



TA TOP AIR Self-Leveling Boom

30' MANUAL-FOLD BOOM

Part No. 41879

Foreword

 This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, “Right-Hand” (RH) and “Left-Hand” (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.



Product Information

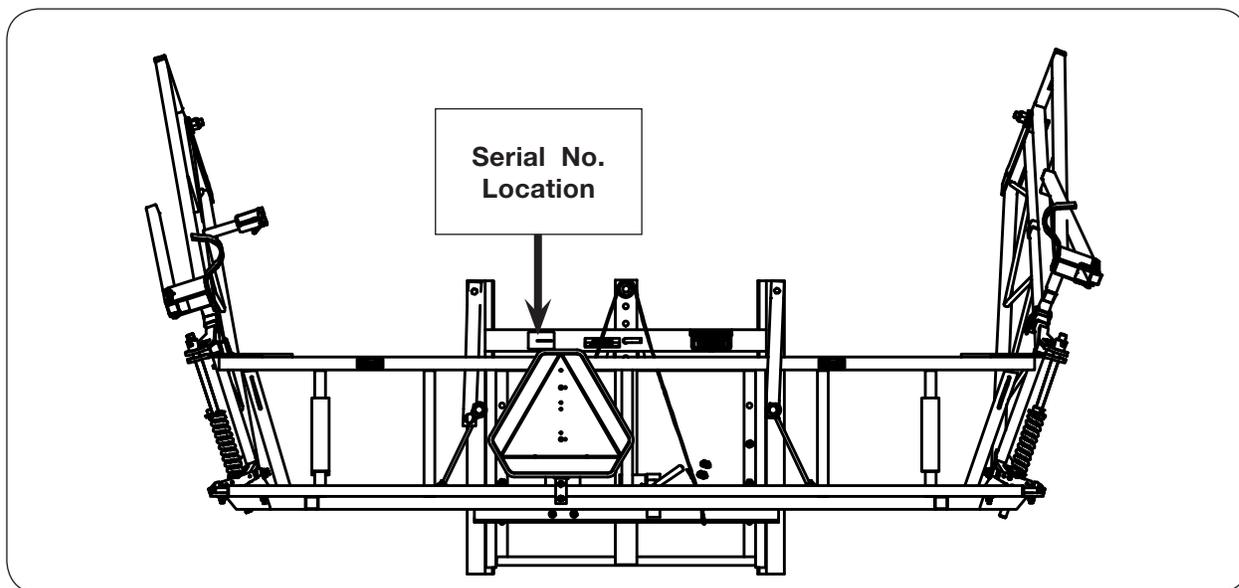
All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

Please fill out and retain this portion for your records. The serial number decal is located on the top of the center section frame as shown below.

Purchase Date _____ Model _____ Serial No. _____

Dealer _____ City _____

Dealer Contact _____ Phone _____



IMPORTANT

- *The information, specifications, and illustrations in the manual are based on information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.*

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SECTION I

Safety

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General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, "the best kind of a safety device is a careful operator." We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.



REMEMBER:
THINK SAFETY
A CAREFUL OPERATOR IS THE
BEST INSURANCE AGAINST AN
ACCIDENT!

SIGNAL WORDS



INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.



INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.



INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.

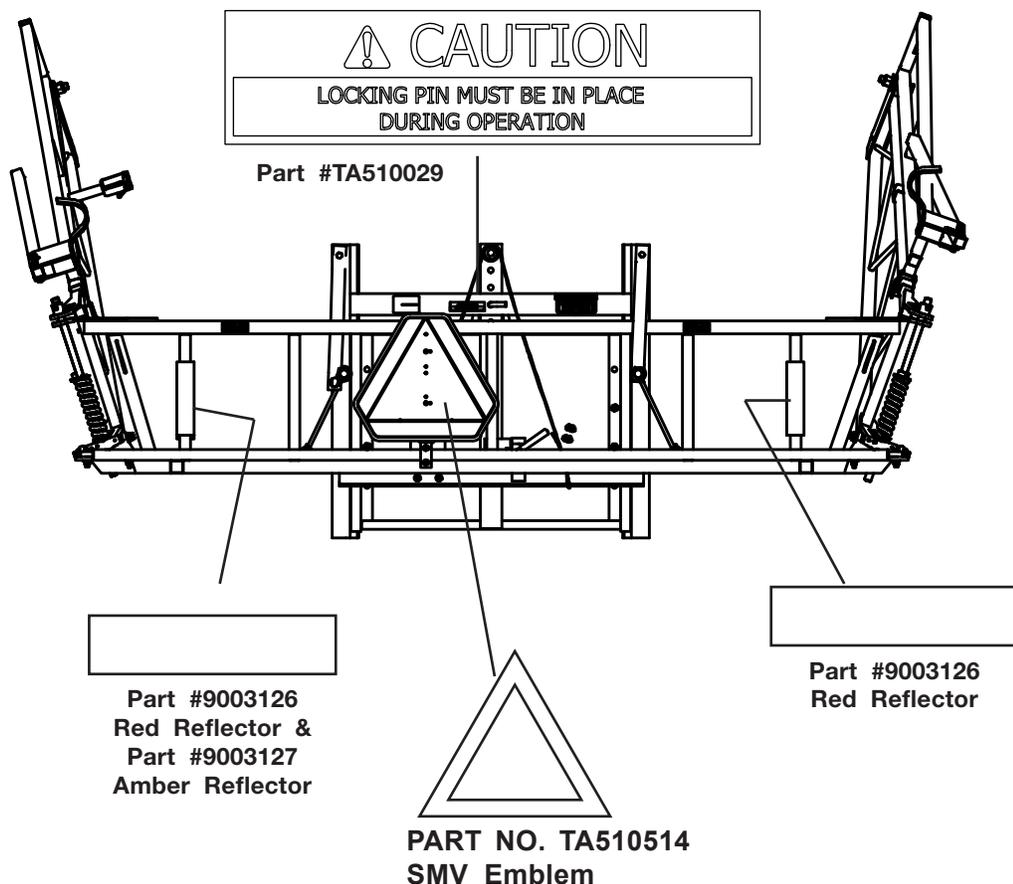


Is used for instruction on operating, adjusting, or servicing a machine.

Safety Decals

⚠ WARNING

REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.



Following Safety Instructions

- Read and understand this operator's manual before operating.



- All machinery should be operated only by trained and authorized personnel.

- To prevent machine damage, use only attachments and service parts approved by the manufacturer.

- Always shut tractor engine off and remove key before servicing.



- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.

- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle.



- Never attempt to operate implement unless you are in driver's seat.



Before Servicing

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked.



- Verify that all safety shields are in place and properly secured.



- Ensure that all applicable safety decals are installed and legible.

- When working around the implement, be careful not to be cut by sharp edges

- Secure drawbar pin with safety lock and lock tractor drawbar in fixed position.

Before Operating

- Do not stand between towing vehicle and implement during hitching.



- Always make certain everyone and everything is clear of the machine before beginning operation.

- Verify that all safety shields are in place and properly secured.



- Ensure that all applicable safety decals are installed and legible.

- When working around the implement, be careful not to be cut by sharp edges

- Secure drawbar pin with safety lock and lock tractor drawbar in fixed position.

