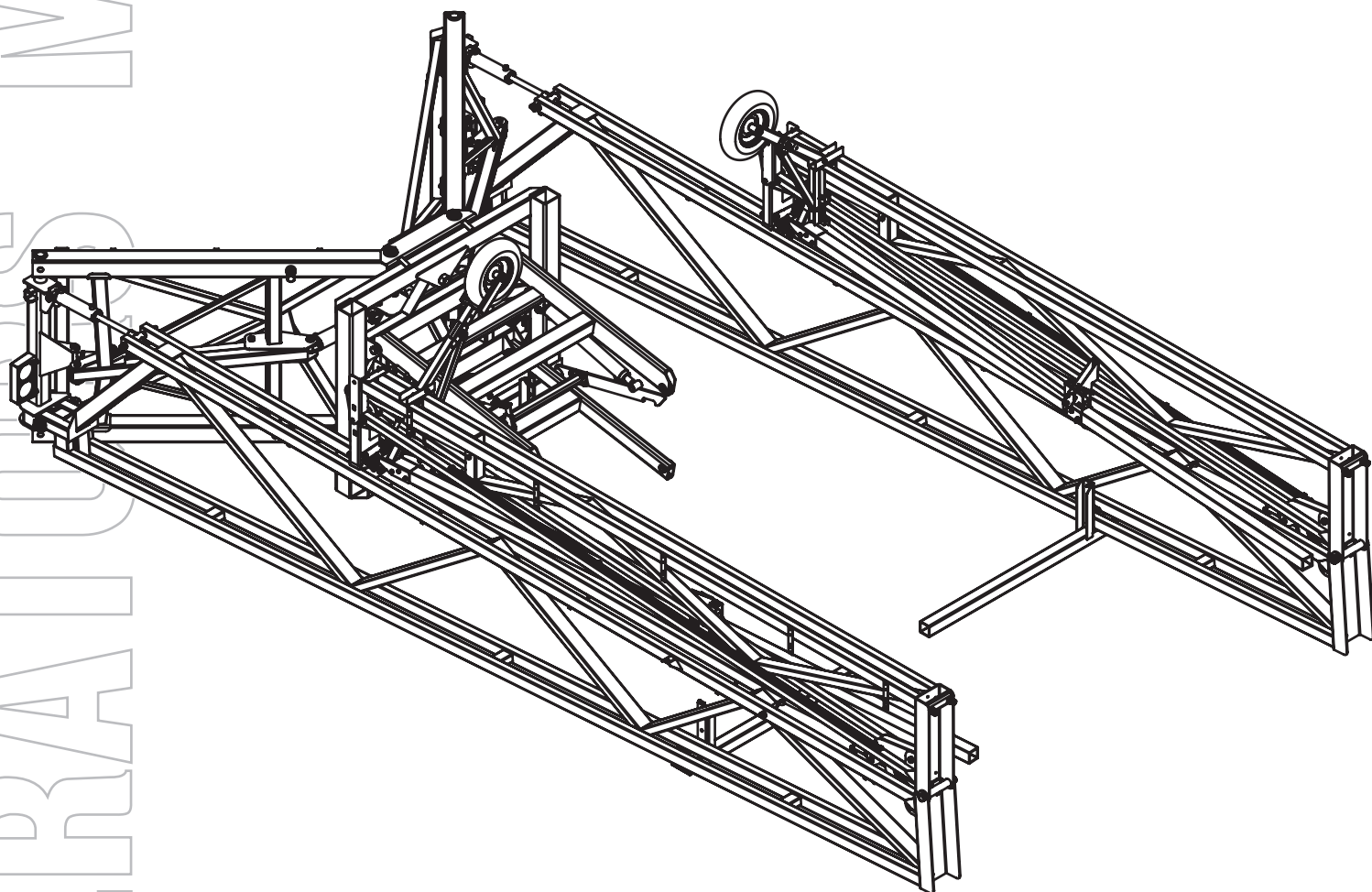




# Front Fold Boom

## 60-90-120'



ASSEMBLY  
CALIBRATION  
OPERATION  
REPLACEMENT PARTS

**READ** *complete manual CAREFULLY  
BEFORE attempting operation.*

*Doing Our Best To Provide You The Best*

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.



**WARNING:** TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, 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 means from a 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., DESCRIPTION, and COLOR.**

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## Warranty Registration

4010 320th Street • Box 189 • Boyden, Iowa 51234  
Toll Free 800-54DEMCO (800-543-3626) • FAX 800-845-6420  
www.demco-products.com

Ag	<input type="radio"/>
RV	<input type="radio"/>
Rental	<input type="radio"/>
Brakes	<input type="radio"/>
Marine	<input type="radio"/>

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied
How satisfied are you with our product?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How satisfied are you with the dealership/distributor sales staff?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dealer/Distributor Name _____ City _____ State _____				
How satisfied are you with the company sales staff?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How satisfied are you with the delivery?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Did you have any contact with a Demco Representative?	YES	NO		
If <b>YES</b> , how satisfied were you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would recommend this product to my family and friends.	YES	NO		
Would you purchase again from DEMCO?	YES	NO		
Since taking delivery, have you been contacted by the dealer?	YES	NO		
Did you have any problems with this DEMCO product?	YES	NO		
If <b>YES</b> , are you satisfied with the company's resolution of your problem?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please list the specific source of information prompting this purchase.

\_\_\_\_\_  
\_\_\_\_\_

After purchasing this product, do you see any needed product improvement? \_\_\_\_\_ If yes, what improvement? \_\_\_\_\_

\_\_\_\_\_

What other products would you like to see DEMCO offer? \_\_\_\_\_

\_\_\_\_\_

Comments \_\_\_\_\_

\_\_\_\_\_

Owner's Name: \_\_\_\_\_ Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Model#: \_\_\_\_\_

Serial #: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Owner's Signature: \_\_\_\_\_

Please return to DEMCO By FAX or tri-folding this form to the backside, it is pre-addressed.

Postage

*Demco  
4010 320th Street, Box 189  
Boyden, Iowa 51234*

**NOTES:**

## SAFETY

**TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE 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**

Note the use of the following signal words DANGER, WARNING, and CAUTION with the safety messages. The appropriate signal word for each 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 the 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, P.O. Box 189, 4010 320th Street, Boyden, IA 51234  
ph: (712) 725-2311 Toll Free: 1-800-543-3626 Fax: (712) 725-2380 [www.demco-products.com](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 this 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 the 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 equipment under the influence of alcohol or drugs.

Review the 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 THE 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 equipment. Observe all safety signs and practice the instructions on them.

Never exceed the limits of a piece of machinery. 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 the customer to know the lighting and marking requirements of the local highway authorities and to install and maintain the equipment to provide compliance with the regulations. Add extra lights when transporting at night or during periods of limited visibility.

Lighting kits are available from your dealer or from the manufacturer.



## SAFETY SIGN CARE

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

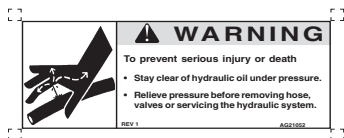
### **How to install safety signs:**

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

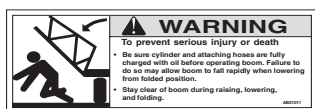


## **SAFETY SIGN LOCATIONS**

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.



