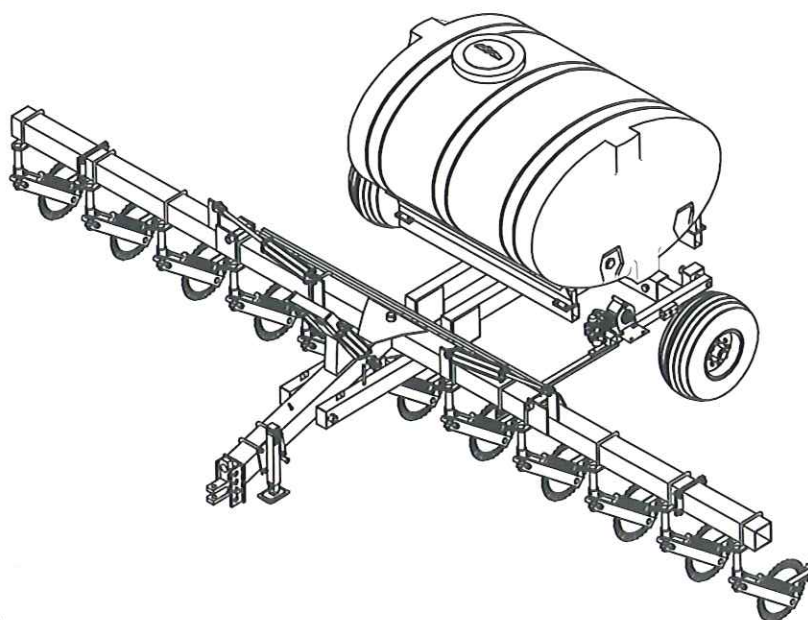




*PROGRESSIVE
FARM PRODUCTS, INC.*

OPERATOR'S MANUAL
2400 SERIES
SIDE DRESS APPLICATOR



2010

COME VISIT US ON THE WEB AT: www.progressivefarm.com

SETUP AND OPERATION

When ordering parts, provide the complete serial and model number, as well as the desired part number and description.

For convenience and future reference, record the following information in the spaces provided below:

DATE PURCHASED: ____/____/____

DEALER NAME: _____

DEALER PHONE: _____

MODEL NUMBER: _____

SERIAL NUMBER: _____

NOTE: Throughout this manual, references of “right” or “right side” and “left” or “left side” are always from a point behind the implement facing forward, in the direction of travel.

Introduction

The purpose of this manual is to assist in the assembly, operation, and maintenance of your 2400 Sidedress Applicator. The extra care given by the operator will compliment the efficient and economical use of this machine for years to come.

During the assembly process, it will be necessary to attach components together using pins and shaft of various sizes. Please take the extra time required to remove excess paint from the pins and shafts as well as the bushing bores they will be placed through. Anti-seize or an equivalent product should be applied to all non-greaseable joints and pins. The time and effort spent now will be well rewarded in time savings.

Follow the assembly sequence provided in the illustrations and part descriptions. Before you begin assembly, read this manual and become acquainted with the various components of this implement. Thank You.

SAFETY FIRST!

FOLLOW THESE RULES:

Comply with your state and local laws governing highway safety while moving machinery on the highway

The SMW reflector emblem should be used at all times on public roads, and always use the flashing warning lights on your tractor.

Drive at a reasonable speed to maintain complete control of your machine at all times. Do not exceed 20 MPH (32.2 km/h) while transporting. Avoid heavily traveled roads whenever possible.

Hydraulic fluid escaping under pressure can have enough force to penetrate your skin. If you are injured by escaping fluid, see a doctor at once. Serious infection or reaction can result if medical treatment is not given immediately. Make sure all connections are tight and that hoses and lines are in good condition before applying pressure to the system. Relieve all pressure before disconnecting any lines or performing other work on the hydraulic system. To find a leak under pressure, use a small piece of cardboard or wood, **NEVER** use your hands.

At least once a year, inspect all hydraulic hoses for leaks, cracks, abrasions, and pinched areas. Tighten fittings or replace hoses as needed.

Always be sure the hydraulic lines and cylinders are free of air and do not leak. After connecting any new parts, replacing old parts, or servicing the hydraulic components, carefully cycle the hydraulic cylinder several times to purge trapped air from the system. Check all the connections for any leakage.

Always block up raised equipment when servicing it. **NEVER** rely on the hydraulic system to support the implement during servicing.

SAFETY FIRST

FOLLOW THESE RULES:

Keep all safety equipment, such as hitch pins, chains, SMV emblems, lights, reflectors, etc. in good repair. Please note all safety decals and keep them on place. New decals are available from your dealer.

Misuse, abuse, neglect, or modification of this machine can cause:

- Mechanical breakdown
- Property damage
- Personal injury or death

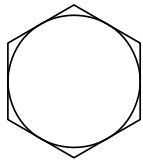
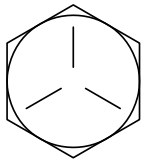
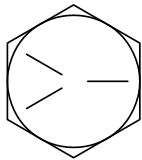
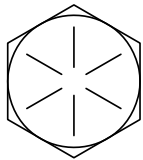
Always use proper safety precautions and common sense. Set a good example and show your workers how to work safely. Be an example, not a statistic.

RECOMMENDED TIRE PRESSURES

Tire Size & Ply	Pressure
13.6 x 38 - 12 ply	44 PSI
12.5L x 15 - 12 ply	50 PSI
12.5L x 15 - 8 ply	36 PSI
9.5L x 15 - 8 ply	35 PSI
16.5 x 16.1 - 10 ply	36 PSI
18.4 x 26 - 10 ply	26 PSI
14.9R x 46 - 8* radial	68 PSI
5.30 x 12 - 6 ply	55 PSI
16 x 6.50 x 8 - 4 ply	28 PSI
4.80 x 8 - 4 ply	41 PSI

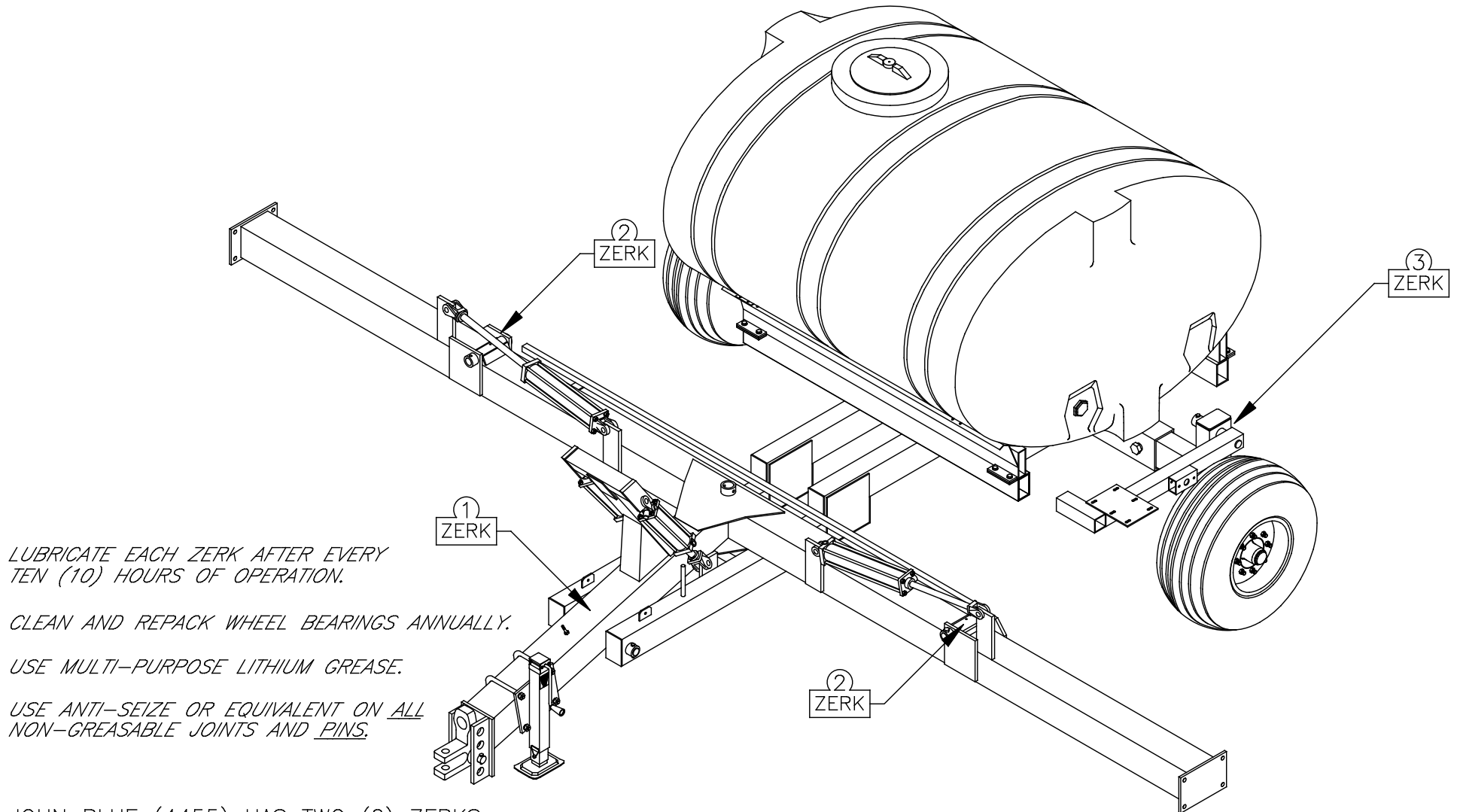
BOLT TORQUE

1. Improperly tightened bolts will result in damage, breakage, expense, and lost time
2. Always replace bolts with the specified grade and type
3. Torque all fasteners to the proper value during assembly, then check every two (2) hours of operation until they remain tight
4. Use the following torque chart as a guide to insure proper tightening of the fasteners.
5. Make a daily inspection of the implement checking for loose bolts as well as leaking hoses.

BOLT Ø - TPI	 GRADE 2	 GRADE 5	 A - 325	 GRADE 8
3/8 - 16	25	35		50
7/16 - 14	35	55		80
1/2 - 13	55	85		125
9/16 - 12	75	125		175
5/8 - 11	105	170		235
3/4 - 10	185	305		425
7/8 - 9	170	445		690
1 - 8	260	670		1030
1-1/8 - 7	365	900		1460
1-1/4 - 7	515	1275		2060
1-3/8 - 6	675	1675		2700
1-1/2 - 6	900	2150		3500

TORQUE VALUES ARE IN FT./LBS. AND ARE BASED ON PLATED OR GREASE COATED HARDWARE. INCREASE VALUES 5 - 10% FOR FINE THREADS. USE 65% OF THE LISTED VALUE FOR JAM NUTS.

LUBRICATION AND MAINTENANCE



- * JOHN BLUE (4455) HAS TWO (2) ZERKS
- ** EACH TWO BOLT BEARING HOLDER ON THE GROUND DRIVE ARM HAS ONE (1) ZERK
- *** EACH INJECTION COULTER UNIT HAS TWO (2) ZERKS (TENSION ROD WELDMENT & ARM MOUNT)

- 1: TONGUE/MAINFRAME PIVOT BUSHING, TWO (2)
- 2: WING FOLD BUSHING
- 3: GROUND DRIVE ARM PIVOT BUSHING

PROGRESSIVE FARM PRODUCTS

19500N. 1425E Rd HUDSON IL. 61748

NOZZLES FOR USE WITH LIQUID INJECTOR KIT

(Order 1 per row)

SPRAY NOZZLES Progressive Part # Tip #	PSI	Capacity One Nozzle in GPM	Gal. per acre - 30" Centers		
			4 MPH	6 MPH	8 MPH
701006 TP0004-SS	10	0.20	9.9	6.6	5
	20	0.28	13.9	9.2	6.9
	30	0.35	17.3	11.6	8.7
	40	0.40	19.8	13.2	9.9
701007 TP0006-SS	10	0.30	14.9	9.9	7.4
	20	0.42	21	13.9	10.4
	30	0.52	26	17.2	12.9
	40	0.60	30	19.8	14.9
701005 TP0008-SS	10	0.40	19.8	13.2	9.9
	20	0.57	28	18.8	14.1
	30	0.69	34	23	17.1
	40	0.80	40	26	19.8
701000 TP0010-SS	10	0.50	25	16.5	12.4
	20	0.71	35	23	17.6
	30	0.87	43	29	22
	40	1.00	50	33	25
701001 TP0015-SS	10	0.75	37	25	19
	20	1.06	52	35	26
	30	1.30	64	43	32
	40	1.50	74	50	37
701002 TP0020-SS	10	1.00	50	33	25
	20	1.41	70	47	35
	30	1.73	86	57	43
	40	2.00	99	66	50
701003 TP0030-SS	10	1.50	74	50	37
	20	2.12	105	70	52
	30	2.60	129	86	64
	40	3.00	149	99	74
701004 TP0040-SS	10	2.00	99	66	50
	20	2.83	140	93	70
	30	3.46	171	114	86
	40	4.00	198	132	99

ORIFICE PLATES FOR USE WITH LIQUID KNIFE KIT

(Order 1 per row)

To determine the orifice plate needed, use the following equations:

$$\text{GPM (Per Nozzle)} = \frac{\text{GPA} \times \text{MPH} \times \text{W (Row Spacing)}}{5940}$$

$$\text{GPA} = \frac{5,940 \times \text{GPM (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

ORIFICE PLATES				ORIFICE PLATES			
Gallons per minute (GPM)		Gallons per minute (GPM)		Gallons per minute (GPM)		Gallons per minute (GPM)	
Progressive Part #	20 PSI	30 PSI	40 PSI	Progressive Part #	20 PSI	30 PSI	40 PSI
701015 CP4916-65	0.369	0.452	0.522	701019 CP4916-125	1.390	1.700	1.960
701016 CP4916-72	0.453	0.544	0.640	701013 CP4916-128	1.440	1.770	2.040
701009 CP4916-78	0.544	0.667	0.770	701017 CP4916-151	2.080	2.550	2.940
701010 CP4916-86	0.664	0.813	0.939	701014 CP4916-156	2.200	2.690	3.110
701012 CP4916-95	0.808	0.990	1.140	701018 CP4916-162	2.950	3.610	4.170
701011 CP4916-107	1.040	1.270	1.470				

PROGRESSIVE FARM PRODUCTS **APPLICATION RATE: GALLONS PER ACRE**

PUMP SPROCKET (18 TEETH) WHEEL SPROCKET (36 TEETH) LOADED RADIUS: 7.5" TIRE: 4.80 X 8

JOHN BLUE NGP-7055 (SINGLE PISTON) PUMP

PUMP SETTING	SWATH WIDTH (INCHES)										
	180	200	220	240	260	280	300	320	340	360	480
1.0	11	10	9	8	8	7	7	6	6	6	N/A
1.5	17	15	14	13	12	11	10	9	9	8	N/A
2.0	22	20	18	17	15	14	13	13	12	11	N/A
2.5	28	25	23	21	19	18	17	16	15	14	10
3.0	33	30	27	25	23	21	20	19	18	17	13
3.5	39	36	32	30	27	25	24	22	21	20	15
4.0	45	41	37	34	31	29	27	25	24	23	17
4.5	51	46	41	38	35	33	30	28	27	25	19
5.0	56	51	46	42	39	36	34	32	30	28	21
5.5	62	56	50	46	43	40	37	35	33	31	23
6.0	67	61	55	50	47	43	40	38	36	34	25
6.5	73	66	60	55	51	47	44	41	39	37	28
7.0	78	71	64	59	54	50	47	44	41	39	30
7.5	84	76	69	63	58	54	50	47	44	42	32
8.0	89	81	73	67	62	58	54	50	47	45	35
8.5	95	86	78	71	66	61	57	53	50	48	37
9.0	101	91	83	76	70	65	61	58	54	51	39
9.5	107	96	87	80	74	69	64	60	58	53	41
10.0	112	101	92	84	78	72	67	63	59	56	43

JOHN BLUE NGP-9055 (DOUBLE PISTON) PUMP

PUMP SETTING	SWATH WIDTH (INCHES)										
	180	200	220	240	260	280	300	320	340	360	480
1.0	22	20	18	17	15	14	13	13	12	11	N/A
1.5	33	30	27	25	23	21	20	19	18	17	N/A
2.0	44	40	36	33	31	29	27	25	24	22	N/A
2.5	56	50	45	42	38	36	33	31	29	28	20
3.0	67	60	55	50	46	43	40	38	36	33	25
3.5	79	71	65	59	55	51	47	44	42	39	30
4.0	90	81	74	68	62	58	54	51	48	45	35
4.5	101	91	83	76	70	65	61	57	54	51	39
5.0	112	101	92	84	78	72	67	63	59	56	43
5.5	123	111	101	93	85	79	74	69	65	62	47
6.0	134	121	110	101	93	86	81	76	71	67	51
6.5	147	132	120	110	102	94	88	83	78	73	54
7.0	157	141	128	118	108	101	94	88	83	78	60
7.5	168	151	137	126	116	108	101	94	89	84	63
8.0	179	161	146	134	124	115	107	101	95	89	69
8.5	190	171	155	143	132	122	114	107	101	95	72
9.0	202	182	165	152	140	130	121	114	107	101	78
9.5	213	192	175	160	148	137	128	120	113	107	82
10.0	224	202	184	168	155	144	135	126	119	112	86

Assembly Instructions

2400 Sidedress Applicator

Be sure to remove excess paint from pins and bushing bores. Apply a thin coat of grease to pins before installing them. Use anti-seize or equivalent on all non-greasable joints and pins. Never directly strike a pin with a hammer – always use a block to absorb the shock if a pin does not easily fit. Striking a pin directly will cause the end of the pin to spread.

Be sure to lubricate all grease zerks. Refer to lubrication drawing for all zerk locations.

Chassis and Mainframe/Hitch Assembly

1. Use hardware from bag #102008.
2. Lay the chassis on the ground, centering the mainframe on top of it.
3. Line up the hitch and chassis so that the hinge pin can be installed. It may be necessary to raise the chassis in the air slightly to attain proper alignment.
4. Install the hinge pin using the attached hardware. **Do not install the implement jack at this point, as it could result in damage to the jack. The jack will not be installed until the wings and all hydraulics is assembled on the bar.** Let the hitch rest on the ground.

Stub Axle, Pump Arm and Wheel Assembly

1. Use hardware from bag #102088 (16.5 x 16.1 Wheel Option), #102089 (18.4 x 26 Wheel Option) or #102090 (13.6 x 38 Wheel Option).
2. From the rear of the chassis, raise it in the air enough to install the stub axles. Allow the hitch to rest on the ground.
3. Install the stub axles. Note that the left stub axle has a tube on the top of it for the pump arm. **Do not install the wheels at this point!**
4. Locate the pump arm and install it on the left stub axle. This must be done before the tire is installed to avoid clearance problems.
5. Raise the chassis higher in the air and install the tire/wheel assemblies.
6. Lower the chassis. It should now rest on the tires. Allow the hitch to rest on the ground.

Pump and Engagement Arm Installation

1. Hardware for mounting the pump arm and engagement arm is located in the Wheel Option hardware bags 102088, 102089, or 102090. Hardware for the pump is located in bag #102230 (for 16.5 x 16.1 tires and John Blue LM 4455 Pump) #102231 (John Blue LM 4455 Pump) or #102232 (John Blue LM 4955 Pump). 102231 & 102232 is for use with 18.4 x 26 and 13.6 x 38 wheel option.
2. Locate the engagement arm and install it as shown after the coulter assemblies are mounted to avoid clearance problems.

3. Locate the pump and ground drive package. Assemble the ground drive package and pump as shown in the ground drive pump assembly drawing.

Attaching the Tank Saddle and Tank

1. Use hardware from hardware bag #102233 (750 Gallon Tank) or #102234 (1000 Gallon Tank) for attaching the tank saddle to the frame and tank to the saddle. The 2" Quick-fill hardware is in bag #102235.
2. Place the tank saddle on the chassis. Be sure to place the sump hole on the right side of the chassis.
3. Locate the quick-fill bracket (Bag #102235). Place it beneath the right rear saddle tab and attach the saddle as shown.
4. Attach light brackets as shown to the tank saddle/mainframe.
5. Place the tank in the saddle so that the sump is centered in the hole in the saddle. Use the tank straps provided to secure the tank to the saddle.

Attaching the Wings

1. Lift one of the wings into the air, making sure to find a good balance point.
2. Using the hardware included on the wing, attach the wing to the mainframe as shown.
3. Remove the lift and repeat for the opposite wing.

9 to 11 or 13 Coulter Conversion

1. Raise one of the stub wings into the air, lining it up with the plate on the end of the inner wing.
2. Using the hardware provided (bag #102008), bolt the stub wing onto the inner wing.
3. Repeat for the opposite side.

Lift Cylinder Installation

1. Locate the 3" x 8" cylinders. Using the hardware shown, attach the cylinders to the lift tower and chassis as shown.
2. **Note:** Be sure to attach the butt end of the cylinder to the mainframe.

Wingfold Cylinder Installation

1. Locate the 4" x 16" cylinders. Using the hardware shown, attach the cylinders to the mainframe leaving the clevis end (rod end) unattached.
2. **Note:** Be sure to attach the butt end of the cylinder to the mainframe.

Hydraulic Hose Installation

1. Use hardware from bag #213010 and hoses from hose package #212010.
2. Referring to the hydraulic schematic drawings lay out the hoses in their approximate location.

3. Use the fittings shown in the schematic to attach the hoses to their respective cylinders.
4. Locate the hose holddowns, nuts, and washers from bag #213010 and attach to the bolts welded to the frame. Run the hoses as shown through each holddown. Do not tighten down holddowns at this point.
5. Hook up the bar to a hydraulic unit and charge all cylinders with oil to purge the air from the cylinders/hoses. Run the cylinders through at least three full cycles to ensure that all air is purged from the cylinders/hoses. Tighten down the hose holddowns at this point.
6. Attach the clevis end of the wing fold cylinders to the wings as shown.
7. Extend the lift cylinders and install the transport locks. Raise the hitch in the air and install the implement jack (use hardware in bag #102008). Lower the hitch. The bar should now rest on the implement jack.

Swivel Coulter Assembly/Installation

1. Use the hardware from bag #102044 (if using knife kit) or #102044B (if using liquid injection) for mounting the coulter assemblies with mounts and bag #102045 for the center coulter assembly.
2. Referring to the exploded view drawing of the swivel coulter in the back of the book, assemble the swivel coulters (leaving the coulter blade off to simply the attachment to the bar).
3. Be sure to leave 1-1/2" of thread visible at the top of the T-rod and 1/2" of thread at the bottom to achieve proper tension of the compression spring (outside to outside of spring castings is approximately 9-3/4").
4. Following the exploded view, install the center swivel coulter as shown.
5. Starting from the center of the center coulter swivel coulter pin, measure out and mark in 30", 36", or 38" (depending on row spacing) intervals in the bar.
6. At each mark, install a swivel coulter assembly, making sure that the u-bolt is centered on the mark.
7. After all coulter assemblies are installed, the coulter blades may be attached using the hardware shown.

Quick-Fill Plumbing

1. Referring to the quick-fill plumbing schematic, attach all fittings and hoses as shown. Hardware is in bag #102235.
2. Remove the bottom nuts and washers from the ball valve and attach the mounting bracket using these bolts.
3. Attach the mounting bracket to the quick-fill bracket on the right rear of the tank saddle.

Pump Assembly and Plumbing

1. Locate the ground drive pump and remove the upper plug and the lower drain plug. Replace the upper plug with the vented plug (located in pump box) as shown. Replace the lower drain plug with the "Allen Head" drain plug (located in pump box) as shown.

2. Install the pump on the ground drive. The mounting hardware is in bag #102330 (16.5 x 16.1 tires and LM4455 pump), #102331 (LM4455 pump) or #102232 (LM4955 pump).
3. Install the ground drive wheel assembly and chain as shown in the schematic. This hardware is in bag #102241 (16.5 x 16.1 wheel option) or #102242 (18.4 x 26 / 13.6 x 38 wheel option).
4. Attach all plumbing components as shown in the pump plumbing schematic.

Nozzle Assembly/Manifold Plumbing

1. For the manifolds, use hardware from bag #102236 (7 coulters), #102237 (9 coulters), #102238 (11 coulters), or #102240 (13 coulters).
2. For the nozzles, the hardware is in the coulters mount bags #102044 (mounted coulters) and #102045 (center coulters).
3. Referring to the nozzle assembly drawing, assemble all nozzles as shown. Be sure to place the hose barb inside of the slotted o-ring as shown.
4. Attach nozzles to the sub-booms as shown in the plumbing drawings. Each nozzle should fall directly behind the u-bolt for the coulters assembly except for the far outer nozzle on the outer wings.
5. Install the 3/4" EPDM hose using the 3/4" hose clamps as shown in the plumbing drawings. Be sure to install the gate valve in the proper direction between the inner and out wings. **Note: Do not cut the 3/4" EPDM hose before the nozzle assemblies have been mounted to the manifold bar! Hose lengths shown are approximate.**

Light Kit Assembly

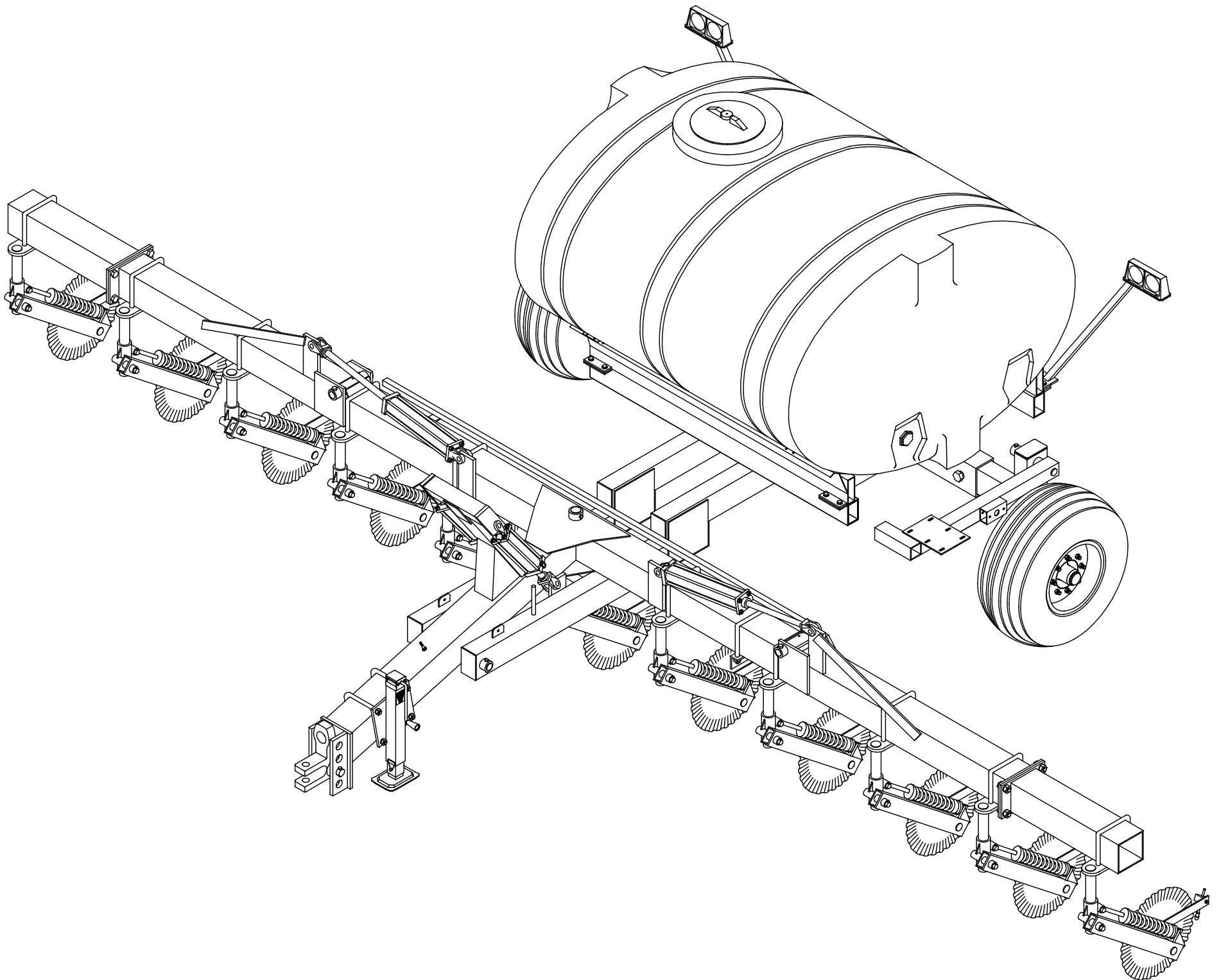
1. Use the hardware from bag #102046 to install the light kit to the bar.
2. Attach the lights to the light brackets. Be sure that both the red and yellow lights are visible from behind the implement.
3. Route the wires along the mainframe and down the hitch. Bundle the hydraulic hoses and light wires together using zip strips (not provided).

Decal Installation

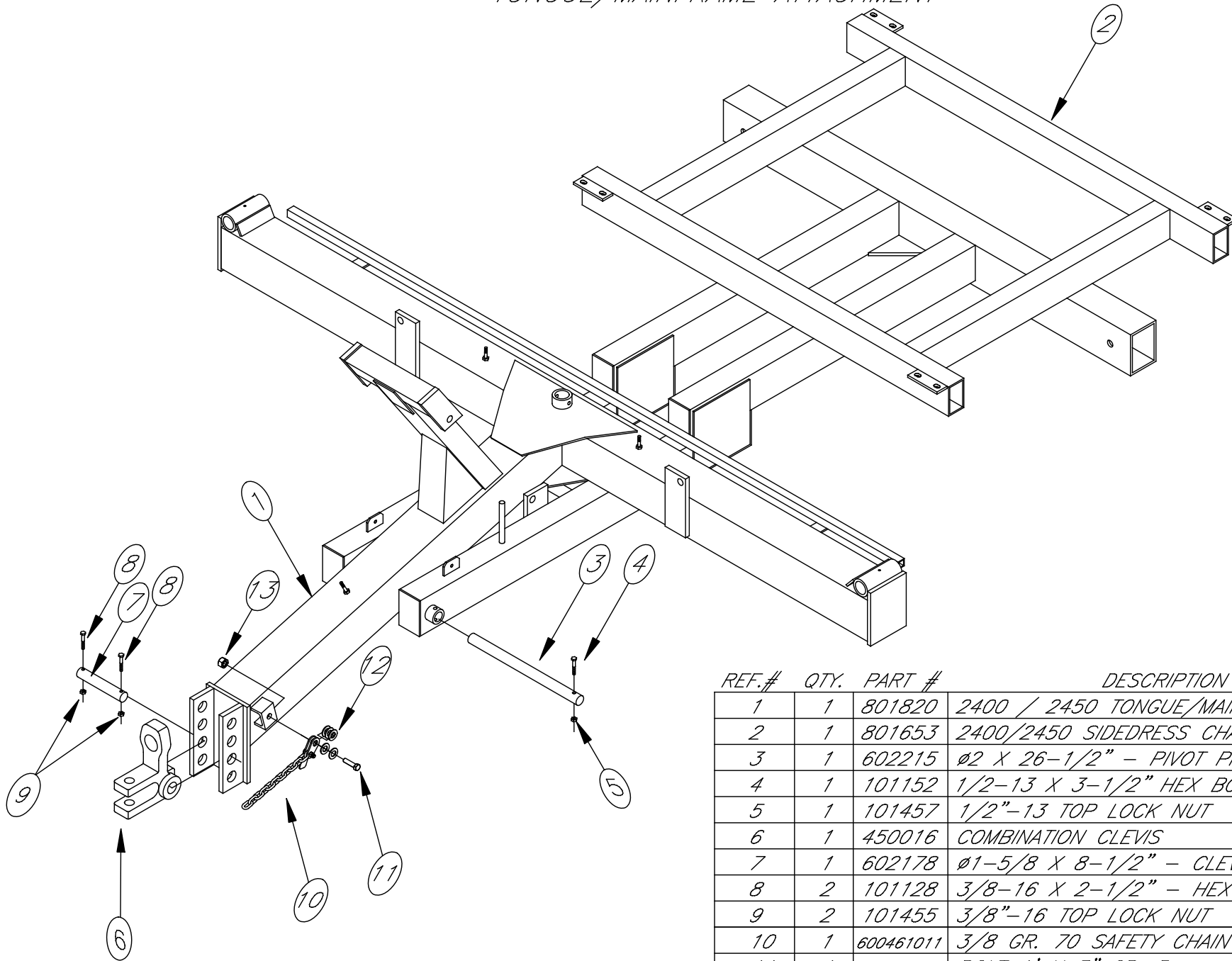
1. Referring to the safety decal drawing, attach the safety decals in the proper locations. These decals are provided for your safety and should be replaced if lost or damaged. **Note: The decals must be attached to the unit!** Replacement decals may be ordered from your dealer.

Lubrication

1. Referring to the lubrication drawing at the beginning of the book, lubricate all grease zerks. Note location of zerks on the pump, ground drive arm, and each coulters unit.
2. Lubricate each zerk after every ten (10) hours of operation.
3. Clean and re-pack wheel bearings annually.
4. Use only multi-purpose lithium grease.
5. Use anti-seize or equivalent on all non-greasable joints or pins.



