

WRECKER
SIDE RECOVERY SYSTEM
INSTALLATION MANUAL

JERR-DAN[®]

An Oshkosh Corporation Company

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

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

TITLE	PAGE
PREFACE	
General Information	4 - 5
Tools / Special Equipment	6
Unpacking / Kit Disassembly / Contents	7-8
CHASSIS PREPARATION	
Preparation Notes	9
Chassis Frame Preparation	10
INSTALLATIONS	
Side Recovery System Structure Installation	11
Hydraulic Hoses - Supply/Pressure/Return	12-13
Air Line Installation	14
Remote Control Harness Installation	15
Winch Cable Installation	16-19
APPENDIX	
Decimal Equivalents	22
Fastener Torque Specifications	23

PREFACE

General Information

This manual covers the following Jerr-Dan Models:

Wrecker Side Recovery System (*SRS-W25S & *SRS-W35S)

Jerr-Dan Corporation strives to provide information that is accurate, complete and useful. Descriptions and illustrative material contained within this manual are as accurate as known at the time of publication and are subject to change, without notice, as a result of continuous product improvements. Jerr-Dan Corporation reserves the right to amend the information in this document at any time without prior notice.

Information contained in this manual reflects how this vehicle was built at the factory. Modifications or additions by the distributor or owner are not reflected in this manual.

This installation manual does not include service parts information for the commercial chassis (IHC, Ford, GM, etc.).

That information is provided by the chassis manufacturer.

When ordering parts, please refer to your unit's Sales Order Number, Serial Number and Model Number. This information is found on the aluminum tag riveted to the rear side of the unit.

MANUFACTURED BY
JERR-DAN
An Oshkosh Corporation Company

SERIAL NO. [] MODEL NO. []

STRUCTURAL CAPACITY: [] LBS. IDENT. NO. []

WINCH RATING: [] LBS. WIRE ROPE WORKING LIMIT: [] LBS.

DO NOT EXCEED THE ABOVE STRUCTURAL RATINGS AND CAPACITIES.
SAFETY IS NO ACCIDENT. FOLLOW ALL INSTRUCTIONS ON CONTROLS AND UNIT.
PATENT PENDING 710

Additional or replacement manuals can be ordered by calling Jerr-Dan Parts at 717-597-7111. Price and availability will be quoted at time of the request.

Please report comments and/or errors by contacting Jerr-Dan Corporation's Technical Publications Department by e-mail at technicalpublications@jerr-dan.com or by FAX on 717-593-2362.

Patents Pending.

Jerr-Dan and the Jerr-Dan logo are registered trademarks of Jerr-Dan Corporation, Greencastle, PA USA.

The material in this document is confidential and the property of Jerr-Dan Corporation. No part of this document may be photocopied, reproduced or translated to another language without the express written consent of Jerr-Dan Corporation.

To alert personnel to hazardous operating practices, safety messages are used throughout the manual. Each safety message contains a safety alert symbol and a signal word to identify the hazard's degree of seriousness.

 **CAUTION**

Identifies when a potentially hazardous situation exists and may result in a minor or moderate injury or property damage.

 **WARNING**

Identifies when a potentially hazardous situation exists and could result in death or serious injury.

 **DANGER**

Identifies when an imminently hazardous situation exists and can result in death or serious injury.

This manual describes installation instructions for the Carrier Side Recovery System. Read the instructions thoroughly prior to starting installation. Sketches are provided to give visual aid and may not look the same as what you are working with because of make of truck and model year. All work performed in relation to the mounting of Jerr-Dan bodies should be performed by qualified and experienced personnel.

These instructions are intended to be a guide. Procedures may vary from individual to individual and from shop to shop based on the tools and equipment available and the experience of the mechanics doing the installation. There are, however, certain areas where any deviation from the recommended procedure will cause unsatisfactory operation and reduced life of the unit. Any deviation from these mounting instructions should be done with thought and planning. Jerr-Dan will not accept responsibility for poor workmanship and improper installations.

Tools/Special Equipment Needed

Proper tools will ease the installation of your Jerr-Dan unit and insure proper installation. The following is a list of special tools and equipment recommended for use during the installation of your Jerr-Dan unit.

- Crane or Overhead Winch
- Drill
- 4-5 C Clamps (heavy duty 8" or larger)
- Tape Measure
- Straight Edge (36" or longer)
- Wire Cutters
- Sockets/Wrenches/Screwdrivers
- Wire Crimpers
- Torque Wrench
- Framing Square

Unpacking /Kit Disassembly / Contents - Figure 1

The kit for the SRS contains two components: the SRS structure and the SRS crate which contains the various loose items required to properly install the SRS according to these instructions.

If your SRS was ordered in combination with a wrecker, the items in the SRS crate may be packaged with the wrecker crate.

The SRS may be shipped laying flat or vertically. Take care when removing the SRS structure from the shipping vehicle as not to damage the SRS or other items on the same shipment.

WARNING

Do not lift the Side Recovery System by the pivoting recovery boom.

