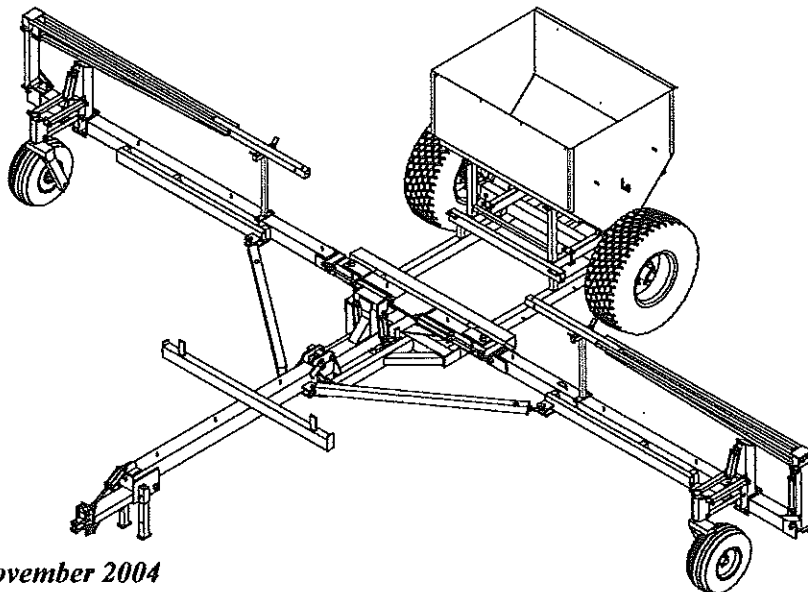




PROGRESSIVE
FARM PRODUCTS, INC.

OPERATOR'S MANUAL
40' 6200 FRONT-FOLD TOOLBAR
DRY FERTILIZER APPLICATION



November 2004

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.

SAFETY FIRST!

FOLLOW THESE RULES:

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

The SMV 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 cylinders 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 in 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

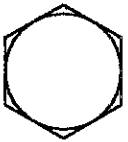
Always use proper safety precautions and common sense. Set a good example and show your workers how to work safely, be an example, not a statistic.

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
16.5 x 16.1 - 10 ply	36 PSI
18.4 x 26 - 10 ply	26 PSI
5:30 x 12 - 6 ply	55 PSI
18 x 8:50 x 8 - 4 ply	22 PSI
4:80 x 8 - 4 ply	42 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 after 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.

6200-40ft Operating Procedures

As you familiarize yourself with the 6200 dual placement applicator please take the time to read through this section completely.

Please note that the hydraulic hose hookup is different for a 6200 with a liquid fertilizer system than it is for a 6200 with a dry fertilizer system.

All 6200 dry units must have the ½" hyd. pressure line (tip painted blue) plugged into the pressure side of the number 1- SCV outlet or a power beyond outlet, as these are the priority outlets. (refer to fan drive section in operators manual if you are unsure)

The ½" return line (hyd. Fan drive) must be plugged into an unrestricted hyd return port in the tractors rear end, **do not run return line through SCV valve.**

The main toolbar lift hoses are plugged into the number 2- SCV valve.

The wing fold/marker seq. hoses or the 3 way elect. valve to number 3-SCV. valve.

The hyd. transport hitch is plugged into the number 4-SCV valve.

If you do not have 4-SCV valves or you have a hyd. NH3 shutoff valve you will need a 3 way elect./hyd. multiplier valve to accommodate all the hyd. functions.

All 6200 liquid units will take one less SCV outlet to operate the unit, unless you are using a hyd. agitation pump to keep the fertilizer in suspension.

The main toolbar lift hoses are plugged into the number 1-SCV valve.

The wing fold/marker seq. hoses or the 3-way elect. valve to number 2-SCV valve.

The hyd. transport hitch is plugged into the number 3-SCV valve

If you do not have 3-SCV valves or you have a hyd. NH3 shutoff valve you will need a 3 way elect./hyd. multiplier valve to accommodate all the hyd. functions

If your 6200 has a 3 way elect./hyd. valve it will be wired as follows.

The first switch on the cab console will control the hyd. transport hitch.

The second switch will control the fold/seq. valve.

The third switch is left open for a hyd NH3 shutoff valve or other hyd. requirement.

Danger:

Under no circumstances should you ever plumb a hydraulic NH3 shutoff valve into the lift system of an anhydrous toolbar. This holds especially true for the 6200 because of the way it folds into transport, when the wing castor wheels are pulled up in the folded position it would activate the NH3 valve allowing anhydrous to flow out of the system.

Folding the 40ft- 6200 for transport

- 1: Using the main lift lever, lift the 6200 to a completely raised position.
- 2: Place transport lock in hyd. cyld. on dry drive or liquid pump drive.
- 3: Place the yellow handle on the fold/seq. selector valve to the vertical position.
- 4: Position tractor straight with 6200 and leave transmission in neutral.
(It is better if tractor is allowed to move during folding and unfolding)
- 5: Lower the hyd. transport hitch until cyld. is completely collapsed.
- 6: Fold the wings of the 6200 until they are over the wing cradle.
- 7: Lift the hyd. transport hitch to a fully raised position.
- 8: Reverse the main lift lever and pull up the wing castor wheels.
- 9: Place the transport lock in the hyd. transport hitch cyld.

The 6200 is now ready for road transport.

To put the 6200 into operating position, simply reverse steps 1 through 8 above.

Daily Startup procedures for the 6200 with a dry fertilizer system.

#1 Greasing the 6200 toolbar is the single most important thing you can do to guarantee years of trouble free operation. Dry fertilizer puts off a very fine dust that works its way into the pivot points and hinge pins and will seize them up . The only way to keep this from happening is to keep these areas well greased, the grease will keep the dust forced out and eliminate many future problems.

#2 Make sure all the hyd. hoses are secured to eliminate the possibility of damage during operation and turning. Maintain 25lbs of tires pressure in the 18.4 x 26" cargo carrier tires.

#3 When starting the blower fan for the first time on a tractor, make certain that you dial the tractors hyd. oil flow down to a minimum setting, then engage the hyd. outlet, next dial the oil flow up to the level that is required (see rate chart) to achieve the proper air setting on the magnehelic gauge. Once you have this set, it will not be necessary to do so again unless you change tractors. (CAUTION –excessive oil flow can damage fan motor)

#4 Always start the blower fan and let it run for 15 minutes before operating the fertilizer unit. This will insure that any condensation in the hoses and knives is completely dried before introducing fertilizer to the system.

#5 The 6200 toolbar was designed to run at a optimum depth between 5 and 8 inches, there are 4 stroke control kits provided with this unit to control depth on the four main lift cylinders. Please note that although this machine will operate much deeper than 8 inches, it was never intended to be a deep tillage unit.

#6 The hyd. transport hitch needs to be in the lowered position when in operation, this will keep the hitch clevis in a straight position and reduce the clevis wear. This will also make the toolbar run slightly nose down. It is ok to use the hyd. hitch to fine tune the knife depth, but should never be more than 1/3 extended while in field operation.

#7 It is imperative that your fertilizer is absolutely dry and is screened through the screen on the top of the 6 ton stainless steel hopper. If you need a larger screen area more screens can be placed on the top of the hopper.

#8 It is not advised to run or transport the dry fertilizer unit with the tarp off, as leaves and branches from low trees can get into the hopper and create problems with the metering system.

#9 For most fertilizer rates the air pressure setting (magnehelic gauge) should be between 18 and 20.

#10 Try not to let fertilizer set in the hopper for extended periods of time, as the fertilizer will tend to draw moisture and get hard. If this does happen, the next time you get the hopper empty, remove the stainless auger cover and make sure there is not any hardened material around the metering auger that could hinder fertilizer flow to the metering screw. (see metering system assy.)

#11 Periodically remove the wheel hub on the dry fertilizer drive tire and apply Never Seize or lubricant to the spindle. This is the shear pin protection for the fertilizer metering auger, and needs to be able to turn freely if pin were to shear.

#12 When making rate changes it may be necessary to add or take out links on the #40 stainless steel drive chains in order to keep the idler sprockets at the proper tension.

#13 After unfolding the 6200 for field operation, make sure the 2" dry fertilizer hoses are in a flat or level operating position. As rises and tight bends hinder the flow of the fertilizer.

#14 Set the hyd. flow rate on your SCV. outlets to run the lift, fold and marker sequencing at a smooth rate. Excessive speed can cause damage especially to the row markers.

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR

FERTILIZER RATE in LBS. / ACRE

Sprocket Positions

PRESSURE

At Fertilizer Density in lbs / cubic foot of:

1	2	3	4	READING	56	58	60	62	64	66	68	70	72	74
15	27	19	33	15 - 18	101	104	108	112	115	119	122	126	130	133
17	25	15	33	15 - 18	109	113	117	121	124	128	132	136	140	144
15	27	19	33	15 - 18	113	117	121	125	129	133	137	141	145	149
15	23	17	33	15 - 18	118	123	127	131	135	139	144	148	152	156
15	25	19	33	15 - 18	122	126	130	135	139	143	148	152	156	161
17	27	19	33	15 - 18	128	132	137	141	146	151	155	160	164	169
15	23	19	33	15 - 18	132	137	142	146	151	156	161	165	170	175
17	25	15	27	15 - 18	133	138	143	147	152	157	162	166	171	176
15	27	23	33	15 - 18	136	141	146	151	156	161	166	170	175	180
17	25	19	33	15 - 18	138	143	148	153	158	163	167	172	177	182
15	19	17	33	15 - 18	143	148	153	159	164	169	174	179	184	189
15	23	17	27	15 - 18	145	150	155	160	165	170	176	181	186	191
15	25	23	33	15 - 18	147	153	158	163	168	174	179	184	189	195
15	27	25	33	15 - 18	148	154	159	164	169	175	180	185	191	196
15	25	19	27	15 - 18	149	157	159	165	170	175	181	186	191	197
19	23	17	33	15 - 18	150	155	161	166	171	177	182	187	193	198
17	27	23	33	15 - 18	155	160	166	171	177	182	188	193	199	204
17	23	15	25	15 - 18	156	162	167	173	179	184	190	195	201	206
15	23	19	27	15 - 18	162	167	173	179	185	191	196	202	208	214
17	25	23	33	15 - 18	167	173	179	185	191	197	203	209	215	221
17	27	25	33	15 - 18	167	174	180	186	192	198	204	210	216	222
19	25	17	27	15 - 18	169	175	181	187	193	199	205	211	217	223
19	27	23	33	15 - 18	173	179	185	191	197	204	210	216	222	228
27	25	15	33	15 - 18	173	179	185	191	198	204	210	216	222	229
15	23	25	33	15 - 18	174	180	186	193	199	205	211	218	224	230

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR

FERTILIZER RATE in LBS. / ACRE

Sprocket Positions

PRESSURE

At Fertilizer Density in lbs / cubic foot of:

1	2	3	4	READING	56	58	60	62	64	66	68	70	72	74
15	23	19	25	15 - 18	175	181	187	193	200	203	212	218	224	231
17	19	15	27	15 - 18	175	181	188	194	200	206	213	219	225	231
15	17	19	33	15 - 18	179	185	192	198	205	211	217	224	230	236
15	25	23	27	15 - 18	180	186	193	199	206	212	219	225	231	238
17	23	19	27	15 - 18	183	190	196	203	209	216	222	229	236	242
23	25	19	33	15 - 18	187	193	200	207	213	220	227	233	240	247
19	27	25	33	15 - 18	188	194	201	208	215	221	228	235	241	248
15	23	27	33	15 - 18	188	195	201	208	215	222	228	235	242	248
15	19	17	25	15 - 18	189	196	203	209	216	223	230	236	243	250
15	19	23	33	15 - 18	194	201	208	215	222	228	235	242	249	256
17	25	27	33	15 - 18	196	203	210	217	224	231	238	245	252	259
25	23	17	33	15 - 18	197	204	211	218	225	232	240	247	254	261
17	23	19	25	15 - 18	198	205	212	219	226	233	240	247	254	261
17	25	23	27	15 - 18	204	211	219	226	233	240	248	255	262	270
15	19	17	23	15 - 18	206	213	220	228	235	242	250	257	264	272
25	19	15	33	15 - 18	211	218	226	233	241	248	256	263	271	278
15	23	25	27	15 - 18	213	220	228	236	243	251	258	266	273	281
27	23	17	33	15 - 18	213	221	228	236	243	251	259	266	274	281
23	17	15	33	15 - 18	217	224	232	240	248	255	263	271	279	286
15	17	19	27	15 - 18	219	227	234	242	250	258	266	273	281	289
27	25	19	33	15 - 18	219	227	235	243	250	258	266	274	282	289
23	19	17	33	15 - 18	220	228	235	243	251	259	267	275	282	290
19	23	25	33	15 - 18	220	228	236	244	252	260	268	276	283	291
23	27	25	33	15 - 18	227	235	244	252	260	268	276	284	292	300
27	19	15	33	15 - 18	228	236	244	252	260	268	276	284	293	301

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR

FERTILIZER RATE in LBS. / ACRE

Sprocket Positions

PRESSURE

At Fertilizer Density in lbs / cubic foot of:

1	2	3	4	READING	56	58	60	62	64	66	68	70	72	74
19	25	23	27	15 - 18	228	236	244	252	261	269	277	285	293	301
19	15	17	33	15 - 18	230	238	246	254	263	271	279	287	296	304
15	17	25	33	15 - 18	235	244	252	261	269	278	286	294	303	311
15	17	19	25	15 - 18	236	245	253	262	270	278	287	295	304	312
15	19	23	27	15 - 18	237	245	254	262	271	279	288	296	305	313
19	23	27	33	15 - 18	238	247	255	264	272	281	289	298	306	315
25	19	17	33	15 - 18	239	247	256	264	273	281	290	298	307	316
17	23	25	27	15 - 18	241	250	258	267	276	284	293	301	310	319
15	23	27	25	15 - 18	248	257	266	275	284	292	301	310	319	328
15	17	27	33	15 - 18	254	263	272	282	291	300	309	318	327	336
15	19	23	25	15 - 18	256	265	274	283	292	302	311	320	329	338
15	17	19	23	15 - 18	257	266	275	284	293	303	312	321	330	339
15	19	25	27	15 - 18	257	267	276	285	294	303	313	322	331	340
17	19	27	33	15 - 18	258	267	276	286	295	304	313	322	332	341
15	25	33	27	15 - 18	258	268	277	286	295	304	314	323	332	341
15	17	23	27	15 - 18	265	274	284	293	303	312	322	331	340	350
27	25	23	33	15 - 18	265	275	284	294	303	313	322	331	341	350
17	19	23	27	15 - 18	268	278	288	297	307	316	326	336	345	355
19	23	25	27	15 - 18	269	279	289	298	308	318	327	337	346	356
19	17	23	33	15 - 18	274	284	294	304	314	323	333	343	353	363
23	15	17	33	15 - 18	278	288	298	308	318	328	338	348	358	368
15	23	33	27	15 - 18	281	291	301	311	321	331	341	351	361	371
17	15	19	27	15 - 18	281	291	301	311	321	331	341	351	361	371
15	17	23	25	15 - 18	286	296	306	317	327	337	347	357	368	378
15	17	25	27	15 - 18	288	298	308	319	329	339	349	360	370	380

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR
PRESSURE
READING

FERTILIZER RATE in LBS. / ACRE
At Fertilizer Density in lbs / cubic foot of:

