

# LA9000

LIQUID APPLICATOR



**OPERATION & MAINTENANCE MANUAL**

**SCHABEN**  
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# INTRODUCTION

1. Read and understand the Operators Manual and all safety signs before using.
2. Place all controls in neutral, stop tractor engine, turn monitor off, set park brake, remove ignition key, wait for nozzles to stop spraying before servicing, adjusting, or repairing.
3. Before using it in a field, be familiar with all potential hazards: trees, rocks, ditches, gullies, etc. Plan the spraying route to avoid hazards. Remember you are driving a wide machine. **USE CAUTION WHEN CORNERING.**
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Do not allow riders on the applicator or tractor during operation or transporting.
6. Clear the area of all bystanders, especially children, before starting or filling with water or chemical.
7. Stay away from wing pinch points when folding or extending wings. Keep others away.
8. Stay away from power lines when extending or folding wings. Electrocution can occur without direct contact.
13. In case of poisoning, get immediate medical attention.
15. Do not eat in the field when side dressing.
16. Before applying pressure to the hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
17. Before applying pressure to fertilizer system make sure that all connections are tight and that all hoses and fittings are in good condition.
18. Review safety instructions annually.

## PRE-OPERATION CHECKLIST

Before operating the Applicator and each time thereafter, the following areas should be checked off:

1. Lubricate the machine per the schedule outlined in the "Maintenance Section".
2. Use only a tractor of adequate power and weight to operate the Applicator.
3. Ensure that the machine is properly attached to the tractor. Be sure that a mechanical retainer is installed through the drawbar pin and the safety chain is attached to the drawbar cage. Jack is in full up position.
4. Check the hydraulic system. Ensure that the hydraulic reservoir in the tractor is filled to the required specifications.
5. Inspect all hydraulic lines, hoses, fittings and couplers for tightness. Use a clean cloth to wipe any accumulated dirt from the couplers before connecting to the hydraulic system of the tractor.
6. Check the tires and ensure that they are inflated to the specified pressure.
7. Calibrate the Applicator if it is the start of the season or a new chemical is being used. Calibrate as specified in rate control manual.
8. Check the condition and routing of all chemical hoses and lines. Replace any that are damaged. Re-route those that are rubbing pinched or crimped.
9. Check the spray pattern of each nozzle. Remove and clean or replace any that have an unusual pattern.
10. Remove the steel mesh line filters and wash with clean water. Reinstall.
11. Check that all connections in the electrical system are connected and tight.
13. Before unfolding boom remove transport wing lock pins (Figure 7) and tower cylinder Transport stop (Figure 6) Reinstall lock pins and tower stop before parking sprayer.

# PLACING IN STORAGE

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At the end of the spray season, the machine should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components to prevent any unnecessary down time at the beginning of the next season. Follow this procedure:

1. Thoroughly wash the machine using a hose or a pressure washer to remove all dirt, mud, debris or residue.
2. Thoroughly wash the inside of the tank.
3. In climates that encounter freezing temperatures during the storage period, the following preparation should be done:
  - a. Add 10 gallons (40 liters) of a potable RV antifreeze to the tank.
  - b. Run unit for 5 minutes in the spray cycle to circulate solution to all parts of the circuit.
  - c. While circulating the fluid, open and close all the valves in the system to flush all the water from the system.
  - e. Flush the solution out the booms.
  - f. Open all disconnects and drain hoses, pumps, filters, solenoids and tanks.
- g. Remove nozzles from boom Disassemble and wash nozzle, Spring, diaphragm and housing. Store inside.
4. Lubricate all grease points. Make sure all grease cavities have been filled with grease to remove any water residue from the washing.
5. Inspect all the hydraulic hoses, couplers and fittings. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded or is separating from the crimped end of a fitting.
6. Inspect all the spray hoses and fittings. Tighten any loose fittings. Replace any hose That is badly cut, nicked, abraded or is separating from a fitting.
7. Touch up all paint nicks and scratches to prevent rusting.

## **\*\*STORAGE SAFETY\*\***

1. Store unit in an area away from human activity.
2. Do not permit children to play on or around the stored applicator.
3. Unhook and store in the transport configuration.

# REMOVING FROM STORAGE

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When removing from storage and preparing to use, follow this procedure.

1. Clear the area of bystanders, especially small children, and remove foreign objects from the machine and the working area.
2. Check
  - a. Tank for cracks
  - b. Tank hold down hardware
  - c. All hardware. Tighten as required.
  - d. Tire pressure.
  - e. All sprayer and hydraulic lines, fittings and connections. Tighten as required.
3. Lubricate all grease fittings.
4. Replace any defective parts.
5. Fill the tank with 20 gallons (75 liters) of clean water and run for 5 minutes. Open and close all valves several times. Flush water through the booms.
6. Repeat step 5.
7. Calibrate the pump, nozzles and sprayer before using.
8. Go through the pre-operation checklist before using.

# LIMITED WARRANTY

Schaben Industries warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warranty is only effective as to any new machinery which has not been altered, changed, repaired or treated since its delivery to the buyer, other than by Schaben Industries or its authorized dealers or employees, and does not apply to accessories, attachments, tools or parts, sold or operated with the new machinery, if they have not been manufactured by Schaben Industries.

Schaben Industries shall only be liable for defects in the materials or workmanship attributable to faulty material or bad workmanship that can be proved by the buyer, and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery or in any other manner whatsoever, and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with Schaben Industries operator's manual, specifications or printed instructions.

Written notice shall be given by registered mail, to Schaben Industries within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows: Schaben Industries, 5834 East 23rd Street, Columbus, NE 68601.

This warranty shall expire 2 years after the date of delivery of the new machinery.

If these conditions are fulfilled, Schaben Industries shall at its own cost and at its own option either repair or replace any defective parts provided that the buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work, unless Schaben Industries has authorized such expenses in advance.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by Schaben Industries or its authorized dealers or employees.

This warranty extends only to the original owner of the new equipment.

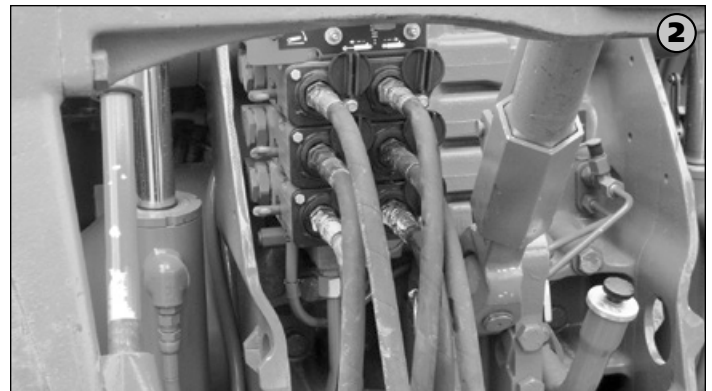
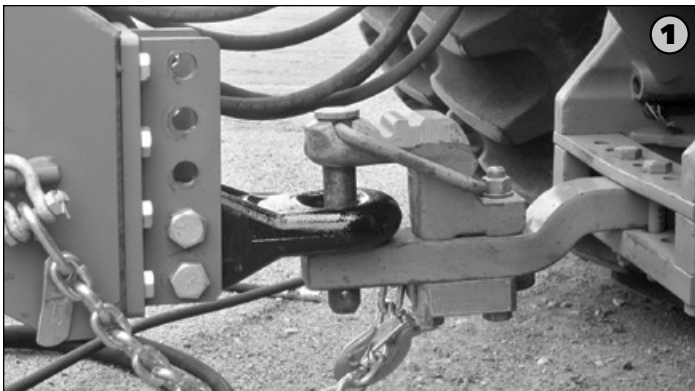
Rubber parts are not warranted. (including tires, hoses, grommets)

This warranty is limited to the terms stated herein and is in lieu of any other warranties whether express or implied, and without limiting the generality of the foregoing, excluded all warranties, express or implied or conditions whether statutory or otherwise as to quality and fitness for any purpose of the new equipment. Schaben Industries disclaims all liability for incidental or consequential damages.

This sprayer is subject to design changes and Schaben Industries shall not be required to retro-fit or exchange items on previously sold units except at its own option.

# OPERATING INSTRUCTIONS

1. Ensure applicator is connected securely to tractor draw bar with clevis pin and safety chain.
2. Connect applicator hydraulic hoses to the tractor remote couplers. The blue hoses are for the main bar height control. The green hoses are for the main wing fold. The yellow hoses are for secondary wing fold on 35' and 40' bars.



3. Connect wiring harness if using hydraulic pump with rate control.
4. Grease Applicator (Refer to Maintenance).
5. Before road travel, install all locking collars on toolbar cylinders and safety pins on wings.
6. Remove locking collars as needed to maintain a depth of 4 to 5 inches. Constant down pressure on main lift is not recommended (weight of toolbar will keep unit in the ground). Leave hydraulic selector in neutral for field operation.
7. Remove safety pins on wing cylinders. Wing cylinders remote will run in constant while down (Figure 7).
8. After unfolding main wing, engage hydraulic lever in "constant pressure." This is necessary to allow wings to maintain constant depth and follow uneven terrain, as well as the ability to "gullwing" (Lift both wings evenly when turning. See #9).
9. **Field Operation:** When you come to the end of the field.
  1. Lift main section
  2. Pull back on main wing lever long enough to lift both wings slightly ("gullwing").
  3. After turning, lower main section and wing section and return wing hydraulics to constant pressure.
10. Check and clean screens as needed.
11. Pump Settings

The Applicator is equipped with adjustable down pressure relief valve on wing cylinders. The valve is preset at 800 PSI. This may be adjusted as needed. The relief valve is located under tongue, and requires an allen wrench to adjust (clockwise to increase pressure and counterclockwise to decrease pressure. Figure 8).



#### Optional Ground Drive Pump

- 11a - Remove transport pin
- 11b - Use John Blue pump setting slide chart. Loaded radius is 9.75 and sprocket ratio is 32 drive and 18 driven.
- 11c - Set pump to recommended setting.

