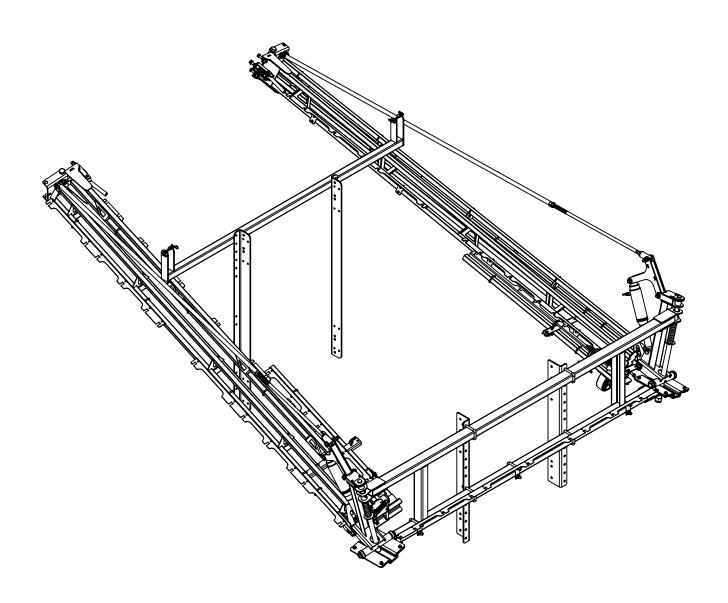


AB20084, Rev 1 9/22

# MANUAL FRONT FOLD 45' AND 60'



# **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 to review Demco warranty policies, operator manuals and register your Demco product.



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

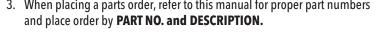
Be sure to dispose of all unused chemicals or solutions in a proper and ecologically sound manner.

#### **GENERAL INFORMATION**

- 1. Unless otherwise specified, high-strength (grade5) (3 radial-line 3. When placing a parts order, refer to this manual for proper part numbers 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.

#### **TABLE OF CONTENTS**

Introduction and Warranty Policy & Registration	2
General Information	2
Safety	
Safety Sign Locations	
Torque Specifications	10
Parts Breakdown	11-16
Center Section & Boom Rest	11
45' Wings Breakdown	12-13
60' Wings Breakdown	14-15
Electric Wing Lift Kit	16-17
Boom Nozzles	18
Sprayer Calibration	19





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

AB20084





# 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.



## AFETY 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.



# 

- 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.

# 

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.



# Safety

# 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, 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.





# HIGHWAT 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 f
  or 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 a 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.



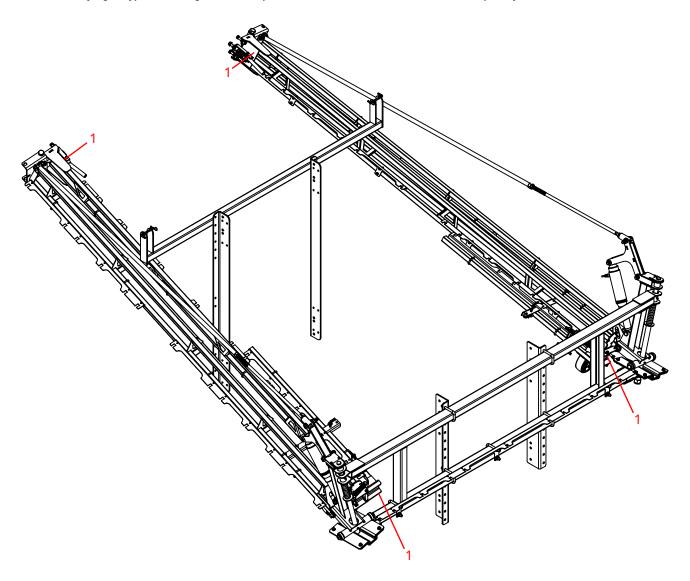
- Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate skin.
- Openings in skin and minor cuts are susceptible to infection from hydraulic fluid. Without immediate medical treatment, serious infection 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.

DEMCO



# **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	
1	AB21027	WARNING DECAL PINCH POINTS	4	
Please order replacement parts by PART NO. and DESCRIPTION				



1



# **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.

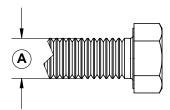
### BOLT TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

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.

