CENTURY®

LEGENDARY LEADERSHIP

OWNER'S MANUAL

1060 / SDU3

INSTALLATION, OPERATION, MAINTENANCE & PARTS

NOTE: MANUAL including SPECIFICATIONS, subject to change without notice
All ratings specified are based on structural factors only,
not vehicle capacities or capabilities.

CENTURY®

Miller Industries Towing Equipment Inc.
8503 Hilltop Drive
Ooltewah, Tennessee 37363

Phone (423) 238-4171 • FAX (423) 238-5371

FORM NO. 0501015
REV. A
03 / 2006
PRICE $25.00

LIMITED WARRANTY

MILLER INDUSTRIES TOWING EQUIPMENT INC., hereinafter referred to as MILLER, warrants to the original purchaser that each new MILLER wrecker or other MILLER products will be free from defects in material and workmanship for a period of twelve (12) months from date placed in service, but in no event shall such warranty period exceed twenty-four (24) months from date of manufacture by MILLER. The purchaser must promptly notify MILLER in writing of any failure in material or workmanship. In no event shall MILLER accept such notification later than twenty-four (24) months from date of delivery or twelve (12) months from date placed in service, whichever is earlier.

MILLER's obligation under this warranty, statutory or otherwise, is limited to the repair or replacement at the MILLER factory, or at a point designated by MILLER, of such part or parts as shall appear upon inspection by MILLER to be defective in material or workmanship. New or remanufactured parts will be used for any replacement at MILLER's option. This warranty is not transferable. This warranty does not obligate MILLER to bear the cost of labor or transportation charges in connection with the repair or replacement of any parts found to be defective, nor shall it apply to a product upon which repairs or alterations have been made unless authorized by MILLER.

EXCEPT AS EXPRESSLY SET FORTH IN THIS WARRANTY, MILLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND HEREBY DISCLAIMS ALL OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. MILLER shall in no event be liable for claimed downtime, claimed loss of profits or goodwill, or any other special, incidental, indirect, or consequential damages concerning or relating to any product or parts, whether based on negligence, strict liability, breach of contract, breach of warranty, misrepresentation or any other legal theory, regardless of whether the loss resulted from any general or particular requirement which MILLER knew or had reason to know about at the time of sale.

MILLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE FINISHED PRODUCTS MANUFACTURED OR SUPPLIED BY ANOTHER MANUFACTURER AND SUPPLIED BY MILLER TO PURCHASER, including, but not limited to, any vehicle to which a MILLER product may be affixed or any accessories or wire rope, and MILLER EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO SUCH EQUIPMENT OR PRODUCTS. This language shall in no way affect or diminish the rights of the purchaser to rely on such warranties as are extended by such manufacturers or suppliers. MILLER shall, to the extent permitted under applicable law, pass on to the purchaser such manufacturer's or seller's warranty.

MILLER, whose policy is one of continuous improvement, reserves the right to improve its products through changes in design or materials as it may deem desirable without being obligated to incorporate such changes in products previously sold. This warranty is not intended to cover or include the following items, which are set forth by way of example and not limitation:

A. Normal deterioration of trim, paint, lettering, and appearance items due to wear or exposure to weather, road conditions, road treatments, etc.
B. Any damage or defect due to accident, misuse, abuse, improper or unauthorized repairs, failure to provide reasonable and necessary maintenance, or uses for which the equipment was not designed or intended.
C. Alterations or modifications that affect performance, operation or reliability.
D. Normal maintenance parts including, but not limited to, wear pads, bushings, wire rope, mud flaps, fenderettes, light bulbs, hydraulic oil, filters, and tow sling belts.

IT IS EXPRESSLY UNDERSTOOD THAT MILLER MAKES NO IMPLIED WARRANTY THAT MILLER PRODUCTS SHALL BE FIT FOR THE PURPOSE OF LIFTING OR MOVING PEOPLE OR FOR ANY OTHER IMPROPER USE.

miller INDUSTRIES
Miller Industries Towing Equipment Inc.
8503 Hilltop Drive
Ooltewah, Tennessee 37363

Telephone (423) 238-4171

SERIAL NUMBER

OWNER, USER AND OPERATOR:

Century appreciates your choice of our wrecker for your application. Our number one priority is user safety which is best achieved by our joint efforts. We feel that you can make a major contribution to safety if you, as the equipment owner and operator:

1. **Comply with Federal, State, and Local Regulations.**
2. **Read, Understand, and Follow the Instructions in this Manual.**
3. **Use Good, Safe Work Practices in a Common Sense Way.**
4. **Only have Authorized and Trained Operators running the Wrecker.**

Also contained in this manual is a Parts Section for your Wrecker. Use of other than Factory or Factory Authorized Parts will render the Warranty void.

TABLE OF CONTENTS

WARNING

The operator must read and understand all instructions in this manual before operating the wrecker.

It is assumed by CENTURY that the Owner/Operator has a thorough knowledge of the accepted and lawful retrieval and towing methods as dictated by his city, county or state. CENTURY rejects any liability claim that may result from the incorrect or unlawful application of its equipment.

TABLE OF CONTENTS (cont'd)

Section VI - PARTS (cont'd)

NOTES

Section I - SAFETY PRECAUTIONS

Presented in the interest of safety for all wrecker operators.

NOTICE

You are obligated to operate your wrecker safely. You can be held legally responsible for injuries or damages 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.

Century is not responsible for the results of any unsafe practice of wrecker operators. Furthermore, the division is not responsible for the failure of the wrecker or its accessories resulting from improper maintenance.

The danger from an vehicle does not cease when it is disabled or wrecked. Recovering and towing vehicles can be dangerous, too! The danger threatens wrecker operators and everyone close at hand. 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 (especially snatch blocks) 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 we know about. Learn them well.

Section I - SAFETY PRECAUTIONS (cont'd)

1.1 Improper use of this equipment can be dangerous! Incorrect operation can result in bodily injury to the operator and bystanders. Therefore, a thorough understanding of the "operating principles" and "operating instructions" as found in this manual is essential.

1.2 Study each job to be done. Apply common sense judgment to assure safety to yourself and bystanders.

1.3 Plan ahead. Work safely. Avoid accidental damage and injury. If an accident or fire does occur, react quickly with the tools and skills at hand. Know how to use a first aid kit and a fire extinguisher - and where to get assistance.

1.4 Read and understand the following instructions.

1. READ THE MOUNTING / OPERATING / MAINTENANCE MANUAL FOR WARNINGS AND PRECAUTIONS.

2. NEVER TAKE ANYTHING FOR GRANTED. DON'T ASSUME THAT EVERYTHING IS ALL RIGHT AT THE START OF WORK TODAY JUST BECAUSE EVERYTHING SEEMED ALL RIGHT AT THE END OF WORK YESTERDAY. BEFORE BEGINNING OPERATION, THOROUGHLY INSPECT THE ENTIRE WRECKER TO BE SURE IT IS IN GOOD OPERATING CONDITION.

3. VISUALLY INSPECT THE WRECKER FOR EVIDENCE OF PHYSICAL DAMAGE, SUCH AS CRACKING, BENDING, OR DEFORMATION OF PLATES OR WELDS. INSPECT CAREFULLY FOR CRACKING OR FLAKING OF PAINT, WHICH MAY INDICATE A DANGEROUS CRACK IN THE STRUCTURE BENEATH. DO NOT OPERATE UNTIL REPAIRS ARE MADE.

4. LOOSE OR MISSING HARDWARE, BOLTS, NUTS, AND PINS SHOULD BE PROPERLY TIGHTENED OR REPLACED WITH MANUFACTURER'S SPECIFIED HARDWARE.

5. CHECK FOR FLUID LEAKS. HYDRAULIC SYSTEM LEAKS MUST BE CORRECTED BEFORE THE WRECKER IS OPERATED. INSPECT ALL HYDRAULIC HOSES, ESPECIALLY THOSE WHICH FLEX OR

MOVE IN SERVICE, AND REPLACE IF NECESSARY. SECURE ALL CAPS AND FILLER PLUGS FOR ALL SYSTEMS.

6. YOUR CLOTHING SHOULD BE RELATIVELY CLOSEFITTING.

7. ALWAYS WEAR PROTECTIVE ITEMS SUCH AS SAFETY GLASSES, GLOVES, REFLECTIVE CLOTHING AND SAFETY SHOES.

8. BEFORE OPERATING THE BOOM, REFER TO THE BOOM CAPACITY LABELS ON THE BOOM AND INSIDE OF THE DOOR OF THE CAB AND IN THE SPECIFICATION SECTION OF YOUR OPERATING MANUAL. FOR CHASSIS CAPACITY CONSULT YOUR TRUCK DEALER. NEVER EXCEED MANUFACTURER'S LOAD RATING. THE STIPULATIONS PERTINENT TO THESE RATINGS SHALL ALWAYS BE CAREFULLY OBSERVED.

RATINGS SHOWN ARE BASED ON THE HYDRAULIC, MECHANICAL, OR STRUCTURAL DESIGN OF THE WRECKER RATHER THAN STABILITY. IT IS ALWAYS UNSAFE TO APPLY ANY LOAD WHICH IS GREATER THAN RATED LOAD SHOWN ON THE DATA PLATE.

9. DO NOT USE THIS EQUIPMENT EXCEPT ON SOLID, LEVEL SURFACE WITH STABILIZERS PROPERLY EXTENDED AND TRUCK BRAKES LOCKED.

10. OPERATE ALL CONTROLS SLOWLY AND SMOOTHLY TO AVOID DAMAGE TO WRECKER OR INJURY TO PERSONNEL.

11. DO NOT OPERATE, WALK OR STAND BENEATH BOOM OR A SUSPENDED LOAD.

12. NEVER LIFT LOAD OVER ANYONE.

13. DO NOT USE BOOM TO LIFT PEOPLE.

14. KEEP LOAD WITHIN ONE FOOT OF THE GROUND WHENEVER POSSIBLE.

15. FOR TRAVEL, BOOM MUST BE IN STOWED POSITION AND P.T.O. DISENGAGED.

ONLY AUTHORIZED AND TRAINED PERSONNEL SHOULD BE PERMITTED TO OPERATE THIS WRECKER UNSUPERVISED.

TRAINED PERSONNEL ARE THOSE WHO HAVE WORKED UNDER EXPERIENCED SUPERVISION AND HAVE PERFORMED ALL WRECKER MANEUVERS, HAVE READ THE MOUNTING, OPERATING AND MAINTENANCE MANUAL, WARNINGS AND PRECAUTIONS, AND UNDERSTAND AND HAVE HAD EXPLAINED TO THEM BY THEIR EMPLOYER THE HAZARDS OF OPERATING THE WRECKER. THEY MUST BE FAMILIAR WITH THE HAZARDS OF OPERATING AT A SITE WHERE ELECTRIC POWER LINES, IRREGULAR GROUND CONTOUR, WATER, ICE, MUD, OR OTHER CONDITIONS CAN INTERFERE WITH ORDINARY CAREFUL OPERATION OF THIS WRECKER.

AN UNTRAINED OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

STAND CLEAR
WHILE OPERATING REAR SPADES

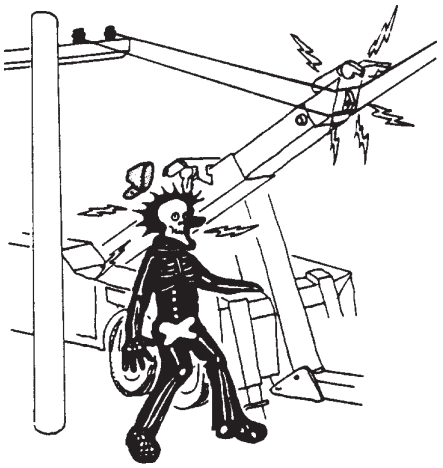
USE SAFETY CHAINS ON ALL TOWING
AND LIFTING APPLICATIONS

SAFETY TIPS

Death or serious injury can

DANGER

occur when working near power lines.
Learn - beforehand - as much about your working area as possible. Be sure that exact locations of overhead power lines, and other obstructions or hazards are known.



Don't use winch cables with hooks attached by means of cable clips. Use only cables with hooks attached by means of thimbles and machine swaged terminals.

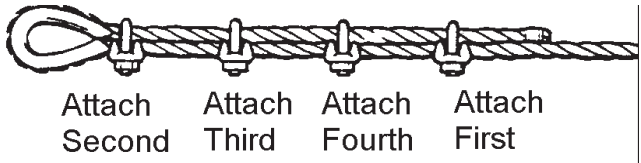
USE CABLE CLIPS ONLY IN THE EVENT OF AN EMERGENCY FIELD TEMPORARY REPAIR.

Use at least three clips spaced 3-4 inches apart and reduce the cable working limit by 20%. U-bolt of the clip should never be around the live or long end of the cable. Replace clips as soon as possible with swaged cable termination.

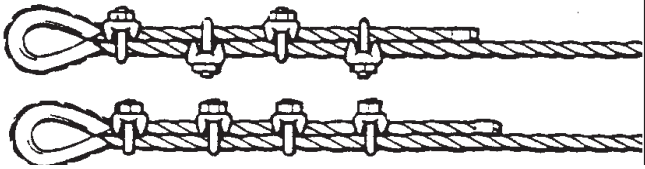
Section I - SAFETY PRECAUTIONS (cont'd)
SAFETY TIPS

Proper technique for using wire rope clips.
USE CABLE CLIPS ONLY IN THE EVENT OF AN EMERGENCY FIELD TEMPORARY REPAIR.

RIGHT WAY



WRONG WAY



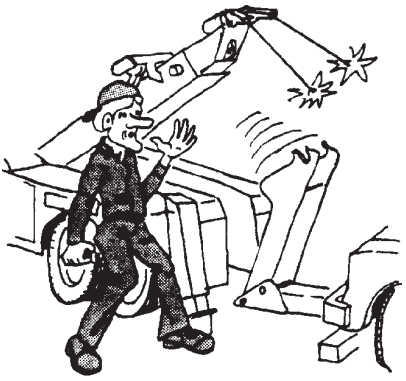
1. Turn back rope length specified in the chart. Apply first clip so U-bolt is no less than the saddle width from the dead end. Tighten nuts evenly and torque as specified.
2. Apply next clip as near loop as thimble will permit. Turn nuts on firm, but do not tighten.
3. Space additional clips as indicated so distance between clips is equal. Tighten all nuts evenly and torque as specified.
4. Apply the initial load and retighten all nuts to recommended torque. Inspect periodically and retighten as needed to the recommended torque.

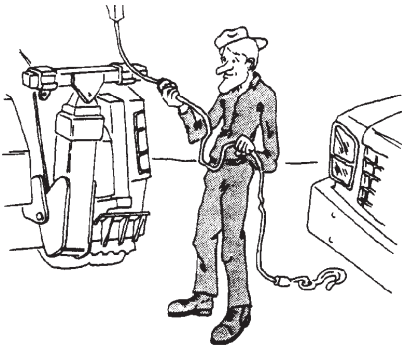
CLIP SIZE (INCHES)	MINIMUM NUMBER OF CLIPS	AMOUNT OF ROPE TO TURN BACK IN INCHES	TORQUE IN FT.LBS.
3/8	2	6 1/2	45
7/16	2	7	65
1/2	3	11 1/2	65
9/16	3	12	95
5/8	3	12	95
3/4	4	18	130

This table is based on Crosby-Laughlin.

SAFETY TIPS

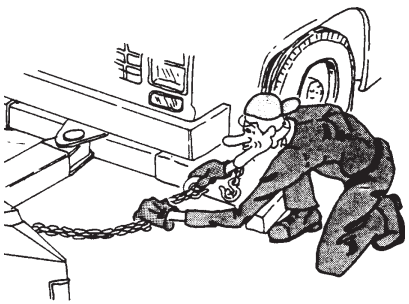
Don't use a wrecker that has not been properly maintained. Pay special attention to wrecker mounting bolts, cable condition, and lubrication of moving parts.

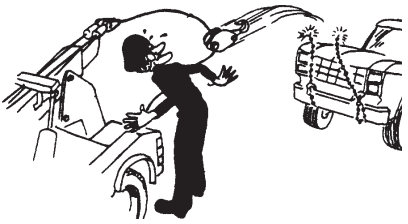




Don't use damaged cables on your wrecker. Become familiar with the various types of cable damage and carefully inspect all cables being used in a recovery operation before starting to pull.

Always use two safety chains when towing all vehicles, regardless of distance.

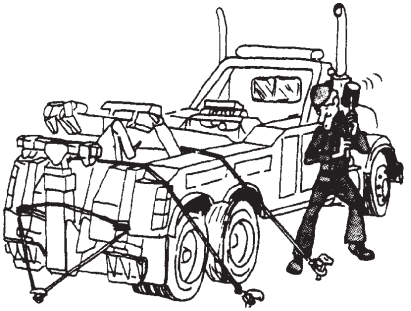


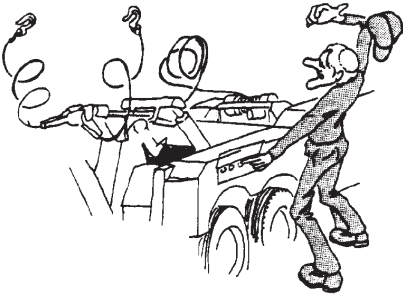


After rigging cables, don't begin pulling without rechecking connections. Make sure that all cables and snatch blocks are securely attached and cannot accidentally pull loose.

SAFETY TIPS

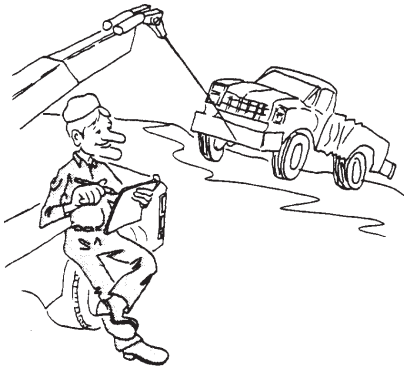
Don't expect your wrecker to tow loads equal to the wrecker rating. Wrecker ratings apply to loads imposed during recovery, with the wrecker properly stabilized.

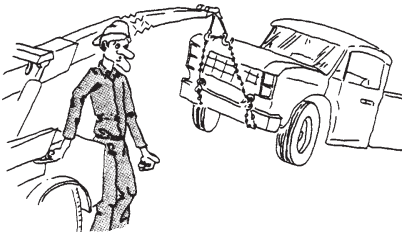




Don't pull a load with your wrecker without making absolutely sure that the winch drum clutch is FULLY engaged.

Don't attempt to recover heavy loads without first estimating the amount of pull that will be required. Rig to keep the estimated amount of pull well within equipment ratings.

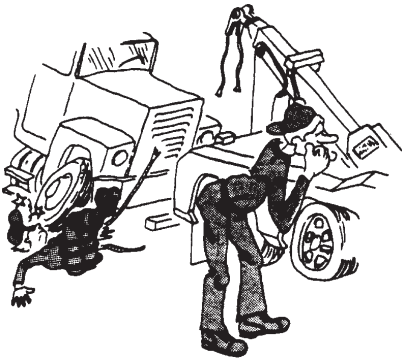




Don't exceed ratings of booms, cables, snatch blocks, or winches. Stay within nameplate ratings. Note that boom ratings decrease significantly as a boom is extended.

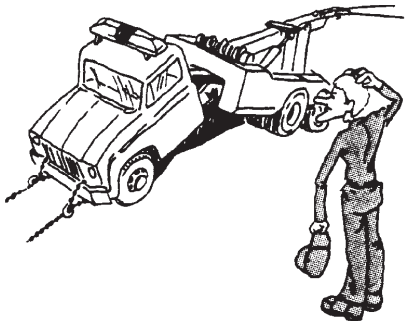
SAFETY TIPS

Don't get under a raised vehicle or load unless it has adequate safety blocks in place.



Don't exceed WORKING LIMIT ratings of cable. Use breaking strength ratings only for selecting replacement cable.

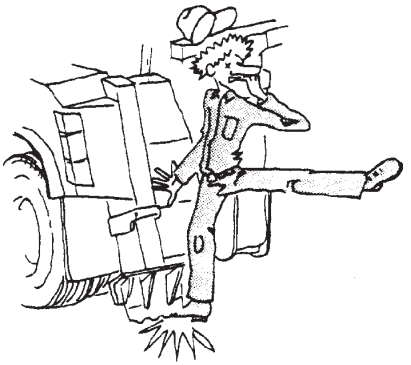
Don't tie down the front end of your wrecker for recovery work or heavy lifts. You are apt to damage the truck frame if you do.



Don't disengage the winch drum clutch while the winch cable is loaded.

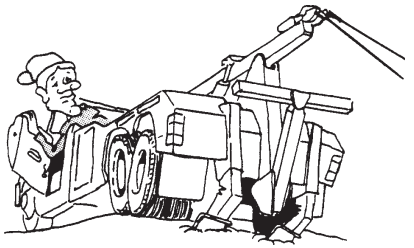
SAFETY TIPS

Don't lower outboard legs or rear spades unless area under them is clear. Pay particular attention to keeping this area clear.



Don't use rear spades on paved surfaces unless you are willing to accept responsibility for possible damage to such surfaces.

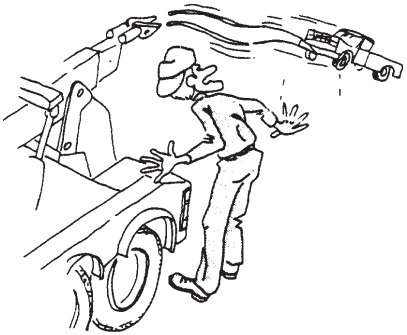
Don't permit bystanders in the area while performing recovery work.



Don't move your wrecker while outboard legs or rear spades are extended.

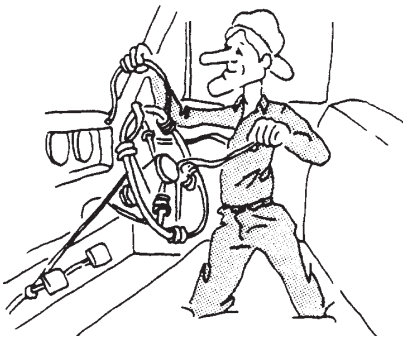
SAFETY TIPS

Don't completely unwind all cable from a winch while loaded. Keep AT LEAST five wraps on the drum.



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

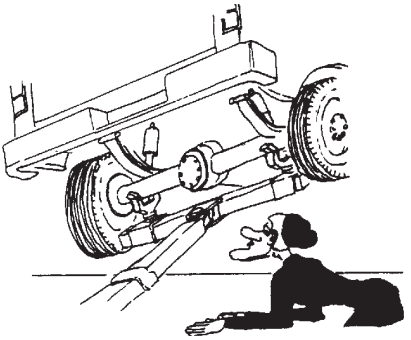
Don't rely on anti-theft steering locks. Use special steering wheel clamping device. Rope is commonly used to secure steering wheels, but that is not as reliable as devices designed for this purpose.



Don't tow a vehicle that reduces the weight on the front wheels of your wrecker more than 40 percent.

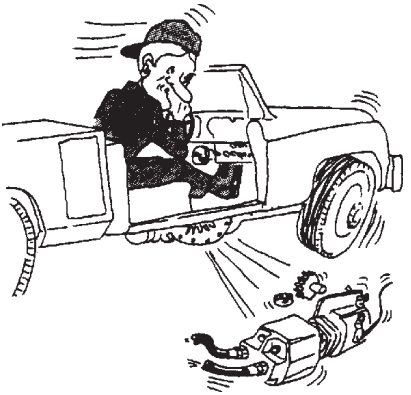
SAFETY TIPS

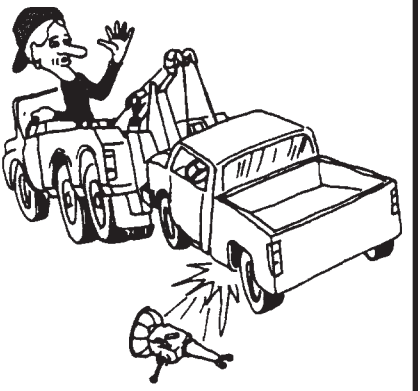
Don't use towing forks that are not of proper size for pick-up requirements.



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 on the towed vehicle.

Don't travel with the wrecker PTO engaged. Engage it only while operating the wrecker controls.

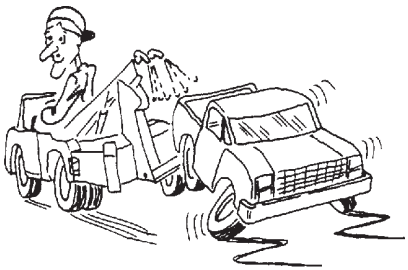




Don't tow a vehicle on its drive wheels unless steps have been taken to protect its transmission and differential. Follow the recommendations of the vehicle manufacturer. As an alternative, use a towing dolly.

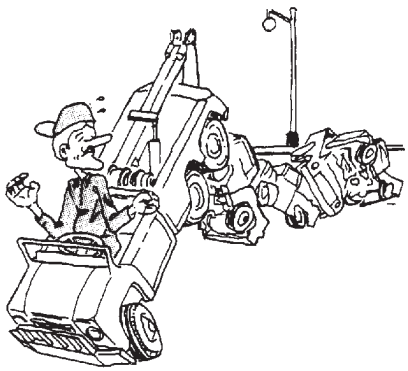
SAFETY TIPS

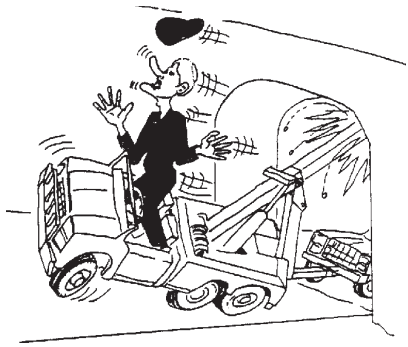
Don't tow a vehicle on its front wheels if they are damaged.



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

Don't tow a vehicle at night without proper signal lights on the towed vehicle and the wrecker.

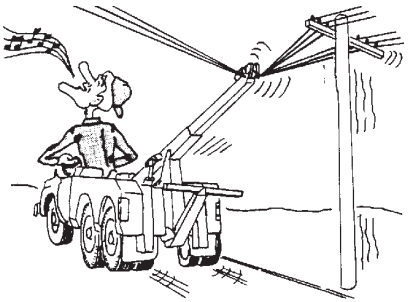


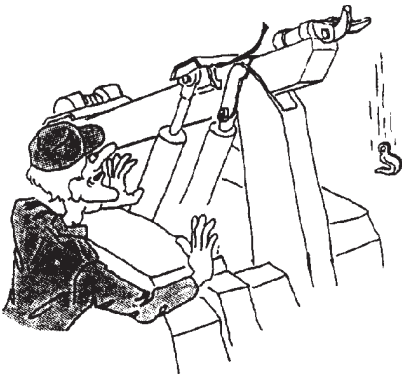


After rigging cables, don’t begin pulling without rechecking connections. Make sure that all cables and shatch blocks are securely attached and cannot accidentally pull loose.

SAFETY TIPS

Don't move wrecker or extend boom where overhead power lines may be encountered.





Don't continue to wind in winch cable after the hook is against the boom end.

SAFE TOWING

There are two key factors in safe towing:

1. Have enough front axle weight for safe steering.
2. Avoid excess rear axle weight.

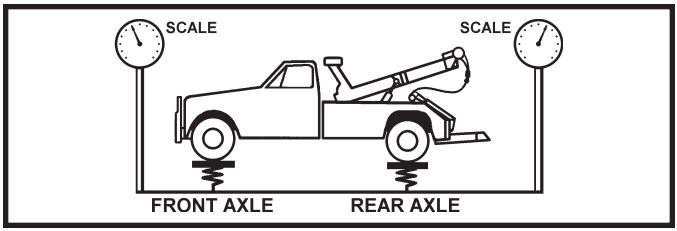
The issue here is safety. Unsafe steering may cause a serious accident. It is recommended that a safe steering formula that maintains at least 50 percent of the UNLADEN (unloaded) front axle weight, for towing, be used.