#### Optional Hydraulic Drive Pump

- a. Hydraulic pump hoses supplied on the applicator include (1) 1/2" line and (1) 3/4" line. The 1/2" hose is the hydraulic supply (in/pressure) and the 3/4" hose is the return (out/non-pressure).

**NOTE: It is recommended for optimal pump performance that the 3/4" return line connect directly to the tractor hydraulic reservoir (not tractor SCV port). Doing so eliminates possible back pressure restriction on the 3/4" return line. Excessive back pressure restriction can cause hydraulic orbital motor damage/failure.**

- b. Proper hydraulic pump disengagement. When shutting off the pump, move the selector to the FLOAT position to allow the centrifugal pump to come to a gradual stop. Standard spool valves, which are found on all tractor hydraulic systems, can cause potentially damaging high peak pressures in the hydraulic system when closed, because of abrupt shutoff of oil flow in both the supply and return lines.
- c. Close and lock down the bypass adjusting screw in the hydraulic motor (if applicable).

Switch rate controller to manual and press the "+" button on TeeJet or "Increase" button on Raven, hold for 8 seconds. Then press the "-" button on TeeJet or "Decrease" button on Raven for 4 seconds.

Set the tractor hydraulic flow control valve for minimum hydraulic oil flow to the remote outlet (Tortoise position).

Start the tractor and allow the hydraulic oil to circulate for approximately 10 to 15 minutes or until adequately warmed.

Prime the centrifugal pump with all valves open.

Open the sprayer control regulating valve and the boom shut-off valves.

Slowly adjust the tractor hydraulic flow control valve until the desired boom pressure is attained.

**NOTE: See manufacture pump operators manual for further setup and maintenance.**

# BREAK-IN

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Although there are no operational restrictions on the applicator when used for the first time, it is recommended that the following mechanical items be checked:

- A. After operating for 1/2 hour
  1. Re-torque all the wheel bolts.
  2. Re-torque all other fasteners and hardware.
  3. Check that all electrical connections are tight.
  4. Check that no fertilizer or hydraulic lines are being pinched or crimped. Re-align as required.
  5. Check that all nozzles are working properly. Clean or replace as required.
  6. Lubricate all grease fittings.
- B. After 5 hours and 10 hours of operation
  1. Retorque all wheel bolts, fasteners and hardware.
  2. Check fertilizer and hydraulic line routing.
  3. Check that all nozzles are working properly.
  4. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.
  5. Lift right hand side of machine and check main wheel bearing for proper play (slight wobble when pulling on top of wheel). Repeat for left hand side.

## **! MAINTENANCE SAFETY !**

- 1 Review the Operator's Manual and all safety items before working with, maintaining or operating the Applicator.

# SERVICE AND MAINTENANCE

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2. Place all controls in neutral, stop the tractor engine, turn monitor off, set park brake, remove ignition key, wait for nozzles to stop spraying before servicing, adjusting, repairing or unplugging.
3. Follow good shop practices:
  - Keep service area clean and dry
  - Be sure electrical outlets and tools are properly grounded
  - Use adequate light for the job at hand.
4. Before applying pressure to a hydraulic system, make sure all components are tight and that steel lines, hoses and coupling are in good condition.
5. Before applying pressure to fertilized system, make sure that all connection are tight and that all hoses and fittings are in good condition.
6. Install wing lock pins and tower stops before relieving pressure from hydraulic circuit to service Applicator.
7. Keep hands, feet, clothing and hair away from all moving and/or rotating parts.
8. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments or filling.
9. Place stands or blocks under the frame before working beneath the machine.
10. Wear safety goggles, neoprene gloves and protective clothing when working on the Applicator filled with active chemical.
11. Wash machine to remove all chemical residue before working on unit. Wear appropriate protective gear at all times.
12. Protect yourself from chemical contamination.

# GREASING

- Wipe grease fitting with a clean cloth before greasing to prevent injecting dirt and grit into joint.
- Replace and repair broken fittings immediately.
- If a fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

**\*Note: Grease 20 points 8 hours or daily. Along with 2 points per coulter. Hubs and spindles should be greased biannually.**

**\*Note: It is best to grease the machine at the end of the day to ensure that fertilizer/chemicals do not have time to start corroding parts.**

## L/R GREASE LOCATIONS

**Apply adequate grease to the following:**

1. L/R Main Wing Hinge (Fig. 20b)
2. L/R Flip Wing (35' and 40') (Fig. 20c)
3. Coulter Pivots (Fig. 20d)
4. Parallel Hinge Bushings (Fig. 20a)
5. Piston Pump (Refer to pump operators manual)

FIG. 20a

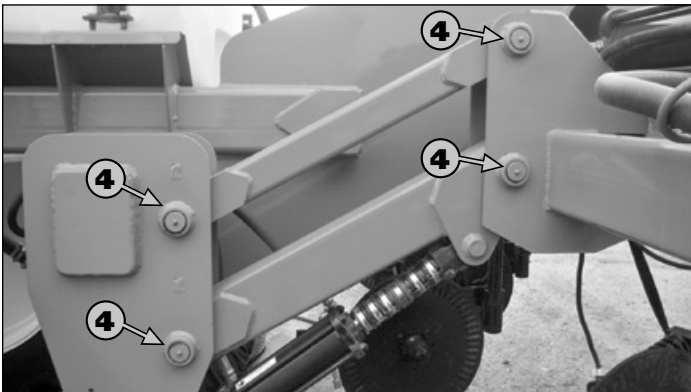


FIG. 20b

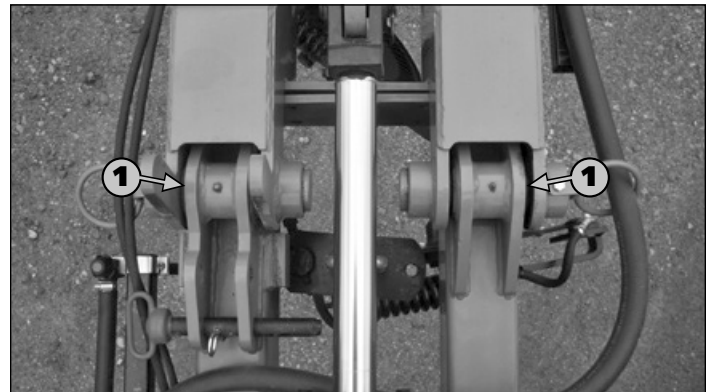


FIG. 20c

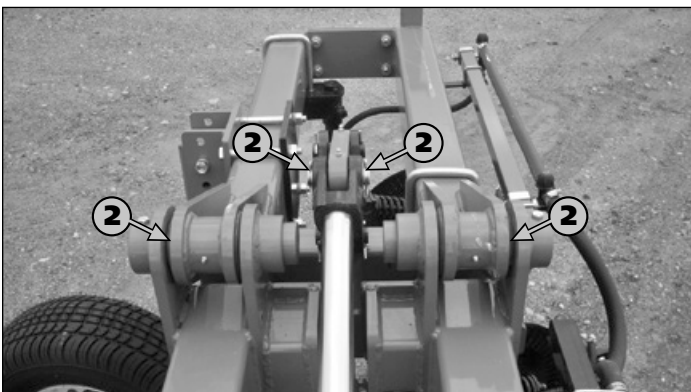
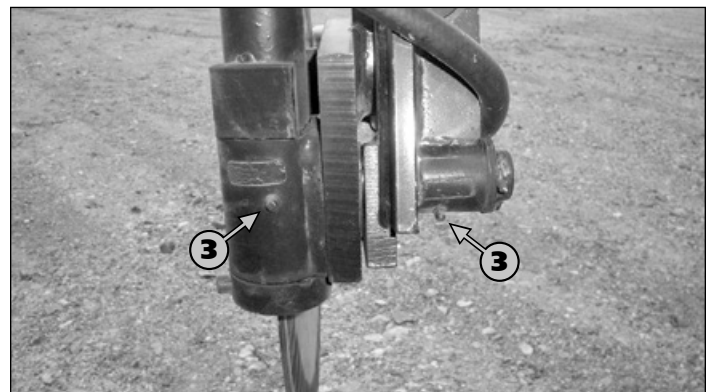
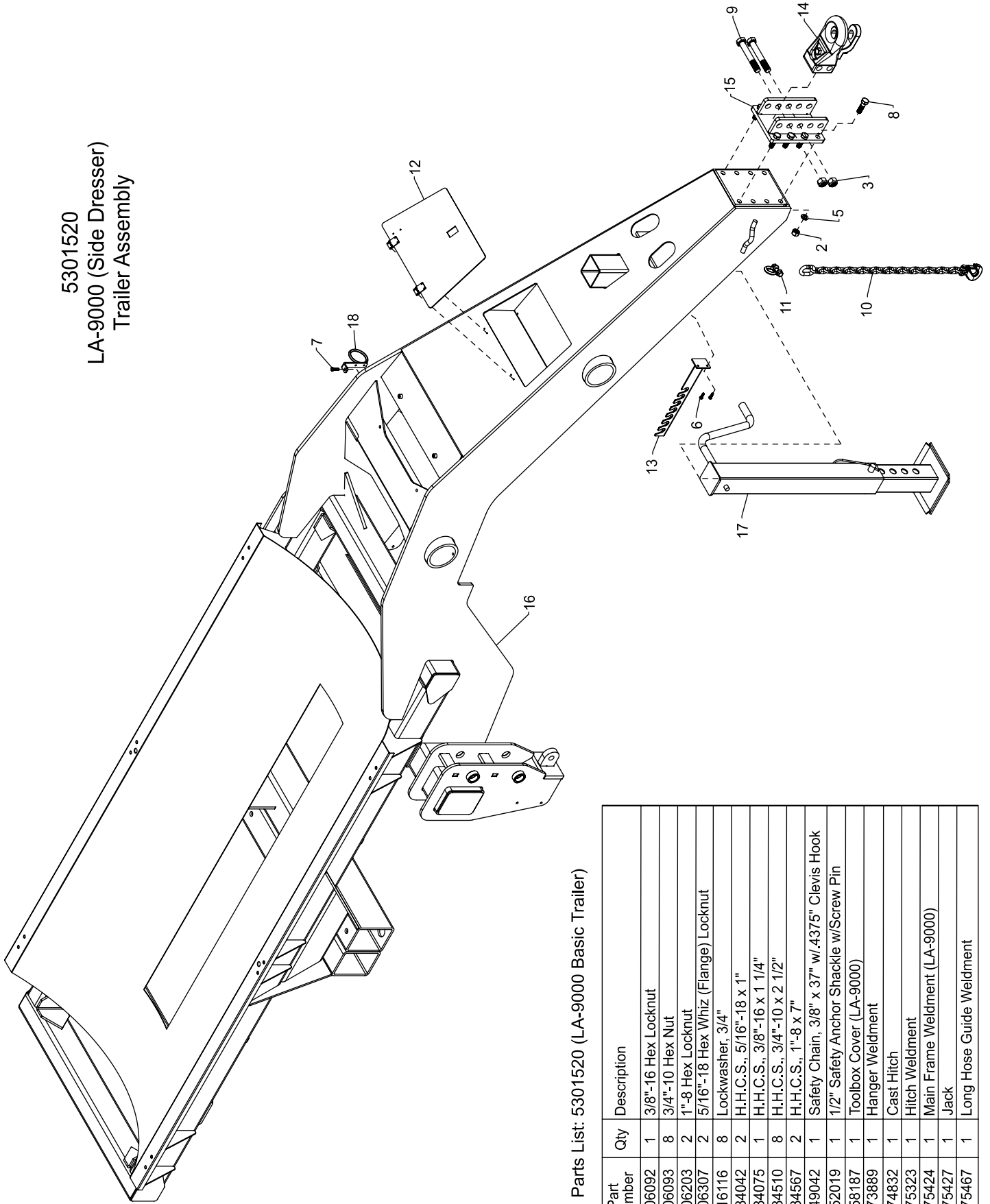


