

DEMCO

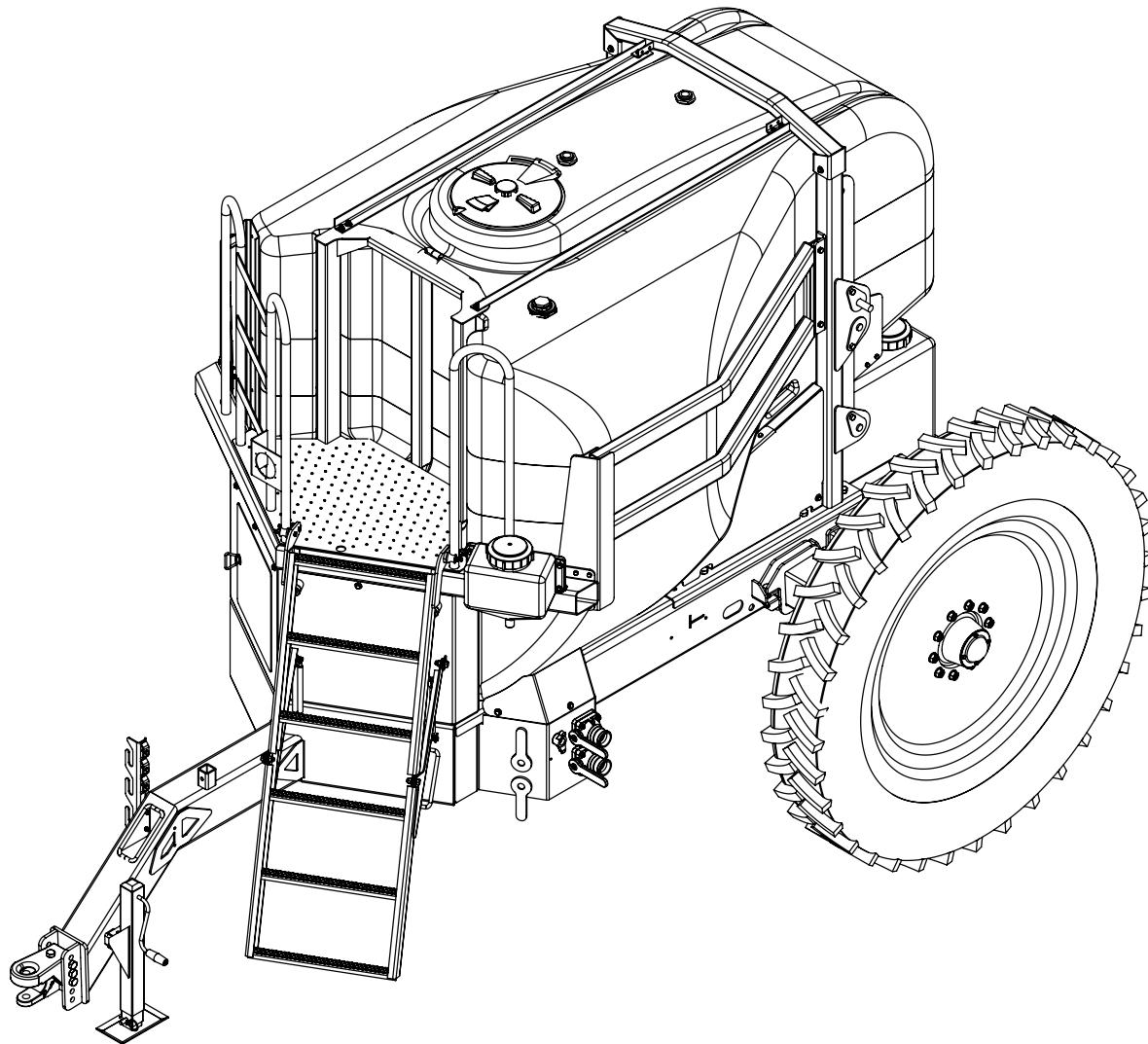
Doing Our Best to Provide You the Best

AB20076, Rev 8

03/19

50'S SERIES SPRAYERS

1250, 1050 & 850 Gallon



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.



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 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. 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.

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.

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.

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 display 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 seatbelt 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.

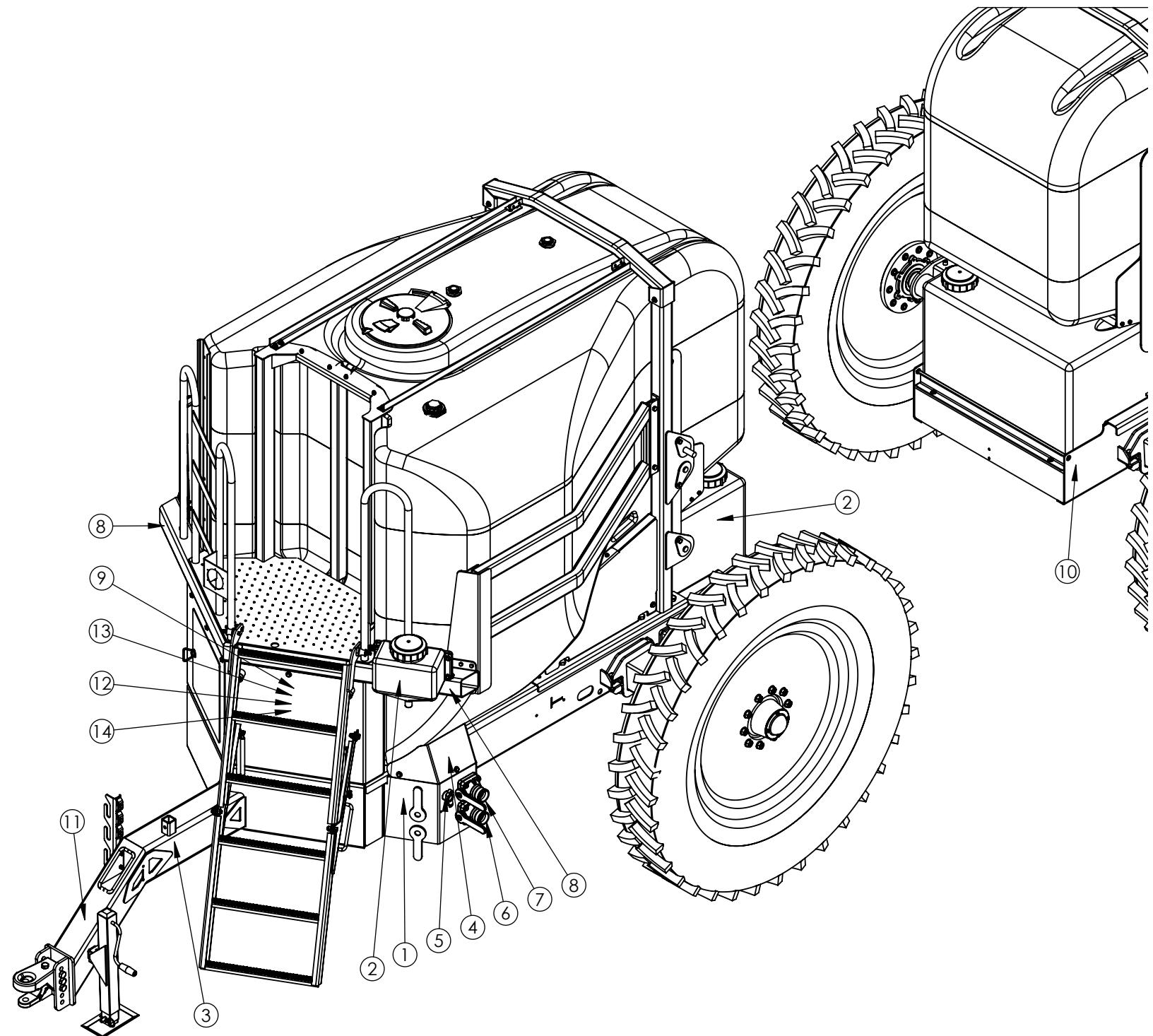


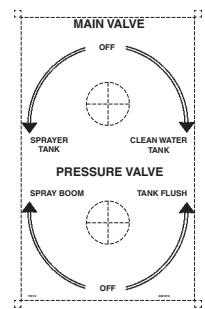
PERFORMING MAINTENANCE

- 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.





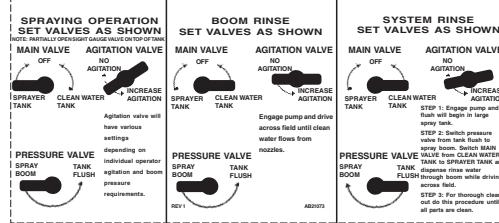
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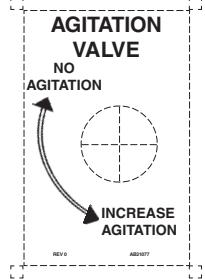
2



3



4



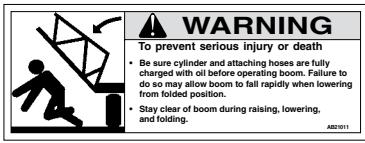
5



6



7

**WARNING**

- To prevent serious injury or death
- Be sure cylinder and attaching hoses are fully charged with oil before operating boom. Failure to do so may allow boom to fall rapidly when lowering from folded position.
- Stay clear of boom during raising, lowering, and folding.

AB21011

**WARNING**

Improper use may cause serious injury or death



Keep off ladder while machine is being moved or in operation

AB21018

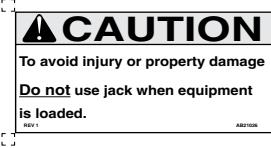
**WARNING**

Failure to follow this warning could result in serious injury or death from pinching.



Keep all persons and objects clear while any part of this machine is in motion

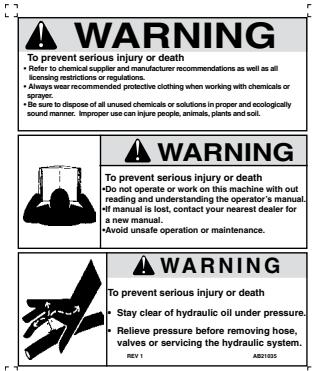
AB21019



To avoid injury or property damage

Do not use jack when equipment is loaded.