The formula is expressed as follows: ML = .5FAW x WB/OH
where:

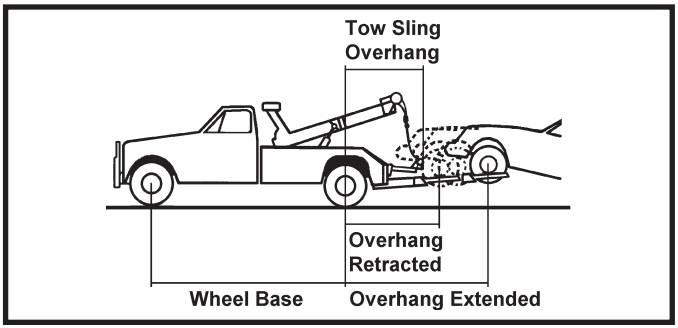
ML = maximum lifted load for safe steering.
FAW = unladen (unloaded) weight at front axle.
WB = wheel base or distance between the center of the front axle to the center of the rear axle(s).
OH = overhang or distance from the center of the rear axle(s) to the lift point of the towing device.

To use the formula, multiply the unladen weight at the front axle by .5. Multiply the result by the wheel bases. Then, divide that result by the overhang. So, you should calculate the maximum lifted load for each tow truck, using this formula, post those limits in the truck and instruct each driver to strictly observe those limits.

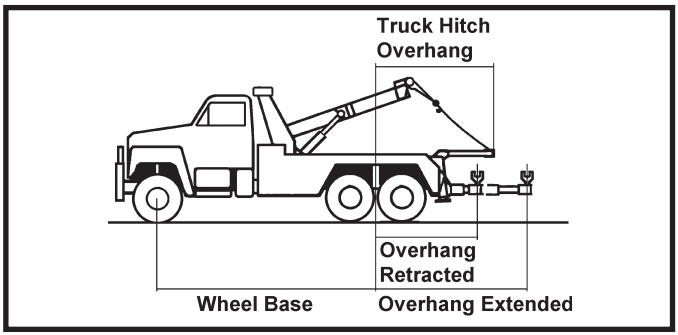
You should also observe gross vehicle weight ratings (GVWR), gross axle weight ratings (GAWR), and the towing equipment ratings.



Unladen weights at front and rear axles.



Wheel base and overhang distances for tow slings and wheel lifts.



Wheel base and overhang distances for truck hitches and underlifts.

NOTES

Section II - SPECIFICATIONS

2.1 Federal law requires that the final stage manufacturer, i.e., that person or company installing new equipment on a new chassis, must certify the completed vehicle by obtaining, completing and affixing to the door post on the drivers side of the vehicle, a Certification Label similar to the one shown. See Figure 2.1.

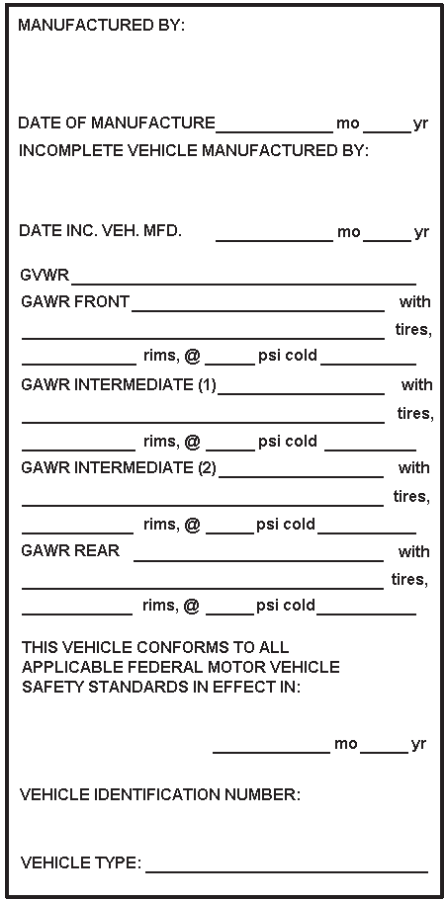


FIGURE 2.1

Section II - SPECIFICATIONS (cont'd)

2.2 SERIAL NUMBER/SPECIFICATION LABELS

Each Century 1060 Wrecker will have a Serial Number/Specification Label mounted on the wrecker frame and each Century Underlift will have a Serial Number/Specification Label mounted on the outer boom support. These labels will display the Model Number, Serial Number, Lift/Tow and Cable Ratings.

2.3 SPECIFICATIONS - 1060 WRECKER

(a) Winches

Planetary variable speed winches with 50,000 lb. rating on first layer of each drum, air kickout, and fail safe brake.

(b) Cable

Diameter and Length (Each Drum) . . . . . 3/4" dia. x 250 ft.
Type. . . . . .6 x 37 IWRC, XIPS
Working Limit, Each Line. . . . . 16,560 lbs.

(c) Wrecker Boom Specifications

Basic Structural Rating
Retracted . . . . . 120,000 lbs.
2-Stage Extended . . . . . 35,000 lbs.
3-Stage Extended . . . . . 24,000 lbs.

Reach Past Tailgate at 0° (Retracted) . . . . . 26"
Reach Past Tailgate at 0° (2-Stage Extended) . . . . . 170"
Reach Past Tailgate at 0° (3-Stage Extended) . . . . . 254"

Maximum Working Height at Maximum Elevation 2-Stage . 30' 5"
Maximum Working Height at Maximum Elevation 3-Stage . 37' 6"

Maximum Boom Elevation Above Horizontal 2-Stage. . . . . 48°
Maximum Boom Elevation Above Horizontal 3-Stage. . . . . 60°

Minimum Boom Elevation . . . . . 0°

Section II - SPECIFICATIONS (cont'd)

2.4 SPECIFICATIONS - SDU/3 UNDERLIFT

Structural Rating:
- First Stage . . . . . 45,000 lbs.
- Second Stage . . . . . 25,000 lbs.
- Third Stage . . . . . 15,000 lbs.
- Tow Capacity . . . . . 80,000 lbs.

Distance from Tailboard:
- First Stage . . . . . 55"
- Second Stage . . . . . 83"
- Third Stage . . . . . 111"

Height Above Ground:
- Full Up Retracted. . . . . 52-1/2"
- Full Up Extended . . . . . 60"

Maximum Hydraulic Extension. . . . . 56"

2.5 CHASSIS RECOMMENDATIONS (MINIMUM)

Tandem Axle Chassis is recommended, however, Tri-Axle Chassis can be accomodated. Contact factory for details.

Minimum Rear Axle GAWR . . . . . 18,000 lbs.
Minimum Rear Axle GAWR . . . . . 46,000 lbs.
Minimum RBM Each Frame Rail . . . . . 3,500,000 in-lb.
Minimum C.B. (Cab to Bogie) Dimension . . . . . 180"
Minimum Frame Length Behind Center Line of Bogie . . . . . 62 1/2"

Specified minimum C.B. is for standard length body and provides adequate towing capabilities. Longer C.B. chassis can be accommodated at additional cost. Contact factory for any nonstandard chassis.

The outside frame rails of chassis extending behind cab must be free of fuel tanks, air tanks, battery boxes, exhaust stacks, etc.

Section II - SPECIFICATIONS (cont'd)

2.6 STANDARD FEATURES - 1060S WRECKER

- 3 Stage Hydraulic Pump
- Dual 45,000 Lb. Variable Speed Hydraulic Planetary Winches
- 250' Winch Cable, Each Drum
- 360° Directional Boom End Swivels
- Power Boom Elevation and Extension
- Holding Valves on Boom Elevation and Extension, and Rear Spade Elevation
- Spring Loaded Winch Cable Hook Storage
- Nylatron Slide Pads in Boom
- Lubrication Fittings an All Shafts and Other Moving Parts
- 96" Wide Heavy Duty Body with Flat Floor
- Modular Body
- Hydraulic Rear Spades with Removable Pads
- Four Rear Tie-back Loops on Tailgate
- Dual Control Stations
- Vernier Throttle Control
- Pressure Gauges
- Mud Flaps
- Federal Standard 108 Lighting
- Deluxe Switch Panel
- Wiring Harness in Loom with Junction Box
- Rubber Fenderettes
- Spring Loaded Tool Compartment Door Returns
- Hydraulic Reservoir with Rubber Isolated Mounts, Removable Clean-Out Cover with Tank Drain, and Oil Level Sight Gauge
- Hydraulic Pump with Suction Oil Flow Shut Off Valve
- Boom Cable Wing Supports
- Safety Chains
- Air Operated Winch Clutch Release
- Air Shift PTO

2.7 STANDARD FEATURES - SDU/2

- Power Elevation, Extension and Retraction
- Power Fold for Stinger Storage
- 4 Sets of Frame Forks
- Chain Hook Adapters (Used with Truck Hitch Chains)
- Remote Lanyard Controls
- Safety Pin

Section II - SPECIFICATIONS (cont'd)

2.8 OPTIONAL EQUIPMENT

- Truck Hitch with Hook-Up Chains
- Spotlights
- Convenience Group
- Snatch Blocks
- Tool Compartment Lights
- Work Lights Below Tailgate
- Pintle Hook Attachment
- Fifth Wheel Adapter
- Heavy Duty Wheel Lift
- Lightweight Aluminum Boxes
- Aerodynamic Light Pylon
- Aluminum Package

Note: Specifications Subject to Change without Notification.

NOTES

Section III - OPERATIONAL FUNCTIONS WRECKER

3.1 Your new CENTURY 1060 Wrecker is fully hydraulic. It receives its power by means of a Power Take-Off/Pump combination mounted to the truck transmission. Since the pump is attached to the PTO, no drive line or universal joints are required.

3.2 The Switch Panel is located in the overhead console or beside the drivers seat and controls the light bar, flood lights, auxiliary lights, control station lights and lower work lights.

3.3 Each function of the Wrecker can be controlled from either of the dual Control Stations located at the rear of the wrecker body. See Figures 3.1 and 3.2.

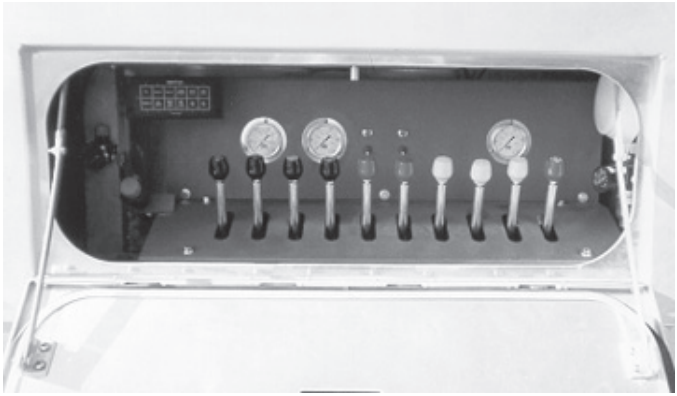


FIGURE 3.1

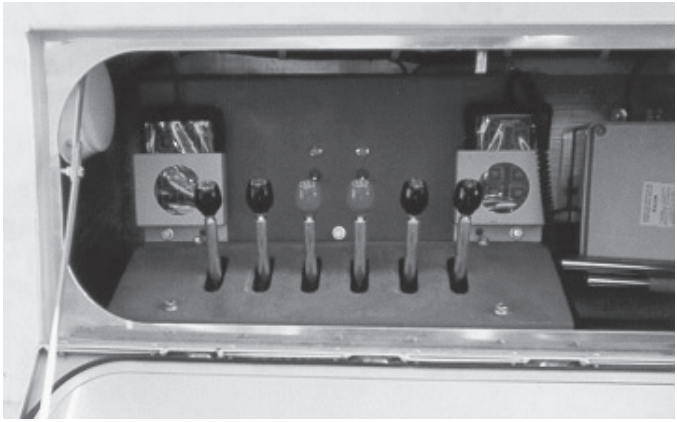


FIGURE 3.2

Section III - OPERATIONAL FUNCTIONS
WRECKER (cont'd)

3.4 The Control Handles are clearly marked as to their functions and directions. Movement of the control handles meters the flow of oil through valves to control the speed of each function. Each valve is equipped with a pressure gauge to monitor the hydraulic pressure during the operation.

3.5 The Vernier Throttle Control or Electronic Throttle Control is located at the left side control station, and is used to vary the speed of the truck engine to govern the maximum speed of the boom cylinders.

3.6 The Wrecker Boom is elevated and extended by means of double-acting hydraulic cylinders. The boom can be elevated or extended under either "LOAD" or "NO-LOAD" conditions.

3.7 The self-locking planetary winches are powered by hydraulic motors attached directly to the winch input shafts. See Figure 3.3.

FIGURE 3.3

NOTE
CHECK OIL LEVEL IN WINCHES BEFORE ANY OPERATION.
FILL TO PROPER LEVEL WITH REQUIRED GEAR LUBRICANT.
REFER TO SECTION V - MAINTENANCE
AND WINCH MANUAL FOR PROPER PROCEDURES.

Section III - OPERATIONAL FUNCTIONS WRECKER (cont'd)

3.8 The winch air free spool switches are located at the left side control station. When activated, the winch clutch is disengaged and the drum will free spool.

NOTE
THE CONTROL SWITCH ON THE SWITCH PANEL IN THE TRUCK CAB MUST BE ON FOR THE FREE SPOOL SWITCHES TO OPERATE.

3.9 The Rear Spades are for use when lifting heavy loads and are controlled by activating control handles located at the control stations on either side of the wrecker body. See Figure 3.3.

FIGURE 3.3

WARNING

USE SAFETY CHAINS ON ALL TOWING AND LIFTING APPLICATIONS

3.10 Safety Chains are located at the tailboard of the wrecker subframe.

NOTES

Section IIIA - OPERATIONAL FUNCTIONS UNDERLIFT

3A.1 Your new Underlift is fully hydraulic. It receives its power from the truck engine by means of a Power Take-Off/Pump combination attached to the vehicle transmission. Since the pump is attached directly to the PTO, no drive line or universal joints are required.

3A.2 Each function of the Underlift can be controlled from the Control Station located in the left rear compartment of the body, or from the Hand Held Remote Control Unit located in the right rear compartment. Refer to Figures 3.1 and 3.2.

3A.3 The Control Handles and Buttons are clearly identified as to functions and directons. Movement of the control handles meters the flow of oil through valves to control the speed of each function. Each valve is equipped with a pressure gauge to monitor the hydraulic pressure during the operation.

3A.4 The Vernier Throttle Control or Electronic Throttle Control is located at the left side control station, and is used to vary the speed of the truck engine to govern the maximum speed of the underlift cylinders.

3A.5 The Underlift is elevated and extended by means of double-acting hydraulic cylinders and can be operated under "LOAD" or "NO-LOAD" conditions.

3A.6 REMOTE CONTROL UNIT

(a) The remote control unit (Power Pal) is located in the right rear body compartment.

(b) The 8-position Power Pal controls the in and out function, the lift up and down function, and the fold up and down function of the underlift.

NOTE
THE CONTROL SWITCH ON THE SWITCH PANEL IN THE TRUCK CAB MUST BE ON FOR THE REMOTE CONTROL UNIT TO OPERATE.

Section IIIA - OPERATIONAL FUNCTIONS
UNDERLIFT (cont'd)

3A.7 Lifting forks and other Underlift towing and lifting accessories are located in the left hand Tool Box of the wrecker body. See Figure 3A.1.

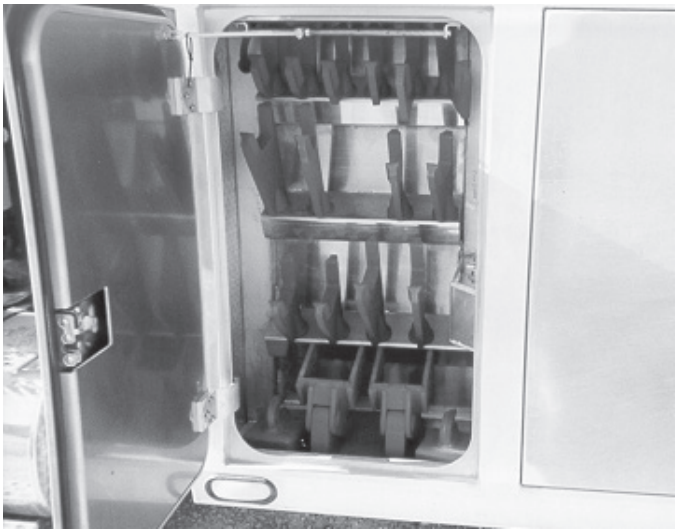


FIGURE 3A.1

Section IV - OPERATING INSTRUCTIONS WRECKER

4.1 For reasons of safety, it is important that the Owner(s) and Operator(s) become thoroughly familiar with the controls and functions of the wrecker before attempting any operation.

4.2 HYDRAULIC WINCHES

(a) **DO NOT** fasten the winch hook directly to any vehicle.
(b) **DO NOT** wrap the winch cable around any object.
(c) **DO NOT** exceed the working limit of the cable.
(d) **DO NOT** use the winches or cable for the lifting of people.

4.3 PREPARING FOR RECOVERY

(a) Position wrecker for recovery.

(b) Reduce truck's engine to idle and apply parking brake. Depress clutch, place transmission in neutral and engage PTO by activating toggle switch located on dash panel in cab.

⚠ CAUTION

NEVER DRIVE TRUCK ON STREET WITH PTO ENGAGED, THIS CAN CAUSE PUMP FAILURE DUE TO OVER-SPEED AND OVERHEATING.

(c) To adjust engine speed to desired RPM, set Throttle Control "ON/OFF" toggle switch located at the rear control station to the "ON" position, and adjust engine speed by activating the "SET/RES" toggle switch. Engine speed may be adjusted to a MAXIMUM of 1350 RPM. To release throttle control, set Throttle Control switch to "OFF" position.

(d) When equipped with Vernier Throttle Control, set engine speed by slowly turning outer control knob counterclockwise. To release vernier throttle control, push button in the center of the knob in, while also pushing outer knob straight in.

DO NOT EXCEED 1350 RPM

Section IV - OPERATING INSTRUCTIONS
WRECKER (cont'd)

4.4 CABLE PAYOUT

Before operating any control handles, observe the winch cables to make sure they are free and have sufficient slack to allow the boom to extend. If not, pay out cable by using the Cable “IN/OUT” Controls. Maintain tension on cable during payout to avoid fouling line. If manually paying out cable, switch on the Air Free Spool switch and pull cables out to sufficient length for boom extension.

4.5 BOOM ELEVATION & EXTENSION

(a) Elevate boom to the desired height and angle by use of the Boom “UP/DOWN” Control.

NOTE
IN THE EVENT OF HYDRAULIC PRESSURE LOSS, THE BOOM WILL REMAIN AT THE DESIRED ELEVATION DUE TO THE HOLDING VALVES LOCATED AT THE LIFT CYLINDERS.

(b) Extend boom to the desired length by use of the Boom “IN/OUT” Control.

CAUTION

TO AVOID DAMAGE TO WINCHES, CABLES, OR BOOM, MAKE CERTAIN WINCH CABLES ARE FREE AND HAVE SUFFICIENT SLACK TO ALLOW BOOM TO EXTEND.

4.6 REAR SPADES

(a) The Rear Spades are for use when lifting heavy loads.

(b) The Rear Spades are raised and lowered by activating control handles located at the control station.

Section IV - OPERATING INSTRUCTIONS
WRECKER (cont'd)

4.6 REAR SPADES (cont'd)

STAND CLEAR
WHILE OPERATING REAR SPADES

USE SAFETY CHAINS ON ALL TOWING
AND LIFTING APPLICATIONS

NOTES

SECTION IVA - OPERATING INSTRUCTIONS UNDERLIFT

4A.1 For reasons of safety, it is important that the Owners and Operator(s) become thoroughly familiar with its controls, components and load requirements before attempting any operation.

4A.2 PREPARING TO LOAD VEHICLE

(a) Align wrecker with vehicle to be towed.

(b) Reduce truck's engine to an idle, and apply parking brake. Depress clutch, place transmission in neutral and engage PTO by activating toggle switch located on dash panel in cab.

⚠ CAUTION

NEVER DRIVE TRUCK ON STREET WITH PTO ENGAGED, THIS CAN CAUSE PUMP FAILURE DUE TO OVER-SPEED AND OVERHEATING.

(c) To adjust engine speed to desired RPM, set Throttle Control "ON/OFF" toggle switch located at the rear control station to the "ON" position, and adjust engine speed by activating the "SET/RES" toggle switch. Engine speed may be adjusted to a MAXIMUM of 1350 RPM. To release throttle control, set Throttle Control switch to "OFF" position.

(d) When equipped with Vernier Throttle Control, set engine speed by slowly turning outer control knob counterclockwise. To release vernier throttle control, push button in the center of the knob in, while also pushing outer knob straight in.

DO NOT EXCEED 1350 RPM

(e) Elevate the wrecker boom by use of the BOOM "UP/DOWN" Control Handle until it clears the SDU lifting arm.

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.3 UNDERLIFT OPERATION

(a) Each function of the underlift can be controlled using the Hand Held Remote Control Unit or by the control handles at the left control station.

(b) Press FOLD "DOWN" button until Underlift Boom is all the way down. See Figure 4A.1.

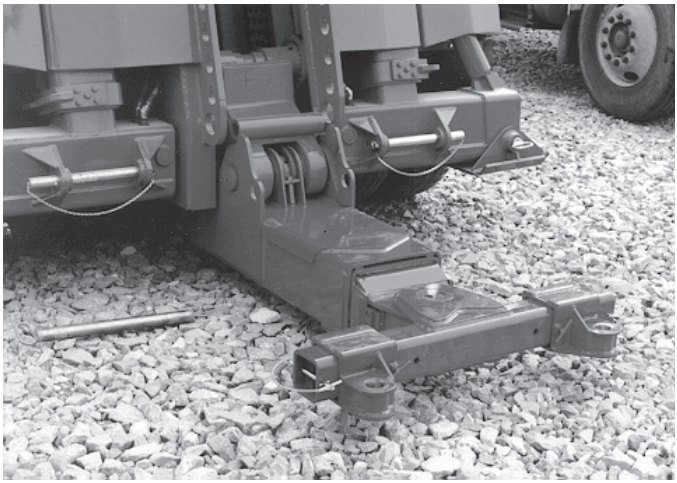


FIGURE 4A.1

4A.4 At this point, you must determine which type lift you are going to use for towing: FORK LIFT; SPRING LIFT; AXLE LIFT; TRUCK WHEEL LIFT; etc. The following text covers the methods of operation for each of the above mentioned lifts. Towing attachments are located in the storage compartments on the left hand side of the body. See Figure 4A.2.

4A.4 (cont'd)

FIGURE 4A.2

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.5 AXLE LIFT (USING FORKS)

NOTE
STEPS A THRU D ARE NOT REQUIRED IF AXLE IS HIGH ENOUGH TO PERMIT EXTENSION OF CROSSBAR UNDER AXLE WITH FORKS INSTALLED.

(a) Press "OUT" button and extend the Underlift Boom (without forks attached) until crossbar is centered with front axle of disabled vehicle.

(b) Press "UP" button and lift truck by front axle until the wheels are high enough to be blocked up.

(c) Insert blocks under wheels.

NOTE
WHEELS MUST BE BLOCKED HIGH ENOUGH FOR AXLE TO CLEAR FORKS AFTER THEY ARE INSTALLED ON CROSSBAR.

(d) Press "DOWN" button and lower boom completely.

(e) Press "IN" button to retract boom until fork adapters can be installed on crossbar.

(f) Loosen "T" handles on fork adapters and slide adapters onto crossbar.

(g) Position fork adapters in desired position on crossbar. (Fork adapters may be placed in any of four (4) positions). Place retaining pins in holes in crossbar and secure with lynch pins. See Figures 4A.3 and 4A.4.

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.5 AXLE LIFT (USING FORKS) (cont'd)

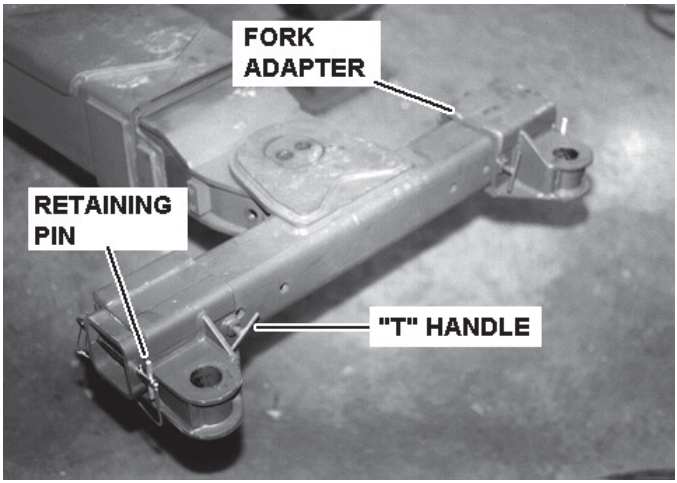


FIGURE 4A.3

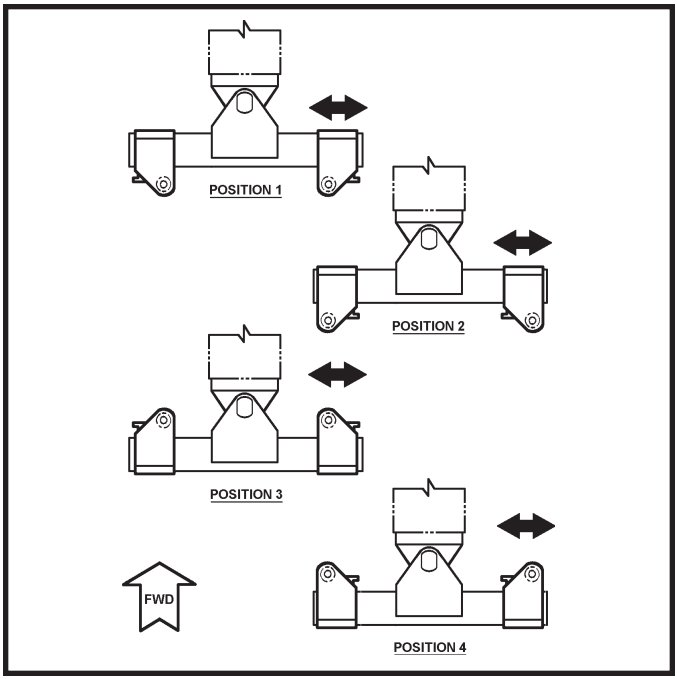


FIGURE 4A.4

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.5 AXLE LIFT (USING FORKS) (cont'd)

(h) Select forks suited for job and install in fork adapters on crossbar. See Figure 4A.5.

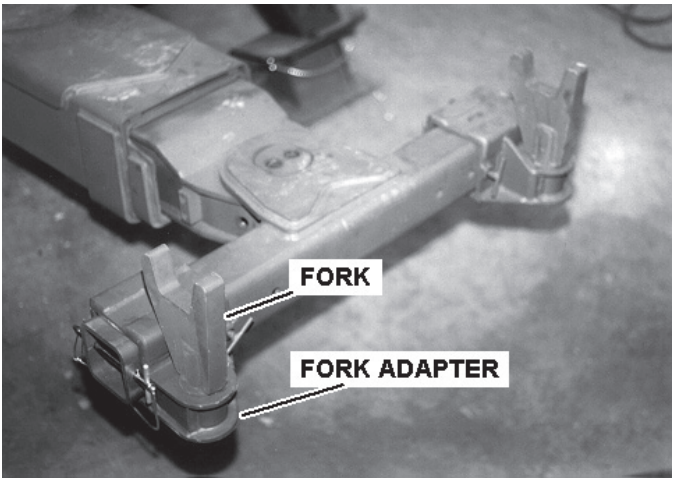


FIGURE 4A.5

(i) Press "OUT" button to extend boom until forks are under axle.

NOTE
TILT BOOM DOWN, AS REQUIRED, USING "TILT DOWN" BUTTON UNTIL FORKS WILL CLEAR AXLE.

