

HPL35

OPERATION, MAINTENANCE, AND/PARTS MANUAL

SOUTH SHORE
JERR-DAN

JERR-DAN

An Oshkosh Truck Corporation Company

1080 Hykes Road
Greencastle, PA 17225

Phone (717) 597-7111

www.jerr-dan.com

FOREWORD

This manual is intended to *serve* as a guide to the owner and operator in the safe operation and optimum performance of this Jerr-Dan equipment.

•• Establishment of good operating habits and familiarity with the equipment and its capabilities combined with good judgement are essential.

Before attempting to operate the unit carefully read all sections of this manual.

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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 materials 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 materials and workmanship including the following:

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

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Procedures for warranty coverage:

1. Contact your selling distributor.
2. If necessary, contact Jerr-Dan for the distributor nearest you - Call 1-800-926-9666.
- 3. If necessary, Jerr-Dan may authorize repair by a qualified equipment service center. Under these arrangements, it will be necessary to obtain an estimate of repairs before any work is performed. Send estimate of repair cost to:

Jerr-Dan Corporation
Warranty Department
1080 Hykes Road
Greencastle, PA 17225

Be sure to include your daytime phone number.

4. Authorization for repairs under this limited warranty will be provided by telephone within 24 hours of receipt of valid warranty claims and confirmed by letter or fax.
- *5. This outlines the Jerr-Dan One-Year Warranty Plan. 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. _ _ , 1_

Date 5-1-96



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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, f.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 paid 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 (if deemed necessary) to assure the return of the defective parts for Manufacturer's evaluation.

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.

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HPL SAFETY (GENERAL)

The safe operation of your HPL is your responsibility. Read this and the truck manufacturers manuals and thoroughly understand them. We also strongly recommend that the American Automobile Association (AAA) Towing Manuals be used as a reference for operating safety methods. AAA address and phone number:

THE AMERICAN AUTOMOBILE ASSOCIATION
8111 GATEHOUSE RD
FALLS CHURCH, VA. 22047
(703) 222-6000

DO NOT EXCEED THE FOLLOWING , RATINGS:

- HPL Lift Rating:	3,500 lbs "L" Arm 4,000 lbs Frame Forks
Tow Rating:	7,500 lbs

NOTE

These ratings apply to the structural design of the HPL only and may be limited by the axle rating and gross vehicle weight rating of the truck chassis. CHECK TRUCK MANUAL FOR SPECIFIC GVW & AXLE RATINGS. ALSO REFERENCE THE CERTIFICATION DECAL AFFIXED TO DRIVER'S SIDE DOOR JAMB AND THE S.T.A.R. PLACARD ON THE LOWER BOOM MECHANISM.

MANUFACTURED BY:

DATE OF MANUFACTURE __ mo. __ yr.

INCOMPLETE VEHICLE MANUFACTURED BY:

DATE INC. VEH. MFD. __ mo. __ yr.

GVWR _____

GAWR FRONT _____ with
_____ tires,
_____ rims, @ _____ psi cold _____

GAWR INTERMEDIATE (1) _____ with
_____ tires,
_____ rims, @ _____ psi cold _____

GAWR INTERMEDIATE (2) _____ with
_____ tires,
_____ rims, @ _____ psi cold _____

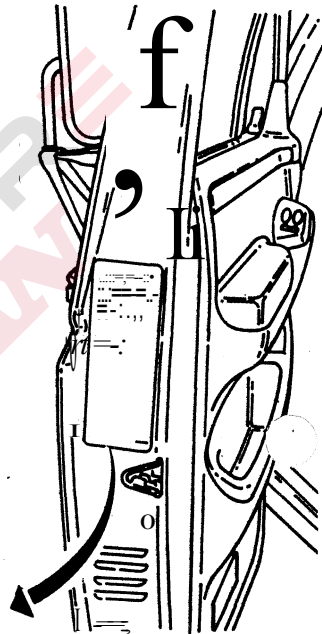
GAWR REAR _____ with
_____ tires,
_____ rims, @ _____ psi cold _____

Conformity of the chassis-cab to Federal Motor Vehicle Safety Standards, which have been previously fully certified by the incomplete vehicle manufacturer or intermediate vehicle manufacturer, has not been affected by final-stage manufacture. The vehicle has been completed in accordance with the prior manufacturer's instructions, where applicable. This vehicle conforms to all other applicable Federal Motor Vehicle Safety Standards in effect in:

____ mo. __ yr.

VEHICLE IDENTIFICATION NUMBER:

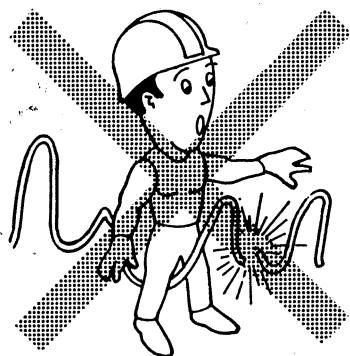
VEHICLE TYPE: _____



Certification Decal

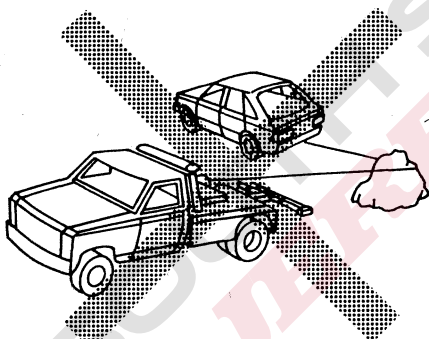
SAFETY CHAINS MUST BE USED WHEN TOWING AND TRANSPORTING.

Safety chains are provided for use with your new Jerr-Dan. Periodically inspect all chains for any signs of fatigue or damage. Don't overlook the "J" hooks; be sure they have not been bent or deformed. If chain or hook damage is noted, tag or mark them and replace them promptly. If your HPL is equipped with either deck or boom mounted winches the following general safety procedures must be observed:

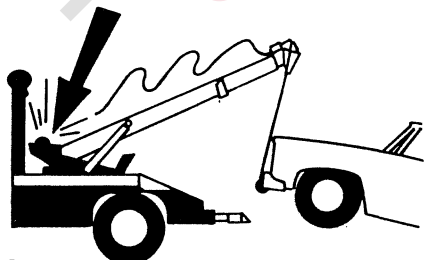


- Never stand on or straddle a working cable.

- Be sure of your lift or pull and do not exceed the working strength of the cable or hook.



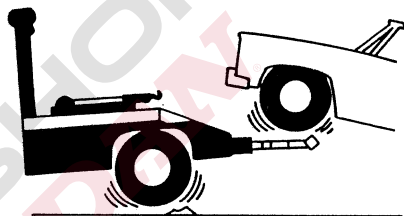
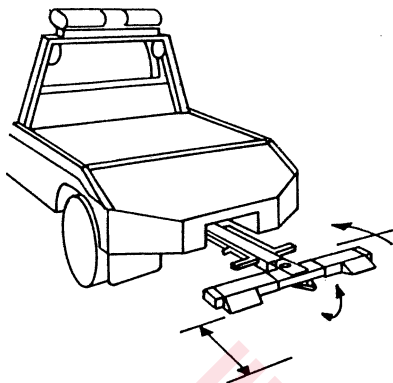
- Never lift or pull over or around a sharp obstacle.



- Always be sure that a minimum of five wraps of cable are on the drum.

LIFT SAFETY

Your HPL is unique. It not only can make lifts from level surfaces, our boom tilt feature allows pickup of vehicles that are parked on both inclines and declines. When such a lift is to be made we recommend that the "L" arms be installed and locked and that the hold/down straps be installed (see lift operation section) before releasing the brake on the vehicle or taking it out of gear. This will prevent the vehicle from rolling away from or into the truck. Never attempt to lift a vehicle into towing position without first installing the hold down straps. Never make a lift or movement while close to or under the vehicle being lifted!

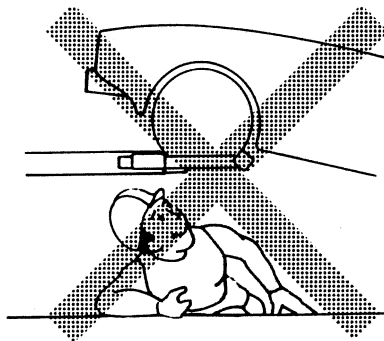


ALWAYS USE JACK STANDS TO SUPPORT THE VEHICLE IF IT IS NECESSARY TO WORK UNDER IT.

Many states require that the towed vehicle be secured to the wrecker body with safety chains. Check your local regulations and use your safety chains. Safety chains are provided for use with your new JERR DAN.

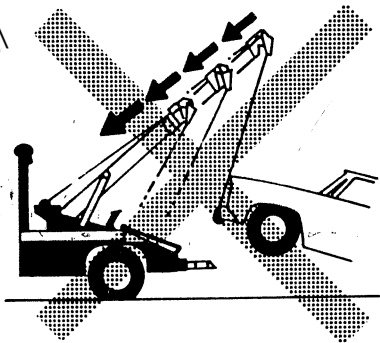
Your HPL can make pickups quickly and easily. **DON'T FORGET TO INSTALL STEERING WHEEL STRAPS** before towing the vehicle.

Magnetic towing lights are required in many areas and are always recommended for safe tows.

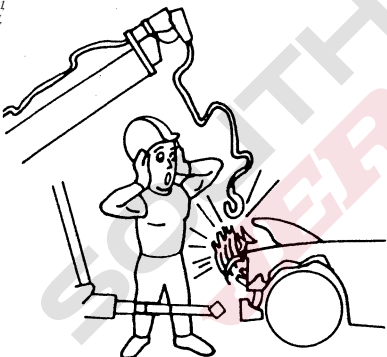


BOOM SAFETY

If your HPL is equipped with an optional wrecker boom the following safety procedures must be observed:



- Avoid using the boom raise or boom up control to lift a load. This causes undue stress and weight loading on the rear axle. Use the winch to lift the load.
- Avoid making lifts with the boom in the vertical position whenever possible.
- Never retract the boom extension while under load.
- All boom placement functions should be made with the winch cables set in "free spool" to avoid over tensioning or breaking the winch cables.
- Jog the winch control lever and visually verify to be sure of complete engagement of the drive gears before making a lift or pull.
- Take up the winch cable slowly and be sure the hook is securely set.



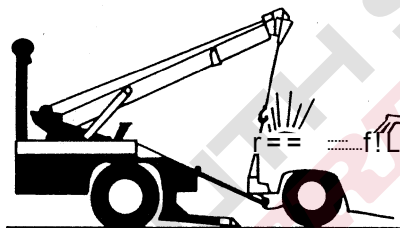
- Never make a lift or pull with the cable attached to light gauge or sheet metal parts; use the frame or major structural members.
- Never allow the cable to cross wrap (criss-cross) on the take up drum.
- Be sure all brakes and locks are properly set on the vehicle.
- Never wrap the cable around frames or cross members. Use chains and hook the cable to the chains.
- Never use the winch or boom to lift people!