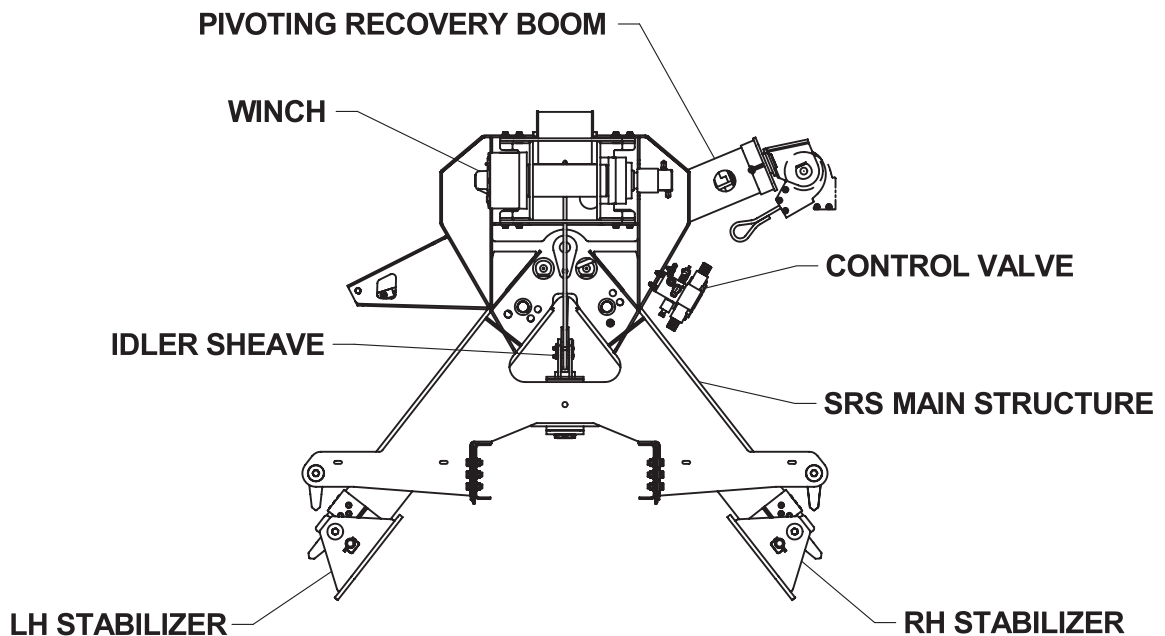


Figure 1 - SRS Components

The following items are included in the standard SRS crate:

Jerr-Dan P/N	Description	Qty
4811001136	11 GA Frame Spacer	2
4811001137	16 GA Frame Spacer	2
4706005760	0.25" Frame Spacer	2
7118221816	3/4" dia x 2.25" Flange Capscrew	20
7660222308	3/4" dia Flange Locknut	20
7248000141	Winch Cable (SRS-W25S only)	1
7248000144	Winch Cable (SRS-W35S only - std)	1
7248000142	Winch Calbe (SRS-W35S only - opt)	1
7804000008	Shackle	1
7561000026	Swivel Hook	1
4567160129	Pressure Hose, 3/4" dia x 129"	1
4567160156	Pressure Hose, 3/4" dia x 156"	1
4567160180	Return Hose, 3/4" dia x 180"	1
7443000213	Tee Fitting	1
7443000214	Reducer	1
7443000149	Air Line Adapter	1
7443000174	Air Line Tee Fitting	1
7565000016	Air Line Tubing	1
7295000126	Wired Controller	1
9295310054	Remote Control Transmitter with rubber boot & belt clip	1



SRS ship-out kit with optional tool compartments

CHASSIS PREPARATION

Preparation Notes

Chassis preparation involves rear frame cutoff, and relocating and modifying components for installation of your Jerr-Dan unit. Different factory options and truck modifications will warrant the modification of these instructions. All chassis modifications should be done by qualified and experienced personnel and according to guidelines found in chassis manufacturer's body builder books.

Jerr-Dan will not accept responsibility for poor workmanship and improper installations. We recommend that you do not attempt to modify any chassis until you obtain expert guidance from the truck manufacturer. Always follow the recommendations of the truck manufacturer.

CAUTION

When modifying the truck chassis, become familiar with the location of the brake lines, fuel lines, wiring harnesses, and fuel tanks so as not to cause damage to these components.

CAUTION

Always disconnect the positive wire from the battery before welding any components on the chassis or body. Damage to batteries and/or electrical components can result from welding.

NOTE

To protect the rear window and paint from damage, cover the cab with a protective blanket before starting work.

The Side Recovery System requires an additional 24" of Cab to Axle / Cab to Tandem above the standard wrecker installation. If retrofitting to an existing wrecker, a 24" Tunnel Tool Compartment can be removed and the Side Recovery System can be mounted in its place.

Chassis Frame Preparations

1. Make sure the area 30" behind back the of cab on both outboard sides of the chassis frame are clear of any fuel tanks, battery boxes, air tanks, etc. If so, relocate components in accordance to the chassis manufacture. See *Figure 2*.