1	2	3	4		56	58	60	62	64	66	68	70	72	74
17	19	23	25	15 - 18	290	300	311	321	331	342	352	362	373	383
17	19	25	27	15 - 18	292	302	313	323	334	344	354	365	375	386
17	25	33	27	15 - 18	293	303	314	324	335	345	356	366	376	387
25	17	19	33	15 - 18	298	309	320	330	341	352	362	373	383	394
15	19	27	25	15 - 18	300	311	322	333	343	354	365	375	386	397
15	19	25	23	15 - 18	302	313	324	335	345	356	367	378	389	399
25	15	17	33	15 - 18	302	313	324	335	346	356	367	378	389	400
15	23	33	25	15 - 18	303	314	325	336	347	357	368	379	390	401
19	15	23	33	15 - 18	311	322	333	344	355	367	378	389	400	411
27	23	25	33	15 - 18	313	324	336	347	358	369	380	392	403	414
19	23	27	25	15 - 18	314	325	337	348	359	370	382	393	404	415
17	23	33	27	15 - 18	318	330	341	352	364	375	386	398	409	421
19	17	27	33	15 - 18	322	334	345	357	368	380	391	403	414	426
23	19	25	33	15 - 18	323	335	346	358	369	381	392	404	415	427
17	15	27	33	15 - 18	327	338	350	362	373	385	397	408	420	432
19	27	33	25	15 - 18	327	339	351	362	374	386	397	409	421	432
19	15	17	23	15 - 18	330	342	353	365	377	389	400	412	424	436
19	17	23	27	15 - 18	335	347	359	371	383	395	407	419	431	443
15	17	27	25	15 - 18	336	348	360	372	384	396	408	420	432	444
19	15	25	33	15 - 18	338	350	362	374	386	398	410	423	435	447
15	19	33	27	15 - 18	340	352	364	376	388	401	413	425	437	449
17	19	27	25	15 - 18	340	353	365	377	389	401	413	425	438	450
17	23	33	25	15 - 18	344	356	368	381	393	405	417	430	442	454
27	19	23	33	15 - 18	349	361	374	386	399	411	424	436	449	461
19	23	33	27	15 - 18	356	368	381	394	406	419	432	445	457	470

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR

FERTILIZER RATE in LBS. / ACRE

Sprocket Positions

PRESSURE

At Fertilizer Density in lbs / cubic foot of:

1	2	3	4	READING	56	58	60	62	64	66	68	70	72	74
23	17	25	33	15 - 18	361	374	387	400	413	426	438	451	464	477
19	17	23	25	15 - 18	362	375	388	401	414	427	440	453	466	479
19	15	27	33	15 - 18	365	378	391	404	417	430	443	456	469	482
15	19	33	25	15 - 18	367	380	393	406	420	433	446	459	472	485
17	15	25	27	15 - 18	370	383	396	409	422	436	449	462	475	488
15	17	23	19	15 - 18	376	390	403	417	430	443	457	470	484	497
27	19	25	33	15 - 18	379	393	406	420	433	447	460	474	488	501
15	17	33	27	15 - 18	380	393	407	421	434	448	461	475	488	502
19	23	33	25	15 - 18	384	398	412	425	439	453	466	480	494	508
17	19	33	27	15 - 18	385	399	413	426	440	454	468	482	495	509
23	17	27	33	15 - 18	390	404	418	432	446	460	473	487	501	515
23	19	25	27	15 - 18	395	409	423	437	451	465	479	494	508	522
23	25	33	27	15 - 18	396	410	424	439	453	467	481	495	509	523
15	19	33	23	15 - 18	399	413	428	442	456	470	485	499	513	527
25	15	23	33	15 - 18	409	424	438	453	468	482	497	511	526	541
23	33	25	15	15 - 18	409	424	438	453	468	482	497	511	526	541
23	15	25	33	15 - 18	409	424	438	453	468	482	497	511	526	541
15	17	33	25	15 - 18	410	425	440	454	469	484	498	513	527	542
19	15	25	27	15 - 18	413	428	443	457	472	487	502	516	531	546
17	19	33	25	15 - 18	416	431	446	461	475	490	505	520	535	550
25	17	27	33	15 - 18	424	439	454	469	484	500	515	530	545	560
19	17	27	25	15 - 18	425	440	456	471	486	501	516	531	547	562
19	17	25	23	15 - 18	428	443	459	474	489	504	520	535	550	565
17	15	27	25	15 - 18	431	447	462	477	493	508	524	539	554	570
17	15	25	23	15 - 18	434	449	465	480	496	511	527	542	558	573

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR
PRESSURE

FERTILIZER RATE in LBS. / ACRE
At Fertilizer Density in lbs / cubic foot of:

Sprocket Positions	1	2	3	4	BEST AIR PRESSURE READING	56	58	60	62	64	66	68	70	72	74
23	17	25	27		15 - 18	441	457	473	489	504	520	536	552	567	583
23	15	27	33		15 - 18	442	458	473	489	505	521	537	552	568	584
15	17	33	23		15 - 18	446	462	478	494	510	526	542	557	573	589
17	19	33	23		15 - 18	452	468	485	501	517	533	549	565	581	598
23	19	27	25		15 - 18	461	477	493	510	526	543	559	576	592	609
19	17	27	23		15 - 18	462	479	495	512	528	545	561	578	594	611
25	23	33	27		15 - 18	468	485	501	518	535	552	568	585	602	618
17	15	27	23		15 - 18	468	485	502	519	536	552	569	586	603	619
25	15	27	33		15 - 18	480	498	515	532	549	566	583	600	618	635
19	17	33	27		15 - 18	481	498	516	533	550	567	584	601	619	636
17	15	23	19		15 - 18	483	501	518	535	552	570	587	604	621	639
19	15	25	23		15 - 18	485	502	520	537	554	572	589	606	624	641
17	15	33	27		15 - 18	488	505	523	540	558	575	593	610	627	645
23	15	25	27		15 - 18	500	518	536	554	572	589	607	625	643	661
23	17	27	25		15 - 18	515	533	551	570	588	607	625	643	662	680
19	17	33	25		15 - 18	520	538	557	575	594	612	631	650	668	687
23	19	33	27		15 - 18	521	540	558	577	596	614	633	651	670	689
19	15	27	23		15 - 18	524	542	561	580	599	617	636	655	673	692
17	15	25	19		15 - 18	525	544	563	582	600	619	638	657	675	694
17	15	33	25		15 - 18	527	546	565	583	602	621	640	659	678	696
15	17	33	19		15 - 18	540	559	578	598	617	636	656	675	694	713
25	19	27	23		15 - 18	544	564	583	602	622	641	661	680	700	719
19	15	33	27		15 - 18	545	565	584	604	623	643	662	682	701	721
27	23	33	25		15 - 18	546	565	585	604	624	643	663	682	702	721
23	19	33	25		18 - 20	563	583	603	623	643	663	683	704	724	744

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR
PRESSURE

FERTILIZER RATE in LBS. / ACRE
At Fertilizer Density in lbs / cubic foot of:

Sprocket Positions	1	2	3	4	BEST AIR READING	56	58	60	62	64	66	68	70	72	74
19	17	33	23		18 - 20	565	585	605	625	646	666	686	706	726	746
25	19	33	27		18 - 20	566	587	607	627	647	668	688	708	728	749
17	15	27	19		18 - 20	567	588	608	628	648	669	689	709	729	750
17	15	33	23		18 - 20	573	593	614	634	655	675	696	716	736	757
23	17	33	27		18 - 20	582	603	624	645	666	687	707	728	749	770
23	15	27	25		18 - 20	583	604	625	646	667	688	708	729	750	771
19	15	33	25		18 - 20	589	610	631	652	673	694	715	736	757	778
19	15	23	17		18 - 20	604	625	647	668	690	711	733	755	776	798
25	17	27	23		18 - 20	608	630	652	673	695	717	738	760	782	804
23	17	25	19		18 - 20	627	649	672	694	717	739	761	784	806	829
23	17	33	25		18 - 20	629	652	674	696	719	741	764	786	809	831
25	17	33	27		18 - 20	633	656	678	701	724	746	769	791	814	837
19	15	33	23		18 - 20	640	663	686	709	732	755	777	800	823	846
19	15	25	17		18 - 20	656	680	703	726	750	773	797	820	844	867
23	15	33	27		18 - 20	660	684	707	731	754	778	802	825	849	872
27	19	33	25		18 - 20	661	684	708	732	755	779	802	826	850	873
25	19	33	23		18 - 20	665	689	713	736	760	784	808	831	855	879
23	17	27	19		18 - 20	677	701	726	750	774	798	822	847	871	895
25	15	27	23		18 - 20	689	714	738	763	788	812	837	862	886	911
17	15	33	19		18 - 20	693	718	743	768	792	817	842	867	892	916
19	15	27	17		18 - 20	709	734	759	785	810	835	861	886	911	936
23	15	25	19		18 - 20	711	736	761	787	812	838	863	888	914	939
23	15	33	25		18 - 20	713	738	764	789	815	840	866	891	917	942
25	15	33	27		18 - 20	718	743	769	794	820	846	871	897	923	948
27	19	33	23		18 - 20	718	744	770	795	821	846	872	898	923	949

FERTILIZER RATE CHART for 30" ROWS

Fertilizer Factor 390

51" circumference tire

BEST AIR

FERTILIZER RATE in LBS. / ACRE

Sprocket Positions

PRESSURE

At Fertilizer Density in lbs / cubic foot of:

1	2	3	4	READING	56	58	60	62	64	66	68	70	72	74
25	17	27	19	18 - 20	736	762	789	815	841	868	894	920	946	973
27	17	33	25	18 - 20	738	765	791	818	844	870	897	923	949	976
25	17	33	23	18 - 20	743	770	796	823	849	876	903	929	956	982
23	15	27	19	18 - 20	768	795	822	850	877	905	932	959	987	1014
23	15	25	17	18 - 20	794	823	851	879	908	936	965	993	1021	1050
27	17	33	23	18 - 20	803	831	860	889	917	946	975	1003	1032	1061
23	17	33	19	18 - 20	828	857	887	916	946	976	1005	1035	1064	1094
25	15	27	19	18 - 20	834	864	894	924	953	983	1013	1043	1073	1102
27	15	33	25	18 - 20	837	867	897	927	957	986	1016	1046	1076	1106
25	15	33	23	18 - 20	842	872	903	933	963	993	1023	1053	1083	1113
23	15	27	17	18 - 20	858	888	919	950	980	1011	1042	1072	1103	1134
19	15	33	17	18 - 20	866	897	928	959	990	1021	1052	1083	1114	1145
25	17	33	19	18 - 20	900	932	964	996	1028	1060	1093	1125	1157	1189
27	15	33	23	18 - 20	910	942	975	1007	1040	1072	1105	1137	1170	1202
25	15	27	17	18 - 20	932	966	999	1032	1066	1099	1132	1166	1199	1232
23	15	33	19	18 - 20	938	972	1005	1039	1072	1106	1139	1173	1206	1240
27	17	33	19	18 - 20	972	1006	1041	1076	1111	1145	1180	1215	1249	1284
25	15	33	19	18 - 20	1020	1056	1093	1129	1165	1202	1238	1275	1311	1347
23	15	33	17	18 - 20	1048	1086	1123	1161	1198	1236	1273	1311	1348	1385
27	15	33	19	18 - 20	1101	1141	1180	1219	1259	1298	1337	1377	1416	1455
25	15	33	17	18 - 20	1140	1180	1221	1262	1302	1343	1384	1425	1465	1506
27	15	33	17	18 - 20	1231	1275	1319	1363	1407	1451	1495	1539	1582	1626

LUBRICATION AND MAINTENANCE

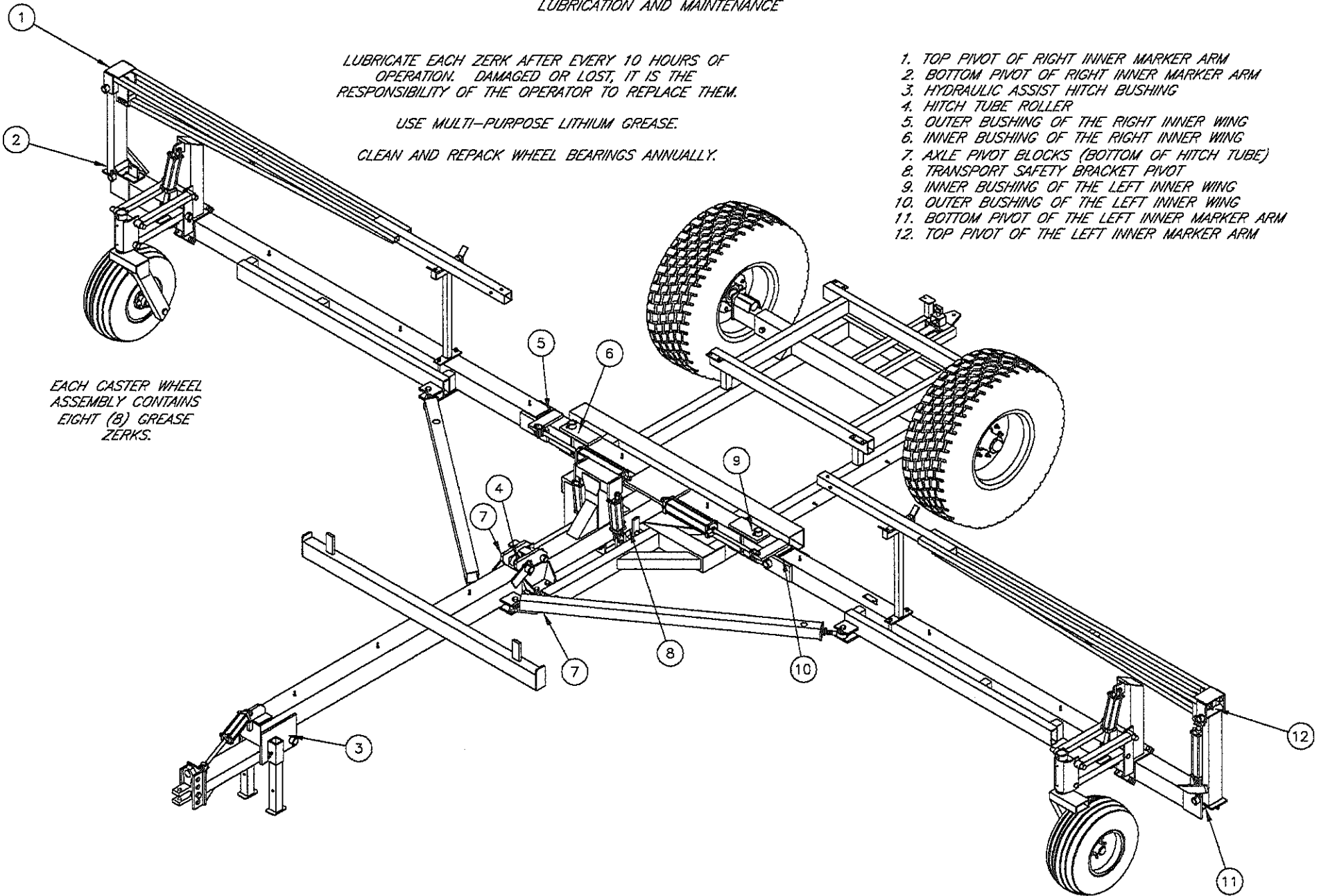
LUBRICATE EACH ZERK AFTER EVERY 10 HOURS OF OPERATION. DAMAGED OR LOST, IT IS THE RESPONSIBILITY OF THE OPERATOR TO REPLACE THEM.

