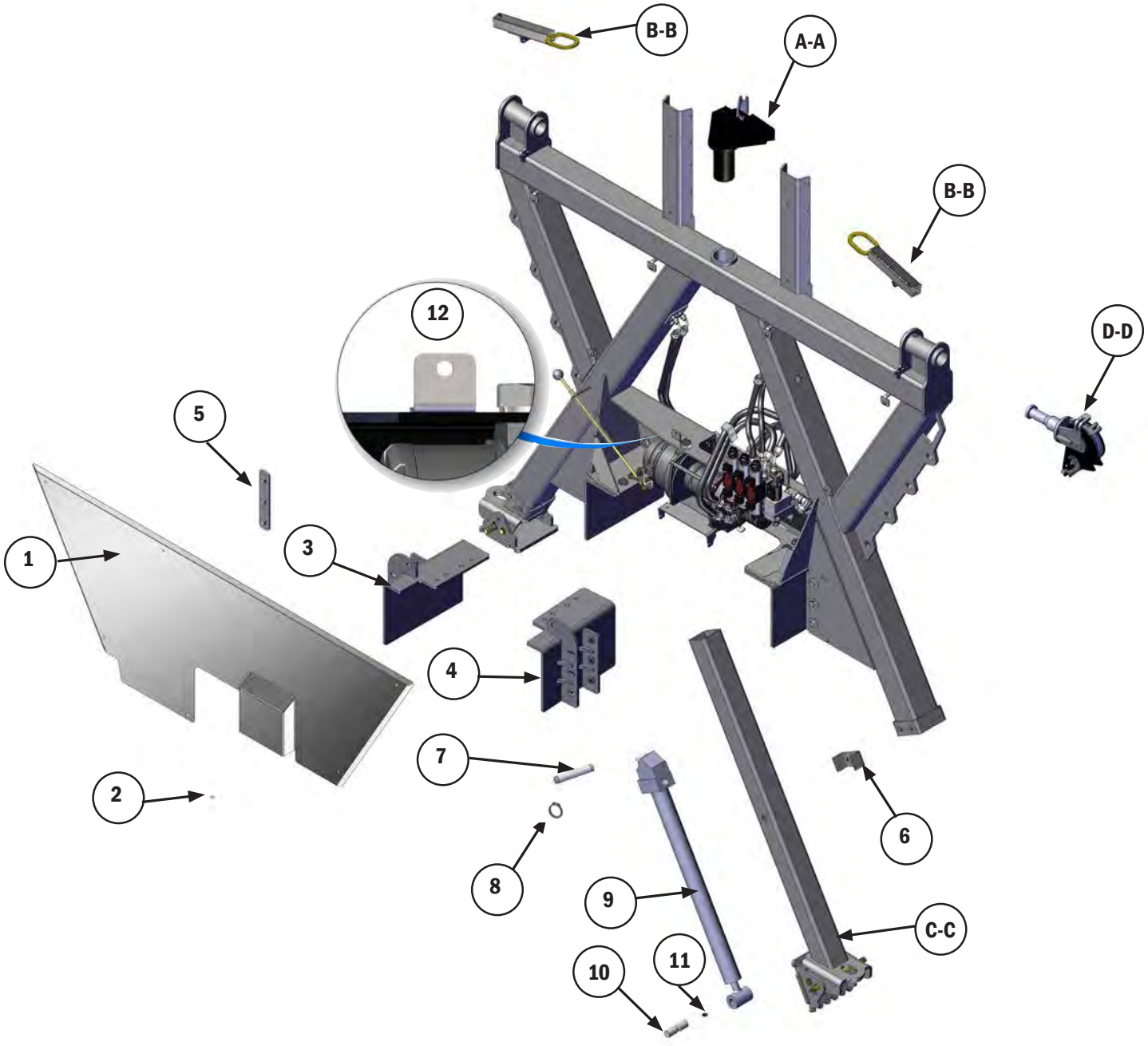
B-B
A-A
B-B
D-D
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1
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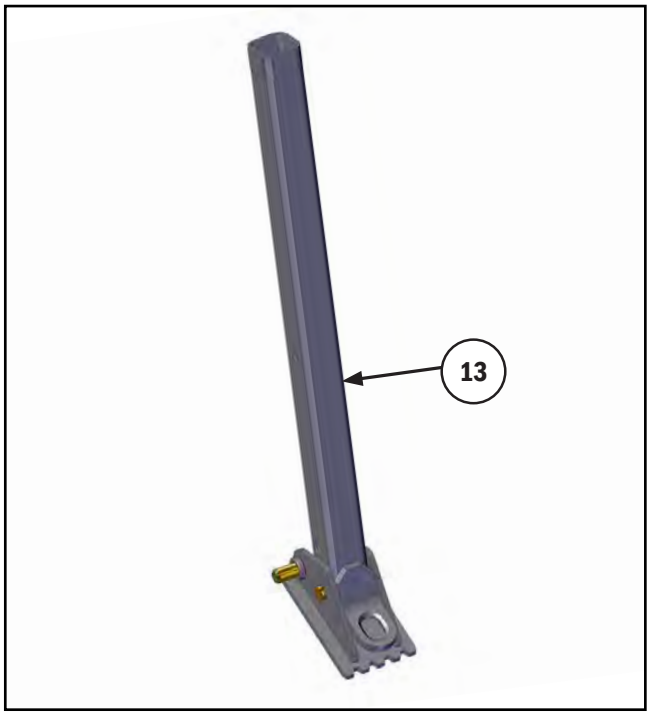
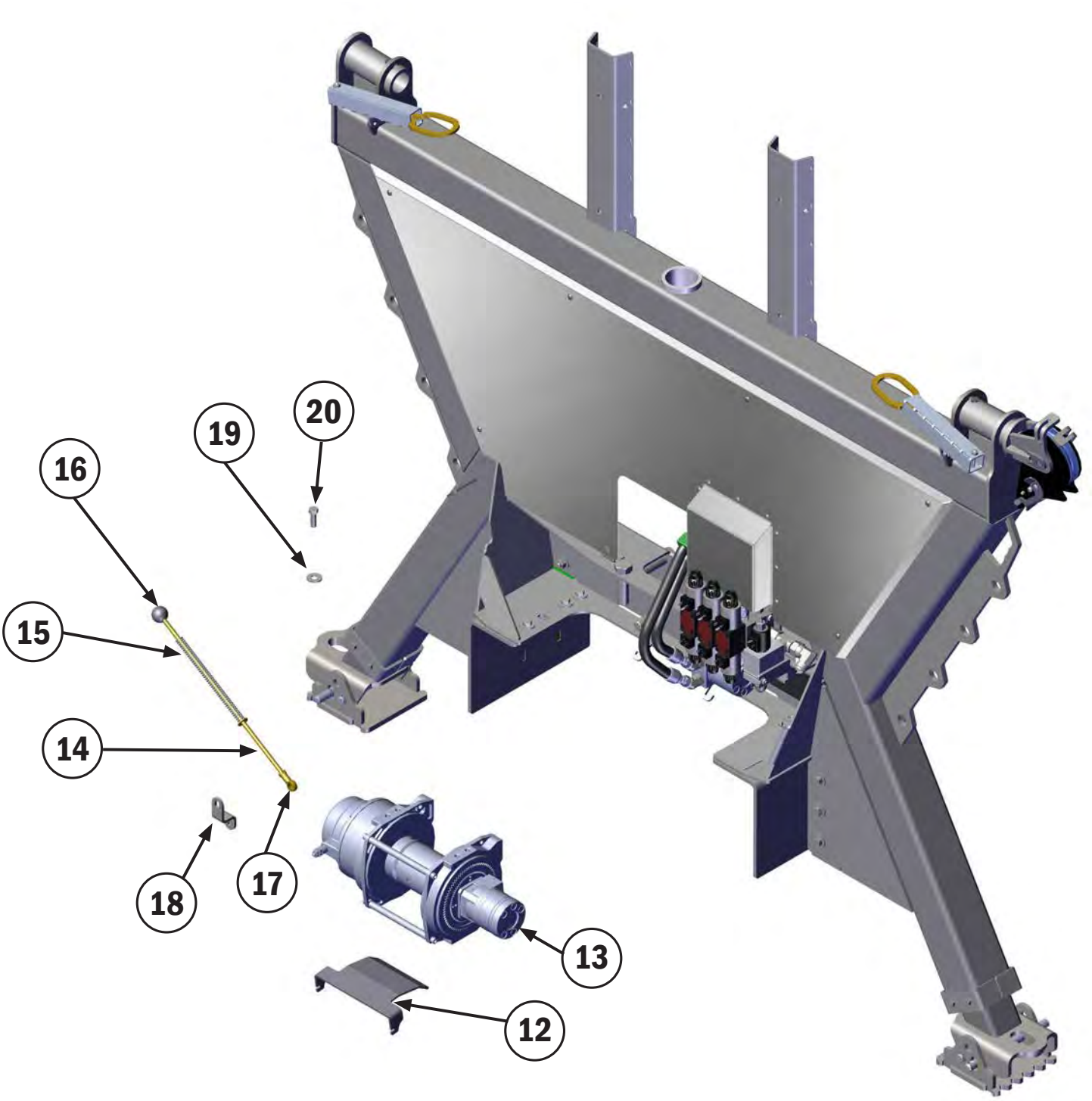
C-C

| Item # | Part # | Description |
|---|---|---|
| | | |
| NOT SHOWN | ITD1275 | Polished Stainless Steel Rear Accent Panel SP8000™ |
| NOT SHOWN | ITD4523 | Polished Stainless Steel Rear Accent Panel SP9000™ |
| 1 | ITD4722 | Polished Stainless Steel Rear Accent Panel SP9000™ (with Integrated Controls) |
| 2 | Hardware | SS 1/4”-20 x 3/4” Truss Head Screw |
| 3 | ITD4534 | L. H. Mounting Base |
| 4 | ITD4540 | R. H. Mounting Base |
| 5 | ITD4724 | Nut Plate Assembly for Mounting Base |
| 6 | ITD4119 | SP9000™ Lower Leg Shim |
| 7 | ITD4673 | SP9000™ Upper Cylinder Pin |
| 8 | ITD7069 | 1” Snap Ring |
| 9 | ITD4189 | SP9000™ Leg Cylinder |
| 10 | ITD4117 | SP9000™ Lower Cylinder Pin |
| 11 | Hardware | 3/8” Knurled Set Screw |
| 12 | ITD4696 | Bolt On SS Tab Mount |
| 13 | Discontinued | SP8000™ Inner Leg Assembly (Discontinued, replaced with ITD4138 pg 11) |




16
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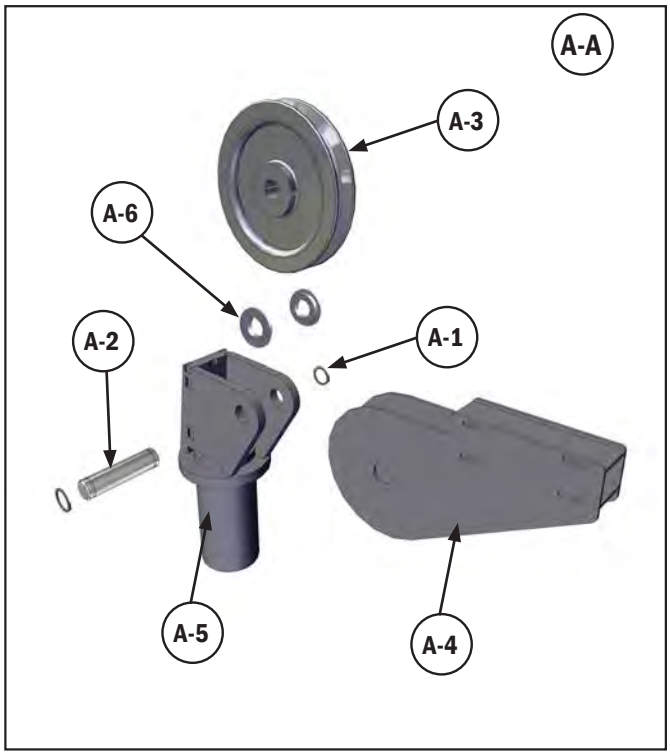
12

| Item # | Part # | Description |
|---|---|---|
| | | |
| 12 | ITD4141 | SP9000™ Tensioner Plate |
| 13 | ITD4188 | 9,000lb Hydraulic Winch |
| 14 | ITD4072 | Free Spool Rod |
| 15 | ITD4096 | Free Spool Spring |
| 16 | ITD7044 | Pull Knob - 3/8" -16 |
| 17 | ITD4093 | Free Spool Rod End |
| NOT SHOWN | Hardware | 3/8" 24 fine Thread Nut |
| 18 | ITD4162 | Winch Offset Lever |
| 19 | Hardware | M12 x 24mm Washer |
| 20 | Hardware | M12-1.75X40mm Bolt |
| NOT SHOWN | ITD4094 | 3/8" X100 Wire Rope (Steel Core) |
| NOT SHOWN | ITD4095 | Winch Tensioner Spring |

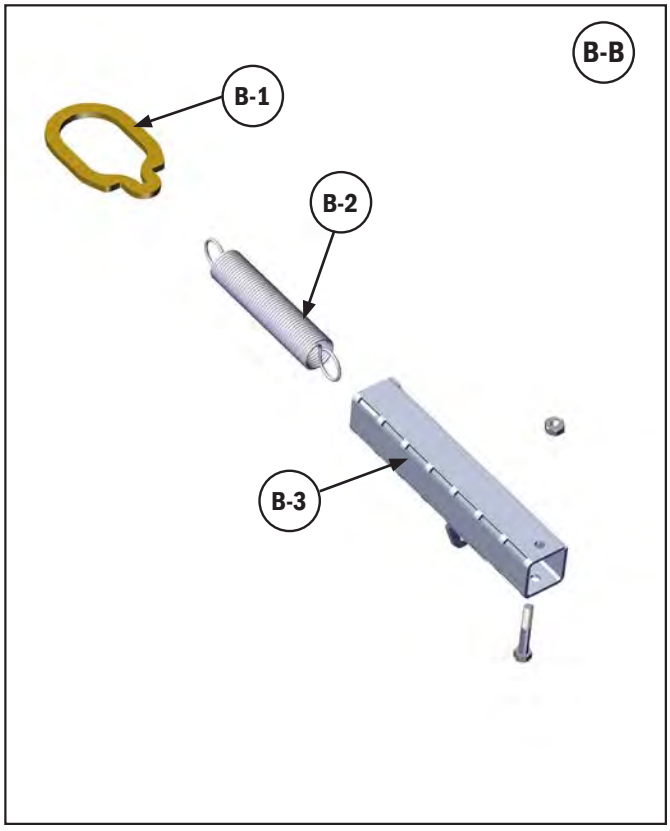
## CENTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| | | |
| A-A | ITD4044 | Center Recovery Boom Head |
| A-1 | ITD7074 | 3/4" Snap Ring |
| A-2 | ITD4054 | Center Recovery Boom Head Sheave Pin |
| A-3 | ITD4053 | SP9000™ - SP12,000™ Sheave |
| A-4 | ITD4050 | Center Recovery Boom Head Wire Rope Guide |
| A-5 | ITD4045 | Center Recovery Boom Head Main Body |
| A-6 | ITD4757 | 3/4" Nylon Bushing |



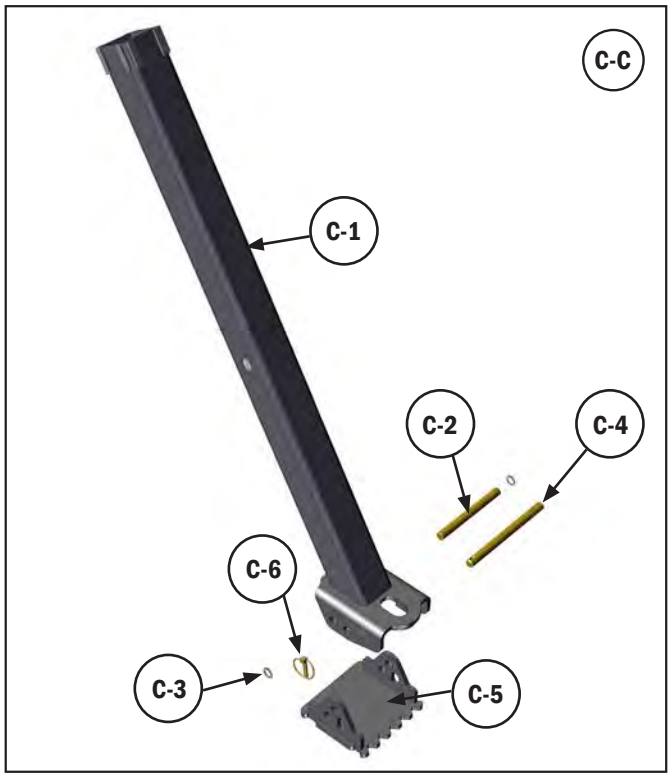

## SPRING TUBE

| Item # | Part # | Description |
|---|---|---|
| | | |
| B-B | ITD4192 (R or L) | Spring Tube Tie Back Assembly |
| B-1 | ITD4066 | Pear Link |
| B-2 | ITD4067 | Spring Tube Replacement Spring |
| B-3 | ITD4135 | Replacement Spring Tube Body SP9000™- SP12,000™ |



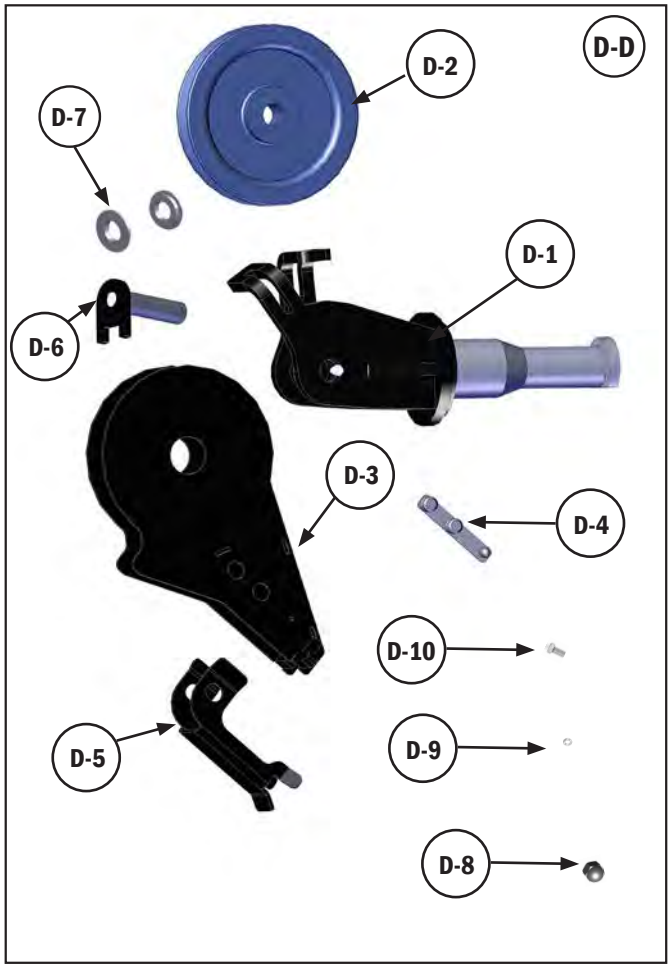
# INNER LEG ASSEMBLY

| Item # | Part # | Description |
|---|---|---|
| | | |
| C-C | ITD4138 | Complete Inner Leg Assembly (No Cylinder) |
| C-1 | ITD4661 | S9000™ Inner Leg |
| C-2 | ITD4140 | SP9000™ Foot Pivot Pin |
| C-3 | ITD7074 | 3/4" Snap Ring |
| C-4 | ITD4097 | SP9000™ Removable Foot Pin |
| C-5 | ITD4128 | SP9000™Stabilizer Foot |
| C-6 | ITD7099 | 5/16" Lynch Pin |



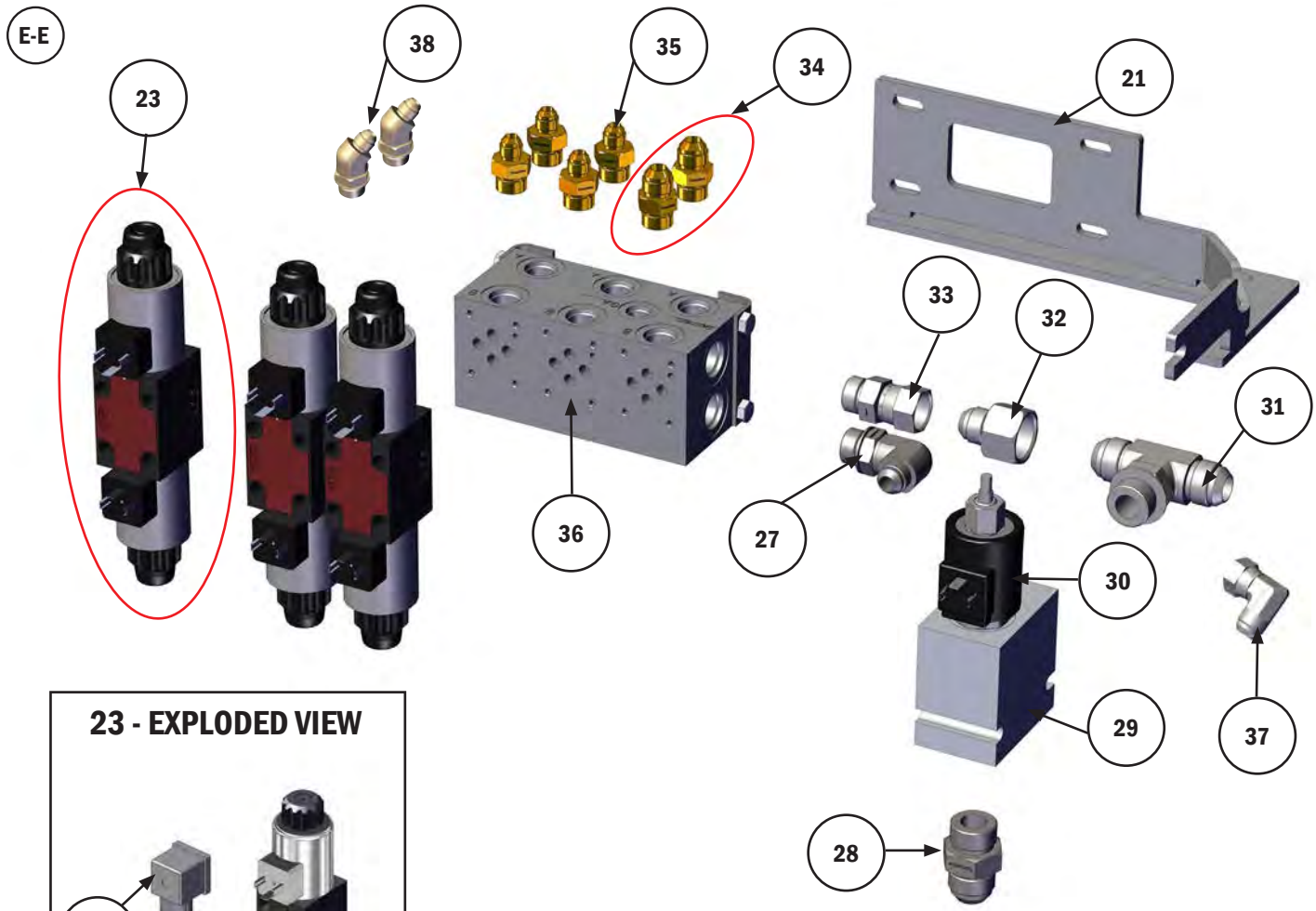

# OUTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| | | |
| D-D | ITD4229 | Outer Recovery Boom Head Assembly |
| D-1 | ITD4212 | Outer Recovery Boom Head Main Body |
| D-2 | ITD4053 | SP9000™ - SP12,000™ Sheave |
| D-3 | ITD4224 | Outer Recovery Boom Head Wire Rope Guide |
| D-4 | ITD4236 | Snap Button Assembly |
| D-5 | ITD4223 | Wire Rope Guide Cover |
| D-6 | ITD4227 | Outer Recovery Boom Head Sheave Pin |
| D-7 | ITD4757 | 3/4" Nylon Bushing |
| D-8 | 1137703 | #6 SS Acorn Nut |
| D-9 | 1171005 | #6 SS Flat Washer |
| D-10 | 0145560 | #6-32 X 5/16" Hex SS Screw |

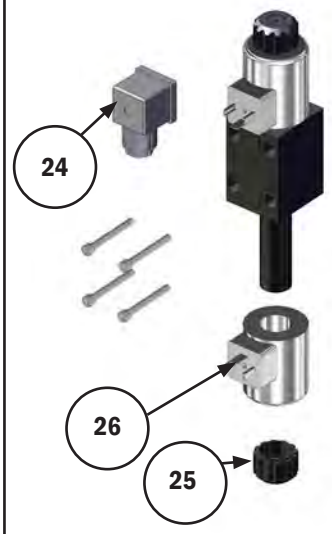


# VALVE ASSEMBLY

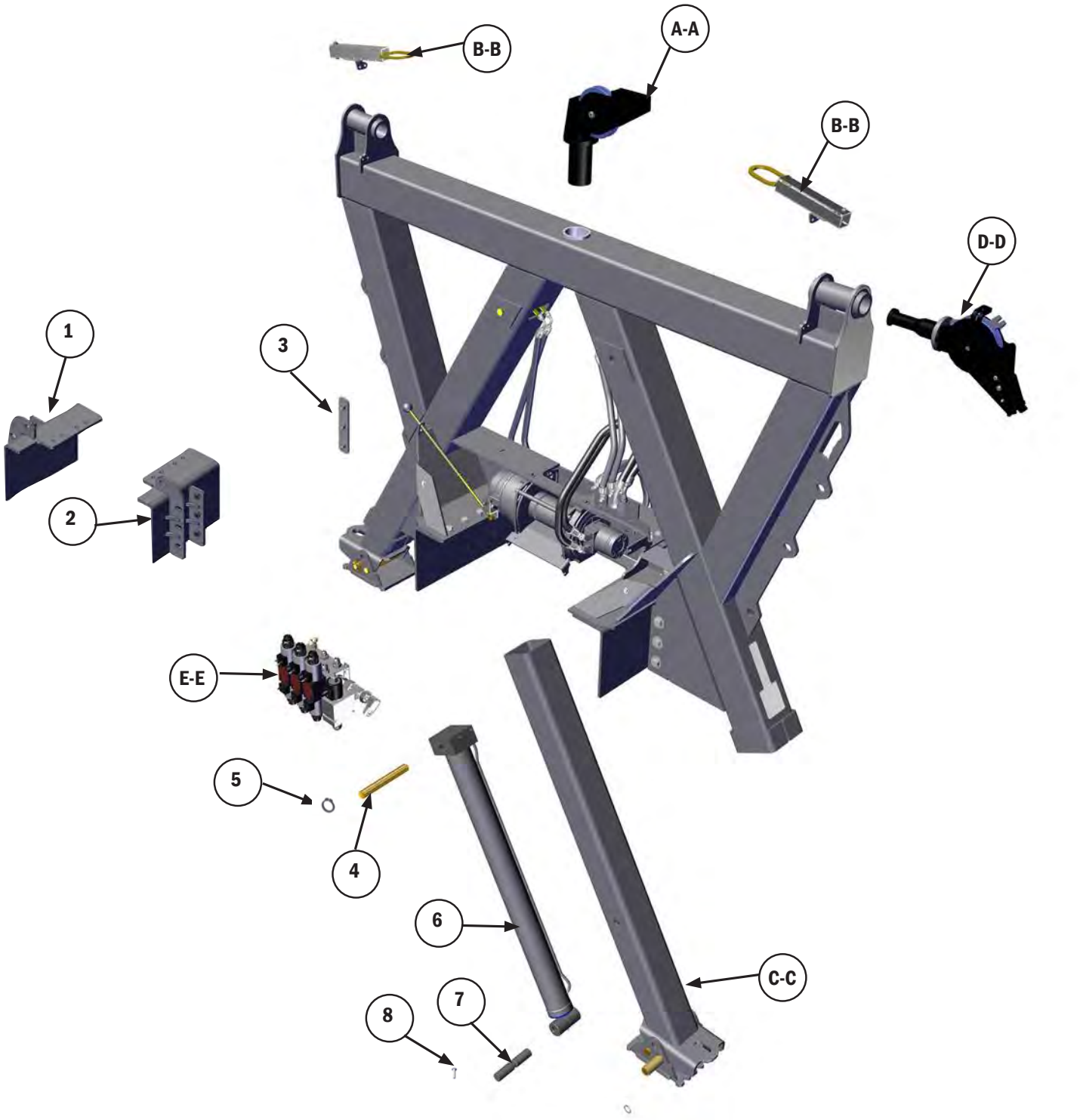
| Item # | Part # | Description |
|---|---|---|
| | | |
| E-E | ITD4164 | SP9000™- SP12,000™ Valve Body Kit (12 Volt) |
| 21 | ITD4492 | Bolt-On Valve Body Bracket Assembly |
| 22 | ITD4232 | Wireless - Receiver and Transmitter Kit |
| 23 | ITD4170 | D03 Valve Assembly (Cylinder) |
| 24 | ITD4676 | Electrical Connector for Coil (w/ Gasket) |
| 25 | ITD4677 | Rubber Cap |
| 26 | ITD4703 | 12 Volt Coil |
| 27 | ITD4685 | #12 JIC 90° Return to Tank |
| 28 | ITD4683 | #12 JIC Diverter Valve to Beyond |
| 29 | ITD4163 | Diverter Valve without Coil |
| 30 | ITD4163S | Diverter Valve Coil Only |
| 31 | ITD4686 | #12 JIC Tee |
| 32 | ITD4687 | #12 + #10 Reducer |
| 33 | ITD4688 | #10 - #8 Swivel Reducer |
| 34 | ITD4689 | #8 JIC Manifold to Winch Lines |
| 35 | ITD4690 | #6 JIC Manifold to Cylinder Lines |
| 36 | ITD4187 | Valve Manifold Assembly |
| 37 | ITD4776 | 90° JIC #12 |
| 38 | ITD4780 | 45° JIC #6 + #8 |



