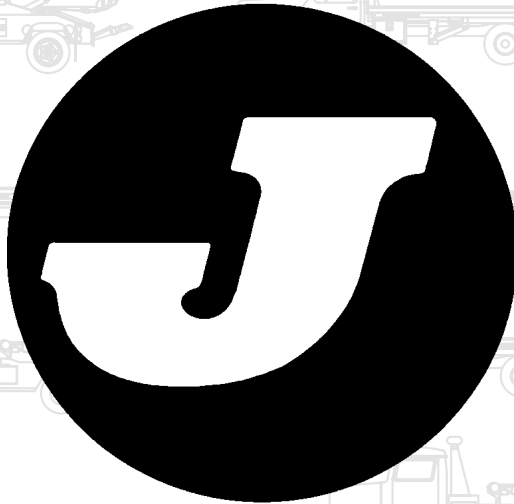


\$35.00

**QP40
QUICK PICK**

**OPERATIONS, MAINTENANCE,
AND PARTS MANUAL**



**JERR-DAN[®]
CORP.**

1080 Hykes Road
Greencastle, PA 17225

Phone (717) 597-7111



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.

Rev: _____

Date _____



JERR-DAN®

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, 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.

Rev: _____

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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 return of 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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JERR-DAN®

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

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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.

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QP40 SAFETY (GENERAL)

The safe operation of your QP40 is your responsibility. Read this manual and the truck manufacturer's manual and thoroughly understand them. You can be held legally responsible for injuries or damage resulting from unsafe operating practices.

The manufacturer's recommendations for operating this wrecker can help you avoid unsafe practices and their bad consequences. These recommendations are contained in this manual.

Jerr-Dan Corporation is not responsible for the results of any unsafe practice of wrecker operators or for the failure of the wrecker or its accessories resulting from improper maintenance.

The danger from a vehicle does not cease when it is disabled or wrecked. Recovering or towing vehicles can be dangerous too! The danger threatens wrecker operators and everyone else close by. As a wrecker operator you must develop an awareness of the hazards involved. You must use every safeguard within reason to prevent injuries.

For each step in operating your wrecker develop the habit of asking yourself if it is safe to proceed. Carefully check all rigging before starting a heavy lift or pull.

We cannot warn you of all the possible dangers you will encounter, but we will tell you of the most common hazards that we know about. We recommend that you receive specialized and advanced training from a professional Towing and Recovery instructor before operating any recovery equipment and that the Vehicle Manufacturers Towing Manual and/or 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



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Date _____

DO NOT EXCEED THE FOLLOWING RATINGS:

All ratings comply with SAE J2512 Recommended Practice

QP40 Underlift Rating	4,000 lbs "L" Arm
Tow Rating	7,000 lbs.
Boom Rating	8,000 lbs.
Winch Rating (Optional)	8,000 lbs.
Wire Rope:	
Working Limit	3,485 lbs.
Construction	6 x 37 ISP Fibercore
Diameter	3/8 inch
Standard Length	75 Feet

NOTE:

These ratings apply to the structural design of the QP40 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.



Rev. _____

Date _____

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 _____

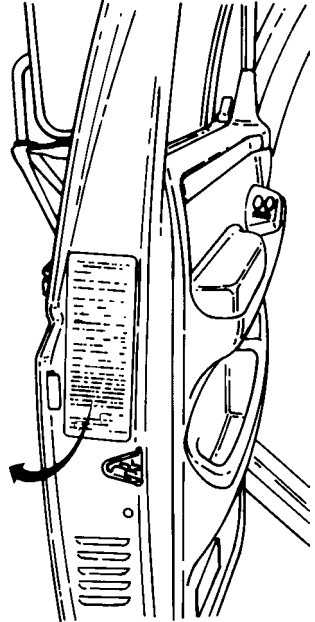
GAWR REAR _____ with
_____ tires,
_____ rims, @ _____ psi cold _____

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: _____

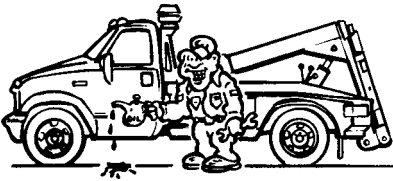


Certification Decal

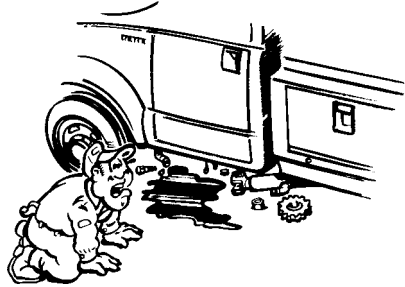


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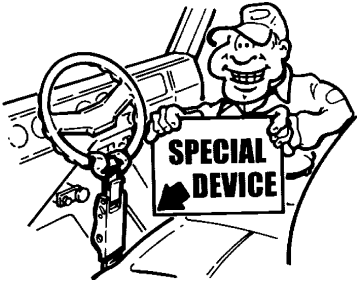
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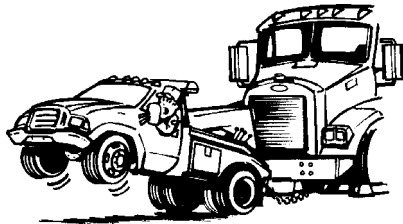
- Don't use a recovery vehicle that has not been properly maintained. Pay special attention to the mounting bolts, and lubrication of moving parts.



- Don't operate the wrecker's engine faster than recommended. Excessive speeds can damage PTO, hydraulic pumps, and winches.



- Don't rely on anti-theft steering locks to secure the steering wheel. Use a special steering wheel clamping device designed for this purpose.



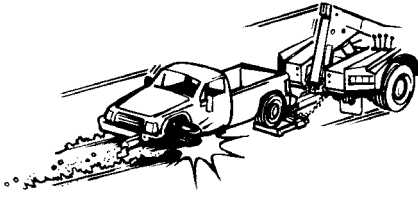
- Don't pick-up and tow a vehicle that reduces the weight on the front wheels of the wrecker more than 50 percent.



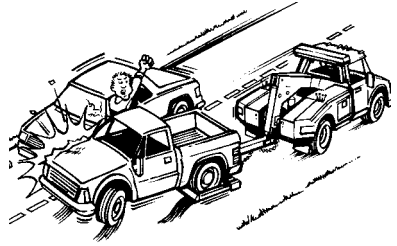
- After you have hooked up a vehicle for towing, don't start the tow until you have double checked the hook-up, installed safety chains, and released the parking brakes of the towed vehicle.



- Don't travel with the PTO or Clutch Pump engaged. Damage to the trucks transmission, engine or hydraulic components will occur. Engage it only while operating the controls.



- Don't tow a vehicle on its front wheels if they are damaged.


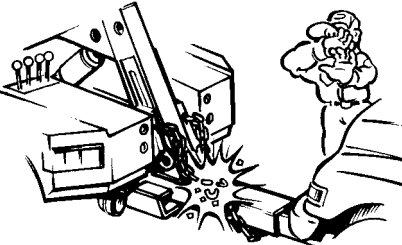

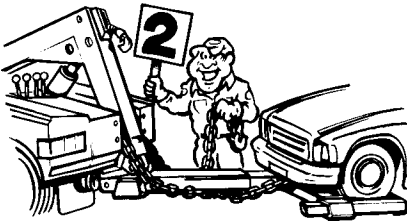


- Don't tow a vehicle on its front wheels unless the steering wheel is secured with the front wheels straight ahead.

SAFETY CHAINS MUST BE USED WHEN TOWING AND TRANSPORTING

Safety chains are provided for use with your new Jerr-Dan Recovery Vehicle. Periodically inspect all chains for any signs of fatigue or damage. Don't overlook the hooks; be sure they have not been bent or deformed. If chain or hook damage is noted, they must be replaced before being used. **Do not use safety chains for recovery operations.**

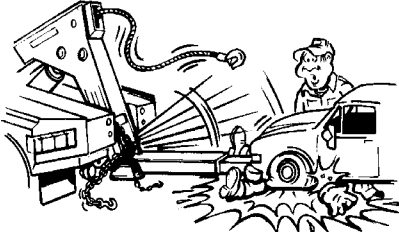
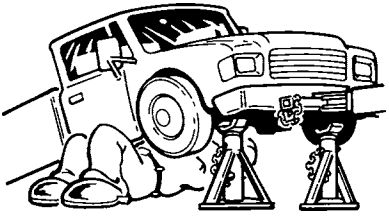
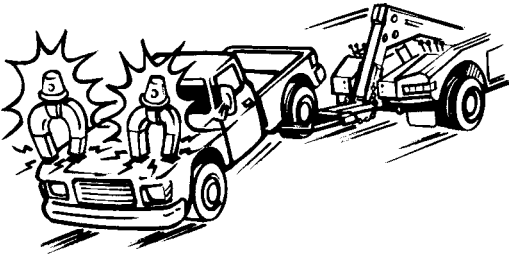
Many states require that the towed vehicle be secured to the wrecker body with safety chains. Check your local regulations and use your safety chains. Safety chains are provided for use with your new JERR-DAN.

 <p>A cartoon illustration showing a towed car being pulled by a wrecker. A chain hook is attached to the car's frame in a way that causes it to be crushed and damaged. The driver of the wrecker looks concerned.</p> <ul style="list-style-type: none">• Never attach the chain hooks in such a way as to damage brake lines or other functional parts.	 <p>A cartoon illustration showing a close-up of a chain hook being checked by a person. The hook is being pulled, and the person is looking at it with a concerned expression. The hook appears to be under tension.</p> <ul style="list-style-type: none">• Check that the chain does not become over tensioned when raising the towed vehicle to the towing position or during the towing operation.
 <p>A cartoon illustration showing a towed car being driven over a bump. The car is being pulled by a wrecker, and the driver is looking at the car. The car is being driven over a bump, and the driver is looking at the car.</p> <ul style="list-style-type: none">• Keep in mind that driving over bumps and hollows and around corners will tend to tighten or loosen the chains.	 <p>A cartoon illustration showing a towed car being secured to a wrecker. A person is holding a sign with the number '2' and is attaching two safety chains to the car. The car is being pulled by the wrecker.</p> <ul style="list-style-type: none">• Always use two safety chains when towing all vehicles, regardless of distance.

LIFT SAFETY


Careful consideration of the immediate surrounding conditions such as the weather, terrain, type or condition of the vehicle to be recovered and the condition and experience of the operator is foremost to the safety and success of the operation. In addition, the intent of the design of this unit should be taken before the undertaking of its use.

Your QP40 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.

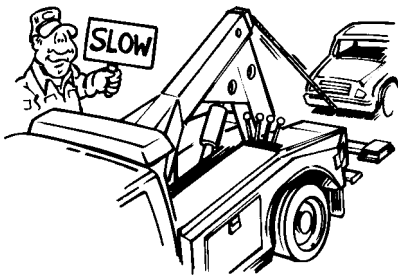
 <ul style="list-style-type: none">• You should never make a lift or movement while close to or under the vehicle being lifted!	 <ul style="list-style-type: none">• Always use jack stands to support the vehicle if it is necessary to work under it.
 <ul style="list-style-type: none">• Towing lights are required in many areas and are always recommended for safe tows.	

BOOM SAFETY

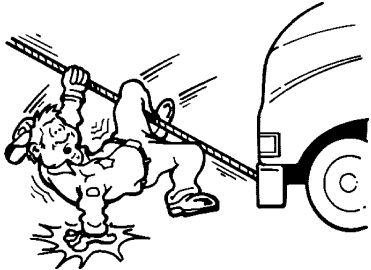
If your QP40 is equipped with an optional recovery winch the following safety procedures must be observed:




- Jog the winch control lever to be sure of complete engagement of the clutch gears before making a lift or pull.



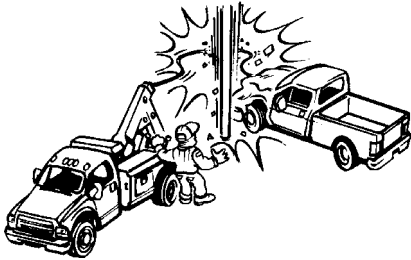
- Take up the wire rope slowly and be sure the hook is securely set.



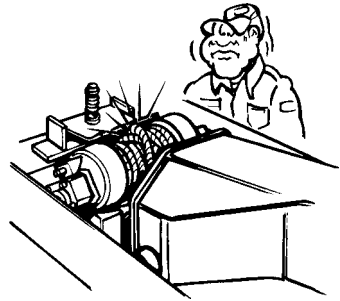
- Never stand on or straddle a working wire rope.



- Be sure of your lift or pull and do not exceed the working strength of the wire rope or hook. Rig to keep the estimated amount of pull well within equipment ratings. Use wire rope breaking strength ratings only for selecting replacement wire rope.



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



- Never allow the wire rope to cross wrap (criss-cross) on the winch drum. Crushing of the wire rope can cause wire rope failure.



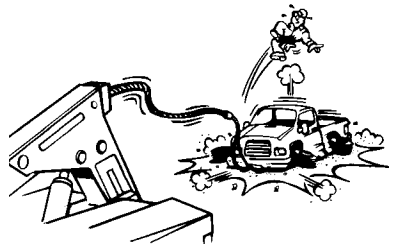
- Never completely unwind wire rope from a winch while loaded. Always be sure that a minimum of five (5) wraps of wire rope are on the drum at all times.



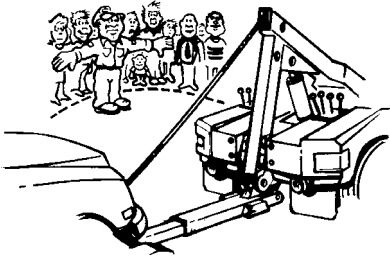
- Never make a lift or pull with the wire rope attached to light gauge or sheet metal parts; use the frame or major structural members.



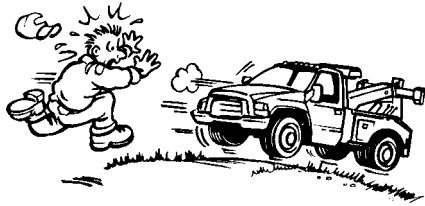
- Never tie down the front end of your wrecker for recovery work of heavy lifts. You will likely damage the truck frame if you do.



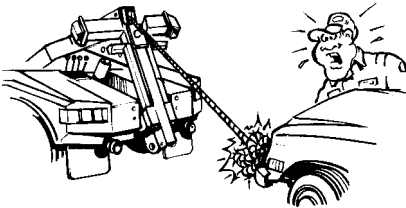
- Don't disengage the winch drum clutch while the wire rope is loaded.



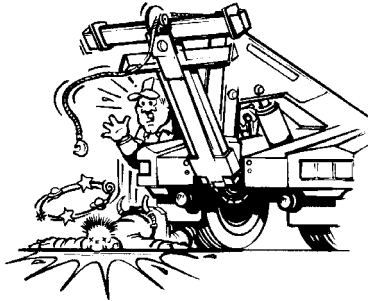
- Don't permit bystanders in the area while performing recovery work.



- Be sure all brakes and locks are properly set on the recovery vehicle.



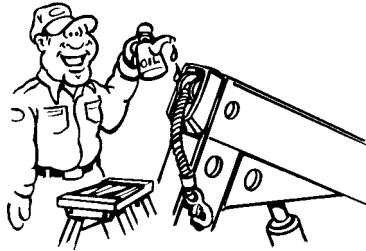
- Never wrap the wire rope around frames or cross members. Use chains and hook the wire rope to the chains.



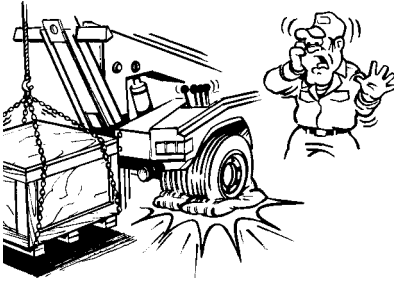
- Never under any circumstances use the winch or boom to lift people!



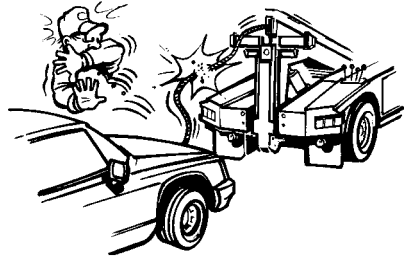
- Don't use damaged wire ropes on your wrecker. Become familiar with the various types of wire rope damage and periodically inspect the entire wire rope for wear and corrosion. **Never use wire rope menders.** Replace with similar rated wire rope and hooks.



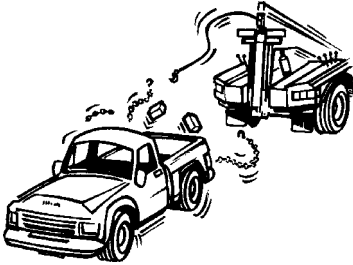
- Lubricate and maintain both the wire rope and winch on regular intervals. (See maintenance charts.)



- 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.



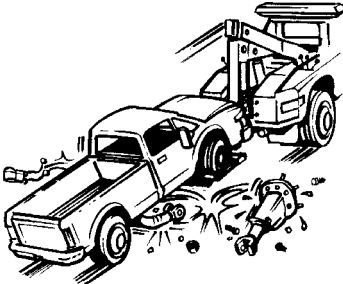
- All boom placement functions should be made with the winch wire ropes set in "free spool" to avoid over tensioning or breaking the winch wire ropes.



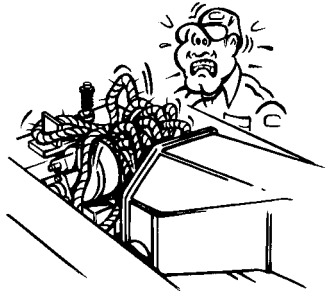
- After rigging wire ropes, don't begin pulling without rechecking connections. Make sure that all wire ropes and snatch blocks are securely attached and cannot accidentally pull loose.



- Don't exceed ratings of booms, wire ropes, snatch blocks, or winches. Stay within nameplate ratings.



- Don't tow a vehicle on its drive wheels unless steps have been taken to protect its transmission and differential. Follow the recommendations of the vehicle manufacturer. As an alternative, use a towing dolly.



- To avoid birdnesting and premature failure of the wire rope, always keep tension on the wire rope when unwinding.

SAFETY WARNING DECALS

As an extra safety precaution, your QP40 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.

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


UNDER LIFT RATINGS (MAXIMUM)
EXTENDED [REDACTED] LBS. RETRACTED [REDACTED] LBS.

WINCH RATING: EACH DRUM [REDACTED] LBS.

WIRE ROPE: WORKING LIMIT [REDACTED] LBS.
TYPE [REDACTED] SIZE [REDACTED] FT.

WARNING
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.

WARNING
ALL RATINGS ARE BASED ON THE STRUCTURAL CAPACITY OF ABOVE MODEL. ACTUAL TOWING AND RECOVERY CAPACITY MAY BE LIMITED BY THE CAPACITY OF THE CHASSIS AND EQUIPMENT SELECTED.

MANUFACTURED BY:
 JERR-DAN CORPORATION
1080 HYKES ROAD
GREENCASTLE, PA 17225
1-800-926-9666

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WARNING

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

122

WARNING

CHECK HYDRAULIC FLUID LEVEL
FILL ONLY WITH APPROVED FLUID
(SEE OPERATOR'S MANUAL)

034

WARNING

MOVING PARTS
KEEP HANDS AND FEET CLEAR
OF THIS AREA

037

WARNING

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

036

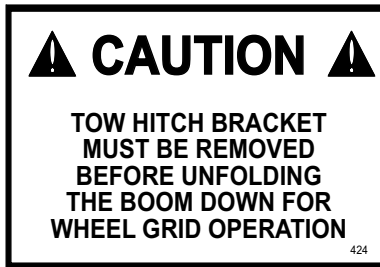
WARNING

A MINIMUM OF 5 WRAPS OF CABLE MUST
BE LEFT ON THE DRUM TO ACHIEVE RATED
LOAD OF 8,000 LBS.
NOT TO BE USED IN THE MOVING OR
LIFTING OF PERSONS.