FIG. 20d



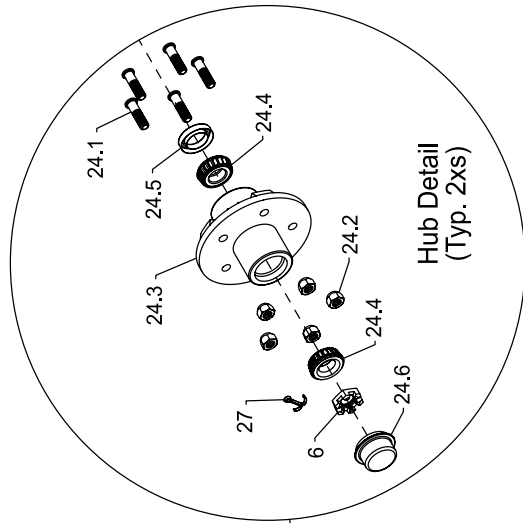
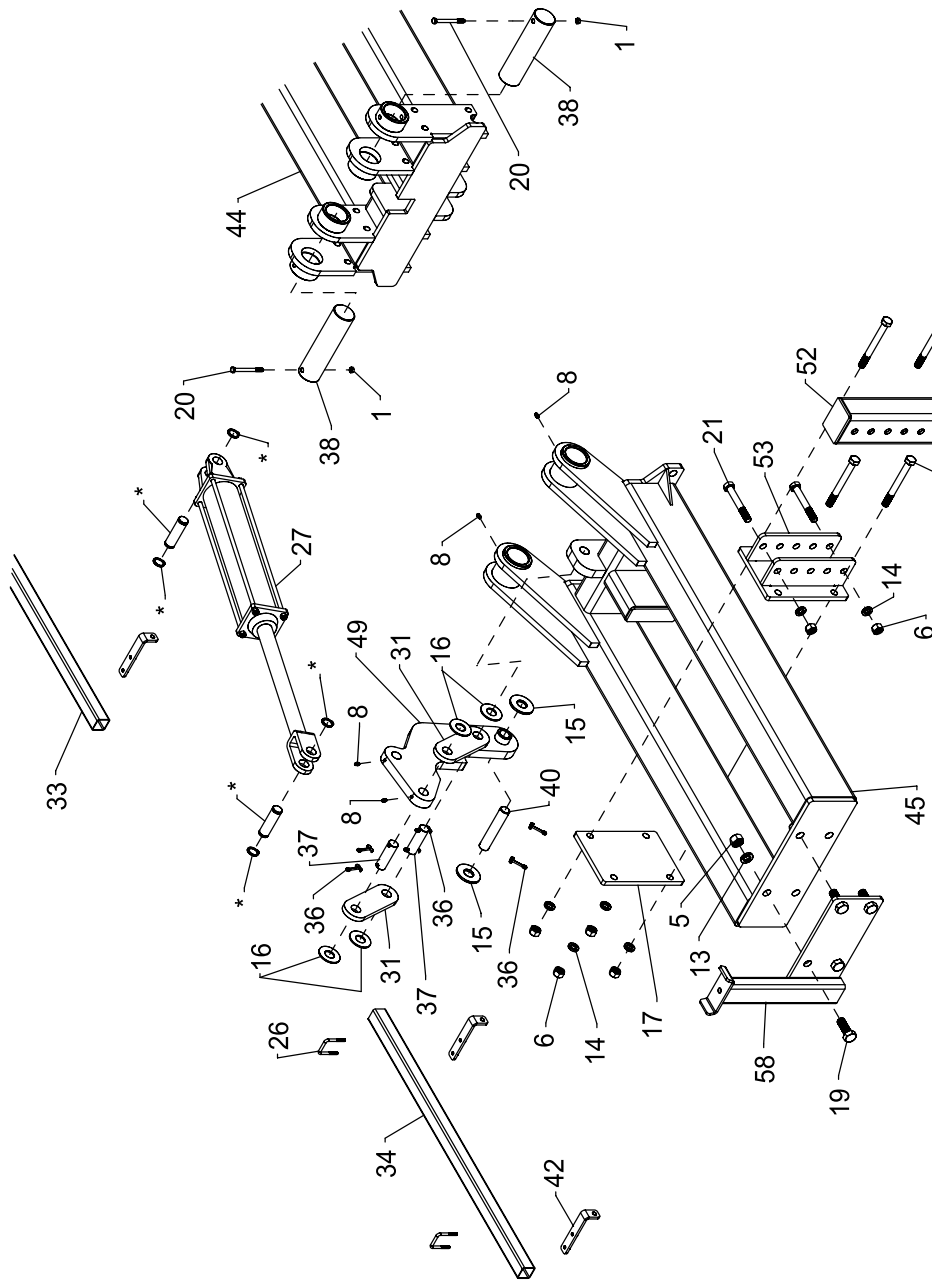
5301520  
LA-9000 (Side Dresser)  
Trailer Assembly



Parts List: 5301520 (LA-9000 Basic Trailer)

Item No.	Part Number	Qty	Description
1	5006092	1	3/8"-16 Hex Locknut
2	5006093	8	3/4"-10 Hex Nut
3	5006203	2	1"-8 Hex Locknut
4	5006307	2	5/16"-18 Hex Whiz (Flange) Locknut
5	5016116	8	Lockwasher, 3/4"
6	5034042	2	H.H.C.S., 5/16"-18 x 1"
7	5034075	1	H.H.C.S., 3/8"-16 x 1 1/4"
8	5034510	8	H.H.C.S., 3/4"-10 x 2 1/2"
9	5034567	2	H.H.C.S., 1"-8 x 7"
10	5049042	1	Safety Chain, 3/8" x 37" w/.4375" Clevis Hook
11	5052019	1	1/2" Safety Anchor Shackle w/Screw Pin
12	5058187	1	Toolbox Cover (LA-9000)
13	5273889	1	Hanger Weldment
14	5274832	1	Cast Hitch
15	5275323	1	Hitch Weldment
16	5275424	1	Main Frame Weldment (LA-9000)
17	5275427	1	Jack
18	5275467	1	Long Hose Guide Weldment