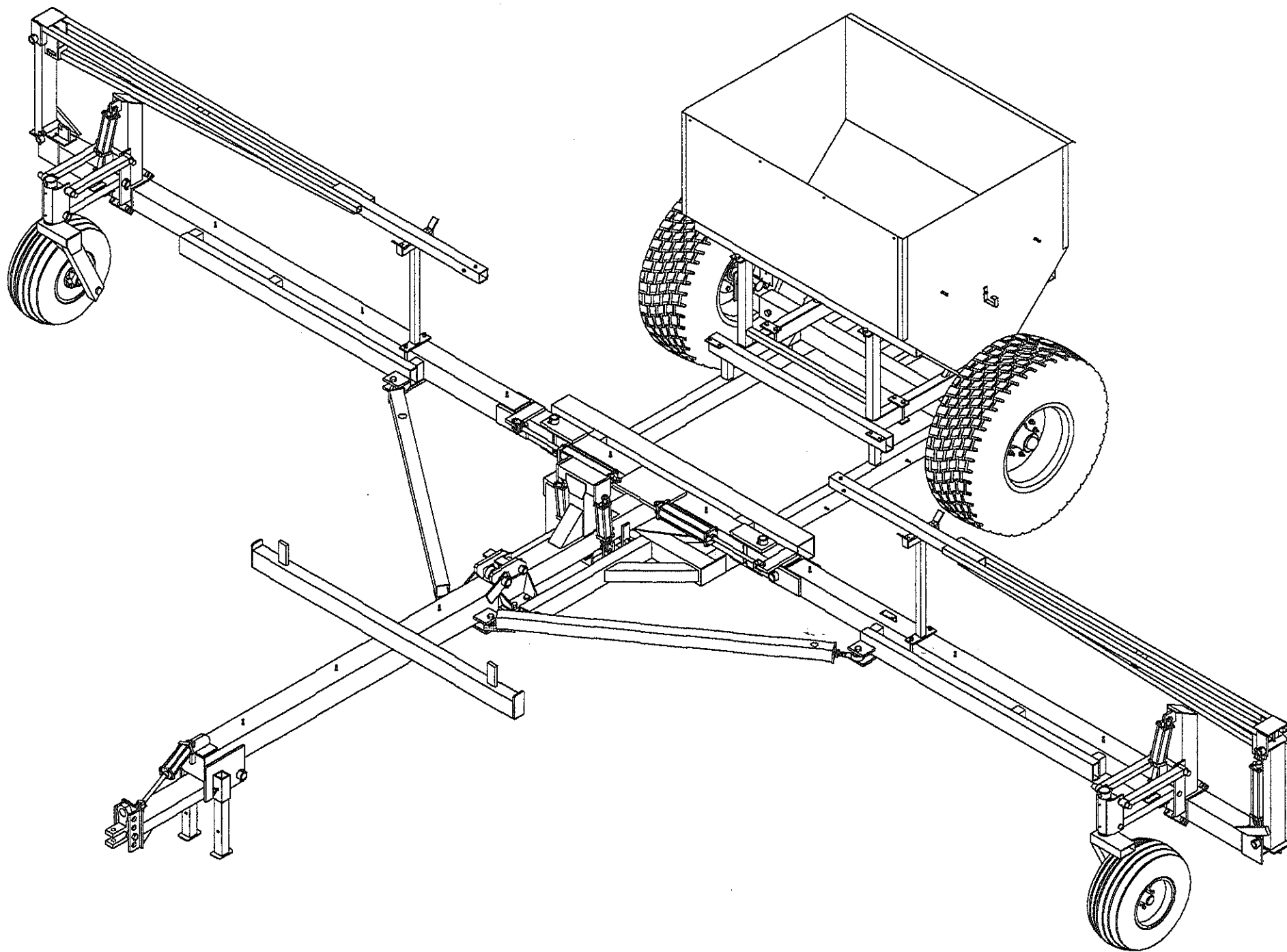
USE MULTI-PURPOSE LITHIUM GREASE.

CLEAN AND REPACK WHEEL BEARINGS ANNUALLY.

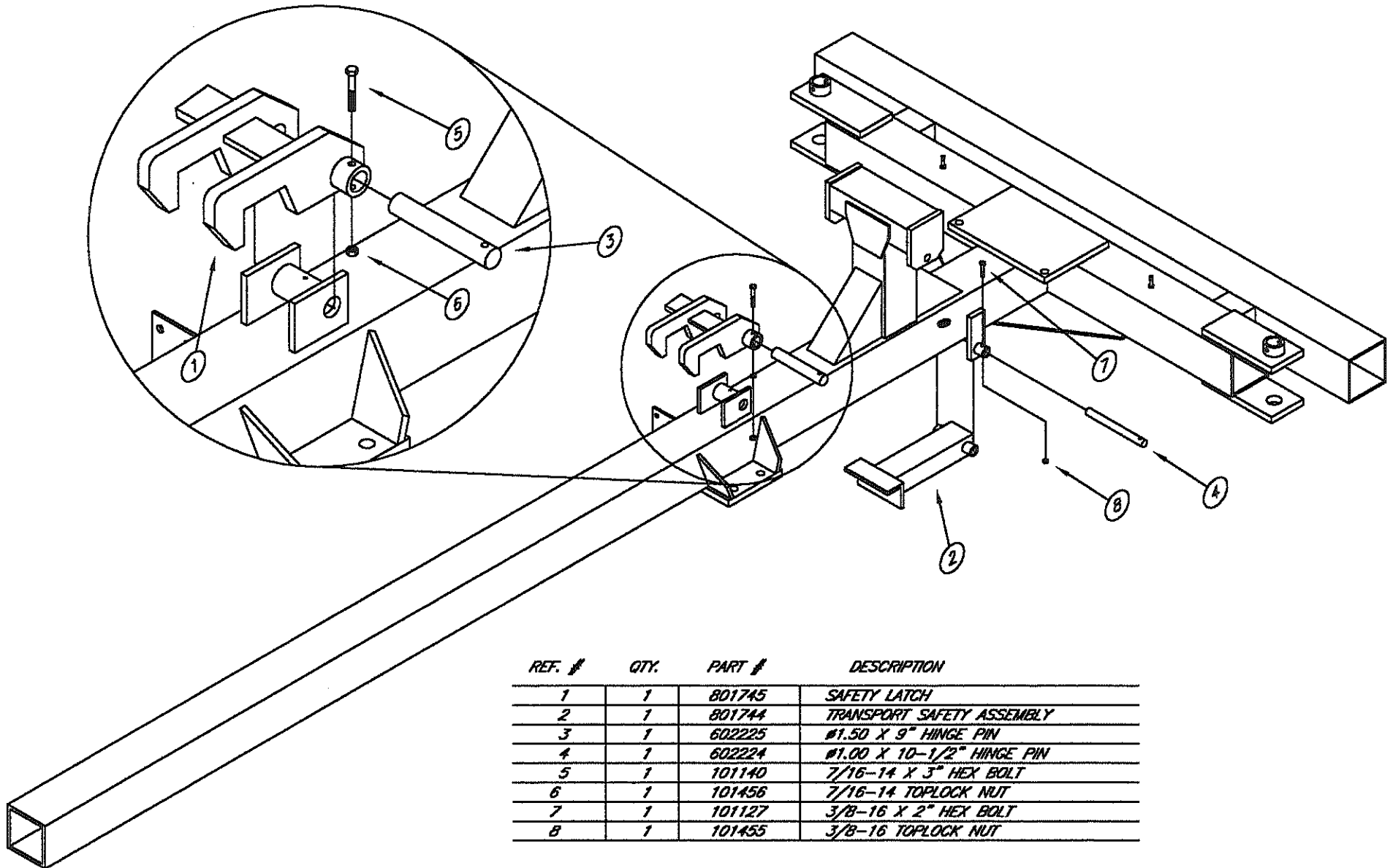
1. TOP PIVOT OF RIGHT INNER MARKER ARM
2. BOTTOM PIVOT OF RIGHT INNER MARKER ARM
3. HYDRAULIC ASSIST HITCH BUSHING
4. HITCH TUBE ROLLER
5. OUTER BUSHING OF THE RIGHT INNER WING
6. INNER BUSHING OF THE RIGHT INNER WING
7. AXLE PIVOT BLOCKS (BOTTOM OF HITCH TUBE)
8. TRANSPORT SAFETY BRACKET PIVOT
9. INNER BUSHING OF THE LEFT INNER WING
10. OUTER BUSHING OF THE LEFT INNER WING
11. BOTTOM PIVOT OF THE LEFT INNER MARKER ARM
12. TOP PIVOT OF THE LEFT INNER MARKER ARM

EACH CASTER WHEEL ASSEMBLY CONTAINS EIGHT (8) GREASE ZERKS.



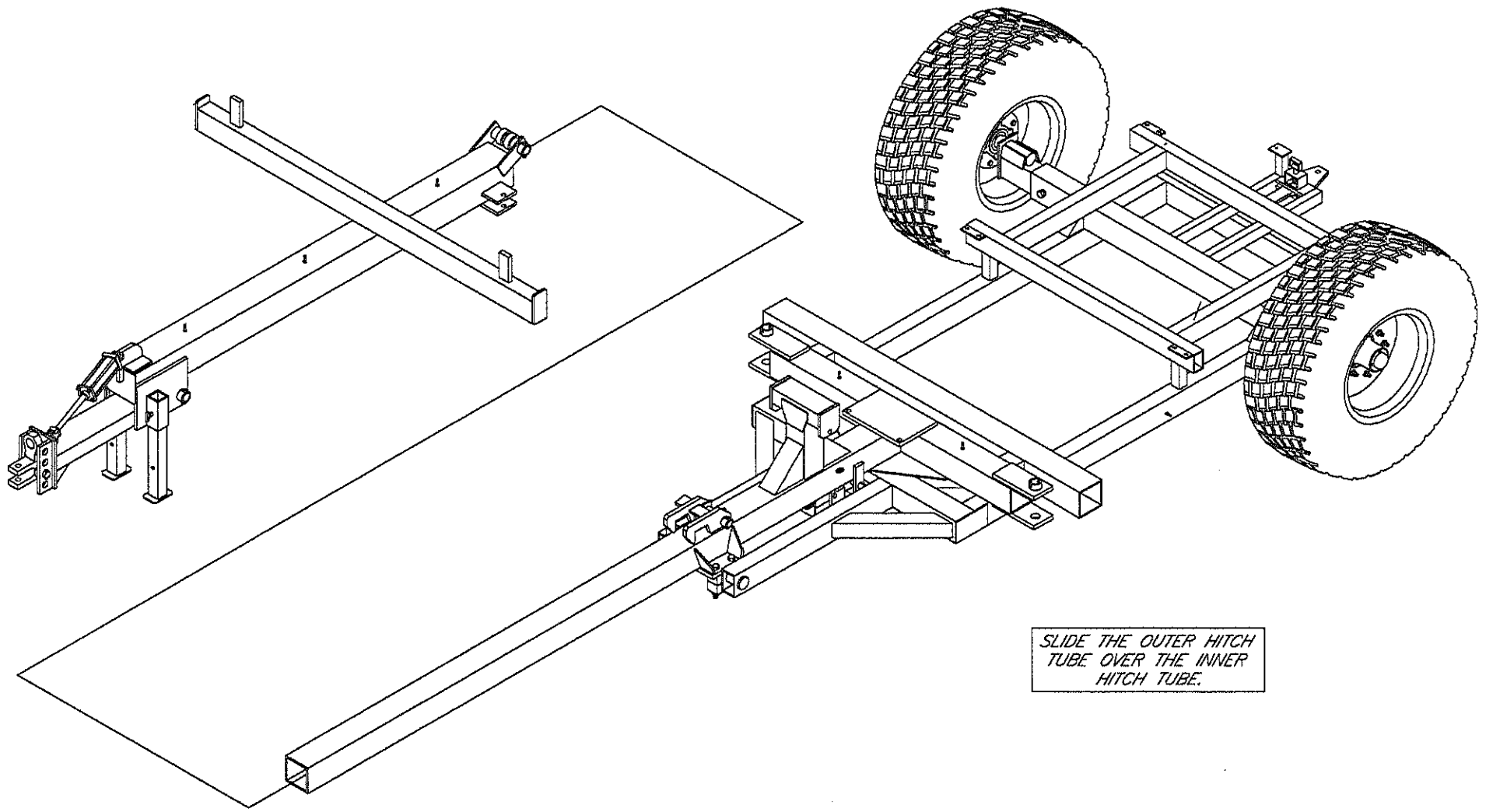


TRANSPORT SAFETY & SAFETY LATCH INSTALLATION



REF. #	QTY.	PART #	DESCRIPTION
1	1	801745	SAFETY LATCH
2	1	801744	TRANSPORT SAFETY ASSEMBLY
3	1	602225	#1.50 X 9" HINGE PIN
4	1	602224	#1.00 X 10-1/2" HINGE PIN
5	1	101140	7/16-14 X 3" HEX BOLT
6	1	101456	7/16-14 TOPLOCK NUT
7	1	101127	3/8-16 X 2" HEX BOLT
8	1	101455	3/8-16 TOPLOCK NUT

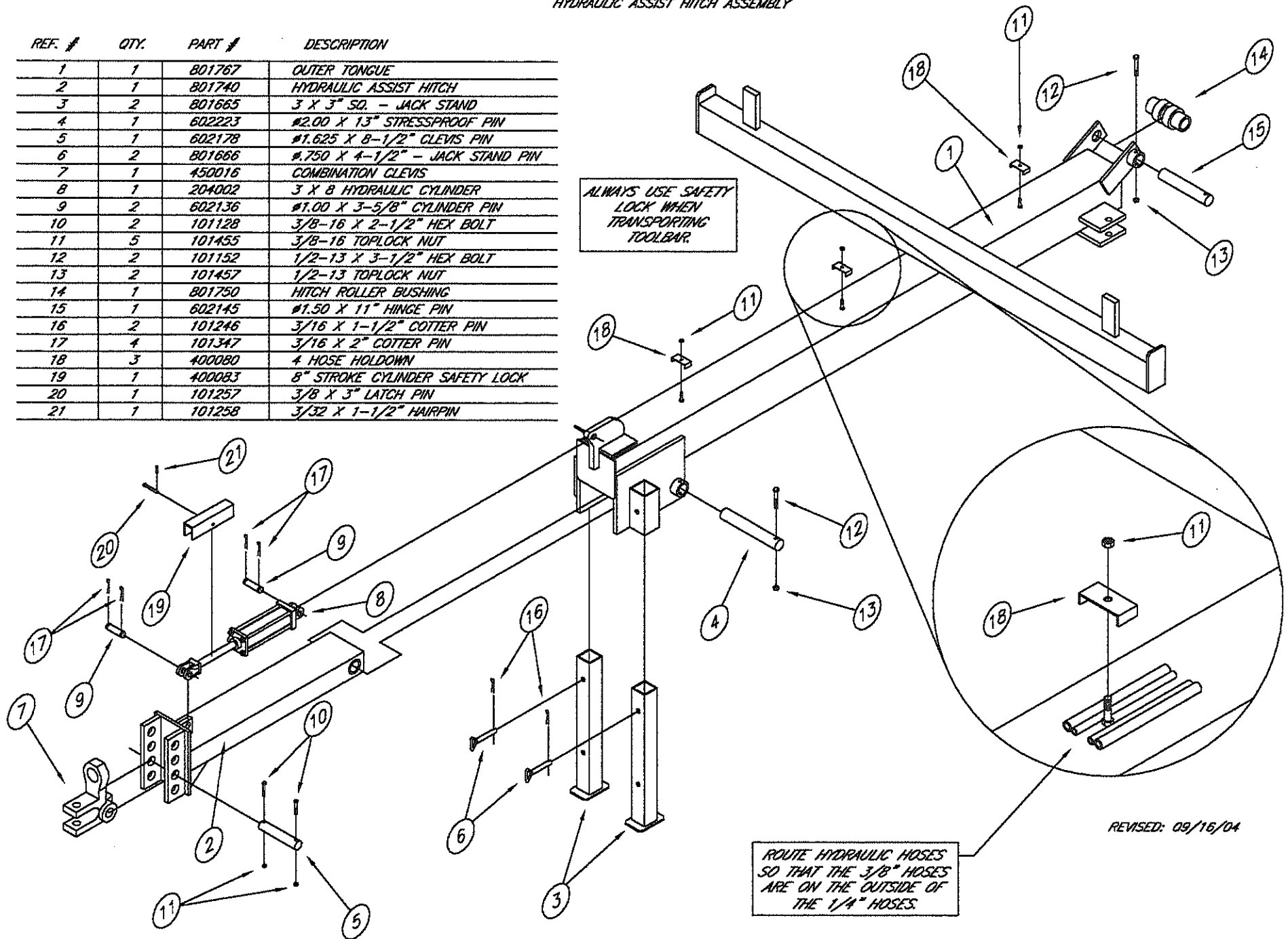
OUTER & INNER HITCH TUBE/MAINFRAME ASSEMBLY