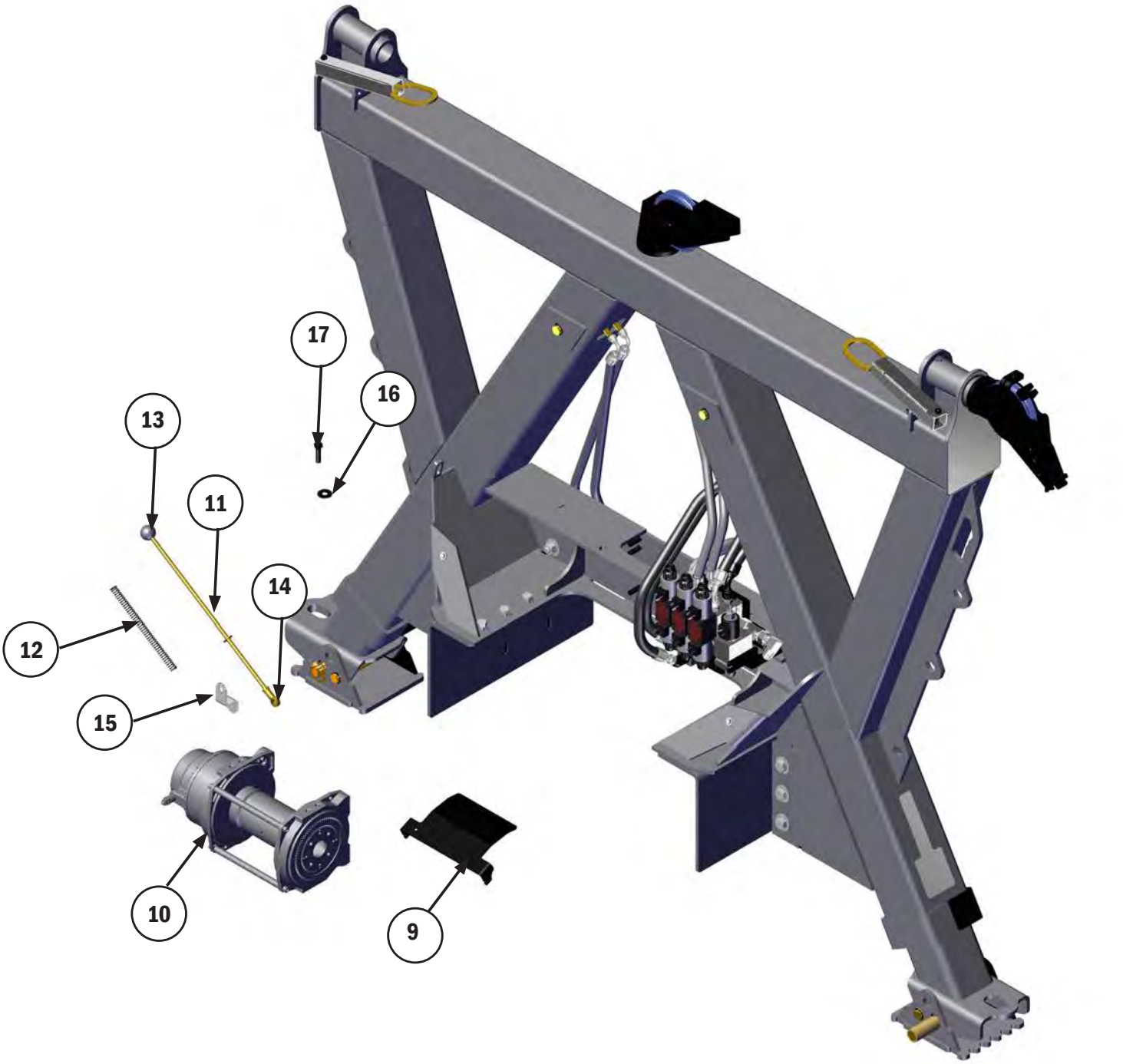

**23 - EXPLODED VIEW**



# PARTS AND ACCESSORIES



| Item # | Part # | Description |
|---|---|---|
| | | |
| 1 | ITD4769-L | L.H. Mounting Base |
| 2 | ITD4769-R | R.H. Mounting Base |
| 3 | ITD4773 | SP12 Nut Plate |
| 4 | ITD4014 | SP12,000™ Upper Cylinder Pin |
| 5 | ITD7069 | 1” Snap Ring |
| 6 | ITD4061 | SP12,000™ Leg Cylinder |
| 7 | ITD4007 | SP12,000™ Lower Cylinder Pin |
| 8 | Hardware | 3/8” Knurled Set Screw |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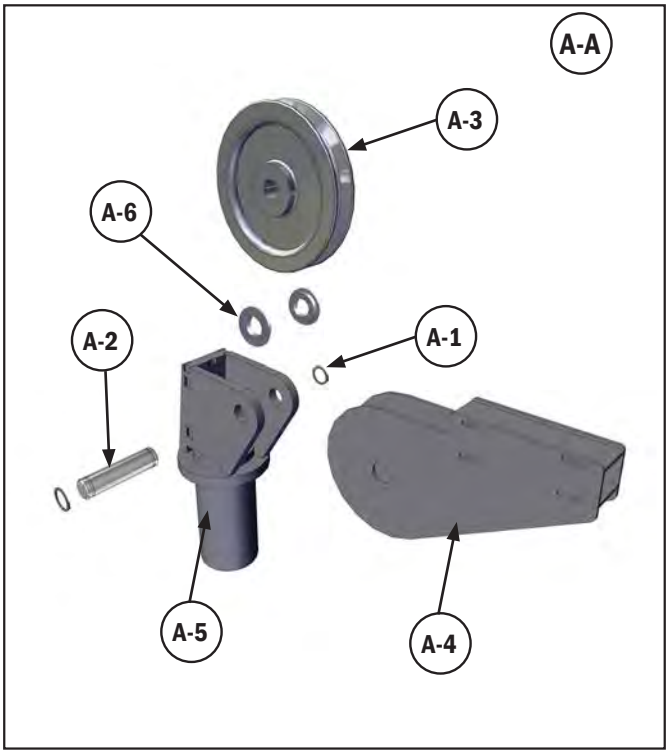
| Item # | Part # | Description |
|---|---|---|
| | | |
| 9 | ITD4038 | SP12,000™ Tensioner Plate |
| 10 | ITD4062 | 12,000lb Hydraulic Winch |
| 11 | ITD4072 | Free Spool Rod |
| 12 | ITD4096 | Free Spool Spring |
| 13 | ITD7044 | Pull Knob - 3/8” -16 |
| 14 | ITD4093 | Free Spool Rod End |
| N/A | Hardware | 3/8” 24 fine Thread Nut |
| 15 | ITD4162 | Winch Offset Lever |
| 16 | Hardware | M12 x 24mm Washer |
| 17 | Hardware | M12-1.75X40mm Bolt |
| N/A | ITD4063 | 7/16” X100 Wire Rope (Steel Core) |
| N/A | ITD4095 | Winch Tensioner Spring |

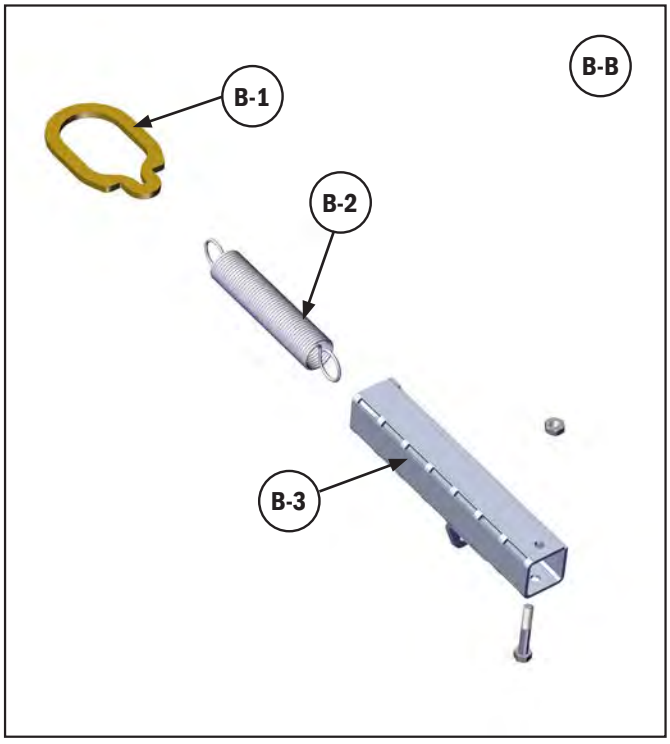
## CENTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| | | |
| A-A | ITD4044 | Center Recovery Boom Head |
| A-1 | ITD7074 | 3/4” Snap Ring |
| A-2 | ITD4054 | Center Boom Head Sheave Pin |
| A-3 | ITD4053 | 6” Sheave |
| A-4 | ITD4050 | Center Boom Head Wire Rope Guide |
| A-5 | ITD4045 | Center Boom Head Main Body |
| A-6 | ITD4757 | 3/4” Nylon Bushing |



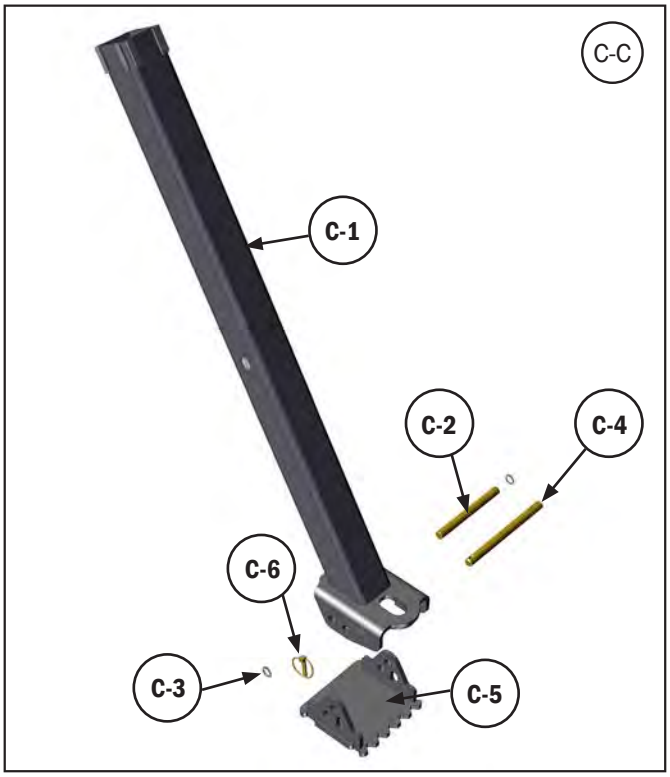

## SPRING TUBE

| Item # | Part # | Description |
|---|---|---|
| | | |
| B-B | ITD4192 (R or L) | Spring Tube Tie Back Assembly |
| B-1 | ITD4066 | Pear Link |
| B-2 | ITD4067 | Spring Tube Replacement Spring |
| B-3 | ITD4135 | Replacement Spring Tube Body SP9000™ -SP12,000™ |



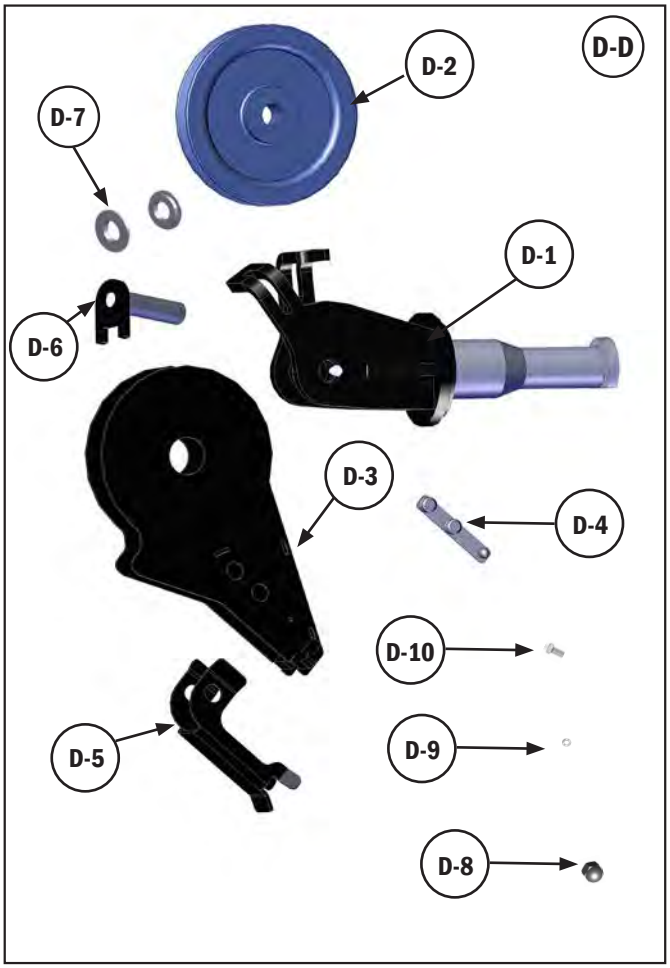
## INNER LEG ASSEMBLY

| Item # | Part # | Description |
|---|---|---|
| C-C | ITD4028 | Complete Inner Leg Assembly (No Cylinder) |
| C-1 | ITD4029 | SP12,000™ Inner Leg (No Foot) |
| C-2 | ITD4034 | SP12,000™ Foot Pivot Pin |
| C-3 | ITD7074 | 3/4" Snap Ring |
| C-4 | ITD4040 | SP12,000™ Removable Foot Pin |
| C-5 | ITD4035 | SP12,000™ Stabilizer Foot |
| C-6 | ITD7099 | 5/16" Lynch Pin |



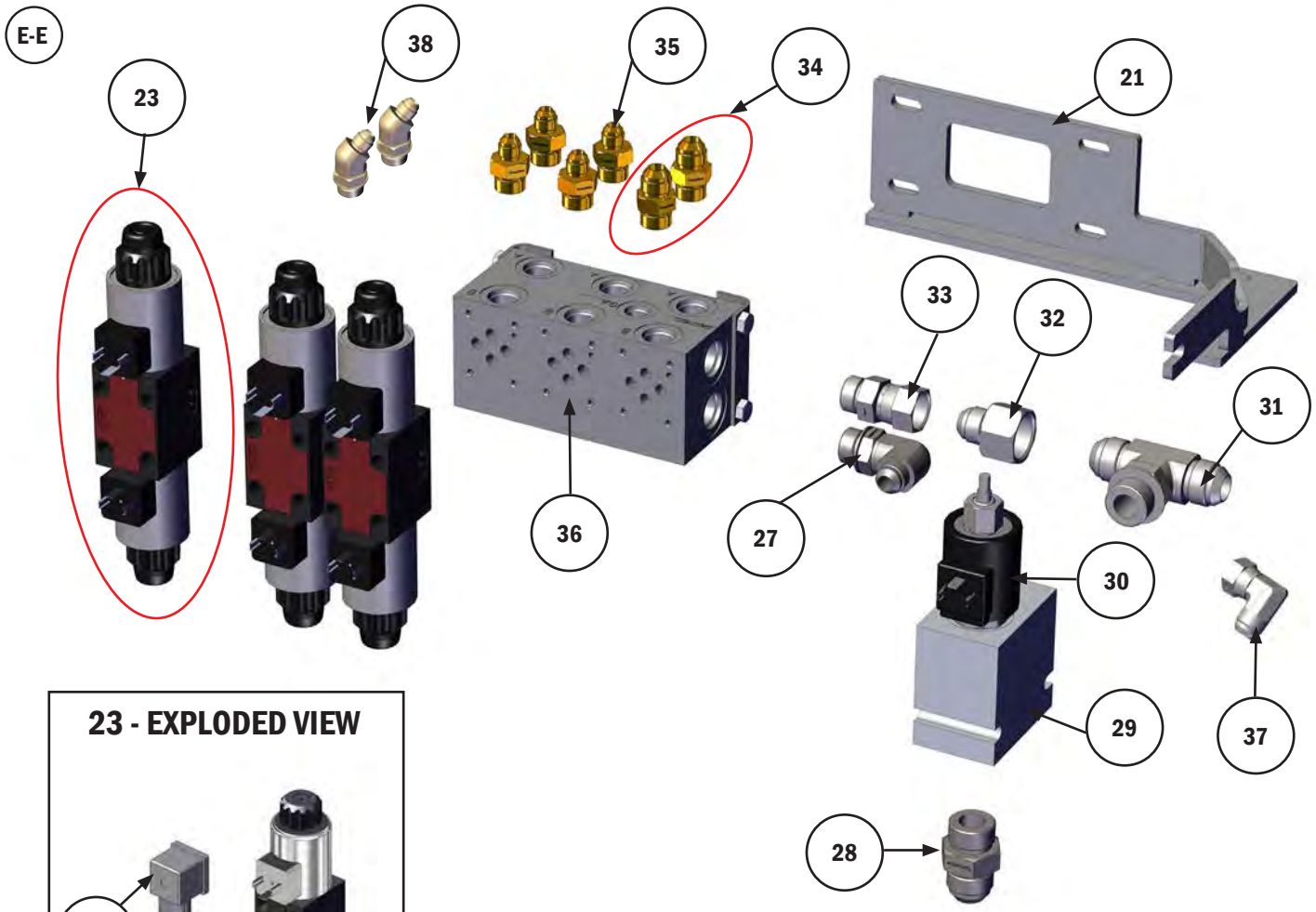

## OUTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| D-D | ITD4229 | Outer Recovery Boom Head Assembly |
| D-1 | ITD4212 | Outer Recovery Boom Head Main Body |
| D-2 | ITD4053 | SP9000™ - SP12,000™ Sheave |
| D-3 | ITD4224 | Outer Recovery Boom Head Wire Rope Guide |
| D-4 | ITD4236 | Snap Button Assembly |
| D-5 | ITD4223 | Wire Rope Guide Cover |
| D-6 | ITD4227 | Outer Recovery Boom Head Sheave Pin |
| D-7 | ITD4757 | 3/4" Nylon Bushing |
| D-8 | 1137703 | #6 SS Acorn Nut |
| D-9 | 1171005 | #6 SS Flat Washer |
| D-10 | 0145560 | #6-32 X 5/16" Hex SS Screw |

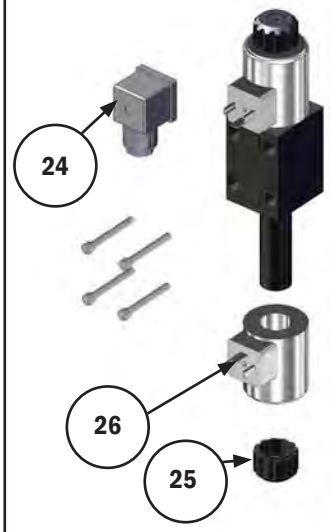


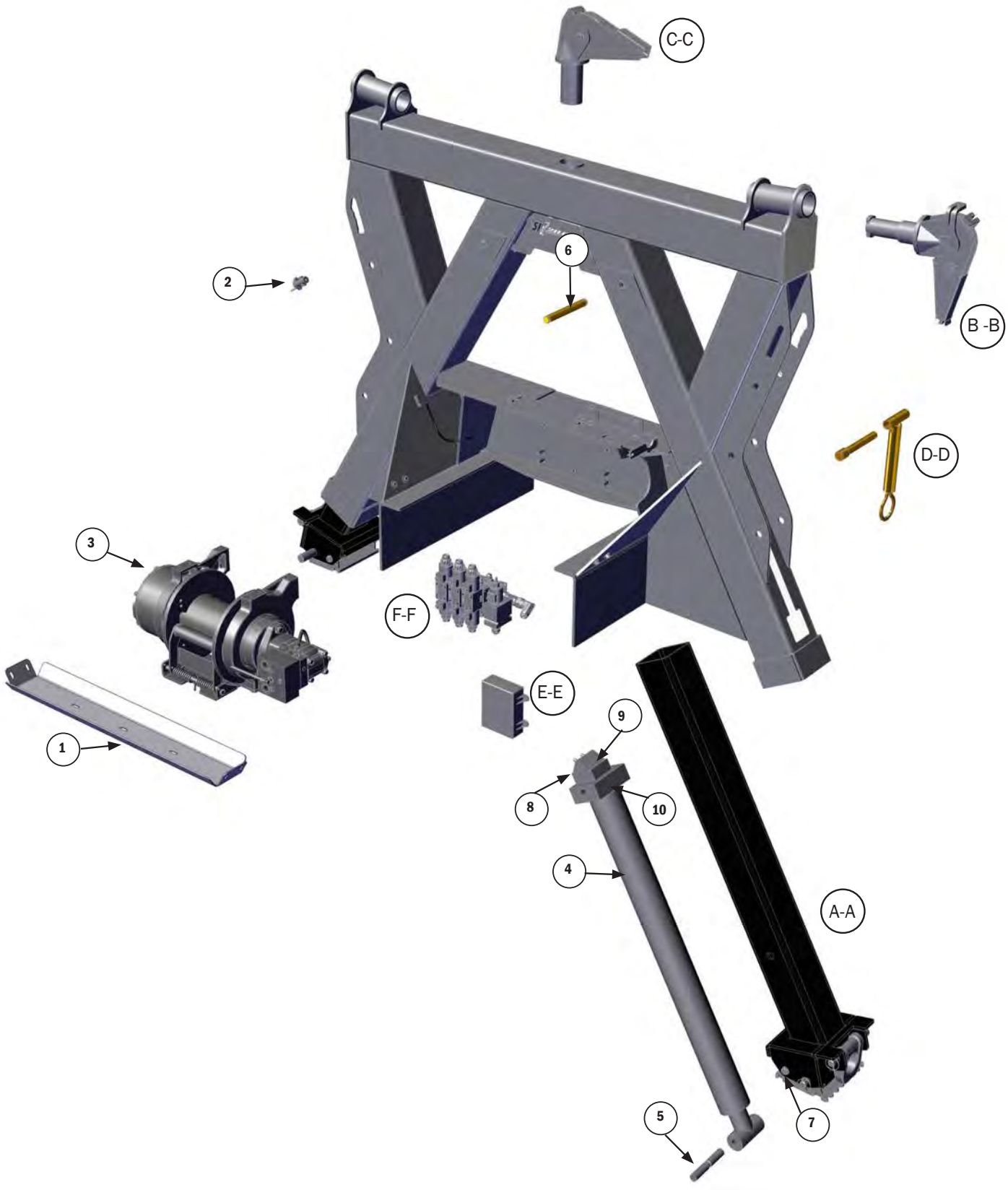
# VALVE ASSEMBLY

| Item # | Part # | Description |
|---|---|---|
| | | |
| E-E | ITD4164 | SP9000™- SP12,000™ Valve Body Kit (12 Volt) |
| 21 | ITD4492 | Bolt-On Valve Body Bracket Assembly |
| 22 | ITD4232 | Wireless - Receiver and Transmitter Kit |
| 23 | ITD4170 | D03 Valve Assembly (Cylinder) |
| 24 | ITD4676 | Electrical Connector for Coil (w/ Gasket) |
| 25 | ITD4677 | Rubber Cap |
| 26 | ITD4703 | 12 Volt Coil |
| 27 | ITD4685 | #12 JIC 90° Return to Tank |
| 28 | ITD4683 | #12 JIC Diverter Valve to Beyond |
| 29 | ITD4163 | Diverter Valve without Coil |
| 30 | ITD4163S | Diverter Valve Coil Only |
| 31 | ITD4686 | #12 JIC Tee |
| 32 | ITD4687 | #12 + #10 Reducer |
| 33 | ITD4688 | #10 - #8 Swivel Reducer |
| 34 | ITD4689 | #8 JIC Manifold to Winch Lines |
| 35 | ITD4690 | #6 JIC Manifold to Cylinder Lines |
| 36 | ITD4187 | Valve Manifold Assembly |
| 37 | ITD4776 | 90° JIC #12 |
| 38 | ITD4780 | 45° JIC #6 + #8 |




**23 - EXPLODED VIEW**




C-C
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D-D
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F-F
E-E
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A-A
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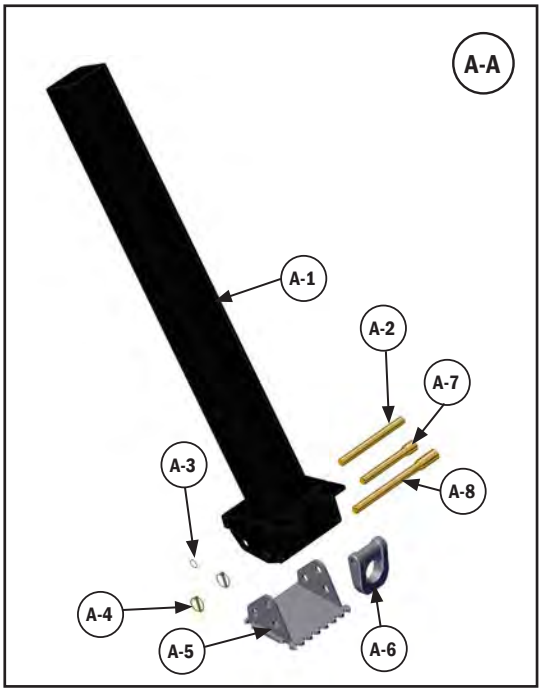
# SP20,000™ PARTS OVERVIEW

| Item # | Part # | Description |
|---|---|---|
| | | |
| 1 | ITD4156 | SP20,000™ Aluminum Hook Slide Tray |
| 2 | ITD7248 | SP20,000™ Flipper Air Valve |
| 3 | ITD4177 | SP20,000™ Hydraulic Winch |
| 4 | ITD4183 | SP20,000™ Leg Cylinder |
| 5 | ITD4181 | SP20,000™ Lower Cylinder Pin |
| 6 | ITD4182 | SP20,000™ Upper Cylinder Pin |
| 7 | ITD7069 | 1" Snap Ring |
| 8 | ITD4497 | Long Hydraulic Fitting |
| 9 | ITD 4693 | Sun Counter Balance Valve 3000 PSI |
| 10 | ITD4694 | Sun Counter Balance Valve Manifold |

# INNER LEG ASSMBLY

| Item # | Part # | Description |
|---|---|---|
| A-A | ITD4663 | SP20,000™ Complete Inner Leg Assembly (No cylinder) |
| A - 1 | ITD4178 | SP20,000™ Inner Leg Only (No Stabilizer Foot) |
| A - 2 | ITD4077 | SP20,000™ Main Foot Pivot Pin |
| A- 3 | ITD7069 | 1" Snap Ring |
| A - 4 | ITD7099 | 5/16" Lynch Clip |
| A - 5 | ITD4085 | Stabilizer Foot |
| A- 6 | ITD4092 | SP20,000™ Removable D-Ring |
| A - 7 | ITD4176 | SP20,000™ Removable D-Ring Pin |
| A - 8 | ITD4074 | SP20,000™ Removable Foot Pin |

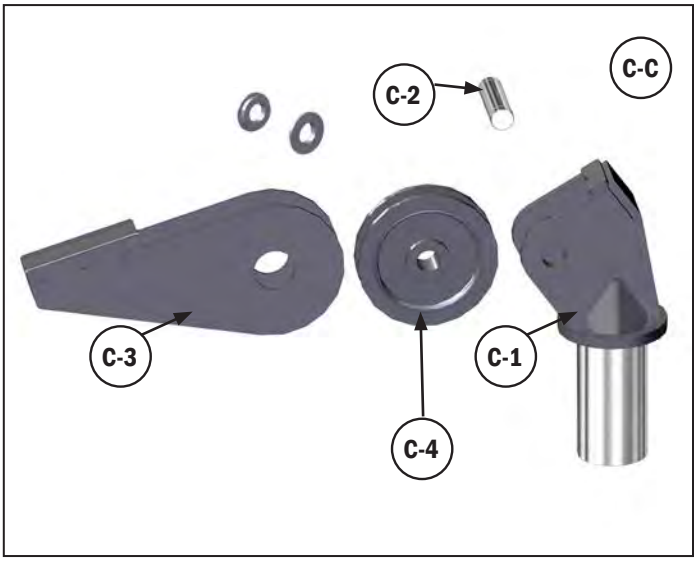


# OUTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| B - B | ITD4185 | SP20,000™ Outer Recovery Boom Head |
| B - 1 | ITD4206 | SP20,000™ Outer Recovery Boom Head Snap on Guide Cover |
| B - 2 | ITD4207 | SP20,000™ Outer Boom Head Wire Guide (No Cover) |
| B - 3 | ITD4208 | SP20,000™ Sheave |
| B - 4 | ITD4195 | SP20,000™ Outer Recovery Boom Head Main Weldment |
| B - 5 | ITD4210 | SP20,000™ Outer Recovery Boom Head Sheave Pin |
| B - 6 | ITD4783 | 1" Nylon Bushing |
| B - 7 | 1137703 | #6 SS Acorn Nut |
| B - 8 | 1171005 | #6 SS Flat Washer |
| B - 9 | 0145560 | #6-32 X 5/16" Hex SS Screw |

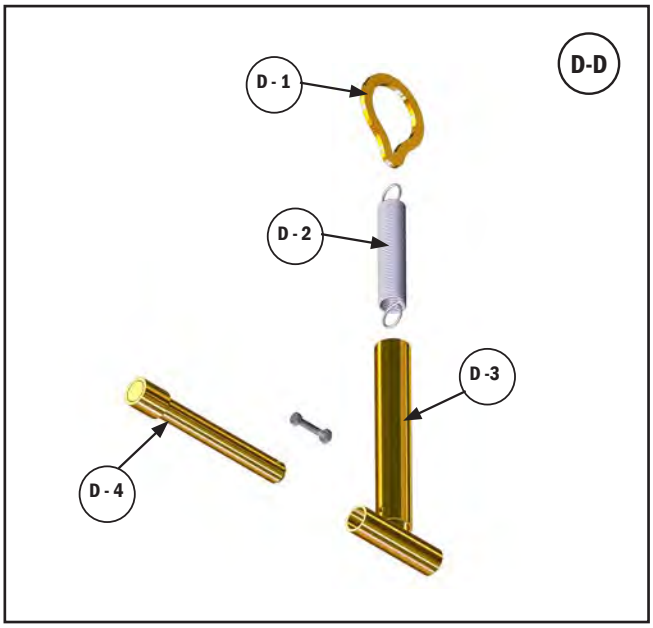

# CENTER RECOVERY BOOM HEAD

| Item # | Part # | Description |
|---|---|---|
| C - C | ITD4184 | SP20,000™ Center Boom Head Complete Assembly |
| C - 1 | ITD4273 | SP20,000™ Center Boom Head Main Weldment |
| C - 2 | ITD4242 | SP20,000™ Center Boom Head Sheeve Pin |
| C - 3 | ITD4402 | SP20,000™ Boom Head Wire Guide |
| C - 4 | ITD4208 | SP20,000™ Boom Head Sheeve |
| C - 5 | ITD4783 | 1" Nylon Bushing |



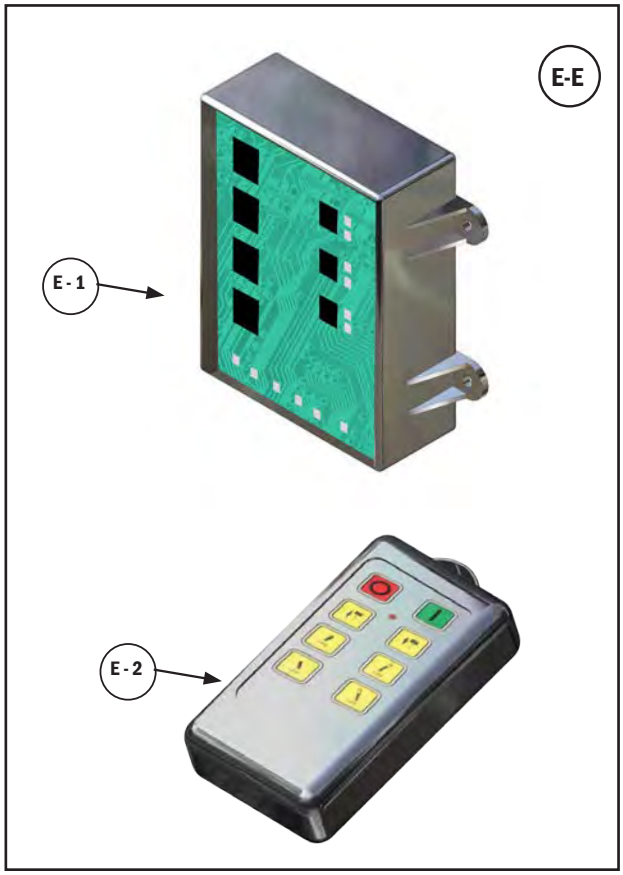
## SPRING TUBE

| Item # | Part # | Description |
|---|---|---|
| D - D | ITD4078 | SP20,000™ Spring Tube Assembly |
| D - 1 | ITD4066 | SP20,000™ Spring Tube Pear Link |
| D - 2 | ITD4067 | SP20,000™ Spring Tube Replacement Spring |
| D - 3 | ITD4078 | SP20,000™ Replacement Spring Tube |
| D - 4 | ITD4182 | SP20,000™ Upper Cylinder Pin |