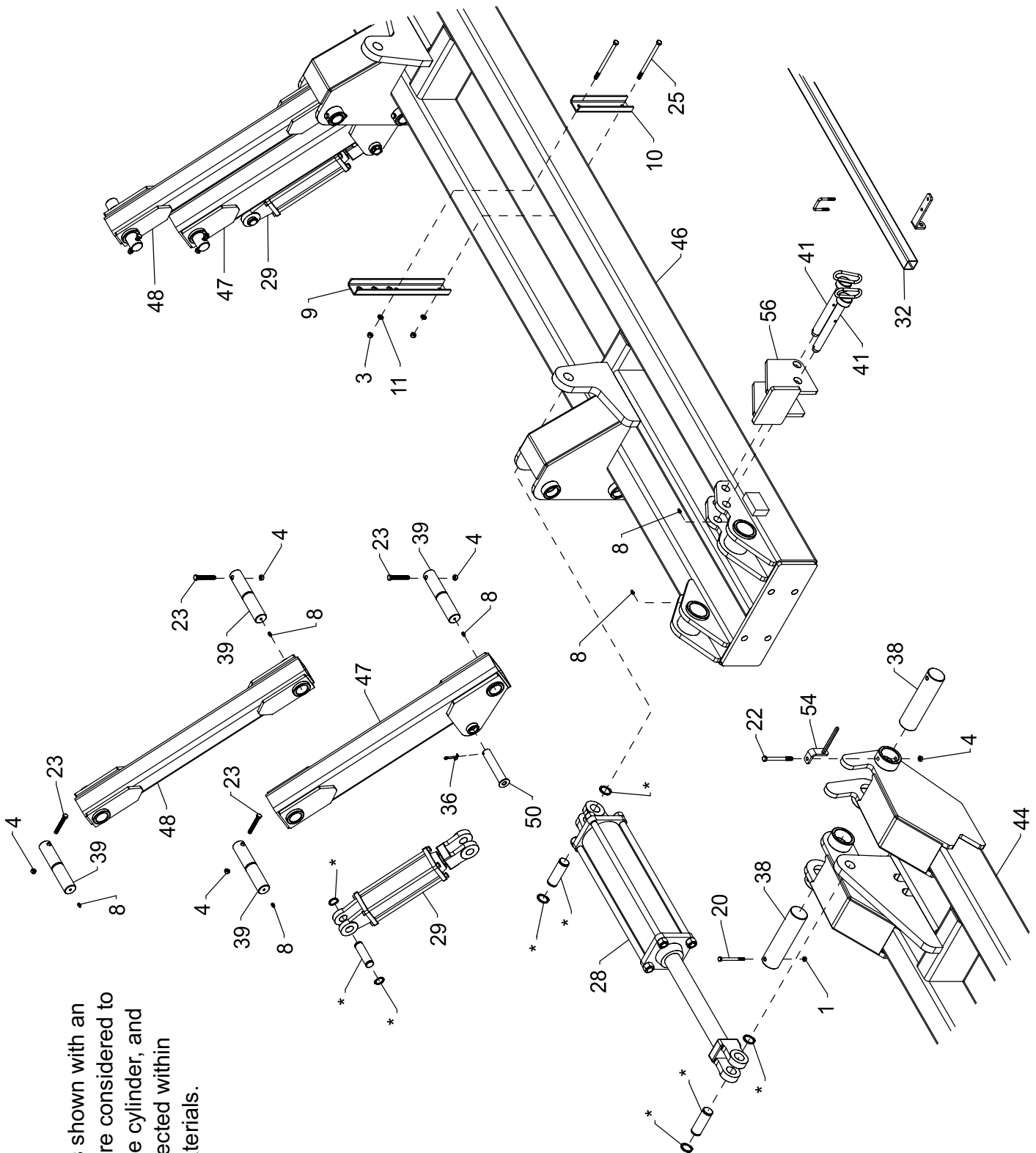




See "Hub Detail" for complete hub component breakdown

## Detail A

**NOTE 1:**  
 When using the 15" or 30" Toolbar Extension option(s), Nozzle Tube (Item 34) is replaced with Nozzle Tube #5100366 (66" Nozzle Tube, not shown in this BOM for 5301523)

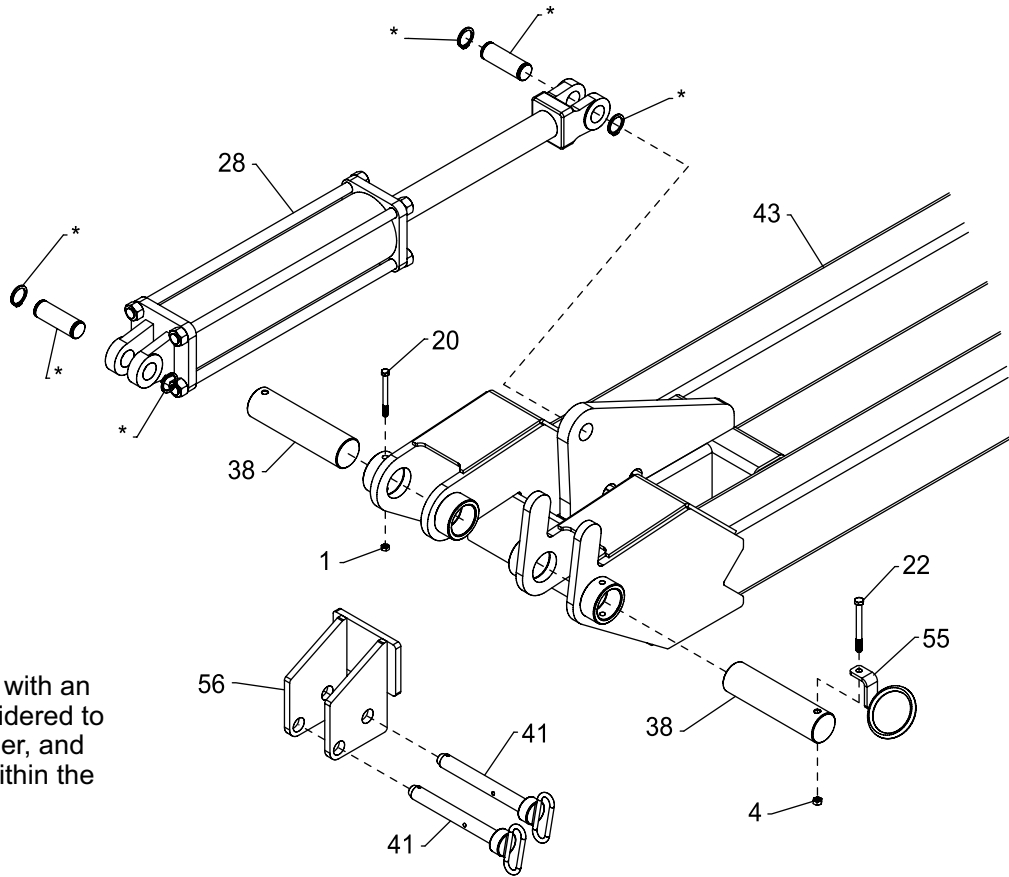


NOTE: Parts shown with an asterisk (\*) are considered to come with the cylinder, and are NOT reflected within the bill of materials.

### Detail B

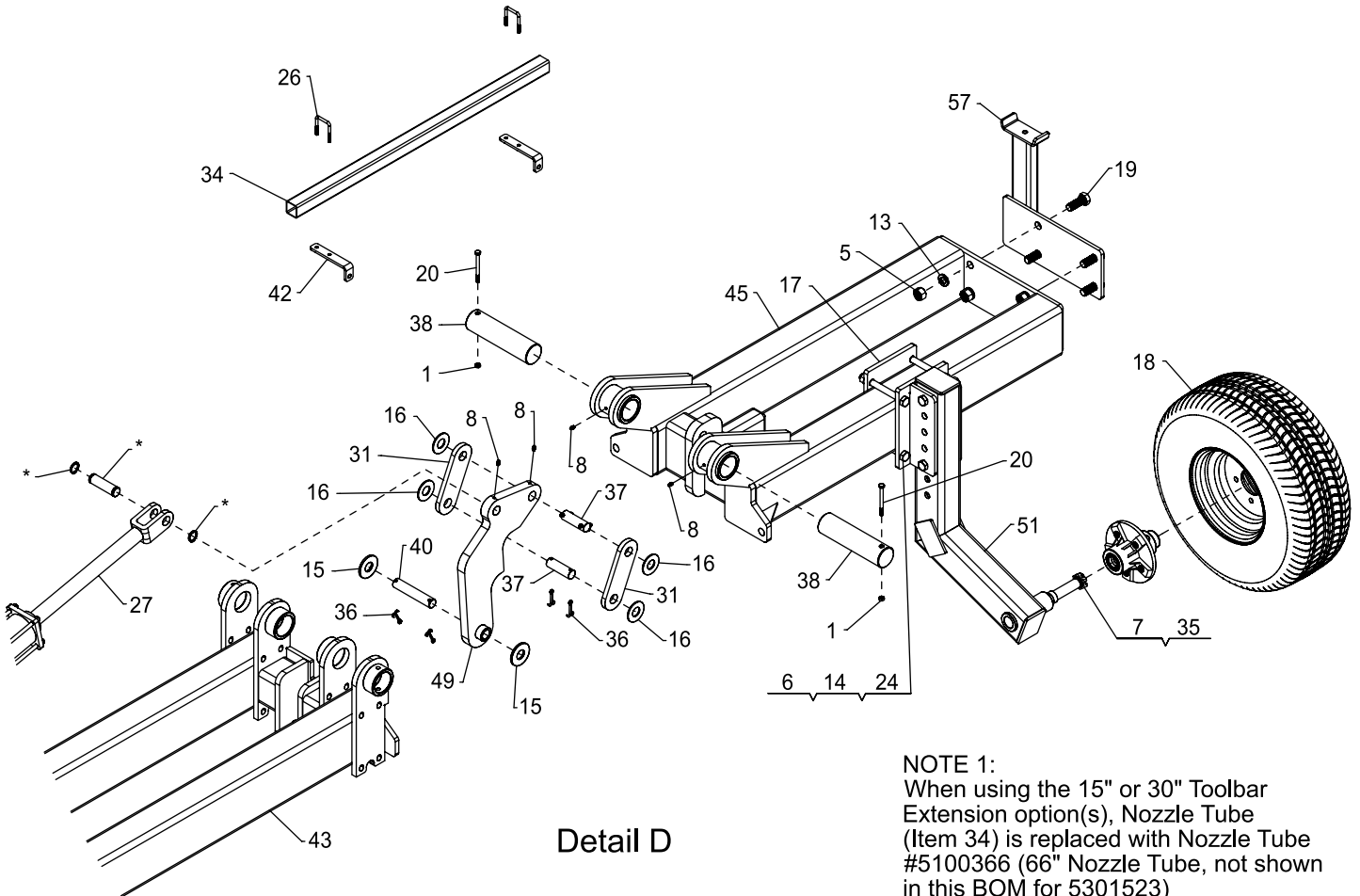
Detail C

NOTE: Parts shown with an asterisk (\*) are considered to come with the cylinder, and are NOT reflected within the bill of materials.