HYDRAULIC ASSIST HITCH ASSEMBLY

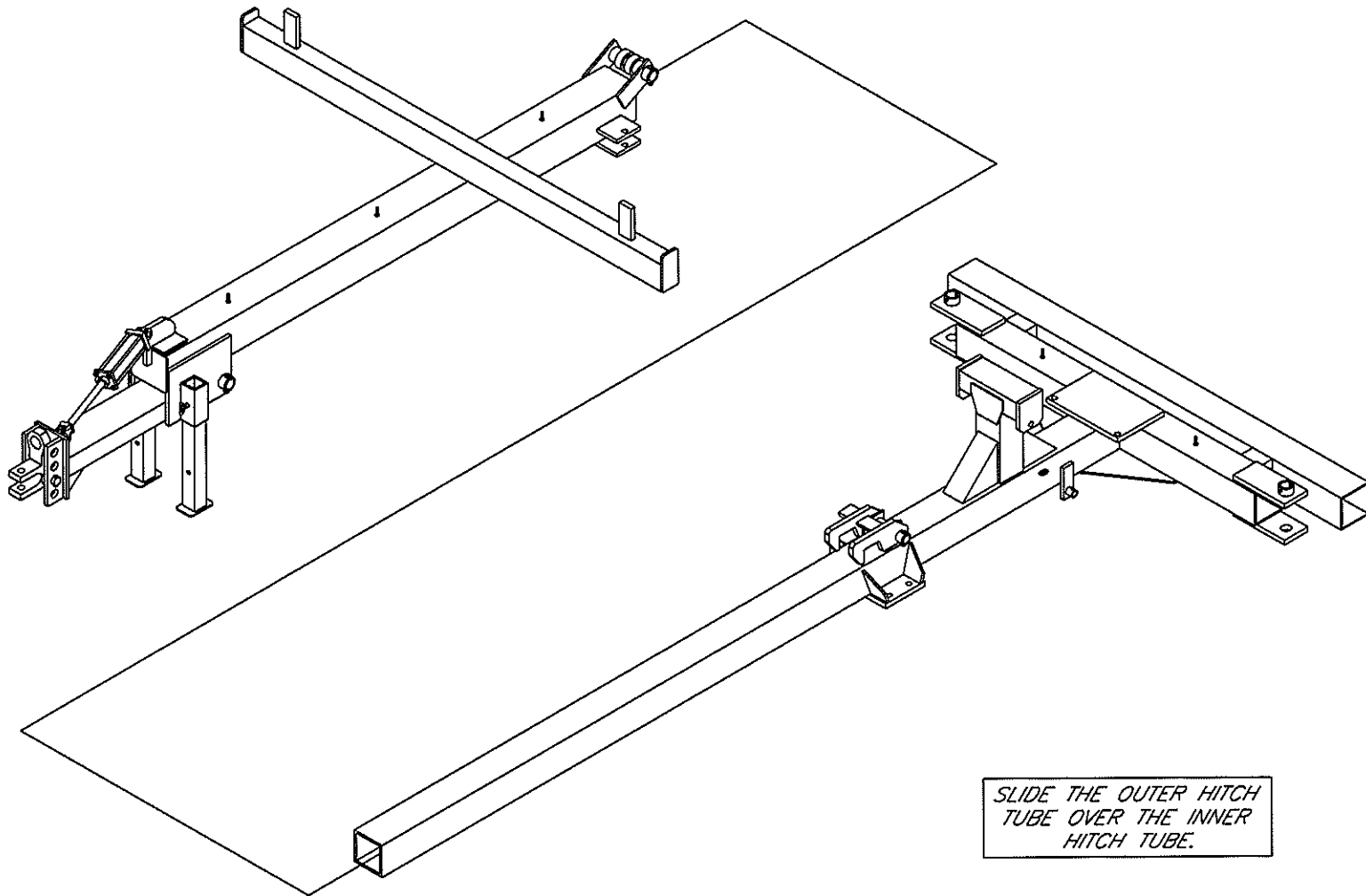
REF. #	QTY.	PART #	DESCRIPTION
1	1	801767	OUTER TONGUE
2	1	801740	HYDRAULIC ASSIST HITCH
3	2	801665	3 X 3" SQ. - JACK STAND
4	1	602223	#2.00 X 13" STRESSPROOF PIN
5	1	602178	#1.625 X 8-1/2" CLEVIS PIN
6	2	801666	#.750 X 4-1/2" - JACK STAND PIN
7	1	450016	COMBINATION CLEVIS
8	1	204002	3 X 8 HYDRAULIC CYLINDER
9	2	602136	#1.00 X 3-5/8" CYLINDER PIN
10	2	101128	3/8-16 X 2-1/2" HEX BOLT
11	5	101455	3/8-16 TOPLOCK NUT
12	2	101152	1/2-13 X 3-1/2" HEX BOLT
13	2	101457	1/2-13 TOPLOCK NUT
14	1	801750	HITCH ROLLER BUSHING
15	1	602145	#1.50 X 11" HINGE PIN
16	2	101246	3/16 X 1-1/2" COTTER PIN
17	4	101347	3/16 X 2" COTTER PIN
18	3	400080	4 HOSE HOLDOWN
19	1	400083	8" STROKE CYLINDER SAFETY LOCK
20	1	101257	3/8 X 3" LATCH PIN
21	1	101258	3/32 X 1-1/2" HAIRPIN

ALWAYS USE SAFETY
LOCK WHEN
TRANSPORTING
TOOLBAR.

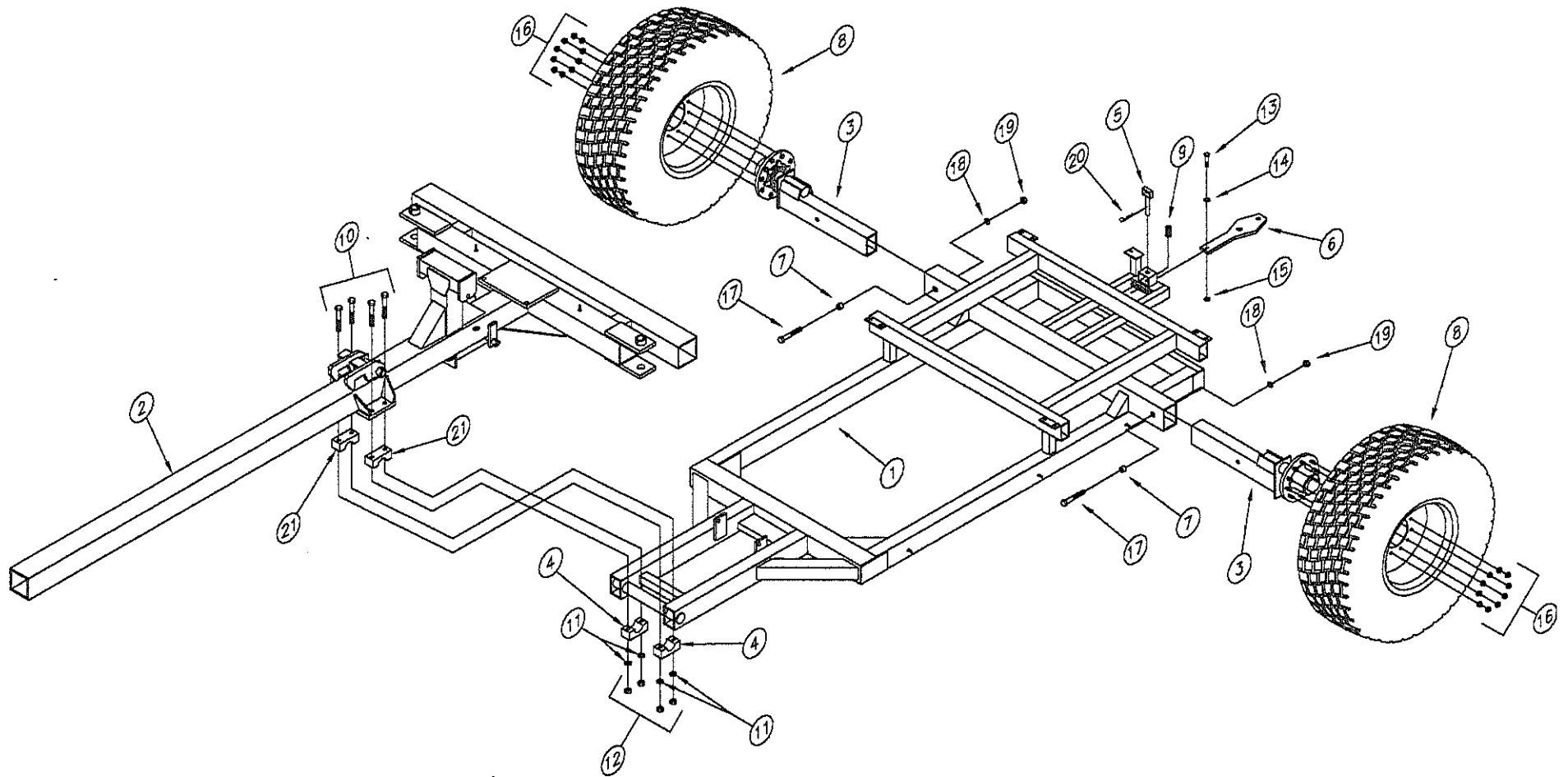


REVISED: 09/16/04

OUTER AND INNER HITCH TUBE ASSEMBLY



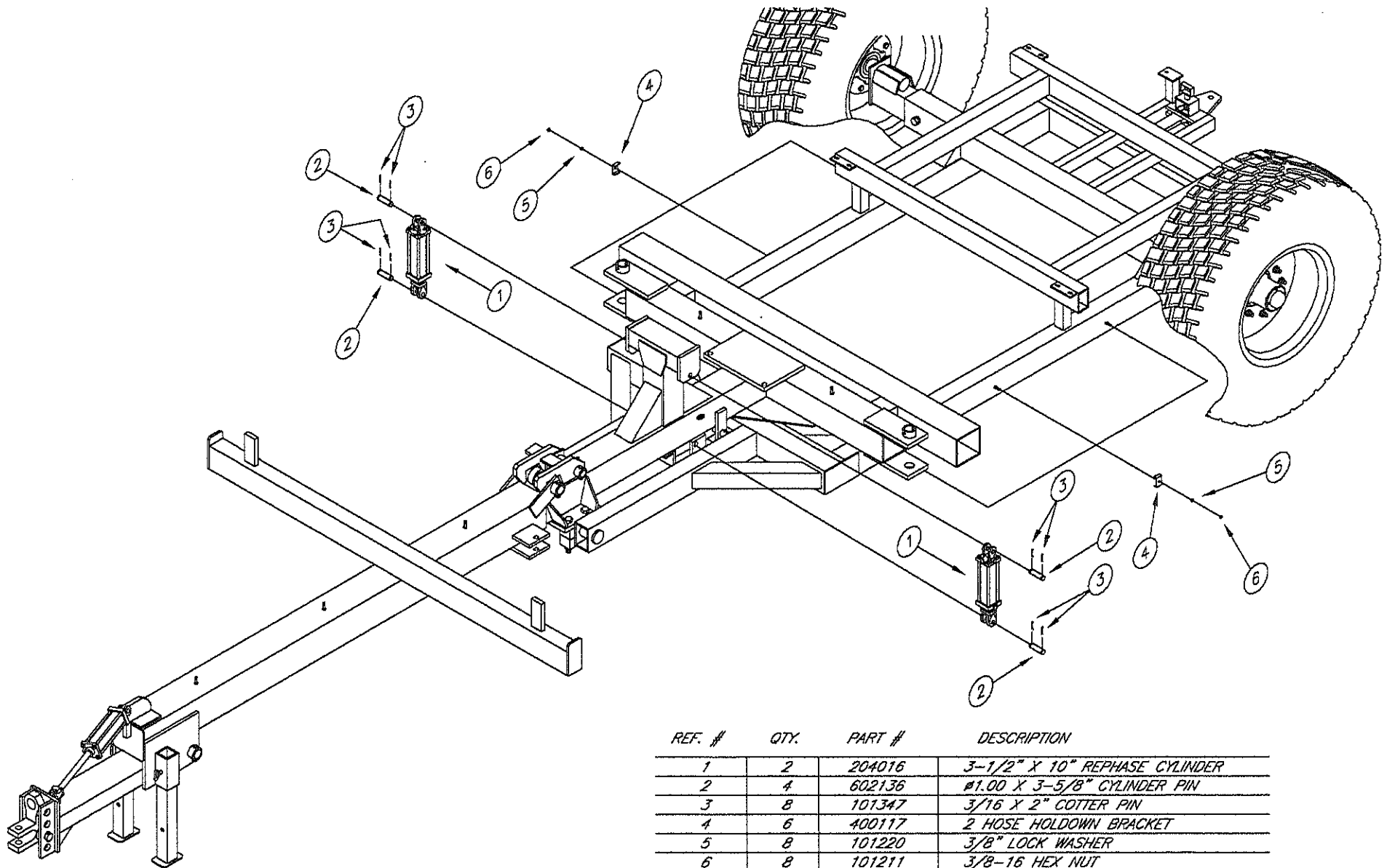
INNER HITCH TUBE/MAINFRAME & CARGO FRAME ASSEMBLY



INNER HITCH TUBE/MAINFRAME & CARGO FRAME ASSEMBLY PARTS LIST

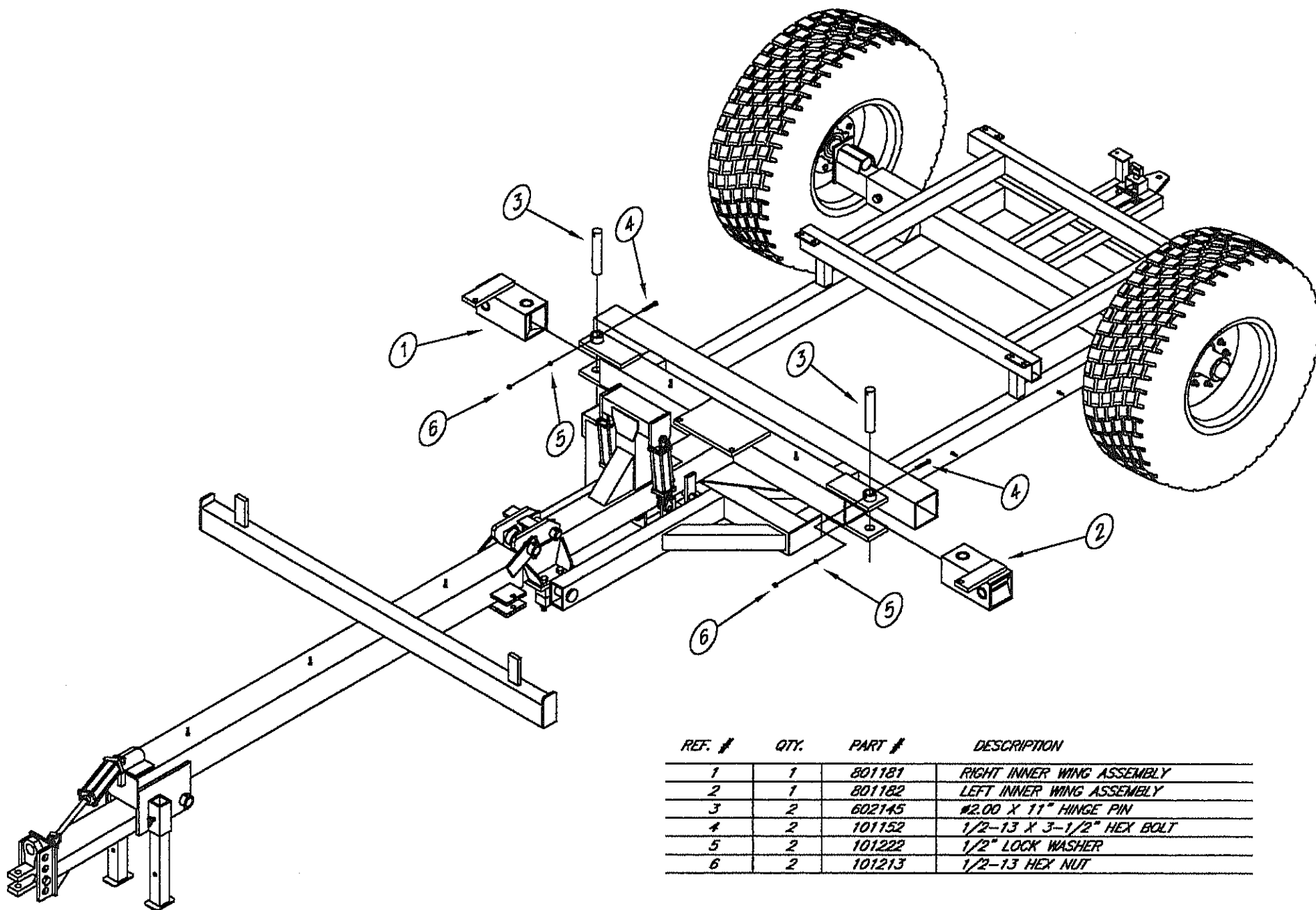
<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>801319</i>	<i>CARGO FRAME ASSEMBLY – COMPLETE</i>
<i>2</i>	<i>1</i>	<i>801768</i>	<i>INNER HITCH/MAINFRAME ASSEMBLY</i>
<i>3</i>	<i>2</i>	<i>801552</i>	<i>STUB AXLE</i>
<i>4</i>	<i>2</i>	<i>400237</i>	<i>ZERKED 3" PIN BLOCK</i>
<i>5</i>	<i>1</i>	<i>801195</i>	<i>DRAWBAR PIN</i>
<i>6</i>	<i>1</i>	<i>801293</i>	<i>TELESCOPING DRAWBAR</i>
<i>7</i>	<i>2</i>	<i>602191</i>	<i>1.500 O.D. X 1.00 I.D. X 1" – BUSHING</i>
<i>8</i>	<i>2</i>	<i>301196</i>	<i>18.4 X 26 TIRE & WHEEL ASSEMBLY</i>
<i>9</i>	<i>1</i>	<i>101330</i>	<i>COMPRESSION SPRING</i>
<i>10</i>	<i>4</i>	<i>101482</i>	<i>1-8 GRD. 8 BOLT</i>
<i>11</i>	<i>4</i>	<i>101484</i>	<i>1" LOCK WASHER</i>
<i>12</i>	<i>4</i>	<i>101483</i>	<i>1-8 HEX NUT</i>
<i>13</i>	<i>1</i>	<i>101171</i>	<i>3/4-10 X 2" HEX BOLT</i>
<i>14</i>	<i>1</i>	<i>101233</i>	<i>3/4" FLAT WASHER</i>
<i>15</i>	<i>1</i>	<i>101242</i>	<i>3/4-10 SELF-LOCKING HEX NUT</i>
<i>16</i>	<i>20</i>	<i>301189</i>	<i>3/4-16 UNF LUG NUT</i>
<i>17</i>	<i>2</i>	<i>101203</i>	<i>1-8 X 7" HEX BOLT</i>
<i>18</i>	<i>2</i>	<i>101226</i>	<i>1" LOCK WASHER</i>
<i>19</i>	<i>2</i>	<i>101217</i>	<i>1-8 HEX NUT</i>
<i>20</i>	<i>1</i>	<i>101266</i>	<i>3/16" HAIRPIN</i>
<i>21</i>	<i>2</i>	<i>400245</i>	<i>3" PIN BLOCK</i>