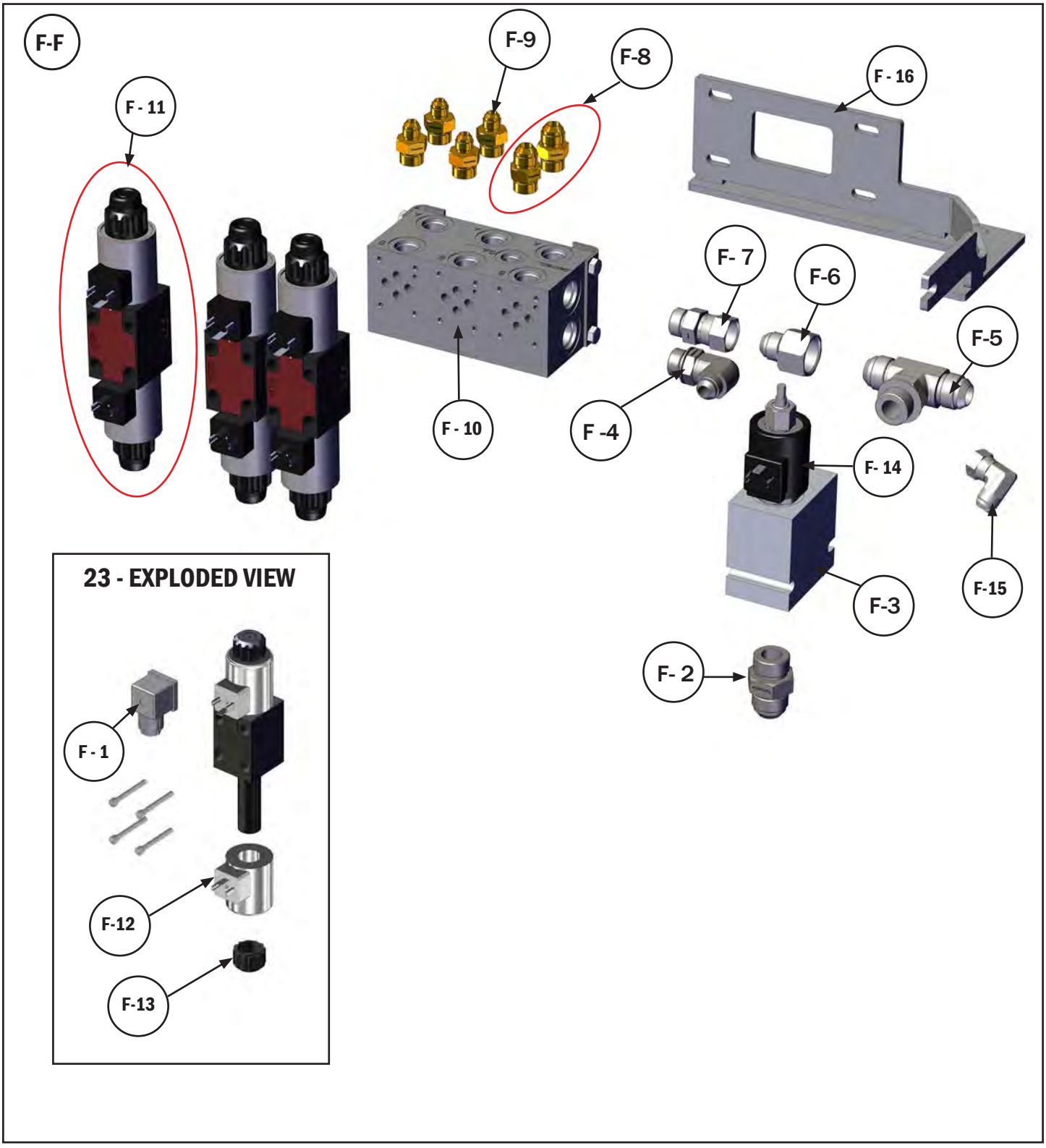



## WIRELESS RECEIVER AND TRANSMITTER KIT WITH HARNESS

| Item # | Part # | Description |
|---|---|---|
| E - E | ITD4232 | Wireless Receiver and Transmitter Kit with Harness |
| E -1 | ITD4692 | Wireless Receiver with Harness |
| E - 2 | ITD4460 | Hand Held Transmitter for Wireless Remote |



| Item # | Part # | Description |
|---|---|---|
| F - F | ITD4175 | SP20,000™ Valve Body Kit (12 Volt) |
| F- 1 | ITD4676 | Electrical Connector for Soloniod (w/ Gasket) |
| F - 2 | N/A | #12 JIC Diverter Valve to Beyond |
| F - 3 | ITD4163 | Diverter Valve |
| F - 4 | N/A | #12 JIC 90 deg Return To Tank |
| F - 5 | N/A | JIC Tee |
| F - 6 | N/A | #12 + #10 Reducer |
| F - 7 | N/A | #10 -#8 Swivel Reducer |
| F - 8 | N/A | #8 JIC Manifold to Winch Lines |
| F - 9 | N/A | #6 JIC Manifold to Cylinder Lines |
| F - 10 | ITD4187 | SP20,000™ Manifold Assembly |
| F - 11 | ITD4170 | D03 Valve Assembly (Cylinder) |
| F - 12 | N/A | SP20,000™ Export 12 Volt Coil |
| F - 13 | N/A | Rubber Cap |
| F - 14 | ITD4163S | Diverter Valve Coil Only |
| F - 15 | ITD4776 | 90° JIC #12 |
| F - 16 | ITD4492 | Bolt-On Valve Body Bracket Assembly |




## 23 - EXPLODED VIEW

# SAFETY AND PRECAUTIONS

**WARNING**

**OWNER'S MANUAL MUST BE KEPT WITH VEHICLE AT ALL TIMES.**
**READ MANUAL BEFORE OPERATING UNIT!**

This manual is supplied to you with your In The Ditch™ Towing Products (ITD) unit to better familiarize the owner/operator with the proper operation and maintenance of their unit. The information contained in this manual should be thoroughly understood by all operating and maintenance personnel to insure the safety of the operator of this unit and to prolong the operating life of this unit.

## Owner, User, and Operators

ITD appreciates your choice of one of our SP Series™ SidePullers™ 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 owners or operator follow our recommendations of safety guidelines and precautions.

1. Comply with all federal, state and local regulations.
2. Read, understand and follow the instructions in the manual
3. Use good, safe work practices in a common sense way.
4. Only have authorized and trained operators running the SidePuller™.
5. 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.
6. Study each Operating Procedure before using the SidePuller™. Apply common sense to assure safety to yourself and bystanders.
7. Plan ahead. Work safely. Avoid accidental damage and injury. If an accident does occur, react quickly with the tools and skills at hand. Familiarize yourself with the use of a first aid kit and fire extinguisher. Know where and how to get assistance.

## General Precautions

1. Before operating any unit in the SP Series™, perform a walk around visual inspection of the SidePuller™. (Refer to SP Series™ Operation Section)

2. Before operating a SidePuller™, refer to the SidePuller's capacity labels on the Mast Base of the SidePuller™ and in the Specifications 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 structural design of the SidePuller™, NOT the capacity of your vehicle. It is always unsafe to apply any load which is greater than the rated load shown on the Data Plate.

3. Do not use this equipment except on solid, level surface with the truck brakes locked and the wheels chocked.

4. Operate all controls slowly and smoothly to avoid damage to the SP Series™ SidePuller™ or injury to self.

5. Do not operate, walk or stand behind a loaded Winch Line. Do not crawl under a suspended load, or allow anyone else to do so.

6. Do not use the SP Series™ SidePuller™ for the movement, or lifting of humans!

7. Never exceed Working Load Limits of Wire Rope.

8. Keep feet, hands, and all body parts clear of Stabilizer Legs' pinch points. Use your legs and not your back to lift and stow Stabilizer Legs.

9. Always wear protective items such as safety glasses, gloves, reflective clothing and safety shoes.

# SidePuller™ INSTALLATION

## UNPACKING THE SP9000™ SIDEPULLER™

1 - When you receive your SidePuller™, please immediately Inspect for Damage during the shipping process.

2 - We recommend you remove all the contents from your SP Shipping Stand and inventory them this will help you familiarize yourself with the parts and hardware that is shipped with your SidePuller.

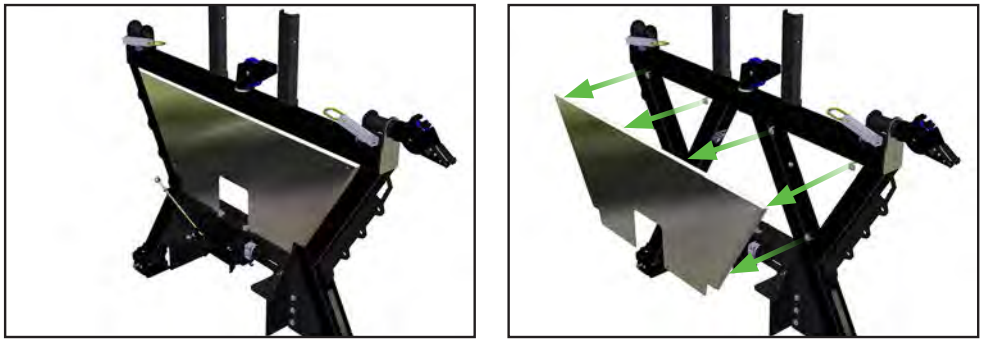
### TECH TIP

**Please go to www.intheditch.com and watch the SidePuller™ Installation Video before starting the installation Process.**

VIDEO ONLINE
www.intheditch.com

3 - If Your SidePuller™ has a Rear Stainless Steel Accent Panel Fig 1-1, In The Ditch™ recommends that you remove it prior to installation. This will help you gain access to bolts and also prevent scratches to the accent panel.

**FIG 1-1**

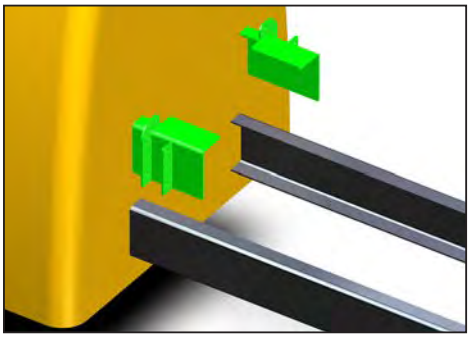
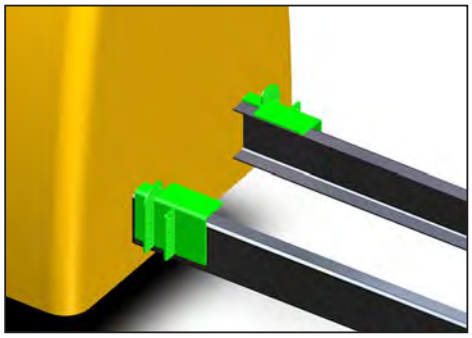


**If you have any questions during the installation process, don't hesitate to contact In The Ditch™ Tech Support, 8:00 am to 5:00PM MST Monday through Friday 1-888-993-4824. You can also email your question to sales@intheditch.com. We are here to help you in any way we can.**

**Special Note to Installer. People's Lives may depend on the quality of the installation of this SidePuller™. Please take the time to follow all instructions and guidelines to ensure the installation quality is what our customers deserve.**

# SP9000™ SidePuller™ Install

1 - Install the SidePuller™ Mounting Plates as a Mock up and decide the best location for the SidePuller™. ITD Recommends 2" to 4" Cab Clearance Note See Figure SP9-1 PG 32 to establish correct Cab to SidePuller™ clearance for your application.


2 - Install SP9000™ Mounting Plates onto frame rail. Use (6) Grade 8 x 5/8" Bolts on each Mounting Plate.

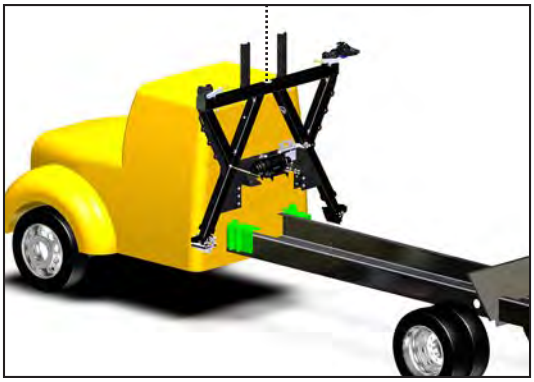
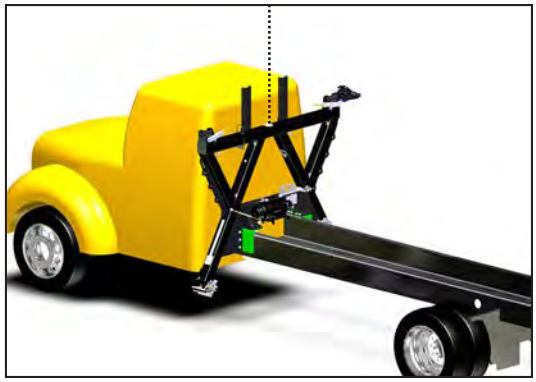
## In The Ditch™ TOWING PRODUCTS TECH TIP

**Use Loctite Brand Blue 242 Medium Strength Thread Locker on All Bolts**

3 - Lift your SidePuller™ and Place onto Mounting Plates. You can use ITD4667 Optional Lifting Attachment (sold separetly)

**ITD4667**



4 - Attach SidePuller™ to Mounting Plates. SP9000™ use (6) ½" Grade 8 Bolts and (4) ½" Grade 8 Bolts in each side Fig SP9-1.

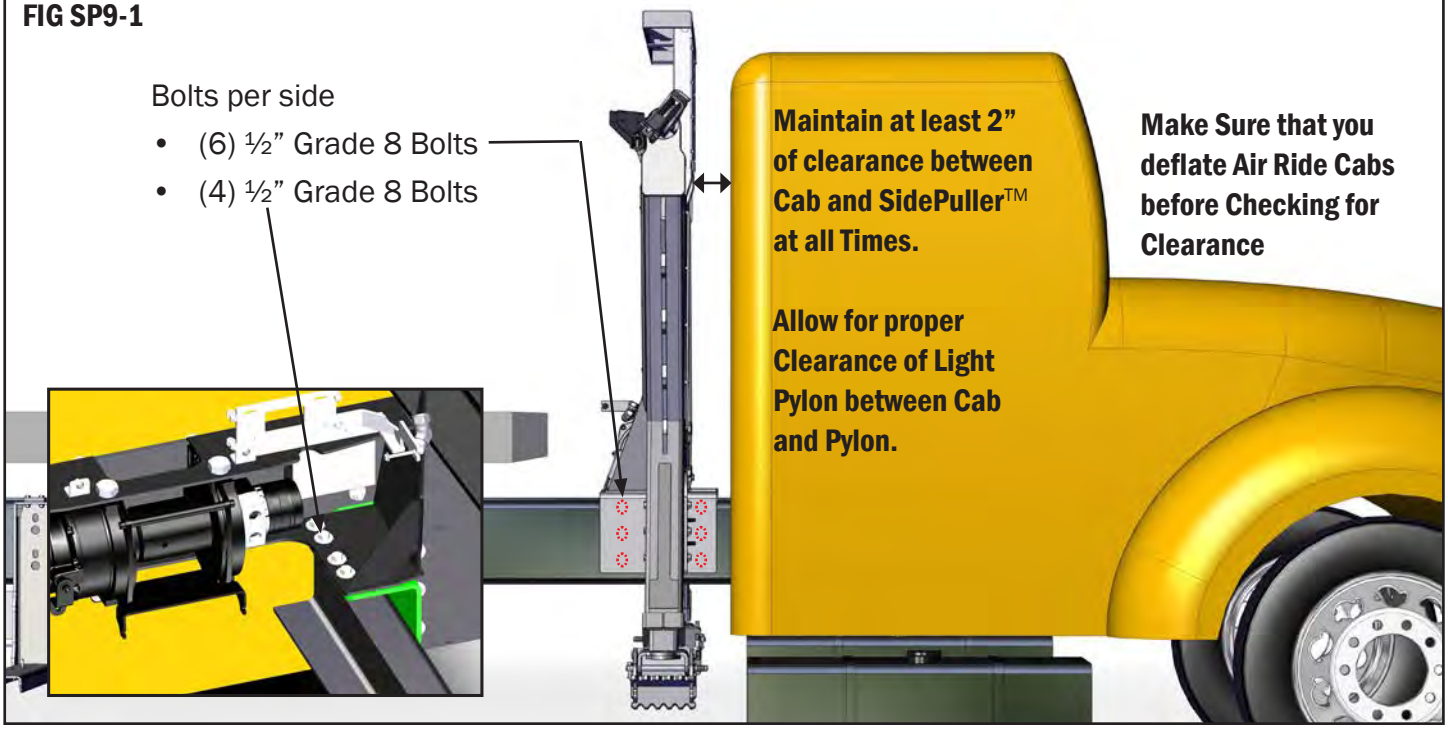
5 - SP9000™ should be installed a minimum of 2 inches behind cab of truck. Allowing enough room for cab flex (See Figure SP9-1).

- (6) ) ½" Grade 8 Bolts
- (4) ½" Grade 8 Bolts

| Chassis Recommendations | |
|---|---|
| Minimum GVWR | 15,000 lbs |
| Maximum GVWR | 26,000 lbs |
| Minimum Frame Height | 32 - Inches |
| Maximum Frame Height | 36 - Inches |
| Minimum Frame Width | 34 - Inches |
| Maximum Frame Width | 34 ¾ - Inches |
| Minimum Additional C.A.* | 12 - Inches |

*Recommended. Additional clearance may be desired for winch operation/maintenance. If less space is required, consult drawings or talk to a representative

**FIG SP9-1**



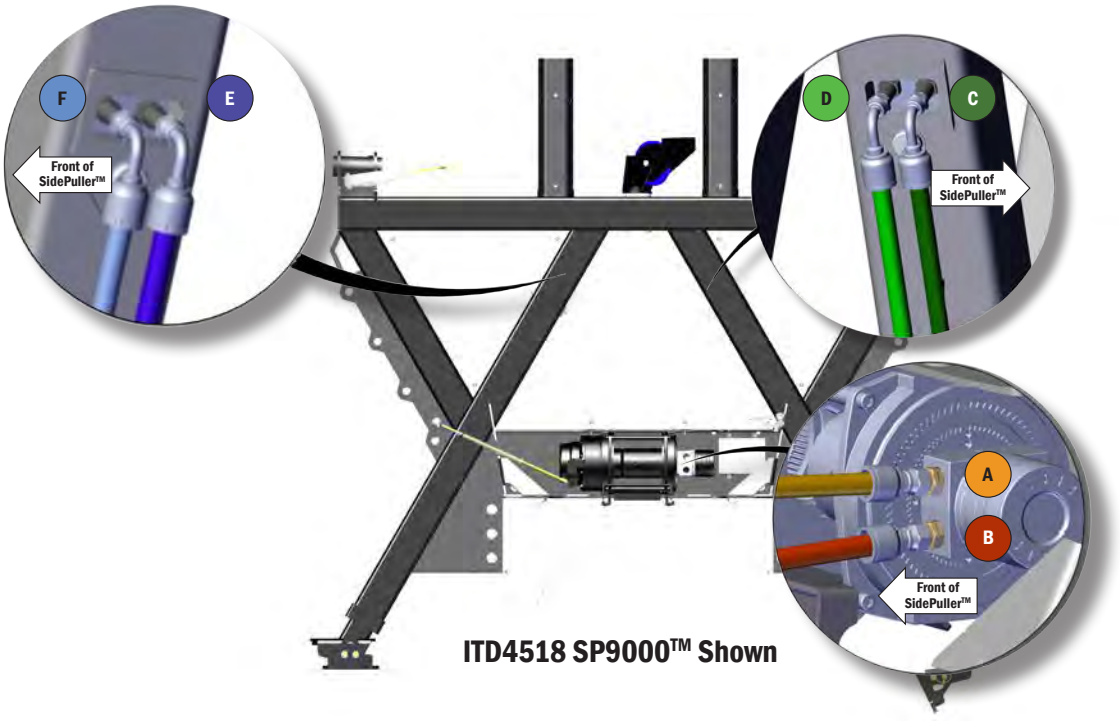

## In The Ditch™ TOWING PRODUCTS TECH TIP

- **Tightening Torque for ½" Grade 8 Bolts. 90 ft-lbs**
- **Tightening Torque for 5/8" Grade 8 Bolts. 180 ft-lbs**

# SP9000™ Hydraulics

Due to the varying hydraulic valve options when installing an SP9000™, this section will only cover functions of each port. Proper installation and operation is left to the integrity of the installer. If further information is required please contact a ITD Tech Dept representative.

**FIG SP9-2A**

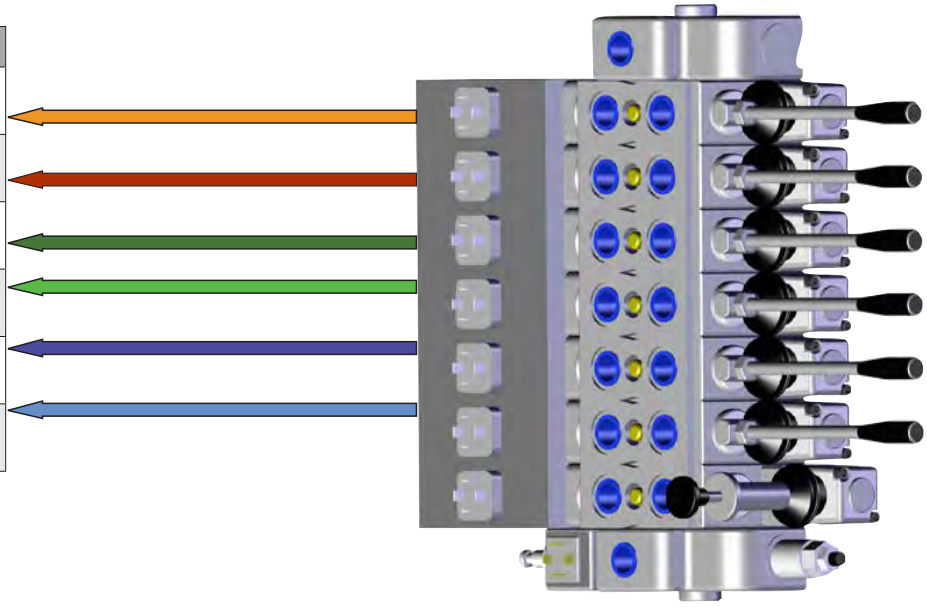



ITD4518 SP9000™ Shown

**From Valve Body Plumb Hydraulic Lines Into Ports**

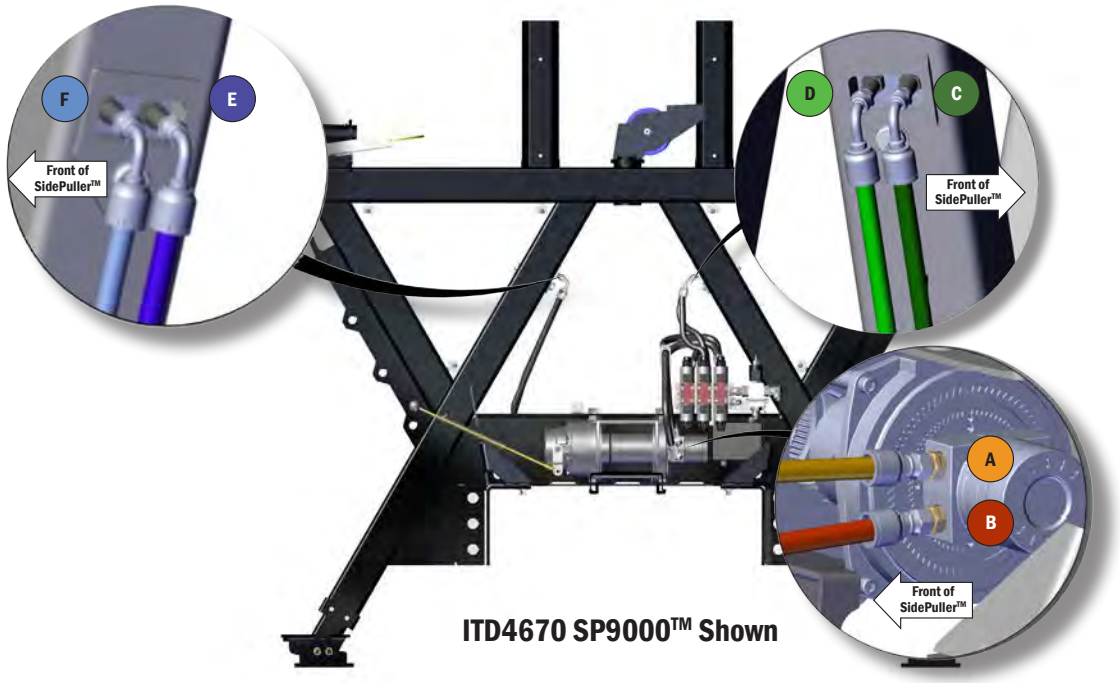
**Wrecker or Carrier Valve Body**

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |



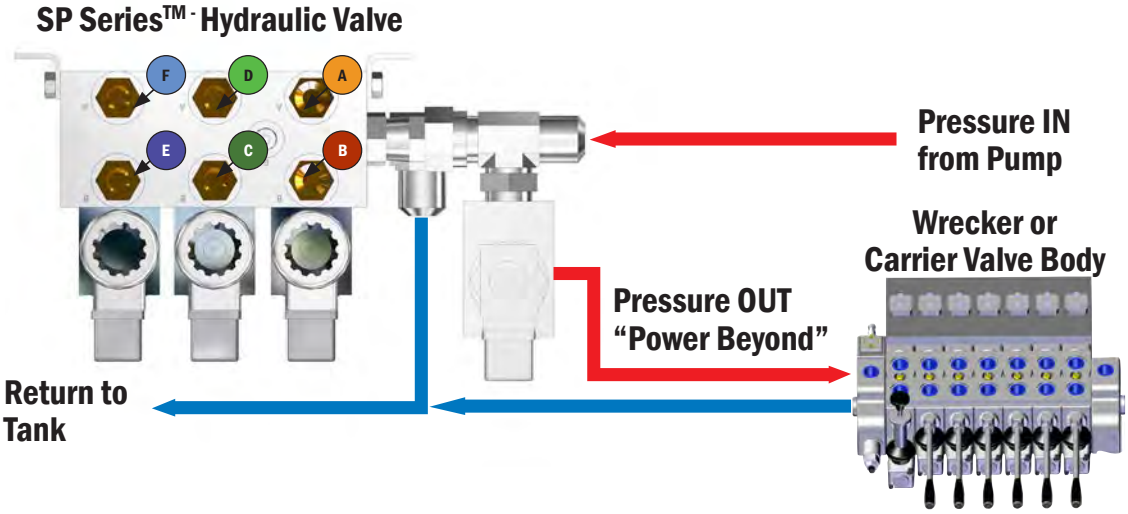
# SP9000™ with Integrated controls Hydraulics

FIG SP9-2B




ITD4670 SP9000™ Shown

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |




When routing The Hoses to the Outrigger /Stiff Leg Ports on the SP9000™. Zip Tie the Hoses to the Rear of Your SidePuller™ using the SidePuller™ Routing System.

## In The Ditch™ TOWING PRODUCTS TECH TIP

**For Outrigger/Stiff Leg Hoses you can use either ¼" or 3/8" Diameter Hydraulic Hoses with a minimum working pressure of 3,000psi.**

For Winch Supply Hoses ITD recommends ½" Diameter Hydraulic Hoses.

## Electrical

1 - Your SidePuller™ with Integrated Controls is Pre Wired from In The Ditch™.

2 - Supply 12 Volt Power to the SP Wireless Receiver Wiring Harness Red 12 Volt Input Wire. FIG 2-1 PG 71

**In The Ditch™ TOWING PRODUCTS TECH TIP**

**- Use Red color 12 Gauge Wire**

**- Note that SidePullers Operate in Harsh Environments and people's lives and lively hood depend on proper installation. Please take the time to use Heat Shrink Connectors and wiring loom to protect the wiring of your SidePuller™.**

3 - We recommend that you Use a Cab Mounted Switch to prevent accidental operation of Wireless Function.

4 - Use SP wire routing system to route hoses and electrical wiring . This will prevent hoses and wires from wear and extend the working life.

5 - Use 25 Amp Fuse, Prior to In Cab Switch.

## SidePuller™ Installation for SP9000™: Optional Light Pylon

1 - If Pylon Has Stainless Steel Accent Panels, Please remove and set aside.

2 - Install Pylon onto SidePuller™ Pylon Mounts and adjust to the correct height for your application.

**In The Ditch™ TOWING PRODUCTS TECH TIP**

**Use Vice Grips to clamp Pylon in Place (Use Rag to protect Paint)**

3 - Drill (4) 5/16" Bolt Holes into SP Pylon Mounts, use pre drilled Holes in Pylon as a Template.

4 - Bolt Pylon to Mount Using Provided Stainless Steel Hardware

**WARNING**

**INSTALLATION SHOULD BE PERFORMED BY A PROFESSIONAL TOWING EQUIPMENT DEALER!**

## Installation: Final Checks

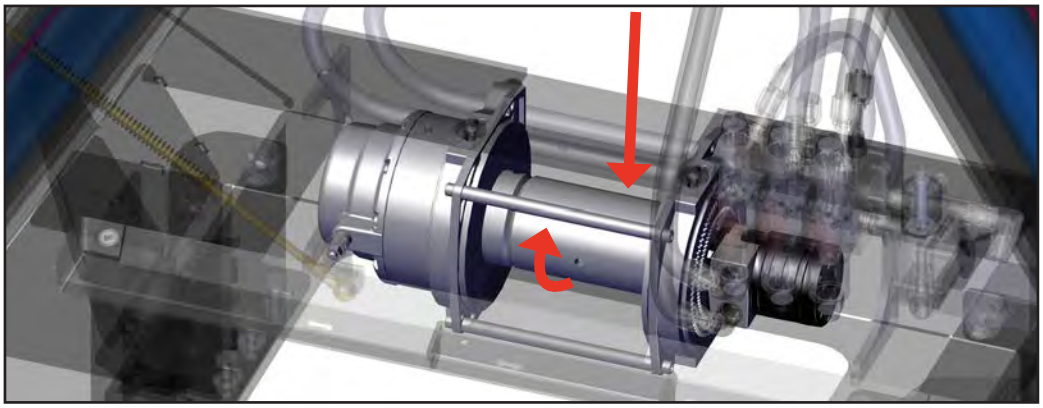
1 - Check all Mounting Bolts and ensure they are torqued properly.

2 - Remove and discard Safety Bar that holds Stabilizer Legs in the Shipping Position.

3 - Engage Truck Hydraulics and ensure that Stabilizer Legs go up and down properly.

4 - Check Winch Rotation is correct. Fig SP9-3

**FIG SP9-3**



5 - Shut Truck off and Install Wire Rope. Start by Reeving the Wire through the center boom head and down to winch. When installing Wire Rope into Winch please refer to winch Operating Manual for Instructions.