(j) Manually adjust fork adapters on crossbar to a point where the forks will contact the axle at the position desired for towing.

(k) Tighten "T" handles on adapters. Make sure retaining pins at ends of crossbar are secure. See Figure 4A.6.

NOTE
RETAINING PINS MUST BE IN PLACE DURING ALL TOWING APPLICATIONS.

4A.5 AXLE LIFT (USING FORKS) (cont'd)

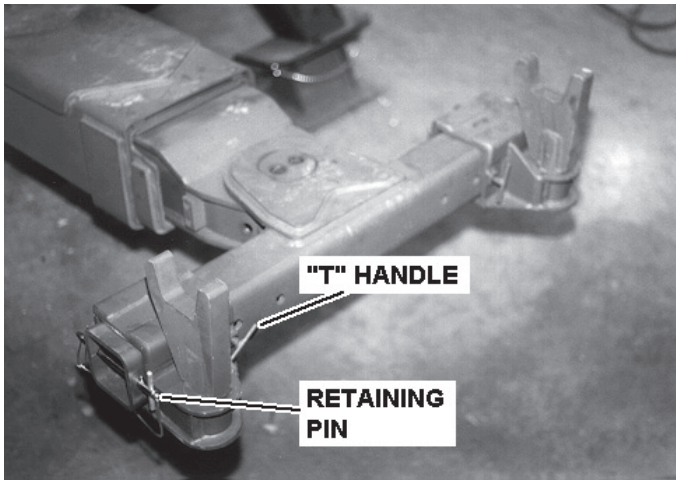


FIGURE 4A.6

(l) Press "TILT UP" button and bring forks into contact with axle. If necessary, press "UP" button to raise boom.

(m) Attach safety chains around axle, crossbar tube and forks as shown in Figure 4A.7.

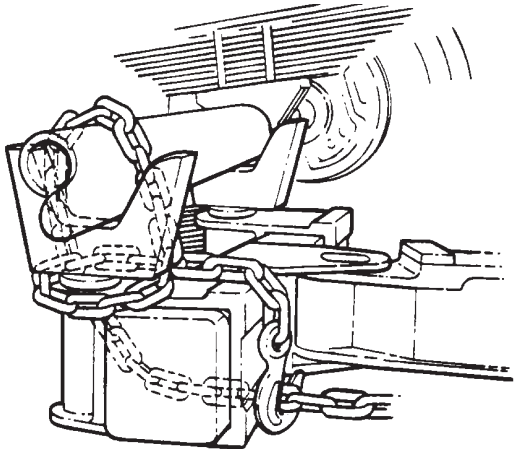


FIGURE 4A.7

4A.5 AXLE LIFT (USING FORKS) (cont'd)

WARNING

USE SAFETY CHAINS ON ALL TOWING AND LIFTING APPLICATIONS.

(n) Press "UP" button to raise vehicle to desired height for towing.

(o) Remove blocks if previously placed under front wheels.

CAUTION

MAKE NO ATTEMPT TO USE THE FOLD FEATURE OF THE UNDERLIFT BOOM TO RAISE OR PICK UP A LOAD. THE UNDERLIFT FOLD CYLINDER WILL NOT HOLD, BUT WILL LEAK DOWN.

(p) Press "IN" button and pull vehicle in as far as possible while still maintaining a safe turning radius.

(q) Attach ends of safety chains to "D" rings located at bottom of wrecker boom, to the clevis located at the bottom of the inner boom, or to the tie-back loops on tailgate.

NOTE
MAKE SURE THERE IS ENOUGH SLACK IN SAFETY CHAINS TO PERMIT TURNING.

(r) Stow remote control unit and give hookup a final check before commencing towing operation.

4A.6 SPRING LIFT

(a) Press "DOWN" button and lower boom completely.

(b) Loosen "T" handles on fork adapters and slide adapters onto crossbar.

(c) Position fork adapters in desired position on crossbar. (Fork adapters may be placed in any of four (4) positions). Place retaining pins in holes in crossbar and secure with lynch pins. Refer to Figures 4A.3 and 4A.4.

(d) Retrieve spring lift brackets from storage and install on fork adapters on crossbar. See Figure 4A.8.

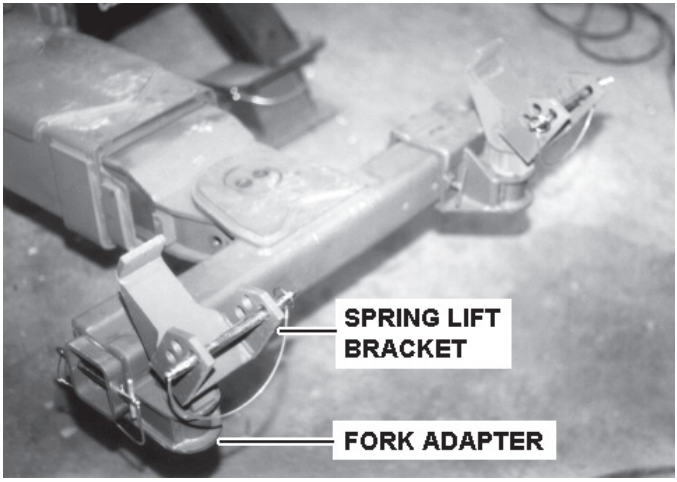


FIGURE 4A.8

(e) Press "OUT" button and extend boom until spring lift brackets are under front hangers (on some vehicles, the spring brackets may need to be inserted into adapters after extending crossbar behind bumper).

(f) Manually adjust spring lift brackets on crossbar to a point where the brackets will engage the springs at the front hanger brackets. See Figure 4A.9.

4A.6 SPRING LIFT (cont'd)

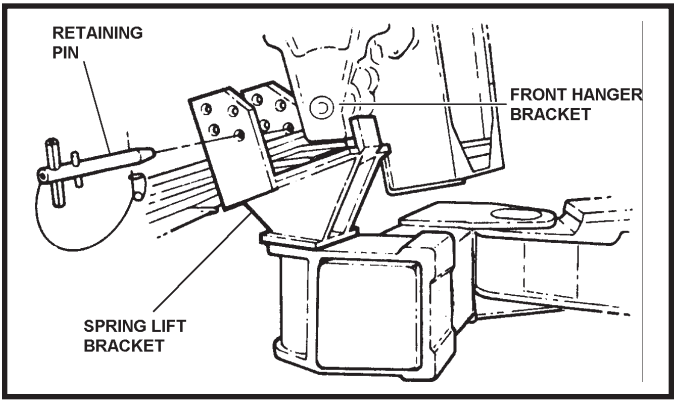


FIGURE 4A.9

(g) Tighten "T" handles on adapters. Make sure retaining pins at ends of crossbar are secure.

(h) Press "UP" button and raise boom until brackets are properly seated under springs at front spring hanger brackets.

(i) Insert retaining pin through lowest unobstructed hole of spring lift bracket and secure with safety pin. Refer to Figure 4A.11.

(j) Attach safety chains around springs, spring lift brackets and crossbar tube in such a manner as to prevent any movement to front or rear.

(k) Press "UP" button and raise vehicle to desired height for towing.

(l) Using "IN" button, pull vehicle in as far as possible while still maintaining a safe turning radius.

(m) Attach ends of safety chains to "D" rings located at bottom of wrecker boom, to the clevis located at the bottom of the inner boom, or to the tie-back loops on tailgate.

4A.6 SPRING LIFT (cont'd)

WARNING

USE SAFETY CHAINS ON ALL TOWING AND LIFTING APPLICATIONS

NOTE
MAKE SURE THERE IS ENOUGH SLACK IN SAFETY CHAINS TO PERMIT TURNING.

(n) Stow remote control unit and give hookup a final check before commencing towing operation.

4A.7 TRUCK WHEEL LIFT (OPTIONAL)

(a) Press "DOWN" button and lower boom until crossbar just clears ground level.

(b) Slide outer crosstubes onto underlift crossbar. Place crosstube retaining pins in holes in crossbar and secure with lynch pin.

(c) Extend boom to maximum stroke and then retract approximately 3".

(d) Disengage PTO and back wrecker until crosstubes are firmly against tires of truck to be towed. Take wrecker out of gear, apply parking brake and re-engage PTO.

(e) Insert adjustment tubes into outer crosstubes. Insert retainer pins into keyhole slots on outer crosstube and rotate 180° to lock in place.

(f) Install tire supports onto adjustment tubes and slide in until firmly against back of tire. Insert retainer pins into keyhole slots on tire supports and rotate 180° to lock in place. See Figures 4A.10 and 4A.11.

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.7 TRUCK WHEEL LIFT (cont'd)

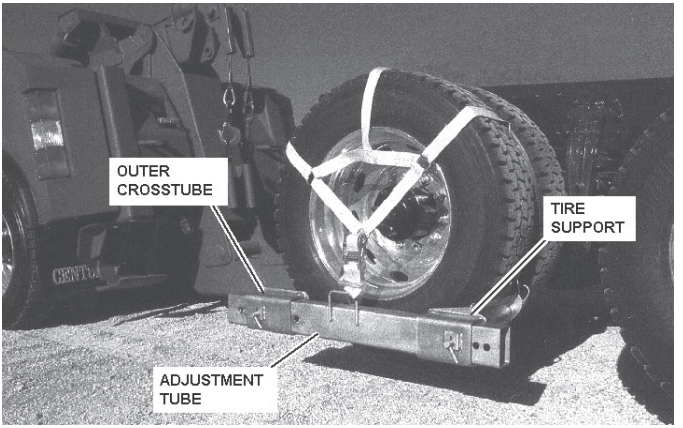


FIGURE 4A.10

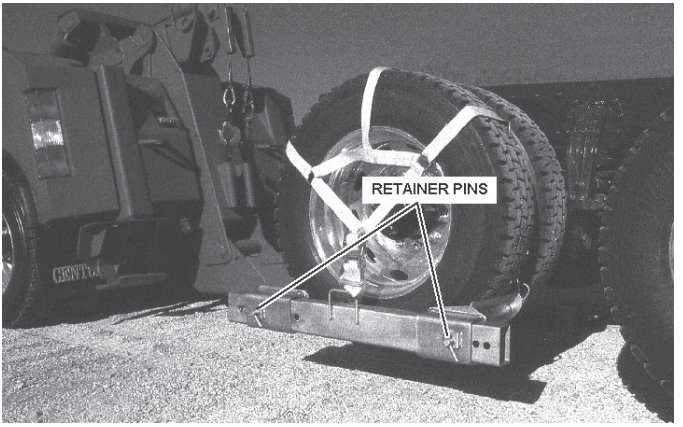


FIGURE 4A.11

(g) Before lifting dual axle vehicles from the rear, install 5/16" high test tow chains on both sides of vehicle to be towed. Attach one end of chain around forward axle, over frame rail and back around axle. Secure hook into chain, removing as much slack as possible.

(h) Take vehicle out of gear and make sure parking brake is "OFF".

4A.7 TRUCK WHEEL LIFT (cont'd)

(i) Raise vehicle to desired height for towing.

(j) Attach tiedown strap hooks to outer crosstube and tire support and place strap over tire as shown in Figure 4A.12.

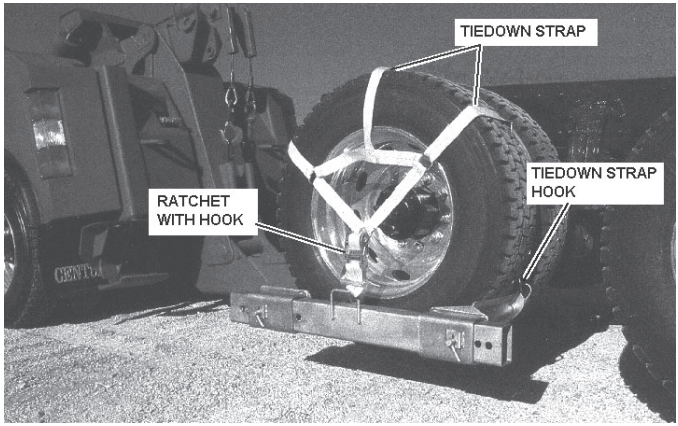


FIGURE 4A.12

(k) Release tiedown strap ratchet and pull out sufficient length of strap to insert ratchet hook into hole in the adjustment tube. Refer to Figure 4A.12.

(l) Tighten tiedown strap around tire securely with ratchet.

(m) Repeat tiedown strap procedures on opposite side of vehicle to be towed.

(n) Press "IN" button and pull vehicle in as far as possible while still maintaining a safe turning radius.

(o) Attach ends of safety chains to "D" rings located at bottom of wrecker boom, to the clevis located at the bottom of the inner boom, or to the tie-back loops on tailgate.

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.7 TRUCK WHEEL LIFT (cont'd)

WARNING

USE SAFETY CHAINS ON ALL TOWING AND LIFTING APPLICATIONS.

NOTE
MAKE SURE THERE IS ENOUGH SLACK IN SAFETY CHAINS TO PERMIT TURNING.

(p) Stow remote control unit and give hookup a final check before commencing towing operation.

4A.8 KINGPIN ADAPTER (OPTIONAL)

(a) Install Fork Adapters on crossbar as shown in Figure 4A.13.

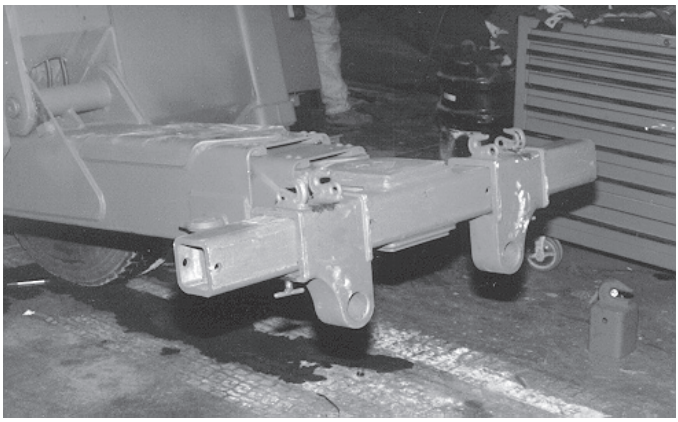


FIGURE 4A.13

(b) Attach Pintle Hook Bracket to fork adapters. Install the two (2) pintle hook bracket retaining pins and tighten "T" handles on fork adapters. See Figure 4A.14.

4A.8 KINGPIN ADAPTER (cont'd)

NOTE
PINTLE HOOK MUST BE REMOVED FROM PINTLE HOOK BRACKET FOR KINGPIN ADAPTER APPLICATIONS.

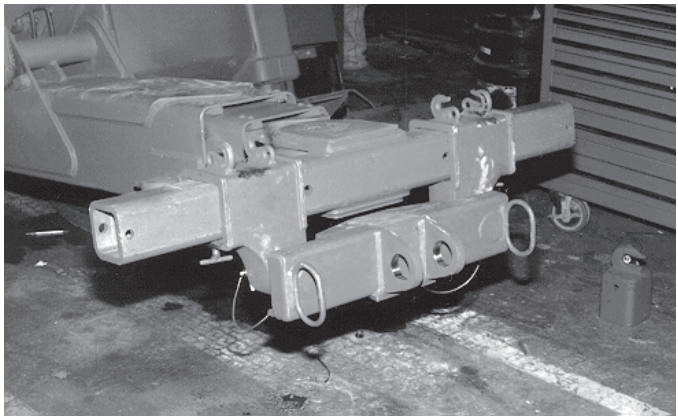


FIGURE 4A.14

(c) Attach Kingpin Adapter to pintle hook bracket with attaching pin and lock pin. See Figures 4A.15 and 4A.16.

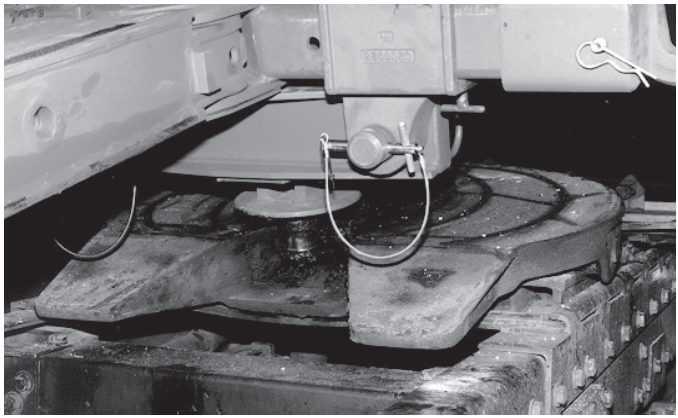


FIGURE 4A.15

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.8 KINGPIN ADAPTER (cont'd)

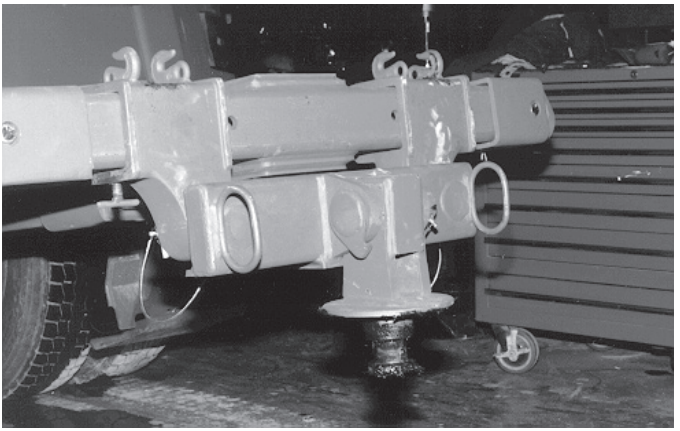


FIGURE 4A.16

(d) Position and align kingpin adapter at proper elevation and extend underlift until adapter engages and locks into fifth wheel on the tractor. Refer to Figure 4A.15.

NOTE
INSPECT FIFTH WHEEL PLATE FOR FATIGUE AND/OR DAMAGE FROM IMPROPER USE PRIOR TO USING THIS ATTACHMENT.

(e) Before lifting vehicle, install two (2) 3/8" GR70 tow chains (MINIMUM REQUIRED). Route chain around frame rails and over crossbar, placing chain between hooks on fork adapters, removing as much slack as possible. As the vehicle is lifted, the load should transfer to the tow chains. See Figure 4A.17.

4A.8 KINGPIN ADAPTER (cont'd)

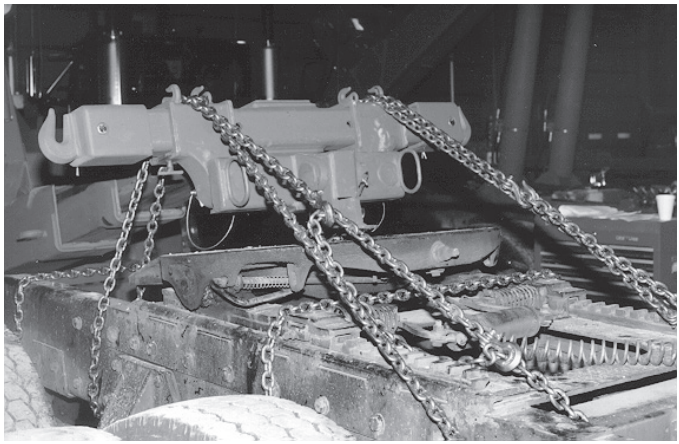


FIGURE 4A.17

(f) On tractors with air bag suspensions, you must secure each axle with minimum 5/16" GR70 tow chain to prevent damage to air bags. Route chain around axle on one side, across frame rails and around axle on other side. Refer to Figure 4A.17.

(g) Secure vehicle with safety chains and inspect for transport.

4A.9 5TH WHEEL ADAPTER (OPTIONAL)

(a) Install fork adapters on crossbar as shown in Figure 4A.18.

SECTION IVA - OPERATING INSTRUCTIONS
UNDERLIFT (cont'd)

4A.9 5TH WHEEL ADAPTER (OPTIONAL)

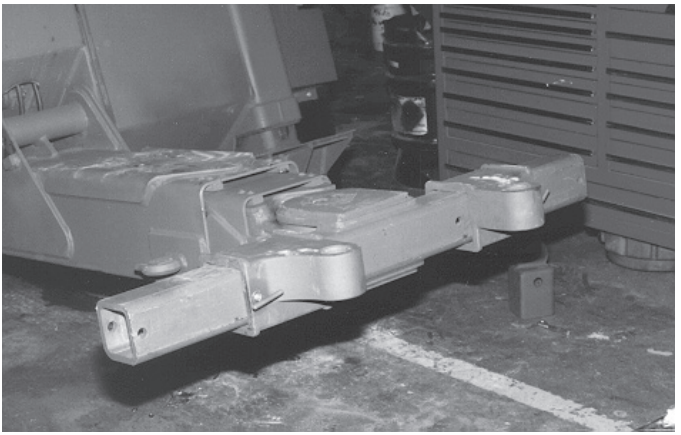


FIGURE 4A.18

(b) Attach pintle hook bracket to fork adapters. Install the two (2) pintle hook bracket retaining pins and tighten "T" handles on fork adapters. See Figure 4A.19.

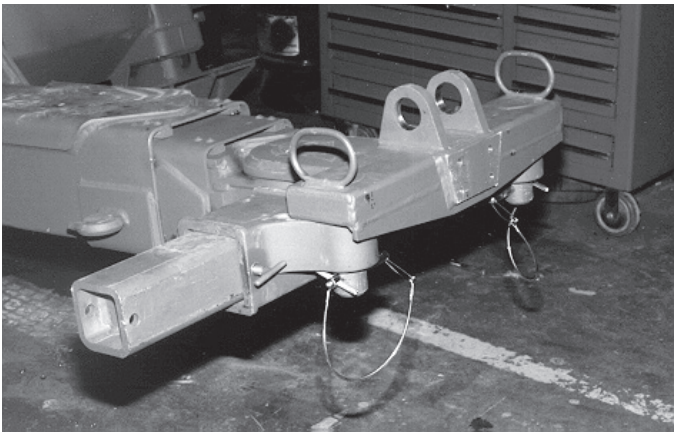


FIGURE 4A.19

(c) Attach 5TH Wheel Adapter to pintle hook bracket with attaching pin and lock pin. See Figure 4A.20.

4A.9 5TH WHEEL ADAPTER (cont'd)

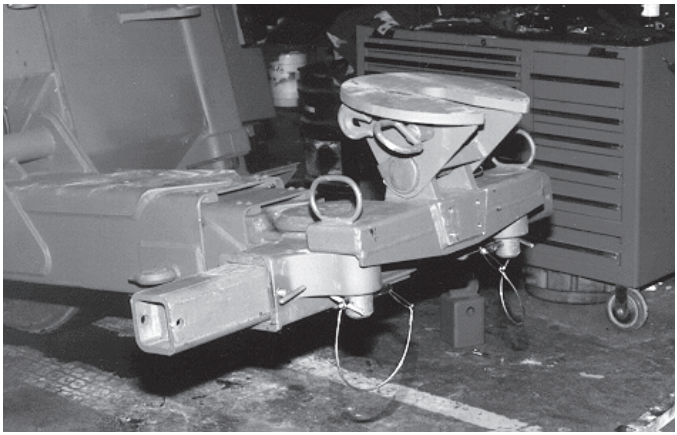


FIGURE 4A.20

(d) Install left and right Chain Hook Adapters on crossbar and secure with two (2) retaining bolts and safety pins. Remove pull pin from fifth wheel adapter. Position and align fifth wheel adapter with trailer kingpin at proper elevation and extend underlift until adapter engages trailer kingpin. Replace pull pin and secure with safety pin. Attach two 1/2" high test tow chains (MINIMUM REQUIRED) to hooks on both sides of underlift outer boom and left & right chain hook adapters. Extend underlift until chains are tight to prevent crossbar from pivoting. See Figure 4A.21.

4A.9 5TH WHEEL ADAPTER (cont'd)

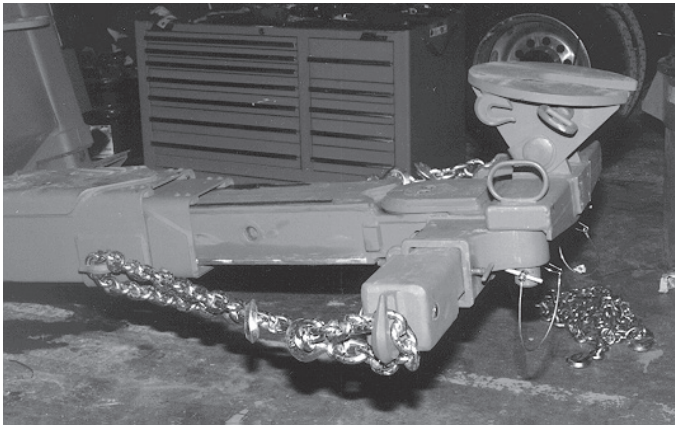


FIGURE 4A.21

(e) Secure trailer with safety chains and inspect for transport.

Section V - MAINTENANCE

5.1 The continued operation of your CENTURY 1060 Wrecker and Super Duty Underlift is largely dependent upon strict adherence to a properly scheduled preventive maintenance program. To help you in this program, CENTURY has provided the following information regarding lubrication, preventive maintenance, hydraulic system and safety devices care.

5.2 HYDRAULIC SYSTEM

The importance of absolute cleanliness of the hydraulic system cannot be over stressed. The smallest amount of grit, metal flake or other foreign material in the system can cause extensive damage to pumps, motors and valves. CENTURY has taken every measure to assure that each component and fitting was thoroughly cleaned before your unit was shipped to you. Therefore, servicing of the system should be done with extreme care.

(a) Before checking oil level in reservoir, wipe away all dirt, grease and grime around filter cap before removing it. Make certain that all containers, funnels and pouring spouts are absolutely clean before filling reservoir.

(b) When replacing hoses, fittings or other components, clean thoroughly, dismantle and reassemble carefully.

(c) Failure to observe these precautions, and failure to change the filter element at regular intervals could result in loss of your warranty in the event of failure to certain components.

5.3 LUBRICATION & PREVENTIVE MAINTENANCE

The following general lubrication and preventive maintenance should be performed at least once per month for moderate usage, or more often as required, for heavy usage.

(a) Inspect, repair or replace any worn, cracked, leaking, otherwise damaged components including, but not limited to, the following:

1. **Hydraulic Hoses and Fittings**
2. **Cables and Fittings**
3. **Cylinders**
4. **Boom End Fittings**
5. **Controls**

5.3 LUBRICATION & PREVENTIVE MAINTENANCE (cont'd)

6. **Hydraulic Oil Filters**
7. **Oil Reservior**
8. **Lights and Wiring**
9. **Winches**
10. **Pivot Bearing Surfaces and Pins**

(See Lubrication Charts, page V-4 & V-5.)

(b) Check hydraulic oil level in reservoir and fill to center of sight gauge. Refer to 5.4, part (a), SUMMARY OF REQUIRED LUBRICANTS for recommended oils to use.

(c) Replace hydraulic oil filters after first week of operation, then every three (3) months thereafter.

(d) Inspect all bolts for tightness and re-tighten as necessary. Vibration and stress may loosen even properly torqued bolts.

(e) Lubricate all grease fittings on the Wrecker and Wheel Lift including:

1. **Spade Cylinder Pivots**
2. **Sheaves (fittings in sheave shafts)**
3. **Boom End Swivels (fitting top side of boom swivel)**
4. **Winch Clutches**
5. **Boom Elevation and Extension Cylinder Pivots**
6. **Boom Pivot**
7. **Underlift Pivot**
8. **Underlift Tilt Cylinders (each end)**

(f) All bearing surfaces not equipped with grease fittings should be oiled using SAE 30 oil in a pump can.

(g) Grease boom slide pads with grease with grease fittings located on top of outer boom at heel end second stage only.

(h) Check oil level of winches and fill to level of oil plug located in side plate of gear housing Use SAE 140 general purpose gear oil. Lubrcate grease fittings on clutches.