- Never use cable menders. Periodically inspect the entire cable for wear and corrosion. Replace with similar rated cable and hooks.
- Lubricate and maintain both the cable and winch on regular intervals. (See maintenance charts.)

SLING SAFETY

If your HPL is equipped with the optional tow sling certain safety precautions must be taken to insure safe operation. Consult the AAA Towing Manual for the make and model of the vehicle to be towed.

- Hook up and make the lift in strict accordance with AAA's instructions.
- Be sure the skid plate and tow sling are placed under the vehicle far enough to insure the vehicle weight will ride on the rubber belts.
- Be sure the chains and hooks are attached to frame members and not sheet metal.



- Never attach the chain hooks in such a way as to damage brake lines or other functional parts.

Be sure the chains are wrapped and secured around the bottom bar of the sling.

- Never make a front lift without unlatching the hood of the vehicle,
- The Bottom Anchor Assembly (round tube) must never be higher than the attachment point on the rear of the HPL. The Stand Off Bar Assembly acts as a pivot in the event of a sudden stop. This will assure that the damaged vehicle will not catapult forward onto the deck of the Jerr-Dan.

**OPERATOR'S
PRE-TRANSPORT CHECKLIST**

▲ CAUTION ▲

REVIEW THIS CHECKLIST BEFORE EACH TOW. FAILURE TO FOLLOW CHECKLIST COULD CREATE A DANGEROUS CONDITION FOR YOU, OTHER MOTORISTS AND PEDESTRIANS, AND MIGHT RESULT IN SERIOUS INJURY OR DEATH.

VEHICLE ON WHEEL LIFT - CHECKLIST:

- HEED ALL WARNINGS ON EQUIPMENT AND CONTROLS.
- DO YOU HAVE TIMING CLEARANCE FROM TOWED VEHICLE?
- ARE BOTH WHEELS AND TIGHTENED?
- ARE BOTH SAFETY CHAINS ATTACHED FROM TOWING TRUCK TO TOWED VEHICLE?
- IS THERE SUFFICIENT CLEARANCE FROM TOWED VEHICLE?
- IS THE WHEEL LIFT RETRACTED AS CLOSE AS POSSIBLE TO OBTAIN MAXIMUM WEIGHT DISTRIBUTION?
- IS THE WHEEL LIFT EXTENDED AT LEAST 4" TO INSURE UNOBSTRUCTED CLOSURE PIVOTING?
- ARE AUXILIARY TOWING LIGHTS ATTACHED TO TOWED VEHICLE?
- DO NOT OVERLOAD. SEE LOAD RATING PLACARD ON UNIT. STOP VEHICLE AT ONCE AND REARRANGE LOAD IF YOU NOTICE FRONT END OF TRUCK FEELS LIGHT OR BOUNCES EXCESSIVELY OR IF STEERING FEELS EXCESSIVELY LIGHT. LOSS OF VEHICLE CONTROL CAN RESULT FROM AN OVERLOAD AND CAN CAUSE A SERIOUS ACCIDENT.

WHEEL LIFT - CHECKLIST:

- ME CHAINS SECURELY TIGHTENED AND ARE OF THE FIVE OF THE TOWED VEHICLE.
- ME CHAINS SECURELY FASTENED IN THE HOOKS AND BOTH ENDS OF EACH SIDE OF THE SLING.
- ME BOTH SAFETY CHAINS ATTACHED FROM TOWING TRUCK TO TOWED VEHICLE.
- IS THERE SUFFICIENT CLEARANCE FROM TOWED VEHICLE?
- IS THE SLING - IN A BEAN POSITIONING.
- ME AUXILIARY TOWING LIGHTS ATTACHED TO TOWED VEHICLE.
- DO NOT OVERLOAD YOUR VEHICLE.

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6 WARNING 6

A MINIMUM OF 5 WRAPS OF CABLE MUST BE LEFT ON DRUM TO ACHIEVE RATED LOAD OF 10,000 LBS. NOT TO BE USED IN THE MOVING OR LIFTING OF PERSONS.

039

WRECKER BOOM

SERIAL NO. [REDACTED]
MODEL NO. [REDACTED]

BOOM RATINGS (MAXIMUM)

EXTENDED [REDACTED] LBS.
RETRACTED [REDACTED] LBS.

WINCH RATING
EACH DRUM [REDACTED] LBS.

WIRE ROPE
SIZE [REDACTED]
TYPE [REDACTED] S X 37
WORKING LIMIT [REDACTED] LBS.

WARNING 6-7

READ OPERATOR'S MANUAL AND FAMILIARIZE YOURSELF WITH THE OPERATION PRIOR TO USING THIS EQUIPMENT. KNOW THE LOADS BEING MOVED. DO NOT EXCEED RATED CAPACITIES.

MANUFACTURED BY:
JERR-DAN
An Oshkosh Truck Corporation Company
1080 Hykes Road
Greencastle, PA 17225
1-800-826-9666

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MANUFACTURED BY:
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1-800-826-9666

BODY NO.: [REDACTED] LIFT NO.: [REDACTED]
SERIAL NO.: [REDACTED]

TOW RATING: [REDACTED] (WCL) [REDACTED]
LIFT CAPACITY: [REDACTED] (L-VMS) [REDACTED] (FIRCS)

MAXIMUM IS NON C.A.T.N.
REAR AGE WEIGHT RATING (SANT) [REDACTED] U.S.

MAXIMUM LIFTING WEIGHTS

AT FULL EXTENSION (L-NIMS) [REDACTED]
AT 10' EXTENSION (L-NIMS) [REDACTED]
AT 10' EXTENSION (FRAME FIRCS) [REDACTED]
AT 10' EXTENSION (FRAME FIRCS) [REDACTED]

LOSS OF CONTROL, WHICH COULD RESULT IN [REDACTED]

WARNING 6

TOWED VEHICLE MUST BE CONNECTED TO TOW TRUCK BODY WITH SAFETY CHAINS

122

WARNING 6

FULLY RETRACT 800H AGAINST STOP FROM TOWING WITH A TRAILER. 8AU... EXTEND 800H A MIN. IF 4-TOWING WITH THE M-EET. Gfuf>

060

6 WARNING &

TOWED VEHICLE MUST BE CONNECTED TO TOW TRUCK BODY WITH SAFETY CHAINS

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6 WARNING 6

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

0

6 WARNING 6

MOVING PARTS
KEEP HANDS AND FEET CLEAR OF THIS AREA

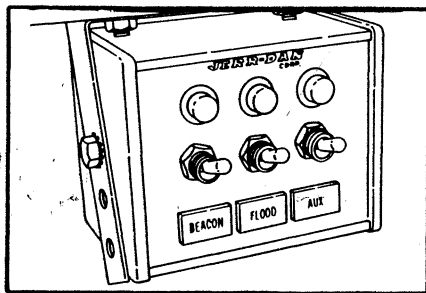
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SAFETY WARNING DECALS

As an extra safety precaution, your HPL has specific safety and warning decals affixed to prominent locations. These decals must not be obliterated, removed, or painted over. They are there to remind and protect the operator.

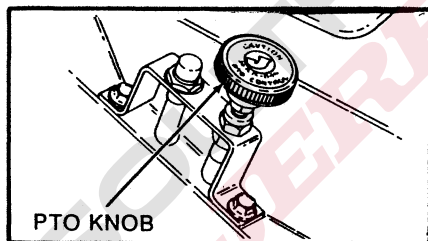
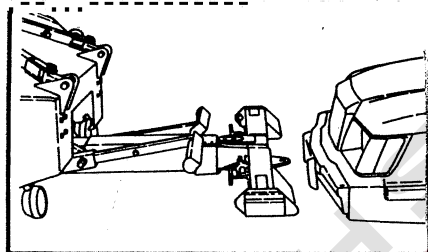
WHEEL-LIFT OPERATION

Your HPL is one of the most useful and efficient towing and recovery vehicles available. It is hydraulically powered and careful consideration should be given to the selection of commands. You can afford to work smart, the vehicle will do most of the work for you. Our unique design doesn't require you to crawl under the disabled vehicle ... SO DON'T!!

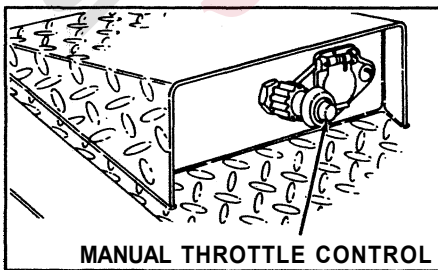


Follow these simple steps:

1. Turn on the safety and work lights. (Switches located on panel under the dash).
2. Position the truck within 3 to 4 ft. of the subject vehicle and as close to the direction of the pull as possible.
3. Set the truck's parking brakes.
4. Engage the power take-off (PTO) by pulling on the control lever. See PTO operator's manual. NEVER TRAVEL WITH THE POWER TAKE-OFF CONTROL ENGAGED. This could result in damage to the PTO unit and the truck transmission.
5. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1200-1400 R.P.M. for optimum performance.



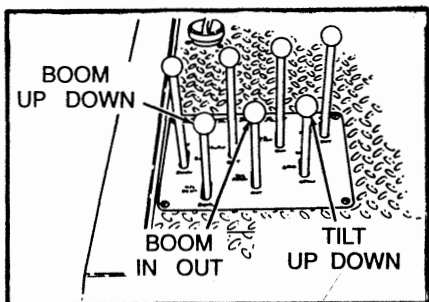
PTO KNOB



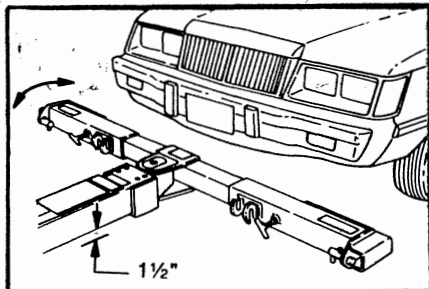
MANUAL THROTTLE CONTROL

CAUTION:

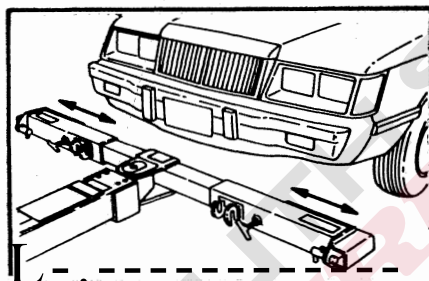
Never exceed 1,500 R.P.M. When your hook up is complete, reset the engine idle to normal.



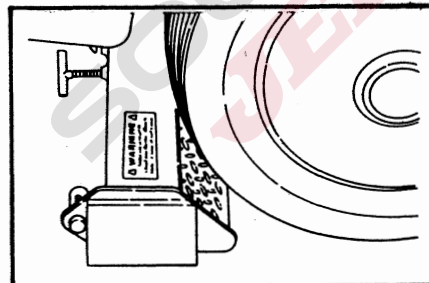
6. Confirm the truck's position in relation to the vehicle to be towed. Three (3) to four (4) feet is recommended. Reposition the HPL if necessary. Be sure the towed vehicle is not in gear or park. Keep the brake set.