MAINFRAME HYDRAULIC LIFT CYLINDER INSTALLATION



REF. #	QTY.	PART #	DESCRIPTION
1	2	204016	3-1/2" X 10" REPHASE CYLINDER
2	4	602136	#1.00 X 3-5/8" CYLINDER PIN
3	8	101347	3/16 X 2" COTTER PIN
4	6	400117	2 HOSE HOLDOWN BRACKET
5	8	101220	3/8" LOCK WASHER
6	8	101211	3/8-16 HEX NUT

INNER WING ASSEMBLY



REF. #	QTY.	PART #	DESCRIPTION
1	1	801181	RIGHT INNER WING ASSEMBLY
2	1	801182	LEFT INNER WING ASSEMBLY
3	2	602145	#2.00 X 11" HINGE PIN
4	2	101152	1/2-13 X 3-1/2" HEX BOLT
5	2	101222	1/2" LOCK WASHER
6	2	101213	1/2-13 HEX NUT

INSTALLING THE TRANSPORT SAFETY CABLE

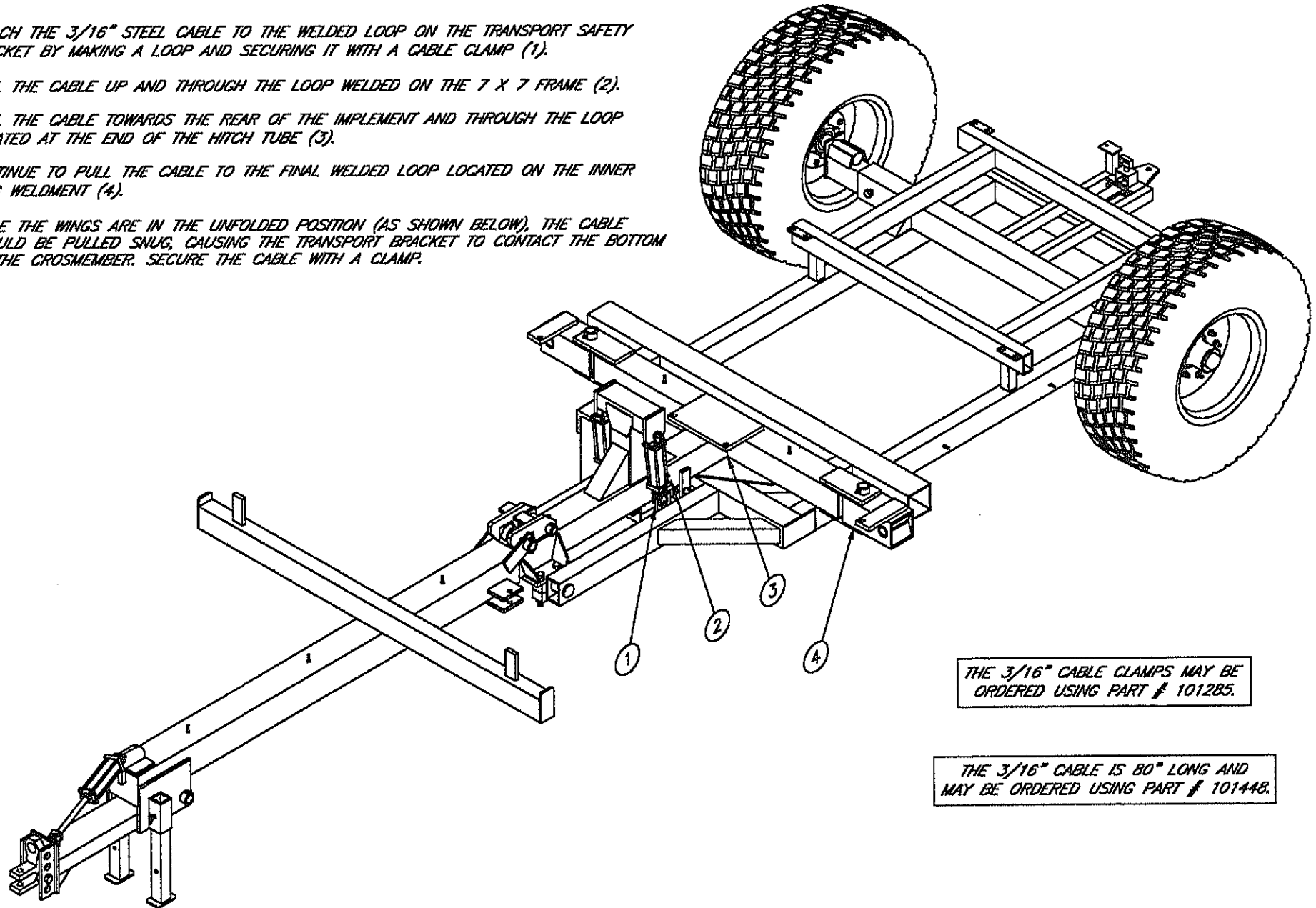
ATTACH THE 3/16" STEEL CABLE TO THE WELDED LOOP ON THE TRANSPORT SAFETY BRACKET BY MAKING A LOOP AND SECURING IT WITH A CABLE CLAMP (1).

PULL THE CABLE UP AND THROUGH THE LOOP WELDED ON THE 7 X 7 FRAME (2).

PULL THE CABLE TOWARDS THE REAR OF THE IMPLEMENT AND THROUGH THE LOOP LOCATED AT THE END OF THE HITCH TUBE (3).

CONTINUE TO PULL THE CABLE TO THE FINAL WELDED LOOP LOCATED ON THE INNER WING WELDMENT (4).

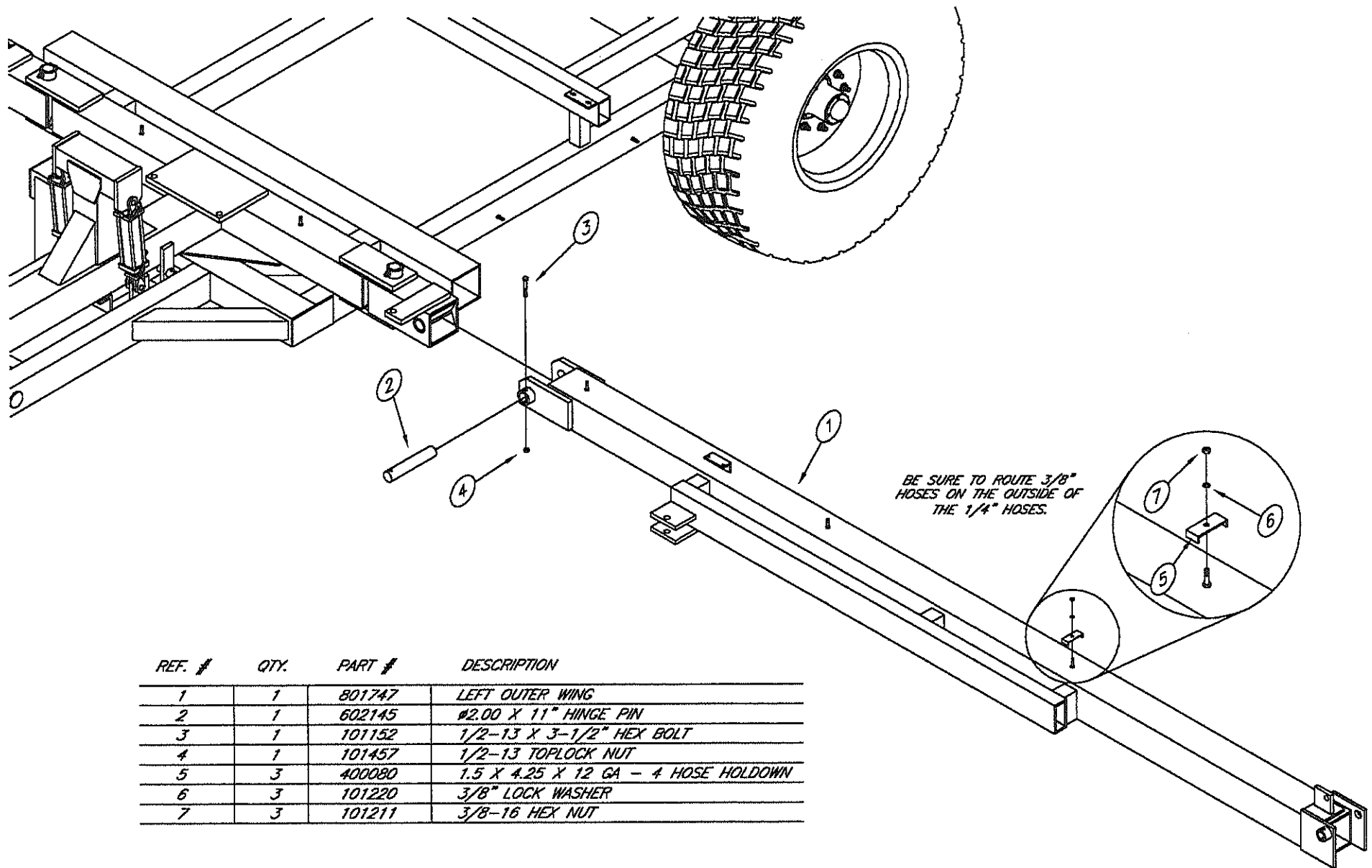
WHILE THE WINGS ARE IN THE UNFOLDED POSITION (AS SHOWN BELOW), THE CABLE SHOULD BE PULLED SNUG, CAUSING THE TRANSPORT BRACKET TO CONTACT THE BOTTOM OF THE CROSMEMBER. SECURE THE CABLE WITH A CLAMP.



THE 3/16" CABLE CLAMPS MAY BE ORDERED USING PART # 101285.

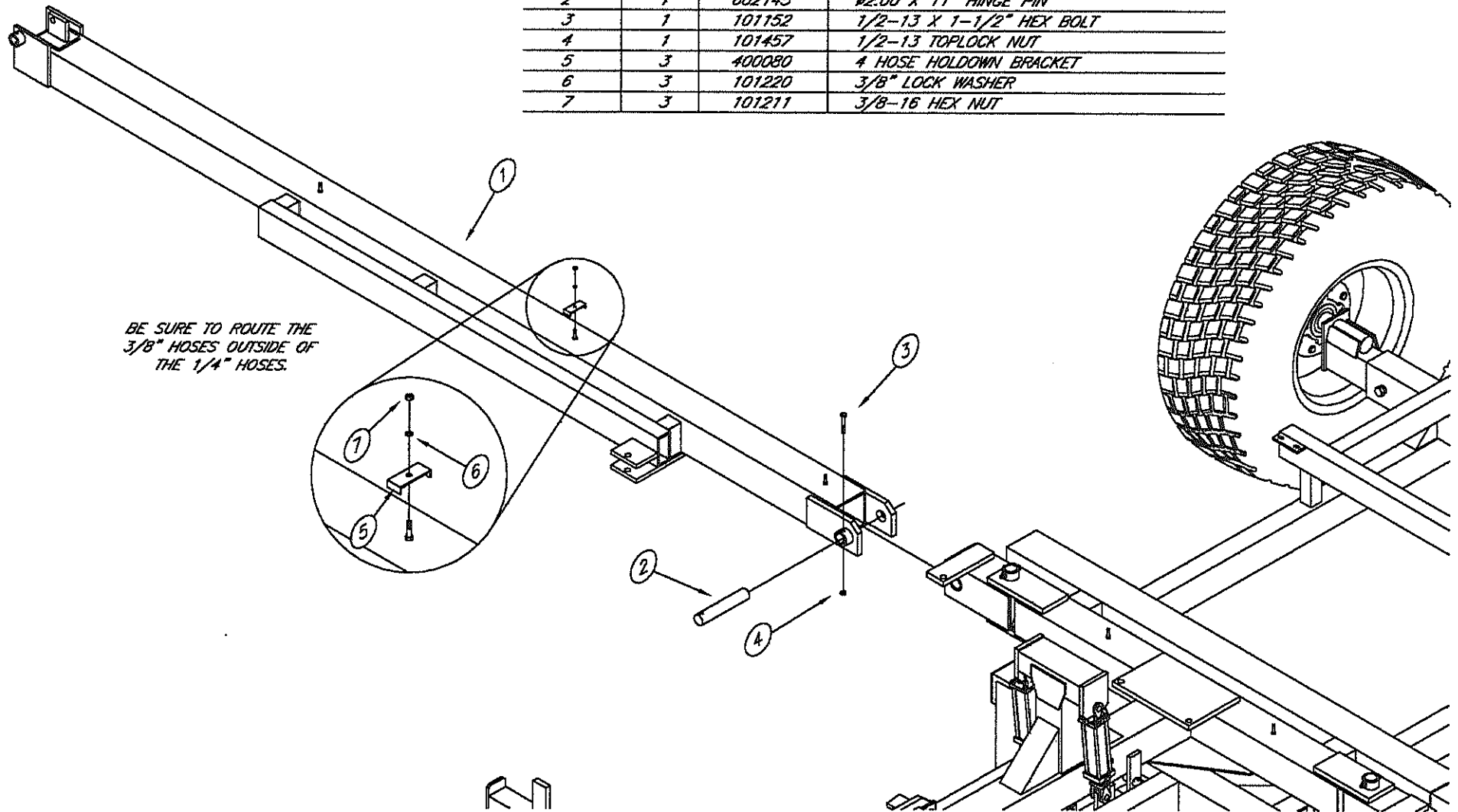
THE 3/16" CABLE IS 80" LONG AND MAY BE ORDERED USING PART # 101448.

