



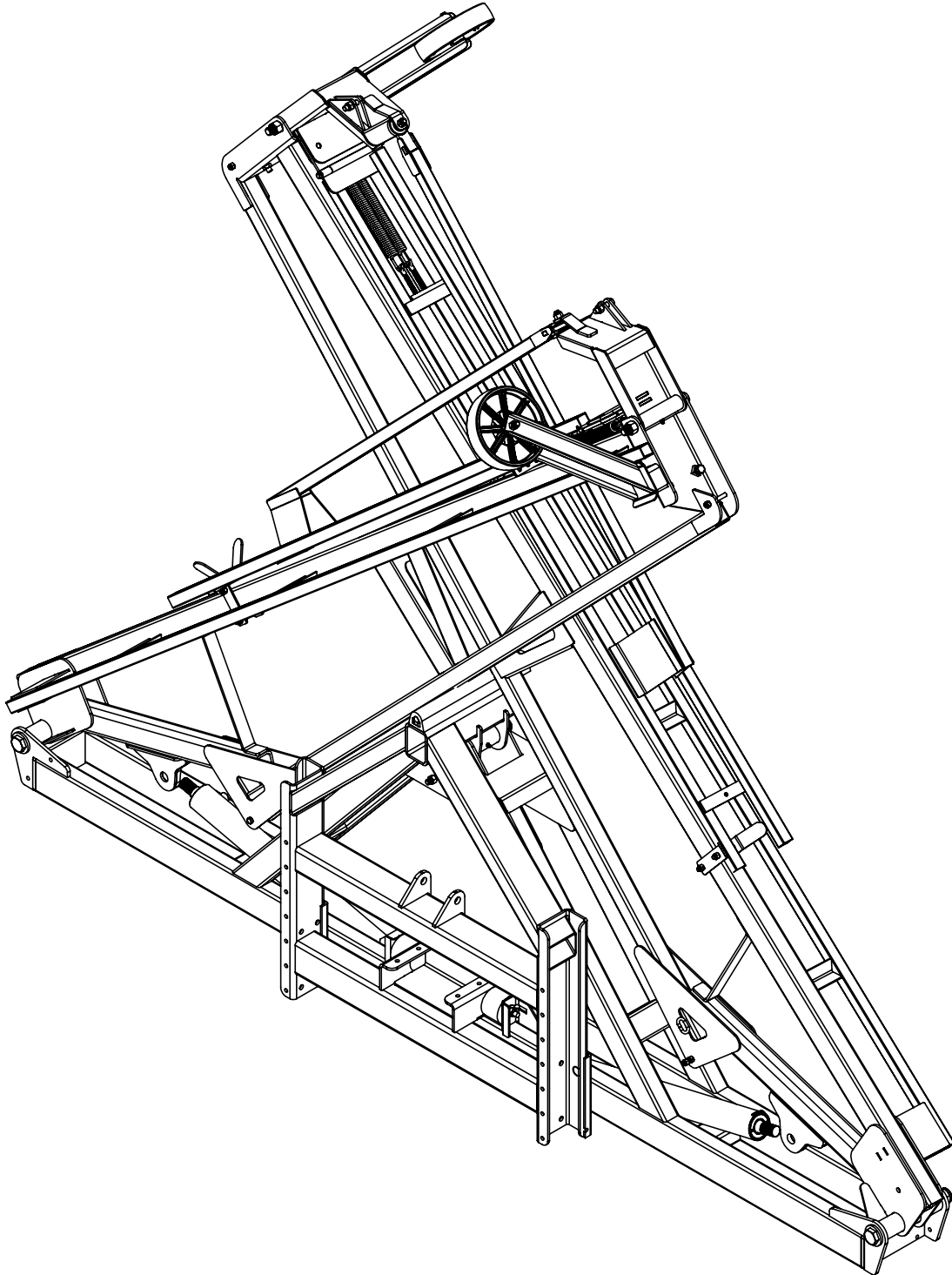
*Doing Our Best to Provide You the Best*

AB20086, Rev 1  
10/22

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## HYDRAULIC X-FOLD 45' AND 60'

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**OPERATOR MANUAL**

# Introduction

Thank you for purchasing a Demco sprayer. We feel you have made a wise choice and hope you are completely satisfied with your new sprayer. If you have any questions regarding the applications of certain solutions or chemicals, contact your chemical supplier and follow chemical manufacturer recommendations as well as all licensing and use restrictions or regulations.

## WARRANTY POLICY, OPERATOR MANUALS, PARTS MANUALS & REGISTRATION

Go online to [www.demco-products.com](http://www.demco-products.com) to review Demco warranty policies, operator manuals and register your Demco product.



### **WARNING: TO AVOID PERSONAL INJURY OR DEATH, OBSERVE FOLLOWING INSTRUCTIONS:**

Chemicals are dangerous. Know exactly what you're going to do and what is going to happen before attempting to work with these products. Improper selection or use can injure people, animals, plants and soil.

Always wear protective clothing such as coveralls, goggles and gloves when working with chemicals or sprayer.

Be sure to dispose of all unused chemicals or solutions in a proper and ecologically sound manner.

## GENERAL INFORMATION

1. Unless otherwise specified, high-strength (grade5) (3 radial-line head markings) hex head bolts are used throughout assembly of this sprayer.
2. Whenever terms "**LEFT**" and "**RIGHT**" are used in this manual it refers to the position behind sprayer and facing forward.
3. When placing a parts order, refer to this manual for proper part numbers and place order by **PART NO. and DESCRIPTION.**

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**TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH!**



**THIS SYMBOL MEANS**  
**ATTENTION**  
**BECOME ALERT**  
**YOUR SAFETY IS INVOLVED!**

**SIGNAL WORDS:**

This manual uses the following signal words--**DANGER**, **WARNING**, and **CAUTION**-- with safety messages. The appropriate signal word has been selected using the following guidelines.

**DANGER:**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

**WARNING:**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**CAUTION:**

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or DEMCO, 4010 320th Street, Boyden, IA 51234  
ph: (712) 725-2311 or Toll Free: 1-800-543-3626 Fax: (712) 725-2380 or 1-800-845-6420  
<http://www.demco-products.com>



## SAFETY...YOU CAN LIVE WITH IT



### EQUIPMENT SAFETY GUIDELINES

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in your owners manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this sprayer under the influence of alcohol or drugs.

Review safety instructions with all users annually.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

To prevent injury or death, use a tractor equipped with a roll over protective system (ROPS). Do not paint over, remove, or deface any safety signs or warning decals on your sprayer. Observe all safety signs and practice instructions on them.

Never exceed limits of sprayer. If its ability to do a job, or to do so safely is in question **DON'T TRY IT.**



### LIGHTING AND MARKING

It is the responsibility of operator to know lighting and marking requirements of local highway authorities and to install and maintain equipment to provide compliance with regulations. Add extra lights when transporting at night or during periods of limited visibility.

Lighting kits are available from your dealer or from manufacturer.



### SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replacement parts that displayed a safety sign should also display current sign.
- Safety signs are available from your distributor, dealer parts department, or factory.

#### How to install safety signs:

- Be sure that installation area is clean and dry.
- Decide on exact position before you remove backing paper.
- Remove smallest portion of split backing paper.
- Align decal over specified area and carefully press small portion with exposed sticky backing in place.
- Slowly peel back remaining paper and carefully smooth remaining portion of decal into place.
- Small air pockets can be pierced with a pin and smoothed out using piece of decal backing paper.



## TIRE SAFETY

- Failure to follow proper procedures when mounting a tire on a rim can produce an explosion which may result in a serious injury or death.
- Do not attempt to mount a tire unless you have proper equipment and experience to do job.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate type and load capacity to meet or exceed anticipated weight to be placed on sprayer.



## REMEMBER

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or manufacturer.



## BEFORE OPERATION:

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- It is recommended that suitable protective hearing and eye protection be worn.
- Operator may come in contact with certain materials which may require specific safety equipment relative to handling of such materials. (Examples: extreme dust, molds, fungus, bulk fertilizers, etc.)
- Keep wheel and lug nuts tightened to specified torque.
- Assure that agricultural implement tires are inflated evenly.
- Give sprayer a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in equipment.
- Do not use sprayer until you are sure that area is clear, especially around children and animals.
- Don't hurry learning process or take sprayer for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your sprayer and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Use a tractor equipped with Roll Over Protection System (ROPS) and fasten your seat belt prior to starting the engine.
- Manufacturer does not recommend usage of a tractor with the ROPS removed.
- Move tractor wheels to widest recommended settings to increase stability.
- Do not allow anyone to stand between tongue or hitch and towing vehicle when backing up to equipment.



## DURING OPERATION

- Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure that it is safe to start engine of towing vehicle or move unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED** - Do not carry passengers anywhere on or in tractor or sprayer.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate, or adjust your sprayer while it is moving.
- When halting operation, even periodically, set tractor or towing vehicles brakes, disengage PTO, shut off engine, and **remove ignition key.**
- Pick the most level possible route when transporting across fields. Avoid edges of ditches, gullies, and steep hillsides.
- Be extra careful when working on inclines.
- Periodically clear equipment of brush, twigs or other materials to prevent buildup of dry combustible materials.
- Maneuver tractor or towing vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose gravel, rocks, and holes; they can be dangerous for equipment operation or movement.
- Allow for sprayer length when making turns.
- Do not walk or work under raised components or attachments unless securely positioned and blocked.
- Keep all bystanders, pets, and livestock clear of work area.
- Operate towing vehicle from operators seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment unattended.
- As a precaution, always recheck hardware on equipment following every 100 hours of operation. Correct all problems. Follow maintenance safety procedures.



## FOLLOWING OPERATION

- Following operation, or when unhitching, stop tractor or towing unit, set brakes, disengage PTO and all power drives, shut off engine and **remove ignition key.**
- Store sprayer in an area away from human activity.
- Do not park sprayer where it will be exposed to livestock for long periods of time. Damage and livestock injury could result.
- Do not permit children to play on or around stored sprayer.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.
- Wheel chocks may be needed to prevent unit from rolling.



## HIGHWAY AND TRANSPORT OPERATIONS

- **SAFETY CHAINS:** If equipment is going to be transported on a public highway, always follow state and local regulations regarding safety chains and auxiliary lighting. Be sure to check with local law enforcement agencies for your own particular regulations. If required, safety chains should be obtained and installed. Only safety chains (not elastic or nylon/plastic tow straps) should be used to retain connection between towing and towed machines in event of separation of primary attaching system. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chains. Criss cross chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.
- Adopt safe driving practices:
  - Keep brake pedals latched together at all times. **NEVER USE INDEPENDENT BRAKING WITH MACHINE IN TOW, LOSS OF CONTROL AND/OR UPSET OF UNIT CAN RESULT.**
  - Always drive at a safe speed relative to local conditions, ensure that your speed is low enough for an emergency stop. Keep speed to a minimum.
  - Reduce speed prior to turns to avoid risk of overturning.
  - Always keep tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
  - Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting, flags and necessary warning devices to protect yourself and operators of other vehicles on highway during transport. Various safety lights and devices are available from your dealer.
- Use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving tractor and sprayer on road under 20 m.p.h. (40 kph) at night or during day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge load ratings. Do not cross bridges rated lower than gross weight at which you are operating.
- Watch for obstructions overhead and side to side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of equipment when making turns, stopping unit, etc.