11



12



13



14

Sprayer Startup Guide

AB21099 Rev 0

* Not sold separately, only available in decal kit #AB21038

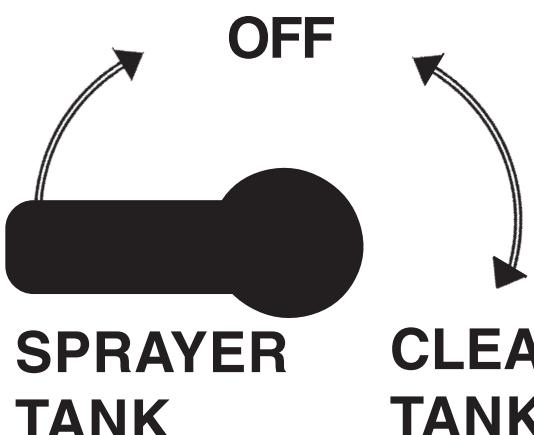
** Not sold separately, only available in decal kit #AB21076

ITEM	PART #	DESCRIPTION	QTY
1	**AB21078	MAIN AND PRESSURE VALVE DIRECTIONAL DECAL	1
2	**AB21024	5" X 1 1/2" FRESH WATER ONLY DECAL	2
3	**AB21061	5" X 1 1/2" DECAL FOR SHOWING JACK STORAGE	1
4	**AB21073	18 3/4" X 7" VALVE PANEL OPERATION INSTRUCTION DECAL	1
5	**AB21077	DECAL FOR AGITATION VALVE	1
6	**AB21079	DECAL FOR SPRAY TANK	1
7	**AB21080	DECAL FOR CLEAR WATER TANK	1
8	*AB21011	6 3/8" X 2 3/8" WARNING DECAL FOR BOOM	2
9	*AB21018	3 7/8" X 3 7/8" WARNING DECAL FOR LADDER	1
10	*AB21019	5 7/8" X 5 7/8" WARNING DECAL FOR PINCHING HAZARD	2
11	*AB21026	6" X 2 1/2" CAUTION FOR JACK	1
12	*AB21035	11 7/8" X 3 7/8" THREE PANEL WARNING	1
13	*AB21036	6 7/8" X 5 3/4" TWO PANEL WARNING ONE PANEL DANGER	1
14	AB21099	DECAL QR CODE FOR SPRAYER STARTUP GUIDE	1

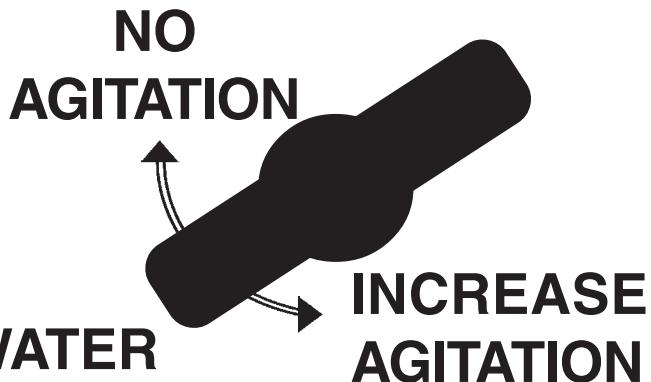
SPRAYING OPERATION SET VALVES AS SHOWN

NOTE: PARTIALLY OPEN SIGHT GAUGE VALVE ON TOP OF TANK

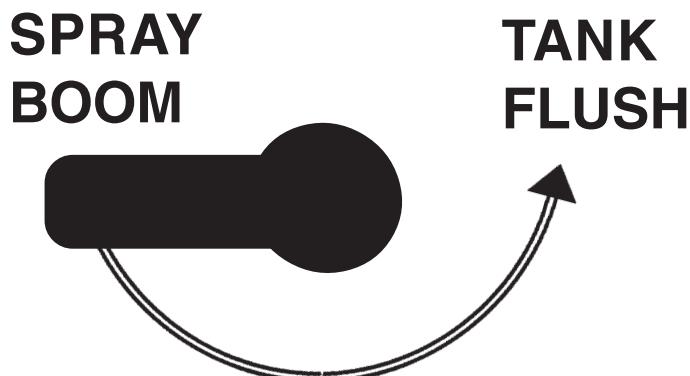
MAIN VALVE



AGITATION VALVE



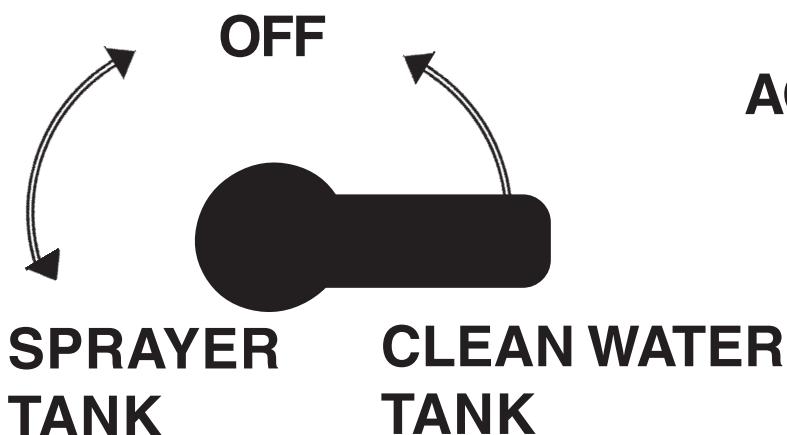
PRESSURE VALVE



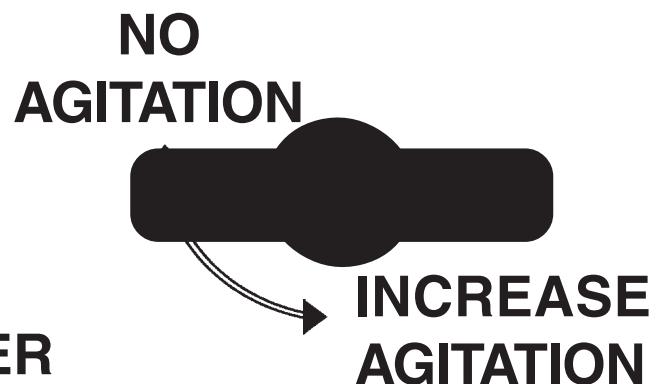
Agitation valve will have various settings depending on individual operator agitation and boom pressure requirements.

BOOM RINSE SET VALVES AS SHOWN

MAIN VALVE

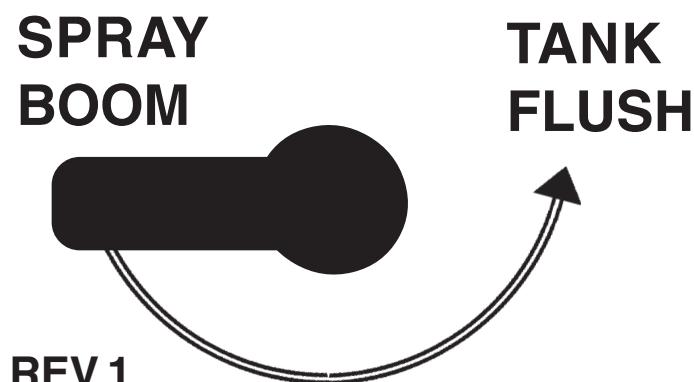


AGITATION VALVE



Engage pump and drive across field until clean water flows from nozzles.

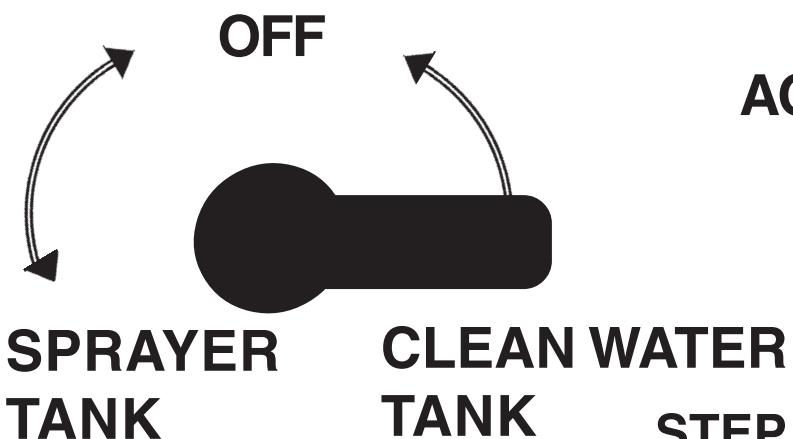
PRESSURE VALVE



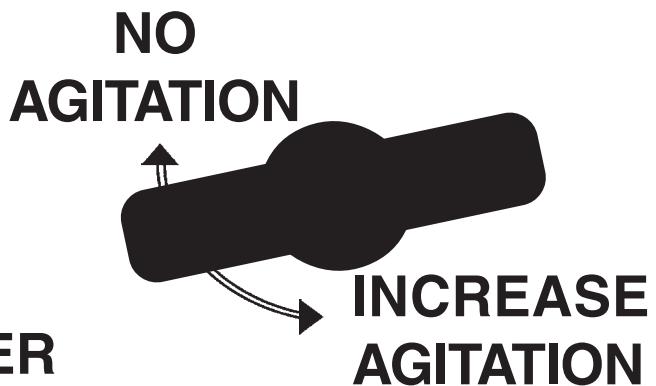
AB21073

SYSTEM RINSE SET VALVES AS SHOWN

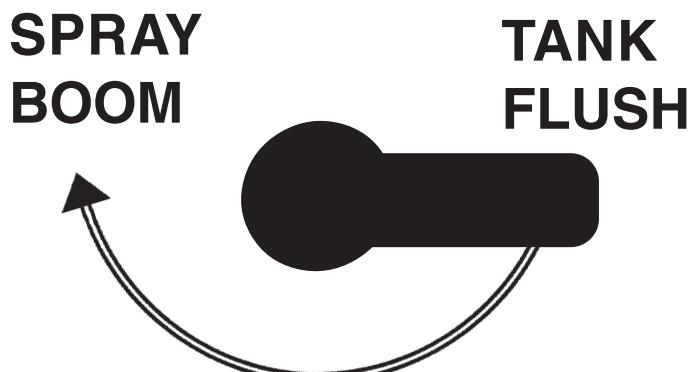
MAIN VALVE



AGITATION VALVE



PRESSURE VALVE



STEP 1: Engage pump and flush will begin in large spray tank.

STEP 2: Switch pressure valve from tank flush to spray boom. Switch MAIN VALVE from CLEAN WATER TANK to SPRAYER TANK and dispense rinse water through boom while driving across field.

STEP 3: For thorough clean out do this procedure until all parts are clean.



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.

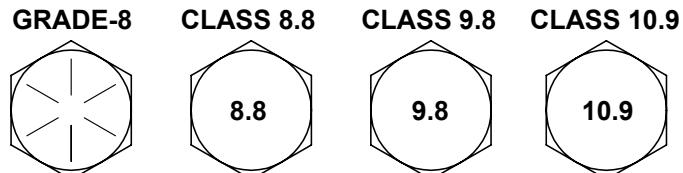
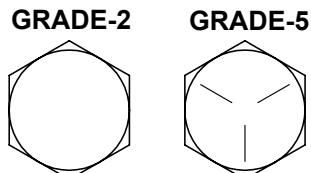
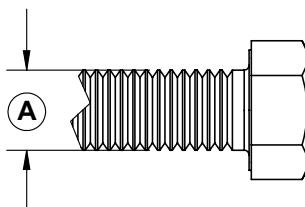
BOLT TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS.

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.

