1-3/4 LG. Capscrew 1/2-13NC x 3/4 LG. Capscrew 1/2-13NC x 2-1/4 LG. Capscrew 1/2-13NC x 2-1/2 LG. Capscrew 5/16-18NC x 2-1/2 LG. Capscrew 3/8-16NC x 1 LG. Capscrew 3/8-16NC x 1 LG. Capscrew 3/8-16NC x 1 LG. Capscrew 1/2-13NC x 1-1/4 LG. Setscrew 1/2-13NC x 1-1/4 LG. Setscrew 1/4-20NC x 3/8 LG. Nut 3/8-16NC Nut 3/8-16NC Nut 3/8-16NC Nut 1/2-13NC Nut 3/8-16NC Nut 1/2-13NC Ussher 3/8 ID Coupling-Hyd. Motor Plate-Brake Gasket-Brk. Hsg. Relief Fitting
34	456008	
35	458074	Motor-Hydraulic 1
		(For Model with Counterbalance Valve)
	458075	Motor-Hydraulic
		(For Model without Counterbalance Valve)
36	462046	O-Ring 1
37	462047	Quad-Ring 2
38	462048	O-Ring
39	468002	Reducer
40	468018	Pipe Plug 2
41	470033	Spirol Pin
42	472051	Plug
43	472052	Plug
44	486076	Seal
45	486080	Seal-Gear Hsg.
46	488008	Shim 1
47	490003	Snap Ring 2
48	494010	Spring
49	516008	Quad-Ring         2           O-Ring         1           Reducer         1           Pipe Plug         2           Spirol Pin         1           Plug         1           Seal         1           Seal-Gear Hsg.         1           Shirm         1           Snap Ring         2           Spring         1           Valve-Counterbalance ("A" Rotation)         1           Valve-Counterbalance ("B" Rotation)         1           Washer-Thrust         1
	516009	Valve-Counterbalance ("B" Rotation)
50	518047	Washer-Thrust 1