Detail D

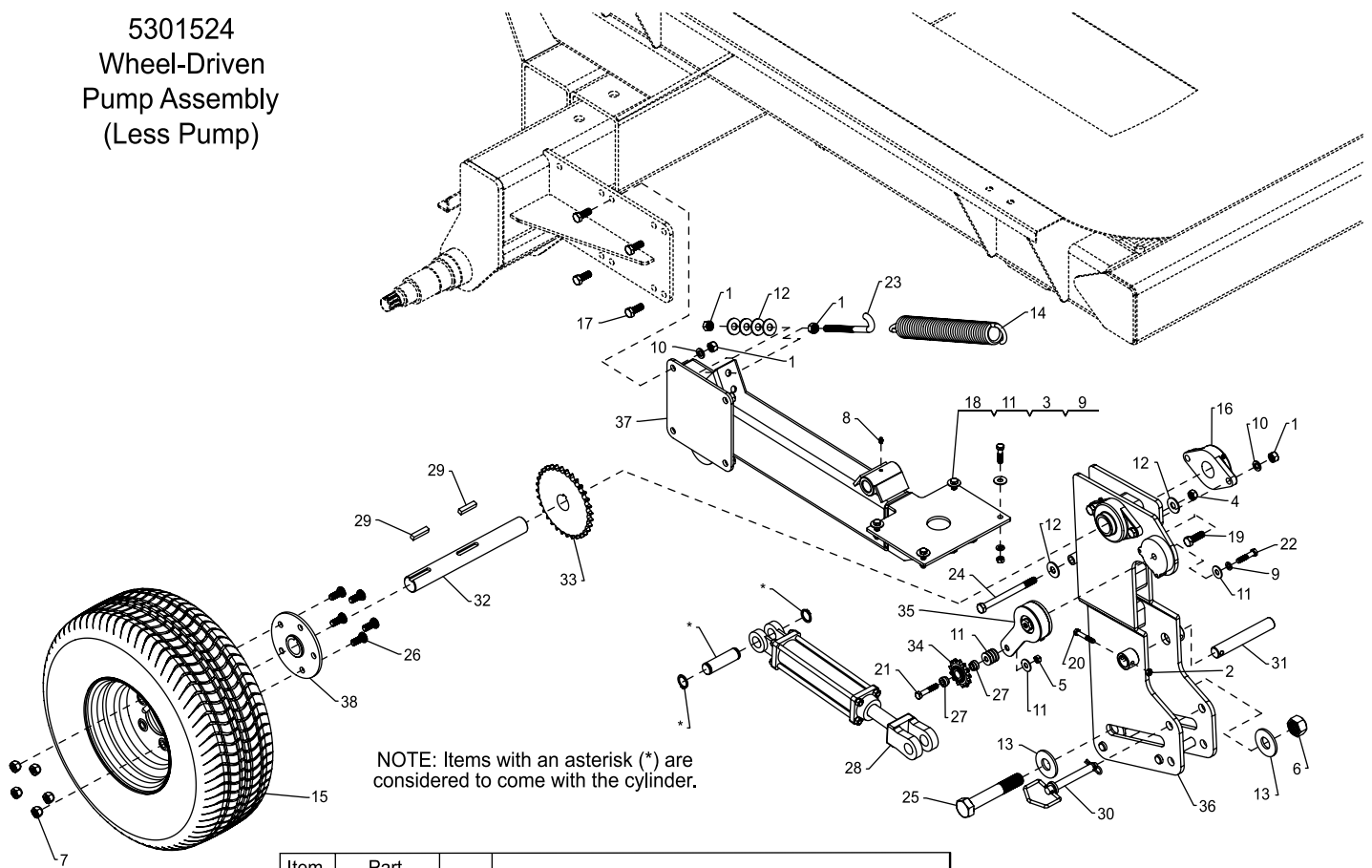
NOTE 1:  
When using the 15" or 30" Toolbar Extension option(s), Nozzle Tube (Item 34) is replaced with Nozzle Tube #5100366 (66" Nozzle Tube, not shown in this BOM for 5301523)



## Parts List: 5301523 (Double-Fold Side-Dresser)

Item No.	Part Number	Qty	Description
1	5006035	6	5/16"-18 Hex Locknut
2	5006041	26	1/4"-20 Hex Nut
3	5006054	2	3/8"-16 Hex Nut
4	5006092	10	3/8"-16 Hex Locknut
5	5006093	8	3/4"-10 Hex Nut
6	5006096	12	5/8"-11 Hex Nut
7	5006300	2	Castle Nut, 1"
8	5012015	20	Grease Zerk, 1/4"-28 Thread
9	5013572	1	Hose Mount Channel
10	5013573	1	Clamp Channel
11	5016027	2	Lockwasher, 3/8"
12	5016035	26	Lockwasher, 1/4"
13	5016116	8	Lockwasher, 3/4"
14	5016124	12	Lockwasher, 5/8"
15	5016190	4	Flatwasher, 1"
16	5016299	8	Shim Washer
17	5017957	2	Backing Plate
18	5021048	2	PROTOUR Wheel
19	5034085	8	H.H.C.S., 3/4"-10 x 2"
20	5034112	6	H.H.C.S., 5/16"-18 x 3 1/2"
21	5034147	4	H.H.C.S., 5/8"-11 x 4 1/2"
22	5034170	2	H.H.C.S., 3/8"-16 x 4"
23	5034288	8	H.H.C.S., 3/8"-16 x 2 3/4"
24	5034328	8	H.H.C.S., 5/8"-11 x 6"
25	5034455	2	H.H.C.S., 3/8"-16 x 6"
26	5034473	13	Square U-Bolt, 1/4" x 1 9/16" x 2 1/8"
27	5061033	2	Hydraulic Cylinder, 3" x 16", 1.5" Rod
28	5061036	2	Hyd. Cyl., 5" x 16" x 2" Rod
29	5061037	2	Hyd. Cyl., 3" x 8", 1.25" Rod
30	5085017	2	5-Stud Hub Assembly
30.1	5034110	5	Wheel Bolt (Stud)
30.2	5006301	5	1/2"-20 Hex Cone Wheel Nut
30.3	---	1	Hub, 5-Stud w/Cups
30.4	5031139	2	Cone Bearing
30.5	5072471	1	Grease Seal
30.6	5046327	1	Grease Cap
31	5094024	4	Linkage Plate
32	5100364	1	Nozzle Tube (120")
33	5100365	2	Nozzle Tube (94")
34	5100367	2	Nozzle Tube (36")
35	5101081	2	Cotter Pin, 5/32" x 2"
36	5101230	14	Cotter Pin, 3/16" x 2"
37	5101270	4	Upper Over-Center Pivot Pin
38	5101271	8	Wing Pivot Pin
39	5101273	8	Lift Arm Pivot Pin
40	5101279	2	Lower Over-Center Pivot Pin
41	5101284	4	Clevis Lock Pin
42	5133256	13	Hose Deflector Strap (Long)
43	5275306	1	Wing 2 Toolbar (L.H.)
44	5275307	1	Wing 2 Toolbar (R.H.)
45	5275308	2	Wing 3 Toolbar Weldment
46	5275318	1	Center Toolbar Weldment
47	5275319	2	Lower 4-Bar Weldment
48	5275322	2	Upper 4-Bar Weldment
49	5275399	2	Outer Drive Linkage Weldment
50	5275425	2	Lift Arm Cylinder Pin Weldment
51	5275429	1	Gauge Wheel Arm Weldment (L.H.)
52	5275430	1	Gauge Wheel Arm Weldment (R.H.)
53	5275431	2	Gauge Wheel Mount Weldment
54	5275468	1	Short Hose Guide Weldment (R.H.)
55	5275469	1	Short Hose Guide Weldment (L.H.)
56	5275476	2	Boom Stop Weldment
57	5275479	1	Toolbar Stop Weldment (L.H.)
58	5275480	1	Toolbar Stop Weldment (R.H.)

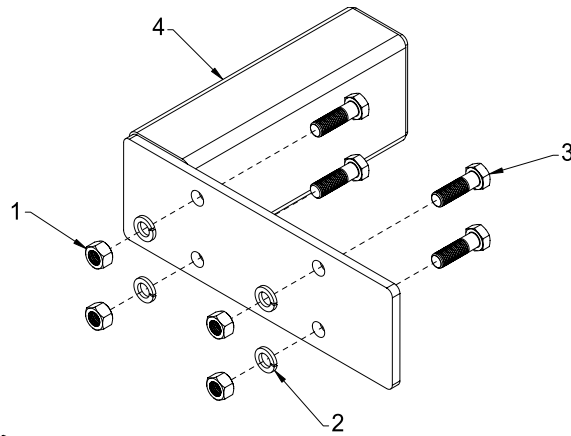
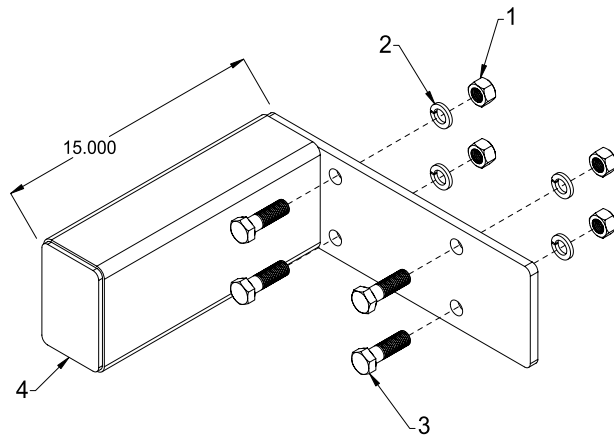
5301524  
Wheel-Driven  
Pump Assembly  
(Less Pump)



NOTE: Items with an asterisk (\*) are considered to come with the cylinder.