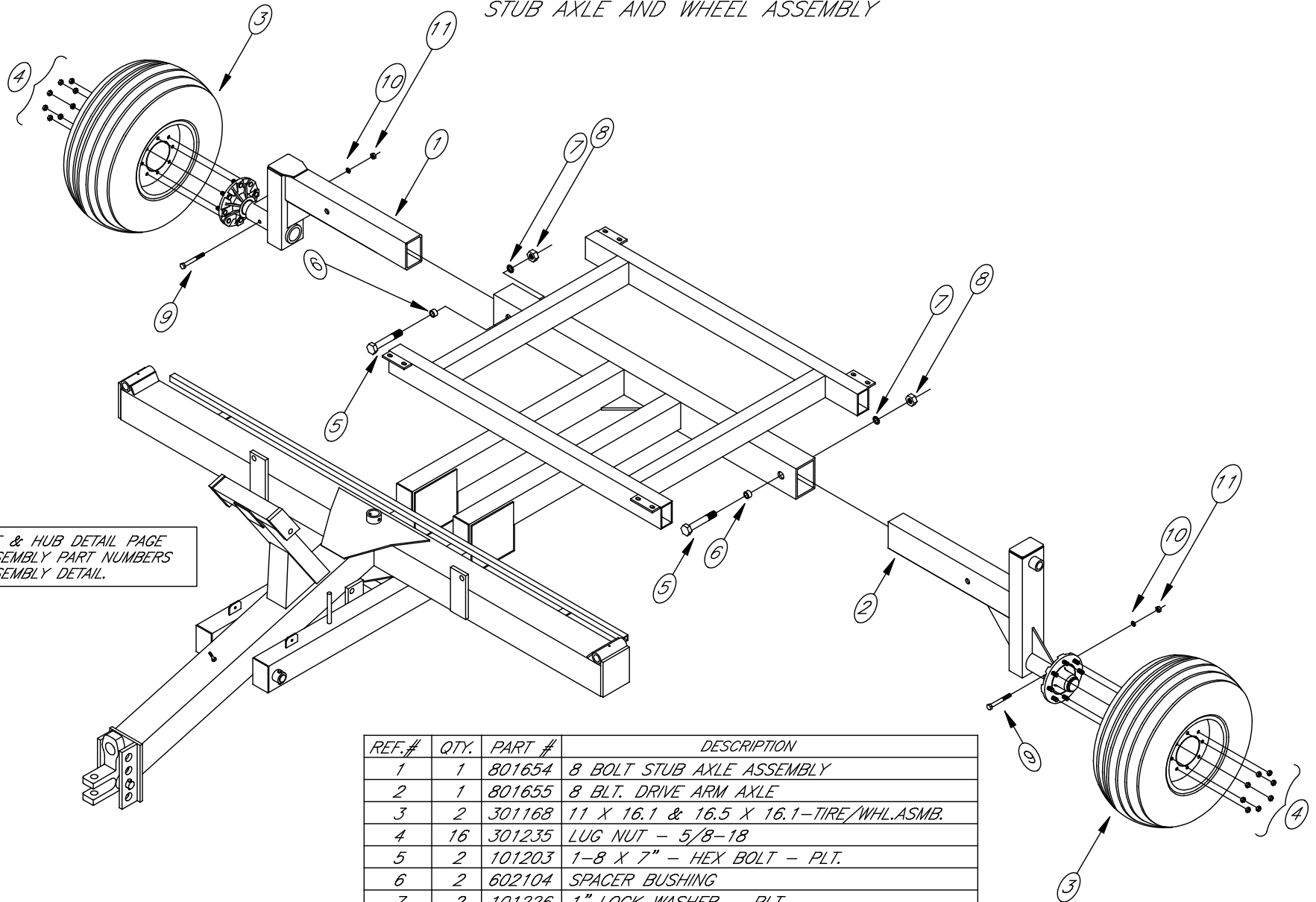
TONGUE/MAINFRAME ATTACHMENT



REF.#	QTY.	PART #	DESCRIPTION
1	1	801820	2400 / 2450 TONGUE/MAINFRAME
2	1	801653	2400/2450 SIDEDRESS CHASSIS
3	1	602215	Ø2 X 26-1/2" - PIVOT PIN
4	1	101152	1/2"-13 X 3-1/2" HEX BOLT - PLT.
5	1	101457	1/2"-13 TOP LOCK NUT
6	1	450016	COMBINATION CLEVIS
7	1	602178	Ø1-5/8 X 8-1/2" - CLEVIS PIN
8	2	101128	3/8-16 X 2-1/2" - HEX BOLT-PLT.
9	2	101455	3/8"-16 TOP LOCK NUT
10	1	600461011	3/8 GR. 70 SAFETY CHAIN
11	1	600356002	BOLT 1' X 3" GR. 5
12	5	600381018	FLATWASHER 1"
13	1	600366032	LOCKNUT 1"

REV: 05/01/13 AU

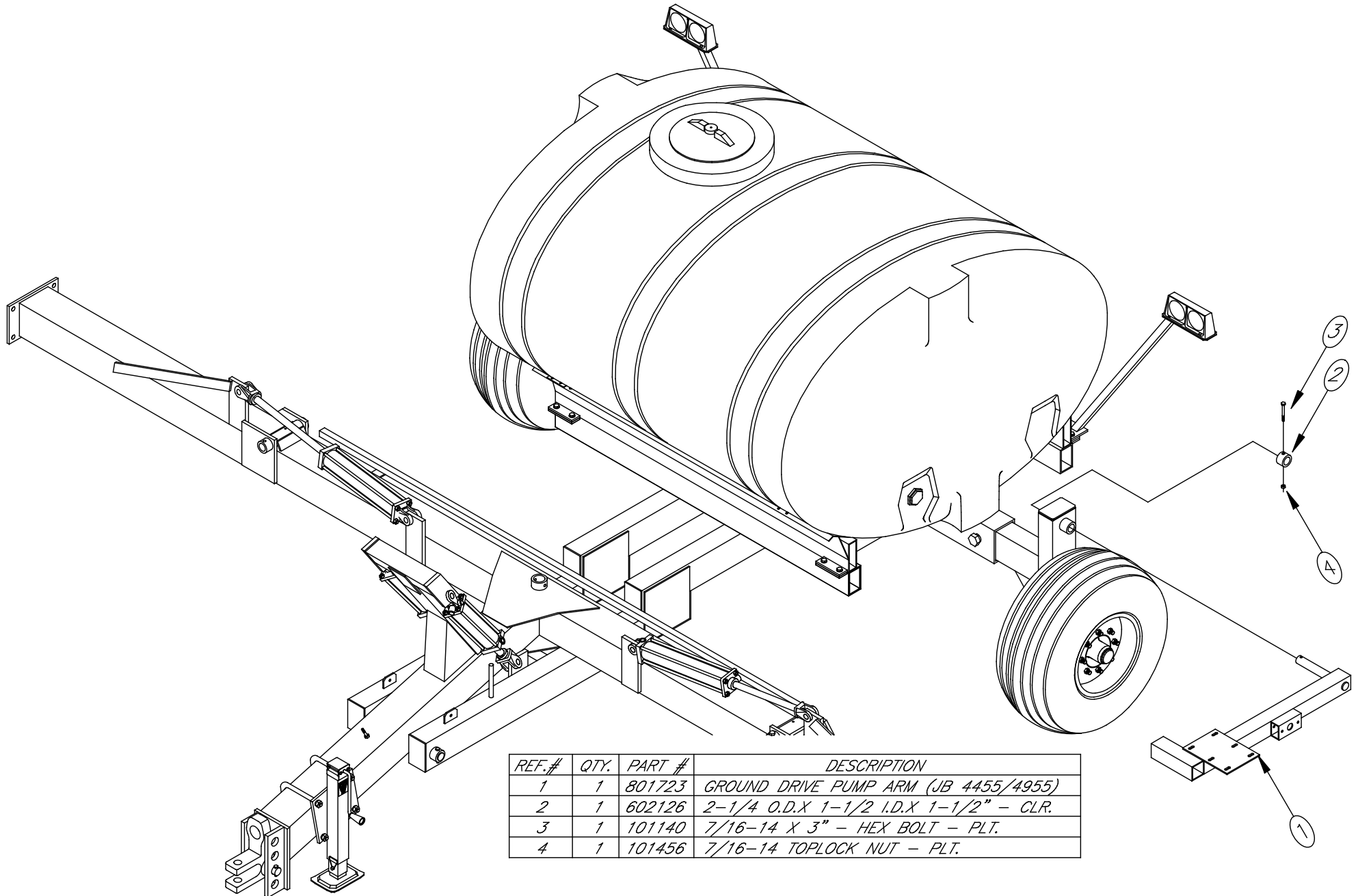
STUB AXLE AND WHEEL ASSEMBLY



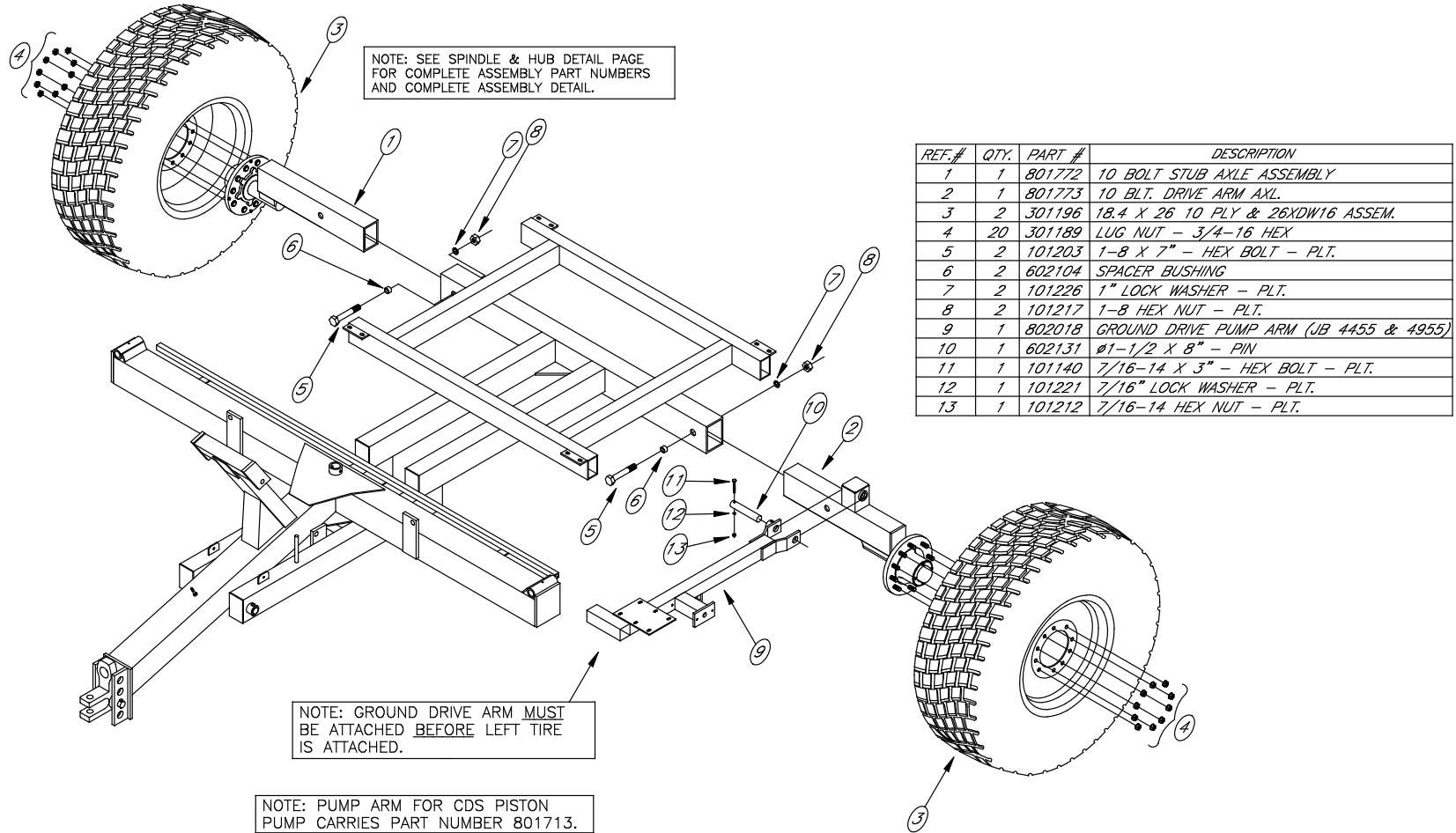
NOTE: SEE SPINDLE & HUB DETAIL PAGE
FOR COMPLETE ASSEMBLY PART NUMBERS
AND COMPLETE ASSEMBLY DETAIL.

REF.#	QTY.	PART #	DESCRIPTION
1	1	801654	8 BOLT STUB AXLE ASSEMBLY
2	1	801655	8 BLT. DRIVE ARM AXLE
3	2	301168	11 X 16.1 & 16.5 X 16.1-TIRE/WHL.ASMB.
4	16	301235	LUG NUT - 5/8-18
5	2	101203	1-8 X 7" - HEX BOLT - PLT.
6	2	602104	SPACER BUSHING
7	2	101226	1" LOCK WASHER - PLT.
8	2	101217	1-8 HEX NUT - PLT.
9	2	101166	5/8-11 X 5" - HEX BOLT - PLT.
10	2	101223	5/8" LOCK WASHER - PLT.
11	2	101214	5/8-11 HEX NUT - PLT.

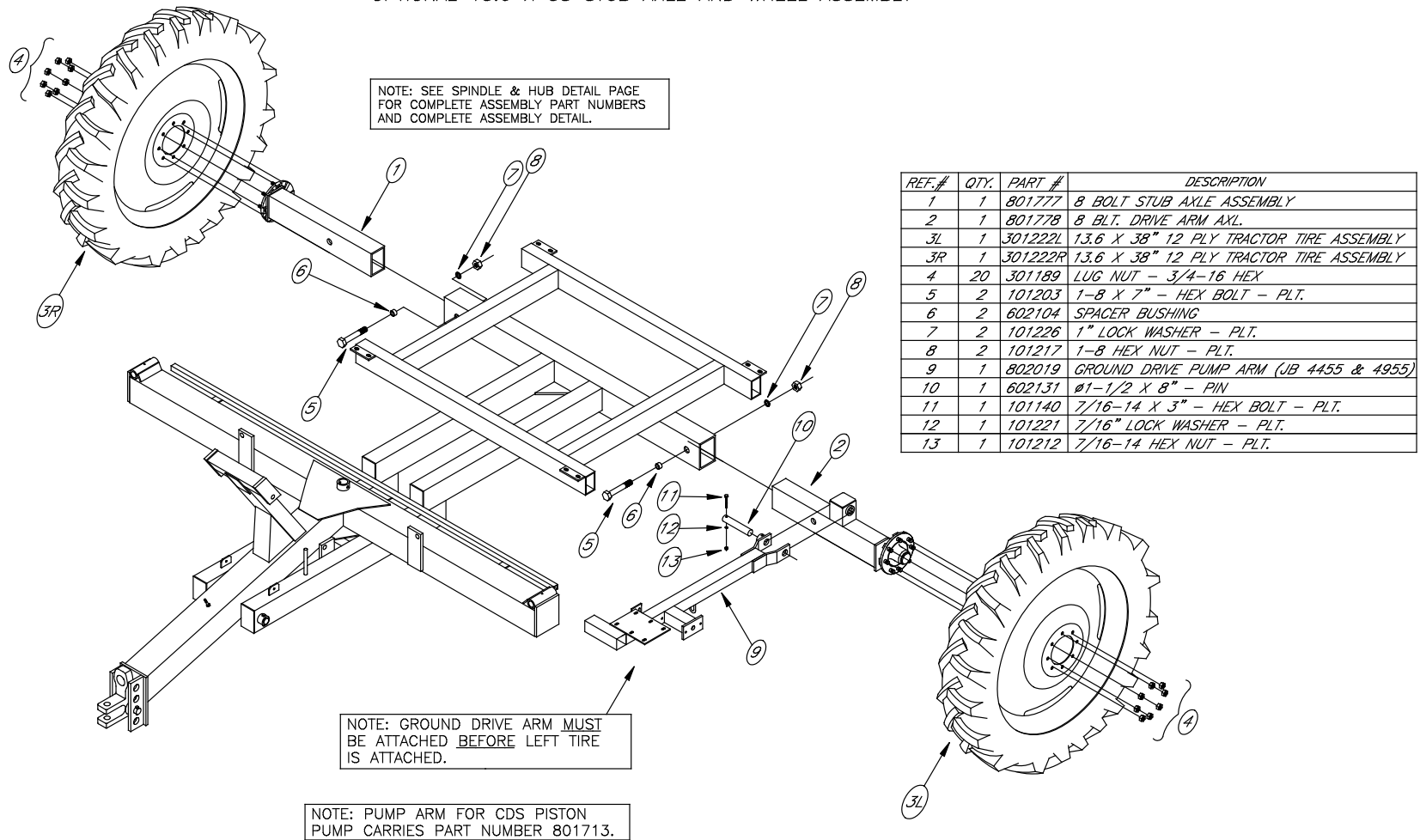
ATTACHING THE GROUND DRIVE ARM



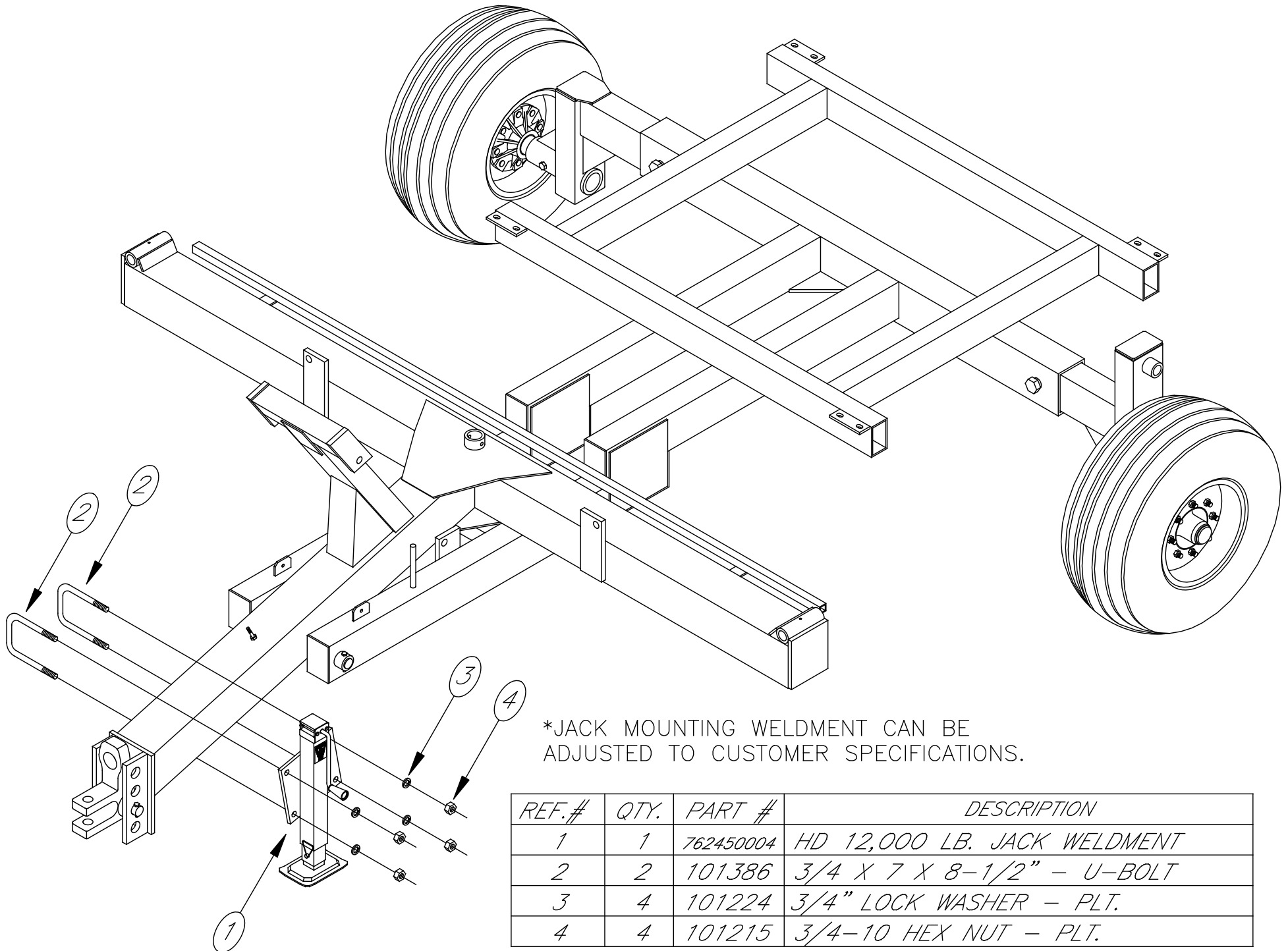
STUB AXLE AND WHEEL ASSEMBLY

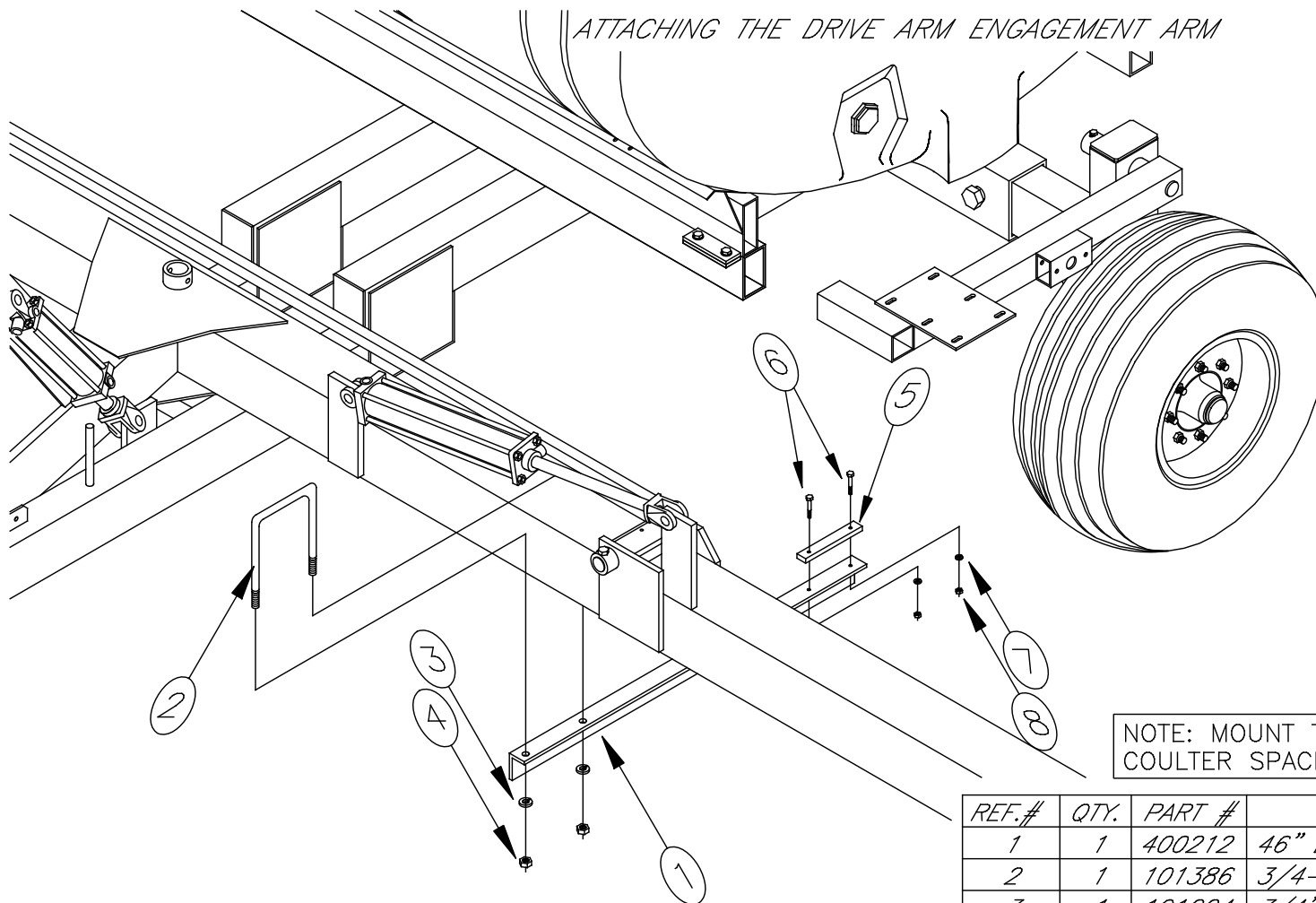


OPTIONAL 13.6 X 38 STUB AXLE AND WHEEL ASSEMBLY



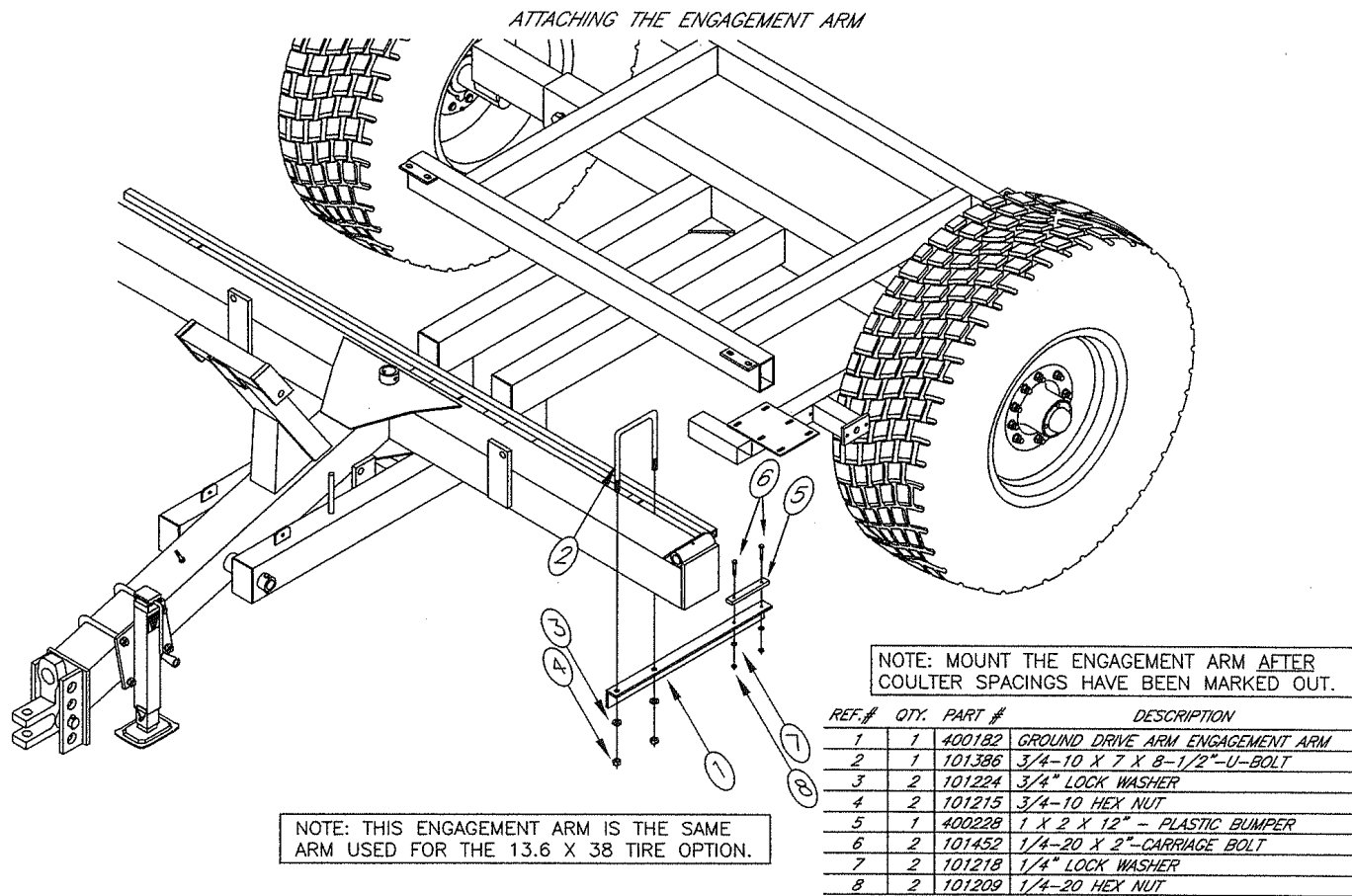
ATTACHING THE DROP LEG JACK



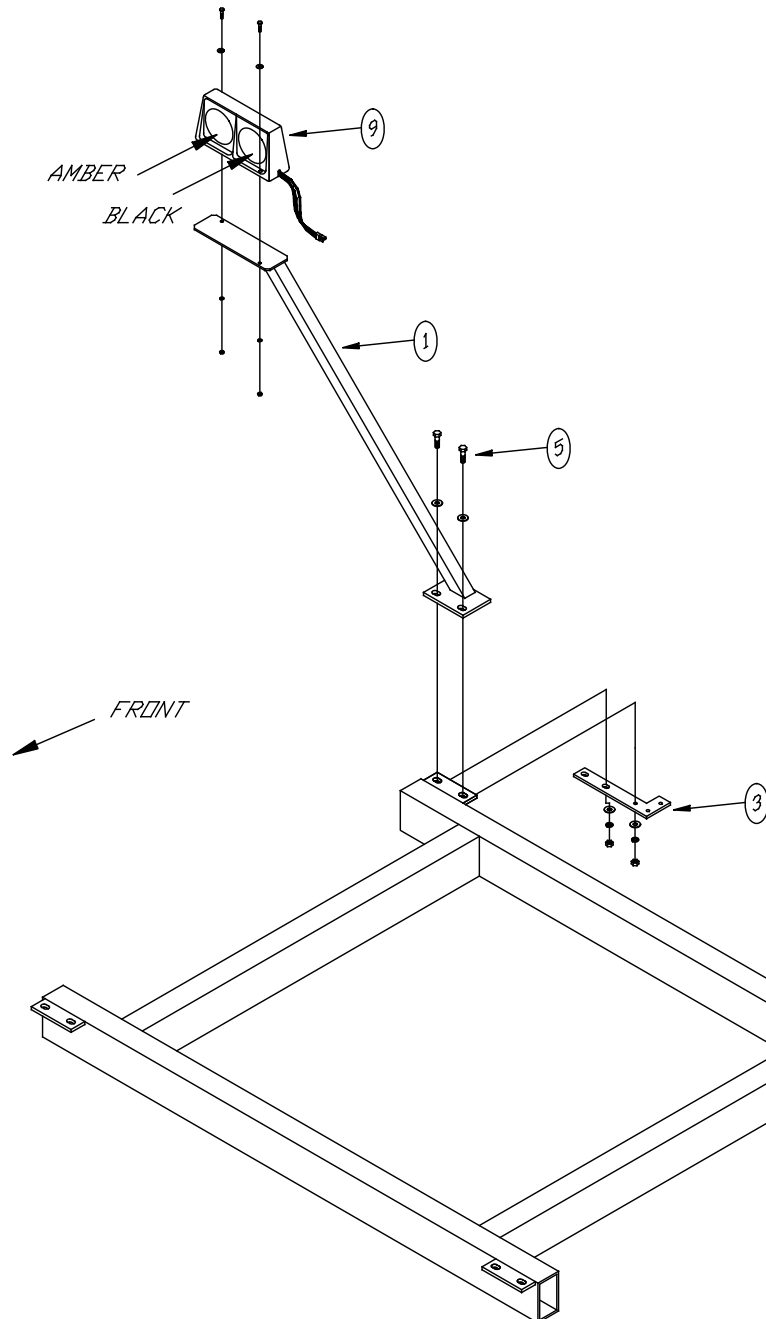


NOTE: MOUNT THE ENGAGEMENT ARM AFTER
COULTER SPACINGS HAVE BEEN MARKED OUT.

REF.#	QTY.	PART #	DESCRIPTION
1	1	400212	46" DRIVE ARM ENGAGEMENT ARM
2	1	101386	3/4-10 X 7 X 8-1/2"-U-BOLT-PLT.
3	1	101224	3/4" LOCK WASHER - PLT.
4	1	101215	3/4-10 HEX NUT - PLT.
5	1	400228	1 X 2 X 12" - PLASTIC BUMPER
6	2	101452	1/4-20 X 2"-CAR. BOLT-PLT.
7	2	101218	1/4" LOCK WASHER - PLT.
8	2	101209	1/4-20 HEX NUT - PLT.

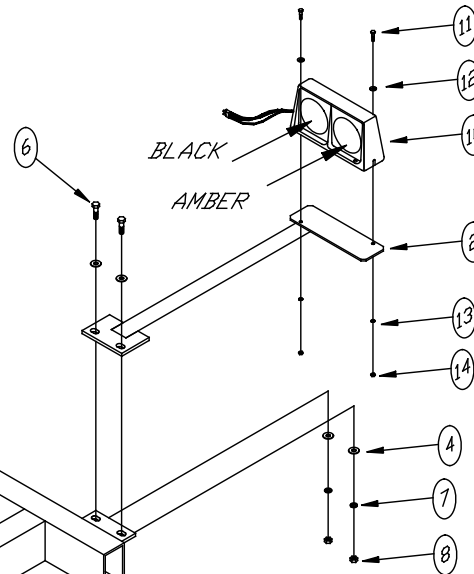


LIGHT BRACKET ASSEMBLY

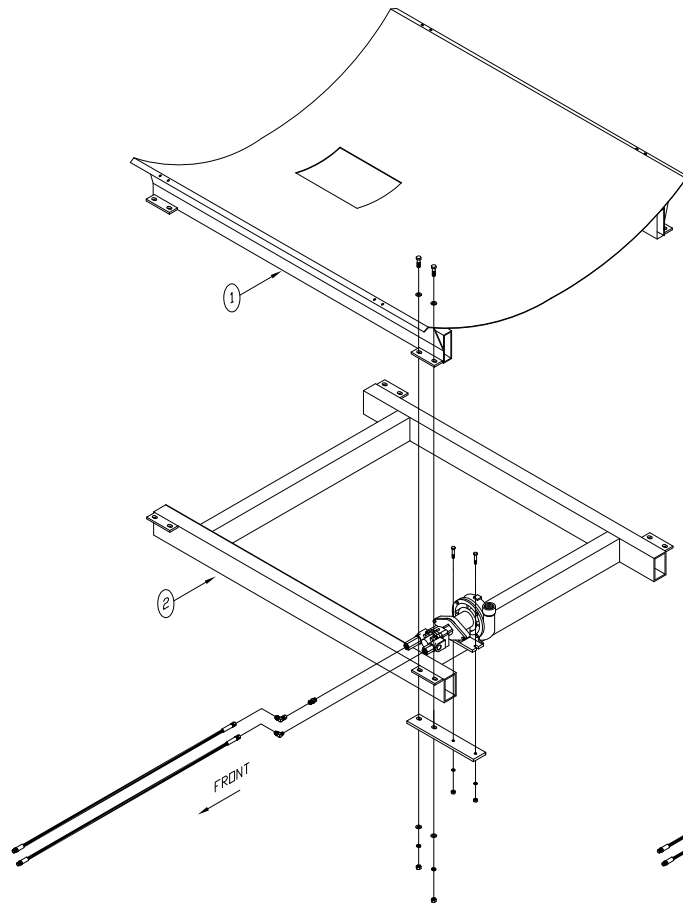


ITEM	QTY	PART#	DESCRIPTION
1	1	801835	LIGHT BRACKET WELDMENT - RIGHT
2	1	801836	LIGHT BRACKET WELDMENT - LEFT
3	1	400168	3/8 X 2 X 12" MOUNTING TAB
4	8	101231	1/2" FLAT WASHER - PLT.
5	2	101150	1/2-13 X 2-1/2" - HEX BOLT - PLT.
6	2	101149	1/2-13 X 2" - HEX BOLT - PLT.
7	4	101222	1/2" - LOCK WASHER - PLT.
8	4	101213	1/2-13 HEX NUT - PLT.
9	1	500015	RIGHT HAND LIGHT UNIT
10	1	500016	LEFT HAND LIGHT UNIT
11	4	101137	7/16-14 X 1-1/2" HEX BOLT
12	4	101230	7/16" FLAT WASHER
13	4	101221	7/16" LOCK WASHER
14	4	101212	7/16-14 HEX NUT

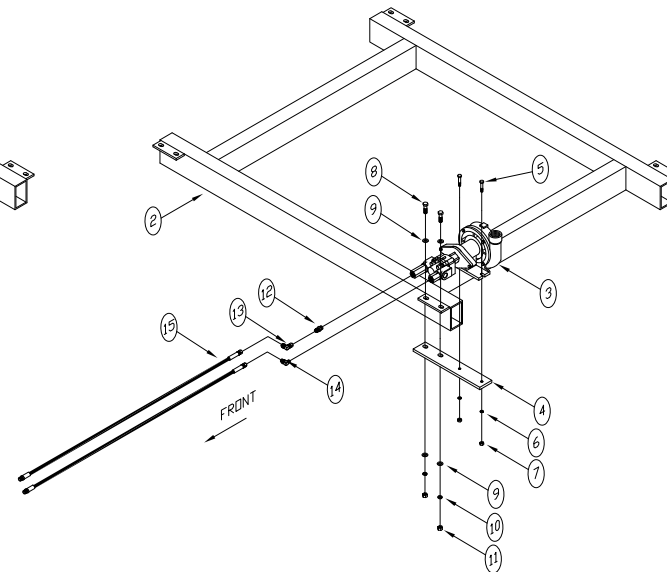
NOTE THAT ON LIQUID UNITS, TANK SADDLE HARDWARE IS USED TO ATTACH LIGHT MOUNTING BRACKETS.



HYDRAULIC PUMP AND MOUNT ATTACHMENT
(HYDRAULIC PUMP MODELS ONLY)



1000 GALLON TANK MODEL



750 GALLON TANK MODEL

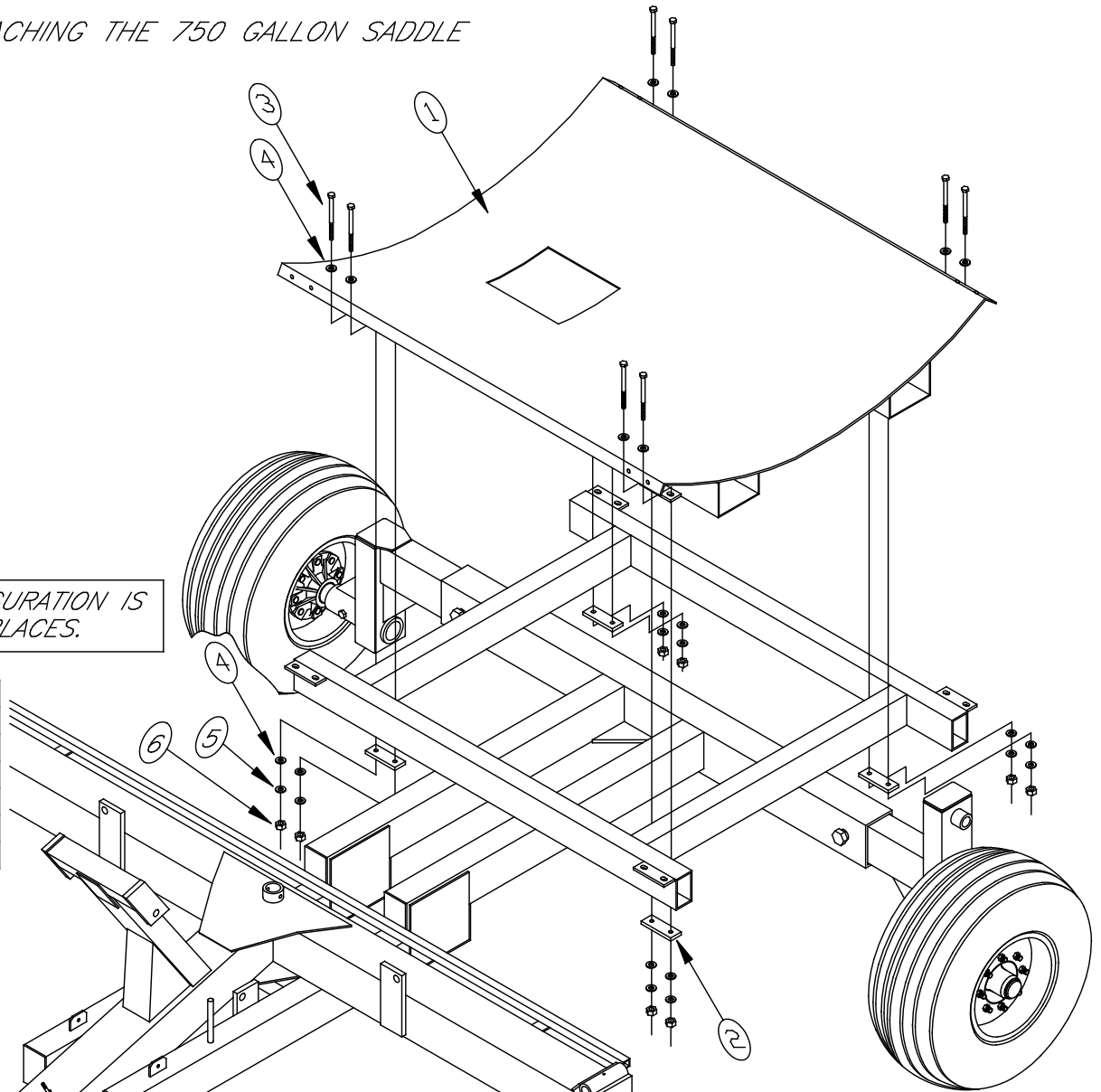
*HYDRAULIC PUMP AND MOUNT ATTACHMENT
(HYDRAULIC PUMP MODELS ONLY)*

NOTES:

<i>ITEM</i>	<i>QTY</i>	<i>PART#</i>	<i>DESCRIPTION</i>
1	1	76801009	1000 GALLON TANK SADDLE
2	1	76801653	CHASSIS (PARTIAL VIEW)
3	1	76750039	HYDRAULIC PUMP
4	1	762450006	HYDRAULIC PUMP MOUNT
5	2	76101127	3/8-16 X 2" HEX BOLT PLT. GR. 5
6	2	76101220	3/8" LOCK WASHER PLT.
7	2	76101211	3/8" HEX NUT PLT.
8	2	76101151	1/2"-13 X 3"-PLT-GR5
9	4	76101231	1/2" FLAT WASHER PLT.
10	2	76101222	1/2" LOCK WASHER PLT.
11	2	76101213	1/2-16 HEX NUT PLT.
12	1	76201057	#8 MJIC X 1/2" MNPT STRAIGHT
13	1	76201059	#8 MJIC X #8 FJIC SWIVEL 90
14	1	76201034	#8 MJIC X 1/2" MNPT 90
15	2	762022802	1/2" X 186" X 1/2" MPT X #8 FJIC HOSE

SAME HARDWARE IS USED ON BOTH MODELS.

ATTACHING THE 750 GALLON SADDLE

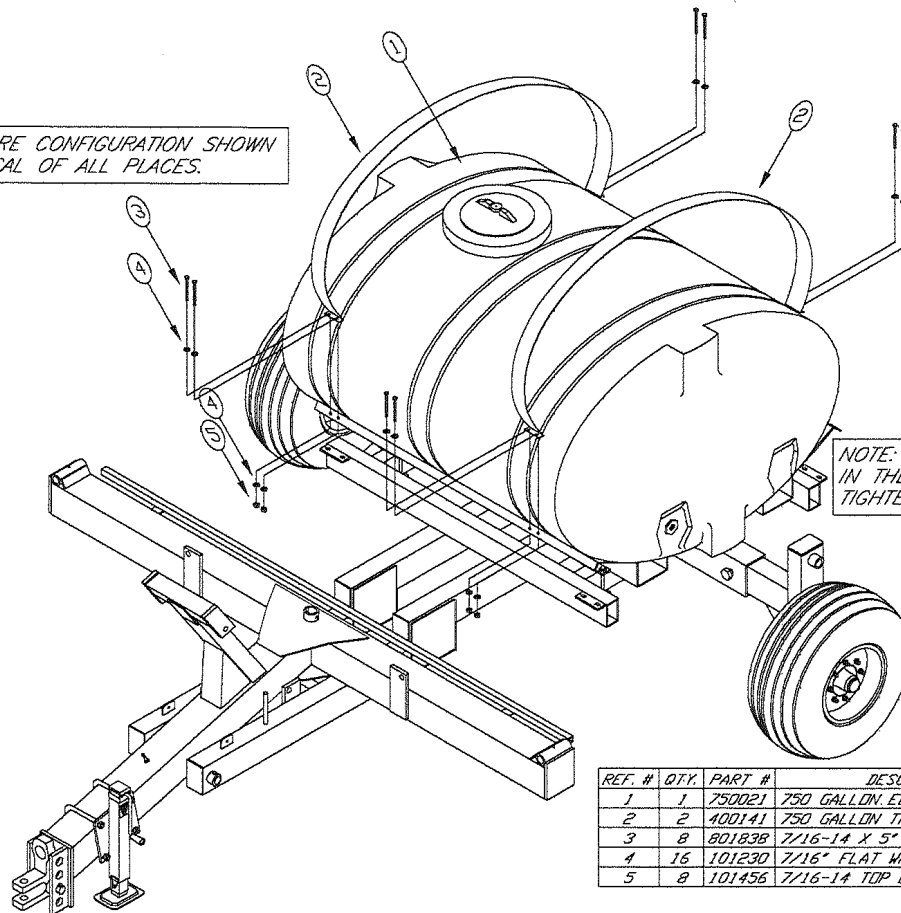


HARDWARE CONFIGURATION IS
TYPICAL OF ALL PLACES.