039



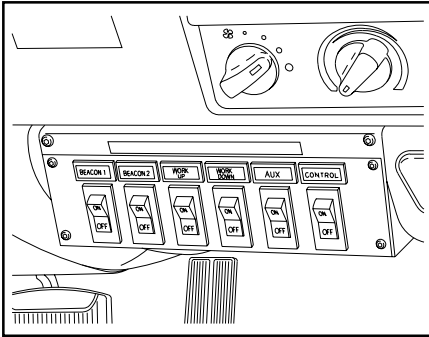
<p>BODY NO: <input type="text"/> UNDER LIFT NO: <input type="text"/></p> <p>SERIAL NO: <input type="text"/> <input type="text"/></p> <p>TOW RATING: <input type="text"/> LBS. (MAXIMUM)</p> <p>UNDER LIFT CAPACITY: <input type="text"/> LBS. *</p> <p><small>* NOTE: LIFT CAPACITY INDICATES THE STRUCTURAL CAPACITY OF THE LIFT MECHANISM, NOT THE MAXIMUM EFFECTIVE TRANSPORT LOAD.</small></p> <p>TRUCK CHASSIS INFORMATION</p> <p>VIN <input type="text"/> C.A. <input type="text"/> IN.</p> <p>REAR AXLE WEIGHT RATING (GAWR): <input type="text"/> LBS.</p> <p><small>THE MAXIMUM EFFECTIVE TRANSPORT LOAD OF THIS UNIT BASED ON TRUCK CHASSIS G.A.W.R. AND G.V.W.R SPECIFICATIONS</small></p>
<p>DO NOT EXCEED THE FOLLOWING WEIGHTS</p> <p><input type="text"/> LBS. AT FULL EXTENSION</p> <p><input type="text"/> LBS. AT 10° EXTENSION</p> <p><small>LOSS OF VEHICLE CONTROL, WHICH COULD RESULT IN SERIOUS BODILY INJURY OR DEATH, CAN OCCUR IF THE EFFECTIVE TRANSPORT LOAD IS EXCEEDED.</small></p>
<p><small>MAXIMUM EFFECTIVE TRANSPORT LOAD IS AFFECTED BY THE CHASSIS ON WHICH THE TOWING EQUIPMENT IS INSTALLED. BEFORE ATTEMPTING TO USE THIS EQUIPMENT ON A CHASSIS OTHER THAN THAT SPECIFIED ABOVE, CONTACT JERR-DAN TO OBTAIN A REVISED RATING.</small></p> <p><small>SAFETY IS NO ACCIDENT. REVIEW OPERATOR'S PRE-TRANSPORT CHECKLIST IN THE OWNER'S MANUAL EACH TIME YOU MOVE A VEHICLE. FOLLOW ALL INSTRUCTIONS ON CONTROLS AND UNIT.</small></p> <p><small>© COPYRIGHT 1999 JERR-DAN CORPORATION</small></p>



WHEEL-LIFT OPERATION

Your QP40 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.

Follow these simple steps:

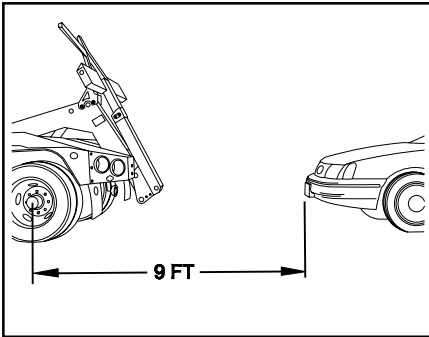


1. Turn on the safety and work lights. (Switches located on the dash panel).

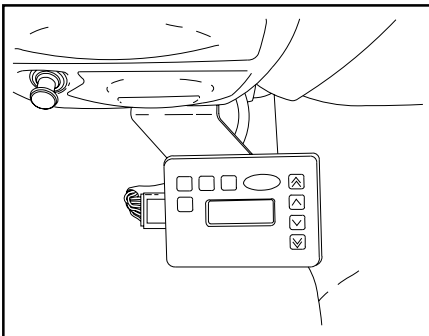
2. Position the truck within 9 ft. of the subject vehicle and as close to the direction of the pull as possible.

3. Set the truck's parking brakes.

4. Engage the Power-Take-Off (PTO) or Clutch Pump and the hand controller using the "Control" switch in the switch panel. **NEVER TRAVEL WITH THE POWER-TAKE-OFF or CLUTCH PUMP CONTROL ENGAGED.** This could result in damage to the PTO or Clutch Pump unit and the truck transmission.



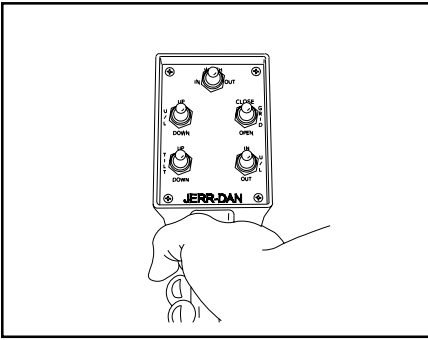
5. Adjust the electronic or manual throttle control to elevate the engine speed to approximately 1200-1400 R.P.M. for optimum performance.



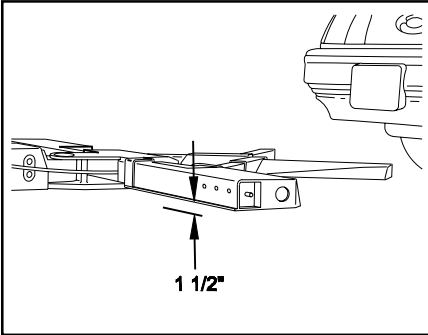
CAUTION:

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

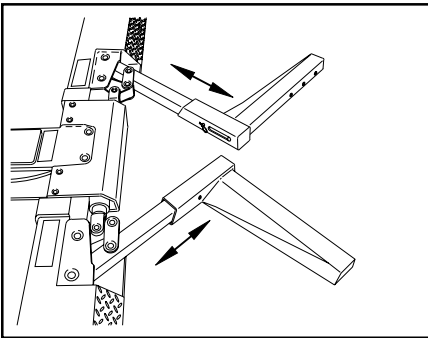




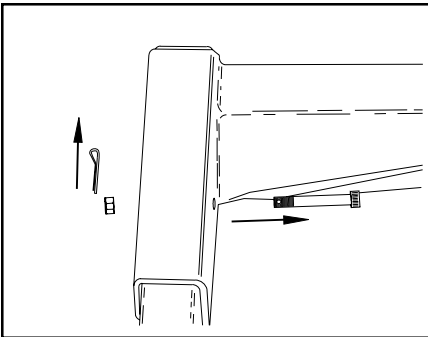
6. Confirm the truck's position in relation to the vehicle to be towed. Nine (9) feet is recommended. Reposition the QP40 if necessary. **Be sure the towed vehicle is not in gear or park. Keep the brake set.**



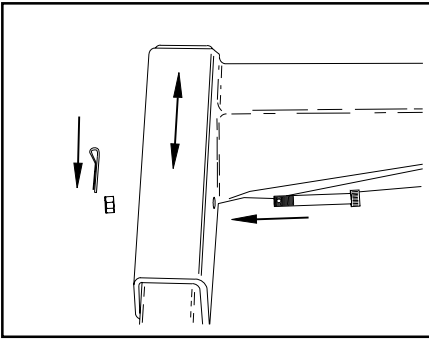
7. Unfold and lower the lift arm to about 1-1/2" from the ground .



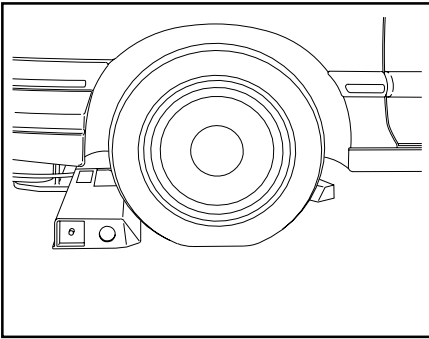
8. Set the grid arm width as required for the vehicle to be towed.



9. Set the grid arm width by removing the cotter pin, jam nut and socket head capscrew from the adjustment hole in the grid arm.



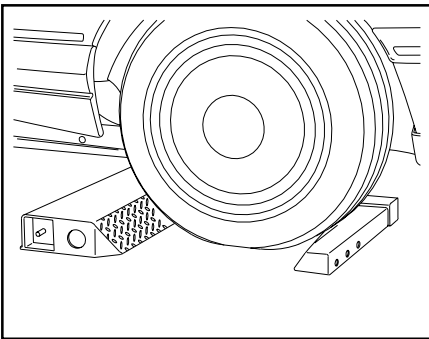
10. Select the desired position of the grid arm and reinstall the socket head capscrew, jam nut and cotter pin.



11. 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.**

12. Visually inspect the tire to grid contact before proceeding.

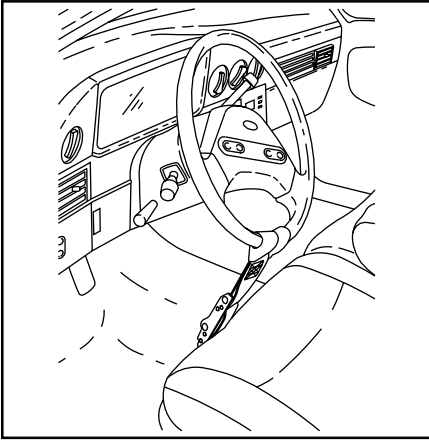
13. Close the grid arms around the tires to secure the towed vehicle. **Make sure that the arm is fully closed and in its over center locked position.**



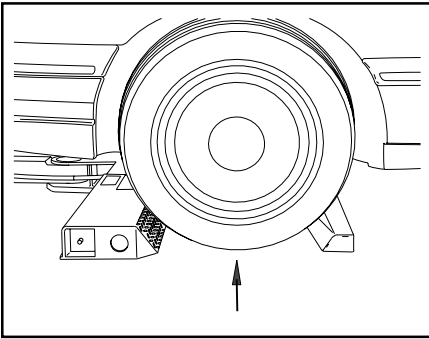
14. After securing the grid arms around the towed vehicles tires and before making the actual lift, check to be sure the towed vehicle's parking brake is released, the transmission is in neutral, and the wheels are straight.

NOTE:

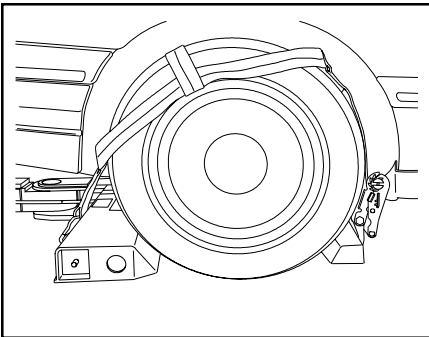
If vehicle to be towed is on a slope, do not release the brake until the tie-down straps are installed. Observe the wheels in the grid for any slippage.



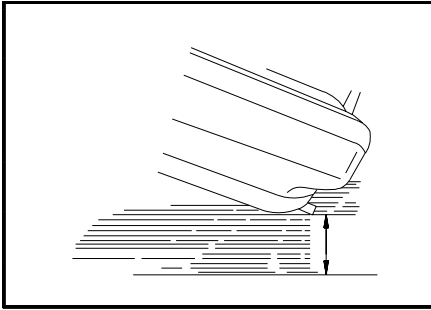
15. It is recommended that the steering wheel be secured by a steering wheel strap for any tow.



16. Lift the vehicle high enough to allow the tires to clear the ground. Make sure that the grid is not in contact with any engine or body components.



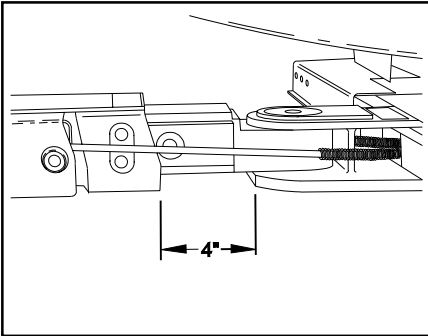
17. Remove the tie down straps from tool boxes and attach the tie down straps. (**See Tie-Down Strap instructions**).
18. With the straps in place, the vehicle in neutral and the parking brake released, you can move the vehicle safely up, down, in or out. All of these movements are hydraulically controlled by the hand controller.



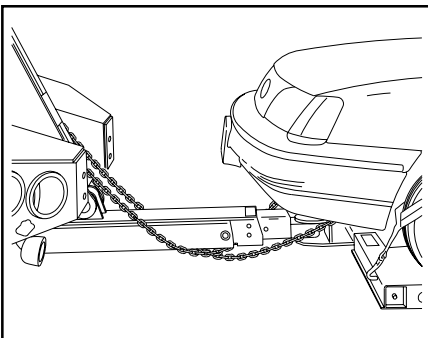
19. Raise the vehicle into the final towing position observing the far end for sufficient ground clearance. It is possible to set the rear of a front lifted vehicle completely onto the ground, causing damage. Take irregular roadsurfaces into consideration. Observe the lift function from the side and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

NOTE:

For the best towing and maneuverability the boom should be as close to horizontal as possible.



20. 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 ensure unobstructed cross-bar pivoting.**



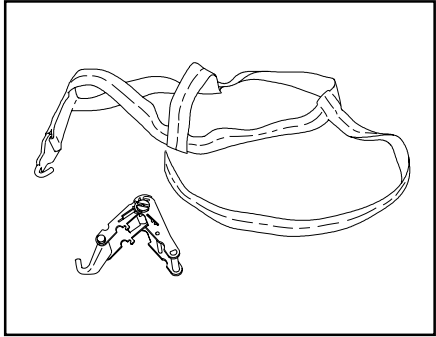
21. Be sure to maintain sufficient clearances with the bottom of the towed vehicle.
22. Attach the safety chains and towing lights. **Safety chains should be crossed from one side of the recovery vehicle to the opposite side of the towed vehicle.**

TIE DOWN STRAPS

The QP40 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.**

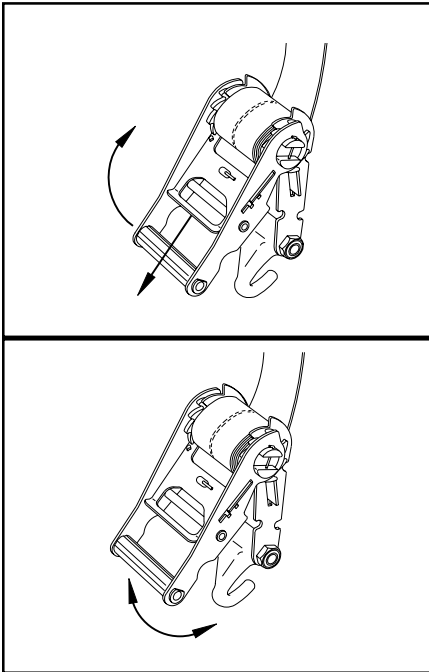
The tie down strap assembly is comprised of 2 basic components:

1. The Strap
2. The Ratchet Spool Mechanism



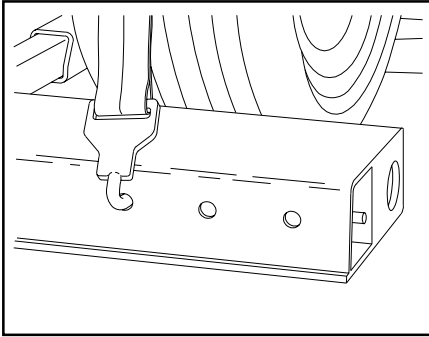
The following steps should be followed to properly install the tie down straps:

USING THE RATCHET SPOOL MECHANISM

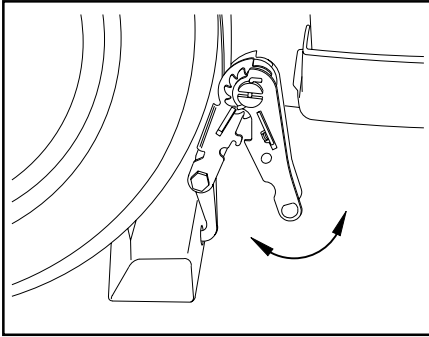


1. First the spool must be set into “free spool”. This is done by pulling the lock bar out and swinging the handle upward until it rests in the free spool notch and then simply pulling out the amount of strap required to fit over the tire.
2. Now pull on the lock bar and move it downward until it engages the ratchet teeth on the take up spool. 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.

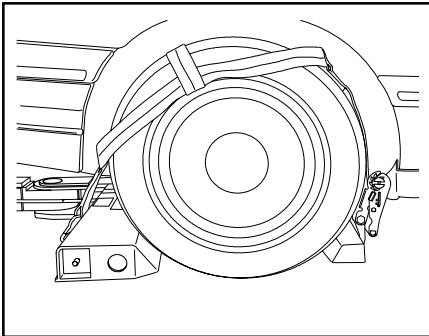
INSTALLING THE TIE DOWN STRAP



1. With the vehicle lifted just barely off the ground, attach the strap to the front side of the wheel grid.



2. Set the ratchet spool in “free spool” position and pull the webbed strap out and over the top of the tire. Attach the ratchet to the back side of the wheel grid.



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.**

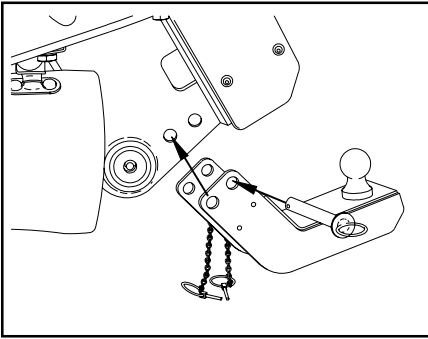
TOWBALL HITCH ATTACHMENT

The QP40 is supplied with a Towball Hitch attachment that will allow you to recover and tow trailers requiring a tow ball hookup.

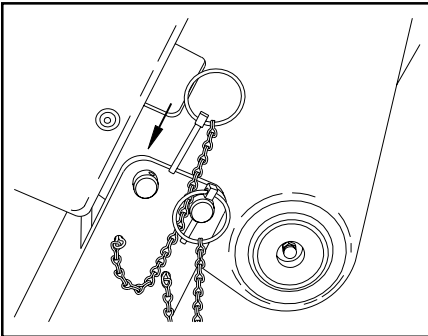
DO NO EXCEED THE FOLLOWING RATINGS:

1-7/8 in. Ball:	5,000 lbs. (GTW)*
2 in. Ball:	5,000 lbs. (GTW)*
2-5/16 in. Ball:	7,500 lbs. (GTW)*
50 MM Ball:	5,000 lbs. (GTW)*

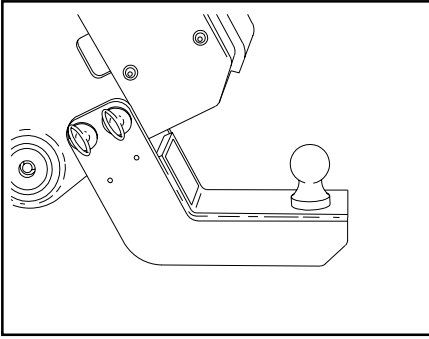
* Gross Tongue Weight



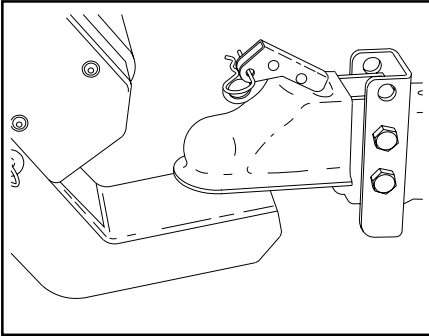
1. Remove the towball hitch attachment from the toolbox.
2. Install the towball hitch to the bottom on the underlift boom using the hitch pins.