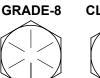
	Bolt Torque for Standard bolts *							
"A"	GRA	DE 2	GRA	DE 5	GRADE 8			
A	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)		
1/4″	6	(8)	9	(12)	12	(16)		
5/16″	10	(13)	18	(25)	25	(35)		
3/8″	20	(27)	30	(40)	45	(60)		
7/16″	30	(40)	50	(70)	80	(110)		
1/2″	45	(60)	75	(100)	115	(155)		
9/16″	70	(95)	115	(155)	165	(220)		
5/8″	95	(130)	150	(200)	225	(300)		
3/4″	165	(225)	290	(390)	400	(540)		
7/8″	170	(230)	420	.0 (570) 650		(880)		
1″	225	(300)	630	(850)	970	(1310)		

Bolt Torque for Metric bolts *							
	CLAS	\$ 8.8	CLAS	\$ 9.8	CLASS 10.9		
" <b>A</b> "	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)	







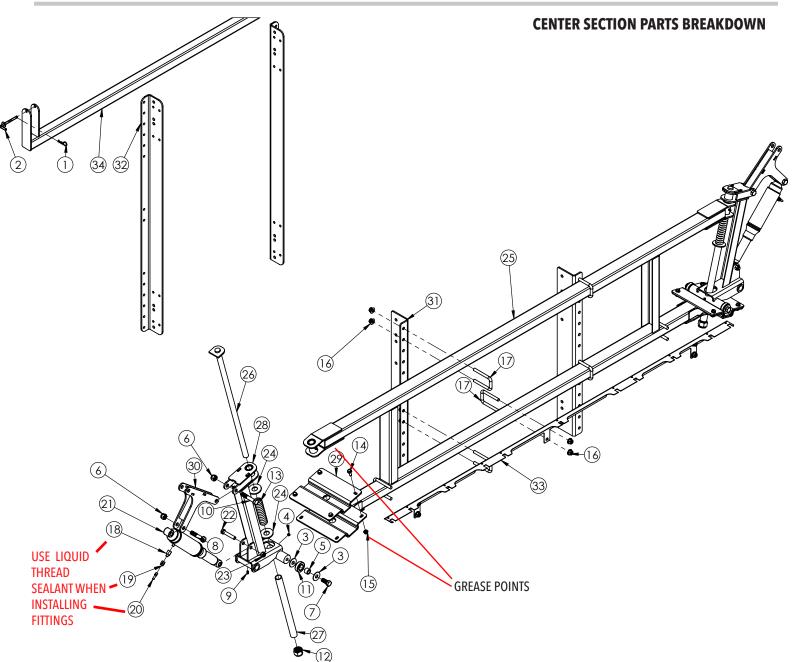










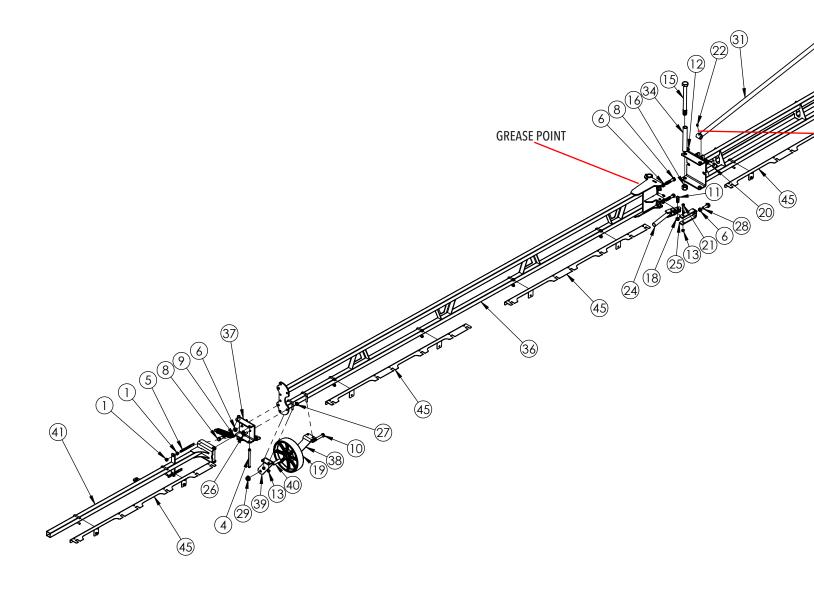


ITEM	PART#	DESCRIPTION	QTY	
1	00182	HAIR PIN .120 WIRE X 2.375	2	
2	00199-95	SPRING HOOK PIN	2	
3	00477	WASHER, FLAT .625	8	
4	00789	SET SCREW, .375NC X .375 SOCKET HEAD	2	
5	02562-95	ROLLER SPACER	4	
6	02587	NUT, .625 NC NYLON LOCK	4	
7	04051	BOLT, .625 NC X 1.50 HEX HEAD GR.5	4	
8	04215	BOLT, .625 NC X 3.00 HEX HEAD GR.5	2	
9	04642	ZERK, GREASE, .25 UNF SF	6	
10	05103	BOLT, .625NC X 3.50 HEX HEAD GR.5	2	
11	07134	HD BREAKAWAY ROLLER	4	
12	09455	NUT, 1.0NF NYLON LOCK HEX	2	
13	12359	BREAKAWAY SPRING	2	
14	16259	BOLT, .375NC X 1.00 HEX HEAD GR.5 FLG	8	
15	16260	NUT, .375NC NYLON LOCK FLG	8	
16	16590	NUT, .50NC NYLON LOCK FLG	14	
17	17135	U-BOLT, SQ, .50NC X 2.56 X 4.13	7	
Please order replacement parts by PART NO. and DESCRIPTION				

ITEM	PART#	DESCRIPTION	QTY			