1	1	801716	750 GALLON TANK SADDLE
2	4	400210	1/2 X 2 X 5-9/16" - BACKER PLT.
3	8	101383	1/2-13 X 7-1/2" - HEX BOLT PLT.
4	16	101231	1/2" FLAT WASHER - PLT.
5	8	101222	1/2" LOCK WASHER - PLT.
6	8	101213	1/2-13 HEX NUT - PLT.
REF. #	QTY.	PART #	DESCRIPTION

ATTACHING THE 750 GALLON TANK

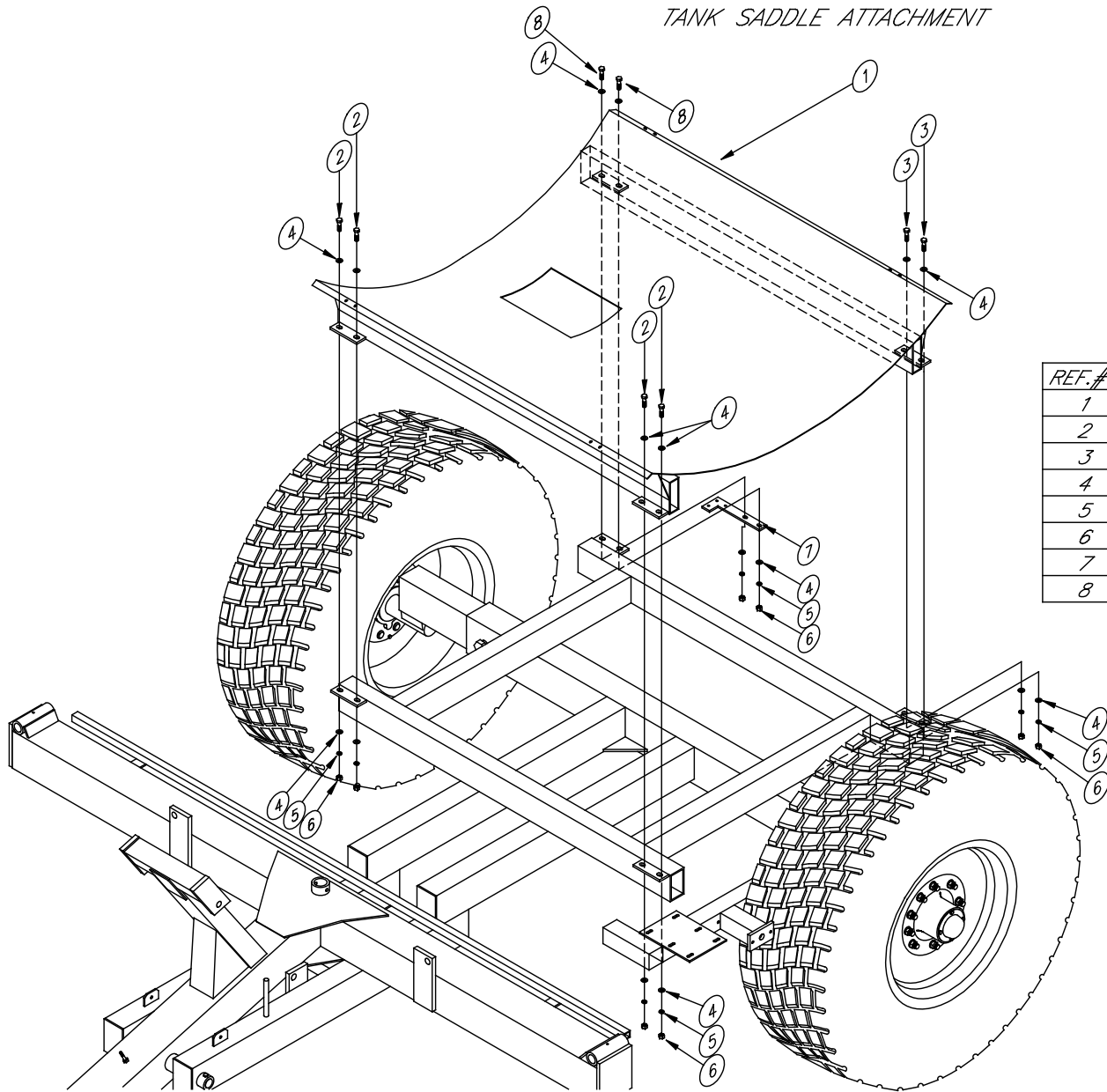
HARDWARE CONFIGURATION SHOWN
IS TYPICAL OF ALL PLACES.



NOTE: CENTER THE TANK SUMP
IN THE SADDLE SUMP HOLE BEFORE
TIGHTENING TANK STRAPS COMPLETELY.

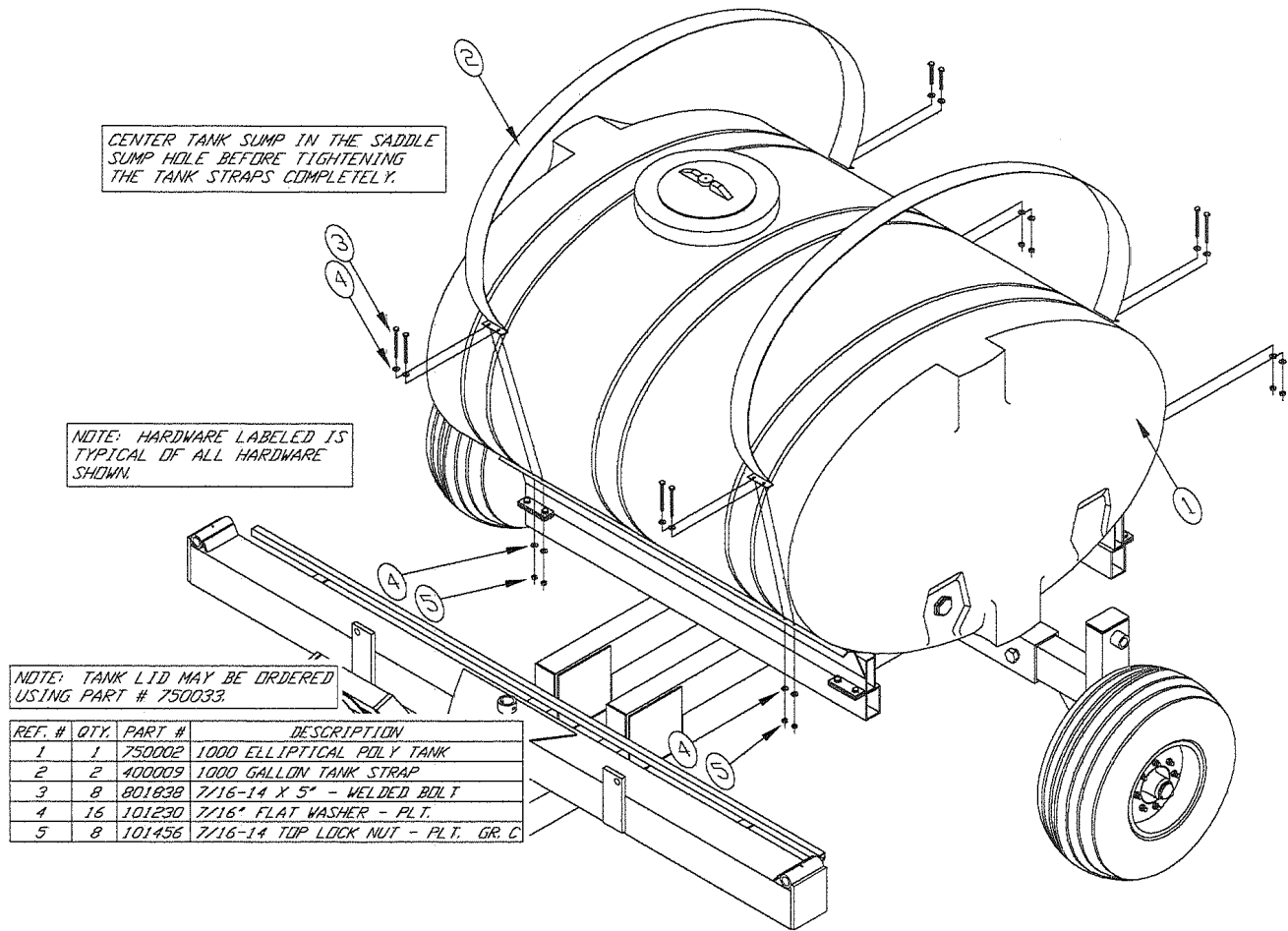
REF. #	QTY.	PART #	DESCRIPTION
1	1	750021	750 GALLON ELLIPTICAL POLY TANK
2	2	400141	750 GALLON TANK STRAP
3	8	801838	7/16-14 X 5" - WELDED BOLT
4	16	101230	7/16" FLAT WASHER - PLT.
5	8	101456	7/16-14 TOP LOCK NUT - PLT GR. C

TANK SADDLE ATTACHMENT

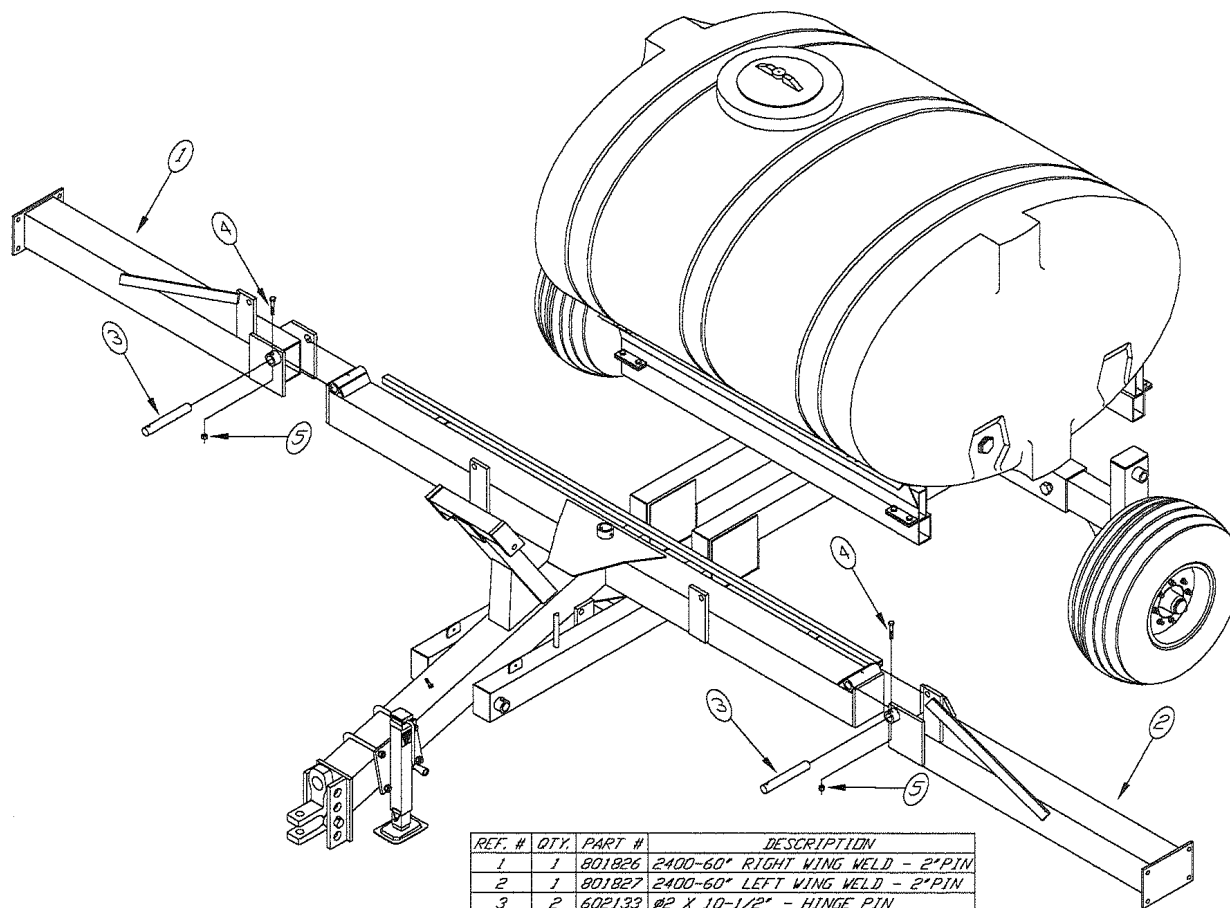


REF.#	QTY.	PART #	DESCRIPTION
1	1	801009	1000 GALLON TANK SADDLE
2	4	101149	1/2-13 X 2"-HEX BOLT-PLT.GR.5
3	2	101150	1/2-13 X 2-1/2"-HEX BOLT-PLT.GR.5
4	16	101231	1/2" FLAT WASHER - PLT.
5	8	101222	1/2" LOCK WASHER - PLT.
6	8	101213	1/2-13 HEX NUT - PLT.
7	1	400168	3/8 X 2 X 12" - QFILL MOUNT TAB
8	2	101151	1/2-13 x 3"- HEX BOLT-PLT. GR. 5

ATTACHING THE 1000 GALLON TANK

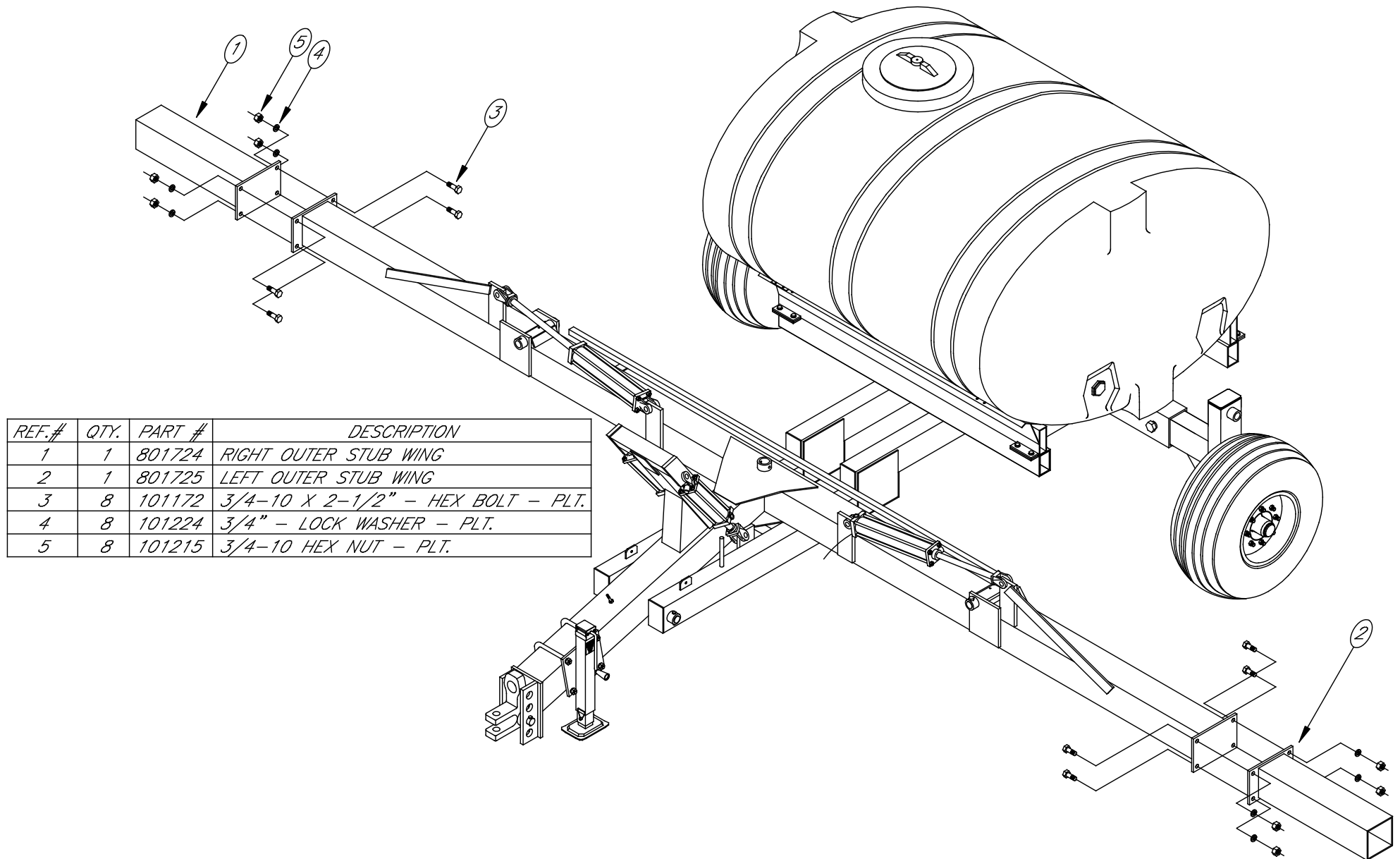


ATTACHING THE WINGS

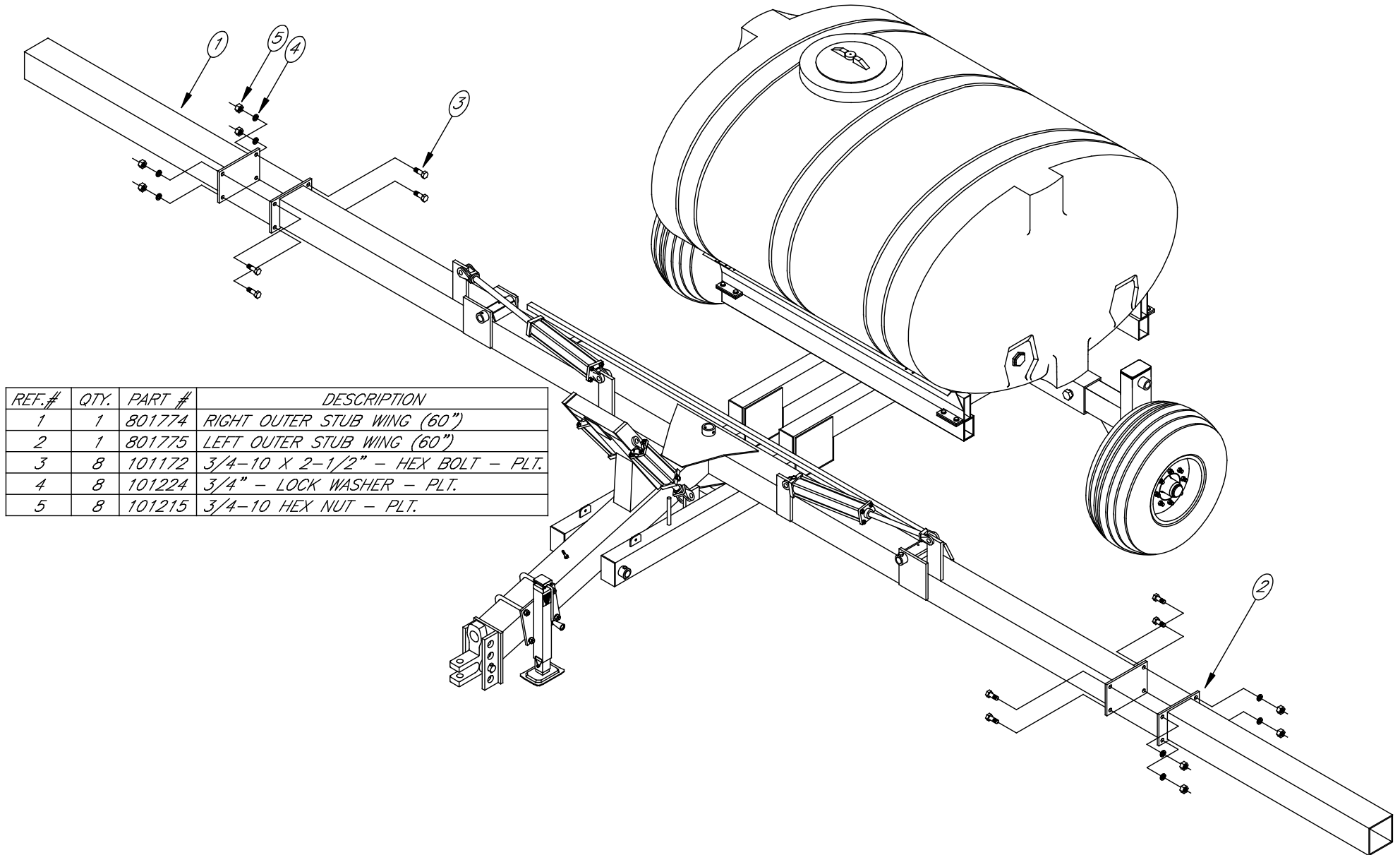


REF. #	QTY.	PART #	DESCRIPTION
1	1	801826	2400-60" RIGHT WING WELD - 2" PIN
2	1	801827	2400-60" LEFT WING WELD - 2" PIN
3	2	602133	Ø2 X 10-1/2" - HINGE PIN
4	2	101151	1/2-13 X 3" - HEX BOLT - PLT
5	2	101457	1/2-13 TOPLOCK NUT - PLT

9 TO 11 COULTER CONVERSION

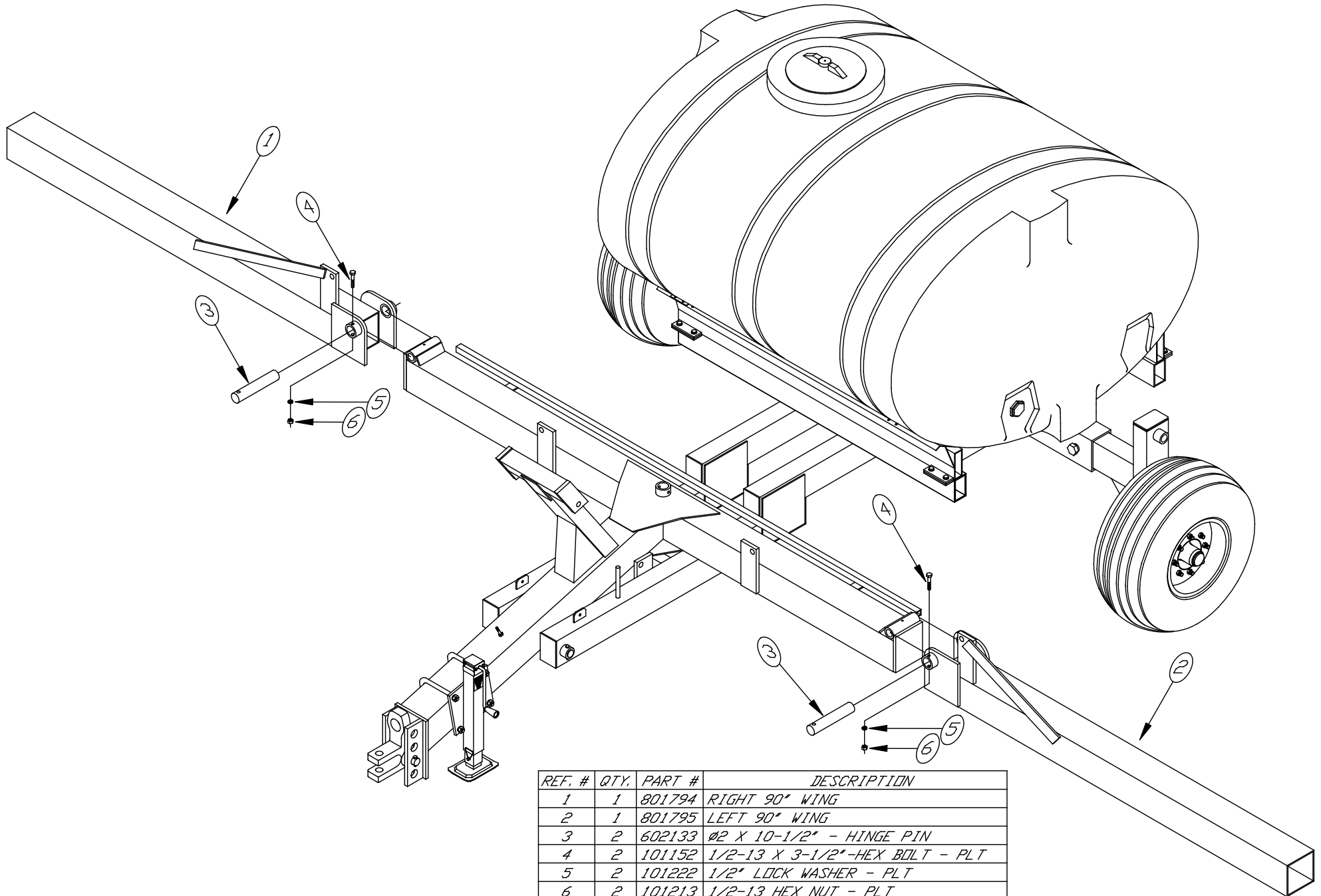


9 TO 13 COULTER CONVERSION



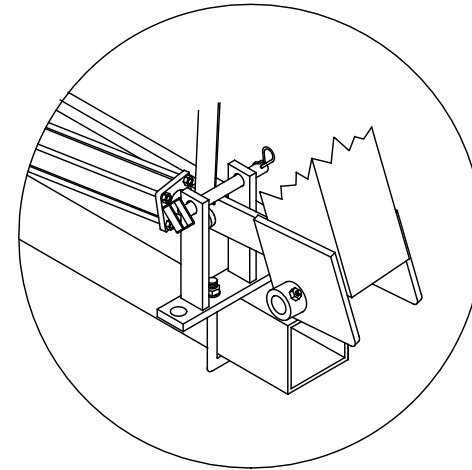
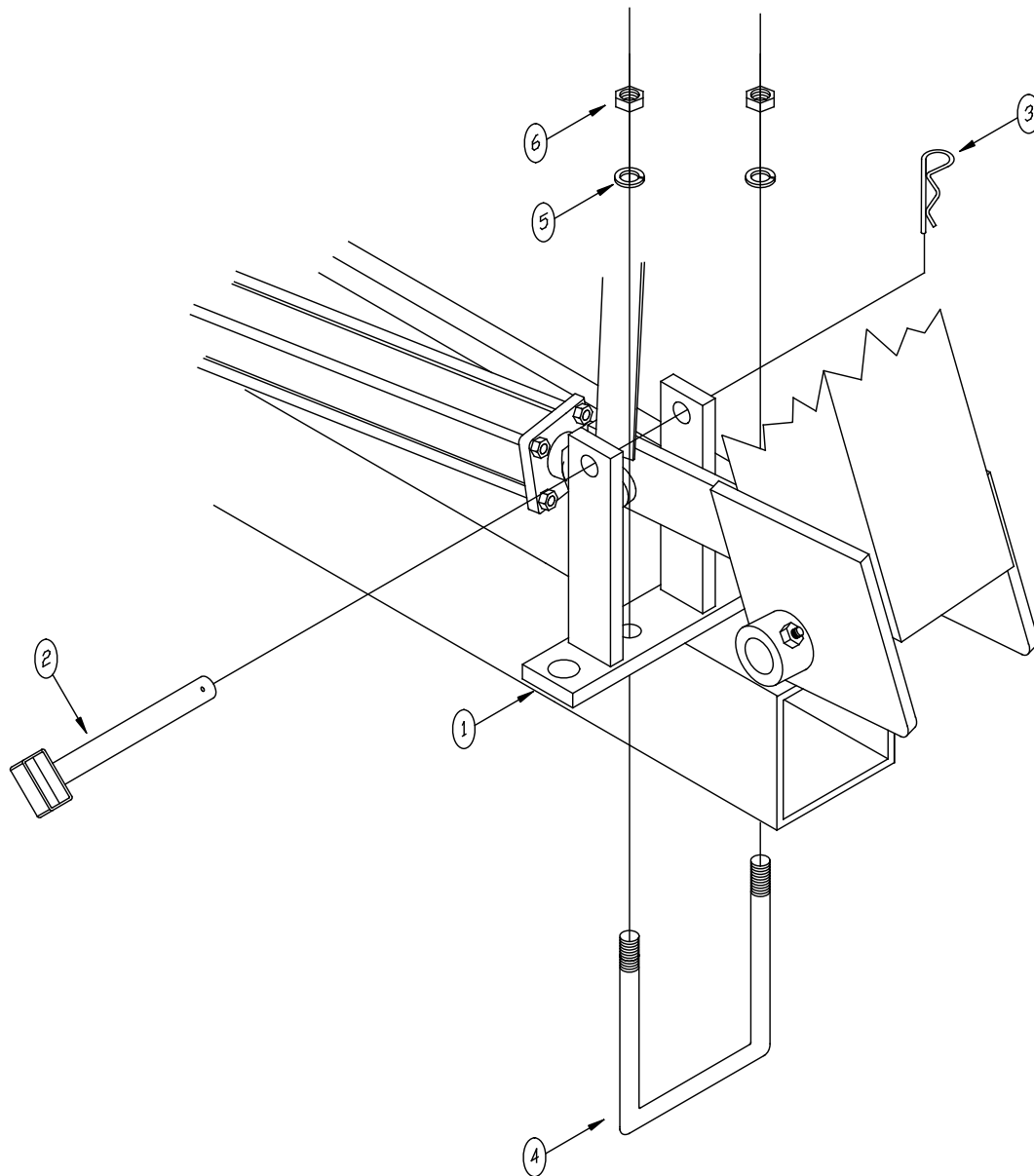
REF.#	QTY.	PART #	DESCRIPTION
1	1	801774	RIGHT OUTER STUB WING (60")
2	1	801775	LEFT OUTER STUB WING (60")
3	8	101172	3/4-10 X 2-1/2" - HEX BOLT - PLT.
4	8	101224	3/4" - LOCK WASHER - PLT.
5	8	101215	3/4-10 HEX NUT - PLT.

ATTACHING THE OPTIONAL 90" WINGS

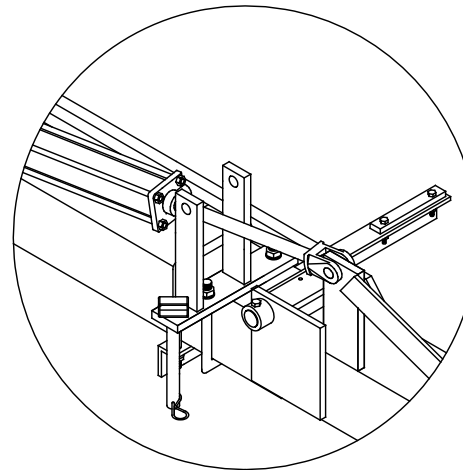


REF. #	QTY.	PART #	DESCRIPTION
1	1	801794	RIGHT 90" WING
2	1	801795	LEFT 90" WING
3	2	602133	Ø2 X 10-1/2" - HINGE PIN
4	2	101152	1/2-13 X 3-1/2"-HEX BOLT - PLT
5	2	101222	1/2" LOCK WASHER - PLT
6	2	101213	1/2-13 HEX NUT - PLT

LOCKING PIN ASSEMBLY



DETAIL B:
FOLDED VIEW



DETAIL A:
UNFOLDED VIEW

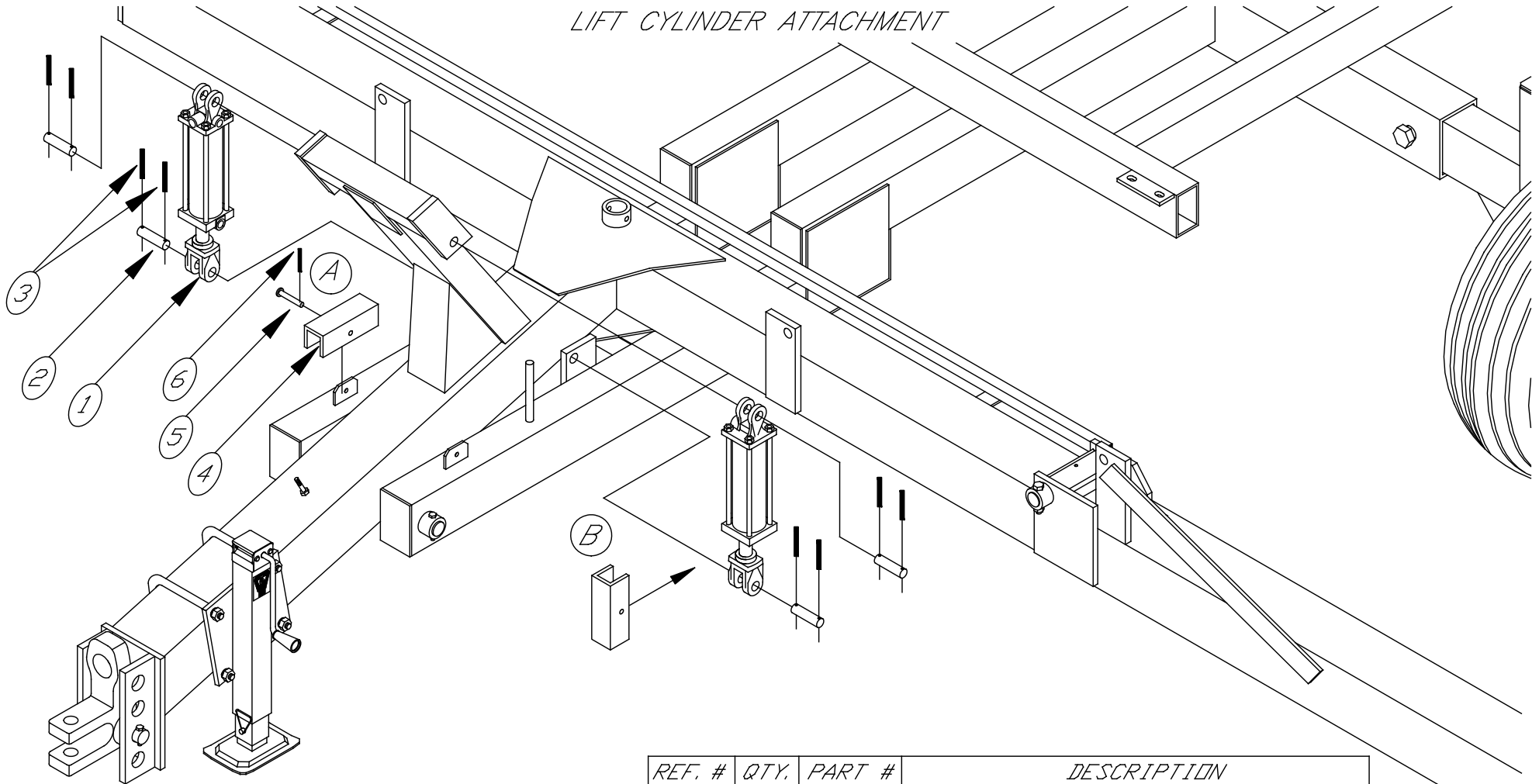
LOCKING PIN ASSEMBLY

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	801828	2400/2450 SAFETY WING WELDMENT
2	1	602219	Ø1 X 9-1/4", WELDED PIN
3	1	101426	3/16 X 2" CLIP PIN, PLT
4	1	101316	3/4-10 X 7 X 9" U-BOLT
5	2	101224	3/4" LOCK WASHER
6	2	101215	3/4"-10 HEX NUT

DETAIL A: SAFETY WING WELDMENT
SHOULD BE 4" OFF INNER EDGE OF
HINGE PLATE.

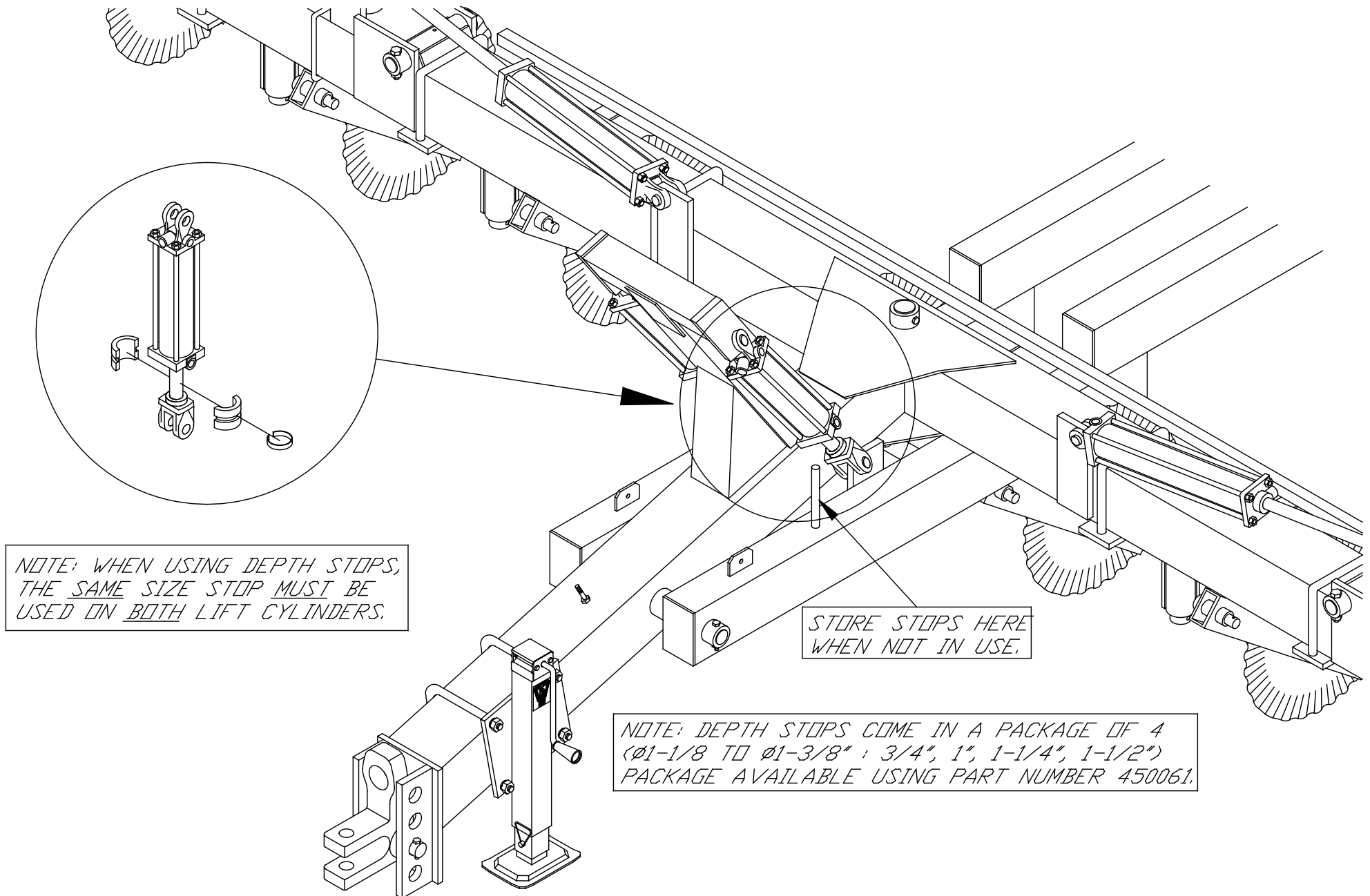
LIFT CYLINDER ATTACHMENT



- (A) STORE HERE WHEN NOT IN USE.
- (B) ALWAYS USE SAFETY STOPS DURING TRANSPORT.