### TECH TIP

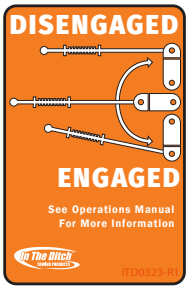
**We cannot express enough the importance of keeping your wire rope well lubricated. ITD recommend that you lube your new rope and lube wire at least once per month.**

### RIGGING TIP

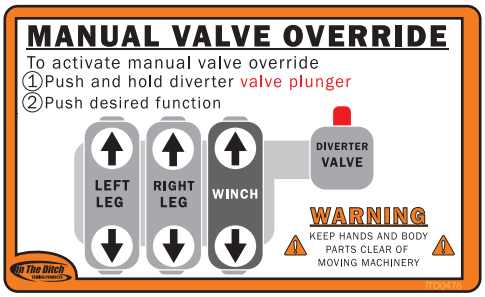
**-Be sure to record the Working Load Limit (W.L.L.) of your wire rope before you use it. The W.L.L. of your wire rope should never be exceeded. It is the responsibility of the equipment operator to inspect wire rope and to not overload it.**

**-Keep a minimum of 5 wraps of Wire Rope on Your Winch at all times.**

6 - Please install Decals if your SidePuller™ was not shipped with the decals installed. We take great pride in manufacturing the SidePuller™ and we hope you have the same pride by display the SidePuller™ Brand Decals. Decals not only enhance the look of your SidePuller™, they serve as a warning to certain areas of your SidePuller™.










SP9000™
www.sidepuller.com
U.S. Patent # 8,192,135 B2

We have done our very best to share with you the installation practices. It is now time for you to start enjoying your SidePuller™. Please read the Operations Section of this Manual. If you feel we could add more information to this manual please contact us with your suggestions. We would love to hear from you.

**Contact The Ditch Tech Support, 8:00 am to 5:00PM MST Mon through Friday 1-888-993-4824. You can also email your suggestion to sales@intheditch.com**

# SidePuller™ INSTALLATION

## UNPACKING THE SP12,000™ SIDEPULLER™

1 - When you receive your SidePuller™, please immediately Inspect for Damage during the shipping process.

2 - We recommend you remove all the contents from your SP Shipping Stand and inventory them this will help you familiarize yourself with the parts and hardware that is shipped with your SidePuller™.

### TECH TIP

**Please go to www.intheditch.com and watch the SidePuller™ Installation Video before starting the installation Process.**

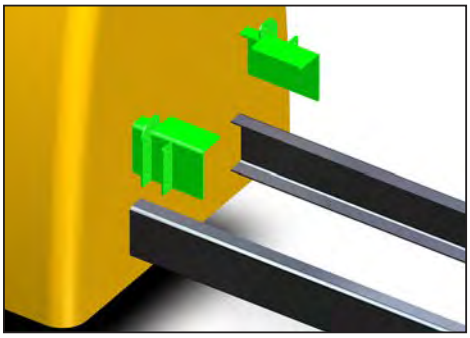
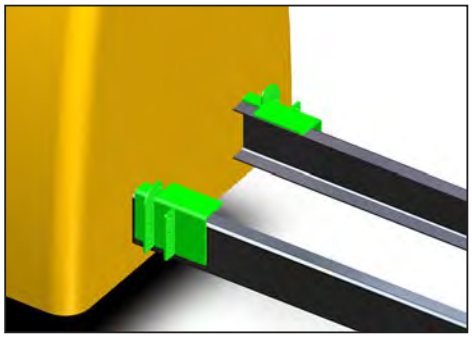
VIDEO ONLINE
www.intheditch.com

**If you have any questions during the installation process, don't hesitate to contact In The Ditch™ Tech Support, 8:00 am to 5:00PM MST Monday through Friday 1-888-993-4824. You can also email your question to sales@intheditch.com We are here to help you in any way we can.**

**Special Note to Installer. People's Lives may depend on the quality of the installation of this SidePuller™. Please take the time to follow all instructions and guidelines to ensure the installation quality is what our customers deserve.**

# SP12,000™ INSTALLATION SPECIFICATIONS

1 - Install the SidePuller™ Mounting Plates as a Mock up and decide the best location for the SidePuller™. ITD Recommends 2” to 4” Cab Clearance Note See Figure SP12-1 PG 40 to establish correct Cab to Side Puller Clearance for your application.


2 - Install SP12,000™ Mounting Plates onto Frame. Use (8) Grade 8 x 5/8” Bolts on each Mounting Plate

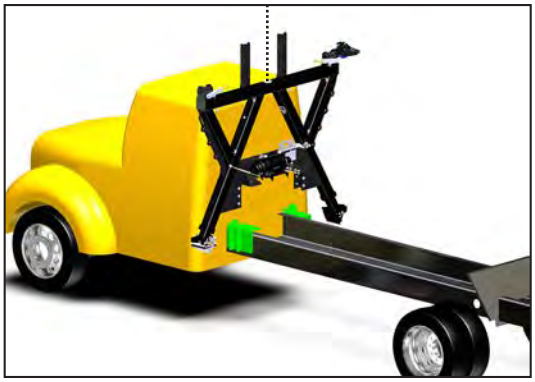
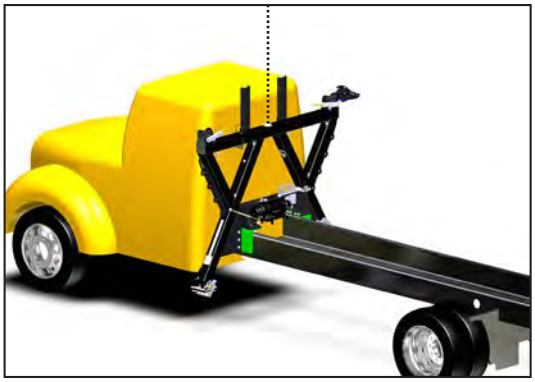
## In The Ditch™ TOWING PRODUCTS TECH TIP

**Use Loctite Brand Blue 242 Medium Strength Thread Locker on All Bolts**

3 - Lift your SidePuller™ and Place onto Mounting Plates. You can use ITD4667 Optional Lifting Attachment (sold separetly)

**ITD4667**



4 - Attach SidePuller™ to Mounting Plates SP12,000™ use (8) 5/8" Grade 8 Bolts and (3) ½" Grade 8 Bolts in each side Fig SP12-1

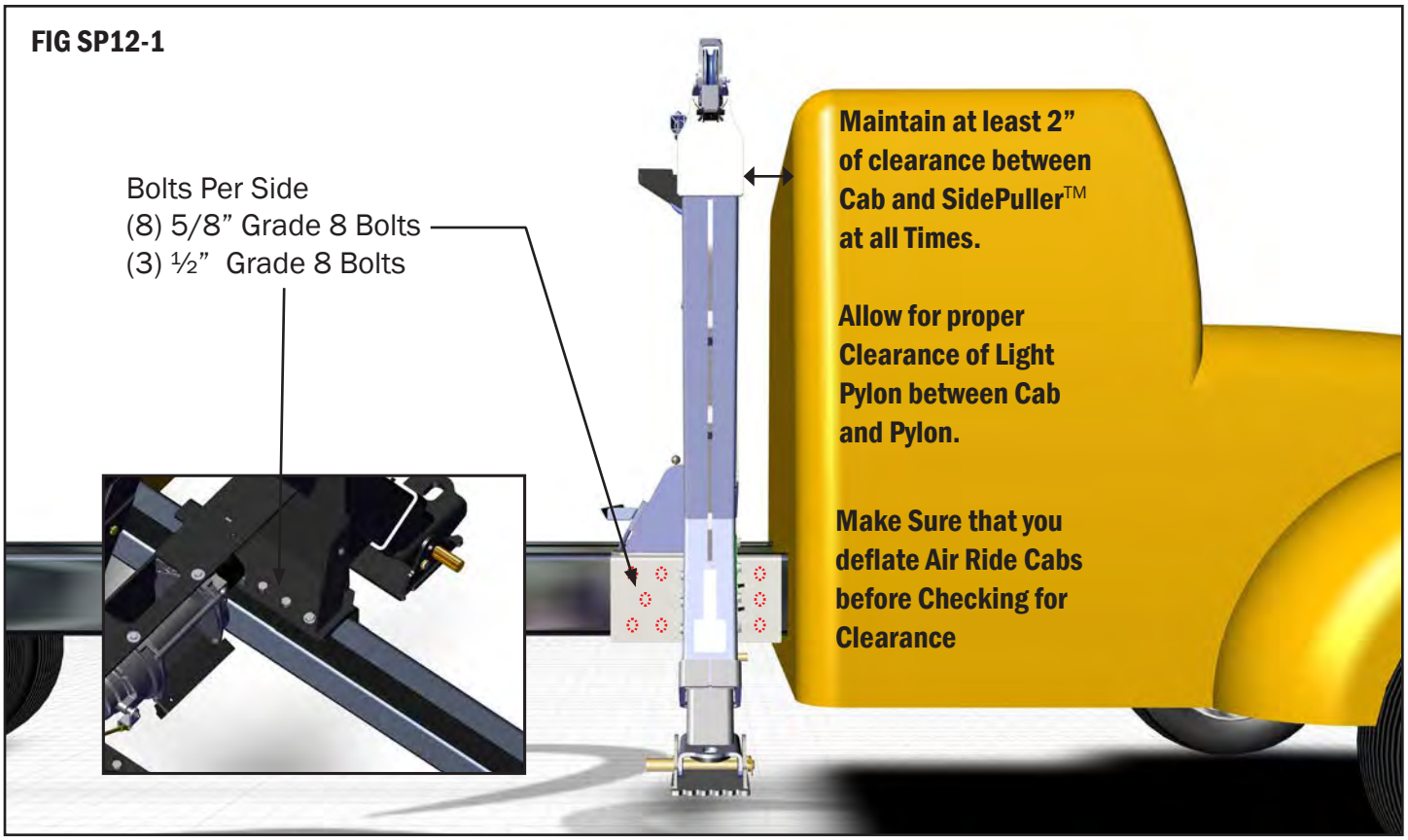
5 - SP12,000™ should be installed a minimum of 2 inches behind cab of truck. Allow enough room for cab flex (See Figure SP12-1).

- (8) 5/8" Grade 8 Bolts
- (3) 1/2" Grade 8 Bolts

*Recommended. Additional clearance may be desired for winch operation/maintenance. If less space is required, consult drawings or talk to a representative

| Chassis Recommendations | |
|---|---|
| Minimum GVWR | 26,000 lbs |
| Maximum GVWR | 33,000 lbs |
| Minimum Frame Height | 34 - Inches |
| Maximum Frame Height | 40 - Inches |
| Minimum Frame Width | 34 - Inches |
| Maximum Frame Width | 34 ¾ - Inches |
| Minimum Additional C.A.* | 19 - Inches |

**FIG SP12-1**



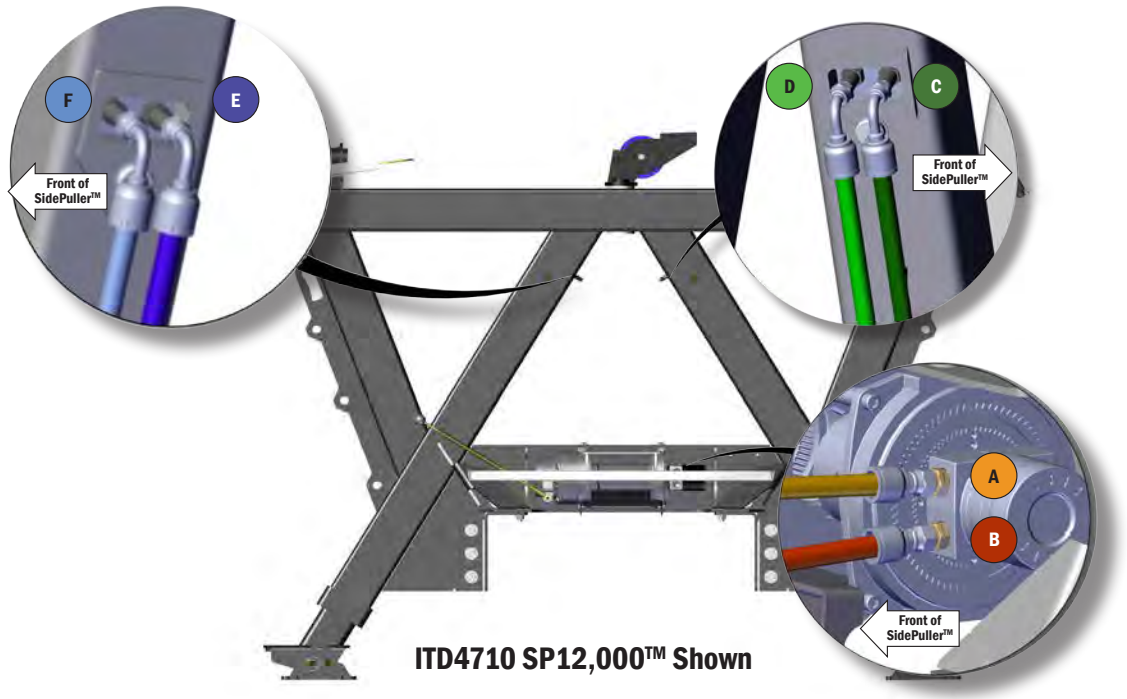

## In The Ditch™ TOWING PRODUCTS TECH TIP

- **Tightening Torque for 1/2" Grade 8 Bolts. 90 ft-lbs**
- **Tightening Torque for 5/8" Grade 8 Bolts. 180 ft-lbs**

# SP12,000™ Hydraulics

Due to the varying hydraulic valve options when installing an SP12,000™, this section will only cover functions of each port. Proper installation and operation is left to the integrity of the installer. If further information is required please contact a ITD Tech Dept representative.

**FIG SP12-2A**

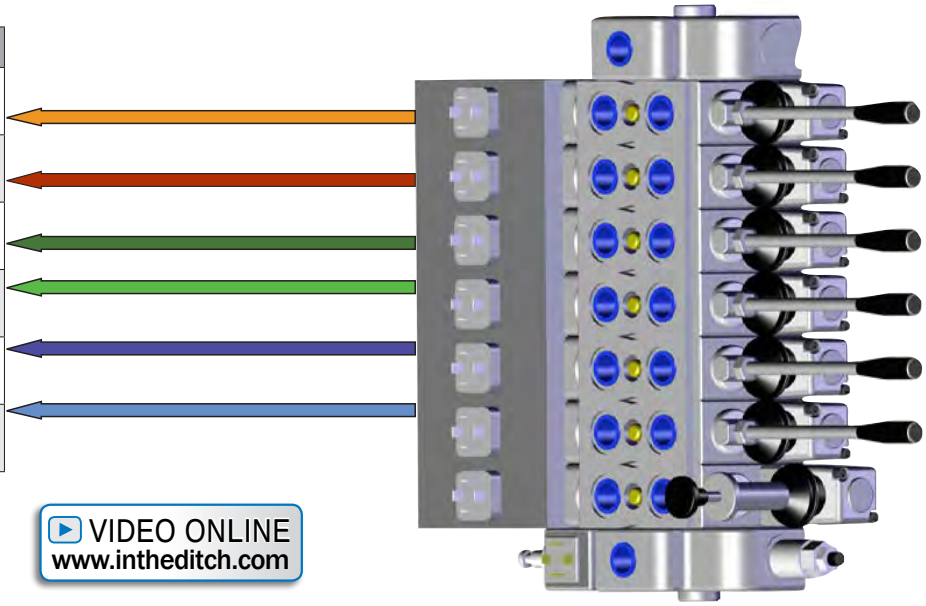



ITD4710 SP12,000™ Shown

**From Valve Body Plumb Hydraulic Lines Into Ports**

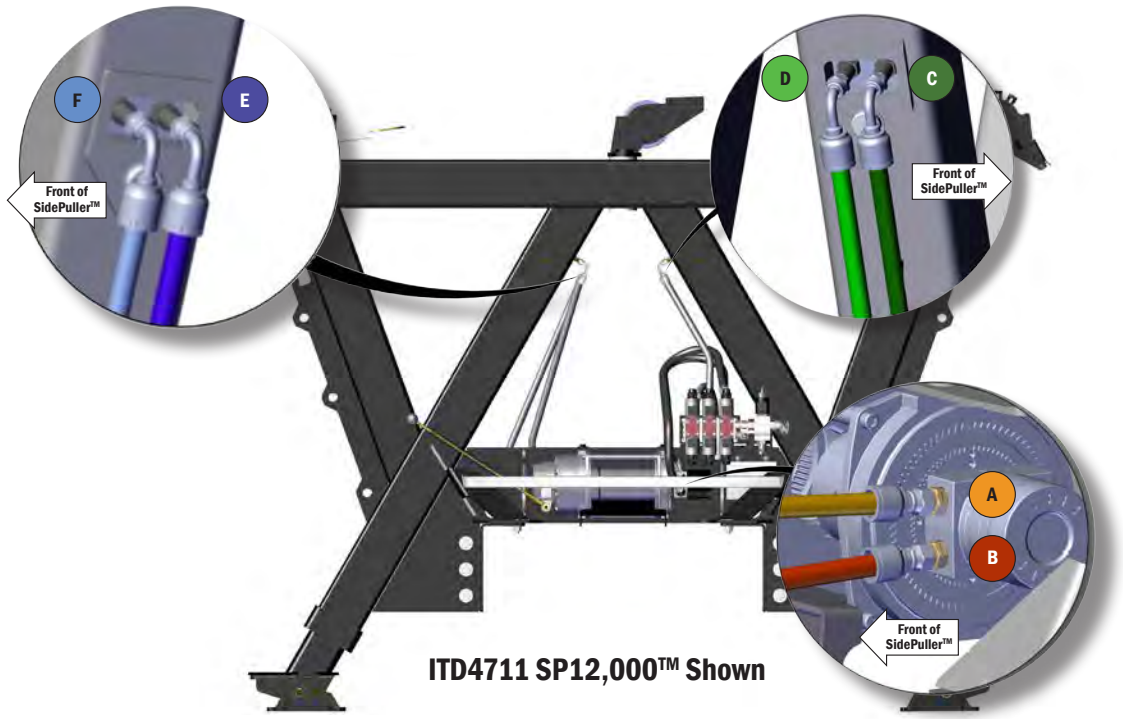
**Wrecker or Carrier Valve Body**

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |



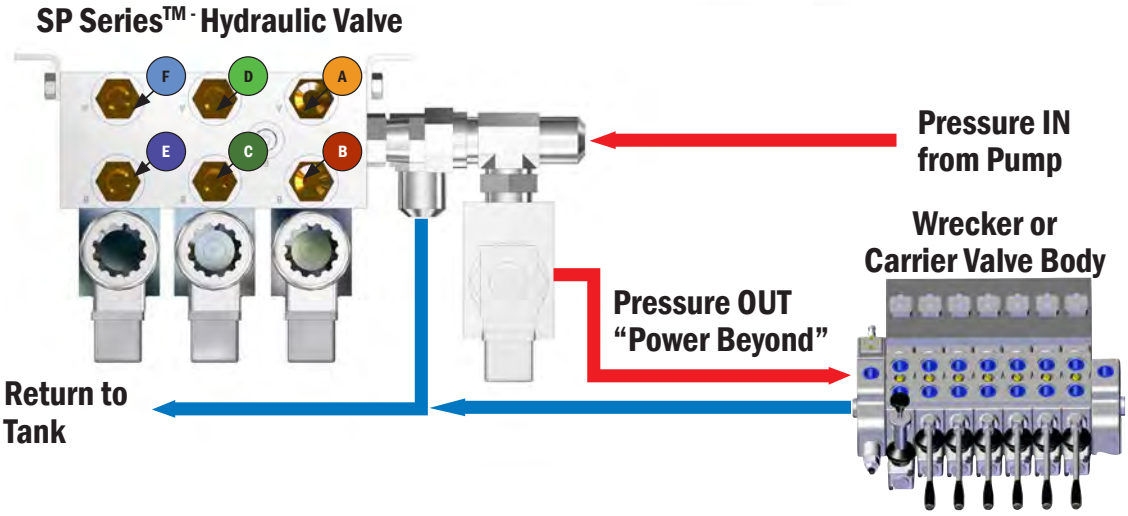
VIDEO ONLINE
www.intheditch.com

**FIG SP12-2B**




ITD4711 SP12,000™ Shown

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |




When routing The Hoses to the Outrigger /Stiff Leg Ports on the SP9000™ Zip Tie the Hoses to the Rear of You SidePuller™ using the SidePuller™ Routing System.

## In The Ditch™ TOWING PRODUCTS TECH TIP

**For Outrigger/Stiff Leg Hoses you can use either ¼" or 3/8" Diameter Hydraulic Hoses with a minimum working pressure of 3,000psi.**

**For Winch Supply Hoses we recommend ½" Diameter Hydraulic Hoses.**

## Electrical

1 - Your SidePuller™ with Integrated Controls is Pre Wired from In The Ditch™.

2 - Supply 12 Volt Power to the SP Wireless Receiver Wiring Harness Red 12 Volt Input Wire. FIG 2-1 PG 71

### In The Ditch™ TOWING PRODUCTS TECH TIP

**- Use Red color 12 Gauge Wire**

**- Note that SidePullers™ Operate in Harsh Environments and people's lives and lively hood- depend on proper installation. Please take the time to use Heat Shrink Connectors and wiring loom to protect the wiring of your SidePuller.**

3 - We recommend that you Use a Cab Mounted Switch for this function to prevent accidental operation of Wireless Function.

4 - Use wire routing system to route hoses and electrical wiring . This will prevent hoses and wires from wear and extend the working life.

5 - Use 25 Amp Fuse, Prior to In Cab Switch.

## SidePuller™ Installation for SP12,000™: Optional Pylon Mount

1 - When Installing / Welding Light Pylon Mounts to the SP12,000™ we find it best if you install the mounts onto the Pylon first.

2 - Using a helper, stand Pylon and Mounts into position on your SidePuller™ and use masking tape to locate area to be welded. Remove Pylon and Mount.

3 -Using a helper, Install Pylon and Pylon Mount as 1 unit. Tack weld into position. Stand back and look at all angles to ensure Pylon is copasetic before final welding.

4 - Bolt Pylon to Mount Using Provided Stainless Steel Hardware

### In The Ditch™ TOWING PRODUCTS TECH TIP

**Mask off area outside of area to be welded, use buffer to remove paint in weld area. The masking tape will help prevent damage to painted areas that do not need buffed off.**

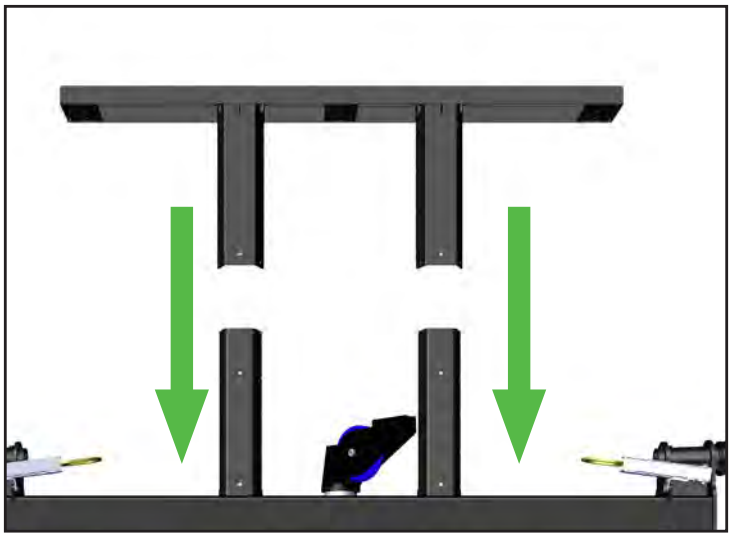
# SidePuller™ Installation for SP12,000™: Optional Light Pylon

1 - If Pylon Has Stainless Steel Accent Panels, Please remove and set aside.

2 - Install Pylon onto SidePuller™ Pylon Mounts and adjust to the correct height for your application.

3 - Drill (4) 5/16” Bolt Holes into SP Pylon Mounts, use pre drilled Holes in Pylon as a Template.

4 - Bolt Pylon to Mount Using Provided Stainless Steel Hardware



## TECH TIP

**Use Vice Grips to clamp Pylon in Place (Use Rag to protect Paint)wiring of your SidePuller.**

**WARNING**

**INSTALLATION SHOULD BE PERFORMED BY A PROFESSIONAL TOWING EQUIPMENT DEALER!**

## Installation: Final Checks

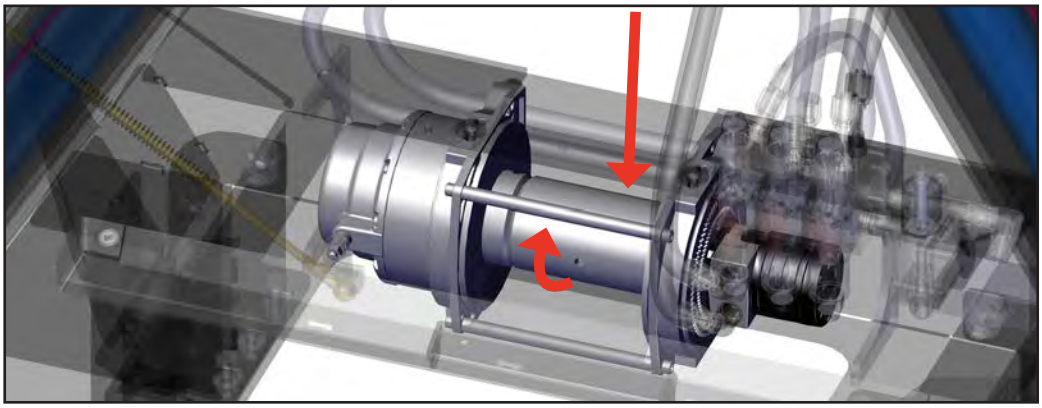
1 - Check all Mounting Bolts and ensure they are torqued properly.

2 - Remove and discard Safety Bar that holds Stabilizer Legs in the Shipping Position.

3 - Engage Truck Hydraulics and ensure that Stabilizer Legs go up and down properly.

4 - Check Winch Rotation is correct. Fig SP12-3

**FIG SP12-3**



5 - Shut Truck off and Install Wire Rope. Start by Reeving the Wire through the center boom head and down to winch. When installing Wire Rope into Winch please refer to winch Operating Manual for Instructions.

### In The Ditch™ TOWING PRODUCTS TECH TIP

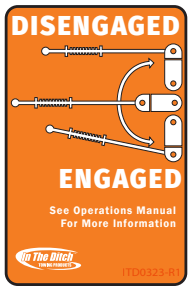
**We cannot express enough the importance of keeping your wire rope well lubricated. We recommend that you lube your new rope and lube wire at least once per month.**

### In The Ditch™ TOWING PRODUCTS RIGGING TIP

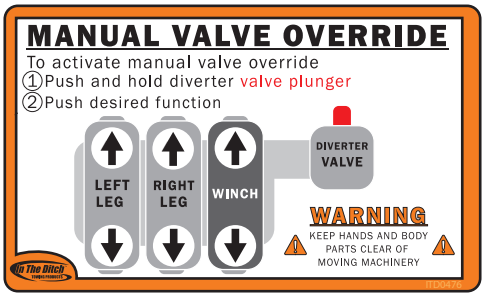
**-Be sure to record the Working Load Limit W.L.L. of your wire rope before you use it. The W.L.L. of your wire rope should never be exceeded. It is the responsibility of the equipment operator to inspect wire rope and to not overload it.**

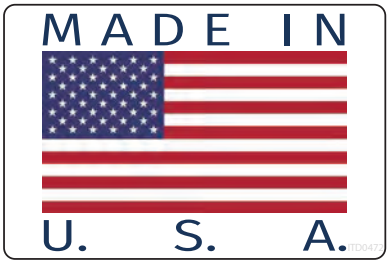
**-Keep a minimum of 5 wraps of Wire Rope on Your Winch at all times.**

6 - Please install Decals if your SidePuller™ was not shipped with the decals installed. We take great pride in manufacturing the SidePuller™ and we hope you have the same pride by display the SidePuller™ Brand Decals. Decals not only enhance the look of your SidePuller™, they serve as a warning to certain areas of your SidePuller™.









SP12,000™ www.sidepuller.com U.S. Patent # 8,192,135 B2

We have done our very best to share with you the installation Practices. It is now time for you to start enjoying your SidePuller™. Please read the Operations Section of this Manual. If you feel we could ad more information to this manual please contact us with your suggestions. We would love to hear from you.

**Contact The Ditch Tech Support, 8:00 am to 5:00PM MST Mon through Friday 1-888-993-4824. You can also email your suggestion to sales@intheditch.com**

# SIDEPULLER™ INSTALLATION

## UNPACKING THE SP20,000™ SIDEPULLER™

1 - When you receive your SidePuller™, please immediately Inspect for Damage during the shipping process.

2 - We recommend you remove all the contents from your SP Shipping Stand and inventory them this will help you familiarize yourself with the parts and hardware that is shipped with your SidePuller™.