LEFT OUTER WING ASSEMBLY

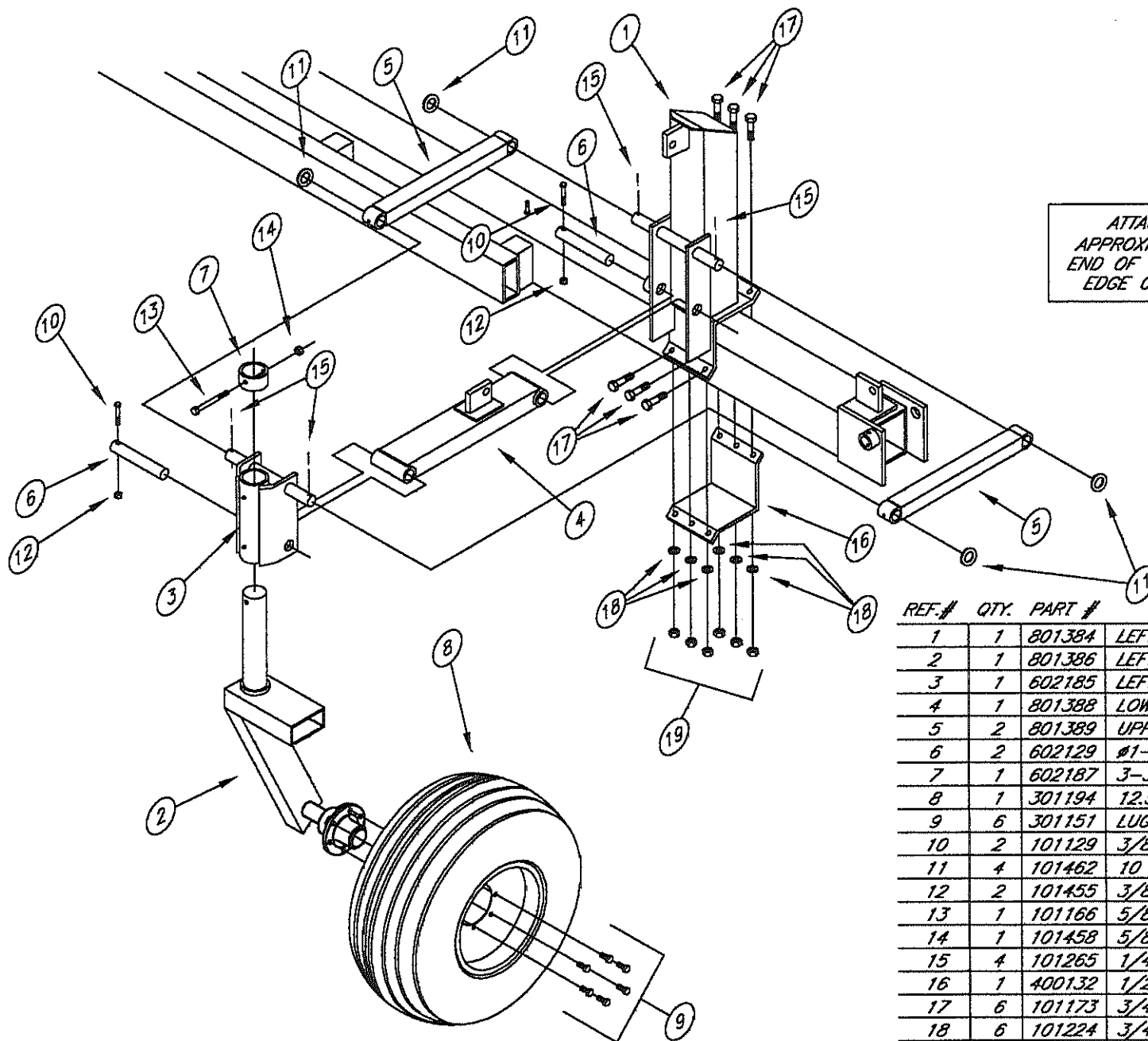


RIGHT OUTER WING ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801746	RIGHT OUTER WING
2	1	602145	#2.00 X 11" HINGE PIN
3	1	101152	1/2-13 X 1-1/2" HEX BOLT
4	1	101457	1/2-13 TOPLOCK NUT
5	3	400080	4 HOSE HOLDOWN BRACKET
6	3	101220	3/8" LOCK WASHER
7	3	101211	3/8-16 HEX NUT



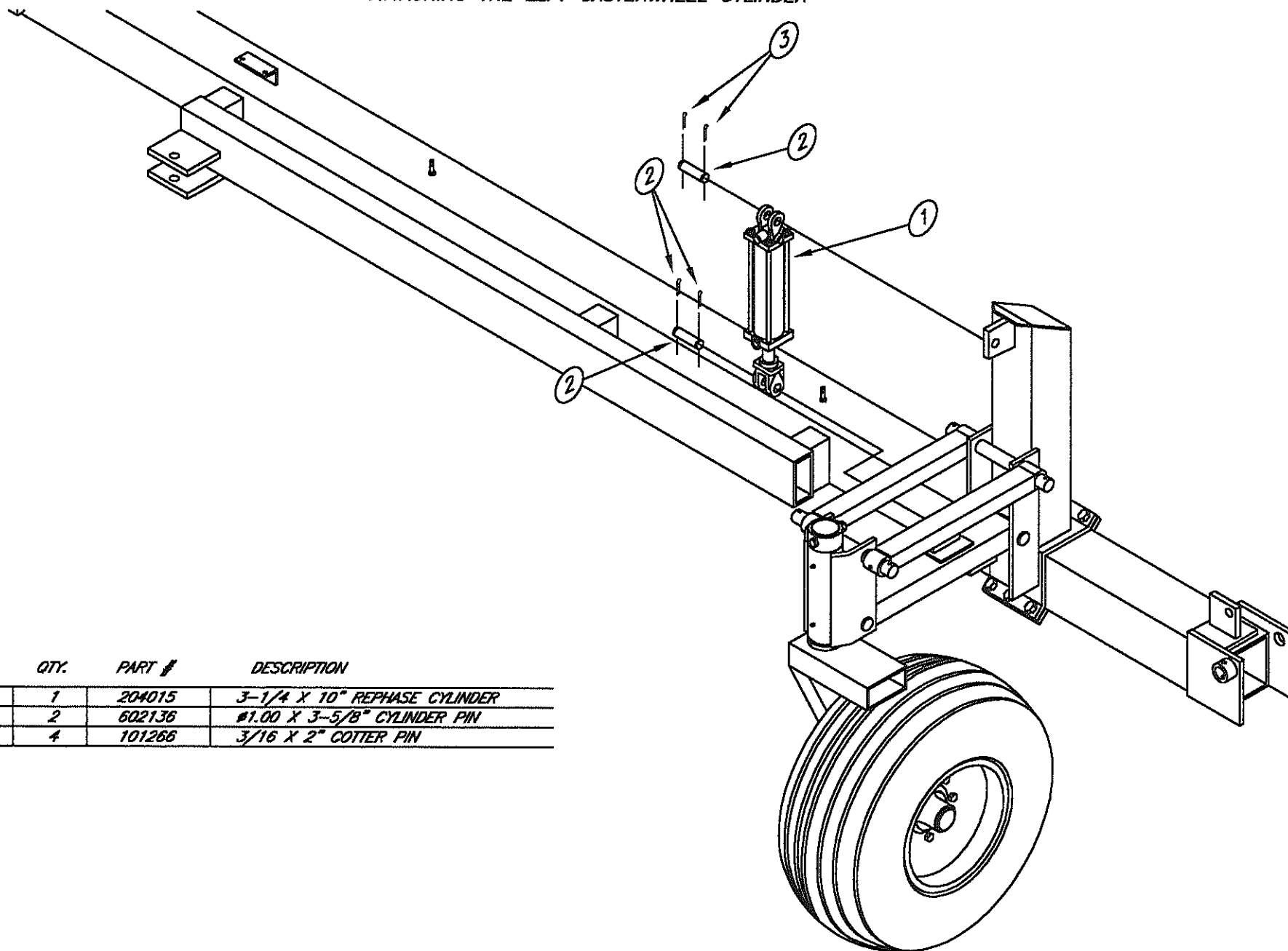
LEFT CASTERWHEEL ASSEMBLY



ATTACH SADDLE CLAMPS
APPROXIMATELY 32" FROM THE
END OF THE WING TUBE TO THE
EDGE OF THE SADDLE CLAMP.

REF. #	QTY.	PART #	DESCRIPTION
1	1	801384	LEFT CYLINDER TOWER
2	1	801386	LEFT CASTER WHEEL UNIT
3	1	602185	LEFT CASTER BUSHING
4	1	801388	LOWER PARALLEL ARM
5	2	801389	UPPER PARALLEL ARM
6	2	602129	#1-1/2 X 9" - PARALLEL ARM PIN
7	1	602187	3-3/4 O.D. X 3 I.D. X 2" - COLLAR
8	1	301194	12.5L X 15SL 8-PLY 10 X 15 ASSEM.
9	6	301151	LUG BOLT - 9/16-18 UNF X 1-1/8"
10	2	101129	3/8-16 X 3" HEX BOLT
11	4	101462	10 GA. X 1-1/2" MACHINE WASHER
12	2	101455	3/8-16 TOPLOCK NUT
13	1	101166	5/8-11 X 5" HEX BOLT
14	1	101458	5/8-11 TOPLOCK NUT
15	4	101265	1/4 X 2" COTTER PIN
16	1	400132	1/2 X 8 X 17" - SADDLE CLAMP
17	6	101173	3/4-10 X 3" HEX BOLT
18	6	101224	3/4" LOCK WASHER
19	6	101215	3/4-10 HEX NUT

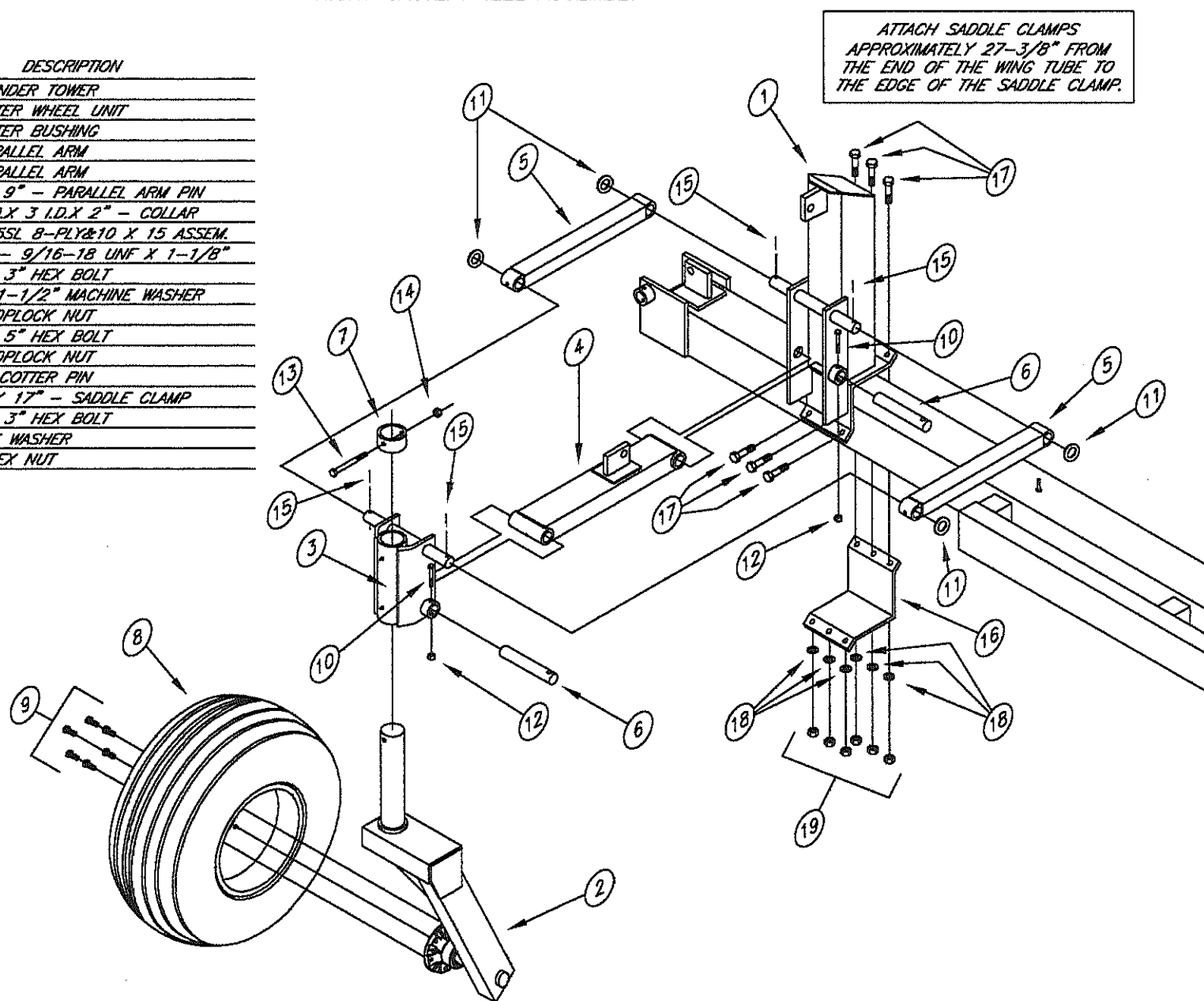
ATTACHING THE LEFT CASTERWHEEL CYLINDER



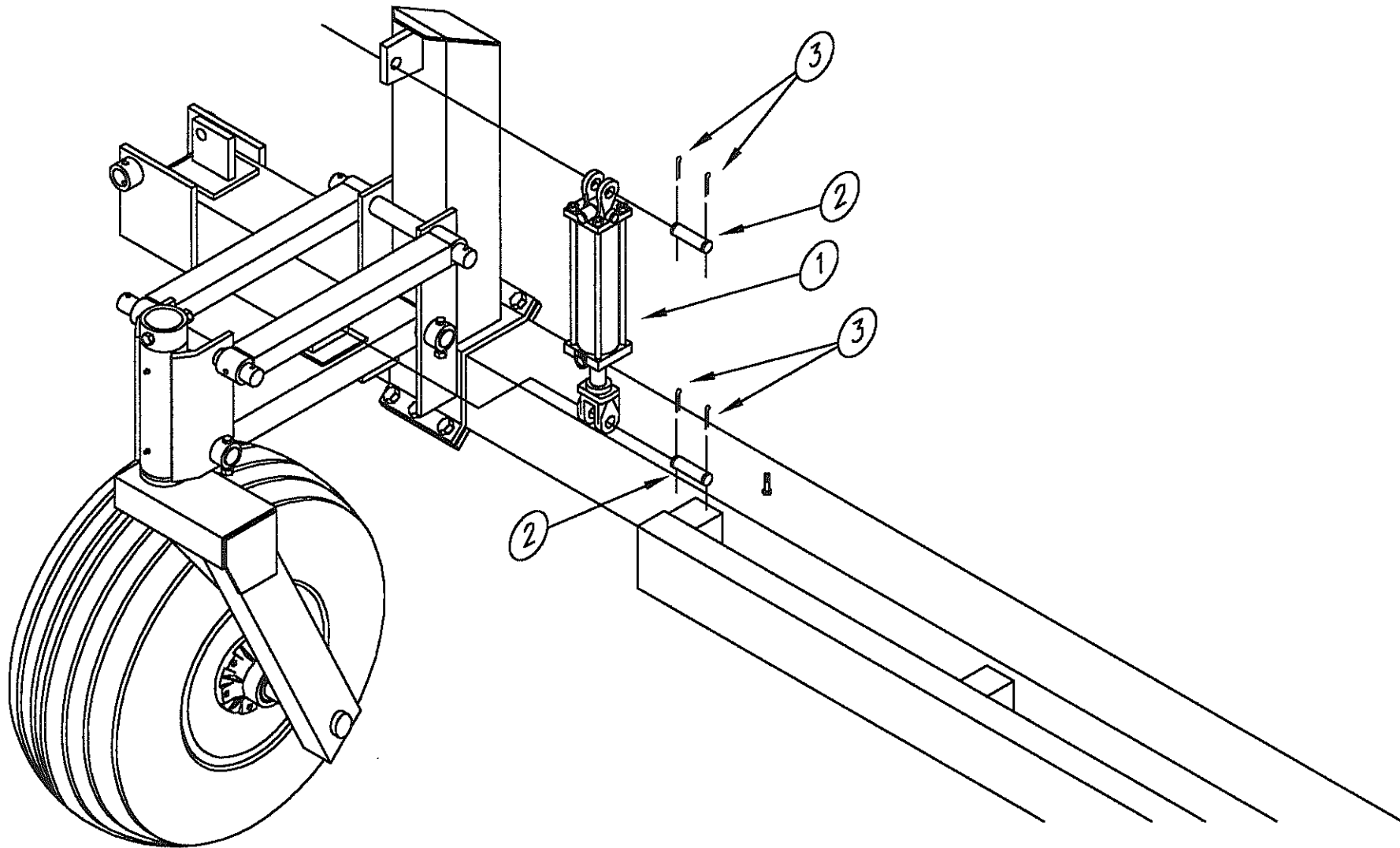
REF. #	QTY.	PART #	DESCRIPTION
1	1	204015	3-1/4 X 10" REPHASE CYLINDER
2	2	602136	#1.00 X 3-5/8" CYLINDER PIN
3	4	101266	3/16 X 2" COTTER PIN