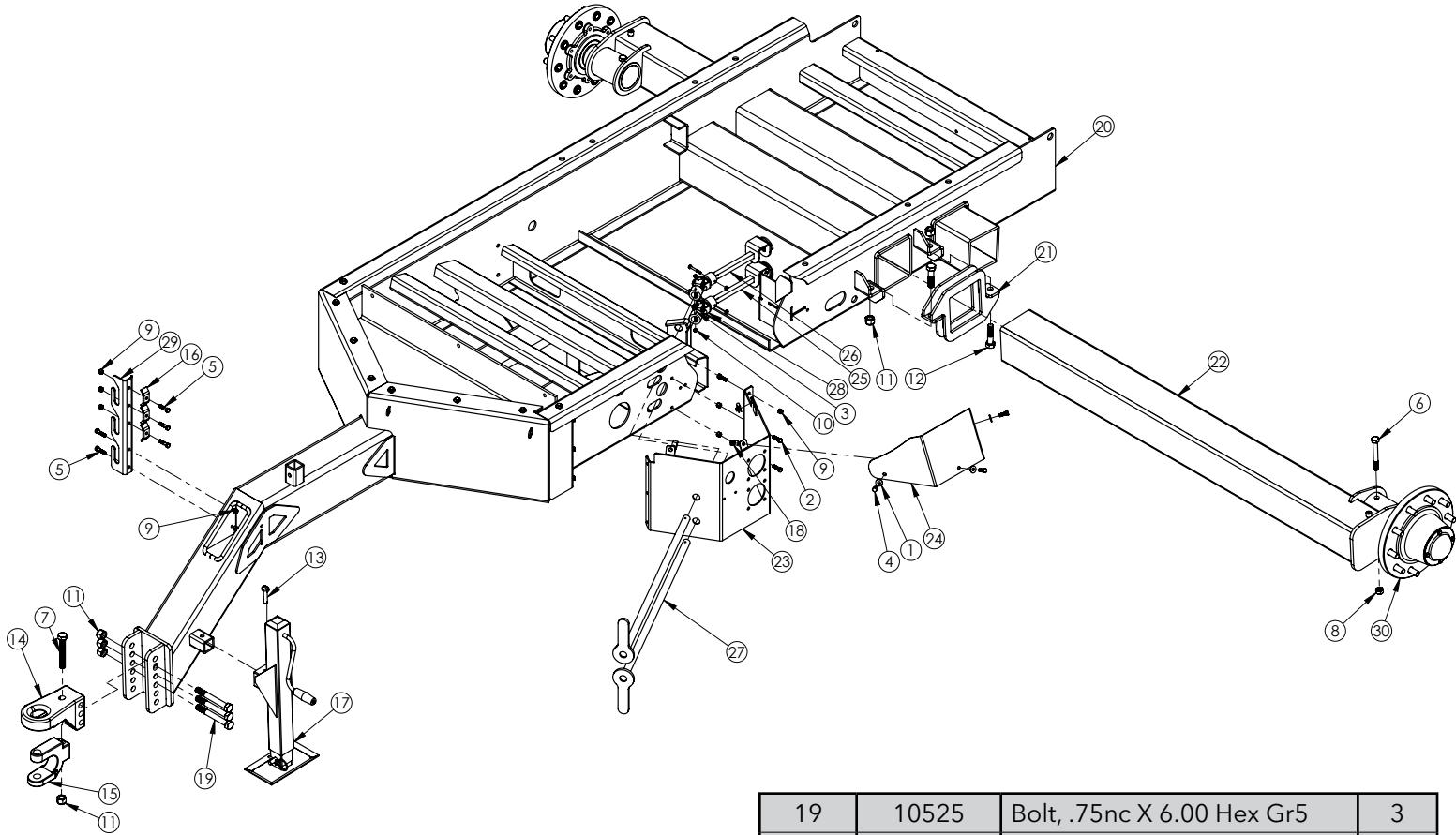
NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

"A"	Bolt Torque for Standard bolts *					
	GRADE 2		GRADE 5		GRADE 8	
		Ib-ft	(N.m)		Ib-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)

"A"	Bolt Torque for Metric bolts *					
	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	Ib-ft	(N.m)	Ib-ft	(N.m)	Ib-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)



AXLE AND HITCH ASSEMBLY



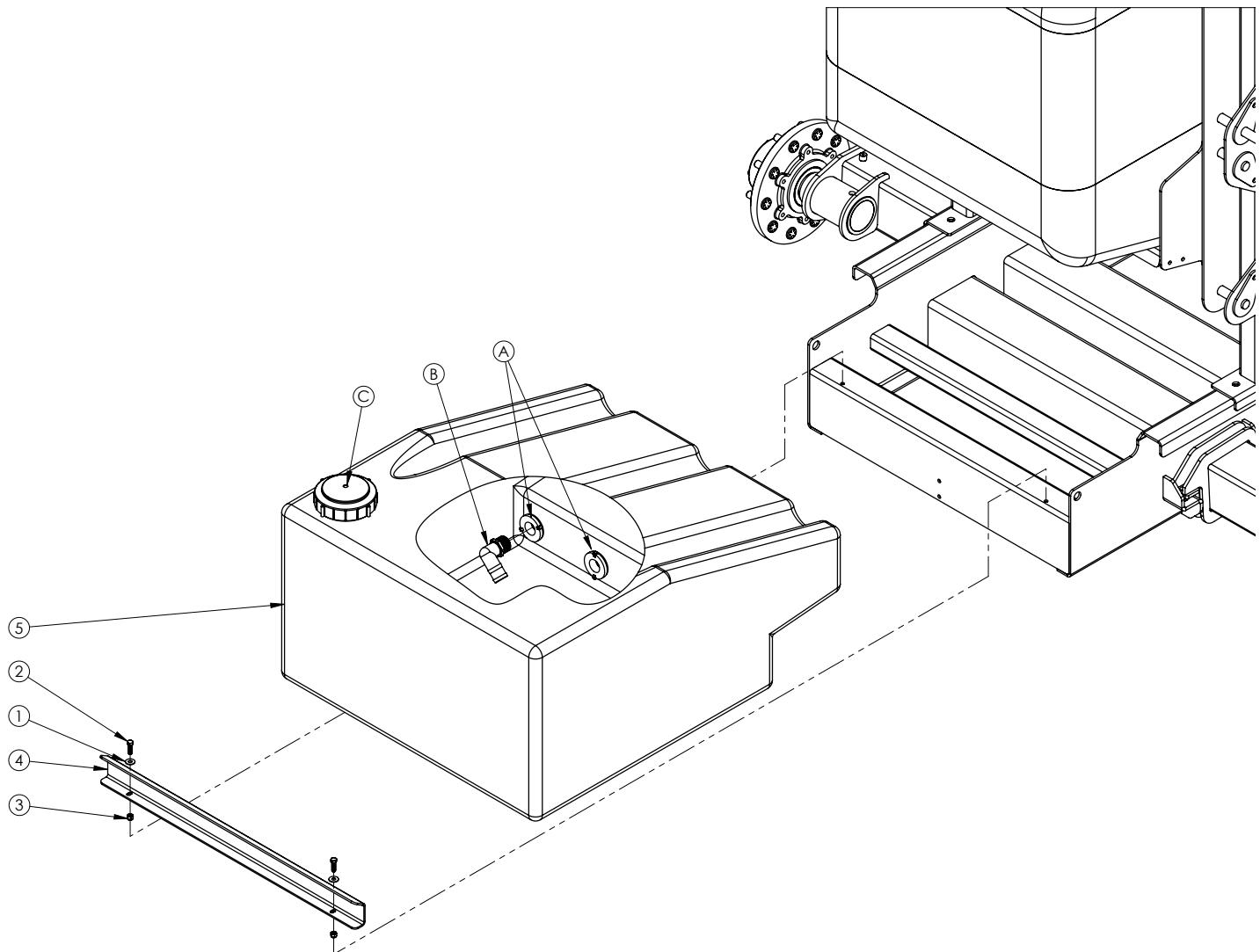
Axle and Hitch Assembly

ITEM	PART #	DESCRIPTION	QTY
1	00059	Washer, Flat .375	3
2	00523	Bolt, .375nc X 1.25 Hex Gr5	6
3	00618	Bolt, .25nc X 2.00 Hex Gr5	4
4	00907	Bolt, .375nc X 1.00 Hex Gr5	3
5	00914	Bolt, .375nc X 1.50 Hex Gr5	5
6	01336	Bolt, .625nc X 5.00 Hex Gr5	2
7	02389	Bolt, .75nc X 5.00 Hex Gr5	1
8	02587	Nut, .625nc Nylon Lock	2
9	02592	Nut, .375nc Nylon Lock	8
10	02772	Nut, .25nc Nylon Lock	4
11	02961	Nut, .75nc Nylon Lock	12
12	04222	Bolt .75nc X 3.00 Hex Gr8	4
13	05328	Ball Lock Pin	1
14	07887-76	Hitch Cat II Forged Base	1
15	07888-76	Hitch Clevis Cat II	1
16	09218-95	Hose Keeper, 2 Hose	3
17	09219-30	7000# Side Wind Jack W/Mt	1
18	09945	Nut, .375 Spring	3

19	10525	Bolt, .75nc X 6.00 Hex Gr5	3
20	12718-?	Frame, For 6" Axle Inserts	1
-	12761-?	Frame, For 5" Axle Inserts	-
21	12725-76	6 X 6 Axle Clamp	2
-	12762-76	5 X 5 Axle Clamp	-
22	12729-76	Axle Insert 6" F/90-144 Sp 46"	2
-	12790-76	Axle Insert 6" F/90-144 Sp 38"	-
-	12763-76	Axle Insert 5" F/60-120 Sp 38"	-
-	12801-76	Axle Insert 5" F/90-144 Sp 38"	-
23	12731-?	Valve Box Assembly	1
24	12741-?	Control Lid	1
25	12742-95	Rear Valve Shaft F/200 Valve	1
26	12743-95	Rear Valve Shaft F/220 Valve	1
27	12744-15	Valve Handle Assembly Yellow	2
28	12745	Universal Joint	2
29	12820-76	Hose Holder	1
30	5892-30	Hub Assembly, 10 Bolt	2
-	5891-30	Hub Assembly, 8 Bolt	-

NOTE: Use bolt torque chart on page 15 for torque settings.
Please order replacement parts by **PART NO.** and **DESCRIPTION**.