Section V - MAINTENANCE (cont'd)

5.3 LUBRICATION & PREVENTIVE MAINTENANCE (cont'd)

(i) Lubricate winch cables using an oily rag while respooling onto drum. Other special cable lubricants are available which have better penetrating qualities. Consult your local oil company for a list of these.

5.4 SUMMARY OF REQUIRED LUBRICANTS

(a) **Hydraulic Oil**

Examples:
1. **Amoco - Super Permalube 10W30**
2. **Gulf - Gulflube X.H.D. 10W30**
3. **Mobil - Deluxe Special 10W30**
4. **Sinclair - Triplex**
5. **Texaco - Ursatex 10W30** or Equal

(b) **Winch Worm Gear Oil** - SAE 140 general purpose gear oil.

Examples:
1. **Humble - Pen-O-Led EP #5**
2. **Phillips - Phillips Worm Gear Oil 140**
3. **Shell - Macona #978**
4. **Sinclair - Pennant EP #6**
5. **Standard - Stanogear #5**
6. **Texaco - Maropa #5**

(c) **Grease** - Synthetic Fortified such as Drydene SFG.

(d) **Oil for miscellaneous bearing surfaces** - SAE 30.

(e) **Cable Oil** - SAE 30 or special cable lubricant.

(f) **Oil for SDU lift chains** - Good grade open chain oil.

NOTE
THERE IS NO PRACTICAL WAY TO DETERMINE THE LIFE EXPECTANCY OF HYDRAULIC HOSES AND OTHER RUBBER COMPONENTS.

WHILE APPEARING TO BE IN EXCELLENT CONDITION, THESE COMPONENTS MAY BE ADVERSELY AFFECTED BY USAGE, WEATHER OR THE PASSING OF TIME.

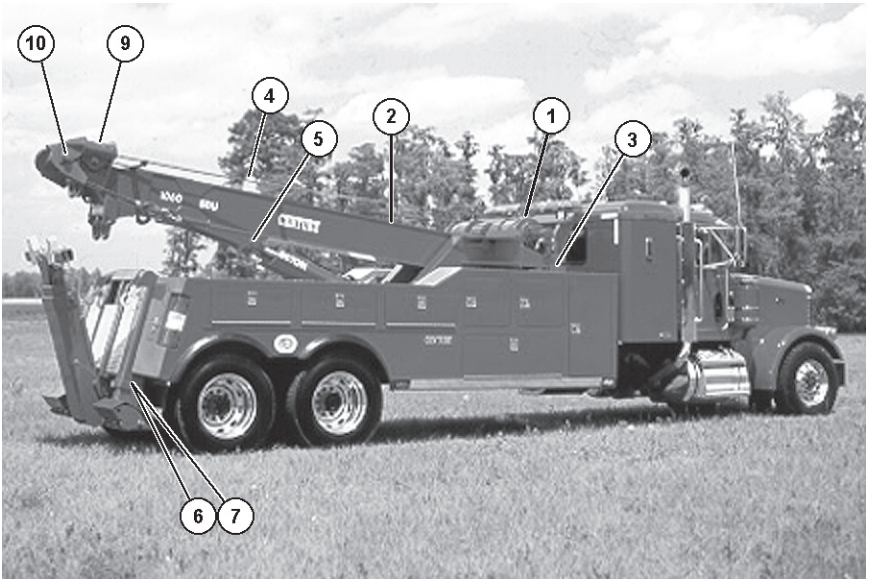
THEREFORE, IT IS RECOMMENDED THAT ALL RUBBER COMPONENTS, ESPECIALLY HOSES, BE REPLACED EVERY FIVE (5) YEARS REGARDLESS OF APPEARANCE.

5.5 CARE OF HYDRAULICS IN COLD CLIMATE

When the CENTURY Wrecker and Underlift are used in seasonal cold climate regions (+20° F and below), the viscosity of the normally recommended 10W30 oil may increase to the point where it adversely affects hydraulic functions during starting and warm-up.

If this is the case, it will be necessary to change fluids seasonally to maintain maximum system efficiency and life.

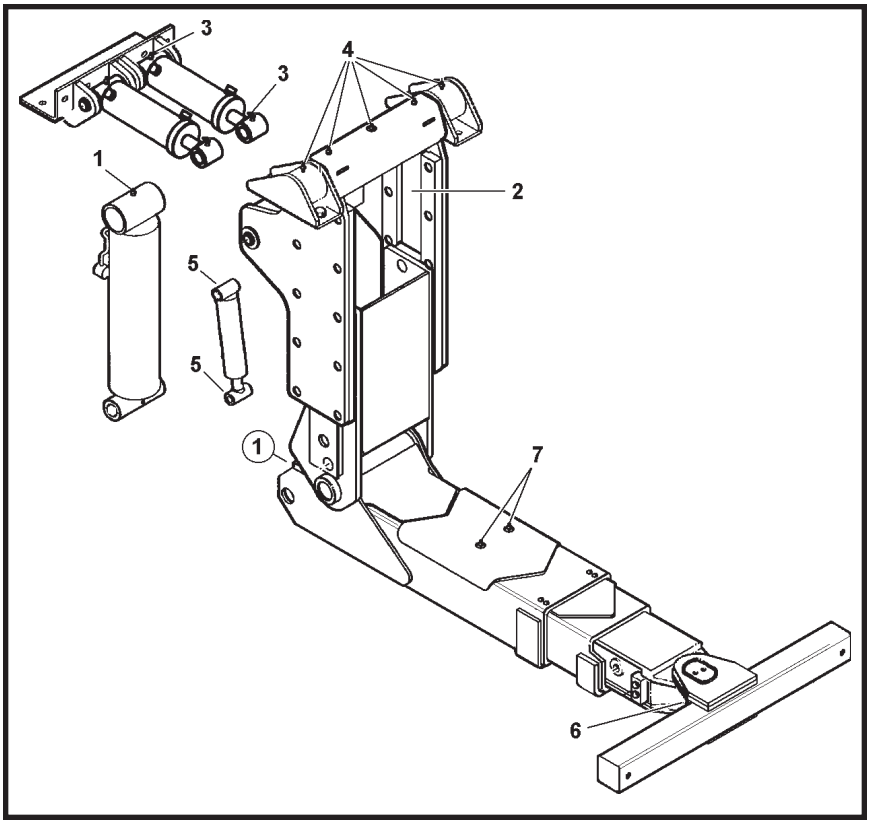
Regions subject to continuous sub-zero or arctic climates require special hydraulic fluids. Contact CENTURY or your local supplier for information regarding specific temperature requirements.



5.6 LUBRICATION - WRECKER

1. Winch Oil Level - SAE 140 gear oil to proper level.
2. Hydraulic Reservoir - recommended hydraulic fluid to proper level.
3. Hydraulic Filters - Replace after first week of operation, then every three (3) months.
4. Cable - Use oily rag or approved cable lubricant.
5. Cylinder Pivot Bearings - use synthetic fortified grease.
6. Rear Spade Cylinders - use synthetic fortified grease.
7. Rear Spade Tubes - coat with GP grease.
8. Boom Slide Pads (Top and Bottom) - use synthetic fortified grease.
9. Boom End Swivels - use synthetic fortified grease.
10. Sheaves - use synthetic fortified grease.
11. Control Handle Shafts - use synthetic fortified grease.
12. Compartment Door Pivots - Use SAE 30 Oil.

NOTE
THE ABOVE LUBRICATION REQUIREMENTS SHOULD BE SERVICED MONTHLY. SERVICE MORE OFTEN IF THE WRECKER AND UNDERLIFT ARE USED QUITE FREQUENTLY.



5.7 LUBRICATION - UNDERLIFT

1. Lift Cylinder Pivots (3 places) - use synthetic fortified grease.
2. Lift Slide Rails - use synthetic fortified grease.
3. Tilt Cylinder Pivots - use synthetic fortified grease.
4. Main Pivot Pin - use synthetic fortified grease.
5. Fold Cylinder Pivots - use synthetic fortified grease.
6. Crossbar Pivot - use synthetic fortified grease.
7. Boom Extension Tube - use synthetic fortified grease.

NOTE
THE ABOVE LUBRICATION REQUIREMENTS SHOULD BE SERVICED MONTHLY. SERVICE MORE OFTEN IF THE WRECKER AND UNDERLIFT ARE USED QUITE FREQUENTLY.

Section V - MAINTENANCE (cont'd)

5.8 FILTER/REGULATOR OPERATION AND SERVICE

(a) The miniature filter/regulator and miniature lubricator are installed on the aft bulkhead of the left rear control station so that air flows in the direction of the arrow on body. See Figure 5.1.

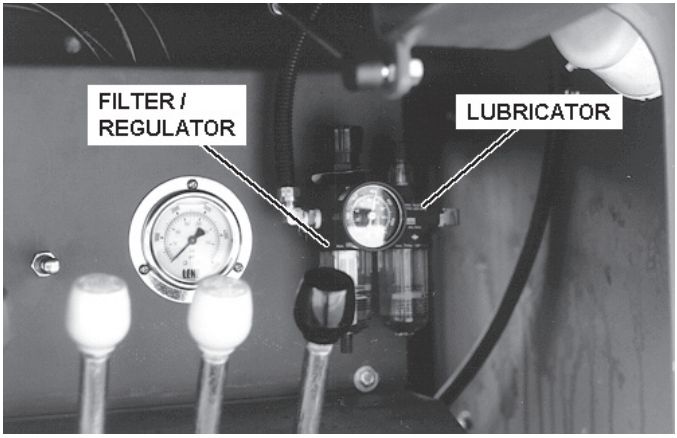


FIGURE 5.1

(b) The filter/regulator and lubricator are installed upstream from the device(s) they are to protect and lubricate.

(c) Both free moisture and solids are removed automatically by the filter/regulator.

(d) Drain whenever water level in sump reaches the lower baffle.

(e) The filter element should be removed and replaced whenever the pressure differential across the filter is 10 PSIG.

(f) To remove the filter element: SHUT AIR LINE DOWN and exhaust the primary and secondary pressure.

1. Unscrew threaded bowl.
2. Unscrew element and remove.
3. Clean bowl and internal parts before reassembling.
4. Attach clean element assembly and tighten firmly.

5.8 FILTER/REGULATOR OPERATION AND SERVICE (cont'd)

5. Replace bowl gasket; lubricate gasket to assist in retaining it in position. Use only mineral base oils or grease. Do NOT use synthetic oils such as esters, and do NOT use silicones.

6. Screw bowl into body and tighten firmly.

(g) The regulator may be serviced without removing it from the line. Before disassembling filter/regulator, SHUT OFF AIR SUPPLY AND EXHAUST PRIMARY AND SECONDARY PRESSURE. Disengage the adjusting knob by pulling upward. Turn the adjusting knob counterclockwise until compression is released from pressure control spring. For servicing diaphragm, unscrew bonnet from body. For servicing poppet, remove threaded bowl and filter element assembly.

(h) BEFORE TURNING ON AIR SUPPLY, TURN THE ADJUSTING KNOB COUNTERCLOCKWISE UNTIL COMPRESSION IS RELEASED FROM PRESSURE CONTROL SPRING. Turn on air pressure. Then proceed to adjust the desired downstream pressure by turning adjusting knob clockwise. This permits pressure to build up slowly in the downstream line.

(i) To decrease regulated pressure settings, always reset from a pressure lower than the final setting required. For example, lowering the secondary pressure from 80 PSI to 60 PSI is best accomplished by dropping the secondary pressure to 50 PSI, then adjusting upward to 60 PSI.

(j) When desired secondary pressure settings have been reached, push the adjusting knob down to lock.

Section V - MAINTENANCE (cont'd)

5.9 LUBRICATOR OPERATION AND SERVICE

(a) FILLING - Inlet pressure must be eliminated before the fill plug or bowl is removed. Fill to fill line on the bowl (DO NOT OVERFILL) with oil of 100 to 200 SSU viscosity at 100° F and an aniline point greater than 200° F - same as SAE No. 10 (petroleum base hydraulic oils are good examples). DO NOT USE OILS WITH ADHESIVES OR TACKY ADDITIVES. COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, SOAPS OR DETERGENTS (automotive oils generally contain detergent) ARE NOT RECOMMENDED.

(b) Replace the fill plug and/or bowl assembly firmly - excessive torque is not necessary. The lubricator is now ready for setting. Repressurize the lubricator.

(c) OIL DELIVERY ADJUSTMENT - To adjust oil delivery, turn adjustment knob on the top of the lubricator.

Leaner - Clockwise
Richer - Counterclockwise

By counting the number of drops per minute in the sight dome, you can adjust to your requirements. 25 drops per minute equal one ounce per hour - volume of oil passing through sight dome.

NOTE: This is a constant density type lubricator which delivers a constant ratio of oil air flow. Therefore, if air flow increases or decreases, oil delivery will be adjusted proportionally. ONLY IF A DIFFERENT RATIO IS DESIRED SHOULD YOUR ADJUSTMENT KNOB SETTING BE CHANGED AFTER YOUR INITIAL SETTING.

(d) MAXIMUM PRESSURE AND TEMPERATURE - 90 PSIG @ 125° F.

(e) TO CLEAN POLYCARBONATE BOWLS, USE MILD SOAP AND WATER ONLY! DO NOT use detergents or cleansing agents, such as acetone, alcohol, benzene, carbon tetrachloride, gasoline, toluene, etc., which are damaging to this plastic.

Section V - MAINTENANCE (cont'd)
MAINTENANCE RECORD

DATE	MECHANIC	WEEKLY*	MONTHLY	QUARTERLY	SERVICE PERFORMED

*IMPORTANT: HYDRAULIC HOSES AND CABLES SHOULD BE INSPECTED WEEKLY FOR SIGNS OF ABRASION.

Section V - MAINTENANCE (cont'd)
MAINTENANCE RECORD

DATE	MECHANIC	WEEKLY*	MONTHLY	QUARTERLY	SERVICE PERFORMED

*IMPORTANT: HYDRAULIC HOSES AND CABLES SHOULD BE INSPECTED WEEKLY FOR SIGNS OF ABRASION.

Section V - MAINTENANCE (cont'd)
MAINTENANCE RECORD

DATE	MECHANIC	WEEKLY*	MONTHLY	QUARTERLY	SERVICE PERFORMED

*IMPORTANT: HYDRAULIC HOSES AND CABLES SHOULD BE INSPECTED WEEKLY FOR SIGNS OF ABRASION.

Section V - MAINTENANCE (cont'd)
MAINTENANCE RECORD

DATE	MECHANIC	WEEKLY*	MONTHLY	QUARTERLY	SERVICE PERFORMED

*IMPORTANT: HYDRAULIC HOSES AND CABLES SHOULD BE INSPECTED WEEKLY FOR SIGNS OF ABRASION.

NOTES

Section VI - PARTS

This Section is provided by the manufacturer for the purpose of ordering any component part of the **CENTURY 1060 Wrecker** and **SDU3 Underlift** that may be required when part replacement is necessary. Be certain to use only original equipment replacement parts for warranty purposes as well as for keeping your **CENTURY 1060 Wrecker** and **SDU3 Underlift** in its original state and optimum operating capacities.

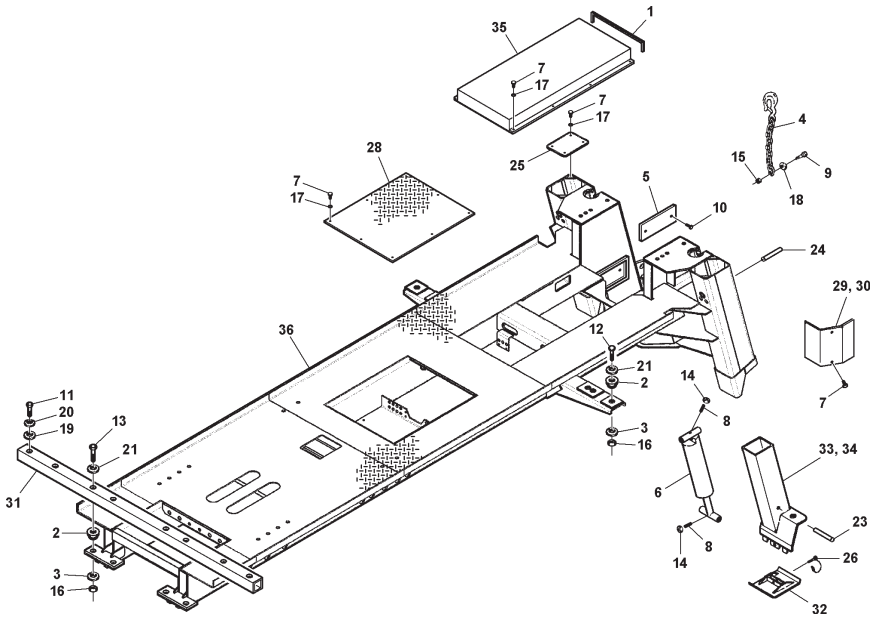
When ordering replacement or spare parts be sure to provide the following information to the manufacturer's **Parts Department**.

1. **Manual Number & Date of Publication**
2. **Manual Page Number**
3. **Page Title**
4. **Reference Number of Part Desired**
5. **Part Number**
6. **Part Description**
7. **Quantity of Part Desired**

Providing this information will help ensure that the correct parts will be delivered to you in an expedient manner without delay. Should additional information be required for repair or replacement of certain components, contact your Wrecker Manufacturer Authorized Representative.

The Manufacturer reserves the right, without notice or obligation, to improve or modify their products, which may change the specifications, models and feature availability.

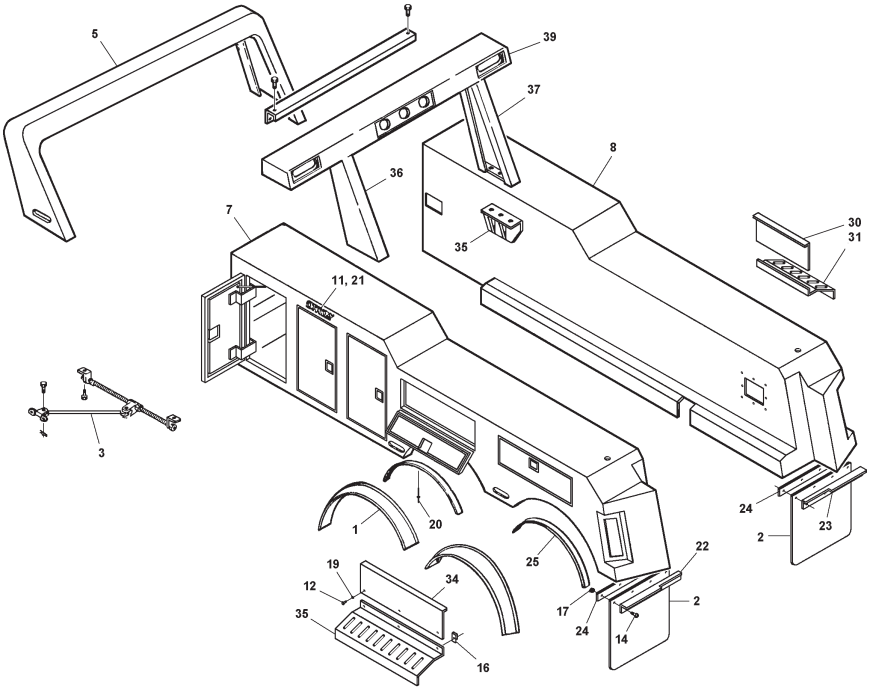
Section VI - PARTS (cont'd)
SUBFRAME ASSEMBLY



Section VI - PARTS (cont'd)
SUBFRAME ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	10 ft.	0301851	TRIM-LOCK, 1/8"
2	8	0302540	CENTER BONDED MOUNT (BE0102)
3	20	0302541	WASHER, SPECIAL (BE0103)
4	2	0303445	SAFETY CHAIN, SYSTEM 10, 1/2" X 14'
5	2	0303481	SLIDE PAD, BUMPER
6	REF.	0303688	CYLINDER, REAR SPADE
7	30	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
8	4	0400139	SCREW, 3/8"-16 X 1-1/2" HEX SKT SET
9	2	0400211	SCREW, 1/2"-13 X 1-3/4" HEX HD CAP
10	4	0400223	SCREW, 3/8"-16 X 3/4" FL HD SKT
11	4	0400276	SCREW, 5/8"-11 X 4-1/2" HEX HD CAP
12	4	0400281	SCREW, 3/4"-10 X 3-1/2" HEX HD CAP
13	4	0400294	SCREW, 3/4"-10 X 6-1/2" HEX HD CAP
14	4	0400392	NUT, 3/8"-16 NYLOK HEX
15	2	0400408	NUT, 1/2"-13 NYLOK HEX
16	4	0400430	NUT, 3/4"-10 NYLOK HEX
17	30	0400452	LOCKWASHER, 1/4" HELICAL
18	2	0400492	WASHER, 1/2" FLAT
19	8	0400506	WASHER, 5/8" FLAT
20	4	0400508	LOCKWASHER, 5/8" HELICAL
21	8	0400510	WASHER, 3/4" FLAT
22	2	0400564	ROLL PIN, 3/8" X 1-3/4" (NOT SHOWN)
23	2	0700884	SHAFT, LOWER JACK
24	2	0707117	SHAFT, UPPER SPADE
25	2	0707194	COVER, SPADE TUBE
26	2	0707199	PIN, SPADE PAD
27	2	0708452	"D" RING, TOWING (NOT SHOWN)
28	1	0711820	FLOOR PLATE, ACCESS COVER
29	1	0714342	CHAIN BOX COVER, LT
30	1	0714343	CHAIN BOX COVER, RT
31	1	0802211	FRONT BODY MOUNTING TUBE
32	2	0802221	SPADE PAD
33	1	0802398	SPADE, LEFT INNER
34	1	0802399	SPADE, RIGHT INNER
35	1	0803315	CYLINDER COVER WELDMENT
36	1	0804039	SUBFRAME WELDMENT
37	2	GA0215	PIN, "D" RING (NOT SHOWN)

Section VI - PARTS (cont'd)
BODY ASSEMBLY

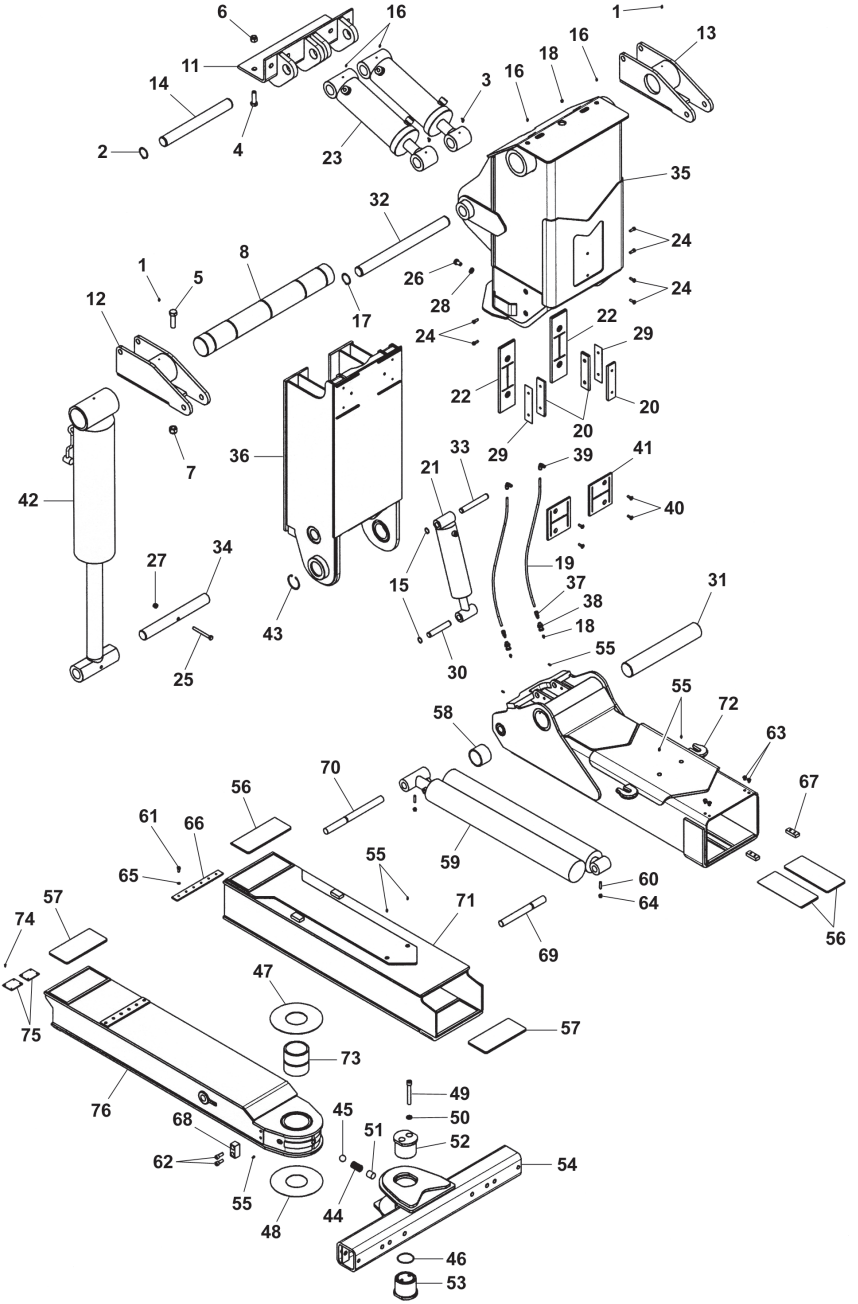


Section VI - PARTS (cont'd)
BODY ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	28 FT.	0300345	RUBBER FENDER
2	2	0301223	MUDFLAP
3	6	0301912	DOOR CHECK, 11"
4	2	0301934	DOOR STOP
5	1	0302562	LIGHT BAR, DELUXE (OPTIONAL)
6	6 ft.	0303056	"D" GASKET (NOT SHOWN)
7	1	0303708	LEFT TOOL COMPARTMENT, 156" C.B.
8	1	0303709	RIGHT TOOL COMPARTMENT, 156" C.B.
9	1	0303061	BACK UP ALARM (NOT SHOWN)
10	2	0400016	SCREW, #8-32 x 1" FL PHIL HD
11	6	0400035	SCREW, #10-24 X 1/2" OVAL HD SELF-TAP
12	6	0400061	SCREW, 1/4"-20 X 3/4" PAN HD SLOTTED
13	6	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
14	8	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
15	38	0400288	SCREW, 3/4"-10 X 2-1/2" HEX HD CAP GR8
16	6	0400369	CLIP, 1/4" TINNERMAN
17	8	0400392	NUT, 3/8"-16 NYLOK HEX
18	38	0400431	NUT, 3/4"-10 NYLOK HEX GR8
19	6	0400451	WASHER, 1/4" FLAT
20	76	0400566	RIVET, 1/4"
21	2	0500406	CENTURY NAMEPLATE
22	1	0705090	MUDFLAP MTG ANGLE, LEFT
23	1	0705091	MUDFLAP MTG ANGLE, RIGHT
24	2	0705092	BAR, MUDFLAP
25	4	0706609	RETAINING STRIP, FENDER
26	2	0707174	TAILGATE MOUNTING ANGLE
27	2	0707175	MOUNTING PLATE
28	2	0709453	MOUNTING PLATE
29	2	0711286	SPACER, REAR FRAME BRACKET
30	1	0711289	SWITCH PANEL, RIGHT
31	1	0711290	CONTROL PANEL, RIGHT
32	2	0714176	GASKET, BASE ANGLE (NOT SHOWN)
33	2	0714177	GASKET (NOT SHOWN)
34	1	0714272	GAUGE PANEL
35	1	0714273	CONTROL PANEL
36	1	0802224	VERTICAL SUPPORT, L.H.
37	1	0802225	VERTICAL SUPPORT, R.H.
38	2	0802226	MOUNTING BRACKET
39	1	0802260	TOP CHANNEL

Section VI - PARTS (cont'd)