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



8. 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. (See your particular grid option instructions).



9. 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.
10. Visually inspect the tire to grid contact before proceeding.

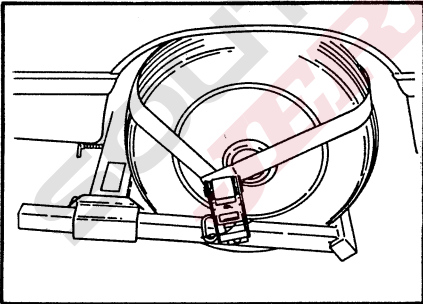
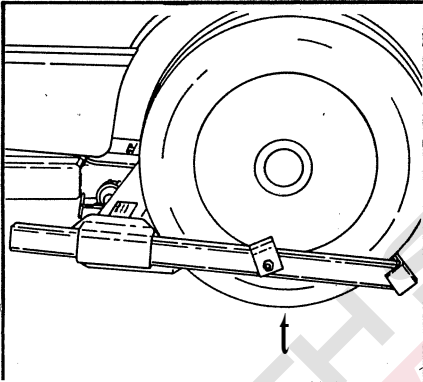
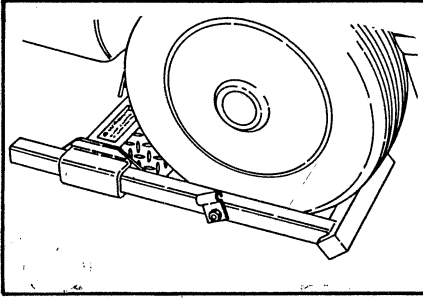
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JBRR-DAN

An Oshkosh Truck Corporation Company

A-10

Date 5-1-96



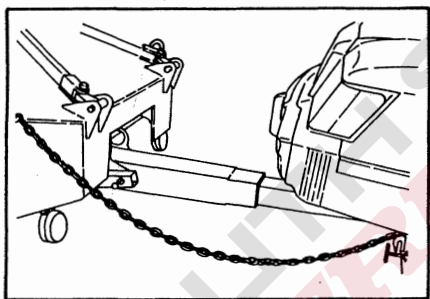
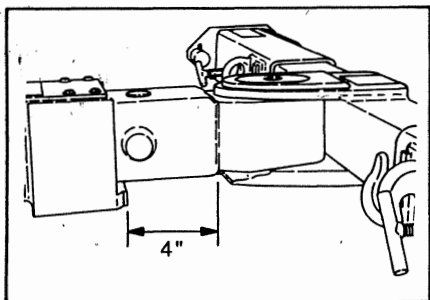
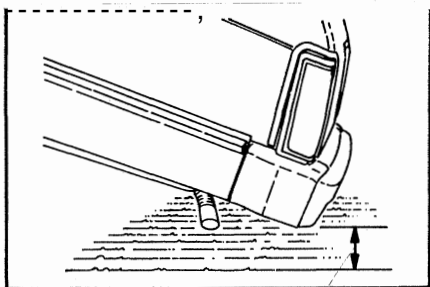
11. Secure the grid arm around the towed vehicle's tires following the instructions given for your particular grid option.
12. After securing the grid arm around the towed vehicles tires and before making the actual lift, check to be sure the towed vehicle's parking brake is released, the transmission 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.

13. It is recommended that the steering wheel be secured by a steering wheel strap for any tow.
14. Lift the vehicle high enough to allow tires to clear ground.
15. Remove the tie down straps from tool boxes and attach the tie down straps. (**See your particular grid option instructions**).
16. 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.

C)



17. Raise the vehicle into the final towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular roadsurfaces into consideration. Observe the lift function from the side and away from both vehicles if possible.

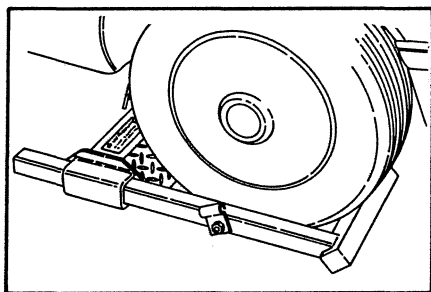
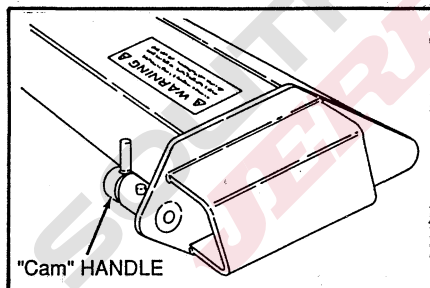
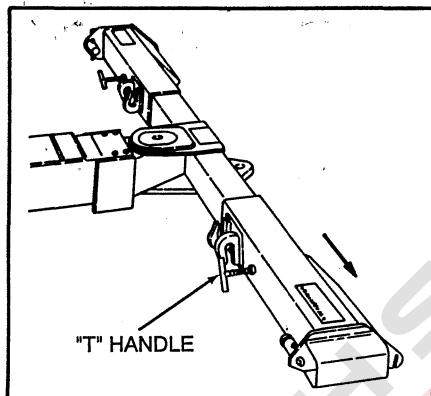
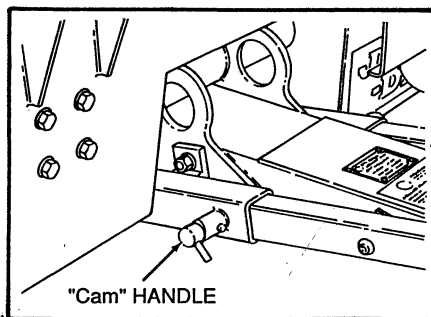
18. Power retract the grid boom until the towed vehicle is about 3 to 4 feet from the back of the truck. Leave enough room to maneuver around corners without corner binding or causing contact between the two (2) vehicles. Be sure that the boom is extended at least 4" to insure unobstructed cross-bar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

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

20. Attach the safety chains and magnetic towing lights.

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1. Unlock and remove the "L" arms from their holder by pulling and turning the "Cam" handle to the open position.
2. Set the grid width as required for the vehicle to be towed.
3. To set the grid width, loosen 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.
4. Retract the "Cam" handle locking pin on the grid by turning it a half turn. It should remain in the open position.
5. Lower the lift arm to the ground and extend under the vehicle to be towed as described in the Wheel Lift Operation section.
6. 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.
7. Remove the tie down straps from toolboxes and attach the tie down straps.

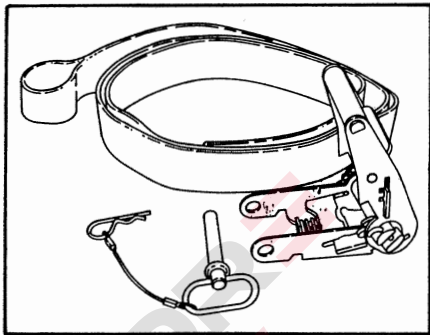
TIE DOWN STRAPS

The HPL 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.

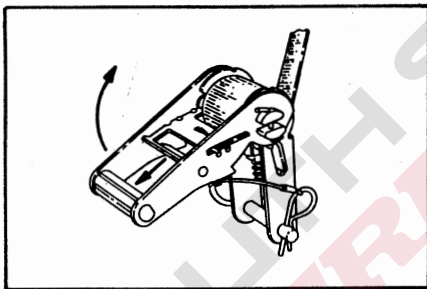
The tie down strap assembly is comprised of 3 basic components:

1. The Strap
2. The ratchet spool mechanism
3. The ratchet retaining pin and cotter key

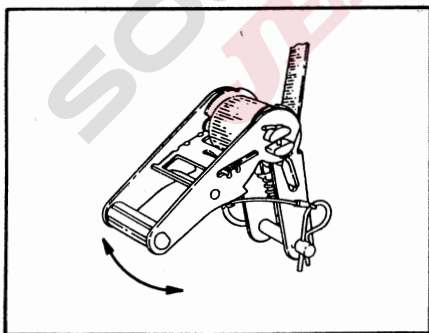
The following steps should be followed to properly install the tie down straps:



USING THE RACHET SPOOL MECHANISM

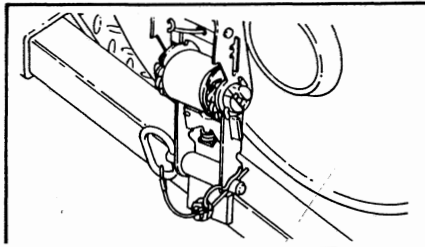


1. First the spool must be set into "free spool". This is done by pulling the lock bar out and swinging the handle upward until it rests in the free spool notch and then simply pulling out the amount of strap required to fit over the tire.

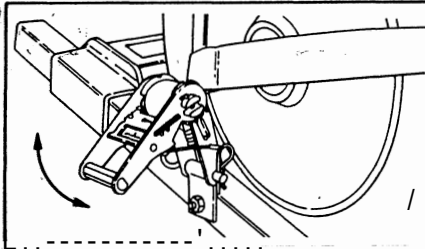


2. Now pull on the lock bar and move it downward until it engages the ratchet teeth on the take up spool. By pushing and pulling the handle up and down, the strap will be wound onto the spool.
3. To release the ratchet, simply pull on the locking bar, disengaging the teeth and raise the handle to the free spool position.

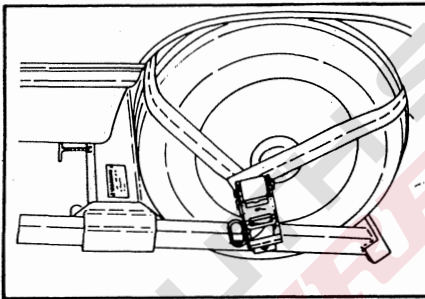
INSTALLING THE TIE DOWN STRAP



1. With the vehicle lifted just barely off the ground, attach the strap to the wheel grid. Be sure the ratchet pin is secured with the hairpin cotter pin.



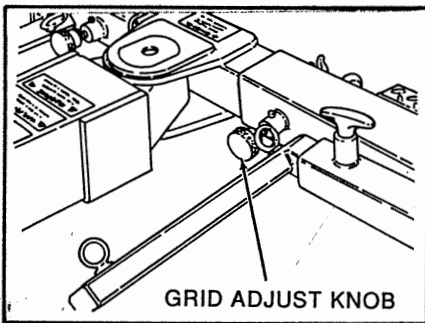
2. Set the ratchet spool in "free spool" position and pull the webbed strap out and form a loop which will wrap around the tire. Be sure the loop is over approximately 1/3 of the tire.