## PERFORMING MAINTENANCE

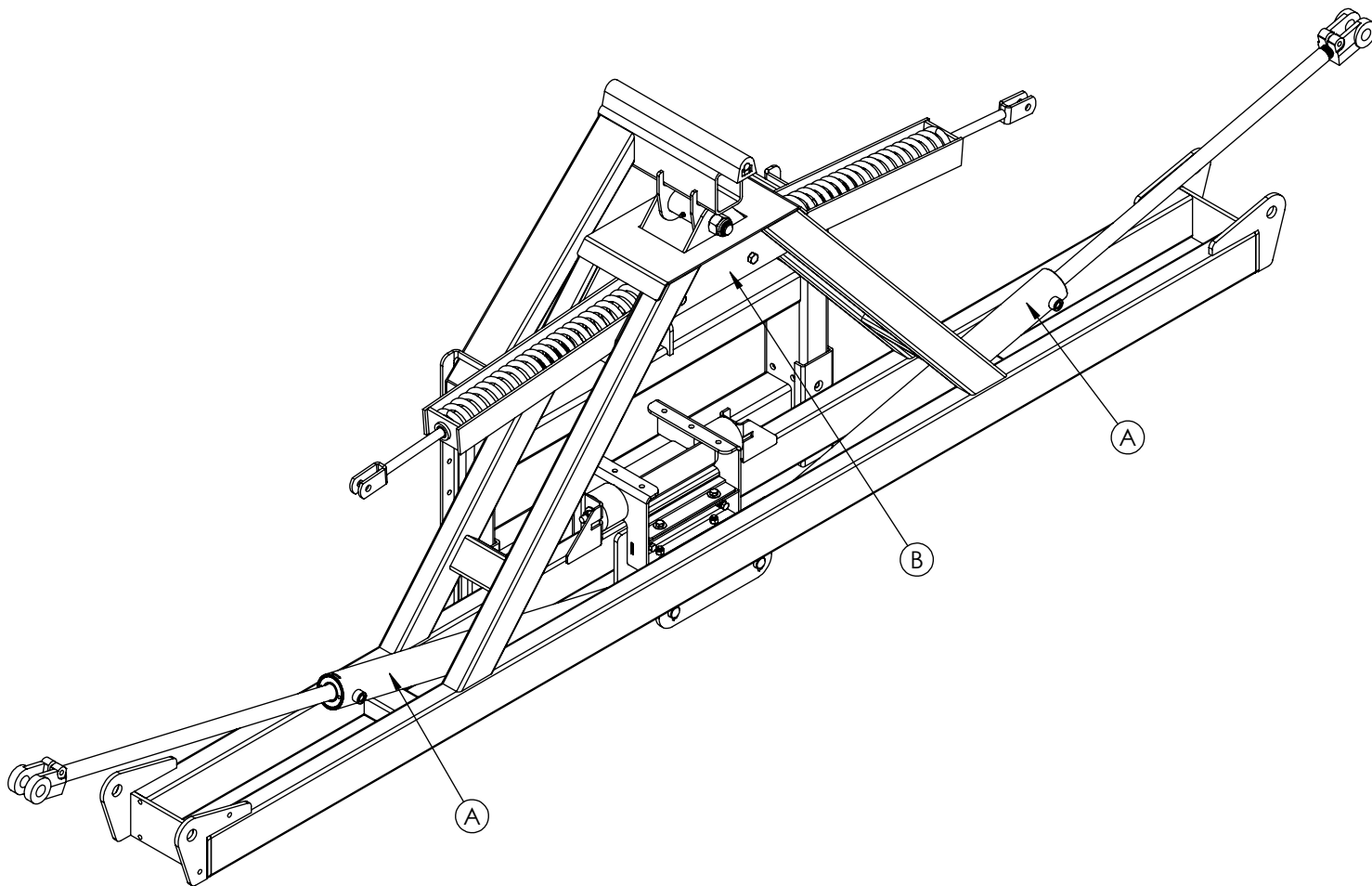
- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate engine of towing vehicle in a closed building. Exhaust fumes may cause asphyxiation.
- Before working on this machine, stop towing vehicle, set brakes, disengage PTO and all power drives, shut off engine and **remove ignition key.**
- Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.
- Always use safety support and block wheels. Never use a jack to support machine.
- Always use proper tools or equipment for job at hand.
- Use extreme caution when making adjustments.
- Follow torque chart in this manual when tightening bolts and nuts.

- Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate skin.
- Openings in skin and minor cuts are susceptible to infection from hydraulic fluid. **Without immediate medical treatment, serious infection and reactions can occur.**
- When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.
- Replace all **shields** and **guards** after servicing and before moving.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on any steps or platform.
- When replacing bolts, refer to owners manual.
- Refer to bolt torque chart for head identification marking.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. Manufacturer will not claim responsibility for use of unapproved parts or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, manufacturer does not accept any liability for injury or warranty.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.



**SAFETY SIGN LOCATIONS**

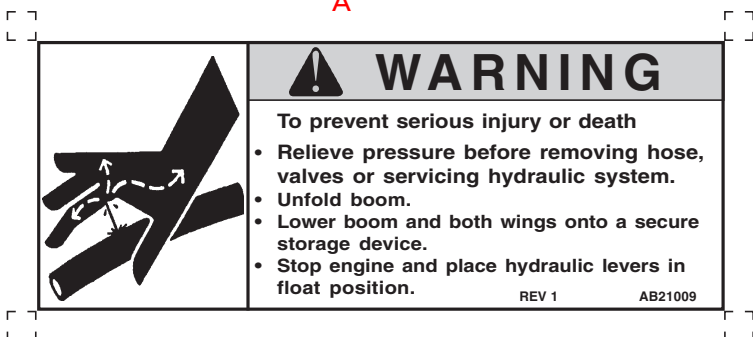
Types of safety sign and locations on equipment are shown in illustration below. Good safety requires that you familiarize yourself with various safety signs, type of warning, and area or particular function related to that area, that requires your SAFETY AWARENESS.



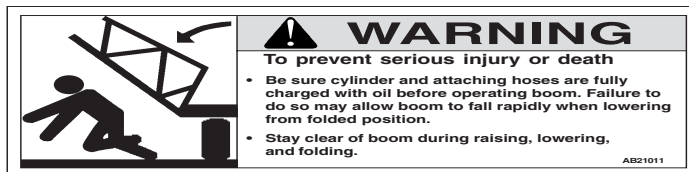
ITEM	PART#	DESCRIPTION	QTY
A	AB21009	WARNING DECAL HYDRAULIC CYLINDER	2
B	AB21011	WARNING DECAL WING FOLDING	1

**Please order replacement parts by PART NO. and DESCRIPTION**

A



B



# Torque Specification



## TORQUE SPECIFICATION

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

\* GRADE or CLASS value for bolts and capscrews are identified by their head markings.

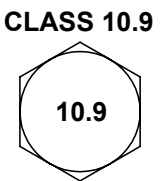
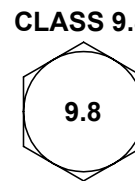
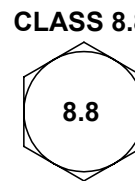
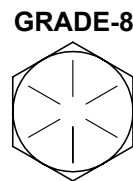
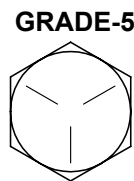
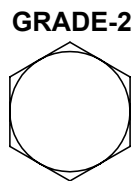
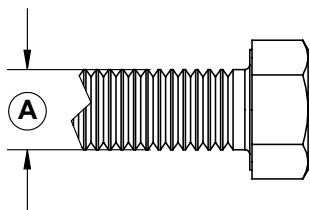
### BOLT TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

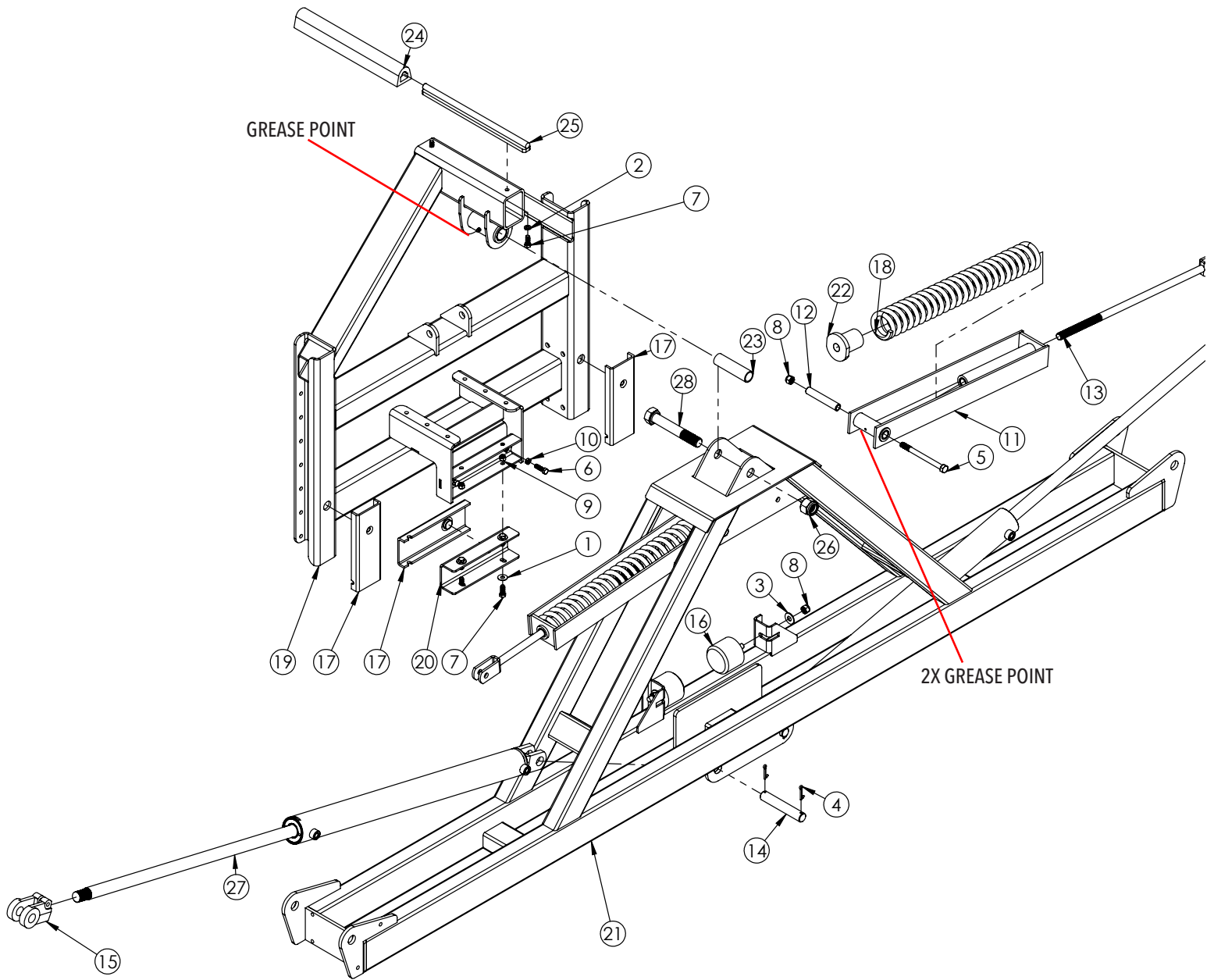
NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Bolt Torque for Standard bolts *						
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

Bolt Torque for Metric bolts *						
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)



CENTER SECTION PARTS



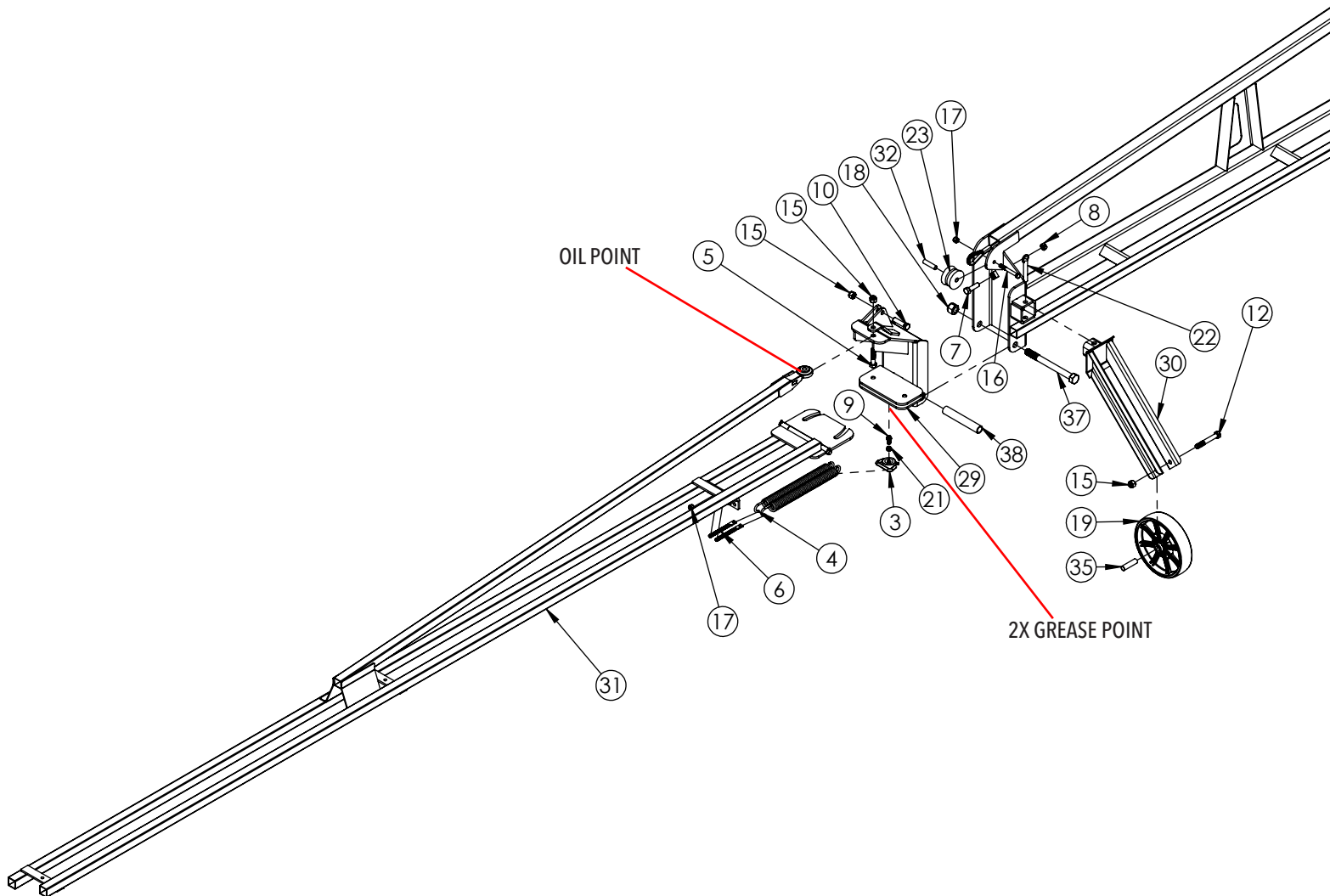
ITEM	PART #	DESCRIPTION	QTY
1	00059	WASHER, FLAT .375	4
2	00060	WASHER, LOCK .375	2
3	00085	WASHER, FLAT .50	2
4	00116	COTTER PIN .156 X 1.50	4
5	00349	BOLT, .50NC X 6.00 HEX HEAD GR. 5	2
6	00523	BOLT, .375NC X 1.25 HEX HEAD GR. 5	2
7	00907	BOLT, .375NC X 1.00 HEX HEAD GR.5	6
8	02178	NUT, .50NC NYLON LOCK	4
9	02592	NUT, .375NC NYLON LOCK	4
10	04886	NUT, .375 JAM	2
11	07566-76	SPRING BRACKET	2
12	07567-95	SPACER BUSHING	2
13	07568-76	CABLE SPRING SHAFT	2
14	07585-95	PIN BOTTOM CYLINDER	2