Chemical Hazards

- Always wear personal protective equipment when working with or near chemicals. This equipment includes, but is not limited to: protective eye wear, gloves, shoes, socks, long-sleeved shirt, and long pants. Additional protection may be required for many types of chemicals.
- Spray tanks may contain residual toxic chemicals. **DO NOT ENTER SPRAY TANK FOR ANY REASON WITHOUT WEARING PROPER VENTILATION EQUIPMENT.** Failure to do so may result in asphyxiation and death.
- Seek and receive chemical product training prior to using agricultural chemicals
- Read and understand the entire label of every chemical being applied with this sprayer.
- Avoid breathing spray mist or vapor.
- Wash hands and exposed skin immediately after contact with spray/fertilizer solution and application equipment.
- Remove clothing immediately if chemicals penetrate clothing and contact skin. Wash thoroughly and put on clean clothing.
- Dispose of unused chemical in accordance with chemical label directions and local/national regulations.

Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.



- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.



Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.



- Wear steel-toed shoes when operating.



- Wear hearing protection when exposed to loud noises.



- Do not wear additional hearing impairing devices such as radio headphones, etc.



SECTION II
Set Up & Maintenance

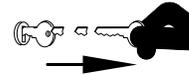
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Set Up Instructions

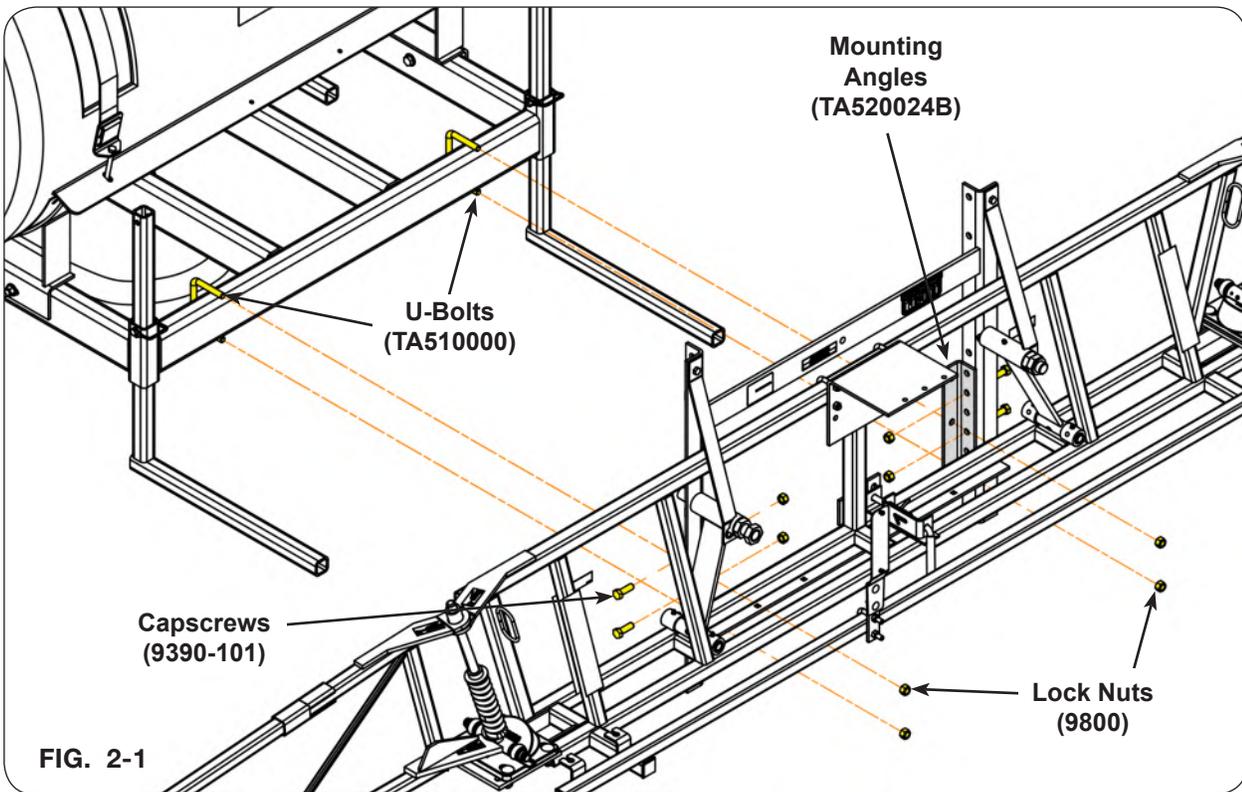
WARNING

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 500 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

1. Park the unit on a firm level surface. Set the towing vehicle parking brake, shut off the engine, and remove the ignition key.



2. Using a safe lifting device rated at a minimum of 500 lbs., assemble boom to frame of sprayer by using mounting angles (TA520024B), 1/2"-13UNC x 1 1/2" capscrews (9390-101), 1/2"-13UNC U-bolts (TA510000), and 1/2"-13UNC lock nuts (9800) (FIG. 2-1).

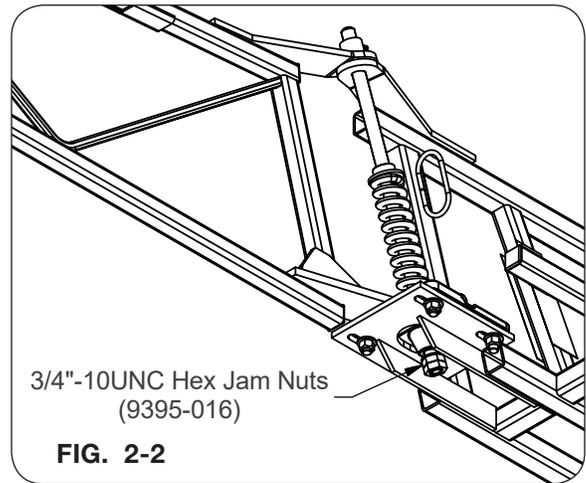


3. Grease all grease zerks daily.

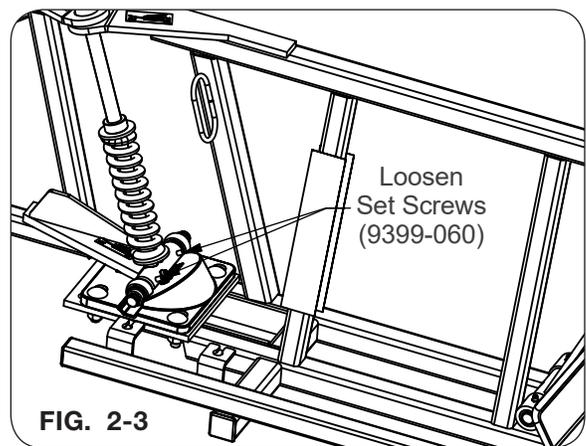
4. Assemble nozzle clamps and hoses in desired position for application of sprayer.