18	17152	FTG, 7/16" FEMALE O-RING X 1/8" MALE PIPE	2			
19	17153	FTG, 1/8" FEMALE PIPE X 1/8" FEMALE PIPE	2			
20	17154	FTG, 1/8" PIPE VALVE STEM W/ CAP	2			
21	17155	SHOCK ABSORBER AIR	2			
22	17156	BOLT, M14-2.0 X 75MM GR 8.8 HEX	2			
23	17157	NUT, M14-2.0 NYLON LOCK	2			
24	17158	WASHER, FLAT 1.00"	4			
25	17162-72	CENTER SECTION F/ MANUAL FRONT FOLD	1			
26	17163-95	BREAKAWAY PIN	2			
27	17164-95	BREAKAWAY BUSHING	2			
28	17165-72	BREAKAWAY	2			
29	17166-72	BREAKAWAY PLATE	2			
30	17167-72	SHOCK LINKAGE	2			
31	17182-72	BOOM MOUNT MANUAL FRONT FOLD	2			
32	17183-72	BOOM REST MT MANUAL FRONT FOLD	2			
33	17187-72	NOZZLE HOLDER CENTER	1			
34	17197-72	BOOM REST	1			
	Please order replacement parts by PART NO. and DESCRIPTION					

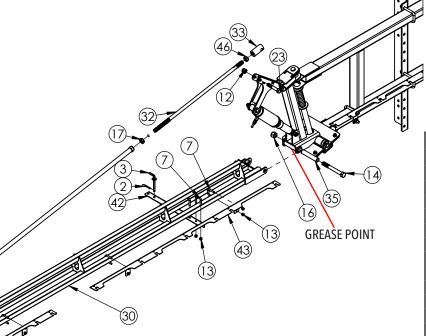


**60' WING PARTS** 



Page 12







#### **INFLATING THE SHOCKS 60'**

After the wings are installed set the air pressure in the shocks. To set the air pressure remove the boom from the rest but do not unfold the next two wings. With wings 2 and 3 still folded inflate the shock to 100 PSI. **DO NOT OPERATE WITH THE SHOCK INFLATED OVER 120 PSI.** Level the wing by loosening the jam nuts and adjusting the threaded rod.

#### **ADJUSTING THE WING LATCH**

To adjust the wing latch loosen the Jam nut (#6) adjust the bolt (#28) to the desired position. Test the latch to make sure it can still be latched and that it is not too loose where the wing may come loose during operation. Make sure both adjustment bolts are touching when the wing is latched.