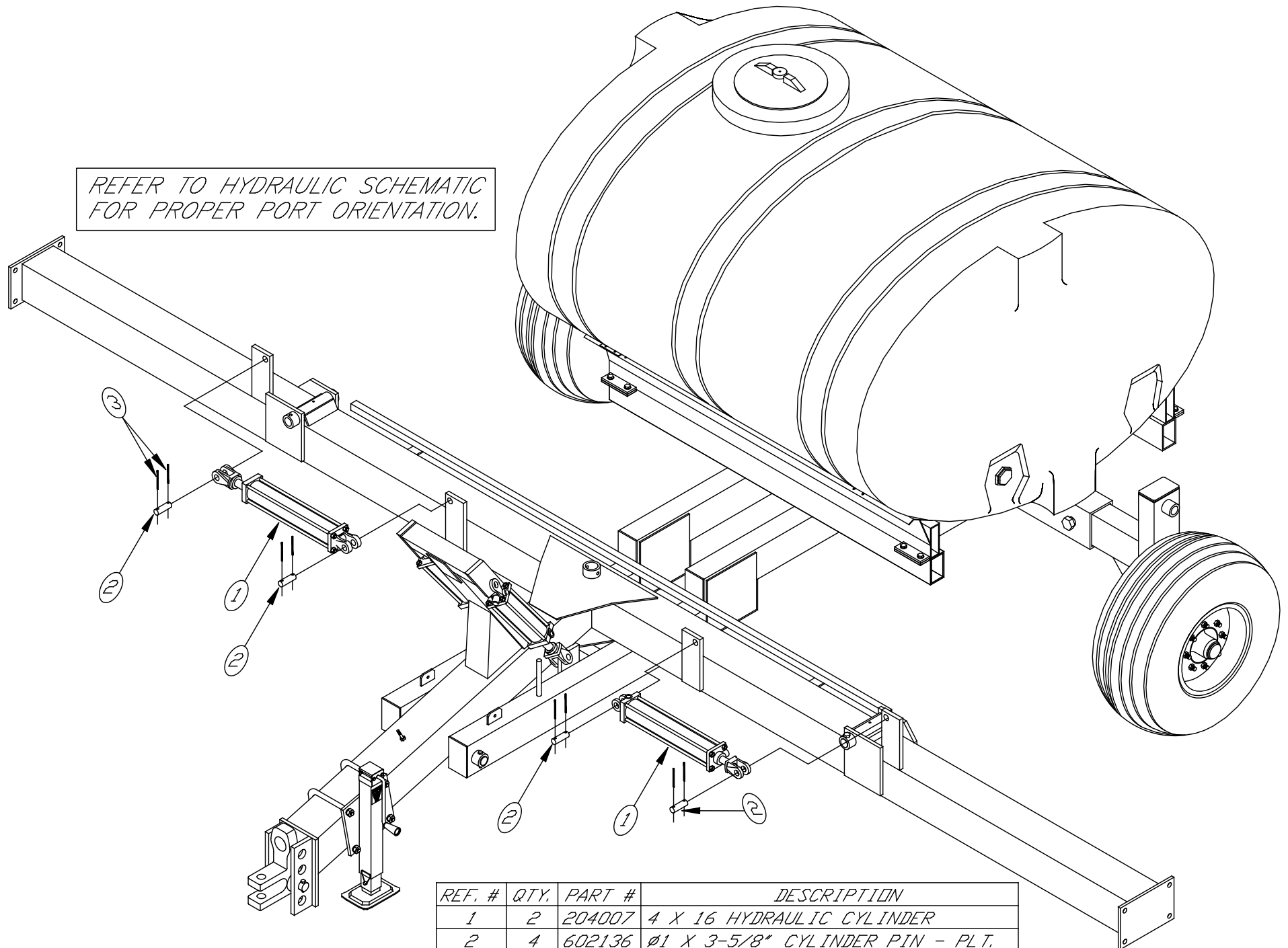
REF. #	QTY.	PART #	DESCRIPTION
1	2	204002	3 X 8 HYDRAULIC CYLINDER
2	4	602112	Ø1 X 3" CYLINDER PIN - PLT.
3	8	101247	7/32 X 2" - COTTER PIN - PLT.
4	2	400083	8" STROKE CYLINDER SAFETY LOCK
5	2	101257	3/8 X 3" - LATCH PIN - PLT.
6	2	101258	3/32 X 1-1/2" - HAIR PIN - PLT.

CYLINDER DEPTH STOP USE



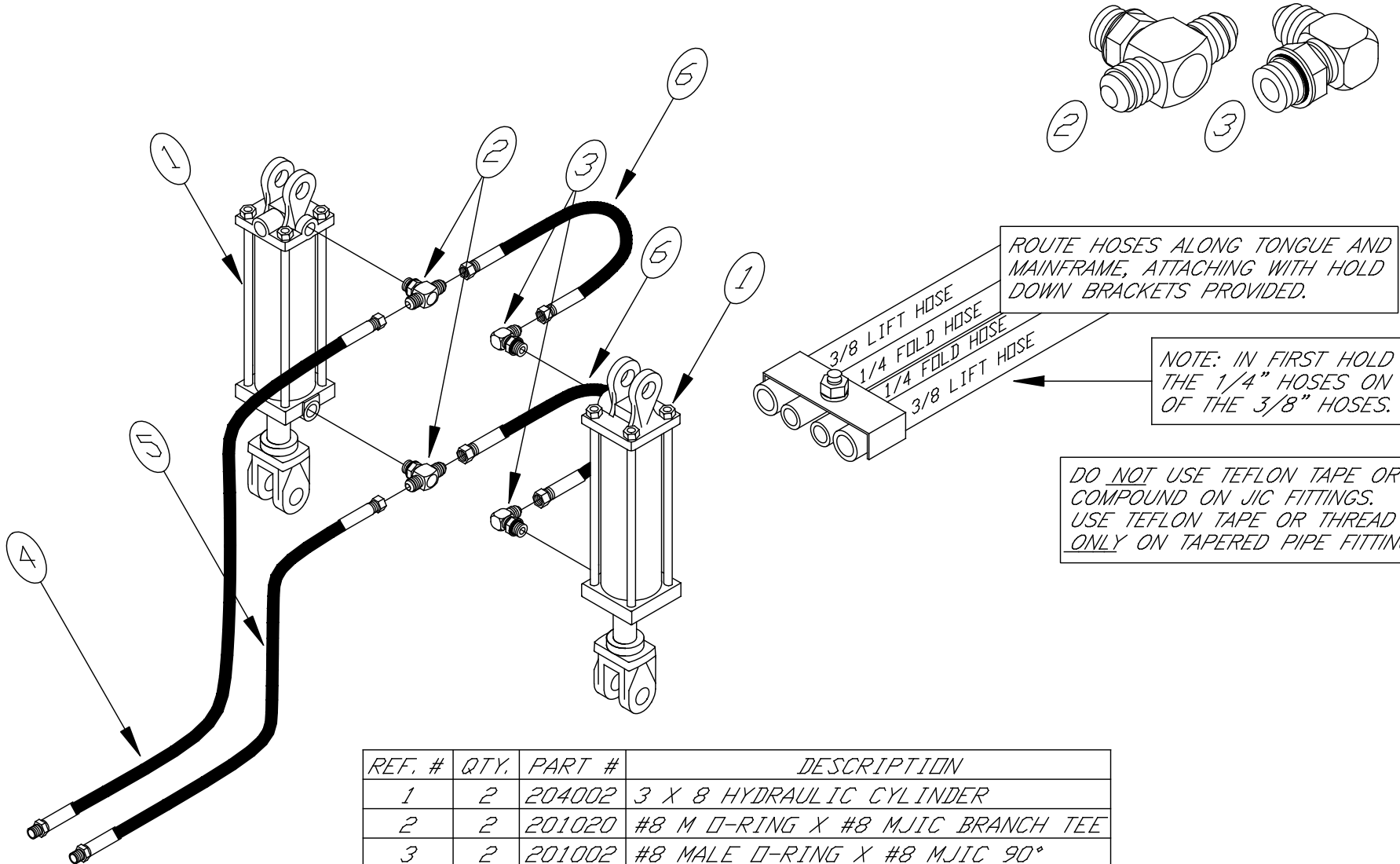
ATTACHING WING FOLD CYLINDERS

REFER TO HYDRAULIC SCHEMATIC
FOR PROPER PORT ORIENTATION.



REF. #	QTY.	PART #	DESCRIPTION
1	2	204007	4 X 16 HYDRAULIC CYLINDER
2	4	602136	Ø1 X 3-5/8" CYLINDER PIN - PLT.
3	8	101247	7/32 X 2" - COTTER PIN - PLT.

LIFT TOWER HYDRAULIC SCHEMATIC



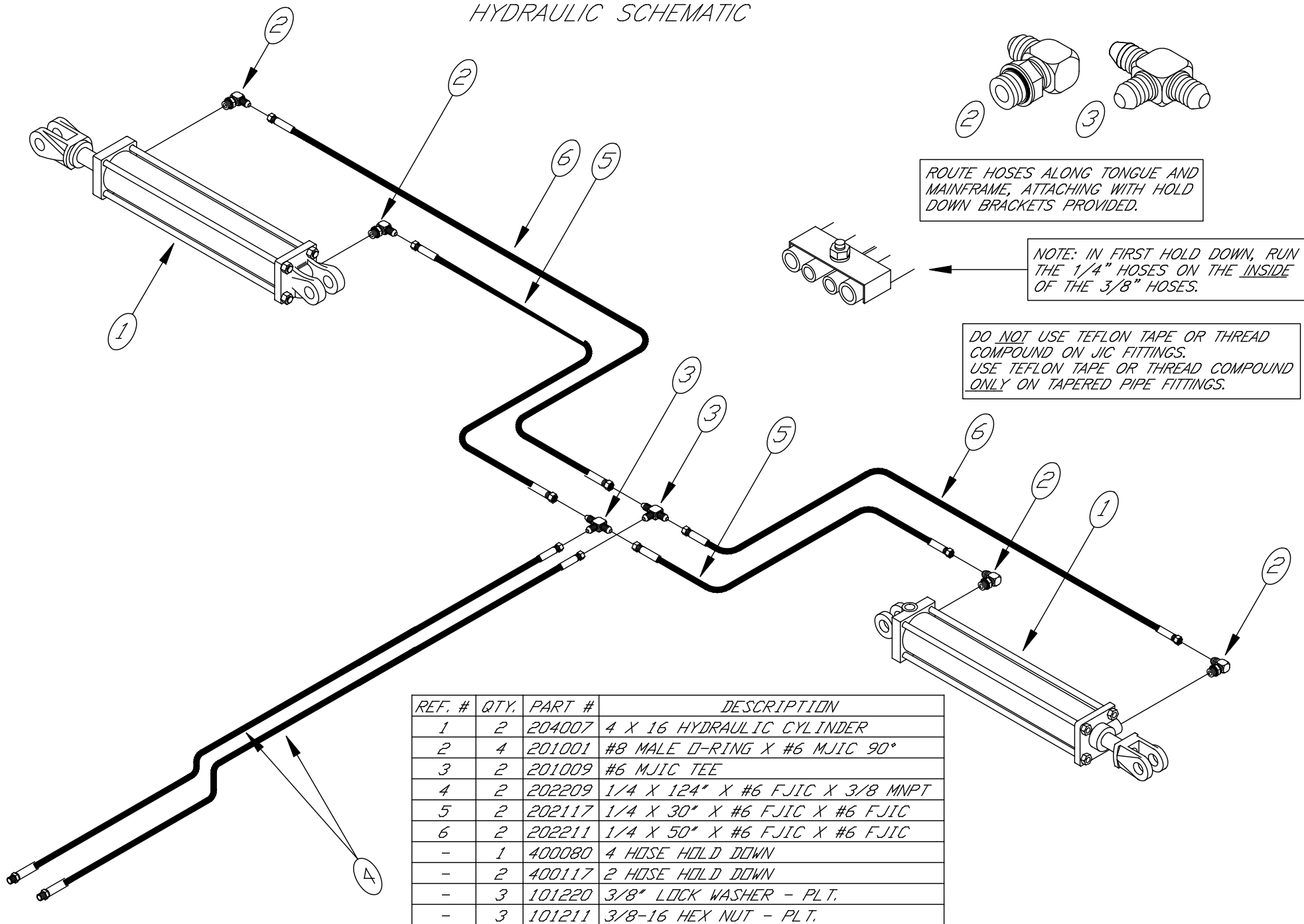
ROUTE HOSES ALONG TONGUE AND MAINFRAME, ATTACHING WITH HOLD DOWN BRACKETS PROVIDED.

NOTE: IN FIRST HOLD DOWN, RUN THE 1/4\" HOSES ON THE INSIDE OF THE 3/8\" HOSES.

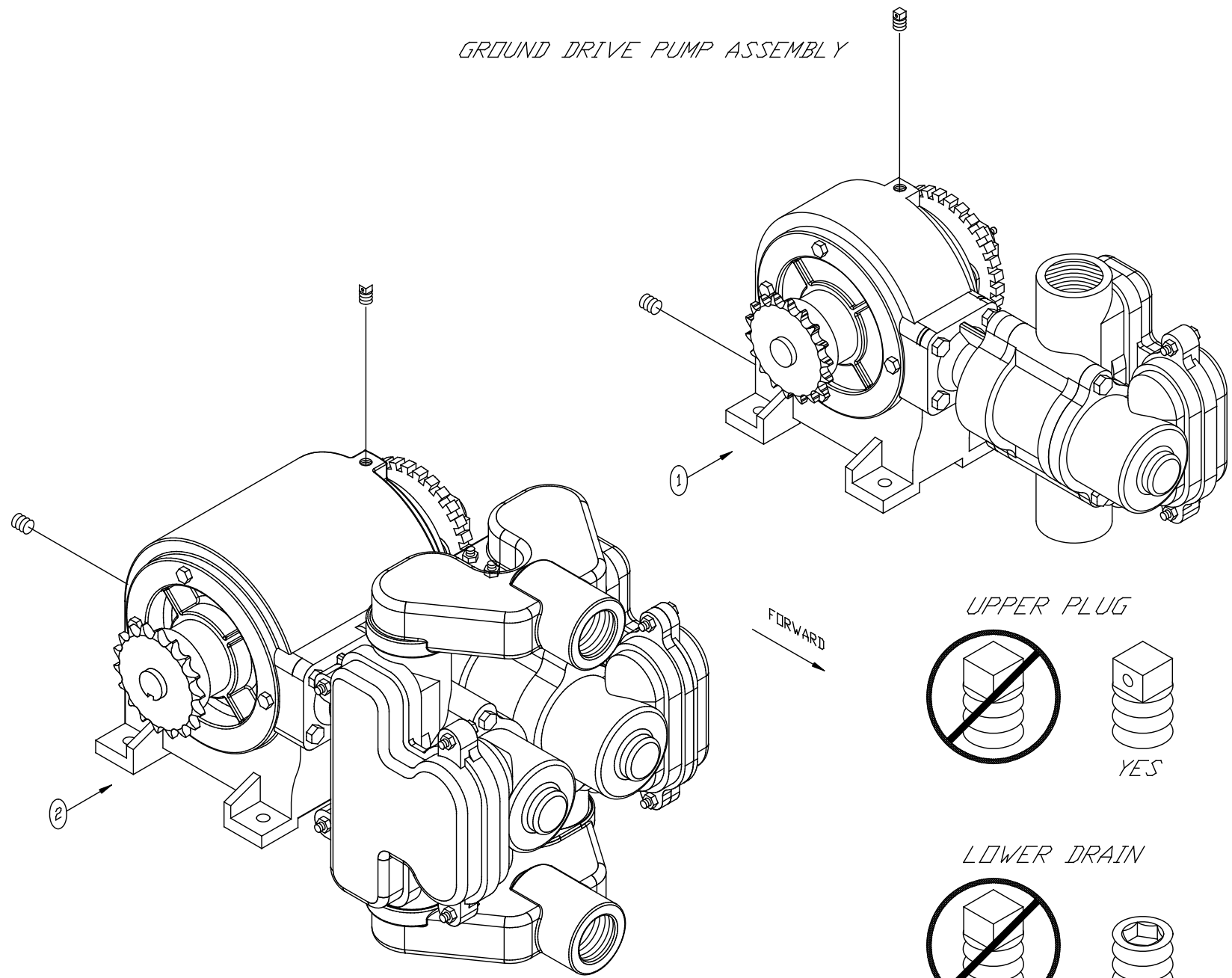
DO NOT USE TEFLON TAPE OR THREAD COMPOUND ON JIC FITTINGS. USE TEFLON TAPE OR THREAD COMPOUND ONLY ON TAPERED PIPE FITTINGS.

REF. #	QTY.	PART #	DESCRIPTION
1	2	204002	3 X 8 HYDRAULIC CYLINDER
2	2	201020	#8 M O-RING X #8 MJIC BRANCH TEE
3	2	201002	#8 MALE O-RING X #8 MJIC 90°
4	1	202200	3/8 X 120\" X #8FJIC X 1/2 MNPT
5	1	202199	3/8 X 108\" X #8FJIC X 1/2 MNPT
6	2	202028	3/8 X 20\" X #8 FJIC X #8 FJIC

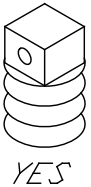
HYDRAULIC SCHEMATIC



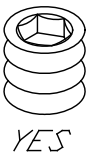
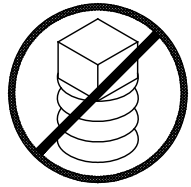
GROUND DRIVE PUMP ASSEMBLY



UPPER PLUG



LOWER DRAIN



GROUND DRIVE PUMP ASSEMBLY

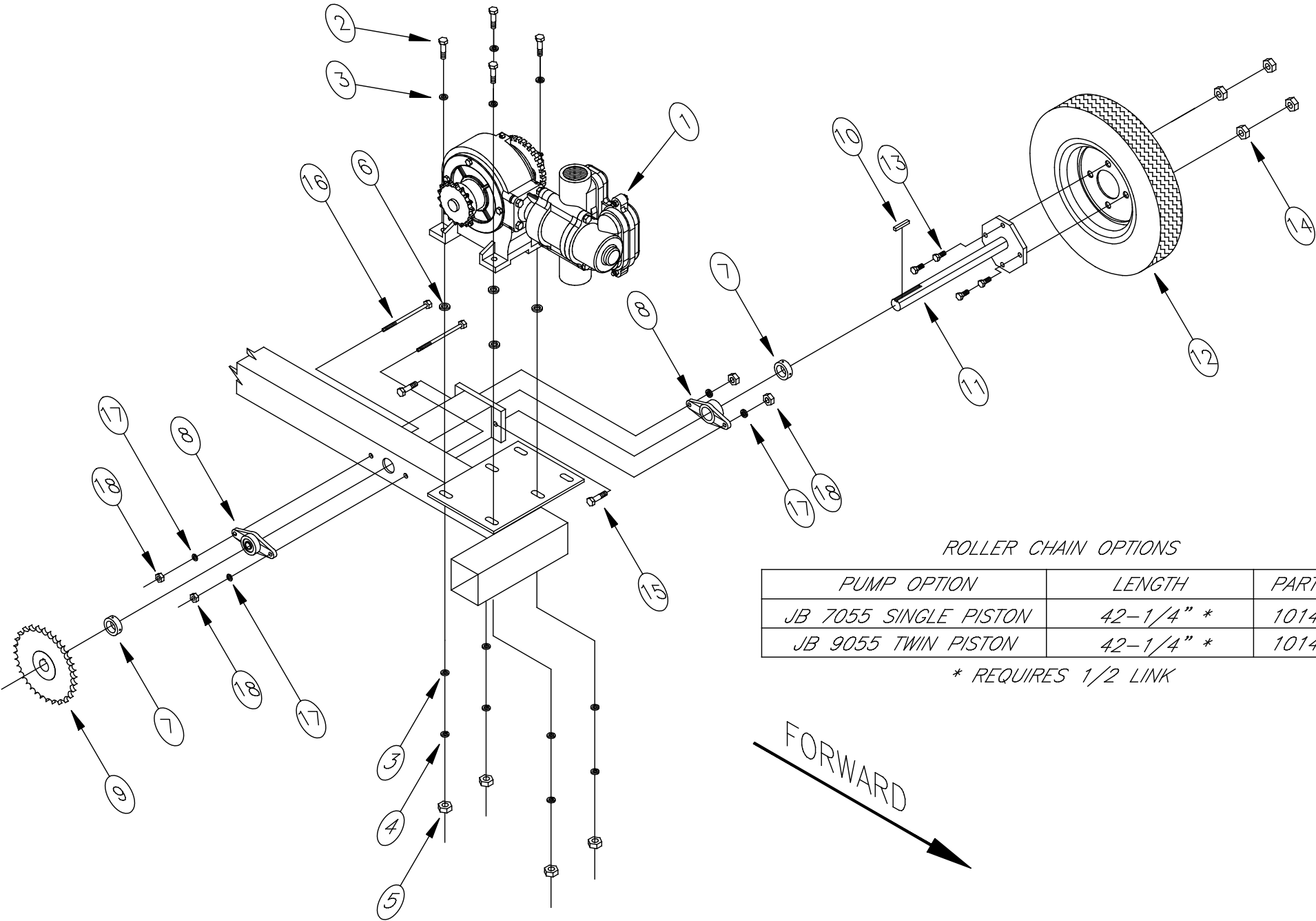
REFERENCE#	DATE	REV
GNDRVPLG	01/08/07	

NOTES:

ITEM	QTY	PART#	DESCRIPTION
1	1	750040	SINGLE PISTON JOHN BLUE PUMP
2	1	750041	DOUBLE PISTON JOHN BLUE PUMP

REPLACE THE UPPER MOST PLUG
WITH THE VENTED PLUG PROVIDED, ALSO,
REPLACE THE SQUARE HEAD DRAIN PLUG
WITH THE ALLEN HEAD DRAIN PLUG.

16.5 X 16.1 TIRE GROUND DRIVE PUMP ASSEMBLY



ROLLER CHAIN OPTIONS

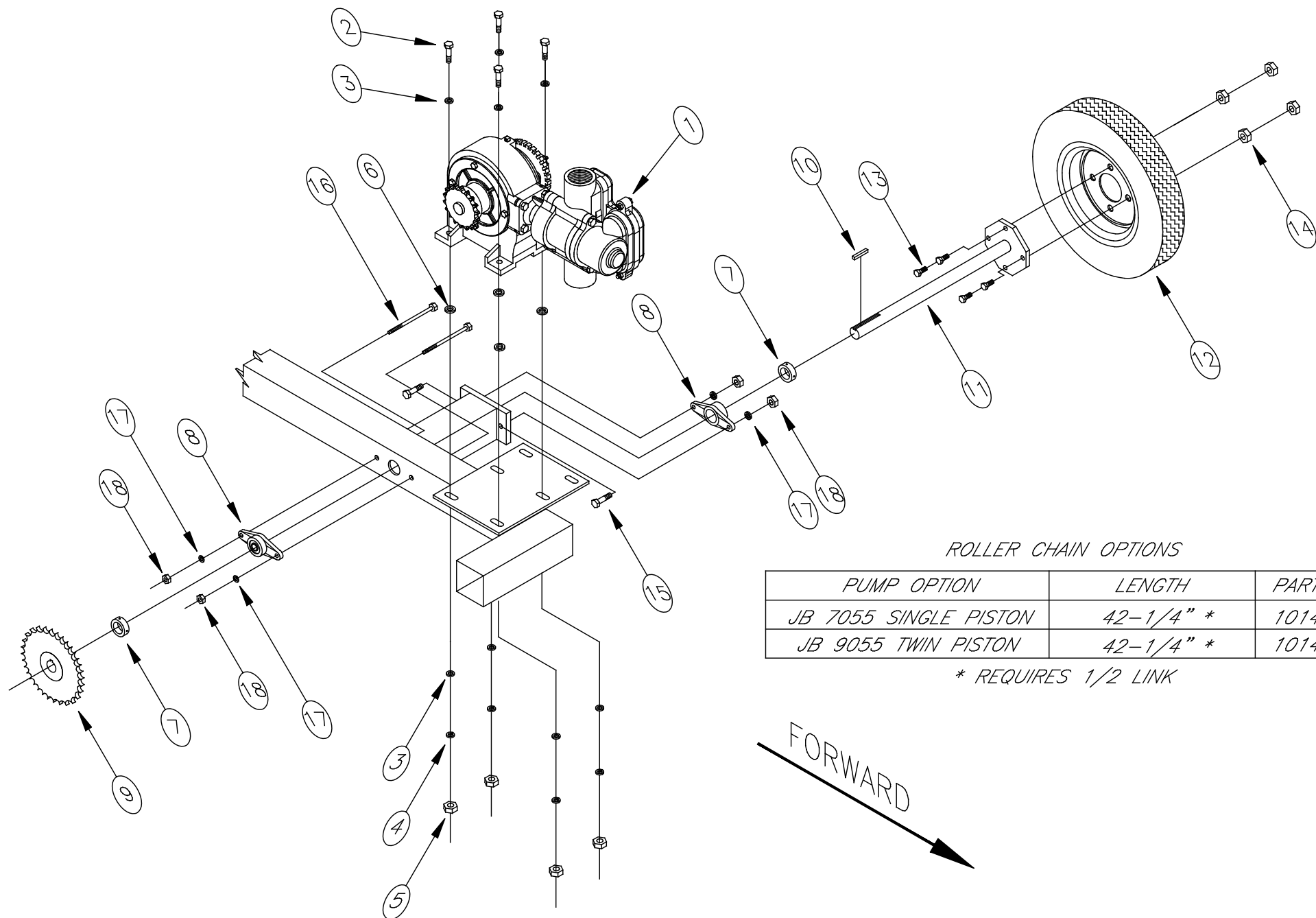
PUMP OPTION	LENGTH	PART #
JB 7055 SINGLE PISTON	42-1/4" *	101432
JB 9055 TWIN PISTON	42-1/4" *	101432

* REQUIRES 1/2 LINK

GROUND DRIVE PUMP ASSEMBLY FOR 16.5 X 16.1 TIRE CONFIGURATION

REF #	QTY	PART #	DESCRIPTION
1	1	750040	JOHN BLUE PUMP – MODEL NGP – 7055
–	–	750041	JOHN BLUE PUMP – MODEL NGP – 9055
2	4	101126	3/8–16 X 1–1/2” – HEX BOLT PLT.
3	8	101229	3/8” – FLAT WASHER PLT.
4	4	101220	3/8” – LOCK WASHER PLT.
5	4	101211	3/8–16 – HEX NUT PLT.
6	4	–	RUBBER MOUNTING WASHER (INCLUDED WITH PUMP)
7	2	450066	1–1/4” BORE LOCK COLLAR
8	2	450067	CAST 2 BOLT BEARING HOLDER FOR 1–1/4” BEARING
9	1	450065	36 X 50 X 1–1/4” BORE SPROCKET
10	1	450010	1/4 X 1/4 X 1–1/2” – SQUARE KEY
11	1	801780	Ø1–1/4 X 12” DRIVE SHAFT
12	1	301197	4.8 X 8 4–PLY TIRE AND WHL. ASSEMBLY
13	4	301193	1/2–20 X 1–1/4” – WHIZ BOLT
14	4	301243	1/2–20 LUG NUT
15	2	101414	7/16–14 X 7” – HEX BOLT PLT.
16	2	101221	7/16–14 – LOCK WASHER PLT.
17	2	101212	7/16–14 – HEX NUT PLT.
–	–	101434	NO. 50 – STAINLESS ROLLER CHAIN (48 INCHES)
–	1	101429	NO. 50 – STAINLESS ROLLER CHAIN MASTER LINK
–	1	101430	NO. 50 – STAINLESS ROLLER CHAIN 1/2 LINK

18.4 X 26 TIRE GROUND DRIVE PUMP ASSEMBLY



ROLLER CHAIN OPTIONS

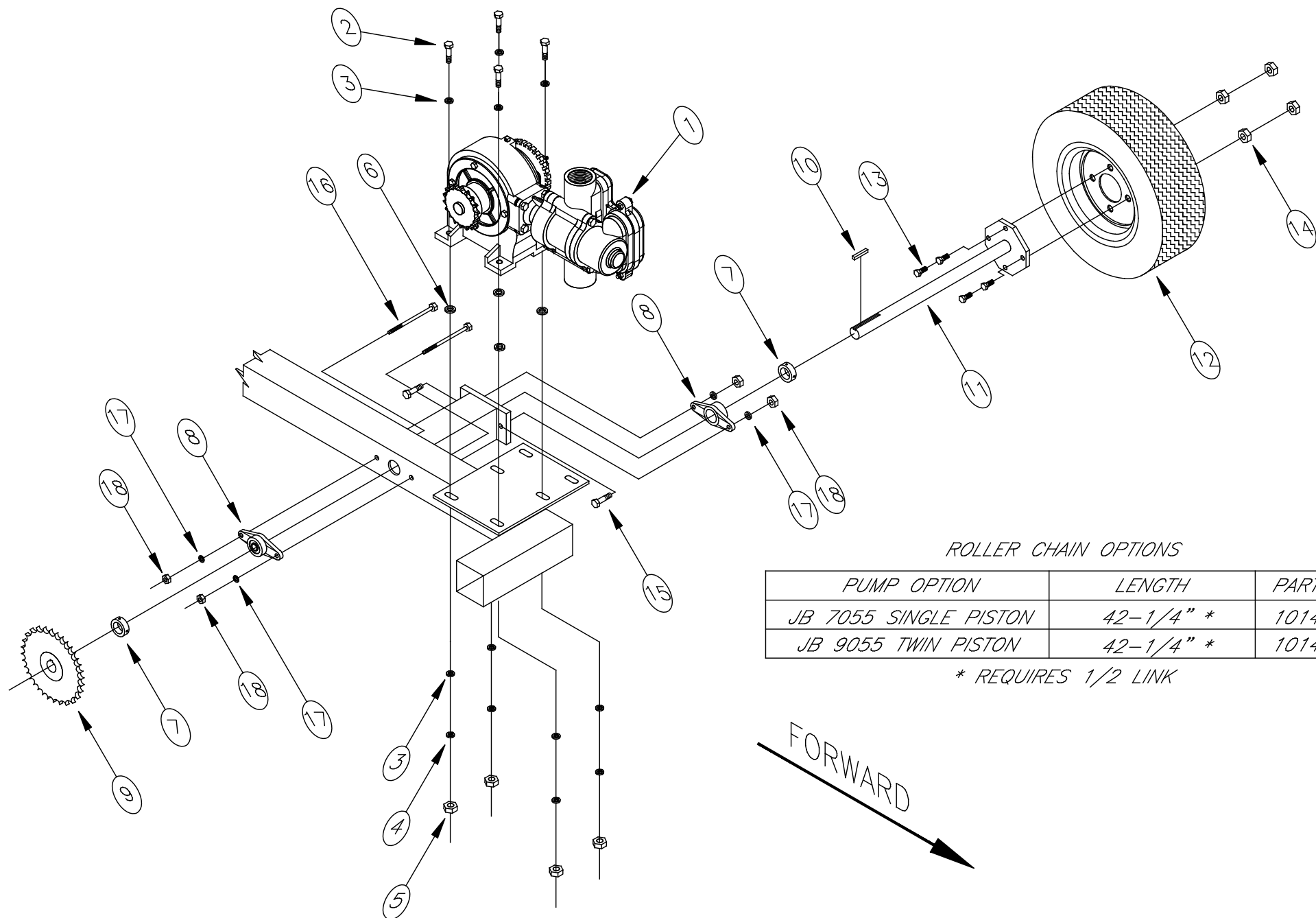
PUMP OPTION	LENGTH	PART #
JB 7055 SINGLE PISTON	42-1/4" *	101432
JB 9055 TWIN PISTON	42-1/4" *	101432

* REQUIRES 1/2 LINK

GROUND DRIVE PUMP ASSEMBLY FOR 18.4 X 26 TIRE CONFIGURATION

REF #	QTY	PART #	DESCRIPTION
1	1	750040	JOHN BLUE PUMP – MODEL NGP – 7055
–	–	750041	JOHN BLUE PUMP – MODEL NGP – 9055
2	4	101126	3/8–16 X 1–1/2" – HEX BOLT PLT.
3	8	101229	3/8" – FLAT WASHER PLT.
4	4	101220	3/8" – LOCK WASHER PLT.
5	4	101211	3/8–16 – HEX NUT PLT.
6	4	–	RUBBER MOUNTING WASHER (INCLUDED WITH PUMP)
7	2	450066	1–1/4" BORE LOCK COLLAR
8	2	450067	CAST 2 BOLT BEARING HOLDER FOR 1–1/4" BEARING
9	1	450065	36 X 50 X 1–1/4" BORE SPROCKET
10	1	450010	1/4 X 1/4 X 1–1/2" – SQUARE KEY
11	1	801779	Ø1–1/4 X 18" DRIVE SHAFT
12	1	301197	4.8 X 8 4-PLY TIRE AND WHL. ASSEMBLY
13	4	301193	1/2–20 X 1–1/4" – WHIZ BOLT
14	4	301243	1/2–20 LUG NUT
15	2	101138	7/16–14 X 2" – HEX BOLT PLT.
16	2	101143	7/16–14 X 4–1/2" – HEX BOLT PLT.
17	4	101221	7/16–14 – LOCK WASHER PLT.
18	4	101212	7/16–14 – HEX NUT PLT.
–	–	101432	NO. 50 – STAINLESS ROLLER CHAIN (42–1/4 INCHES)
–	1	101430	NO. 50 – STAINLESS ROLLER CHAIN 1/2 LINK
–	1	101429	NO. 50 – STAINLESS ROLLER CHAIN MASTER LINK

13.6 X 38 TIRE GROUND DRIVE PUMP ASSEMBLY



ROLLER CHAIN OPTIONS

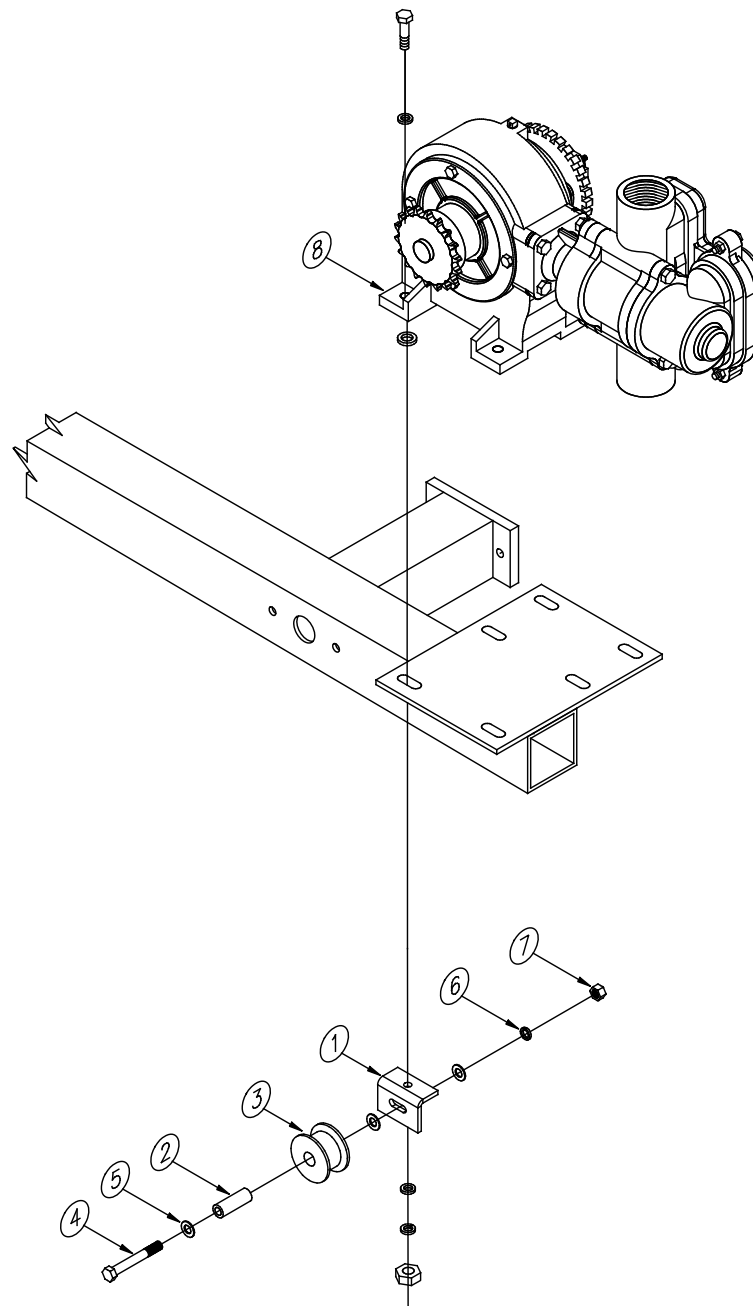
PUMP OPTION	LENGTH	PART #
JB 7055 SINGLE PISTON	42-1/4" *	101432
JB 9055 TWIN PISTON	42-1/4" *	101432