**#1** Warning : Stay clear of hydraulic oil under pressure

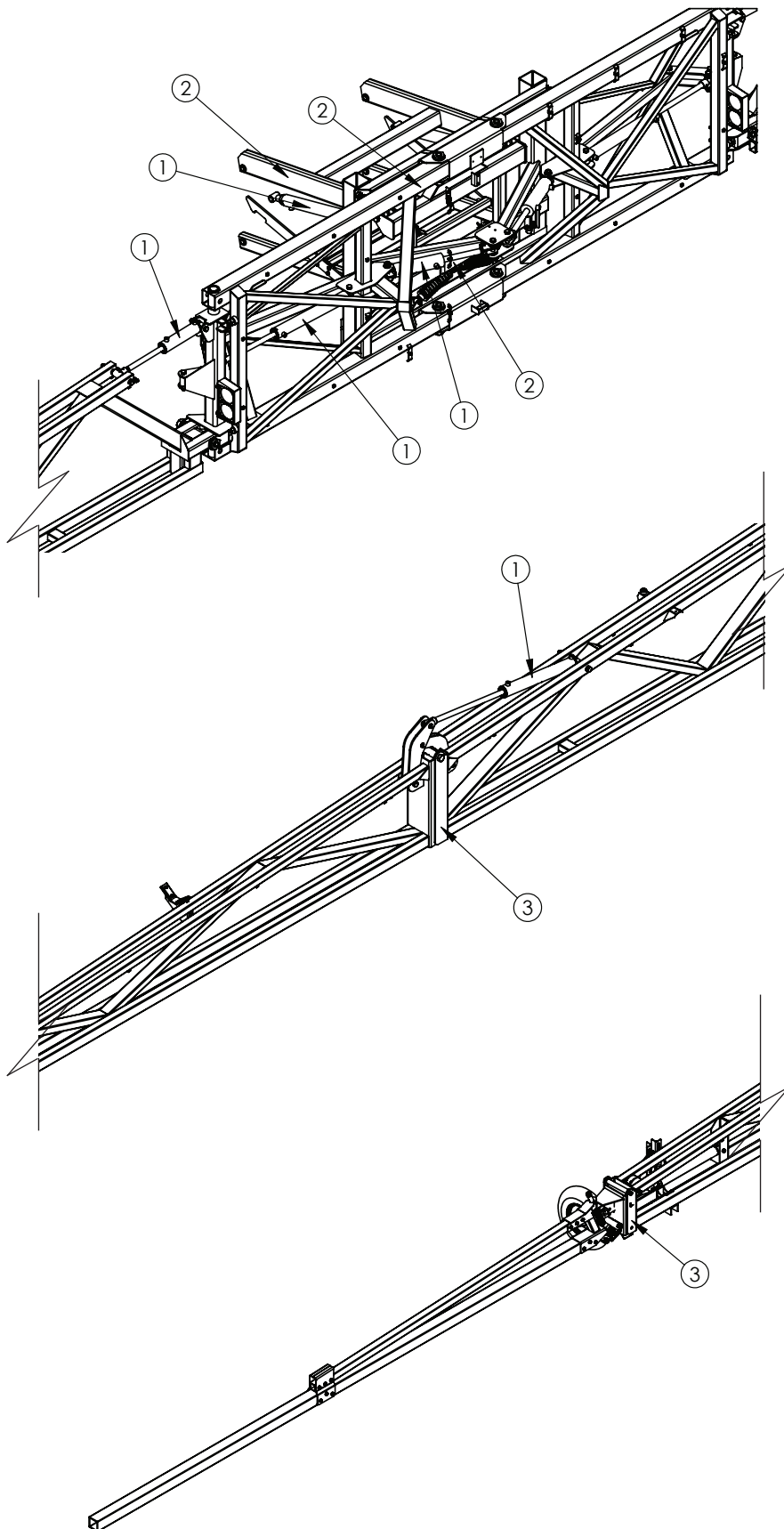


**#2** Warning : Stay clear of boom during raising, lowering and folding



**#3** Warning : PINCH POINTS

These decals are available for replacement as a kit.  
Order # AC21004







## **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.
- The operator may come in contact with certain materials which may require specific safety equipment relative to the handling of such materials. (Examples: extremely dusty, molds, fungus, bulk fertilizers, etc.)
- Keep wheel and lug nuts tightened to specified torque.
- Assure that agricultural implement tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially around children and animals.
- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Make sure that the brakes are evenly adjusted (if equipped with brakes)
- Use a tractor equipped with Roll Over Protection System (ROPS) and fasten your seat belt prior to starting the engine.
- The manufacturer does not recommend usage of a tractor with the ROPS removed.
- Move the tractor wheels to the widest recommended settings to increase stability.
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach a safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.



## **DURING OPERATION**

- **SAFETY CHAIN** -If equipment is going to be transported on a public highway, a safety chain should be obtained and installed. Always follow state and local regulations regarding safety chain and auxiliary lighting when towing farm equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.

- Install the safety chain by crossing the chains under the tongue and secure to the draw bar cage, hitch, or bumper frame.
- Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the 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 the tractor or equipment.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate, or adjust your equipment while it is moving.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine, and **remove the ignition key**.
- Be especially observant of the operating area and terrain- watch for holes, rocks, or other hidden hazards. Always inspect the area prior to operation.
  - DO NOT operate near the edge of drop-offs or banks.
  - DO NOT operate on steep slopes as overturn may result.
  - Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.
- Pick the levellest possible route when transporting across fields. Avoid the edges of ditches, gullies, and steep hillsides.
- Be extra careful when working on inclines.
- Periodically clear the equipment of brush, twigs, or other materials to prevent buildup of dry combustible materials.
- Maneuver the 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 fill, rocks, and holes; they can be dangerous for equipment operation or movement.
- Allow for unit 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 the work area.
- Operate the towing vehicle from the 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 attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.



## FOLLOWING OPERATION

- Following operation, or when unhitching, stop the tractor or towing vehicle, set the brakes, disengage the PTO and all power drives, shut off the engine and **remove the ignition keys**.
- Store the unit in an area away from human activity.
- Do not park equipment 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 the stored unit.
- 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

- Adopt safe driving practices:
  - Keep the 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 and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.

- Reduce speed prior to turns to avoid the risk of overturning.
- Always keep the 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 operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your dealer.
- The 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 the tractor and equipment on the road under 20 mph (40 kph) at night or during the 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 loading ratings. Do not cross bridges rated lower than the gross weight at which you are operating.

- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the 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 the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- Before working on this machine, stop the towing vehicle, set the brakes, disengage the PTO and all power drives, shut off the engine and **remove the ignition keys**.
- Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.
- **Always** use a safety support and block wheels. Never use a jack to support the machine.
- Always use the proper tools or equipment for the job at hand.
- Use extreme caution when making adjustments.
- Follow the 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 the skin.
- When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.
- Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. **Without immediate medical treatment, serious infection and reactions can occur.**
- 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 step or platform.
- Never replace hex bolts with less than grade five bolts unless otherwise specified.
- 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. The Manufacturer will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, the 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.