3. Secure the hitch pins with the linch pins.



4. Install the desired towball to the towball hitch.

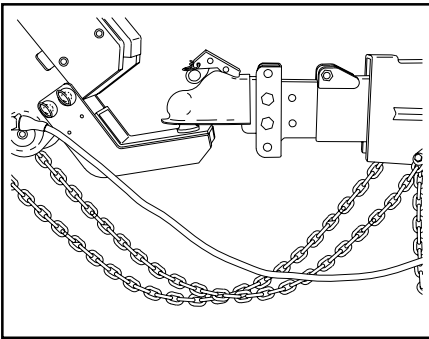


5. Position the ball coupler over the ball and lock into place.



CAUTION:

Make sure that the ball and coupler are of the same matched size.



6. Connect the trailer lights and attach safety chains.

RECOVERY WINCH OPERATION (OPTIONAL)

The QP40 recovery 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.

Wire Rope Specifications:375 x 75 ft.; 6x37 IPS fiber core

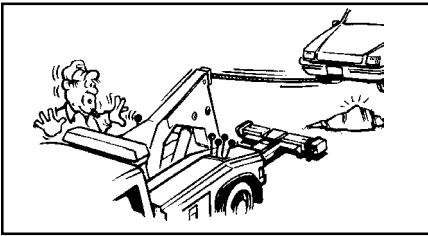
Working Limit (wire rope): 3485 lbs.

*All ratings comply with SAE J2512 Recommended Practice

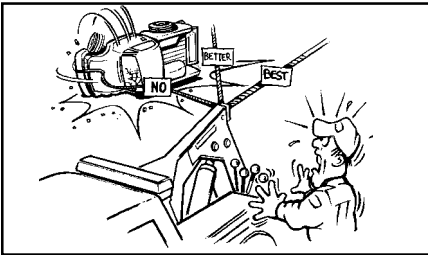


WARNING:

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



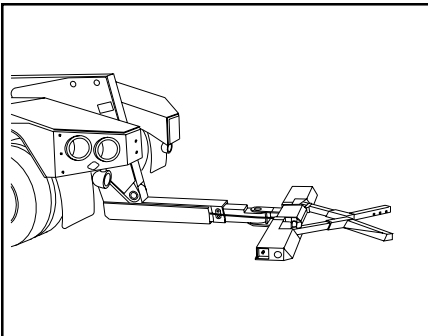
1. Check the direction you wish the work to travel, being sure there are no major obstacles in the way.

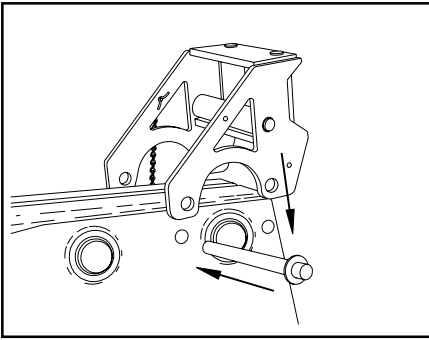


2. Position and align the truck to obtain as direct a pull as possible. Straight line pulls are the best and most efficient.

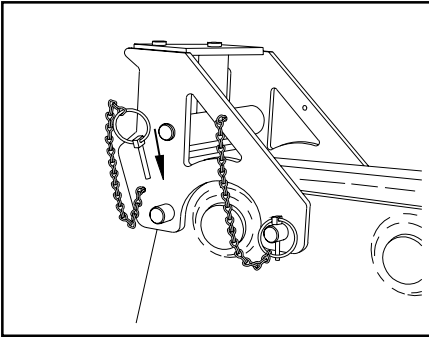
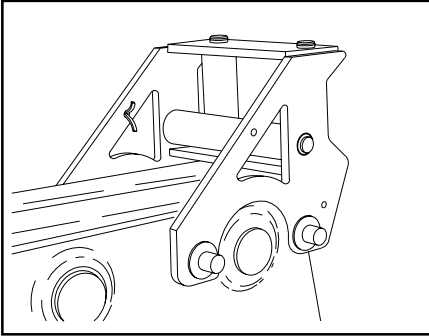
3. Set the brakes on your Jerr-Dan unit.

4. Unfold the under lift boom .

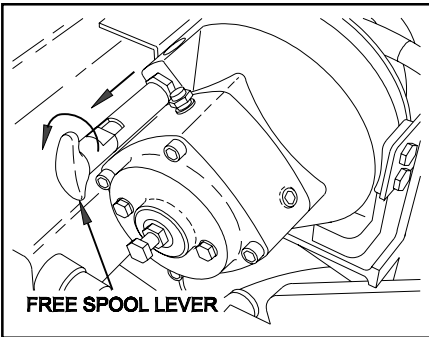




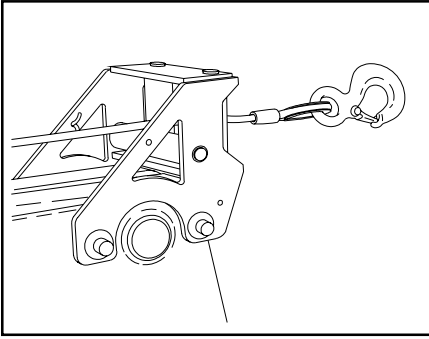
5. Install the roller guide onto the end of the boom and pin in place. The roller guide can be removed to provide better visibility over the boom for towing and installed as needed for winching and recovery.



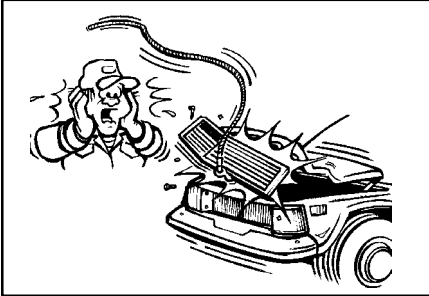
6. Secure the pins with the lynch pins.



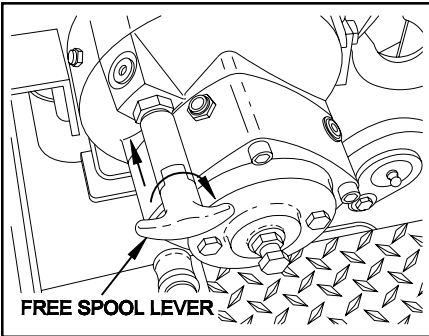
7. Release the free spooling lever on the winch by pulling and turning the handle 90°. **Never pull this handle while the wire rope is under load!** This allows the wire rope to be pulled directly off the drum to the work. Return to the wire rope drum and be sure that at least five (5) wraps of wire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



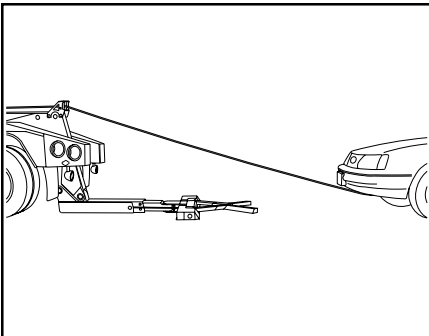
8. Pull the wire rope off of the winch spool and route it through the roller guide.

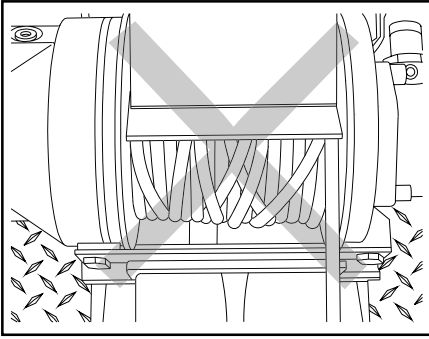


9. Attach the wire rope hook to a chain sling, or bridle and hook securely to the work. Be sure of this hook up; you don't want it breaking loose during the pull. (See the safety sections earlier in this manual). Do not connect to thin or loose body panels or components that could break loose during the winching operation. Slings and bridles are usually designed with hook clusters on them. Most chassis manufacturer's provide tie-down hooks and/or slots in chassis frames that may be able to be used as recovery attachment points. (Consult the Chassis Manufacturer's Towing Manual and/or the American Automobile Association (AAA) Towing Manuals.)

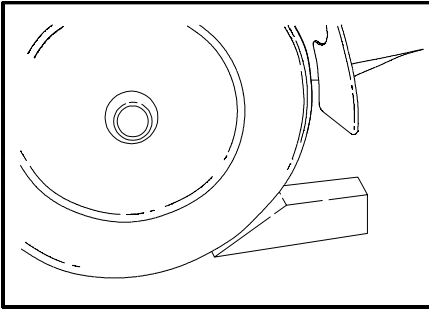


10. Re-engage the winch drive by turning the handle back 90°. It should retract cleanly. Confirm winch engagement by visually verifying that the handle has fully retracted, and by jogging the winch control. Now slowly take up the slack in the wire rope.

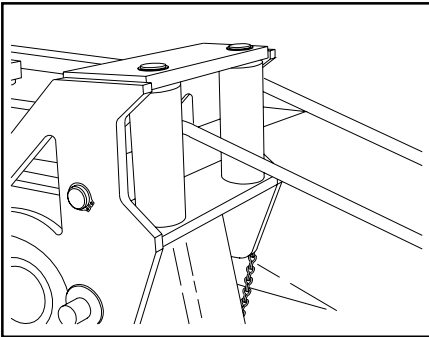




11. With the wire rope tight, slowly wind it in, observing both the work and the drum. Be sure the wire rope strands do not cross wrap or criss-cross on the drum. Observe the path the work must travel for snags or obstructions which could stall the work movement and overload the wire rope.



12. Once the work is in the desired position, apply the towed vehicles parking brake or use blocks or tie the work down if there is any question about stability. Slowly reduce the wire rope tension. After enough wire rope has been unwound, you may remove the hookup.



13. Now slowly retrieve the wire rope, carefully winding the wire rope onto the drum. Many operators take this opportunity to do a visual inspection. When you've finished rewinding the wire rope, be sure you don't over-wind it. Always wear safety glasses and gloves when doing recovery work or handling the wire rope.

Remember, most wire rope failures are caused by cable crushing or the operator underestimating the pull or overestimating the wire rope strength.

MAINTENANCE AND LUBRICATION

Your QP40 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 QP40 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 underlift 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 QP40 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 two (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 under the filler cap of the hydraulic tank. 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. **Check gauges when the hydraulic fluid is 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 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 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 a thorough rinsing. Drying with a soft cloth or chamois will prevent spotting or streaking. A coat of automotive wax is recommended.

The QP40 is mounted to the truck chassis by bolts. These bolts are torqued at the factory to 70 ft. lbs. We recommend periodic inspection and retorquing of these bolts. If your truck is equipped with the optional recovery winch, the winch mounting bolts should be regularly inspected and tightened if necessary. Replace any broken or damaged bolts immediately.



TIGHTENING TORQUES (FOOT-POUNDS) FOR SCREWS AND NUTS

SIZE INCHES (MM)	 GRADE 2	 GRADE 5	 GRADE 8
1/4 (6.350)	6	8	10
5/16 (7.938)	10	14	19
3/8 (9.525)	17	27	33
7/16 (11.112)	28	45	60
1/2 (12.700)	45	68	90
9/16 (14.288)	63	100	120
5/8 (15.875)	90	135	180
3/4 (19.050)	145	230	310
7/8 (22.225)	145	380	500
1 (25.400)	220	570	760

- All torque values shown are for bolts (cap screws) and nuts that are either zinc-plated or lubricated.
- Torques shown above apply to screws and nuts used for assembly and installation of all wrecker components.
- Different torque values may be given in instructions for certain components due to short thread engagement or low-strength internal threads.
- When nuts are used, tighten nuts to torques shown (screws or bolts should be held but not turned).
- Retighten nuts of all mounting screws that secure the wrecker and wrecker-body within two weeks after they are first installed on the vehicle. Thereafter, inspect such screws and nuts visually once every month and after each job imposing extremely heavy loads on the equipment. Periodically recheck all accessible screws and nuts for proper tightness.
- Converting ft/lbs to Nm (Newton metres) can be accomplished by using the following:

Multiply: by: to get:
 ft/lbs x 1.3558 = Nm (Newton metres)



Rev. _____

Date _____

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 HiVi |
| 4. Texaco | Rando HD AZ |
| 5. Mobil Oil Corp. | DTE 15 |
| 6. Amoco Oil Co. | Rykon MV |
| 7. Citgo | A/W All Temp |

GREASES

- | | |
|------------|----------------|
| 1. Drydene | HD Lithium EP2 |
| 2. Gulf | Crown EP2 |
| 3. Amoco | Amolith EP2 |
| 4. Shell | Alvania EP2 |
| 5. Texaco | Marfax EP2 |
| 6. Mobil | Mobilux EP2 |
| 7. Sunoco | Prestige EP2 |

WINCH AND GEAR LUBE

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



WIRE ROPE HANDLING AND INSPECTION

WARNING

Wire Rope **WILL FAIL** if worn-out, overloaded, misused, damaged, improperly maintained or abused.

Wire rope failure may cause serious injury or death!

Protect yourself and others:

- **ALWAYS INSPECT** wire rope for **WEAR, DAMAGE** or **ABUSE BEFORE USE**.
- **NEVER USE** wire rope that is **WORN-OUT, DAMAGED** or **ABUSED**.
- **NEVER OVERLOAD** a wire rope.
- **INFORM YOURSELF:** Read and understand manufacturer's literature or "Wire Rope and Sling Safety Bulletin".
- **REFER TO APPLICABLE CODES, STANDARDS** and **REGULATIONS** for **INSPECTION REQUIREMENTS** and **REMOVAL CRITERIA**.

A new wire rope requires a break in period. Run the wire rope through several cycles at low speeds gradually increasing the load on the wire rope. Make sure that the wraps of the wire rope are tight and evenly wound on the winch drum. A loose wire rope on the winch drum will cause crushing of the wire rope when heavy loads are applied.

All wire rope in continuous service should be observed during normal operation and visually inspected on a weekly basis. A complete and thorough inspection of all ropes in use must be made at least once a month and all rope which has been idle for a period of a month or more should be given a thorough inspection before it is put back into service. All inspections should be the responsibility of and performed by an appointed competent person with the training and experience to look for deterioration of the wire rope.



It is good practice , where the equipment is consistently in use, to give the rope a certain length of service, several hundred hours, several weeks or months and then renew the rope regardless of it's condition. This method eliminates the risk of fatigue causing rope failure.

Any deterioration, resulting in a suspected loss of original rope strength, should be carefully examined and determination made as to whether further use of the wire rope would constitute a safety hazard.

There are certain points along any given rope which should be given more attention than others, since some areas will be subjected to greater stresses, forces, and hazards. Some of these areas include at the winch drum, at the boom sheaves and at the end attachments.

All products are subject to age, wear and deterioration, all of which cause a reduction in the products breaking strength capacity.

Probably the most common sign of rope deterioration and approaching failure is broken wires. Inspection criteria are specific as to the number of broken wires allowable under various circumstances. It is important that a diligent search be made for broken wires, particularly in critical areas. Inspection of wire rope ends should include hooks and thimbles.

Any wire ropes that have been abraded, crushed, kinked or twisted should be replaced.


Wire rope should be routinely cleaned of any and all debris. Grit and gravel can quickly reduce a wire ropes life. A wire rope should be well lubricated so that it can act and perform as it was designed. Lubrication keeps a wire rope flexible and free from rust.

Consult the manufacturer or your local distributor for the proper replacement wire rope.



LUBRICATION POINTS

The following lubrication chart is located inside the tool box lid on the driver's side of the QP40 body.

410					
 LUBRICATION CHART JERR-DAN[®] WHEEL LIFT SYSTEM					
INTERVAL (HOURS)	REF #	IDENTIFICATION	SERVICE	LUBRICANT	# OF POINTS
WEEKLY	B	GRID PIVOT PIN	LUBE	MPG	1
50 OR MONTHLY	A	LINKAGE PINS	LUBE	MPG	6
	C	BOOM (FLY)	COAT	MPG	1
	I	WIRE ROPE	OIL	ENGINE OIL	1
100 OR BI - MONTHLY	D	EXT. CYLINDER	LUBE	MPG	1
	E	TILT CYLINDER	LUBE	MPG	2
	F	LIFT CYLINDER	LUBE	MPG	2
	G	U/L PIVOT PIN	LUBE	MPG	2
	H	ROLLER PINS	LUBE	MPG	4
	J	BOOM PIVOT PIN	LUBE	MPG	2
	K	HYD. RESERVOIR	CHECK	●	1
1000 OR YEARLY	K	HYD. RESERVOIR	DRAIN - FILL	●	1
	L	MAGNETIC PLUG	CLEAN	---	1

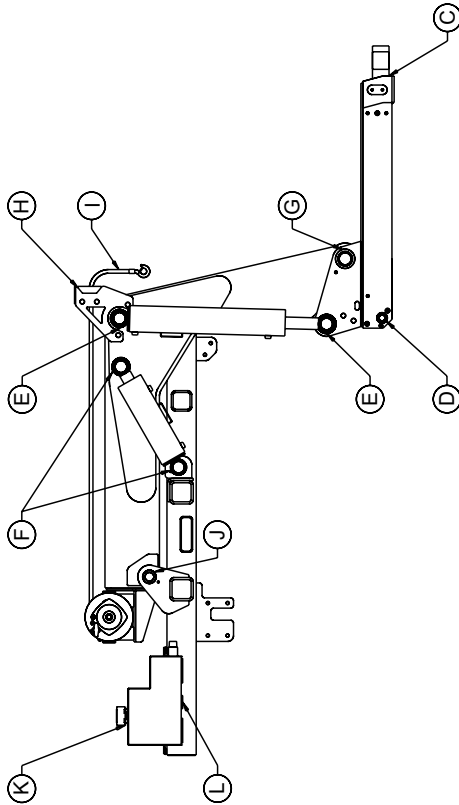
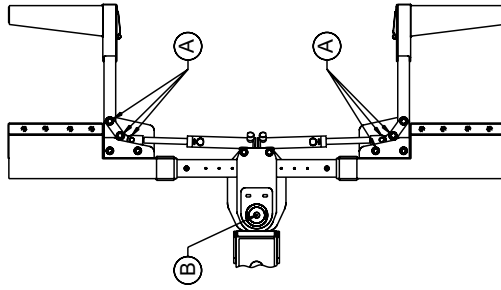


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LUBRICATION CHART
JERR-DAN[®]
 WHEEL LIFT SYSTEM

409



MPG INDICATES MULTI-PURPOSE GREASE

- INDICATES DUAL RANGE HYDRAULIC FLUID 5W 20
 (AUTOMATIC TRANSMISSION FLUID MAY BE
 SUBSTITUTED IF NECESSARY)

TROUBLE SHOOTING

You probably won't require anything but preventive maintenance to keep your QP40 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 f. Clutch Pump belt slipping	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 f. Tighten or Replace belt
Valve Solenoid(s) sticking or frozen	a. Broken centering spring or clogged with foreign material b. Low Amperages/ Voltage at Solenoid	a. Inspect, clean or replace b. Check Amperage/Voltage
Valve leaks	a. Defective seals	a. Replace
Cylinder leaks	a. Defective seals or rods b. Dirty or Defective CounterBalance Valve	a. Inspect and replace b. Clean or Replace CounterBalance Valve
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
Remote hand controller fails to respond	a. Electric power turned off b. Not plugged in c. Faulty Remote Hand Controller	a. Turn on CONTROL power switch in cab b. Check plug connection c. Use Manual By-Pass at Valve

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



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P.T.O. FUNCTIONING IMPROPERLY

Problem	Cause	Solution
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 oil 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 plate

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/Clutch Pump slow or fails to respond	a. Low oil supply. b. Worn or Loose Belt(s)	a. Fill to proper level b. Tighten or Replace Belt(s)
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) Replace filter c. Refill to proper level
Hydraulic oil leak between P.T.O. and pump	a. Defective shaft seal	a. Replace shaft seal



HYDRAULIC PUMP

Problem	Cause	Solution
Clutch Pump leaks at Pulley Shaft	a. Defective Shaft Seals b. Hydraulic Supply/Return lines connected incorrectly	a. Replace seals or Pump b. Check hydraulic line connections
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 d. Insufficient pump pressure e. Overload	a. Engage b. Inspect or replace c. Inspect and replace d. Check hydraulic pump and hydraulic fluid level e. Install snatch block in the rigging line



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PARTS

To order repair parts, call your nearest Jerr-Dan Distributor or call 800-926-9666 for further information.