* REQUIRES 1/2 LINK

GROUND DRIVE PUMP ASSEMBLY FOR 13.6 X 38 TIRE CONFIGURATION

<i>REF #</i>	<i>QTY</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>750040</i>	<i>JOHN BLUE PUMP – MODEL NGP – 7055</i>
<i>–</i>	<i>–</i>	<i>750041</i>	<i>JOHN BLUE PUMP – MODEL NGP – 9055</i>
<i>2</i>	<i>4</i>	<i>101126</i>	<i>3/8–16 X 1–1/2” – HEX BOLT PLT.</i>
<i>3</i>	<i>8</i>	<i>101229</i>	<i>3/8” – FLAT WASHER PLT.</i>
<i>4</i>	<i>4</i>	<i>101220</i>	<i>3/8” – LOCK WASHER PLT.</i>
<i>5</i>	<i>4</i>	<i>101211</i>	<i>3/8–16 – HEX NUT PLT.</i>
<i>6</i>	<i>4</i>	<i>–</i>	<i>RUBBER MOUNTING WASHER (INCLUDED WITH PUMP)</i>
<i>7</i>	<i>2</i>	<i>450066</i>	<i>1–1/4” BORE LOCK COLLAR</i>
<i>8</i>	<i>2</i>	<i>450067</i>	<i>CAST 2 BOLT BEARING HOLDER FOR 1–1/4” BEARING</i>
<i>9</i>	<i>1</i>	<i>450065</i>	<i>36 X 50 X 1–1/4” BORE SPROCKET</i>
<i>10</i>	<i>1</i>	<i>450010</i>	<i>1/4 X 1/4 X 1–1/2” – SQUARE KEY</i>
<i>11</i>	<i>1</i>	<i>801779</i>	<i>Ø1–1/4 X 18” DRIVE SHAFT</i>
<i>12</i>	<i>1</i>	<i>76301248</i>	<i>16.5 X 6.5 X 8 TIRE/WHEEL ASSEMBLY</i>
<i>13</i>	<i>4</i>	<i>301193</i>	<i>1/2–20 X 1–1/4” – WHIZ BOLT</i>
<i>14</i>	<i>4</i>	<i>301243</i>	<i>1/2–20 LUG NUT</i>
<i>15</i>	<i>2</i>	<i>101138</i>	<i>7/16–14 X 2” – HEX BOLT PLT.</i>
<i>16</i>	<i>2</i>	<i>101143</i>	<i>7/16–14 X 4–1/2” – HEX BOLT PLT.</i>
<i>17</i>	<i>4</i>	<i>101221</i>	<i>7/16–14 – LOCK WASHER PLT.</i>
<i>18</i>	<i>4</i>	<i>101212</i>	<i>7/16–14 – HEX NUT PLT.</i>
<i>–</i>	<i>–</i>	<i>101432</i>	<i>NO. 50 – STAINLESS ROLLER CHAIN (42–1/4 INCHES)</i>
<i>–</i>	<i>1</i>	<i>101430</i>	<i>NO. 50 – STAINLESS ROLLER CHAIN 1/2 LINK</i>
<i>–</i>	<i>1</i>	<i>101429</i>	<i>NO. 50 – STAINLESS ROLLER CHAIN MASTER LINK</i>

CHAIN IDLER ARM ATTACHMENT



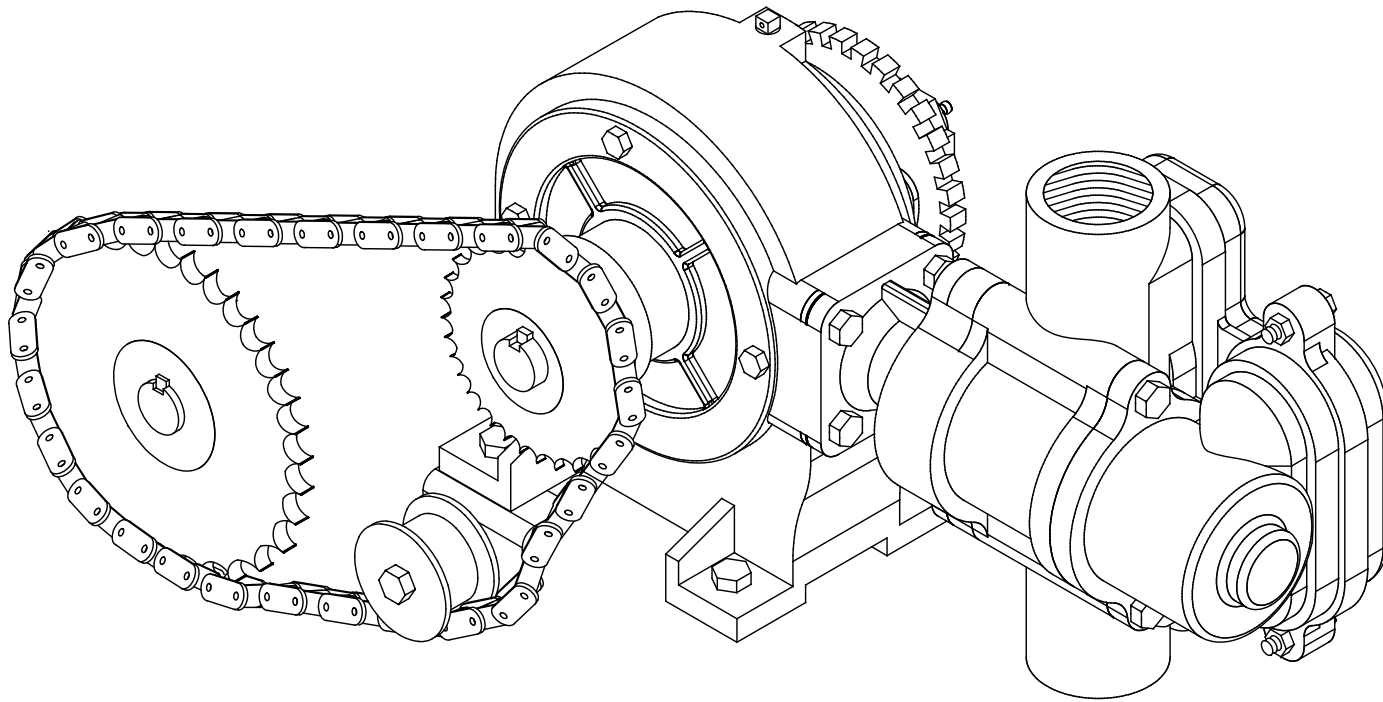
CHAIN IDLER ARM ATTACHMENT

NOTES:

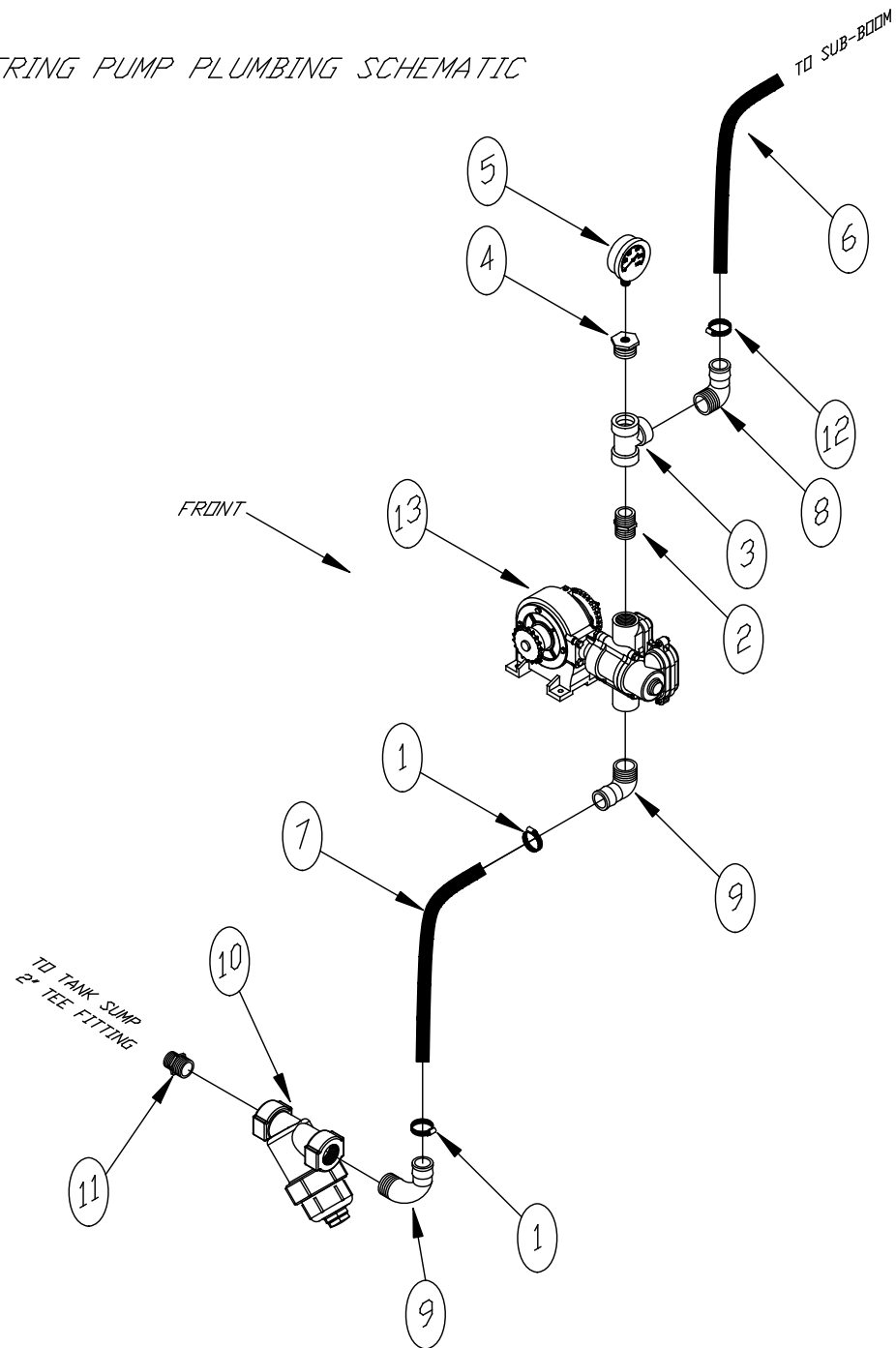
<i>ITEM</i>	<i>QTY</i>	<i>PART#</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>760000121</i>	<i>CHAIN IDLER ARM</i>
<i>2</i>	<i>1</i>	<i>76400053</i>	<i>ROLLER BUSHING</i>
<i>3</i>	<i>1</i>	<i>76400054</i>	<i>CHAIN ROLLER</i>
<i>4</i>	<i>1</i>	<i>76101129</i>	<i>3/8-16 X 3" HEX BOLT - PLATED</i>
<i>5</i>	<i>3</i>	<i>76101229</i>	<i>3/8" FLAT WASHER - PLATED</i>
<i>6</i>	<i>1</i>	<i>76101220</i>	<i>3/8" LOCK WASHER - PLATED</i>
<i>7</i>	<i>1</i>	<i>76101211</i>	<i>3/8-16 HEX NUT - PLATED</i>
<i>8</i>	<i>1</i>	<i>76750040</i>	<i>NGP-7055 SINGLE PISTON PUMP</i>
<i>8</i>	<i>-</i>	<i>76750041</i>	<i>NGP-9055 DOUBLE PISTON PUMP (NOT SHOWN)</i>

USE PUMP HARDWARE TO MOUNT CHAIN IDLER ARM.

METERING PUMP CHAIN ROUTING



SINGLE METERING PUMP PLUMBING SCHEMATIC



SINGLE METERING PUMP PLUMBING SCHEMATIC

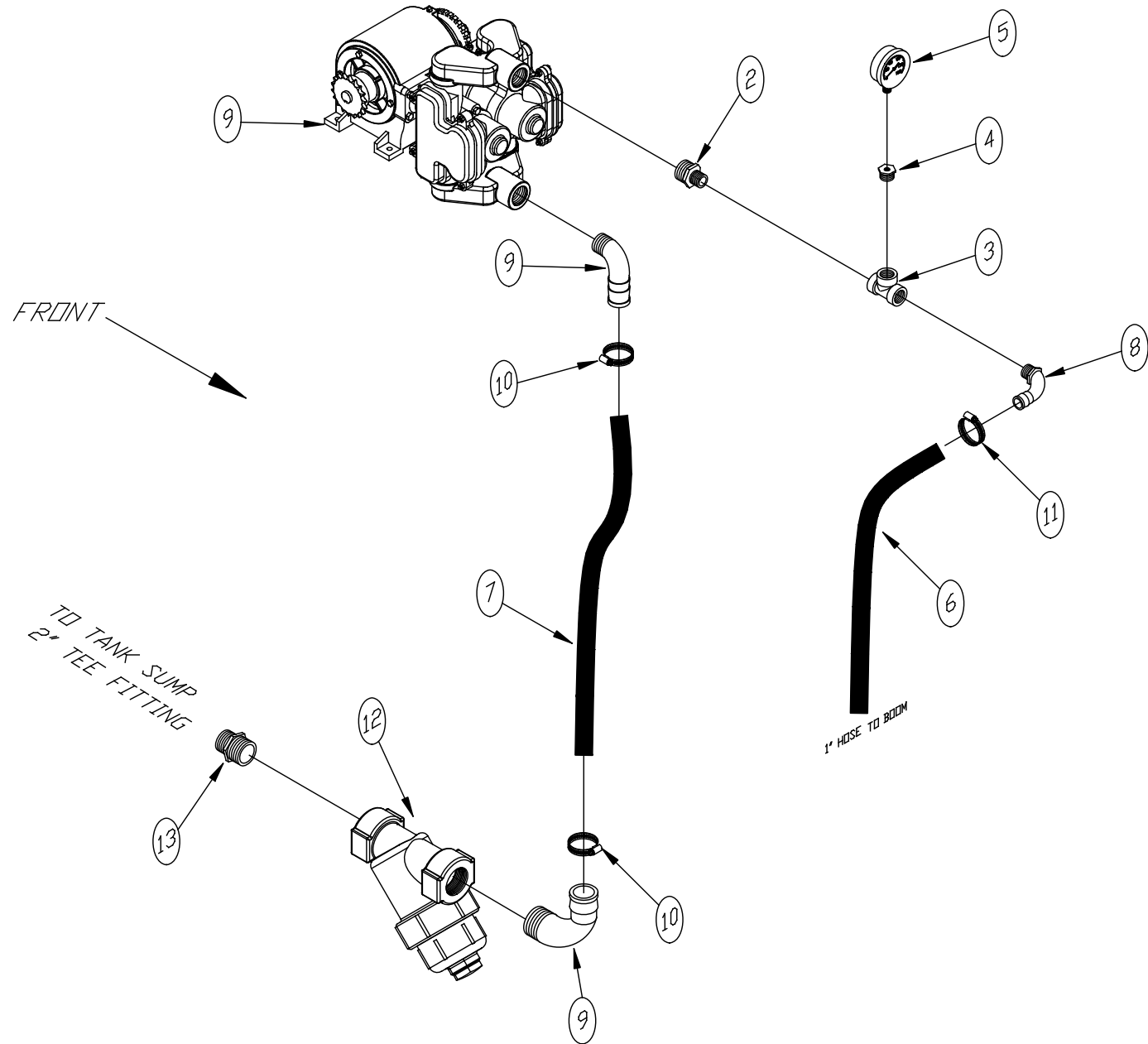
NOTES:

<i>ITEM #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>2</i>	<i>700129</i>	<i>1-1/2" STAINLESS HOSE CLAMP</i>
<i>2</i>	<i>1</i>	<i>700066</i>	<i>1-1/2 X 1" - REDUCER BUSHING</i>
<i>3</i>	<i>1</i>	<i>700074</i>	<i>1" NPT TEE</i>
<i>4</i>	<i>1</i>	<i>700290</i>	<i>1" NPT X 1/4" NPT REDUCING BUSHING</i>
<i>5</i>	<i>1</i>	<i>700237</i>	<i>4" GLYCERIN FILLED PRESSURE GAUGE</i>
<i>6</i>	<i>1</i>	<i>700119</i>	<i>1" X 48" - EPDM HOSE</i>
<i>7</i>	<i>1</i>	<i>700121</i>	<i>1-1/2" X 96" - EPDM HOSE</i>
<i>8</i>	<i>2</i>	<i>700022</i>	<i>1 NPT X 1" HOSE BARB - 90</i>
<i>9</i>	<i>2</i>	<i>700026</i>	<i>1-1/2 NPT X 1-1/2" BARB - 90</i>
<i>10</i>	<i>1</i>	<i>76700214</i>	<i>1-1/2" NPT BANJO FILTER</i>
<i>11</i>	<i>1</i>	<i>76700186</i>	<i>2" MNPT X 1-1/2" MNPT REDUCER NIPPLE</i>
<i>12</i>	<i>1</i>	<i>76700128</i>	<i>1" STAINLESS STEEL HOSE CLAMP</i>
<i>13</i>	<i>1</i>	<i>76750040</i>	<i>NGP-7055 SINGLE PISTON PUMP</i>

ITEM 6 IS SOLD BY THE FOOT AND IS AVAILABLE USING PART NUMBER - 700118.

ITEM 7 IS SOLD BY THE FOOT AND IS AVAILABLE USING PART NUMBER - 700121.

DOUBLE PISTON METERING PUMP PLUMBING



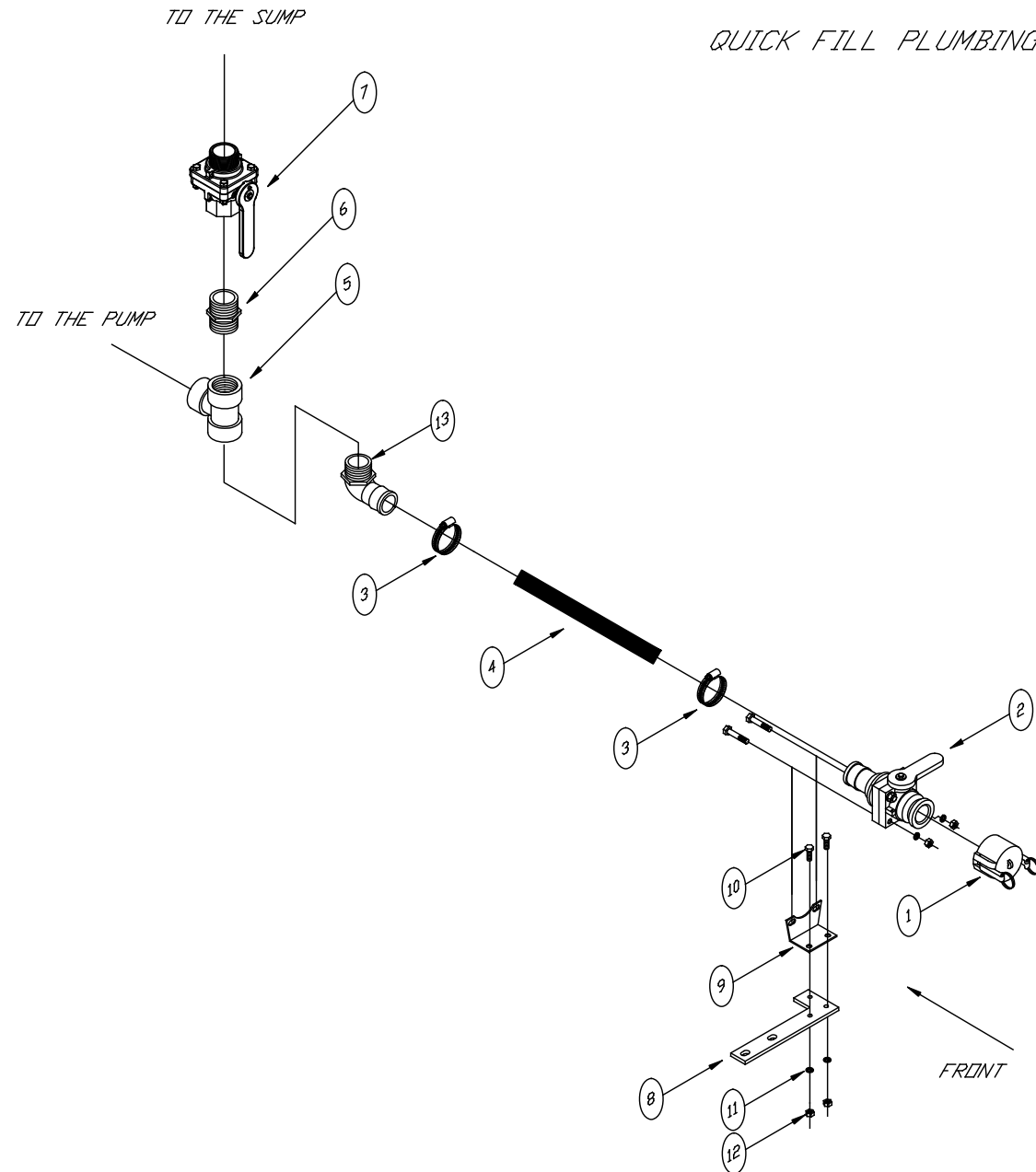
DOUBLE PISTON METERING PUMP PLUMBING

NOTES:

<i>ITEM #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>750041</i>	<i>NGP-9055 DOUBLE PISTON PUMP</i>
<i>2</i>	<i>1</i>	<i>700066</i>	<i>1-1/2 X 1" - REDUCER BUSHING</i>
<i>3</i>	<i>1</i>	<i>700074</i>	<i>1" NPT TEE</i>
<i>4</i>	<i>1</i>	<i>700290</i>	<i>1" NPT X 1/4" NPT REDUCING BUSHING</i>
<i>5</i>	<i>1</i>	<i>700237</i>	<i>4" GLYCERIN FILLED PRESSURE GAUGE</i>
<i>6</i>	<i>1</i>	<i>700119</i>	<i>1" X 48" - EPDM HOSE</i>
<i>7</i>	<i>1</i>	<i>700121</i>	<i>1-1/2" X 96" - EPDM HOSE</i>
<i>8</i>	<i>1</i>	<i>700022</i>	<i>1 NPT X 1" HOSE BARB - 90</i>
<i>9</i>	<i>1</i>	<i>700026</i>	<i>1-1/2 NPT X 1-1/2" BARB - 90</i>
<i>10</i>	<i>1</i>	<i>700129</i>	<i>1-1/2" - STAINLESS HOSE CLAMP</i>
<i>11</i>	<i>1</i>	<i>700128</i>	<i>1" - STAINLESS HOSE CLAMP</i>
<i>12</i>	<i>1</i>	<i>76700214</i>	<i>1-1/2" NPT BANJO FILTER</i>
<i>13</i>	<i>1</i>	<i>76700186</i>	<i>2" MNPT X 1-1/2" MNPT REDUCER NIPPLE</i>

ITEM 6 IS SOLD BY THE FOOT AND IS AVAILABLE USING PART NUMBER - 700118.

ITEM 7 IS SOLD BY THE FOOT AND IS AVAILABLE USING PART NUMBER - 700121.



QUICK FILL PLUMBING SCHEMATIC

<i>ITEM#</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>700191</i>	<i>2" CAP FOR MALE ADAPTER</i>
<i>2</i>	<i>1</i>	<i>700321</i>	<i>2" M-M BALL VALVE X 2" M-C FLANGE</i>
<i>3</i>	<i>2</i>	<i>700130</i>	<i>2" STAINLESS HOSE CLAMP</i>
<i>4</i>	<i>1</i>	<i>700124</i>	<i>2" X 60" - EPDM HOSE</i>
<i>5</i>	<i>1</i>	<i>700077</i>	<i>2" NPT TEE</i>
<i>6</i>	<i>1</i>	<i>76700038</i>	<i>2" NPT CLOSE NIPPLE</i>
<i>7</i>	<i>1</i>	<i>767805251</i>	<i>2" MNPT X 2" FNPT X BALL VALVE</i>
<i>8</i>	<i>1</i>	<i>76400168</i>	<i>MOUNTING TAB</i>
<i>9</i>	<i>1</i>	<i>700192</i>	<i>90° STAINLESS MOUNTING BRACKET</i>
<i>10</i>	<i>2</i>	<i>101125</i>	<i>3/8-16 X 1" HEX BOLT - PLT. GR.5</i>
<i>11</i>	<i>2</i>	<i>101220</i>	<i>3/8" LOCK WASHER - PLT.</i>
<i>12</i>	<i>2</i>	<i>101211</i>	<i>3/8-16 HEX NUT - PLT.</i>
<i>13</i>	<i>1</i>	<i>700027</i>	<i>2" NPT X 2" HOSE BARB 90</i>

NOTES:

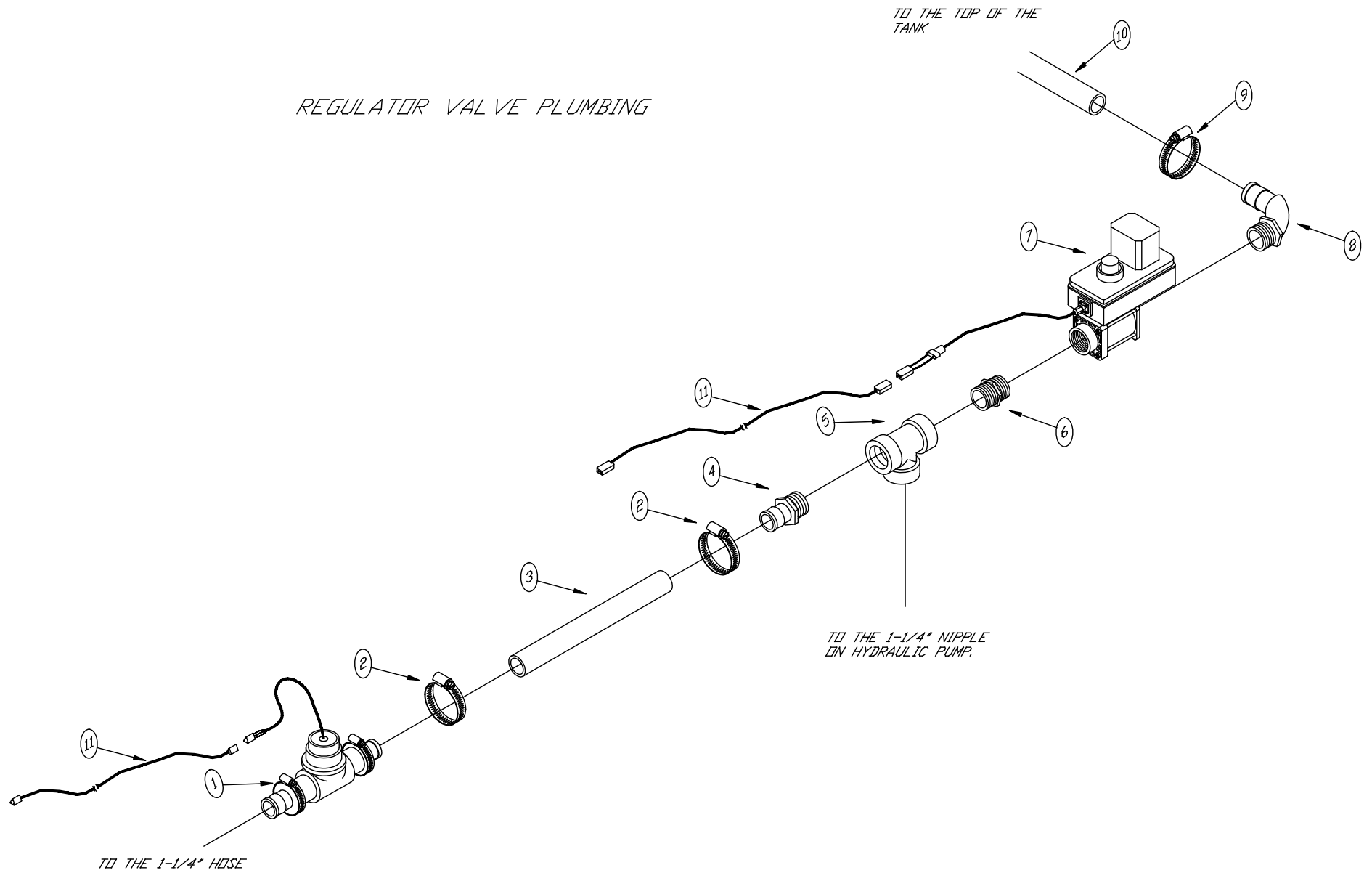
*USE RECTORSEAL NO. 5,
NO. 7, OR NO. 21 ON PIPE
THREADS INSTEAD OF
TEFLON TAPE.*

*REMOVE THE TOP NUTS &
WASHERS FROM THE BALL
VALVE & ATTACH THE MOUNTING
BRACKET ON THOSE BOLTS.*

*1-1/2" HOSE IS SOLD BY THE
FOOT USING PART# - 700121.*

*2" HOSE IS SOLD BY THE
FOOT USING PART# - 700124.*

REGULATOR VALVE PLUMBING

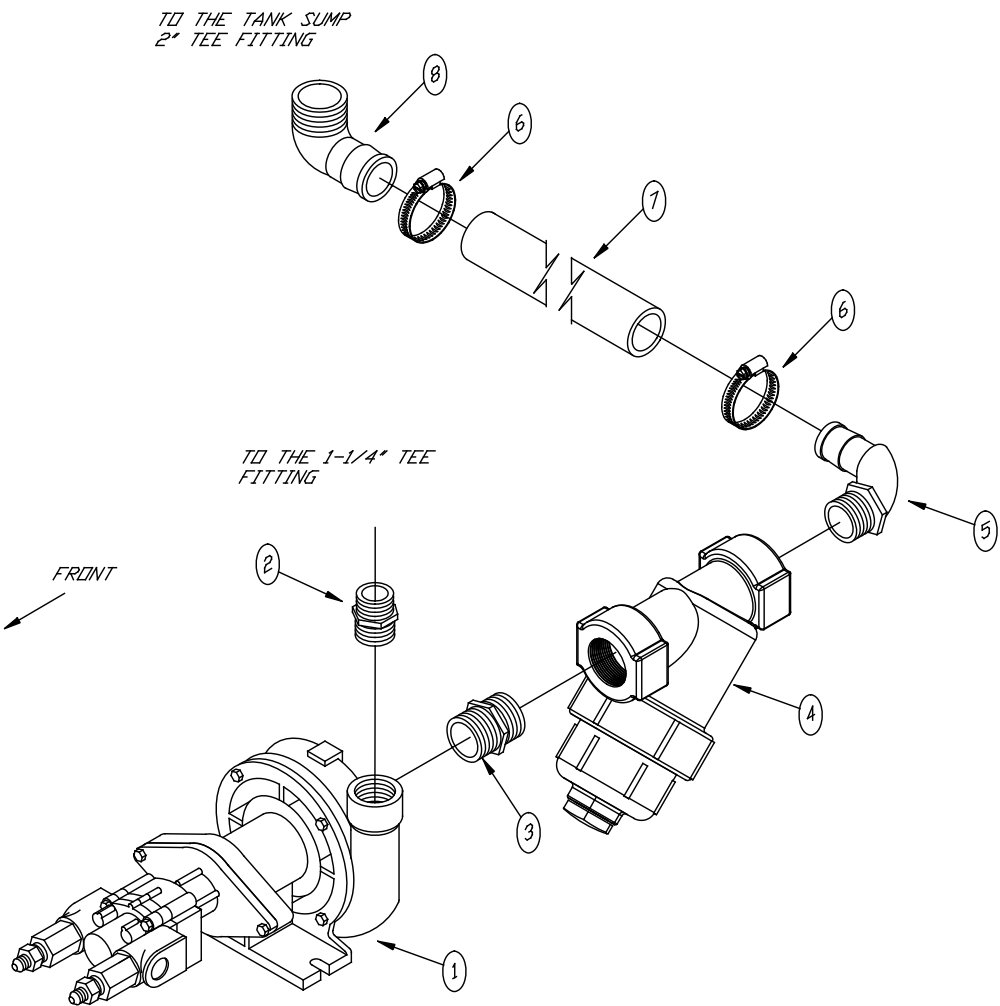


REGULATOR VALVE PLUMBING

NOTES:

<i>ITEM</i>	<i>QTY</i>	<i>PART#</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>767800371</i>	<i>1-1/4" FLOW METER</i>
<i>2</i>	<i>2</i>	<i>767800128</i>	<i>1-1/4" STAINLESS STEEL HOSE CLAMP</i>
<i>3</i>	<i>1</i>	<i>767001191</i>	<i>1-1/4" EPDM HOSE (30")</i>
<i>4</i>	<i>1</i>	<i>76700011</i>	<i>1-1/4" NPT X 1-1/4" BARB - STRAIGHT</i>
<i>5</i>	<i>1</i>	<i>76700075</i>	<i>1-1/4" NPT FEMALE TEE</i>
<i>6</i>	<i>1</i>	<i>76700115</i>	<i>1-1/4" X 1" REDUCING NIPPLE</i>
<i>7</i>	<i>1</i>	<i>76780038</i>	<i>REGULATOR VALVE</i>
<i>8</i>	<i>1</i>	<i>76700021</i>	<i>1" NPT X 3/4" - 90</i>
<i>9</i>	<i>1</i>	<i>76700127</i>	<i>3/4 - 1" STAINLESS STEEL HOSE CLAMP</i>
<i>10</i>	<i>1</i>	<i>76700118</i>	<i>3/4 X 76" - EPDM HOSE</i>
<i>11</i>	<i>2</i>	<i>76780035</i>	<i>EXTENSION CABLE 15'</i>

HYDRAULIC PUMP PLUMBING



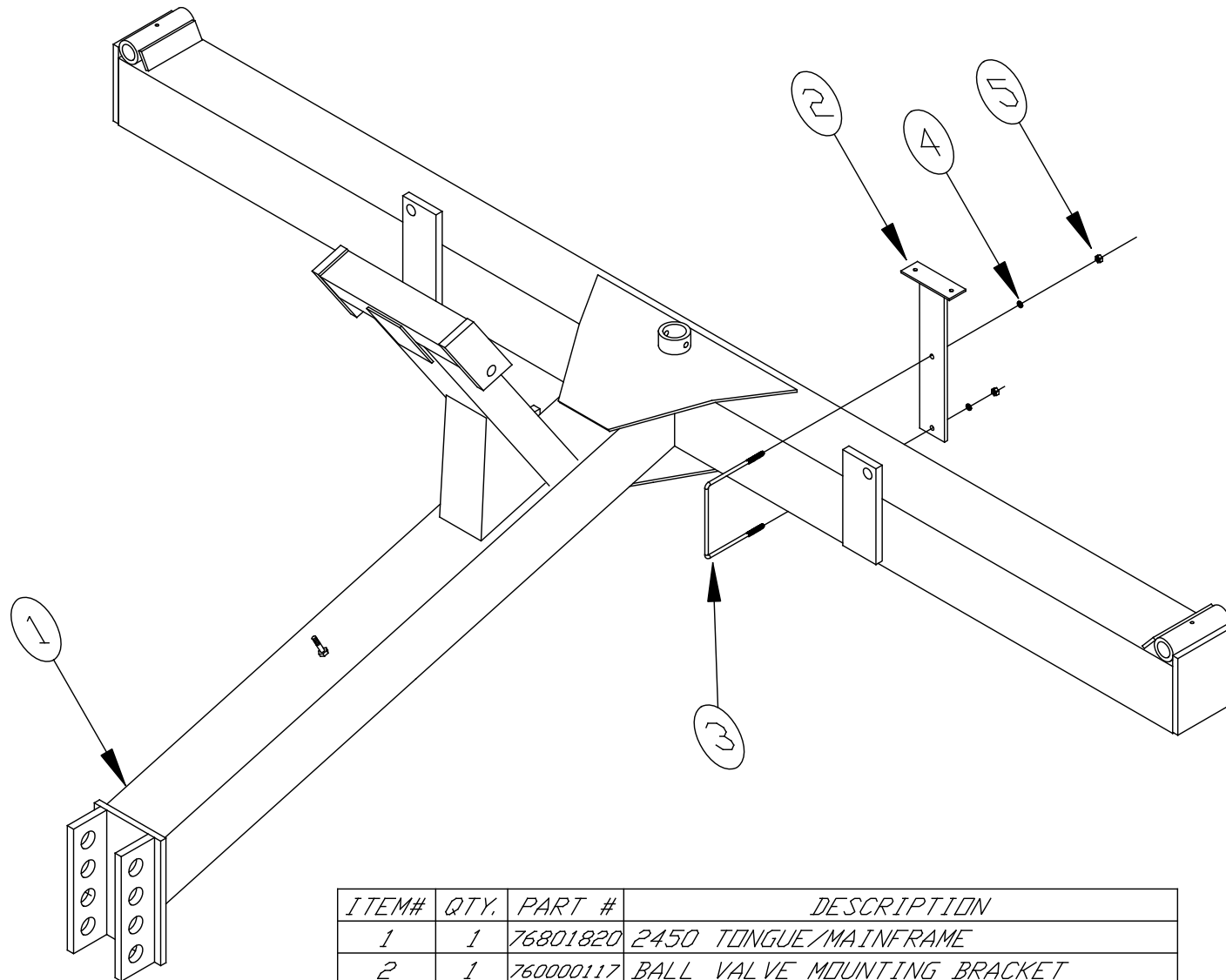
HYDRAULIC PUMP PLUMBING

NOTES:

<i>ITEM</i>	<i>QTY</i>	<i>PART#</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>7670039</i>	<i>HYDRAULIC PUMP</i>
<i>2</i>	<i>1</i>	<i>76700036</i>	<i>1-1/4" NPT CLOSE NIPPLE</i>
<i>3</i>	<i>1</i>	<i>76700037</i>	<i>1-1/2" NPT CLOSE NIPPLE</i>
<i>4</i>	<i>1</i>	<i>76700214</i>	<i>1-1/2" NPT BANJO FILTER</i>
<i>5</i>	<i>1</i>	<i>76700026</i>	<i>1-1/2" NPT X 1-1/2" BARB 90</i>
<i>6</i>	<i>2</i>	<i>76700130</i>	<i>1-1/2" STAINLESS STEEL HOSE CLAMP</i>
<i>7</i>	<i>1</i>	<i>767000121</i>	<i>1-1/2 X 42" - EPDM HOSE</i>
<i>8</i>	<i>1</i>	<i>76700186</i>	<i>2" MNPT X 1/2" BARB 90</i>