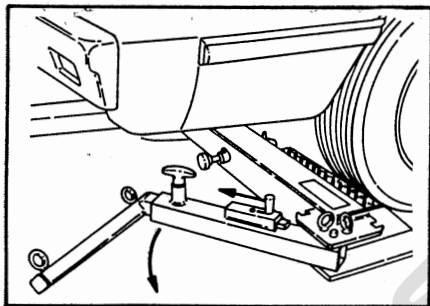
3. Take up the slack in the strap by ratcheting the takeup spool arm. Continue until the tires show some compression.

4. Raise the wheel grid to the towing position. RE-TIGHTEN THE RATCHET PERIODICALLY AS TIRE SETTLES IN GRID FROM TOWING

SWING AROUND "L"-ARM GRID OPERATION

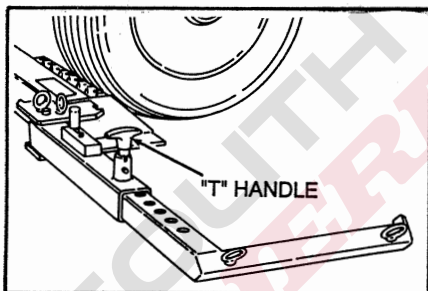


1. Set the grid width as required for the vehicle to be towed.
2. To set the grid width, loosen the knobs on the front of the grid arms and pull the grids out. Be sure both grids are as close to the center of the boom as possible, and wide enough to allow the "L" arms to swing into position. Tighten the knobs to secure the grids.



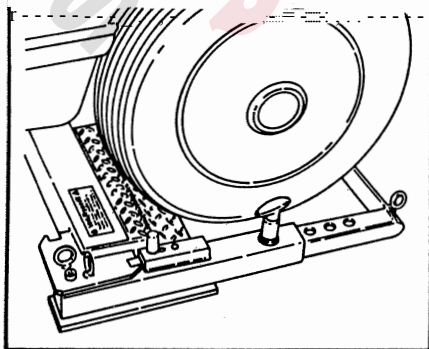
3. Lower the lift arm to the ground and extend under the vehicle to be towed as described in the Wheel Lift Operation section.

4. Disengage the outer "L" arm restraint by sliding the restraint latch and swing to a position in line with the cross bar.



5. Adjust the inner "L" arm restraint to fit tire by lifting and rotating the "T" handles and pulling or pushing on the "L" arm.

6. Turn the "T" handle back to the original position and readjust "L" arm until the "T" handle securely locks into position.



7. Swing around the outer "L" arm restraints until the latches are fully engaged. Insure that they are resting snugly against the tires. Readjust if necessary. The tires are now confined front and back.

8. Remove the tie down straps from tool boxes and attach the tie down straps.

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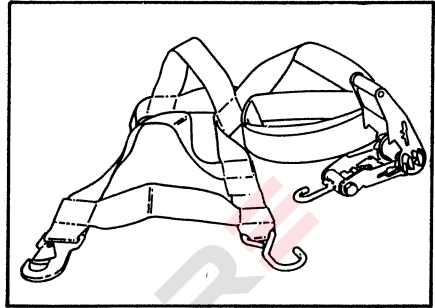
TIE DOWN STRAPS

The HPL with the Swing Around "L" Arm Grid Option 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.

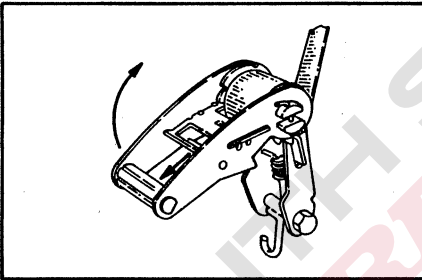
- The tie down strap assembly is comprised of three (3) basic components:

1. The Strap
2. The Ratchet Spool Mechanism
3. The Rachel Hook

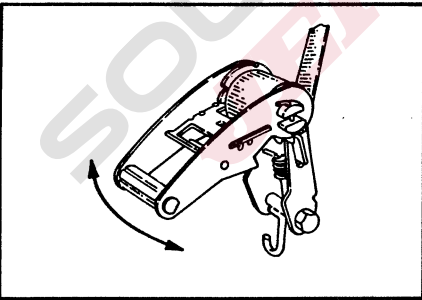
The following steps should be followed to properly install the tie down straps:



USING THE RATCHET SPOOL MECHANISM

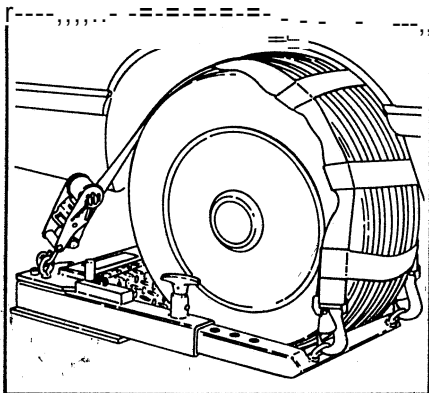


1. First the spool must be set into "free spool". This is done by pulling the lock bar out and swinging the handle upward until it rests in the free spool notch and then simply pulling out the amount of strap required to fit over the tire.

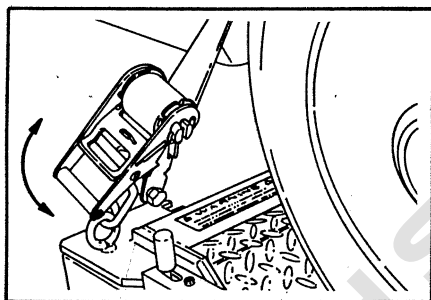


2. Now pull on the lock bar and move it downward until it engages the ratchet teeth on the take up spool. (See Photo) By pushing and pulling the handle up and down, the strap will be wound onto the spool.
3. To release the ratchet, simply pull on the locking bar, disengaging the teeth and raise the handle to the "free spool" position.

INSTALLING THE TIE DOWN STRAP

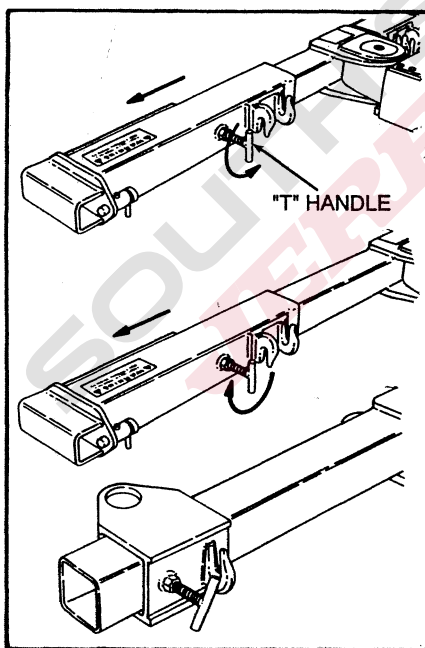
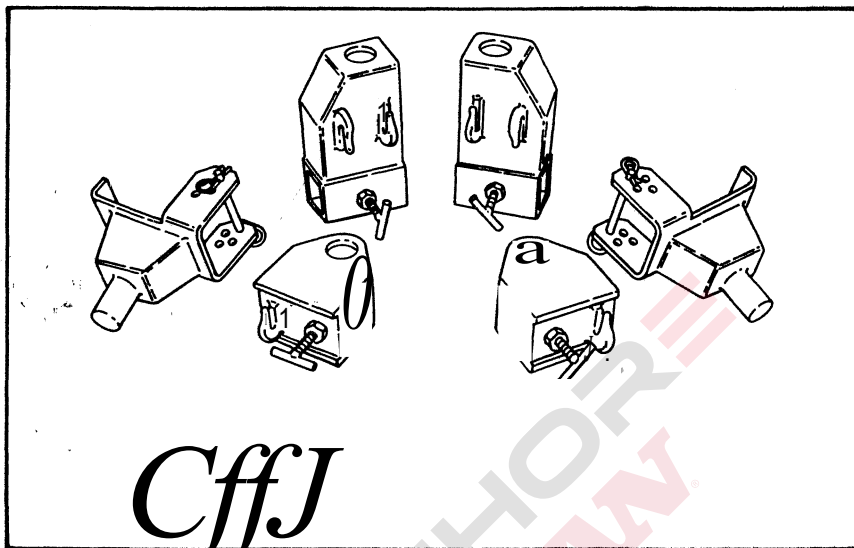


1. With the vehicle lifted just barely off the ground, attach the strap to the wheel grid. There is a two-point hook on the inner "L" arm restraint and a single hook (for the ratchet) on the wheel grid. Release the ratchet spool and pull the webbed strap out, up and over the tire.

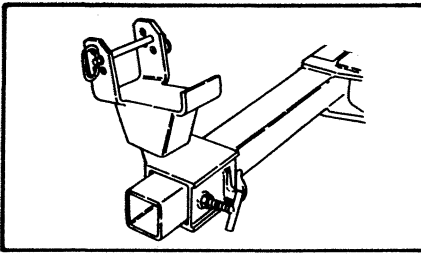


2. Take up the slack in the strap by ratcheting the take up spool arm. Continue until the tires show some compression.
3. Raise the wheel grid to the towing position. RE-TIGHTEN THE RACHET PERIODICALLY AS TIRE SETTLES IN GRID FROM TOWING.

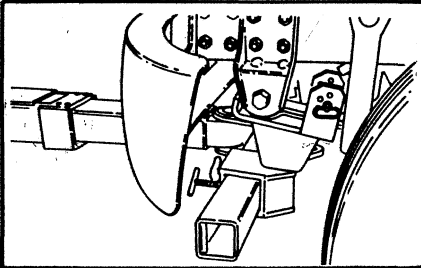
FRAME FORK LIFT ATTACHMENT PACKAGE OPERATION



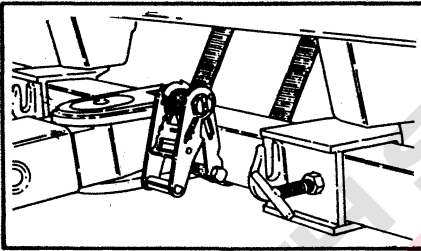
1. First, you will need to remove the wheel lift grids, and install the lift attachment receivers.
2. To remove the wheel lift grids, loosen the "T" handles on the front of the grid arms and pull the grids out to the stops.
3. Turn the "T" handles clockwise until the grid is released, then remove the grid from the crossbar. Naturally, you will do this on both sides of the bar.
4. Now you will need to choose the lift attachment receivers that are best suited to your needs and slide them over the end of the crossbar. Turn the "T" handles to lock the receivers onto the crossbar.



5. Now, choose the lift attachments that are best suited to your needs and insert them into the receivers that you just put onto the cross-bar. *(Frame forks are for lifting by axles and frame crossmembers, spring hanger attachments are for lifting by leaf springs).*



6. Move the lift attachments under the vehicle so that they are in the proper position for lifting. At the same time make sure you are not attaching the lift attachments to any steering components.



7. Now you may lift the vehicle slightly off the ground.
8. Secure the vehicle to the wheel grid crossbar with straps and ratchets.