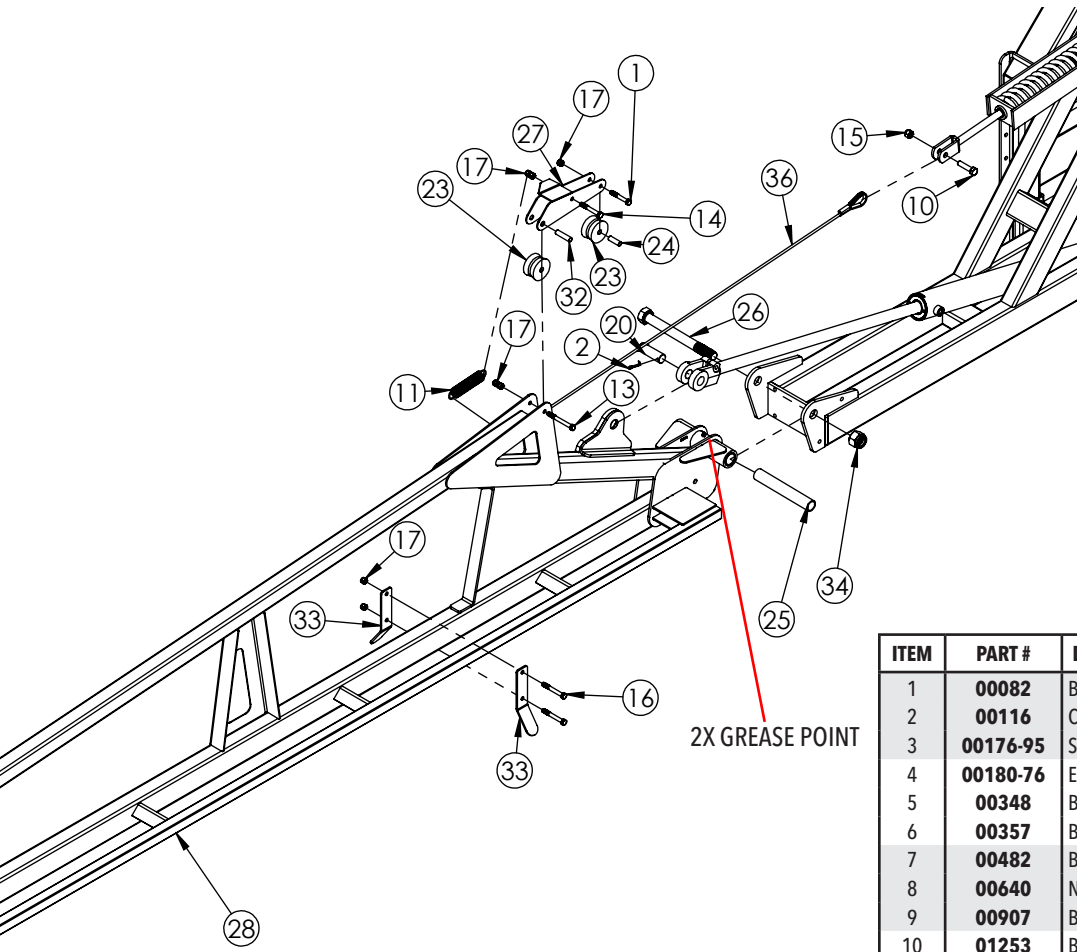
Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	DESCRIPTION	QTY
15	09741-30	CYLINDER CLEVIS	2
16	10443	RUBBER BUMPER	2
17	10966	PLASTIC SLIDE CHANNEL	3
18	11866-30	SPRING, COMPRESSION	2
19	11877-76	CENTER PIVOT F/ X-FOLD	1
20	11878-76	CLAMP CHANNEL	1
21	11879-76	X-FOLD CENTER SECTION	1
22	11882-76	SPRING NUT	2
23	11888-95	CENTER PIVOT BUSHING	1
24	11894	RUBBER BUMPER	1
25	11896	BUMPER MOUNT F/ X-FOLD	1
26	12477	NUT, 1"-8 UNC NYLON LOCK	1
27	17317-30	HYD. CYLINDER 2.5" X 30.00" STROKE	2
28	17445	BOLT, 1.00-8UNC X 6.50 HEX HEAD GR.8	1

Please order replacement parts by PART NO. and DESCRIPTION

WING PARTS





ITEM	PART #	DESCRIPTION	QTY
1	00082	BOLT, .375NC X 2.50 HEX HEAD GR.5	2
2	00116	COTTER PIN .156 X 1.50	4
3	00176-95	SPRING HOOK	2
4	00180-76	EXTENSION SPRING	4
5	00348	BOLT, .50 NC X 2.25 HEX HEAD GR.5	2
6	00357	BOLT, TENSION .375NC X 4.5	4
7	00482	BOLT, .50NC X 1.75 HEX HEAD GR.5	4
8	00640	NUT, .50NC JAM	4
9	00907	BOLT, .375NC X 1.00 HEX HEAD GR.5	2
10	01253	BOLT, .50NC X 2.00 HEX HEAD GR.5	4
11	01564	SPRING, EXTENSION	2
12	01897	BOLT, .50NC X 3.50 HEX HEAD GR.5	2
13	01903	BOLT, .375NC X 3.50 HEX HEAD GR.5	2
14	02166	BOLT, .375NC X 2.75 HEX HEAD GR.5	2
15	02178	NUT, .50NC NYLON LOCK	8
16	02207	BOLT, .375 NC X 3.00 HEX HEAD GR.5	6
17	02592	NUT, .375NC NYLON LOCK	20
18	02961	NUT, .75NC NYLON LOCK	2
19	03731	8.0" WHEEL	2
20	03738-95	CYLINDER PIN	2
21	04886	NUT, .375 JAM	2
22	05328	BALL LOCK PIN	2
23	06807	CABLE SHEAVE	6
24	07561	CABLE ROLLER BUSHINGS	2
25	11340-95	HINGE BUSHING	2
26	11359	BOLT, 1.00-8UNC X 10.00 HEX HEAD GR.5	2
27	11883-76	X-FOLD CABLE TENSIONER	2
28	11886-76	60' INNER WING X-FOLD	2
-	11887-76	45' INNER WING X-FOLD (NOT SHOWN)	2
29	11889-76	X-FOLD BREAKAWAY	2
30	11890-76	WHEEL TIP PROTECTOR	2
31	11891-76	X-FOLD OUTER WING 60'	2
-	11892-76	X-FOLD OUTER WING 45' (NOT SHOWN)	2
32	11893	CABLE ROLLER BUSHING LONG	4
33	11895-76	WING REST	4
34	12477	NUT, 1"-8 UNC NYLON LOCK	2
35	17179-95	WHEEL BUSHING	2
36	17423	192" CABLE ASSEMBLY 60' X-FOLD	2
-	17546	152" CABLE ASSEMBLY 45' X-FOLD (NOT SHOWN)	2
37	17449	BOLT, .75NC X 8.00 HEX HEAD GR.5	2
38	17531-95	OUTER WING BUSHING	2

2X GREASE POINT

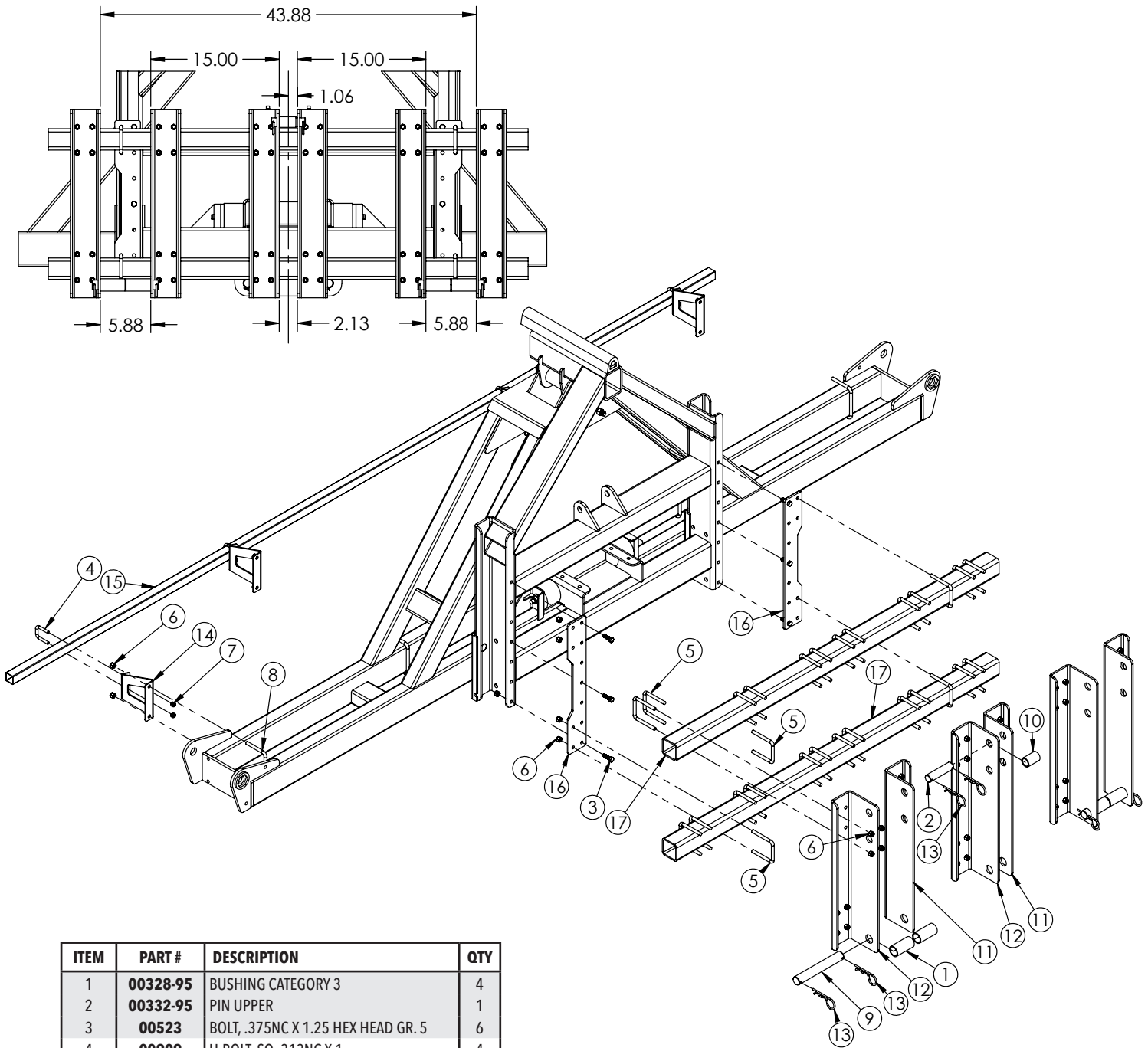
### ADJUSTING WING STRAIGHTNESS

1. Adjust the inner wing straightness by loosening the bolt on the cylinder clevis and turning the rod of the cylinder in or out until the wing is straight. After adjusting tighten bolt on the cylinder clevis.