# BOLT TORQUE

## 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.



### Torque Specifications

#### Bolt Torque for Standard bolts \*

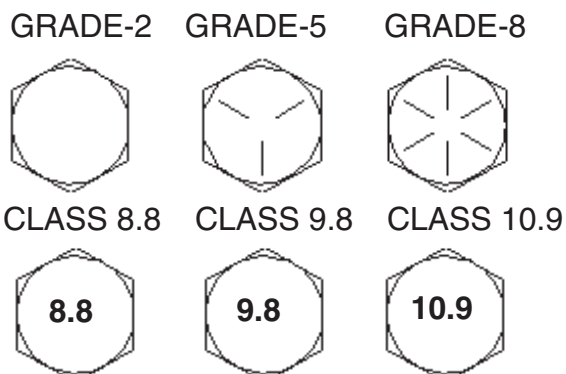
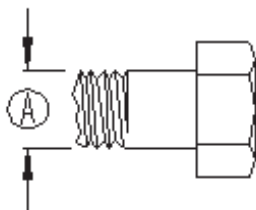
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290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

#### Bolt Torque for Metric bolts \*

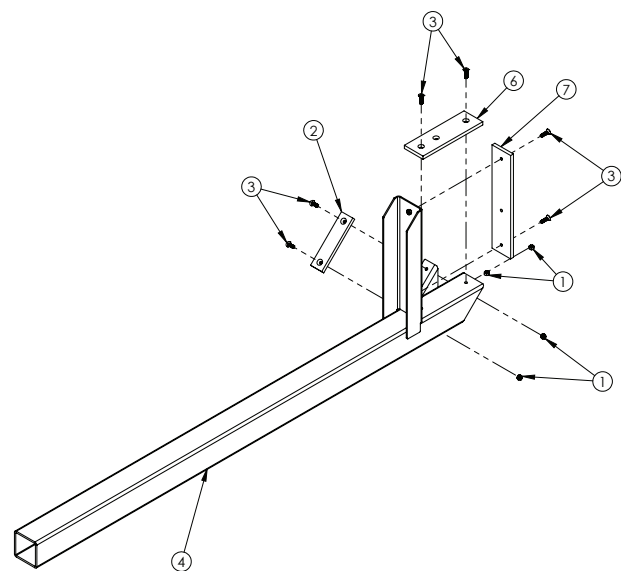
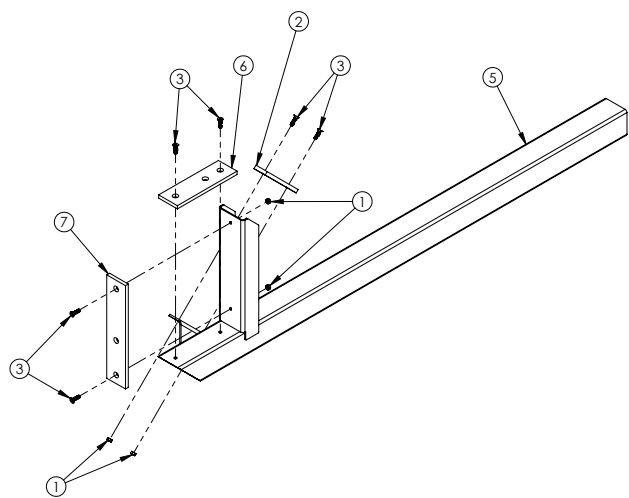
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)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

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.



BOOM REST ASSEMBLY AND PARTS BREAKDOWN



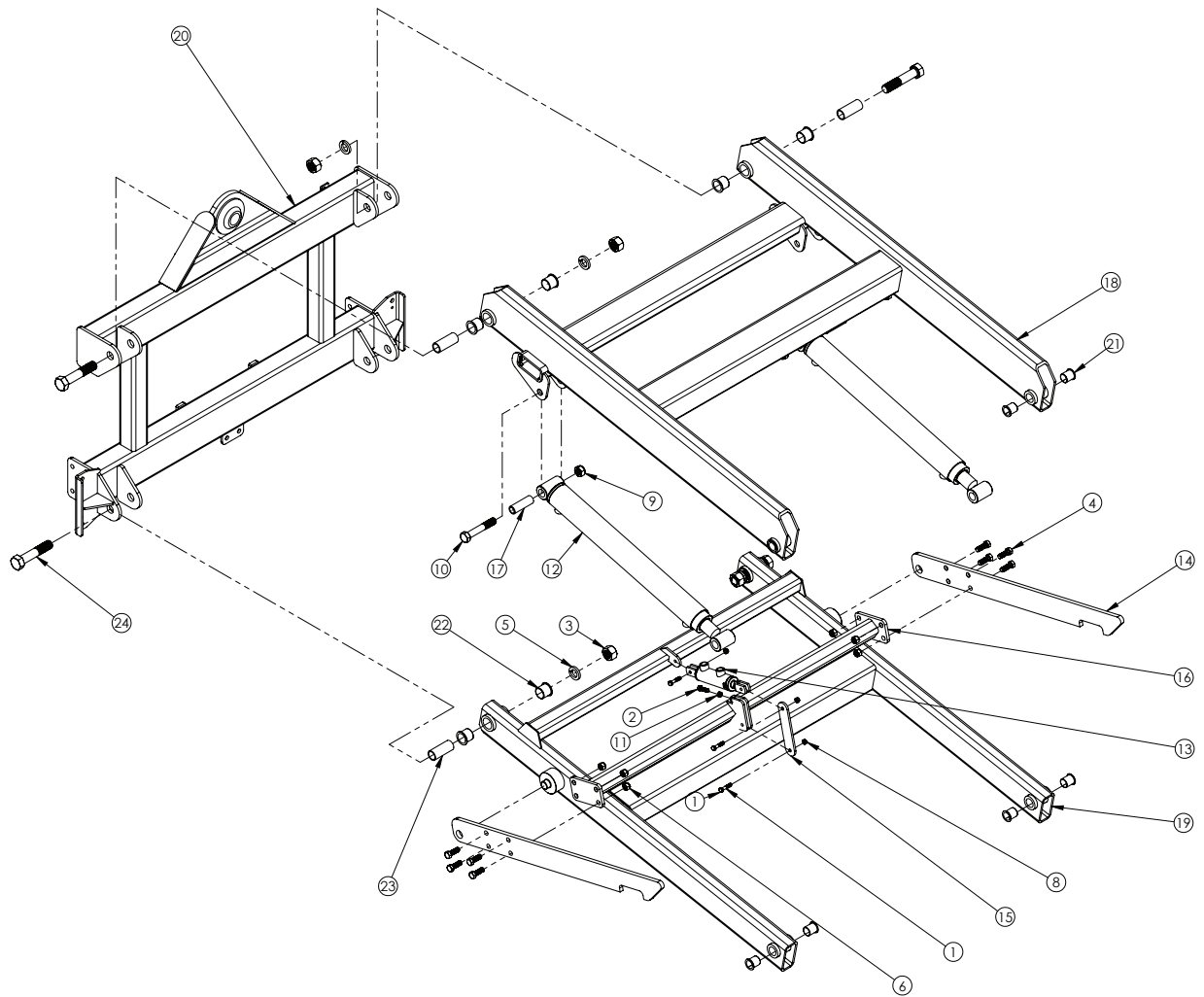
FRONT OF TRACTOR  
(SEE FRONT COVER)

PARTS LIST

REF. PART			
NO.	NO.	QTY.	DESCRIPTION
1.	02772	12	1/2"NC Nylon Insert Locknut
2.	03324	2	Wear Plate
3.	07082	12	1/4"NC x 1" Torx Screws
4.	12360-30	1	Left Wing Rest (Black)
5.	12361-30	1	Right Wing Rest (Black)
6.	12362	2	Wear Plate 8"
7.	12363	2	Wear Plate 12"

Please order replacement parts by PART NO., DESCRIPTION, and COLOR.