RECOVERY WINCH OPERATION

The HPL deck mounted winch is an extremely effective tool in recovery or retrieval prior to lifting and towing. To operate the winch effectively, care and thought must be given.

Winch rating:

8,000 lbs.

Cable Specifications:

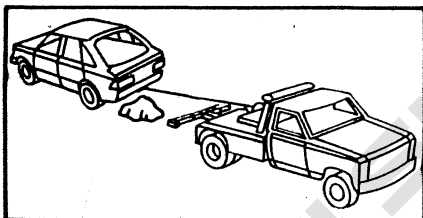
.375 x 100 ft.; 6x37 IPS
fiber core

Working Limit (cable):

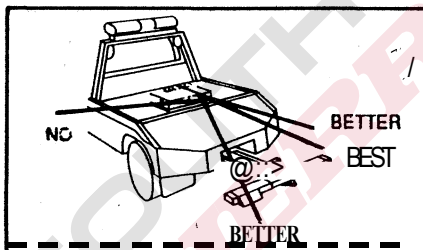
3150 lbs.

WARNING:

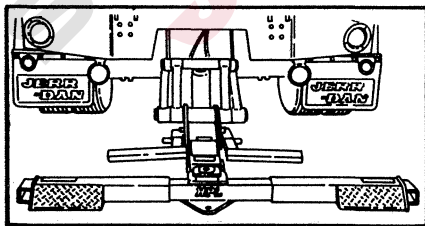
Do not exceed the working limit of the cable. Use snatch blocks and multiple lines to reduce the load on the cable.

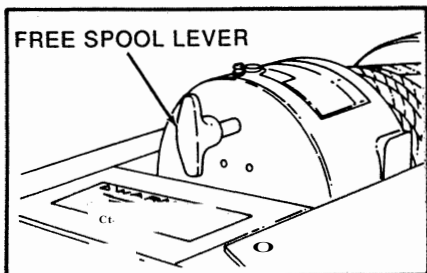


1. Check the direction you wish the work to travel, being sure there are no major obstacles in the way.



2. Position and align the truck to obtain as direct a pull as possible. Straight line pulls are the best and most efficient.
3. Set the brakes on your Jerr-Dan unit. If the pull will be a heavy one you may also use the controls to set the grid boom down on the ground giving the truck more traction and resistance to slippage. The use of scotch blocks is also recommended.

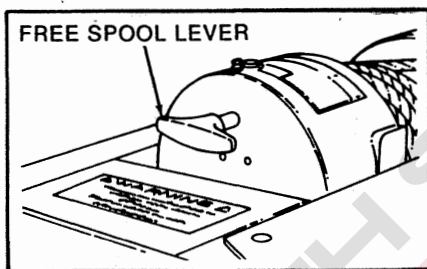




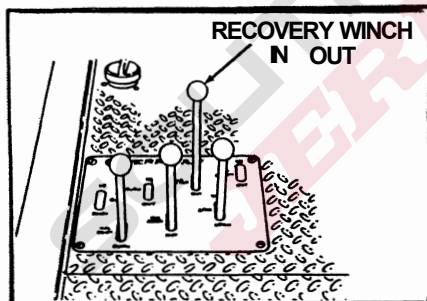
4. Release the free spooling lever on the winch by pulling and turning the handle 90°. Never pull this handle while the cable is under load! This allows the cable to be pulled directly off the spool to the work. Return to the cable spool and be sure that at least five (5) wraps of cable remain on the spool.

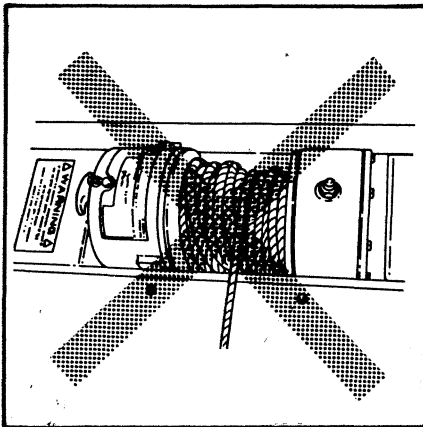


5. Attach the chain sling, hook or cable and hook securely to the work. Be sure of this hook up; you don't want it breaking loose during the pull. (See the safety sections earlier in this manual).

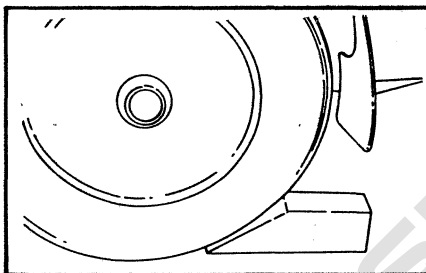


6. Re-engage the winch drive by turning the handle back 90°. It should retract cleanly. Jog the winch control lever to confirm engagement. Now slowly take up the cable slack by moving the control lever in the direction you wish the load to move.

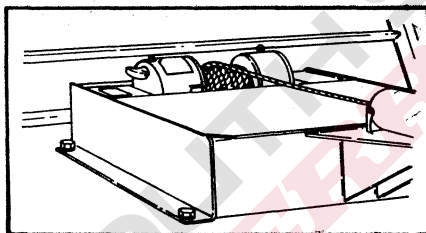




7. With the cable tight, slowly bring it in, observing both the work and the cable drum. Be sure the cable strands do not cross wrap or criss-cross on the drum. Observe the path the work must travel for snags or obstructions which could stall the work movement and overload the cable.



8. Once the work is in the desired position, use blocks or tie the work down if there is any question about stability. Slowly reduce the cable tension by moving the control toward the rear. After enough cable has been unwound, you may remove the hookup.

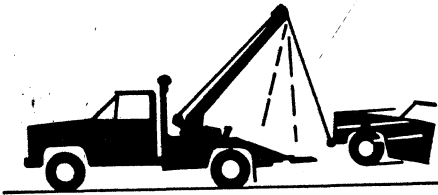


9. Now slowly retrieve the cable, carefully winding the cable onto the spool. Many operators take this opportunity to do a visual inspection. When you've finished respooling the cable, be sure you don't overwind it. Always wear safety glasses and gloves when doing recovery work or handling the winch cable.

Remember, most cable failures are caused by the operator underestimating the pull or over estimating the cable strength.

WRECKER BOOM OPERATION

The wrecker boom is probably one of the most useful accessories you can put on your HPL. It allows the operator to perform lifting and retrieval tasks that cannot be performed in any other way. Safe operation of the wrecker boom demands knowledge of the controls and the boom functions. Review the boom safety section of this manual and **USE CAUTION AND GOOD JUDGEMENT!**



Position the truck to best take advantage of the leverage the boom affords. A vertical lift is the best and most efficient, so attempt to place the boom over the work. This reduces the chance of the work breaking free and swinging during the lift. Place the truck as close as possible to the work. A shorter boom extension will result in less rear axle loading. Wheelift boom should be lowered onto the ground and used as a rear stabilizer which also results in less rear axle loading. When pulling, align the truck with the work so that the direction of pull is in line with the length of the truck. If the front wheels of the truck raise completely from the ground, Stop! And Re-Rig.

SINGLE WINCH OPERATION

If your Jerr-Dan Wrecker Boom is of the single winch design, then it has the following ratings:

H408S Boom Rating (Horizontal)

Fully Extended:	2,500 lbs.
Fully Retracted:	8,000 lbs.
Winch Rating:	8,000 lbs.
Cable Specifications:	.375 x 100 ft.; 6 x 37 IPS fiber core
Working Limit:	3,150 lbs.

0808S Boom Rating (Horizontal)

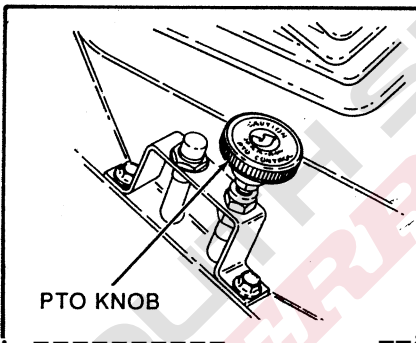
Fully Extended:	7,000 lbs.
Fully Retracted:	18,500 lbs.
Winch Rating:	8,000 lbs.
Cable Specifications:	.375 x 100 ft.; 6 x 37 IPS fiber core
Working Limit:	3,150 lbs.

WARNING:

Do not exceed the working limit of the cable. Use snatch blocks and multiple lines to reduce the load on the cable.

- These ratings are supplied for day to day reference. See rating placard affixed to side of wrecker boom base for the ratings of your particular wrecker boom. The operator must be sure he knows and understands this information before placing the boom into service.

When making a heavy lift or pull with the wrecker boom, the following steps must be taken:



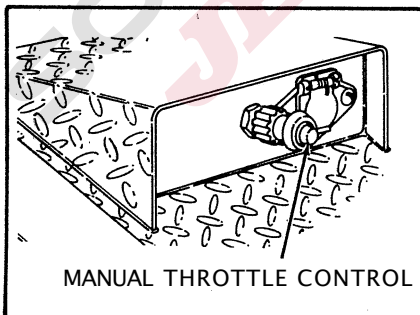
1. Position the truck as close as possible to the work.

2. Engage the Power Take Off (PTO). See PTO operator's manual for instructions.

..-OR..

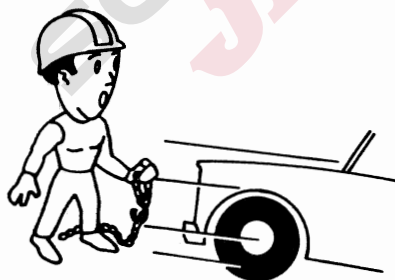
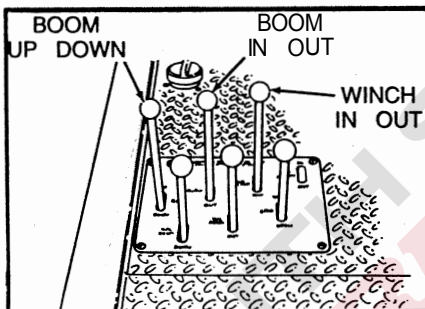
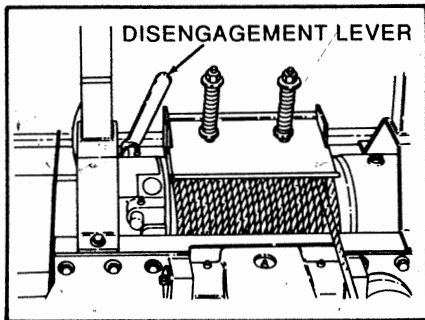
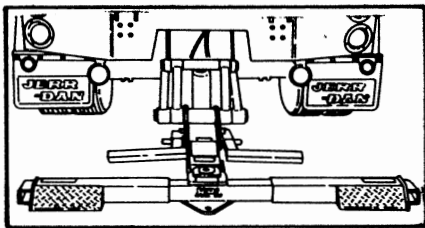
Engage the clutch pump by activating the Switch located under the dash.

