

# DEMCO

*Doing Our Best to Provide You the Best*

AB20023, Rev 7

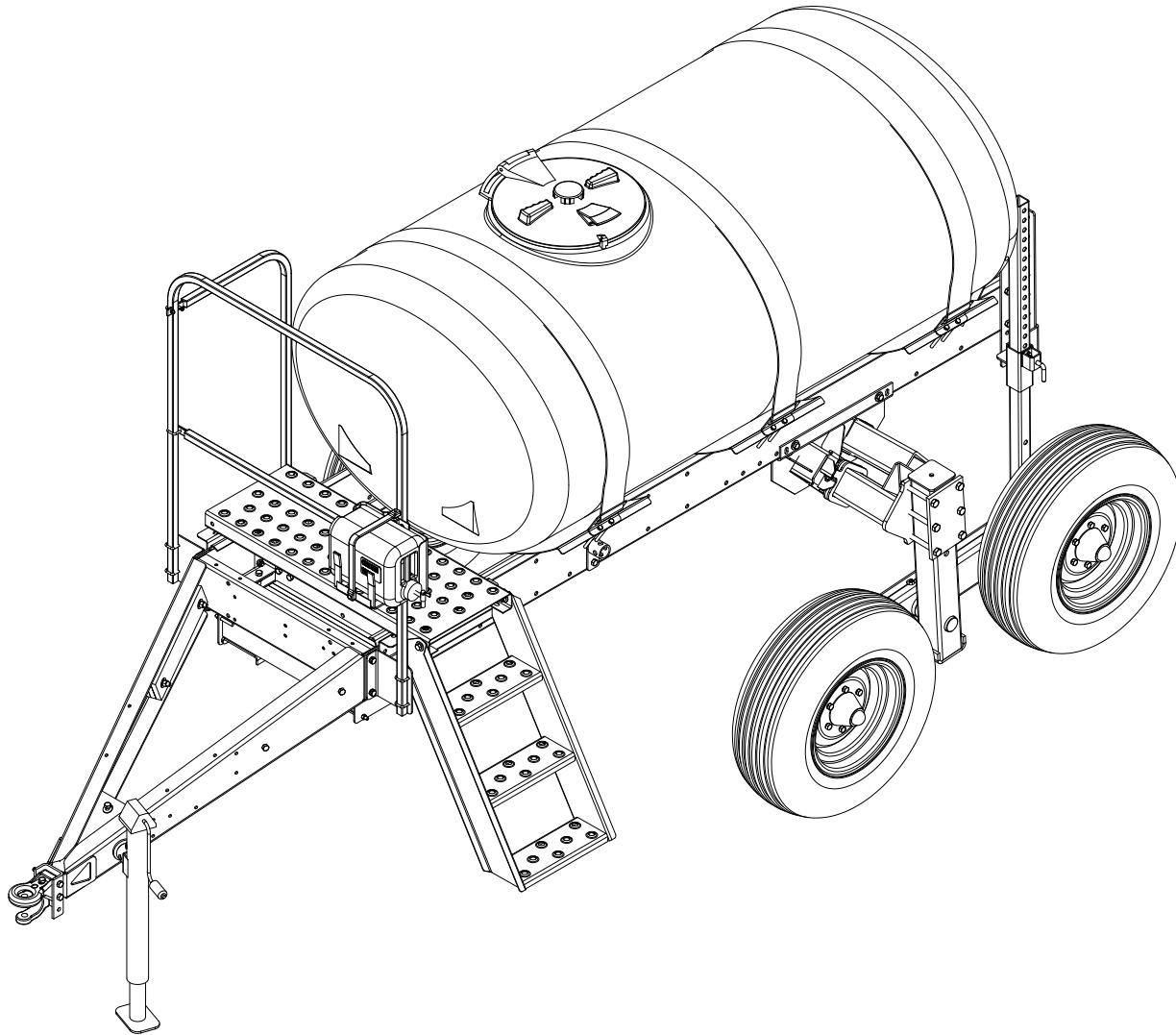
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## SINGLE & TANDEM AXLE SPRAYER

### 500 Gallon

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**OPERATOR MANUAL**

## INTRODUCTION

Thank you for purchasing a Demco sprayer. We feel you have made a wise choice and hope you are completely satisfied with your new sprayer.

If you have any questions regarding the applications of certain solutions or chemicals, contact your chemical supplier and follow chemical manufacturer recommendations as well as all licensing and use restrictions or regulations.

## WARRANTY POLICY, OPERATOR MANUALS & REGISTRATION

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



### **WARNING: TO AVOID PERSONAL INJURY OR 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 (grade 5) (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**.

TeeJet is a registered trademark of Spraying Systems Company

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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  
<http://www.demco-products.com>



## SAFETY...YOU CAN LIVE WITH IT



### EQUIPMENT SAFETY GUIDELINES

Every year many accidents occur which could be avoided by a few seconds of thought and more careful approach to handling equipment. You, the operator, can avoid accidents by observing precautions in this section. To avoid personal injury, study 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, sprayer 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.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS SPRAYER 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 manufacturer.



## 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.



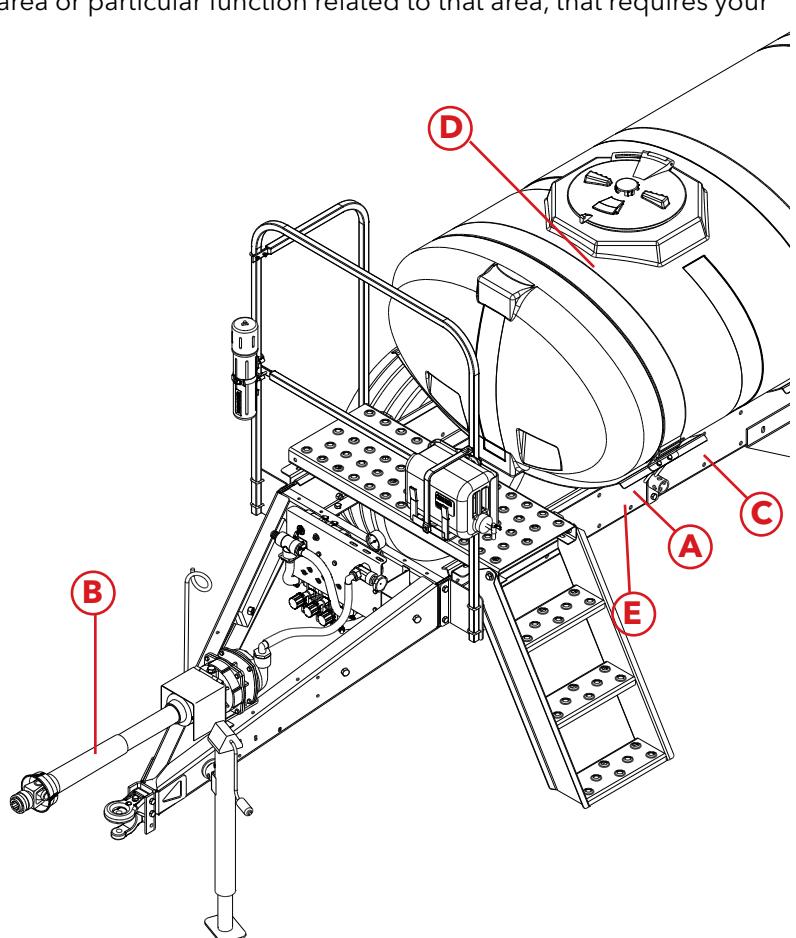
**A.** Side of Frame **AG21002** Qty.1



**B.** PTO Shaft **AA21059** Qty. 1



**C.** Side of Frame **AB21001** Qty. 1



**D.** Top of Tank **AB21014** Qty. 1



**E.** Side of Frame **AG21001** Qty. 1



## SAFETY SIGN CARE

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

### How to install safety signs:

- Be sure 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 tire on rim can produce an explosion resulting in serious injury or death.
- Do not attempt to mount tire unless you have proper equipment and experience.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service 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 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: 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 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 the 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 engine.
- Manufacturer does not recommend usage of tractor with ROPS removed.
- Move tractor wheels to widest recommended settings to increase stability.
- Do not allow anyone to stand between tongue or hitch and towing unit when backing up to equipment.



## DURING OPERATION

- Beware of bystanders, **PARTICULARLY CHILDREN!** Always look around to make sure it is safe to start engine of towing unit or move sprayer. 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 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 unit brakes, disengage PTO, shut off engine, and **remove ignition key**.
- Be especially observant of operating area and terrain- watch for holes, rocks, or other hidden hazards. Always inspect area prior to operation.
  - DO NOT operate near 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 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 unit 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 unit 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 attachments 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 the 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 SPRAYER IN TOW. LOSS OF CONTROL OR UPSET MAY RESULT.**
  - Always drive at a safe speed relative to local conditions and 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 unit 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 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 under 20 mph (40 kph) day or night, 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 of unit 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 sprayer when making turns, or stopping.
- 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 sprayer when making turns, or stopping.



## 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 a 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



## TORQUE SPECIFICATION

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

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

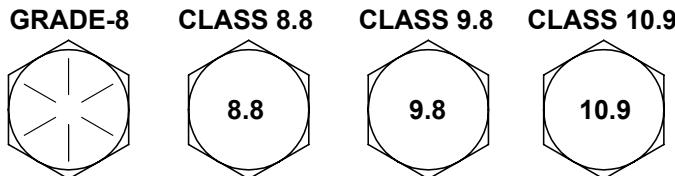
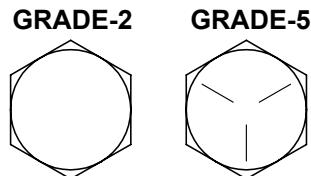
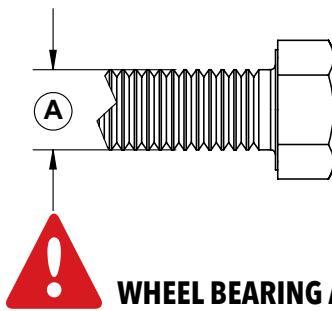
## BOLT TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS

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

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

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

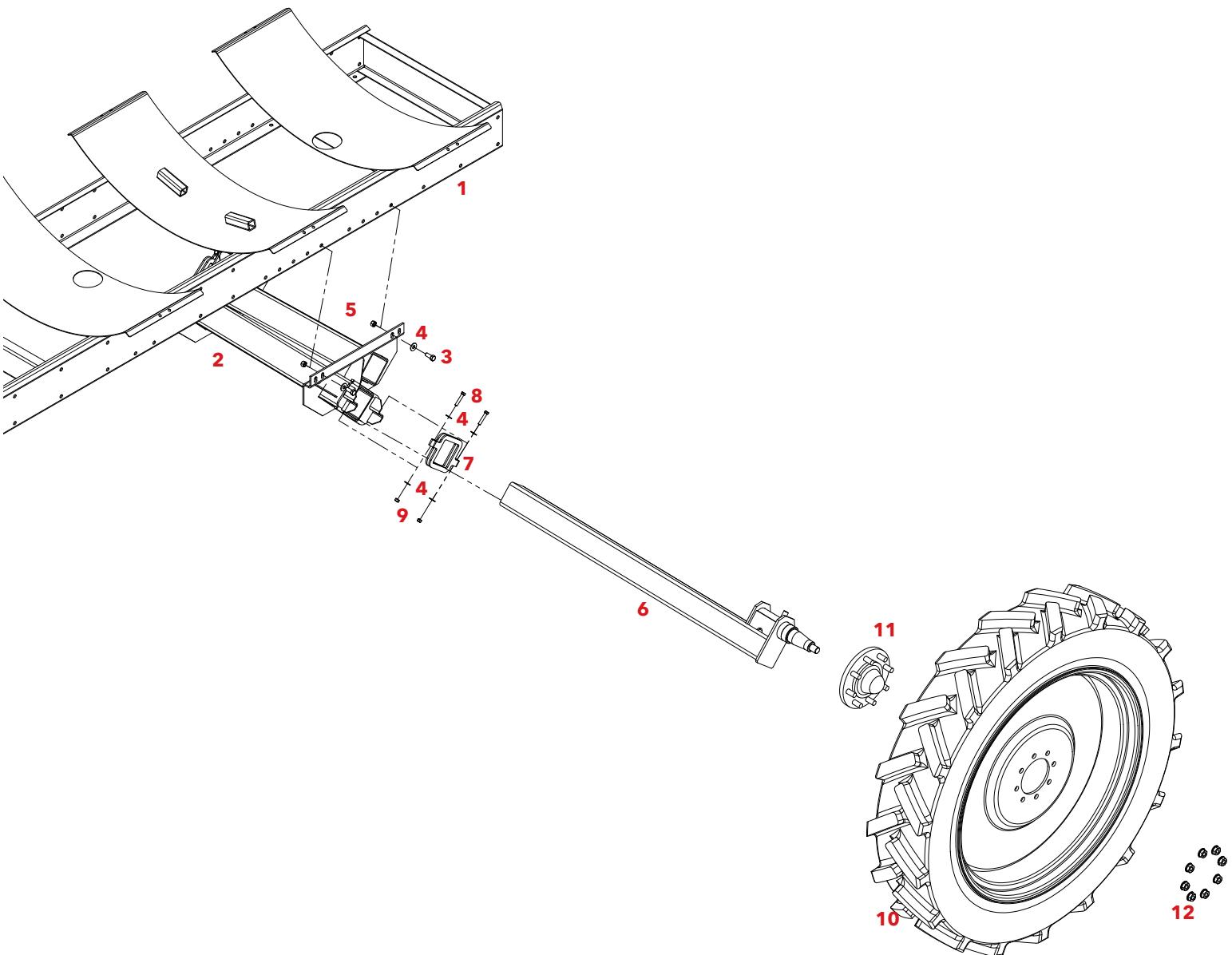
Bolt Torque for Metric bolts *						
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	Ib-ft	(N.m)	Ib-ft	(N.m)	Ib-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)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



## WHEEL BEARING ADJUSTMENT

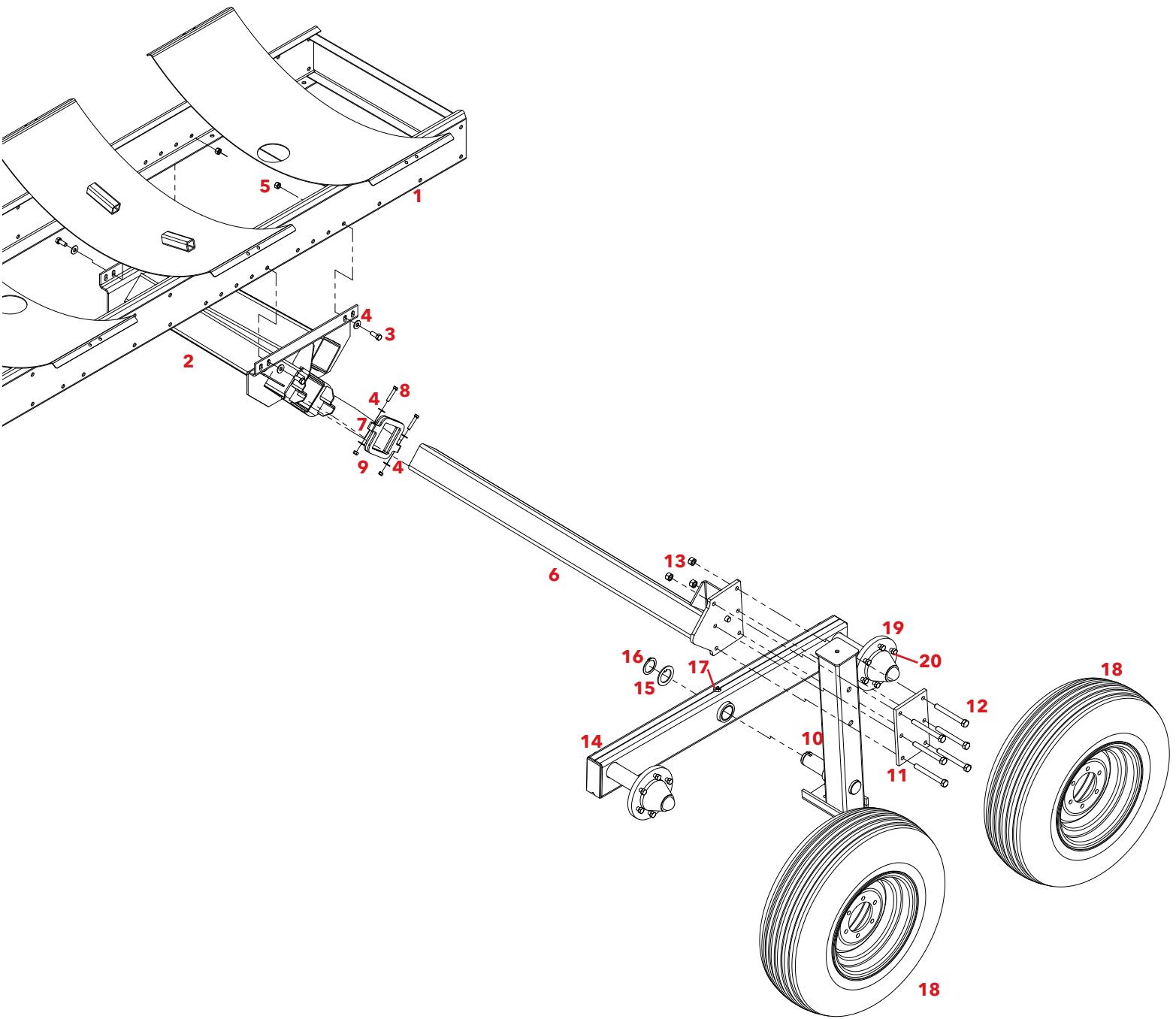
1. Tighten castle or slotted hex nut to initial torque indicated on chart while turning hub in both directions to insure all bearing surfaces are in contact.
2. Back nut off and repeat step #1.
3. Back nut off, do not allow hub to turn.
4. Tighten nut to final torque indicated on chart.
5. Install cotter pin, if needed loosen or tighten nut to the next closest locking slot.
6. Chuck hub for end play.
7. If end play can be felt, start over and readjust bearings. If end play is felt again, try readjusting with a different castle or slotted hex nut.
8. The bearing are set correctly when no end play can be felt after adjustment.

Hub	Initial Toque	Final Torque
6 bolt	40 ft/ lbs	18 ft/lbs
8 bolt	75 ft/lbs	35 ft/lbs



## AXLE ASSEMBLY INSTRUCTIONS

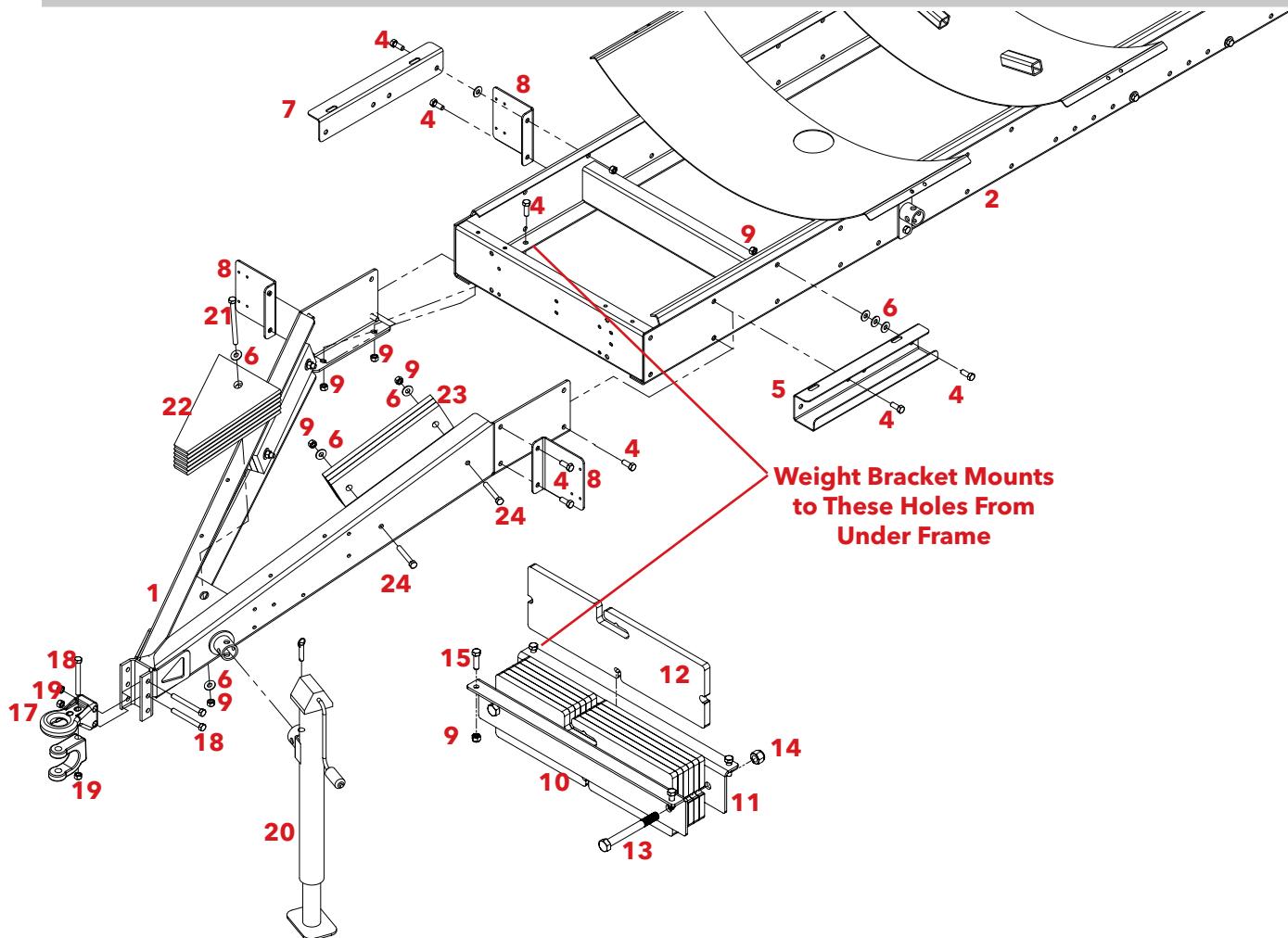
1. Begin by resting the frame (#1) on sawhorses or solid object so frame is about 36" off the ground.
2. Fasten undercarriage (#2) to frame using 1/2" x 1-1/4" bolts (#3) with flatwashers (#4) and nylon locknuts (#5).
3. Slide axle (#6) into position on each side for your particular wheel spacing.
4. Secure Slide-In Axle (#6) with Axle clamp (#7) two 3/8" x 2" bolts (#8) and nylon locknuts (#9).
5. Bolt two rims with tires mounted (#10) to hubs (#11) with lugnuts (#12).



### TANDEM AXLE ASSEMBLY INSTRUCTIONS

1. Begin by resting the frame (#1) on sawhorses or solid object so frame is about 36" off the ground.
2. Fasten undercarriage (#2) to frame using 1/2" x 1-1/4" bolts (#3) with flatwashers (#4) and nylon locknuts (#5).
3. Slide axle (#6) into position on each side for your particular wheel spacing.
4. Secure Slide-In Axle (#6) with Axle clamp (#7) two 3/8" x 2" bolts (#8) and nylon locknuts (#9).
5. Attach down posts (#10) to both sides with mounting plate (#11) using six 5/8" x 5-1/2" hex bolts (#12) and nylon locknuts (#13).
6. Slide tandem wheel carriers (#14) into position and secure with 2" x 3" inverted tab washer (#15) and 2" spiral snap-ring (#16).
7. Grease the pivot shaft zerk (#17) on top of tandem wheel carrier.
8. Bolt the four rims (with tires mounted)(#18) to the hubs (#19) with 1/2" x 1" lug bolts (#20).