# HEIGHT ADJUST ASSEMBLY AND PARTS BREAKDOWN



## PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	00372	3	5/16" UNC x 1-1/2" Hex Head Bolt (Gr.5)
2.	00523	1	3/8" UNC x 1-1/4" Hex Head Bolt (Gr.5)
3.	00884	4	1"-8 UNC Hex Nut
4.	01254	8	1/2" UNC x 1-1/2" Hex Head Bolt (Gr.5)
5.	01974	4	1" Locking Spring Washer
6.	02178	8	1/2" UNC Nylon Insert Locknut
7.	02772	1	1/4" UNC Nylon Insert Locknut
8.	02802	3	5/16" UNC Nylon Insert Locknut
9.	02961	2	3/4"-10 UNC Nylon Insert Locknut
10.	03700	2	3/4"-10 UNC x 4-1/2" Hex Head Bolt (Gr.5)
11.	04886	1	3/8" UNC Jam Nut
12.	09752-30	2	Cylinder, Hyd. 2.50" x 20" Stroke (Black)
13.	09985-30	1	Cylinder, Hyd. 1.50" x .63" Stroke W/O Spring (Black)
14.	10444-30	2	Latch For 90' Boom (Black)
15.	10446-30	1	Latch Linkage Arm (Black)
16.	10447-30	1	Latch Connector (Black)
17.	11338-95	2	1.00" x 3.06" Bushing (Plated)
18.	12272-30	1	Upper Height Adjust Frame (Black)
19.	12273-30	1	Lower Height Adjust Frame (Black)
20.	12274-30	1	Boom Mounting Frame (Black)
21.	12291	8	1-1/4" I.D. x 1-1/4" Plastic Bushing
22.	12293	8	1-1/4" I.D. x 1-1/4" Plastic Bushing
23.	12309-95	4	1-1/4" x 3" Bushing (Plated)
24.	12322	4	1"-8 UNC x 5" Hex Head Bolt (Gr.5)

Please order replacement parts by PART NO. , DESCRIPTION, and Color.

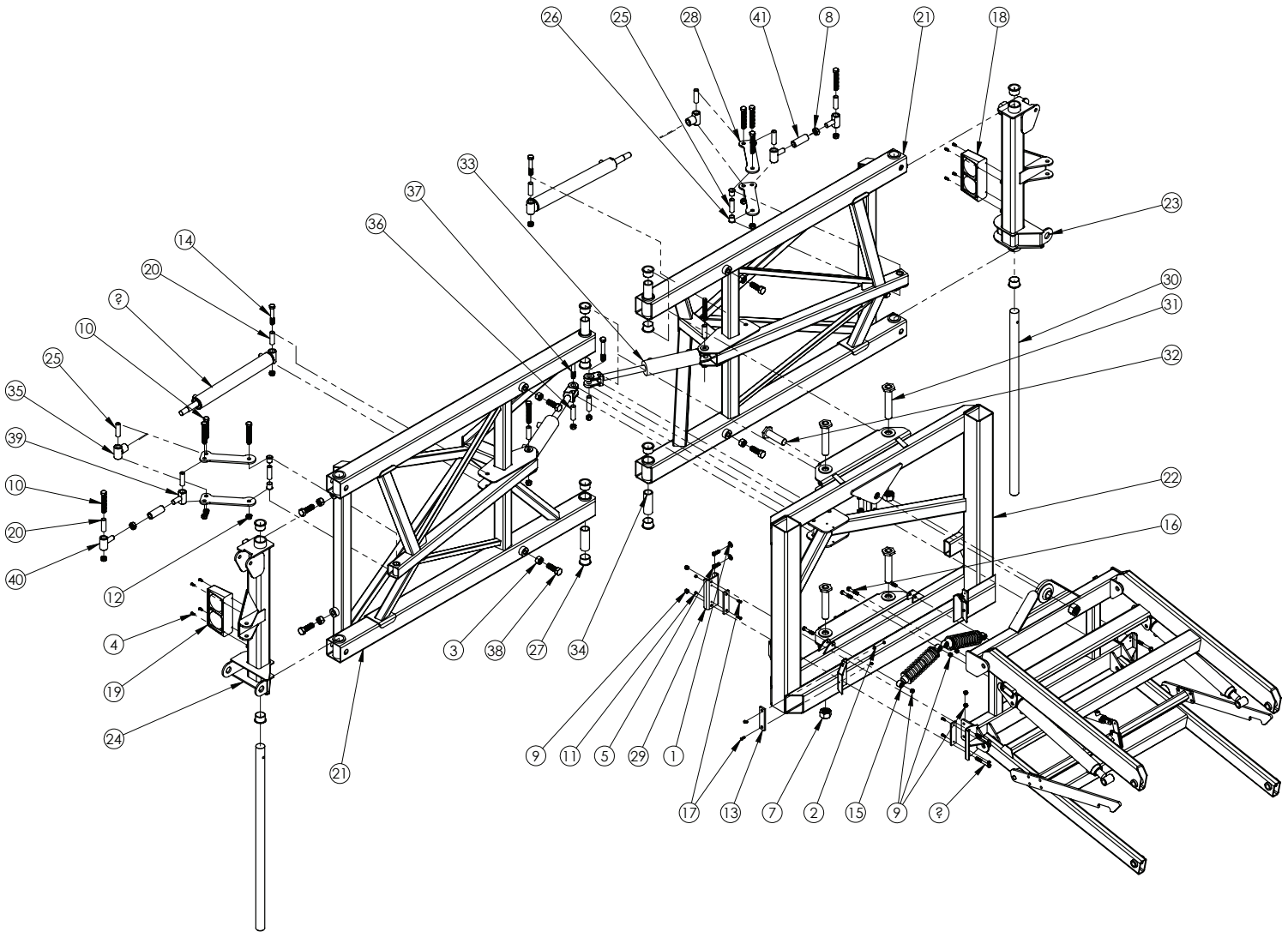
## ADJUSTMENT INSTRUCTIONS

1. If latch does not lower completely, turn out 3/8" bolt (#2) until latch is in correct position (cylinder must be out).
2. Reverse procedure if latch is too low.
3. Lock Jam Nut (#11) when procedure is complete.