3. Set the vehicle brakes.



4. Dismount from the truck cab and confirm that the truck is positioned properly and rests on firm ground.

5. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1200-1400 R.P.M. for optimum performance.



6. Set the wheel grid on the ground. The grid now acts as a rear jack and stabilizer. The use of scotch blocks is also recommended.

7. Set the boom winch into "tree spool" using the disengagement lever. Moving the boom head with the cable locked can result in damage to both the cable and boom.

8. Position the boom head by using the boom up and down lever and the boom in and out lever.

9. Unwind enough cable to make hook-up, being sure that a minimum of five wraps of cable remain on the cable drum.

10. Re-engage the winch and slowly take up the slack in the cable. Check all hooks and chains for possible slippage before continuing the lift or pull. As the cable is retrieved, be sure it doesn't criss-cross on the spool.

11. Complete the lift or pull being sure the work is placed in a stable location where it won't slip or roll. Use blocks or tie the work down if there is any question about stability after the cables and chains are removed.

12. Unwind enough cable to remove the hooks or chains and remove them carefully. Avoid straddling the cable.

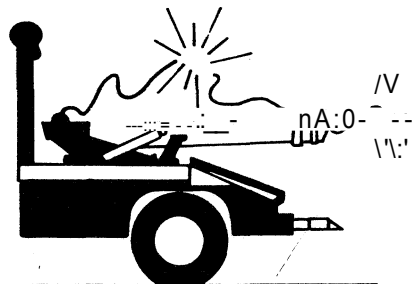
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13. Respool the cable and take this opportunity to inspect it for damage.
14. Retract the boom and lower it to the normal (horizontal) position and carefully snug up any loose cable.

CAUTION:

Don't stress the cable by over retrieving or tightening.

DUAL WINCH OPERATION

If your HPL is equipped with a dual winch wrecker boom, then it has the following ratings:

08080 Boom Rating (Horizontal)

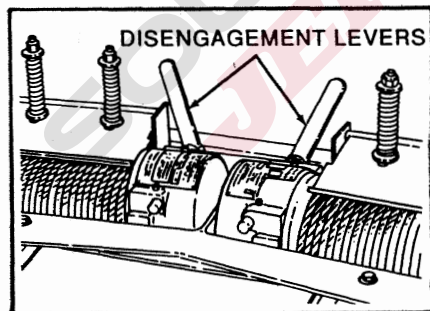
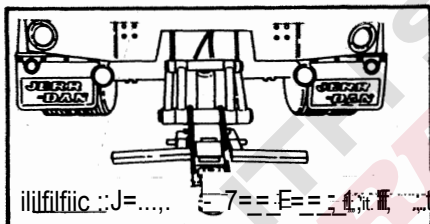
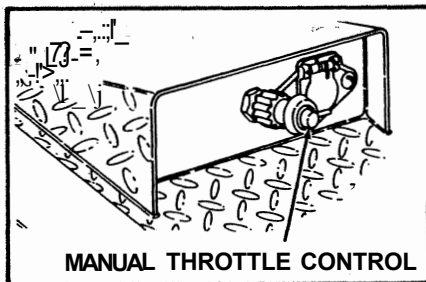
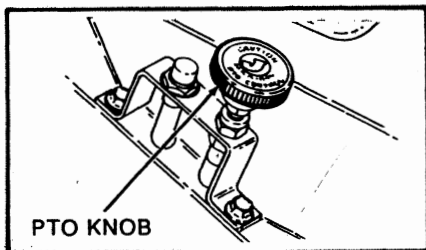
Fully Extended:	7,000 lbs.
Fully Retracted:	18,500 lbs.
Winch Rating:	8,000 lbs.
Cable Specifications:	.375 x 100 ft.; 6 x 37 IPS fiber core
Working Limit:	3,150 lbs.

WARNING:

Do not exceed the working limit of the cable. Use snatch blocks and multiple lines to reduce the load on the cable.

These ratings are supplied for day to day reference. See rating placard affixed on side of wrecker boom base for the ratings of your particular wrecker boom. The operator must be sure he knows and understands this information before placing the boom in to service.

When making a lift or pull with the wrecker boom, the following steps should be taken:



1. Position the truck as close as possible to the work.

2. Engage the Power Take Off (PTO). See PTO operator's instruction manual.

--OR--

Engage the clutch pump by activating the switch located under the dash. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1200-1400 rpm for optimum performance.

3. Set the vehicle brakes.

4. Dismount from the cab and confirm that the truck is positioned properly and rests on firm ground.

5. Set the wheel grid on the ground. The grid now acts as a rear jack and stabilizer. If a heavy lift or pull is to be made, additional cable lines may be necessary. Always use more stabilizing lines than pull lines. **RIG FOR SAFETY.** The use of scotch blocks is also recommended.

6. Set both boom winches into "free spool" using the disengagement levers. Moving the boom head with the cable locked can result in damage to both the cables and the boom. Be sure both winches are free spooling.

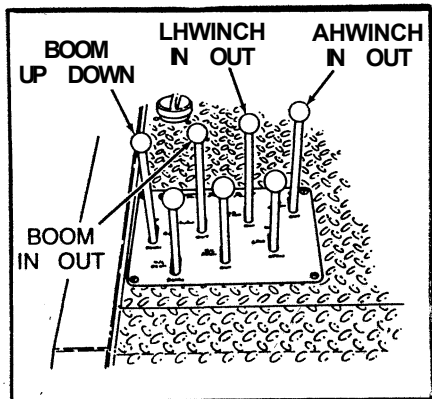
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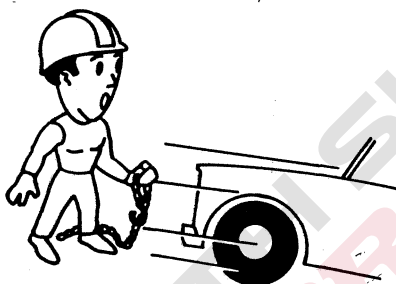
An Oshkosh Truck Corporation Company

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7. Position the boom head by using the boom up and down lever and the boom in and out lever.
8. Unwind enough cable to make the hook-up being sure that a minimum of five (5) wraps remains on the cable drums.
9. Make the hook-up in such a way as to afford an even pull on both cables. Over stressing one cable can happen if care isn't taken in hook placement. Hydraulically driven winches will not automatically work in !!is.o.o.. Manually control each winch to insure cables are stressed evenly.



10. Re-engage the winch and slowly take up the slack in the cables. Inspect the hook-up points for slippage before continuing the lift or pull. As the cable is retrieved, be sure it doesn't criss-cross on the spool.
11. Complete the lift or pull being sure the work is placed in a stable location where it won't slip or roll. Use blocks or tie the work down if there is any question about stability after the cable and chains are removed.
12. Unwind enough cable to remove the hooks or chains and remove them carefully. Avoid straddling the cable.
13. Respool both cables and take this opportunity to inspect them for damage.

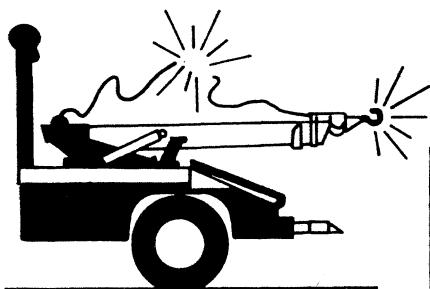
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14. Retract and lower the boom to normal horizontal position and carefully snug up any loose cable.

CAUTION:

Don't stress the cable by over retrieving or tightening.

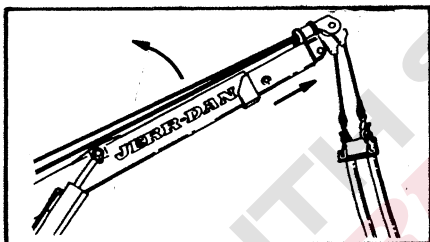
SLING OPERATION

Sling Ratings {50 M.P.H. Transport Speed)

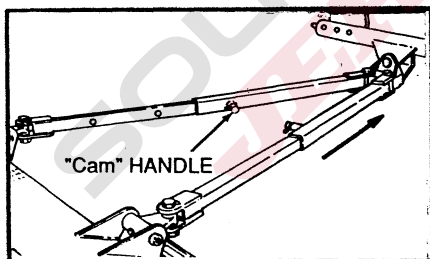
Single Line Boom 3,150 Lbs.

Dual Line Boom 4,000 Lbs.

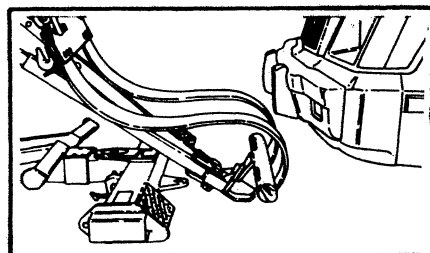
If your HPL is equipped with a towing sling, consult the AAA Towing Manual for hook up and follow these steps:



1. Raise the wrecker boom to approximately 45° and telescope out to allow for working clearance.
2. Lower the lift grid to 1-1/2" from the ground.



3. Lower the sling assembly to horizontal using the winch. Rotate the "cam" handles on the stand off bars 90°. Pull the stand off bars to their full extension.