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



SUBFRAME INSTALLATION - FORD

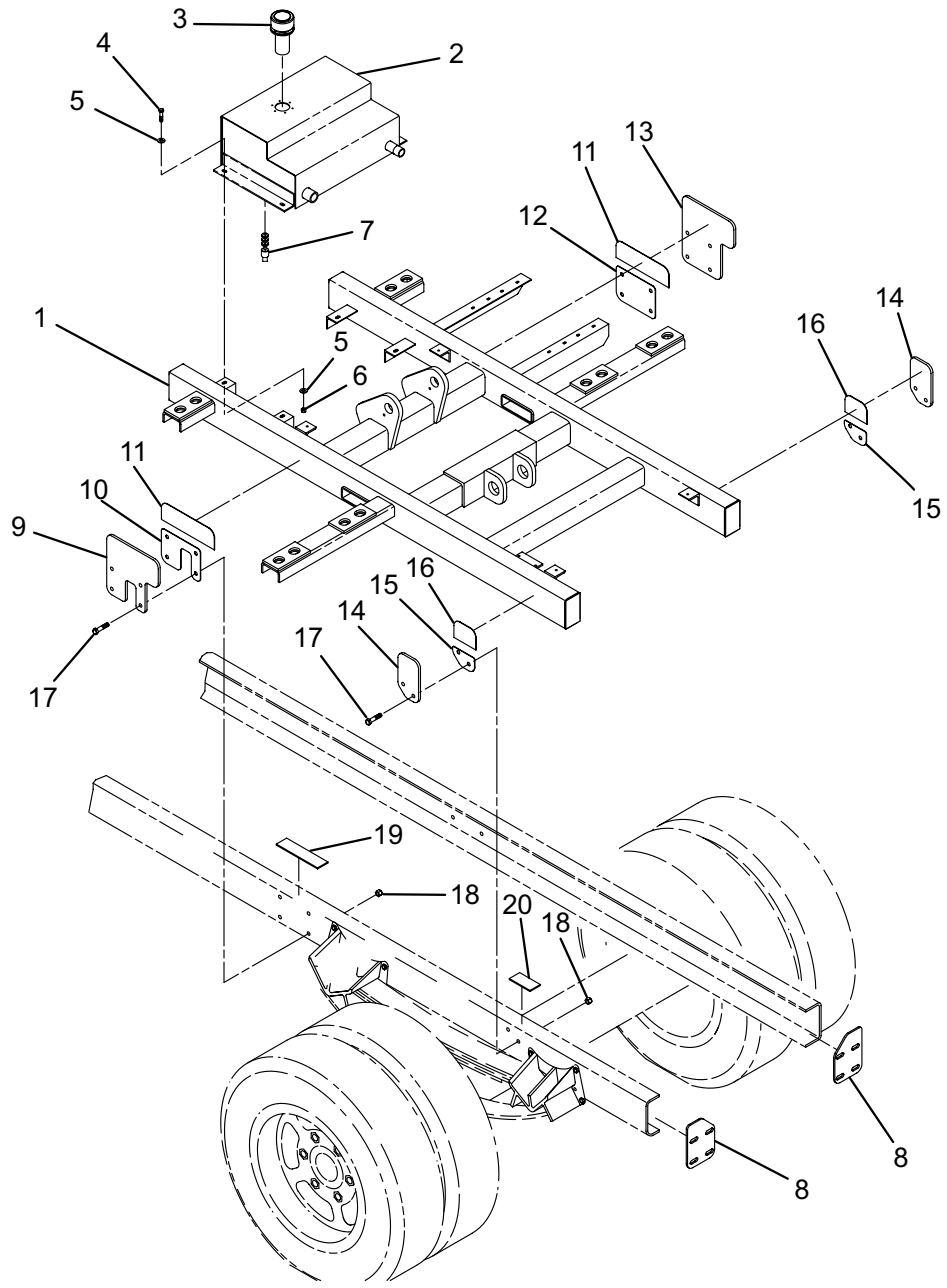
Ref No.	Part No.	Description	Qty.
1	3868000219	Subframe	1
2	3750000031	Hydraulic Tank	1
3	3470000001	Breather Assembly	1
4	7115160850	Capscrew	4
5	7950160161	Flatwasher	8
6	7660161600	Locknut	4
7	7701000026	Plug	1
8	4706003255	Plate	2
9	4706003511	Plate	1
10*	4706003520	Shim 14 Ga	As Req'd
	4706003521	Shim 11 Ga	
11*	4706003516	Shim 14 Ga	As Req'd
	4706003517	Shim 11 Ga	
12*	4706003522	Shim 14 Ga	As Req'd
	4706003523	Shim 11 Ga	
13	4706003510	Plate	1
14	4706003509	Plate	2
15*	4706003524	Shim 14 Ga	As Req'd
	4706003525	Shim 11 Ga	
16*	4706003518	Shim 14 Ga	As Req'd
	4706003519	Shim 11 Ga	
17	7115181250	Capscrew	12
18	7660182301	Locknut	12
19	4706003526	Plate	2
20	4706003527	Plate	2

*Available in Shim Kit 3577000073

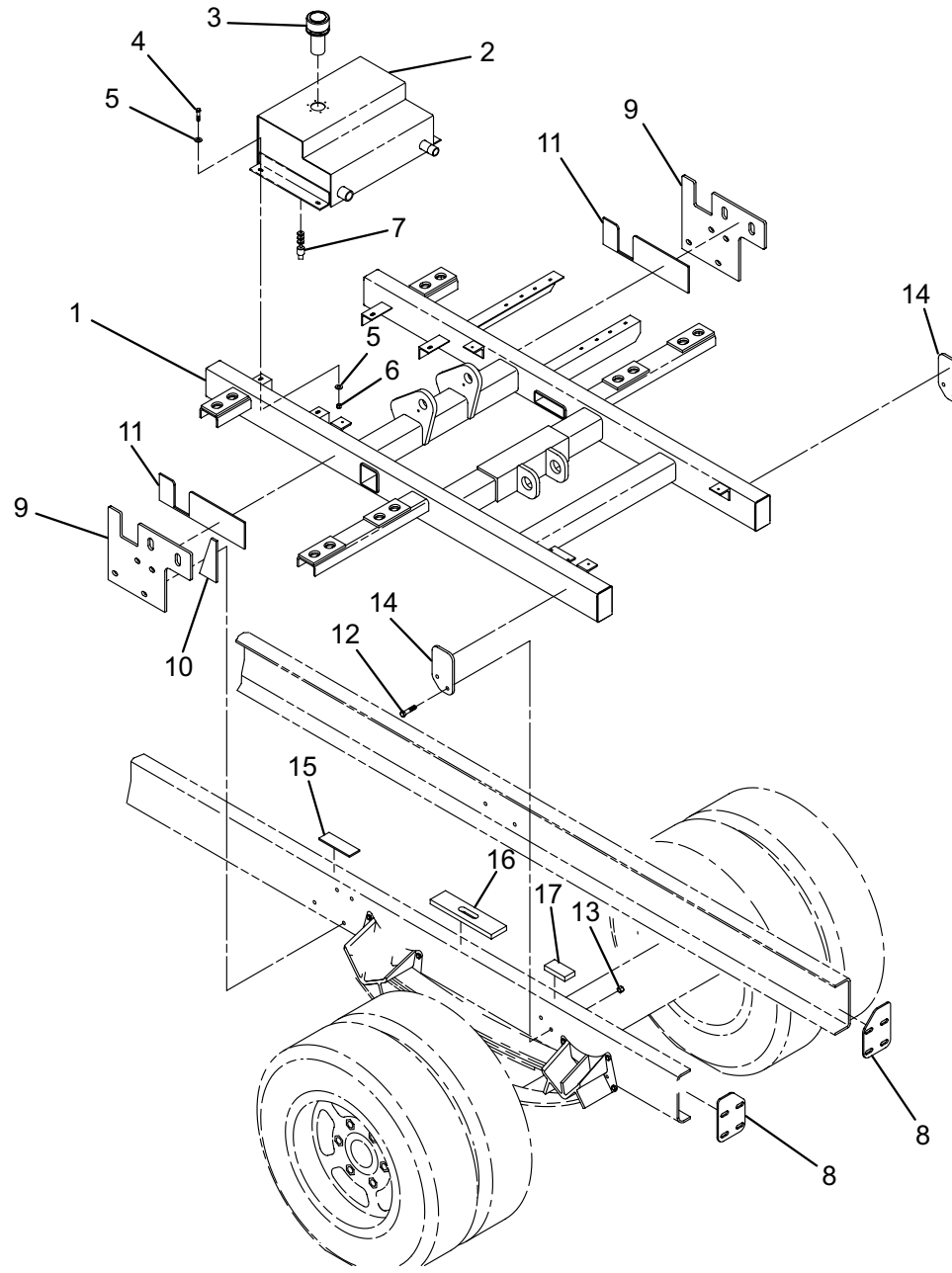
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SUBFRAME INSTALLATION - FORD



SUBFRAME INSTALLATION - CHEVY



SUBFRAME INSTALLATION - CHEVY

Ref No.	Part No.	Description	Qty.
1	3868000224	Subframe	1
2	3750000031	Hydraulic Tank	1
3	3470000001	Breather Assembly	1
4	7115160850	Capscrew	4
5	7950160161	Flatwasher	8
6	7660161600	Locknut	4
7	7701000026	Plug	1
8	4706003255	Plate	2
9	4706003642	Plate	2
10	4706003642	Plate	2
11	4706003644	Plate	2
12	7115181250	Capscrew	4
13	7660182301	Locknut	4
14	4706003643	Plate	2
15	4062000462	Bar	2
16	4706003646	Plate	2
17	4062000461	Bar	2



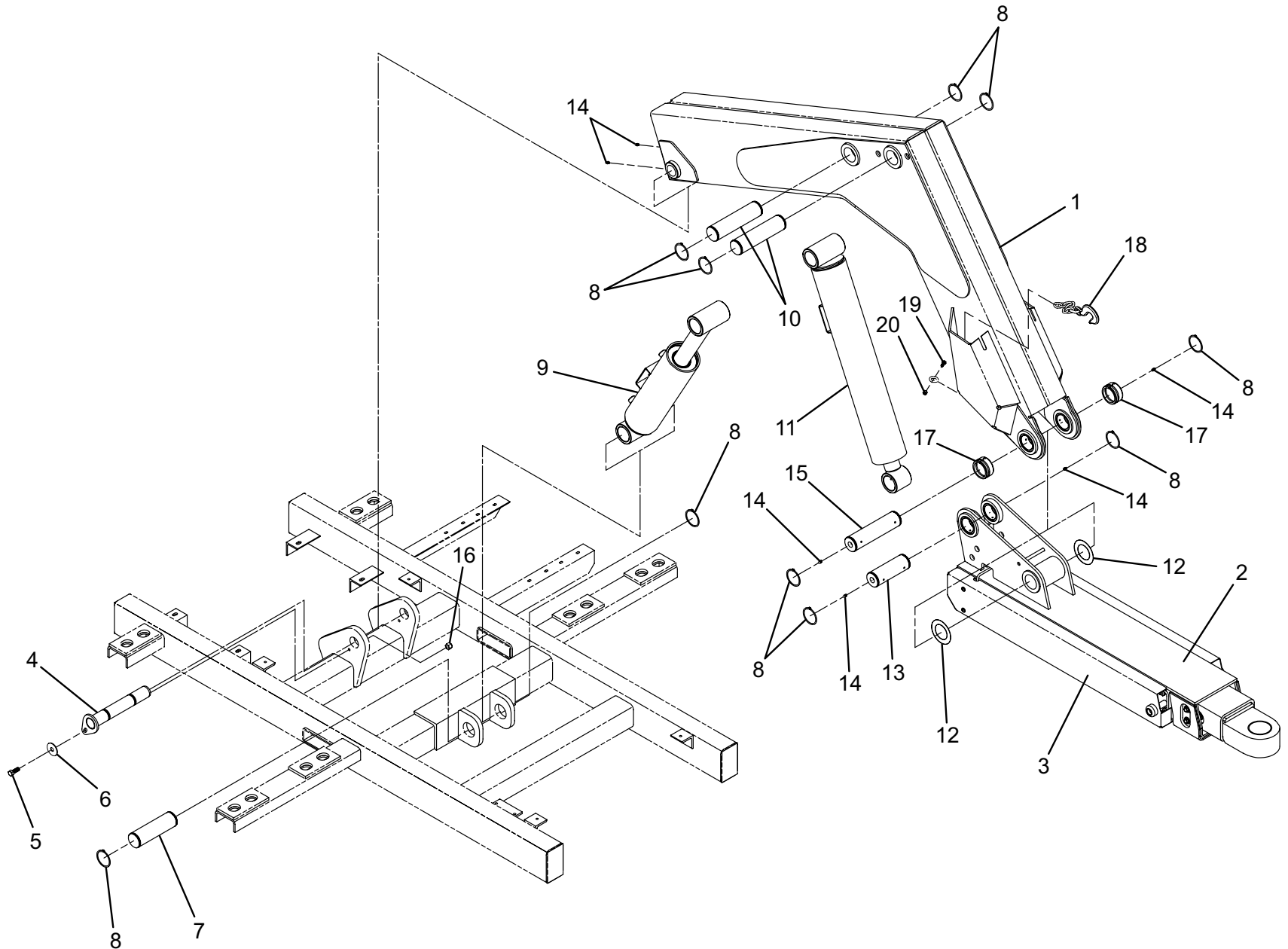
BOOM ASSEMBLY

Ref No.	Part No.	Description	Qty.
1	3509870021	Boom Weldment	1
2	3170000244	Underlift Boom Assembly	1
3	3509870012	Hose Tracking Assembly	1
4	3691000193	Pin	1
5	7115161250	Capscrew	1
6	7950160161	Flatwasher	1
7	4691000309	Pin	1
8	7754000048	Retaining Ring	10
9	3320000065	Lift Cylinder	1
10	4691000303	Pin	2
11	3320000105	Tilt/Fold Cylinder	1
12	4949000050	Washer	2
13	4691000389	Pin	1
14	7440030000	Grease Fitting	6
15	4691000390	Pin	1
16	7660161603	Locknut	1
17	7209000036	Bushing	2
18	7262000020	Chain	2
19	7115181050	Capscrew	2
20	7660182601	Locknut	2

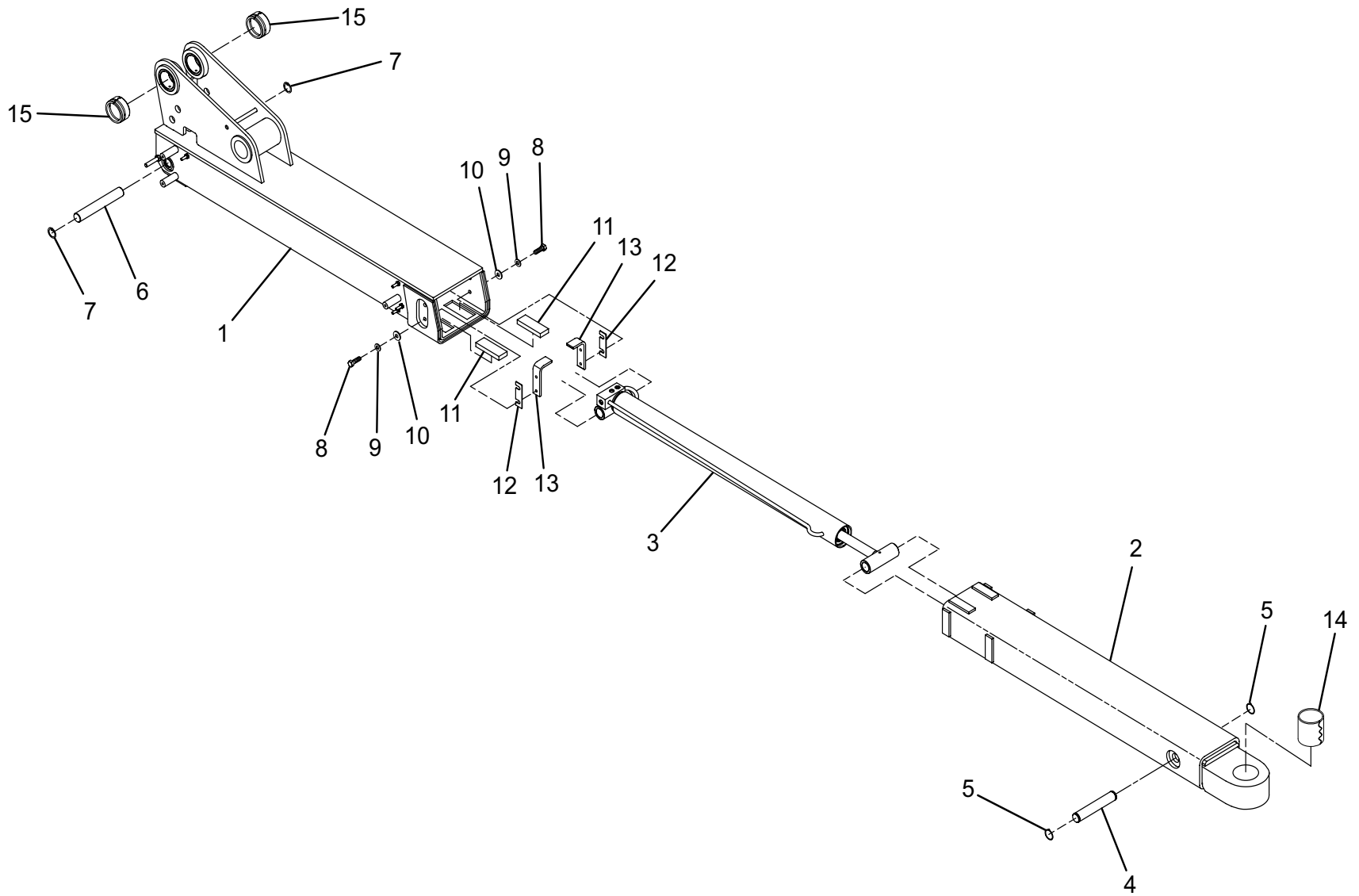
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BOOM ASSEMBLY



UNDERLIFT BOOM ASSEMBLY



UNDERLIFT BOOM ASSEMBLY

Ref No.	Part No.	Description	Qty.
1	3170000245	Base Boom Weldment	1
2	3170000242	Fly Boom Weldment	1
3	3320000067	Underlift Extension Cylinder	1
4	4691000307	Pin	1
5	7754000019	Retaining Ring	2
6	4691000308	Pin	1
7	7754000056	Retaining Ring	2
8	7105150550	Capscrew	4
9	7950150000	Lockwasher	4
10	7950150161	Flatwasher	4
11	4679000213	Pad	2
12	4812000067	Shim 14 Ga	As Req'd
	4812000068	Shim 16 Ga	
13	4062000455	Bar	2
14	7209000030	Bushing	1
15	7209000036	Bushing	2