? = Specify color

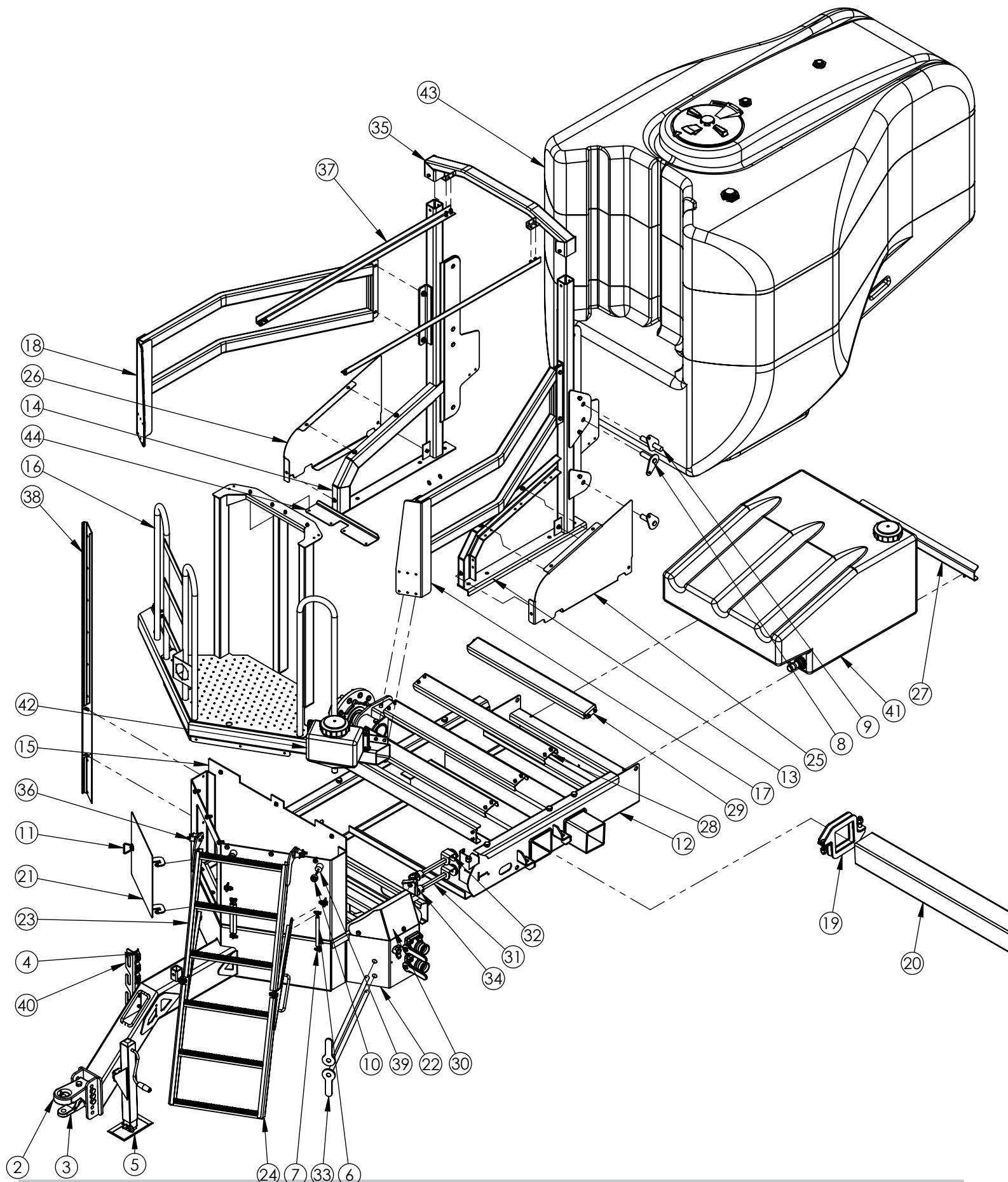


Rinse Tank Assembly

ITEM	PART #	DESCRIPTION	QTY
1	00059	Washer, .375 Flat	2
2	00523	Bolt, .375nc X 1.25 Hex Gr5	2
3	12738-76	Rinse Tank Bar	1
4	12816	Tank Poly 120 Gal. F/50'S Yellow	1
-	14613	Tank Poly 120 Gal. F/50'S Charcoal	-
5	02592	Nut, .375nc Nylon Lock	2
A	P114A	FTG, 1.25" Double Thread	2
B	EL114 112	FTG, ELB, 1.25" MPT X 1.50" HB	1
C	15388	Replacement 5" Lid	1

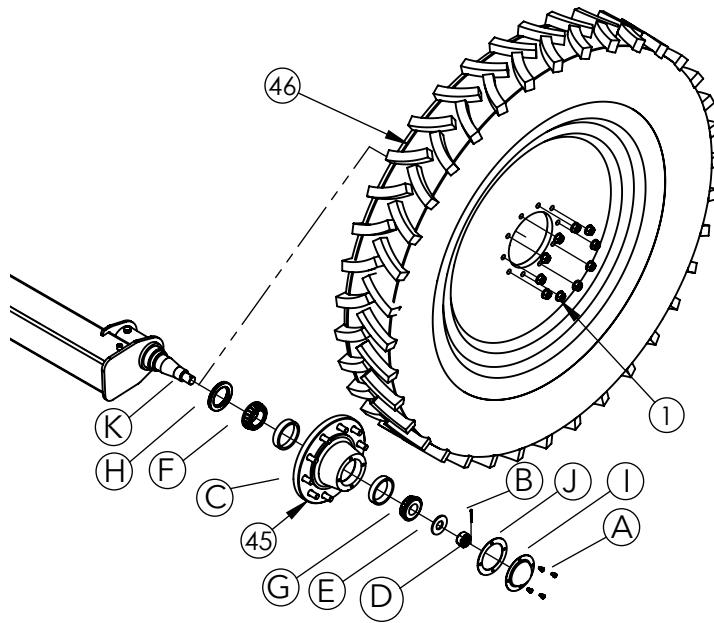
NOTE: Use bolt torque chart on page 15 for torque settings.
Please order replacement parts by **PART NO.** and **DESCRIPTION**.

1250 PARTS BREAKDOWN



ITEM	PART #	DESCRIPTION	QTY
1	07435	3/4" UNF Wheel Nut f/ 10 Bolt	20
-	10971	5/8" UNF Wheel Nut f/ 8 Bolt	16
2	07887-30	Hitch Cat II Forged Base	1
3	07888-30	Hitch Clevis Cat II	1
4	09218-95	Hose Keeper, 2 Hose	3
5	09219-30	7000# Side Wind Jack W/Mt	1
6	11031	Gas Strut	3
7	11032	Shock Rod End	6
8	11858-95	Height Adjust Lock Pin	4
9	11859-95	Height Adjust Lock Pin	2
10	11867	Rubber Bumper	2
11	11872	Door Latch	1
12	12718-?	Frame For 6" Axle Inserts	1
13	12719-76	Left Boom Mount For 1250	1
14	12720-76	Right Boom Mount For 1250	1
15	12721-?	Platform Base	1
16	12722-76	1250 Platform	1
17	12723-76	Side Tank Brace Left	1
18	12724-76	Side Tank Brace Right	1
19	12725-76	6 X 6 Axle Clamp	2
20	12729-76	Axle Insert 6" F/90-144 Sp 46"	2
-	12790-76	Axle Insert 6" F/90-144 Sp 38"	2
21	12730-?	Left Front Door	1
22	12731-?	Valve Box Assembly	1
23	12733-76	Ladder	1
24	12734-76	Lower Ladder	1
25	12736-76	Cover Left	1
26	12737-76	Cover Right	1

27	12738-76	Rinse Tank Bar	1
28	12739-76	Tank Support Channel	4
29	12740-76	Rear Tank Support Channel	1
30	12741-?	Control Lid	1
31	12742-95	Rear Valve Shaft F/200	1
32	12743-95	Rear Valve Shaft F/220 Valve	1
33	12744-15	Valve Handle Assembly Yellow	2
34	12745	Universal Joint	2
35	12746-76	Boom Mount Cap	1
36	12747	Ladder Roller	4
37	12784-76	Top Angle	2
38	12798-76	Sight Gauge Hose Bracket	1
39	12812	Bumper Spacer	2
40	12820-76	Hose Holder	1
41	12816	Tank Poly 120 Gal. Rinse YLW	1
-	14613	Tank Poly 120 Gal. Rinse CHR	1
42	12793	Eye Wash Tank With Lid YLW	1
-	14616	Eye Wash Tank With Lid CHR	1
43	12818	Tank Poly 1250 Gal W/Ftgs YLW	1
-	14618	Tank Poly 1250 Gal W/Ftgs CHR	1
44	14680-76	Platform Spacer Plate	1
45	5892-30	Spindle /Hub Assembly 10 bolt	2
-	5891-30	Spindle /Hub Assembly 8 bolt	-
46	9446020-15	Whl/Tire 46" X 10, 10 Bolt YLW	2
-	9446020-60	Whl/Tire 46" X 10, 10 Bolt CHR	-
-	9446019-15	Whl/Tire 38" X 12, 8 Bolt YLW	-
-	9446019-60	Whl/Tire 38" X 12, 8 Bolt CHR	-



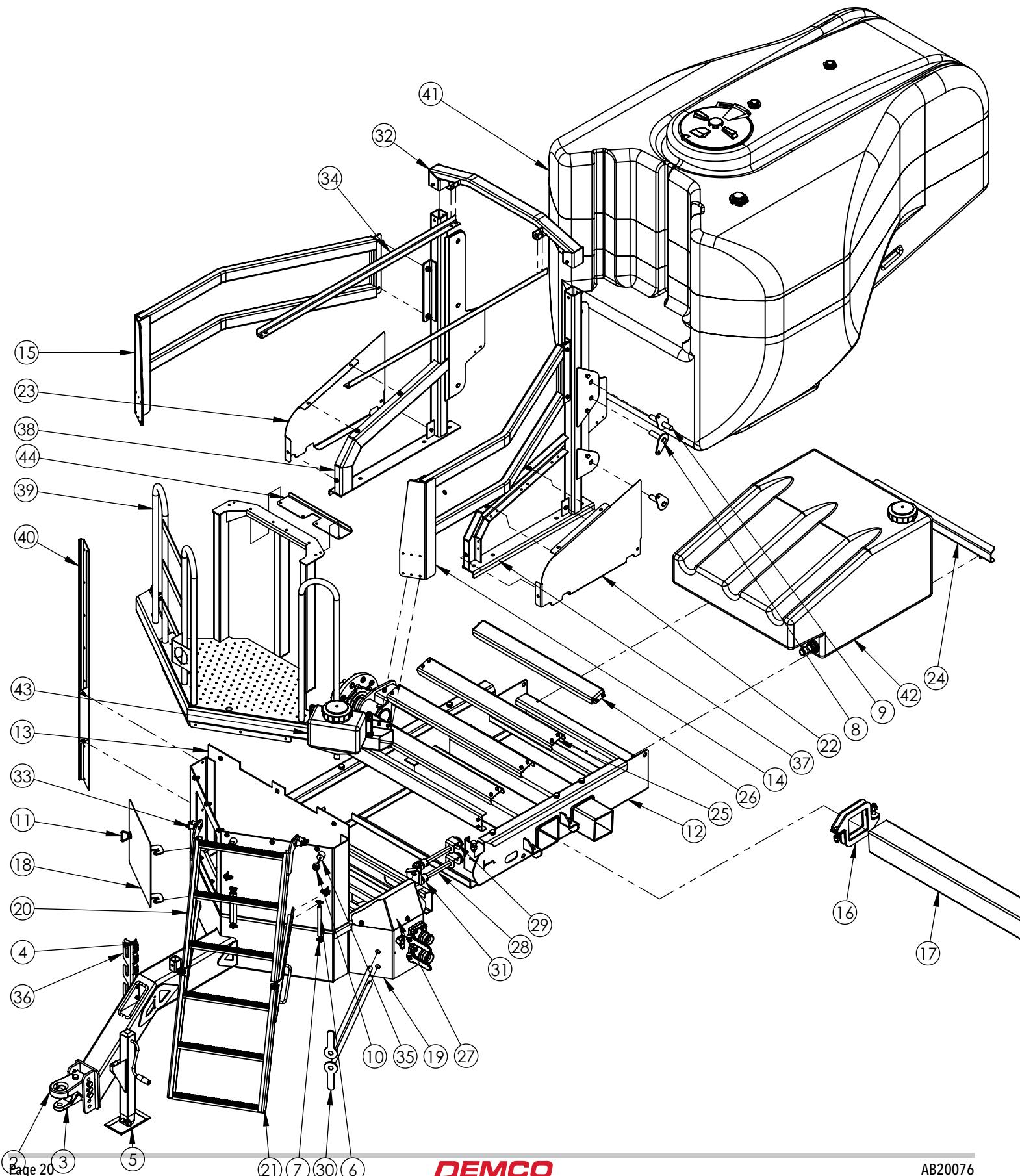
Please order replacement parts by **PART NO.** and **DESCRIPTION**.