4. Lower the tow sling on the skid plate so that it will easily clear the bottom of the vehicle.

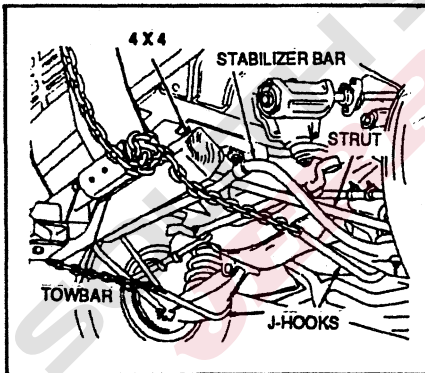
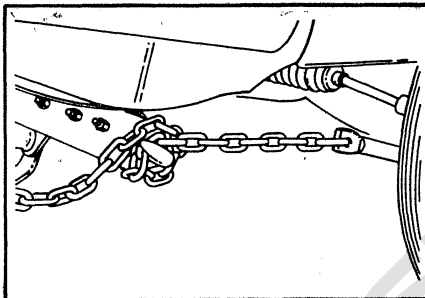
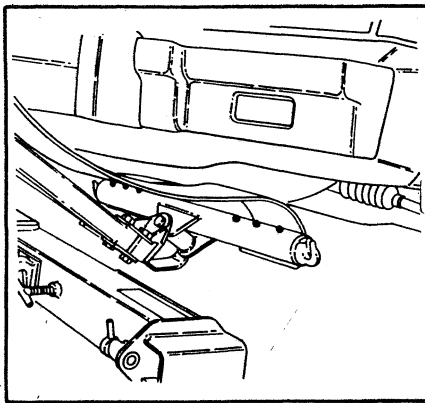
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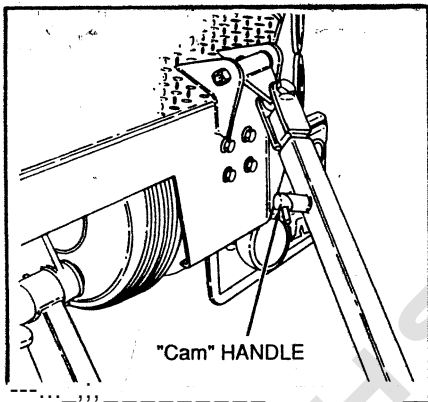
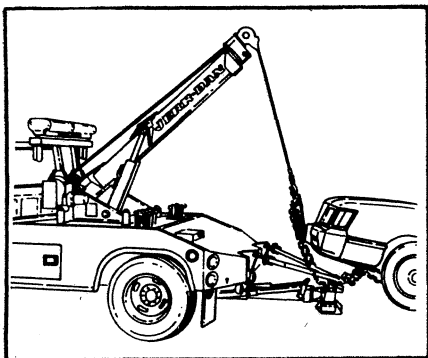
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5. Maneuver the sling under the vehicle to be towed, far enough under so the vehicle will ride on the rubber belts.
6. The chain J hooks must be secured firmly around the axle or the frame of the towed vehicle. When fastening the J hook, be sure that it is attached to the towed vehicle in such a manner as to prevent any damage to the brake lines or other functional parts of the vehicle. With the chain securely fastened in the hook on each side of the bottom bar assembly, the chain should then be wrapped around the bottom bar. Secure the remaining chain to the hook at the top of the tow sling.
7. In using the tow sling with late model vehicles it may be necessary to use spacer blocks or a cross beam in order to get sufficient height to prevent any damage to body parts. The AAA Towing Manual will diagram this.
8. Be sure the fuel tank is not in contact with the sling or towing mechanism. The fuel tank must not support any weight whatsoever.



9. Raise the vehicle using the wrecker boom winch. (Read the safety and operating instructions for the boom and winch beforehand.) The vehicle should be raised until the wheels are a minimum of ten inches off the ground. Observe the opposite end of the vehicle for ground clearance.
10. When using Dual Winch Boom insure that both cables are retracted with equal tension.
11. Retract the boom slowly drawing the vehicle forward until the stand offs are fully retracted. Relock the "cam" handles for traveling by turning 90° to the closed position.
12. The boom should be fully retracted and safety chains must be installed before traveling.
13. Raise the wheellift grid.

The Bottom Anchor Assembly (round tube) must never be higher than the attachment point on the rear of the truck. The Stand Off Bar Assembly acts as a pivot in the event of a sudden stop. This will assure that the towed vehicle will not catapult forward onto the deck of the HPL.

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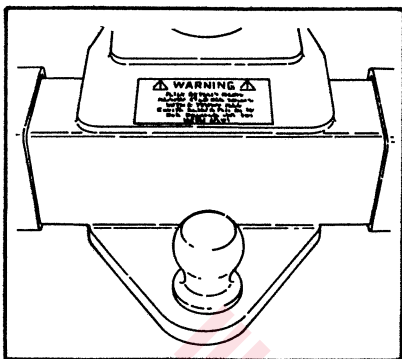
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JERR-DAN ACCESSORIES

TOWING BALL

The towing ball option has its own special safety and use requirements. Since it is not likely to see continual service it is recommended that the ball be stored in the tool boxes and installed as needed. Once installed be sure to torque the nut down tightly and check it periodically when in use. Care should be taken when making a lift as the ball could come into contact with the paved surface, as the threaded shank could damage the surface if the wheel grid is moved. The grid must be fully retracted against the stop, thus restraining the cross bar from pivoting. Periodically check to assure that the grid has not drifted away from the stop causing hazardous stopping or backing up. Do not tow without attaching safety chains.



DOLLIES

Quick loading dollies are available as a Jerr Dan option. These dollies are simple to set up and use.

Specifications:

Dolly Capacity	2360 lbs.
Tire/Wheel	4.80 x 4.00/8 590 lbs./Tire
Axle	2 1/2 Sq. Tube
Max. Speed	50 m.p.h.

The Quick Loading Dolly is simple to use once the principles of the unit are understood.

1. Extend telescopic cross rails by first depressing spring-loaded plunger and sliding inner (male) tube until plunger locks into the hole that matches the width of vehicle to be towed.
2. Place cross rails on ground, fore and aft of vehicle's tires.
3. Place dolly in the fully collapsed position with dolly tires closest to each other.

4. Set rail ends into dolly pockets, adjusting for the size of vehicle's tires, positioning rails as close as possible to tires.
5. Make sure safety locks are disengaged, allowing trip assemblies freedom of movement while lifting vehicle.
6. Engage ratchet assemblies to prevent injury and damage to the operator and vehicle in case pry bar slips from hand.
7. Insert pry bar into pry pocket.
8. Swing outer end of pry bar in an arc until trip assembly rises then locks spindle assembly in the down position. **Do not release** pry bar until spindle assembly is locked down.
9. Repeat this action for all four (4) assemblies. Dolly is now raised.
10. After dolly is in the raised position, engage safety locks over trip assemblies to prevent releasing while vehicle is in tow.
11. Safety tie-down straps should be used to secure dolly to vehicle in case of rough road. Dolly is now ready for towing.

BE SURE EACH WHEEL IS SECURELY HELD IN ITS DOLLY AND INSPECT THE GROUND CLEARANCE OF THE VEHICLE BEFORE ATTEMPTING A TOW.

To unload the vehicle, stand clear of both the vehicle and the dollies and slip the chain link off of the cam bar. Carefully slide the jack handle over the cam bar and slowly lift the handle allowing the vehicle to drop. Repeat this step on the other dolly and then remove the axles from the dollies.

USE CARE WHEN RELEASING OR UNLOCKING THE CAM BAR AS IT CAN MOVE SUDDENLY AND WITH FORCE, CAUSING INJURY. JERR DAN ASSUMES NO LIABILITY FOR THE USE OR MISUSE OF THESE DOLLIES OR ANY DAMAGE CAUSED BY THEM.

MAINTENANCE AND LUBRICATION

Your HPL has been designed to give you excellent service and long life but like all equipment, it requires proper and periodic maintenance. The truck chassis itself is on a maintenance schedule recommended by the manufacturer. Follow these guidelines and protect your vehicle warranty. There are a number of different lubricants used on your HPL and the following chart details the proper lubricant and the most common brands and specification which meet the requirements.

Use only safe practices when maintaining this equipment. Always shut off the engine before reaching into pinch areas.

Inspect the vehicle and wheelift 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.

Critical wear points on your HPL must be lubricated at regular intervals. Sliding surfaces are to be cleaned and coated with a heavy grease periodically. Cleaning every month is recommended for normal highway operations, but this frequency will vary appreciably with the type of service. Sliding on dirty wear surfaces will cause rapid wear. Fittings on linkage pivots should be greased every 2 months, again depending upon usage. The following chart and diagram shows the location of these points, and when and what type of lubricant to use.

Check the hydraulic oil level bi-monthly or after any leakage. A dipstick has been provided and can be accessed through the deck surface of the HPL body by removing the black hole plug in the deck. The proper oil level is best checked with all cylinders fully retracted. Use 5W20 Dual Range hydraulic oil. (Automatic transmission fluid may be used in the hydraulic system if necessary.)

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

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can usually be worked out with fine emery 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.

The optional aluminum body of your Jerr-Dan has been built from high strength aluminum which has been carefully assembled and polished in our factory. To keep it clean and free of dirt use any non-abrasive soap or detergent recommended for automotive finishes. Use a soft cloth or sponge and finish with thorough rinsing. Drying with a soft cloth or chamois will prevent spotting or streaking. A coat of automotive wax is recommended.

The HPL is mounted to the truck chassis by 12 bolts. These bolts are torqued at the factory to 75 ft. lbs. We recommend periodic inspection and retorquing of these bolts. If your truck is equipped with the optional wrecker boom, deck mounted winch or tow sling, the mounting bolts should be regularly inspected and tightened if necessary. Replace any broken or damaged bolts immediately.

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OILS AND GREASES

The following oils and greases are suitable for use with your Jerr-Dan.

Company

Product

HYDRAULIC OILS

- | | |
|-----------------------------|----------------------|
| 1. Drydene Dual Range | Hydraulic Fluid 5w20 |
| 2. Sun Refining & Marketing | 2105 Hydraulic |
| 3. D.A. Lubricants | 5w20 HIYI |
| 4. Texaco | Rando HD AZ. |
| 5. Mobil Oli Corp. | DTE15 |
| 6. Amoco Oli Co. | Rykon MV |

GREASES

- | | |
|------------|----------------|
| 1. Drydene | HD Lithium EP2 |
| 2. Gulf | Crown EP2 |
| 3. Amoco | Amolllh EP2 |
| 4. Shell | Alvanl EP2 |
| 5. Texaco | Marf xEP2 |
| 6. Mobil | Mobilux EP2 |
| 7. Sunoco | Prestige EP2 |

WINCH AND GEAR LUBE

- | | |
|-------------|--|
| 1. Phillips | 140 wt. EP Gear Lube 93301
(or approved equivalent) |
|-------------|--|

LUBRICATION POINTS

The following lubrication charts are located inside the tool box lid on the driver's side of the HPL body.

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LUBRICATION CHART <i>J'BEIEI,-DAN:</i> An Oshkosh Truck Corporation Company <i>HPL</i> TM WHEEL LIFT SYSTEM					
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
500R MONTHLY	C	ADJ. KNOB	OIL	ENGINE OIL	2
	F	BOOM (FLY)	COAT	MPG	1
	N	MAGNETIC PLUG	CLEAN	MPG	1
	P	BOOM (FLY)	LUBE	MPG	1
100 OR BI- MONTHLY	A	GRID PIVOT	LUBE	MPG	1
	B	PLUNGER	LUBE	MPG	4
	D	EXT. CYLINDER	LUBE	MPG	2
	H	PIVOT TUBE	LUBE	MPG	4
	G	PIVOT PINS	LUBE	MPG	2
	J	PIVOT ARMS	LUBE	MPG	6
	K	TILT CYLINDER	LUBE	MPG	2
	L	LIFT CYLINDER	LUBE	MPG	3
	M	HYD. RESERVOIR	CHECK	MPG	1
	R	LATCH	LUBE	MPG	2
	S	ARM PIVOT	LUBE	MPG	2
250 OR SEMI- ANNUALLY	E	HYD. FILTER	CHANGE		1
1000 OR YEARLY	M	HYD. RESERVOIR	DRAIN-FILL		1