Changing Breakaway Wheels or Breakaway Capscrews

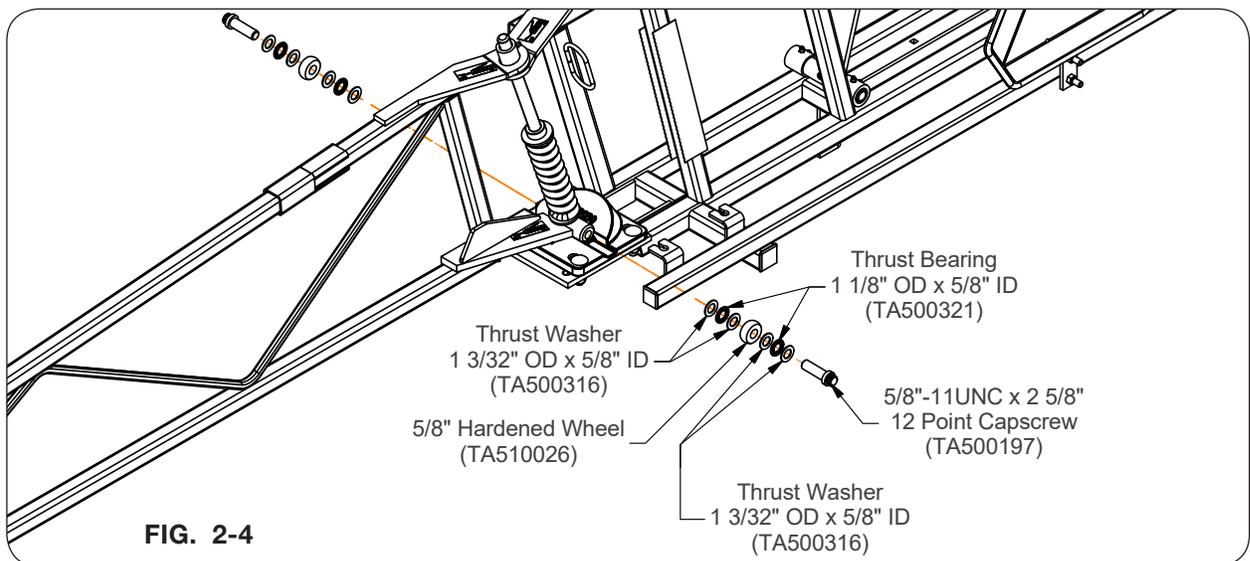
1. Loosen the 3/4"-10UNC hex jam nuts on the threaded rod which will relieve the tension on the spring. (FIG. 2-2)



2. Loosen the set screws that lock the wheel capscrews in place and remove the wheel capscrews (FIG. 2-3). This will also allow the wheel, thrust bearings, and thrust washers to be removed.



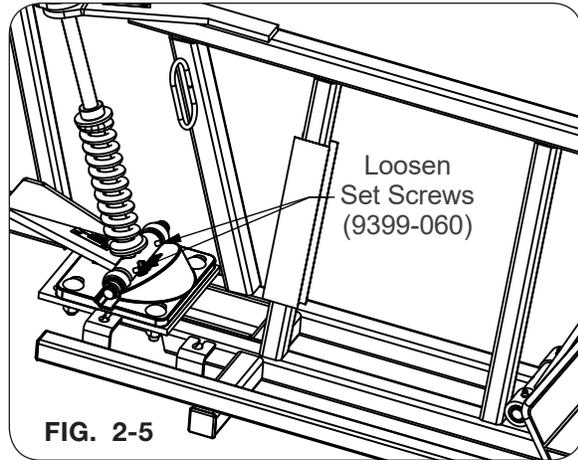
3. Replace the capscrews, wheels, thrust bearings, and thrust washers. (FIG. 2-4)



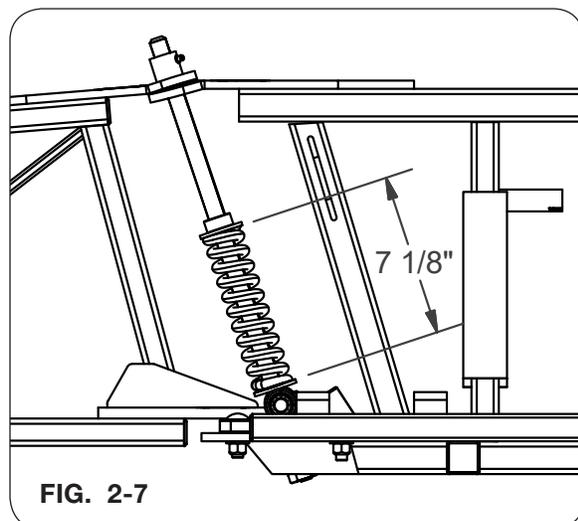
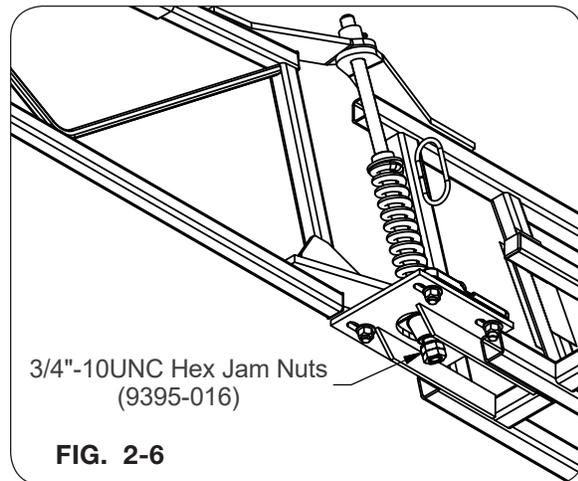
4. Tighten wheel capscrews so it turns tightly (FIG. 2-4). Wheel should not spin freely.

Changing Breakaway Wheels or Breakaway Capscrews

5. Tighten set screws to lock wheel capscrews in place. (FIG. 2-5)



6. Tighten 3/4"-10UNC hex jam nuts on threaded rod and compress spring to 7 1/8" (FIG. 2-6 and FIG. 2-7).



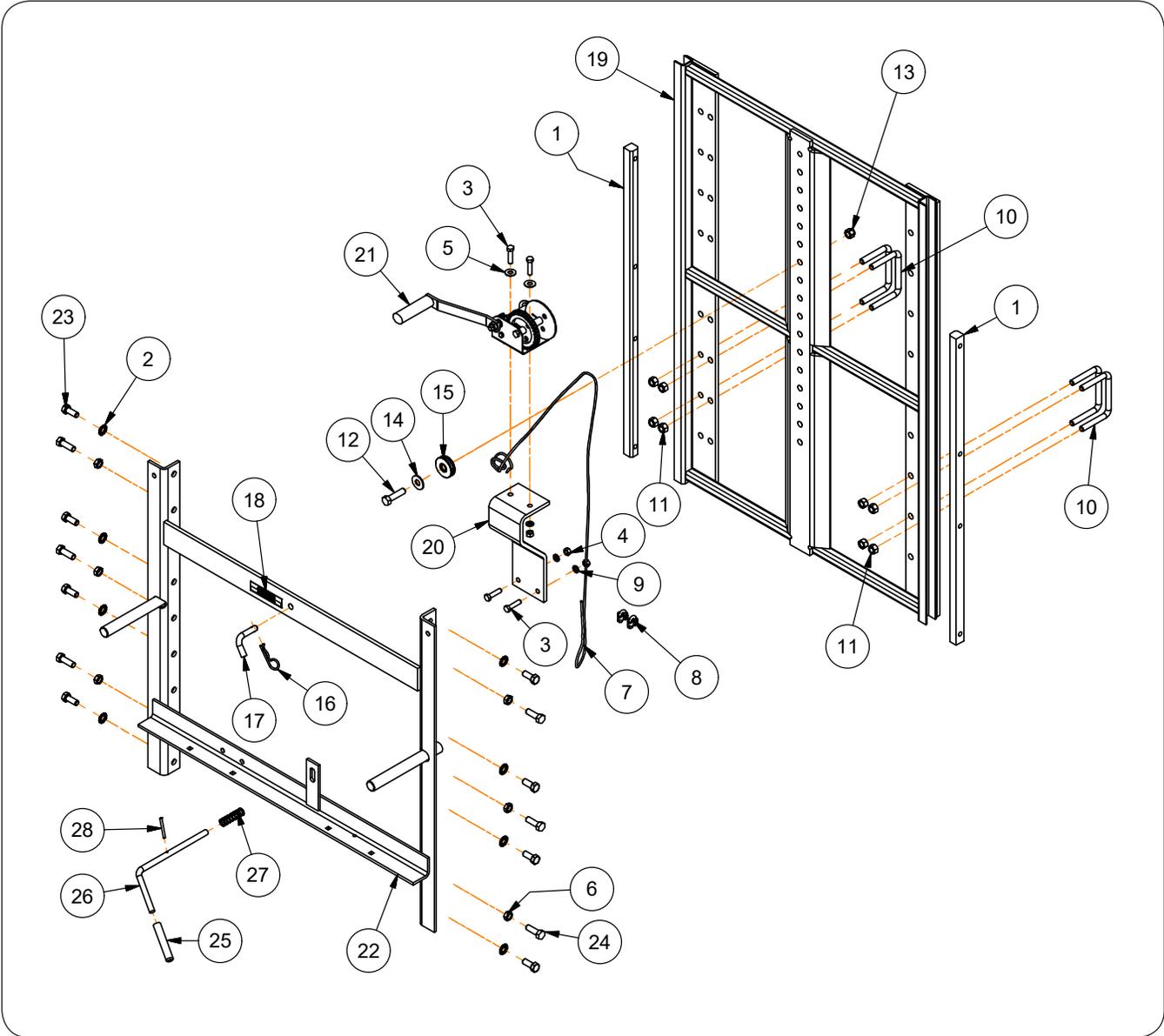
7. Grease all grease zerks daily.