# TONGUE & TONGUE WEIGHTS & OPTIONAL WEIGHT BOX PLACEMENT



## PLACEMENT INSTRUCTIONS

1. Fasten tongue (#1) to frame (#2) four  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  (#4) bolts on bottom side of tongue.
2. Mount left platform bracket (#5) using two  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  bolts (#4). **(Be sure to place three  $1\frac{1}{2}''$  flat washers (#6) behind the rear hole of left platform bracket.)**
3. Mount right platform bracket (#7) using two  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  bolts (#4). **(Be sure to place a handrail mounting bracket (#8) between rear of right platform bracket and frame.)**
4. **\*\*If sprayer will be using an x-fold boom then optional weight box is needed and go to step 12\*\***  
Attach two more handrail brackets (#8) on each side of tongue using two  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  bolts (#4) and  $1\frac{1}{2}''$  nylon locknuts (#9) as shown.
5. Place a  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  bolt (#4) on each side of tongue and place a  $1\frac{1}{2}'' \times 1\frac{1}{2}''$  (#4) bolt in right rear handrail mounting bracket (#8).
6. Insert six front tongue weights (#22) into tongue (#1) using one  $1\frac{1}{2}'' \times 6''$  bolt (#21) two  $1\frac{1}{2}''$  flat washers (#6) and one  $1\frac{1}{2}''$  nylon insert locknut (#9)
7. Attach three side weights (#23) to each side of tongue using two  $1\frac{1}{2}'' \times 3\frac{1}{2}''$  hex bolts (#24) two  $1\frac{1}{2}''$  Flat-washers (#6) and two  $1\frac{1}{2}''$  nylon insert lock nuts (#9).

## 8. Tighten all bolts.

9. Fasten the hitch (#17) to tongue (#1) using two  $5\frac{1}{8}'' \times 4\frac{1}{2}''$  bolts (#18) and nylon locknuts.

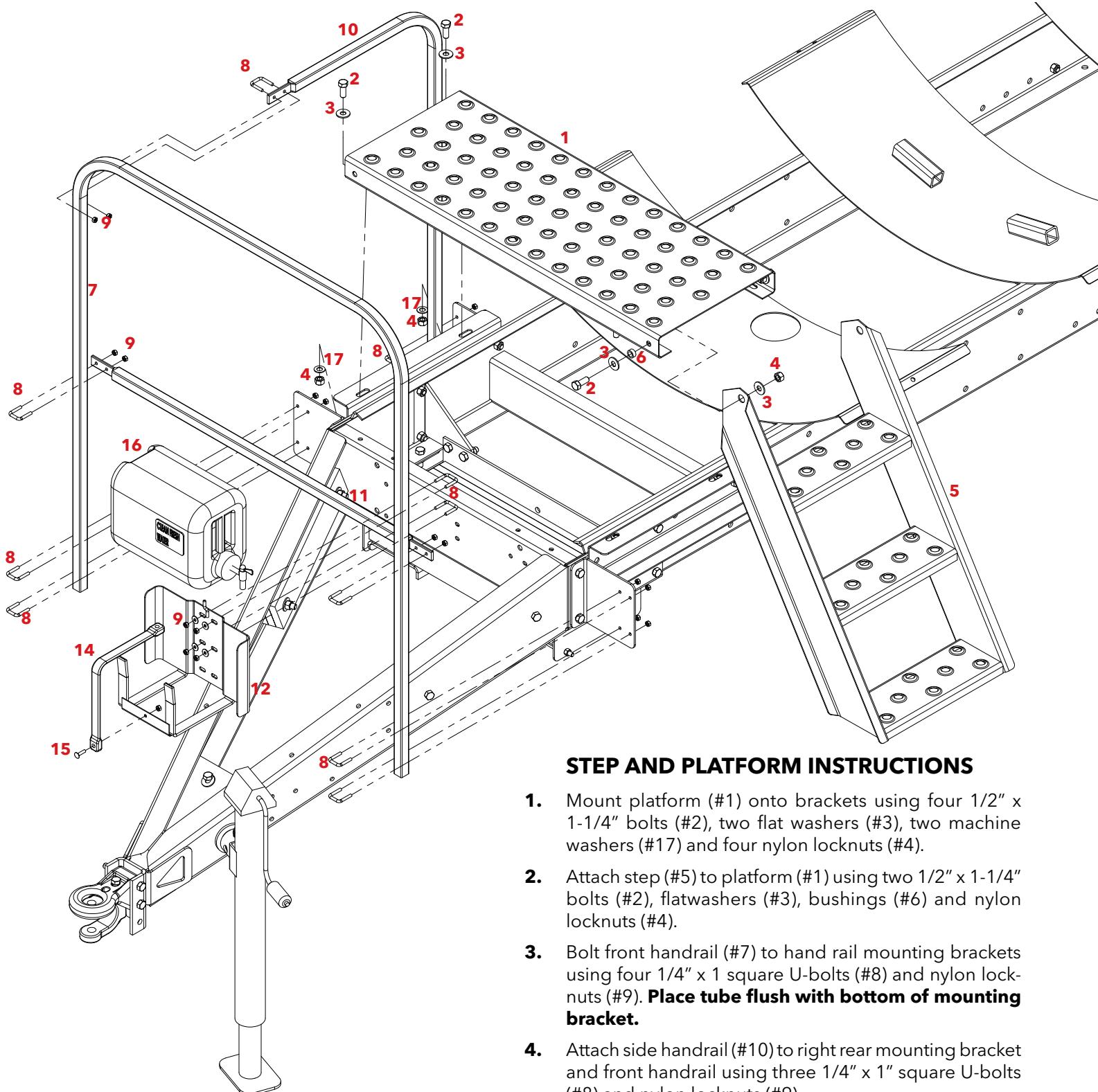
**\*Final hitch adjustment should be made when sprayer is assembled and ready to be towed by tractor. (Tank and frame should be level.)**

## 10. Attach jack (#20) to tongue (#1). **Turn jack to the down position.**

11. Remove the frame assembly from sawhorses, allowing it to rest on the tires (**not shown**) and jack. Block the tires to prevent sprayer from rolling during the rest of the assembly.

### Weight box assembly instructions

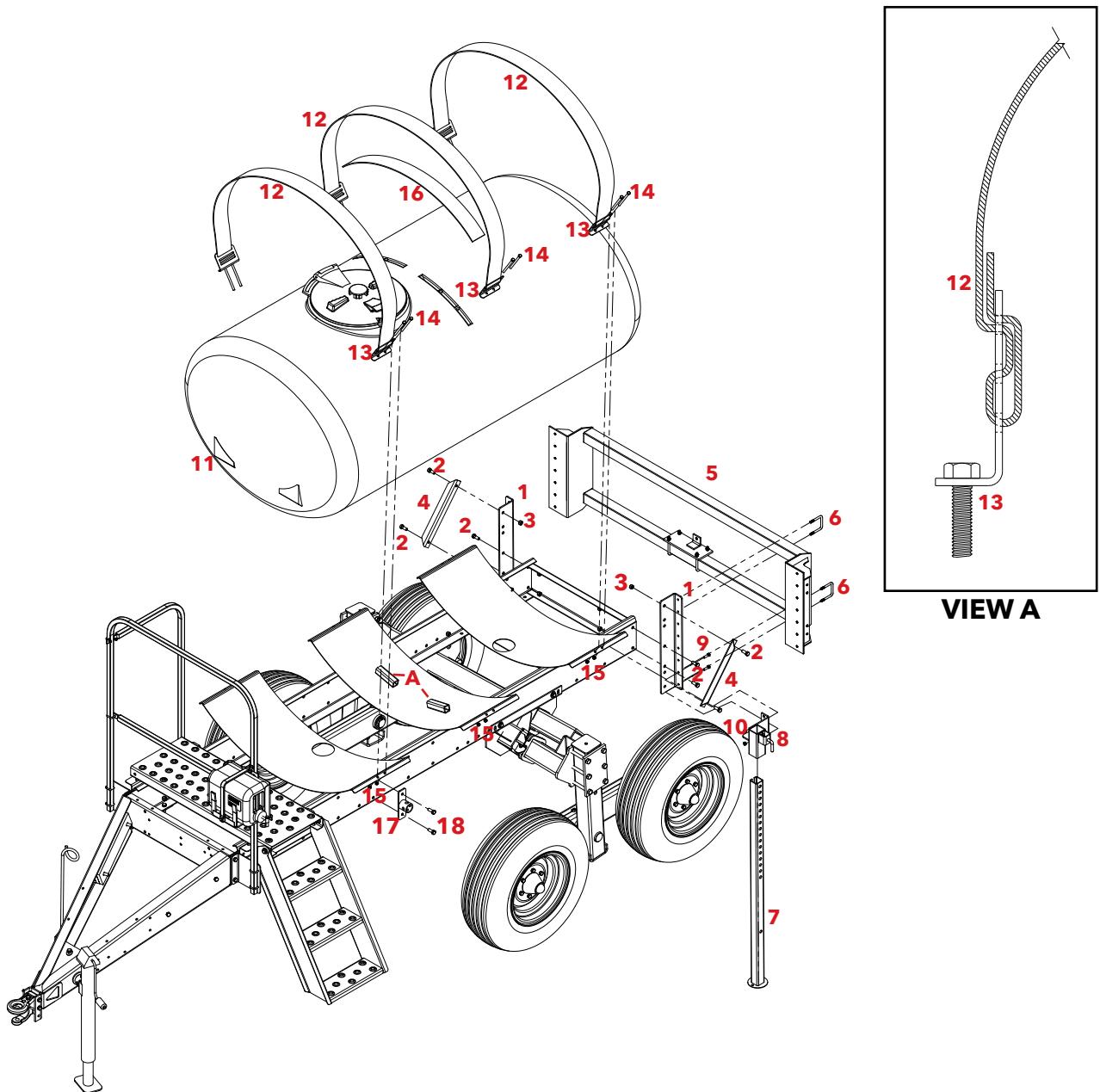
12. Align seven weight blocks (#12) upright in a row. Attach front cover (#10) with two  $3\frac{1}{4}'' \times 7''$  bolts (#13) and  $3\frac{1}{4}''$  nylon locknuts (#14) through the weight blocks and rear cover (#11) as shown.
13. Mount assembly to frame using four  $1\frac{1}{2}'' \times 1\frac{3}{4}''$  bolts (#15) and  $1\frac{1}{2}''$  nylon locknuts (#9). Go to step 5.



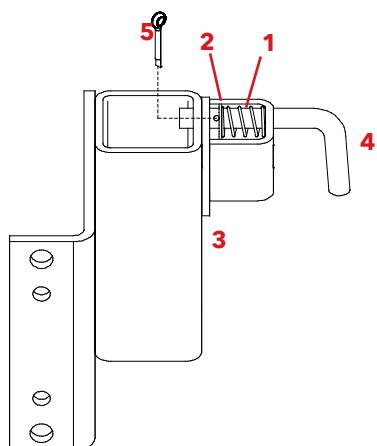
## STEP AND PLATFORM INSTRUCTIONS

1. Mount platform (#1) onto brackets using four 1/2" x 1-1/4" bolts (#2), two flat washers (#3), two machine washers (#17) and four nylon locknuts (#4).
2. Attach step (#5) to platform (#1) using two 1/2" x 1-1/4" bolts (#2), flatwashers (#3), bushings (#6) and nylon locknuts (#4).
3. Bolt front handrail (#7) to hand rail mounting brackets using four 1/4" x 1 square U-bolts (#8) and nylon lock-nuts (#9). **Place tube flush with bottom of mounting bracket.**
4. Attach side handrail (#10) to right rear mounting bracket and front handrail using three 1/4" x 1" square U-bolts (#8) and nylon locknuts (#9).
5. Attach safety rail (#11) to front handrail approximately 8" to 12" up from the top of the sprayer frame using two 1/4" x 1 square bolts (#8) and nylon locknuts (#9).
6. Mount wash tank bracket (#12) to front handrail (#7) with two 1/4" x 1" square U-bolts (#8), flatwashers and nylon locknuts. Attach tarp strap (#14) to bracket with 1/4" x 1" carriage bolt (#15) and nylon locknut (#9). Place tank (#16) in bracket and secure with strap onto peg of tank bracket.