? = Specify color

10 Bolt Hub Part Breakdown

ITEM	PART #	DESCRIPTION	QTY
45	5892	Hub Assembly 10-Bolt	2
A	04305	Hbolt 0.3125-18x0.5	4
B	05088	Cotter Pin, 1/8 X 2 1/2	1
C	07351	Hub F/ 650 & 750 Gear	1
C*	07359	Inner Cup	1
C*	07360	Outer Cup	1
C*	07861	Stud Bolt	10
D	07353	Nut 1.25nf Castle	1
E	07354	Washer 3.00 O.D. X 1.32 I.D.	1
F	07357	Inner Cone Bearing	1
G	07358	Outer Cone Bearing	1
H	07361	Oil Seal	1
I	07362	Hub Cap	1
J	09532	Hub Cap Gasket	1
K	12815	Spindle F/ 10-Bolt	1

1050 PARTS BREAKDOWN



ITEM	PART #	DESCRIPTION	QTY
1	07435	3/4" UNF Wheel Nut f/ 10 Bolt	20
-	10971	5/8" UNF Wheel Nut f/ 8 Bolt	16
2	07887-30	Hitch Cat II Forged Base	1
3	07888-30	Hitch Clevis Cat II	1
4	09218-95	Hose Keeper, 2 Hose	3
5	09219-30	7000# Side Wind Jack W/Mt	1
6	11031	Gas Strut	3
7	11032	Shock Rod End	6
8	11858-95	Height Adjust Lock Pin	4
9	11859-95	Height Adjust Lock Pin	2
10	11867	Rubber Bumper	2
11	11872	Door Latch	1
12	12718-?	Frame For 6" Axle Inserts	1
-	12761-?	Frame For 5" Axle Inserts	-
13	12721-?	Platform Base	1
14	12723-76	Side Tank Brace Left	1
15	12724-76	Side Tank Brace Right	1
16	12725-76	6 X 6 Axle Clamp	2
-	12762-76	5 X 5 Axle Clamp	-
17	12729-76	Axle Insert 6" F/90-144 Sp 46"	2
-	12790-76	Axle Insert 6" F/90-144 Sp 38"	-
-	12763-76	Axle Insert 5" F/ 60-120 Sp 38"	-
-	12801-76	Axle Insert 5" F/ 90-144 Sp 38"	-
18	12730-?	Left Front Door	1
19	12731-?	Valve Box Assembly	1
20	12733-76	Ladder	1

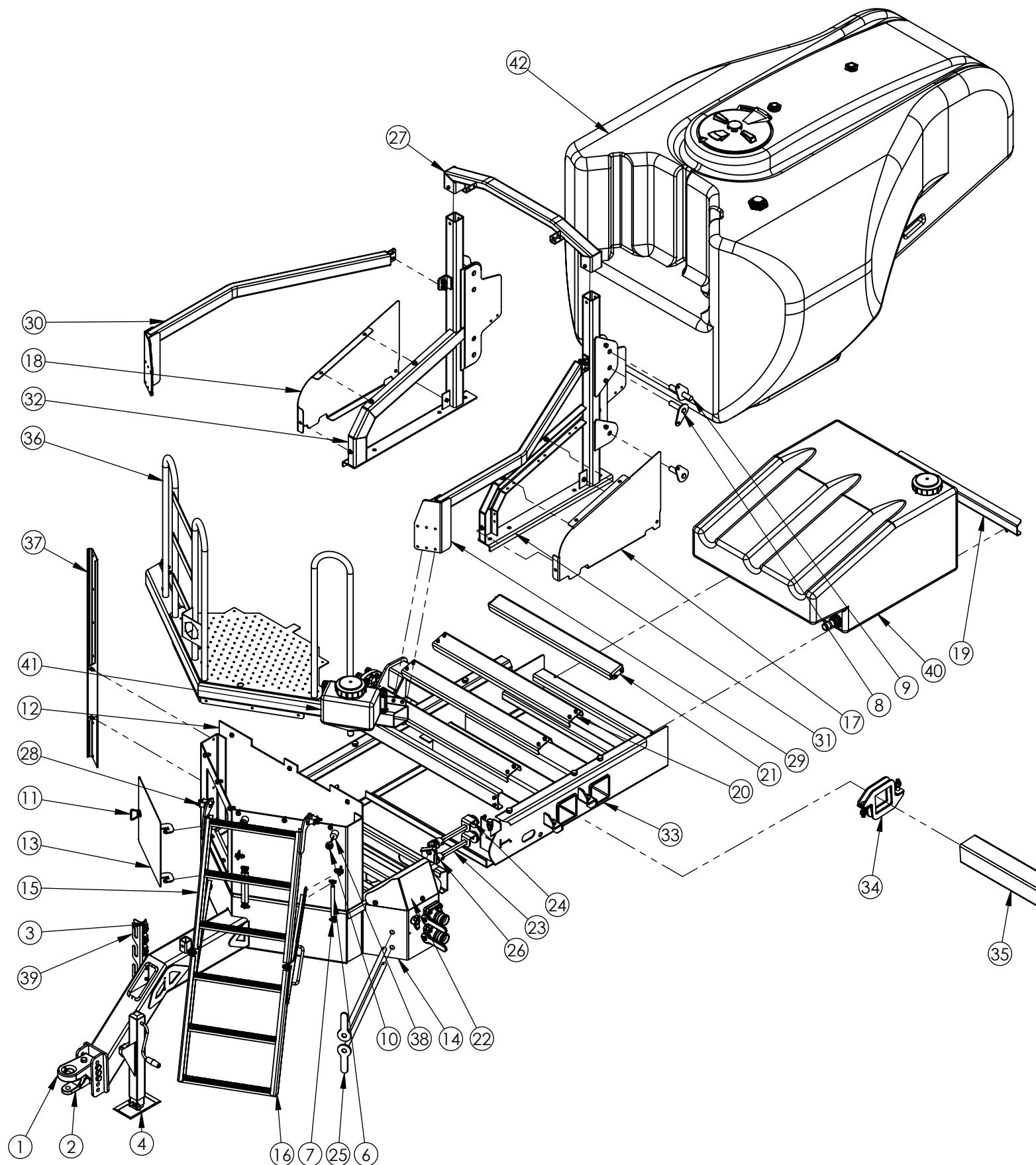
21	12734-76	Lower Ladder	1
22	12736-76	Cover Left	1
23	12737-76	Cover Right	1
24	12738-76	Rinse Tank Bar	1
25	12739-76	Tank Support Channel	4
26	12740-76	Rear Tank Support Channel	1
27	12741-?	Control Lid	1
28	12742-95	Rear Valve Shaft F/200	1
29	12743-95	Rear Valve Shaft F/220 Valve	1
30	12744-15	Valve Handle Assembly Yellow	2
31	12745	Universal Joint	2
32	12746-76	Boom Mount Cap	1
33	12747	Ladder Roller	4
34	12784-76	Top Angle	2
35	12812	Bumper Spacer	2
36	12820-76	Hose Holder	1
37	14556-76	Left Boom Mount For 1050	1
38	14557-76	Right Boom Mount For 1050	1
39	14609-76	1050 Platform	1
40	14610-76	Sight Gauge Hose Bracket	1
41	14611	Tank Poly 1050 Gal W/Ftgs YLW	1
-	14612	Tank Poly 1050 Gal W/Ftgs CHR	-
42	14613	Tank Poly 120 Gal. Rinse CHR	1
-	12816	Tank Poly 120 Gal. Rinse YLW	-
43	14616	Eye Wash Tank With Lid CHR	1
-	12793	Eye Wash Tank With Lid YLW	-
44	14680-76	Platform Spacer Plate	1
45	5892-30	Spindle /Hub Assembly 10 bolt	2
-	5891-30	Spindle /Hub Assembly 8 bolt	-
46	9446020-15	Whl/Tire 46" X 10, 10 Bolt YLW	2
-	9446020-60	Whl/Tire 46" X 10, 10 Bolt CHR	-
-	9446019-15	Whl/Tire 38" X 12, 8 Bolt YLW	-
-	9446019-60	Whl/Tire 38" X 12, 8 Bolt CHR	-

? = Specify color
Spindle/Hub Part Breakdown

ITEM	PART #	DESCRIPTION	QTY
45	5892-30	Hub Assembly 10-Bolt	Page 19
43	5891-30	Hub Assembly 8-Bolt	Page 23

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

850 PARTS BREAKDOWN



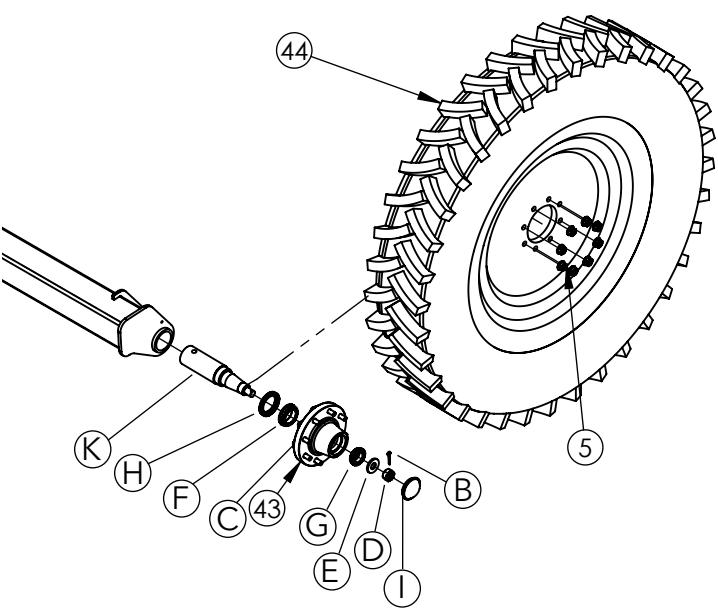
ITEM	PART #	DESCRIPTION	QTY
1	07887-30	Hitch Cat II Forged Base	1
2	07888-30	Hitch Clevis Cat II	1
3	09218-95	Hose Keeper, 2 Hose	3
4	09219-30	7000# Side Wind Jack W/Mt	1
5	10971	5/8" Unf Flanged Wheel Nut	16
6	11031	Gas Strut	3
7	11032	Shock Rod End	6
8	11858-95	Height Adjust Lock Pin	4
9	11859-95	Height Adjust Lock Pin	2
10	11867	Rubber Bumper	2
11	11872	Door Latch	1
12	12721-?	Platform Base	1
13	12730-?	Left Front Door	1
14	12731-?	Valve Box Assembly	1
15	12733-76	Ladder	1
16	12734-76	Lower Ladder	1
17	12736-76	Cover Left	1
18	12737-76	Cover Right	1
19	12738-76	Rinse Tank Bar	1
20	12739-76	Tank Support Channel	4
21	12740-76	Rear Tank Support Channel	1
22	12741-?	Control Lid	1
23	12742-95	Rear Valve Shaft F/200	1
24	12743-95	Rear Valve Shaft F/220 Valve	1
25	12744-15	Valve Handle Assembly Yellow	2
26	12745	Universal Joint	2
27	12746-76	Boom Mount Cap	1

28	12747	Ladder Roller	4
29	12757-76	Side Tank Brace Left	1
30	12758-76	Side Tank Brace Right	1
31	12759-76	Left Boom Mount For 850	1
32	12760-76	Right Boom Mount For 850	1
33	12761-?	Frame For 5" Axle Inserts	1
34	12762-76	5 X 5 Axle Clamp	2
35	12763-76	5" Axle Insert F/ 60-120 Spacing	2
-	12801-76	5" Axle Insert F/ 90-144 Spacing	-
36	12786-76	850 Platform	1
37	12793	Eye Wash Tank With Lid YLW	1
-	14616	Eye Wash Tank With Lid CHR	-
38	12807-76	Sight Gauge Hose Bracket	1
39	12812	Bumper Spacer	2
40	12816	Tank Poly 120 Gal. Rinse YLW	1
-	14613	Tank Poly 120 Gal. Rinse CHR	-
41	12817	Tank Poly 850 Gal W/Ftgs YLW	1
-	14617	Tank Poly 850 Gal W/Ftgs CHR	-
42	12820-76	Hose Holder	1
43	5891-30	Spindle /Hub Assembly 8 bolt	2
44	9446019-15	Whl/Tire 38" X 12, 8 Bolt YLW	2
-	9446019-60	Whl/Tire 38" X 12, 8 Bolt CHR	-