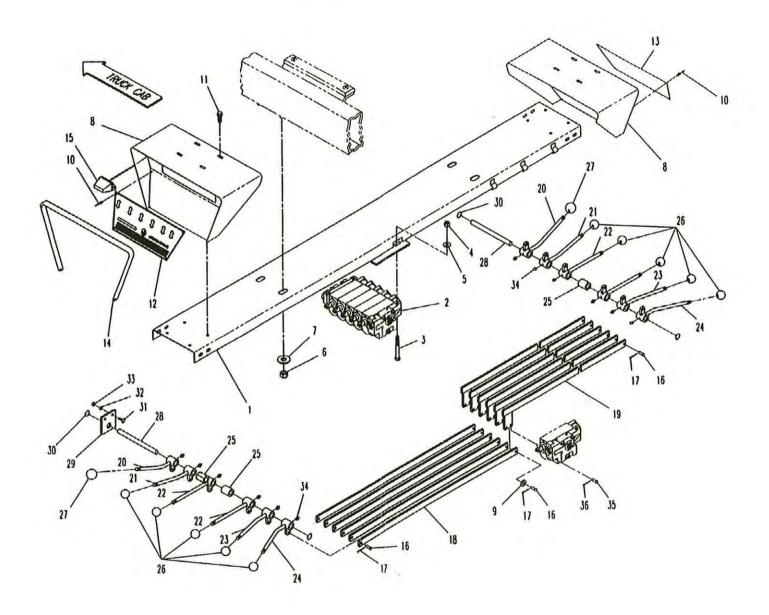
Rev.\_\_\_\_

#### PARTS LIST - RTL DUAL CONTROLS (ZOD)

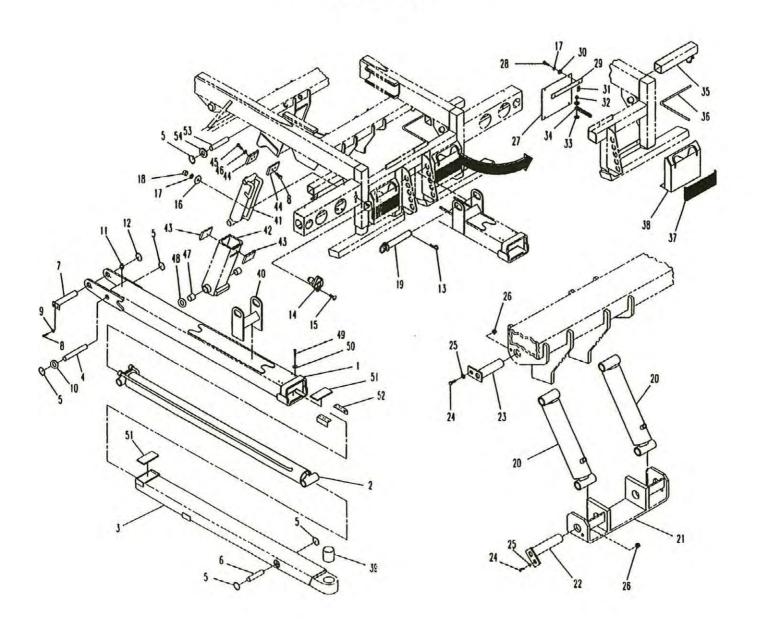
Ref. No.	Part No.	Description	Qty.
1	3177000037	Controls Support Weldme	ent 1
2	4935000056	Control Valve (6 Bank)	1
3	7111163250	Hex Head Capscrew	3
4	7660161605	Locknut	3
5	7950160151	Flat Washer	3
6	7660181600	Locknut	4
7	7950180161	Flat Washer	4
8	3560000005	Control Hood	2
9	7949000011	Flat Washer	6
10	7759000004	Pop Rivet	8
11	7115150625	Machine Screw	8
12	7330000219	L.H. Control Placard	1
13	7330000220	R.H. Control Placard	1
14	4632000004	Trim Molding	2
15	7590000087	Light	2
16	7690151200	Clevis Pin	18
17	7690021610	Cotter Pin	18
18	4763000123	Control Rod	18
19	3763000050	Control Rod	18
20	3551000013	Handle Weldment	2
21	3551000001	Handle Weldment	2
22	3551000017	Handle Weldment	2
23	3551000002	Handle Weldment	2 2 2
24	3551000012	Handle Weldment	2
25	4209000135	Bushing	
26	7551000002	Black Knob	10
27	7551000003	Red Knob	2
28	4691000263	Pin	2 2 4
29	4606000065	Lug	
30	7754000009	Retaining Ring	4
31	7111150864	Bolt	8
32	7950150000	Lock Washer	8
33	7660152601	Locknut	8
34	7440030000	Grease Fitting	12
35	7690141200	Clevis Pin	6
36	7690000810	Cotter Pin	6