# BOOM CARRIER, SAFETY STAND & TANK PARTS BREAKDOWN



## SAFETY STAND & LOCK ASSEMBLY



### SAFETY STAND LOCK PIN ASSEMBLY INSTRUCTIONS

1. Install lock spring (#1) and 1/2" flatwasher (#2) into small tube on safety stand holder (#3) as shown.
2. Insert pin (#4) through tube into spring and lock washer.
3. Place 5/32" x 1" cotter pin (#5) between flatwasher (#2) and wall of tube into lockpin.

## MOUNTING BOOM CARRIER

1. Bolt the boom mounting brackets (#1) to the rear of the frame as shown using four 1/2" x 1-1/4" Gr. 5 bolts (#2) and nylon locknuts (#3).

**NOTE: The boom mounting brackets may be mounted using any set of two holes depending on boom height desired.**

2. Bolt the boom mount brace angles (#4) to the frame and the boom mounting brackets using four 1/2" x 1-1/4" bolts (#2) and nylon locknuts (#3).
3. **For DTB Series Booms:** Bolt the boom mounting tubes (#5) to the back of the boom mounting brackets using four 3/8" x 2-1/2" square U-bolts (#6) and nylon locknuts.  
**For DFB Series Booms:** Leave off the boom mounting tubes (#5) and attach boom carrier directly to boom mounting brackets.

## SAFETY STAND ASSEMBLY SAFETY STAND IS STANDARD WITH ALL SPRAYERS

1. Insert safety stand (#7) through holder (#8) before mounting onto boom bracket.
2. Attach safety stand holder (#8) to boom bracket using two 3/8" x 1-1/4" (#9) bolts and nylon locknuts (#10).

## TANK ASSEMBLY

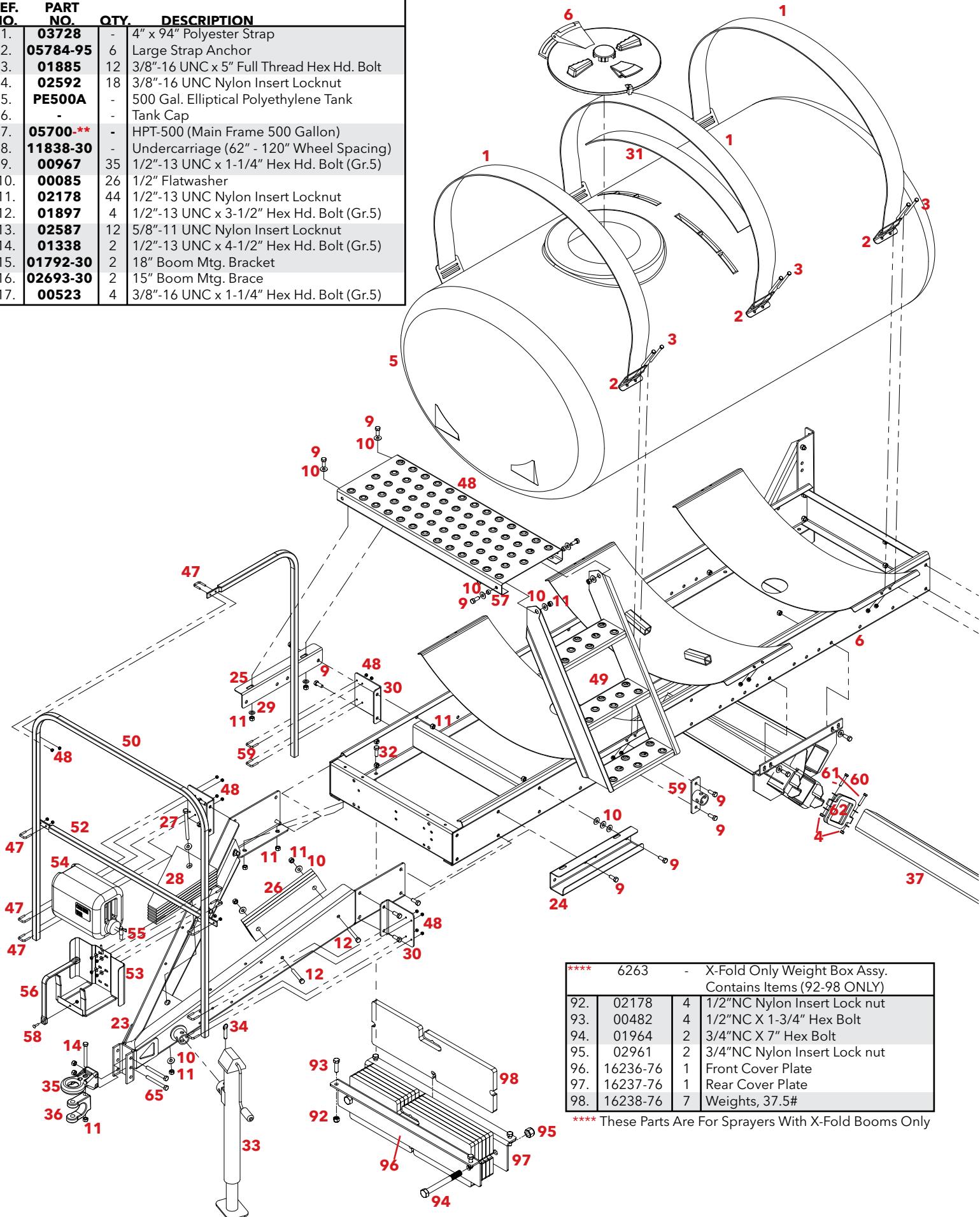
1. Place the tank (#11) in the frame as shown (**NOTE: The square tubes (A) near the center of the tank skid fit into recesses on the bottom of the tank.**)
2. Secure the tank (#11) with three tank straps (#12) and six anchors (#13) using twelve 3/8" x 5" full thread bolts (#14) and nylon locknuts (#15), place a strap support (#16) between the tank and center strap. **NOTE:** Weave the strap through the anchor as shown in **VIEW A**.

## JACK STORAGE BRACKET

1. Mount jack storage bracket (#17) to frame using two 1/2" x 1-1/4" bolts (#18) and 1/2" nylon lock nuts (not shown).

## **HPS & HPT MAIN PARTS LIST**

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	<b>03728</b>	-	4" x 94" Polyester Strap
2.	<b>05784-95</b>	6	Large Strap Anchor
3.	<b>01885</b>	12	3/8"-16 UNC x 5" Full Thread Hex Hd. Bolt
4.	<b>02592</b>	18	3/8"-16 UNC Nylon Insert Locknut
5.	<b>PE500A</b>	-	500 Gal. Elliptical Polyethylene Tank
6.	-	-	Tank Cap
7.	<b>05700-**</b>	-	HPT-500 (Main Frame 500 Gallon)
8.	<b>11838-30</b>	-	Undercarriage (62" - 120" Wheel Spacing)
9.	<b>00967</b>	35	1/2"-13 UNC x 1-1/4" Hex Hd. Bolt (Gr.5)
10.	<b>00085</b>	26	1/2" Flatwasher
11.	<b>02178</b>	44	1/2"-13 UNC Nylon Insert Locknut
12.	<b>01897</b>	4	1/2"-13 UNC x 3-1/2" Hex Hd. Bolt (Gr.5)
13.	<b>02587</b>	12	5/8"-11 UNC Nylon Insert Locknut
14.	<b>01338</b>	2	1/2"-13 UNC x 4-1/2" Hex Hd. Bolt (Gr.5)
15.	<b>01792-30</b>	2	18" Boom Mtg. Bracket
16.	<b>02693-30</b>	2	15" Boom Mtg. Brace
17.	<b>00523</b>	4	3/8"-16 UNC x 1-1/4" Hex Hd. Bolt (Gr.5)



****	6263	-	X-Fold Only Weight Box Assy. Contains Items (92-98 ONLY)
92.	02178	4	1/2"NC Nylon Insert Lock nut
93.	00482	4	1/2"NC X 1-3/4" Hex Bolt
94.	01964	2	3/4"NC X 7" Hex Bolt
95.	02961	2	3/4"NC Nylon Insert Lock nut
96.	16236-76	1	Front Cover Plate
97.	16237-76	1	Rear Cover Plate
98.	16238-76	7	Weights, 37.5#

\*\*\*\* These Parts Are For Sprayers With X-Fold Booms Only

REF. NO.	PART NO.	QTY.	DESCRIPTION
18.	05558-30	1	Safety Stand Holder
19.	05559-30	1	Square Safety Stand
20.	02187-95	1	Safety Stand Locking Pin
21.	00185	1	5/32" x 1" Cotter Pin
22.	02208	1	Lock Spring
23.	11837-**	1	Tongue
24.	05712-30	1	Left Platform Bracket
25.	05713-30	1	Right Platform Bracket
26.	12004	6	Side Weights
27.	00349	1	1/2"NC x 6" Hex Bolt
28.	63977-30	6	Front Tongue Weights
30.	05714-30	3	Handrail Mounting Bracket
31.	05786	1	3-3/8" x 48" Plastic Strap Support
32.	01254	4	1/2"-13 UNC x 1-1/2" Hex Hd. Bolt (Gr.5)
33.	07805	1	Tongue Jack
34.	05328	1	Ball Lock Pin
35.	11952-30	1	Hitch Top Ring
36.	11840-30	1	Hitch Bottom Clevis
37.	10795-30	2	Axle Insert (Tandem)
38.	05711-30	2	Down Post (Tandem)
39.	5270-30	2	Tandem Wheel Carrier
-	02822	4	2" Bronze Bushing
40.	05725-95	2	2" x 3" Inverted Tab Washer
41.	05726	2	2" Spiral Snap Ring
42.	10559-15	-	38" x 10" 8-Bolt Rim
	-	-	11.2 x 38 x 6 PLY Tire
43.	00265-15	-	15" x 10" 6-Bolt Rim
-	T11L	-	11L, 8 PLY Tubeless Tire
-	T12.5L	-	12.5L, 8 PLY Tubeless Tire
44.	05644	2	Plastic Plug
45.	5635-30	1	Single Axle w/Hub Assembly
46.	05635	1	Platform
47.	04822	11	1/4" x 1" Square U-bolt
48.	02772	22	1/4"-20 UNC Nylon Insert Lock Nut
49.	05638-30	1	Step
50.	05641-30	1	Front Handrail
51.	05642-30	1	Side Handrail
52.	05643-30	1	Front Safety Rail
53.	05615-30	1	Wash Tank Mtg. Bracket
54.	05616	1	2-1/2 Gallon Wash Tank
55.	PL2S	1	Cap & Spout
56.	04742	1	Tarp Strap
57.	02579-95	2	Bushing

REF. NO.	PART NO.	QTY.	DESCRIPTION
58.	04177	1	1/4"-20 UNC x 1" Carriage Bolt
59.	07966-30	1	Jack Mount
60.	04226	4	3/8"UNC x 2" Hex Bolt
61.	00059	8	3/8" Flat Washer
62.	11839-30	4	Axle Twist Clamp
63.	10796-30	2	End Plate
64.	00943	12	5/8" x 5-1/2" Hex Bolt
65.	02434	2	5/8" x 4-1/2" Hex Bolt (Gr.5)