### TECH TIP

**Please go to intheditch.com and watch the SidePuller™ Installation Video before starting the installation Process.**

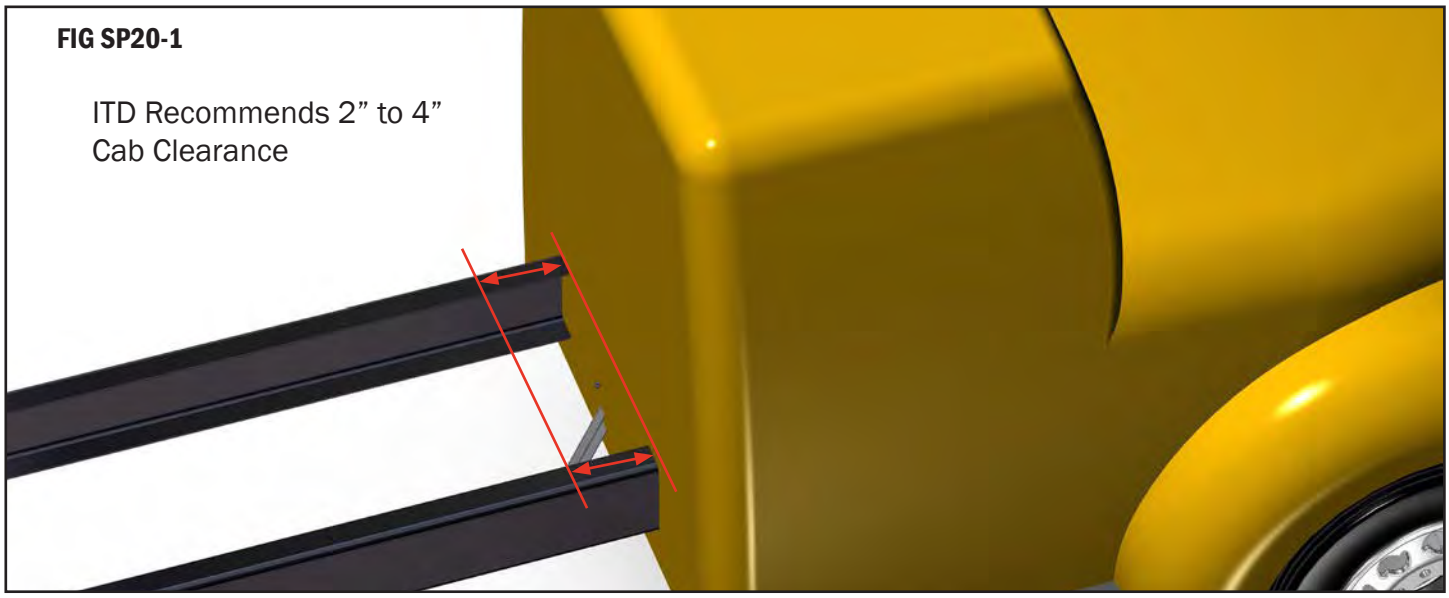
VIDEO ONLINE
www.intheditch.com

**If you have any questions during the installation process, don't hesitate to contact In The Ditch™ Tech Support, 8:00 am to 5:00PM MST Monday through Friday 1-888-993-4824. You can also email your question to sales@intheditch.com We are here to help you in any way we can.**

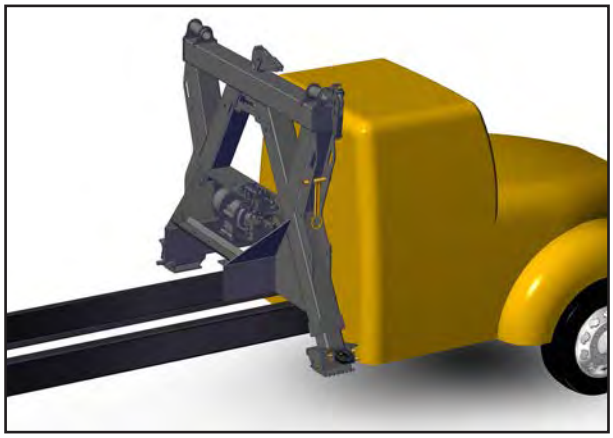
**Special Note to Installer. People's Lives may depend on the quality of the installation of this SidePuller™. Please take the time to follow all instructions and guidelines to ensure the installation quality is what our customers deserve.**

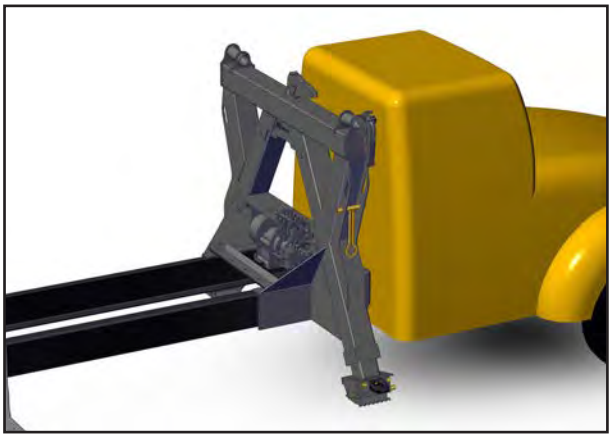
# SP20,000™ INSTALLATION SPECIFICATIONS

1 – Use Masking Tape to represent SP20,000™ Mounting Plates and Tape to Truck Frame. Use Masking Tape as Mock up and decide the best location for the SidePuller™. ITD Recommends 2” to 4” Cab Clearance Note See Figure SP20-1 to establish correct Cab to SidePuller™ Clearance for your application.




2 – Lift your SidePuller™ and Place onto Frame Rails and Locate.





## TECH TIP

**If you will be using a SP Pylon. Allow for proper Clearance of Light Pylon between Cab and Pylon.**

3 - Calculate the correct Shim Thickness to take up the space between the frame rail and the SidePuller™ FIG SP20-1 Note your SP20,000™ was shipped with (2) 3/16” - 0.1875 shims and (2) 10 Gauge Shims.

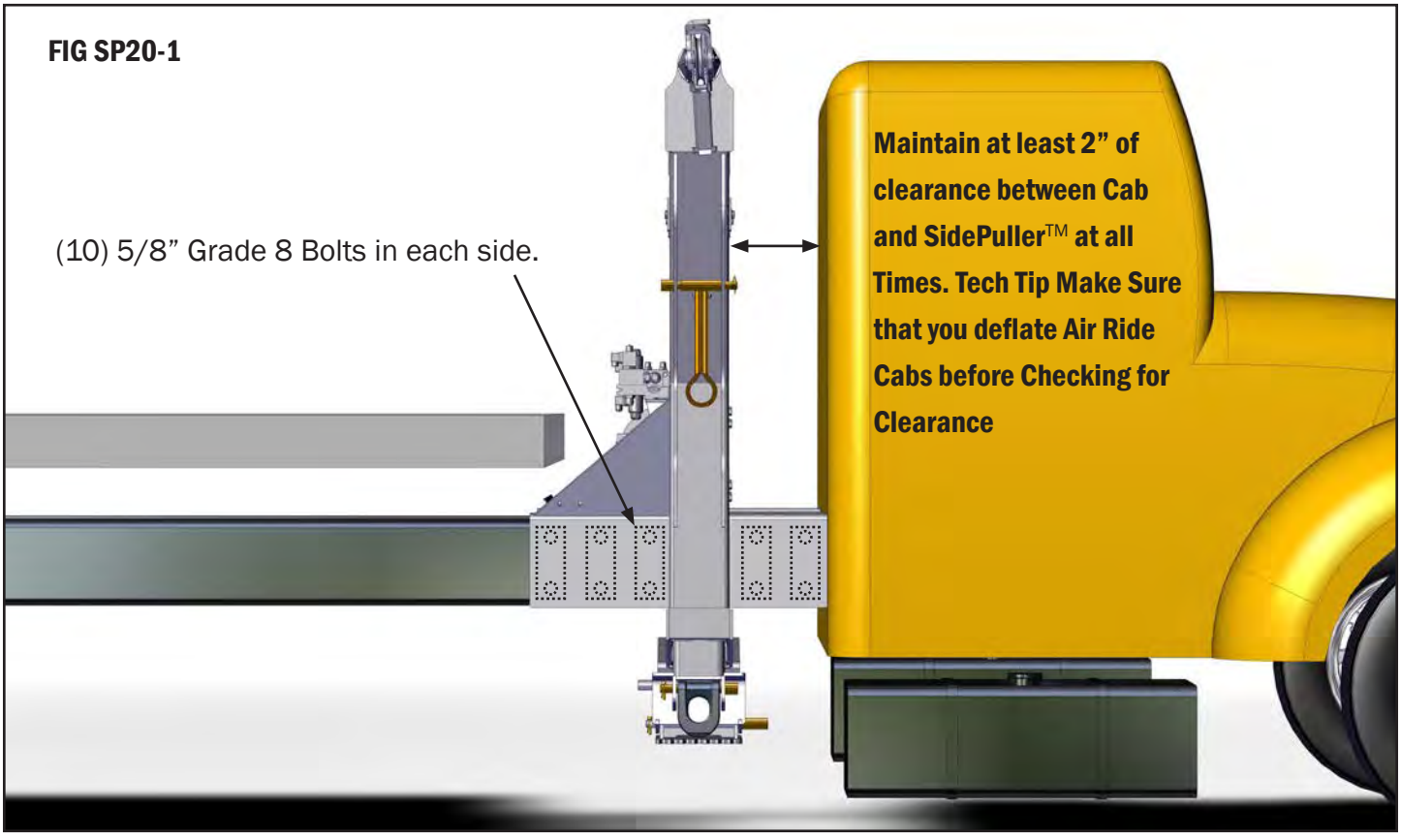
4– Install Shims and drill Pilot Holes through SidePuller™ Mounting Plate, Shim and Frame Rails. Whenever Possible, use existing truck frame holes. After Drilling Pilot Holes, Drill out mounting holes to 5/8" Diameter Holes.

5 – Attach SidePuller™ to Frame Rails and Shims use (10) 5/8" Grade 8 Bolts in each side.

*Recommended. Additional clearance may be desired for winch operation/maintenance. If less space is required, consult drawings or talk to a representative

| Chassis Recommendations | |
|---|---|
| Minimum GVWR | 30,000 lbs |
| Maximum GVWR | 50,000 lbs |
| Minimum Frame Height | 40 - Inches |
| Maximum Frame Height | 46 - Inches |
| Minimum Frame Width | 34 - Inches |
| Maximum Frame Width | 34 ¾ - Inches |
| Minimum Additional C.A.* | 27 - Inches |

**FIG SP20-1**

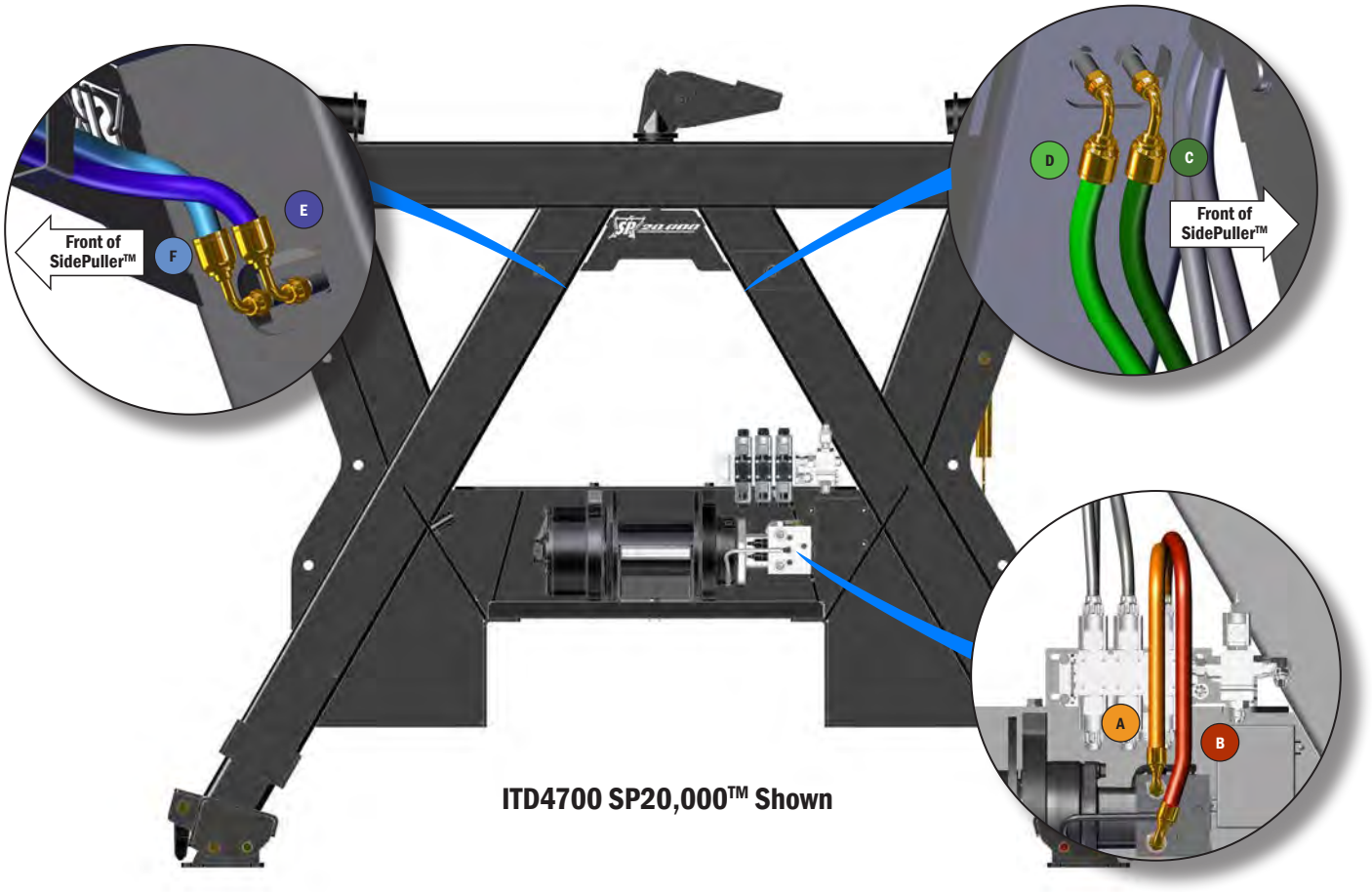



## In The Ditch™ TOWING PRODUCTS TECH TIP

**- Use Loctite Brand Blue 242 Medium Strength Thread Locker on All Bolts**
**- Tightening Torque for 5/8" Grade 8 Bolts. 180 ft-lbs**

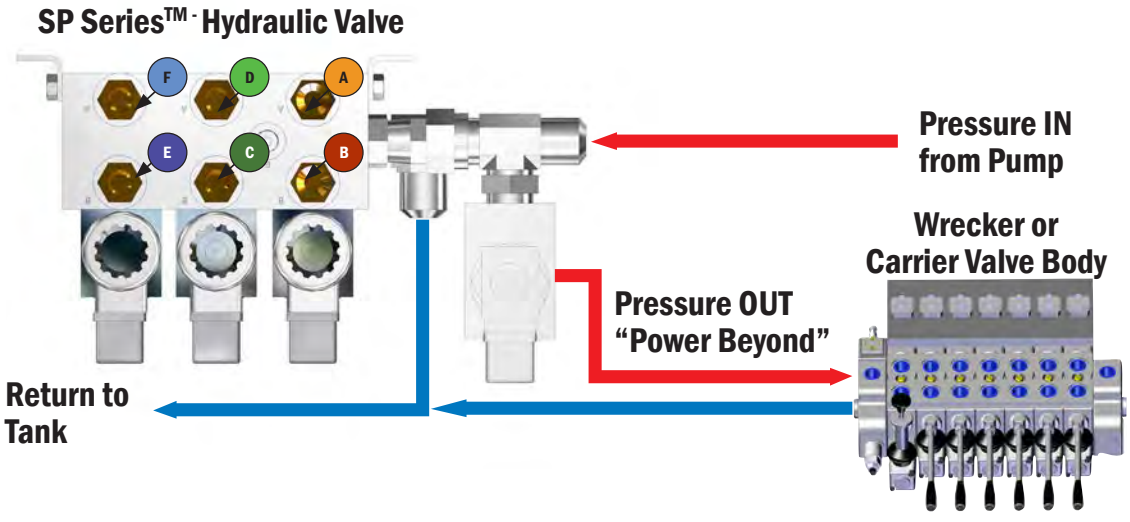
# SP20,000™ Hydraulics:

## FIG SP20-2




ITD4700 SP20,000™ Shown

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |



## Electrical

1 - Your SidePuller™ with Integrated Controls is Pre Wired from In The Ditch™.

2 - Supply 12 Volt Power to the SP Wireless Receiver Wiring Harness Red 12 Volt Input Wire. FIG 2-1 PG 71

### TECH TIP

**- Use Red color 12 Gauge Wire**

**- Note that SidePullers™ Operate in Harsh Environments and people's lives and lively hood depend on proper installation. Please take the time to use Heat Shrink Connectors and wiring loom to protect the wiring of your SidePuller.**

3 - We recommend that you Use a Cab Mounted Switch for this function to prevent accidental operation of Wireless Function.

4 - Use wire routing system to route hoses and electrical wiring . This will prevent hoses and wires from wear and extend the working life.

5 - Use 25 Amp Fuse, Prior to In Cab Switch.

## SidePuller™ Installation for SP20,000™: Optional Pylon Mount

1 - When Installing / Welding Light Pylon Mounts to the SP20,000™ we find it best if you install the mounts onto the Pylon first.

2 - Using a helper, stand Pylon and Mounts into position on your SidePuller™ and use masking tape to locate area to be welded. Remove Pylon and Mount.

3 -Using a helper, Install Pylon and Pylon Mount as 1 unit. Tack weld into position. Stand back and look at all angles to ensure Pylon is  before final welding.

4 - Bolt Pylon to Mount Using Provided Stainless Steel Hardware

### TECH TIP

**Mask off area outside of area to be welded, use buffer to remove paint in weld area. The masking tape will help prevent damage to painted areas that do not need buffed off.**

# SidePuller Installation for SP20,000™: Optional Light Pylon

1 - If Pylon Has Stainless Steel Accent Panels, Please remove and set aside.

2 - Install Pylon onto SidePuller Pylon Mounts and adjust to the correct height for your application.

3 - Drill (4) 5/16” Bolt Holes into SP Pylon Mounts, use pre drilled Holes in Pylon as a Template.

4 - Bolt Pylon to Mount Using Provided Stainless Steel Hardware

## TECH TIP

**Use Vice Grips to clamp Pylon in Place (Use Rag to protect Paint)wiring of your SidePuller.**

**WARNING**

**INSTALLATION SHOULD BE PERFORMED BY A PROFESSIONAL TOWING EQUIPMENT DEALER!**

## Installation: Final Checks

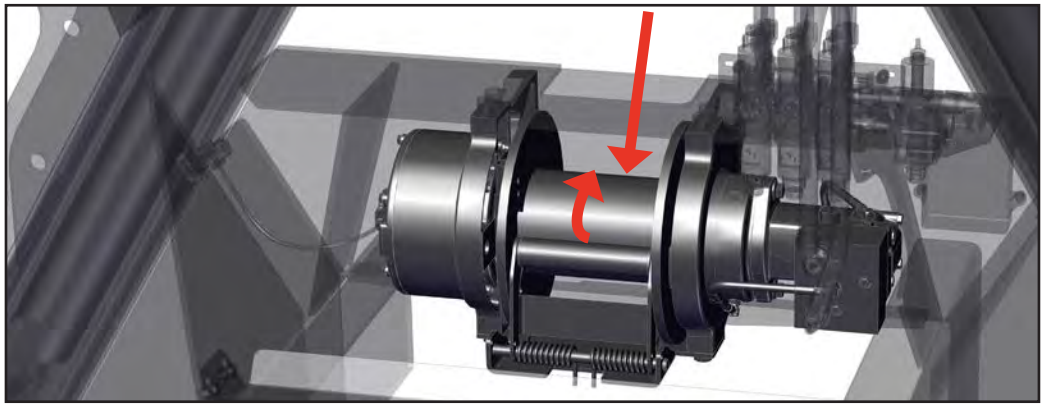
1 - Check all Mounting Bolts and ensure they are torqued properly.

2 - Remove and discard Safety Bar that holds Stabilizer Legs in the Shipping Position.

3 - Engage Truck Hydraulics and ensure that Stabilizer Legs go up and down properly.

4 - Check Winch Rotation is correct. Fig SP20-3

**FIG SP20-3**



5 - Shut Truck off and Install Wire Rope. Start by receiving the Wire through the center boom head and down to winch. When installing Wire Rope into Winch please refer to winch Operating Manual for Instructions.

### In The Ditch™ TOWING PRODUCTS TECH TIP

**We cannot express enough the importance of keeping your wire rope well lubricated. We recommend that you lube your new rope and lube wire at least once per month.**

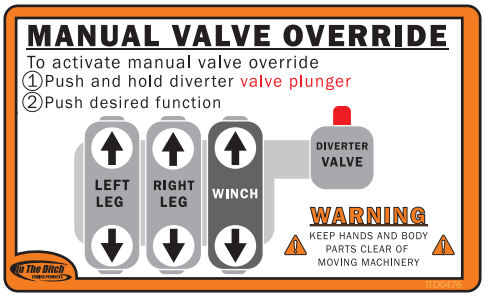
### In The Ditch™ TOWING PRODUCTS RIGGING TIP

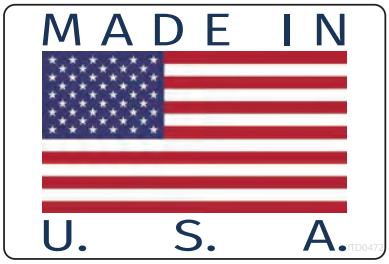
**-Be sure to record the Working Load Limit WLL of your wire rope before you use it. The WLL of your wire rope should never be exceeded. It is the responsibility of the equipment operator to inspect wire rope and to not overload it.**

**-Keep a minimum of 5 wraps of Wire Rope on Your Winch at all times.**

6 - Please install Decals if your SidePuller™ was not shipped with the decals installed. We take great pride in manufacturing the SidePullerTM and we hope you have the same pride by display the SidePuller™ Brand Decals. Decals not only enhance the look of your SidePuller™, they serve as a warning to certain areas of your SidePuller™.







SP20,000
www.sidepuller.com
U.S. Patent # 8,192,135 B2

We have done our very best to share with you the installation Practices. It is now time for you to start enjoying your SidePuller™. Please read the Operations Section of this Manual. If you feel we could ad more information to this manual please contact us with your suggestions. We would love to hear from you.

**Contact The Ditch Tech Support, 8:00 am to 5:00PM MST Mon through Friday 1-888-993-4824. You can also email your suggestion tosales@intheditch.com**

# SP SERIES™ OPERATIONS

## Walk Around Visual Inspection

Before operating SP Series™ SidePuller, perform a walk around visual inspection of the unit.

1. Inspect for evidence of physical damage such as cracking, bending, or deformation of plates and welds.

2. Inspect carefully for cracking or flaking of paint. Flaking or cracking of paint may indicate a dangerous crack in the structure beneath.

3. Examine Wire Rope for fraying, splintering, or other signs of stress that may weaken its load capacity. If Wire Rope is damaged, remove from service immediately. Never exceed manufacturer's working load limit (WLL).

4. Ensure the Wire Rope is safely stowed with hook securely attached to the wire rope tieback.

5. Inspect all hardware: mounting bolts, nuts, pins, and safety latches. Loose or missing hardware should be properly tightened or replaced with manufacturer's specified hardware.

6. For travel, the Stabilizer Legs must be in stowed position and PTO disengaged.

7. Inspect all hydraulic hoses for fluid leaks, especially those which flex or move in service. Ensure all hydraulic fluid levels are at fill capacity. Secure all caps and filler plugs for all systems. Hydraulic system leaks must be repaired before the SidePuller is operated.

**WARNING**

**DO NOT OPERATE SP SERIES™ UNIT UNTIL ALL REPAIRS ARE MADE!**

# Using the SP Series™ Stabilizer Legs

1 - Use Caution When Lowering Stabilizer Legs to ensure there is nothing in the way of Stabilizer Foot when it comes down.

2 - Do not use the Stabilizer Legs to lift your truck of the ground. The Stabilizer legs are meant for truck stabilizing only.


**WARNING**

**USE EXTREME CAUTION WHEN DEPLOYING THE STABILIZER LEG, ASSURING NOT TO CRUSH OR SEVER THE FOOT!**

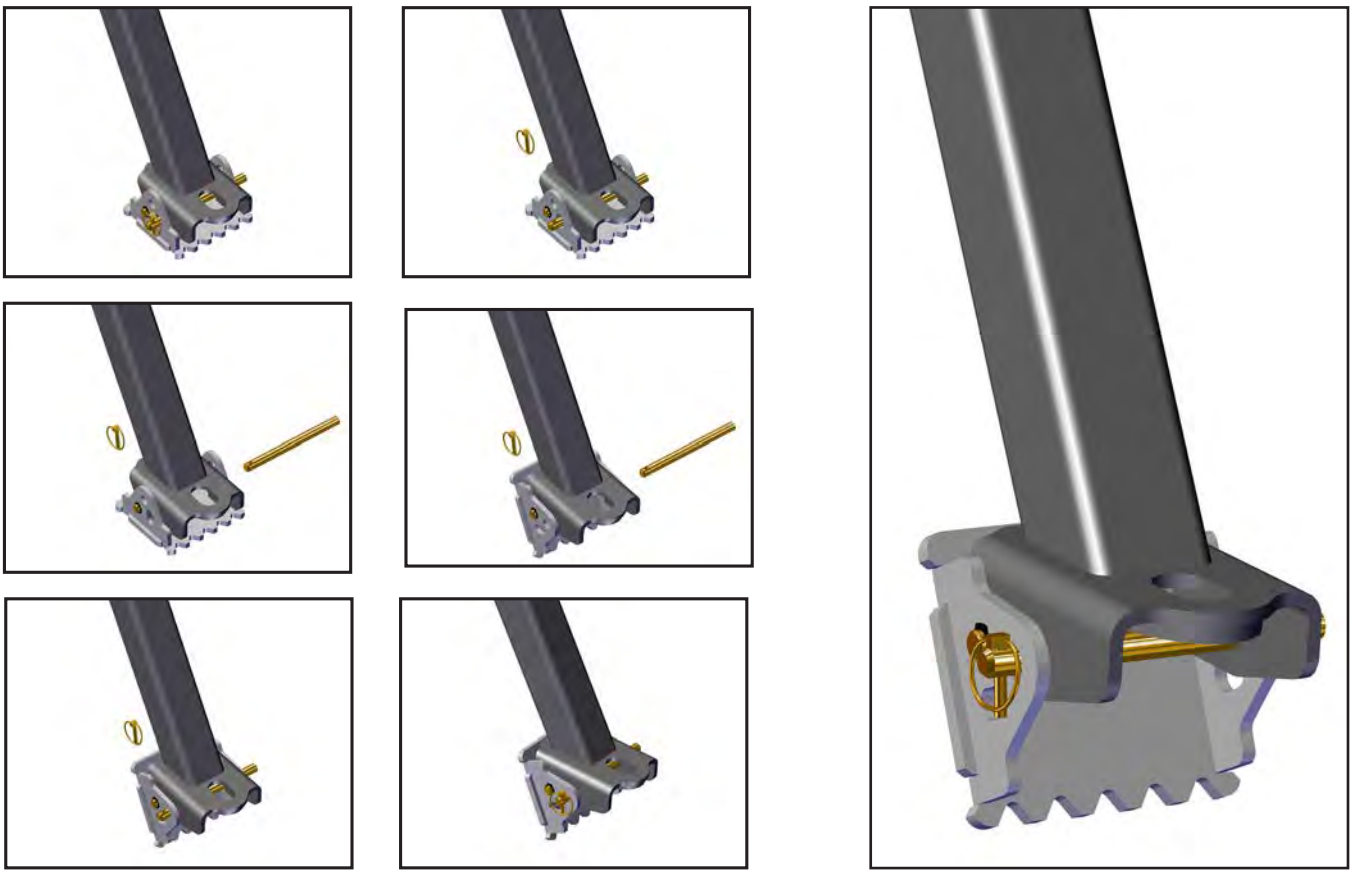
## Ground Penetrating Grousers

To use the Ground Penetrating Grouser feature. Remove the Removable Foot Pin, Fold the Grouser down, reinstall Pin and Lynch Clip.

### TECH TIP

**Make sure the Removable Pin is install in the proper direction to prevent possible interference with anything while being retracted**

When using SidePuller™ on Concrete or Asphalt Surface we do not recommend the use of the Ground Penetrating Grousers.



**WARNING**

**USE EXTREME CAUTION WHEN DEPLOYING THE STABILIZER LEG, ASSURING NOT TO CRUSH OR SEVER THE FOOT!**

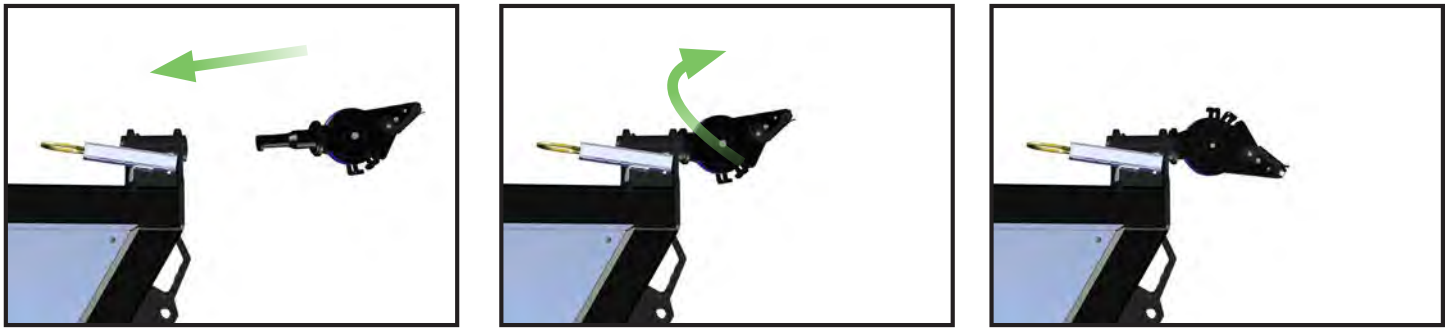
## Installing the Outer Recovery Boom Head

1. Holding the Outer Recovery Boom Head 90-degrees to the Receiver tube, insert it into the outer boom head receiver until the flange of the Outer Recovery Boom Head tongue meets the mouth of the cylinder

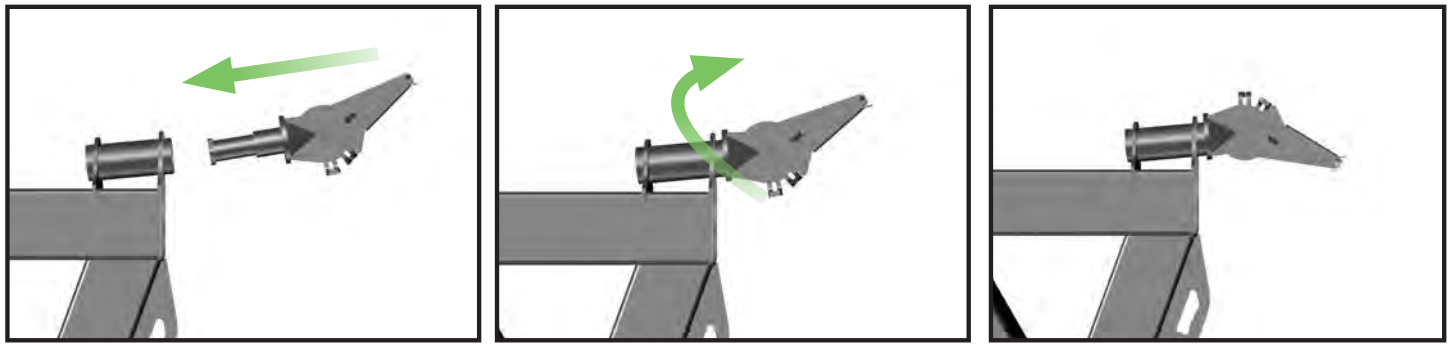
2. Rotate the Outer Recovery Boom Head 180 degrees to secure it in its locked upright position.

3. To ensure the Outer Recovery Boom Head is in its locked position, pull it away from the unit to guarantee the cylinder lock pin is engaged with the flange of the Removable Boom Head receiver shaft.