Rev.	2
Date	11-15-97

#### RTL DUAL CONTROLS



#### 3500# HYDRAULIC WHEEL LIFT TOW BAR WITH RTL (ZOD)



#### PARTS LIST -- 3500# HYDRAULIC WHEEL LIFT TOW BAR WITH RTL (ZOD)

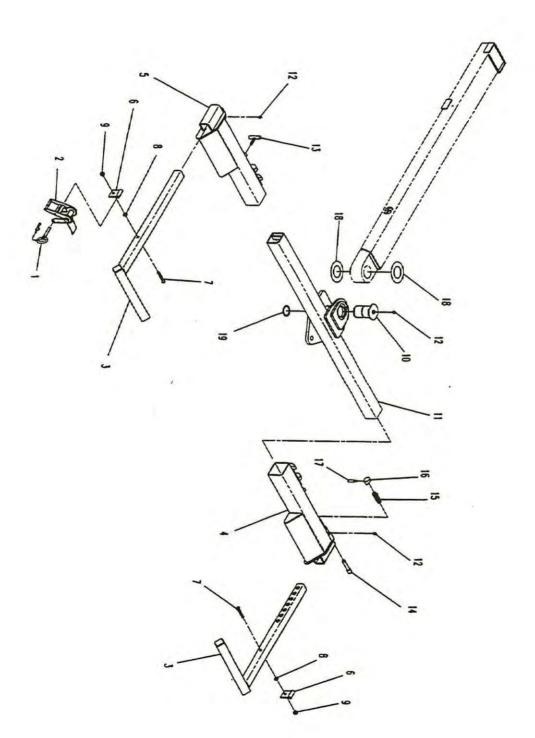
ty.	Description Outer Tube Weldment Tow Bar Cylinder Inner Tube Weldment	Part No. 3911000039 3320000056 3911000040	Ref. No. 1 2 3
6113	Pin Retaining Ring Pin Pin Canscrew	3320000056 3911000040 4691000267 7754000006 4691000268 3691000142 7115160650 7950160161 7949000026 7440030000	12345678910
1 2 1	Capscrew Flat Washer Washer Grease Fitting Retaining Ring Hair Pin	7950160161 7949000026 7440030000 7754000014	11
1 220	Hair Pin Female Receptacle Truss Head Screw Flat Washer Lock Washer	7440030000 7754000014 7691000001 7291000003 7111140613 7950140161 7950140000 7660140000 3691000097 3320000054 3178000236	13 14 15 16
2121	Pin Weldment Cylinder	7660140000 3691000097 3320000054 3178000236	18 19 20 21
22444	Pin Weldment	3691000141 3691000073 7118151250 7950150161	22 23 24 25
2848	Back Plate Capscrew Bar Flat Washer	4062000108	27 28 29 30
82422	Clip Nut Locknut	7661000019 7660172600 7950160252 7262000020	31 32 33 34
1221	Hose Guard Chain Rub Pad Chain Pocket Bushing	4495000007 7679000008 7706001412 7209000028	35 36 37 38 39
11120	Inner Tube Weldment Wear Pad	3606000019 3320000055 3913000053 4679000134	41 42 43
พลลลล	Capscrew Flat Washer	7679000014 7115161050 7949000028 7211000004 794900008	44 45 46 47
1611312111122021212244442848824221221111222223442212	Capscrew Flat Washer Wear Pad Guide Pin	7118140418 7950100151 4679000046 4017000739 4691000265	49 50 51 52 53
	Capscrew Flat Washer Lock Nut Back Plate Capscrew Bar Flat Washer Clip Nut Locknut Flatwasher Chain Assembly L-Arm Storage Tube Hose Guard Chain Rub Pad Chain Pocket Bushing Lug Weldment Cylinder Inner Tube Weldment Wear Pad Wear Pad Capscrew Flat Washer Bushing Washer Capscrew Flat Washer Bushing Washer Capscrew Flat Washer Gapscrew Flat Washer Wear Pad Guide	3691000141 3691000073 7118151250 7950150161 7660152601	123456789012345678901234567890123445678901234

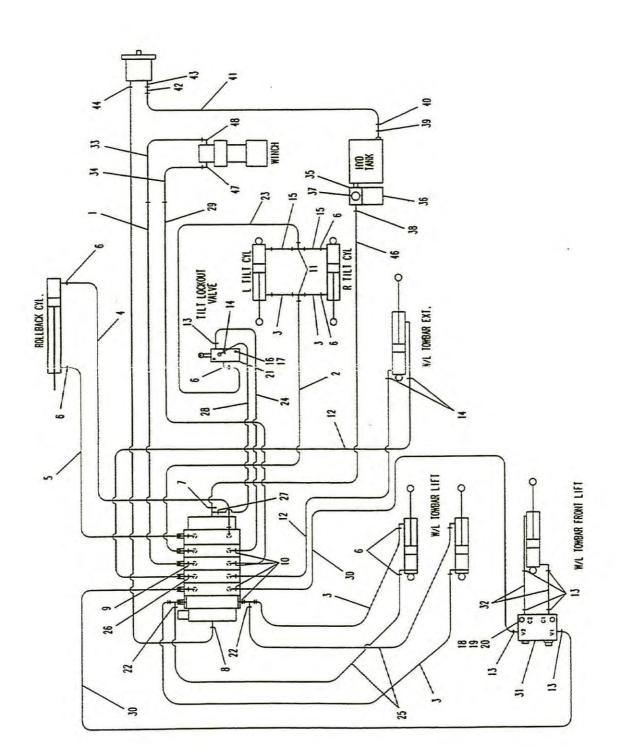
# PARTS LIST -- HYDRAULIC TOW BAR WHEEL GRID ASSEMBLY (ZOD)