SDU3 ASSEMBLY

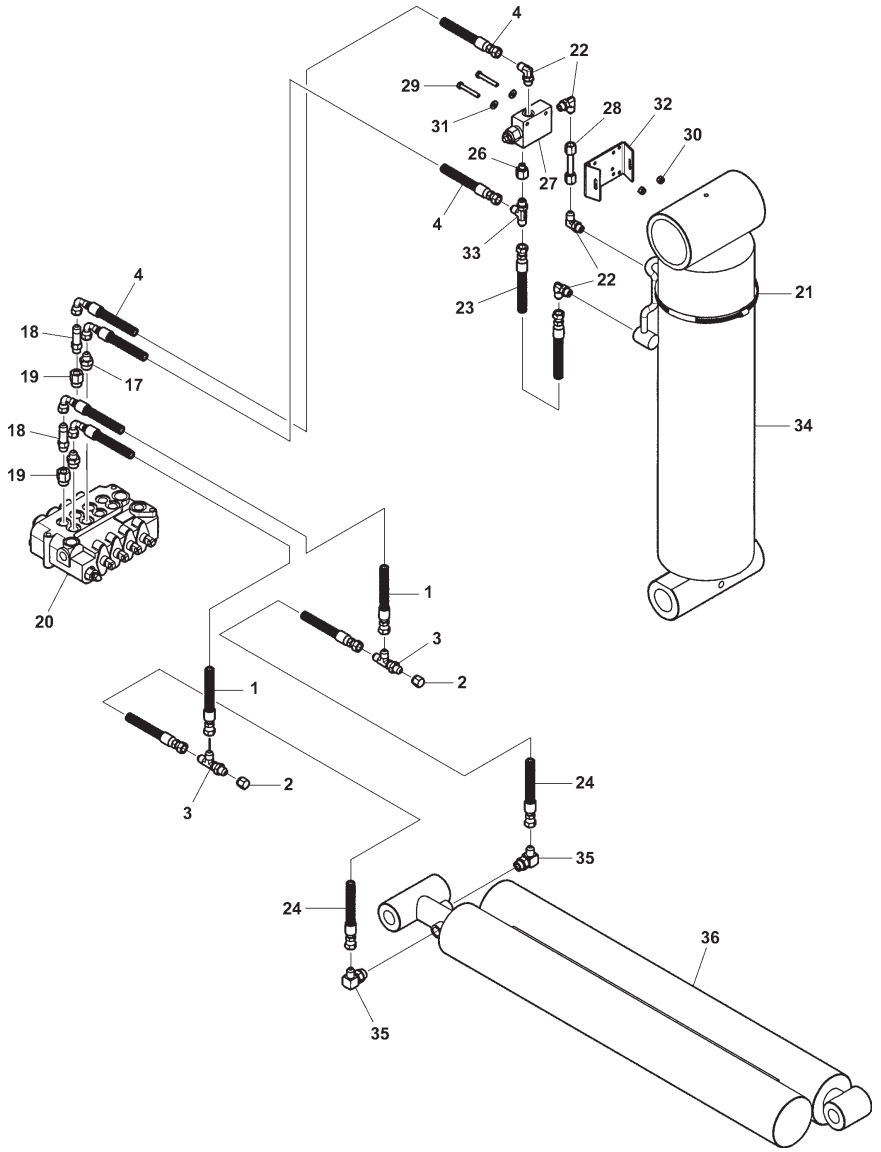


SDU3 ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	--	0904652	INSTALLATION SDU/2 FIX & ROT.
1	2	0300113	GREASE FITTING, 1/4"-28
2	2	0300329	SNAP RING, EXTERNAL 2"
3	2	0301397	GREASE FITTING, 1/4"-28 90°
4	8	0400288	SCREW, 3/4"-10 X 2-1/2" HEX HD CAP GR8 GD
5	8	0400306	SCREW, 7/8"-9 X 3" HEX HD CAP GR8 GOLD
6	8	0400430	NUT, 3/4"-10 NYLOK HEX ZP
7	8	0400437	NUT, 7/8"-9 NYLOK HEX GR8 ZP
8	1	0709242	PIN, MAIN PIVOT
9	0	0716546	PLATE, PIVOT MOUNTING SHIM
10	0	0716547	PLATE, PIVOT MOUNTING SHIM
11	1	0804034	TILT CYLINDER MOUNTING BRACKET
12	1	0804303	SUPPORT, LEFT PIVOT WELDMENT
13	1	0804304	SUPPORT, RIGHT PIVOT WELDMENT
14	1	UK0126	PIN, TILT CYLINDER BASE END
--	--	0907809	UNDERLIFT SDU3 ASSY
15	4	0300110	SNAP RING, 1" 5100-100
16	4	0300113	GREASE FITTING, 1/4"-28 STRAIGHT
17	2	0300329	SNAP RING, EXTERNAL 2"
18	5	0301895	GREASE FITTING, STR 1/8" NPT
19	6 FT.	0301949	HOSE, 3/8" OD SYNFLEX 100'
20	3	0303892	SLIDE PAD, BOOM SIDE
21	1	0306746	CYLINDER, FOLD
22	2	0307351	SLIDE PAD, SDU/2 U/L
23	2	0307378	CYLINDER, TILT SDU/2
24	6	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP GR5 ZP.
25	1	0400219	SCREW, 1/2"-13 X 4-1/2" HEX HD CAP GR5 ZP
26	4	0400248	SCREW, 5/8"-11 X 1" HEX HD CAP GR8 ZP
27	1	0400408	NUT, 1/2"-13 NYLOK HEX ZP
28	4	0400508	LOCKWASHER, 5/8" HELICAL ZP
29	2	0703734	SHIM, SIDE PLATE, OUTER BOOM
30	1	0707179	PIN
31	1	0714209	PIN, PIVOT
32	1	0714218	PIN, TILT CYLINDER
33	1	0714240	PIN, FOLD CYLINDER
34	1	0717919	PIN, LIFT CYLINDER
35	1	0806657	MAST, SDU3 OUTER WELDMENT
36	1	0806658	MAST-SDU3 INNER WELDMENT
37	2	9012549	CONNECTOR-MALE 3/8TUBEX1
38	2	9012552	BULKHEAD COUPLING-1/8 P
39	2	9012584	ELBOW-1/4NPT X 3/8TUBE 9
40	4	9044434	SCREW, 3/8"-16 X 1" NC FLAT

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	--	0907809	UNDERLIFT SDU3 ASSY (cont'd)
41	2	945030004	UPPER WEAR PAD, RECOVERY
42	1	HC0159	CYLINDER, LIFT
43	2	HD0152	SNAP RING, 3" INTERNAL
--	--	0903156	CROSSBAR ASSEMBLY, 5"
44	1	0301197	COMP. SPRING, CROSSBAR, FI
45	1	0301398	STEEL BALL, 1-3/16" DIA
46	1	0301822	O-RING, PIVOT PIN
47	1	0303097	THRUST WASHER, 1/8" THK
48	1	0303098	THRUST WASHER, 1/16" THK
49	2	0400271	SCREW, 5/8"-11 X 4-1/2" SKT HD CAP
50	2	0400508	LOCKWASHER, 5/8" HELICAL ZP
51	1	0708470	SPACER, DETENT BALL SPRING
52	1	0710051	PIN, TOP HALF PIVOT
53	1	0710052	PIN, BOTTOM HALF PIVOT
54	1	0802914	CROSSBAR WELDMENT
--	--	0907810	BOOM, SDU3 HORTZ ASSY
55	8	0300113	GREASE FITTING, 1/4"-28 STRAIGHT
56	3	0301817	SLIDE PAD, HORIZ BOOM NYL
57	2	0301818	SLIDE PAD, HORIZ BOOM
58	2	0302538	BUSHING, STINGER
59	1	0303501	CYLINDER, EXTEND
60	2	0400139	SCREW, 3/8"-16 X 1-1/2" HEX SKT SET
61	6	0400151	SCREW, 3/8"-24 X 3/4" HEX HD CAP GR5 ZP
62	4	0400196	SCREW, 1/2"-13 X 1-1/4" SOCKET HD
63	4	0400228	SCREW, 3/8"-24 X 5/8" BUTTON HEAD
64	2	0400392	NUT, 3/8"-16 NYLOK HEX ZINC
65	6	0400481	LOCKWASHER, 3/8" EXT. TOOTH
66	1	0703233	PLATE, STOP
67	2	0707034	PLATE, STOP
68	2	0710450	BAR, RETRACT
69	1	0712174	SHAFT, EXTEND CYLINDER
70	1	0712195	SHAFT, EXTEND CYLINDER
71	1	0803441	2ND STAGE BOOM WELDMENT
72	1	0806656	OUTER BOOM WELDMENT
--	--	0903901	INNER BOOM ASSEMBLY
73	1	0303088	BUSHING, PIVOT PIN
74	8	0400044	DRIVE SCREW, #10 X 1/2" RD HD
75	2	0703277	PAD, SLIDER
76	1	0803442	INNER BOOM WELDMENT

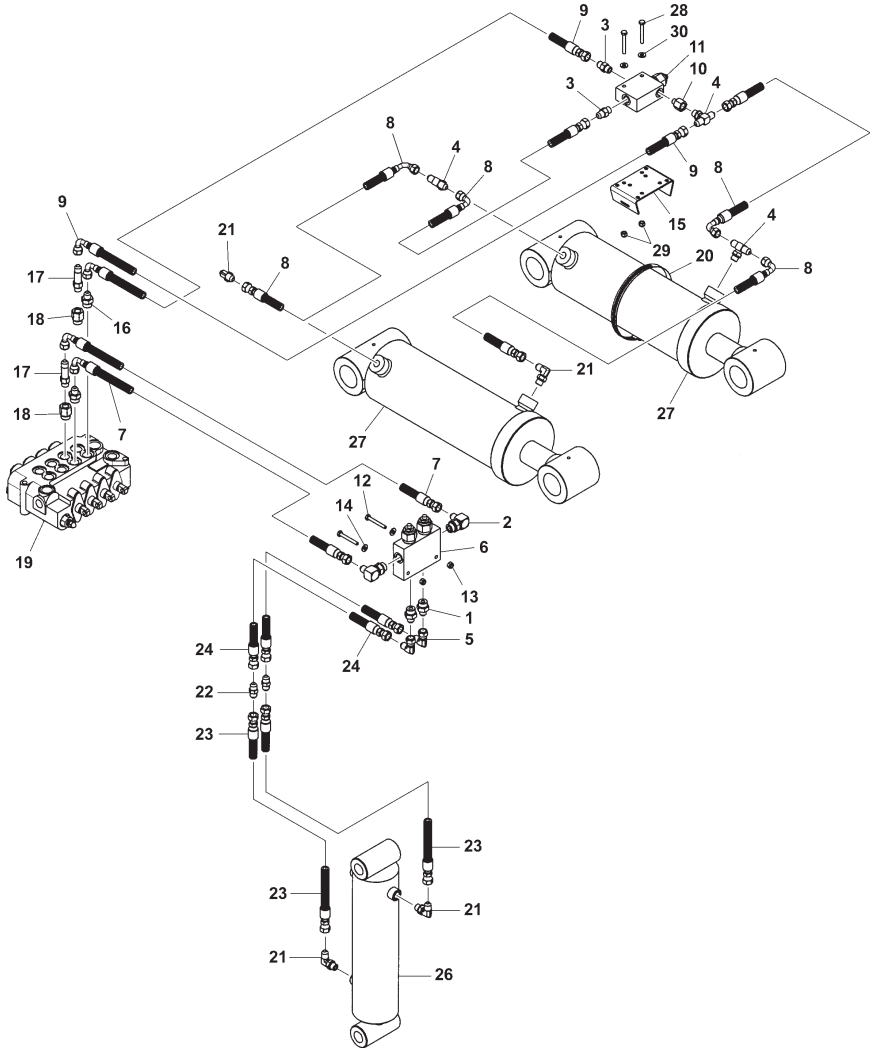
SDU3 LIFT & EXTEND HYDRAULICS



SDU3 LIFT & EXTEND HYDRAULICS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	--	0904652	INSTALLATION SDU/2 FIXED & ROTATOR
1	2	0301998	HOSE ASSEMBLY, 24"
2	2	0302065	CAP ADAPTER
3	2	0302575	BULKHEAD RUN TEE
4	2	0303170	HOSE ASSEMBLY, 75"
--	--	0904785	HOSE TENSION KIT (NOT SHOWN)
5	4	0400082	1/4-20 X 1.12 EYE BOLT
6	6	0400191	1/2-13X3.75 HHCS GR5 ZP
7	2	0400366	1/4-20 HEX NUT ZP
8	4	0400367	1/4-20 NYLOK HEX NUT ZP
9	6	0400413	1/2-20 NYLOK NUT PLATED
10	2	0400451	1/4 FLATWASHER ZP
11	2	0700188	BRACKET, BULKHEAD
12	4	0703484	PULLEY, HOSE TENSIONER
13	2	0703487	BRACKET, HOSE TENSIONER PULLEY
14	8	0703488	WASHER, HOSE TENSIONER PULLEY
15	4	0714388	ANGLE, NYLON SHEAVE
16	2	AWS-1011-A	SPRING CLAW
--	--	0906748	CONTROL VALVE ASSEMBLY, SDU/2
17	2	0300044	CONNECTOR, 6MJ-8MB
18	2	0302510	CONNECTOR, 6MJ-6MBL

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	--	0906748	CONTROL VALVE ASSEMBLY, SDU/2 (cont'd)
19	2	0303017	CONNECTOR, 8MB-6FB
20	1	0303093	CONTROL VALVE, 4 SPOOL PARKER
--	--	0907809	UNDERLIFT ASSEMBLY, SDU3
21	1	0300644	HOSE CLAMP, 8"
22	4	0301620	ELBOW, 6MJ-6MB90
23	1	0302000	HOSE ASSEMBLY, 24"
24	2	0303187	HOSE ASSEMBLY, 141"
25	45 FT.	0303193	BLACK SKUFF JACKET SJ16 (NOT SHOWN)
26	1	0307106	CONNECTOR, 4MB-6FB
27	1	0307107	HOLDING VALVE, 4000 PSI SAE
28	1	0307417	TUBE ASSY, 3/8" OD X .035" W X 3"
29	2	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP GR5 ZP
30	4	0400367	NUT, 1/4"-20 NYLOK HEX ZP
31	2	0400451	WASHER, 1/4" FLAT ZP
32	1	0703001	MOUNTING BRACKET, CHECK VALVE
33	1	9012594	RUN TEE, 6MJ-6MB-6MJ
34	1	HC0159	UNDERLIFT LIFT CYLINDER
--	--	0907810	HORIZONTAL BOOM ASSEMBLY, SDU3
35	2	0301470	ELBOW, 6MJ-8MB90
36	1	0303501	UNDERLIFT EXTEND CYLINDER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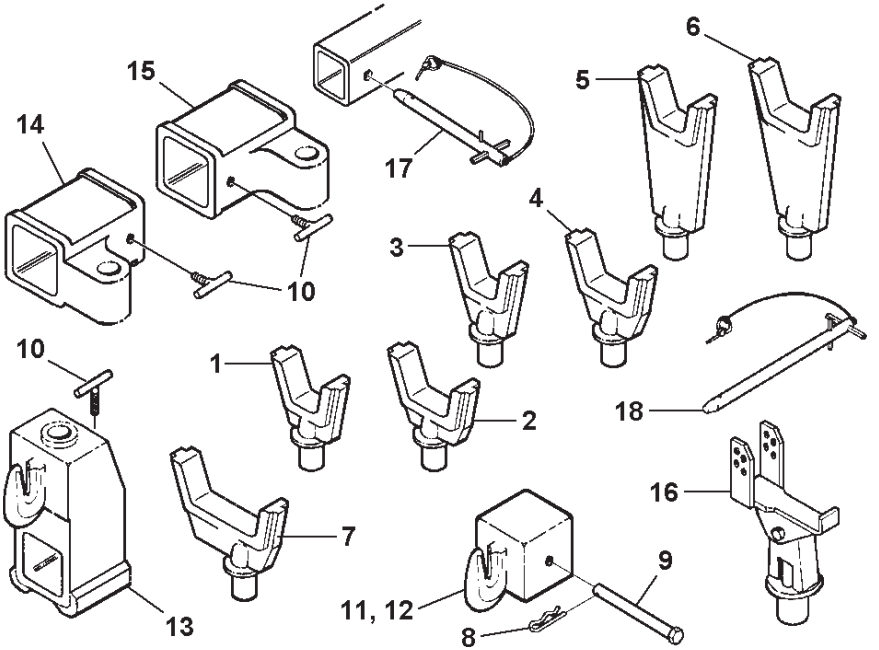
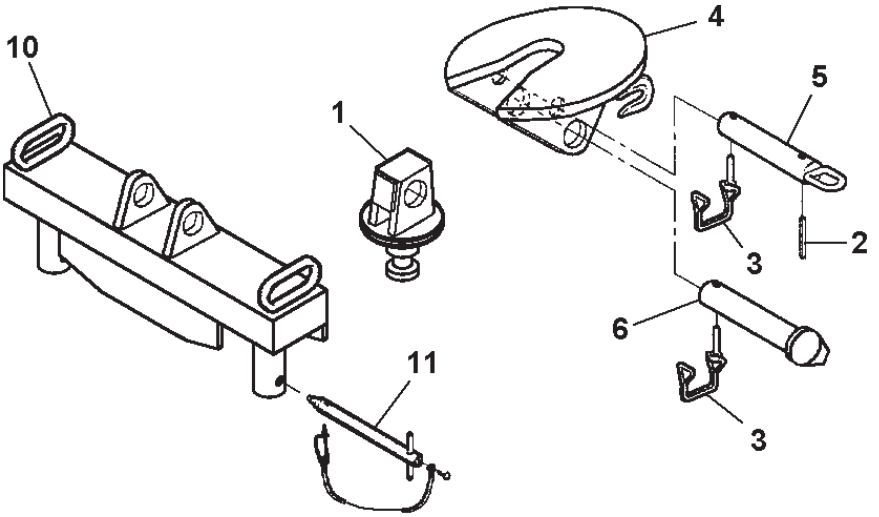
SDU3 TILT & FOLD HYDRAULICS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
--	--	0904652	INSTALLATION SDU/2 FIXED & ROTATOR
1	2	0300044	CONNECTOR, 6MJ-8MB
2	2	0301470	ELBOW, 6MJ-8MB90
3	2	0301522	CONNECTOR, 6MJ-6MB
4	3	0301619	BRANCH TEE, 6MJ-6MJ-6MB
5	2	0301696	ELBOW, 6MJ-6FJX90
6	1	0301730	VALVE, DOUBLE HOLDING
7	2	0301998	HOSE ASSEMBLY, 24"
8	4	0302808	HOSE ASSEMBLY, 18"
9	2	0303389	HOSE ASSEMBLY, 46"
10	1	0307106	CONNECTOR, 4MB-6FB
11	1	0307107	VALVE, HOLDING 4000 PSI SAE
12	2	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP GR5 ZP
13	4	0400367	NUT, 1/4"-20 NYLOK HEX ZP
14	2	0400451	WASHER, 1/4" FLAT ZP
15	1	0703001	MOUNTING BRACKET, CHECK VALVE
--	--	0906748	CONTROL VALVE ASSEMBLY, SDU/2
16	2	0300044	CONNECTOR, 6MJ-8MB
17	2	0302510	CONNECTOR, 6MJ-6MBL
18	2	0303017	CONNECTOR, 8MB-6FB
19	1	0303093	CONTROL VALVE, 4 SPOOL PARKER
--	--	0907809	UNDERLIFT SDU3 ASSY
20	1	0300365	HOSE CLAMP, 7"
21	4	0301620	ELBOW, 6MJ-6MB90
22	2	0301837	INLINE ORIFICE
23	2	0301997	HOSE ASSEMBLY, 18"
24	2	0302813	HOSE ASSEMBLY, 108"
25	45 FT.	0303193	BLACK SKUFF JACKET SJ16
26	1	0306746	UNDERLIFT FOLD CYLINDER
27	2	0307378	UNDERLIFT TILT CYLINDER
28	2	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP GR5 ZP
29	4	0400367	NUT, 1/4"-20 NYLOK HEX ZP
30	2	0400451	WASHER, 1/4" FLAT ZP

SDU3 LIFT ADAPTERS



KING PIN & FIFTH WHEEL ADAPTER



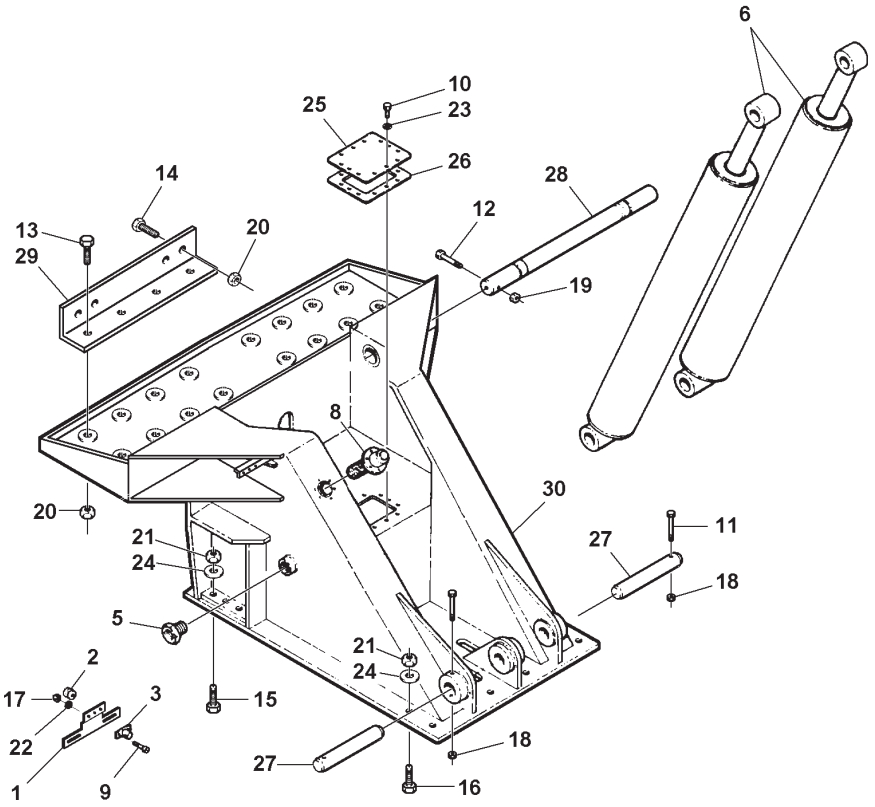
SDU3 LIFT ADAPTERS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0200018	FORK, SHORT 3" OPENING
2	2	0200019	FORK, SHORT 4-1/2" OPENING
3	2	0200020	FORK, MEDIUM 3" OPENING
4	2	0200021	FORK, MEDIUM 4-1/2" OPENING
5	2	0200022	FORK, LONG 3" OPENING
6	2	0200023	FORK, LONG 4-1/2" OPENING
7	2	0200024	FORK, OFFSET REAR AXLE 6" OPENING
8	2	0400585	HAIR PIN COTTER, 1-1/4"
9	2	0711002	BOLT, MODIFIED 5/8"-11 X 6" WITH HOLE
10	4	0800590	TEE HANDLE, FORK ADAPTER
11	1	0801186	CHAIN HOOK ADAPTER, RT
12	1	0801187	CHAIN HOOK ADAPTER, LT
13	2	0801459	RISER BRACKET
14	1	0803591	OFFSET FORK ADAPTER, LT
15	1	0803592	OFFSET FORK ADAPTER, RT
16	2	0802810	SPRING LIFT BRACKET
17	2	0900900	RETAINING PIN ASSEMBLY
18	8	0902321	RETAINER PIN, SPRING LIFT BRACKET

KING PIN ADAPTER

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0803605	KING PIN ADAPTER WELDMENT
	--	0902782	FIFTH WHEEL ADAPTER (COMPLETE)
2	1	0400555	ROLL PIN, 3/8" X 1-1/2"
3	2	HD1259	PIN, SNAPPER
4	1	VA0660	5TH WHEEL PIVOT PLATE WELDMENT
5	1	VA0661	PULL PIN WELDMENT
6	1	VA0662	PIVOT PIN WELDMENT
	--	124002211	PINTLE HOOK KIT (COMPLETE)
7	1	0302198	PINTLE HOOK (NOT SHOWN)
8	4	0400176	SCREW, 1/2"-13 X 1" HEX HD CAP
9	4	0400491	LOCKWASHER, 1/2" HELICAL
10	1	0803604	5TH WHEEL, KING PIN ADAPTER, & PINTLE HOOK BRACKET
11	2	0902378	RETAINING PIN ASSEMBLY

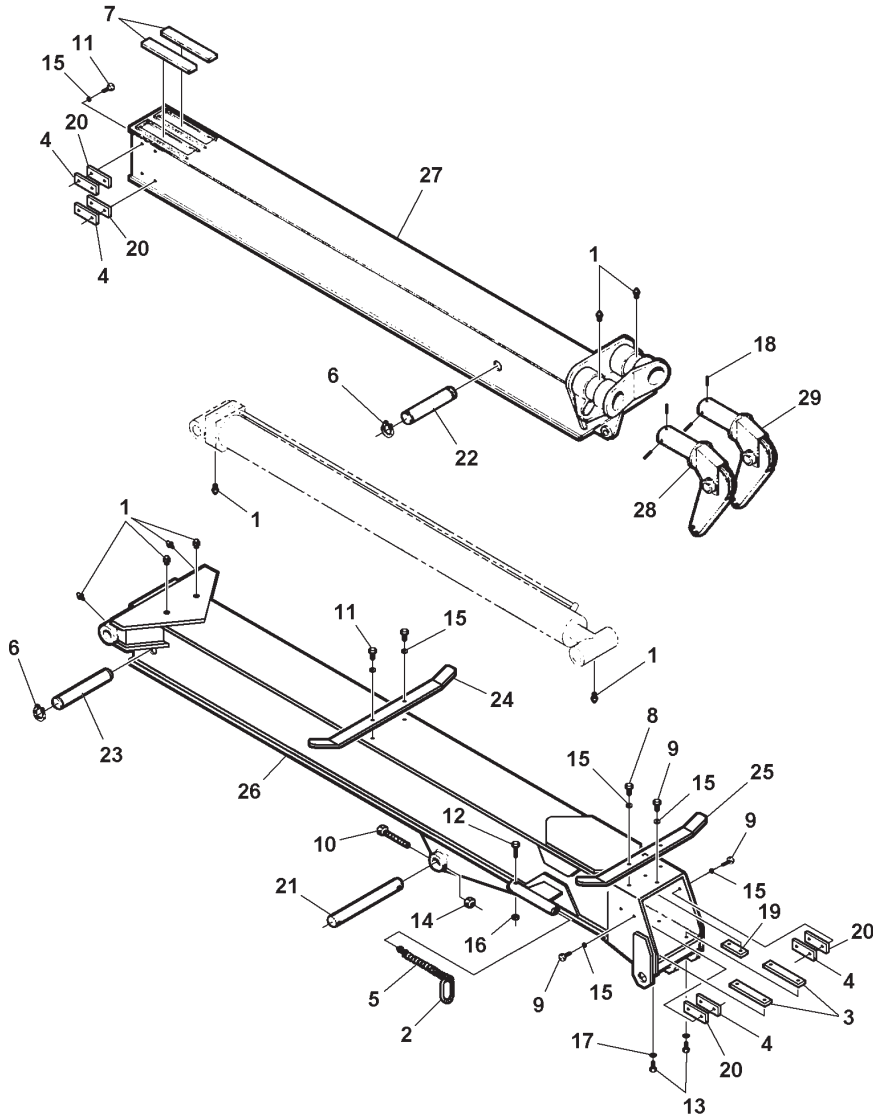
Section VI - PARTS (cont'd)
WRECKER FRAME ASSEMBLY