UNDERLIFT BOOM HOSE TRACKING ASSEMBLY

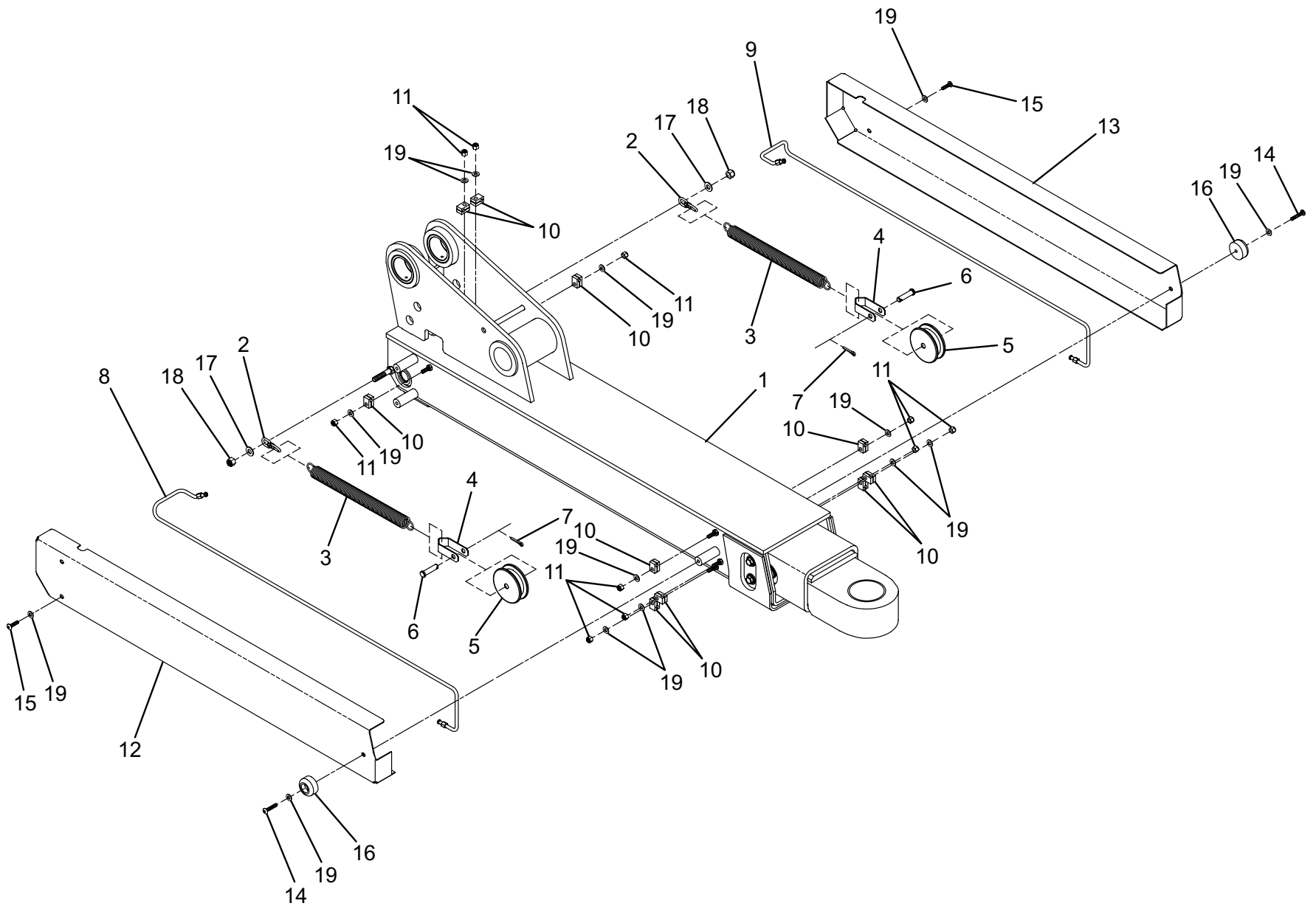
Ref No.	Part No.	Description	Qty.
1	3170000244	Underlift Base Assembly	1
2*	7592000004	Link Swivel	2
3*	7843000031	Extension Spring	2
4*	4706003501	Plate	2
5*	7719000004	Roller	2
6*	4691000040	Clevis Pin	2
7*	4691000042	Cotter Pin	2
8*	7912000147	L.H. Tube Assembly	1
9*	7912000148	R.H. Tube Assembly	1
10*	7274000073	Hose Clamp	10
11*	7660142604	Locknut	10
12*	4706003491	L.H. Cover Plate	1
13*	4706003492	R.H. Cover Plate	1
14*	7114140618	Capscrew	2
15*	7114140427	Capscrew	4
16*	7189000019	Rubber Bumper	2
17*	7950160153	Flatwasher	2
18*	7660162604	Locknut	2
19*	7950140143	Flatwasher	14

*Available as Assembly 3509870012

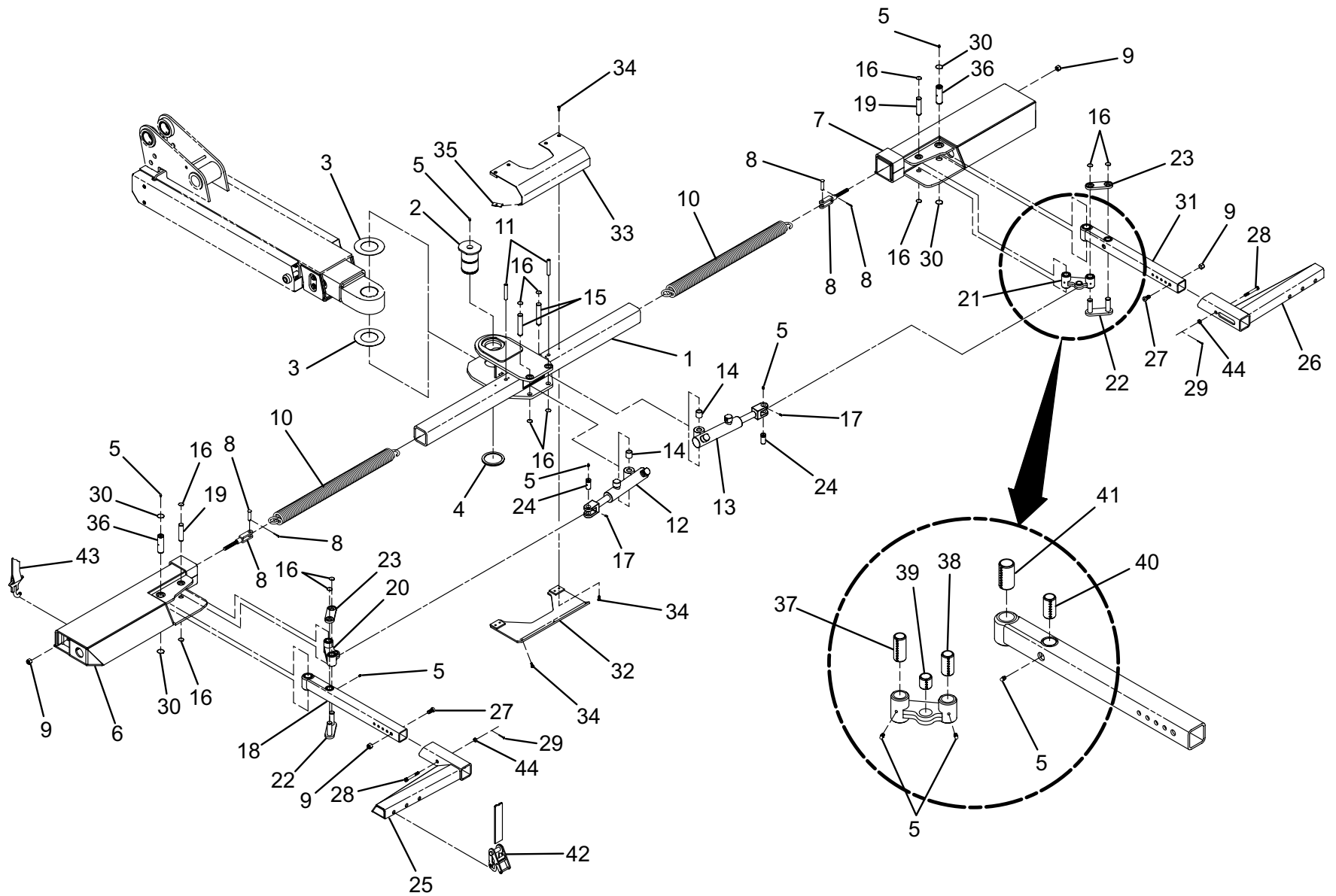
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UNDERLIFT BOOM HOSE TRACKING ASSEMBLY



WHEEL GRID ASSEMBLY



WHEEL GRID ASSEMBLY

Ref No.	Part No.	Description	Qty.
1	3913000079	Cross Tube Weldment	1
2	4691000198	Pin	1
3	4949000047	Washer	2
4	7754000024	Retaining Ring	1
5	7440030000	Grease Fitting	11
6	3484000054	L.H. Grid Weldment	1
7	3484000055	R.H. Grid Weldment	1
8	3990000004	Yoke Weldment With Pin and Cotter	2
9	7660182301	Locknut	4
10	7843000033	Extension Spring	2
11	4691000385	Pin	2
12	7320000044	L.H. Grid Cylinder	1
13	7320000045	R.H. Grid Cylinder	1
14	4831000092	Spacer	2
15	4691000377	Pin	2
16	7754000022	Retaining Ring	14
17	7785100800	Setscrew	2
18	3020000092	L.H. Pivot Arm	1
19	4691000380	Pin	2
20	3592000031	L.H. Link Weldment	1
21	3592000032	R.H. Link Weldment	1
22	3592000033	Link Weldment	2
23	4706003497	Plate	2
24	4691000378	Pin	2
25	3020000089	L.H. Arm Weldment	1
26	3020000090	R.H. Arm Weldment	1
27	7120000038	Capscrew	2
28	4120000017	Socket Head Capscrew	2
29	7690051610	Cotter Pin	2
30	7754000019	Retaining Ring	4
31	3020000093	R.H. Pivot Arm	1
32	3706000207	Cylinder Skid Plate	1
33	3706000206	Cylinder Cover Plate	1
34	7114140623	Capscrew	11
35	7661000019	U-Nut	3
36	4691000386	Pin	2
37	7209000046	Bushing	2
38	7209000044	Bushing	2
39	7209000048	Bushing	2
40	7209000042	Bushing	2
41	7209000045	Bushing	2
42	7894000028	Ratchet	2
43	7894000044	Tie Down Strap	2
44	7660160200	Jam Nut	2

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**LIFT CYLINDER
3320000065**

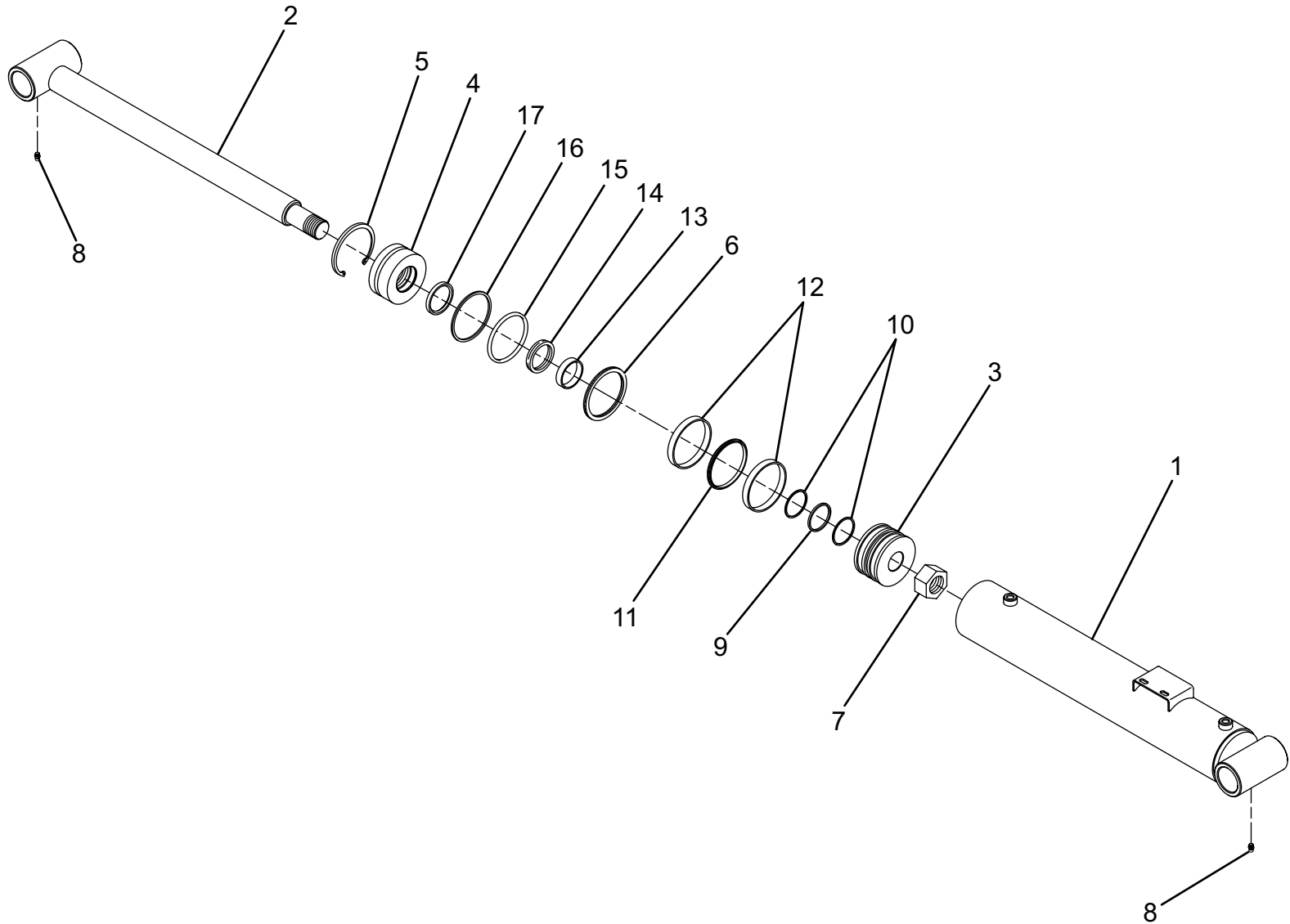
Ref No.	Part No.	Description	Qty.
1	3071000061	Barrel	1
2	3763000082	Rod	1
3	4698000008	Piston	1
4	4553000009	Head	1
5	7754000013	Retaining Ring	1
6	7754000028	Retaining Ring	1
7	7661000035	Locknut	1
8	7440030000	Grease Fitting	2
9*	7755226000	O-Ring	1
10*	7755226609	Back-up Ring	2
11*	7796000065	Piston Seal	1
12*	7754000011	Wear Ring	2
13*	7754000012	Wear Ring	1
14*	7796000025	Seal	1
15*	7755342000	O-Ring	1
16*	7755342609	Back-up Ring	1
17*	7796000011	Wiper Seal	1

* Available only in Service Kit 7577250026

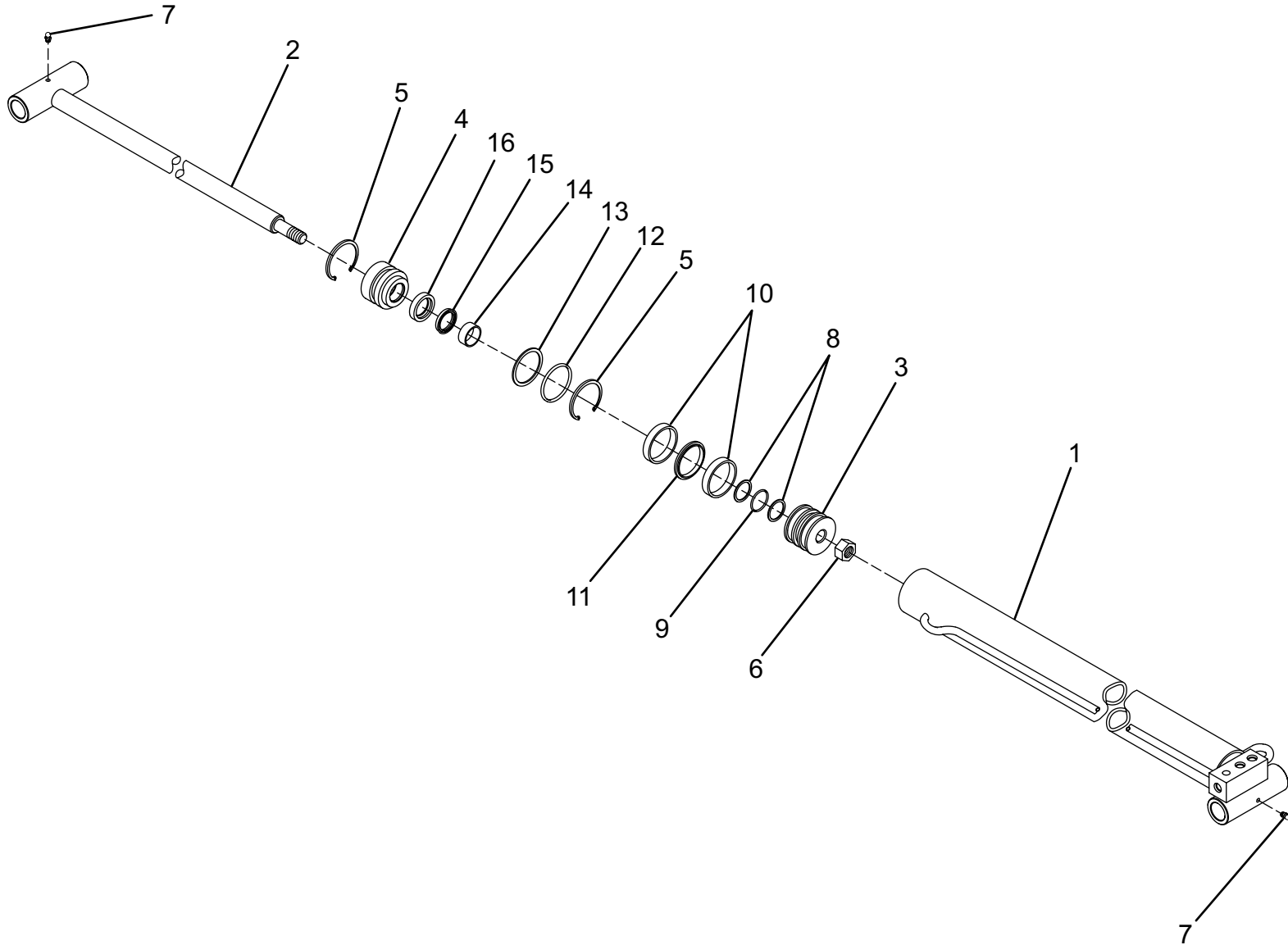
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LIFT CYLINDER
3320000065



UNDERLIFT EXTENSION CYLINDER
3320000067



**UNDERLIFT EXTENSION CYLINDER
3320000067**

Ref No.	Part No.	Description	Qty.
1	3071000063	Barrel	1
2	3763000084	Rod	1
3	4698000011	Piston	1
4	4553000015	Head	1
5	7754000001	Retaining Ring	2
6	7661000037	Locknut	1
7	7440030000	Grease Fitting	2
8*	7755214609	Back-up Ring	2
9*	7755214000	O-Ring	1
10*	7754000030	Wear Ring	2
11*	7796000062	Piston Seal	1
12*	7755327000	O-Ring	1
13*	7755327609	Back-up Ring	1
14*	7754000036	Wear Ring	1
15*	7796000023	Rod Seal	1
16*	7796000005	Wiper Seal	1