2. Outer wing straightness can adjusted by loosening the jam nut (#8) and adjusting the bolt (#7). After adjusting tighten the jam nut.

Please order replacement parts by PART NO. and DESCRIPTION

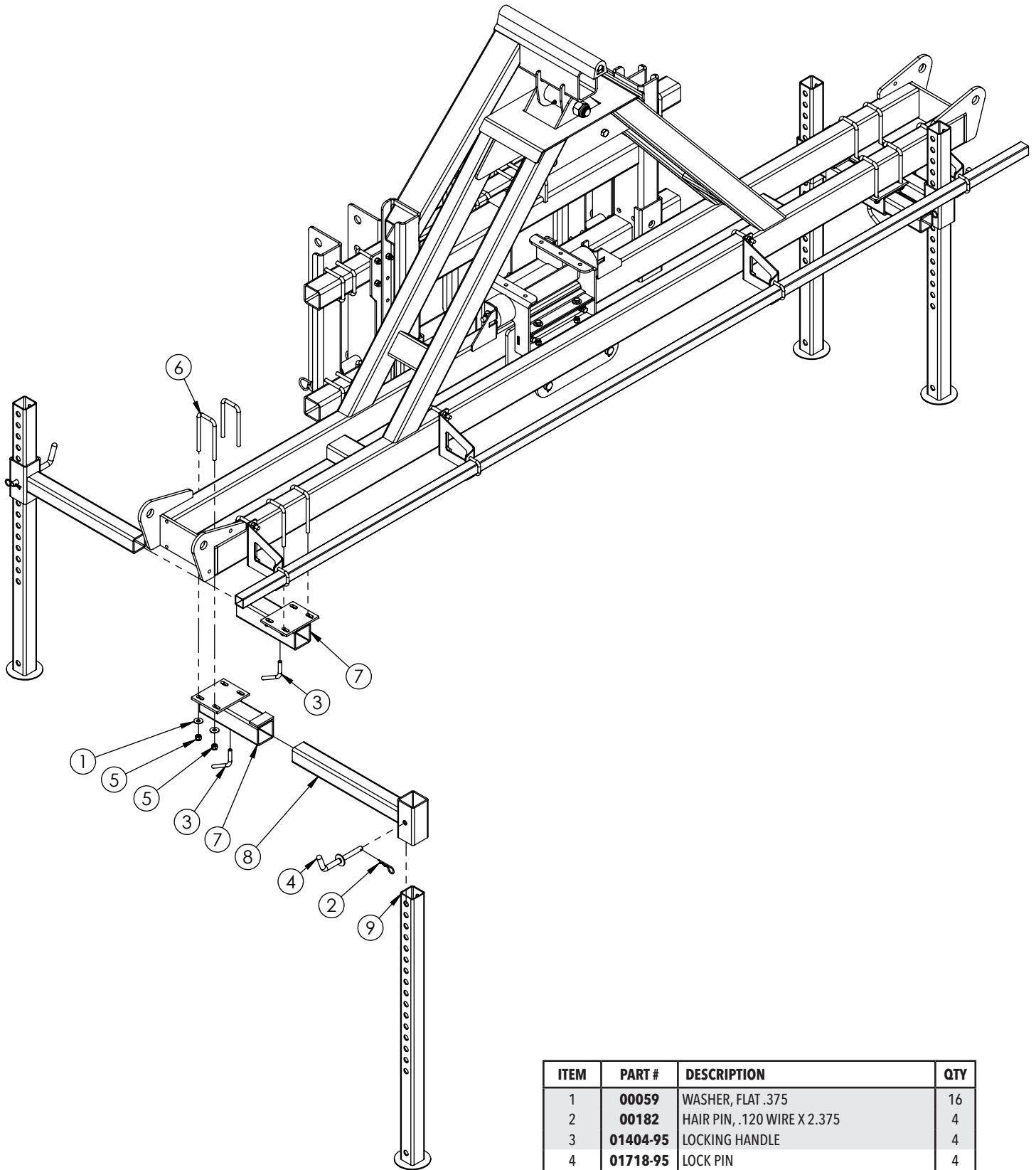
## TRACTOR 3-POINT MOUNTING



ITEM	PART #	DESCRIPTION	QTY
1	00328-95	BUSHING CATEGORY 3	4
2	00332-95	PIN UPPER	1
3	00523	BOLT, .375NC X 1.25 HEX HEAD GR. 5	6
4	00909	U-BOLT, SQ. .313NC X 1	4
5	01887	U-BOLT, SQ. .375NC X 2.50 X 3.313	28
6	02592	NUT, .375NC NYLON LOCK	70
7	02802	NUT, .313NC NYLON LOCK	8
8	04494	U-BOLT, SQ. .375 X 3.00 X 4.00	4
9	05382-95	PIN LOWER	2
10	05383-95	BUSHING CATEGORY 3	1
11	05675-76	LEFT MOUNTING PLATE	3
12	05676-76	RIGHT MOUNTING PLATE	3
13	11413	HAIR PIN .178 WIRE	6
14	11880-76	TIP TUBE BRACKET	4
15	11881-76	TIP TUBE CENTER	1
16	17541-76	MOUNT F/ 3-POINT	2
17	17542-76	BOOM MOUNTING TUBE	2

Please order replacement parts by PART NO. and DESCRIPTION

OPTIONAL GROUND STANDS FOR 3-POINT MOUNT

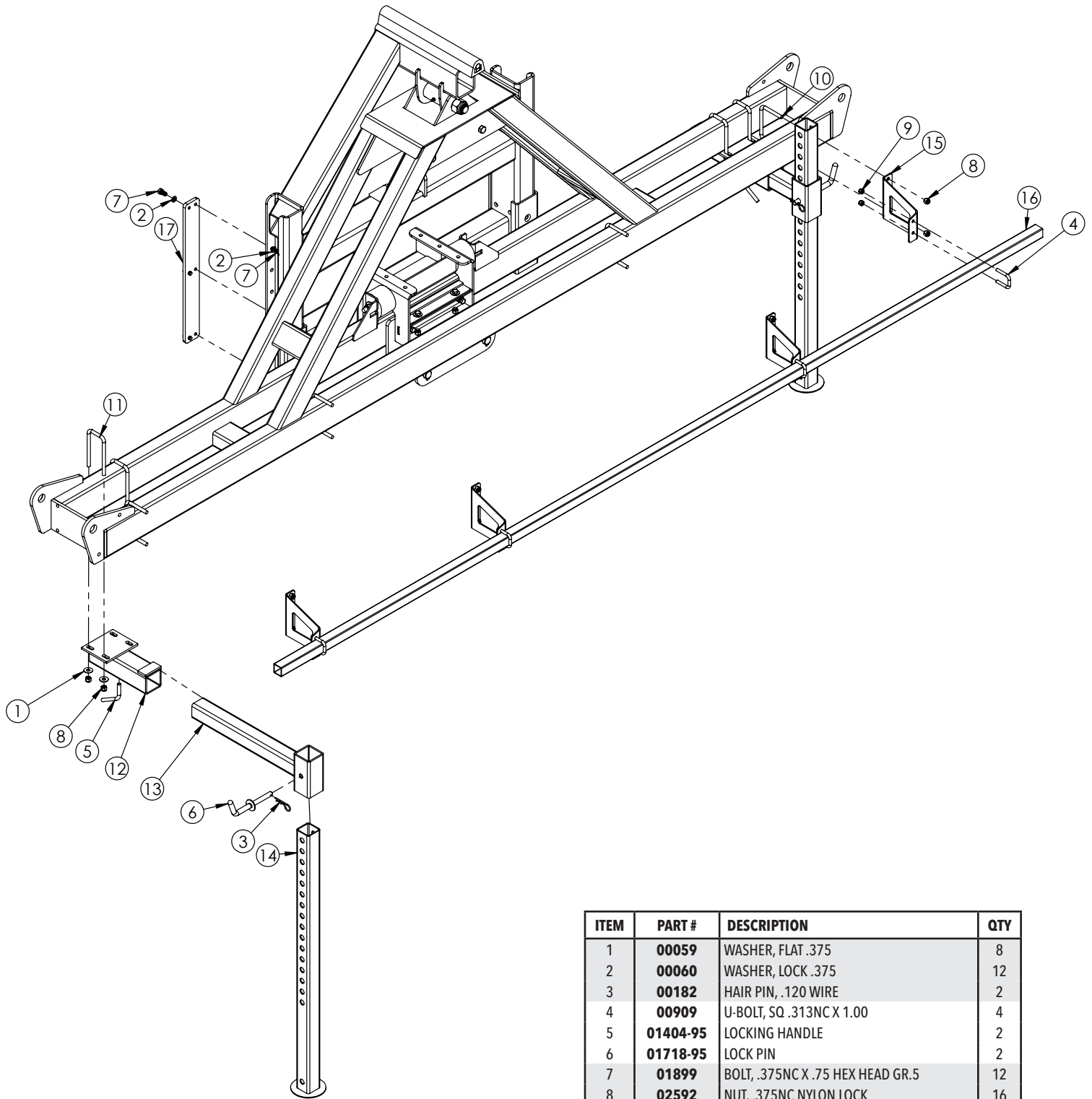


ITEM	PART #	DESCRIPTION	QTY
1	00059	WASHER, FLAT .375	16
2	00182	HAIR PIN, .120 WIRE X 2.375	4
3	01404-95	LOCKING HANDLE	4
4	01718-95	LOCK PIN	4
5	02592	NUT, .375NC NYLON LOCK	16
6	05583	U-BOLT, SQ. .375NC X 2.125 X 4.875	8
7	07650-76	GROUND STAND RECEIVER TUBE	4
8	07651-76	GRAND STAND INSERT TUBE	4
9	07735-76	GROUND STAND	4