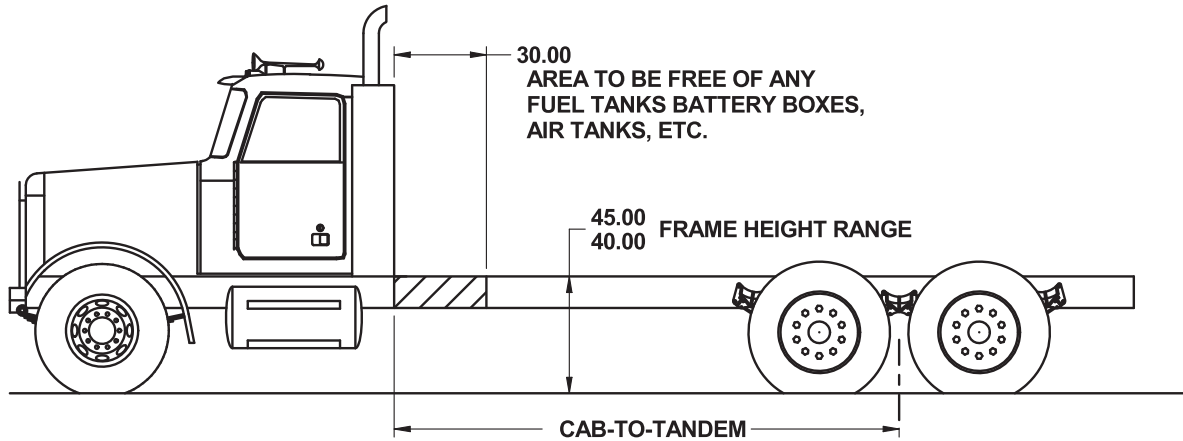
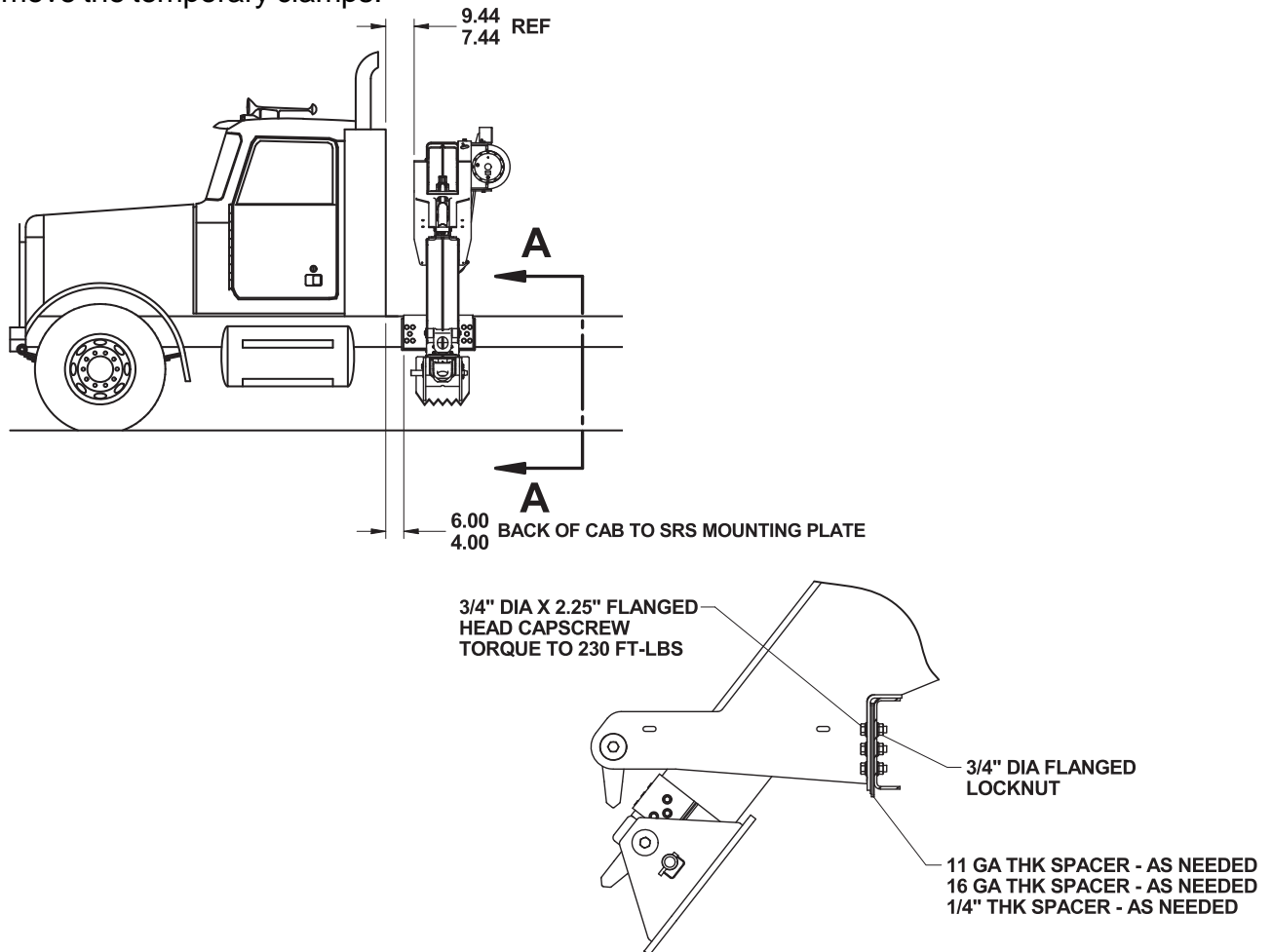


Figure 2 - Chassis Frame Preparation

INSTALLATIONS

Side Recovery System Structure Installation

1. Set the SRS structure onto the chassis truck frame and position as shown in Figure 3 and temporarily clamp into place. Make sure that the SRS structure is square and level with the truck frame.
2. Place the 11 GA, 16 GA and 1/4" spacers between the truck frame and SRS to center the structure on the truck frame as needed.
3. Using the holes in the mounting plates as a template, drill 12 (6 each side) 13/16" diameter holes thru the truck frame. **Be careful that you do not drill into fuel lines, brake lines, or electrical wires.**
4. Secure the SRS structure with 20 (10 each side) 3/4" dia x 2-1/4" flanged head capscrews and 3/4" dia flanged locknuts. **Torque capscrews to 230 ft-lbs.**
5. Remove the temporary clamps.



SECTION A-A

Figure 3 - SRS Structure Position

Hydraulic Hoses - Supply/Pressure/Return

The supply, pressure and return hydraulic lines on the SRS are connected in-line with the Wrecker's supply, pressure and return lines. See Figures 4, 5 & 6.

1. Connect one end of the shorter 3/4" pressure hose to the pressure port of the hydraulic pump.
2. Connect the other end of the shorter 3/4" pressure hose to the pressure port (P) of the SRS control valve body.
3. Connect one end of the longer 3/4" pressure hose to the power beyond port (PB) of the SRS control valve.
4. Connect the other end of the 3/4" pressure hose to the mid-inlet pressure port (P) of the main control valve.
5. Connect one end of the 3/4" return hose to the tank port (T) of the SRS control valve body.
6. Insert the Tee fitting between the hydraulic tank filter and the return line from the main control valve.
7. Insert the Reducer fitting to the Tee fitting.
8. Connect the other end of the 3/4" return hose to the Tee fitting.
9. Secure the hoses as needed.