#### **ADJUSTING WING STRAIGHTNESS**

1. Adjust the main wing straightness by loosening 4 bolts (#14 Page 11) and move wing by hand to the correct position. Tighten bolts when complete. 2. Middle wing straightness can be adjusted by loosening the two jam nuts (#6) and adjusting the two bolts (#8). After adjusting tighten the jam nuts. The wing latch bolt (#28) may also have to be adjusted (see adjusting the wing latch).

3. Outer wing straightness can adjusted by loosening the jam nut (#6) and adjusting the bolt (#8). After adjusting tighten the jam nut.

#### **ADJUSTING THE BOOM HEIGHT**

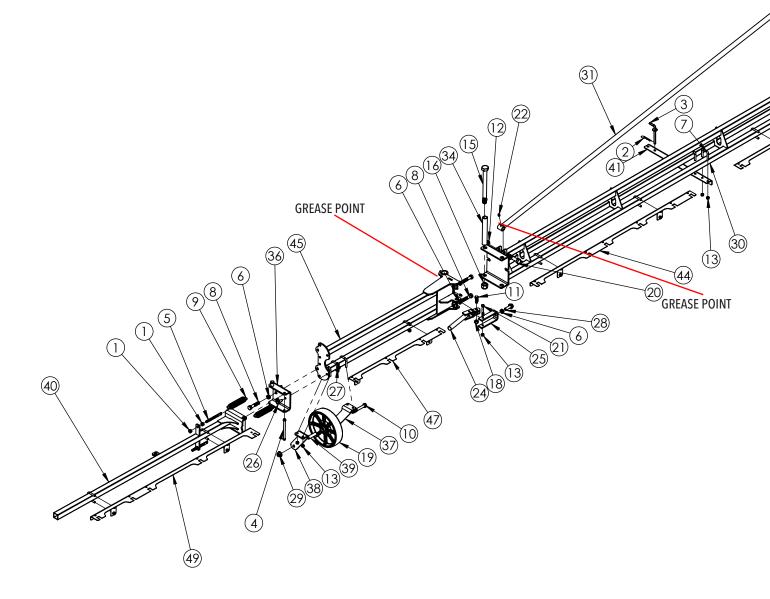
First set the air pressure in the shocks. To adjust the boom height loosen the jam nuts (#18 & #46). Take the tension of the rod by lifting the end of the boom up. Screw the rod (#32) until the boom is level. After adjusting tighten the jam nuts.

ITEM	PART #	DESCRIPTION	QTY
1	00061	NUT, .375 HEX	8
2	00182	HAIR PIN	2
3	00199-95	SPRING HOOK PIN	2
4	00340-95	PIN WING EXTENSION HINGE	2
5	00357	BOLT, TENSION, .375NC X 4.5	4
6	00640	NUT, .50NC JAM	8
7	00909	U-BOLT, SQ, .313NC X 1.00	28
8	01264	BOLT, .50 NC X 2.50 HEX HEAD GR.5	6
9	01564	SPRING	4
10	01897	BOLT, .50 NC X 3.50 HEX HEAD GR.5	2
11	01898	BOLT, .438 NC X 1.25HEX HEAD GR.5	2
12	02587	NUT, .625 NC NYLON LOCK	4
13	02802	NUT, .313 NC NYLON LOCK	58
14	02850	BOLT, .75NC X 6.50 HEX HEAD GR.5	2
15	02851	BOLT, .75NC X 8.50 HEX HEAD GR.5	2
16	02961	NUT, .75NC NYLON LOCK	4
17	03701	NUT, .75 JAM	2
18	03724	NUT, .438NF LOCK CENTER PUNCH	2
19	03731	WHEEL 8.0"	2
20	04215	BOLT, .625 NC X 3.00 HEX HEAD GR.5	2
21	04221	BOLT, .313NC X 2.50 HEX HEAD GR.5	2
22	04642	ZERK, GREASE, .25 UNF SF	4
23	05103	BOLT, .625NC X 3.50 HEX HEAD GR.5	2
24	05309-95	WING LATCH HANDLE	2
25	05310-95	WING LATCH CHANNEL	2
26	16259	BOLT, .375NC X 1.00 HEX HEAD GR.5 FLG	6
27	16260	NUT, .375NC NYLON LOCK FLG	6
28	16589	BOLT, .50NC X 1.50 HEX HEAD GR.5 FLG	2
29	16590	NUT, .50NC NYLON LOCK FLG	2
30	17168-72	MIDDLE WING MANUAL FRONT FOLD	2
31	17169-72	WING BRACE ROD	2
32	17170-95	THREADED ROD	2
33	17171-95	BRACE ROD MOUNT	2
34	17172-95	HINGE BUSHING LONG	2
35	17173-95	HINGE BUSHING SHORT	2
36	17175-72	OUTER WING MANUAL FRONT FOLD	2
37	17176-72	OUTER WING HINGE	2
38	17177-72	TIP PROTECTOR WHEEL MT RIGHT	2
39	17178-72	TIP PROTECTOR WHEEL MT LEFT	2
40	17179-95	WHEEL BUSHING	2
41	17180-72	OUTER WING MANUAL FRONT FOLD	2
42	17181-72	WING REST	2
43	17188-72	NOZZLE HOLDER INNER WING	2
44	17189-72	NOZZLE HOLDER RIGHT WING (NOT SHOWN)	4
45	17190-72	NOZZLE HOLDER LEFT WING	4
46	17233	NUT, .75 JAM LEFT THREAD	2
Pİ	ease order replac	ement parts by PART NO. and DESCRIPTION	