* 5181 - 8 Bolt Hub Assembly Contains Items (70-80 ONLY)			
70.	01944	1	Oil Seal (906486)
71.	01943	1	Inner Cup (JLM506810)
72.	01942	1	Inner Cone Bearing (JLM506849)
73.	-	1	8 Bolt Hub (W 80-8) (Assembly Only)
74.	09240	8	5/8"-18UNF x 1-1/2" Lug Bolt
-	10304	8	5/8"-18UNF x 2-1/2" Lug Bolt
75.	01938	1	Outer Cap (LM501310)
76.	01937	1	Outer Cone Bearing (LM501349)
77.	01936	1	1-1/16" I.D. x 2-1/2" O.D. Flatwasher
78.	01935	1	3/16" x 2-1/2" Lg. Cotter Pin
79.	01934	1	1"-14UNF Castle Nut
80.	01933	1	Hub Cap (909912)

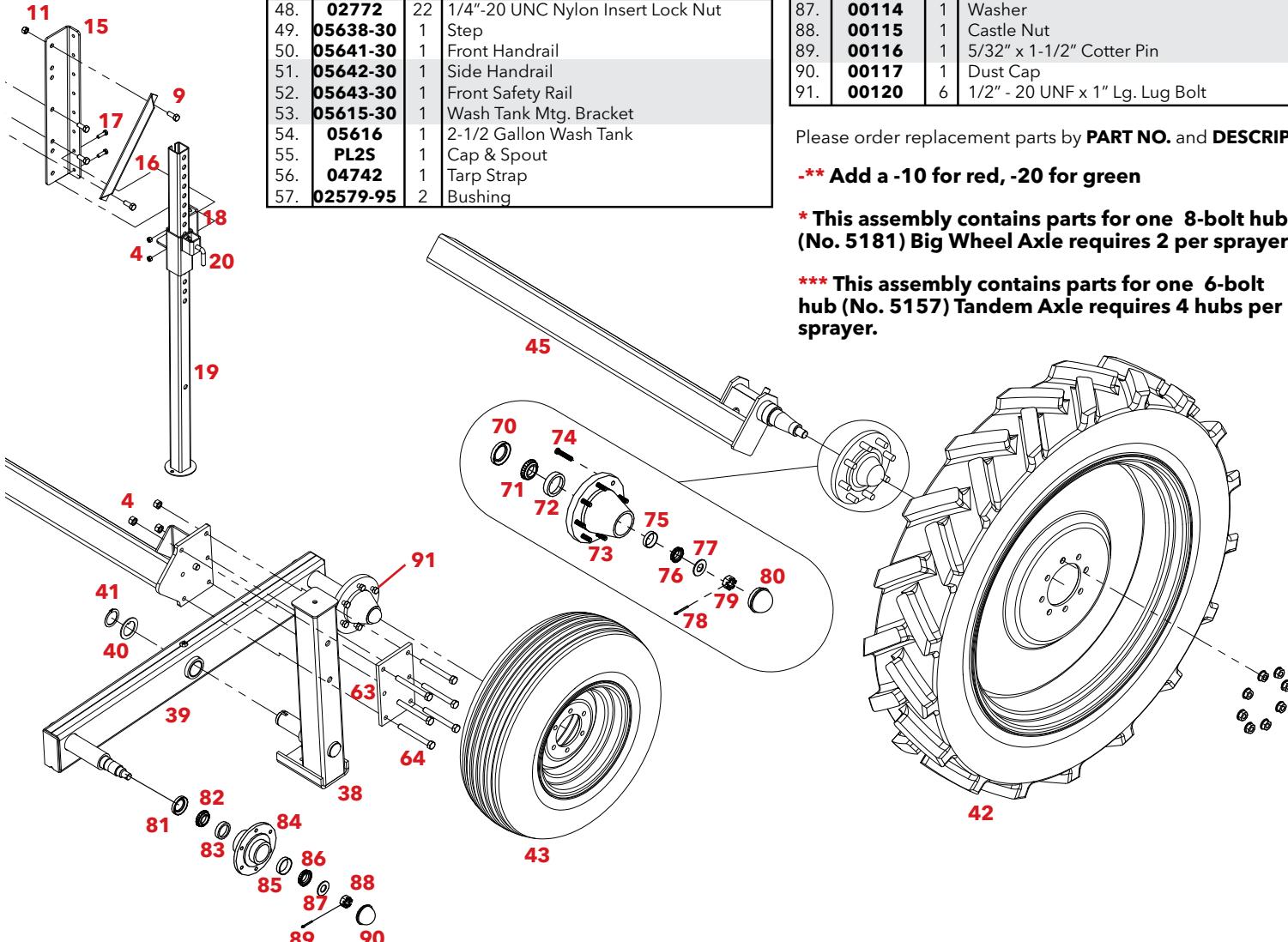
*** 5157 - 6 Bolt Hub Assembly Contains Items (81-91 ONLY)			
81.	00110	1	Oil Seal (16289)
82.	01464	1	Inner Cup (JL 69310)
83.	00111	1	Inner Cone Bearing
84.	-	1	6 Bolt Hub (888)
85.	01465	1	Outer Cup (LM 67010)
86.	00113	1	Outer Cone Bearing (LM67048)
87.	00114	1	Washer
88.	00115	1	Castle Nut
89.	00116	1	5/32" x 1-1/2" Cotter Pin
90.	00117	1	Dust Cap
91.	00120	6	1/2" - 20 UNF x 1" Lg. Lug Bolt

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

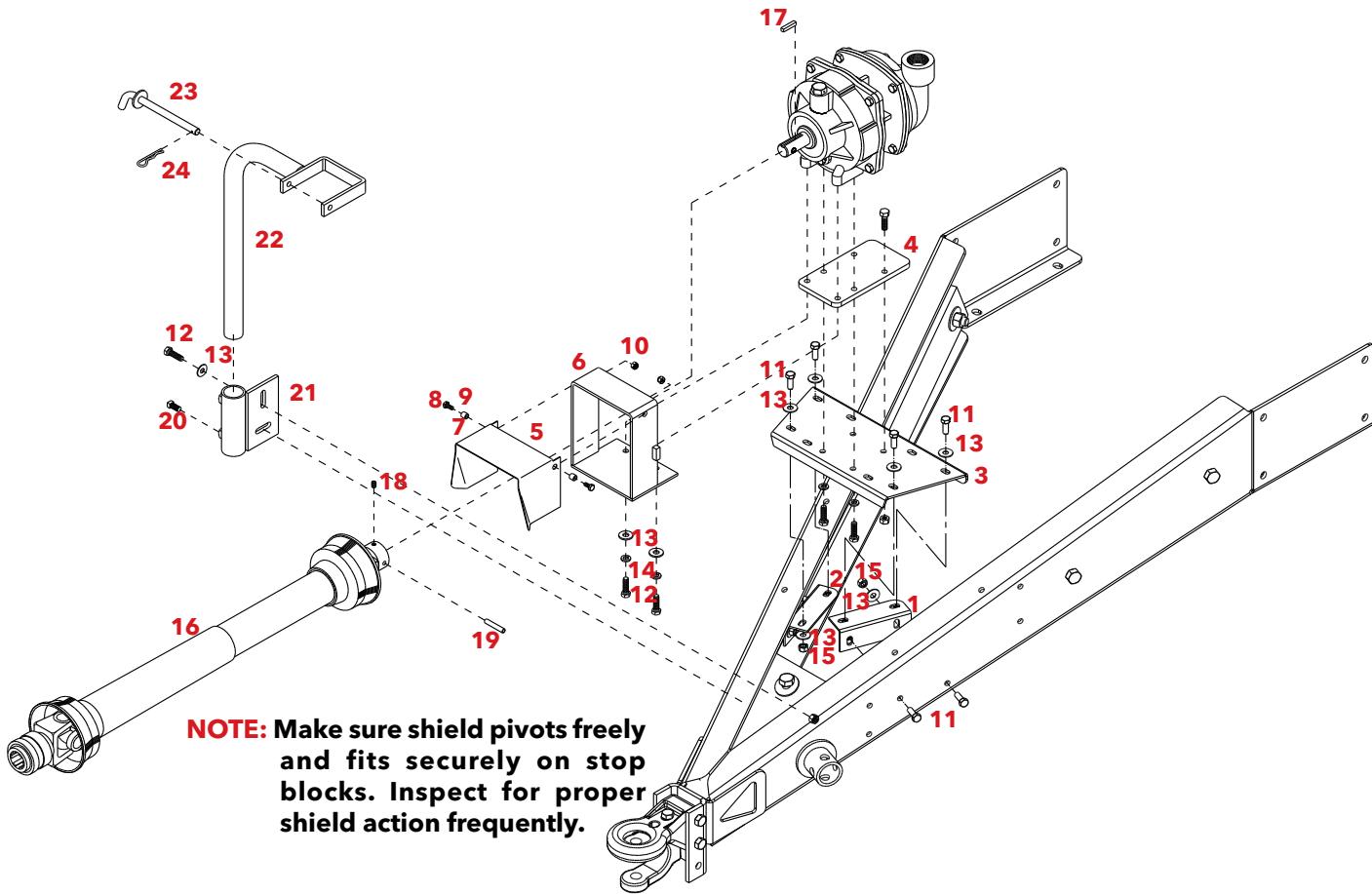
\*\* Add a -10 for red, -20 for green

\* This assembly contains parts for one 8-bolt hub (No. 5181) Big Wheel Axle requires 2 per sprayer.

\*\*\* This assembly contains parts for one 6-bolt hub (No. 5157) Tandem Axle requires 4 hubs per sprayer.



# HYPRO GEAR DRIVE PUMP MOUNT PARTS BREAKDOWN



## INSTALLATION INSTRUCTIONS

1. Begin by bolting on the Left (#1) and Right (#2) Mounting Angles to the inside of the tongue channels using four 3/8" x 1" hex head bolts (#11), 3/8" flatwashers (#13) and 3/8" nylon insert locknuts (#15). Attach the Pump Mount Channel (#3) to the Mounting Angles using four 3/8" x 1" hex head bolts (#11), eight 3/8" flatwashers (#13) and four 3/8" nylon insert locknuts (#15).
2. Attach the Hypro Pump Mount (#4) to the Pump Mount Channel (#3) using two 3/8" x 1-1/4" hex head bolts (#12) and 3/8" nylon insert locknuts (#15) in the holes closest to the rear.
3. Bolt the Hypro pump on through the front set of holes in Pump Mount Channel (#3), through the middle set of holes in Pump Mount (#4) then into rear mounting holes in pump using two 3/8" x 1-1/4" hex head bolts (#12) and two 3/8" lockwashers (#14). Attach PTO shaft (#16) to pump using a 1/4" x 1/4" x 1-1/4" drive key (#17), 5/16" socket set screw, (#18) and 5/16" x 1-3/8" roll pin (#19).
4. Attach the PTO shield (#5) to the shield mount (#6) with two 1/4" x 1" bolts (#8), two 1/4" flatwashers (#9), two pivot bushings (#7) and two 1/4" nylon insert locknuts (#10), **make sure shield pivots freely**. Attach shield assembly to front set of holes in Pump Mount (#4) and into front set of holes in pump using two 3/8" x 1-1/4" hex head bolts (#12), two 3/8" flatwashers (#13) and two 3/8" lockwashers (#14).
5. Bolt the PTO holder mount (#21) to the sprayer tongue with 3/8" x 1-1/4" bolts, flat washers and nylon locknuts as shown. Insert PTO shaft holder (#22) into mount and tighten with two 3/8" x 3/4" set screws. Place 1/4" x 5-3/4" PTO pin (#23) in holder and secure with small hairpin (#24).