SECTION III

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Manual Lift Assist Components

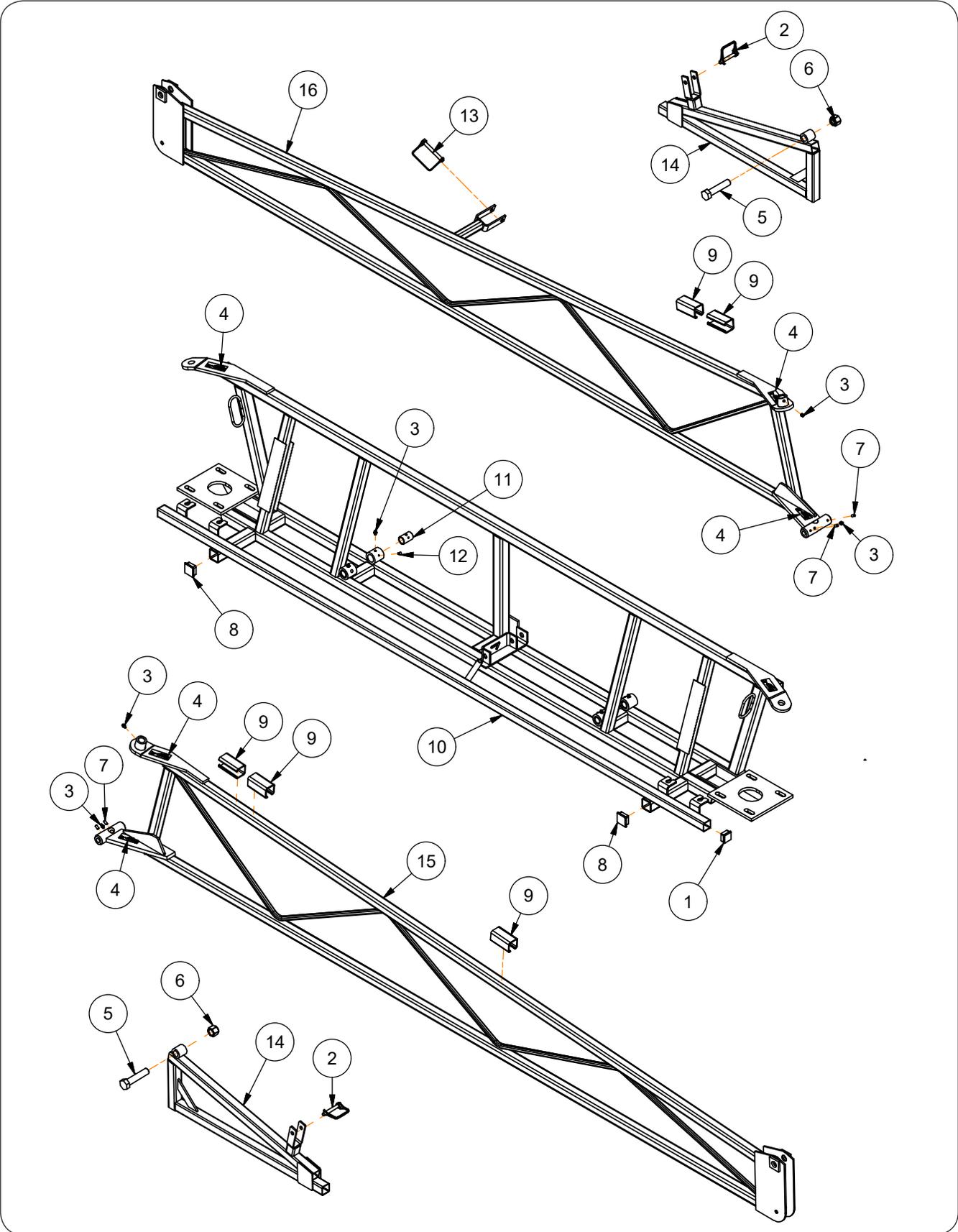


SELF-LEVELING BOOM — Parts

Manual Lift Assist Components

| ITEM | PART NO. | QTY. | DESCRIPTION | NOTES |
|------|--------------|------|--|-----------------------------|
| | TA102072 | - | Self-Leveling Boom Winch Kit | Includes Items 1 through 24 |
| 1 | TA520060 | 2 | Winch Bar | |
| 2 | TA500470 | 8 | External Star Washer 1/2" I.D. | |
| 3 | 9390-057 | 4 | Capscrew 3/8"-16UNC x 1 1/2" | Grade 5 |
| 4 | 9394-006 | 4 | Hex Nut 3/8"-16UNC | |
| 5 | 9405-076 | 2 | Flat Washer 3/8" USS | |
| 6 | 9395-010 | 6 | Hex Jam Nut 1/2-13UNC | |
| 7 | 96709 | A/R | Cable 3/16" Dia. | Specify Length in Feet |
| 8 | TA0-902635-0 | 2 | Cable Clamp For 3/16" Cable | |
| 9 | 9404-021 | 4 | Lock Washer 3/8" I.D. | |
| 10 | TA510000 | 2 | U-Bolt 1/2"-13UNC x 3.25" x 4 1/2" | |
| 11 | 9800 | 4 | Locknut 1/2"-13UNC | |
| 12 | 9390-103 | 1 | Capscrew 1/2"-13UNC x 2" | Grade 5 |
| 13 | 9398-016 | 1 | Elastic Stop Nut 1/2-13UNC | |
| 14 | 9405-088 | 1 | Flat Washer 1/2" USS | |
| 15 | TA500342 | 1 | Pulley | |
| 16 | 9806 | 1 | Hairpin Cotter .148" Dia. x 2.68" | |
| 17 | 902450 | 1 | Bent Pin 1/2" Dia. x 1 7/32" | |
| 18 | TA510029 | 1 | Decal, CAUTION (Locking Pin) | |
| 19 | 41778B | 1 | Sliding Center Section Weldment Manual Assist Frame Mount | |
| 20 | 41310B | 1 | Winch Support Bracket | |
| 21 | 9501907 | 1 | Winch | |
| 22 | TA580021B | 1 | H-Frame Weldment | |
| 23 | 9390-100 | 8 | Capscrew 1/2"-13UNC x 1 1/4" | Grade 5 |
| 24 | 9390-101 | 6 | Capscrew 1/2"-13UNC x 1 1/2" | Grade 5 |
| 25 | TA510453 | 1 | Handle Grip | |
| 26 | TA522140B | 1 | Lock Pin 1/2" Dia. x 12 5/8" Long | |
| 27 | TA510035 | 1 | Compression Spring 2 1/2" Long | |
| 28 | 900909-105 | 1 | Roll Pin 3/16" Dia. x 2" | =Stainless Steel= |