RIGHT CASTERWHEEL ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801385	RIGHT CYLINDER TOWER
2	1	801387	RIGHT CASTER WHEEL UNIT
3	1	602186	RIGHT CASTER BUSHING
4	1	801388	LOWER PARALLEL ARM
5	2	801389	UPPER PARALLEL ARM
6	2	602129	#1-1/2 X 9" - PARALLEL ARM PIN
7	1	602187	3-3/4 O.D. X 3 I.D. X 2" - COLLAR
8	1	301194	12.5L X 15SL 8-PLY 10 X 15 ASSEM.
9	6	301151	LUG BOLT - 9/16-18 UNF X 1-1/8"
10	2	101129	3/8-16 X 3" HEX BOLT
11	4	101462	10 GA. X 1-1/2" MACHINE WASHER
12	2	101455	3/8-16 TOPLOCK NUT
13	1	101166	5/8-11 X 5" HEX BOLT
14	1	101458	5/8-11 TOPLOCK NUT
15	4	101247	1/4 X 2" COTTER PIN
16	1	400132	1/2 X 8 X 17" - SADDLE CLAMP
17	6	101173	3/4-10 X 3" HEX BOLT
18	6	101224	3/4" LOCK WASHER
19	6	101215	3/4-10 HEX NUT



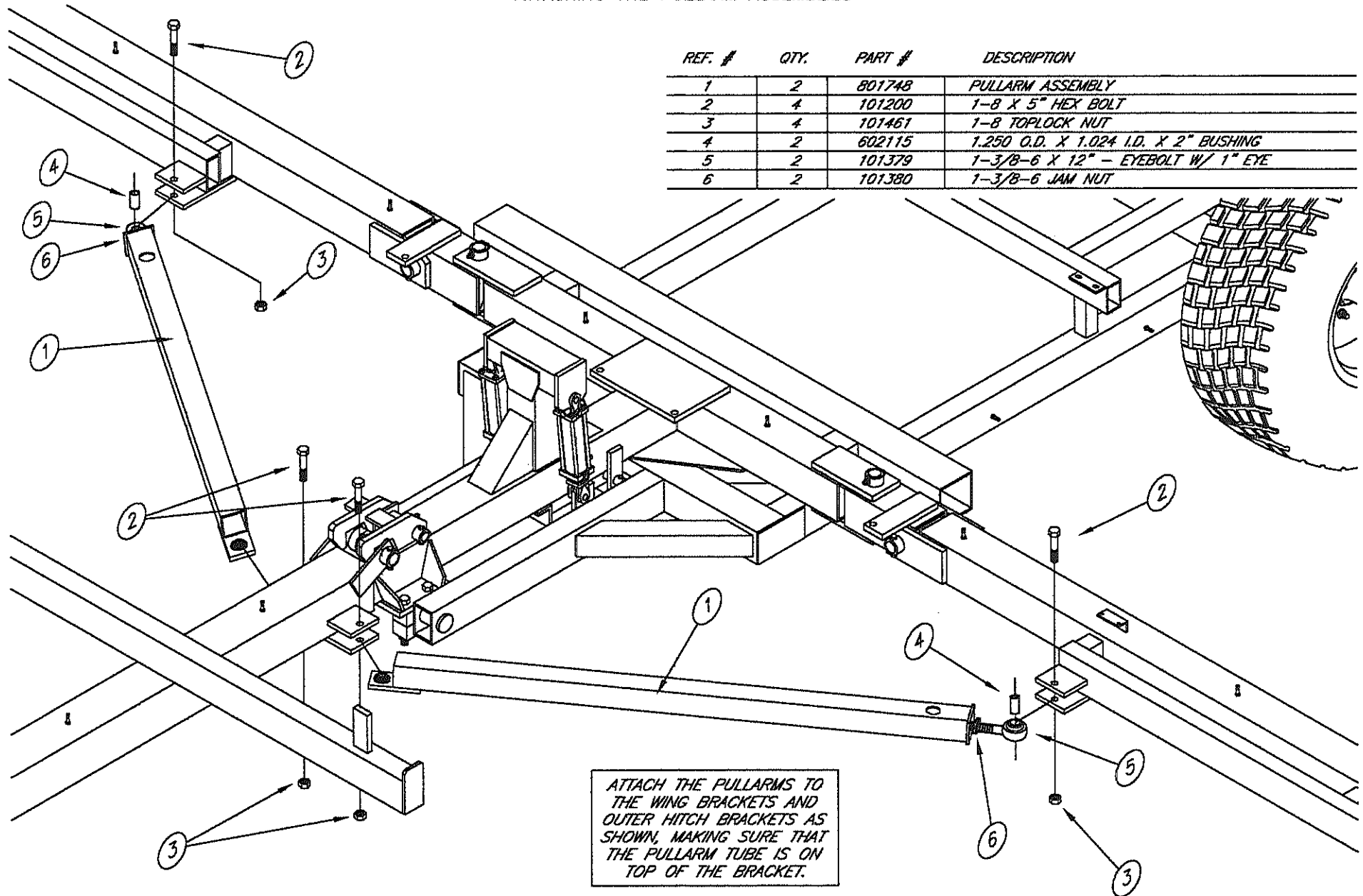
ATTACHING THE RIGHT CASTERWHEEL CYLINDER



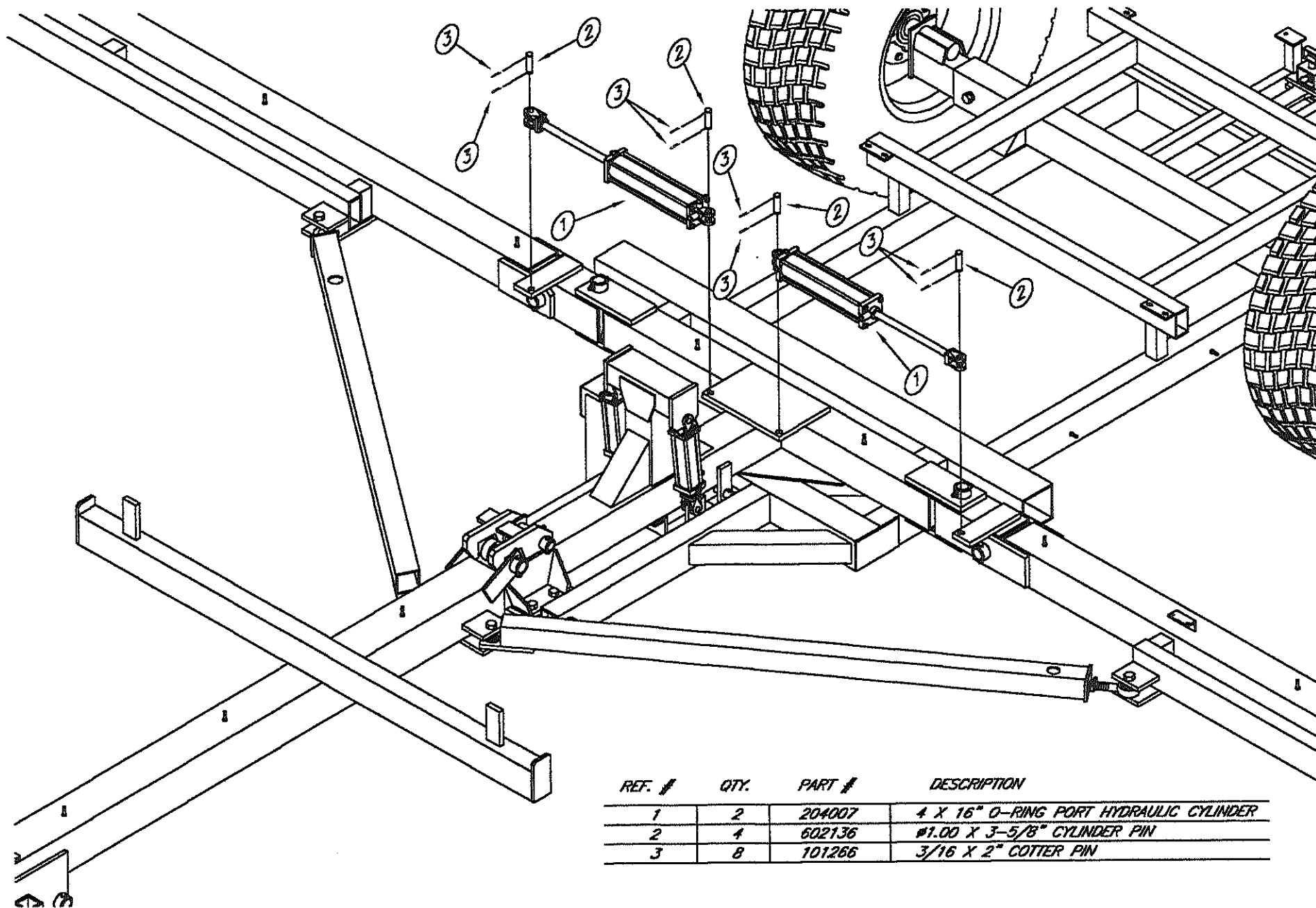
REF. #	QTY.	PART #	DESCRIPTION
1	1	204015	3-1/4 X 10" REPHASE CYLINDER
2	2	602136	#1.00 X 3-5/8" CYLINDER PIN
3	4	101266	3/16 X 2" COTTER PIN

ATTACHING THE PULLARM ASSEMBLIES

REF. #	QTY.	PART #	DESCRIPTION
1	2	801748	PULLARM ASSEMBLY
2	4	101200	1-8 X 5" HEX BOLT
3	4	101461	1-8 TOPLOCK NUT
4	2	602115	1.250 O.D. X 1.024 I.D. X 2" BUSHING
5	2	101379	1-3/8-6 X 12" - EYEBOLT W/ 1" EYE
6	2	101380	1-3/8-6 JAM NUT

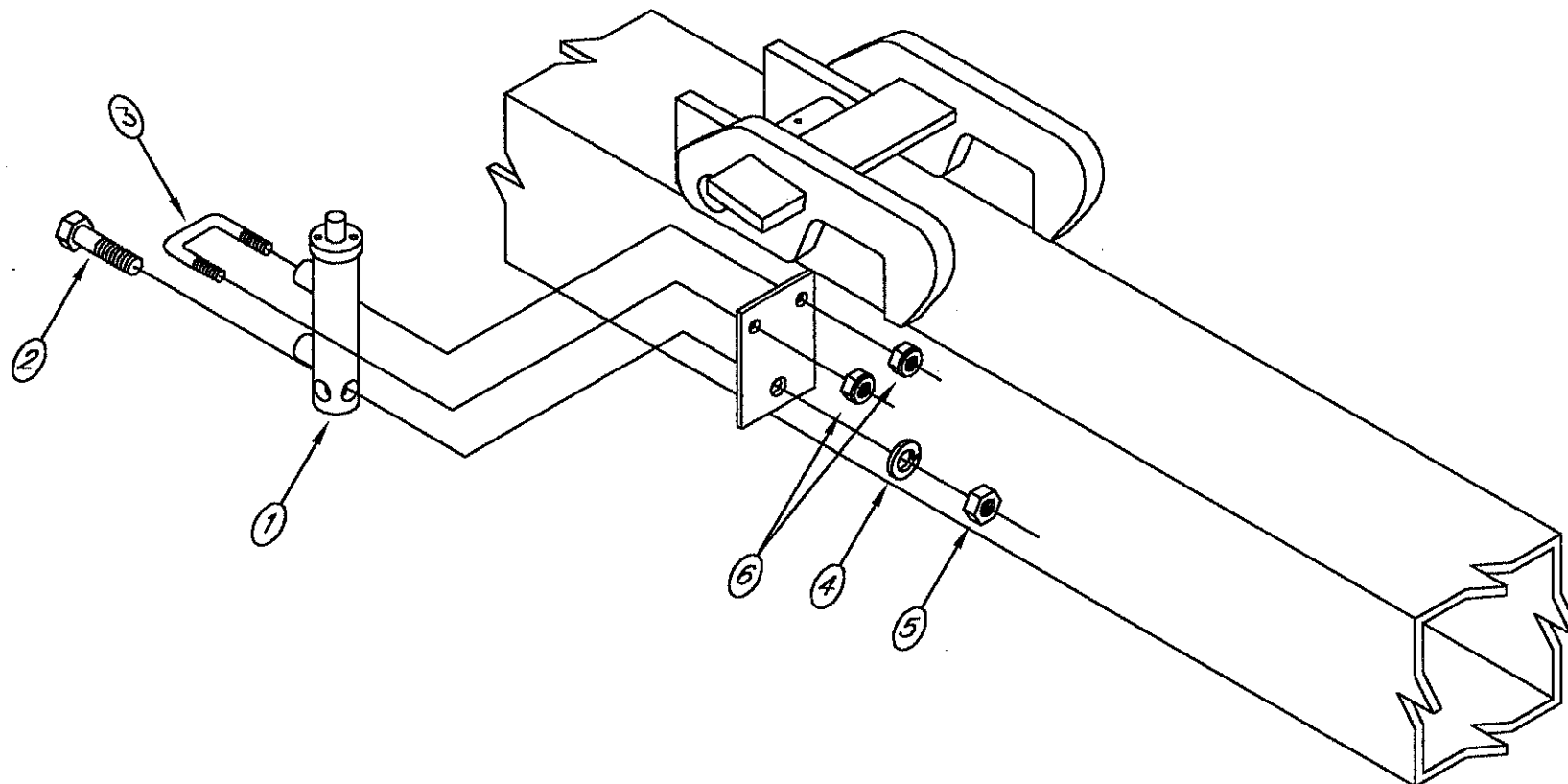


HYDRAULIC WING-FOLD CYLINDER ATTACHMENT



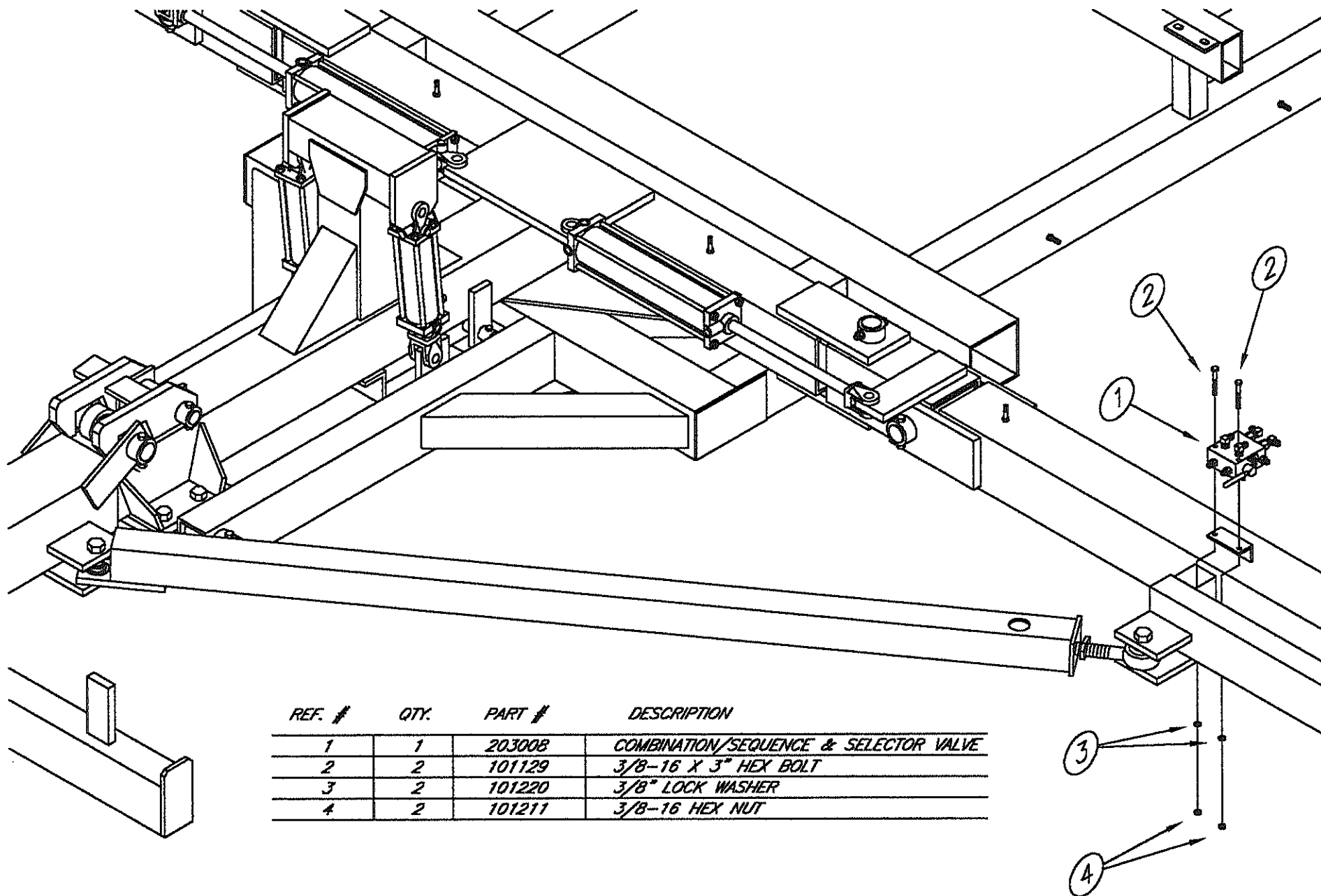
REF. #	QTY.	PART #	DESCRIPTION
1	2	204007	4 X 16" O-RING PORT HYDRAULIC CYLINDER
2	4	602136	#1.00 X 3-5/8" CYLINDER PIN
3	8	101266	3/16 X 2" COTTER PIN