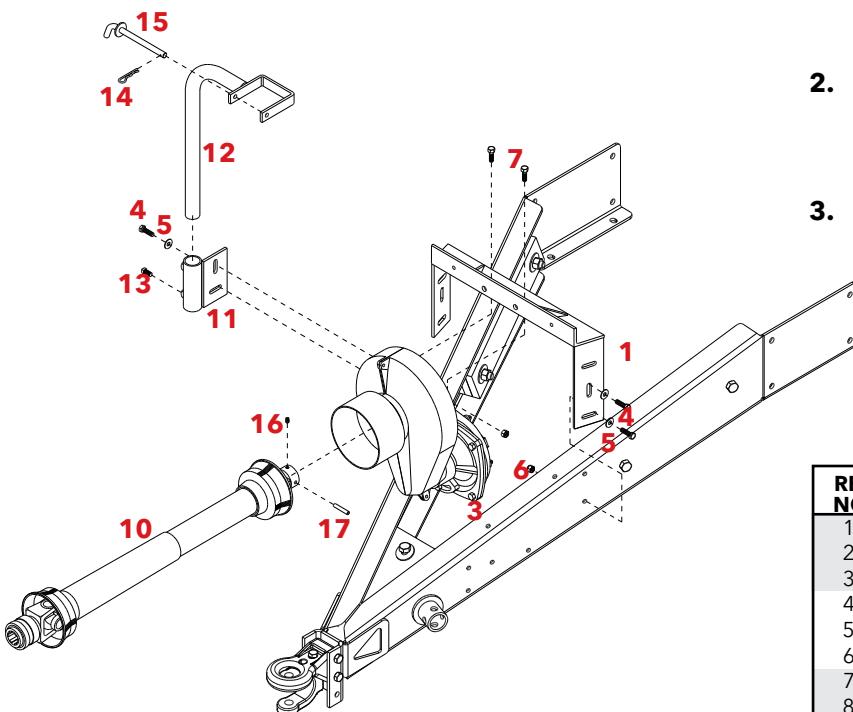
## HYPRO CENTRIFUGAL PUMP MOUNT PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	05791-30	1	Left Mounting Angle
2.	05792-30	1	Right Mounting Angle
3.	05790-30	1	Pump Mount Channel
4.	05793-30	1	Hypro Pump Mount
5.	05093-30	1	PTO Shield
6.	05094-39	1	PTO Shield Mount
7.	05098-95	2	Pivot Bushing
8.	04055	2	1/4"-20 UNC x 1" Hex Hd. Bolt (Gr5)
9.	00214	2	1/4" Flatwasher
10.	02772	2	1/4"-20 UNC Nylon Insert Locknut
11.	00907	8	3/8"-16 UNC x 1" Hex Hd. Bolt (Gr5)
12.	00523	8	3/8"-16 UNC x 1-1/4" Hex Hd. Bolt (Gr5)
13.	00059	16	3/8" Flatwashers
14.	00060	4	3/8" Lockwashers
15.	02592	12	3/8"-16UNC Nylon Insert Locknut
16.	03774	-	540 RPM Constant Velocity PTO Shaft
-	03874	-	1000 RPM Constant Velocity PTO Shaft
17.	10864	1	1/4" x 1/4" x 1-1/4" Drive Key
18.	00789	1	3/8"-16 UNC x 3/8" Socket Set Screw
19.	02849	1	5/16" x 1-3/8" Drive Pin
20.	00095	2	3/8"-16 UNC x 3/4" Sq. Hd. Set Screw
21.	02148	1	PTO Holder Mount
22.	04932	1	PTO Shaft Holder
23.	00661	1	1/4" x 5-3/4" PTO Pin
24.	00182	1	1/8" Small Hairpin

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

**NOTE:** Add a **-10** for red, **-20** for green, and **-30** for black

# HYPRO/ACE HYDRAULIC PUMP MOUNT PARTS BREAKDOWN



## HYPRO BELT DRIVE PUMP MOUNTING

1. Begin by bolting the pump hanger (#1) to the sprayer tongue with 3/8" x 1-1/4" bolts (#4), flat washers (#5) and nylon insert locknuts (#6) as shown.
2. Bolt hypro pump mounting bracket (#2) to hanger using two 1/2" x 1-1/2" bolts (#7) and nylon insert locknuts (#9).
3. Next bolt pump (#3) to the bracket (#2) using two 3/8" x 1-1/2" bolts (#7), Flatwashers (#5) and nylon locknuts (#6)

**If pump is used with manual panel, stabilizer brace should be mounted to top hole on top left outside hole of pump hanger.**

## HYPRO BELT DRIVE PUMP PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	07207-30	1	Pump Hanger
2.	07206-30	1	Hypro Pump Mount
3.	C9402 540S	1	Hypro Belt Drive Pump
4.	00523	6	3/8"-16 UNC x 1-1/4" Hex Hd. Bolt
5.	00059	6	3/8" Flatwasher
6.	02592	6	3/8"-16 UNC Nylon Insert Locknut
7.	00914	2	3/8"-16 UNC x 1-1/2" Hex Hd. Bolt
8.	01254	2	1/2"-13 UNC x 1-1/2" Hex Hd. Bolt
9.	02178	2	1/2"-13 UNC Nylon Insert Locknut
10.	05654	-	540 RPM Constant Velocity PTO Shaft 32"
-	05674	-	1000 RPM Constant Velocity PTO Shaft 32"
11.	02148-30	1	PTO Holder Mount
12.	04932-30	1	PTO Holder Shaft
13.	00095	2	3/8"x 16 UNC x 3/4" Sq. Hd. Set Screw
14.	00182	1	1/8" Small Hairpin
15.	00661-95	1	1/4" x 5-3/4" PTO Pin
16.	05033	1	5/16"- 18 UNC x 1/4" Socket Set Screw
17.	02849	1	5/16" x 1-3/8" Roll Pin

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

## INSTALLATION INSTRUCTIONS

1. Begin by bolting the pump hanger (#1) to the frame with four 3/8" x 1-1/4" bolts (#3), two flatwashers (#4) and four nylon locknuts (#5) as shown.
2. Bolt pump (#2) to hanger using two 7/16" x 1-1/2" bolts (#6), flatwashers (#7) and nylon locknuts (#8).

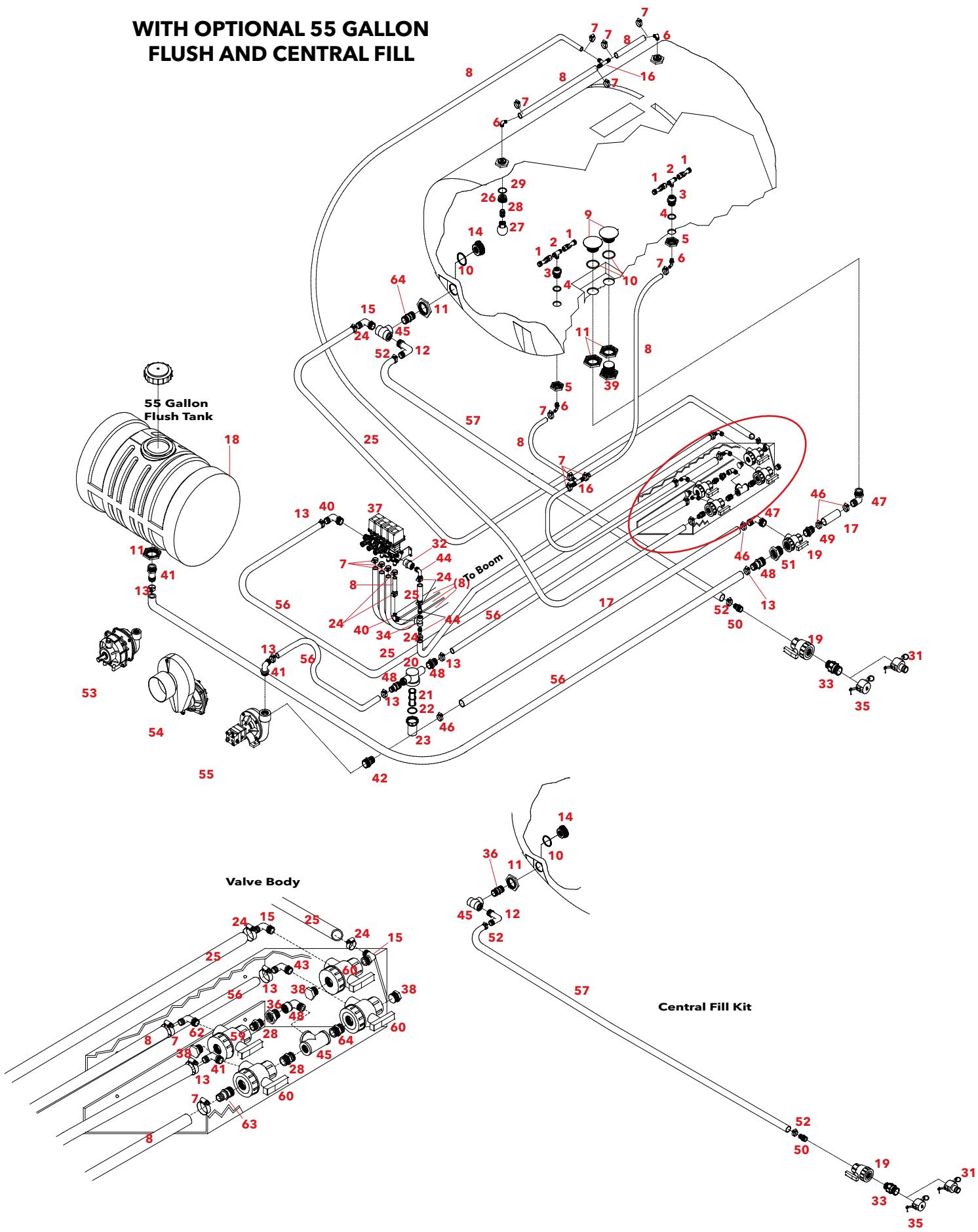
**NOTE: Be sure to match hydraulic motor driven pump capabilities to your tractors hydraulic system.**

## HYPRO/ACE HYDRAULIC PUMP PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	07207-30	1	Pump Hanger
2.	FMCHYD204	1	Ace Hydraulic Pump
-	C9303HM4	1	Hypro Hydraulic Pump
3.	00523	4	3/8"-16 UNC x 1-1/4" Hex Head Bolt
4.	00059	2	3/8" Flatwasher
5.	02592	4	3/8"-16 UNC Nylon Insert Locknut
6.	04050	2	7/16"-14 UNC x 1-1/2" Hex Head Bolt
7.	00205	2	7/16" Flatwasher
8.	02771	2	7/16"-14 UNC Nylon Insert Locknut

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

## WITH OPTIONAL 55 GALLON FLUSH AND CENTRAL FILL



REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	<b>5044 1</b>	4	Agitation Jet
2.	<b>R1212</b>	2	1/2" MPT Tee
3.	<b>P012D</b>	2	1/2" Double Threaded Outlet
4.	<b>5077V</b>	2	Viton Grommet
5.	<b>N5P</b>	2	Nut for Tank Outlets
6.	<b>BEL1034</b>	2	1" MPT x 3/4" HB Elbow Fitting (GFP)
7.	<b>B12H</b>	14	3/4" SS Gear Clamp
8.	<b>340RB</b>	-	3/4" Rubber Hose
9.	<b>P200 PAV</b>	2	2" Anti-Vortex Outlet Fitting
10.	<b>5078V</b>	3	Viton Grommet
11.	<b>N8P</b>	4	Tank Outlet Nut
12.	<b>EL114 112</b>	1	1-1/4" MPT x 1-1/2" HB Elbow Fitting
(GFP)			
13.	<b>B24H</b>	8	1-1/4" SS Gear Clamp
14.	<b>P114A</b>	2	1-1/4" Outlet Fitting
15.	<b>BEL114 1</b>	3	1-1/4" MPT x 1" HB Elbow Fitting (GFP)
16.	<b>T34</b>	2	3/4" HB Insert Tee
17.	<b>S2020</b>	2	2" EPDM Wire Suction Hose
18.	<b>P55 23F</b>	1	55 Gallon poly tank w/ 1 1/4 AV Fitting
19.	<b>UV200FP3</b>	1	2" Single Union Poly Ball Valve
20.	<b>RVF100C</b>	1	Line Strainer Cap
21.	<b>RVF140</b>	1	Mesh Screen
22.	<b>RVF114G</b>	1	Gasket for Line Strainer
23.	<b>RVF114B</b>	1	Bowl for Line Strainer
24.	<b>B16H</b>	8	1" SS Gear Clamp
25.	<b>1010RB</b>	-	1" Rubber Hose
26.	<b>P100DA</b>	2	1" Outlet Fitting
27.	<b>03813</b>	2	1" FPT Rinsing Spray Ball
28.	<b>11067</b>	4	1" MPT Nipple Fitting
29.	<b>5077V</b>	2	O-Ring for 1/2" - 1 Poly Tank
30.	<b>N5P</b>	2	Nut for Tank Outlet Fitting
31.	<b>633B2020</b>	1	Quick Coupler 2" MPT
32.	<b>FC1000</b>	2	1" FPT x 1" FPT Coupling