* Available only in Service Kit 7577250041



**TILT/FOLD CYLINDER
3320000105**

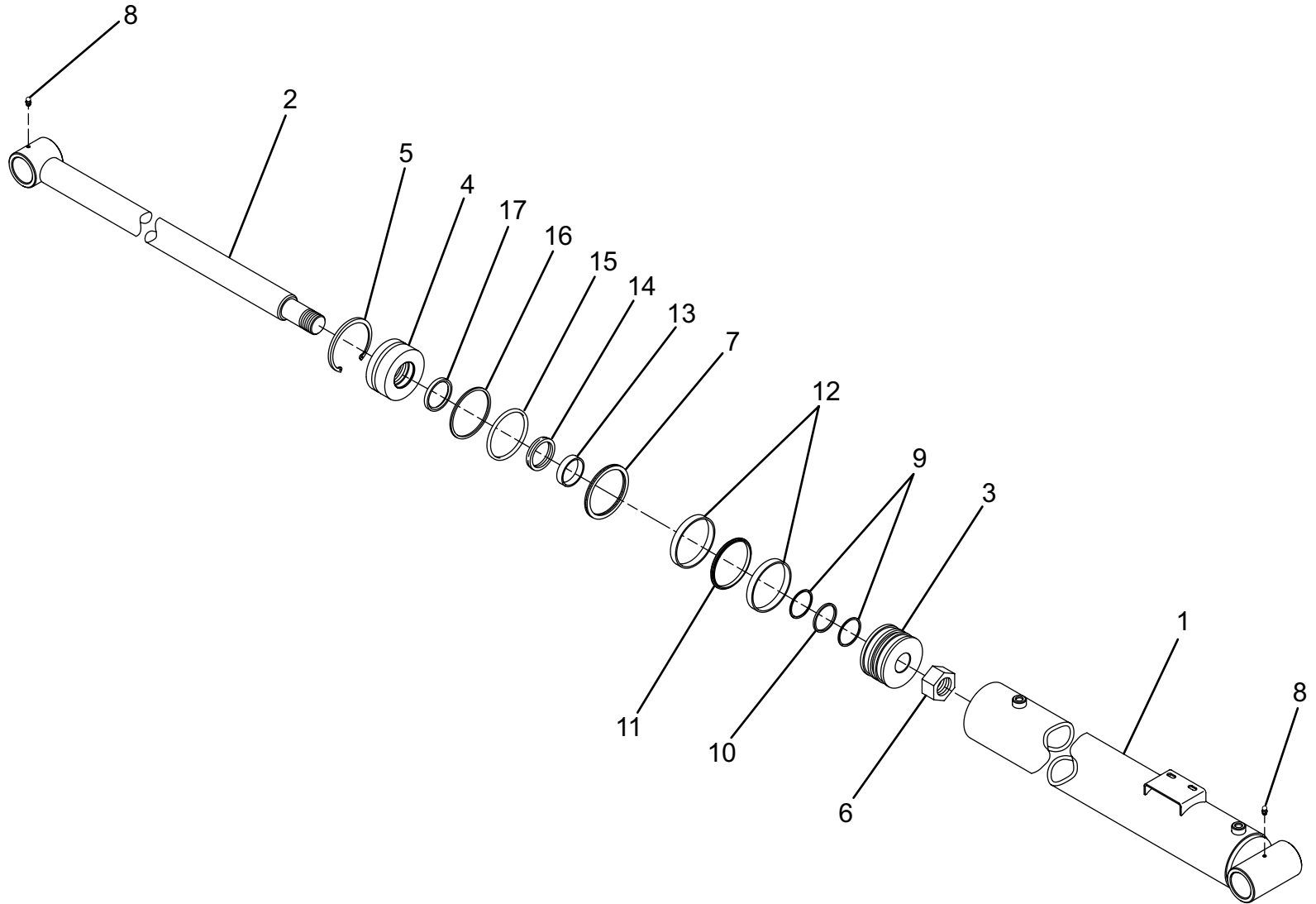
Ref No.	Part No.	Description	Qty.
1	3071000062	Barrel	1
2	3763000113	Rod	1
3	4698000008	Piston	1
4	4553000009	Head	1
5	7754000013	Retaining Ring	1
6	7754000028	Retaining Ring	1
7	7661000035	Locknut	1
8	7440030000	Grease Fitting	2
9*	7755226609	Back-up Ring	2
10*	7755226000	O-Ring	1
11*	7796000065	Piston Seal	1
12*	7754000011	Wear Ring	2
13*	7754000012	Wear Ring	1
14*	7796000025	Seal	1
15*	7755342000	O-Ring	1
16*	7755342609	Back-up Ring	1
17*	7796000011	Wiper Seal	1

* Available only in Service Kit 7577250026

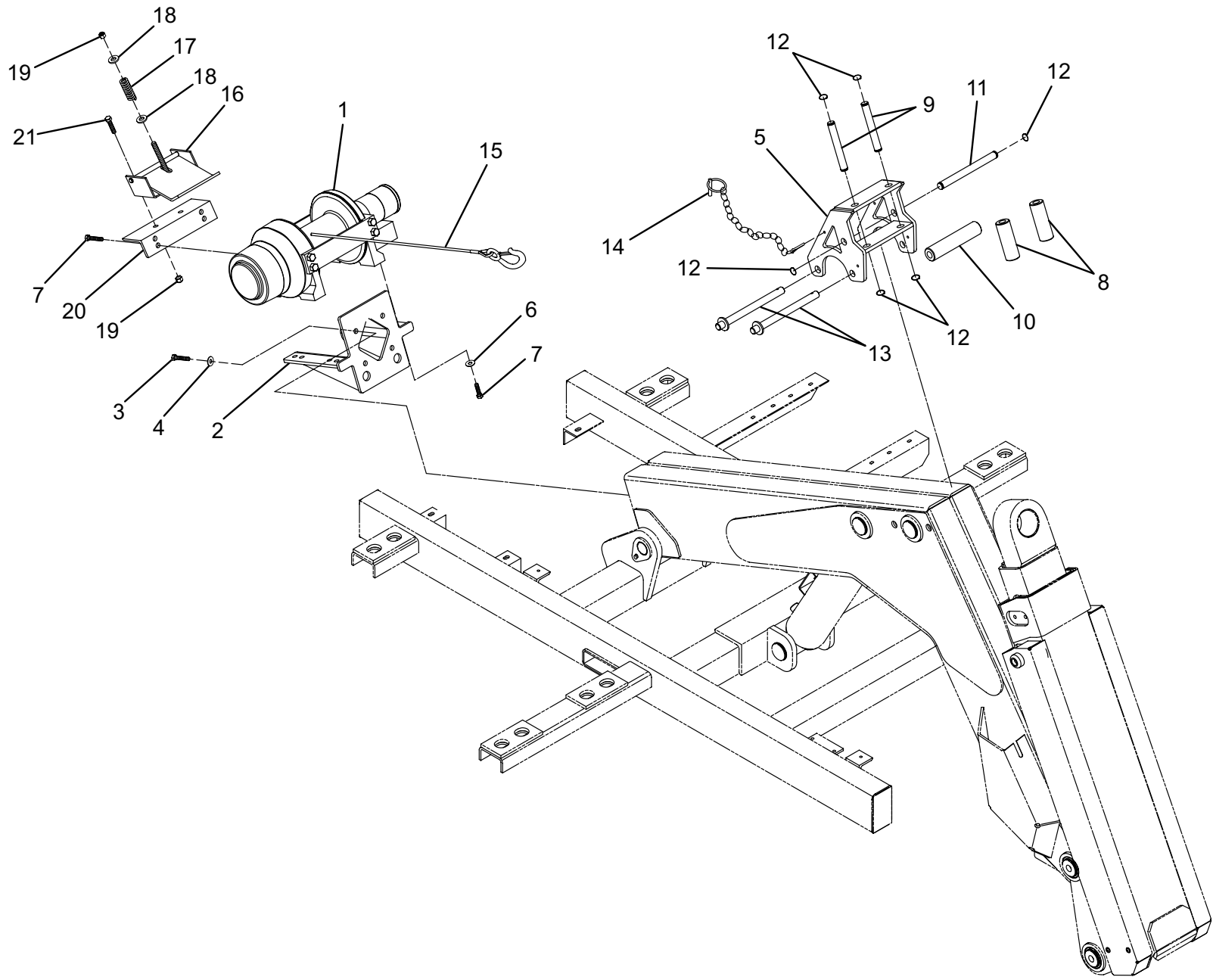
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TILT/FOLD CYLINDER
3320000105



WINCH ASSEMBLY



WINCH ASSEMBLY

Ref No.	Part No.	Description	Qty.
1	7970000063	Winch	1
2	3706000203	Winch Mount	1
3	7115181450	Capscrew	4
4	7950180141	Flatwasher	4
5	3768000004	Roller Frame	1
6	7950180000	Lockwasher	4
7	7118180850	Capscrew	6
8	4912000325	Tube	2
9	4691000387	Pin	2
10	4912000326	Tube	1
11	4691000388	Pin	1
12	7754000022	Retaining Ring	6
13	3691000194	Pin	2
14	7691000027	Linch Pin w/ Chain and Cotter	2
15	3533000027	Cable	1
16*	3500900010	Cable Tensioner Weldment	1
17*	7843000004	Spring	1
18*	7590180161	Flatwasher	2
19*	7660182600	Locknut	3
20	4017000171	Angle	1
21	7115181050	Capscrew	2

* Available as Assembly 3500900011



TOW HITCH ASSEMBLY

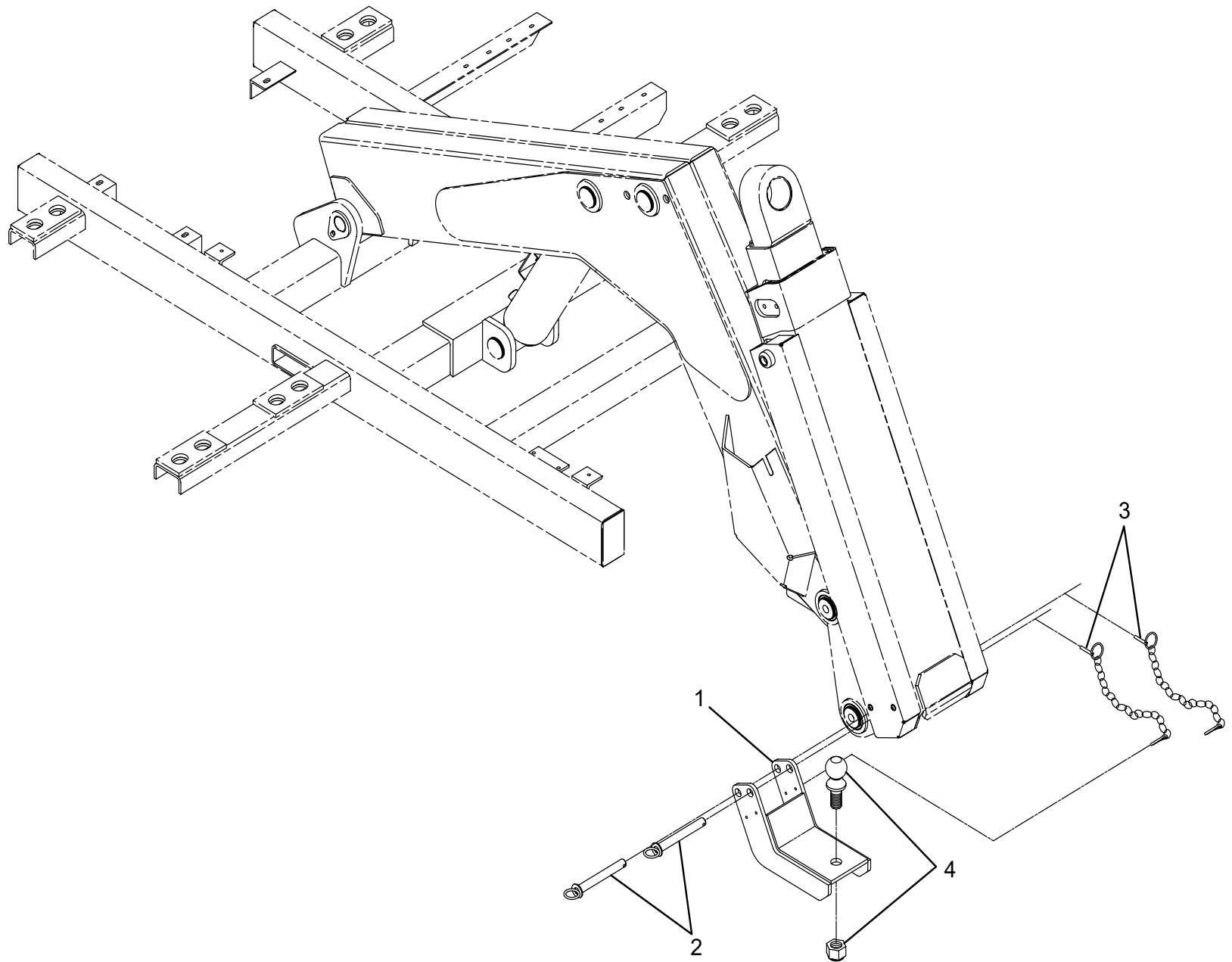
Ref No.	Part No.	Description	Qty.
1	3178000325	Tow Ball Hitch Bracket	1
2	3691000195	Pin	2
3	7691000027	Linch Pin w/ Chain and Cotter	2
4	7056000007	1-7/8" Ball	1
	7056000008	2" Ball	

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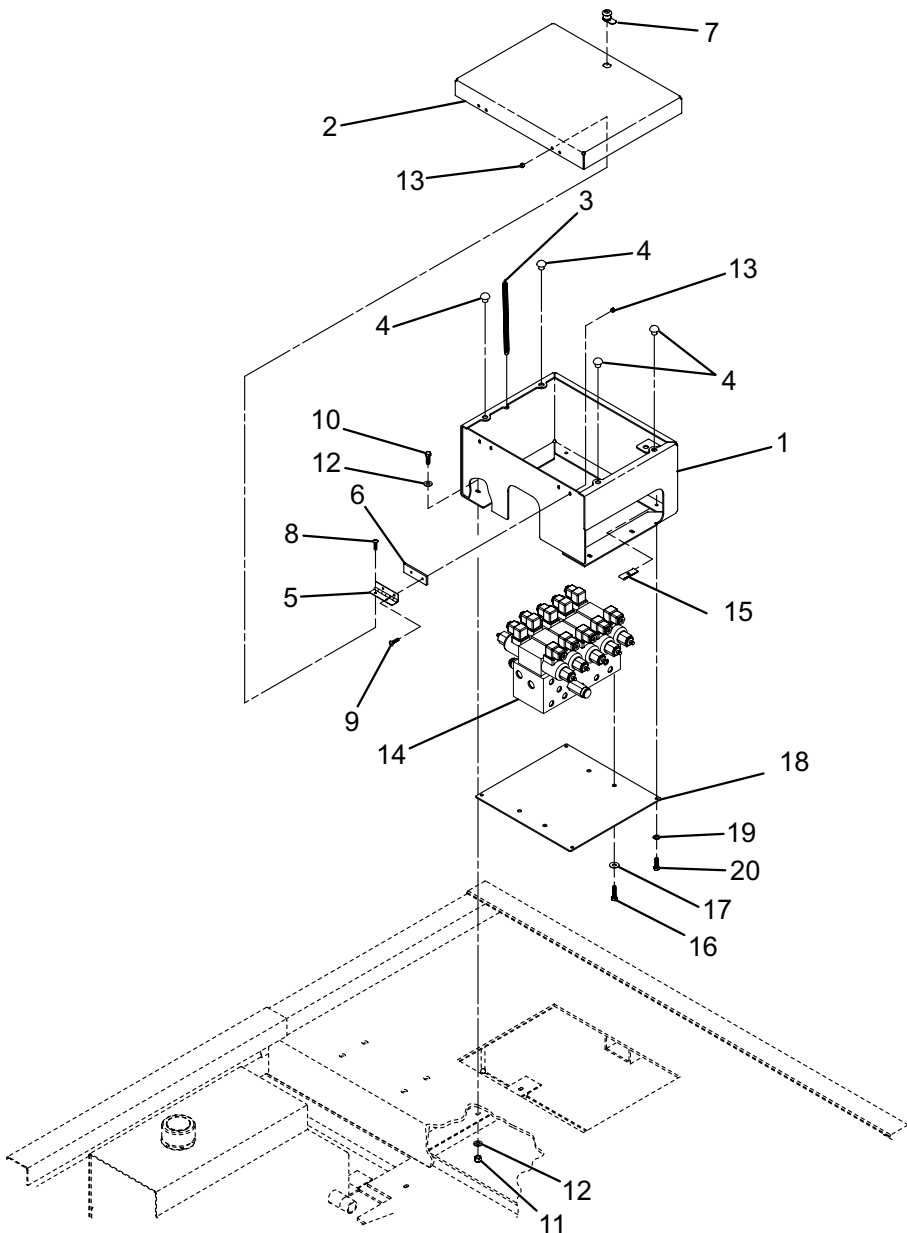
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TOW HITCH ASSEMBLY



CONTROLS ENCLOSURE



CONTROLS ENCLOSURE

Ref No.	Part No.	Description	Qty.
1	3811000020	Valve Enclosure	1
2	3811000022	Lid	1
3	7843000036	Spring	1
4	7189000007	Bumper	4
5	4555000008	Hinge	2
6	4706003608	Plate	2
7	7585000017	Lock	1
8	7114100318	Capscrew	4
9	7114100518	Capscrew	4
10	7115140850	Capscrew	4
11	7660142600	Locknut	4
12	7950140141	Flatwasher	8
13	7660102600	Locknut	8
14	7935000214	4 Section Valve	1
	7935000215	5 Section Valve	
15	7661000019	U-Nut	4
16	7115150650	Capscrew	4
17	7950150000	Lockwasher	4
18	4811000503	Sheet	1
19	7950140000	Lockwasher	4
20	7115140550	Capscrew	4



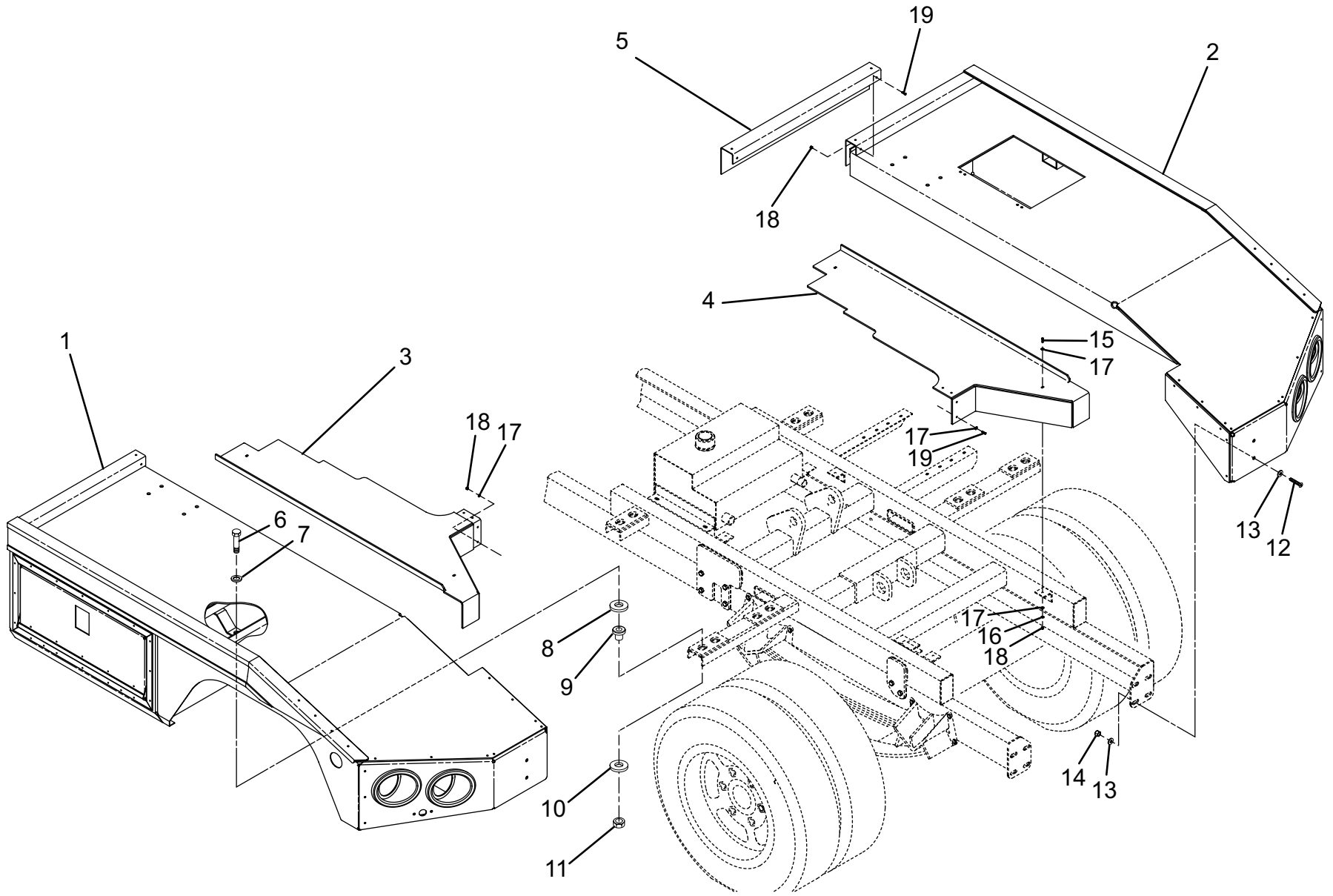
BODY INSTALLATION

Ref No.	Part No.	Description	Qty.
1	3097000372	Body Assembly L.H.	1
2	3097000375	Body Assembly R.H.	1
3	3706000196	Mid Deck Plate L.H.	1
4	3706000208	Mid Deck Plate R.H.	1
5	4263000503	Channel	1
6	7115202850	Capscrew	6
7	7950200161	Flatwasher	6
8	7949000019	Head Washer	6
9	7636000008	Rubber Mount	6
10	7949000020	Tail Washer	6
11	7660200001	Nut	6
12	7114181218	Capscrew	4
13	7950180161	Flatwasher	8
14	7660182601	Locknut	4
15	7114141018	Capscrew	4
16	7950140003	Lockwasher	4
17	7950140143	Flatwasher	16
18	7660142604	Locknut	12
19	7114140818	Capscrew	8