? = Specify color

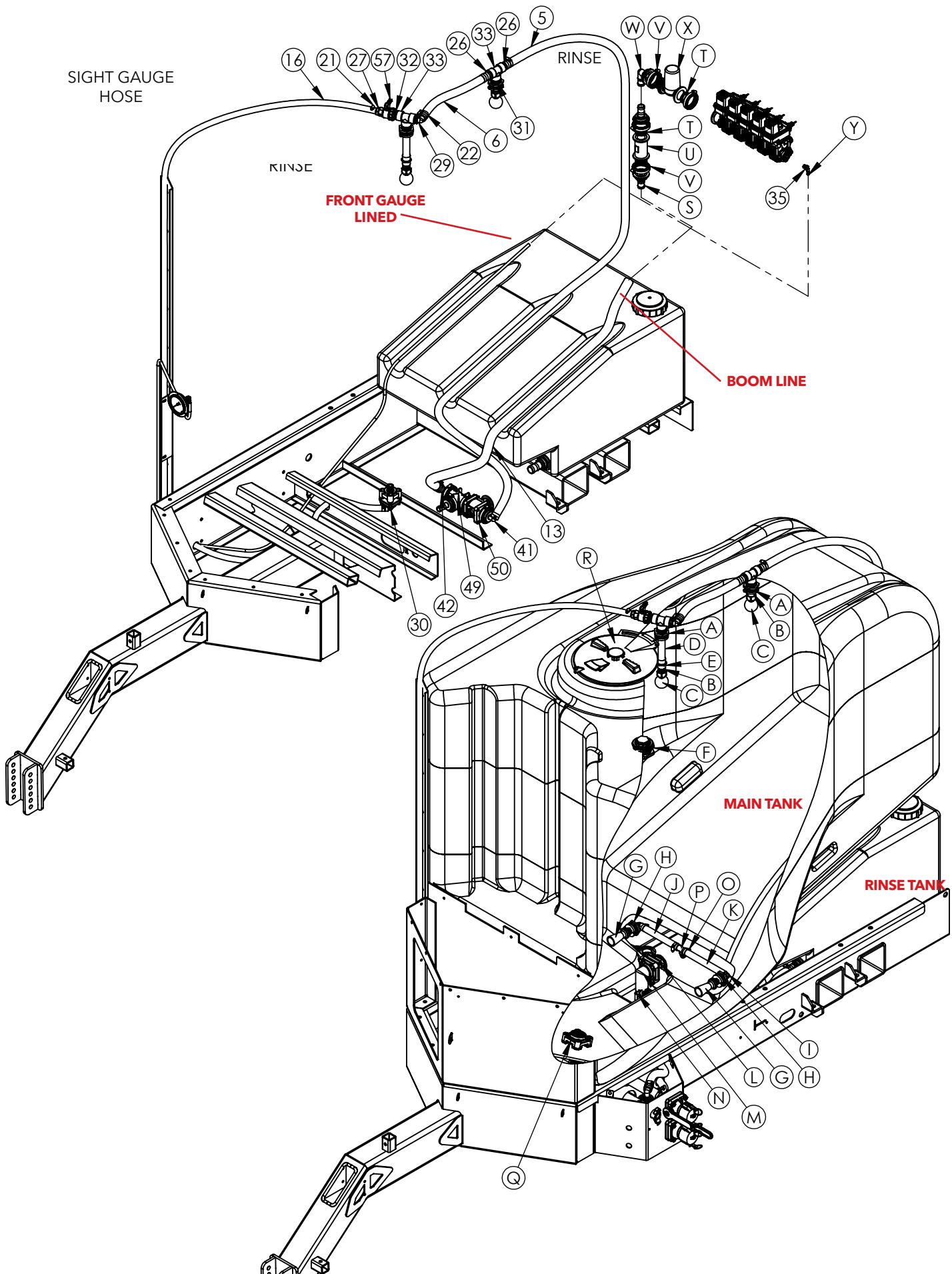
8 Bolt Hub Part Breakdown

ITEM	PART #	DESCRIPTION	QTY
43	5891	Hub Assembly 8-Bolt	2
B	00191	3/16" X 1-1/2" Cotter Pin	1
C	01941	Hub F/ 450 & 550 Gear	1
C*	01943	Inner Cup	1
C*	01938	Outer Cup	1
C*	10151	Stud Bolt	8
D	01934	Nut 1.00nf Hex Slotted	1
E	01936	Running Gear Spindle Washer	1
F	01942	Inner Cone Bearing	1
G	01937	Outer Cone Bearing	1
H	01944	Seal Oil F/ 808 & 680 Hub	1
I	01933	Hub Cap F/ 608 & 808 Hubs	1
K	12814	Spindle F/ 8-Bolt	1

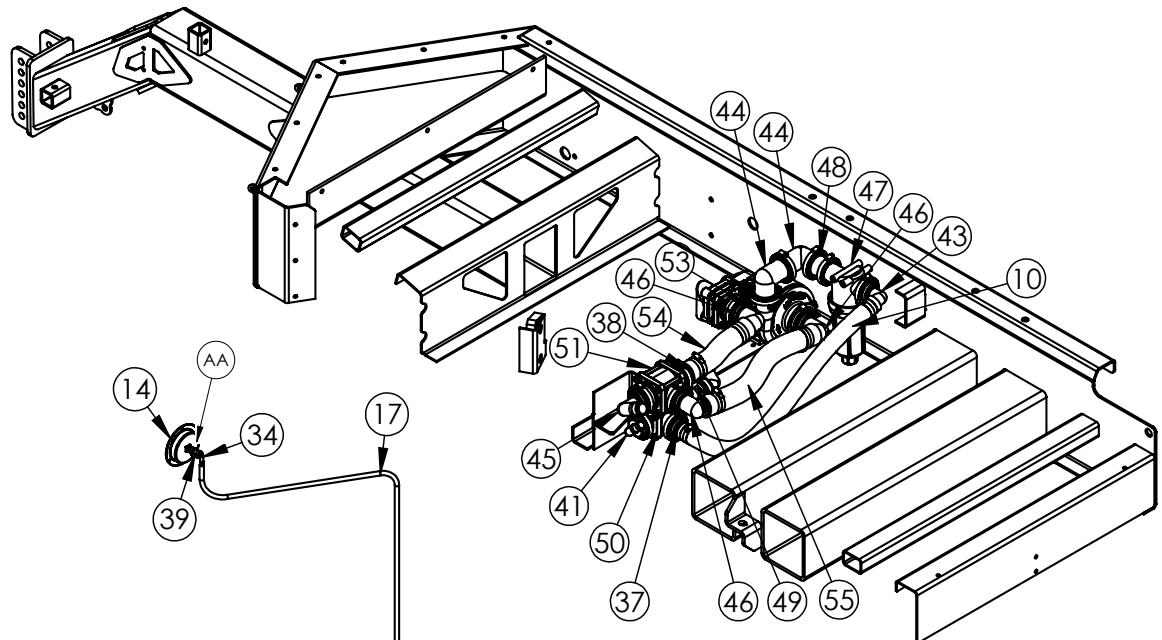


Please order replacement parts by **PART NO.** and **DESCRIPTION**.

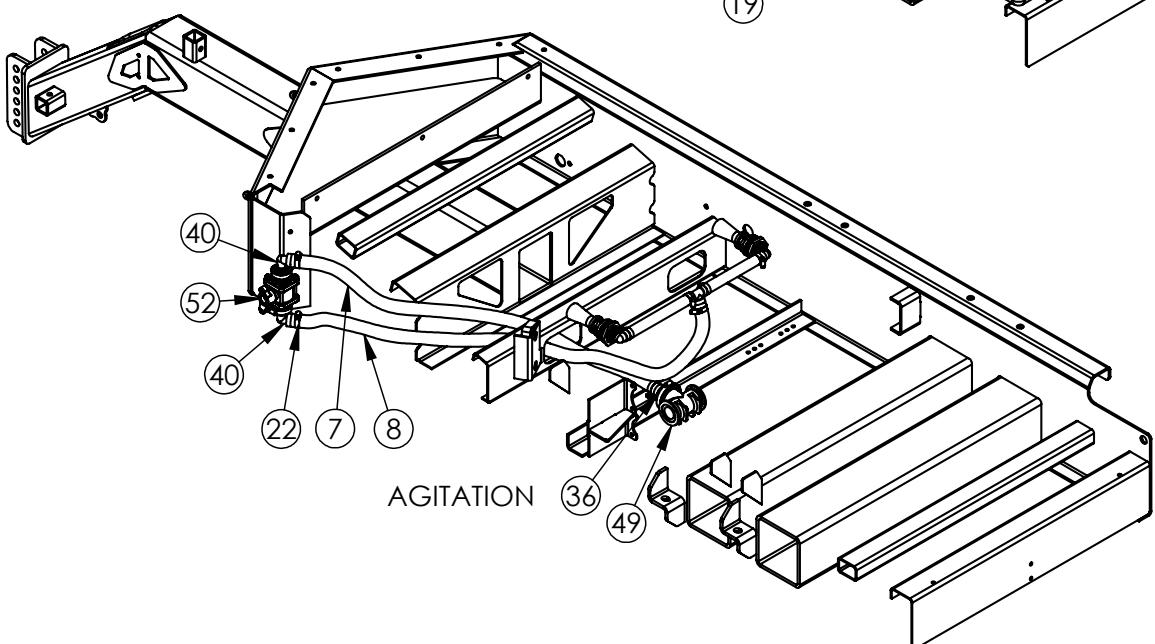
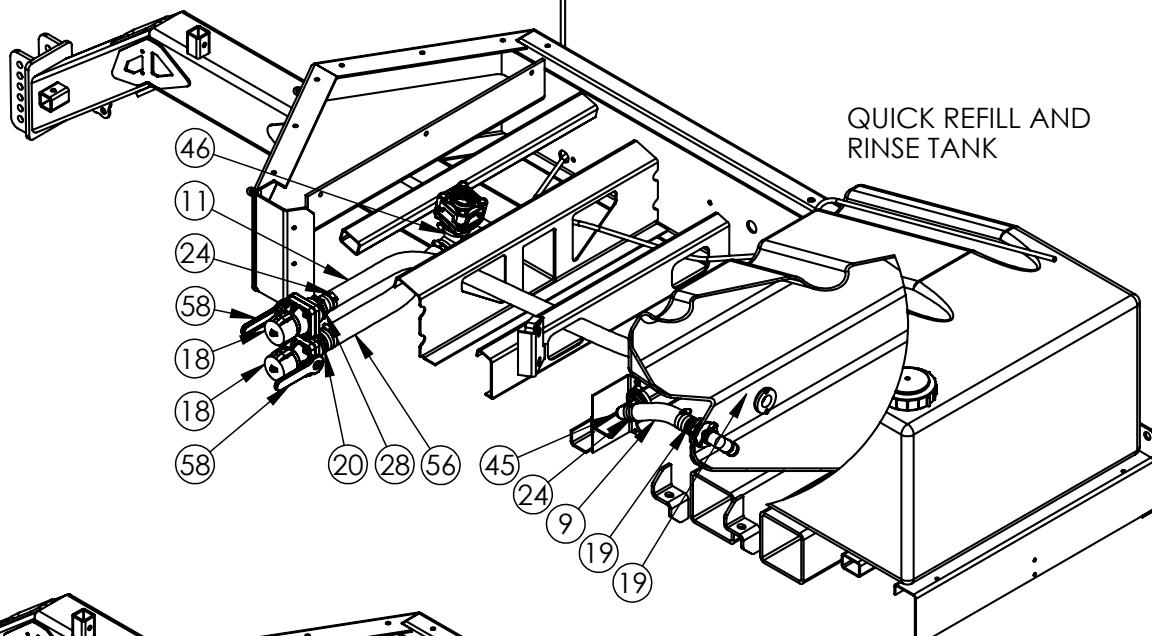
PLUMBING PARTS BREAKDOWN