# BOOM CARRIER PARTS BREAKDOWN

Connect Yellow wire to left light  
Connect Green wire to right light



## PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	00085	4	1/2" Flat Washer
2.	00214	2	1/4" Flat Washer
3.	00884	8	1"-8 UNC Hex Nut
4.	01076	8	1/4"-20 UNC x 3/4" Hex Head Bolt (Gr.5)
5.	01254	4	1/2" UNC x 1-1/2" Hex Head Bolt (Gr.5)
6.	01896	4	1/2" UNC x 4" Hex Head Bolt (Gr.5)
7.	01922	5	1-1/2"-12 UNF Hex Nut
8.	01949	2	1"-16 UNF Jam Nut Right Hand
9.	02178	12	1/2" UNC Nylon Insert Locknut
10.	02389	10	3/4" UNC x 5" Hex Head Bolt (Gr.5)
11.	02772	12	1/4" UNC Nylon Insert Locknut
12.	02961	14	3/4" UNC Nylon Insert Locknut
13.	03324	6	Wear Plate
14.	03700	2	3/4"-10 UNC x 4-1/2" Hex Head Bolt (Gr.5)
15.	04524	2	Shock Absorber W/ Spring
16.	04797	4	1/2" UNC x 2-3/4" Hex Head Bolt (Gr.5)
17.	07082	12	1/4" UNC x 1" Flat HD Torx (Gr. 5)
18.	09771	2	Cylinder Hyd. 2" Wing Fold
19.	10032	1	Left Light Assembly
20.	10033	1	Right Light Assembly
21.	11338-95	8	1.00" x 3.06" Hinge Bushing (Plated)
22.	12250-30	1	Right Kickback Frame (Black)
23.	12251-30	1	Left Kickback Frame (Black)
24.	12277-30	1	Center Section W/ Pivot (Black)

## PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
25.	12278-30	1	Left Hinge Assembly (Black)
26.	12279-30	1	Right Hinge Assembly (Black)
27.	12289-95	6	1.00" OD x 3.25" Bushing (Plated)
28.	12291	6	1" I.D. x 1-1/4" Plastic Bushing
29.	12295	12	2" I.D. x 1-1/2" Plastic Bushing
30.	12300-30	4	Fold Link Plate (Black)
31.	12302-30	2	Wear Plate Mount (Black)
32.	12303-95	2	Kickback Hinge (Plated)
33.	12304-95	4	Kickback Pin (Plated)
34.	12305-95	1	Center Pivot Pin (Plated)
35.	12308-30	2	Cylinder Hyd. 3" x 8" Stroke (Black)
36.	12310-95	4	2.00" OD x 5.47" Bushing (Plated)
37.	12311-95	2	3" Cylinder End (Plated)
38.	12312-95	2	1.00" OD x 10.00" Bushing (Plated)
39.	12320	2	3/4"-10 UNC x 3" Hex Head Bolt (Gr.5)
40.	12323	8	1"-8 UNC x 3" Hex Head Bolt (Gr.5)
41.	12347-95	2	Link End, Left Hand (Plated)
42.	12348-95	2	Link End, Right Hand (Plated)
43.	12349-95	2	Link Nut (Plated)

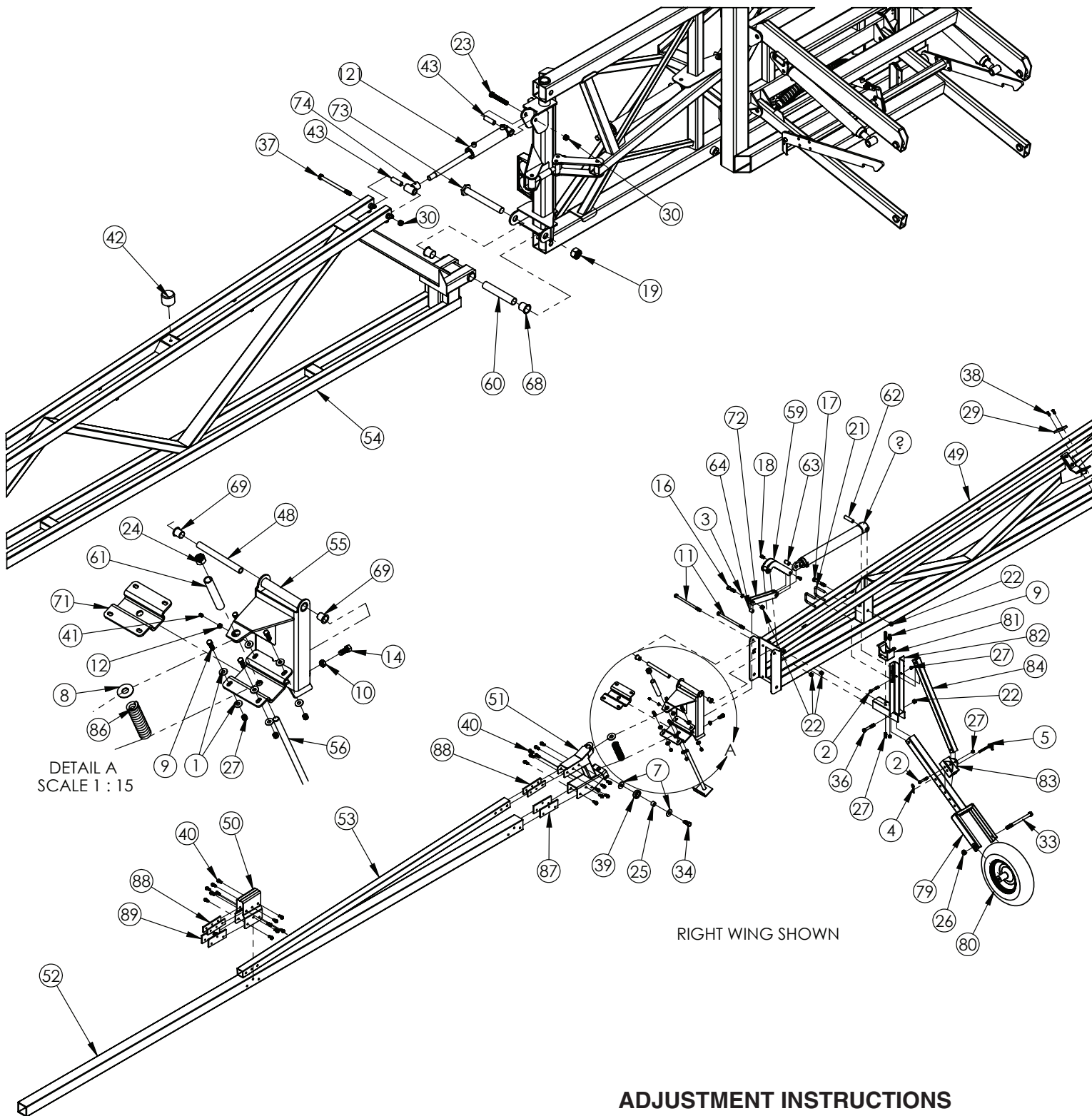
Please order replacement parts by **PART NO. , DESCRIPTION, and COLOR**



# BOOM CARRIER ADJUSTMENT

## ADJUSTMENT INSTRUCTIONS

1. Folded adjustment is done by adjusting cylinder end on 3 x 8 cylinder (#35). Adjusting out will bring wings closer to sprayer.
2. Unfolded adjustment is done with 1 inch bolts (#40). Set frame straightness first then set wing straightness.
3. Wing fold linkage adjustment.
  - a. First set latch to overcenter by about 1/8 inch. Adjust Cylinder End (#37) out for more overcentering.
  - b. Adjust latch tightness by turning link nut (#43) out to make latch tighter. If this is too tight then wings will not come forward. Lock nut (#8) when complete.