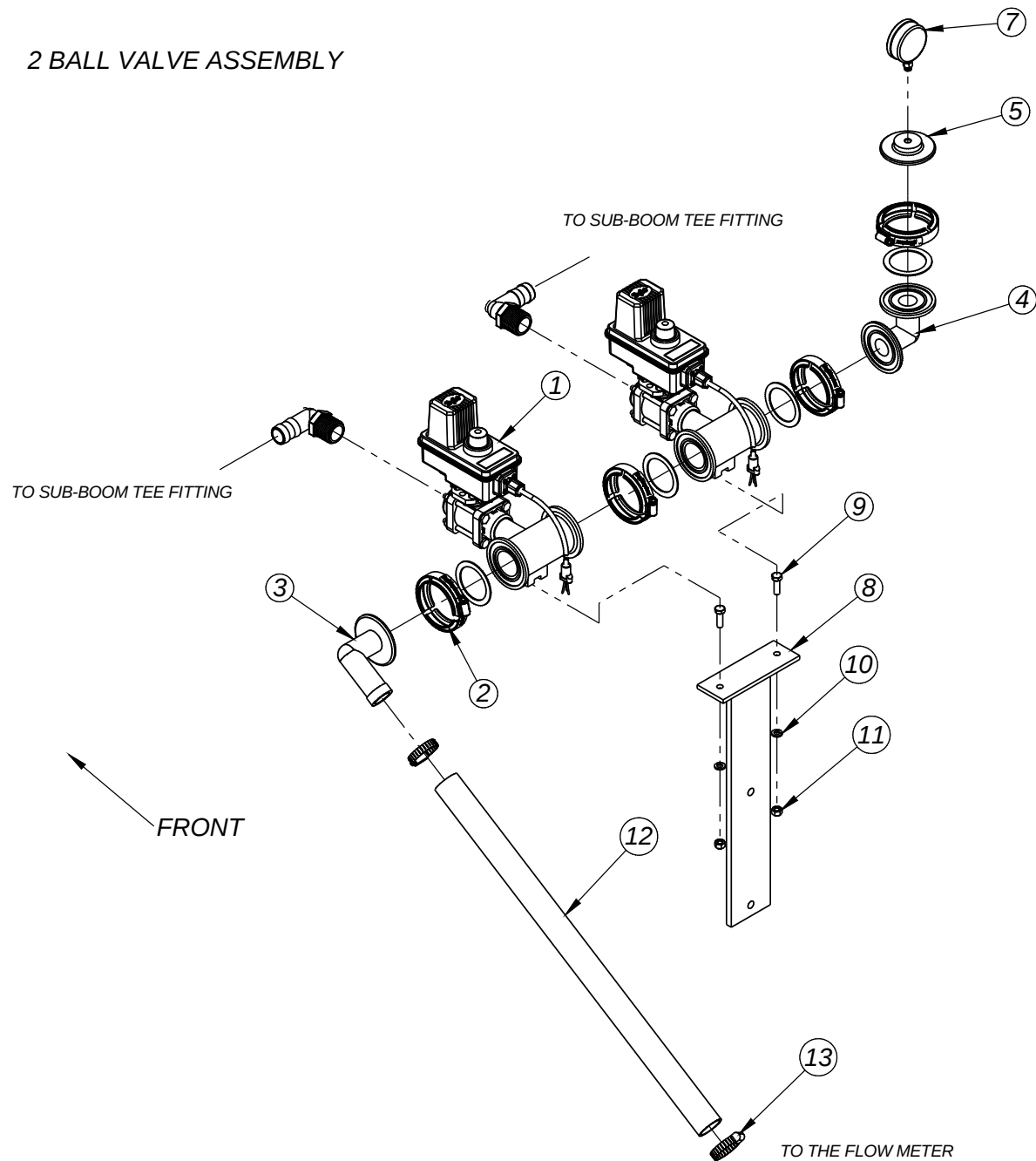
BALL VALVE BRACKET ATTACHMENT

*HYDRAULIC PUMP MODELS ONLY



ITEM#	QTY.	PART #	DESCRIPTION
1	1	76801820	2450 TONGUE/MAINFRAME
2	1	760000117	BALL VALVE MOUNTING BRACKET
3	1	76101329	3/8"-16 X 7" X 8, 5" U-BOLT-PLT
4	2	76101220	3/8" LOCK WASHER - PLT.
5	2	76101211	3/8"-16 HEX NUT-PLT

2 BALL VALVE ASSEMBLY



2 BALL VALVE ASSEMBLY**NOTES**

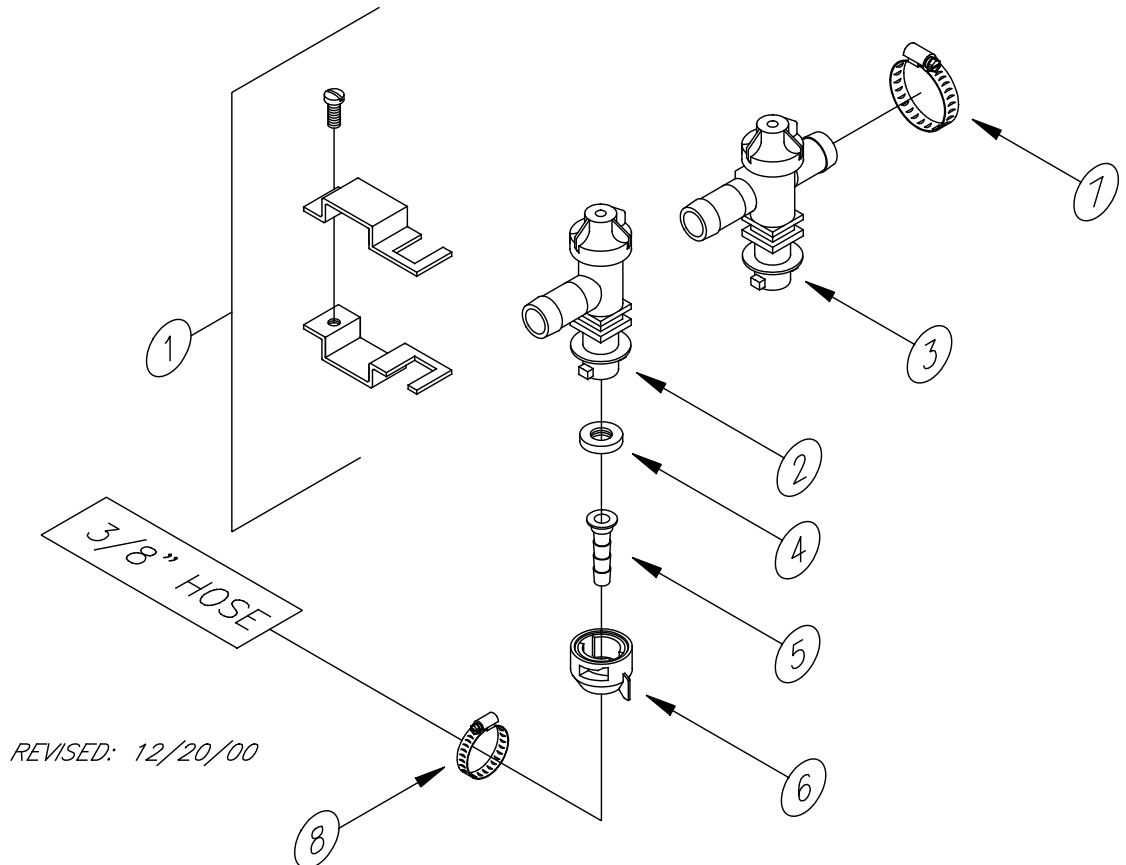
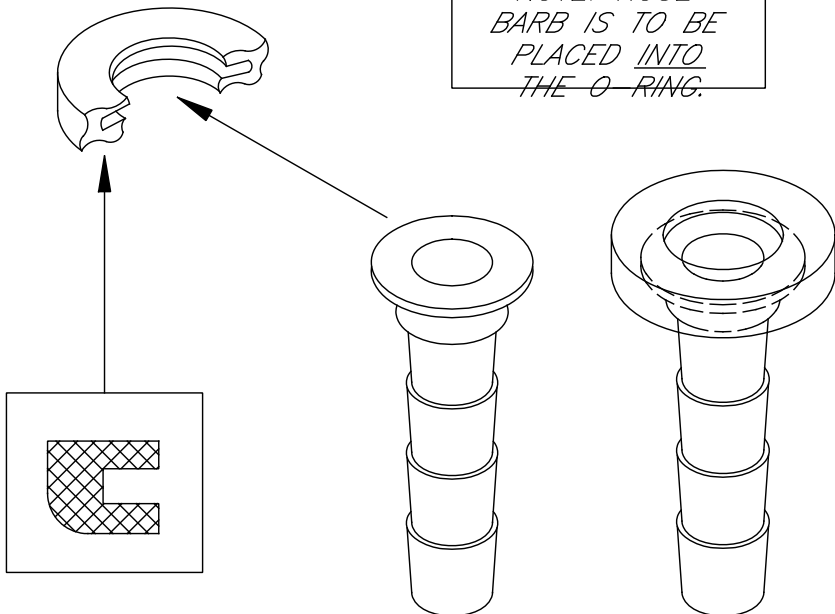
<i>ITEM NO.</i>	<i>PART NUMBER</i>	<i>Description1</i>	<i>QTY.</i>
<i>1</i>	<i>767800362</i>	<i>BALL VALVE (1) - 451</i>	<i>2</i>
<i>2</i>	<i>767002904</i>	<i>S.S. FLANGE CLAMP</i>	<i>4</i>
<i>3</i>	<i>767002901</i>	<i>1-1/4" BARB ELBOW FLANGE</i>	<i>1</i>
<i>4</i>	<i>767002902</i>	<i>1-1/4" FLANGE ELBOW</i>	<i>1</i>
<i>5</i>	<i>767002903</i>	<i>1-1/4" FLANGE ADAPTER</i>	<i>1</i>
<i>6</i>	<i>76700022</i>	<i>1" NPT X 1" BARB - 90</i>	<i>2</i>
<i>7</i>	<i>76700237</i>	<i>4" PRESSURE GAUGE (0-100 PSI)</i>	<i>1</i>
<i>8</i>	<i>760000117</i>	<i>VALVE MOUNT</i>	<i>1</i>
<i>9</i>	<i>76101114</i>	<i>5/16"-18 X 1"-PLT-GR5</i>	<i>2</i>
<i>10</i>	<i>76101219</i>	<i>5/16" LOCK WASHER-PLT</i>	<i>2</i>
<i>11</i>	<i>76101210</i>	<i>5/16"-18 HEX NUT-PLT</i>	<i>2</i>
<i>12</i>	<i>767001191</i>	<i>1-1/4" EPDM HOSE</i>	<i>7 ft</i>
<i>13</i>	<i>76700129</i>	<i>1-1/2" HOSE CLAMP</i>	<i>2</i>

NOZZLE ASSEMBLY (EXPLODED)

REF. #	QTY.	PART #	DESCRIPTION
1	1	700203	1-1/4" SQUARE NOZZLE CLAMP
2	1	700199	3/4" DIAPHRAGM NOZZLE ELBOW
3	1	700201	3/4" DIAPHRAGM NOZZLE TEE
4	1	700305	SPLIT HOSE BARB O-RING
5	1	700302	1/4" HOSE BARB FOR NOZZLE CAP
6	1	700303	NOZZLE CAP - BLUE
7	1-2	700127	3/4" STAINLESS HOSE CLAMP
8	1	700126	3/8-1/2" STAINLESS HOSE CLAMP

NOTE: QUANTITIES LISTED ARE FOR ONE (1) NOZZLE ONLY.

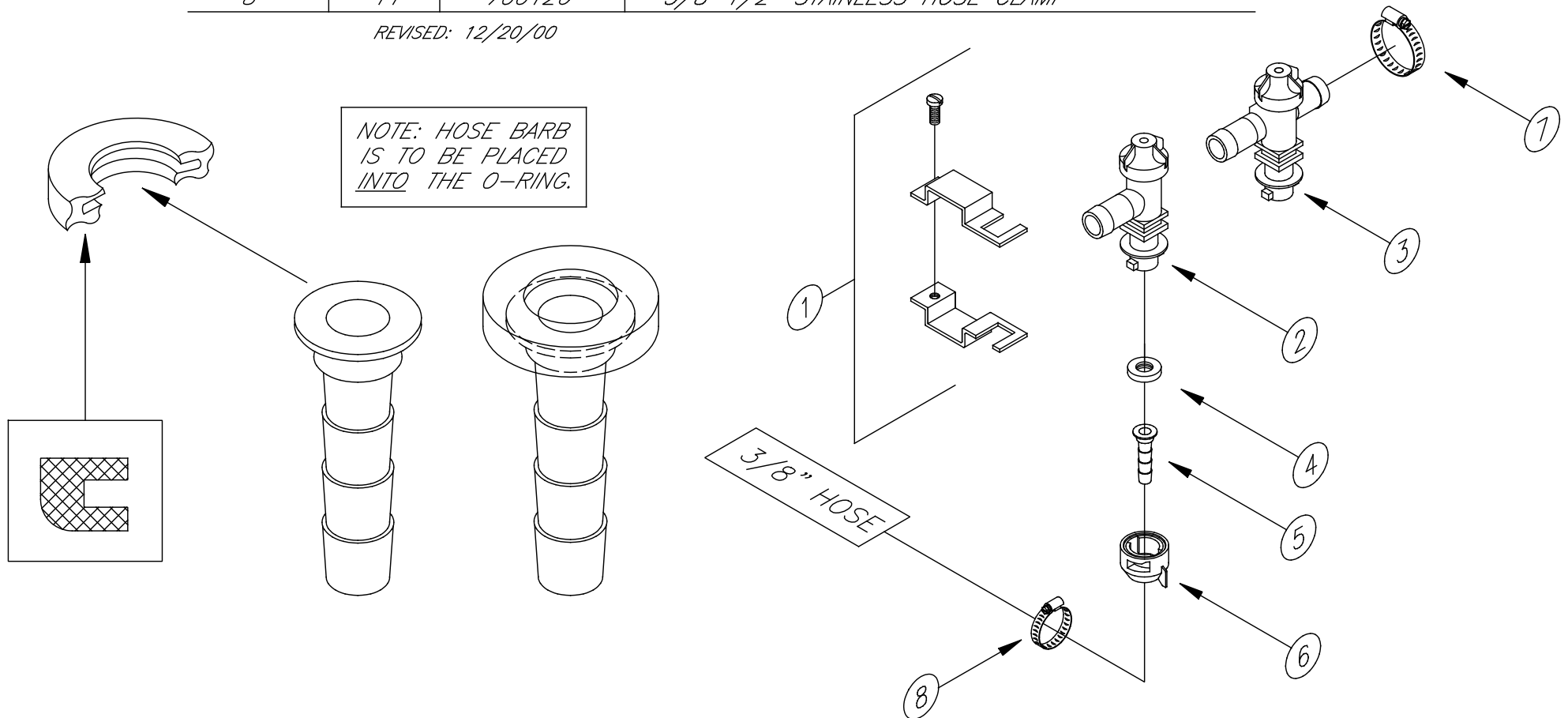
NOTE: HOSE BARB IS TO BE PLACED INTO THE O-RING.



11 COULTER NOZZLE ASSEMBLY (EXPLODED)

REF. #	QTY.	PART #	DESCRIPTION
1	11	700203	1-1/4" SQUARE NOZZLE CLAMP
2	2	700199	3/4" DIAPHRAGM NOZZLE ELBOW
3	9	700201	3/4" DIAPHRAGM NOZZLE TEE
4	11	700305	SPLIT HOSE BARB O-RING
5	11	700302	1/4" HOSE BARB FOR NOZZLE CAP
6	11	700303	NOZZLE CAP - BLUE
7	23	700127	3/4" STAINLESS HOSE CLAMP
8	11	700126	3/8-1/2" STAINLESS HOSE CLAMP

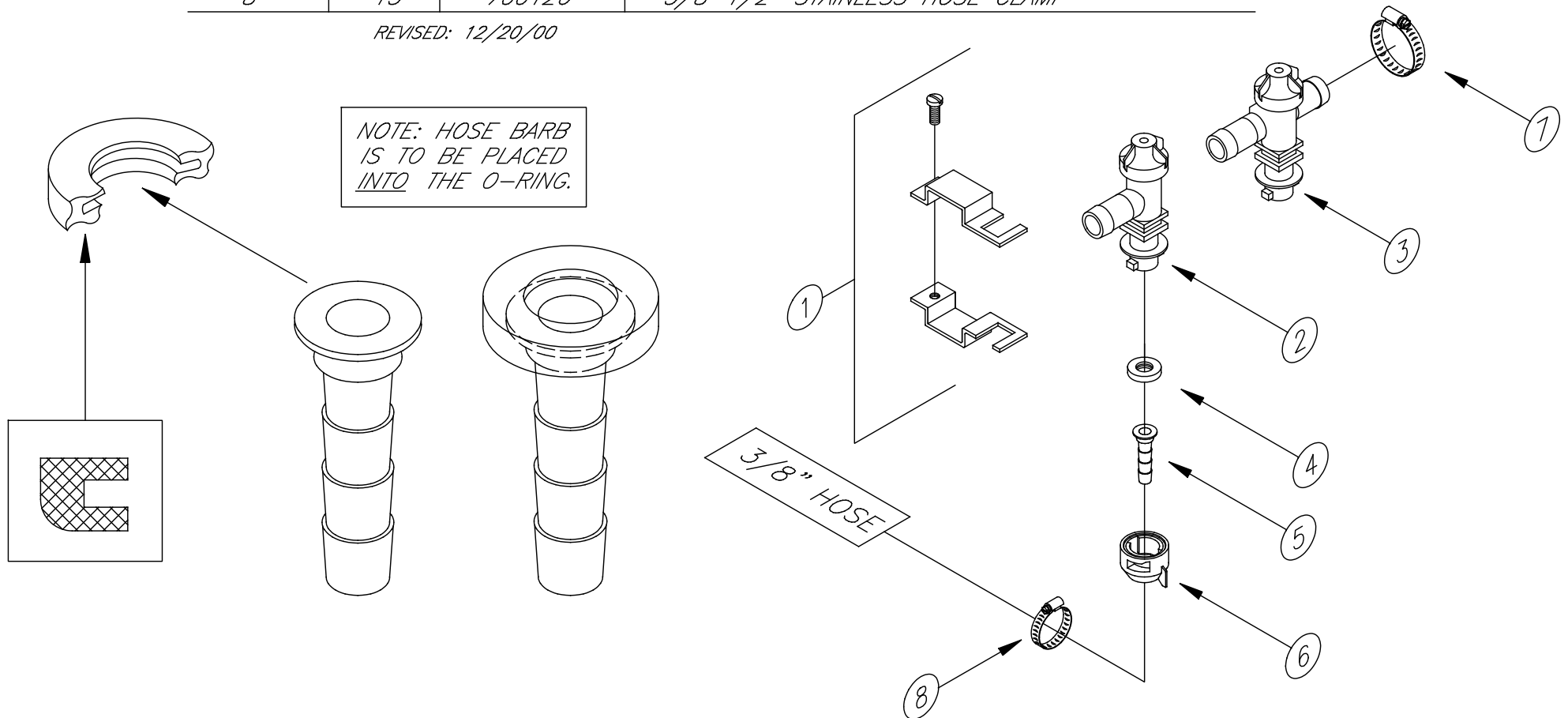
REVISED: 12/20/00



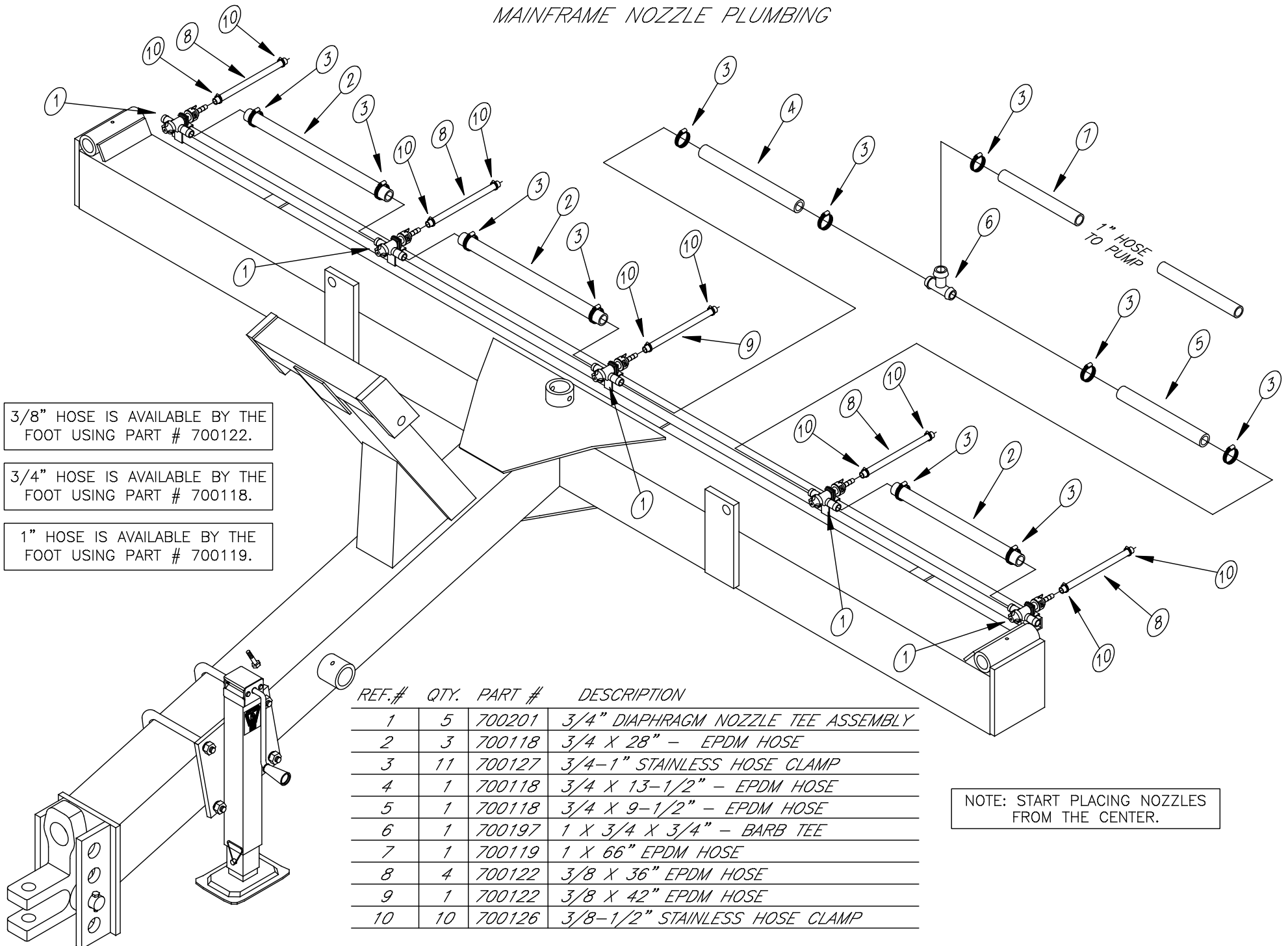
13 COULTER NOZZLE ASSEMBLY (EXPLODED)

REF. #	QTY.	PART #	DESCRIPTION
1	13	700203	1-1/4" SQUARE NOZZLE CLAMP
2	2	700199	3/4" DIAPHRAGM NOZZLE ELBOW
3	11	700201	3/4" DIAPHRAGM NOZZLE TEE
4	13	700305	SPLIT HOSE BARB O-RING
5	13	700302	1/4" HOSE BARB FOR NOZZLE CAP
6	13	700303	NOZZLE CAP - BLUE
7	27	700127	3/4" STAINLESS HOSE CLAMP
8	13	700126	3/8-1/2" STAINLESS HOSE CLAMP

REVISED: 12/20/00



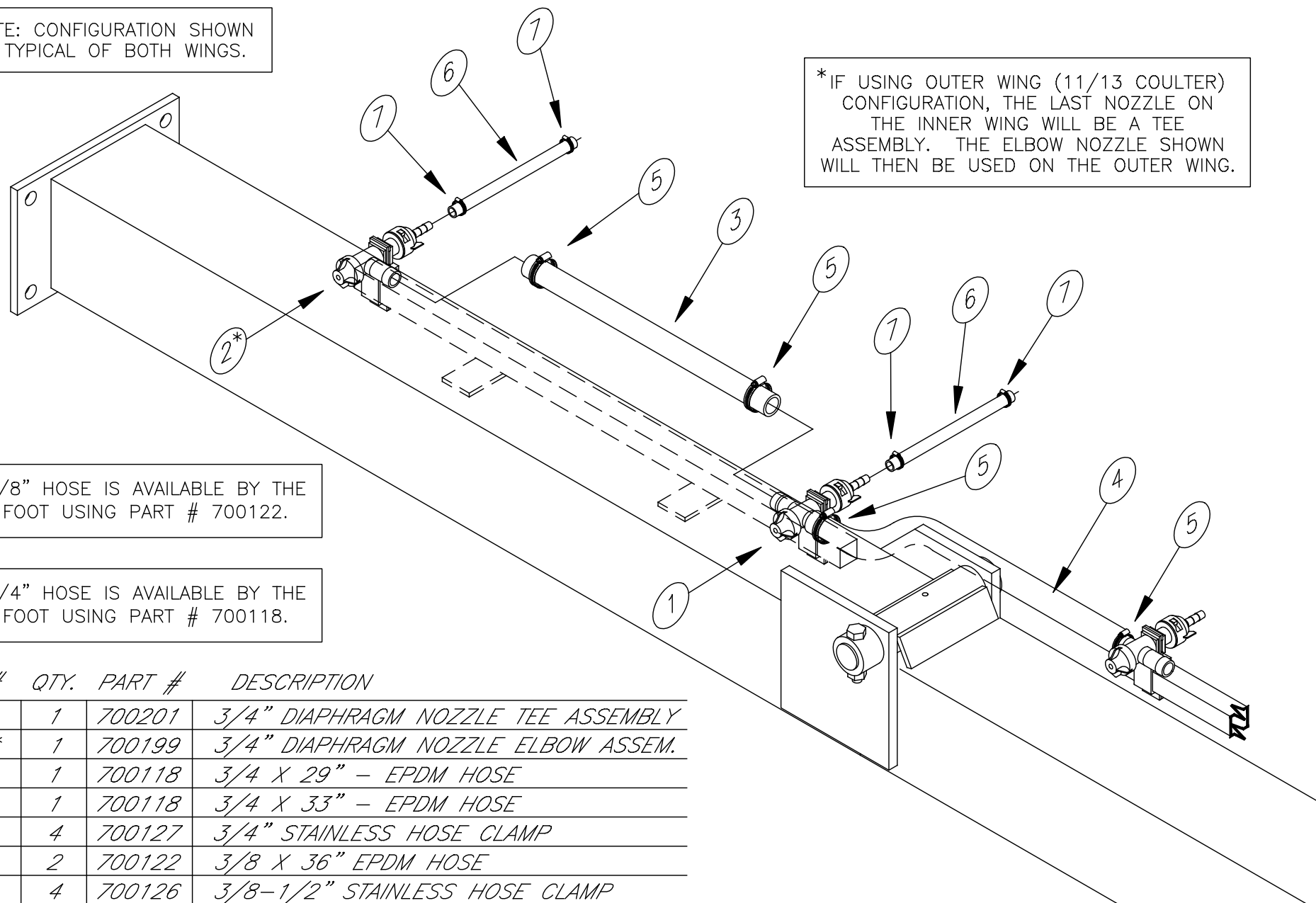
MAINFRAME NOZZLE PLUMBING



9 COULTER WING NOZZLE PLUMBING

NOTE: CONFIGURATION SHOWN
IS TYPICAL OF BOTH WINGS.

*IF USING OUTER WING (11/13 COULTER)
CONFIGURATION, THE LAST NOZZLE ON
THE INNER WING WILL BE A TEE
ASSEMBLY. THE ELBOW NOZZLE SHOWN
WILL THEN BE USED ON THE OUTER WING.



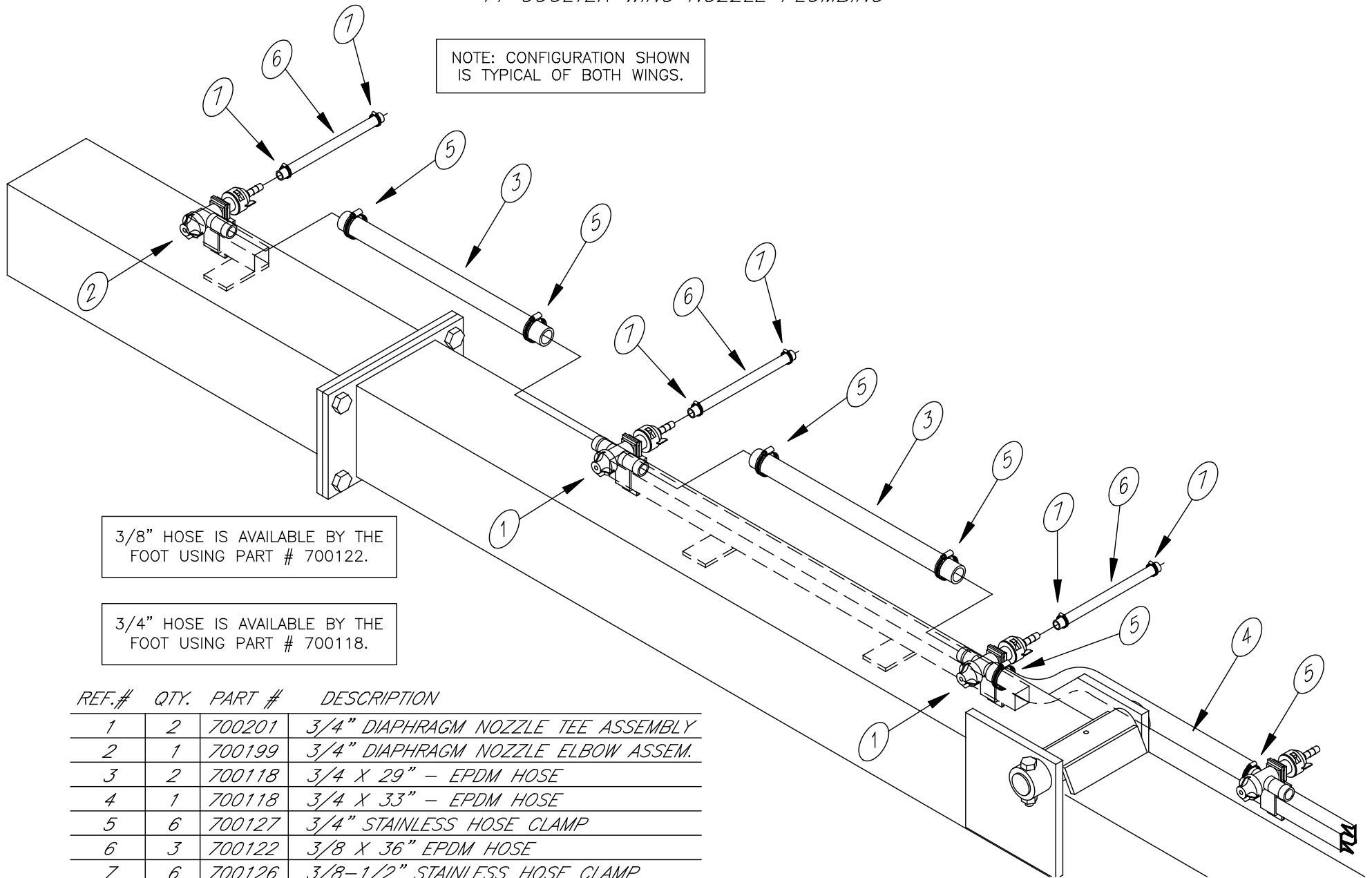
3/8" HOSE IS AVAILABLE BY THE
FOOT USING PART # 700122.

3/4" HOSE IS AVAILABLE BY THE
FOOT USING PART # 700118.

REF.#	QTY.	PART #	DESCRIPTION
1	1	700201	3/4" DIAPHRAGM NOZZLE TEE ASSEMBLY
2*	1	700199	3/4" DIAPHRAGM NOZZLE ELBOW ASSEM.
3	1	700118	3/4 X 29" - EPDM HOSE
4	1	700118	3/4 X 33" - EPDM HOSE
5	4	700127	3/4" STAINLESS HOSE CLAMP
6	2	700122	3/8 X 36" EPDM HOSE
7	4	700126	3/8-1/2" STAINLESS HOSE CLAMP

11 COULTER WING NOZZLE PLUMBING

NOTE: CONFIGURATION SHOWN
IS TYPICAL OF BOTH WINGS.

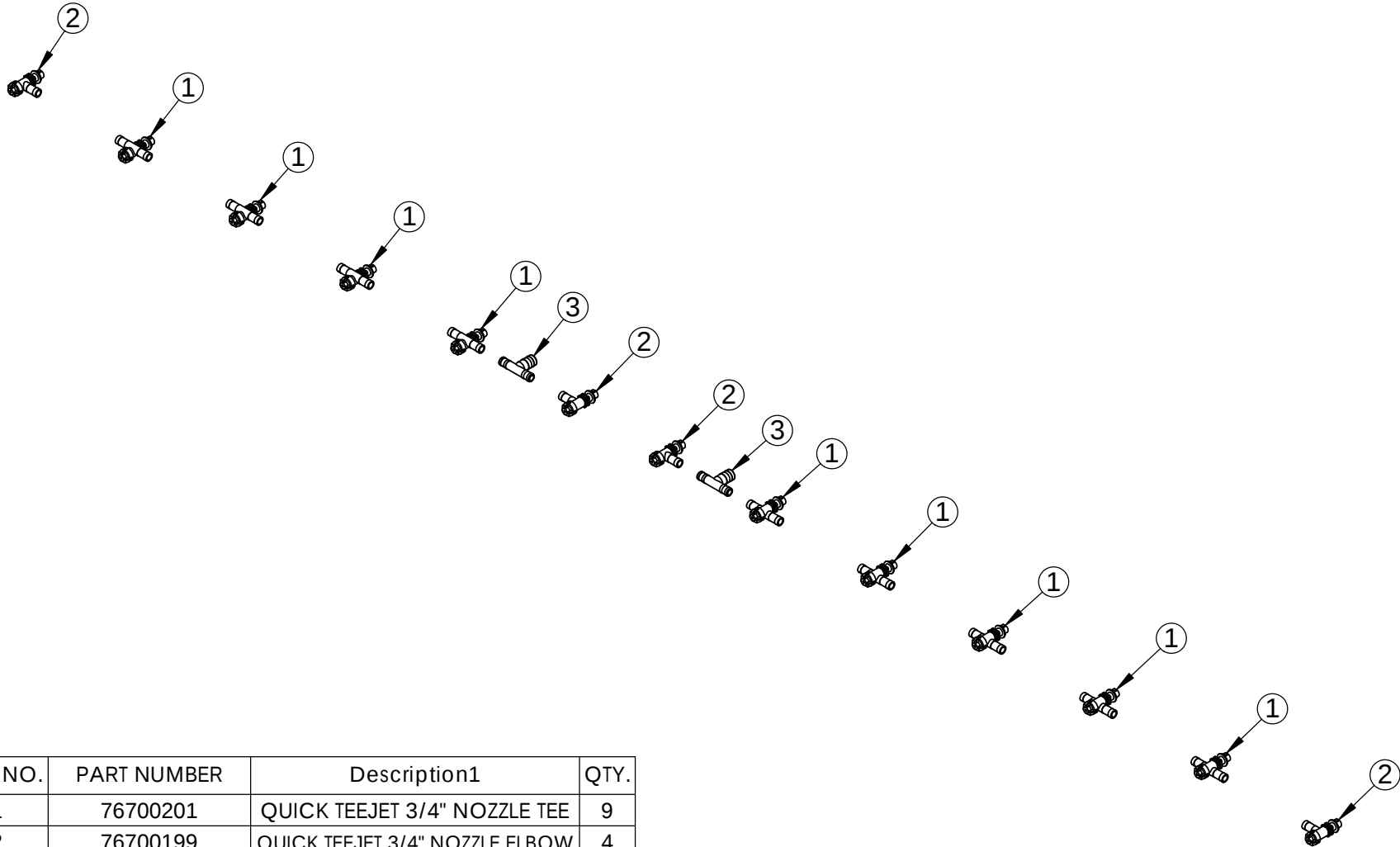


3/8" HOSE IS AVAILABLE BY THE
FOOT USING PART # 700122.

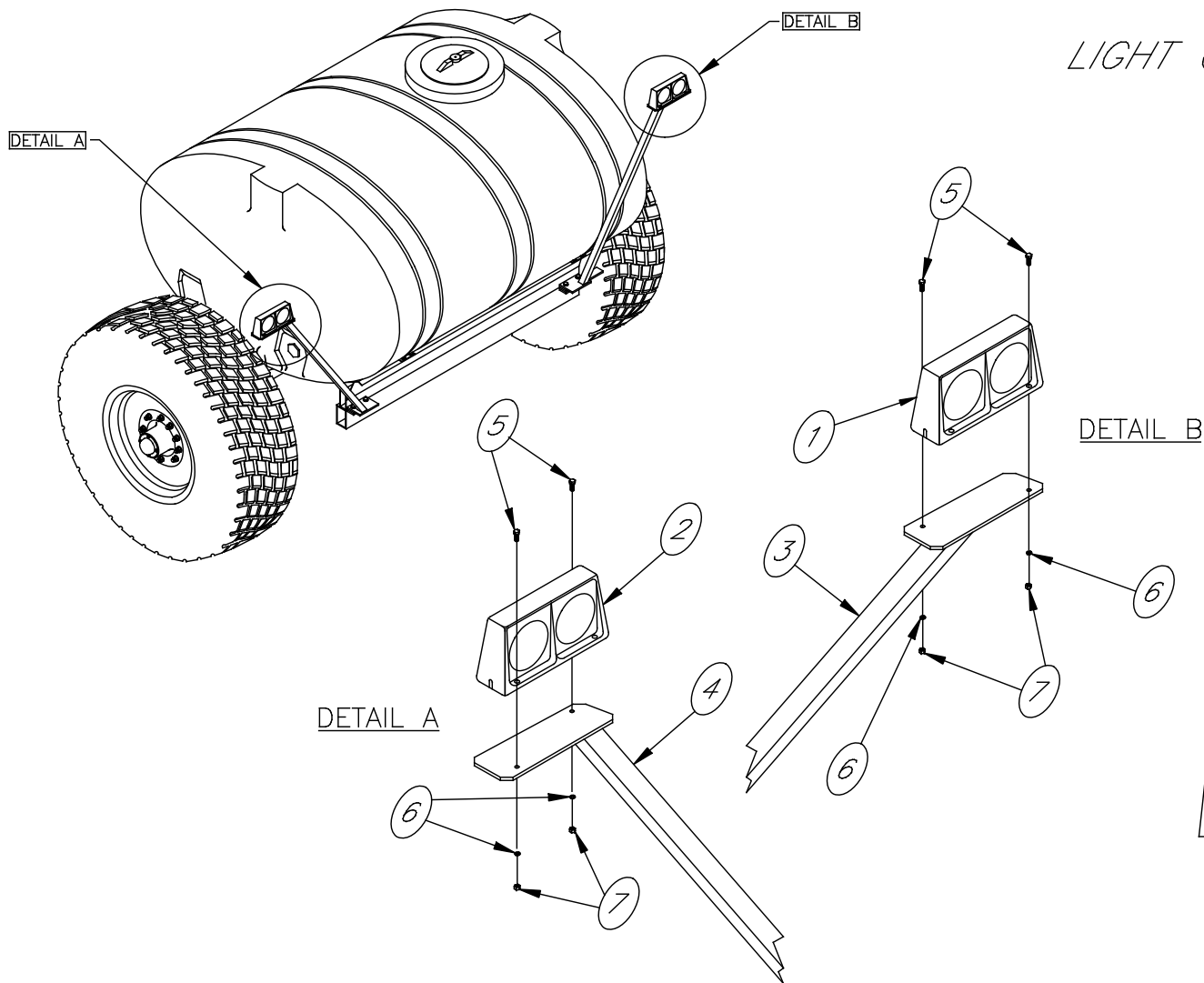
3/4" HOSE IS AVAILABLE BY THE
FOOT USING PART # 700118.