Please order replacement parts by PART NO. and DESCRIPTION

# Parts Breakdown

## REAR MOUNT MOUNTING

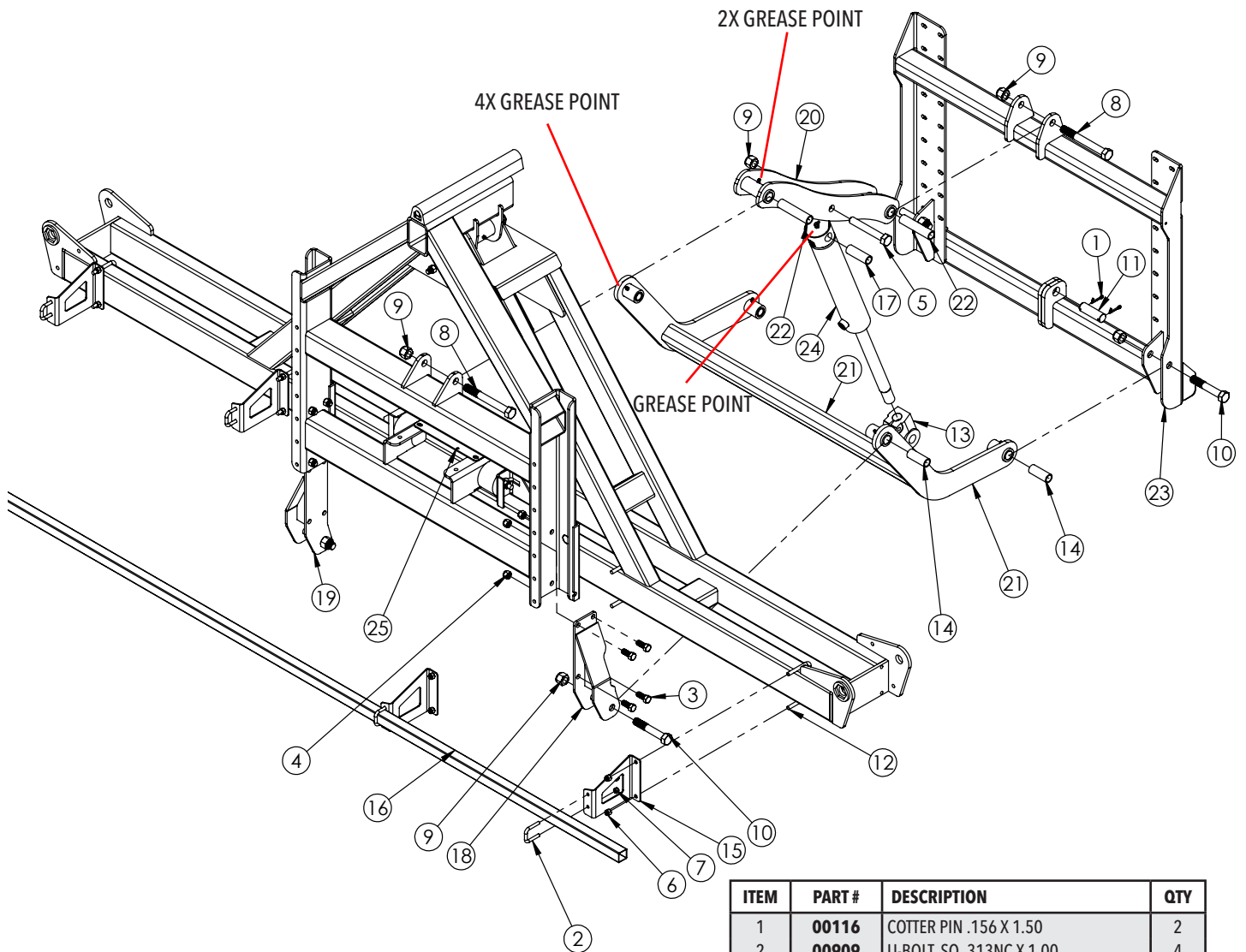


ITEM	PART #	DESCRIPTION	QTY
1	00059	WASHER, FLAT .375	8
2	00060	WASHER, LOCK .375	12
3	00182	HAIR PIN, .120 WIRE	2
4	00909	U-BOLT, SQ .313NC X 1.00	4
5	01404-95	LOCKING HANDLE	2
6	01718-95	LOCK PIN	2
7	01899	BOLT, .375NC X .75 HEX HEAD GR.5	12
8	02592	NUT, .375NC NYLON LOCK	16
9	02802	NUT, .313NC NYLON LOCK	8
10	04494	U-BOLT, SQ .375 X 3.00 X 4.00	4
11	05583	U-BOLT, SQ .375NC X 2.125 X 4.875	4
12	07650-76	GROUND STAND RECEIVER TUBE	2
13	07651-76	GRAND STAND INSERT TUBE	2
14	07735-76	GROUND STAND	2
15	11880-76	TIP TUBE BRACKET	4
16	11881-76	TIP TUBE CENTER	1
17	17545-76	MOUNT F/ RMLE	2

Please order replacement parts by PART NO. and DESCRIPTION



HYDRAULIC HEIGHT ADJUST

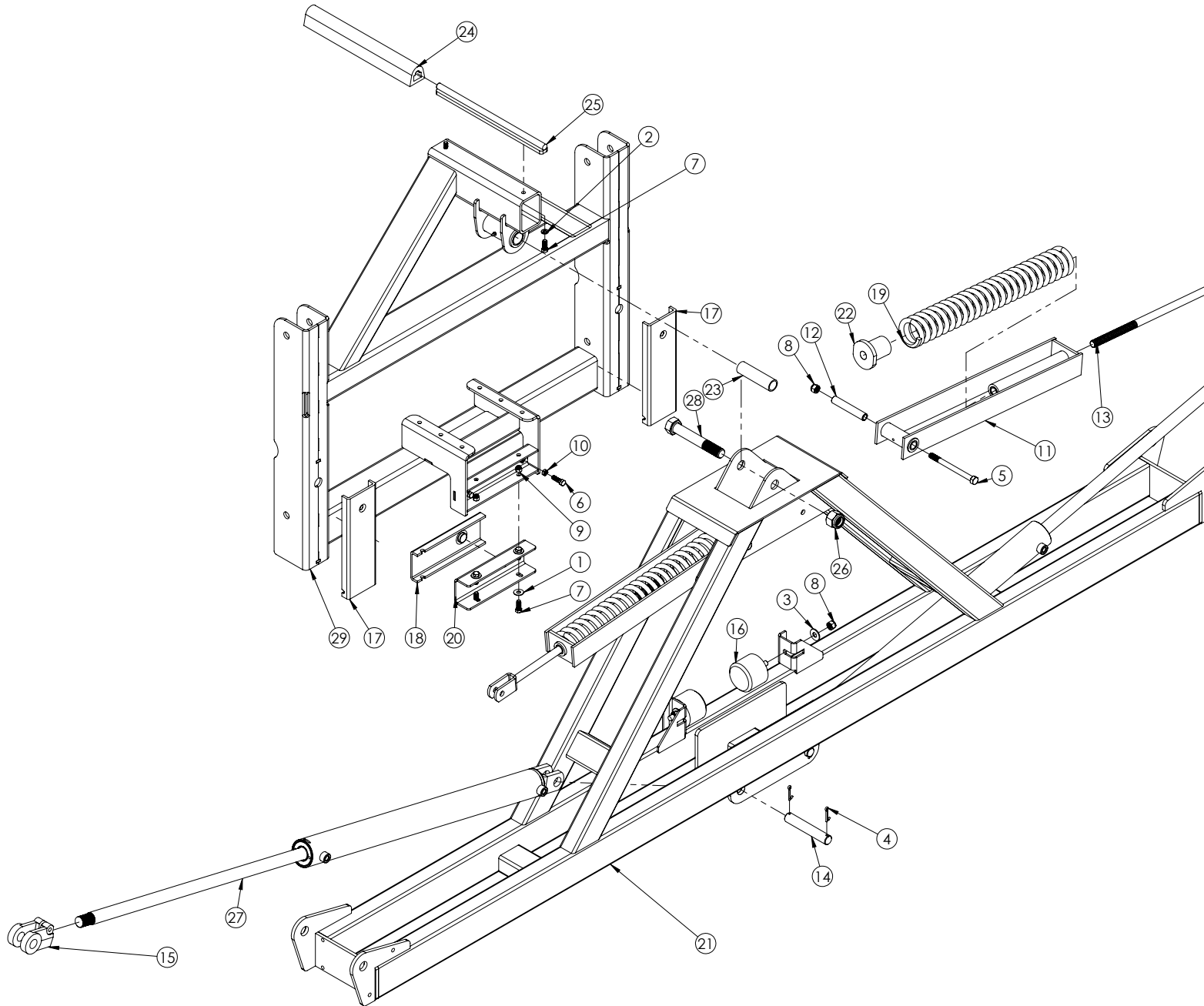


ITEM	PART #	DESCRIPTION	QTY
1	00116	COTTER PIN .156 X 1.50	2
2	00909	U-BOLT, SQ .313NC X 1.00	4
3	00967	BOLT, .50NC X 1.25 HEX HEAD GR.5	8
4	02178	NUT, .50NC NYLON LOCK	8
5	02389	BOLT, .75NC X 5.00 HEX HEAD GR.5	1
6	02592	NUT, .375NC NYLON LOCK	8
7	02802	NUT, .313NC NYLON LOCK	8
8	02850	BOLT, .75NC X 6.50 HEX HEAD GR.5	2
9	02961	NUT, .75NC NYLON LOCK	7
10	03700	BOLT, .75NC X 4.50 HEX HEAD GR.5	4
11	03738-95	CYLINDER PIN	1
12	04494	U-BOLT SQ .375 X 3.00 X 4.00	4
13	09741-30	CYLINDER CLEVIS	1
14	11337-95	HINGE BUSHING	4
15	11880-76	TIP TUBE BRACKET	4
16	11881-76	TIP TUBE CENTER	1
17	12602-95	1.0 OD BUSHING 2.96	1
18	17527-76	BOOM MOUNT RIGHT	1
19	17528-76	BOOM MOUNT LEFT	1
20	17529-76	UPPER HEIGHT ADJUST LINKAGE	1
21	17530-76	LOWER HEIGHT ADJUST	1
22	17532-95	LIFT HINGE BUSHING	2
23	17533-76	FRAME MOUNT	1
24	17538-30	CYLINDER 2.5 X 11.00 STROKE	1
25	17540-76	HYDRAULIC BLOCK MOUNT PLATE	1

Please order replacement parts by PART NO. and DESCRIPTION

# Parts Breakdown

## PARALLEL LINKAGE HYDRAULIC HEIGHT ADJUST CENTER



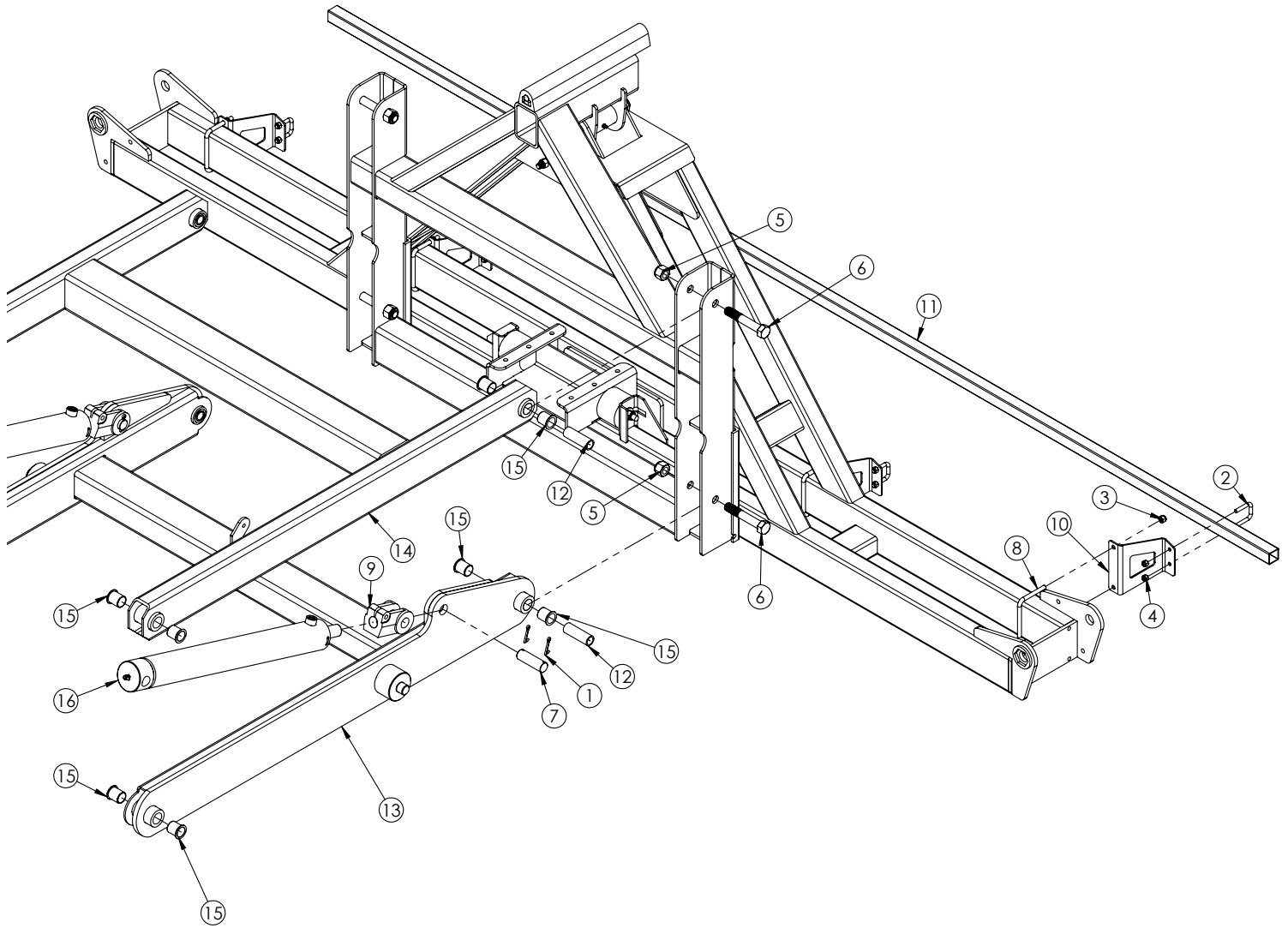
ITEM	PART #	DESCRIPTION	QTY
1	00059	WASHER, FLAT .375	4
2	00060	WASHER, LOCK .375	2
3	00085	WASHER, FLAT .50	2
4	00116	COTTER PIN .156 X 1.50	4
5	00349	BOLT, .50NC X 6.00 HEX HEAD GR. 5	2
6	00523	BOLT, .375NC X 1.25 HEX HEAD GR. 5	2
7	00907	BOLT, .375NC X 1.00 HEX HEAD GR.5	6
8	02178	NUT, .50NC NYLON LOCK	4
9	02592	NUT, .375NC NYLON LOCK	4
10	04886	NUT, .375 JAM	2
11	07566-76	SPRING BRACKET	2
12	07567-95	SPACER BUSHING	2
13	07568-76	CABLE SPRING SHAFT	2
14	07585-95	PIN BOTTOM CYLINDER	2