Please order replacement parts by PART NO. and DESCRIPTION

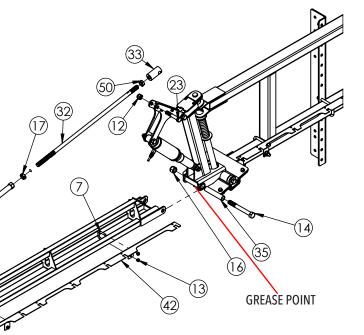


45' WING PARTS



Page 14





### **INFLATING THE SHOCKS 45'**

After the wings are installed set the air pressure in the shocks. To set the air pressure remove the boom from the rest but do not unfold the next two wings. With wings still folded inflate the shock to 80 PSI. **DO NOT OPERATE WITH THE SHOCK INFLATED OVER 120 PSI.** After setting the air pressure adjust the boom height so the boom is level (see adjusting the boom height).

#### **ADJUSTING THE WING LATCH**

To adjust the wing latch loosen the Jam nut (#6) adjust the bolt (#28) to the desired position. Test the latch to make sure it can still be latched and that it is not too loose where the wing may come loose during operation. Make sure both adjustment bolts are touching when the wing is latched.

#### **ADJUSTING WING STRAIGHTNESS**

1. Adjust the main wing straightness by loosening 4 bolts (#14 Page 11) and move wing by hand to the correct position. Tighten bolts when complete. 2. Middle wing straightness can be adjusted by loosening the two jam nuts (#6) and adjusting the two bolts (#8). After adjusting tighten the jam nuts. The wing latch bolt (#28) may also have to be adjusted (see adjusting the wing latch).

3. Outer wing straightness can adjusted by loosening the jam nut (#6) and adjusting the bolt (#8). After adjusting tighten the jam nut.

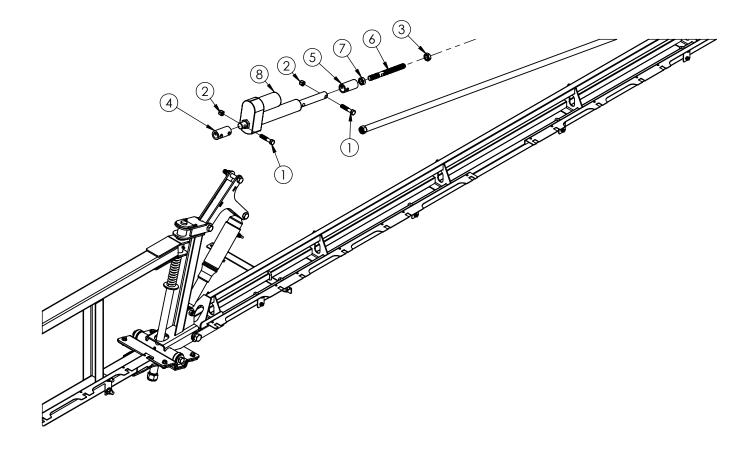
#### **ADJUSTING THE BOOM HEIGHT**

First set the air pressure in the shocks. To adjust the boom height loosen the jam nuts (#18 & #46). Take the tension of the rod by lifting the end of the boom up. Screw the rod (#32) until the boom is level. After adjusting tighten the jam nuts.