Ref. No.	Part No.	Description	Qty.
1	7691000011	Hitch Pin	2
2	7894000002	Tie Down Strap	2
3	3511880049*	L-Arm	2
4	3511880080	R.H. Grid Weldment	1
5	3511880081	L.H. Grid Weldment	1
6	3178000001*	Anchor Bracket	2
7	7118182418*	<b>Button Head Capscrew</b>	2
8	7950180153*	Flat Washer	2
9	7660181630*	Hex Locknut	2
10	4691000103	Pin	1
11	3913000054	Pivot Pin	1
12	7440030000	Grease Fitting	2
13	3551000026	T-Handle	2
14	4691000188	Pin	2
15	7843000006	Spring	2
16	4254000006	Сар	2
17	4763000184	Rod	2
18	4949000047	Nylatron Washer	2
19	7754000024	Retaining Ring	1

<sup>\*</sup>Also available in L-Arm Replacement Kit #9577000002







#### PARTS LIST - HYDRAULIC COMPONENTS HYDRAULIC TOWBAR WITH RTL (ZOD)

1 4569433122 Winch Hose 1 2 4567122100 Tilt Supply Hose 1 3 4567122038 Tilt Rod/Towbar Lift Hose 4 4 4567123104 Rollback Base Hose 1 5 4567122047 Rollback Rod Hose 1 6 7445060645 90° Elbow 1 7 4443000003 90° Adapter 1 8 7445081245 90° Elbow 1 10 7445061043 Straight Adapter 2 10 7445061043 Straight Adapter 8 11 7445060637 Tee 2 12 4567112038 Tow Bar Ext. Hose 1 13 7445060643 Straight Adapter 7 14 74450610643 Straight Adapter 7 15 4567120020 Tilt Base Hose 2 16 7115161850 Capscrew 2 17 7660162301 Locknut 2 20 7950150161 Flat Washer 2 21 7935000125 Tilt Lockout Valve 1 22 7443000030 Tee 2 23 4567122034 Tilt Supply Hose 1 24 4570000064 Tilt Supply Hose 1 25 4567122034 Tilt Supply Hose 1 26 7445041043 Straight Adapter 2 27 74450400664 Tilt Supply Hose 1 28 457000081 Return Hose 1 29 4569432120 Winch Hose 1 30 4567122034 Tow Bar Lift Supply Hose 2 21 793500011 Valve 1 22 7912000042 Hydraulic Tube (worm winch) 1 7912000042 Hydraulic Tube (plan. winch) 1 7912000041 Hydraulic Tube (plan. winch) 1 7912000042 Hydraulic Tube (plan. winch) 1 7912000041 Hydraulic Tube (plan. winch) 1 36 743100001 Filter Assembly 1 37 747000002 Gauge 1 38 ** Fitting 1 39 ** Fitting 1 44 ** Fitting 1 45 ** Fitting 1 46 ** Fitting 1 47 ** Fitting 1 48 ** Fitting 1 49 ** Fitting 1 40 ** Fitting 1 41 ** Fitting 1 42 ** Fitting 1 44 ** Fitting 1 45 ** Fitting 1 46 ** Fitting 1 47 ** Fitting 1 48 ** Fitting 1	Ref. No.	Part No.	Description Qty.
2 4567122100 3 4567122038 4 4567122047 6 7445060645 7 4443000003 8 7445081245 9 7445061043 11 7445060637 12 456712038 11 7445060637 12 456712038 13 7445060643 14 7445060643 15 7445060643 16 7115161850 17 7660162301 17 7660152601 18 715151650 19 7660152601 19 7660152601 20 7950150161 21 7935000125 21 744504043 22 744300030 23 4567122034 24 557122034 25 4567122034 26 7744504043 27 744504043 28 457000064 29 756012301 20 7950150161 21 7935000125 22 7443040030 22 74450401043 23 4567122034 24 457000064 25 4567122034 26 77445040219 27 77445040219 28 457000064 29 4569432120 30 4567122024 31 7935000011 32 7912000042 34 7912000042 35 7912000042 36 7912000042 37 7912000042 38 *** 40 *** 40 *** 40 *** 41 *** 45 *** 46 *** 47 ***  Eitting 45 *** 46 *** 47 *** Eitting 45 *** 46 *** Eitting 45 *** 46 *** Eitting 47 *** Eitting 48 *** Eitting 49 *** Eitting 40 *** Eitting 40 *** Eitting 41 *** Eitting 44 *** Eitting 45 *** Eitting 46 *** Eitting 47 *** Eitting 47 *** Eitting 47 *** Eitting 48 *** Eitting 49 *** Eitting 40 *** Eitting 40 *** Eitting 41 *** Eitting 41 *** Eitting 42 *** Eitting 43 *** Eitting 44 *** Eitting 45 *** Eitting 46 *** Eitting 47 *** Eitting 47 *** Eitting 47 *** Eitting 48 *** Eitting 49 *** Eitting 40 *** Eitting 40 *** Eitting 41 *** Eitting 41 *** Eitting 42 *** Eitting 43 *** Eitting 44 *** Eitting 45 *** Eitting 46 *** Eitting 47 *** Eitting 48 *** Eitting 49 *** Eitting 40 ***			
11 7445060637   lee	2	4567122100	Tilt Supply Hose 1