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	DESCRIPTION	QTY
15	09741-30	CYLINDER CLEVIS	2
16	10443	RUBBER BUMPER	2
17	10963	PLASTIC SLIDE CHANNEL 3.5"	2
18	10966	PLASTIC SLIDE CHANNEL	1
19	11866-30	SPRING, COMPRESSION	2
20	11878-76	CLAMP CHANNEL	1
21	11879-76	X-FOLD CENTER SECTION	1
22	11882-76	SPRING NUT	2
23	11888-95	CENTER PIVOT BUSHING	1
24	11894	RUBBER BUMPER	1
25	11896	BUMPER MOUNT F/ X-FOLD	1
26	12477	NUT, 1"-8 UNC NYLON LOCK	1
27	17317-30	HYD. CYLINDER 2.5" X 30.00" STROKE	2
28	17445	BOLT, 1.00-8UNC X 6.50 HEX HEAD GR.8	1
29	17656-76	PARALLEL LINK CENTER PIVOT F/ X-FOLD	1

Please order replacement parts by PART NO. and DESCRIPTION

PARALLEL LINKAGE HYDRAULIC HEIGHT ADJUST

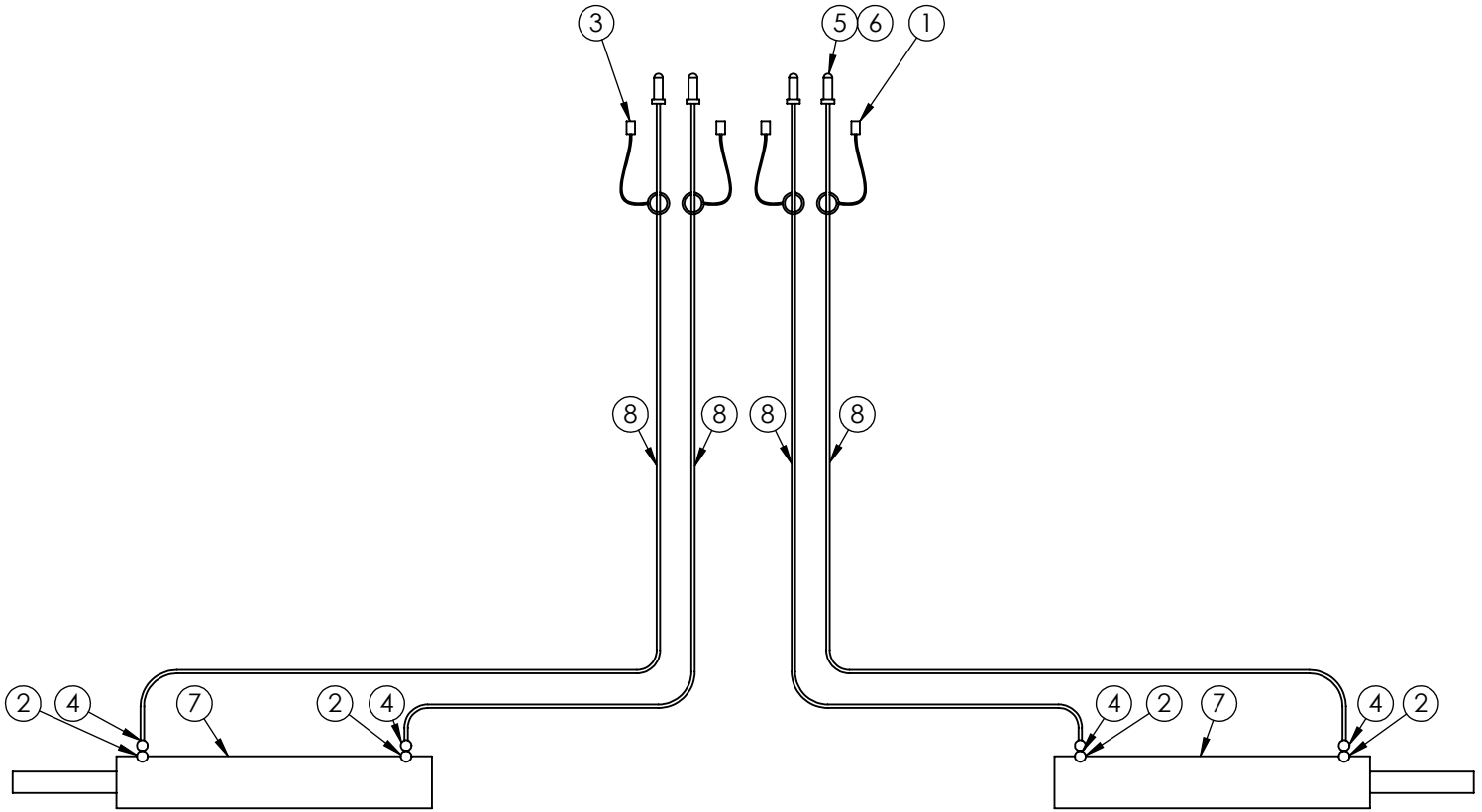


ITEM	PART #	DESCRIPTION	QTY
1	00116	COTTER PIN, .156 X 1.50	4
2	00909	U-BOLT, SQ, .313NC X 1	4
3	02592	NUT, .375NC NYLON LOCK	8
4	02802	NUT, .313 NC NYLON LOCK	8
5	02961	NUT, .75NC NYLON LOCK	4
6	03700	BOLT, .75-10 UNC X 4.50 HEX HEAD GR.5	4
7	03738-95	CYLINDER PIN	2
8	04494	U-BOLT, SQ, .375 X 3.00 X 4.00	4
9	09741-30	CYLINDER CLEVIS	2
10	11880-76	TIP TUBE BRACKET	4
11	11881-76	TIP TUBE CENTER	1
12	12602-95	1.0 OD BUSHING 2.96	4
13	12612-76	LOWER HEIGHT ADJUST	1
14	12613-76	TOP HEIGHT ADJUST FRAME	1
15	12291	1.00 ID X 1.25 PLASTIC BUSHING	16
16	13448-30	CYLINDER, 2.50 X 20.00 X 1.25" ROD	2

**Please order replacement parts by PART NO. and DESCRIPTION**

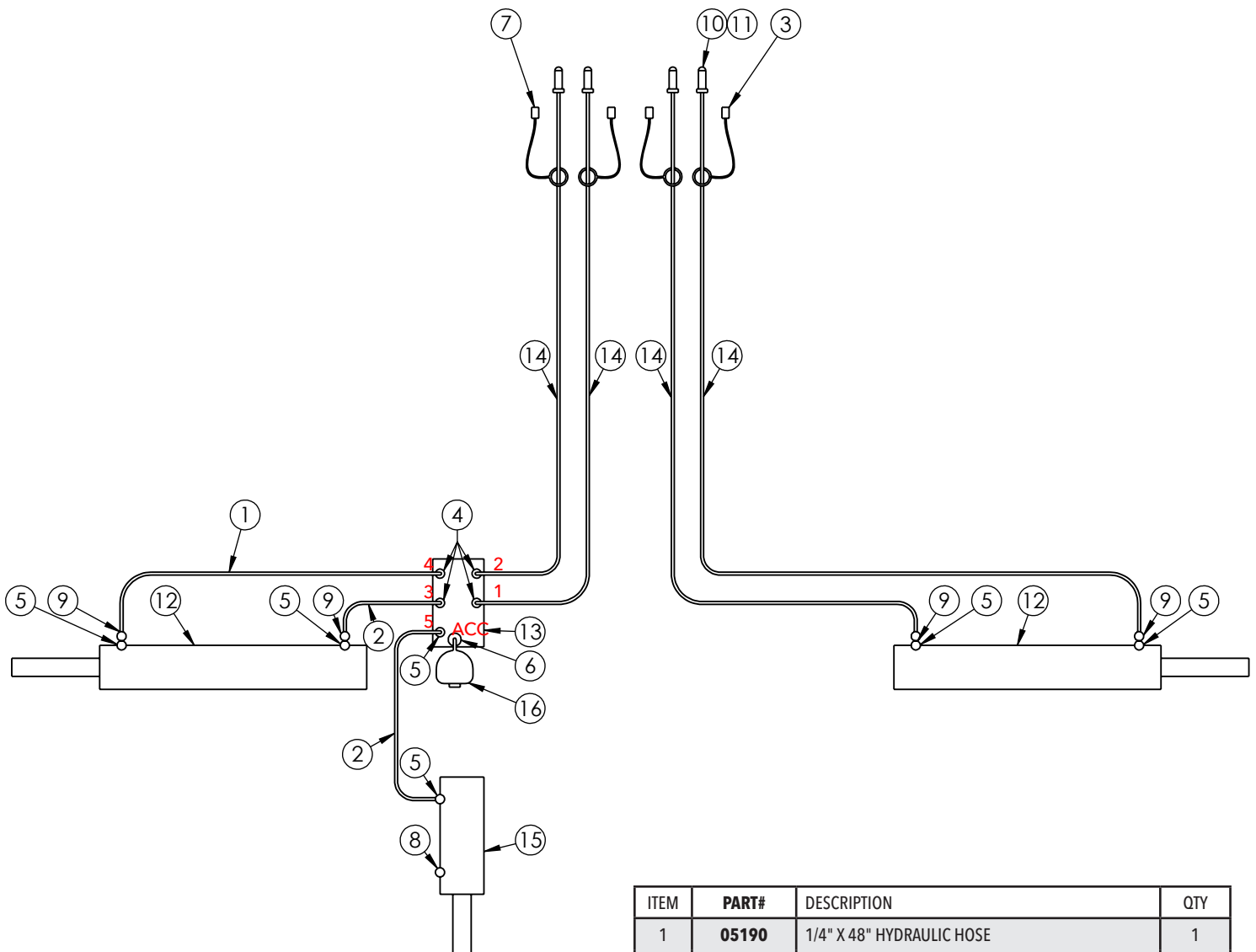
# Parts Breakdown

## 2 CYLINDER HYDRAULICS



ITEM	PART#	DESCRIPTION	QTY
1	05198	RUBBER COUPLER COVER BLACK	2
2	11143	ELBOW #6M JIC & #6 O-RING	4
3	12677	RUBBER COUPLER COVER RED	2
4	12710	ORIFICE JIC#6 .031	4
5	13888	REPLACEMENT QUICK COUPLER #8 O-RING	-
6	13889	REPLACEMENT #8 O-RING	-
7	17317-30	HYDRAULIC CYLINDER 2.5" X 30" STROKE	2
-	5584	HYDRAULIC CYLINDER REPAIR KIT	-
8	17535	1/4" X 264" HYDRAULIC HOSE W/ COUPLER	4
-	17536	1/4" X 312" HYDRAULIC HOSE W/ COUPLER (TRAILER)	4
<b>Please order replacement parts by PART NO. and DESCRIPTION</b>			