Item No.	Part Number	Qty	Description
1	5006011	10	1/2"-13 Hex Nut
2	5006035	1	5/16"-18 Hex Locknut
3	5006054	4	3/8"-16 Hex Nut
4	5006091	1	1/2"-13 Hex Locknut
5	5006092	1	3/8"-16 Hex Locknut
6	5006203	1	1"-8 Hex Locknut
7	5006301	5	1/2"-20 Hex Cone Wheel Nut
8	5012015	1	Grease Zerk, 1/4"-28 Thread
9	5016027	5	Lockwasher, 3/8"
10	5016028	8	Lockwasher, 1/2"
11	5016030	10	Flatwasher, 3/8"
12	5016031	6	Flatwasher, 1/2"
13	5016190	4	Flatwasher, 1"
14	5019265	1	Extension Spring
15	5021048	1	PROTOUR Wheel
16	5031174	2	2-Bolt Flanged Ball Bearing (for 1.4375" Shaft)
17	5034019	4	H.H.C.S., 1/2"-13 x 1 1/4"
18	5034072	4	H.H.C.S., 3/8"-16 x 1 1/2"
19	5034081	4	H.H.C.S., 1/2"-13 x 1 1/2"
20	5034082	1	H.H.C.S., 5/16"-18 x 2"
21	5034087	1	H.H.C.S., 3/8"-16 x 2"
22	5034101	1	H.H.C.S., 3/8"-16 x 1 3/4"
23	5034111	1	1/2" x 6" Hook Bolt
24	5034323	1	H.H.C.S., 1/2"-13 x 6"
25	5034336	1	H.H.C.S., 1"-8 x 6"
26	5034540	5	Serrated Shoulder Bolt, 1/2"-20 N.F. x 1 1/8"
27	5041153	2	Bushing
28	5061035	1	Hydraulic Cylinder, 2" x 6", 1.125" Rod
29	5089054	2	3/8" Square Key x 1 3/4" Long
30	5101226	1	Hitch Pin, 5/8" Dia., 4 1/4" Useable w/Hairpin Cotter
31	5101282	1	Pump Pivot Pin
32	5118193	1	Pump Drive Shaft
33	5130014	1	Sprocket (50B32) (1 7/16" Keyway)
34	5130015	1	15-Tooth Sprocket
35	5275325	1	#50 Spring Loaded Rotary Chain Tensioner
36	5275428	1	Rocker Arm Weldment
37	5275433	1	Pump Pivot Weldment
38	5275436	1	Wheel Hub Weldment

5301536  
15" Toolbar Extension Option

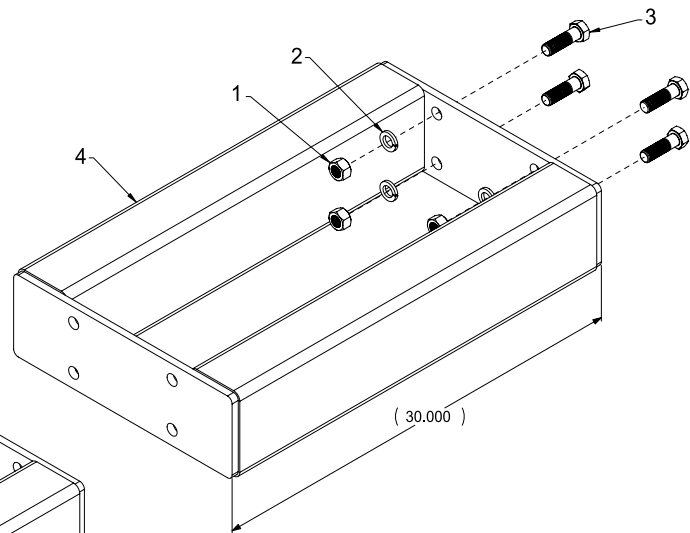
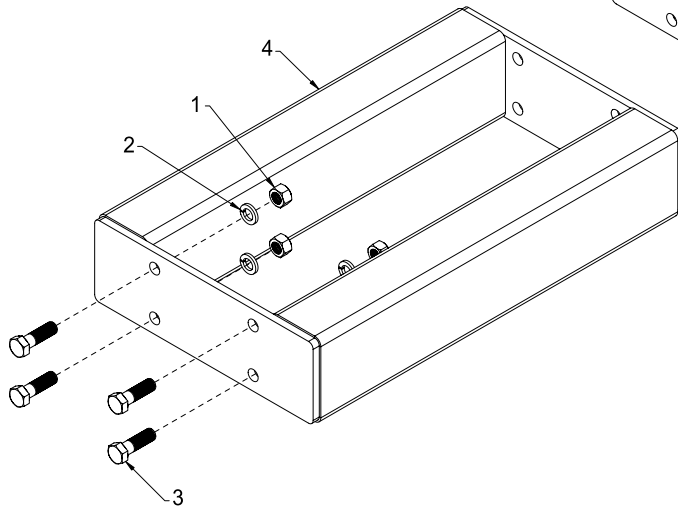


**NOTE:**  
Each extension bolts to the outer most toolbar members on the Liquid Applicator, with hardware provided. (Typ. RH and LH sides)

This option is applicable **ONLY** for the "Double-Fold" side dresser (5301523).

Item No.	Part Number	Qty	Description
1	5006093	8	3/4"-10 Hex Nut
2	5016116	8	Lockwasher, 3/4"
3	5034510	8	H.H.C.S., 3/4"-10 x 2 1/2"
4	5275397	2	Extension Weldment (15")