ITEM	PART #	DESCRIPTION	QTY
1	00061	NUT, .375 HEX	8
2	00182	HAIR PIN	2
3	00199-95	SPRING HOOK PIN	2
4	00340-95	PIN WING EXTENSION HINGE	2
5	00357	BOLT, TENSION, .375NC X 4.5	4
6	00640	NUT, .50NC JAM	8
7	00909	U-BOLT, SQ, .313NC X 1	24
8	01264	BOLT .50 NC X 2.50 HEX HEAD GR.5	6
9	01564	SPRING	4
10	01897	BOLT, .50NC X 3.50 HEX HEAD GR.5	2
11	01898	BOLT, .438NC X 1.25 HEX HEAD GR.5	2
12	02587	NUT, .625 NC NYLON LOCK	4
13	02802	NUT, .313 NC NYLON LOCK	50
14	02850	BOLT, .75NC X 6.50 HEX HEAD GR.5	2
15	02851	BOLT, .75NC X 8.50 HEX HEAD GR.5	2
16	02961	NUT, .75NC NYLON LOCK	4
17	03701	NUT, .75 JAM	2
18	03724	NUT, .438NF LOCK CENTER PUNCH	2
19	03731	WHEEL 8.0"	2
20	04215	BOLT, .625 NC X 3.00 HEX HEAD GR.5	2
21	04221	BOLT, .313NC X 2.50 HEX HEAD GR.5	2
22	04642	ZERK, GREASE, .25 UNF SF	4
23	05103	BOLT, .625NC X 3.50 HEX HEAD GR.5	2
24	05309-95	WING LATCH HANDLE	2
25	05310-95	WING LATCH CHANNEL	2
26	16259	BOLT, .375NC X 1.00 HEX HEAD GR.5 FLG	6
27	16260	NUT, .375NC NYLON LOCK FLG	6
28	16589	BOLT, .50NC X 1.50 HEX HEAD GR.5 FLG	2
29	16590	NUT, .50NC NYLON LOCK FLG	2
30	17168-72	MIDDLE WING MANUAL FRONT FOLD	2
31	17169-72	WING BRACE ROD	2
32	17170-95	THREADED ROD	2
33	17171-95	BRACE ROD MOUNT	2
34		HINGE BUSHING LONG	2
35		HINGE BUSHING SHORT	2
36	17176-72	OUTER WING HINGE	2
37	17177-72	TIP PROTECTOR WHEEL MT RIGHT	2
38	17178-72	TIP PROTECTOR WHEEL MT LEFT	2
39		WHEEL BUSHING	2
40	17180-72	OUTER WING MANUAL FRONT FOLD	2
41		WING REST	2
42	17188-72	NOZZLE HOLDER INNER WING	2
43	17189-72	NOZZLE HOLDER RIGHT WING (NOT SHOWN)	1
44	17190-72	NOZZLE HOLDER LEFT WING	1
45	17192-72	MIDDLE WING MANUAL FF 45'	2
46	17193-72	NOZZLE HOLDER MIDDLE RIGHT 45'(NOT SHOWN)	1
47	17194-72	NOZZLE HOLDER MIDDLE LEFT 45'	1
48		NOZZLE HOLDER OUTER RIGHT 45 (NOT SHOWN)	1
49	17196-72	NOZZLE HOLDER OUTER LEFT 45'	1
50	17233	NUT .75 JAM	2
		replacement parts by PART NO. and DESCRIPTIO	