3 CYLINDER HYDRAULICS (HEIGHT ADJUST)

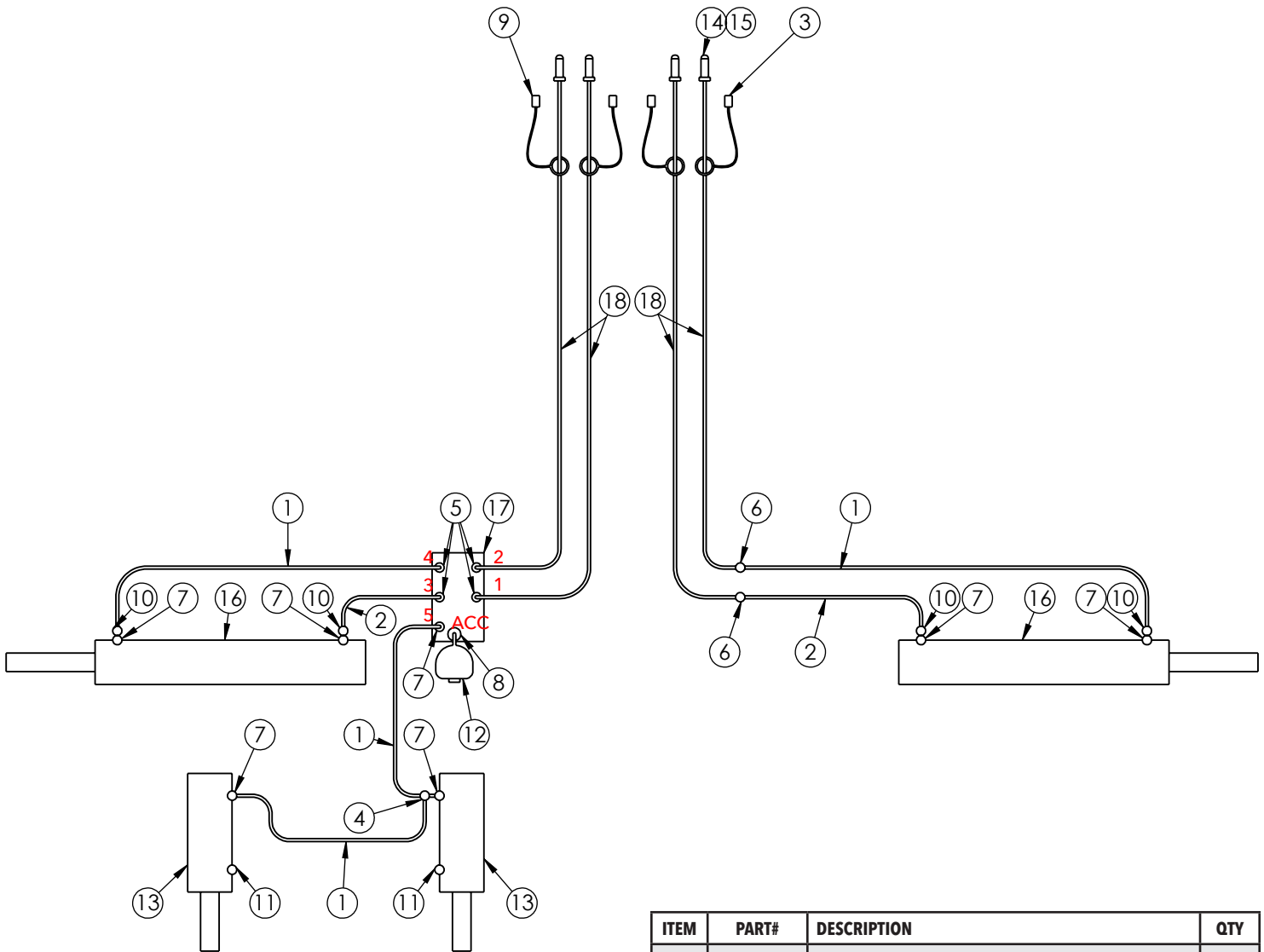


ITEM	PART#	DESCRIPTION	QTY
1	05190	1/4" X 48" HYDRAULIC HOSE	1
2	05191	1/4" X 36" HYDRAULIC HOSE	2
3	05198	RUBBER COUPLER COVER BLACK	2
4	05243	STRAIGHT #6M JIC X #6 O-RING	4
5	11143	ELBOW #6M JIC & #6 O-RING	6
6	12327	#8M O-RING X METRIC	1
7	12677	RUBBER COUPLER COVER RED	2
8	12711	AIR VENT BRASS BREATHER #6M O-RING	1
9	12710	ORIFICE JIC#6 .031	4
10	13888	REPLACEMENT QUICK COUPLER #8 O-RING	-
11	13889	REPLACEMENT #8 O-RING	-
12	17317-30	HYDRAULIC CYLINDER 2.5" X 30" STROKE	2
-	5584	HYDRAULIC CYLINDER REPAIR KIT	-
13	17439	HYDRAULIC BLOCK	1
-	12176	SINGLE PO CHECK VALVE	-
14	17535	1/4" X 264" HYDRAULIC HOSE W/ COUPLER	4
-	17536	1/4" X 312" HYDRAULIC HOSE W/ COUPLER (TRAILER)	4
15	17538-30	HYDRAULIC CYLINDER 2.5" X 11" STROKE	1
16	12826	ACCUMULATOR 350 PSI	1

Please order replacement parts by PART NO. and DESCRIPTION

# Parts Breakdown

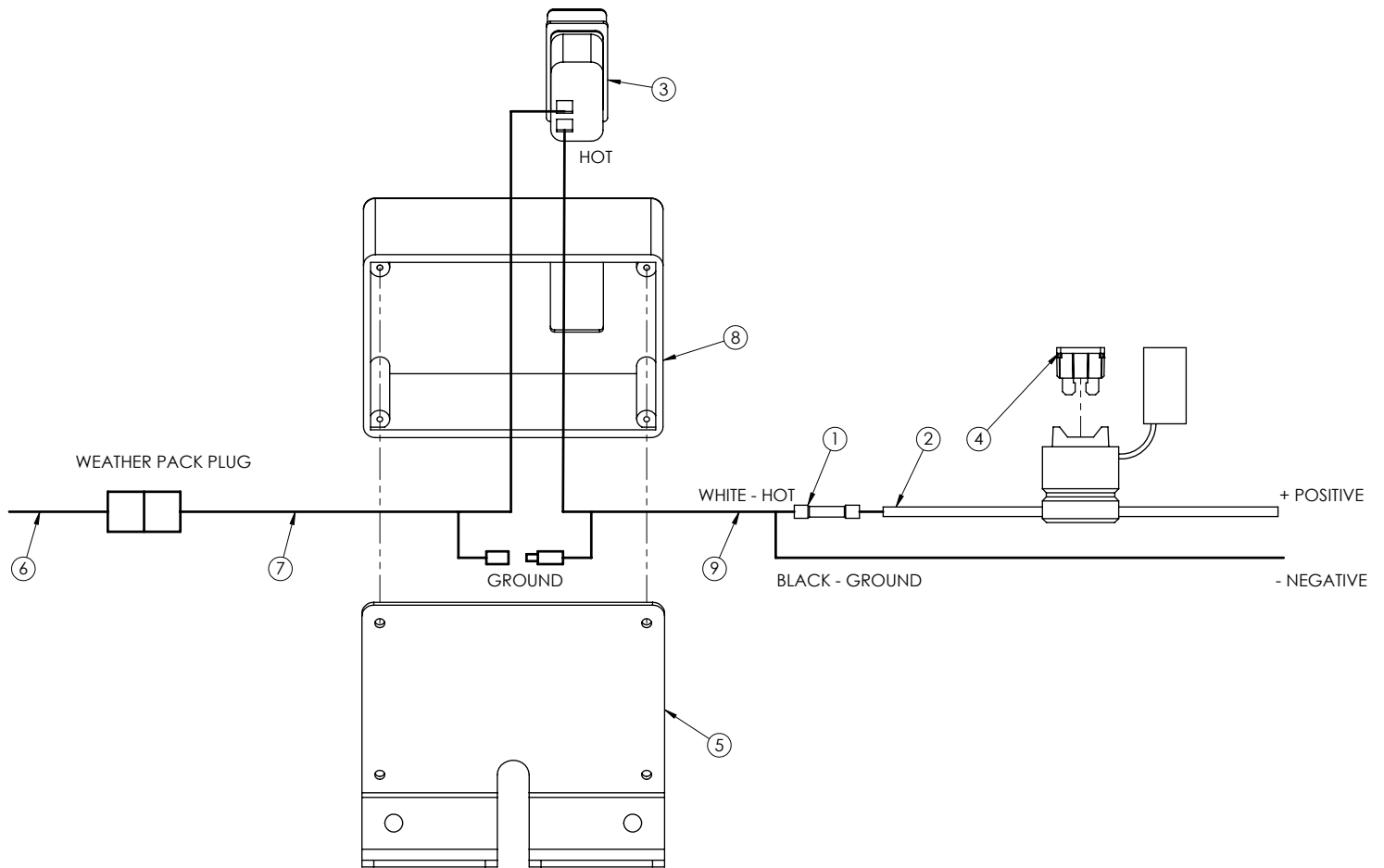
## 4 CYLINDER HYDRAULICS (PARALLEL HEIGHT ADJUST)



ITEM	PART#	DESCRIPTION	QTY
1	05190	1/4" X 48" HYDRAULIC HOSE	4
2	05191	1/4" X 36" HYDRAULIC HOSE	2
3	05198	RUBBER COUPLER COVER BLACK	2
4	05203	#6 FEMALE SWIVEL JIC X #6 M JIC (X2) TEE	1
5	05243	STRAIGHT #6M JIC X #6 O-RING	4
6	09950	STRAIGHT #6M JIC	2
7	11143	ELBOW #6M JIC & #6 O-RING	7
8	12327	#8M O-RING X METRIC	1
9	12677	RUBBER COUPLER COVER RED	2
10	12710	ORIFICE JIC#6 .031	4
11	12711	AIR VENT BRASS BREATHER #6M O-RING	2
12	12826	ACCUMULATOR 350PSI	1
13	13448-30	HYDRAULIC CYLINDER 2.50 X 20.00 X 1.25 ROD	2
14	13888	REPLACEMENT QUICK COUPLER #8 O-RING	-
15	13889	REPLACEMENT #8 O-RING	-
16	17317-30	HYDRAULIC CYLINDER 2.5" X 30" STROKE	2
17	17439	HYDRAULIC BLOCK	1
18	17535	1/4" X 264" HYDRAULIC HOSE W/ COUPLER	4
-	17536	1/4" X 312" HYDRAULIC HOSE W/ COUPLER (TRAILER)	4

Please order replacement parts by PART NO. and DESCRIPTION

CONTROL CONSOLE AND WIRING

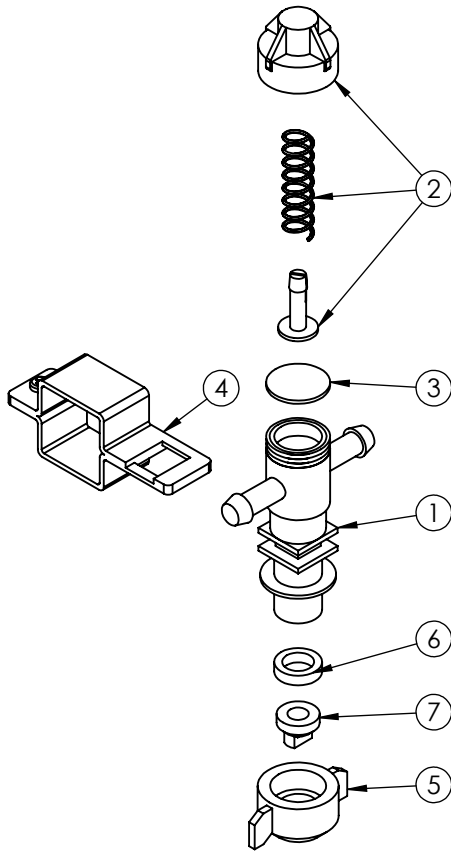


ITEM	PART #	DESCRIPTION	QTY
-	<b>6416</b>	CONTROL BOX ASSEMBLY	1
1	<b>13062</b>	12-10 GA CONNECTOR BUTT	1
2	<b>16021</b>	FUSE HOLDER	1
3	<b>16798</b>	SWITCH ROCKER 20A NON-ILLUM	1
4	<b>16813</b>	ATO 15 AMP FUSE	1
5	<b>17234-76</b>	MOUNTING PLATE	1
6	<b>17524</b>	26' CABLE TO IMPLEMENT (NOT INCLUDED IN 6416)	1
7	<b>17525</b>	LEAD HARNESS F/ CONTROL BOX	1
8	<b>17526</b>	CONTROL BOX F/ SINGLE SWITCH	1
9	<b>35277</b>	6' HOT LINE PREASSEMBLY	1
10	<b>AB21008</b>	CONTROL BOX DECAL (NOT SHOWN)	1