REF. NO.	PART NO.	QTY.	DESCRIPTION
33.	<b>633F2020</b>	1	Adapter 2" MPT F/ Quick Coupler
34.	<b>BTT100</b>	1	1" FPT Tee (GFP)
35.	<b>633B2020</b>	1	Plug 2" F/ Quick Coupler
36.	<b>BRB114 1</b>	1	1 1/4" MPT x 1" FPT Reducer BSHG
37.	<b>CS414HVR</b>	1	Control panel
38.	<b>F1014</b>	3	1 1/4" MPT Plug
40.	<b>BA1010</b>	2	1" MPT x 1" HB, GFP
41.	<b>BA114</b>	6	1 1/4" MPT x 1 1/4" HB
42.	<b>BA112 200</b>	1	1 1/2" MPT x 2" HB (GFP)
43.	<b>BEL114</b>	1	1 1/4" MPT x 1 1/4" HB Elbow (GFP)
44.	<b>BEL1010</b>	1	1" HPT x 1" HB Elbow (GFP)
45.	<b>BTT114</b>	2	1 1/4" FPT Poly Tee
46.	<b>B44H</b>	4	2" SS Gear Clamp
47.	<b>EL200</b>	2	2" MPT x 2" HB Elbow
48.	<b>BSE114</b>	1	1 1/4" FPT x 1 1/4" MPT Elbow
49.	<b>A200</b>	1	2" MPT x 2" HB (GFP)
50.	<b>BA200 112</b>	1	2" MPT x 1 1/2" HB (GFP)
51.	<b>BRB200 114</b>	1	2" MPT x 1 1/4" FPT Reducer
52.	<b>B32H</b>	2	1 1/2" SS Gear Clamp
53.	<b>C9016 540</b>	1	Gear Drive Pump 540 RPM
54.	<b>C9403 540S</b>	1	Belt Drive Pump 600 RPM
55.	<b>C9303HM4</b>	1	Hypro Cent Pump
56.	<b>1140RB</b>	4	1 1/4" EPDM Hose
57.	<b>1120RB</b>	1	1 1/2" EPDM Hose
59.	<b>UV100FP3</b>	1	Ball valve 1" single union 3-way poly w/ EPDM O RING
60.	<b>UV125FP3</b>	3	Ball valve 1.25" single union 3-way poly w/ EPDW O-RING
62.	<b>BEL1034</b>	1	1" MPT x 3/4" HB Elbow
63.	<b>EL114 34</b>	1	1 1/4" MPT x 3/4" HB Fitting
64.	<b>BM1140</b>	3	1 1/4" MPT Nipple Fitting

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

## START-UP INSTRUCTIONS FOR CENTRIFUGAL PUMPS WITH MANUAL CONTROL PANEL

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1. Run approximately 50 gallons of water in the tank.
2. Open the poly ball valve in the pump intake line.
3. Close the wedge valve on the front of the control panel.
4. Close the wedge agitation valve on the control panel back.
5. Make sure the ratchet valve on the control panel back is in the open position.
6. Open the three manual valves on the control panel.
7. Start the pump and run at 540 RPM.
8. Open the large wedge valve on the front of control panel until the gauge reads approx. 3 PSI over your desired spraying pressure with all three booms spraying.
9. Open the wedge agitation valve on the control panel until the gauge drops to your desired spraying pressure.  
Example: If desired spraying pressure is 30 PSI open the wedge valve on the back of the control panel until the gauge reads 33 PSI. After this, open the wedge agitation valve on the control panel until the gauge drops back down to 30 PSI. (This is to ensure the recommended pressure to the tank jet agitators).
10. Check for leaks.
11. Make certain all bolts and clamps are tight.

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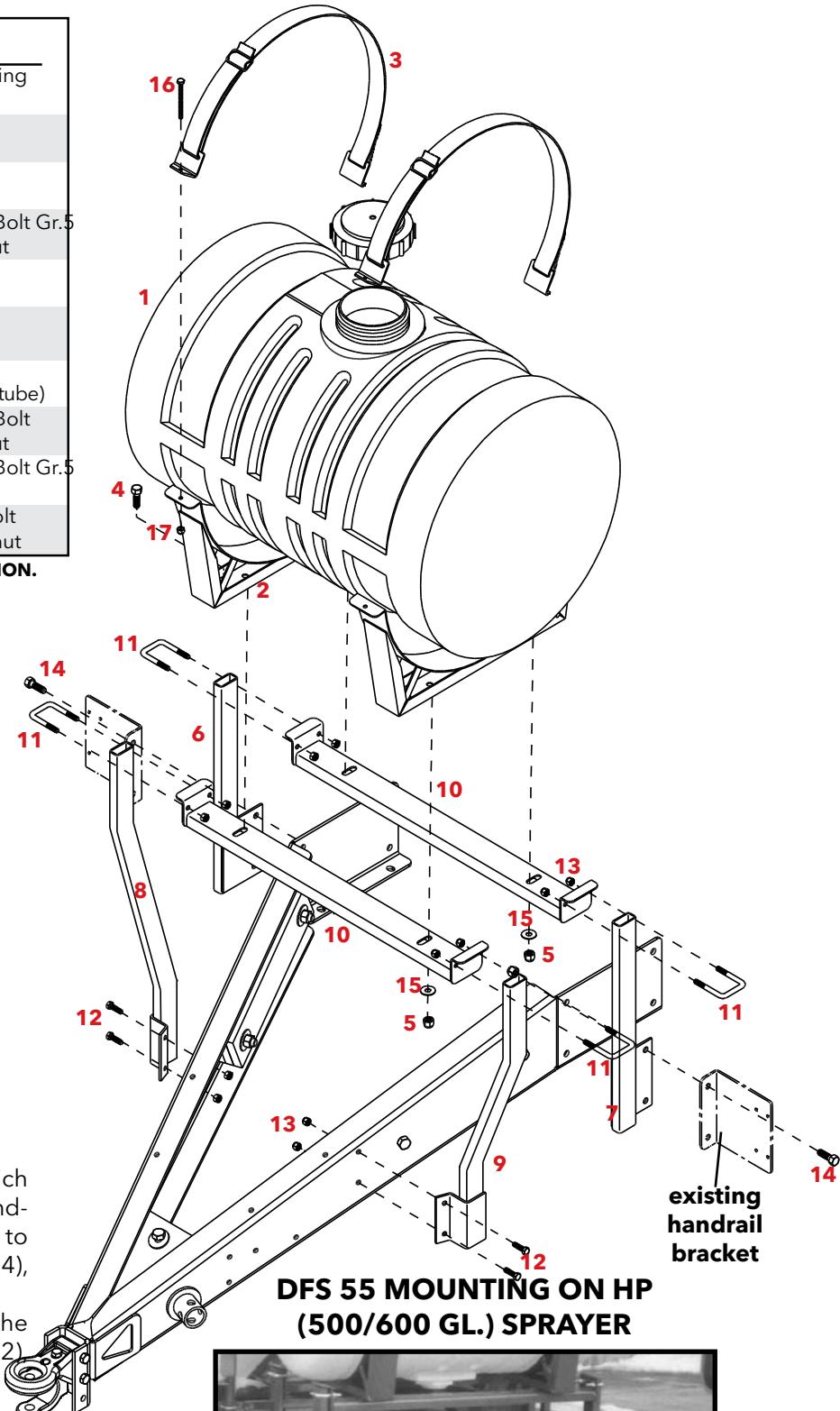
## START-UP INSTRUCTIONS FOR CENTRIFUGAL PUMPS WITH ELECTRIC CONTROL PANEL

1. Run approximately 50 gallons of water in the tank.
2. Open the poly ball valve in the pump intake line. **Important: Remove top plug on pump to bleed all air from the suction line to the pump or damage will result to the seals. (Pump cannot be run dry).**
3. Close the wedge valve on the front of the control panel.
4. See "Panel Mounting and Operation" in Electric Control Panel Instruction Manual.

**PARTS LIST FOR MOUNTING  
ON HP SPRAYER**

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	<b>P55 23F</b>	1	Tank (55 gallon) w/ 1-1/4" AV Fitting
-	<b>PL5R</b>	1	Tank Lid
2.	<b>02645-30</b>	2	Tank Saddle
3.	<b>04353</b>	2	Tie Down Strap
-	<b>05785-95</b>	4	Strap Anchor
-	<b>02729-95</b>	2	Strap Buckle
4.	<b>00967</b>	4	1/2"-13 UNC x 1-1/4" Hex Head Bolt Gr.5
5.	<b>02178</b>	8	1/2"-13 UNC Nylon Insert Locknut
6.	<b>07140-30</b>	1	HP Right Rear Mounting Arm
7.	<b>07141-30</b>	1	HP Left Rear Mounting Arm
8.	<b>07144-30</b>	1	HP Right Front Mounting Arm
9.	<b>07145-30</b>	1	HP Left Front Mounting Arm
10.	<b>07148-30</b>	2	Crossmember Mount
11.	<b>05294</b>	4	3/8"-16 UNC Sq. U-bolt (fits 1" x 2" tube)
12.	<b>00523</b>	4	3/8"-16 UNC x 1-1/4" Hex Head Bolt
13.	<b>02592</b>	12	3/8"-16 UNC Nylon Insert Locknut
14.	<b>01254</b>	4	1/2"-13 UNC x 1-1/2" Hex Head Bolt Gr.5
15.	<b>00085</b>	4	1/2" Flatwasher
16.	<b>04352</b>	4	5/16"-18 UNC x 4" F.T Hex Hd. Bolt
17.	<b>02802</b>	4	5/16"-18 UNC Nylon Insert Locknut