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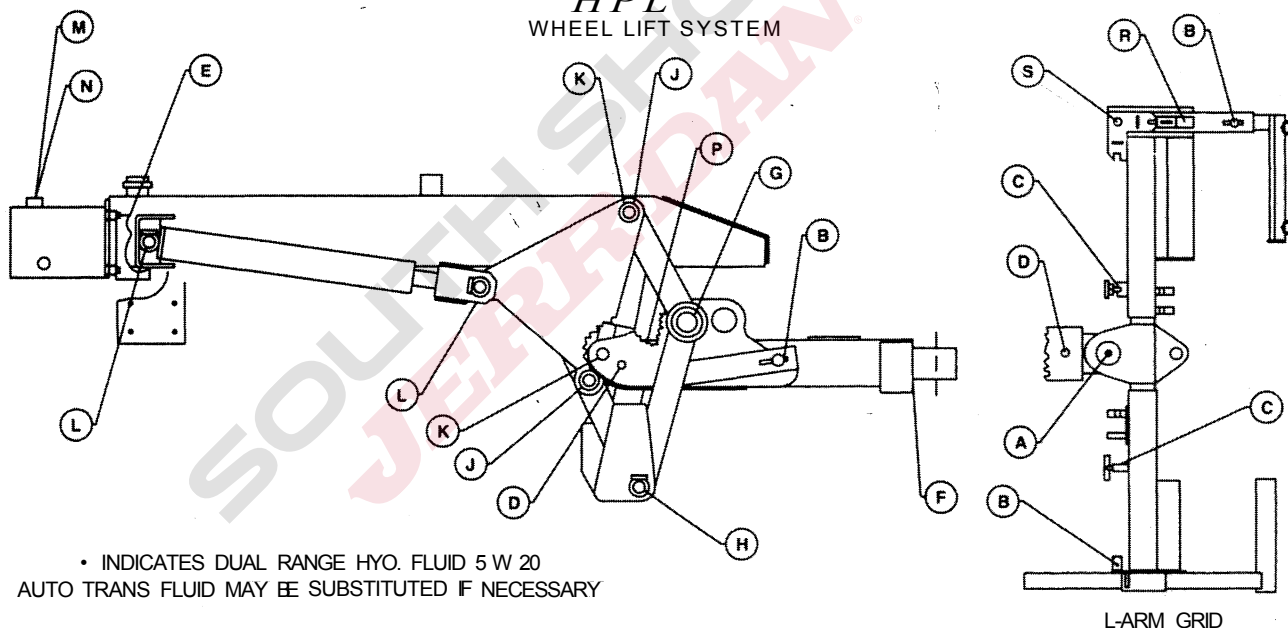
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LUBRICATION CHART, **JBE1E1-DAN**

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TM **HPL** WHEEL LIFT SYSTEM



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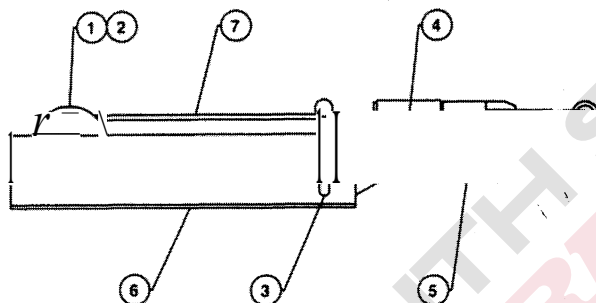
LUBRICATION CHART

JBEIEI.-DAN

An Oshkosh Truck Corporation Company

*HPL*TM

DECK MOUNTED WINCH



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

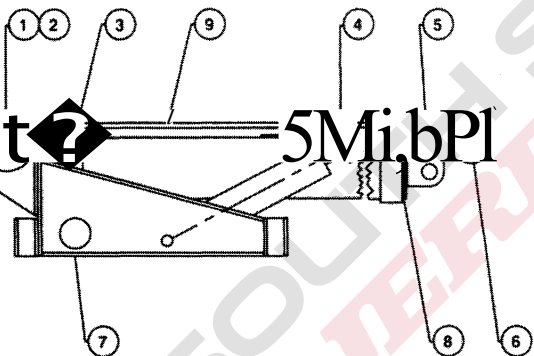
INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERVICE	LUBRICANT	NO. OF POINTS
50 OR MONTHLY	3	HANDLES	OIL	ENGINE OIL	2
	7	CABLE	OIL	ENGINE OIL	1
	P	BOOM(FLY)	LUBE	MPG	1
	N	MAGNETIC PLUG	CLEAN	MPG	1
100 OR BI- MONTHLY	F	BOOM (FLY)	COAT	MPG	1
	C	ADJ. KNOB	OIL	ENGINE OIL	2
	1	WINCH	LUBE	MPG	1
	4	SWIVEL	LUBE	MPG	1
250 OR SEMI- ANNUALLY	5	SHEAVE	LUBE	MPG	1
	6	VALVE SPOOL	CLEAN & OIL	ENGINE OIL	1
	S	ARM PIVOT	LUBE	MPG	2
	R	LATCH	LUBE	MPG	2
1000 OR YEARLY	M	HYD. RESERVOIR	CHECK	MPG	1
	L	LIFT CYLINDER	LUBE	MPG	3
	K	TILT CYLINDER	LUBE	MPG	2
	J	PIVOT ARMS	LUBE	MPG	6
2	H	PIVOT PINS	LUBE	MPG	2
	G	PIVOT TUBE	LUBE	MPG	4
	D	EXT. CYLINDER	LUBE	MPG	2
	B	PLUNGER	LUBE	MPG	4
E	A	GRID PIVOT	LUBE	MPG	1
	2	WINCH BOX	CHECK	GL5 #140	1
	E	HYD. FILTER	CHANGE	GL5 #140	1
	2	WINCH BOX	DRAIN-FILL	GL5 #140	1
M		HYD. RESERVOIR	DRAIN-FILL	GL5 #140	1

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LUBRICATION CHART JEEI-EI-DAN

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TM
HPL
WRECKER BOOM



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

INTERVAL (HOURS)	REF. NO.	IDENTIFICATION	SERV.ICE	LUBRICANT	NO. OF POINTS
500R MONTHLY	9	CABLE	OIL	ENGINE OIL	1 OR 2
	P	BOOM (FLY)	LUBE	MPG	1
	N	MAGNETIC PLUG	CLEAN	MPG	1
	F	BOOM (FLY) ADJ. KNOB	COAT OIL	ENGINE OIL	1
100 OR BI- MONTHLY	C				2
	1	WINCH	LUBE	MPG	1 OR 2
	3	BOOM PIVOTS	LUBE	MPG	2
	4	LIFT CYLINDERS	LUBE	MPG	4
	5	SWIVEL	LUBE	MPG	1
	6	SHEAVE	LUBE	MPG	1 OR 2
	7	VALVE SPOOLS	CLEAN & OIL	ENGINE OIL	3 OR 4
	8	BOOM (FLY)	COAT	MPG	1
	!	ARM PIVOT	LUBE	MPG	2
	L	LATCH	LUBE	MPG	2
	K	HYD. RESERVOIR	CHECK	•	1
	J	UT CYLINDER	LUBE	MPG	3
	H	TILT CYLINDER	LUBE	MPG	2
	G	PIVOT ARMS	LUBE	MPG	6
	D	PIVOT PINS	LUBE	MPG	2
	B	PIVOT TUBE	LUBE	MPG	4
	A	EXT. CYLINDER	LUBE	MPG	2
250 OR SEMI- ANNUALLY		PLUNGER	LUBE	MPG	4
		GRID PIVOT	LUBE	MPG	1
	2	WINCH BOX	CHECK	GL5 #140	1 OR 2
	E	HYD. FILTER	CHANGE	—	1
1000 OR YEARLY	2	WINCH BOX	DRAIN-FILL	GL5 #140	1
	M	HYD. RESERVOIR	DRAIN-FILL	•	1

TROUBLE SHOOTING

You probably won't require anything but preventive maintenance to keep your HPL running, however, the following chart should help you isolate and correct minor problems if they occur with use. Any service work on the hydraulic system should be performed by qualified mechanics.

HYDRAULIC SYSTEM

Problem	Cause	Solution
Slow operation	a. Low engine RPM b. Low oil level c. Blocked or restricted hoses d. Dirty hydraulic oil e. Hydraulic pump worn	a. Speed up engine b. Check dipstick and fill with the specified oil c. Inspect: remove blockage d. Drain, flush and refill with clean oil, replace filter e. Rebuild or replace
Valve handle sticks tight or frozen	a. Insufficient lubrication b. Broken centering spring or clogged with foreign material	a. Lubricate per lube chart b. Inspect, clean or replace
Valve leaks	a. Defective seals	a. Replace
Cylinder leaks	a. Defective seals or rods	a. Inspect and replace
Erratic cylinder function	a. Air in the system b. Defective pump (pulsating)	a. Cycle hydraulic system 10 to 15 times to remove air b. Replace if necessary

P.T.O. FUNCTIONING IMPROPERLY

Problem	Cause	Solution
Cable tight or frozen	a. Cable kinked or bent b. Cable and P.T.O. connection not adjusted properly c. Mounting bracket nuts are over tightened at P.T.O.	a. Straighten or replace b. Inspect and adjust c. Loosen if necessary
Rattling noise in P.T.O.	a. P.T.O. backlash too loose (Consult P.T.O. Manual)	a. Shims must be removed
Howling Noise in P.T.O.	a. P.T.O. backlash too tight (Consult P.T.O. Manual)	a. Shims must be added
Gear off leak between P.T.O. and pump	a. Defective shaft seal	a. Remove and replace
P.T.O. will not engage or disengage	a. Cable and P.T.O. connection not adjusted properly b. Defective shifter cover plate	a. Inspect and adjust b. Inspect and replace

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HYDRAULIC PUMP

Problem	cause	Solution
Pump noisy (Cavitation)	a. Low oil supply b. Heavy oil c. Dirty oil filter d. Restriction in suction line e. Pump worn	a. Fill to proper level b. Fill with proper oil (See chart) c. Replace filter d. Clean out and remove e. Repair or replace
Pump slow or fails to respond	a. Low oil supply.	a. Fill to proper level
Oil heating up	a. Foreign material lodged in relief valve b. Using too light oil c. Dirty oil d. Oil level too low e. Pump worn (slippage)	a. Inspect and remove/replace filter b. Drain and refill with clean oil c. Drain, flush and refill with clean oil/replace filter d. Fill to proper level e. Repair or replace
Oil foaming	a. Air leaking into suction line b. Wrong kind of oil c. Oil level too low	a. Tighten all connections b. Drain and refill with non-foaming type of hydraulic oil (See lube chart) c. Replace filter d. Refill to proper level
Hydraulic oil leak between P.T.O. and pump	a. Defective shaft seal	a. Replace shaft seal
Pump leaks at front and rear covers	a. Defective seals	a. Replace seals

WINCH FUNCTIONING IMPROPERLY

Problem	cause	Solution
Winch screeches during operation	a. Insufficient lubrication	a. Lubricate per lube chart
Winch will not pull load or take in cable	a. Free spooling device not engaged b. Sheared keys or broken coupling c. Hydraulic pump worn	a. Engage b. Inspect or replace c. Inspect and replace

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