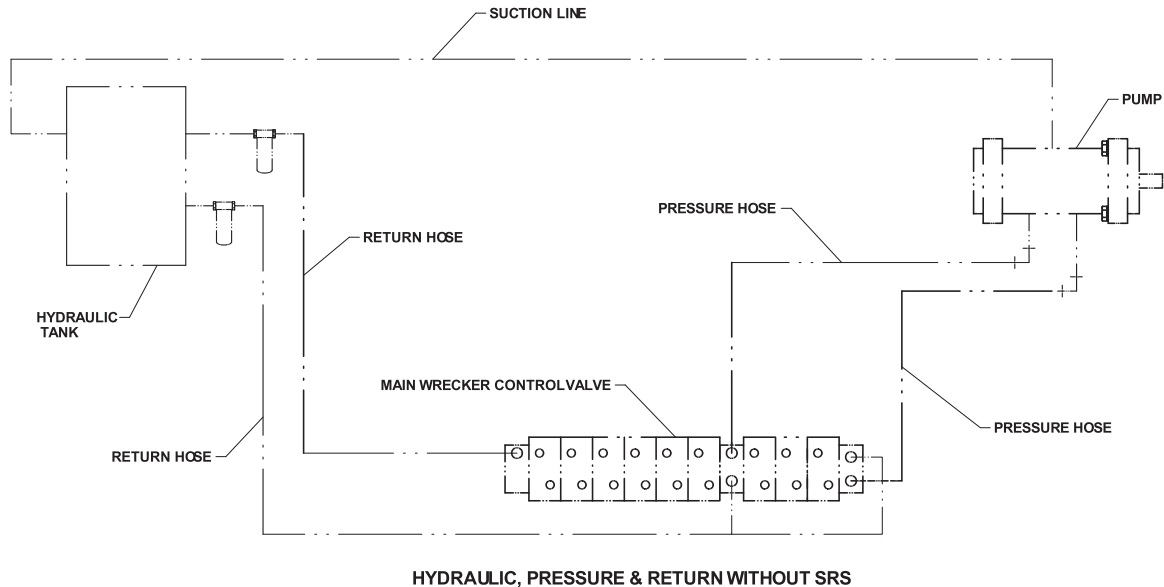


Figure 4 - SRS Hydraulic Supply, Pressure and Return Hoses (Before)

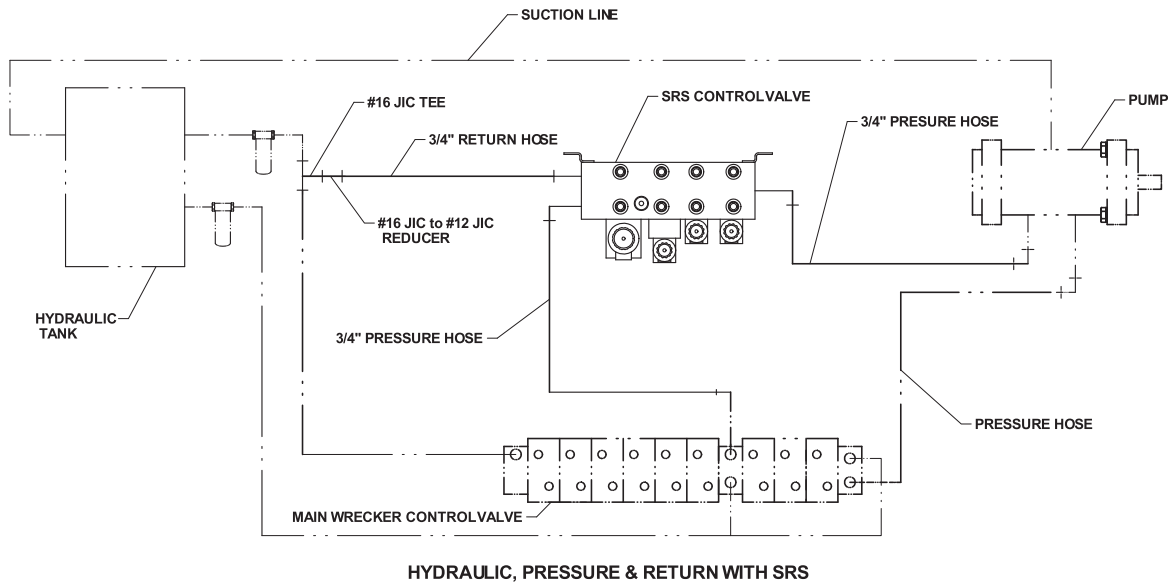


Figure 5 - SRS Hydraulic Supply, Pressure and Return Hoses (After)

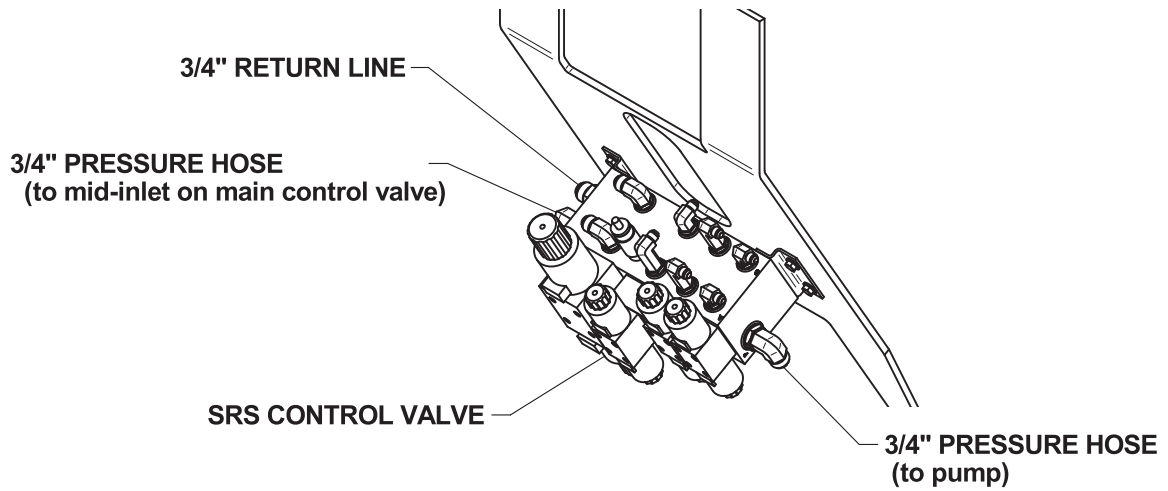


Figure 6 - SRS Control Valve

Air Line Installation - Figure 7

1. Connect one end the 1/4" Air Line Hose to the Tee fitting of the SRS pre-plumbed air line components.
2. Insert the Tee and Adapter into the existing air pressure protection valve.
3. Connect the other end of 1/4" Air Line Hose to the Tee fitting.