30' Wing & Extension Components



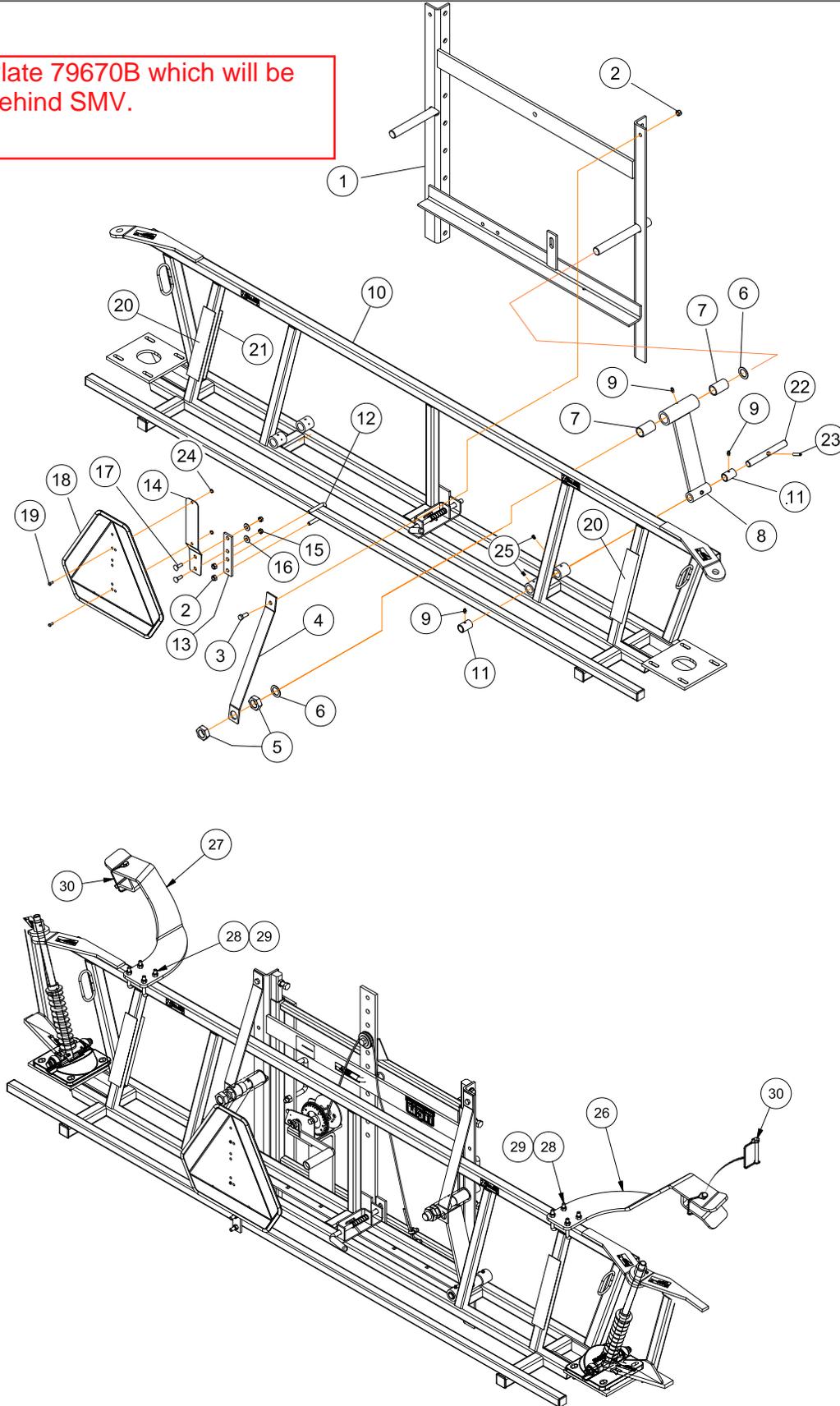
SELF-LEVELING BOOM — Parts

30' Wing & Extension Components

| ITEM | PART NO. | QTY. | DESCRIPTION | NOTES |
|------|-----------|------|-------------------------------|-------|
| 1 | 9000117 | 6 | Plug 1 1/4" Square | |
| 2 | 9000938 | 2 | Lynch Pin 3/8" Dia. x 2 1/4 | |
| 3 | 91160 | 10 | Grease Zerk | |
| 4 | 93459 | 6 | Decal, Grease - 8 Hours | |
| 5 | 9390-151 | 2 | Capscrew 3/4-10UNC x 3 1/2 | |
| 6 | 9398-021 | 2 | Elastic Stop Nut 3/4-10UNC | |
| 7 | 9399-060 | 4 | Set Screw 1/4-20UNC x 1/2 | |
| 8 | TA500401 | 2 | Plug 1 1/2" Square | |
| 9 | TA510101 | 5 | Tube Protector | |
| 10 | TA580169B | 1 | Center Section Weldment | |
| 11 | TA500325 | 4 | Bronze Bushing 1 1/2" Long | |
| 12 | TA500407 | 4 | Drive Screw #10 x 3/8 | |
| 13 | 9005305 | 1 | Lynch Pin 3/8" Dia. x 3" | |
| 14 | 41864B | 2 | End Wing | |
| 15 | TA580280B | 1 | Main Wing Weldment Right-Hand | |
| 16 | TA580281B | 1 | Main Wing Weldment Left-Hand | |