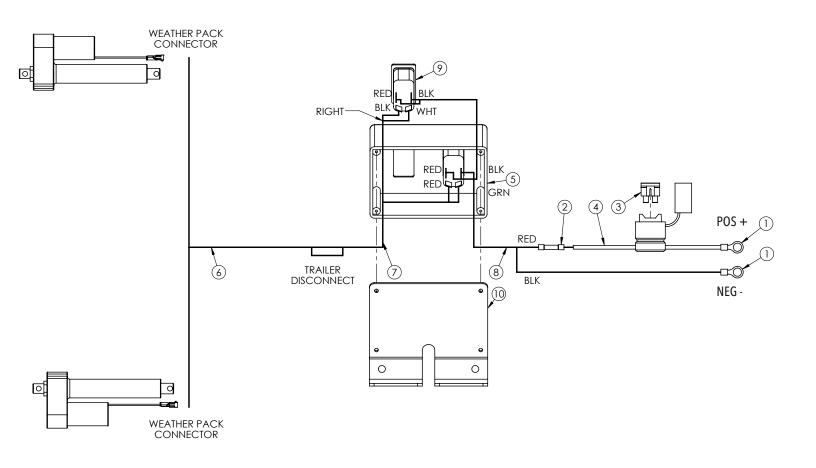
# **OPTIONAL ELECTRIC WING TILT**



ITEM	PART#	DESCRIPTION	QTY
1	01264	BOLT, .50NC X 2.50 HEX HEAD GR.5	4
2	02178	NUT, .50NC NYLON LOCK	4
3	03701	NUT, .75 JAM	2
4	17184-72	ACTUATOR MOUNT	2
5	17185-95	ACTUATOR ROD MOUNT	2
6	17186-95	ACTUATOR THREADED ROD	2
7	17233	NUT, .75 JAM LEFT HAND	2
8	17250	ELECTRIC ACTUATOR W/ PLUG	2
Please order replacement parts by PART NO. and DESCRIPTION			



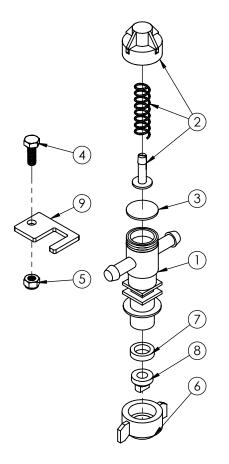
# **ELECTRIC WING TILT CONSOLE AND WIRING**



ITEM	PART#	DESCRIPTION	QTY
1	11506	TERMINAL RING 12 - 10 GA NON-INSULATED	2
2	13062	CONNECTOR, 12-10 GA BUTT	1
3	16016	FUSE 20 AMP ATO	1
4	16021	FUSE HOLDER	1
5	16804	SPRAYER CONTROL BOX	1
6	17143	HARNESS ACTUATOR TO HITCH 23'	1
7	17144 HARNESS HITCH TO CONTROL ER 16'		1
8	17145	HARNESS CONTROL ER TO BATTERY 8'	1
9	17159	SWITCH ROCKER MOMENTARY CONTACT	2
10	17234-72	MOUNTING PLATE F/ ELECTRIC ACTUATOR	1
Please order replacement parts by PART NO. and DESCRIPTION			



# **TEEJET BOOM NOZZLES**



ITEM	PART#	DESCRIPTION	QTY	
1	09147	3/4" SINGLE END ASSEMBLY (ITEMS 2 &3)		
-	09148	3/4" SINGLE TEE ASSEMBLY (ITEMS 2 &3)	-	
2	21950 10PP	SPRING RETAINER CAP ASSEMBLY	1	
3	21953VI	DIAPHRAGM (VITON)	1	
4	01076	BOLT, .25NC X .75 HEX HEAD GR.5	1	
5	02772	NUT, .25NC NYLON LOCK	1	
6	07787	RED FLAT FAN CAP W/ GASKET	1	
.	07788	BLUE FLAT FAN CAP W/ GASKET		
.	07789	BROWN FLAT FAN CAP W/ GASKET	-	
	07790	GREEN FLOODJET CAP W/ GASKET		
.	09692	YELLOW AIR INDUCTION CAP W/ GASKET	-	
7	19438EPR	GASKET (EPDM)	1	
8	-	TIP (SPECIFY TIP SIZE) (NOT INCLUDED)		
9	17191-72	NOZZLE CLAMP	1	
	Please order replacement parts by PART NO. and DESCRIPTION			