### SP9000™ / SP12,000™ OUTER RECOVERY BOOM HEAD



### SP20,000™ OUTER RECOVERY BOOM HEAD



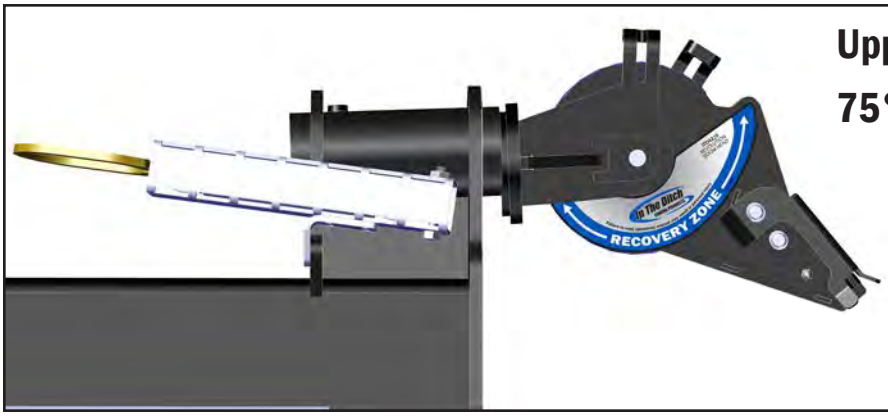
### TECH TIP

**Keeping The Outer Recovery Boom Head Sheave Wheels well-greased will make them last longer and perform better.**

**WARNING**

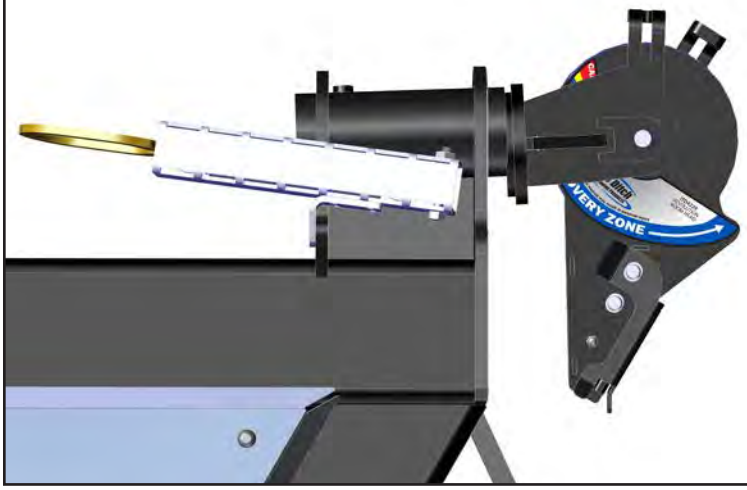
**WHEN USING THE OUTER RECOVERY BOOM HEAD USE CAUTION TO KEEP WITHIN THE BOOM HEAD RECOVERY ZONE**

## SP9000™/ SP12,000™ OUTER BOOM HEAD



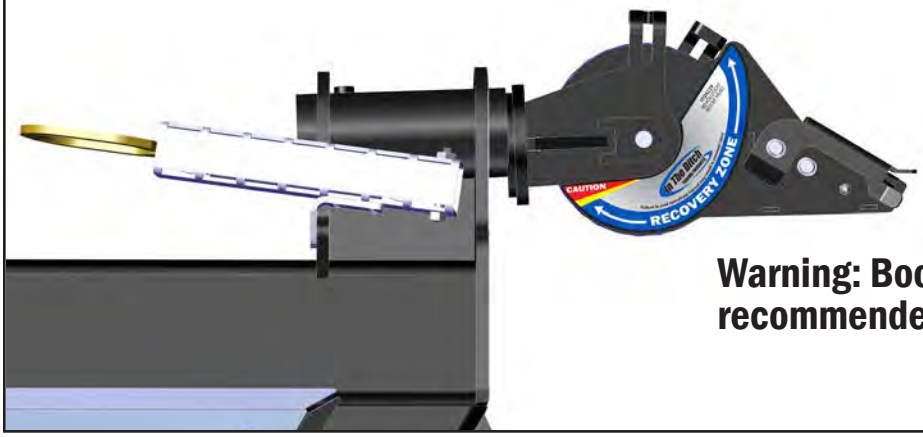

**Upper end of usable recovery zone**

**75° Recovery Range**



**Lower end of usable recovery zone**

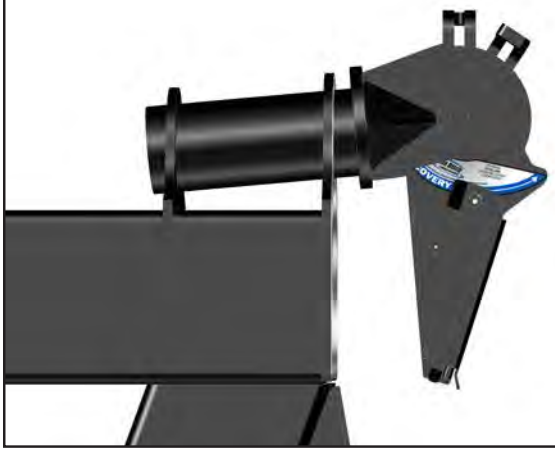
**75° Recovery Range**



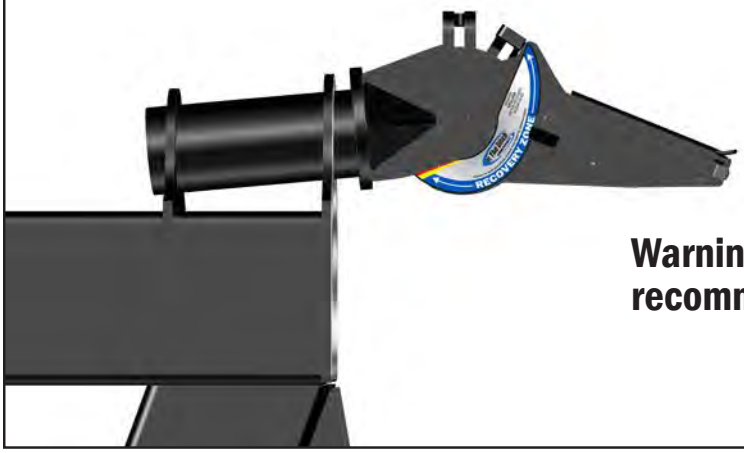

**Warning: Boom head is operating out of recommended recovery zone**

# SP20,000™ OUTER BOOM HEAD

**Upper end of usable recovery zone**
**75° Recovery Range**



**Lower end of usable recovery zone**
**75° Recovery Range**



**Warning: Boom head is operating out of recommended recovery zone**

**WARNING**

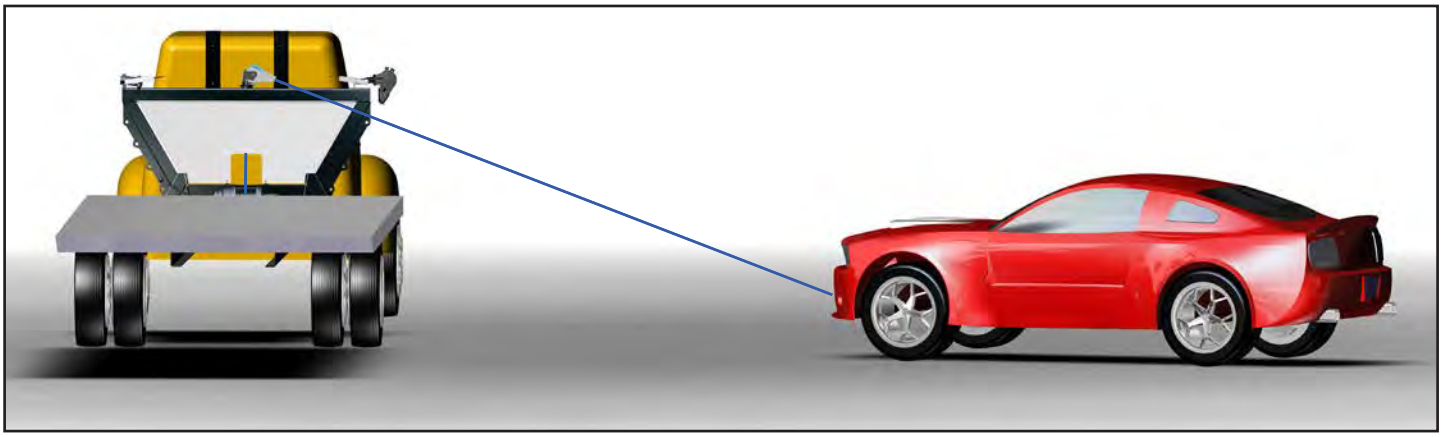
**WIRE ROPE COVER MUST BE USED AT ALL TIMES**

## Recovery Assessment

1. Find a solid level surface from which to operate the SidePuller™.
2. Determine the Wire Rope Rigging and Recovery Scenarios.
3. Determine Stabilizer Leg use.
4. Determine Outer Removable Boom Head use. If not using Removable Boom Head skip the section and continue on.

### In The Ditch™ TOWING PRODUCTS RIGGING TIP

**You can pull directly off the center Boom Head if you are out of the Recovery Zone.**



# Wire Rope Rigging and Recovery Scenarios

## Rigging through the Center Sheave

When rigging the Wire Rope through the Center Sheave only, recoveries can be made within a 170-degree radius behind any of the SP Series™ SidePullers™, with the elevation of the recovered vehicle being higher, lower, or equal to the unit. Do not exceed the Working Load Limit (WLL).



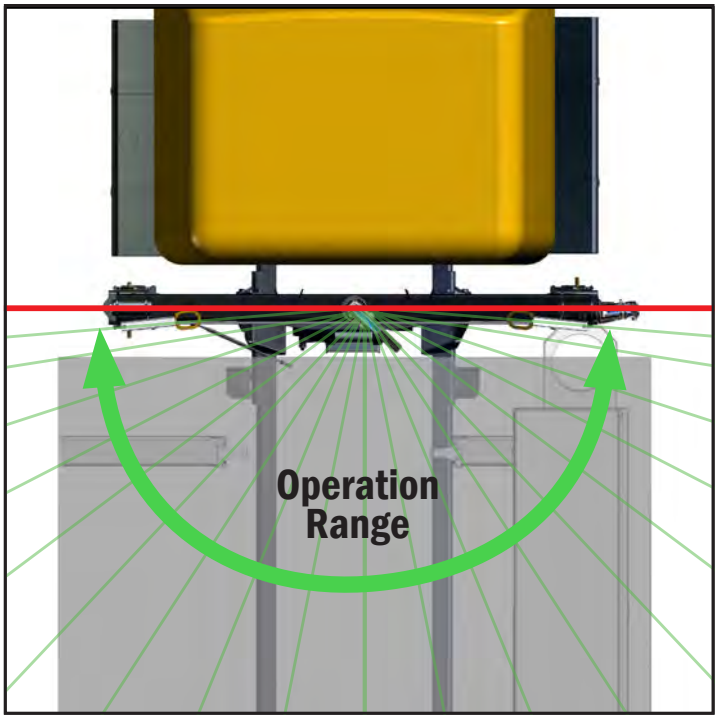
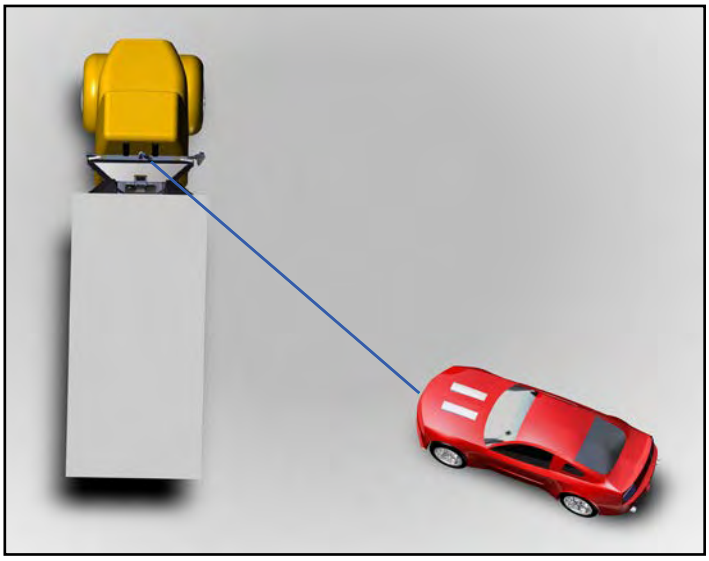



**FIG SP13**



Pulling from the Center Recovery Boom Head is a great technique to use. In fact we feel it should be your preferred method for winching any casualty that is not over an embankment. You can pull Directly off the Center Boom head in any direction as long as the Wire Rope does not contact the truck as shown in figures SP13 Thru Fig SP16.

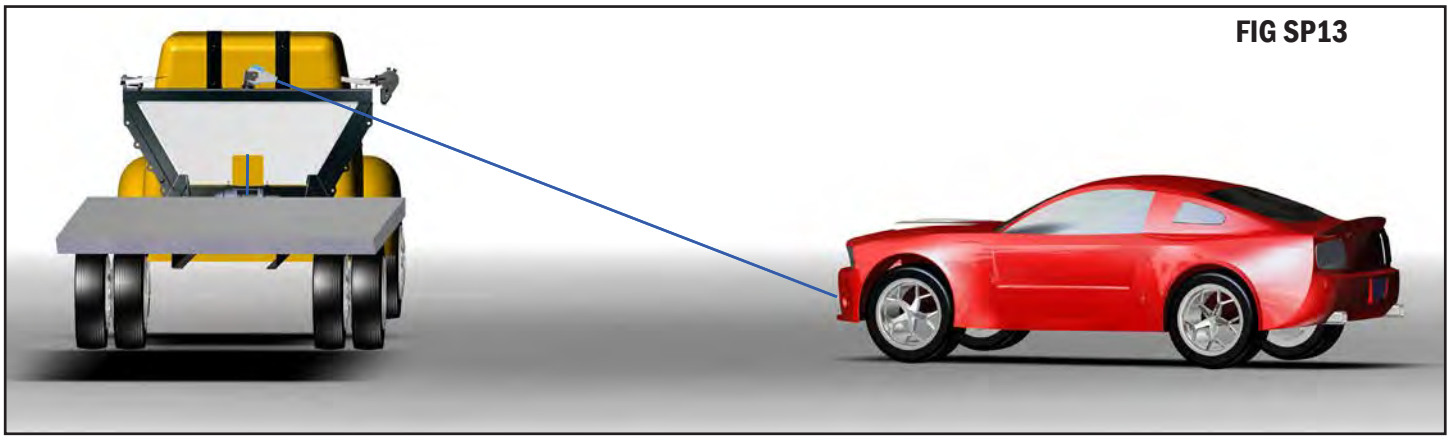
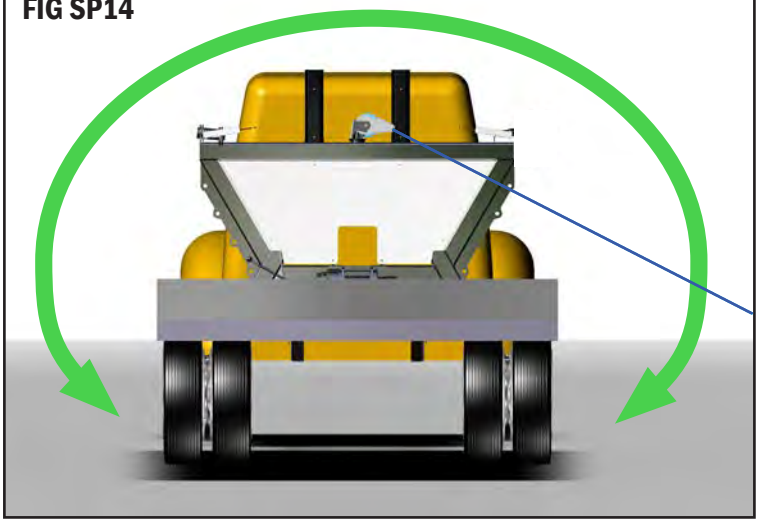


**FIG SP13**

FIG SP14



**WARNING**

**BE SURE WHEN APPLYING THIS PROCEDURE THAT THE WIRE ROPE IS FREE FROM ANY OBSTRUCTIONS ON THE UNIT, THE GROUND, AND THE VEHICLE BEING RECOVERED**

FIG SP15

**Pull directly from center recovery boom head**

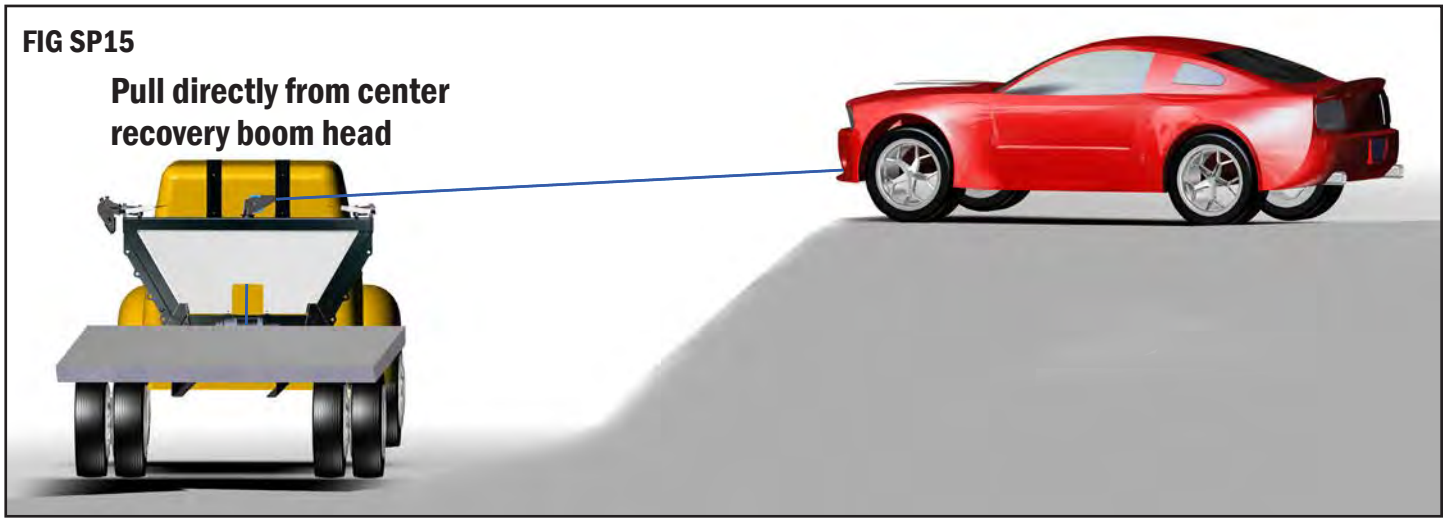
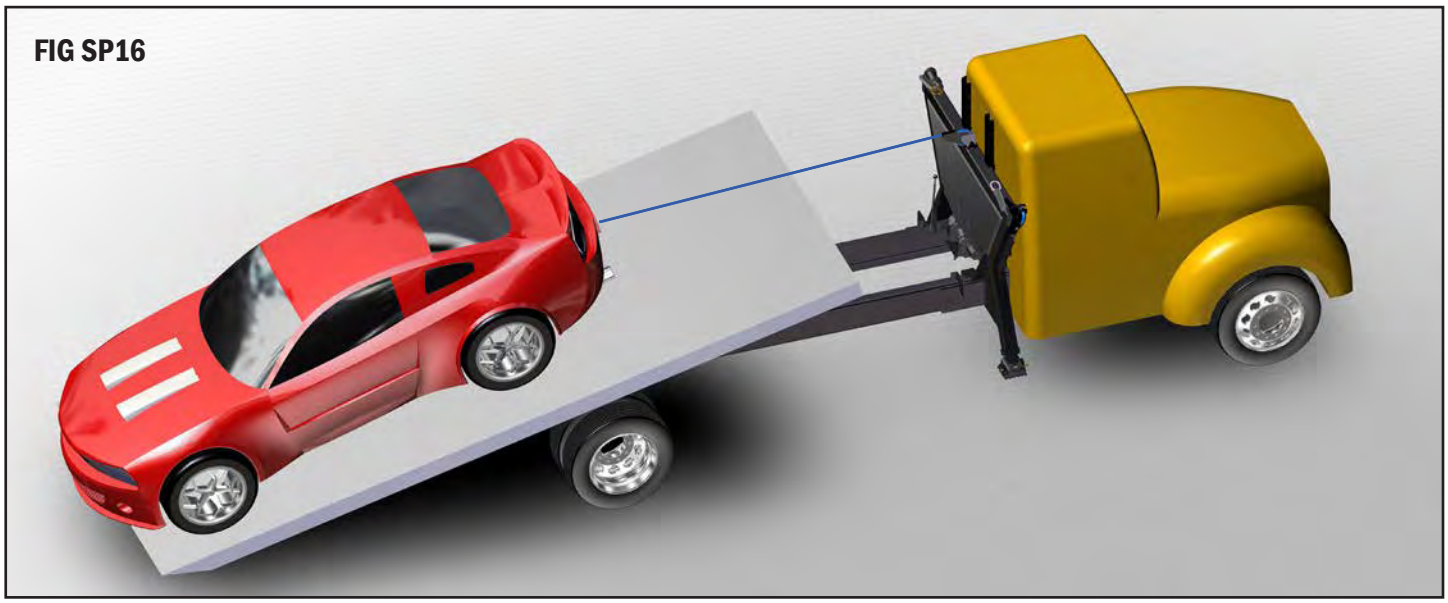
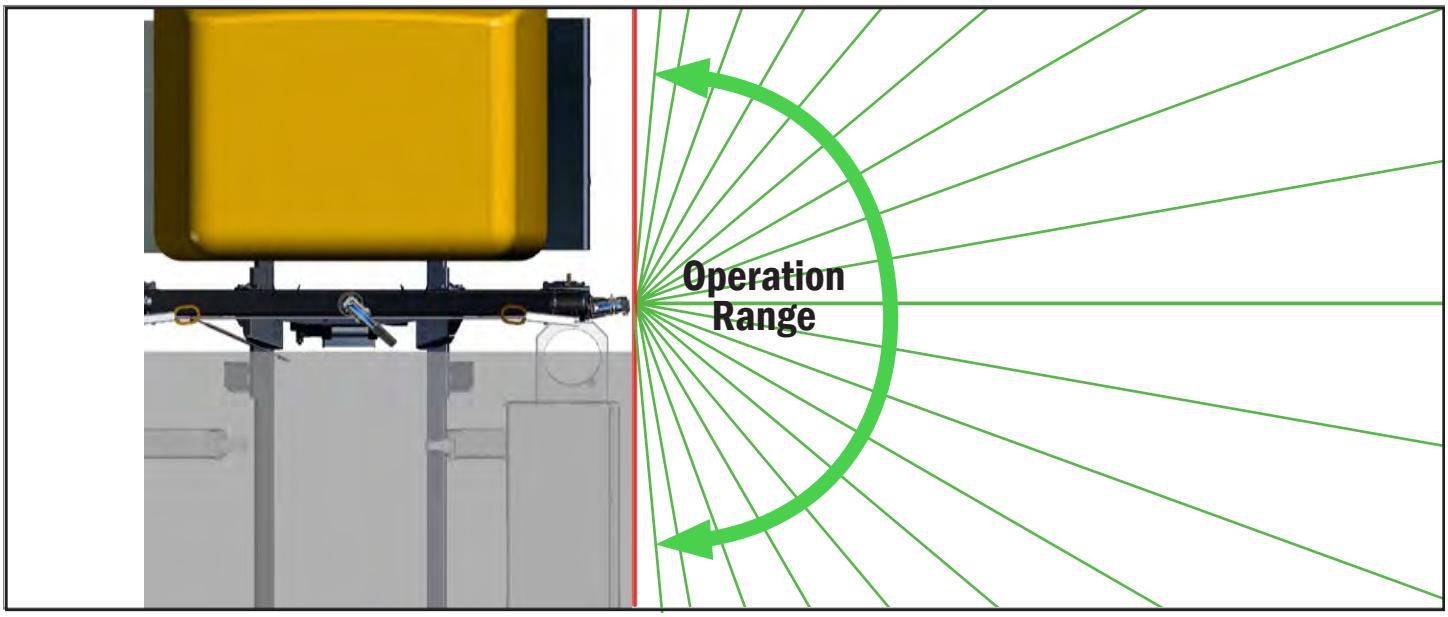


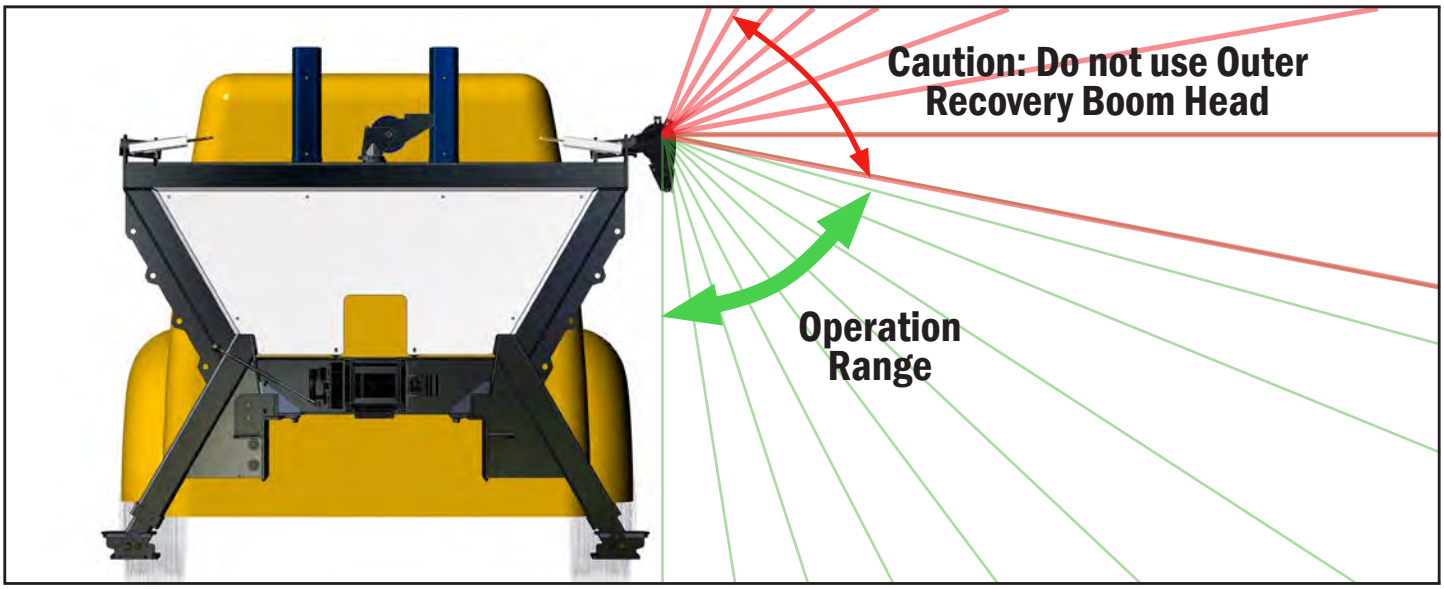
FIG SP16



## Rigging through the Center Sheave and Outer Recovery Boom Head

When rigging the Wire Rope through the Center Sheave and Outer Recovery Boom Head only, recoveries are limited to a 170-degree radius perpendicular to the unit and must be well below the elevation of the Outer Boom Head. You must have at least a 15° downward angle on the wire rope.




**WARNING**

**USING THIS METHOD TO RECOVER A VEHICLE THAT IS AT THE SAME ELEVATION OR HIGHER ELEVATION THAN THE UNIT MAY RESULT IN FAILURE OF THE OUTER RECOVERY BOOM HEAD AND CAN CAUSE INJURY**

FIG SP18

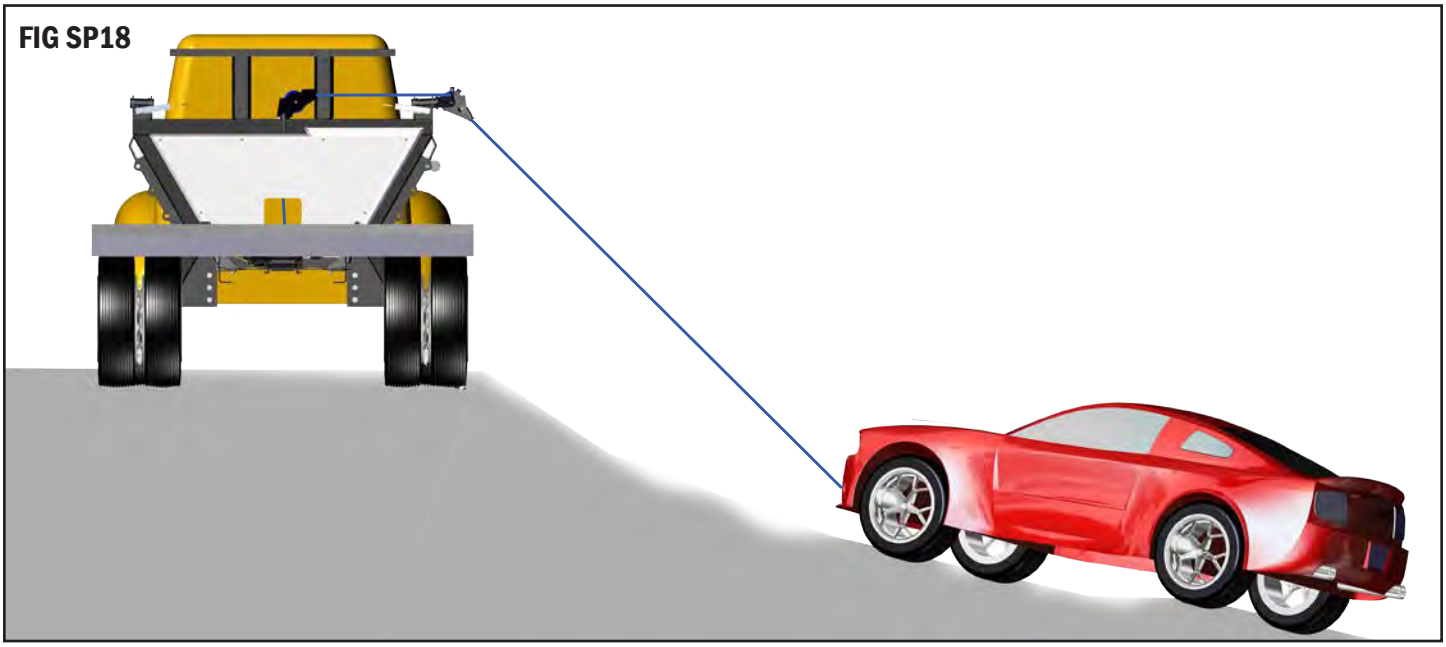
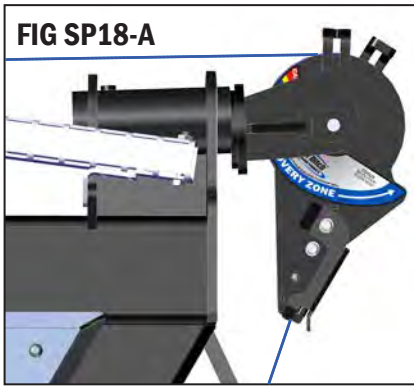
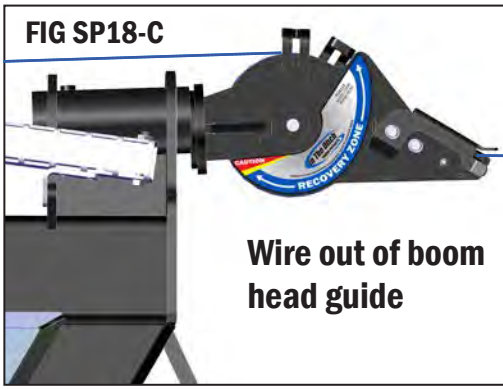


FIG SP18-A



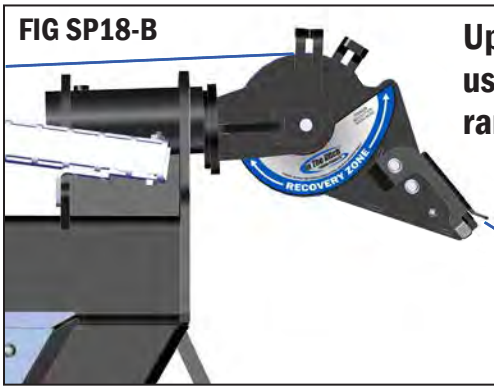

Lower end of usable working range

FIG SP18-C



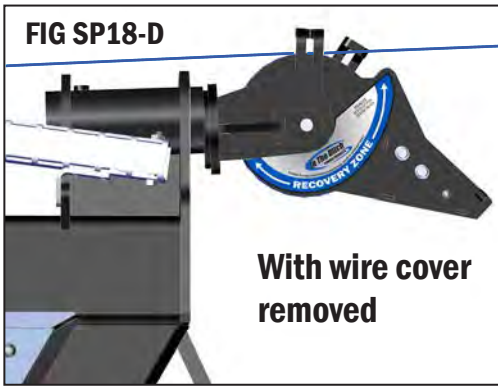

Wire out of boom head guide

FIG SP18-B




Upper end of usable working range

FIG SP18-D



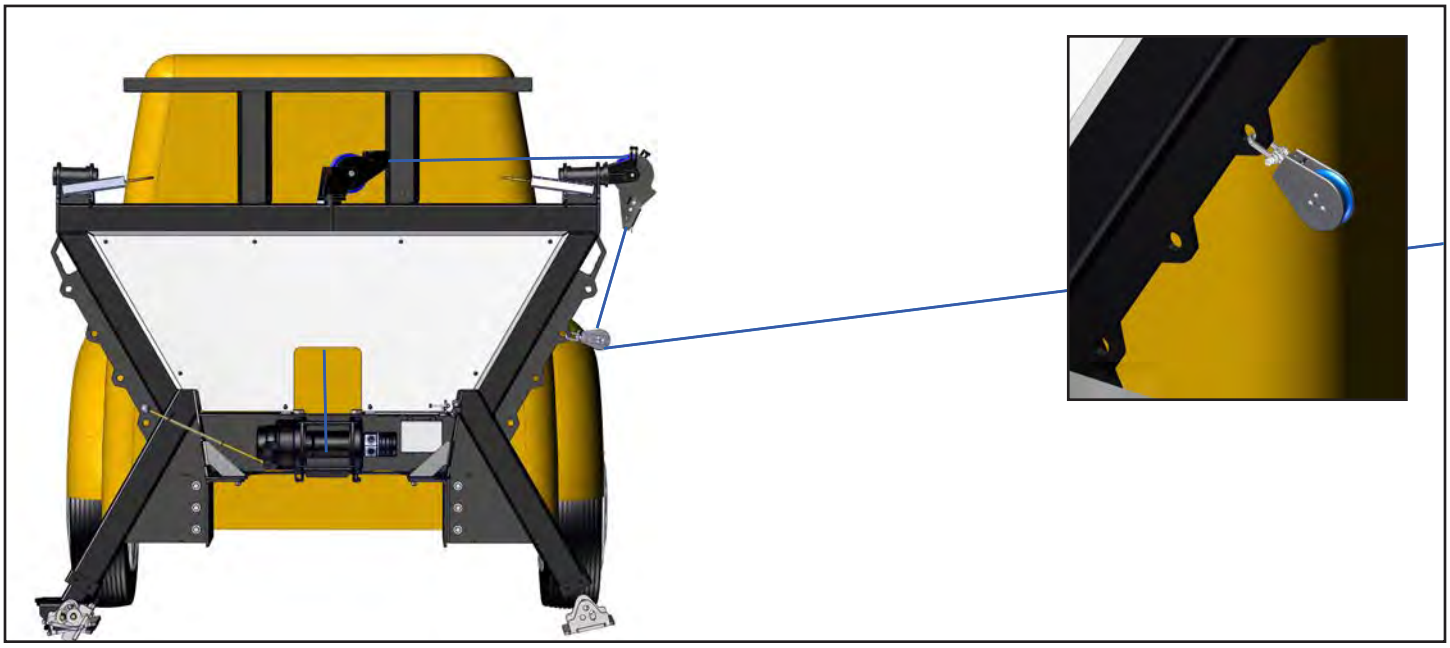

With wire cover removed

## In The Ditch™ TOWING PRODUCTS RIGGING TIP

**When Rigging as shown in Fig SP18 use Caution and stay in the recovery zone Recovery Zone. Fig SP18-A & B Failure you to do so could result in personal injury Fig SP18–C & D.**

## Rigging through the Center Sheave, Outer Recovery Boom Head, and a Snatch Block

When rigging the Wire Rope through the Center Sheave, the Outer Recovery Boom Head, and a Snatch Block, the Snatch Block must be secured to one of Anchor Points on the upper Angle Brace. Recovery is limited to a 45-degree radius perpendicular to the unit. This rigging is best used for side pulls at an equal elevation to the unit. The maximum load capacity for this rigging is dependent upon the W.L.L. of the Wire Rope, Snatch Block, and stability of the chassis.