Self-Leveling Center Section Components

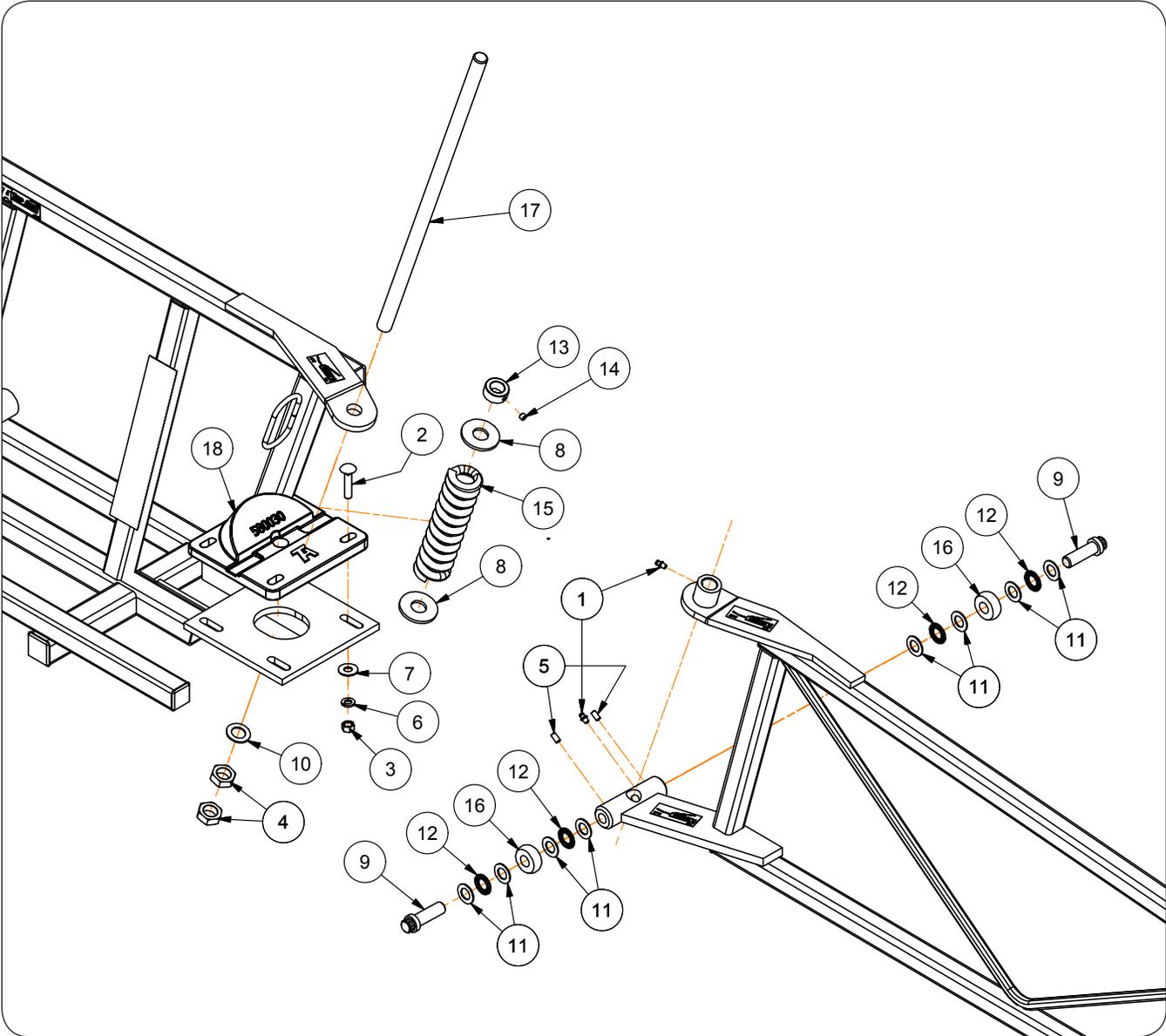
Add SIS Plate 79670B which will be installed behind SMV.



SELF-LEVELING BOOM — Parts**Self-Leveling Center Section Components**

| ITEM | PART NO. | QTY. | DESCRIPTION | NOTES |
|------|------------|------|---|-------------------|
| 1 | TA580021B | 1 | Self-Leveling H-Frame Weldment | |
| 2 | 9928 | 4 | Locknut 3/8"-16UNC | |
| 3 | 9390-055 | 2 | Capscrew 3/8"-16UNC x 1" | Grade 5 |
| 4 | TA521254B | 2 | Swing Arm Brace | |
| 5 | 9395-019 | 4 | Hex Jam Nut 1"-14UNS | Grade 5 |
| 6 | TA500310 | 4 | Bushing 1 1/2" O.D. x 1" I.D. | |
| 7 | TA500333 | 4 | Spring Ride Bronze Bushing 2" Long | |
| 8 | TA540337 | 2 | Top Sleeve Tube Swing Arm Assembly | Includes Items 7 |
| 9 | 91160 | 10 | Grease Zerk | |
| 10 | TA580169B | 1 | Center Section Self-Leveling Boom | Includes Items 11 |
| 11 | TA500325 | 4 | Bronze Bushing 1.004" O.D. x .753" I.D. | |
| 12 | TA510072 | 1 | U-Bolt 3/8"-16UNC x 2 1/2" | Grade 5 |
| 13 | TA522030B | 1 | Mounting Bracket | |
| 14 | TA510516 | 1 | SMV Bracket | |
| 15 | 9807 | 2 | Locknut 5/16"-18UNC | |
| 16 | 9405-070 | 2 | Flat Washer 5/16" USS | |
| 17 | 9388-025 | 2 | Carriage Bolt 5/16"-18UNC x 1" | Grade 5 |
| 18 | TA510514 | 1 | SMV Emblem | |
| 19 | 9403-031 | 2 | Machine Screw #10-24UNC x 2 1/4" | |
| 20 | 9003126 | 2 | Reflector =RED= | |
| 21 | 9003127 | 1 | Reflector =AMBER= | |
| 22 | TA520199 | 2 | Pivot Shaft 3/4" Dia. x 6 1/4" | |
| 23 | 900909-153 | 2 | Roll Pin 5/16" Dia. x 1 1/4" | Stainless Steel |
| 24 | 9830-017 | 2 | Hex Nut #10-24UNC | |
| 25 | 9399-060 | 4 | Set Screw 1/4"-20UNC x 1/2" | |
| 26 | 40826B | 1 | Front Fold Bracket, Right-Hand =Black= | |
| 27 | 40830B | 1 | Front Fold Bracket, Left-Hand =Black= | |
| 28 | TA510036 | 4 | U-Bolt 3/8"-16UNC x 2.75" | |
| 29 | 9928 | 8 | Locknut 3/8"-16UNC G5 | |
| 30 | 9005305 | 2 | Lynch Pin 3/8" Dia. x 3" | |