⚠ WARNING

Air Tank Must Be Evacuated Before Installing Air Lines.

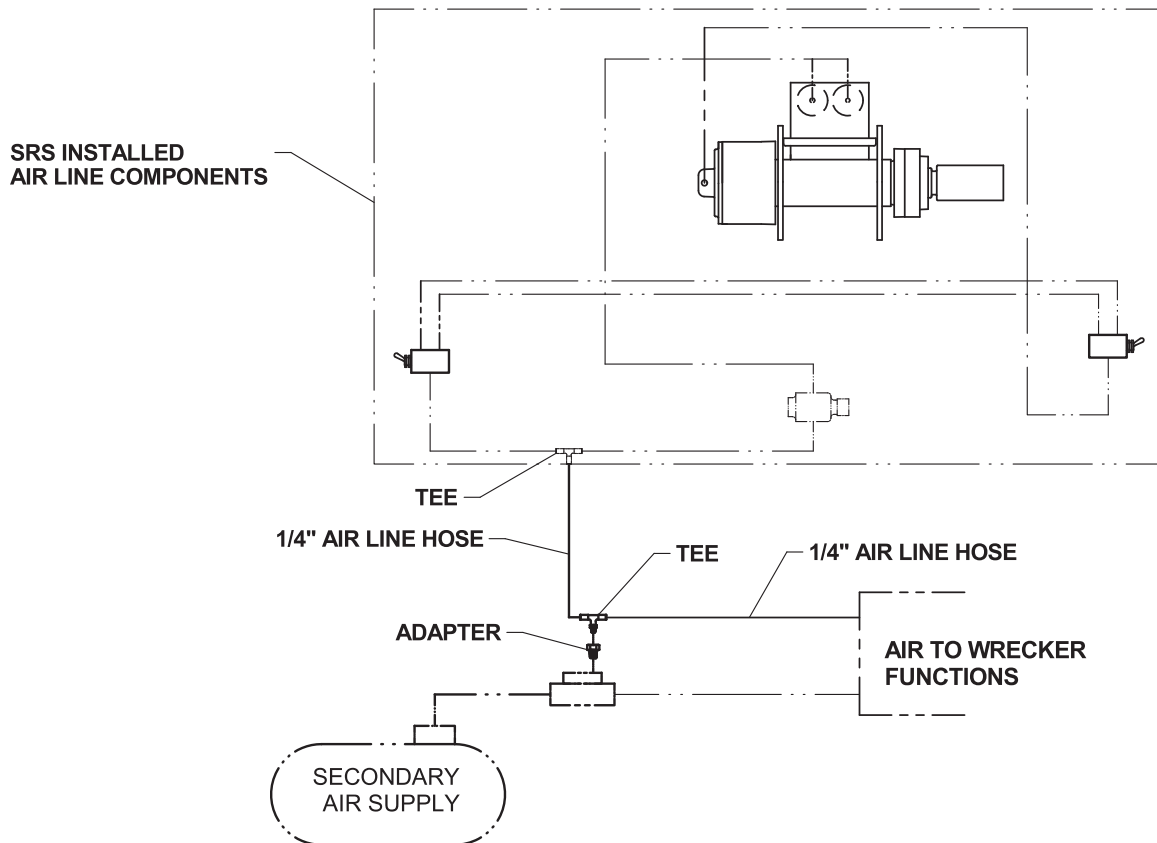


Figure 7 - Air Line Installation

Remote Controls Harness Installation - *Figure 8*

1. The remote control harness is shipped connected to the receiver box and control valve.
2. Route the remote control power feeds on the harness to the battery.
3. Connect the ring terminal lead with the 10 amp fuse to the positive terminal on the battery.
4. Connect the other ring terminal to the negative terminal on the battery.