Rigging in this method give you great versatility and recovery options. You can pull in multiple directions. When rigging through a snatch block you may increase the loads on the Anchor Point. Be sure to know your line loads and understand Snatch Block Loading Effects on the SidePuller™.

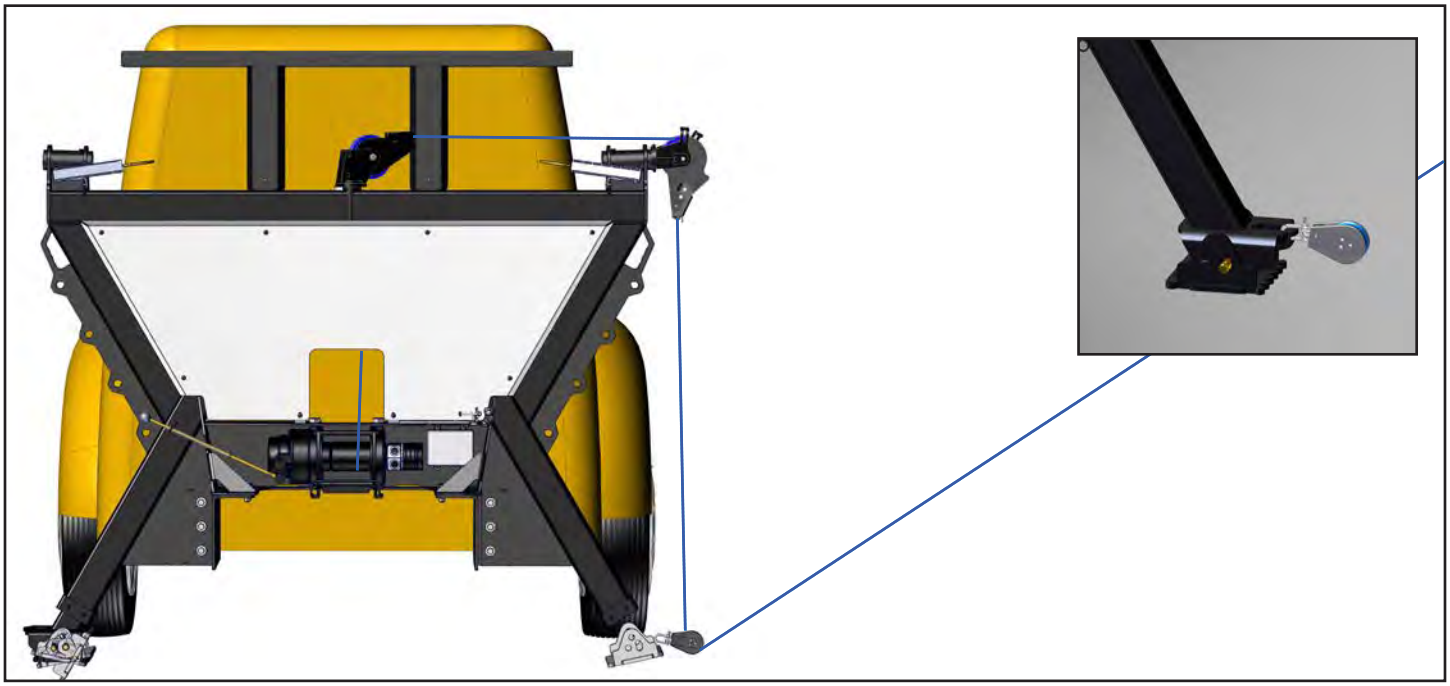
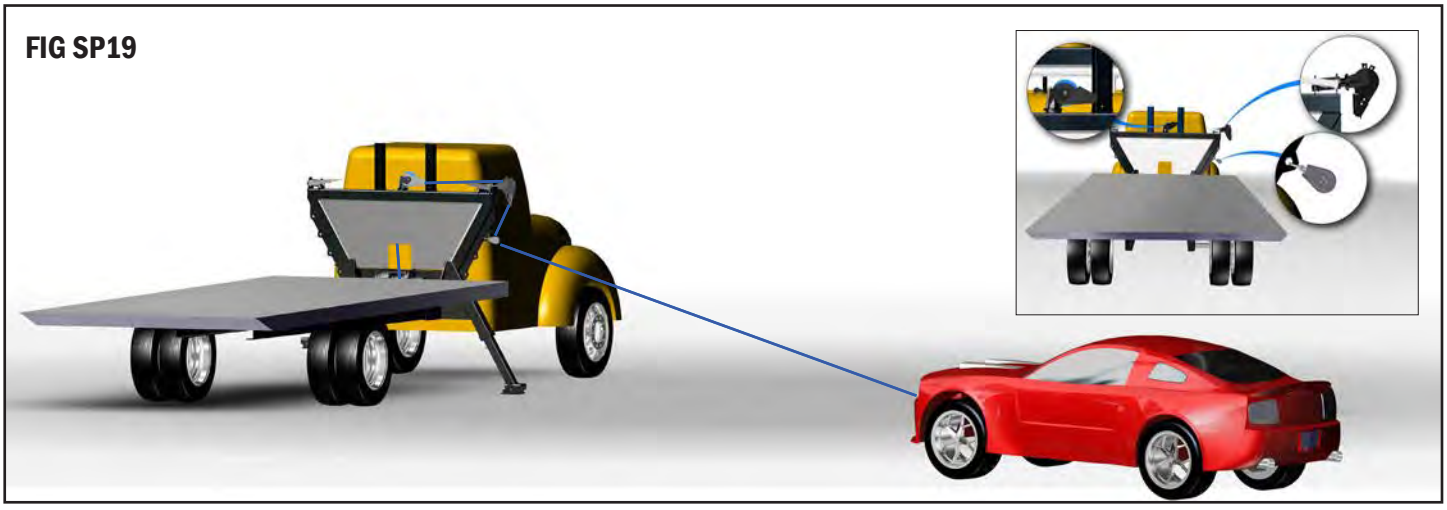


**FIG SP19**



When Rigging from Outer Boom Head Down through a Snatch Block you have alot of options in the direction of pull. You can pull off any of the anchor points on the side of The SidePuller™ Fig 3-1 You can also attach Snatch Block To The Stabilizer Foot and gain a great advantage when pulling a casualty over Fig 3-2 and Fig 3-3.

**FIG SP19-A**

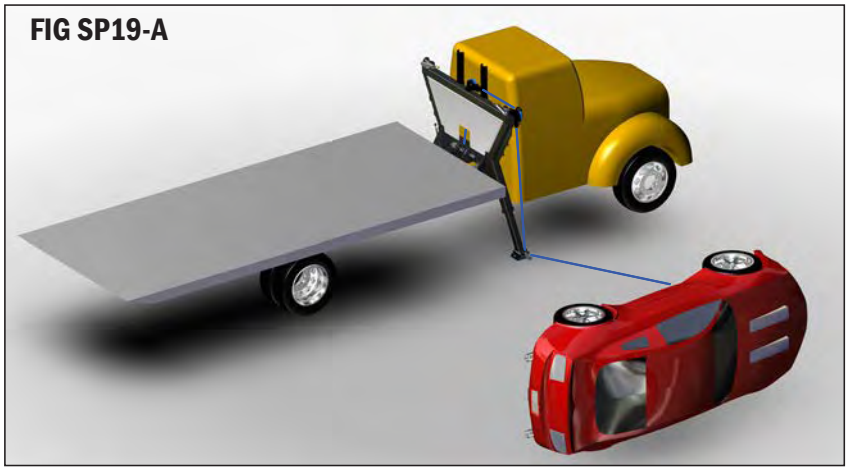
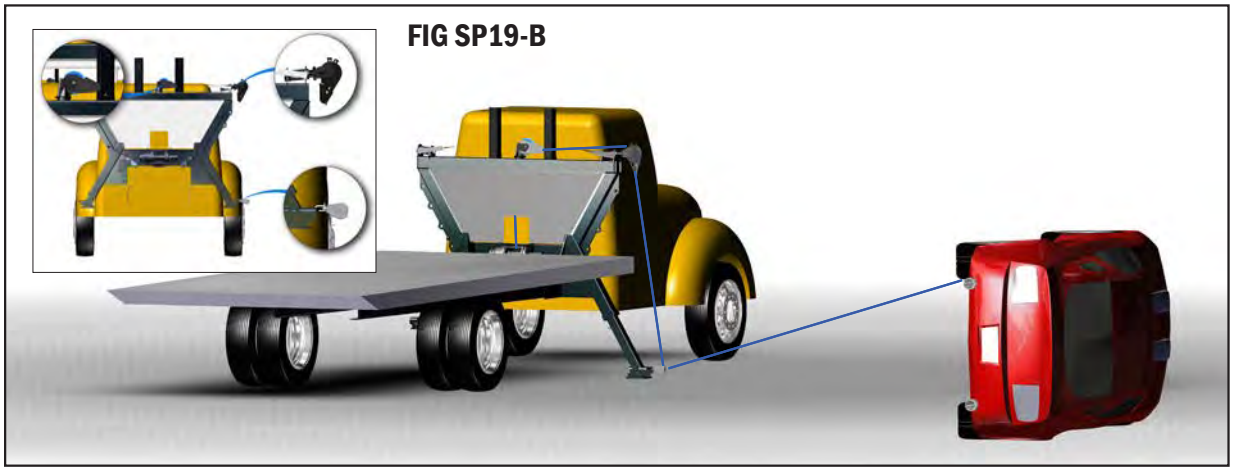


**FIG SP19-B**

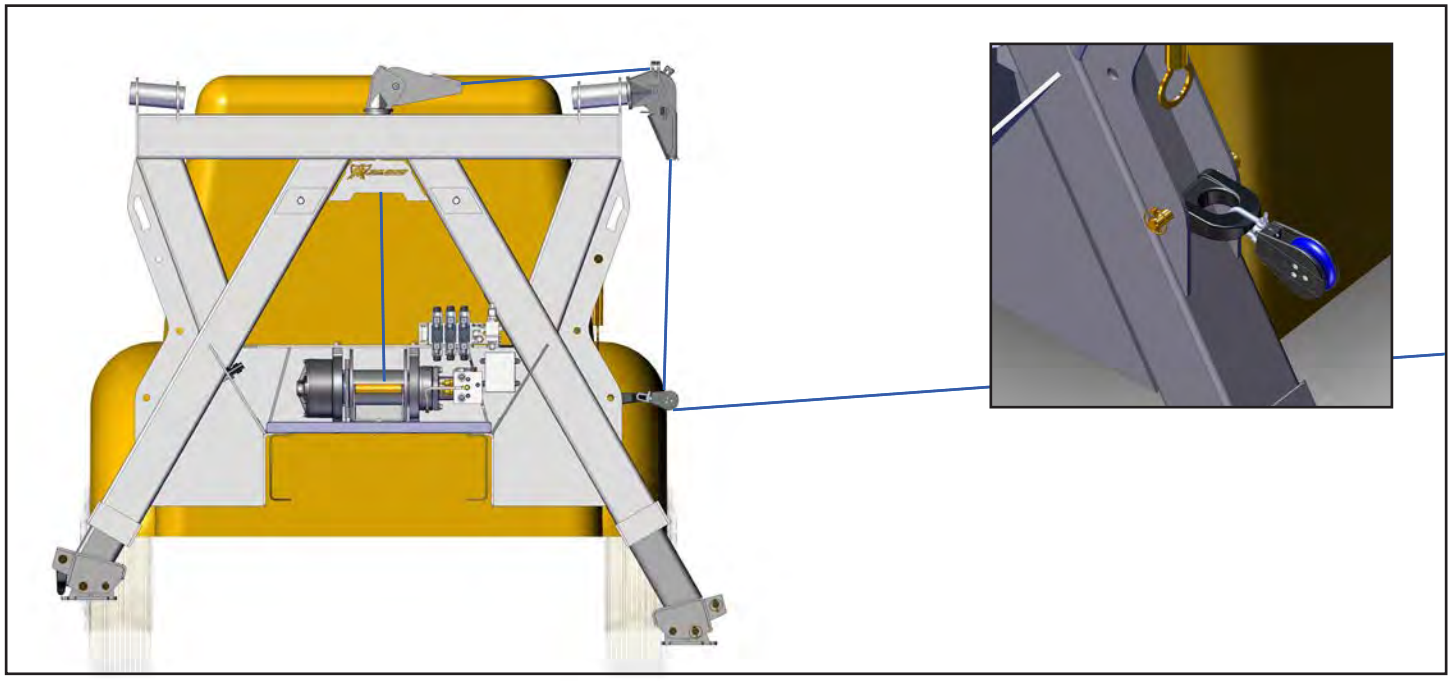


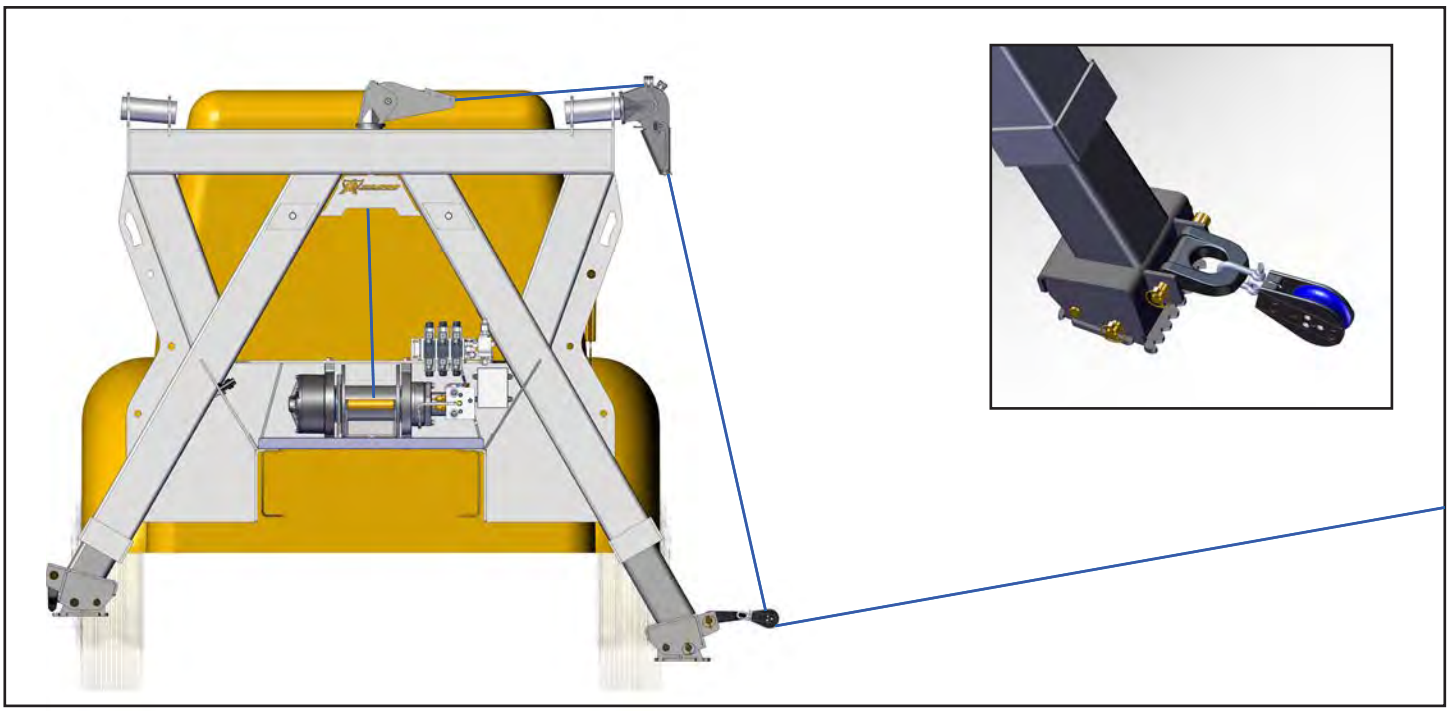
## In The Ditch™ TOWING PRODUCTS RIGGING TIP

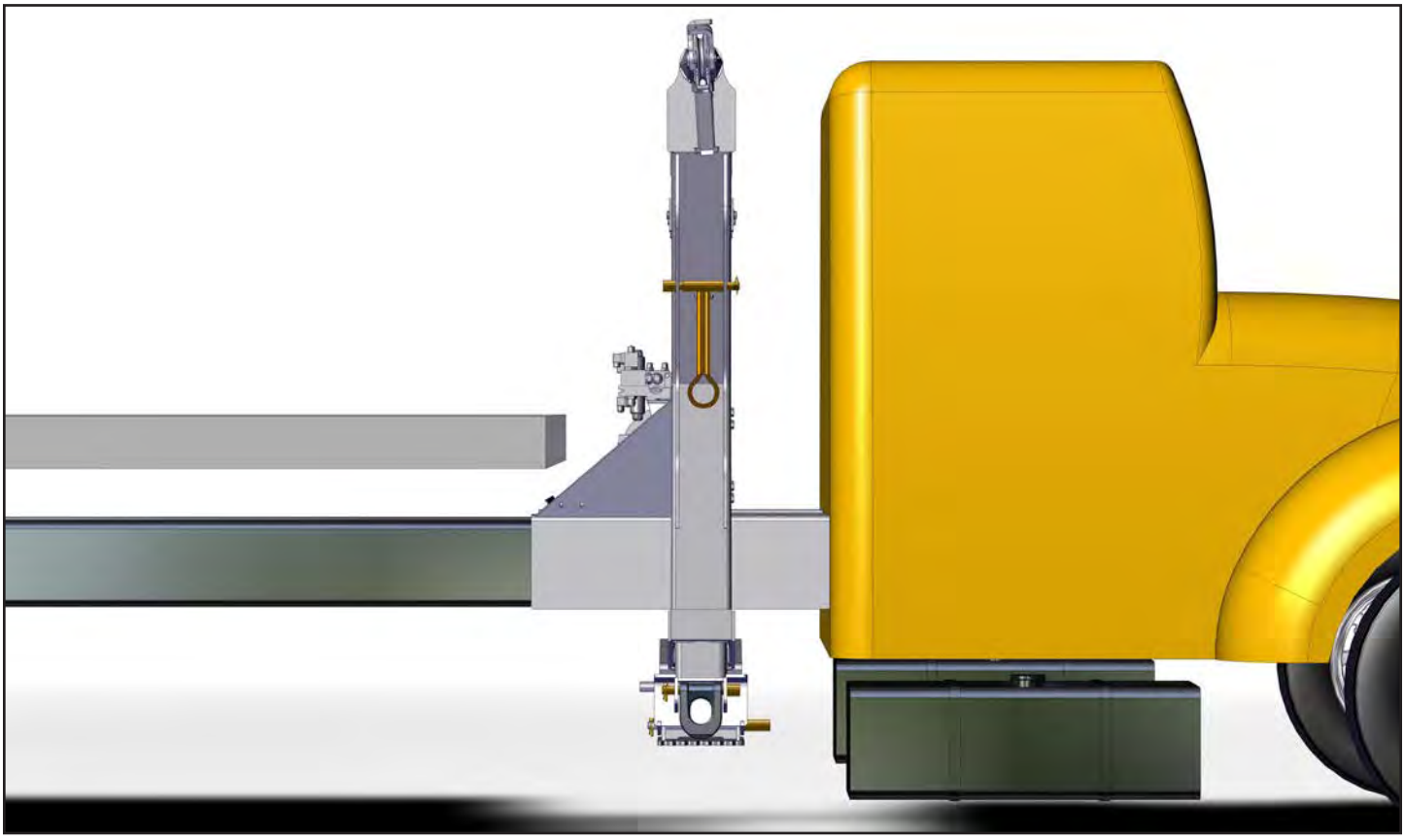
**We recommend that you use a snatch block that is of the proper load rating and that has a sheave at least 12 times the diameter of the wire rope. Example 3/8" Wire rope .375 x 12 = 4.5" Sheave Wheel on your Snatch Block.**

## Rigging through the Center Sheave,Outer Recovery Boom Head and a Snatch Block secured to the D-Ring

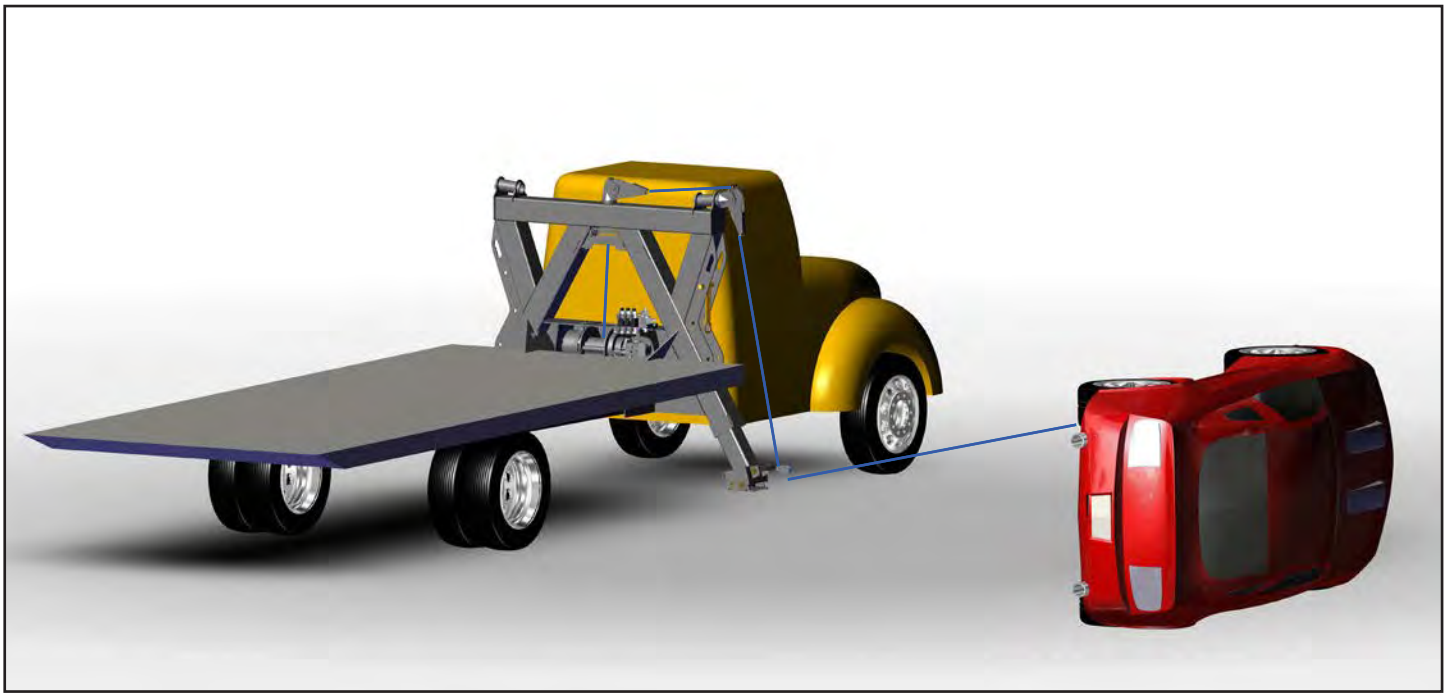
When rigging through the Center Sheave, the Outer Recovery Boom Head, and a Snatch Block secured to the D-Ring of the Stiff Leg, the Stiff Leg must be firmly planted on the ground. Recoveries are limited to a 45-degree radius perpendicular to the unit. This rigging is best used when a vehicle is up an embankment above the unit, or when a Rollover is being performed to right the recovered vehicle. The maximum load capacity for this rigging is dependent upon the W.L.L. of the Wire Rope and Snatch Block.







Using this rigging technique you can  get a low pull and gain a great advantage on the casualty.



## Winch Operation

The following practices should be maintained when using the winch line.

1. Attach the Wire Rope hook to a hook-up chain or sling suitable for the object being loaded. This enables the Wire Rope to pull from the load center and help even spooling of the Wire Rope on the Winch Drum. **DO NOT** attach the Wire Rope hook directly to the object being loaded.

2. **DO NOT** wrap the Wire Rope around an object as this tends to fray or kink the wire.

3. **DO NOT** exceed the Wire Rope working load limit.

4. A minimum of 5 wraps of Wire Rope around the Winch Drum is necessary.

5. Maintain an even wire wrap on the Winch Drum and also observe and ensure that the wire does not climb up the side of the Winch Drum when in use.

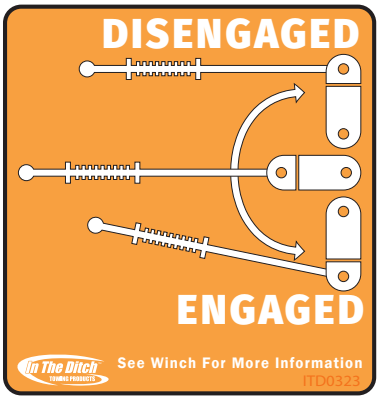
6. Continually observe the Wire Rope condition for kinks, frays, or a build-up of rust. Should any of these conditions be noticed, replace the Wire Rope assembly. Check with Wire Rope dealer for out of service criteria of Wire Rope.

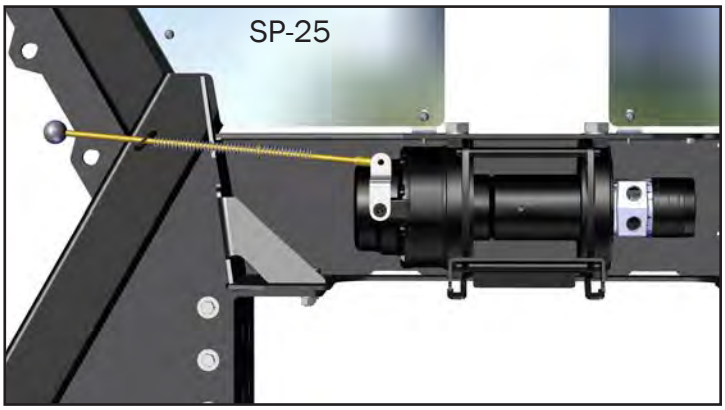
## SP9000™ and SP12,000™ Free Spool Winch Option

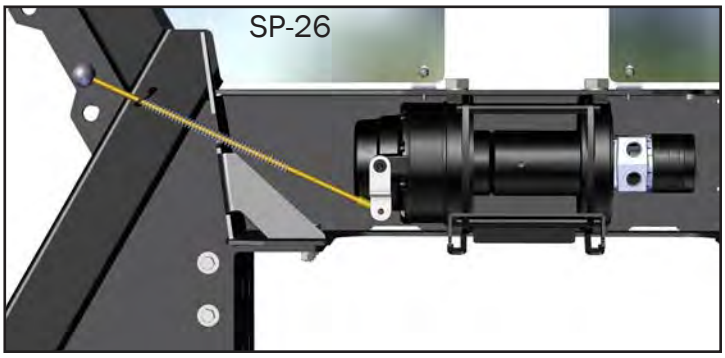
1. The SP9000™ AND SP12,000™ uses a manually activated Free Spool Rod Handle.