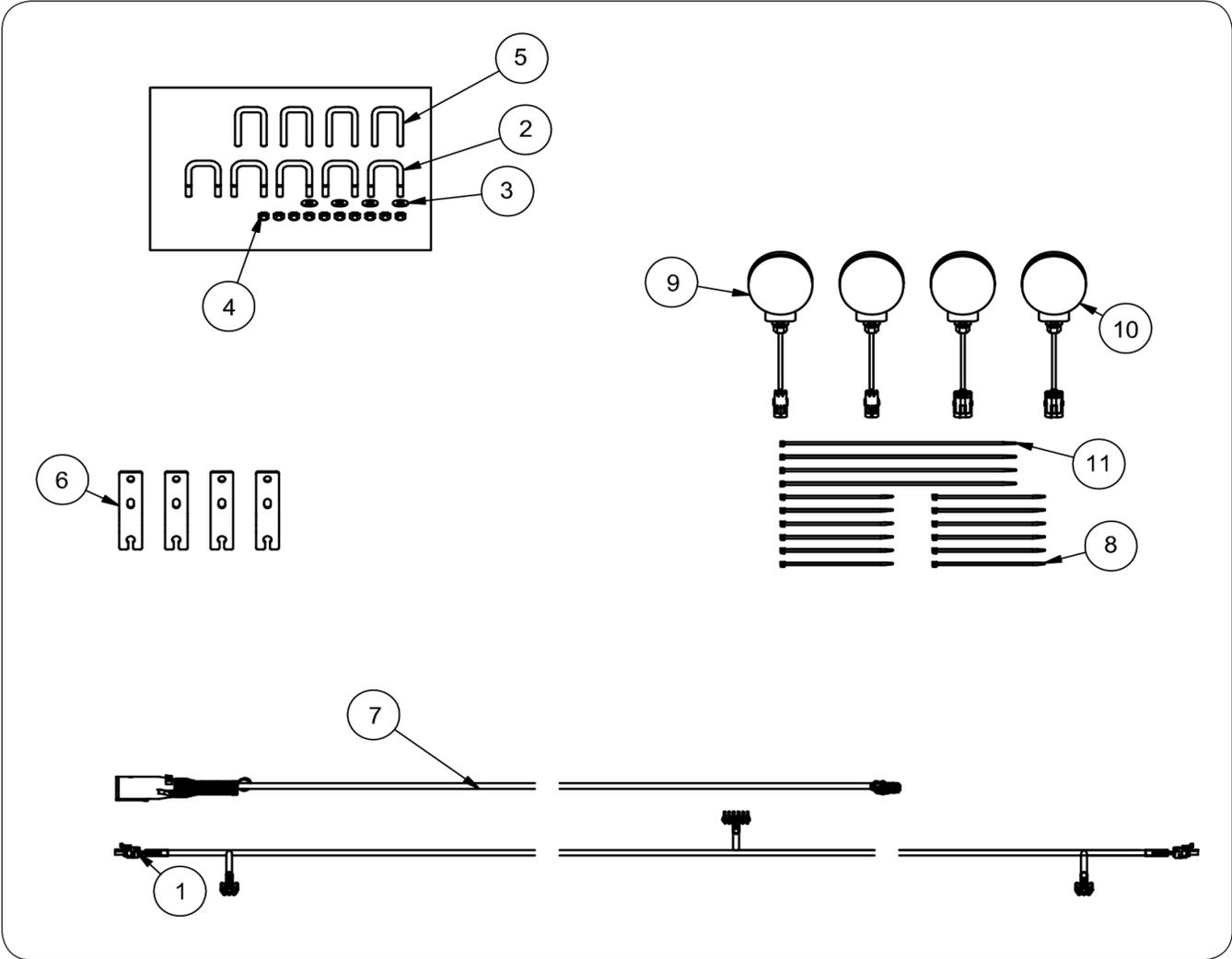
Breakaway Assembly Components



SELF-LEVELING BOOM — Parts**Breakaway Assembly Components**

| ITEM | PART NO. | QTY. | DESCRIPTION | NOTES |
|------|-----------|------|--|-------------------|
| 1 | 91160 | 10 | Grease Zerk | |
| 2 | 9388-054 | 8 | Carriage Bolt 3/8-16UNC x 1 3/4 | Grade 5 |
| 3 | 9394-006 | 8 | Hex Nut 3/8-16UNC | |
| 4 | 9395-016 | 4 | Hex Jam Nut 3/4-10UNC | |
| 5 | 9399-060 | 4 | Set Screw 1/4-20UNC x 1/2 | |
| 6 | 9404-021 | 8 | Lock Washer 3/8 | |
| 7 | 9405-076 | 8 | Flat Washer 3/8 USS | |
| 8 | 9405-106 | 4 | Flat Washer 3/4 USS | |
| 9 | TA500197 | 4 | 12 PT Capscrew 5/8 x 2 5/8 | Grade 8 |
| 10 | TA500309 | 2 | Washer/Bushing 1 1/4 O.D. x 3/4 I.D. | |
| 11 | TA500316 | 16 | Thrust Washer 1 3/32 O.D. x 5/8 I.D. | |
| 12 | TA500321 | 8 | Thrust Bearing 1 1/8 O.D. x 5/8 I.D. | |
| 13 | TA500689 | 2 | Shaft Collar 1 1/4 O.D. x 3/4 I.D. w/Set Screw | Includes Item #14 |
| 14 | 9399-070 | 1 | Set Screw 5/16-18UNC x 5/16 | |
| 15 | TA510013 | 2 | Spring 7 1/2" Long | |
| 16 | TA510026 | 4 | Hardened Wheel 5/8" | |
| 17 | TA522498 | 2 | Pivot Shaft - Threaded 21 1/4" Long | |
| 18 | TA580030B | 2 | Pivot Plate | |

Light Components



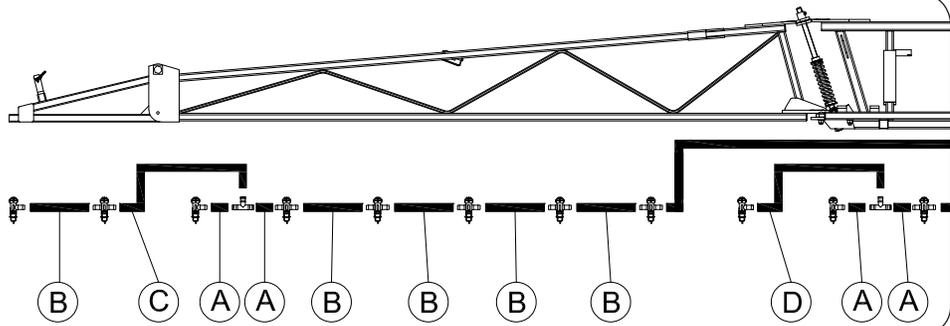
Light Components

| ITEM | PART NO. | QTY. | DESCRIPTION | NOTES |
|------|----------|------|---------------------------|-------|
| | 40777B | - | Light Kit | |
| 1 | 22790 | 1 | Wiring Harness 132" (3-T) | |
| 2 | 91163 | 5 | U-Bolt 3/8-16UNC x 2 1/4 | |
| 3 | 9405-076 | 4 | Flat Washer 3/8" USS | |
| 4 | 9928 | 10 | Locknut 3/8-16UNC | |
| 5 | TA510072 | 4 | U-Bolt 3/8-16UNC x 2 1/2 | |
| 6 | 40849B | 4 | Mounting Plate | |
| 7 | 86466 | 1 | Main Wiring Harness 114" | |
| 8 | 9000106 | 12 | Cable Tie 6" Long | |
| 9 | 9003876 | 2 | Light - Round Amber | |
| 10 | 9003877 | 2 | Light - Round Red | |
| 11 | 94037 | 4 | Cable Tie 15 1/2" Long | |