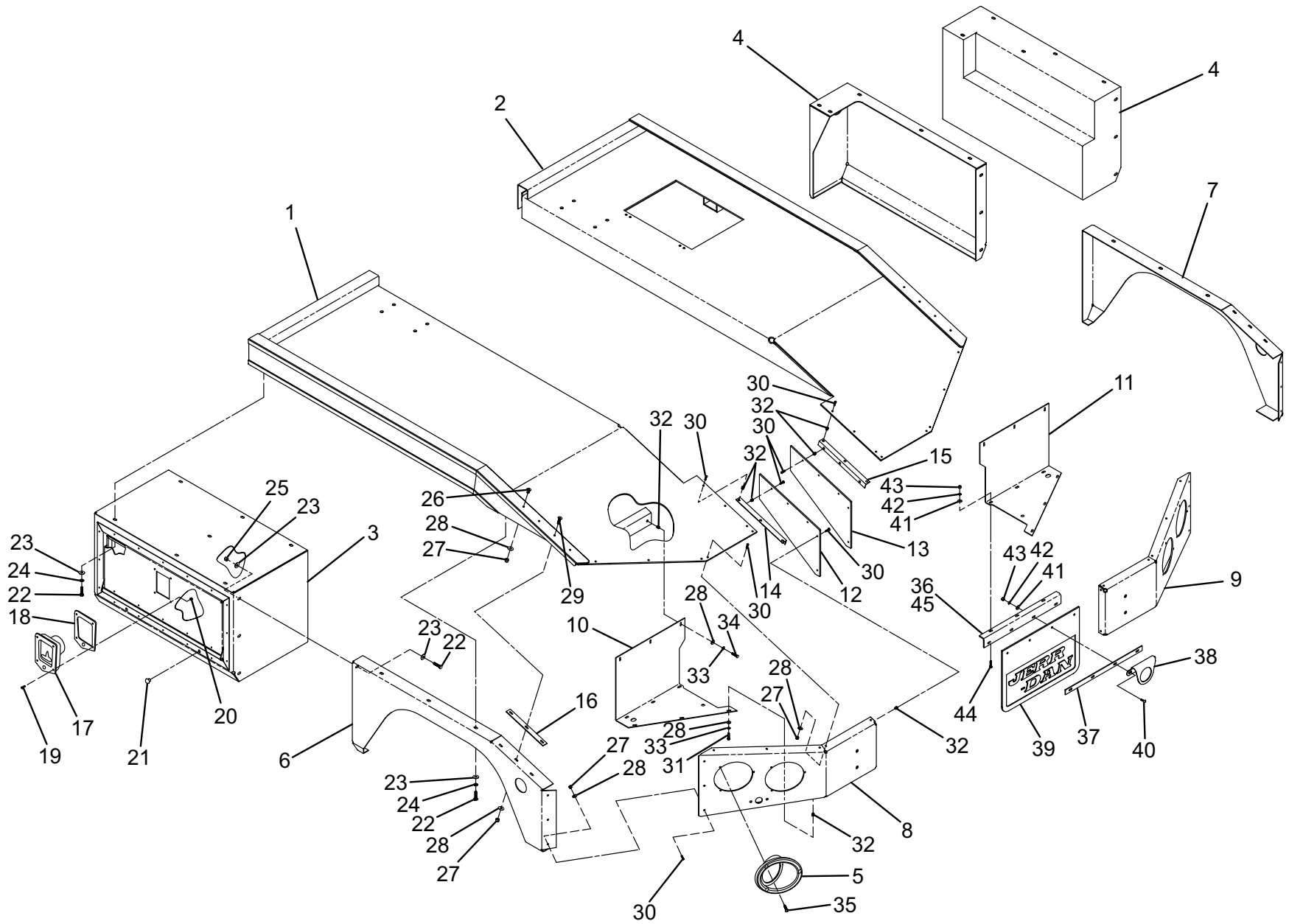
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BODY INSTALLATION



BODY ASSEMBLY



BODY ASSEMBLY

Ref No.	Part No.	Description	Qty.
1	3097000370	Deck Weldment L.H.	1
2	3097000371	Deck Weldment R.H.	1
3	3899000018	Toolbox L.H.	1
4	3686000004	Body Panel R.H.	1
	3899000092	Toolbox R.H. (Optional)	
5	7259000004	Tail Light Casting	4
6	4706003416	Plate L.H.	1
7	4706003422	Plate R.H.	1
8	3706000216	Tailplate L.H.	1
9	3706000217	Tailplate R.H.	1
10	4706003420	Plate L.H.	1
11	4706003423	Plate R.H.	1
12	4706003417	Plate L.H.	1
13	4706003424	Plate R.H.	1
14	4017001229	Angle L.H.	1
15	4017001257	Angle R.H.	1
16	4062000451	Bar	2
17	7585000012	Latch	1 or 2
18	7796000084	Gasket	1 or 2
19	7114080418	Capscrew	4 or 8
20	7660082500	Locknut	4 or 8
21	7189000007	Rubber Bumper	2 or 4
22	7115161050	Capscrew	22
23	7950160161	Flatwasher	19
24	7950160000	Lockwasher	16
25	7660162601	Locknut	6
26	7114140623	Capscrew	2
27	7660142600	Locknut	28
28	7950140161	Flatwasher	52
29	7114141023	Capscrew	6
30	7114140818	Capscrew	32
31	7111140650	Capscrew	6
32	7413000002	Nutsert	22
33	7950140000	Lockwasher	22
34	7115140850	Capscrew	6
35	7790101611	Screw	12
36	4017000482	Angle R.H.	1
37	4706001123	Plate	2
38	4178000073	Bracket	2
39	7638000003	Mudflap	2
40	7111151010	Machine Screw	8
41	7950150161	Flatwasher	14
42	7950150000	Washer	14
43	7660150000	Nut	14
44	7111150850	Capscrew	6
45	4017000478	Angle L.H.	1



LIGHT PYLON ASSEMBLY AND INSTALLATION

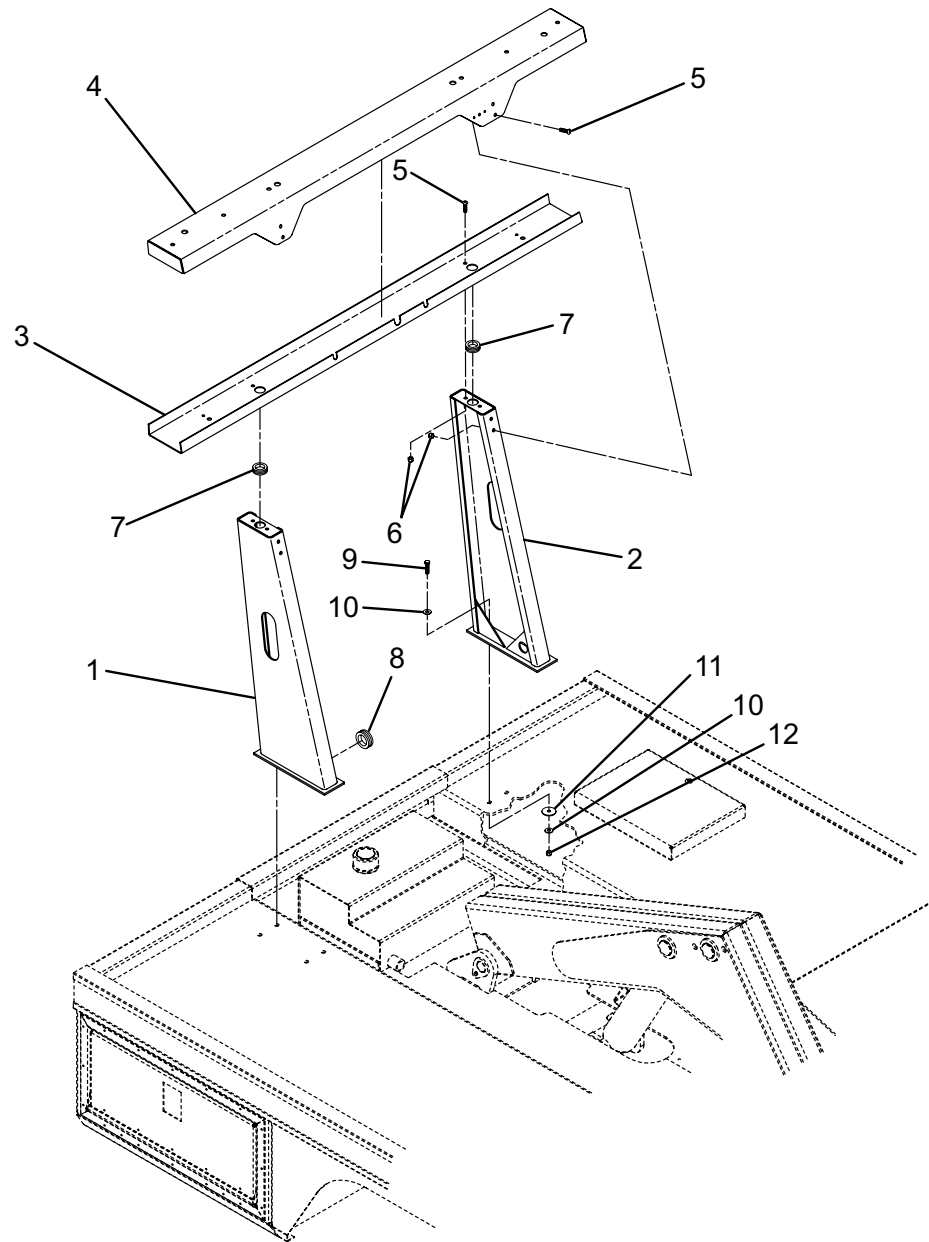
Ref No.	Part No.	Description	Qty.
1*	3263000100	Channel L.H.	1
2*	3263000101	Channel R.H.	1
3*	4263000513	Channel	1
4*	3263000102	Channel	1
5*	7114160818	Capscrew	12
6*	7660162601	Locknut	12
7*	7493000003	Grommet	2
8*	7493000011	Grommet	1
9	7115181450	Capscrew	4
10	7950180161	Flatwasher	8
11	7949000020	Washer	4
12	7660182601	Locknut	4

*Available as Assembly 3502570152

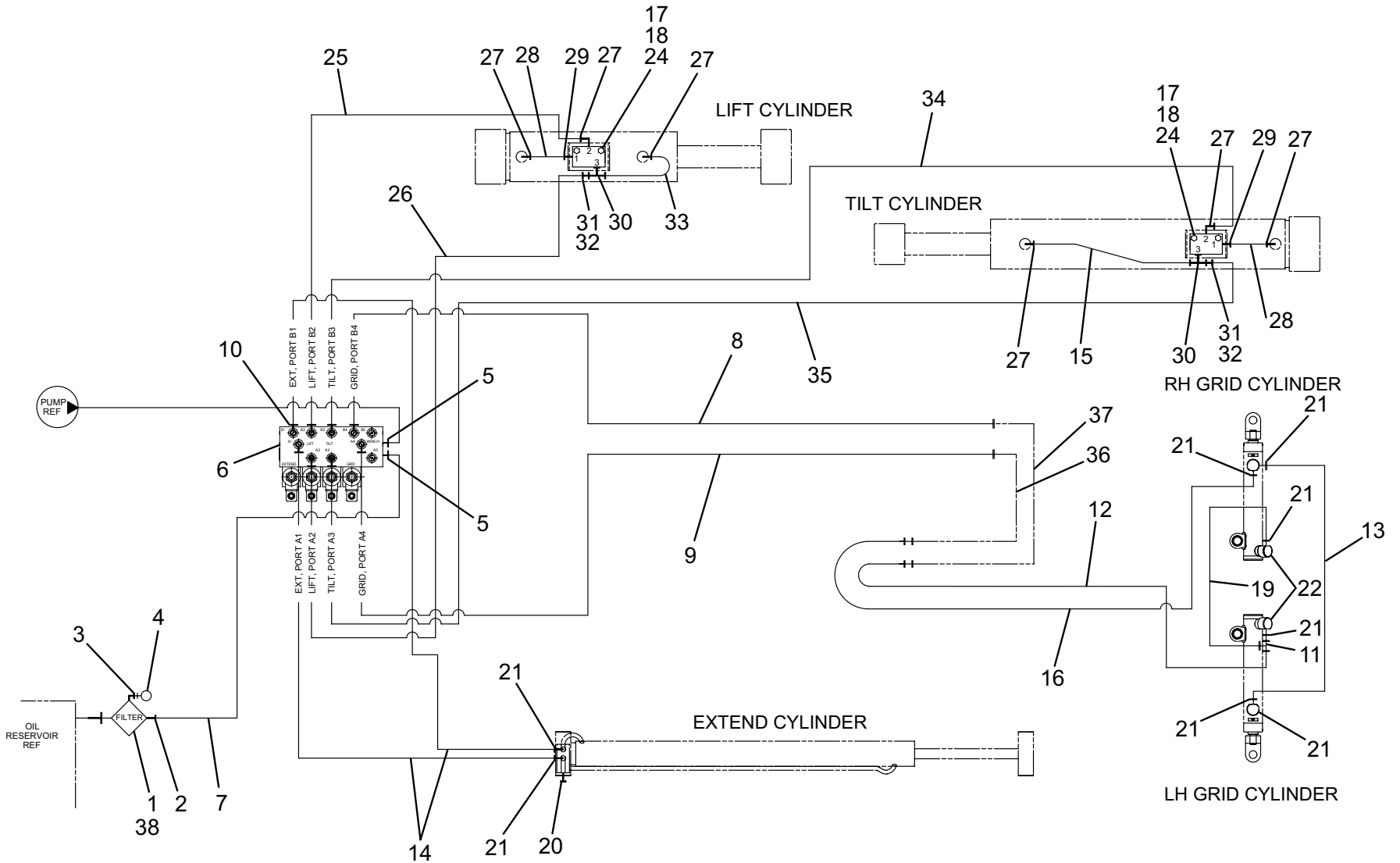
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LIGHT PYLON ASSEMBLY AND INSTALLATION



**HYDRAULIC SCHEMATIC
WITHOUT WINCH OPTION
4 SECTION VALVE**



**HYDRAULIC SCHEMATIC
WITHOUT WINCH OPTION
4 SECTION VALVE**

Ref No.	Part No.	Description	Qty.
1	7430000003	Oil Filter Assembly	1
2	7445081619	Adapter	1
3	7443000158	Elbow	1
4	7470000002	Gauge	1
5	7445080843	Adapter	2
6	7935000214	Valve - 4 Section	1
7	4567132060	Hose	1
8	4569100142	Hose	1
9	4569100144	Hose	1
10	7445040643	Adapter	8
11	7443000026	Fitting	1
12	4570000187	Hose	1
13	4570000188	Hose	1
14	4567110143	Hose	2
15	7912000079	Tube Assembly	1
16	4570000186	Hose	1
17	7950150161	Flatwasher	4
18	7660152601	Locknut	4
19	4570000189	Hose	1
20	7443000114	Plug	1
21	7445040443	Adapter	7
22	7443000299	Adapter	3
23	7935000148	Counterbalance Valve	2
24	7114151650	Capscrew	4
25	4567110058	Hose	1
26	4567110061	Hose	1
27	7445060645	Fitting	6
28	7912000078	Tube Assembly	2
29	7445060643	Adapter	2
30	7445060647	Adapter	2
31	7443000105	Adapter	2
32	7443000106	Fitting, Nut	2
33	7912000080	Tube Assembly	1
34	4567110092	Hose	1
35	4567110095	Hose	1
36	7912000147	L.H. Tube Assembly	1
37	7912000148	R.H. Tube Assembly	1
38	7431000001	Filter Element	1