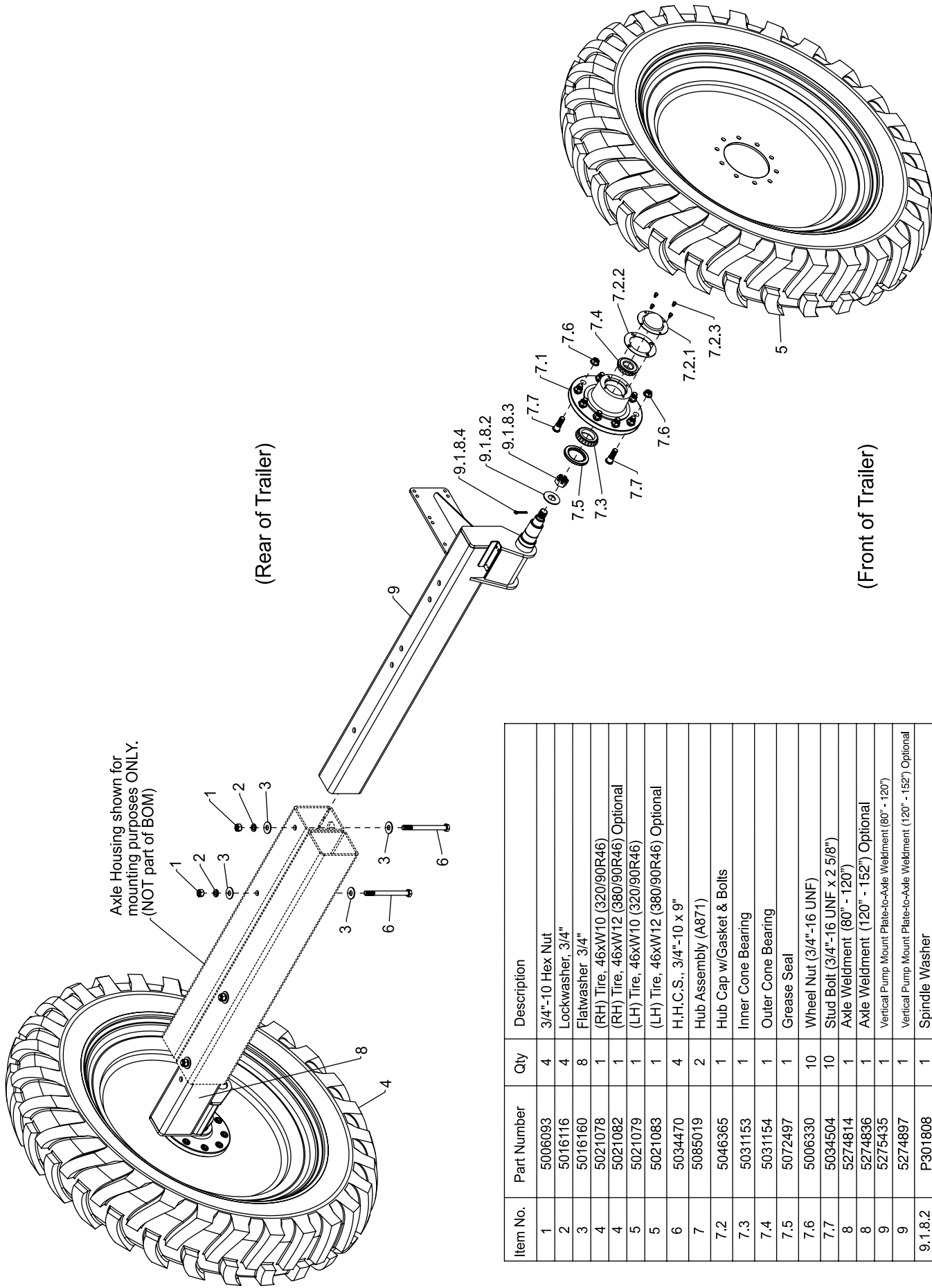
5301537  
30" Toolbar Extension Option



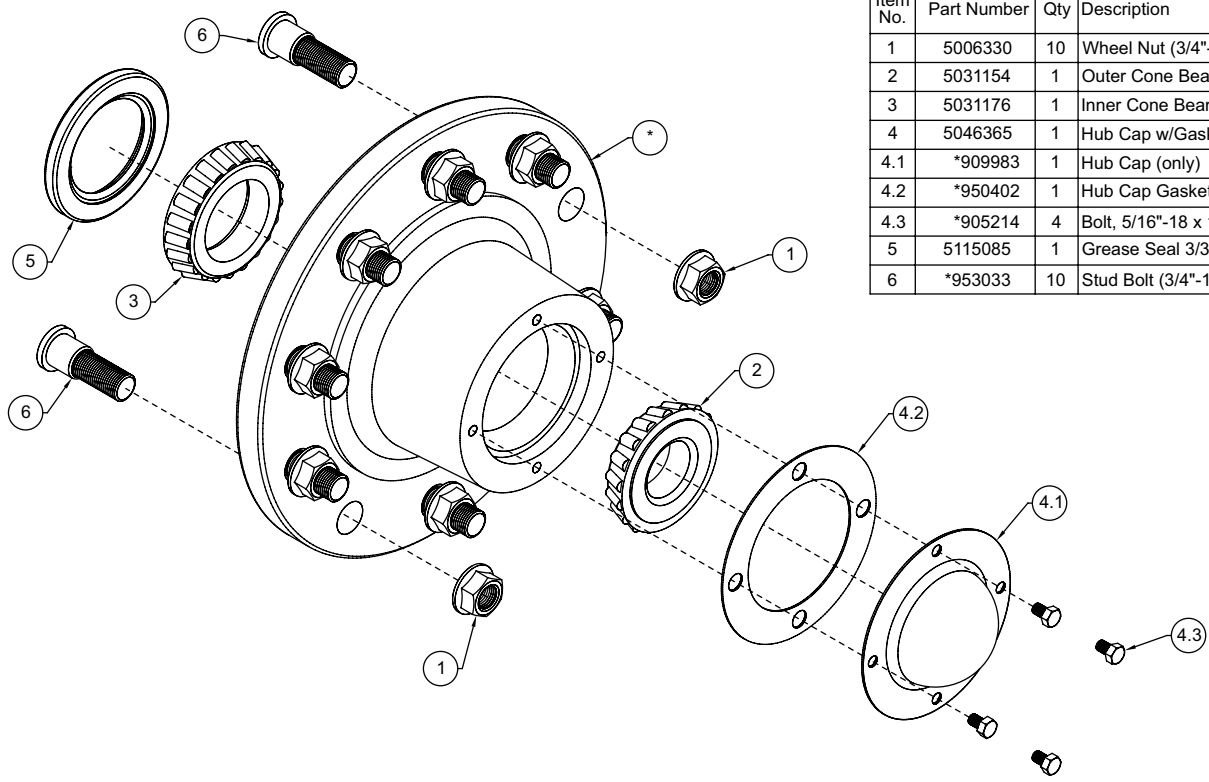
**NOTE:**  
Each extension bolts to the outer most toolbar members on the Liquid Applicator, with hardware provided. (Typ. RH and LH sides)

This option is applicable **ONLY** for the "Double-Fold" side dresser (5301523).

Item No.	Part Number	Qty	Description
1	5006093	8	3/4"-10 Hex Nut
2	5016116	8	Lockwasher, 3/4"
3	5034510	8	H.H.C.S., 3/4"-10 x 2 1/2"
4	5275396	2	Extension Weldment (30")

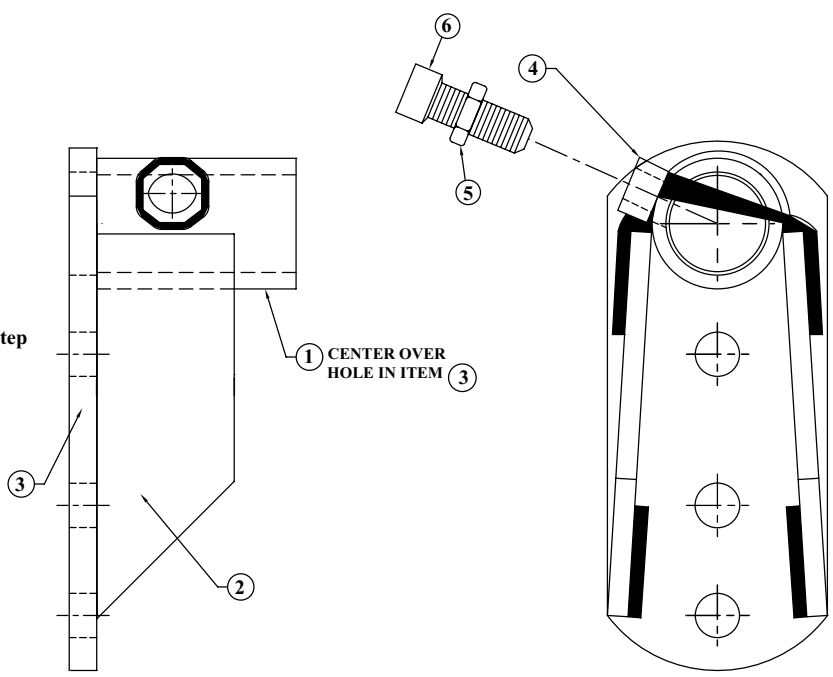


Item No.	Part Number	Qty	Description
1	5006093	4	3/4"-10 Hex Nut
2	5016116	4	Lockwasher, 3/4"
3	5016160	8	Flatwasher 3/4"
4	5021078	1	(RH) Tire, 46xW10 (320/90R46)
4	5021082	1	(RH) Tire, 46xW12 (380/90R46) Optional
5	5021079	1	(LH) Tire, 46xW10 (320/90R46)
5	5021083	1	(LH) Tire, 46xW12 (380/90R46) Optional
6	5034470	4	H.H.C.S., 3/4"-10 x 9"
7	5085019	2	Hub Assembly (A871)
7.2	5046365	1	Hub Cap w/Gasket & Bolts
7.3	5031153	1	Inner Cone Bearing
7.4	5031154	1	Outer Cone Bearing
7.5	5072497	1	Grease Seal
7.6	5006330	10	Wheel Nut (3/4"-16 UNF)
7.7	5034504	10	Stud Bolt (3/4"-16 UNF x 2 5/8")
8	5274814	1	Axle Weldment (80° - 120°)
8	5274836	1	Axle Weldment (120° - 152°) Optional
9	5275435	1	Vertical Pump Mount Plate-to-Axle Weldment (80° - 120°)
9	5274897	1	Vertical Pump Mount Plate-to-Axle Weldment (120° - 152°) Optional
9.1.8.2	P301808	1	Spindle Washer
9.1.8.3	P251702	1	Spindle Nut
9.1.8.4	P401904	1	Spindle Cotter Pin



Item No.	Part Number	Qty	Description
1	5006330	10	Wheel Nut (3/4"-16 UNF)
2	5031154	1	Outer Cone Bearing
3	5031176	1	Inner Cone Bearing
4	5046365	1	Hub Cap w/Gasket & Bolts
4.1	*909983	1	Hub Cap (only)
4.2	*950402	1	Hub Cap Gasket
4.3	*905214	4	Bolt, 5/16"-18 x 1/2"
5	5115085	1	Grease Seal 3/3/8" Spindle
6	*953033	10	Stud Bolt (3/4"-16 UNF x 2 5/8")