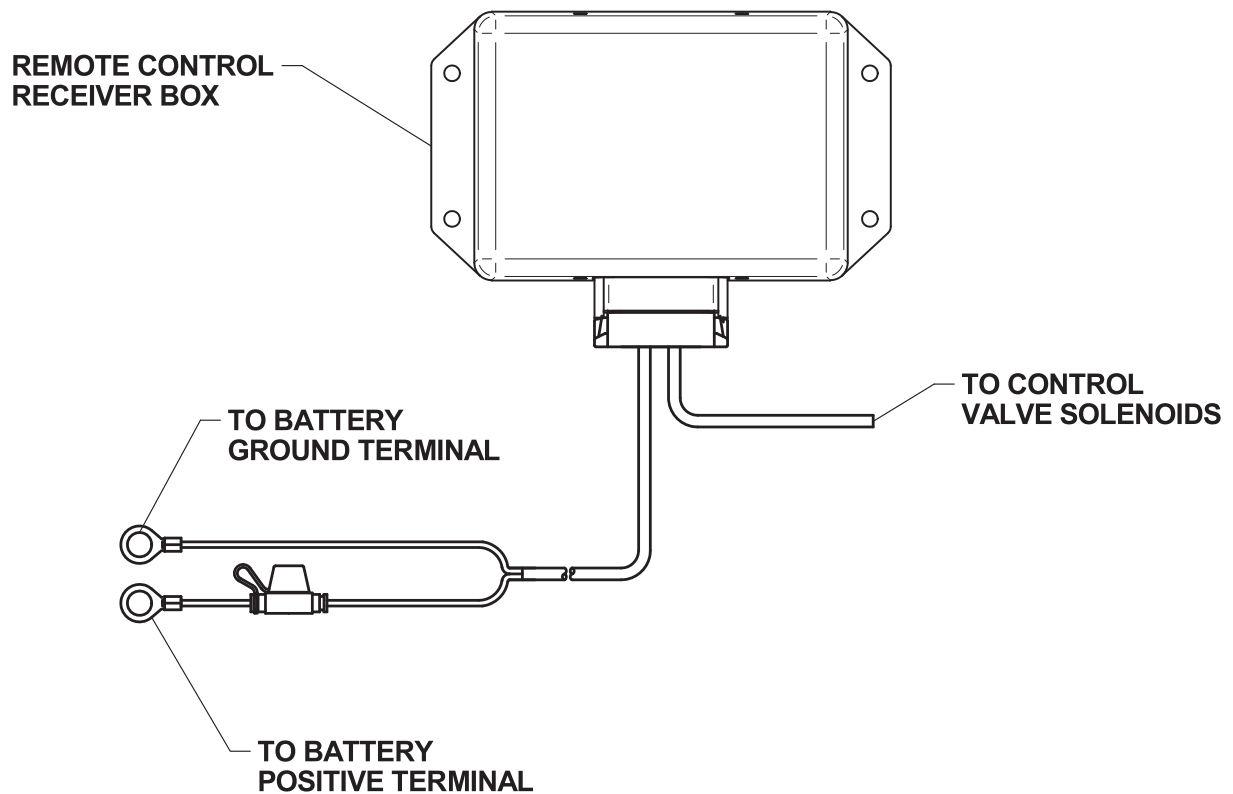


Figure 8 - Remote Controls Harness Installation

Winch Cable Installation

1. Unwind winch cable by rolling it out along the ground to prevent kinking. Securely wrap the end of the cable opposite the hook with plastic or similar tape to prevent fraying.
2. Feed the taped end of the cable through the pivot sheave assembly, the inside of the pivoting recovery boom, around the cable sheave, around the idler sheave and to the winch drum. See Figure 10.
3. Following the cable installation procedure outlined in the winch installation manual, install the winch cable on the winch drum as shown in Figure 11.

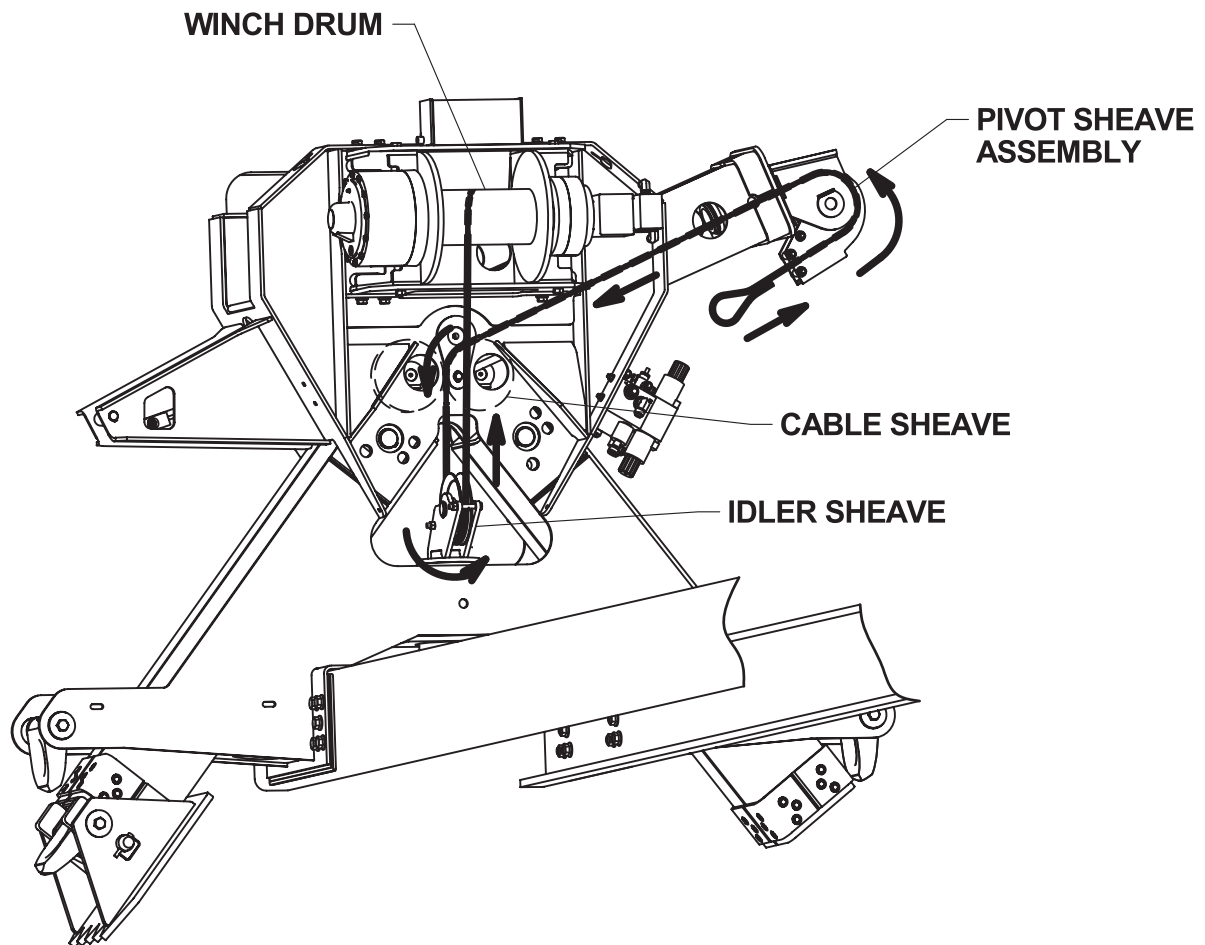
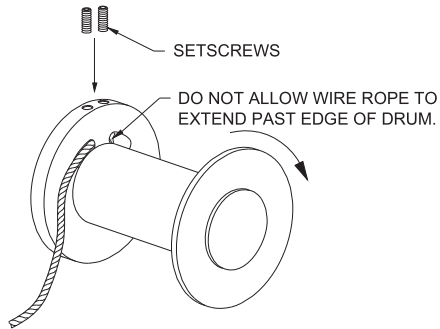