# **SPRAYER CALIBRATION PROCEDURES**

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

# **Guidelines For Sprayer Calibration**

# **Calibrating the Sprayer**

### **Sprayer Tips**

······································	FLAT SPRAY NOZZLE for Broadcast Spraying						
1. Mark off 660 feet (1/8 mile).				OF BIOAU	1 2	0	
2. Fill the tank with water.	Nozzle No.	Liquid Pres-		_		Per Acre	
3. Set the sprayer to your desired operating pressure.		sure in PSI	Capacity in			Nozzle Spaci	ng
4. Turn the sprayer on and drive at the constant speed you will be spraying.			GPM	4	5	7.5	10
	XR8001VS	20	.07	MPH 5.3	MPH 4.3	MPH 2.8	MPH 2.2
Calibration on a road or unplowed field will give different results than	AROUUTVS	20	.07 .08	5.3 5.9	4.3	3.1	2.2
on soft cultivated ground. Note tachometer reading so same speed can		30	.08	6.4	5.1	3.4	2.4
be maintained later.		40	.10	7.4	6.0	4.0	3.0
5. Measure the amount of water it takes to refill the tank completely.	XR80015VS	20	.11	7.8	6.3	4.3	3.2
6. Calculate the amount applied:		25	.12	8.8	7.1	4.7	3.6
		30	.13	9.7	7.7	5.2	3.9
Number of gallons used x 66 (factor) Gallons applied	VEGGGGGVC	40	.15	11.1	8.9	6.0	4.5
	XR8002VS	20 25	.14 .16	10.5 11.8	8.4 9.4	5.6 6.3	4.2 4.7
Spray Swath in Feet — per acre		30	.10	12.9	10.3	6.9	5.2
		40	.20	14.8	11.8	7.9	5.9
Example: If 10 gallons are used in 660 feet and the spray swath is 40 feet,	XR8003VS	20	.21	15.7	12.6	8.4	6.3
spraying rate is 16.5 gallons per acre.		25	.24	17.6	14.1	9.4	7.1
10x66 660		30	.26	19.0	15.4	10.3	7.7
$\frac{10 \times 66}{40} = \frac{660}{40} = 16.5$ gallons per acre applied	ND000 MIC	40	.30	22.0	17.8	11.8	8.9
40 40	XR8004VS	20 25	.28 .32	21.0 24.0	16.8 18.7	11.2 12.5	8.4 9.4
7. To colorizate the conservet of the mained to must in the teach.		30	.32 .35	24.0	21.0	12.5	10.3
7. To calculate the amount of chemical to put in the tank:		40	.40	30.0	24.0	15.8	11.9
<u>SprayerTank Size</u> = Acres then;	XR8005VS	20	.35	26.0	21.0	14.0	10.5
Desired GPA Covered		25	.40	29.0	23.0	15.7	11.7
Amount of		30	.43	32.0	26.0	17.2	12.9
Recommended amount of $x$ Acres Covered = chemical per	VERRALING	40	.50	37.0	30.0	19.8	14.9
	XR8006VS	20 25	.42 .47	31.0 35.0	25.0 28.0	16.9 18.7	12.6 14.1
tankful		30	.47	39.0	31.0	21.0	14.1
Formula If a FOO wells a tend is used and 17. For lland and an end is d		40	.60	45.0	36.0	24.0	17.8
Example: If a 500 gallon tank is used and 16.5 gallons per acre are applied,	XR8008VS	20	.56	42.0	34.0	22.0	17.0
one tank will cover 30.3 acres. If three pounds of chemical are required per		25	.63	47.0	37.0	25.0	19.0
acre, then 90 pounds of chemical are required per tankful.		30	.69	52.0	41.0	27.0	21.0
500	004055	40	.80	59.0	48.0	32.0	24.0
$\frac{3000}{16.5}$ = 30.3 acres covered then;	8010SS	20 25	.70 .78	53.0 59.0	42.0 47.0	28.0 31.0	21.0 24.0
10.5		30	.76 .86	59.0 64.0	47.0 51.0	31.0	24.0
$2 \ln (a + b) \times 20.2 = 0.0 \ln (a + b)		40	1.00	74.0	59.0	40.0	30.0
3 lbs. (gal.) x 30.3 = 90 lbs. (gal.) per tankful		10	1.00	7 1.0	07.0	10.0	00.0

10 mph .50

> 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





4010 320th St., Boyden, IA. 51234 Phone: (712) 725-2311 Fax: (712) 725-2380 Toll Free: 1-800-54DEMCO (1-800-543-3626) Demco warranty policies, operator manuals, and product registration can be found online: www.demco-products.com