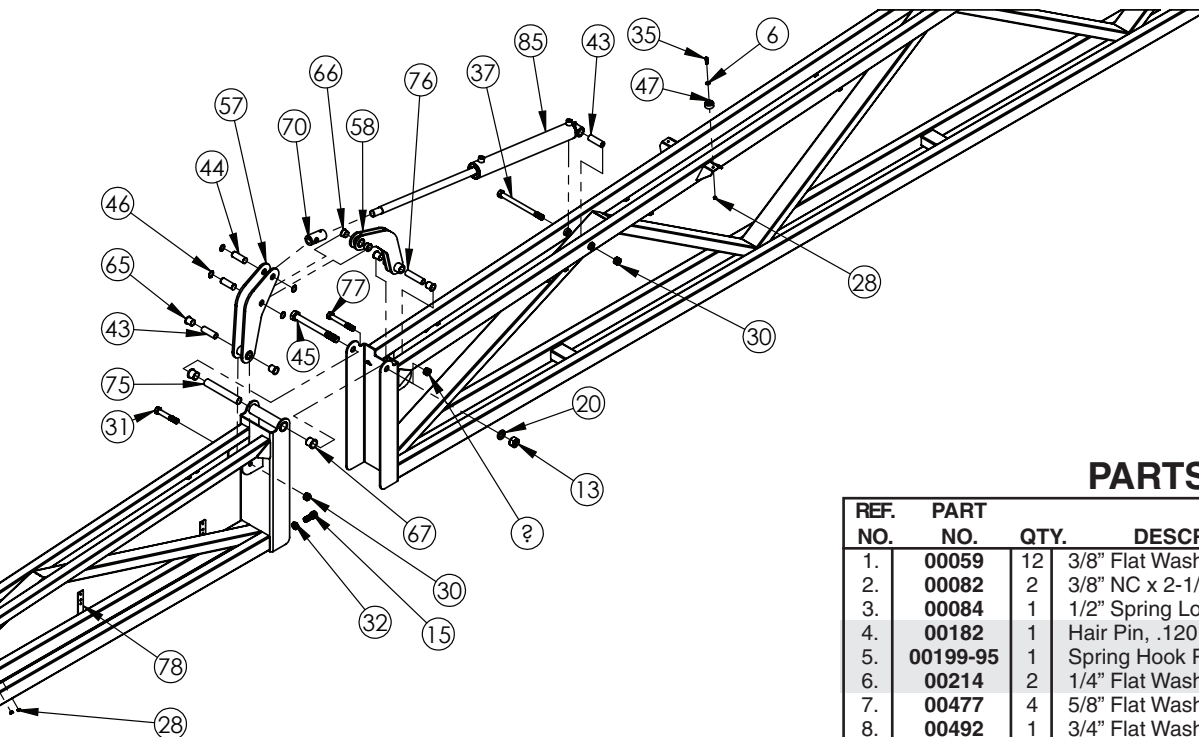
### 1st to 2nd Wind Adjustment

1. Adjust height by turning bolts (#15) in or out.
2. Cylinder End (#71) can be adjusted if wing does not fold in or out completely.

### 2nd to 3rd Wind Adjustment

1. Adjust height by turning bolts (#14) in or out.
2. Wing straightness can be corrected by adjusting bolts on breakaway plate (#72).

# WING ASSEMBLY AND PARTS BREAKDOWN



## PARTS LIST

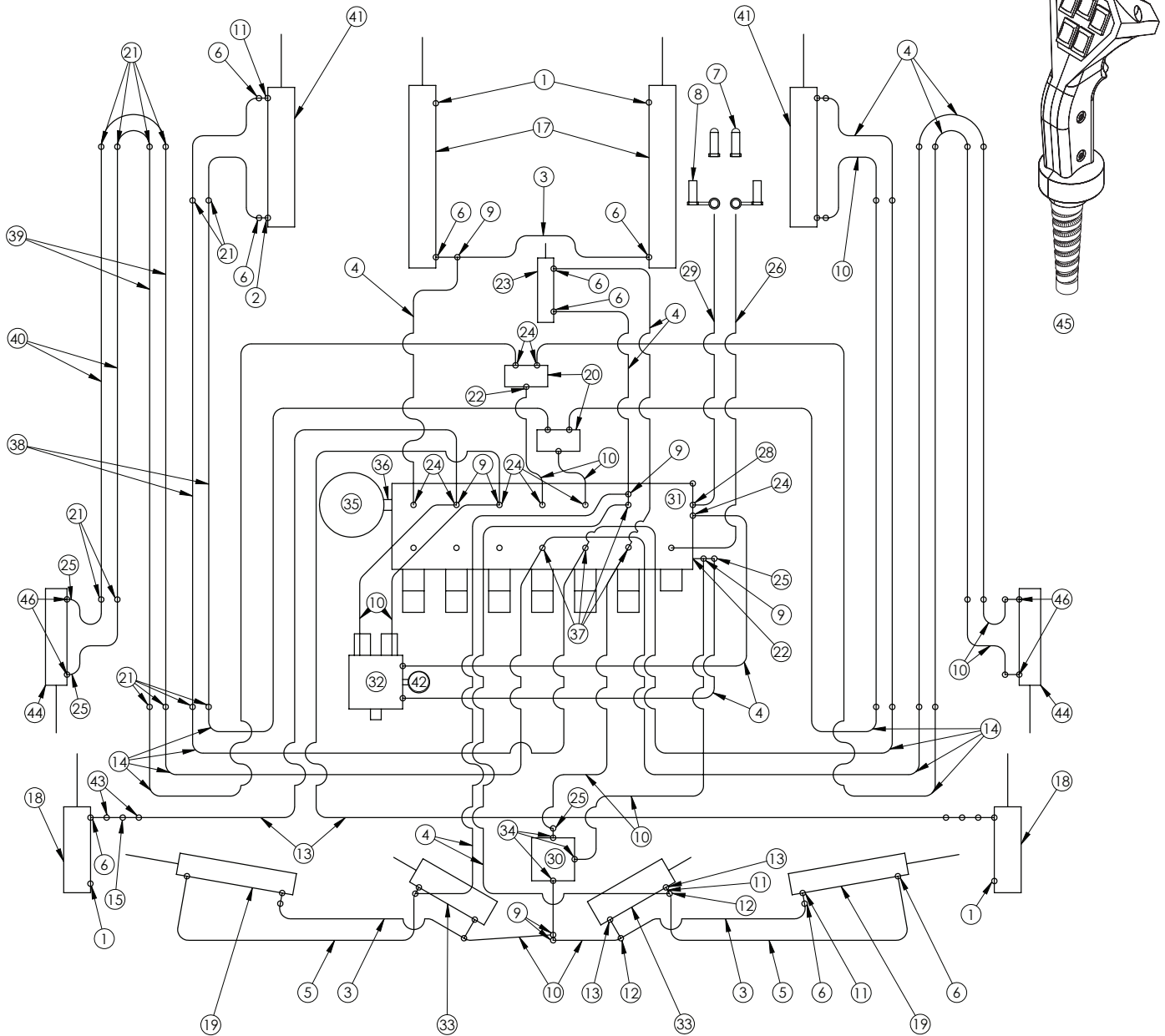
REF. NO.	PART NO.	QTY.	DESCRIPTION
-	12246-30	1	Left Breakaway (Black)
57.	12276-95	1	Breakaway Pin
58.	12280-30	1	Driver Link
59.	12281-30	1	Driven Link
60.	12282-30	1	Outer Wing Fold Link
61.	12283-95	1	Main Wing Bushing 1-3/4" O.D. x 10" (Plated)
62.	12285-95	1	Breakaway Bushing 1" O.D. x 5-1/2" (Plated)
63.	12286-95	1	Bushing 3/4" O.D. x 2.69" (Plated)
64.	12287-95	1	Threaded Bushing
65.	12288-95	1	Bushing 3/4" O.D. x 3-1/4" (Plated)
66.	12291	3	1" I.D. x 1-1/4" Plastic Bushing
67.	12292	2	1" I.D. x 3/4" Plastic Bushing
68.	12293	8	1-1/4" I.D. x 1-1/4" Plastic Bushing
69.	12294	2	1-3/4" I.D. x 2" Plastic Bushing
70.	12296	2	3/4" I.D. x 1" Plastic Bushing
71.	12298-95	1	Cylinder End
72.	12299-30	1	Breakaway Plate
73.	12301-30	4	Outer Wing Link
74.	12306-95	1	Wing Hinge Pin
75.	12311-95	2	3" Cylinder End
76.	12313-95	1	Bushing 1-1/4" O.D. x 8" (Plated)
77.	12314-95	1	Bushing 1" O.D. x 3.97" (Plated)
78.	12320	1	3/4"-10 UNC x 5-1/2" Hex Head Bolt
79.	12344-30	5	Double Tip Tube Mount
80.	12351-30	1	Wheel Fork
81.	12352	1	Carefree Tire
82.	12353-30	1	Wheel Mount Clamp
83.	12354-30	1	Wheel Mount Assembly
84.	12355-30	1	Adjustment Sleeve
85.	12356-30	1	Brace Tube
86.	12358-30	1	Cylinder Hyd. 2-1/2" x 20" Stroke
87.	12359	1	Breakaway Spring
88.	12364-95	2	Small Thread Plate
89.	12365-95	4	Large Threaded Plate
90.	12366-95	2	Threaded Plate
91.	12799-30	1	Cylinder Hyd. 1-3/4" x 16" Stroke