11 7445060637   lee	3	4567120038	Tilt Rod/Towbar Lift Hose 4
11 7445060637   lee	4	4567123104	I TOTIDAON DAGG TIOGG
11 7445060637   lee	5	4567122047	Rollback Rod Hose 1
11 7445060637   lee	6		90° Elbow 11
11 7445060637   lee	7		90° Adapter 1
11 7445060637   lee	0		90° Flbow 1
11 7445060637   lee	0		Straight Adapter 2
11 7445060637   lee	10		Straight Adapter 8
32	10	7445001045	Too 2
32	10	4E67112028	Tow Bar Evt Hose 1
32	12	7445060642	Straight Adapter 7
32	13		one Elbour
32	14		Tit Deep Liens
32	15	456/120020	Conserve 2
32	16	7115161850	Capscrew
32	17	7660162301	Locknut
32	18	7115151650	Capscrew
32	19	7660152601	Locknut
32	20	7950150161	Flat Washer 2
32	21	7935000125	Tilt Lockout Valve
32	22	7443000030	Tee 2
32	23	4567122034	Tilt Supply Hose
32	24	4570000064	Tilt Supply Hose
32	25	4567122034	Tow Bar Lift Hose 2
32	26	7445041043	Straight Adapter 2
32	27	7445040219	Straight Adapter 1
32	28	4570000081	Return Hose 1
32	29	4569432120	Winch Hose 1
32	30	4567122024	Tow Bar Lift Supply Hose 2
32	31	7935000011	Valve 1
7912000042 7912000040 Hydraulic Tube (worm winch) 1 7912000041 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch	32	7912000038	Hydraulic Tube 2
7912000040 7912000042 7912000041 Hydraulic Tube (plan. winch) 1 7912000041 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan. winch) 1 Hydraulic Tube (worm winch) 1 Hydraulic Tube (plan.	33	7912000042	Hydraulic Tube (worm winch) 1
7912000042 7912000041 Hydraulic Tube (worm which) 1 35 7430000003 Filter Assembly 1 36 7431000001 Gauge 1 38 ** Fitting 39 ** Fitting 40 ** Fitting 41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Fitting 46 ** Return Hose 1 47 ** Fitting 47 ** Fitting 48 ** Fitting 49 ** Fitting 40 ** Fitting 41 ** Fitting 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Fitting 46 ** Return Hose 1 Fitting	00	7912000040	Hydraulic Tube (plan, winch)
7912000041 35 743000003 Filter Assembly 1 36 7431000001 Filter Element 1 37 7470000002 Gauge 1 38 ** Fitting  40 ** Fitting  41 ** Suction Hose 1 42 ** Fitting  43 ** Fitting  44 ** Fitting  45 ** Fitting  46 ** Return Hose 1 47 ** Fitting	34	7912000042	Hydraulic Tube (worm winch) 1
35 743000003 Filter Assembly 1 36 743100001 Filter Element 1 37 7470000002 Gauge 1 38 ** Fitting  39 ** Fitting  40 ** Fitting  41 ** Suction Hose 1 42 ** Fitting  43 ** Fitting  44 ** Fitting  45 ** Fitting  46 ** Return Hose 1 47 ** Fitting	04	7912000041	Hydraulic Tube (plan, winch)
7431000001 Filter Element 1 37 7470000002 Gauge 1 38 ** Fitting	35	7430000003	Filter Assembly 1
37 747000002 Gauge 1 38 ** Fitting 39 ** Fitting 40 ** Fitting 41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Fitting 46 ** Pressure Hose 1 47 ** Fitting	36	7431000001	Filter Element 1
38 ** Fitting 39 ** Fitting 40 ** Fitting 41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	37	7470000002	
39 ** Fitting 40 ** Fitting 41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	30	747000002	
40 ** Fitting 41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	30	**	Fitting
41 ** Suction Hose 1 42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	40	**	Fitting
42 ** Fitting 43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting		**	Suction Hose 1
43 ** Fitting 44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	41	**	Fitting
44 ** Fitting 45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	42	**	Eitting
45 ** Pressure Hose 1 46 ** Return Hose 1 47 ** Fitting	43	**	Eitting
46 ** Return Hose 1 47 ** Fitting	44	**	Proceure Hose
47 ** Fitting		**	Peturn Hose
		**	i icidiii i iooc
48 *** Fitting		**	Filling
	48	**	riting