MAIN VALVES



QUICK REFILL AND RINSE TANK



PLUMBING PARTS LIST

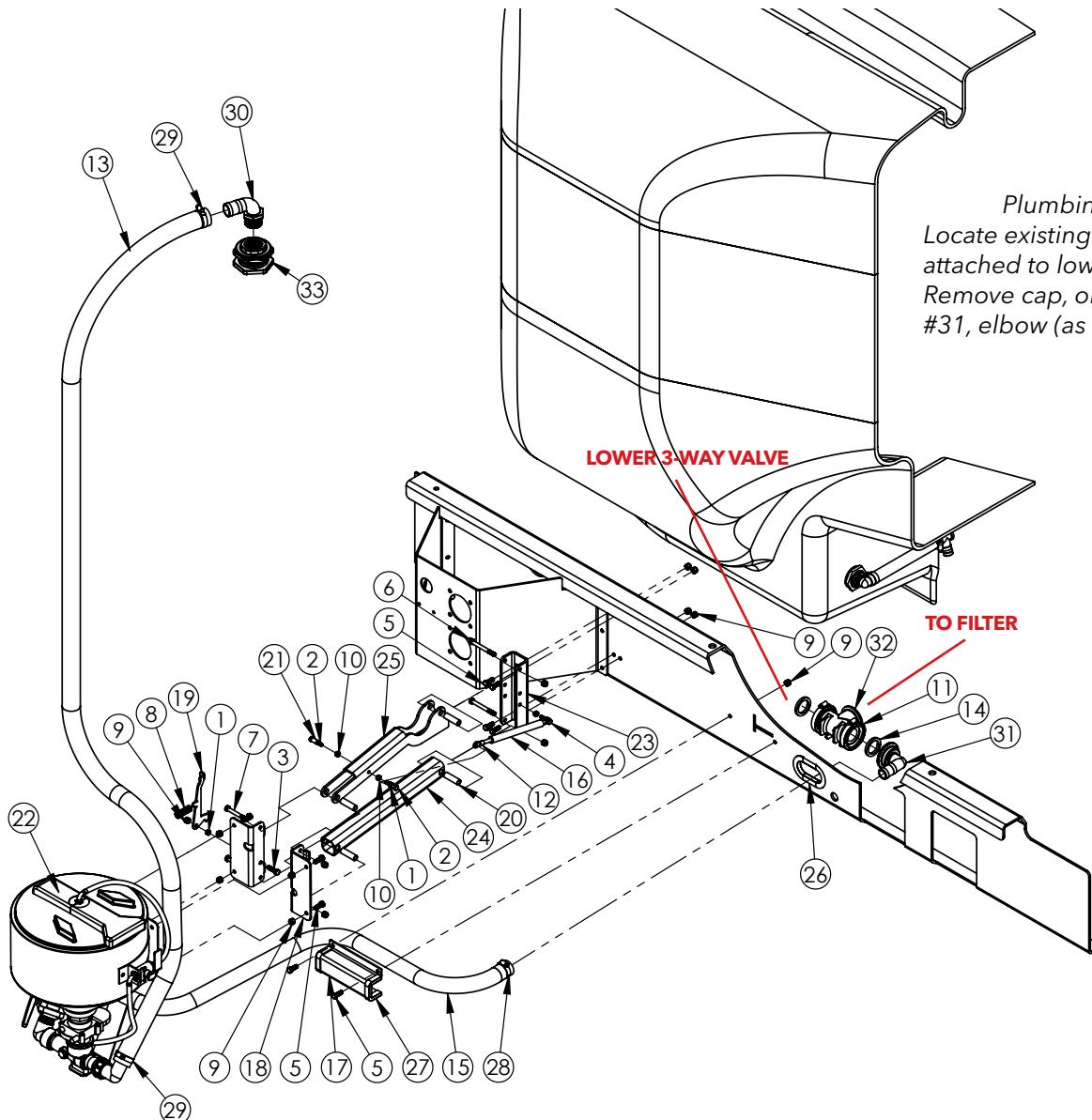
TRAILER PLUMBING AND MAIN TANK FITTING BREAKDOWN

ITEM	PART #	DESCRIPTION	QTY
1	09938	Clamp, F/1" Flg Ftg	2
2	09939	Clamp, F/2" Flg Ftg	7
3	09940	Clamp, F/2" Flg Ftg FP	9
4	M100G	Gasket, 1" Id X .25" F/ 1" Flg Ftg	2
5	1010RB	1.00" Hose X 157.50" To Rinse Balls	1
6	1010RB	1.00" Hose X 20.5" Between Rinse	1
7	1010RB	1.00" Hose X 51.5" For Agitation	1
8	1010RB	1.00" Hose X 59" To Agitation Valve	1
9	1120RB	1.50" Hose X 10" Rinse To Valve	1
10	1120RB	1.50" Hose X 33.5" Filter To Valve	1
11	1120RB	1.50" Hose X 68" Rinse Quick Refill	1
12	112G	Gasket, 1.50" X .25" F/2" Flg Ftg	7
13	1140RB	1.25" Hose X 69" To Boom	1
14	12800	Gauge 4" Liquid Filled (0-160 PSI)	1
15	200G	Gasket, 2" X .25" F/2" Flg Ftg FP	9
16	340	.75 Hose X 185.50 For Site Gauge	1
17	380RB	.375" Hose X 240" For Pressure Gauge	1
18	634B2020	Quick Coupler, 2" Cap	2
19	A114 112	Ftg Str 1.25 MPT X 1.50 HB	2
20	A200	Ftg Str, 2" MPTX 2" HB	1
21	B12H	Clamp, Gear, SS, .75" Hose	2
22	B16H	Clamp, Gear, SS, 1" Hose	8
23	B24H	Clamp, Gear, SS, F/1.25" Hose	1
24	B32H	Clamp, Gear, SS, F/1.50" Hose	6
25	B44H	Clamp, Gear, SS, F/2" Hose	6
26	BA1010	Ftg, Str, 1" MPT X 1" HB	2
27	BA1034	Ftg, Str, 1" MPTX .75" HB	1
28	BA200 112	Ftg, Str, 2" MPT X 1.5" HB	1
29	BEL1010	Ftg, Elb, 1" MPT X 1" HB	1
30	BEL1034	Ftg, Elb, 1" MPT X .75" HB	1
31	BM1000	Ftg, Nipple, 1" MPT	2
32	BM1034	Ftg, Reducer Nip, 1" MPT X .75" MPT	1
33	BTT100	Ftg, Tee, 1" FPT	2
34	EL1438	Ftg, Elb, .25" MPT X .375" HB	1
35	EL3838	Ftg, Elb, .375" MPT X .375" HB	1
36	FA200 100HB	Ftg Str 2" Flange X 1" HB	1
37	FA200 150HB	Ftg, Str, 2" Flg X 1.50" HB	1
38	FA220 200HB	Ftg, Str, 2" Flg FP X 2" HB	1
39	FC1400	Ftg, Coupling .25" FPT Poly	1
40	FEL100 100HB	Ftg, Elb, 1" Flg X 1" HB	2
41	FEL200 100HB	Ftg, Elb, 2.00" Flg X 1.00" HB	1
42	FEL200 125HB	Ftg, Elb, 2" Flg X 1.25" HB	1
43	FEL200 150HB	Ftg, Elb, 2" Flg X 1.50" HB	1
44	FEL220	Ftg, Elb, 2" FP Flg X 2" FP Flg	2
45	FEL220 150HB	Ftg, Elb, 2" FP Flg X 1.50" HB	1
46	FEL220 200HB	Ftg, Elb, 2" FP Flg X 2" HB (Hypro)	4
-	FA220 200HB	Ftg, Str, 2" FP Flg x 2" HB (Ace)	1

ITEM	PART #	DESCRIPTION	QTY
47	FLST 150 50	Filter	1
48	FRB220 200	Ftg RB 2" FP Flg X 2" Flg	1
49	FT200	Ftg, Tee, 2" Flg (3x)	1
50	FV200BLCF	Valve, Ball, 2" 3-Way Flg	1
51	FV220BLCF	Valve Ball 2" FP 3-Way Flg	1
52	MV100CF	Valve Ball 1" Fp T-handle	1
53	FMC150HYD304	Ace Pump	1
54	S2020	2" Hose X 11" Tank To Main Valve	1
55	S2020	2" Hose X 22.5" From Pump To Main Valve	1
56	S2020	2" Hose X 22" F/ Quick Refill	1
57	UV075FP	Ball Valve, .75" Single Union	1
58	VSF204FP	2" Coupler X 2" FPT	2
A	P100DA	Ftg 1" FPT F/ Poly Tank	2
B	11067	Ftg Nipple 1" MPT	2
C	03813	Spray Ball Tank Rinsing w/ 1" MPT	2
D	PP180	Pipe Polypropylene 1.00" (6")	1
E	FC1000	Ftg Coupling 1" FPT	1
F	P112	Ftg 1.50" FPT F/ Poly Tank	1
G	09941	Agitator Jet HV	2
H	P034DA	Ftg .75" Double Thread	2
I	EL3410	Ftg Elb .75" MPTx 1" HB	2
J	1010RB	1.00" Hose X 10.5"	1
K	1010RB	1.00" Hose X 11.0"	1
L	FTF220	Ftg Tank 2" Flg FP	1
M	10267	Ftg Siphon 2" Elb	1
N	BF100BD	Ftg Tank 1" Bottom Drain 3.5" Long Bolt	1
O	B16H	Clamp, Gear, SS, 1" Hose	4
P	T100	Ftg Tee 1" HB Poly	1
Q	FTF200BD	Ftg Tank 2" Flg FP Bottom	1
R	5486A	Replacement Fliptop 16" Lid	1
S	FA200 125HB	Ftg, Str, 2" Flg X 1.25" HB	2
T	112G	Gasket, 1.50" X .25"	4
U	12780	Flow Meter, 0-60 GPM Raven	-
V	09939	Clamp, 2", F/Flg Ftg	4
W	FEL200 125HB	Ftg, Elb, 2" Flg X 1.25" HB	1
X	10311	Valve 1" FPT Regulator	-
Y	B6H	Clamp gear SS F/ .375 hose	1

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

All hose is sold by the foot



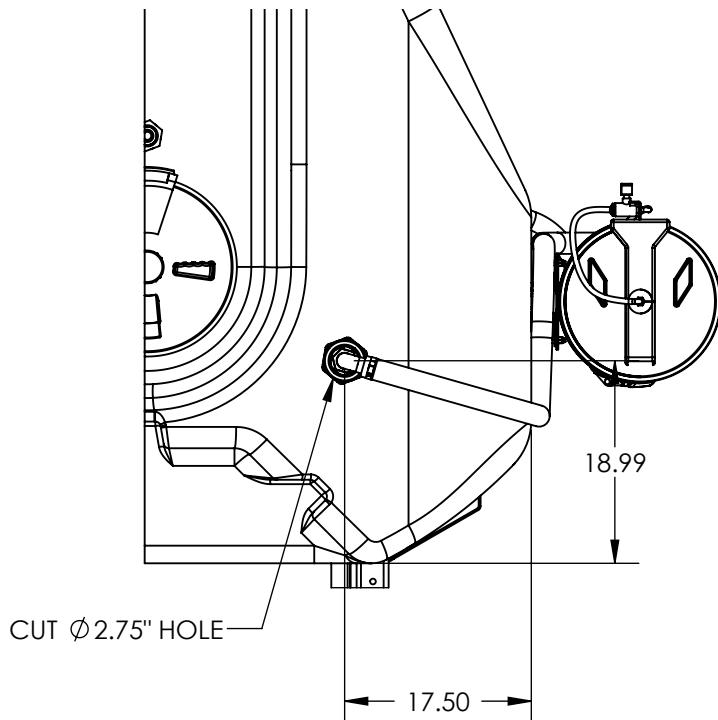
Plumbing Instruction
Locate existing Tee Ftg, #32,
attached to lower 3way valve.
Remove cap, on #32, and attach
#31, elbow (as shown) and #15.