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

## PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	00059	12	3/8" Flat Washer
2.	00082	2	3/8" NC x 2-1/2" Hex Head Bolt (Gr.5)
3.	00084	1	1/2" Spring Lock Washer
4.	00182	1	Hair Pin, .120 x 2-3/8" Wire
5.	00199-95	1	Spring Hook Pin
6.	00214	2	1/4" Flat Washer
7.	00477	4	5/8" Flat Washer
8.	00492	1	3/4" Flat Washer
9.	00523	7	3/8" NC x 1-1/4" Hex Head Bolt (Gr.5)
10.	00640	2	1/2" NC Hex Jam Nut
11.	00678	2	1/2" NC x 8-1/2" Hex Head Bolt (Gr.5)
12.	00710	1	5/16" NC Hex Jam Nut
13.	00884	1	1" NC Hex Nut
14.	00967	2	1/2" NC x 1-1/4" Hex Head Bolt (Gr.5)
15.	01235	2	3/4" NC x 2" Hex Head Bolt (Gr.5)
16.	01253	1	1/2" NC x 2" Hex Head Bolt (Gr.5)
17.	018971	1	1/2" NC x 3-1/2" Hex Head Bolt (Gr.5)
18.	01899	2	3/8" NC x 3/4" Hex Head Bolt (Gr.5)
19.	01922	1	1-1/2"-12 UNF Hex Nut W/ Set Screw Hole
20.	01974	2	1" Spring Lock Washer
21.	02128	2	3/8" NC x 2.063" x 3" SQ. U-Bolt
22.	02178	7	1/2" NC Nylon Insert Locknut
23.	02389	1	3/4" NC x 5" Hex Head Bolt (Gr.5)
24.	02425	1	3/4" UNF Hex Nut
25.	02562-95	2	5/8" I.D. x 11/16" Spacer
26.	02587	1	5/8" NC Nylon Insert Locknut
27.	02592	13	3/8" NC Nylon Insert Locknut
28.	02772	9	1/4" NC Nylon Insert Locknut
29.	02946	2	Wear Plate
30.	02961	6	3/4" NC Nylon Insert Locknut
31.	03700	1	3/4"-10 UNC x 4-1/2" Hex Head Bolt (Gr.5)
32.	03701	2	3/4" Hex Jam Nut
33.	03729	1	5/8" NC x 8" Hex Head Bolt (Gr.5)
34.	04051	2	5/8" NC x 1-1/2" Hex Head Bolt (Gr.5)
35.	04055	1	1/4"-20 NC x 1" Hex Head Bolt (Gr.5)
36.	05290	1	1/2" NC x 3-1/4" Hex Head Bolt (Gr.5)
37.	05550	2	3/4" NC x 10" Hex Head Bolt (Gr.5)
38.	07082	8	1/4" NC x 1" Flat Head Torx
39.	07134	2	HD Breakaway Roller W/ Bronze Bushing
40.	07594	24	3/8" NC x 1" Hex Head Self Tapping Screw
41.	08097	1	5/16" NC x 1/2" Socket Head Set Screw
42.	09770-30	1	Cylinder Hyd. 2-1/2" x 8" Stroke
43.	10443	1	Rubber Bumper
44.	11338-95	4	Hinge Bushing 1" x 3.06" (Plated)
45.	11341-95	2	Slide Rod Pin (Plated)
46.	11359	1	1" UNC x 10" Hex Head Bolt (Gr.5)
47.	11360	4	1" External Snap Ring
48.	11867	1	Rubber Bumper
49.	12184-95	1	Outer Wing Spacer Bushing
50.	12234-30	1	Middle Wing (Right)
-	12231-30	1	Middle Wing (Left)
51.	12235-30	1	End Plate Assembly
52.	12237-30	1	Breakaway
53.	12241-30	1	Outer Main Tube
54.	12242-30	1	Outer Top Tube
55.	12244-30	1	Inner Wing (Black)
56.	12245-30	1	Right Breakaway (Black)