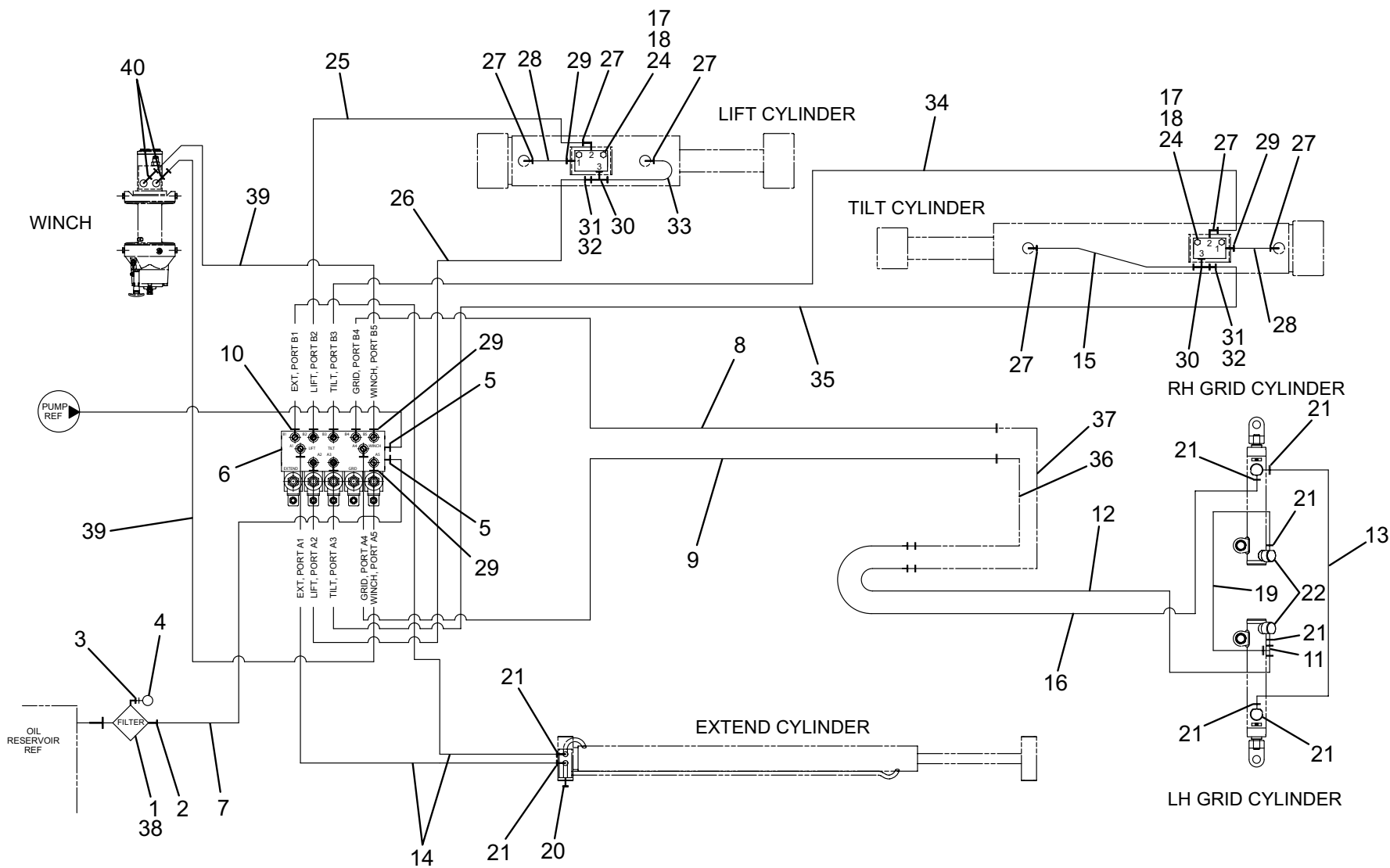
**HYDRAULIC SCHEMATIC
WITH WINCH OPTION
5 SECTION VALVE**

Ref No.	Part No.	Description	Qty.
1	7430000003	Oil Filter Assembly	1
2	7445081619	Adapter	1
3	7443000158	Elbow	1
4	7470000002	Gauge	1
5	7445080843	Adapter	2
6	7935000215	Valve - 5 Section	1
7	4567132060	Hose	1
8	4569100142	Hose	1
9	4569100144	Hose	1
10	7445040643	Adapter	8
11	7443000026	Fitting	1
12	4570000187	Hose	1
13	4570000188	Hose	1
14	4567110143	Hose	2
15	7912000079	Tube Assembly	1
16	4570000186	Hose	1
17	7950150161	Flatwasher	4
18	7660152601	Locknut	4
19	4570000189	Hose	1
20	7443000114	Plug	1
21	7445040443	Adapter	7
22	7443000299	Adapter	3
23	7935000148	Counterbalance Valve	2
24	7114151650	Capscrew	4
25	4567110058	Hose	1
26	4567110061	Hose	1
27	7445060645	Fitting	6
28	7912000078	Tube Assembly	2
29	7445060643	Adapter	4
30	7445060647	Adapter	2
31	7443000105	Adapter	2
32	7443000106	Fitting, Nut	2
33	7912000080	Tube Assembly	1
34	4567110092	Hose	1
35	4567110095	Hose	1
36	7912000147	L.H. Tube Assembly	1
37	7912000148	R.H. Tube Assembly	1
38	7431000001	Filter Element	1
39	4570000191	Hose	2
40	7445081043	Adapter	2

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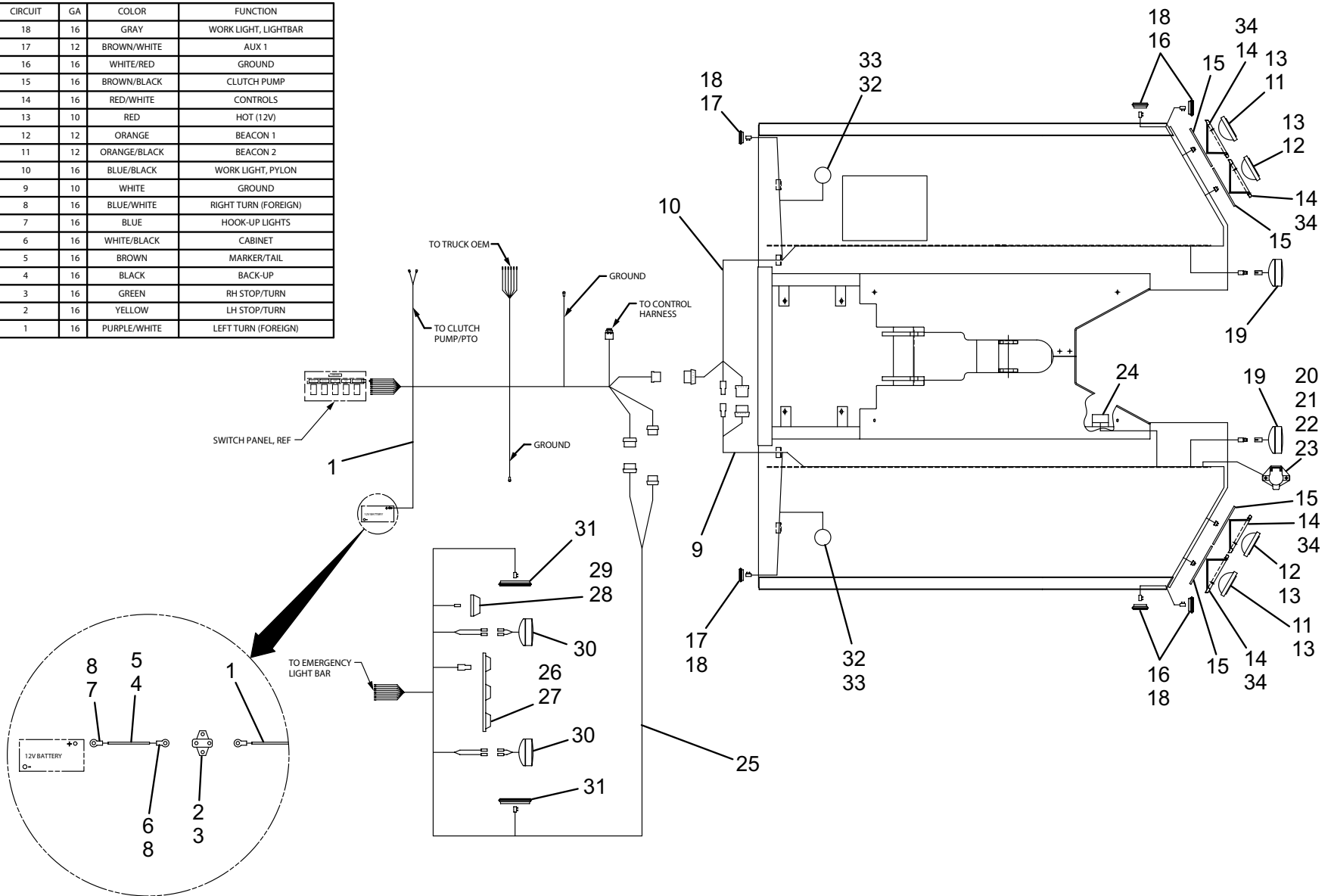
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**HYDRAULIC SCHEMATIC
WITH WINCH OPTION
5 SECTION VALVE**



ELECTRICAL SCHEMATIC - BODY

CIRCUIT	GA	COLOR	FUNCTION
18	16	GRAY	WORK LIGHT, LIGHTBAR
17	12	BROWN/WHITE	AUX 1
16	16	WHITE/RED	GROUND
15	16	BROWN/BLACK	CLUTCH PUMP
14	16	RED/WHITE	CONTROLS
13	10	RED	HOT (12V)
12	12	ORANGE	BEACON 1
11	12	ORANGE/BLACK	BEACON 2
10	16	BLUE/BLACK	WORK LIGHT, PYLON
9	10	WHITE	GROUND
8	16	BLUE/WHITE	RIGHT TURN (FOREIGN)
7	16	BLUE	HOOK-UP LIGHTS
6	16	WHITE/BLACK	CABINET
5	16	BROWN	MARKER/TAIL
4	16	BLACK	BACK-UP
3	16	GREEN	RH STOP/TURN
2	16	YELLOW	LH STOP/TURN
1	16	PURPLE/WHITE	LEFT TURN (FOREIGN)



ELECTRICAL SCHEMATIC - BODY

Ref No.	Part No.	Description	Qty.
1	7552000215	Cab-To-Subframe Harness	1
2	7457000004	Circuit Breaker, 50 AMP	1
3	7792000001	Screw	2
4	8977530200	Wire	3 ft
5	8597650002	Wire Loom	3 ft
6	7345211902	Ring Terminal	1
7	7345221902	Ring Terminal	1
8	7346000039	Heat Shrink Tubing	2 ft
9	7552000216	L.H. Body Harness	1
10	7552000217	R.H. Body Harness	1
11	7590000002	Stop, Tail, Turn Light	2
12	7590000003	Back-Up Light	2
13	7493000002	Grommet	4
14	7259000004	Tail Light Casting	4
15	7796000076	Gasket	4
16	7590000047	Red Marker Light	4
17	7590000048	Amber Marker Light	2
18	7493000009	Marker Light Grommet	6
19	7590000185	Work Light	2
20	7291000003	Receptacle	1
21	7111140613	Screw	2
22	7950140000	Lockwasher	2
23	7413000002	Nutsert	2
24	7001000003	Back-Up Alarm	1
25	7552000219	Light Pylon Harness	1
26	7590000193	3 Light ID Lamp	1
27	7790141656	Screw	2
28	7590000105	License Plate Light	1
29	7178000025	License Plate Bracket	1
30	7590000144	Work Light (Optional)	2
31	7590000095	Marker Light w/ Grommet (Opt.)	2
32	7590000001	Interior Light (Optional)	2
33	7790100856	Screw	6
34	7790101611	Screw	12



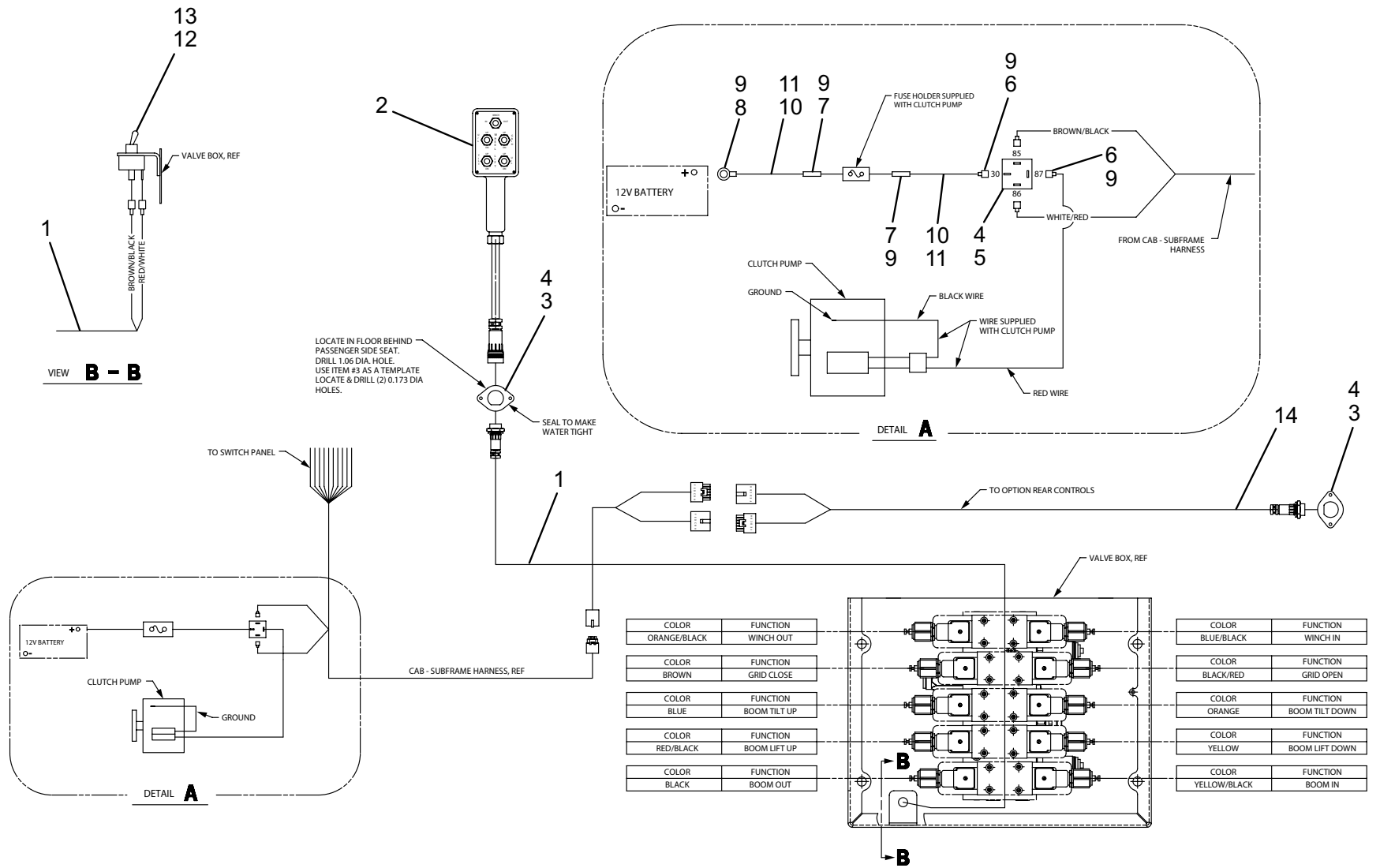
ELECTRICAL SCHEMATIC - CONTROLS

Ref No.	Part No.	Description	Qty.
1	7552000218	Remote Control Harness	1
2	7295000061	Hand Controller	1
3	4706003402	Plate	1 or 2
4	7790100856	Screw	3 or 6
5	7740000003	Relay	1
6	7345001710	Tab Terminal	2
7	7345001714	Connector	1
8	7345221702	Ring Terminal	1
9	7346000039	Heat Shrink Tubing	1
10	8977500100	Wire	3 ft
11	8597650002	Wire Loom	3 ft
12	7870000092	Toggle Switch	1
13	7560000004	Toggle Switch Boot	1
14	7552000224	Rear Remote Control Harness (Optional)	1

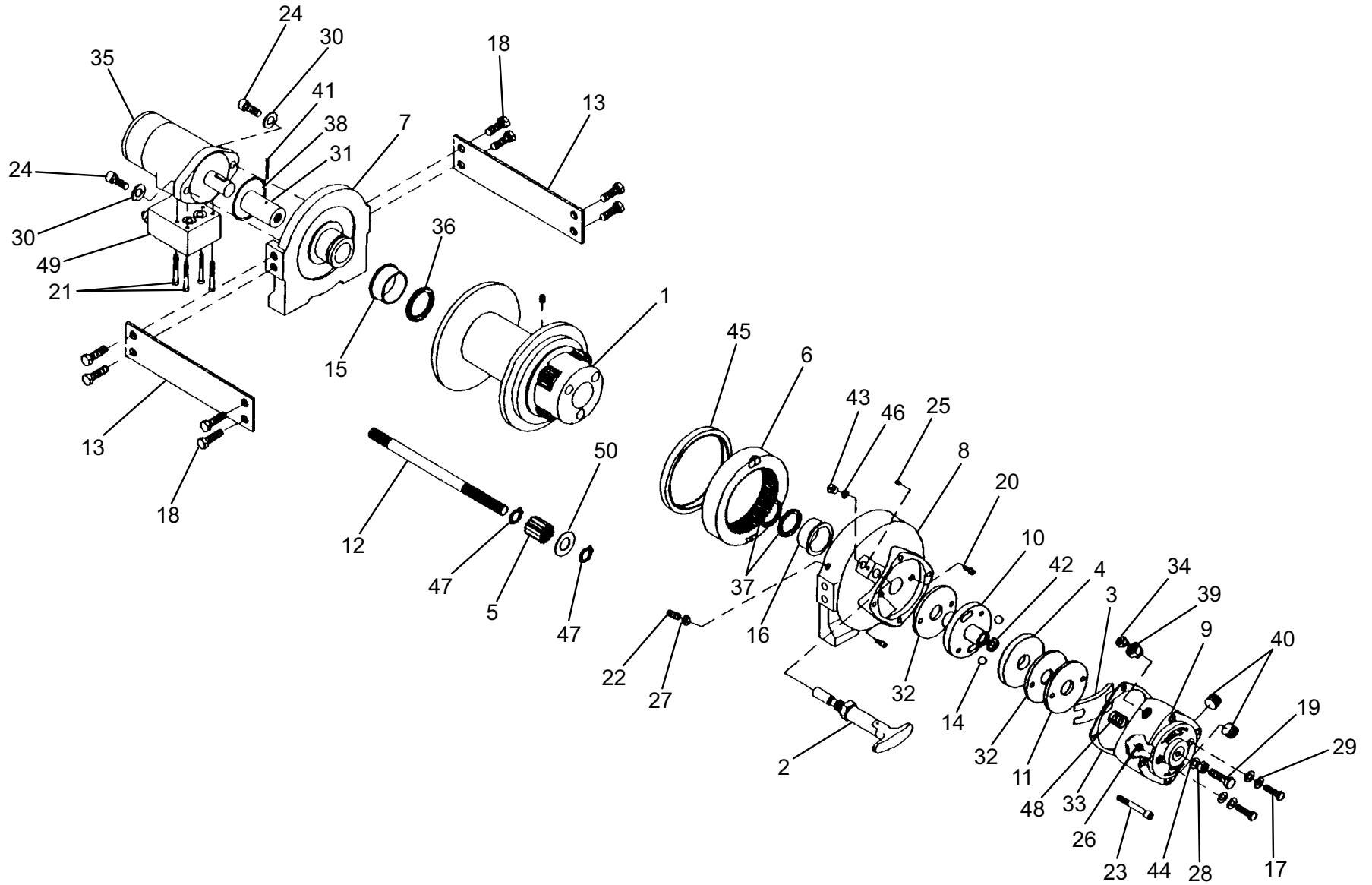
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ELECTRICAL SCHEMATIC - CONTROLS



RPH8000 8000LB WINCH



RPH8000 800LB WINCH

Ref No.	Part No.	Description	Qty.
1	9970280019	"Y" Drum Assembly	1
	9970280018	"STD" Drum Assembly	1
2	9551960018	Shifter Assembly	1
3	9843960027	Brake Flat Spring	1
4	9250960002	Cam Brake Plate	1
5	9472960042	Sun Output Gear	1
6	9472960043	Ring Gear	1
7	9082960016	End Motor Bearing	1
8	9560960013	End Bearing Gear Housing	1
9	9560960012	Brake Housing	1
10	9180960009	Brake Hub	1
11	9706960028	Retainer Plate	1
12	9806960017	"Y" Input Shaft	1
	9806960016	"STD" Input Shaft	1
13	9706960031	"Y" Tie Plate	2
	9706960030	"STD" Tie Plate	2
14	9970400007	Ball	2
15	9209960022	Motor End Drum Bushing	1
16	9209960023	Gear Drum Bushing	1
17	9120960021	Bolt	2
18	9120960025	Capscrew	8
19	9120960023	Bolt	1
20	9120960022	Capscrew	2
21	9120960018	Screw	4
22	9786960006	Setscrew	1
23	9120960026	Capscrew	4
24	9120960024	Capscrew	2
25	7785140404	Setscrew	1
26	7660160001	Nut	2
27	7660160201	Nut	1
28	7660180201	Nut	1
29	9970418184	Washer	4
30	9949960016	Lockwasher	2
31	9309960009	Hydraulic Motor Coupling	1
32	9706960029	Brake Plate	2
33	9796960047	Brake Housing Gasket	1
34	9970456008	Relief Fitting	1
35	9626960012	Hydraulic Motor	1
36	9796960050	O-Ring	1
37	9796960048	Ring Quad	2
38	9796960051	O-Ring	1
39	9970468002	Reducer	1
40	9701960015	Pipe Plug	2
41	9691960001	Spiral Pin	1
42	9701960014	Plug	1
43	9701960016	Plug	1
44	9796960097	Seal	1
45	9796960049	Gear Housing Seal	1
46	9812960005	Shim	1
47	9754960039	Snap Ring	2
48	9970494010	Spring	1
49	9935960023	Counterbalance Valve	1
50	9949960017	Thrust Washer	1



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