Section VI - PARTS (cont'd)
WRECKER FRAME ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300076	LICENSE PLATE BRACKET
2	3	0300117	RUBBER GROMMET, #316
3	1	0300273	LICENSE PLATE ILLUMINATOR
4	1	0301081	CAP PLUG (NOT SHOWN)
5	1	0301541	SIGHT GAUGE, TYPE S-1
6	REF.	0303092	CYLINDER, BOOM LIFT
7	2	0303504	WINCH, DP MODEL S50-50K
8	1	0305006	FILLER CAP
9	2	0400061	SCREW, 1/4"-20 x 3/4" PAN HD SLOTTED
10	12	0400121	SCREW, 3/8"-16 X 3/4" HEX HD CAP
11	2	0400172	SCREW, 3/8"-16 X 3-1/2" HEX HD CAP
12	1	0400180	SCREW, 1/2"-13 X 6" HEX HD CAP
13	16	0400287	SCREW, 3/4"-10 X 3-1/2" HEX HD CAP
14	16	0400288	SCREW, 3/4"-10 X 2-1/2" HEX HD CAP
15	8	0400333	SCREW, 1"-8 X 4-1/2" HEX HD CAP
16	6	0400334	SCREW, 1"-8 X 3-1/2" HEX HD CAP
17	2	0400366	NUT, 1/4"-20 HEX
18	2	0400392	NUT, 3/8"-16 NYLOK HEX
19	1	0400407	NUT, 1/2"-13 HEX
20	32	0400431	NUT, 3/4"-10 NYLOK HEX
21	14	0400443	NUT, 1"-8 NYLOK HEX
22	2	0400452	LOCKWASHER, 1/4" HELICAL
23	12	0400481	LOCKWASHER, 3/8" HELICAL
24	14	0400518	WASHER, 1" FLAT
25	1	0700487	CLEAN OUT COVER
26	1	0701316	COVER GASKET
27	2	0703737	SHAFT, LIFT CYLINDER PIVOT
28	1	0703738	SHAFT, BOOM
29	4	0711998	ANGLE, WINCH MOUNTING
30	1	0803433	WRECKER FRAME WELDMENT

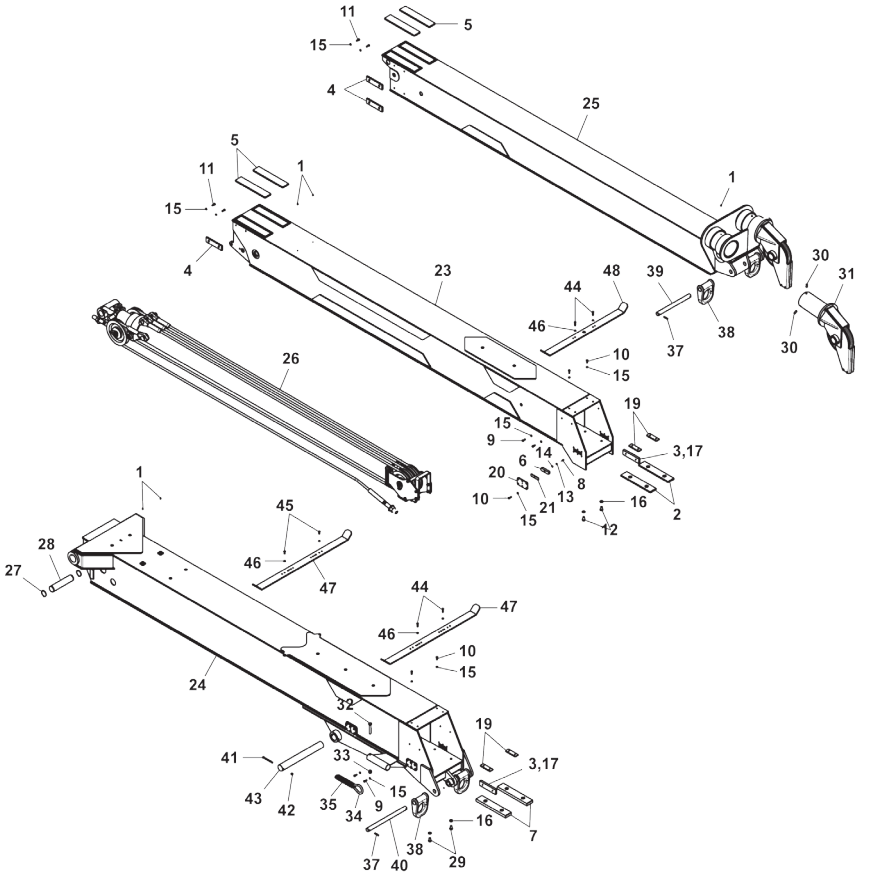
Section VI - PARTS (cont'd)
2-STAGE BOOM ASSEMBLY



Section VI - PARTS (cont'd)
2-STAGE BOOM ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	8	0300113	GREASE FITTING
2	2	0301691	OBLONG MASTER LINK
3	2	0301923	SLIDE PAD, BOOM BOTTOM
4	6	0301924	SLIDE PAD, BOOM SIDE
5	2	0302273	SPRING, WINCH CABLE TIE BACK
6	4	0305023	SNAP RING
7	2	0305031	SLIDE PAD, INNER BOOM
8	2	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP
9	8	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP
10	2	0400130	SCREW, 3/8"-16 X 3-1/2" HEX HD CAP
11	2	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP
12	2	0400205	SCREW, 1/2"-13 X 3" HEX HD CAP
13	4	0400248	SCREW, 5/8"-11 X 1" HEX HD CAP
14	2	0400392	NUT, 3/8"-16 HEX NYLOK
15	20	0400482	LOCKWASHER, 3/8" HELICAL
16	2	0400408	NUT, 1/2"-13 HEX NYLOK
17	4	0400508	LOCKWASHER, 5/8" HELICAL
18	6	0400557	ROLL PIN, 1/2" X 1-1/4"
19	2	0700778	TOP SPACER, OUTER BOOM
20	6	0703734	SHIM, OUTER BOOM SIDE PLATE
21	2	0703736	SHAFT, CYLINDER PIVOT
22	1	0703739	SHAFT, EXTEND CYLINDER ROD END
23	1	0703740	SHAFT, EXTEND CYLINDER BASE END
24	1	0706042	CABLE WING, LONG
25	1	0706043	CABLE WING, MEDIUM
26	1	0801085	OUTER BOOM
27	1	0804024	INNER BOOM
28	1	0901673	BOOM SWIVEL ASSEMBLY, LEFT
29	1	0901674	BOOM SWIVEL ASSEMBLY, RIGHT

Section VI - PARTS (cont'd)
3-STAGE BOOM ASSEMBLY

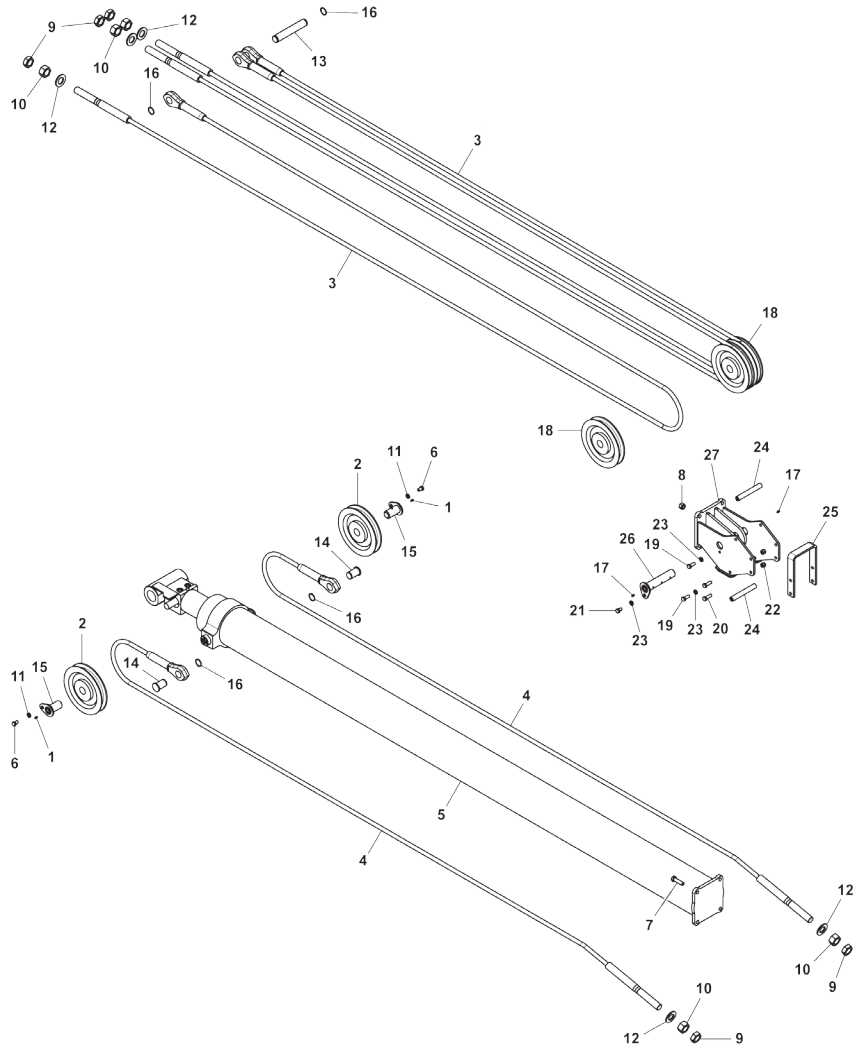


3-STAGE BOOM ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
—	—	0908004	3-STAGE BOOM ASSEMBLY
1	6	0300113	GREASE FITTING,1/4"-28 STRAIGHT
2	2	0301923	SLIDE PAD, BOOM BOTTOM
3	4	0301924	SLIDE PAD, BOOM SIDE
4	6	0303892	SLIDE PAD, BOOM SIDE
5	4	0305031	INNER BOOM SLIDE PAD
6	6	0306825	SLIDE PAD, 3/4" x 1" x 4"
7	2	0307234	SLIDE PAD
8	6	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP GR5 ZP
9	12	0400121	SCREW, 3/8"-16 X 3/4" HEX HD CAP GR5 ZP
10	36	0400126	SCREW, 3/8"-16 X 1" HEX HD CAP GR5 ZP
11	36	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP GR5 ZP
12	4	0400248	SCREW, 5/8"-11 X 1" HEX HD CAP GR5 ZP
13	6	0400451	WASHER, 1/4" FLAT ZP
14	6	0400452	LOCKWASHER, 1/4" HELICAL ZP
15	64	0400482	LOCKWASHER, 3/8" HELICAL ZP
16	8	0400508	LOCKWASHER, 5/8" HELICAL ZP
17	10	0703734	SHIM, SIDE PLATE, OUTER BOOM
18	2	0711913	PAD, SHIM WEAR
19	6	0717260	TOP SPACER
20	2	0717261	PLATE, SLIDE PAD SUPPORT
21	12	0717262	SHIM, SLIDE PAD
22	2	0801788	CABLE TIE BACK WELDMENT
23	1	0806502	SECOND STAGE BOOM WELDMENT, 3 STAGE
24	1	0806711	OUTER BOOM WELDMENT, 3 STAGE
25	1	0806745	THIRD STAGE BOOM WELDMENT, 3 STAGE
26	1	0908003	3 STAGE EXTENSION SYSTEM ASSEMBLY
27	2	0305023	SNAP RING, 5100-0225PP
28	1	0703740	SHAFT, EXTEND CYLINDER
29	4	9043950	SCREW, 5/8" NC X 1-1/2" HEX HD CAP PL GR8

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
—	—	0906536	BOOM SWIVEL KIT
30	6	0400557	ROLL PIN, 1/2" X 1-1/4" ZP
31	2	0906537	BOOM SWIVEL ASSEMBLY
—	—	0906572	WINCH CABLE STOW KIT
32	2	0400265	SCREW, 5/8"-11 X 4" HEX HD CAP GR5 ZP
33	2	0400421	NUT, 5/8"-11 NYLOK HEX ZP
34	2	9048800	WELDLESS CHAIN LINK, 5/8"
35	2	945030007	CABLE TIE BACK SPRING, 1"
—	—	0907006	“D” RINGS, INNER & OUTER
36	4	0300113	GREASE FITTING, 1/4"-28 STRAIGHT
37	4	0400564	ROLL PIN, 3/8" X 1-3/4" ZP
38	4	0708555	TOWING “D” RING
39	1	0710638	PIN, “D” RING
40	1	0710643	PIN, “D” RING
—	—	0907305	LIFT CYLINDER KIT, 1060
41	2	0400172	SCREW, 3/8"-16 X 4-1/2" HEX HD CAP GR8 ZP
42	2	0400392	NUT, 3/8"-16 NYLOK HEX ZP
43	2	0703737	SHAFT, LIFT CYLINDER PIVOT
—	—	0908443	WINCH CABLE SUPPORT WING
44	4	0400122	SCREW, 3/8"-16 X 1-1/4" HEX HD CAP GR5 ZP
45	2	0400141	SCREW, 3/8"-16 X 7/8" HEX HD CAP GR5 ZP
46	6	0400482	LOCKWASHER, 3/8" HELICAL ZP
47	2	0706042	CABLE WING, LONG 1040 & 1040B
48	1	0706043	CABLE WING, MEDIUM 1040 & 1040B

3-STAGE EXTENSION SYSTEM ASSEMBLY

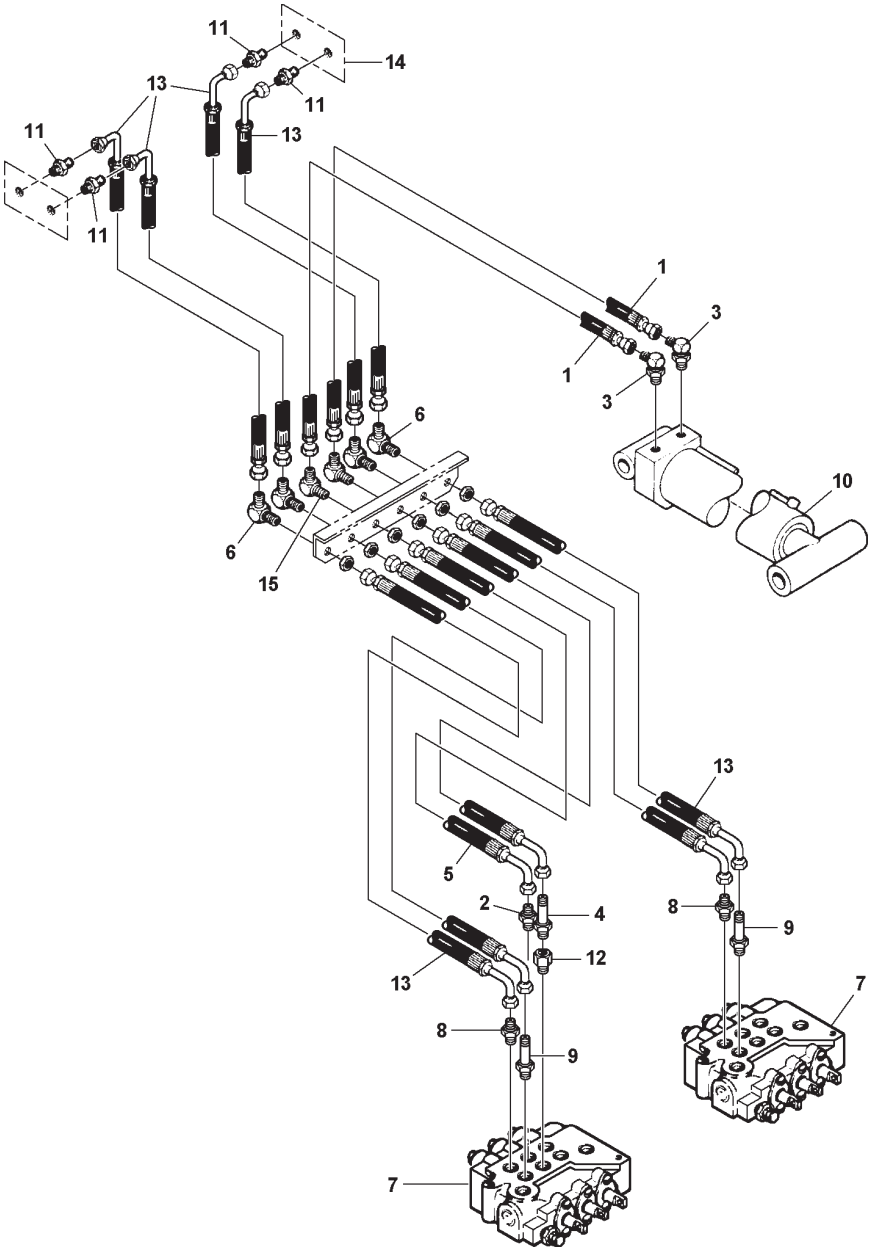


3-STAGE EXTENSION SYSTEM ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
—	—	0908003	3-STAGE EXTENSION SYSTEM ASSEMBLY
1	2	0300113	GREASE FITTING,1/4"-28 STRAIGHT
2	2	0303441	SHEAVE, 10" DIA. X 1-1/2" BORE
3	3	0307160	EXTEND CABLE ASSEMBLY
4	2	0307161	RETRACT CABLE ASSEMBLY
5	1	0307393	BOOM EXTEND CYLINDER, 1060S 3-STAGE
6	2	0400239	SCREW, 1/2"-13 X 3/4" HEX HD CAP GR5
7	4	0400264	SCREW, 5/8"-11 X 2-1/4" HEX HD CAP GR5 ZP
8	4	0400421	NUT, 5/8"-11 NYLOK HEX ZP
9	5	0400448	NUT, 1-1/4"-12 HEX JAM
10	5	0400461	NUT, 1-1/4"-12 HEX GR8 PL
11	2	0400491	LOCKWASHER, 1/2" HELICAL ZP
12	5	0400501	WASHER, 1-1/4" SAE HARDENED PL
13	1	0717258	PIN, EXTEND CABLE
14	2	0717259	PIN, RETRACT CABLE
15	2	0806506	SHAFT, RETRACT SHEAVE WELDMENT
16	4	HD0167	SNAP RING, 1-3/8" EXTERNAL
—	—	0908002	EXTEND SHEAVE SUBASSEMBLY
17	2	0300113	GREASE FITTING,1/4"-28 STRAIGHT
18	3	0303441	SHEAVE, 10" DIA. X 1-1/2" BORE
19	4	0400177	SCREW, 1/2"-13 X 1-1/4" HEX HD CAP GR5 ZP
20	4	0400181	SCREW, 1/2"-13 X 1-1/2" HEX HD CAP GR5 ZP
21	1	0400239	SCREW, 1/2"-13 X 3/4" HEX HD CAP GR5
22	4	0400408	NUT, 1/2"-13 NYLOK HEX ZP
23	5	0400491	LOCKWASHER, 1/2" HELICAL ZP
24	2	0717256	ROD, EXTEND SHEAVE SPACER
25	1	0717257	BAR, KICK
26	1	0806505	SHAFT, EXTEND SHEAVE WELDMENT
27	1	0806710	EXTEND SHEAVE BRACKET WELDMENT

Section VI - PARTS (cont'd)

WRECKER HYDRAULICS
(LESS BOOM ELEVATION HYDRAULICS)

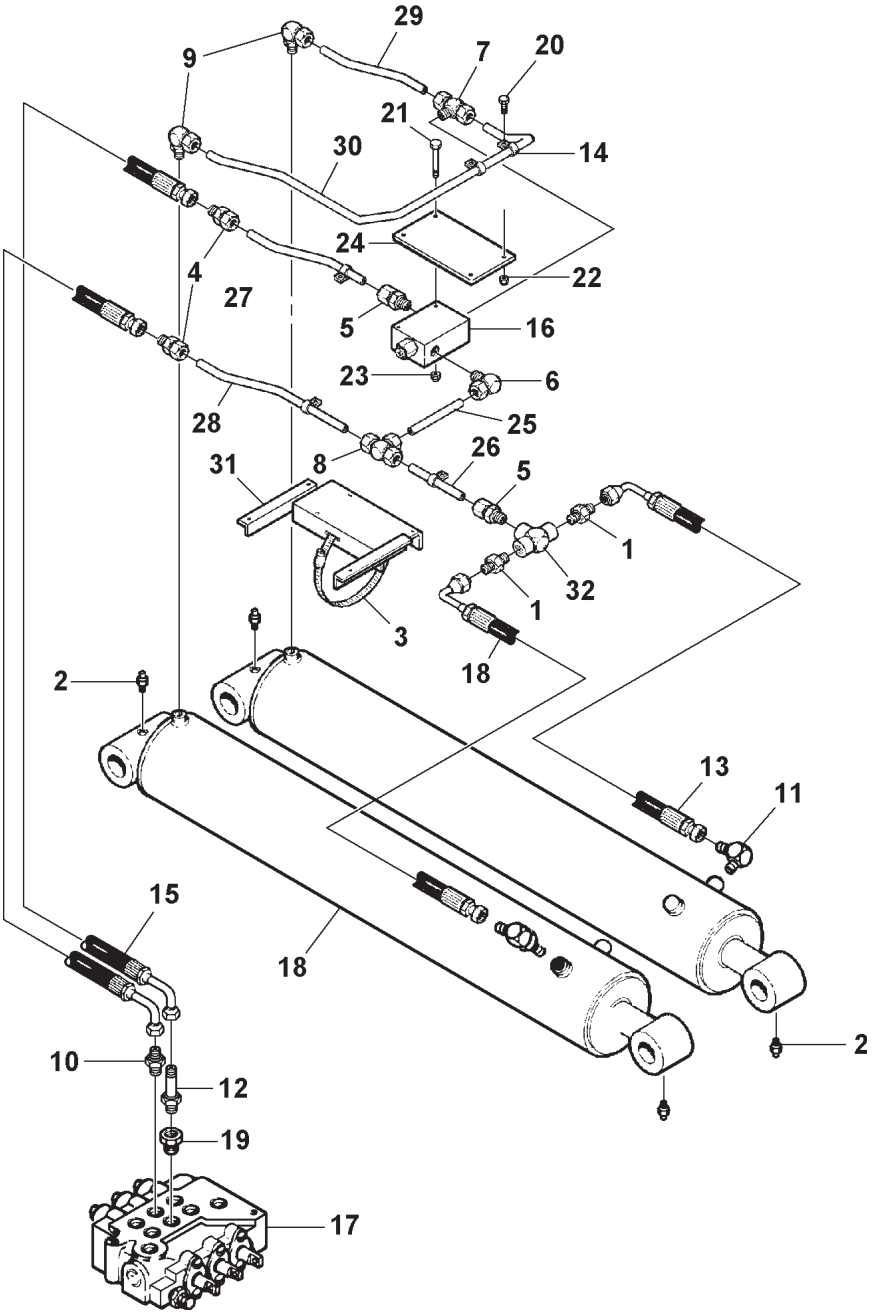


Section VI - PARTS (cont'd)
WRECKER HYDRAULICS
(LESS BOOM ELEVATION HYDRAULICS)

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0300659	HOSE ASSEMBLY, 45"
2	1	0301376	CONNECTOR, 8MJ-10MB
3	2	0301388	ELBOW, 8MJ-8MB90
4	1	0301445	EXTENDED CONNECTOR, 8MJ-8MB
5	2	0301893	HOSE ASSEMBLY, 84"
6	4	0301982	BULKHEAD ELBOW w/ NUT, 12MJ90
7	REF.	0302296	CONTROL VALVE, VDP12CDD118
8	2	0302827	CONNECTOR, 10MJ-10MB
9	2	0302828	EXTENDED CONNECTOR, 10MJ-10MB
10	1	0302830	CYLINDER, EXTEND
11	4	0303079	CONNECTOR, 10MJ-8MB
12	1	0303176	ADAPTER, 10MB-8FB
13	8	0303349	HOSE ASSEMBLY, 81"
14	REF.	0303504	WINCH, DP MODEL S50-50K (NOT SHOWN)
15	2	0303590	BULKHEAD ELBOW w/NUT, 8MJ90

Section VI - PARTS (cont'd)

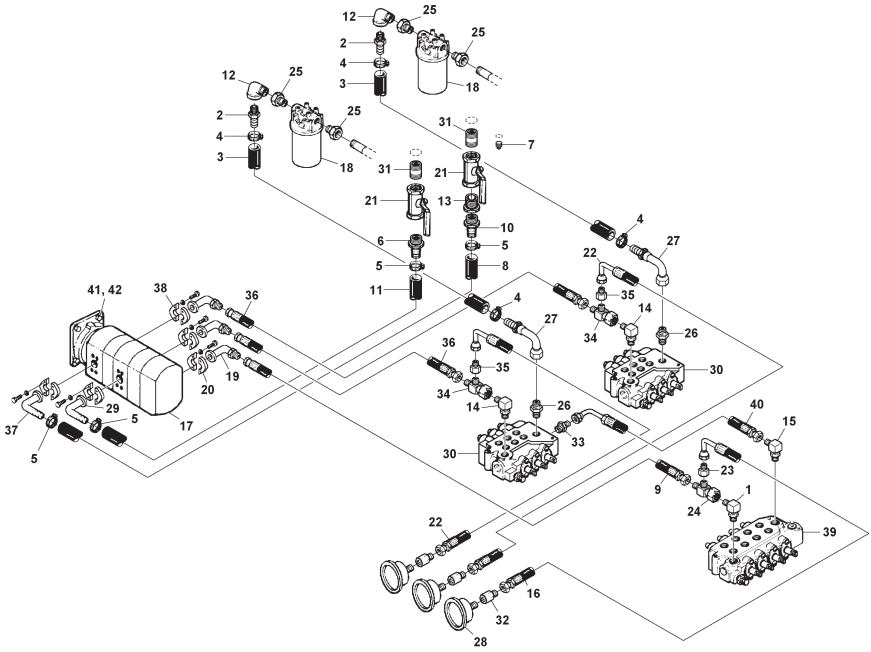
BOOM ELEVATION HYDRAULICS



BOOM ELEVATION HYDRAULICS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0300040	CONNECTOR, 8MJ-8MP
2	4	0300113	GREASE FITTING
3	1	0300644	HOSE CLAMP, 8"
4	2	0300761	STRAIGHT ADAPTER
5	2	0300762	MALE CONNECTOR
6	1	0300763	MALE ELBOW
7	1	0300766	MALE BRANCH TEE
8	1	0300767	TEE UNION
9	2	0300901	ELBOW
10	1	0301376	CONNECTOR, 8MJ-10MB
11	2	0301388	ELL, 8MJ-8MB90
12	1	0301445	EXTENDED CONNECTOR, 8MJ-8MB
13	2	0301471	HOSE ASSEMBLY, 30"
14	5	0301487	HOSE CLAMP, 1/2"
15	2	0301712	HOSE ASSEMBLY, 64"
16	1	0301906	HOLDING VALVE
17	REF.	0302296	CONTROL VALVE, VDP12CDD118
18	2	0303092	BOOM LIFT CYLINDER
19	1	0303176	ADAPTER, 10MB-8FB
20	5	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
21	5	0400367	NUT, 1/4"-20 HEX NYLOK
22	1	0701680	CLAMP BRACKET, HYD TUBE
23	1	0709708	TUBE, LIFT CYLINDER HYDRAULIC
24	1	0709709	TUBE, EXT. LIFT CYLINDER HYDRAULIC
25	1	0709710	TUBE, EXT. LIFT CYLINDER HYDRAULIC
26	1	0709711	TUBE, EXT. LIFT CYLINDER HYDRAULIC
27	1	0709712	TUBE, LIFT CYLINDER HYDRAULIC
28	1	0709713	TUBE, LIFT CYLINDER HYDRAULIC
29	1	0802883	HOLDING VALVE BRACKET WELDMENT
30	1	HC1413	TEE FITTING