# 120' FRONT FOLD HYDRAULIC SCHEMATIC

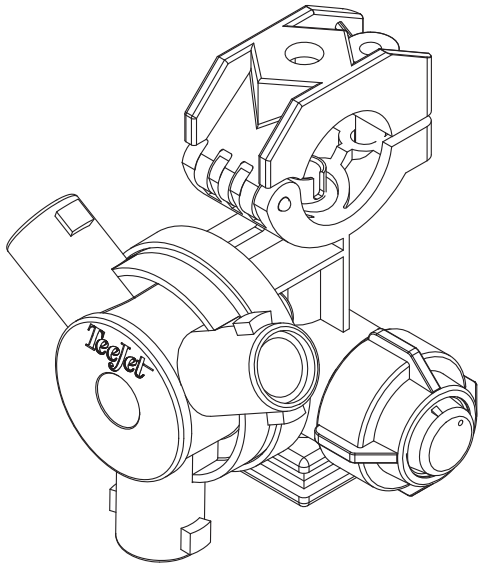


## HYDRAULICS PARTS LIST

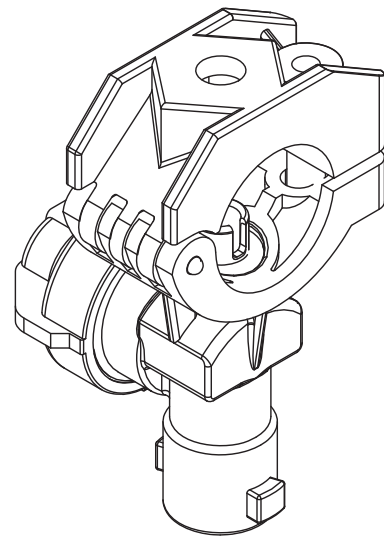
REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	00288	4	Air Vent For Hydraulic Cylinder
2.	03743	2	FTG STR 3/8 F/MPT Swivel (.41 Orifice)
3.	05190	3	Hose Hyd. 1/4" x 48" OAL
4.	05191	13	Hose Hyd. 1/4" x 36" OAL
5.	05192	2	Hose Hyd. 1/4" x 60" OAL
6.	05194	14	FTG Hyd. Elbow 90 Deg. 3/8"
7.	05197	2	Quick Coupler 1/2" RPT With Male Tip
8.	05198	2	Rubber Cover For Quick Coupler
9.	05203	7	FTG Hyd. Tee .563" M Type (2x)
10.	05212	14	Hose Hyd. 1/4" x 18-1/2" OAL
11.	05661	6	FTG Hyd. STR 3/8" F/MPT 3/8" FPT Reducer
12.	05827	4	FTG Hyd. Tee 9/16" Tube (2x)
13.	05831	6	FTG Hyd. STR 1/2" MPT x 3/8" FPT Reducer
14.	05839	10	Hose Hyd. 1/4" x 142" OAL
15.	08134	2	Valve Flow Control (Deltrol)
16.	08136	2	FTG Hyd. STR 9/16" M Tube x .25 MPT
17.	09752-30	2	Cylinder Hyd. 2-1/2" x 20" Stroke
18.	09770-30	2	Cylinder Hyd. 2-1/2" x 8" Stroke
19.	09771-30	2	Cylinder Hyd. 2" x 16" Stroke
20.	09919	2	Flow Divider Hyd w/ .8mm Orifice
21.	09950	24	FTG Hyd. STR 9/16" M (2x)
22.	09951	3	FTG Hyd. STR 9/16" M Tube x 1/2" M O-Ring
23.	09985-30	1	Cylinder Hyd. 1-1/2" x 5/8" Stroke W/O Spring
24.	11143	14	FTG Hyd. 90 Deg Male Adjustable

REF. NO.	PART NO.	QTY.	DESCRIPTION
25.	11434	2	FTG Hyd. #6 JIC Female
26.	11629	1	Hose Hyd. 3/8" x 36 1/2" M
27.	11763	1	O-Ring Plug #6
28.	11949	1	FTG Hyd. #10 O-Ring M x 1/2" FPT Swivel
29.	11950	1	Hose Hyd. Tee #6 O-Ring M x 1/2" MPT (2x)
30.	12056	1	Block Hyd. Breakaway 120'
31.	12057	1	Block Hyd. 6 Function
32.	12221	1	Block Hyd. Glide System
33.	12308-30	2	Cylinder Hyd. 3" x 8" Stroke
34.	12325	3	FTG Hyd. #12 O-Ring M x #6 JIC
35.	12326	1	Accumulator 850 PSI Nitrogen Charged
36.	12327	1	FTG Hyd. #8 O-Ring Metric
37.	12328	4	FTG Hyd. Tee #6 O-Ring M x #6 JIC M (2x)
38.	12337-30	4	214" Hydraulic Line Assembly
39.	12338-30	4	238" Hydraulic Line Assembly
40.	12339-30	4	136" Hydraulic Line Assembly
41.	12358-30	2	Cylinder Hyd. 2-1/2" x 20" Stroke
42.	12369	1	Gauge Hyd. 3000 PSI #4 O-Ring
43.	12452	4	FTG Hyd. 1/4" MPT M x #6 JIC
44.	12799-30	2	Cylinder Hyd. 1-3/4" x 16" Stroke w/ Clevis
45.	12220	1	Pendant 6 Function w/ Glide Contol Box
46.	12907	4	FTG JIC-6 Orifice .018

## WET BOOM TEEJET NOZZLES



PART# 12455



PART# 12454

### BOOM OPERATING INSTRUCTIONS.

**Note: Tractor must have at least 2700 PSI hydraulic pressure.**

#### 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.

**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.

**Note: Glide System must be OFF to perform Boom Fold and Un Fold**

#### Unfolding the Boom :

1. Lock hydraulic lever in on position
2. Raise height adjustment with trigger on pendant control.
3. Raise left and right off wing rests (it is not necessary to raise wings completely).
4. Unfold 1st section wings by pushing fold 1 switch up.
5. Lower left and right wings
6. Unfold 2nd section wings by pushing fold 2 switch up.
7. Unfold 3rd section wings by pushing fold 3 switch up.
8. Hydraulic lever must remain on while spraying.

#### Folding the Boom:

1. Raise height adjust completely
2. Fold in 3rd section
3. Fold in 2nd Section
4. Raise wings partially

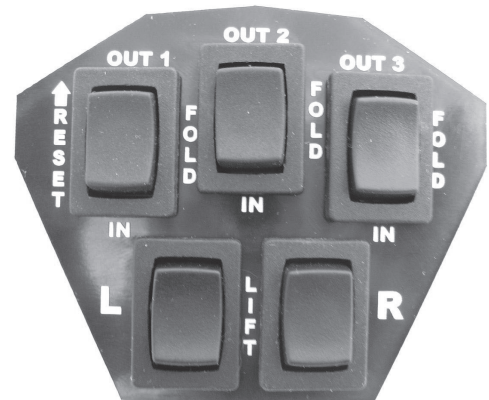
5. Fold in 1st section
6. Lower wings
7. Lower height adjust

**Note: Do not select more than one switch at a time.**

#### Glide System Operating:

1. Fold out to desired width (90' or 120').
2. Turn on glide switch (Light should come on).
3. Turn dial clockwise until wings start to raise.
4. Back dial down counter clockwise until wings begin to lower.
5. Ready to spray.

If wings lower to slowly adjust orifices on wing lift cylinders.



Pendant Controller Face



# 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.



## **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.

### Check Before Going To The Field :

#### 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.
6. Water rinse and dry tips before storing.

---

**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.

# 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 it takes to refill the tank completely.
6. Calculate the amount applied:

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

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

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

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

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

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

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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