2. To Disengage winch be sure Free Spool Rod Handle is in location shown in Figure SP-25

3. To Engage winch be sure Free Spool Rod Handle is in location shown in Figure SP-26





SP-25


SP-26

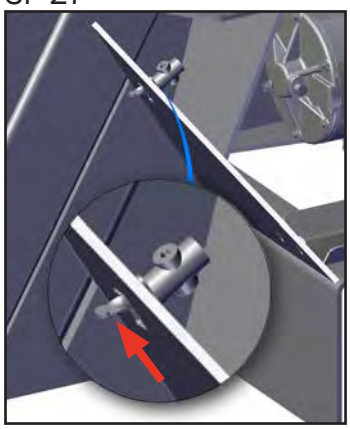
## SP20,000™ Flipper Air Valve

1. The SP20,000™ Uses an Air Operated Free Spool Lever.

2. To release winch be sure Free Spool Rod Handle is in location shown in Figure SP-27

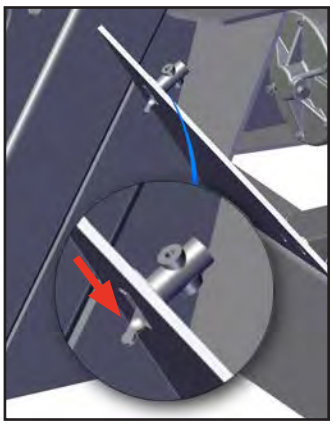
3. To engage winch be sure Free Spool Rod Handle is in location shown in Figure SP-28


SP-27



RELEASED

SP-28



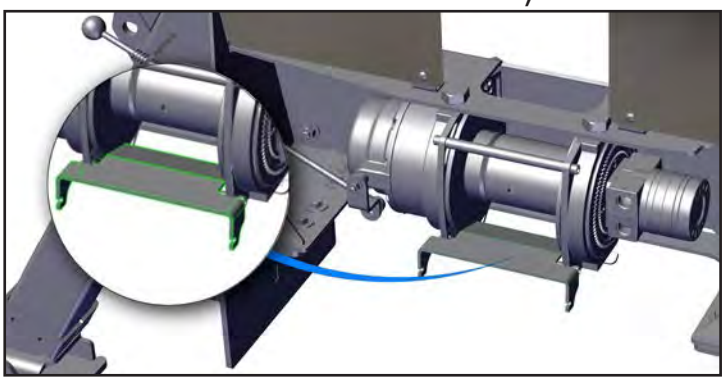
ENGAGED

## Winch Tensioner Plate

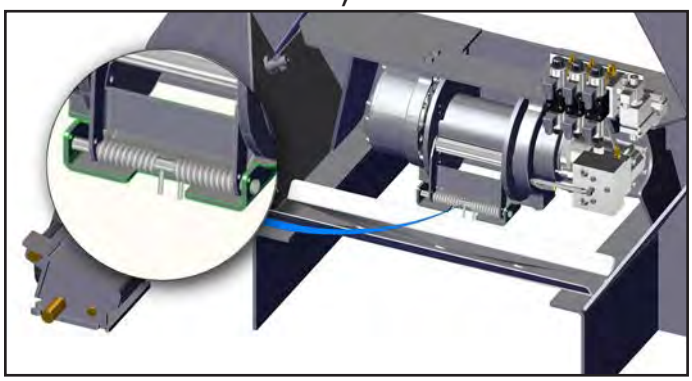
1. The SP9000™ and SP12,000™ use an ITD Exclusive Designed Tensioner Plate. This plate mounts to the bottom of your Warn Winch and is tensioned by 2 springs. Periodic inspection is required by the operator to ensure the tensioner is good operating conditions. **(Do Not operate Winch without Tensioner)**

2. The SP20,000™ uses a Warn Roller Tensioner. Periodic inspection is required by the operator to ensure the tensioner is good operating conditions. **(Do Not operate Winch without Tensioner)**

### SP9000™ AND SP12,000™



### SP20,000™



**WARNING**

**BEFORE OPERATING THE WINCH, REFER TO THE WARN WINCH OPERATOR'S MANUAL FOR COMPLETE UNDERSTANDING OF WINCH OPERATING PROCEDURES.**

**WHEN USING THE FREE SPOOL CONTROL, YOU MUST ENSURE THAT THE DRUM CLUTCH IS REENGAGED AND FULLY SEATED BEFORE WINCHING BEGINS. IF THE DRUM CLUTCH IS NOT FULLY ENGAGED BEFORE WINCHING BEGINS, IT MAY POP OUT AND ALLOW THE WINCH TO FREE SPOOL. REFER TO WINCH OPERATIONS MANUAL.**

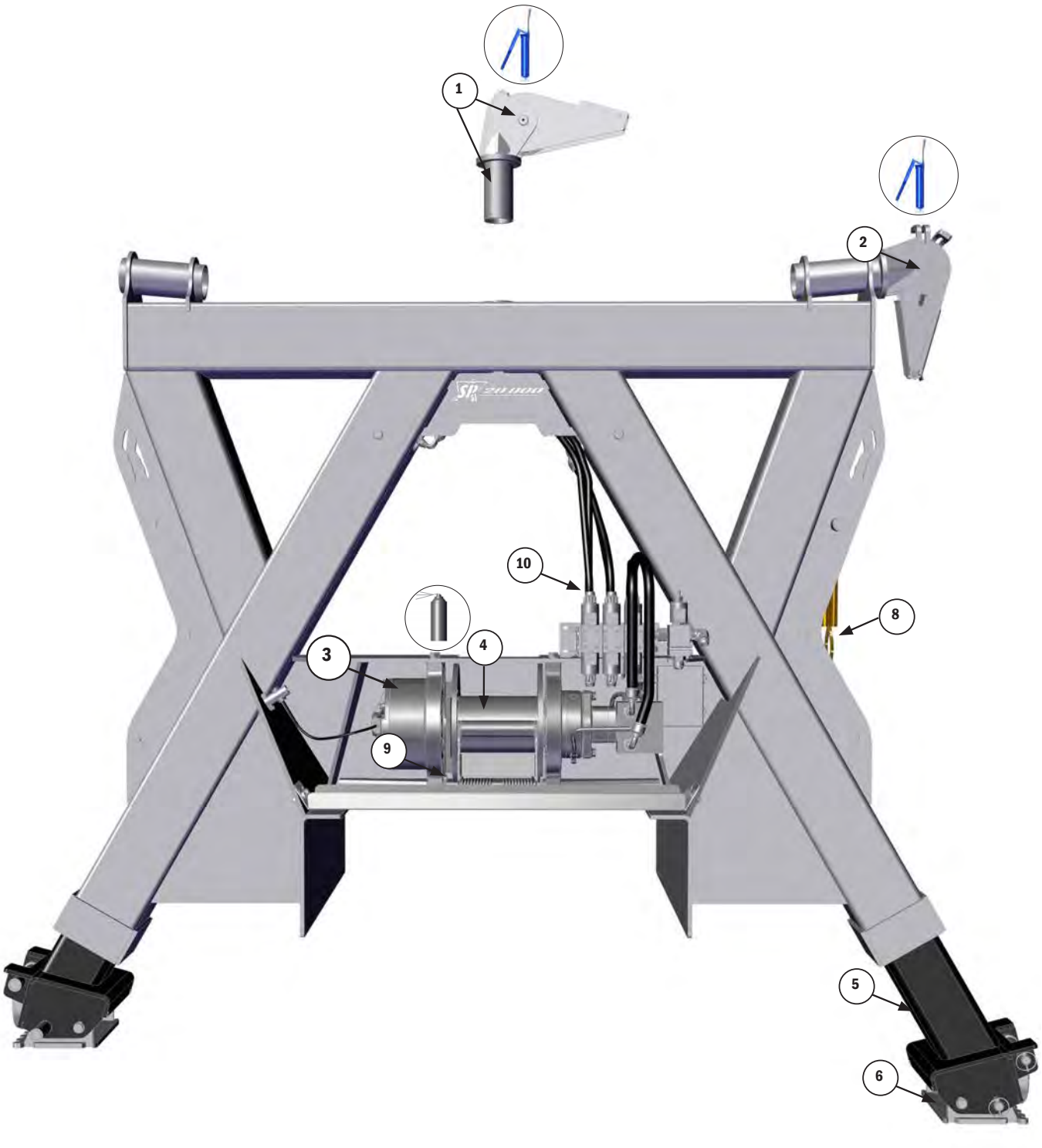
# MAINTENANCE

The simple design nature of the SP Series™ SidePullers™ makes for simple maintenance. For longer life expectancy of your SP Series™ SidePullers™ ,efficient and safe usage, ITD recommends performing routine maintenance on the unit.

1. Perform a walk around visual inspection of the SP Series™ SidePuller™ on a per use basis. (Refer to SP Series™ Operation Section)
2. There are two (2) Lubrication Fittings or Zerks (See Figures) on the SP12,000™ & SP20,000™; one on each boom head sheave. Three (3) Lubrication Fittings or Zerks (See Figures) on the SP9000™. Grease the Zerks after each use.
3. Inspect all SP Series™ accessories before each use including Screw Pin Shackles, Wire Rope, and Snatch Blocks

# MAINTENANCE CHECKLIST

- ☐ 1. Grease Center Recovery Boom Head 
- ☐ 2. Grease Outer Recovery Boom Head 
- ☐ 3. Inspect Winch
- ☐ 4. Inspect Wire Rope and Lubricate 
- ☐ 5. Inspect Inner leg Assembly
- ☐ 6. Inspect Stabilizer Foot
- ☐ 7. Inspect electrical wiring
- ☐ 8. Spring tube spring (Wire rope tie back
- ☐ 9. Tension springs
- ☐ 10. Inspect hydraulic hoses ( Models with Integrated Controls)



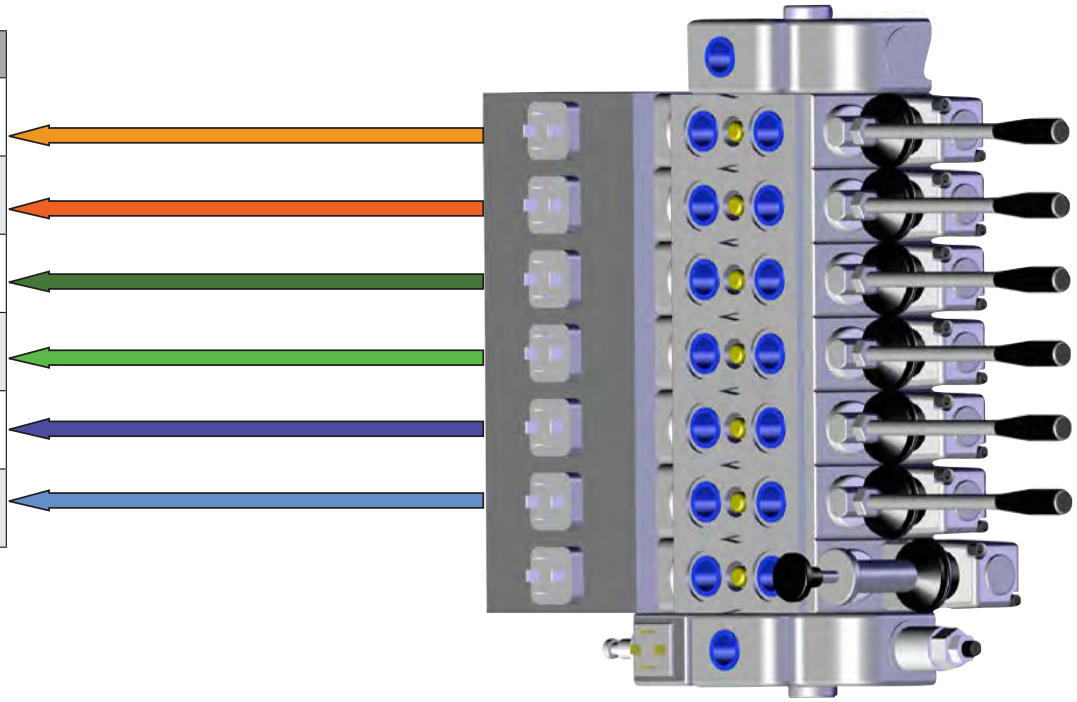

## TECH TIP

**We cannot express enough the importance of keeping your wire rope well lubricated. We recommend that you lube your new rope and lube wire at least once per month.**

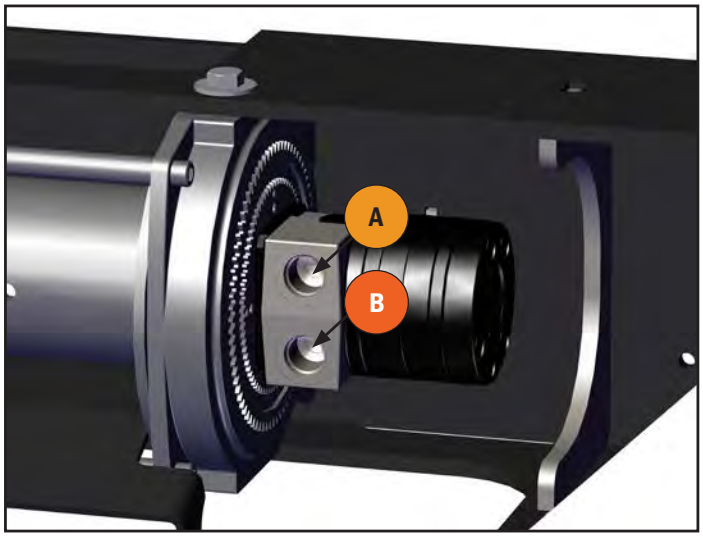
# APPENDIX: HYDRAULIC AND ELECTRICAL SYSTEMS

## SP Series™ Product Hydraulic Schematic

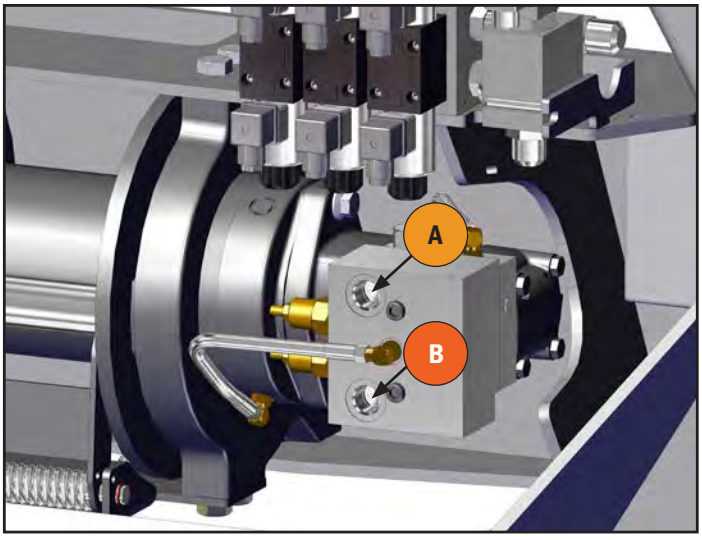
| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |

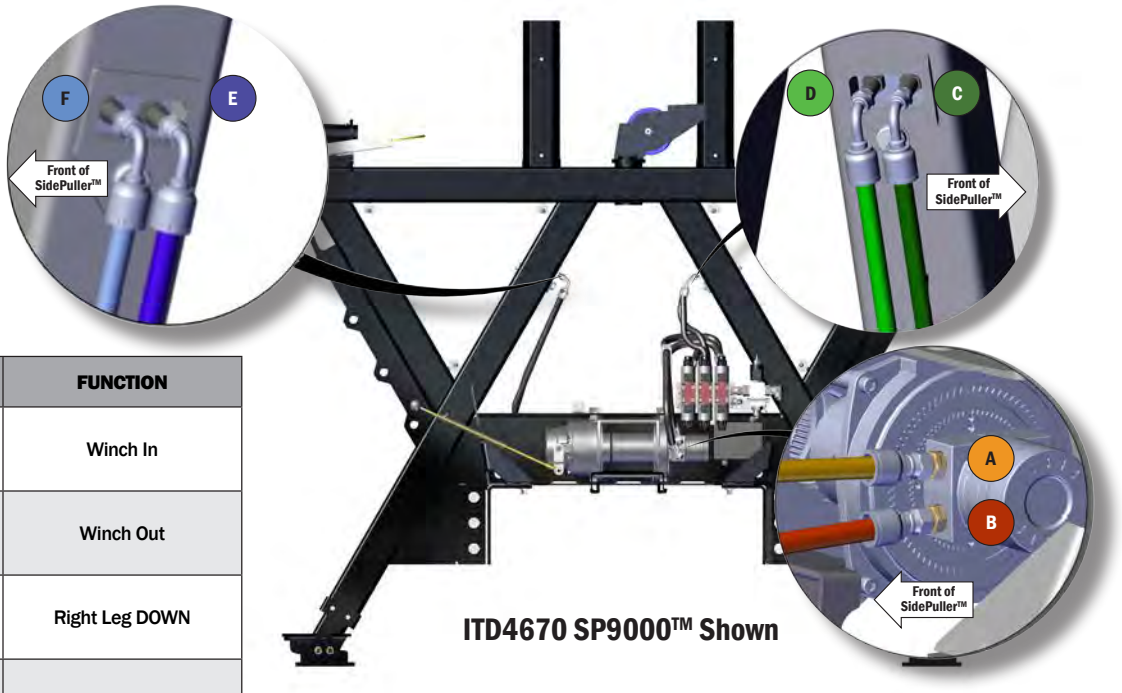



**SP9000™ and SP12,000™**




**SP20,000™**





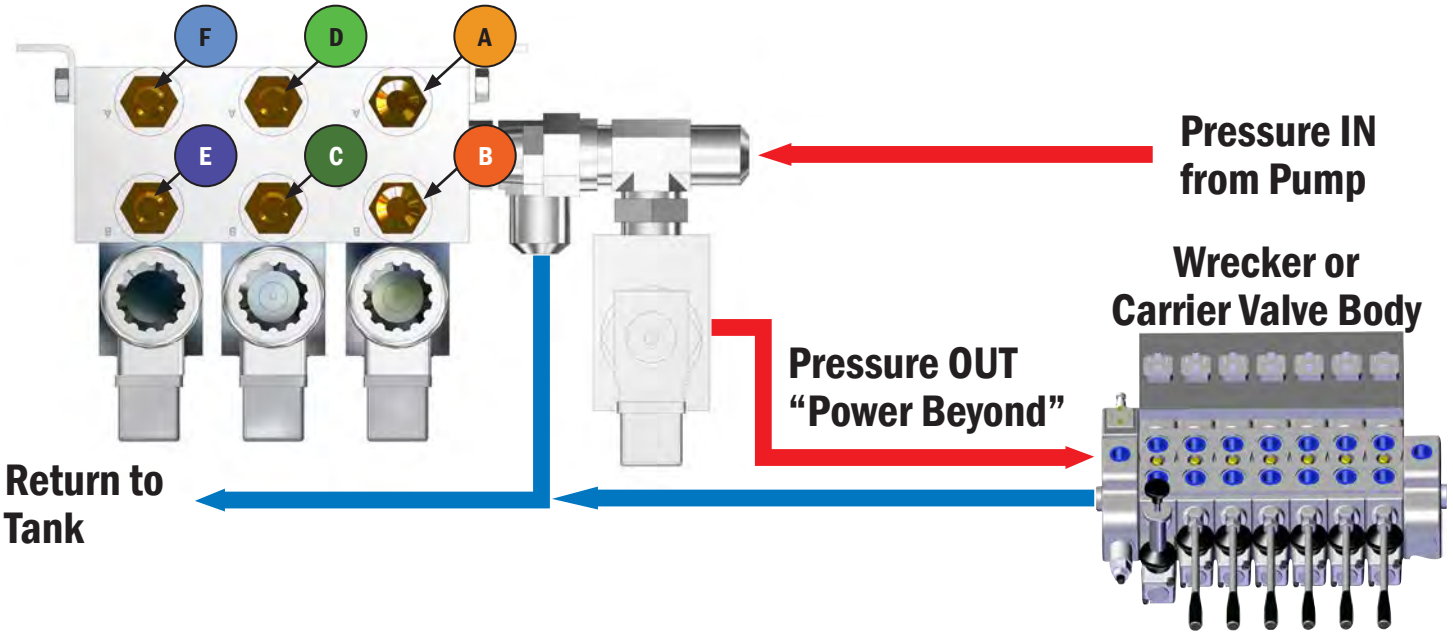

ITD4670 SP9000™ Shown

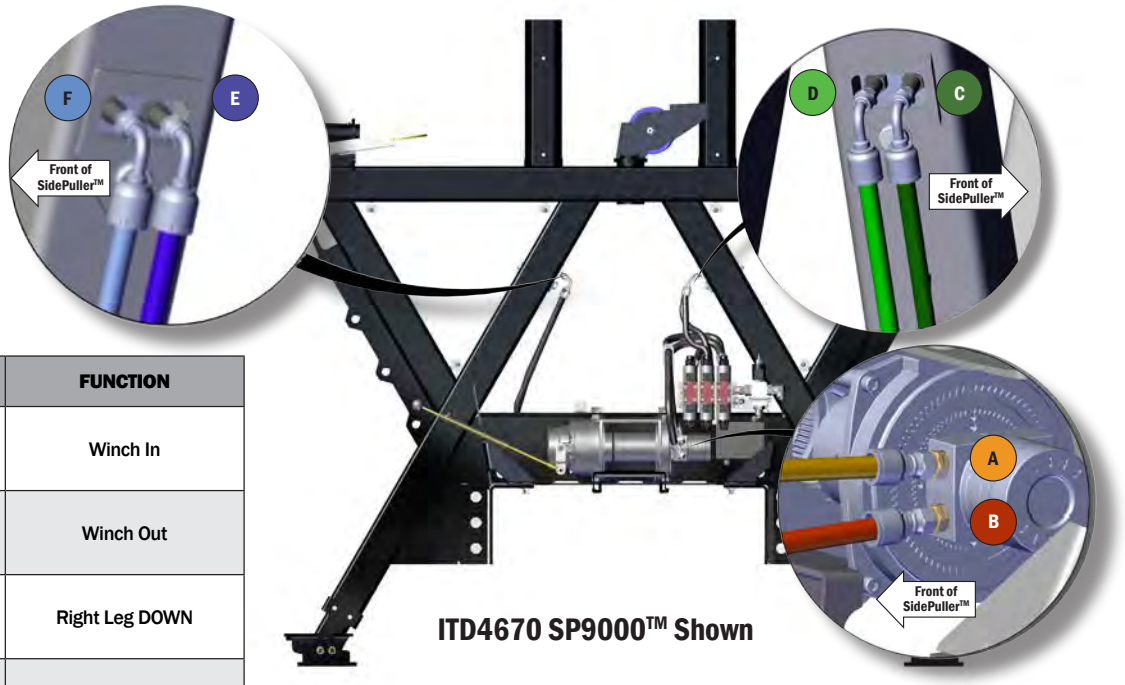
| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |

**From Valve Body Plumb Hydraulic Lines Into Ports**

# SP Series™ Product Hydraulic Schematic (Integrated Controls with Power Beyond)

## SP Series™ - Hydraulic Valve



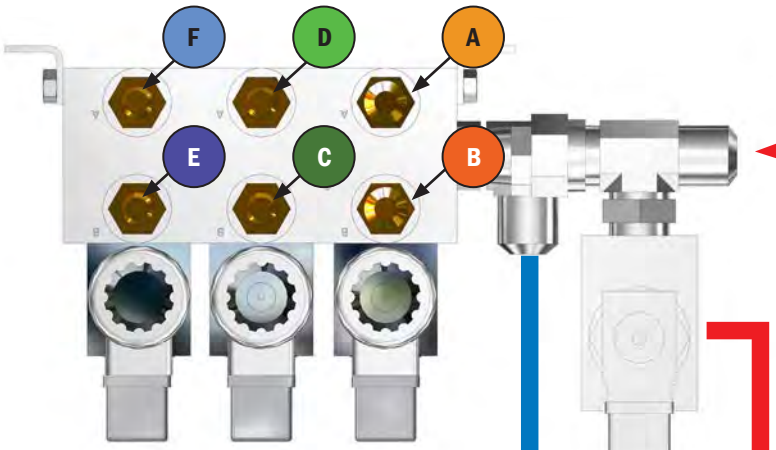




ITD4670 SP9000™ Shown

| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |

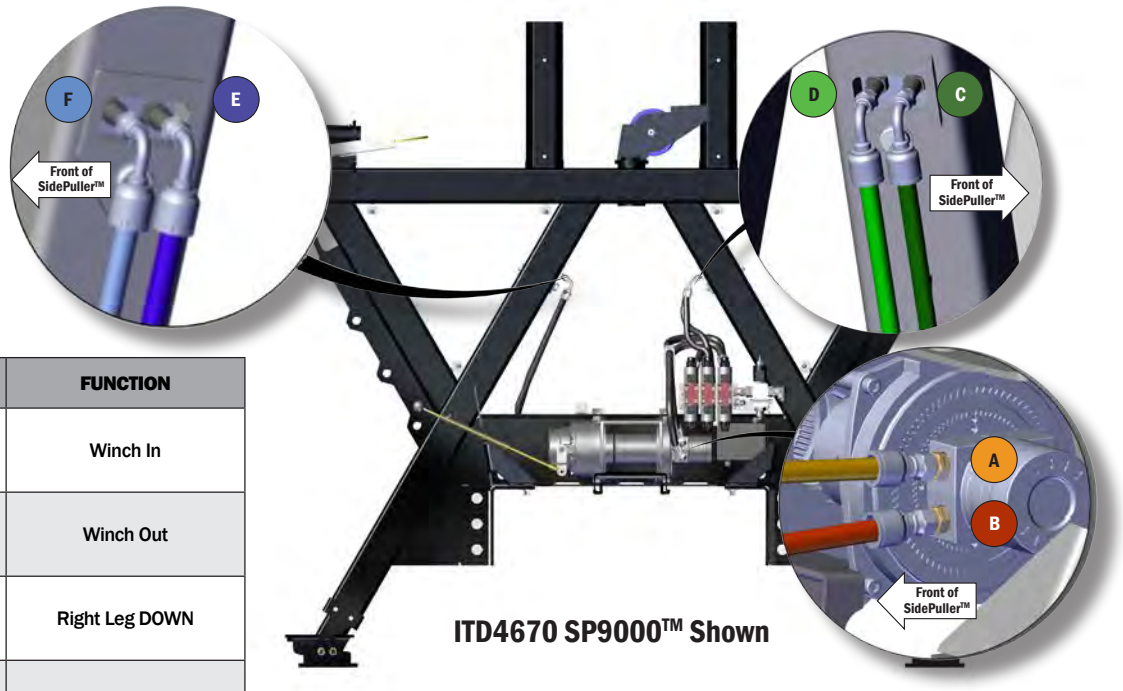
# SP Series™ Product Hydraulic Schematic (Stand Alone System)

## SPSeries™ - Hydraulic Valve




**Pressure IN from Pump**

**Return to Tank**




**ITD4670 SP9000™ Shown**

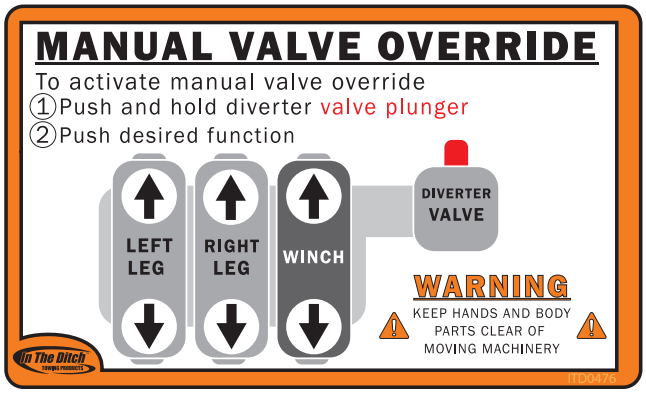
| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |

## Manual Valve Override

In the event that your wireless remote does not work. You can manually operate your SidePuller™ control using the Manual Override Buttons. These functions are for emergency use only and should only be used to allow you to get back to the shop for repairs. Extreme Caution must be used when using the functions to ensure all body parts are clear of winch lines, winch, and stabilizer legs. To operate Override functions you must have Truck Running PTO on, Brakes set and wheels chocked.

**Step 1** - Remove Plastic Cap From Diverter Valve, depress and hold the Red Button.

**Step 2** - While Depressing the Red Diverter Valve Button, press and hold the desired SidePuller Function.




## SP Series™ Product Electrical Schematic

**Hydraulic Manifold Assembly**

**SP Wireless Receiver Control Box**

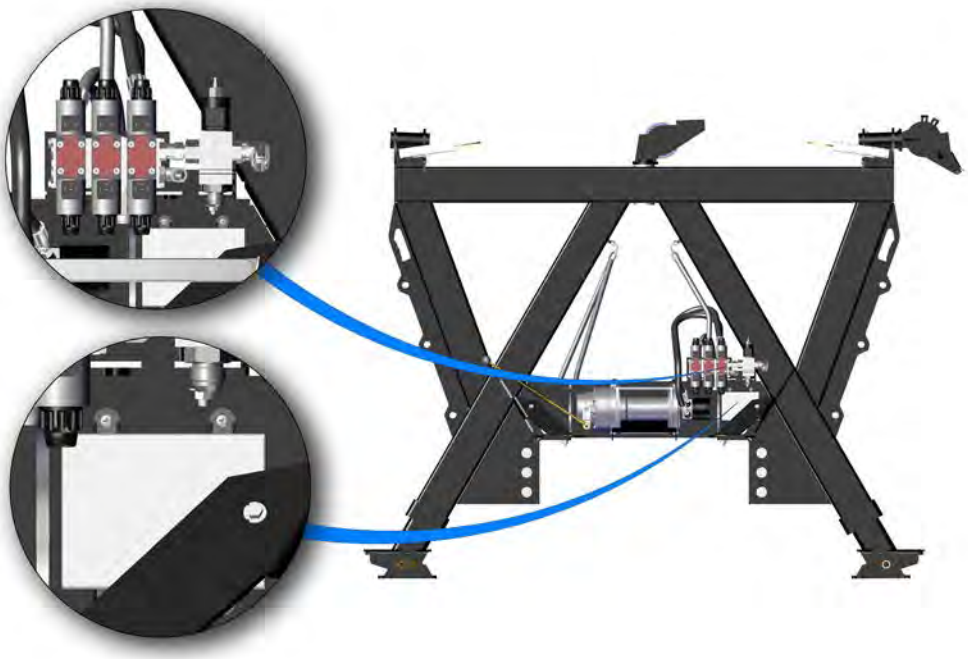
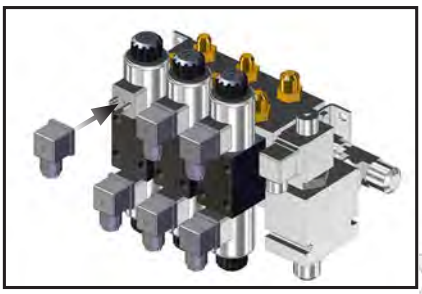


FIG 2-1

# Electrical Wiring Diagram






| PORT | FUNCTION |
|---|---|
| A | Winch In |
| B | Winch Out |
| C | Right Leg DOWN |
| D | Right Leg UP |
| E | Left Leg DOWN |
| F | Left Leg UP |

# In The Ditch™

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