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



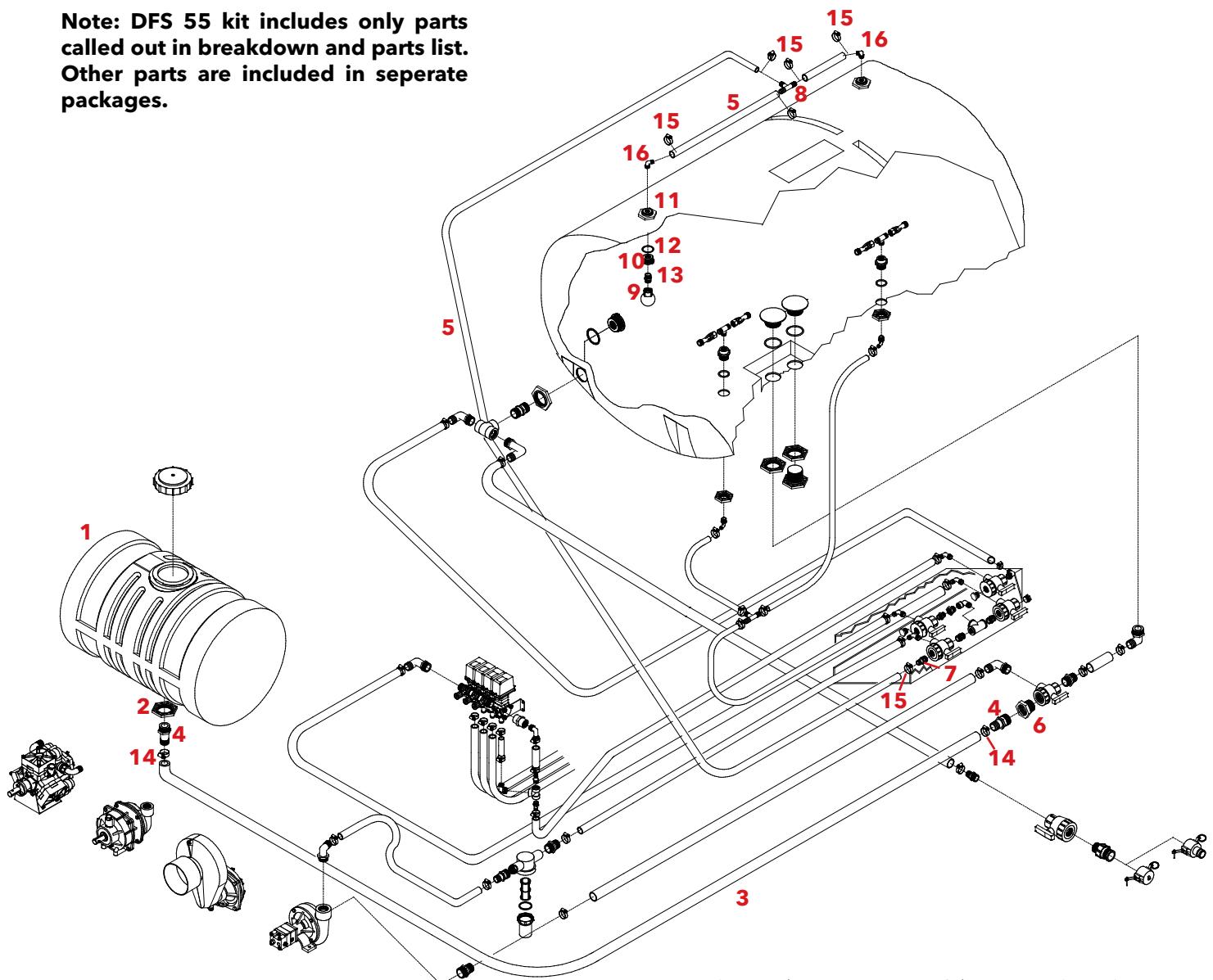
**DFS 55 MOUNTING ON HP  
(500/600 GL.) SPRAYER**



1. Remove and discard existing 1/2" x 1-1/4" bolts which mount the existing handrail brackets. Remount handrail brackets along with rear mounting arms (#6,7) to the sprayer frame using four 1/2" x 1-1/2" bolts (#14), and four 1/2" locknuts (#5) as shown.
2. Now mount the front mounting arms (#8,9) to the sprayer frame using four 3/8" x 1-1/4" bolts (#12) and four 3/8" locknuts (#13) as shown.
3. Attach the crossmember mounts (#10) to the front and rear mounting arms using four 3/8" x 2" sq. U-bolts (#11), and eight 3/8" locknuts (#13).
4. Mount the tank saddles (#2) on the crossmember mounts (#10) with four 1/2" x 1-1/4" bolts (#4) four 1/2" flatwashers (#15), and four 1/2" locknuts (#5).
5. Lay tank (#1) in the tank saddle (#2). Secure tank with the tie down straps (#3) four 5/16" x 4" bolts (#16), and four 5/16" locknuts (#17) as shown.

# DFS 55 PLUMBING BREAKDOWN & PARTS LIST

Note: DFS 55 kit includes only parts called out in breakdown and parts list. Other parts are included in separate packages.



## DFS 55 (PLUMBING) PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	<b>P55 23F</b>	1	Tank (55 Gallon)
2.	<b>N8P</b>	1	Tank Outlet Nut
3.	<b>1140RB</b>	-	1-1/4" Rubber Hose
4.	<b>BA114</b>	2	1-1/4" MPT x 1-1/4" HB-GFP
5.	<b>340RB</b>	-	3/4" Rubber Hose
6.	<b>BRB200 114</b>	1	2"x1-1/4" Reducer Bushing-GFP
7.	<b>EL114 34</b>	1	1-1/4" MPT x 3/4" HB Elbow-GFP
8.	<b>T34</b>	1	3/4" Tee HB x HB x HB
9.	<b>03813</b>	2	Spinner
-	<b>P034D</b>	2	Polyethylene Tank Fittings
10.	<b>P100DA</b>	2	1" Outlet Bushing
11.	<b>N5P</b>	2	Replacement Nut
12.	<b>5077V</b>	2	Replacement O-Ring
13.	<b>11067</b>	2	1" MPT Nipple-GFP
14.	<b>B24H</b>	2	Hose Clamp Fits 1-1/4" Hose
15.	<b>B12H</b>	6	Hose Clamp Fits 3/4" Hose
16.	<b>BEL1034</b>	2	1" MPT x 3/4" HB Elbow-GFP

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

## (OPTIONAL CPTK1) QUICK REFILL PARTS BREAKDOWN & INSTALLATION

### QUICK REFILL OPERATING INSTRUCTIONS (CPTK2)

Start by having all valves in closed position.

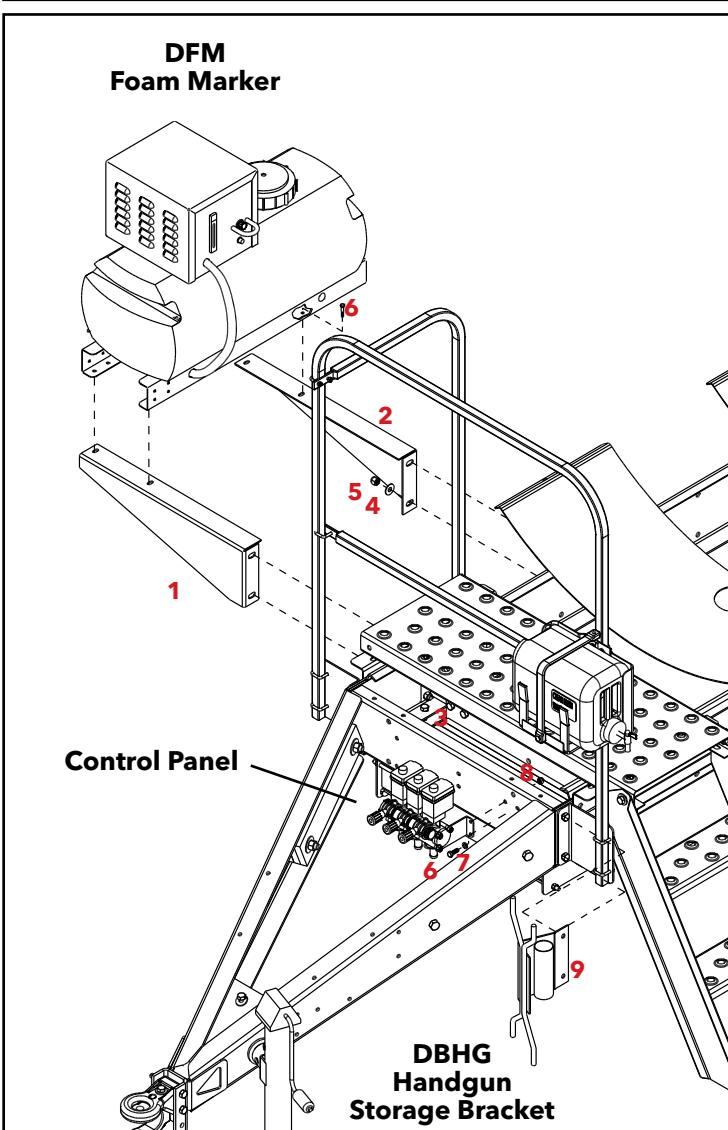
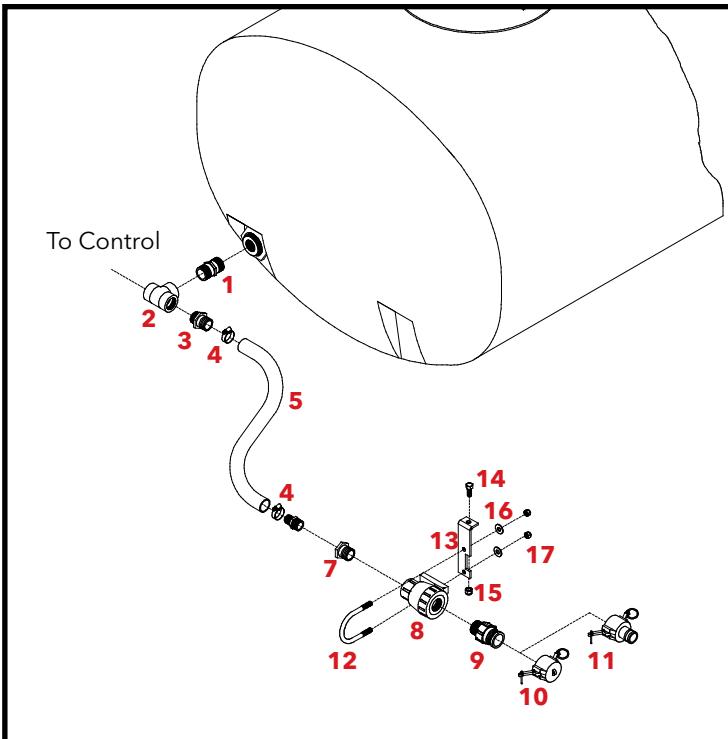
1. Remove the cap (No. 10) from the NPT quick coupler adapter (No. 9) and attach the 2" hose shank coupler (No. 11) which is connected to the nurse tank hose.
2. Open valve (No. 8) and the valve on the nurse tank. Make sure there is liquid up to the pump before starting the pump. Running the pump dry will cause seals to fail.
3. When the tank is full, close valve (No. 8). Open the agitation line valve on the control panel. The unit is now agitating.
4. Close nurse tank valve, disconnect coupler (No. 11) and replace cap (No. 10)

**NOTE: Apply thread sealant to the fittings. Do not use sealant on external threads of tank outlet fitting.**

### QUICK REFILL (CPTK1) PARTS LIST

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	<b>BM1140</b>	2	1-1/4" MPT Nipple (GFP)
2.	<b>BTT114</b>	2	1-1/4" FPT Tee (GFP)
3.	<b>A114 112</b>	1	1-1/4" MPT x 1-1/2" HB (GFP)
4.	<b>B32H</b>	2	1-1/2" SS Gear Hose Clamp
5.	<b>1120RB</b>	-	1-1/2" Rubber Hose
7.	<b>BA200 112</b>	1	2" MPT x 1-1/2" Hose Barb (GFP)
8.	<b>UV200FP</b>	1	2" Poly Ball Valve
9.	<b>633F2020</b>	1	2" Adapter - Male NPT
10.	<b>634B2020</b>	1	2" Cap for Adapter
11.	<b>633C2020</b>	1	2" Hose Shank Coupler
12.	<b>02757</b>	1	7/16" NC x 3" U-Bolt
13.	<b>01811</b>	1	Quick Refill Mounting Bracket
14.	<b>00967</b>	2	1/2"-13 UNC x 1-1/4" Hex Head Bolt (Gr 5)
15.	<b>02178</b>	2	1/2"-13 UNC Nylon Insert Locknut
16.	<b>00205</b>	2	7/16" Flatwasher
17.	<b>02771</b>	2	7/16"-14 UNC Nylon Insert Locknut

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



### FOAM MARKER (DFM60), ELECTRIC CONTROL PANEL, AND HAND GUN STORAGE BRACKET MOUNTING LOCATIONS

### MOUNTING INSTRUCTIONS

1. Mount the DFM60 mounting brackets (#1 & #2), using four 1/2" x 1-1/4" bolts (#3), flatwashers (#4) and nylon locknuts (#5), provided with DFM60.
2. Mount the control panel using four 3/8" x 1" bolts (#6), lockwashers (#7) and nuts (#8) provided with panel.
3. Mount handgun storage bracket (#9) using existing bolts already in tongue.

# 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:** DETHMERS MANUFACTURING COMPANY 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.

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