REF.#	QTY.	PART #	DESCRIPTION
1	2	700201	3/4" DIAPHRAGM NOZZLE TEE ASSEMBLY
2	1	700199	3/4" DIAPHRAGM NOZZLE ELBOW ASSEM.
3	2	700118	3/4 X 29" - EPDM HOSE
4	1	700118	3/4 X 33" - EPDM HOSE
5	6	700127	3/4" STAINLESS HOSE CLAMP
6	3	700122	3/8 X 36" EPDM HOSE
7	6	700126	3/8-1/2" STAINLESS HOSE CLAMP

Typical Nozzle Layout For 2 Ball Valves - 13-30 Inch Rows

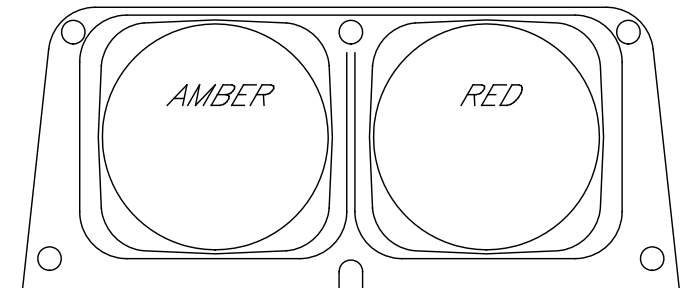


ITEM NO.	PART NUMBER	Description1	QTY.
1	76700201	QUICK TEEJET 3/4" NOZZLE TEE	9
2	76700199	QUICK TEEJET 3/4" NOZZLE ELBOW	4
3	76700197	1" x 3/4" x 3/4" - BARB TEE	2

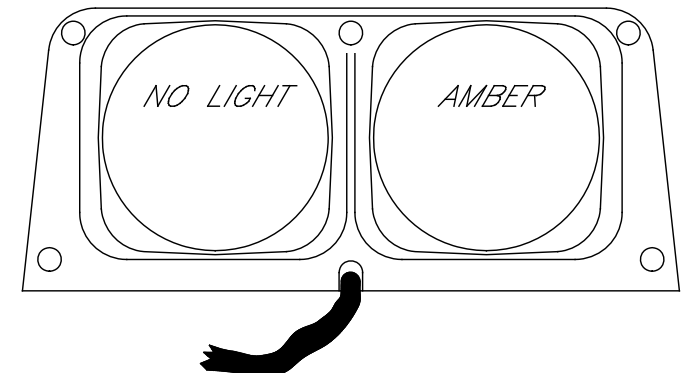


LIGHT ORIENTATION & ASSEMBLY

BACK OF LEFT LIGHT WITH
YOU FACING REAR OF
IMPLEMENT

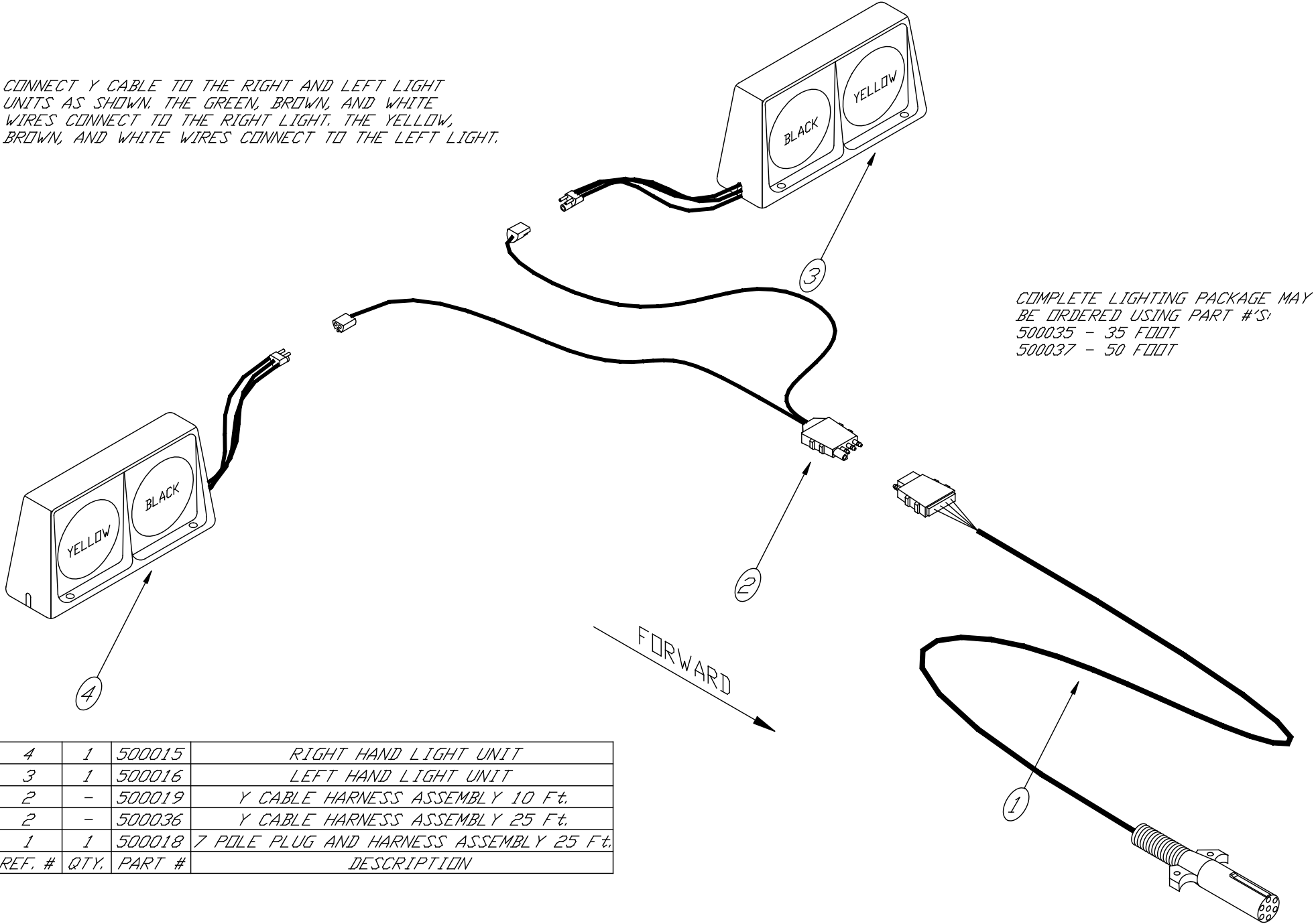


FRONT OF LEFT LIGHT WITH
YOU FACING FRONT OF
IMPLEMENT



REF.#	QTY.	PART #	DESCRIPTION
1	1	500015	RIGHT HAND LIGHT UNIT
2	1	500016	LEFT HAND LIGHT UNIT
3	1	801835	LIGHT BRACKET WELDMENT - RIGHT
4	1	801836	LIGHT BRACKET WELDMENT - LEFT
5	4	101102	1/4-20 X 1" - HEX BOLT - PLT.
6	4	101218	1/4" - LOCK WASHER - PLT.
7	4	101209	1/4-20 HEX NUT - PLT.

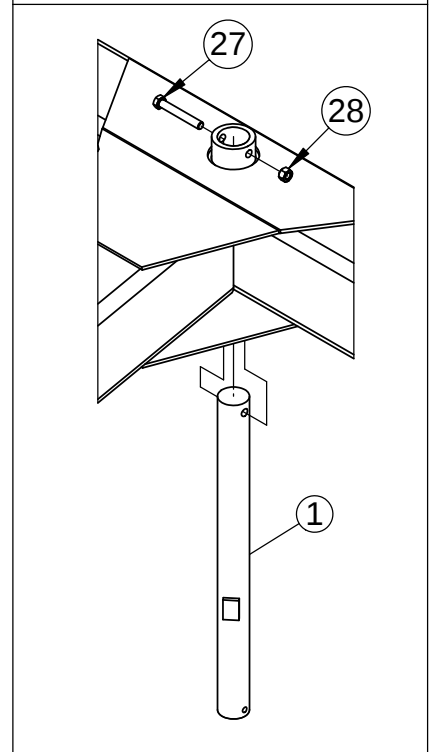
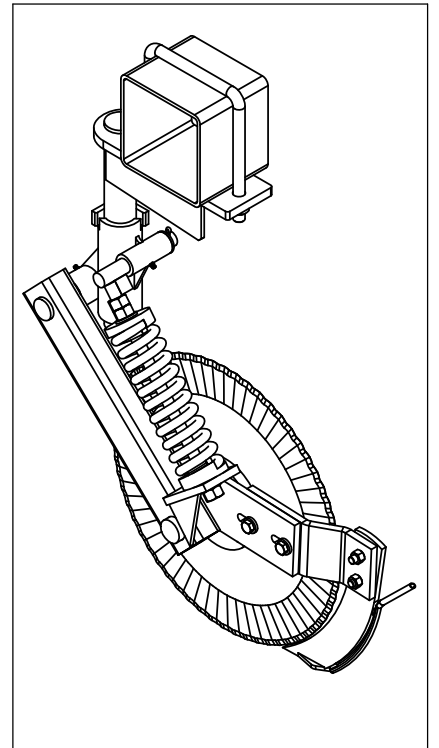
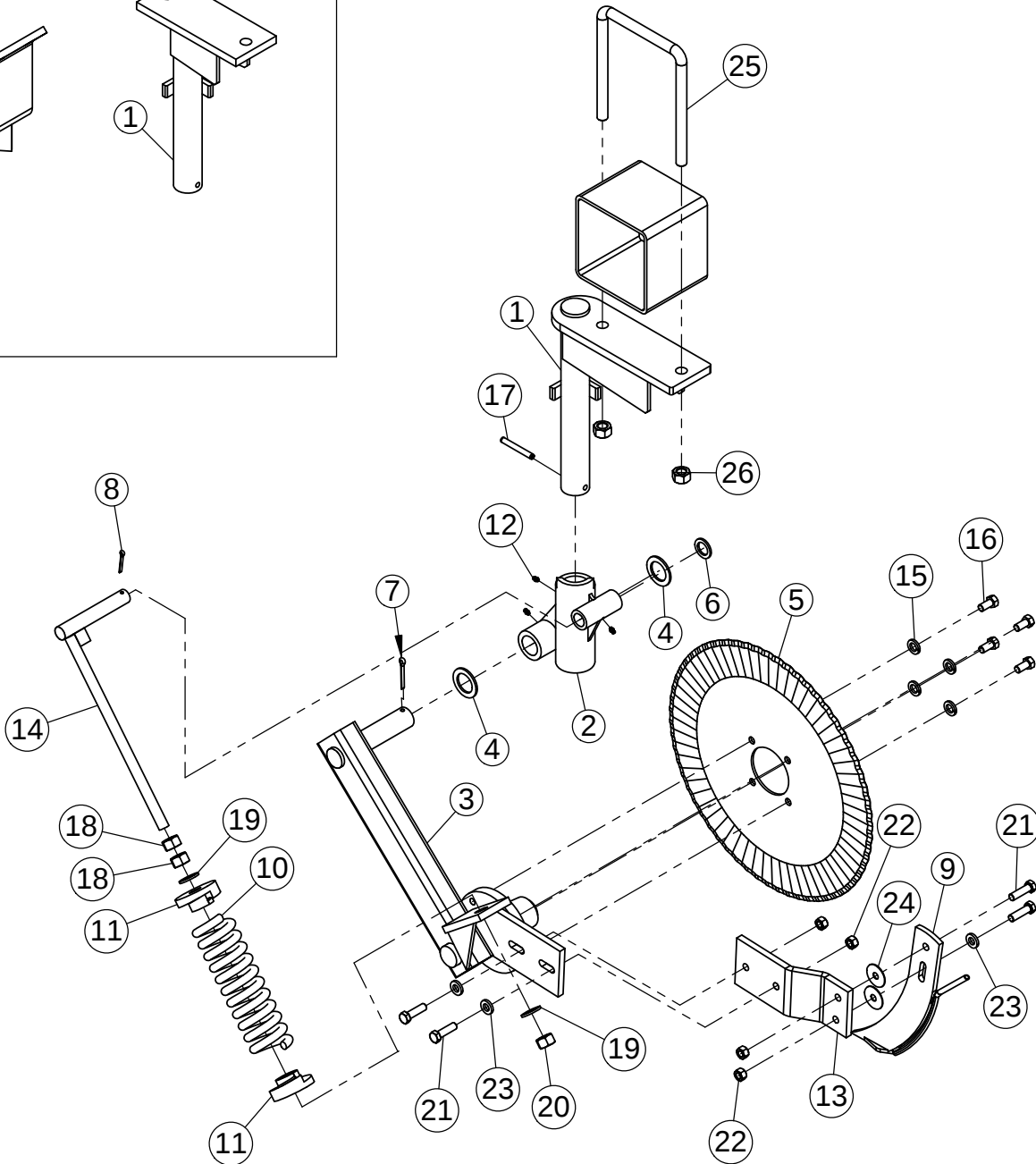
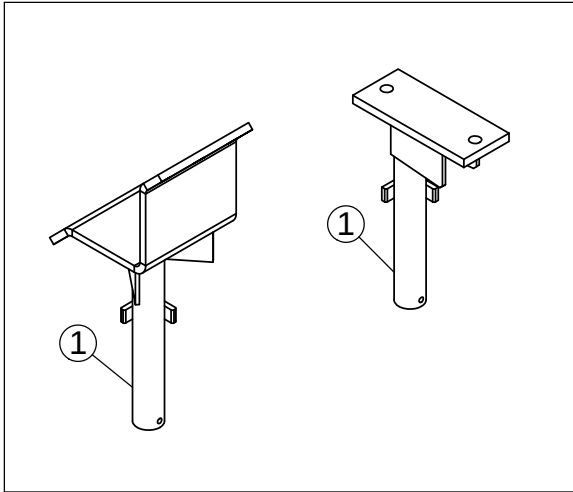
CONNECT Y CABLE TO THE RIGHT AND LEFT LIGHT
UNITS AS SHOWN. THE GREEN, BROWN, AND WHITE
WIRES CONNECT TO THE RIGHT LIGHT. THE YELLOW,
BROWN, AND WHITE WIRES CONNECT TO THE LEFT LIGHT.



COMPLETE LIGHTING PACKAGE MAY
BE ORDERED USING PART #'S:
500035 - 35 FOOT
500037 - 50 FOOT

4	1	500015	RIGHT HAND LIGHT UNIT
3	1	500016	LEFT HAND LIGHT UNIT
2	-	500019	Y CABLE HARNESS ASSEMBLY 10 Ft.
2	-	500036	Y CABLE HARNESS ASSEMBLY 25 Ft.
1	1	500018	7 POLE PLUG AND HARNESS ASSEMBLY 25 Ft.
REF. #	QTY.	PART #	DESCRIPTION

LIQUID SIDEDRESS SWIVEL COULTER ASSEMBLY

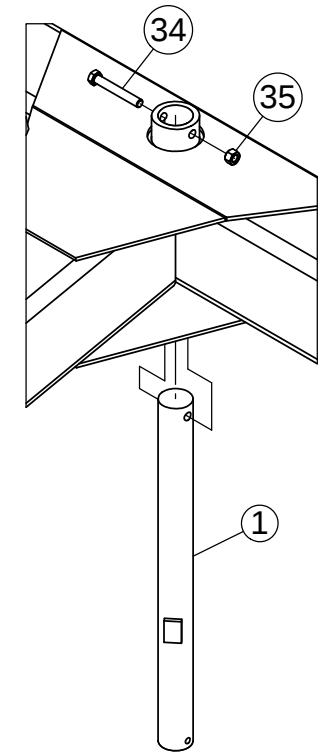
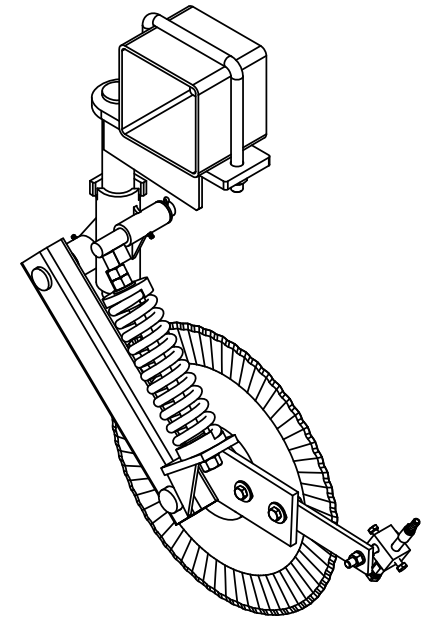
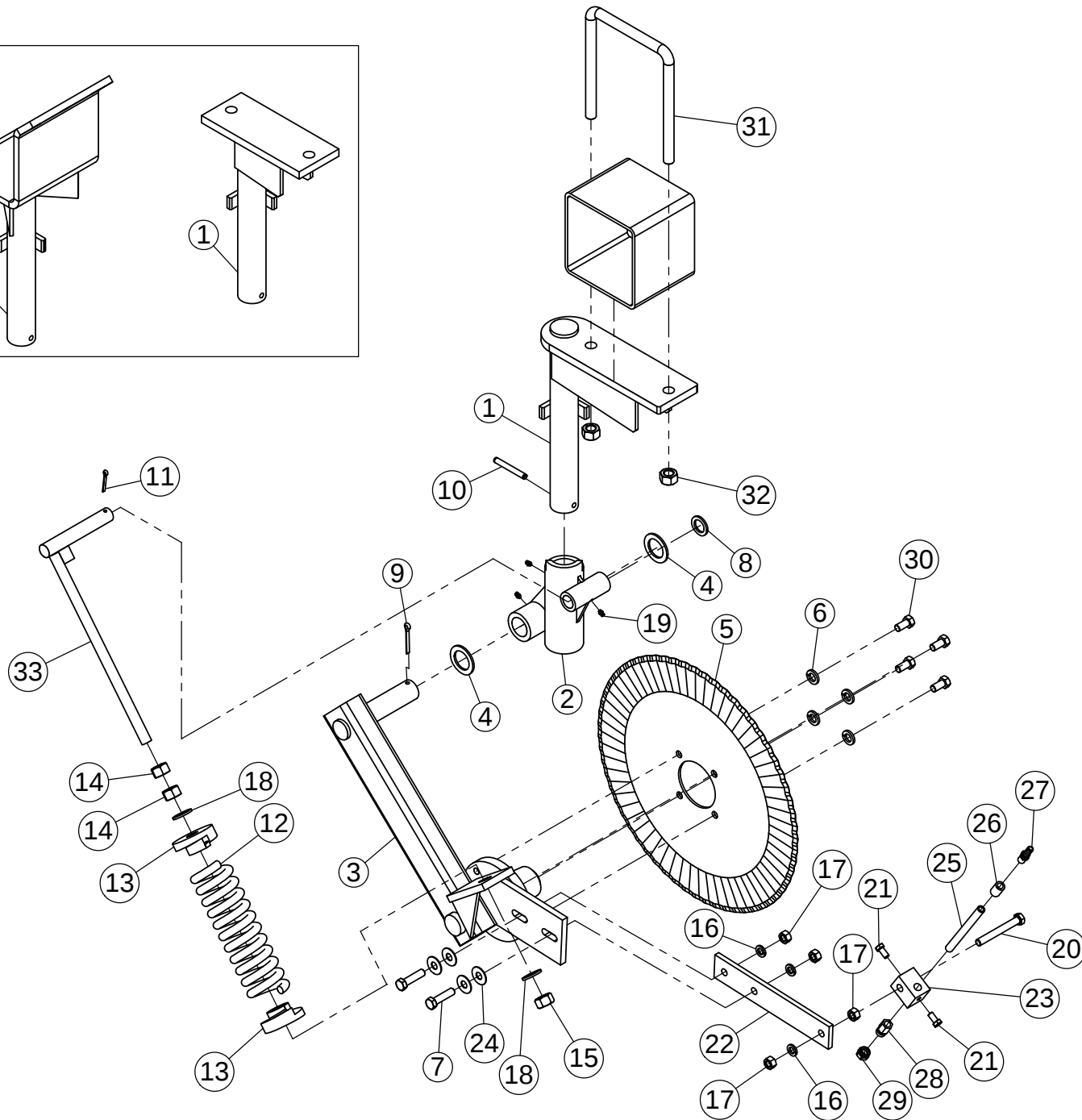
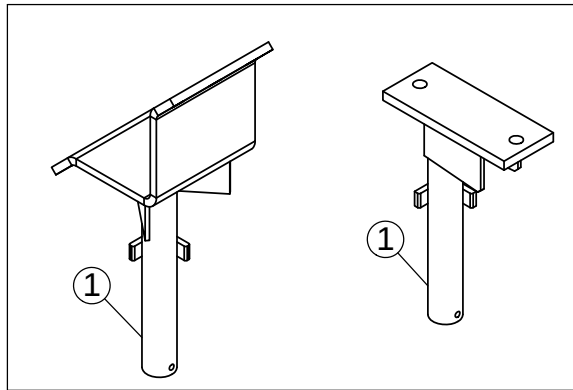


LIQUID SIDEDRESS SWIVEL COULTER ASSEMBLY

NOTES: IF NEEDED, USE SHIM(S) (24)
SO KNIFE IS TRUE WITH BLADE

ITEM NO.	PART NUMBER	Description1	QTY.
1	76801698	Swivel Coulter Mounting Bracket Weldment	1
-	76802076	SWIVEL COULTER OFFSET MOUNT	-
-	76801884	WHEEL CLAMP WELDMENT	-
-	76801701	CENTER SWIVEL COULTER PIN WELDMENT	-
2	76450063	LIQUID COULTER CAST SWIVEL	1
3	768017881	LIQUID COULTER ARM WELDMENT	1
4	76101462	10 GA. X 1-1/2" MACHINE WASHER (ZINC PLATED)	2
5	76400101	20" RIPPLE COULTER BLADE STRAIGHT	1
-	764000097	20" SMOOTH COULTER - BLACK (NOT SHOWN)	-
6	76101435	10 GA. X 1" MACHINE WASHER	1
7	76101265	1/4" X 2" Cotter Pin	1
8	76101246	3/16" X 1-1/2" COTTER PIN	1
9	76450078	LIQUID SIDEDRESS KNIFE	1
10	76400095	10 1/4" COULTER COMPRESSION SPRING - BLACK	1
11	76400096	SPRING CASTING FOR OUR#400095 - BLACK	2
12	76101252	1/4"-28 STRAIGHT GREASE ZERK	3
13	760000134	KNIFE BRACKET	1
14	76801789	TENSION ROD WELDMENT FOR CAST	1
15	600382054	LOCK WASHER 5/8"	4
16	76301150	LUG BOLT - 1/2"-20 X 1"	4
17	76101425	3/8" X 3" ROLL PIN	1
18	76101215	3/4"-10 HEX NUT-PLT	2
19	76101233	3/4" FLAT WASHER-PLT	2
20	600365019	STANDARD NUT 3/4"	1
21	7600356139	1/2"-20 X 1-3/4" HEX BOLT PLT. GR.5 UNF	4
22	7600366050	STOVER LOCK NUT 1/2" TYPE C PLATED UNF	4
23	7600381055	FLAT WASHER 1/2" (.172" THICK)	3
24	7600381015	FLAT WASHER 1/2" X 1-3/4" O.D. X .062" THICKNESS	2
25	76101316	3/4"-10 X 7" X 9" U-BOLT-PLT	1
26	600366024	STOVER LOCKNUT TYPE C - 3/4" - UNC	2
27	600356137	BOLT 1/2" X 3 1/2" GR. 5	1
28	600366030	STOVER LOCKNUT TYPE C - 1/2" - UNC	1

LIQUID INJECTION SWIVEL COULTER ASSEMBLY



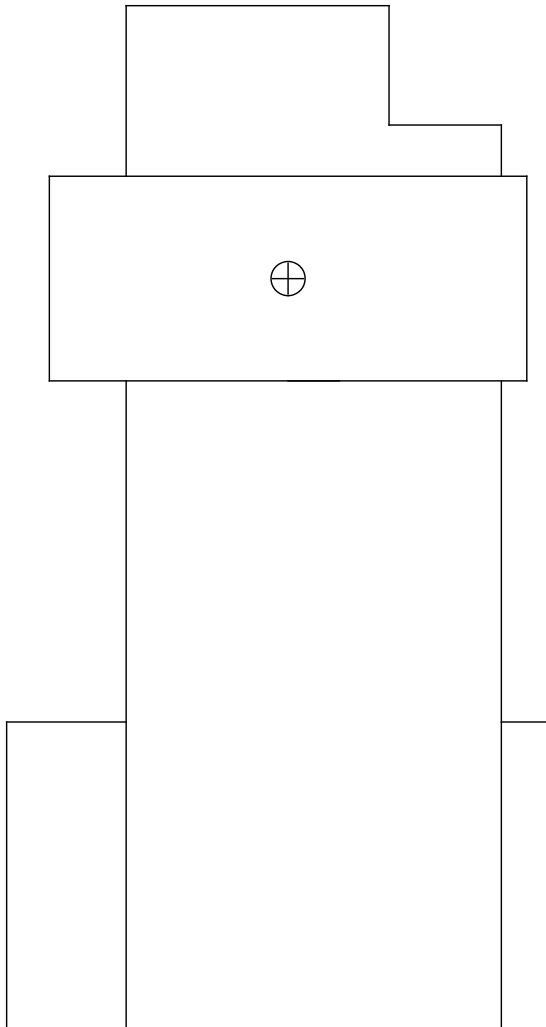
LIQUID INJECTION SWIVEL COULTER ASSEMBLY

NOTES:

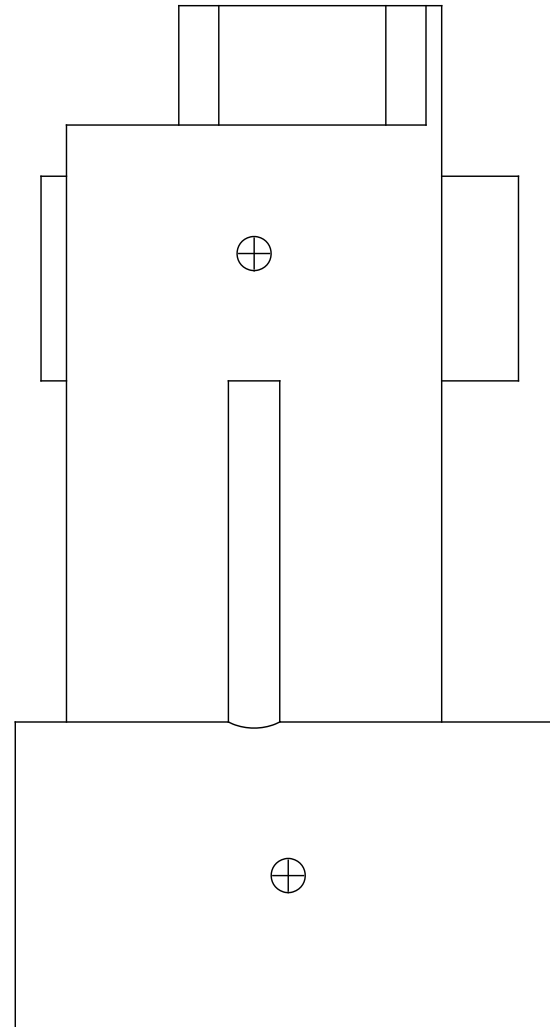
ITEM NO.	PART NUMBER	Description1	QTY.
1	76801698	Swivel Coulter Mounting Bracket Weldment	1
-	76802076	SWIVEL COULTER OFFSET MOUNT	-
-	76801884	WHEEL CLAMP WELDMENT	-
-	76801701	CENTER SWIVEL COULTER PIN WELDMENT	-
2	76450063	LIQUID COULTER CAST SWIVEL	1
3	768017881	LIQUID COULTER ARM WELDMENT	1
4	76101462	10 GA. X 1-1/2" MACHINE WASHER (ZINC PLATED)	2
5	76400101	20" RIPPLE COULTER BLADE STRAIGHT	1
-	764000097	20" SMOOTH COULTER - BLACK (NOT SHOWN)	-
6	600382054	LOCK WASHER 5/8"	4
7	76101149SS	1/2"-13 X 2" HEX BOLT SS	2
8	76101435	10 GA. X 1" MACHINE WASHER	1
9	76101265	1/4" X 2" Cotter Pin	1
10	76101425	3/8" X 3" ROLL PIN	1
11	76101246	3/16" X 1-1/2" COTTER PIN	1
12	76400095	10 1/4" COULTER COMPRESSION SPRING - BLACK	1
13	76400096	SPRING CASTING FOR OUR#400095 - BLACK	2
14	76101215	3/4"-10 HEX NUT-PLT	2
15	600365019	STANDARD NUT 3/4"	1
16	76101222SS	1/2" LOCK WASHER-STAINLESS STEEL	3
17	76101213SS	1/2"-13 HEX NUT-STAINLESS STEEL	4
18	76101233	3/4" FLAT WASHER-PLT	2
19	76101252	1/4"-28 STRAIGHT GREASE ZERK	3
20	76101153SS	1/2"-13 X 4" HEX BOLT SS	1
21	76101281SS	3/8"-16 X 3/4" HEX BOLT SS	2
22	760000136	COULTER INJECTION ARM	1
23	76400103	INJECTION TUBE MOUNTING BLOCK	1
24	76101231SS	1/2" FLAT WASHER-STAINLESS STEEL	4
25	76700279	1/4 NPT X 6 STAINLESS STEEL NIPPLE"	1
26	76700307	1/4" FNPT STAINLESS BUSHING	1
27	76700277	1/4 NPT X 3/8 HOSE BARB"	1
28	76700289	TEEJET T-BODY FITTING	1
29	76700288	TEEJET CAP S.S. - CP1325-SS	1
30	76301150	LUG BOLT - 1/2"-20 X 1"	4
31	76101316	3/4"-10 X 7" X 9" U-BOLT-PLT	1
32	600366024	STOVER LOCKNUT TYPE C - 3/4" - UNC	2
33	76801789	TENSION ROD WELDMENT FOR CAST	1
34	600356137	BOLT 1/2" X 3 1/2" GR. 5	1
35	600366030	STOVER LOCKNUT TYPE C - 1/2" - UNC	1

GREASE ZERK LOCATION FOR SWIVEL COULTER CASTING

BACK

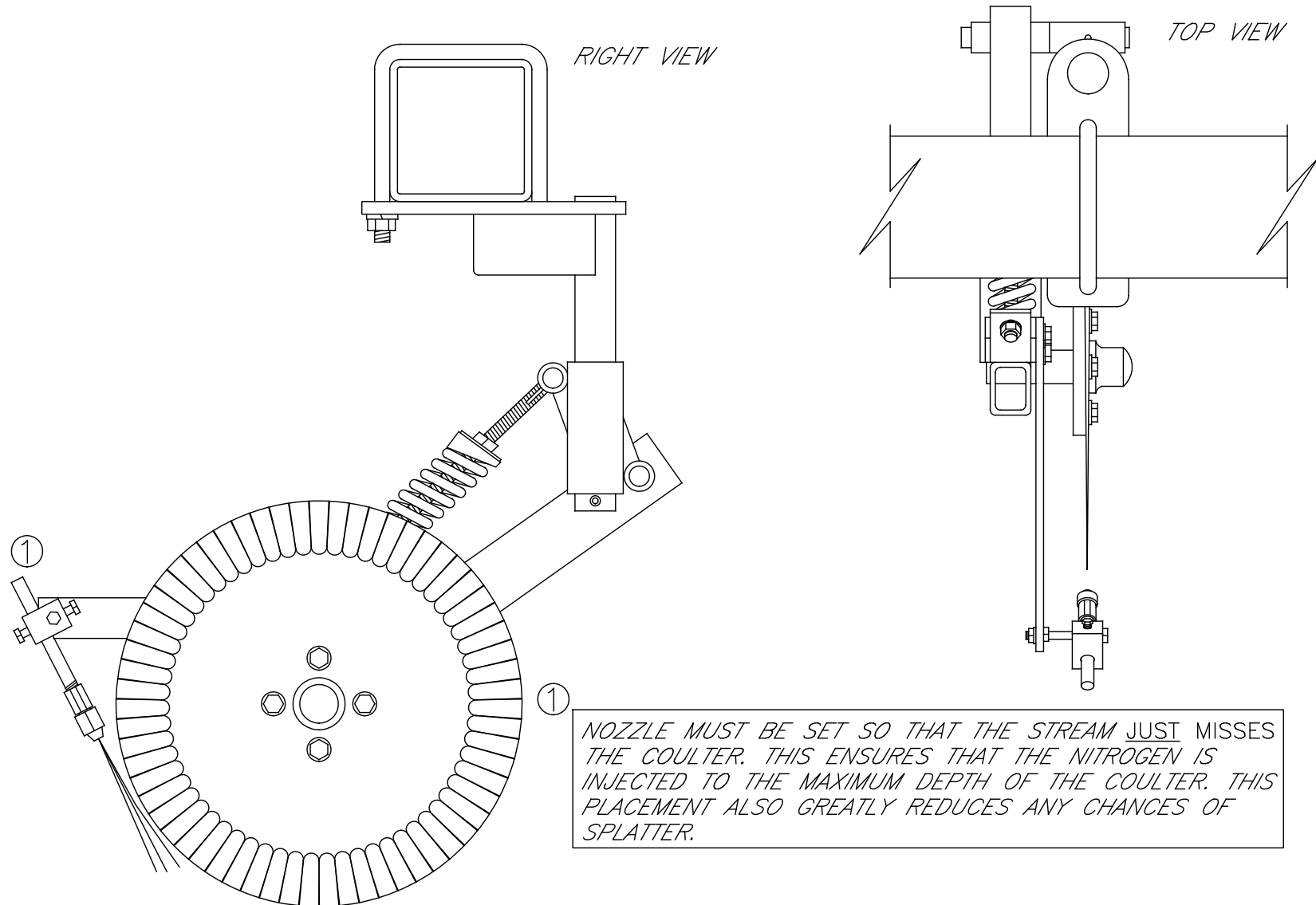


FRONT



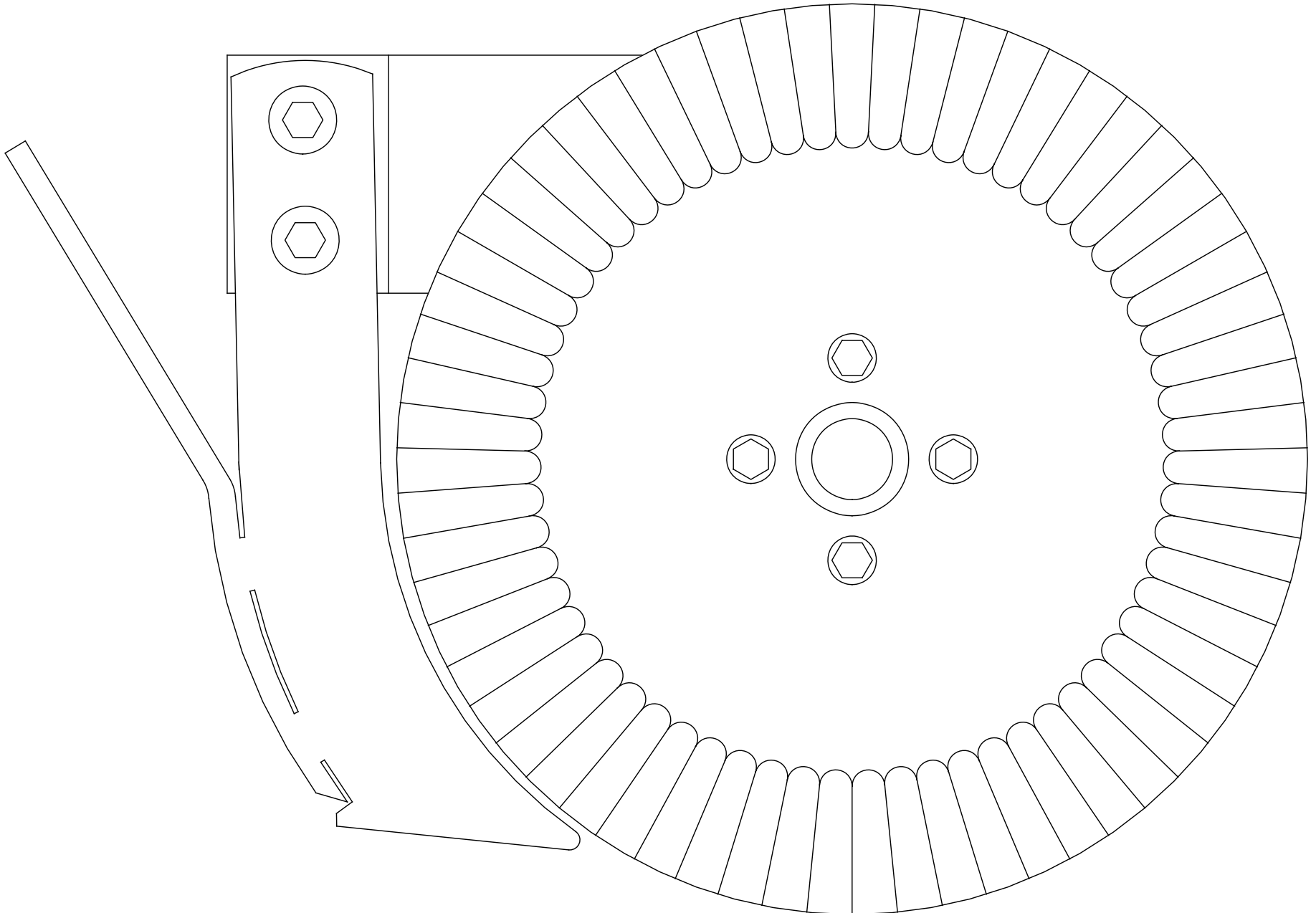
INJECTOR PLACEMENT

AS ILLUSTRATED ON THE COULTER ASSEMBLY PAGE, ASSEMBLE $1/4"$ COUPLER, AND THE $1/4 \times 3/8"$ HOSE BARB TO $3/8 \times 6"$ NIPPLE. PLACE NIPPLE THROUGH BLOCK AND TIGHTEN INTO THE PROPER POSITION. ATTACH THE TYPE-T NOZZLE BODY, PROPER SIZE STAINLESS ORIFICE AND THE NOZZLE CAP. THE PROPER SIZE NOZZLE SHOULD BE CHOSEN TO MAINTAIN 40 TO 60 p.s.i. FOR THE RATE AND SPEED THAT WILL BE USED.

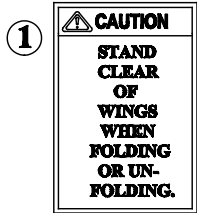


INJECTOR KNIFE PLACEMENT (2450InJ/KnPlc)

PLACE POINT OF KNIFE AS CLOSE TO DISC AS
POSSIBLE WITHOUT TOUCHING, THEN MOVE TOP OF KNIFE BACK 1/4".
BE SURE KNIFE IS CENTERED WITH DISC BLADE.