Please order replacement parts by PART NO. and DESCRIPTION

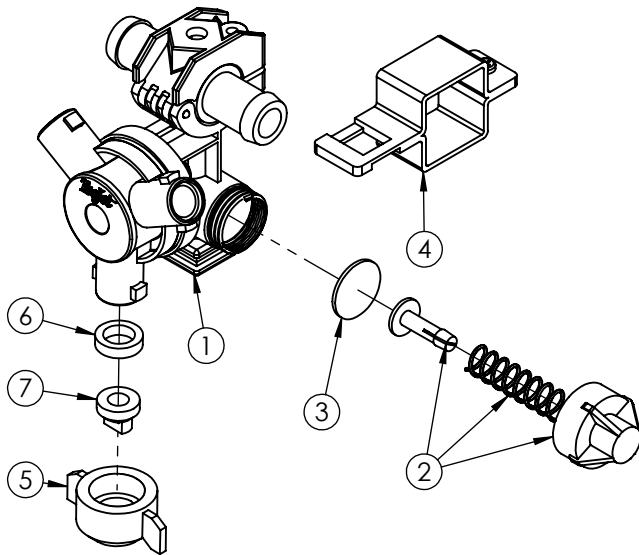
# Parts Breakdown

## TEEJET BOOM NOZZLES



ITEM	PART#	DESCRIPTION	QTY
1	<b>09147</b>	3/4" SINGLE END ASSEMBLY (ITEMS 2 & 3)	-
-	<b>09148</b>	3/4" SINGLE TEE ASSEMBLY (ITEMS 2 & 3)	-
2	<b>21950 10PP</b>	SPRING RETAINER CAP ASSEMBLY	1
3	<b>21953VI</b>	DIAPHRAGM (VITON)	1
4	<b>07785</b>	1-1/4" SQUARE BOOM CLAMP (INCLUDES BOLT)	1
5	<b>07787</b>	RED FLAT FAN CAP W/ GASKET	1
-	<b>07788</b>	BLUE FLAT FAN CAP W/ GASKET	-
-	<b>07789</b>	BROWN FLAT FAN CAP W/ GASKET	-
-	<b>07790</b>	GREEN FLOODJET CAP W/ GASKET	-
-	<b>09692</b>	YELLOW AIR INDUCTION CAP W/ GASKET	-
6	<b>19438EPR</b>	GASKET (EPDM)	1
7	-	TIP (SPECIFY TIP SIZE) (NOT INCLUDED)	-

**Please order replacement parts by PART NO. and DESCRIPTION**



ITEM	PART#	DESCRIPTION	QTY
1	<b>15928</b>	3/4" TRIPLE END ASSEMBLY (ITEMS 2 & 3)	-
-	<b>15929</b>	3/4" TRIPLE TEE ASSEMBLY (ITEMS 2 & 3)	-
2	<b>21950 10PP</b>	SPRING RETAINER CAP ASSEMBLY	1
3	<b>21953VI</b>	DIAPHRAGM (VITON)	1
4	<b>07785</b>	1-1/4" SQUARE BOOM CLAMP (INCLUDES BOLT)	1
5	<b>07787</b>	RED FLAT FAN CAP W/ GASKET	1
-	<b>07788</b>	BLUE FLAT FAN CAP W/ GASKET	-
-	<b>07789</b>	BROWN FLAT FAN CAP W/ GASKET	-
-	<b>07790</b>	GREEN FLOODJET CAP W/ GASKET	-
-	<b>09692</b>	YELLOW AIR INDUCTION CAP W/ GASKET	-
6	<b>19438EPR</b>	GASKET (EPDM)	1
7	-	TIP (SPECIFY TIP SIZE) (NOT INCLUDED)	-

**Please order replacement parts by PART NO. and DESCRIPTION**



**X-FOLD BOOM OPERATING INSTRUCTIONS**

Initial Operation:

**! WARNING: To avoid personal injury or property damage, observe the following instructions.**

Do not attempt to operate the boom until the hydraulic lines and cylinders are completely charged with hydraulic fluid. Failure to do so may cause erratic and unpredictable boom operation that may cause personal injury and physical damage to the boom. Also if the boom is equipped with a height adjust mechanism it should be latched securely. If the height adjust uses a hydraulic cylinder it is recommended to also bleed the system before operation as described below.

It is advisable to hook the cylinders up to a proper hydraulic supply and extend and retract them several times before connecting them to the boom. It is very important to remove any air from the hydraulic system before operating.

With the boom completely unfolded and supported on ground stands or sawhorses the hydraulics may be activated to collapse the cylinders and fold the boom. Initially it may be a good idea to try to bring up both wings at the same time to make sure the ride mechanism functions correctly before operating the wings individually. Make sure to collapse the cylinders, as an attempt to extend the cylinders will force the wings down and the outer wing may contact the ground or the entire wing may be lifted off the ground stands or sawhorses. Always attempt the initial folding and unfolding slowly and carefully as an incorrectly mounted bolt or hose may cause binding or allow the entire wing to drop. Also air in the lines will cause very erratic operation.

**! WARNING: To avoid personal injury or property damage, observe the following instructions.**

Make sure whenever operating the boom that there is no one in the line of unfolding and that there are no electric lines or tree branches that will come in contact with the boom during folding or unfolding.

When doing this the first time it would be advisable to have another person standing safely behind the sprayer to ensure that none of the hoses or cables are interfering with the boom operation and that the boom is correctly folding.

After the boom has been folded into the storage cradles the first time, stop and take a moment to make sure all hoses are routed correctly and that there are no interference problems. Examine the boom to make sure there are no leaking hydraulic fittings or hoses. Make sure the cables track into the storage positions and the wings are secure in the storage positions.

To operate the boom from the folded position:

The boom is designed to be used primarily with both wings unfolded to the spraying position. Spraying with only one wing extended, could excessively twist the ride mechanism, causing damage to boom.

Activate the levers to extend the cylinders to unfold the boom. (If you have the system using only two ports on the tractor and a switch box in the cab for height adjust control, make sure this switch is in the normal (wing level/folding) position.)

**! WARNING: To avoid personal injury or property damage, observe the following instructions.**

Always make sure the area is clear and no one will walk under the boom when it is unfolding and that there are no electric lines or tree branches that will interfere with the boom.

Unfold the wings until the cylinders are fully extended. This will make the boom is horizontal to the ground.

Spray height should be adjusted after the boom is unfolded. To adjust the boom height on the units with hydraulic height adjust with the switch box in the cab of the tractor, (units that use two sets of ports from the tractor) the switch in the cab must be switched on, to the height adjust position. Then actuate the corresponding hydraulic lever to raise or lower the boom to the correct position.

**X-FOLD BOOM CONTROL**



◀ HEIGHT ADJUST

◀ WING TILT/FOLDING



## SPRAYER CALIBRATION PROCEDURES

**NOTE:** To avoid wind drift, use lower pressure and higher spray volume.

### Guidelines For Sprayer Calibration

#### Calibrating the Sprayer

1. Mark off 660 feet (1/8 mile).
2. Fill the tank with water.
3. Set the sprayer to your desired operating pressure.
4. Turn the sprayer on and drive at the constant speed you will be spraying.  
Calibration on a road or unplowed field will give different results than on soft cultivated ground. Note tachometer reading so same speed can be maintained later.
5. Measure the amount of water it takes to refill the tank completely.
6. Calculate the amount applied:

$$\frac{\text{Number of gallons used} \times 66 (\text{factor})}{\text{Spray Swath in Feet}} = \text{Gallons applied per acre}$$

Example: If 10 gallons are used in 660 feet and the spray swath is 40 feet, spraying rate is 16.5 gallons per acre.

$$\frac{10 \times 66}{40} = \frac{660}{40} = 16.5 \text{ gallons per acre applied}$$

7. To calculate the amount of chemical to put in the tank:

$$\frac{\text{Sprayer Tank Size}}{\text{Desired GPA}} = \frac{\text{Acres Covered}}{\text{then;}}$$

$$\text{Recommended amount of chemical per acre} \times \text{Acres Covered} = \text{Amount of chemical per tankful}$$

Example: If a 500 gallon tank is used and 16.5 gallons per acre are applied, one tank will cover 30.3 acres. If three pounds of chemical are required per acre, then 90 pounds of chemical are required per tankful.

$$\frac{500}{16.5} = 30.3 \text{ acres covered then;}$$

$$3 \text{ lbs. (gal.)} \times 30.3 = 90 \text{ lbs. (gal.) per tankful}$$

$$10 \text{ mph} \quad .50$$

#### Sprayer Tips

##### FLAT SPRAY NOZZLE for Broadcast Spraying

Nozzle No.	Liquid Pressure in PSI	Nozzle Capacity in GPM	Gallons Per Acre Based on 20" Nozzle Spacing			
			4 MPH	5 MPH	7.5 MPH	10 MPH
XR8001VS	20	.07	5.3	4.3	2.8	2.2
	25	.08	5.9	4.7	3.1	2.4
	30	.09	6.4	5.1	3.4	2.6
	40	.10	7.4	6.0	4.0	3.0
XR80015VS	20	.11	7.8	6.3	4.3	3.2
	25	.12	8.8	7.1	4.7	3.6
	30	.13	9.7	7.7	5.2	3.9
	40	.15	11.1	8.9	6.0	4.5
XR8002VS	20	.14	10.5	8.4	5.6	4.2
	25	.16	11.8	9.4	6.3	4.7
	30	.17	12.9	10.3	6.9	5.2
	40	.20	14.8	11.8	7.9	5.9
XR8003VS	20	.21	15.7	12.6	8.4	6.3
	25	.24	17.6	14.1	9.4	7.1
	30	.26	19.0	15.4	10.3	7.7
	40	.30	22.0	17.8	11.8	8.9
XR8004VS	20	.28	21.0	16.8	11.2	8.4
	25	.32	24.0	18.7	12.5	9.4
	30	.35	26.0	21.0	13.7	10.3
	40	.40	30.0	24.0	15.8	11.9
XR8005VS	20	.35	26.0	21.0	14.0	10.5
	25	.40	29.0	23.0	15.7	11.7
	30	.43	32.0	26.0	17.2	12.9
	40	.50	37.0	30.0	19.8	14.9
XR8006VS	20	.42	31.0	25.0	16.9	12.6
	25	.47	35.0	28.0	18.7	14.1
	30	.52	39.0	31.0	21.0	15.5
	40	.60	45.0	36.0	24.0	17.8
XR8008VS	20	.56	42.0	34.0	22.0	17.0
	25	.63	47.0	37.0	25.0	19.0
	30	.69	52.0	41.0	27.0	21.0
	40	.80	59.0	48.0	32.0	24.0
8010SS	20	.70	53.0	42.0	28.0	21.0
	25	.78	59.0	47.0	31.0	24.0
	30	.86	64.0	51.0	34.0	26.0
	40	1.00	74.0	59.0	40.0	30.0

To determine GPA for solutions other than water, determine the weight per gallon or specific gravity and use the following conversion table.

Weight per Gallon	Specific Gravity	Multiply By
7.0 lbs.	.84	1.09
8.0 lbs.	.96	1.02
8.34 lbs. (water)	1.00	1.00
9.0 lbs.	1.08	.96
10.0 lbs.	1.20	.91
11.0 lbs.	1.32	.87
12.0 lbs.	1.44	.83

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## SPRAYER CHECKLIST

Downtime caused by field breakdowns is costly and time consuming. Many breakdowns can be eliminated by periodic equipment maintenance. By spending time reviewing this checklist before seasonal spraying application time and following proper after-season care, you can save time and money later.

### Check Before Going To The Field :



#### **WARNING: To Prevent Serious Injury Or Death**

- Keep hands, feet, and loose clothing away from rotating parts.
- Wear protective clothing recommended by your chemical and fertilizer manufacturer when working with chemicals.

#### 1. NOZZLES

Check tip for excessive wear by checking for grooves in or near tip opening. Check nozzle spacing by starting at center and working outwards. Check boom for proper height.

#### 2. HOSES

Check all hoses for worn or soft spots. Be sure all hose clamps are tightened and hoses are not kinked or pinched. Check for leakage in any lines.

#### 3. TANK

Remove and clean agitator orifices. Check orifices for excessive wear by checking for grooves in or near orifice opening. Inspect fitting and grommets to insure they are in good condition.

#### 4. CONTROLS

Check for leakage, plugging, or wear on all valves, fittings, etc. Clean off any build up of foreign material.

#### 5. PUMP

Check to be sure pump turns freely.

#### 6. FRAME

Be sure all bolts are tightened.

#### 7. REPLACEMENT PARTS

Replace all worn or damaged parts.

### After Season Care:

**NOTE: It is important to wear proper safety equipment when cleaning the sprayer. See your chemical or fertilizer package for this information.**

1. After spraying chemicals, run water mixed with cleaners through tank, pump and all hose hookups. If wettable powder dries out in the system, it is very difficult to put back into suspension and can cause malfunction, damage or injury.
2. When cleaned, tank should have all openings closed or covered to keep dirt from entering.
3. Pump should be flushed with soluble oil and pump ports plugged to keep out moisture and air.
4. Disassemble tips and rinse with water or cleaning solution. (Appropriate for chemical sprayed).
5. Clean tip opening with a wooden toothpick. Never use wire or hard object that could distort opening.
6. Dispose of all unused chemicals or solutions in a proper and ecologically sound manner.
7. Water rinse and dry tips before storing.

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**NOTE: DEMCO does not and will not make any recommendations concerning application of various chemicals or solutions. These recommendations relate to either amount or procedure of materials applied. If you have any questions regarding application of certain chemicals or solutions, contact your chemical supplier and follow chemical manufacturer recommendations.**

# ***DEMCO***

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