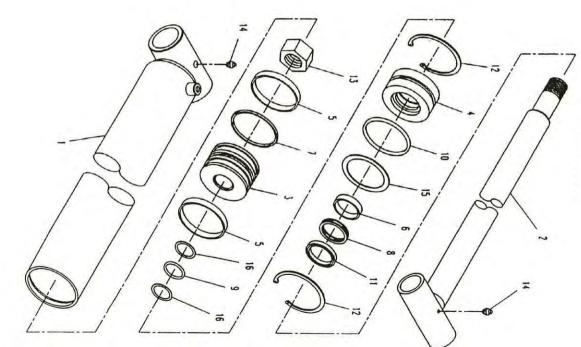
<sup>\*\*</sup>Consult Factory for Part Numbers and Quantities

#### PARTS LIST – RTL CYLINDER 3320000054

Ref. No.	Part No.	Description	Qty.
1	3071000050	Barrel	1
2	3763000072	Rod	1
3	4698000015	Piston	1
4	4553000016	Head	1
5	7754000053*	Ring, Wear	2
6	7754000054*	Ring, Wear	1
7	7796000044*	Seal, Piston "T"	1
8	7796000045*	Seal, Rod	1
9	7755222000*	"O" Ring	1
10	7755330000*	"O" Ring	1
11	7796000046*	Seal, Rod Wiper	1
12	7754000051*	Ring, Retaining	2
13	7660262031	Locknut	1
14	7440030000	Grease Fitting	2
15	7755330609*	Ring, Back-up	1
16	7755222609*	Ring, Back-up	2