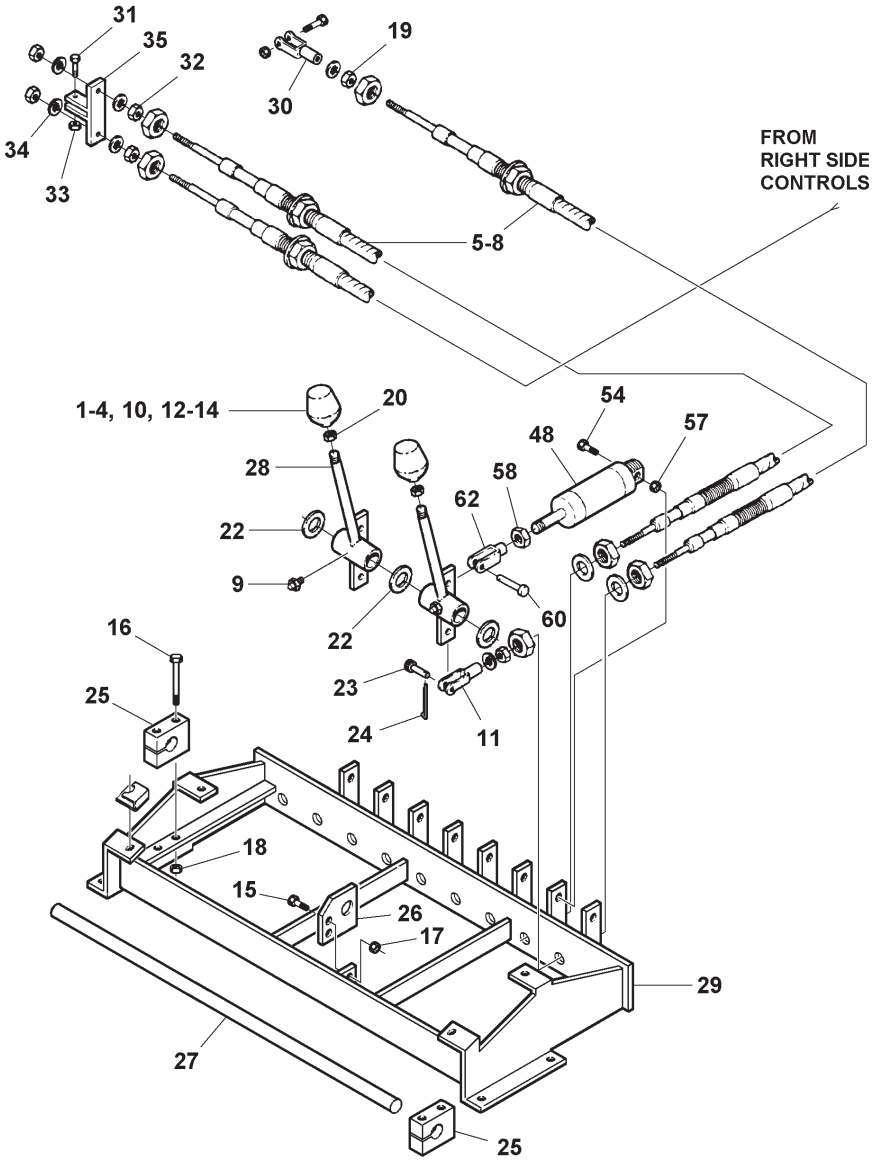
Section VI - PARTS (cont'd)
PUMP, VALVE & FILTER HYDRAULICS



Section VI - PARTS (cont'd)
PUMP, VALVE & FILTER HYDRAULICS

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300052	ELBOW, 8MJ-10MB90
2	2	0300056	BARB, 16C4-16MP
3	18 FT.	0300058	SUCTION HOSE, 1"
4	4	0300071	HOSE CLAMP, 1"
5	4	0300364	HOSE CLAMP, 1" - 2-1/4"
6	1	0300434	HOSE BARB, 2" 32C4-32MP
7	1	0300446	PIPE PLUG, 3/4" MALE
8	15 ft.	0300558	SUCTION HOSE, 2"
9	1	0300660	HOSE ASSEMBLY, 120"
10	1	0300666	BARB, 24C4-24MP
11	1	0300671	SUCTION HOSE, 1-1/2"
12	2	0300692	STREET ELBOW, 1" 90°
13	1	0301373	PIPE BUSHING
14	2	0301545	ELBOW, 12MJ-12MB90
15	1	0301547	ELBOW, 8MJ-12MB90
16	1	0301695	HOSE ASSEMBLY, 91"
17	1	0301836	HYDRAULIC PUMP
18	2	0301894	SPIN-ON FILTER ASSEMBLY
19	1	0301904	ELBOW, 8MJ-12FL90
20	1	0301905	O-RING FLANGE KIT, 12FH
21	2	0301961	BALL VALVE, BRONZE
22	2	0301965	HOSE ASSEMBLY, 131"
23	2	0301995	ADAPTER, 8FJ-6MJ
24	1	0302052	RUN TEE, 8MJ-8FJX-8MJ
25	4	0302108	REDUCER BUSHING, 20MP-16FP
26	2	0302169	O-RING CONNECTOR, 16MJ-12MB
27	2	0302170	BENT TUBE SWIVEL, 16C2-16FJX90
28	3	0302205	GAUGE, FLUSH MOUNT, 6000 PSI
29	1	0302242	FLANGE FITTING, 24FL-24HOSE90
30	2	0302296	CONTROL VALVE, VDP12CDD118
31	2	0302367	PIPE NIPPLE, 2" x 4"
32	3	0302577	CONNECTOR, 6MJ-4FP
33	1	0302757	CONNECTOR, 8MJ-16MB
34	2	0302826	TEE, 12MJ-12FJX-12MJ
35	2	0302829	ADAPTER, 12FJ-6MJ
36	2	0302901	HOSE ASSEMBLY, 120"
37	1	0302931	ELBOW, FLANGE 24-32FL90 w/ FLANGE KIT
38	2	0302932	ELBOW, 12MJ-20FL90 w/ FLANGE KIT
39	2	0303093	CONTROL VALVE, VDP11DDDC110
40	1	0303182	HOSE ASSEMBLY, 41"
41	4	0400177	SCREW, 1/2"-13 X 1-1/4" HEX HD CAP
42	4	0400491	LOCKWASHER, 1/2" HELICAL

Section VI - PARTS (cont'd)
LEFT CONTROL ASSEMBLY

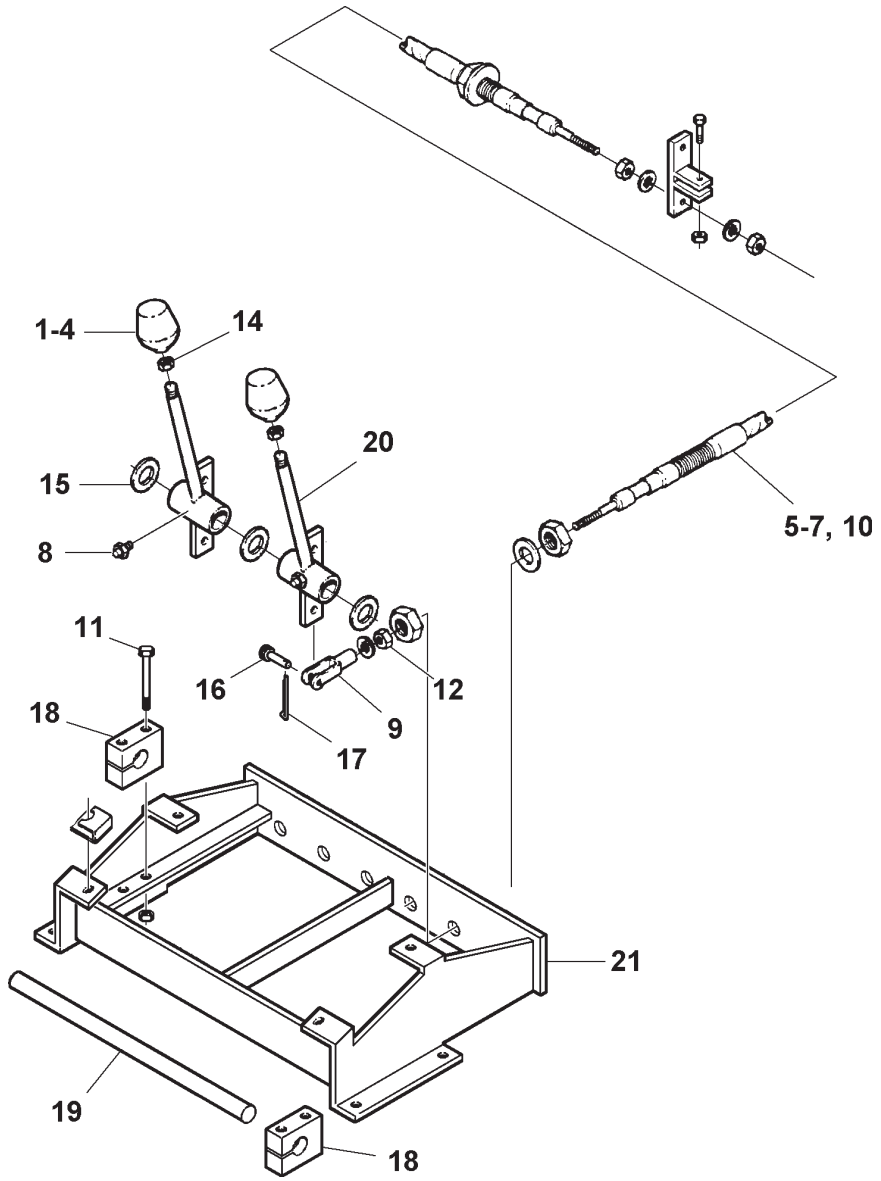


LEFT CONTROL ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0300834	KNOB, IN-OUT
2	1	0300835	KNOB, BOOM UP-DOWN
3	2	0300836	KNOB, JACK UP-DOWN
4	1	0300837	KNOB, BOOM IN-OUT
5	2	0301884	CONTROL CABLE, 96"
6	1	0301969	CONTROL CABLE, 84"
7	2	0302455	CONTROL CABLE, 79"
8	1	0302457	CONTROL CABLE, 104"
9	10	0302726	GREASE FITTING, 1/4"-28 X 45°
10	1	0302856	KNOB, TILT UP-DOWN
11	10	0303008	ADJUSTABLE CLEVIS
12	1	0303380	KNOB, UNDERLIFT IN-OUT
13	1	0303381	KNOB, UNDERLIFT UP-DOWN
14	1	0303382	KNOB, FOLD UP-DOWN
15	2	0400066	SCREW, 1/4"-20 X 3/4" HEX HD CAP
16	4	0400107	SCREW, 5/16"-18 X 2-1/2" HEX HD CAP
17	2	0400367	NUT, 1/4"-20 HEX NYLOK
18	4	0400382	NUT, 5/16"-18 HEX NYLOK
19	10	0400383	NUT, 5/16"-24 HEX
20	10	0400393	NUT, 3/8"-16 HEX JAM
21	4	0400451	WASHER, 1/4" FLAT
22	10	0400512	WASHER, 3/4" FLAT (SPECIAL)
23	10	0400532	CLEVIS PIN, 5/16" X 1"
24	10	0400541	COTTER PIN, 1/16" X 3/4"
25	2	0711235	SHAFT CLAMP, CONTROL BOX
26	1	0711245	SHAFT SUPPORT PLATE
27	1	0714265	PIN, CONTROL BOX
28	10	0803294	CONTROL HANDLE WELDMENT
29	1	0804081	CONTROL FRAME WELDMENT
--	--	0903820	LEFT & RIGHT SIDE CONTROL LINK KIT
30	3	0303008	ADJUSTABLE CLEVIS
31	9	0400112	SCREW, 5/16"-24 X 1-1/4" HEX HD CAP
32	27	0400383	NUT, 5/16"-24 HEX

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
33	9	0400384	NUT, 5/16"-24 HEX NYLOK
34	24	0400466	LOCKWASHER, 5/16" INTERNAL TOOTH
35	6	0801054	CONTROL CABLE CONNECTOR
--	--	0904364	4 FUNCTION REMOTE CONTROL (Not Shown)
36	10	0300166	WIRE CONNECTOR, SPADE
37	1	0301574	ELBOW, 4TB-4MP90
38	15 FT.	0301577	AIR HOSE, 1/4" O.D.
39	2	0301610	CONNECTOR, 4TB-4MP
40	2	0301618	BRASS PLUG, 4MP
41	35	0302434	CABLE TIE, 4"
42	1	0302677	BREATHER VENT, 2MP
43	16	0302678	ELBOW, 4MP-2MP90
44	1	0302844	AIR SOLENOID VALVE, 8 POSITION
45	1	0303226	CIRCUIT BREAKER, HI-AMP WATERPROOF
46	1	0303235	TERMINAL BLOCK
47	8 FT.	0303322	ELECTRICAL CABLE, 16/10 SO
48	4	0303335	AIR CYLINDER
49	1	0303363	AIR FILTER/REGULATOR
50	1	0303364	AIR LUBRICATOR
51	1	0303365	MOUNTING BRACKET
52	1	0303781	POWER PAL, 8 POSITION
53	2	0400025	SCREW, #8-32 X 3/4" RD HD SLOTTED SS
54	4	0400057	SCREW, 1/4"-20 X 1-1/4" HEX HD CAP
55	2	0400078	SCREW, 1/4"-20 X 2" HEX HD CAP
56	2	0400351	HEX NUT & STAR WASHER, #8-32
57	6	0400367	NUT, 1/4"-20 HEX NYLOK
58	4	0400401	NUT, 7/16"-20 HEX JAM
59	2	0400451	WASHER, 1/4" FLAT
60	4	0400527	CLEVIS PIN, 5/16" X 5/8"
61	1	0711277	SUPPORT, SOLENOID VALVE
62	4	0803181	CLEVIS WELDMENT
63	1	HA0132	GAUGE, 0-160 PSI

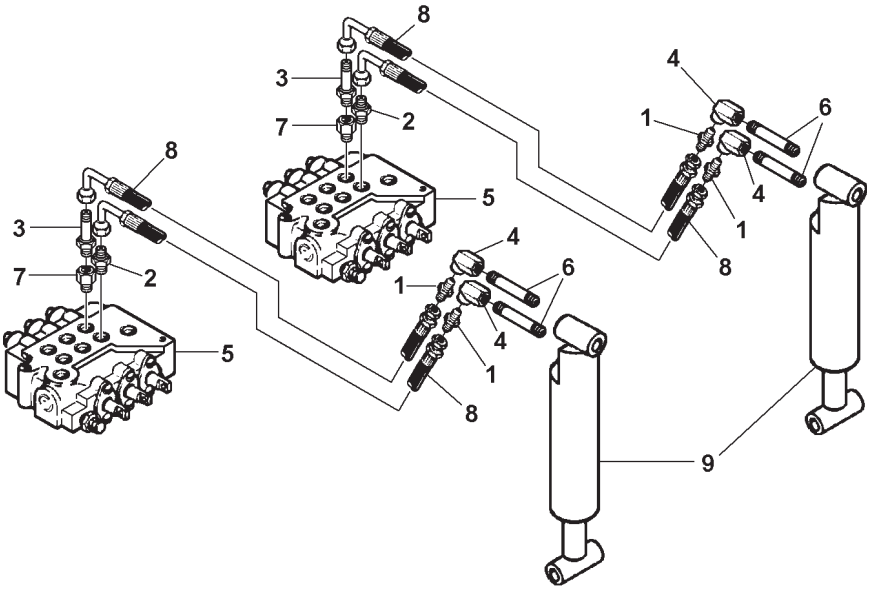
RIGHT CONTROL ASSEMBLY



RIGHT CONTROL ASSEMBLY

REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0300834	KNOB, IN-OUT
2	1	0300835	KNOB, BOOM UP-DOWN
3	2	0300836	KNOB, JACK UP-DOWN
4	1	0300837	KNOB, BOOM IN-OUT
5	3	0301884	CONTROL CABLE, 96"
6	1	0301969	CONTROL CABLE, 84"
7	1	0302457	CONTROL CABLE, 104"
8	6	0302726	GREASE FITTING, 1/4"-28 X 45°
9	6	0303008	ADJUSTABLE CLEVIS
10	1	0303427	CONTROL CABLE, 114"
11	4	0400107	SCREW, 5/16"-18 X 2-1/2" HEX HD CAP
12	4	0400382	NUT, 5/16"-18 HEX NYLOK
13	6	0400383	NUT, 5/16"-24 HEX
14	6	0400393	NUT, 3/8"-16 HEX JAM
15	7	0400512	WASHER, 3/4" FLAT (SPECIAL)
16	6	0400532	CLEVIS PIN, 5/16" X 1"
17	6	0400541	COTTER PIN, 1/16" X 3/4"
18	2	0711235	SHAFT CLAMP, CONTROL BOX
19	1	0711247	PIN
20	6	0803294	CONTROL HANDLE WELDMENT
21	1	0804061	CONTROL FRAME WELDMENT

Section VI - PARTS (cont'd)
SPADE HYDRAULICS

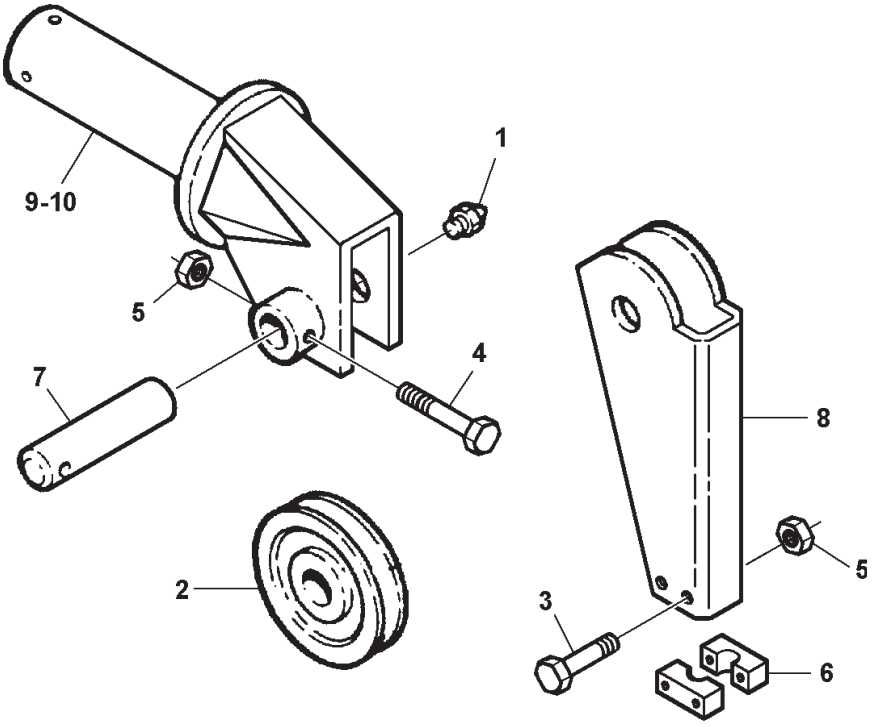


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	4	0300040	CONNECTOR, 8MJ-8MP
2	2	0301376	CONNECTOR, 8MJ-10MB
3	2	0301445	EXTENDED CONNECTOR, 8MJ-8MBL
4	4	0301816	FITTING, 8FP-8FP45
5	REF.	0302296	CONTROL VALVE, VDP12CDD118
6	4	0302980	PIPE NIPPLE, BLACK 1/2" X 5"
7	2	0303176	CONNECTOR, 10MB-8FB
8	4	0303588	HOSE ASSEMBLY, 108"
9	2	0303688	SPADE CYLINDER

Section VI - PARTS (cont'd)
HYDRAULIC CYLINDERS

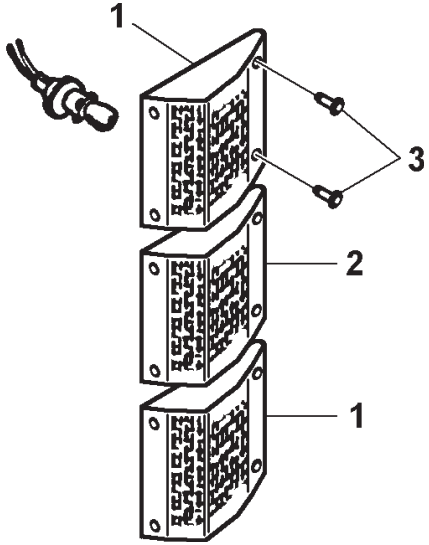
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	HC0159	UNDERLIFT LIFT CYLINDER
		0304522	SEAL KIT, UNDERLIFT LIFT CYLINDER
2	1	0303501	UNDERLIFT EXTEND CYLINDER
		0304590	SEAL KIT, UNDERLIFT EXTEND CYLINDER
3	1	0306746	UNDERLIFT FOLD CYLINDER
		0304609	SEAL KIT, UNDERLIFT FOLD CYLINDER
4	2	0307378	UNDERLIFT TILT CYLINDER
		--	SEAL KIT, UNDERLIFT TILT CYLINDER
5	2	0303092	BOOM LIFT CYLINDER (2-STAGE)
		SHC0303092	SEAL KIT, BOOM LIFT CYLINDER
	2	0307158	BOOM LIFT CYLINDER (3-STAGE)
		0304694	SEAL KIT, BOOM LIFT CYLINDER
6	1	0302830	BOOM EXTEND CYLINDER (2-STAGE)
		0304333	SEAL KIT, BOOM EXTEND CYLINDER
	1	0307393	BOOM EXTEND CYLINDER (3-STAGE)
		--	SEAL KIT, BOOM EXTEND CYLINDER
7	2	0303691	SPADE CYLINDER
		0301353	SEAL KIT, SPADE CYLINDER

Section VI - PARTS (cont'd)
BOOM END SWIVEL ASSEMBLY

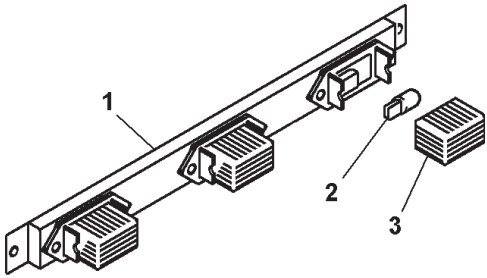


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300113	GREASE FITTING
2	1	0300311	SHEAVE, 10"
3	2	0400133	SCREW, 3/8"-16 X 3" HEX HD CAP
4	1	0400140	SCREW, 3/8"-16 X 4" HEX HD CAP
5	3	0400392	NUT, 3/8"-16 NYLOK HEX
6	2	0700511	CABLE GUIDE, BOTTOM
7	1	0700563	SHAFT, SHEAVE
8	1	0802027	CABLE GUIDE WELDMENT
9	1	0803577	SWIVEL WELDMENT, LEFT
10	1	0803578	SWIVEL WELDMENT, RIGHT

MODULAR LIGHT KIT

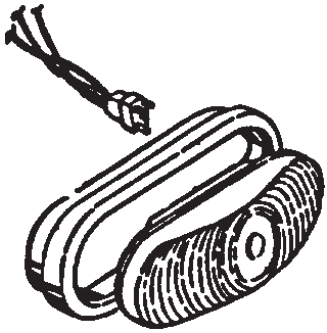


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	4	0302542	LIGHT, STOP & TURN
2	2	0302543	LIGHT, CLEAR BACKUP
3	24	0400025	SCREW, #8-32 X 3/4" RD HD SLOTTED

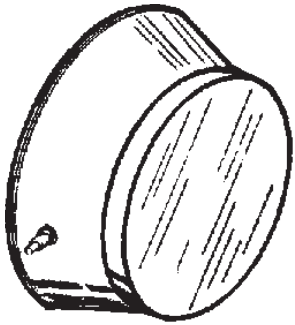


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300442	3-LIGHT BAR ASSEMBLY (COMPLETE)
2	3	0300507	BULB, MARKER LIGHT
3	24	0400025	LENS, 3-LIGHT BAR

MODULAR LIGHT KIT

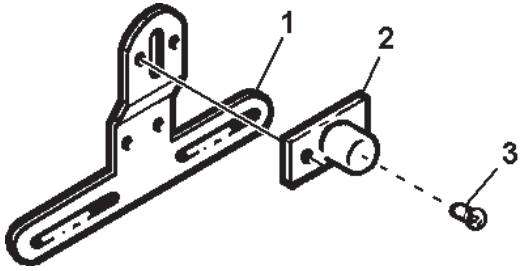


REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	4	0302201	LIGHT, FLOOD (COMPLETE)
2	2	0302611	LIGHT, AMBER OVAL (COMPLETE)



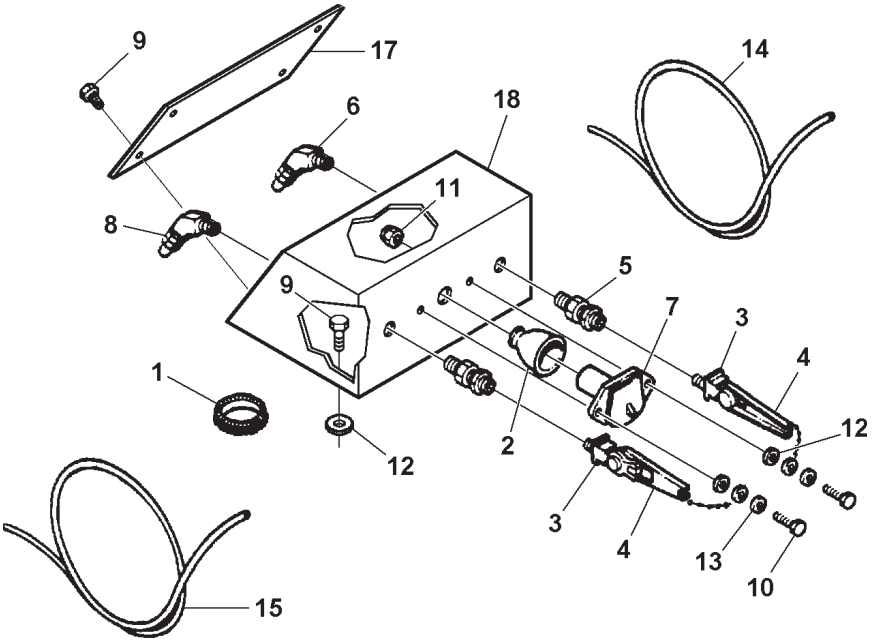
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	18	0302544	LIGHT, DOME (COMPLETE)

MODULAR LIGHT KIT



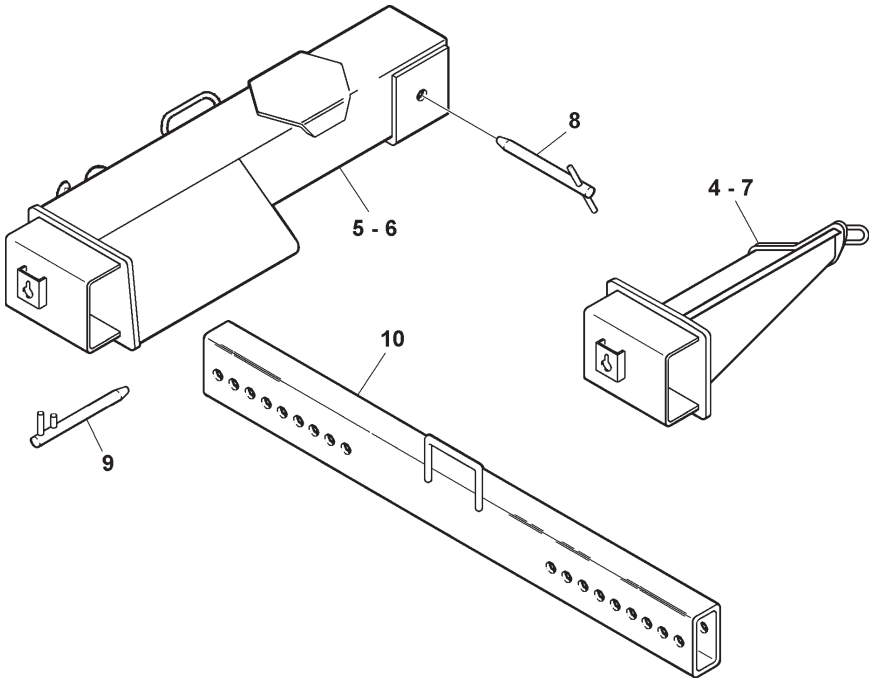
REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0300076	LICENSE PLATE BRACKET
2	1	0300273	LICENSE PLATE ILLUMINATOR
3	1	0300512	BULB, LICENSE PLATE ILLUMINATOR

Section VI - PARTS (cont'd)
GLAD HAND ASSEMBLY



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	1	0301862	CATERPILLAR GROMMET
2	1	0301909	RECEPTACLE BOOT
3	2	0301944	GLAD HAND COUPLING
4	2	0301945	GLAD HAND BOOT
5	2	0301946	BULKHEAD CONNECTOR
6	1	0301947	45° ADAPTER, 1/4" NPM X 3/8" SYN. HOSE
7	1	0301948	HD 7-WAY TRAILER CONNECTOR
8	1	0302534	45° ELBOW, 1/4" NPM X 1/2" SYN. HOSE
9	9	0400062	SCREW, 1/4"-20 X 3/4" HEX HD SELF-TAP
10	2	0400070	SCREW, 1/4"-20 X 1" HEX HD CAP
11	2	0400367	NUT, 1/4"-20 HEX NYLOK
12	6	0400451	WASHER, 1/4" FLAT
13	2	0400463	WASHER, 5/16" FLAT
14	1	0703795	HOSE, 3/8" X 4 FT. SYNTHETIC
15	1	0706925	HOSE, 1/2" X 4 FT. SYNTHETIC
16	1	0710003	SUPPORT, GLAD HAND BOX (NOT SHOWN)
17	1	0710444	LID, GLAD HAND HOUSING
18	1	0802151	GLAD HAND HOUSING

TRUCK WHEEL LIFT



REF. NO.	NO. REQ'D	PART NUMBER	DESCRIPTION
1	2	0301932	5/16" X 12' H.T. CHAIN ASSEMBLY (N.S.)
2	2	0300311	RATCHET WITH HOOK (N.S.)
3	2	0303680	TIE DOWN STRAP, ADJUSTABLE (N.S.)
4	1	0802839	TIRE SUPPORT, RIGHT
5	1	0802841	OUTER CROSSTUBE, LEFT
6	1	0802842	OUTER CROSSTUBE, RIGHT
7	1	0802877	TIRE SUPPORT, LEFT
8	2	0902947	CROSSTUBE RETAINER PIN
9	4	0903089	RETAINER PIN
10	2	0903480	ADJUSTMENT TUBE
11	2	CH0100	5/16" HOOK WITH PIN (NOT SHOWN)

NOTES

Section VII - INSTALLATION

7.1 SWITCH PANEL & PTO SHIFTER INSTALLATION

The Switch Panel is generally located beside the driver's seat or in the overhead console, and controls the light bar, flood lights, auxiliary lights, control station lights, and lower work lights. Refer to Figure 3.2. The air shift PTO control knob and indicator light are generally located on dash panel in cab.