Figure 10 - Winch Cable Installation

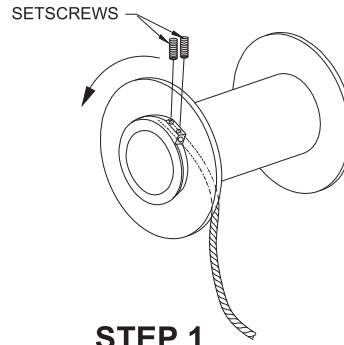


STEP 1

INSERT WIRE ROPE INTO PROPER SLOT ACCORDING TO DRUM ROTATION AND THREAD SET-SCREWS INTO THREADED HOLES IN DRUM FLANGE, MAKING SURE THAT BOTH SCREWS CLAMP ONTO WIRE ROPE.

STEP 2

ONCE SET-SCREWS ARE TIGHTENED SECURE, THE WIRE ROPE IS PROPERLY INSTALLED.



STEP 1

INSERT WIRE ROPE INTO SLOT ACCORDING TO DRUM ROTATION.

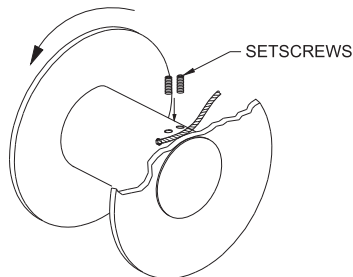
STEP 2

WRAP WIRE ROPE AROUND OUTSIDE OF FLANGE AND INSERT THROUGH CABLE ANCHOR.

THREAD SET-SCREWS INTO THREADED HOLES IN ANCHOR, MAKING SURE THAT BOTH SCREWS CLAMP ONTO WIRE ROPE.

STEP 3

ONCE SET-SCREWS ARE TIGHTENED SECURE, THE WIRE ROPE IS PROPERLY INSTALLED.

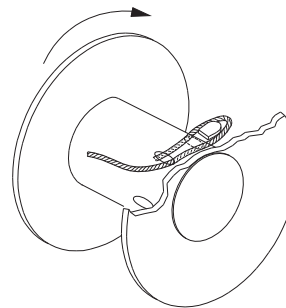


STEP 1

INSERT WIRE ROPE INTO PROPER SLOT ACCORDING TO DRUM ROTATION AND THREAD SET-SCREWS INTO THREADED HOLES IN DRUM FLANGE, MAKING SURE THAT BOTH SCREWS CLAMP ONTO WIRE ROPE.

STEP 2

ONCE SET-SCREWS ARE TIGHTENED SECURE, THE WIRE ROPE IS PROPERLY INSTALLED.



STEP 1

INSERT WIRE ROPE INTO POCKET OPENING AND THROUGH WEDGE POCKET.

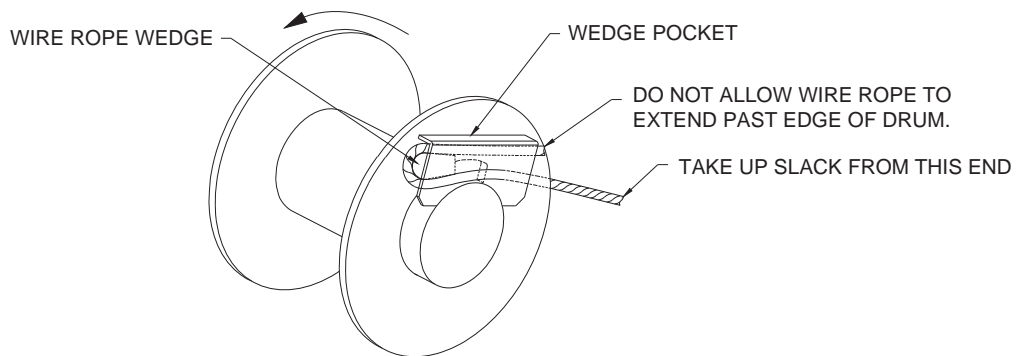
STEP 2

LOOP WIRE ROPE END AROUND WEDGE AND FEED WIRE ROPE BACK THROUGH WEDGE POCKET.

STEP 3

ONCE SLACK IS TAKEN UP, THE WIRE ROPE IS PROPERLY INSTALLED.

Figure 11 - Winch Cable Installation



STEP 1

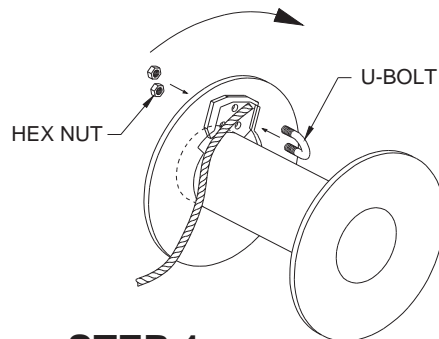
INSERT WIRE ROPE INTO POCKET OPENING AND THROUGH WEDGE POCKET.

STEP 2

LOOP WIRE ROPE END AROUND WEDGE AND FEED WIRE ROPE BACK THROUGH WEDGE POCKET.

STEP 3

ONCE SLACK IS TAKEN UP, THE WIRE ROPE IS PROPERLY INSTALLED.