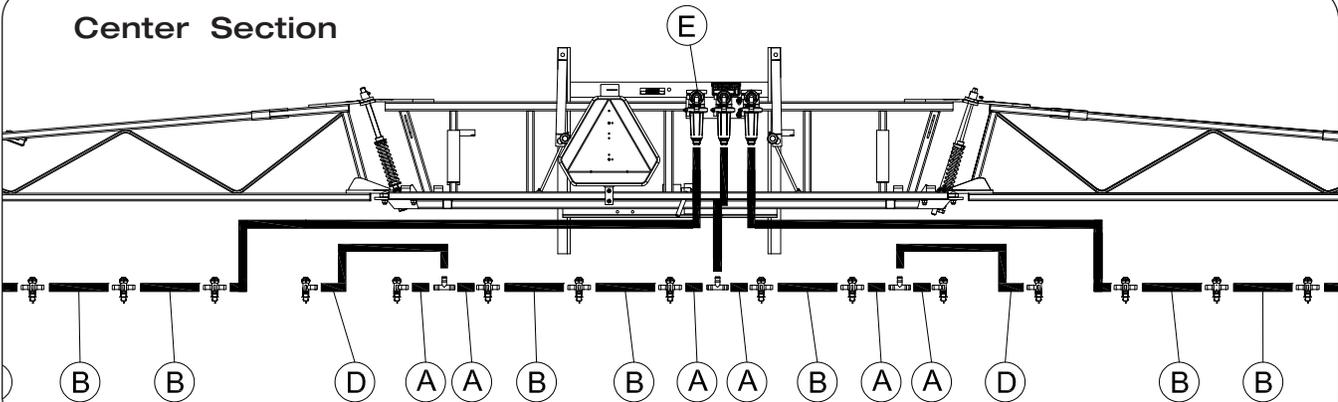
SELF-LEVELING BOOM — Parts

30' Boom Line Plumbing - 3 Section 15" Boom Kit

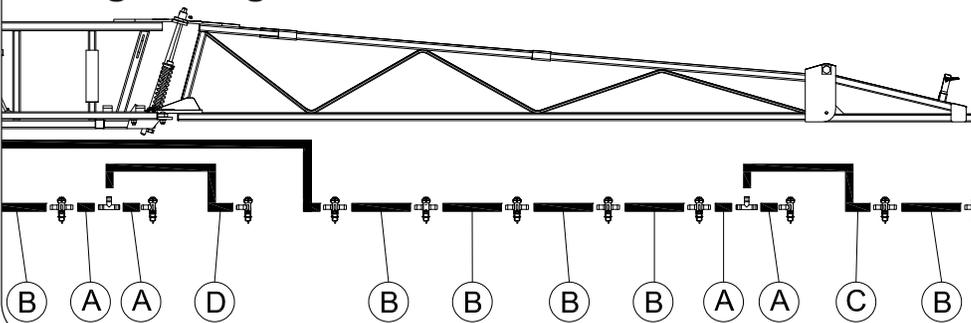
Left Wing



Center Section



Right Wing

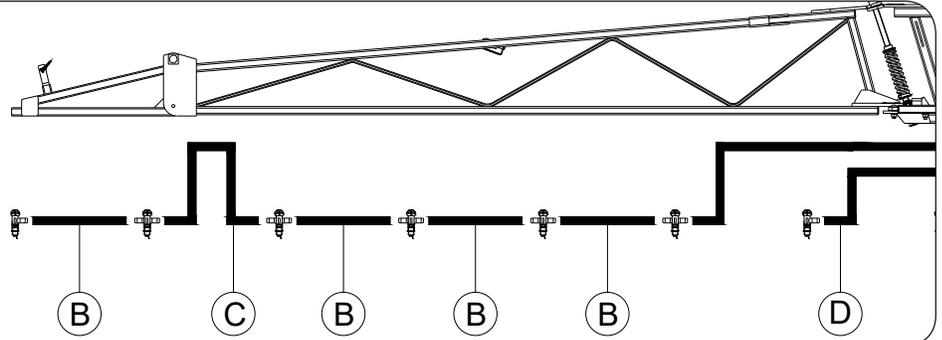


| ITEM | PART NO. | QTY. | DESCRIPTION | NOTE |
|---|----------|------|---------------------|------------------------|
| A | TA806250 | 10 | 6 1/2" EPDM Hose | Specify Length in Feet |
| B | | 13 | 14" EPDM Hose | |
| C | | 2 | 45" EPDM Hose | |
| D | | 2 | 55" EPDM Hose | |
| E | TA300350 | 1 | Boom Strainer Kit | 3/4" - 3 Section |
|  | TA886010 | 8 | 90° Elbow Body | |
|  | TA886025 | 17 | Tee Body | |
|  | TA814891 | 5 | Hose Barb Tee | |
|  | TA880027 | 25 | Nozzle Clamp 1 1/4" | |
|  | TA800910 | 60 | Hose Clamp SCS12 | |

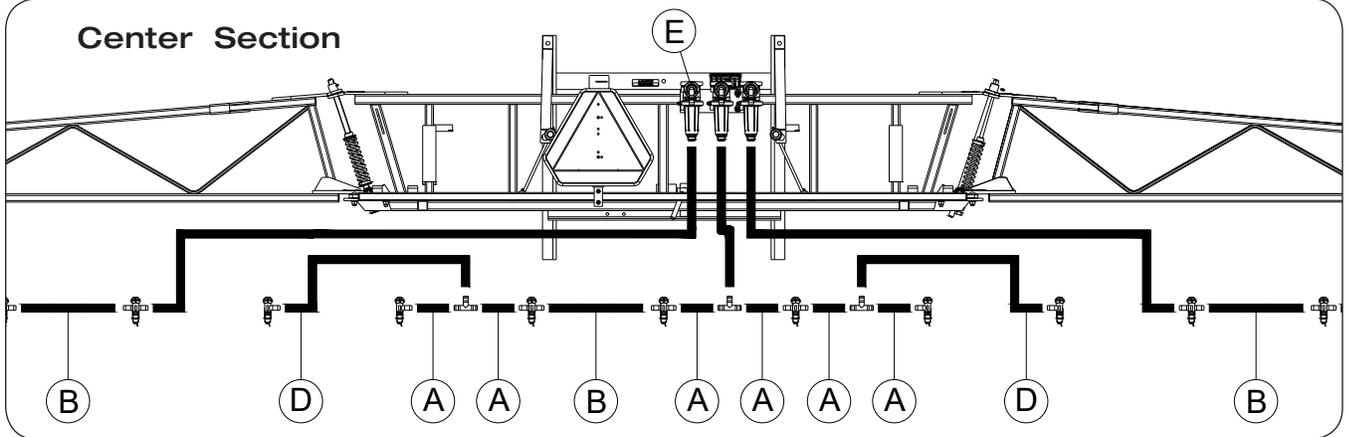
SELF-LEVELING BOOM — Parts

30' Boom Line Plumbing - 3 Section 20" Boom Kit

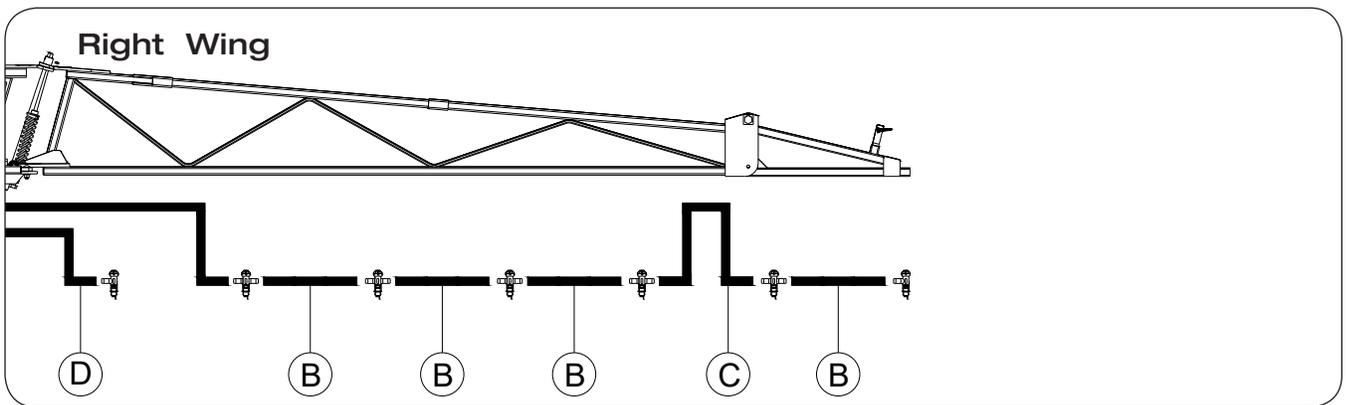
Left Wing



Center Section



Right Wing



| ITEM | PART NO. | QTY. | DESCRIPTION | NOTE |
|---|----------|------|---------------------|------------------------|
| A | TA806250 | 6 | 9 1/2" EPDM Hose | Specify Length in Feet |
| B | | 9 | 19" EPDM Hose | |
| C | | 2 | 45" EPDM Hose | |
| D | | 2 | 55" EPDM Hose | |
| E | TA300350 | 1 | Boom Strainer Kit | 3/4" - 3 Section |
|  | TA886010 | 6 | 90° Elbow Body | |
|  | TA886025 | 13 | Tee Body | |
|  | TA814891 | 3 | Hose Barb Tee | |
|  | TA880027 | 19 | Nozzle Clamp 1 1/4" | |
|  | TA800910 | 44 | Hose Clamp SCS12 | |



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