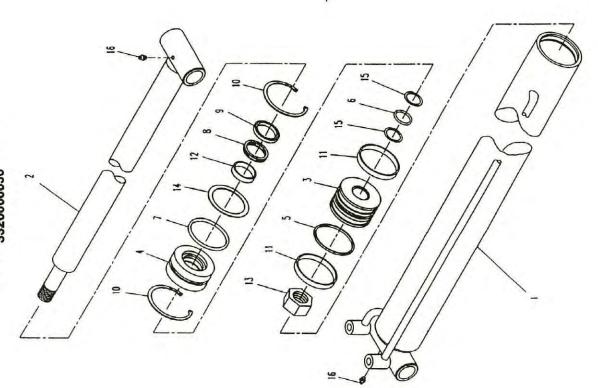
<sup>\*</sup>Available only in service kit #7577000183

# RTL CYLINDER 3320000054



4.54

# TOWBAR CYLINDER (ZOD) 332000056



# PARTS LIST - WHEEL LIFT TOWBAR CYLINDER (ZOD) 3320000056

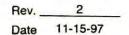
Ref. No.	Part No.	Description	Qty.
1	3071000052	Barrel	1
2	3763000074	Rod	1
3	4698000015	Piston	1
4	4553000016	Head	1
5	7796000044*	Seal, Piston "T"	1
6	7755222000*	"O" Ring	1
7	7755330000*	"O" Ring	1
8	7796000045*	Seal, Rod	1
9	7796000046*	Seal, Rod Wiper	1
10	7754000051*	Ring, Retaining	2
11	7754000053*	Ring, Wear	2
12	7754000054*	Ring, Wear	1
13	7660262031	Locknut	1
14	7755330609*	Ring, Back-up	1
15	7755222609*	Ring, Back-up	2
16	7440030000	Grease Fitting	2

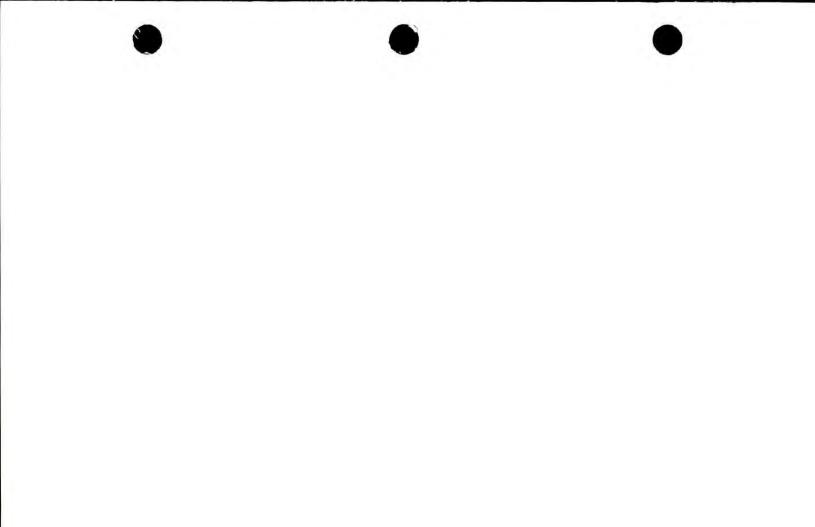
<sup>\*</sup>Available only in service kit #7577000183

# PARTS LIST – WHEEL LIFT CYLINDER (ZOD) 3320000055

Ref. No.	Part No.	Description	Qty.
1	3071000051	Barrel	1
2	3763000073	Rod	1
3	4698000007	Piston	1
4	4553000008	Head	1
5	7796000006*	Seal, Piston "T"	1
6	7755224000*	"O" Ring	1
7	7755334000*	"O" Ring	1
8	7796000024*	Seal, Rod	1
9	7796000008*	Seal, Rod Wiper	1
10	7754000002*	Ring, Retaining	1
11	7754000003*	Ring, Wear	2
12	7754000004*	Ring, Wear	1
13	7660262031	Locknut	1
14	7755334609*	Ring, Back-up	1
15	7755224609*	Ring, Back-up	2
16	7754000027*	Ring, Retaining	1
17	7440030200	Grease Fitting	1

<sup>\*</sup>Available only in service kit #7577250024







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