ITEM	PART #	DESCRIPTION	QTY
1	00007	Nut, .313 NC Hex Nut	3
2	00372	Bolt, .31 X 1.50 Hex Gr 5	2
3	00523	Bolt, .375 NC X 1.25 Hex Gr5	1
4	00685	Bolt, .313 NC X 1.25 Hex Gr5	1
5	00907	Bolt, .375 NC X 1.00 Hex Gr5	10
6	01903	Bolt, .375 NC X 3.5 Gr. 5 Hex	2
7	02207	Bolt, .375 NC X 3.00 Gr.5	2
8	02208	Spring, Compression, 2"	1
9	02592	Nut, .375 NC Nylon Lock	15
10	02802	Nut, .313 NC Nylon Lock	3
11	09939	Clamp, 2", F/Flg Ftg	1
12	11032	Shock Rod End	2
13	1120RB(10ft)	Upper Hose Assy.	1
14	112g	Gasket, 1.50" X .25"	1
15	1140RB(5ft)	Lower Hose Assy.	1
16	11928	Strut, Gas, 80#	1
17	12889-76	Hose Support Bracket	1
18	12915-76	Eductor Mount	2

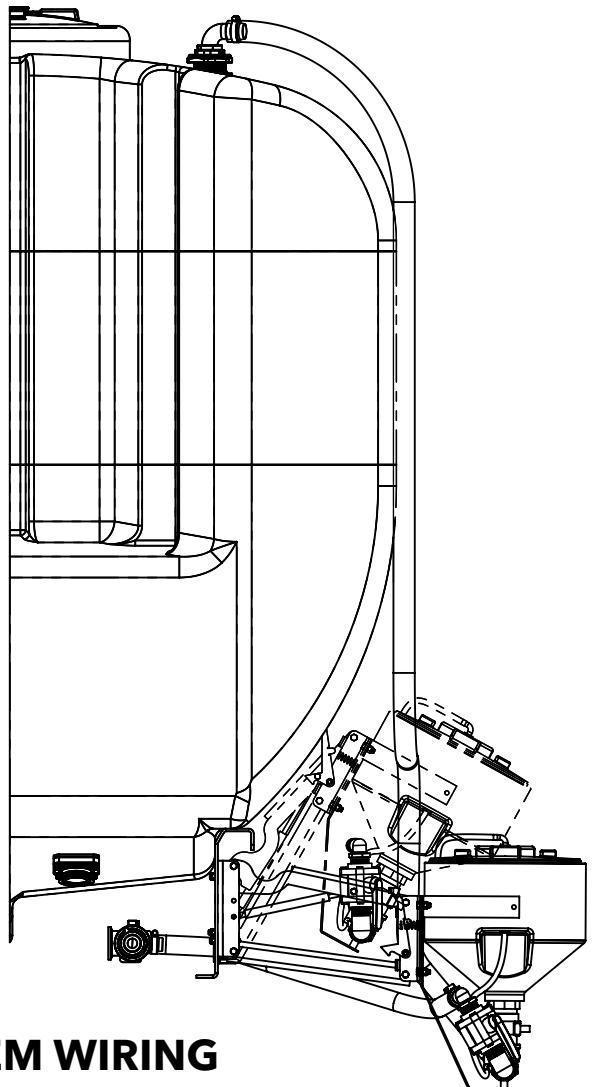
19	12916-76	Chemical Eductor Latch	1
20	12917-95	Spacer	4
21	12918-95	Latch Lever Bushing	1
22	12919	Chemical Eductor F/ 50'S	1
-	11996	Elb Swivel 1.50" HB	
23	12926-76	Base Mount	1
24	12927-76	Tube	1
25	12928-76	Top Link	1
26	61364(10.5")	Frame Edge Protect	1
27	61364(5.5")	Hose Bracket Edge Protect	2
28	B24H	Clamp, Gear, Ss, F/1.25" Hose	2
29	B32H	Clamp, Gear, Ss, F/1.50" Hose	2
30	ELI112	Ftg, Elb, 1.50" MPT X 1.50" HB	1
31	FEL200 125HB	Ftg, Elb, 2" Flg X 1.25" HB	1
32	FT200	Ftg, Tee, 2" Flg (3x)	1
33	P112	Ftg 1.50" F/Poly Tank	1

All hose is sold by the foot

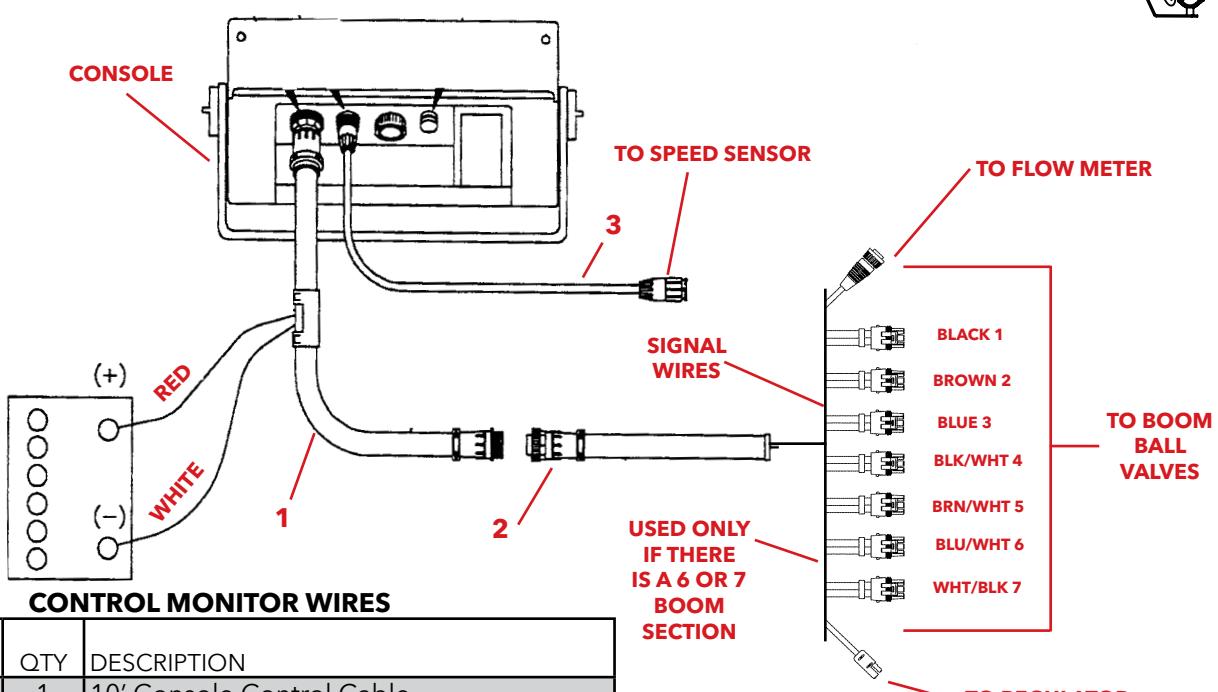
CHEMICAL EDUCTOR HOSE ROUTING



1. Release lever to lower unit for filling.
2. After filling, lift unit up to transport position before use.



RAVEN CONTROL SYSTEM WIRING



REF NO	PART NO	QTY	DESCRIPTION
1.	10960	1	10' Console Control Cable
2.	12851	1	24' Flow Control Cable
3.	10046	1	12' Speed Sensor Harness Console to Hitch

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

1 (SHOWN HERE IN A BANK OF FIVE)



CONTROL MONITOR SYSTEM

REF #	PART #	QTY	DESCRIPTION
1.	16661	1	BALL VALVE
2.	10826	-	RAVEN 450 CONSOLE (5 SECTION - SHOWN)
3.	12780	1	FLOW METER
4.	10311	1	1" REGULATING BUTTERFLY VALVE
5.	09859	-	TEEJET CLAMP AND O-RING
6.	09858	-	TEEJET O-RING (NOT SHOWN)
7.	FA200 100	-	2" FLANGE TO 1" FLANGE FITTING
8.	09856	-	S.S. CLIP FOR FITTING
9.	09857	-	OUTLET STRAIGHT FITTING
-	09855	-	O-RING OUTLET FITTING (NOT SHOWN)

850/1050 5"Axle Wheel Sensor



1050/1250 6"Axle Wheel Sensor



WHEEL SENSOR

PART NO	QTY	DESCRIPTION
00004	3	Washer Flat .313
01997	1	Washer Spring Lock .313 SS
02990	1	Bolt .313NC x 1.00 GR6 Hex
10308	1	Proximity Wheel Sensor
13676-95	1	L Bracket Plated (1250)
13677-95	1	Z Bracket Plated (850)

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

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.

8. TANK TIE DOWN CABLES

Be sure tie down cables are tight.

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.

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 SPRAYER START-UP GUIDE

1-800-543-3626

1. Choose appropriate spray tips for application rate and speed.
2. Program rate controller (refer to controller manual).
3. Read pump manual and tractor manual to be sure pump and tractor are compatible.
4. Hose hook-up
 - a. Hook up hose to tractor hydraulic priority port (for optimal pump performance, return line should dump directly into tractor hydraulic tank).
 - b. Start with low hydraulic flow (approximately 25% of max flow or 10 gpm. *Flow will be increased later).
5. For pump priming, set pressure valve to tank flush, main valve to sprayer tank and agitation valve to increase agitation. Then fill main tank with 300 gallons of fresh water.
6. Set monitor master switch to off position.
7. Switch pressure valve back to spray boom.
8. Start pump
 - a. Confirm pump is primed by checking pressure gauge.
 - b. If gauge shows 0 psi, stop pump immediately. Remove cap from bottom of filter bowl until air is removed. Replace cap and restart pump. Proceed to step 9 if gauge pressure is above 5 psi.
 - c. DO NOT RUN PUMP DRY
9. Adjust tractor hydraulic flow to achieve a pressure of 80 psi.
10. Set valves to spraying operation (refer to instructions on valve panel).
11. Unfold boom (see boom manual).
12. You are now ready to test run the sprayer.
13. If spraying pressure is not achieved, slowly increase tractor hydraulic flow.

AB20078 Rev 2

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**Demco warranty policies, operator manuals, and product registration
can be found online:**

www.demco-products.com