Fixture Item ①  
over Item ③  
To Hold 90° With Step  
Pin

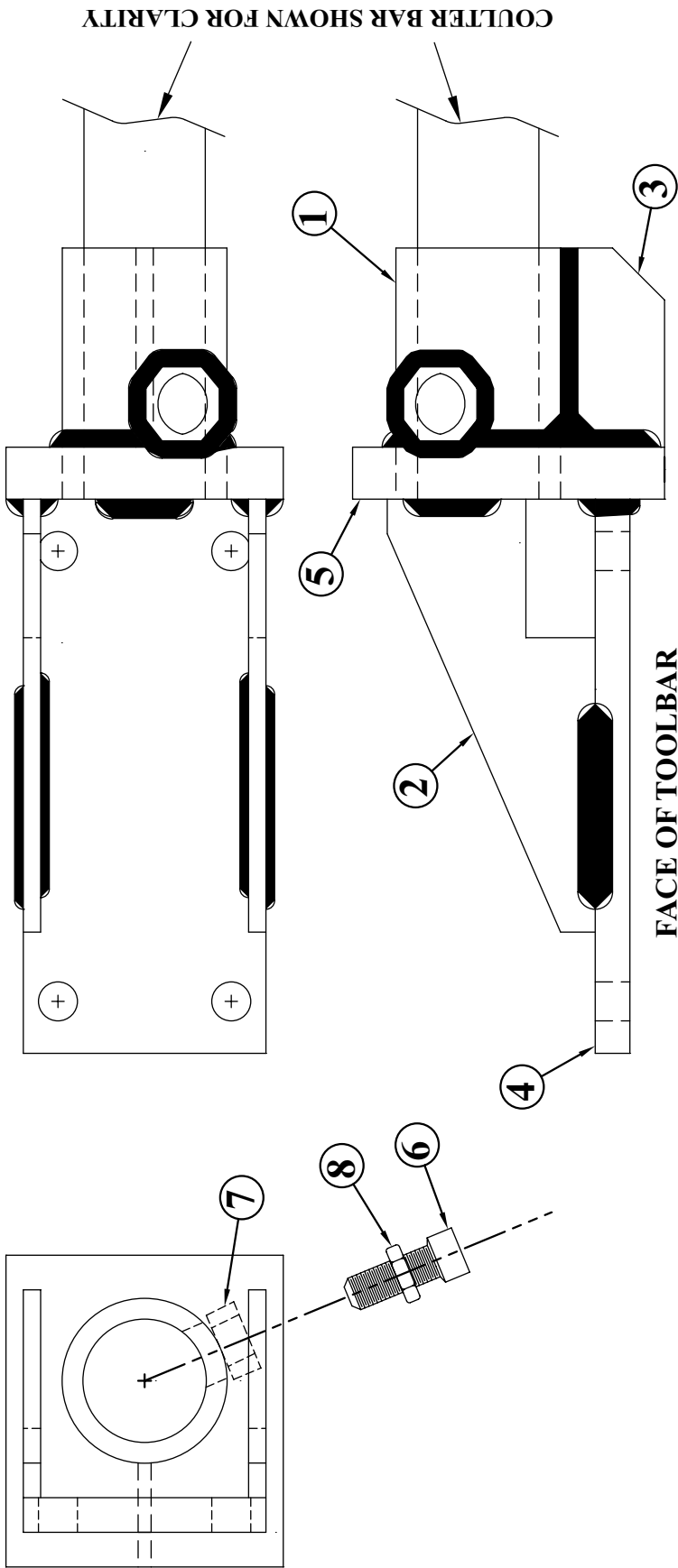


RIGHT SIDE VIEW

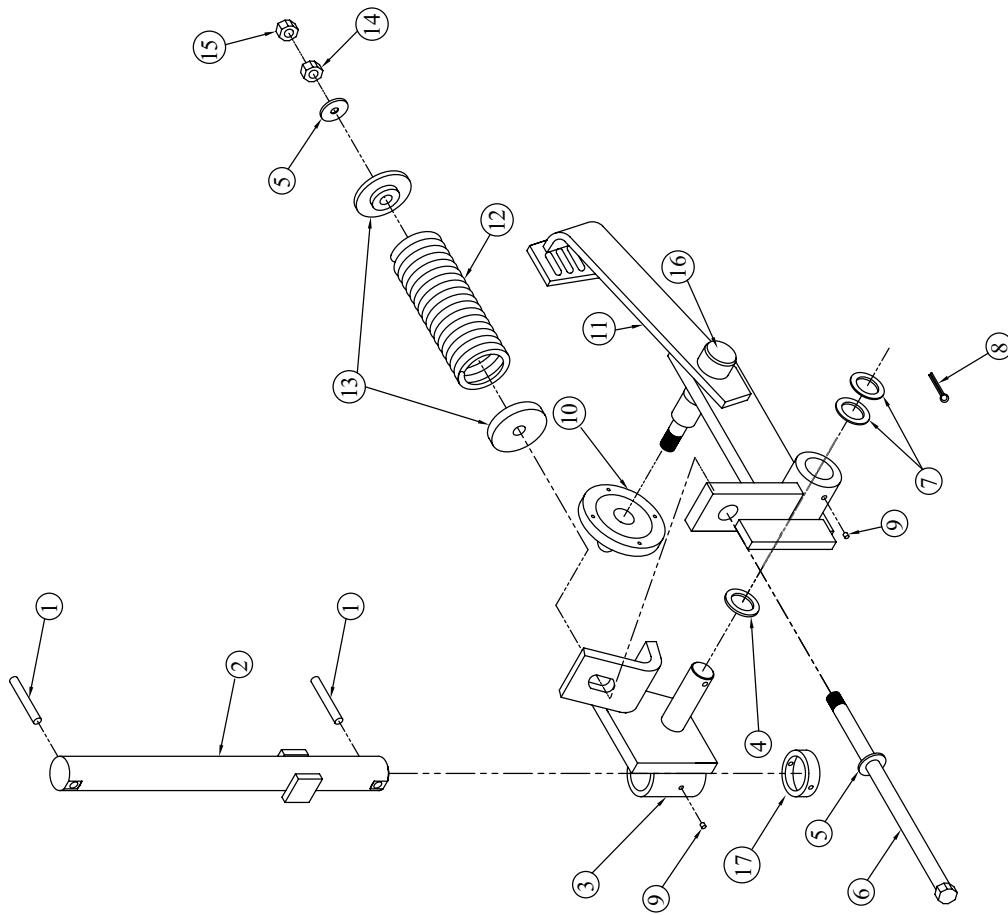
LOOKING UP FROM BOTTOM

ITEM #	QUAN.	PART #	DESCRIPTION
1	1	KSC- 466340-BMT	BAR MTG TUBE
2	2	KSC- 466340-G	GUSSET
3	1	KSC- 466340-M	MOUNTING PLATE
4	1	N6	3/4 - 10 HEX NUT
5	1	N6J	NUT, HEX JAM
6	1	106-B1	SET SCREW 3/4-10 X2 SQ HEAD CUP PT





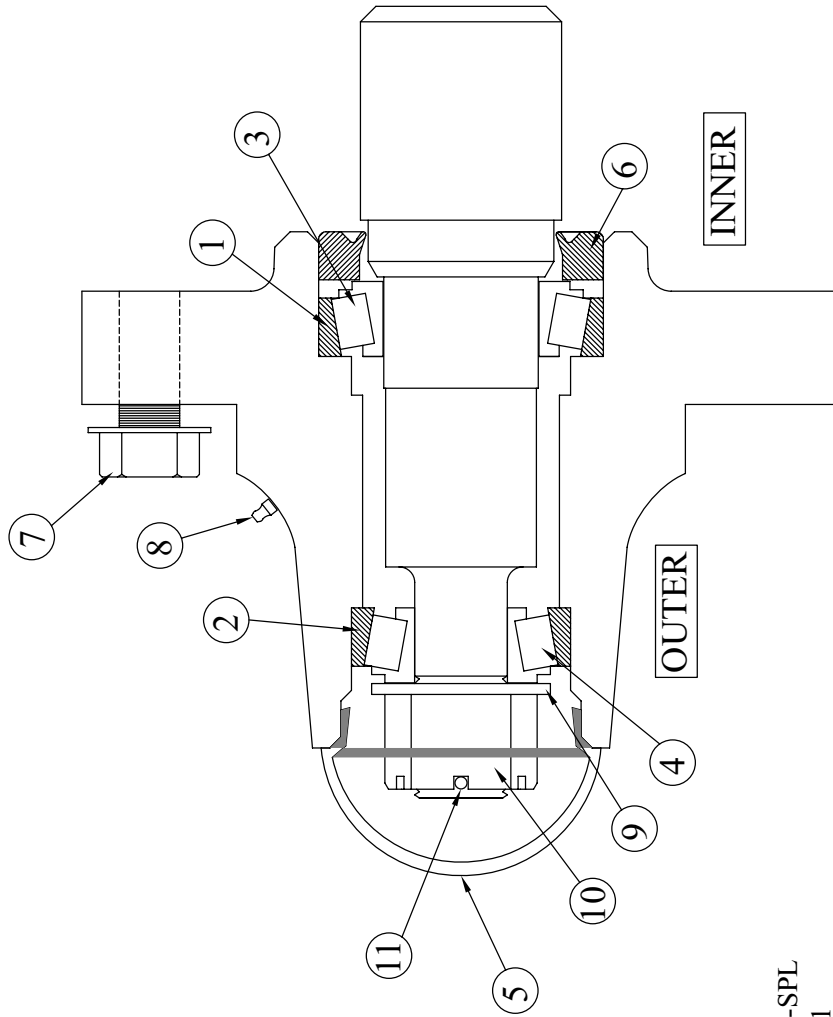
ITEM #	QUAN.	PART #	DESCRIPTION
1	1	KSC-466340-BMT	BAR MTG TUBE 2-3/8 x 3-5/8
2	2	KSC-466343-G	GUSSET 1/4 x 3 x 6-1/4 Tapered
3	1	KSC-466343-G1	GUSSET 3/16 x 1-1/2 x 2-7/8
4	1	KSC-466343-M	TOOLBAR MOUNTING PLATE 1/2 x 3-1/2 x 8
5	1	KSC-466343-M1	BAR MTG TUBE MOUNT PLATE 3/4 x 4 x 4-1/2
6	1	106-B1	SET SCREW 3/4-10 X2 SQ HEAD CUP PT
7	1	N6H	NUT, HEX, 3/4-10 Gr 2
8	1	N6J	JAM NUT



Item	Part #	DESCRIPTION	QTY
1	KSC-466360-RP716	Spring Pin, 7/16 X 3	2
2	KSC-466315 (20" & 24")	COULTER SHAFT	1
3	KSC-466320	COULTER PIVOT ASSEMBLY	1
4	KSC-466360-MB10	Machine Bushing, 10 ga	1
5	MF6H	Washer, Flat, 3/4" High Strength	2
6	106-N1	HHCS, 3/4" X 14" BOLT GR.5	1
7	KSC-466360-MB14	Machine Bushing, 14 ga	2
8	KSC-466360-CP	Cotter Pin, 1/4 X 2	1
9	KSC-466360-GF	Drive Zerck	2
10	KSC-466300-HUB	N633 Hub Assembly With Bearings	1
11	KSC-531020	COLTER ARM ASSEMBLY	1
12	SPR-1 (20" & 24")	MAIN SPRING	1
13	SI244SL-SPC	SPRING CAP WELDMENT	2
14	N6	NUT, HEX, 3/4" High Strength	1
15	N6J	NUT, HEX, JAM, 3/4" PLATED	1
16	KSC-466300-SPL	N633 Spindle W/ Hardware	1
17	KSC-466315-C	COLLAR	1
	20 PL COMBO (NOT SHOWN)	20" SMOOTH BLADE	
	20 FL COMBO (NOT SHOWN)	20" FLUTED BLADE	
	20 FLC COMBO (NOT SHOWN)	20" CRUCIBLE BLADE	
	20 NO COMBO (NOT SHOWN)	20" NOTCHED BLADE	

Item	Part #	Description	QTY
	KSC-466300-HUB	Comes Complete With Items 1-8	
1	KSC-LM67010	Inner Bearing Cup(large race)	1
2	KSC-LM11910	Outer Bearing Cup(small race)	1
3	KSC-LM67048	Inner Bearing Cone (large rollers/cage)	1
4	KSC-LM11949	Outer Bearing Cone (small rollers/cage)	1
5	KSC-909911	Hub Cap	1
6	KSC-906296	Seal	1
7	KSC-913572	Flange Head Bolts (each)	4
8	KSC-G1641-B	1/4-28 X 35/64 Grease Zerk	1

Item	Part #	Description	QTY
	KSC-466300-SPL	Comes Complete With Items 9-11	
9	KSC-913608	Spindle Washer	1
10	KSC-912953	Spindle Castle Nut	1
11	KSC-905936	Spindle Cotter Pin	1



Note: HUB P/N KSC-466300-HUB      Note: Spindle P/N KSC-466300-SPL  
 Comes Complete With Items 1-8      Comes Complete With Items 9-11

# LA9000

LIQUID APPLICATOR



Form 2000 01/22/13

## OPERATION & MAINTENANCE MANUAL

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