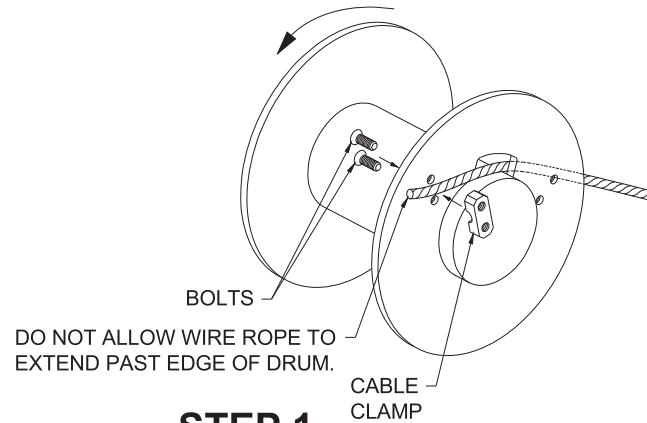
STEP 1

ALIGN WIRE ROPE BETWEEN PROPER HOLES ACCORDING TO DRUM ROTATION. INSERT U-BOLT INTO HOLES AND THEAD ON NUTS FROM BACK OF FLANGE.

STEP 2

ONCE NUTS ARE TIGHTENED SECURE, THE WIRE ROPE IS PROPERLY INSTALLED.

Figure 11 - Winch Cable Installation (cont)



STEP 1

INSERT WIRE ROPE INTO
FLANGE OPENING.

STEP 2

PULL WIRE ROPE THROUGH AND
ALIGN BETWEEN FLANGE HOLES.
POSITION CLAMP OVER WIRE ROPE,
AND THREAD BOLTS AS SHOWN.

STEP 3

ONCE BOLTS ARE TIGHTENED
SECURE, THE WIRE ROPE IS
PROPERLY INSTALLED.

⚠ DANGER

If the wire rope is not installed for the correct drum rotation, the winch brake valve will not hold the load.
Do not apply full load to the winch with less than 5 full wire rope wraps on the drum.
The last five wraps of wire rope must be left on the drum to assist the wire rope clamp in holding the load.
Wire rope can break without warning. Always keep a safe distance from the winch and wire rope while under a load.
Never pull the winch with wire rope that is damaged in any way.
Consult the wire rope manufacturer for wire rope ratings and maintenance procedures.

Figure 11 - Winch Cable Installation (cont)

NOTES

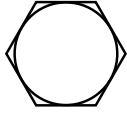
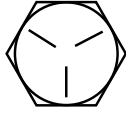
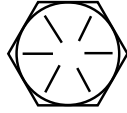
NOTES

APPENDIX

DECIMAL EQUIVALENTS

FRACTION	3 PLACES	2 PLACES	MM	FRACTION	3 PLACES	2 PLACES	MM
1/64	.016	.02	0.397	33/64	.516	.52	13.097
1/32	.031	.03	0.794	17/32	.531	.53	13.494
3/64	.047	.05	1.191	35/64	.547	.55	13.891
1/16	.062	.06	1.588	9/16	.562	.56	14.288
5/64	.078	.08	1.984	37/64	.578	.58	14.684
3/32	.094	.09	2.381	19/32	.594	.59	15.081
7/64	.109	.11	2.778	39/64	.609	.61	15.478
1/8	.125	.13	3.175	5/8	.625	.63	15.875
9/64	.141	.14	3.572	41/64	.641	.64	16.272
5/32	.156	.16	3.969	21/32	.656	.66	16.669
11/64	.172	.17	4.366	43/64	.672	.67	17.066
3/16	.188	.19	4.762	11/16	.688	.69	17.462
13/64	.203	.20	5.159	45/64	.703	.70	17.859
7/32	.219	.22	5.556	23/32	.719	.72	18.256
15/64	.234	.23	5.953	47/64	.734	.73	18.653
1/4	.250	.25	6.350	3/4	.750	.75	19.050
17/64	.266	.27	6.747	49/64	.766	.77	19.447
9/32	.281	.28	7.144	25/32	.781	.78	19.844
19/64	.297	.30	7.541	51/64	.797	.80	20.241
5/16	.312	.31	7.938	13/16	.812	.81	20.638
21/64	.328	.33	8.334	53/64	.828	.83	21.034
11/32	.344	.34	8.731	27/32	.844	.84	21.431
23/64	.359	.36	9.128	55/64	.859	.86	21.828
3/8	.375	.38	9.525	7/8	.875	.88	22.225
25/64	.391	.39	9.922	57/64	.891	.89	22.622
13/32	.406	.41	10.319	29/32	.906	.91	23.019
27/64	.422	.42	10.716	59/64	.922	.92	23.416
7/16	.438	.44	11.112	15/16	.938	.94	23.812
29/64	.453	.45	11.509	61/64	.953	.95	24.209
15/32	.469	.47	11.906	31/32	.969	.97	24.606
31/64	.484	.48	12.303	63/64	.984	.98	25.003
1/2	.500	.50	12.700	1	1.000	1.00	25.400

FASTENER TORQUE SPECIFICATIONS

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

- All torque values shown are for bolts (cap screws) and nuts that are either zinc-plated or lubricated.
- Torques shown above apply only to screws and nuts used for assembly and installation of all carrier components, not to the chassis.
- Different torque values may be given in instructions for certain components due to short thread engagement or low-strength internal threads.
- When nuts are used, tighten nuts to torques shown (screws or bolts should be held but not turned). **Always use a calibrated torque wrench.**
- Retighten nuts of all mounting screws that secure the carrier and carrier-body within 30 days after putting the vehicle into service. Thereafter, inspect and retorque such screws and nuts every 90 days and after each job that imposes extremely heavy loads on the equipment.
- Convert ft/lbs to Nm (Newton meters) by using the following formula:

$$\begin{array}{l} \text{Multiply:} \qquad \qquad \text{by:} \qquad \qquad \text{to get:} \\ \text{ft/lbs} \quad \times \quad 1.3558 \quad = \quad \text{Nm (Newton metres)} \end{array}$$

JERR-DAN[®]

An Oshkosh Corporation Company