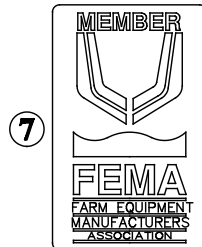
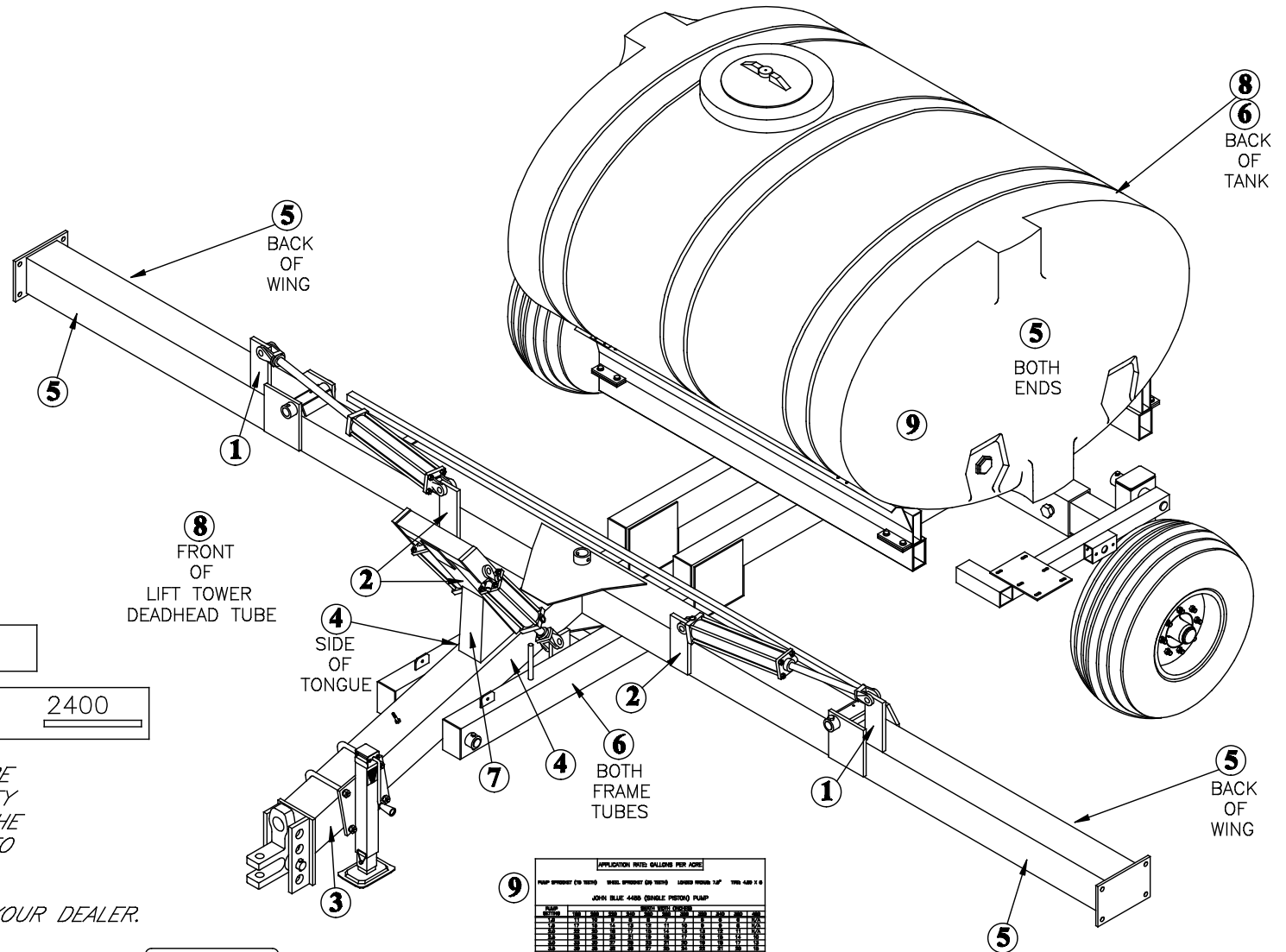


DECAL PLACEMENT



THE DECALS ON THIS IMPLEMENT ARE PROVIDED FOR YOUR SAFETY. IF THEY BECOME DAMAGED OR LOST, IT IS THE RESPONSIBILITY OF THE OPERATOR TO REPLACE THEM.

NEW DECALS ARE AVAILABLE FROM YOUR DEALER.



9

APPLICATION RATE: GALLONS PER ACRE									
PUMP SPEED (GPM)	WHEEL SPACING (IN)	WHEEL SPACING (FT)	WHEEL SPACING (YD)	WHEEL SPACING (MI)	WHEEL SPACING (KM)	WHEEL SPACING (M)	WHEEL SPACING (CM)	WHEEL SPACING (MM)	WHEEL SPACING (IN)
JOHN BLUE 4400 (SINGLE PISTON) PUMP									
10	12	14	16	18	20	22	24	26	28
30	32	34	36	38	40	42	44	46	48
50	52	54	56	58	60	62	64	66	68
70	72	74	76	78	80	82	84	86	88
90	92	94	96	98	100	102	104	106	108
120	122	124	126	128	130	132	134	136	138
140	142	144	146	148	150	152	154	156	158
160	162	164	166	168	170	172	174	176	178
180	182	184	186	188	190	192	194	196	198
200	202	204	206	208	210	212	214	216	218
220	222	224	226	228	230	232	234	236	238
240	242	244	246	248	250	252	254	256	258
260	262	264	266	268	270	272	274	276	278
280	282	284	286	288	290	292	294	296	298
300	302	304	306	308	310	312	314	316	318
320	322	324	326	328	330	332	334	336	338
340	342	344	346	348	350	352	354	356	358
360	362	364	366	368	370	372	374	376	378
380	382	384	386	388	390	392	394	396	398
400	402	404	406	408	410	412	414	416	418
420	422	424	426	428	430	432	434	436	438
440	442	444	446	448	450	452	454	456	458
460	462	464	466	468	470	472	474	476	478
480	482	484	486	488	490	492	494	496	498
500	502	504	506	508	510	512	514	516	518
520	522	524	526	528	530	532	534	536	538
540	542	544	546	548	550	552	554	556	558
560	562	564	566	568	570	572	574	576	578
580	582	584	586	588	590	592	594	596	598
600	602	604	606	608	610	612	614	616	618
620	622	624	626	628	630	632	634	636	638
640	642	644	646	648	650	652	654	656	658
660	662	664	666	668	670	672	674	676	678
680	682	684	686	688	690	692	694	696	698
700	702	704	706	708	710	712	714	716	718
720	722	724	726	728	730	732	734	736	738
740	742	744	746	748	750	752	754	756	758
760	762	764	766	768	770	772	774	776	778
780	782	784	786	788	790	792	794	796	798
800	802	804	806	808	810	812	814	816	818
820	822	824	826	828	830	832	834	836	838
840	842	844	846	848	850	852	854	856	858
860	862	864	866	868	870	872	874	876	878
880	882	884	886	888	890	892	894	896	898
900	902	904	906	908	910	912	914	916	918
920	922	924	926	928	930	932	934	936	938
940	942	944	946	948	950	952	954	956	958
960	962	964	966	968	970	972	974	976	978
980	982	984	986	988	990	992	994	996	998
1000	1002	1004	1006	1008	1010	1012	1014	1016	1018

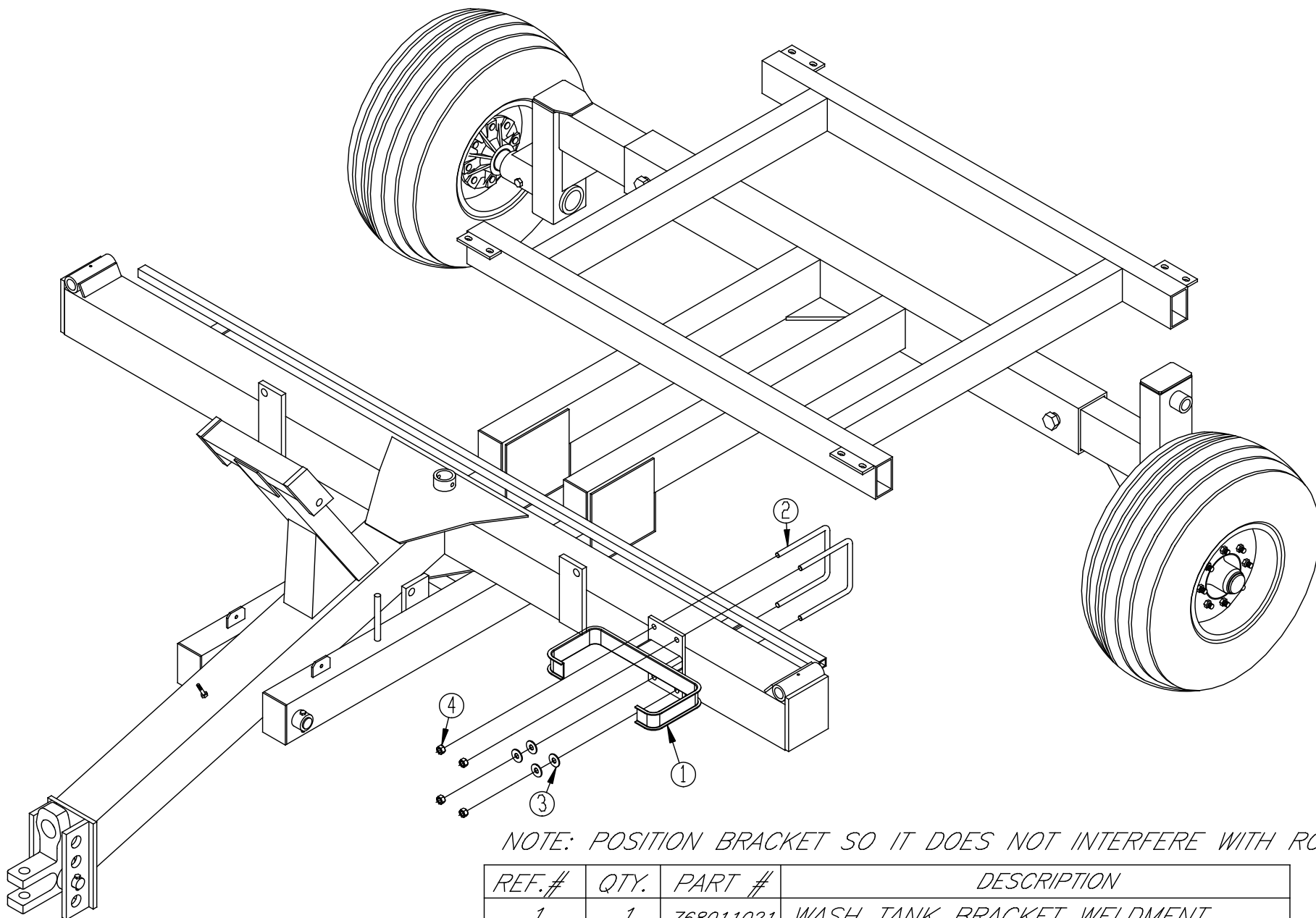


SERIAL NUMBER PLATE
IS ON LIFT TOWER.

DECAL IDENTIFICATION

<i>REF #</i>	<i>QTY</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>2</i>	<i>900801</i>	<i>WING FOLD DECAL</i>
<i>2</i>	<i>3</i>	<i>900802</i>	<i>OPERATOR'S MANUAL DECAL</i>
<i>3</i>	<i>1</i>	<i>900803</i>	<i>TOWING DECAL</i>
<i>4</i>	<i>2</i>	<i>900804</i>	<i>TRANSPORT LOCK DECAL</i>
<i>5</i>	<i>6</i>	<i>900800</i>	<i>PROGRESSIVE DECAL</i>
<i>6</i>	<i>3</i>	<i>900821</i>	<i>PROGRESSIVE 2400 DECAL</i>
<i>7</i>	<i>1</i>	<i>900805</i>	<i>FEMA DECAL</i>
<i>8</i>	<i>1</i>	<i>900806</i>	<i>PROGRESSIVE ADDRESS DECAL</i>
<i>9</i>	<i>1</i>	<i>900811</i>	<i>PUMP RATE CHART DECAL</i>
<i>—</i>	<i>1</i>	<i>900807</i>	<i>SERIAL NUMBER PLATE</i>
<i>—</i>	<i>—</i>	<i>900845</i>	<i>2400 SIDE DRESS APPL. DECAL KIT — 1–8 ABOVE</i>

ATTACHING THE WASH TANK WELDMENT

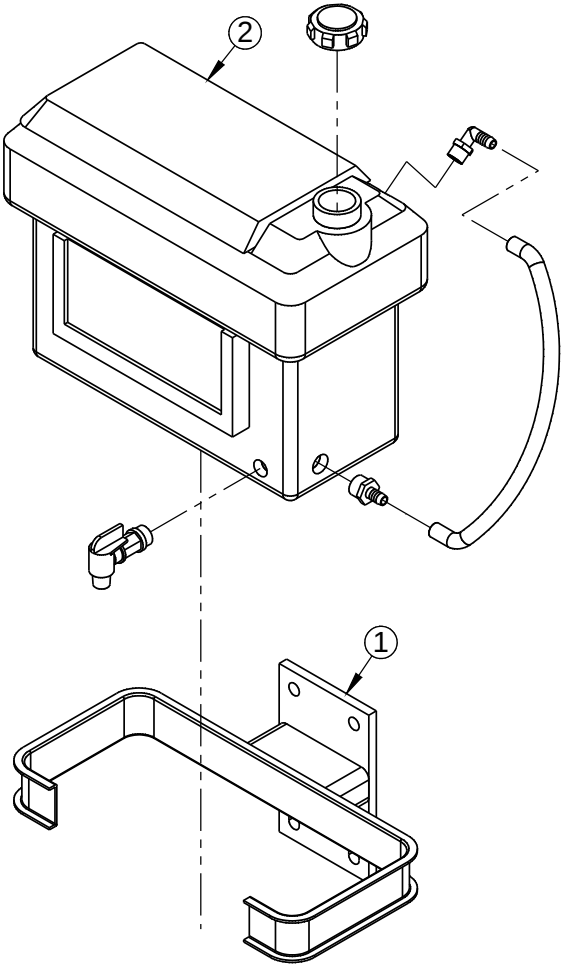


NOTE: POSITION BRACKET SO IT DOES NOT INTERFERE WITH ROW UNITS

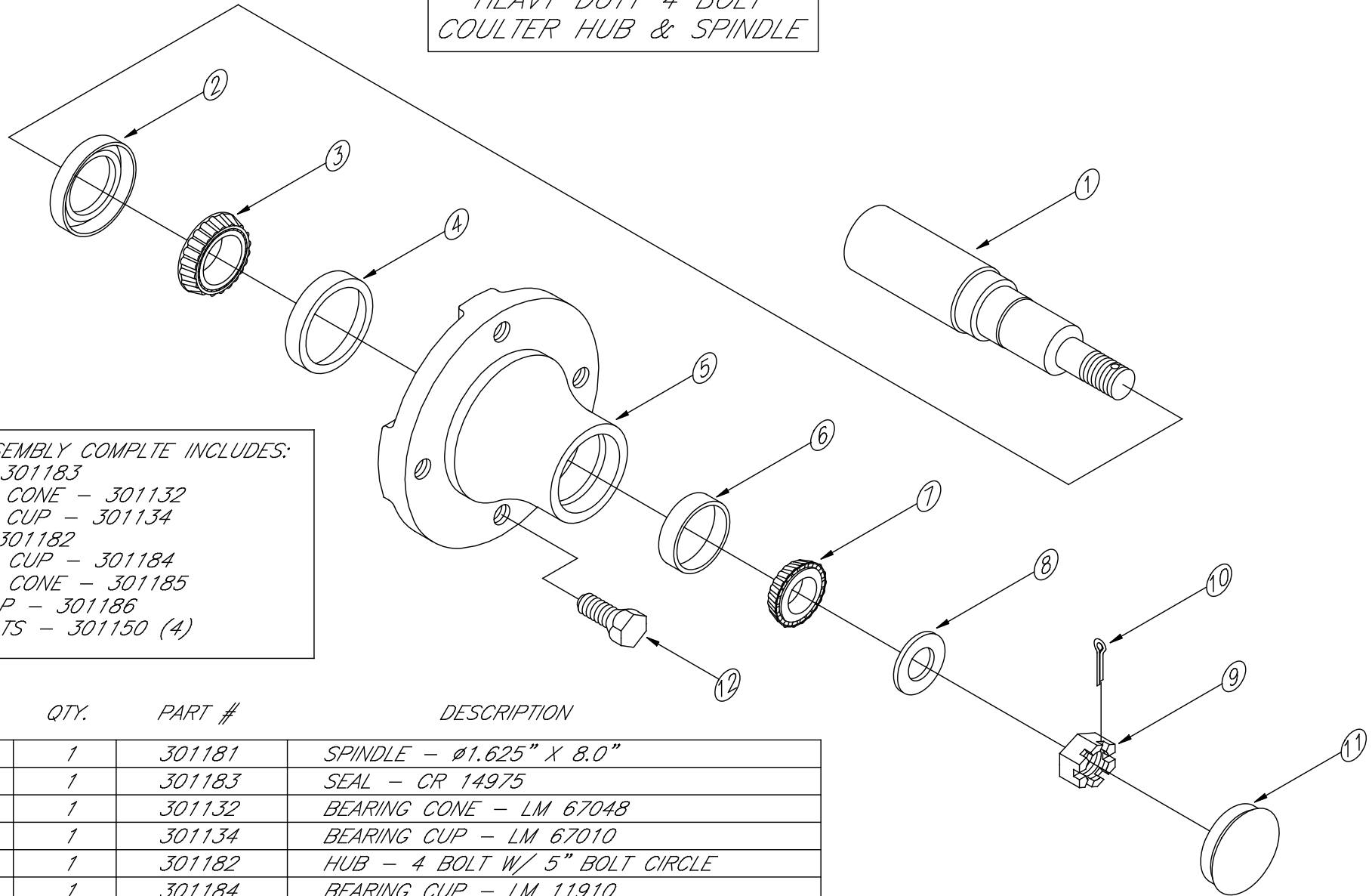
REF.#	QTY.	PART #	DESCRIPTION
1	1	768011021	WASH TANK BRACKET WELDMENT
2	2	76101311	5/8"-11 X 7" X 8.5" U-BOLT-PLT
3	4	600381020	FLAT WASHER 5/8"
4	4	600366031	STOVER LOCKNUT TYPE C - 5/8" -UNC

ATTACHING THE WASH TANK

ITEM NO.	PART NUMBER	Description1	QTY.
1	768011021	WASH TANK BRACKET WELDMENT	1
2	767500030	WASH TANK - COMPLETE	1



HEAVY DUTY 4 BOLT COULTER HUB & SPINDLE

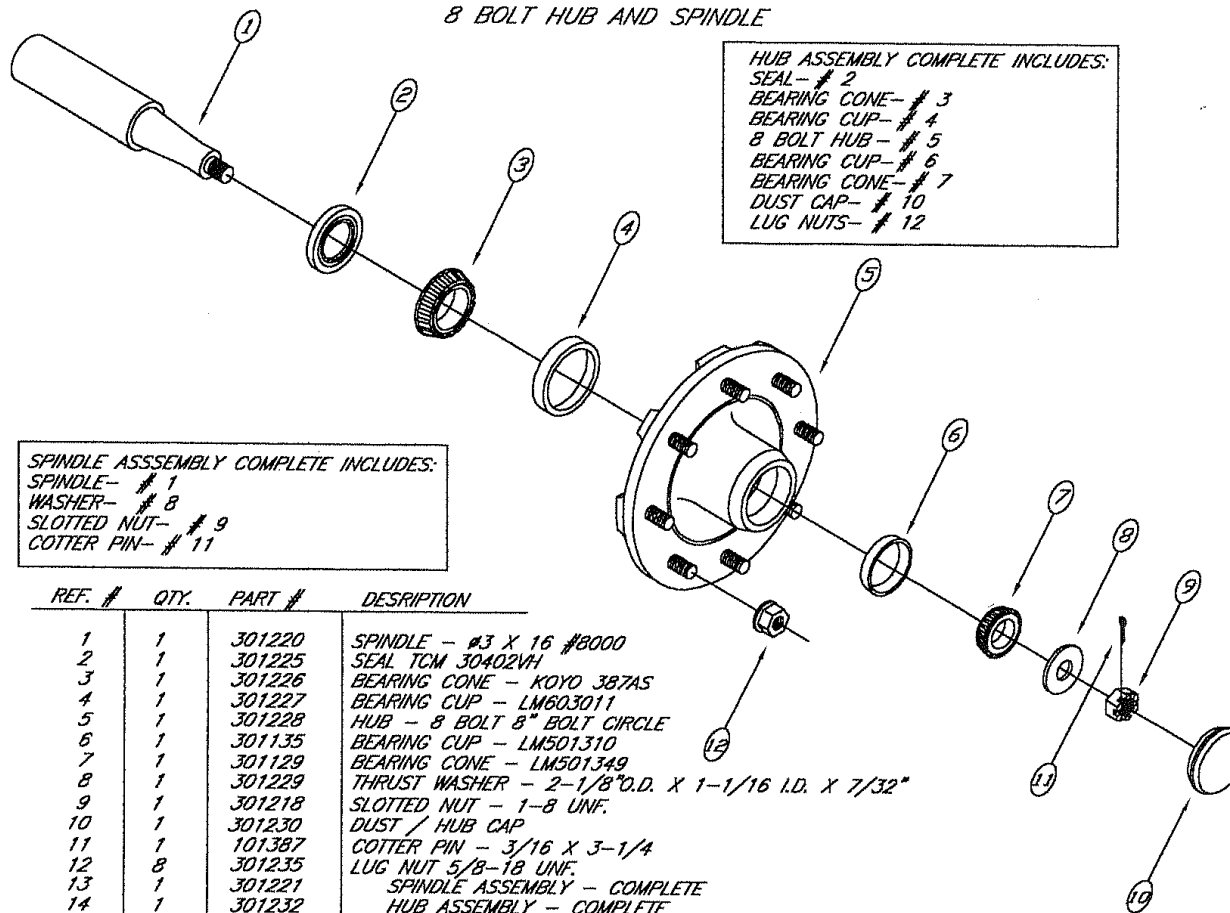


HUB ASSEMBLY COMPLTE INCLUDES:
SEAL - 301183
BEARING CONE - 301132
BEARING CUP - 301134
HUB - 301182
BEARING CUP - 301184
BEARING CONE - 301185
DUST CAP - 301186
LUG BOLTS - 301150 (4)

SPINDLE ASSEMBLY COMPLETE INCLUDES:
SPINDLE - 301181
WASHER - 301142
CASTELLATED NUT - 301153
COTTER PIN - 301152

REF. #	QTY.	PART #	DESCRIPTION
1	1	301181	SPINDLE - Ø1.625" X 8.0"
2	1	301183	SEAL - CR 14975
3	1	301132	BEARING CONE - LM 67048
4	1	301134	BEARING CUP - LM 67010
5	1	301182	HUB - 4 BOLT W/ 5" BOLT CIRCLE
6	1	301184	BEARING CUP - LM 11910
7	1	301185	BEARING CONE - LM 11949
8	1	301142	THRUST WASHER - 1.5" O.D. X .8125" I.D.
9	1	301153	CASTELLATED NUT - 3/4-16 UNF
10	1	301152	COTTER PIN - 5/32" X 1-3/4"
11	1	301186	DUST CAP
12	4	301150	LUG BOLT - 1/2-20 UNF X 1"
13	1	301188	SPINDLE ASSEMBLY - COMPLETE
14	1	301187	HUB ASSEMBLY - COMPLETE

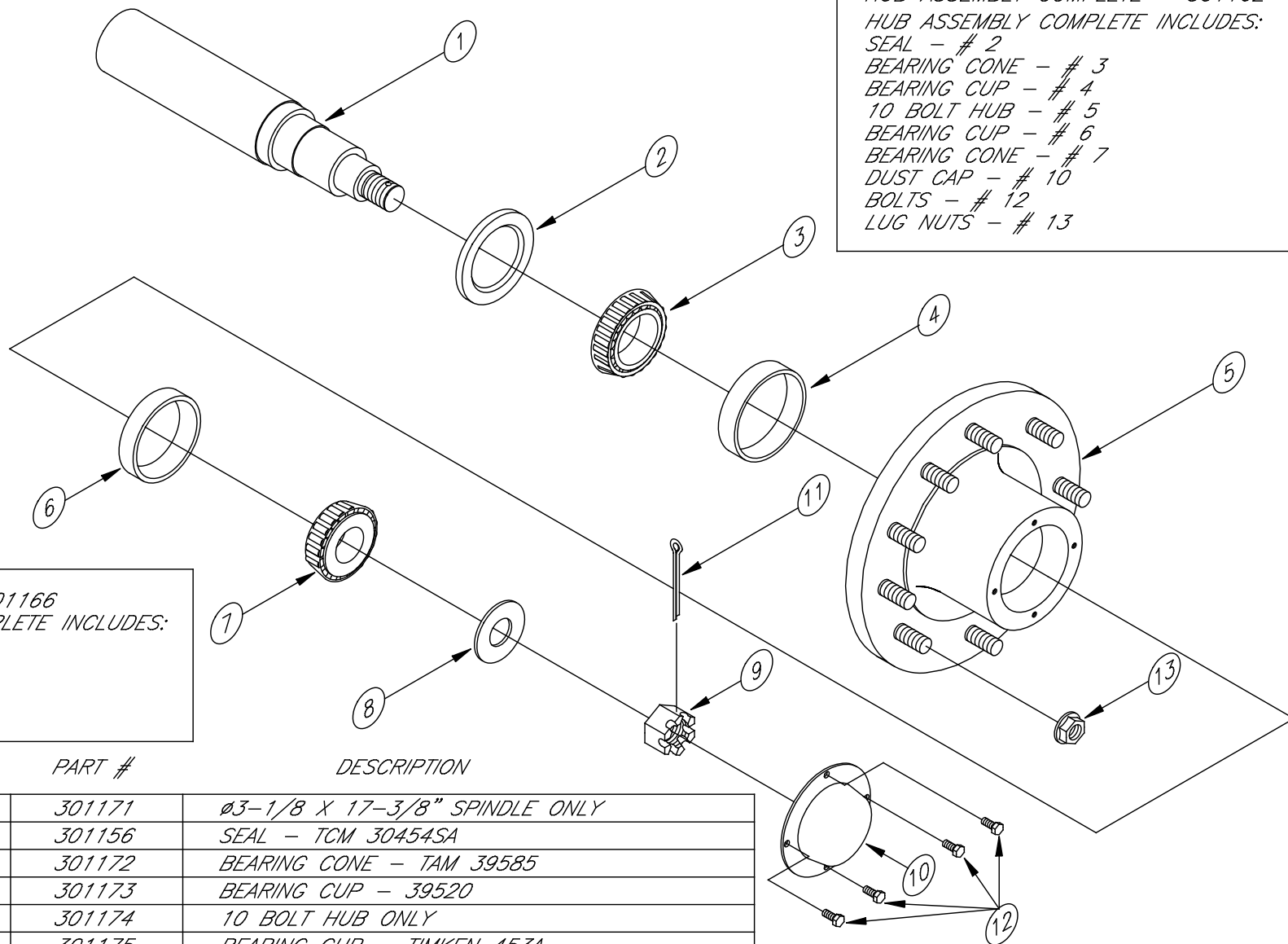
8 BOLT HUB AND SPINDLE



10 BOLT HUB & SPINDLE

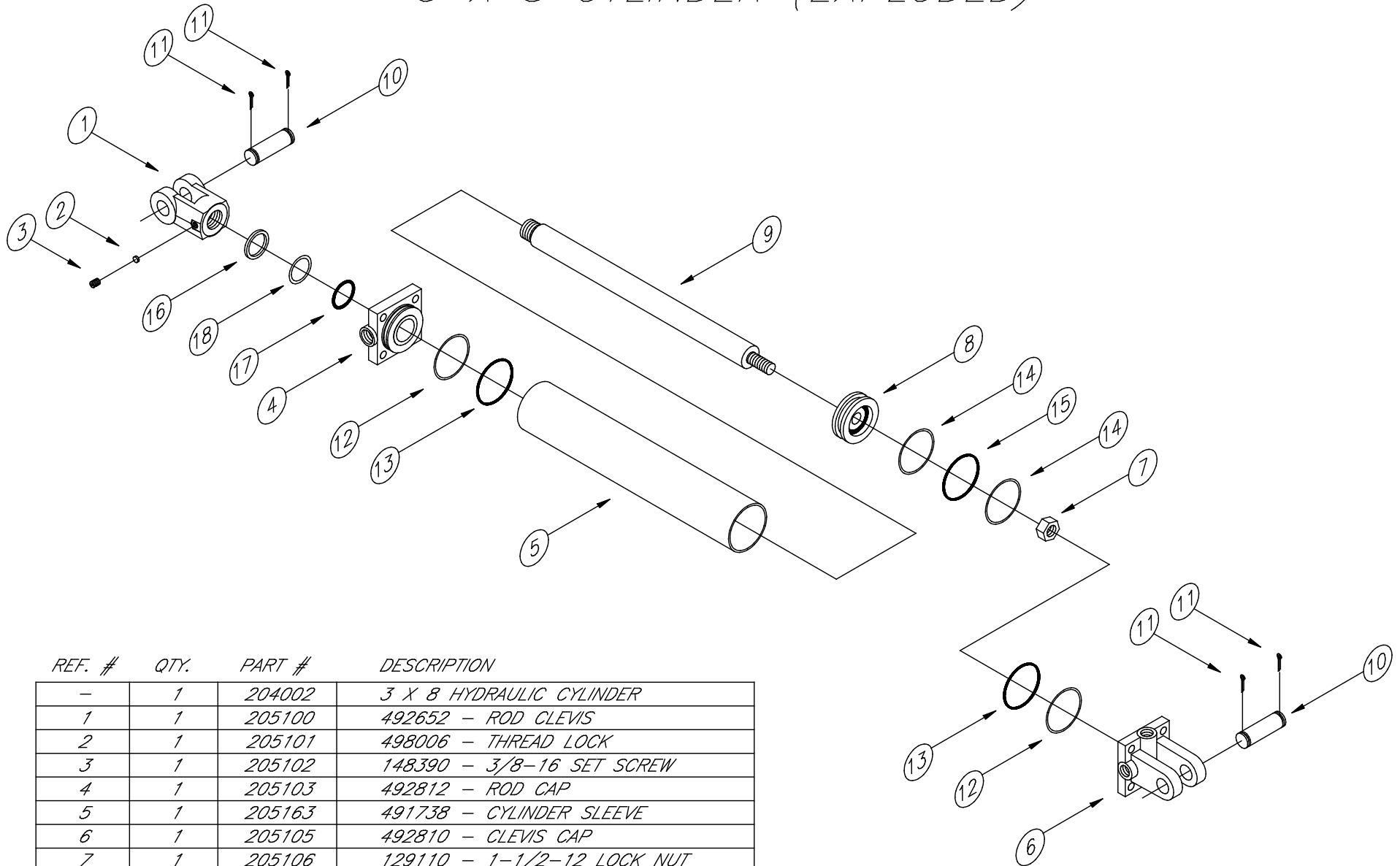
HUB ASSEMBLY COMPLETE - 301162
HUB ASSEMBLY COMPLETE INCLUDES:
SEAL - # 2
BEARING CONE - # 3
BEARING CUP - # 4
10 BOLT HUB - # 5
BEARING CUP - # 6
BEARING CONE - # 7
DUST CAP - # 10
BOLTS - # 12
LUG NUTS - # 13

SPINDLE COMPLETE - 301166
SPINDLE ASSEMBLY COMPLETE INCLUDES:
SPINDLE - # 1
WASHER - # 8
SLOTTED NUT - # 9
COTTER PIN - # 11



REF. #	QTY.	PART #	DESCRIPTION
1	1	301171	Ø3-1/8 X 17-3/8" SPINDLE ONLY
2	1	301156	SEAL - TCM 30454SA
3	1	301172	BEARING CONE - TAM 39585
4	1	301173	BEARING CUP - 39520
5	1	301174	10 BOLT HUB ONLY
6	1	301175	BEARING CUP - TIMKEN 453A
7	1	301176	BEARING CONE - TIMKEN 460
8	1	301177	WASHER - 3"O.D. X 1-1/4".I.D. X .160" THICK
9	1	301178	SPINDLE NUT 1-1/4-12
10	1	301179	DUST CAP
11	1	101265	COTTER PIN - 1/4" X 2"
12	4	101113	5/16-18 X 3/4" HEX BOLT
13	10	301189	LUG NUT - 3/4-16

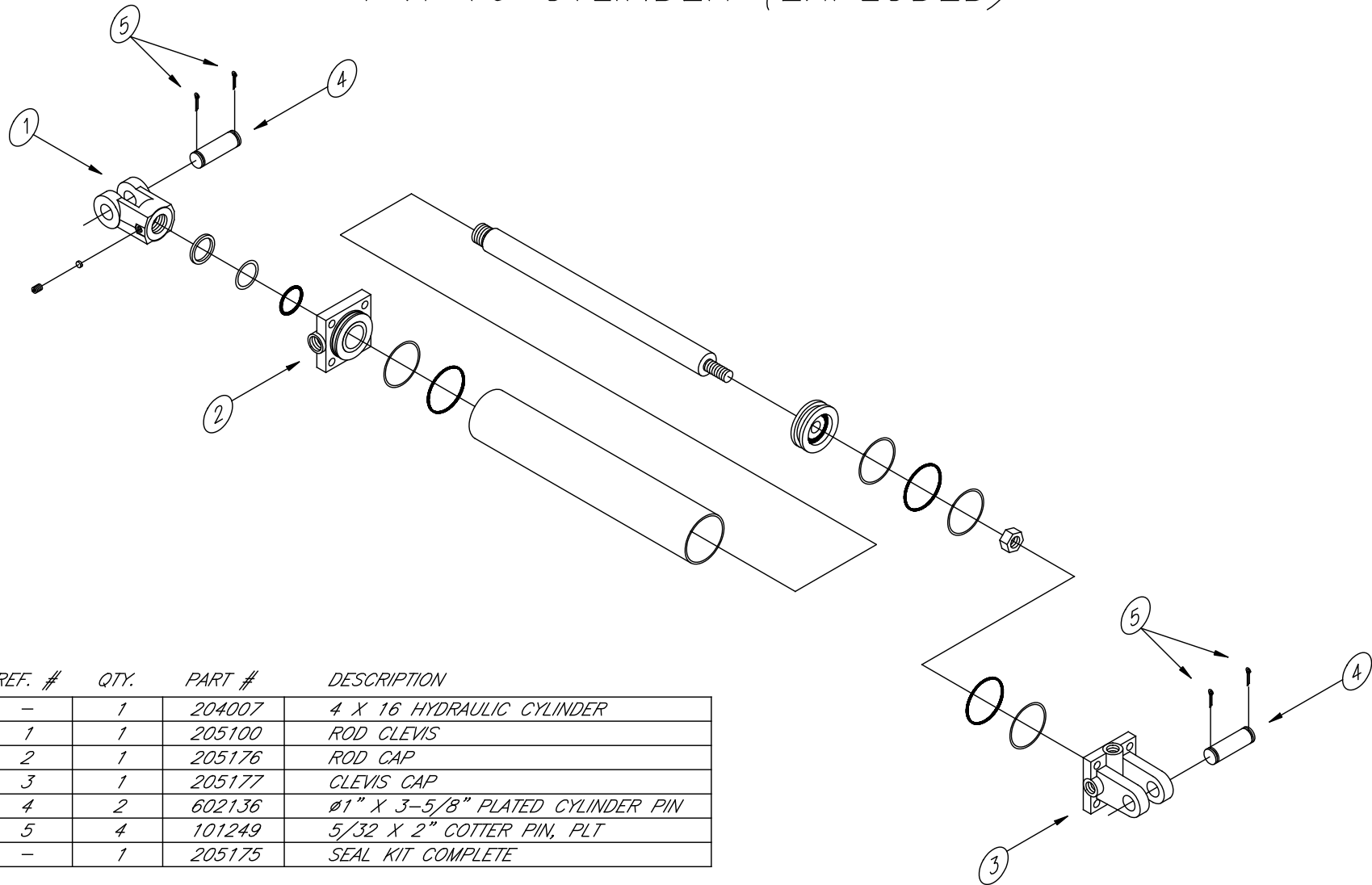
LION 2500 TL SERIES 3 X 8 CYLINDER (EXPLODED)



REF. #	QTY.	PART #	DESCRIPTION
—	1	204002	3 X 8 HYDRAULIC CYLINDER
1	1	205100	492652 — ROD CLEVIS
2	1	205101	498006 — THREAD LOCK
3	1	205102	148390 — 3/8-16 SET SCREW
4	1	205103	492812 — ROD CAP
5	1	205163	491738 — CYLINDER SLEEVE
6	1	205105	492810 — CLEVIS CAP
7	1	205106	129110 — 1-1/2-12 LOCK NUT
8	1	205107	492520 — PISTON
9	1	205162	492700 — CYLINDER ROD
10	2	602136	Ø1" X 3-5/8" PLATED CYLINDER PIN
11	4	101266	Ø3/16" HAIRPIN
12	2	205017	#40 O-RING B.U.
13	2	205018	#10 O-RING
14	2	205019	#14 O-RING B.U.

REF. #	QTY.	PART #	DESCRIPTION
15	1	205020	#12 O-RING
16	1	205021	#13 WIPER
17	1	205022	#11 ROD O-RING
18	1	205023	#24 ROD B.U.
—	1	205016	SEAL KIT COMPLETE

LION 2500 SERIES 4 X 16 CYLINDER (EXPLODED)



REF. #	QTY.	PART #	DESCRIPTION
—	1	204007	4 X 16 HYDRAULIC CYLINDER
1	1	205100	ROD CLEVIS
2	1	205176	ROD CAP
3	1	205177	CLEVIS CAP
4	2	602136	Ø1" X 3-5/8" PLATED CYLINDER PIN
5	4	101249	5/32 X 2" COTTER PIN, PLT
—	1	205175	SEAL KIT COMPLETE



Progressive Farm Products



19500 N 1425 East Road • Hudson, IL 61748-9450 • (309) 454-1564 • FAX (309) 452-1610

WARRANTY

Main Frame, Wings, Wheel Supports Three (3) Years
All Other Components, except tiresOne (1) Year

Progressive Farm Products Inc. (PFP, Inc.) warrants each new PFP, Inc. product to be free from defects in material and workmanship. This warranty is in effect from the date of delivery to the original purchaser and is applicable only for the normal life expectancy of the machine or components, not to exceed the time periods listed above. Tires on PFP, Inc. equipment are warranted through the respective tire manufacturer. Contact a dealer of the manufacturer in your local area.

Under no circumstances will it cover any merchandise or components thereof which, in the opinion of the company, has been subjected to negligent handling, misuse, alternation, an accident, or if repairs have been made with parts other than those obtainable through PFP, Inc.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser any part that in our judgement shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to PFP, Inc. through a dealer from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render us liable for injury or damages of any kind of nature, direct, consequential, or contingent to person or property. This warranty does not extend to loss of crops, loss because of delay or any expense of loss incurred for labor, supplies, substitute machinery, rental, or for any other reason.

There are no warranties, either expressed or implied, of merchantability of fitness for particular purpose intended or fitness for any other reason.

This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

PFP, Inc. reserves the right to make improvements in design or changes in specifications at any time without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations, and reservations.

**Progressive Farm Products Warranty does not include
cost of travel time, mileage, hauling, or labor.**