(a) Attach switch panel wiring harness (0302746). Refer to electrical schematic & switch panel wiring, pages VIII-1 & VIII-2.

(b) Install fittings from PTO kit to PTO shifter valve. Install nylon tubing to fittings on valve. See Figure 7.1.

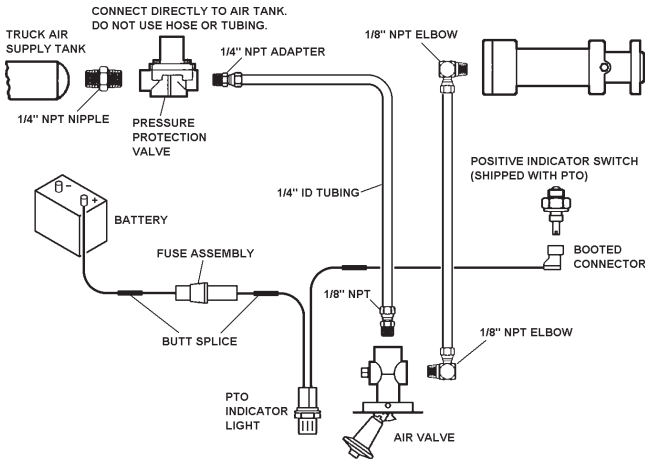


FIGURE 7.1

(c) Install PTO shifter valve in dash panel.

(d) Thread electrical harness and nylon tubing through holes drilled in cab floor and mount switch panel to floor using six (6) 1/4"-20 x 2-1/4" slotted head screws and nylon lock nuts from switch panel kit.

(e) Install pressure protection valve at air supply point (air tank). See PTO instructions. Install tee fitting (furnished by customer) in outlet port of pressure protection valve.

Section VII - INSTALLATION (cont'd)

7.1 SWITCH PANEL & PTO SHIFTER INSTALLATION (cont'd)

(f) Install nylon tubing from inlet port on PTO shifter to tee fitting at pressure protection valve. (NOTE: Other side of tee fitting is connected to wrecker winch air shifter cylinders.)

(g) Connect outlet line from PTO shifter valve to PTO after PTO is installed.

7.2 PTO INSTALLATION

(a) Drain transmission oil.

(b) Disengage PTO (gears should turn freely).

(c) Install PTO to truck transmission with supplied gasket and stud kit. Refer to PTO Owner's Manual for proper installation procedures. (Ideally, PTO should be mounted to transmission so that pump, when mounted to PTO, is rear of truck cab.

7.3 PUMP INSTALLATION

Mount pump to PTO in a position which allows pump fittings to be horizontal (parallel with ground). Secure with hardware furnished in PTO kit.

REFILL TRANSMISSION WITH OIL BEFORE OPERATING.

7.4 PREPARATION OF TRUCK FRAME

Before installing body mounting angles, check the area from the cab rearward for any obstructions that would interfere with the installation of the body.

Section VII - INSTALLATION (cont'd)

7.4 PREPARATION OF TRUCK FRAME (cont'd)

CAUTION

RELOCATING EXHAUST SYSTEM COMPONENTS, ELECTRICAL COMPONENTS, BRAKING SYSTEM COMPONENTS, AND/OR FUEL SYSTEM COMPONENTS MUST BE PERFORMED BY QUALIFIED PERSONS ONLY!

ALL MODIFICATIONS COVERED BY FEDERAL AND STATE SAFETY CODES MUST BE CERTIFIED AFTER THE MODIFICATION IS COMPLETED.

(a) Cut chassis frame rails as shown in Figure 7.2.

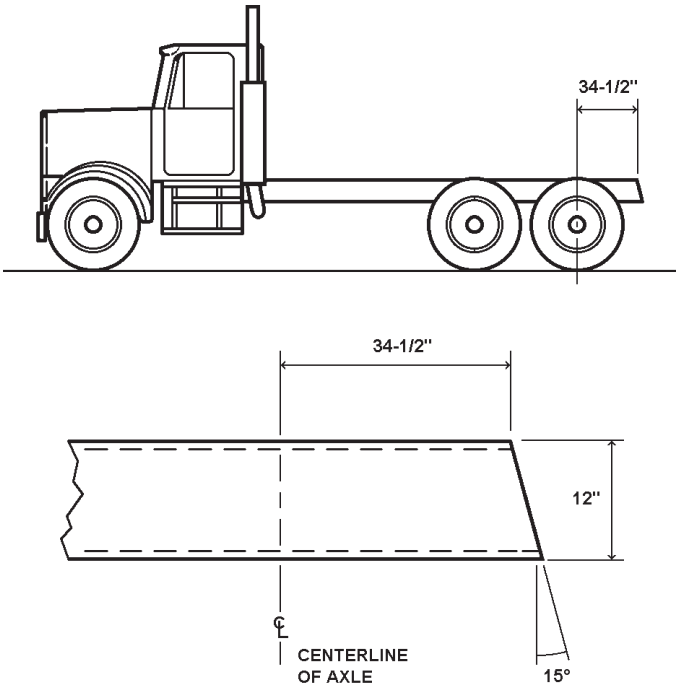


FIGURE 7.2

Section VII - INSTALLATION (cont'd)

7.4 PREPARATION OF TRUCK FRAME (cont'd)

(b) If frame rail width is greater than 10", frame rails must be notched as shown in Figure 7.3.

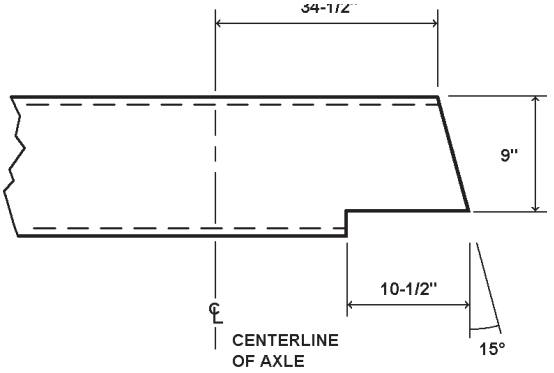


FIGURE 7.3

7.5 MOUNTING ANGLE INSTALLATION

(a) Clamp mounting angles to chassis frame as shown in Figure 7.4.

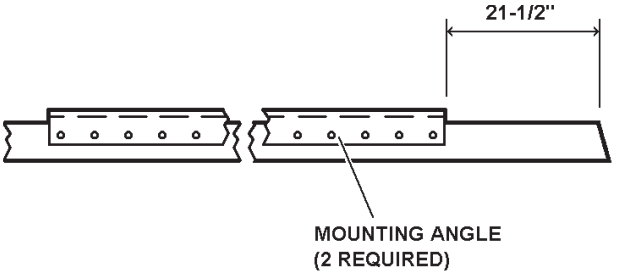


FIGURE 7.4

(b) Using holes in the mounting angles as a guide, drill the chassis frame for 7/8" mounting bolts.

NOTE
ALL EXISTING CROSSMEMBER BOLTS MUST BE REPLACED IN THEIR ORIGINAL LOCATIONS.

7.5 MOUNTING ANGLE INSTALLATION (cont'd)

CAUTION

**DO NOT WELD ANGLES TO CHASSIS FRAME RAILS!
D.O.T. REGULATIONS PROHIBIT ANY WELDING
TO CHASSIS FRAME.**

NOTE
IT MAY BE NECESSARY TO NOTCH MOUNTING PLATES TO CLEAR SPRING HANGERS AND OTHER UNMOVABLE OBJECTS.

(c) Attach mounting angles to frame using 7/8"-9 x 2-1/2" Grade 8 mounting bolts and nylon lock nuts from body mounting hardware kit.

7.6 WRECKER SUBFRAME INSTALLATION

(a) Remove all rust, paint, scale or any non-steel finish from entire length of top surface of mounting angles. A clean bright surface is essential for good welds.

(b) Before mounting the subframe on the truck chassis, check for any obstructions that would interfere with the sill channels mating tightly with the mounting angles. Inspect for areas that might interfere with valves, hoses, etc.

(c) Using a suitable lifting device, position the wrecker subframe assembly on the chassis frame. Ensure that tailgate is flush against frame cut-off.

(d) Align subframe to chassis frame rails. Measure from mounting angles to outer edge of sill channels on both sides of subframe. Use a port-a-power to adjust subframe until measurement is the same on both sides and subframe is centered on mounting angles.

7.6 WRECKER SUBFRAME INSTALLATION (cont'd)

(e) Weld subframe permanently to mounting angles using a continuous weld. Apply weld to both inside and outside of each mounting angle.

7.7 REAR OUTRIGGER SUPPORT BRACKET INSTALLATION

(a) Rear outrigger support brackets must fit up against the rear outrigger and flush with the chassis frame rail.

(b) Grind the area where each support bracket meets the rear outrigger to ensure a good weld surface.

(c) Weld support brackets to the rear outrigger tube with a continuous weld.

(d) Using the holes in the support brackets as a guide, drill the chassis frame for 7/8" mounting bolts. Attach support brackets to frame using 7/8"-9 x 2-1/2" Grade 8 mounting bolts and nylon lock nuts from body mounting hardware kit.

CAUTION

DO NOT WELD PLATES TO CHASSIS FRAME RAILS!
D.O.T. REGULATIONS PROHIBIT ANY WELDING TO CHASSIS FRAME.

7.8 WIRING HOOK-UP

(a) Identify the following wires in the truck cab wiring harness, and if possible, cut the wires long enough to connect directly to the junction box in left tool compartment:

1. Running Lights
2. Back-Up Lights
3. Right Turn & Stop Light
4. Left Turn & Stop Light

Section VII - INSTALLATION (cont'd)

7.8 WIRING HOOK-UP (cont'd)

(b) Complete the wiring hook-ups between the truck cab and wrecker body. Refer to Section VII - Electrical Schematic. Holes are provided in the left front, inner part of the body for the wiring harness to pass through. Wires are then attached to the proper locations in the junction boxes located in the left front tool compartment.

(c) Mount the light bar assembly, if applicable. It may be necessary to add another hole in the body for the light bar wiring harness.

7.9 HYDRAULIC HOSE HOOK-UP

Refer to Pump, Valve, and Filter Hydraulics, page VI-16 and Hydraulic Schematic, page VII-2. Install hydraulic fittings from pump kit to hydraulic pump.

(a) Flanged fittings with barbed elbows attach to the suction (right) side of pump. See Figure 7.5.

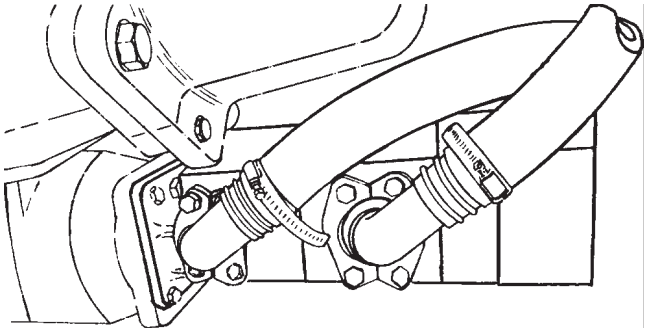


FIGURE 7.5

(b) Flanged fittings with threaded elbows attach to the pressure (left) side of pump. See Figure 7.6. Fittings should be installed so they are horizontal or parallel to the ground.

Section VII - INSTALLATION (cont'd)

7.9 HYDRAULIC HOSE HOOK-UP (cont'd)

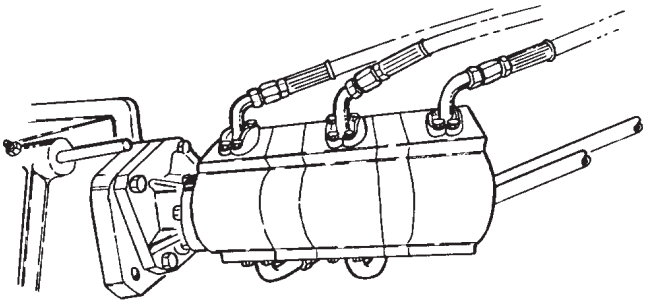


FIGURE 7.6

(c) Attach the suction hoses from the hydraulic reservoir to the barbed fittings on the pump. Use hose clamps supplied in pump kit.

(d) Attach the pressure hoses from the control valves to the threaded fittings on pressure side of pump.

(e) Fill the hydraulic reservoir with hydraulic oil selected from Section 5.4 (a), Summary Of Required Lubricants, page V-3, until the oil level is in the center of the sight gauge on the reservoir.

7.10 WINCH AIR SHIFTER

Connect nylon line from winch air solenoid valve to tee fitting at pressure protection valve at air supply point.

7.11 AIR CONTROL MANIFOLD

Connect nylon line from air regulator, located in left rear control compartment, to tee fitting at pressure protection valve at the air supply point. Set air pressure at the regulator to 50-60 pounds. Refer to Section 5.7, Filter / Regulator Operation And Service, pages V-6 and V-7.

NOTE
SECURE ALL LINES AND HOSES TO FRAME WITH CLAMPS AND NYLON TIES.

Section VII - INSTALLATION (cont'd)

7.12 GLAD HAND HOOK-UP

The wrecker assembly is furnished with glad hand and electrical receptacles installed in the tailgate. It is the customers responsibility to attach these units to the truck air and electrical systems.

7.13 INSTALLATION CHECK

Check all installation points for completeness and correct assembly.

(a) Mounting plates to chassis frame and wrecker sub-frame.
(b) Hydraulic and air line hook-ups. Oil in reservoir.
(c) Wiring harness hook-up. Check light operation.

7.14 WINCH CABLE INSTALLATION

Installation is now complete except for winch cable installation.

CAUTION

DO NOT COMPLETE THIS STEP UNTIL YOU STUDY SECTION III - OPERATIONAL FUNCTIONS AND SECTION IV - OPERATING INSTRUCTIONS.

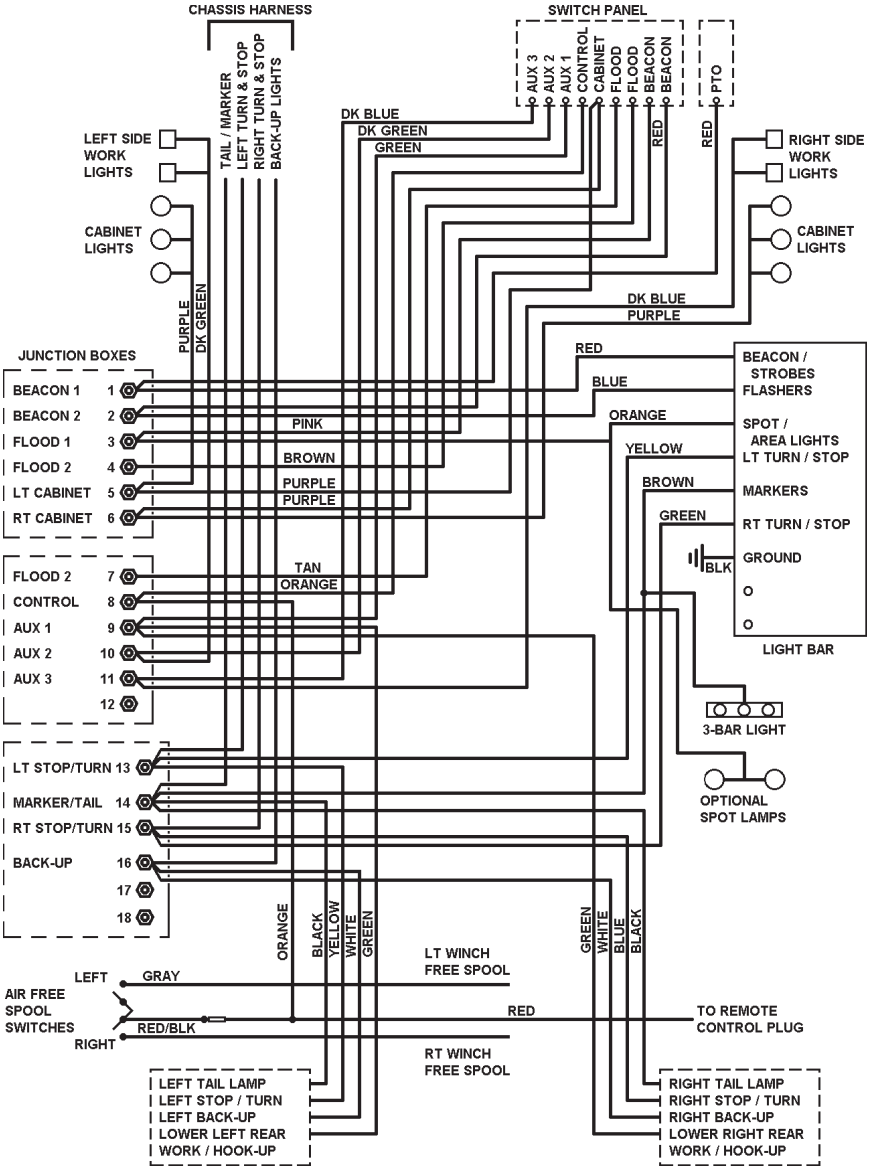
AFTER BECOMING THOROUGHLY FAMILIAR WITH ALL OPERATIONS, PROCEED WITH WINCH CABLE INSTALLATION.

(a) Thread ends of wire rope through boom end swivels and attach to winch drums with fasteners provided. Left wire rope to rear winch and right wire rope to front winch. NOTE: Wire rope winds in on bottom side of winch drums and should be wound on drums under load so cable will be tight on drums. Operate winches from controls at left rear control station.

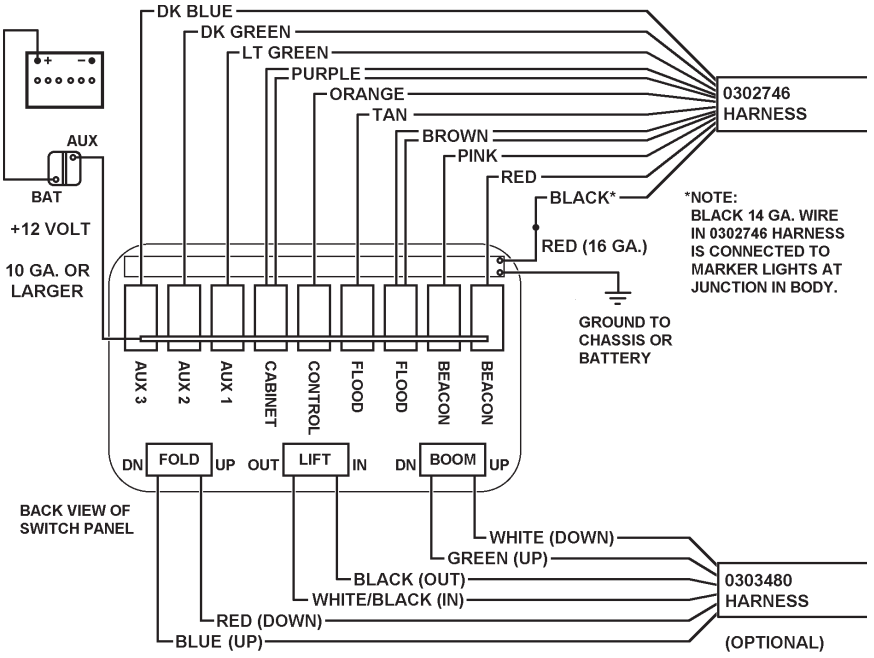
(b) Attach cable hooks to spring loaded loops on tower when not in use.

NOTES

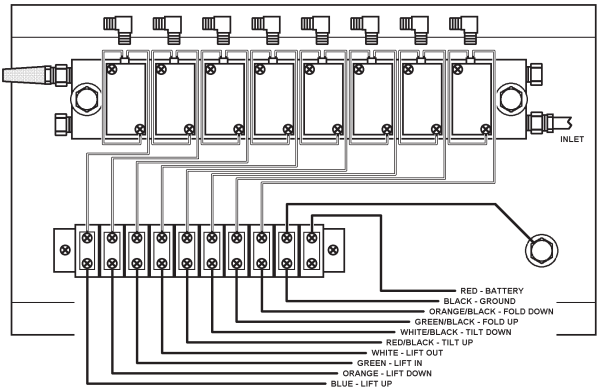
Section VIII - SCHEMATICS
ELECTRICAL



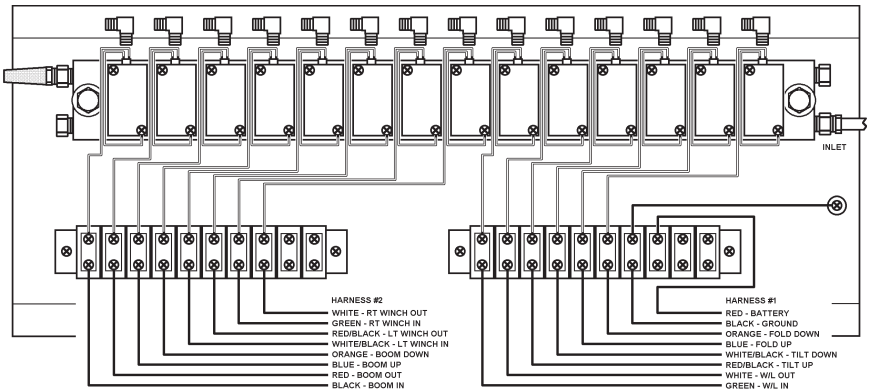
Section VIII - SCHEMATICS (cont'd)
SWITCH PANEL WIRING



Section VIII - SCHEMATICS (cont'd)
REMOTE CONTROL ELECTRICAL

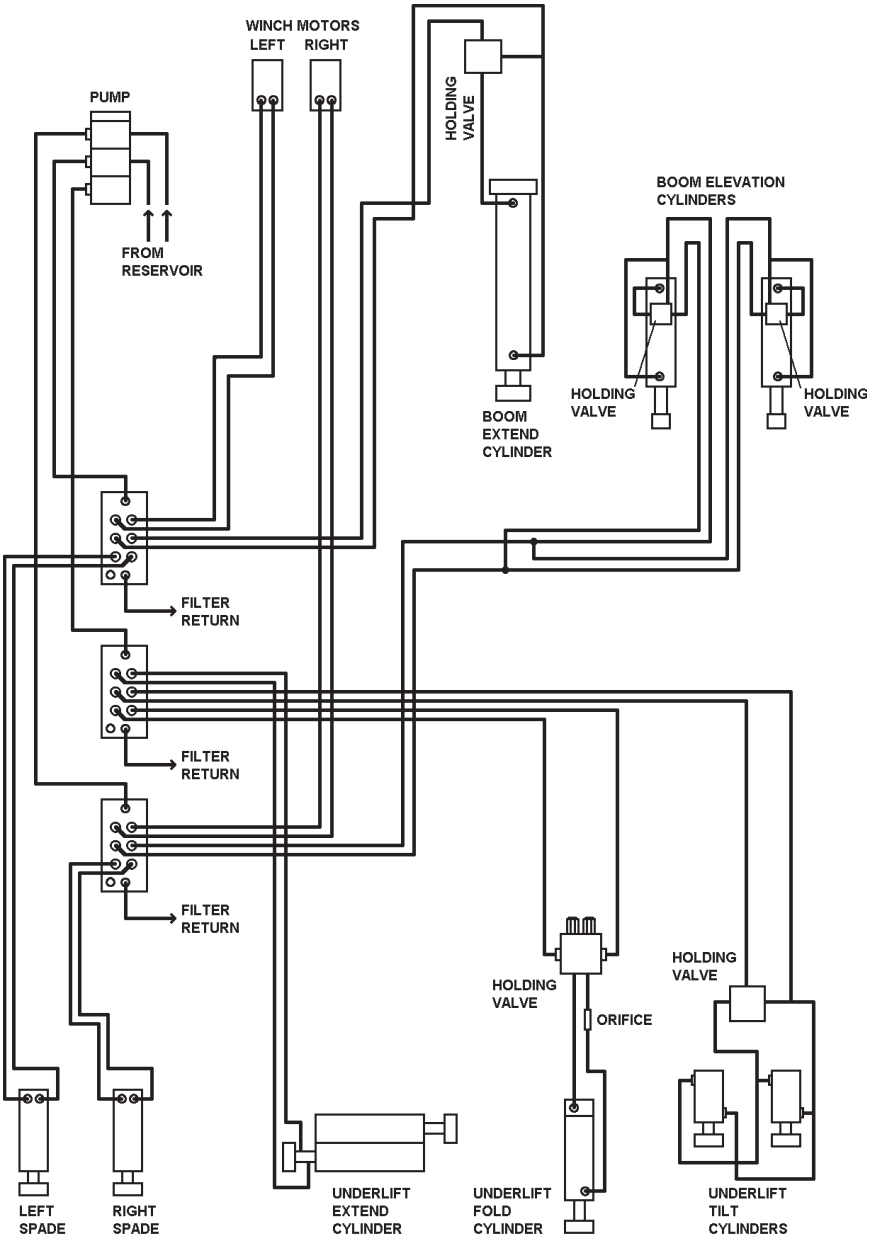


8-POSITION POWER PAL



15-POSITION POWER PAL

Section VIII - SCHEMATICS (cont'd)
HYDRAULIC



NOTES

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