INSTALLING THE SAFETY LATCH HYDRAULIC RAM



REF. #	QTY.	PART #	DESCRIPTION
1	1	204020	1-1/2 X 2-1/2 HYDRAULIC RAM
2	1	101173	3/4-10 X 3" - HEX BOLT - PLT.
3	1	101355	1/2-13 X 2 X 2-1/2" U-BOLT-PLT.
4	1	101224	3/4" LOCK WASHER - PLT.
5	1	101215	3/4-10 HEX NUT - PLT.
6	2	101457	1/2-13 TOP LOCK NUT

ATTACHING THE COMBINATION VALVE



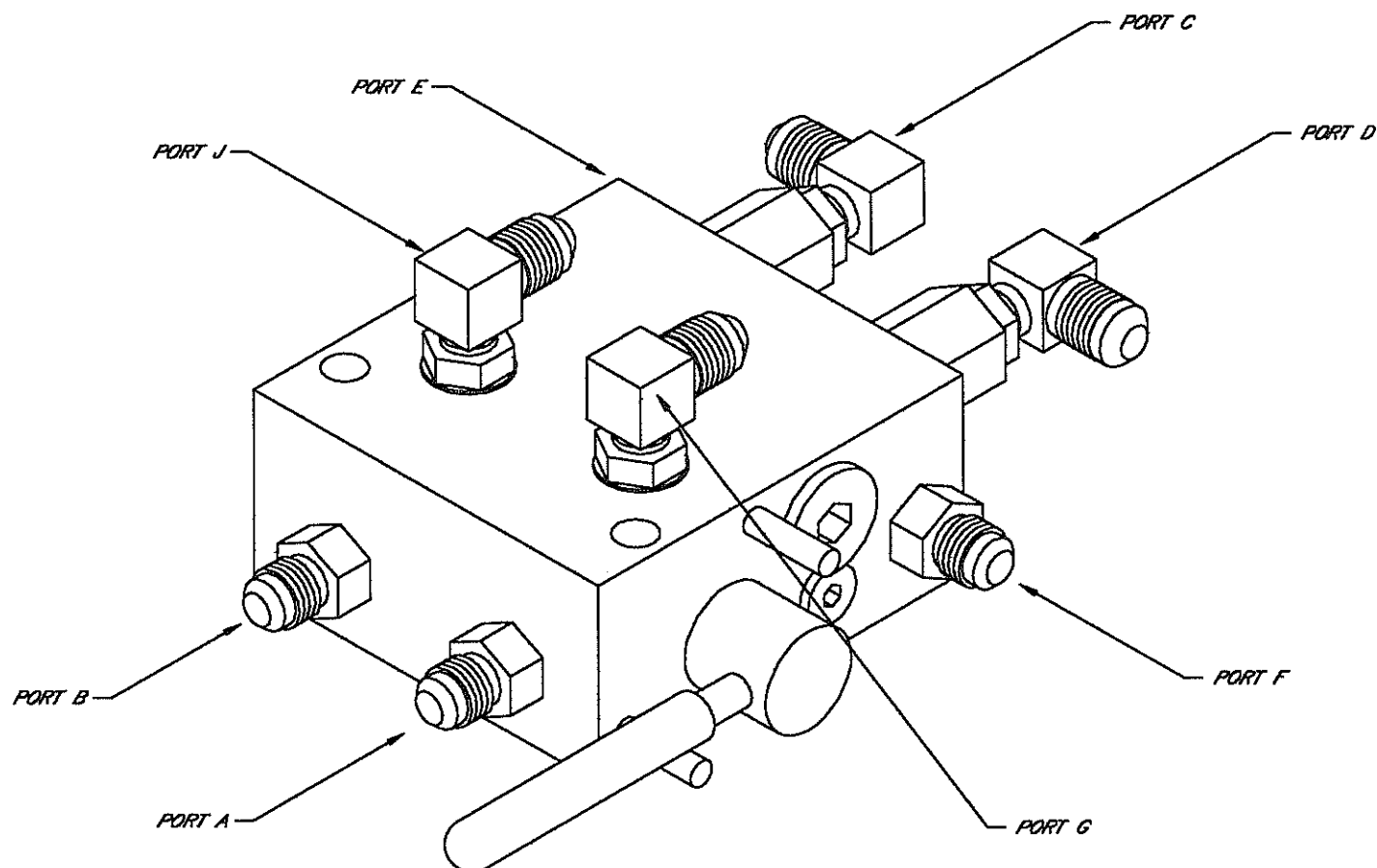
REF. #	QTY.	PART #	DESCRIPTION
1	1	203008	COMBINATION/SEQUENCE & SELECTOR VALVE
2	2	101129	3/8-16 X 3" HEX BOLT
3	2	101220	3/8" LOCK WASHER
4	2	101211	3/8-16 HEX NUT

COMBINATION VALVE PORT IDENTIFICATION AND FUNCTION

ALL PORTS ARE NO.6 MALE JIC FITTINGS.

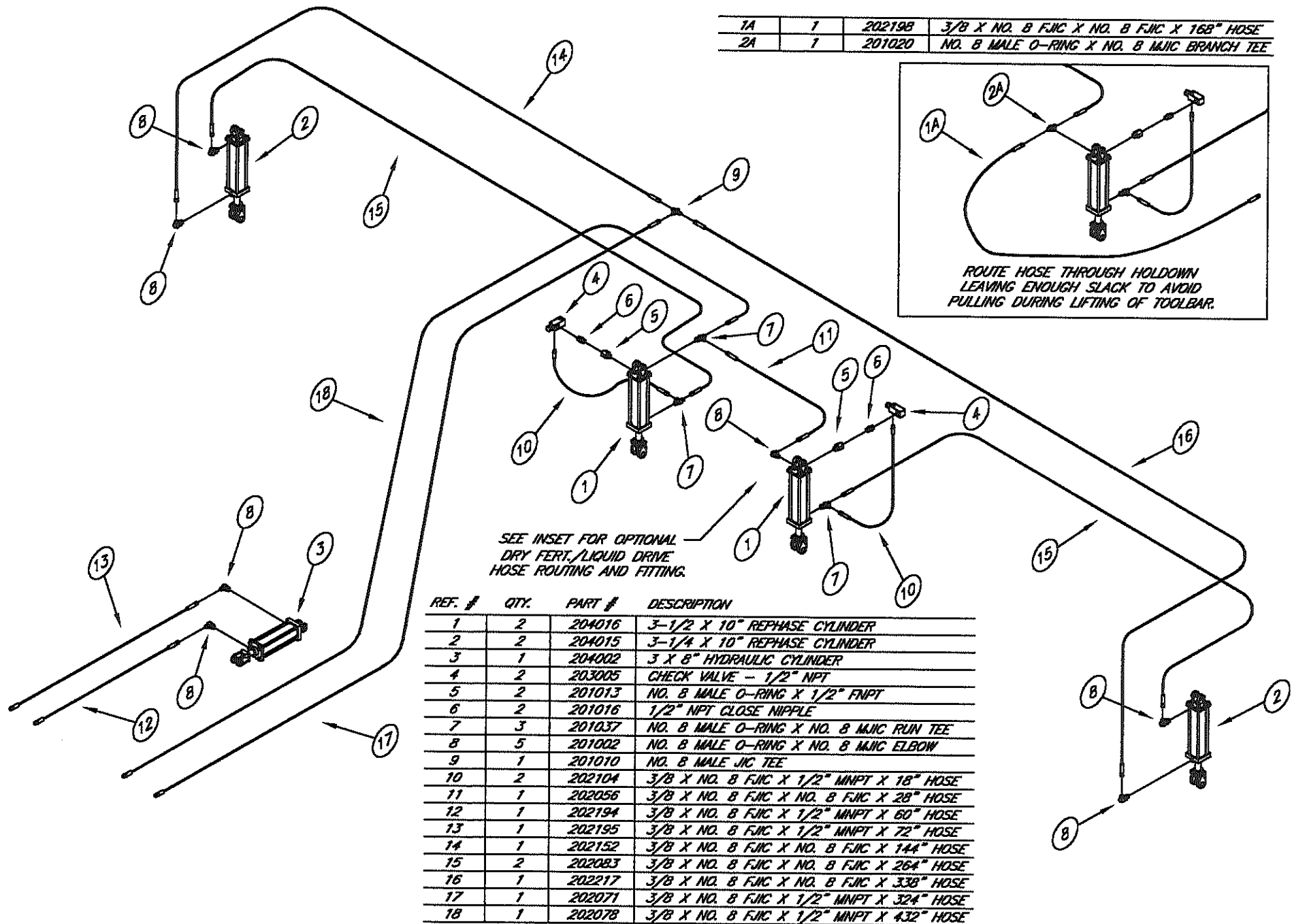
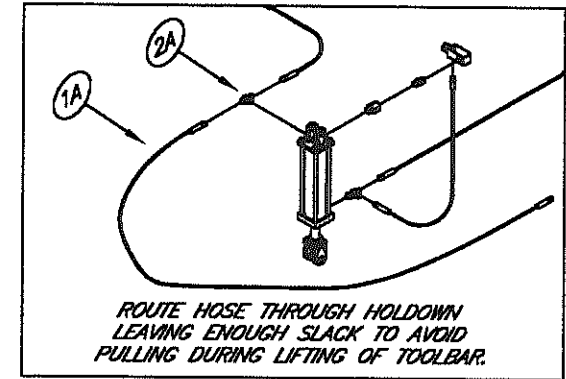
PORTS C,D,E, AND F ARE OPERATIONAL WHEN THE VALVE HANDLE IS HORIZONTAL AS SHOWN BELOW. PORTS C,D,E, AND F ARE ALL MARKER FUNCTION PORTS.

PORTS J AND G ARE OPERATIONAL WHEN THE VALVE HANDLE IS VERTICAL. PORTS J AND G ARE FOLD FUNCTION PORTS.



HYDRAULIC LIFT SYSTEM

1A	1	202198	3/8 X NO. 8 FJIC X NO. 8 FJIC X 168" HOSE
2A	1	201020	NO. 8 MALE O-RING X NO. 8 MJIC BRANCH TEE

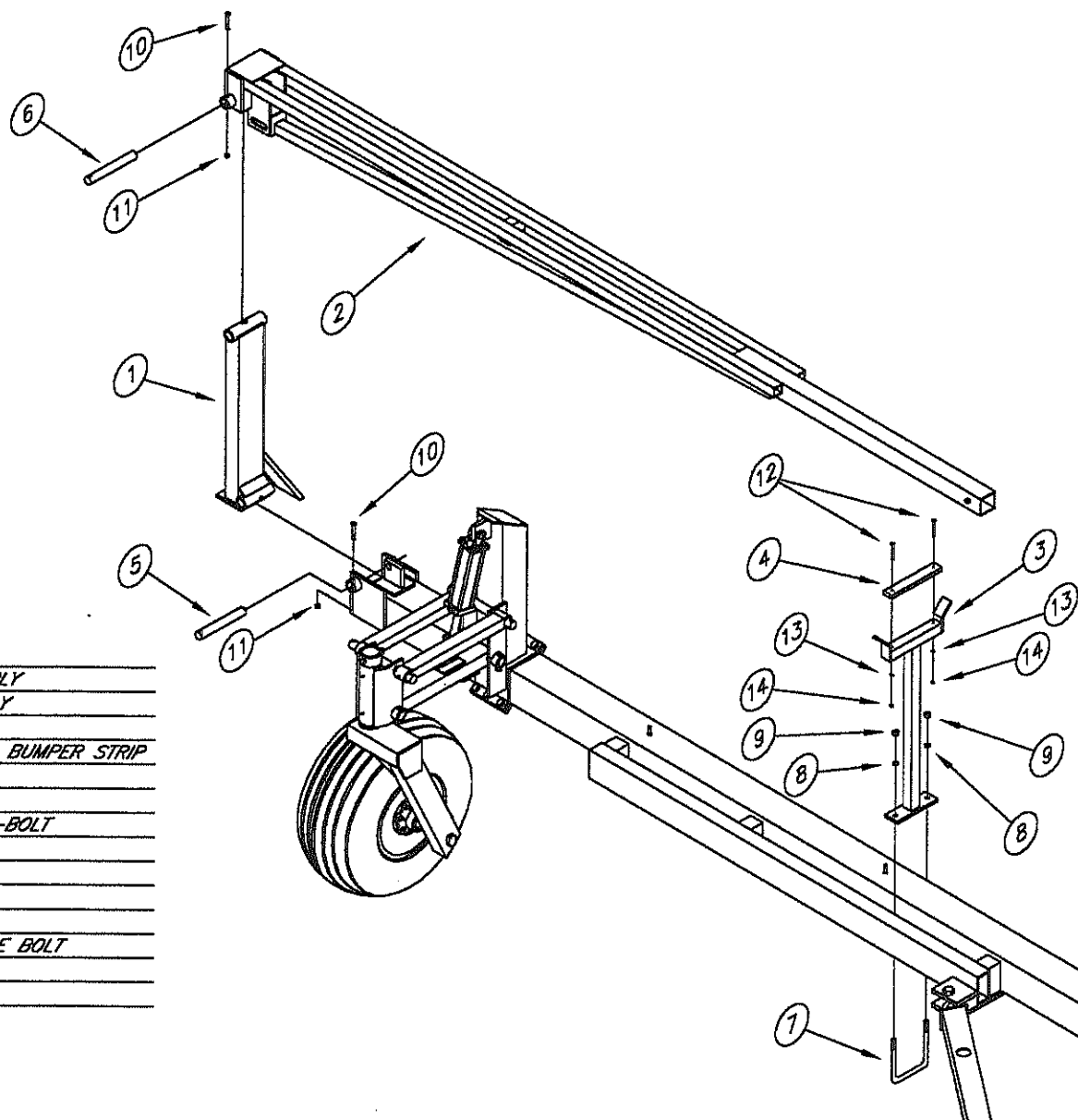


REF. #	QTY.	PART #	DESCRIPTION
1	2	204016	3-1/2 X 10" REPHASE CYLINDER
2	2	204015	3-1/4 X 10" REPHASE CYLINDER
3	1	204002	3 X 8" HYDRAULIC CYLINDER
4	2	203005	CHECK VALVE - 1/2" NPT
5	2	201013	NO. 8 MALE O-RING X 1/2" FNPT
6	2	201016	1/2" NPT CLOSE NIPPLE
7	3	201037	NO. 8 MALE O-RING X NO. 8 MJIC RUN TEE
8	5	201002	NO. 8 MALE O-RING X NO. 8 MJIC ELBOW
9	1	201010	NO. 8 MALE JIC TEE
10	2	202104	3/8 X NO. 8 FJIC X 1/2" MNPT X 18" HOSE
11	1	202056	3/8 X NO. 8 FJIC X NO. 8 FJIC X 28" HOSE
12	1	202194	3/8 X NO. 8 FJIC X 1/2" MNPT X 60" HOSE
13	1	202195	3/8 X NO. 8 FJIC X 1/2" MNPT X 72" HOSE
14	1	202152	3/8 X NO. 8 FJIC X NO. 8 FJIC X 144" HOSE
15	2	202083	3/8 X NO. 8 FJIC X NO. 8 FJIC X 264" HOSE
16	1	202217	3/8 X NO. 8 FJIC X NO. 8 FJIC X 338" HOSE
17	1	202071	3/8 X NO. 8 FJIC X 1/2" MNPT X 324" HOSE
18	1	202078	3/8 X NO. 8 FJIC X 1/2" MNPT X 432" HOSE

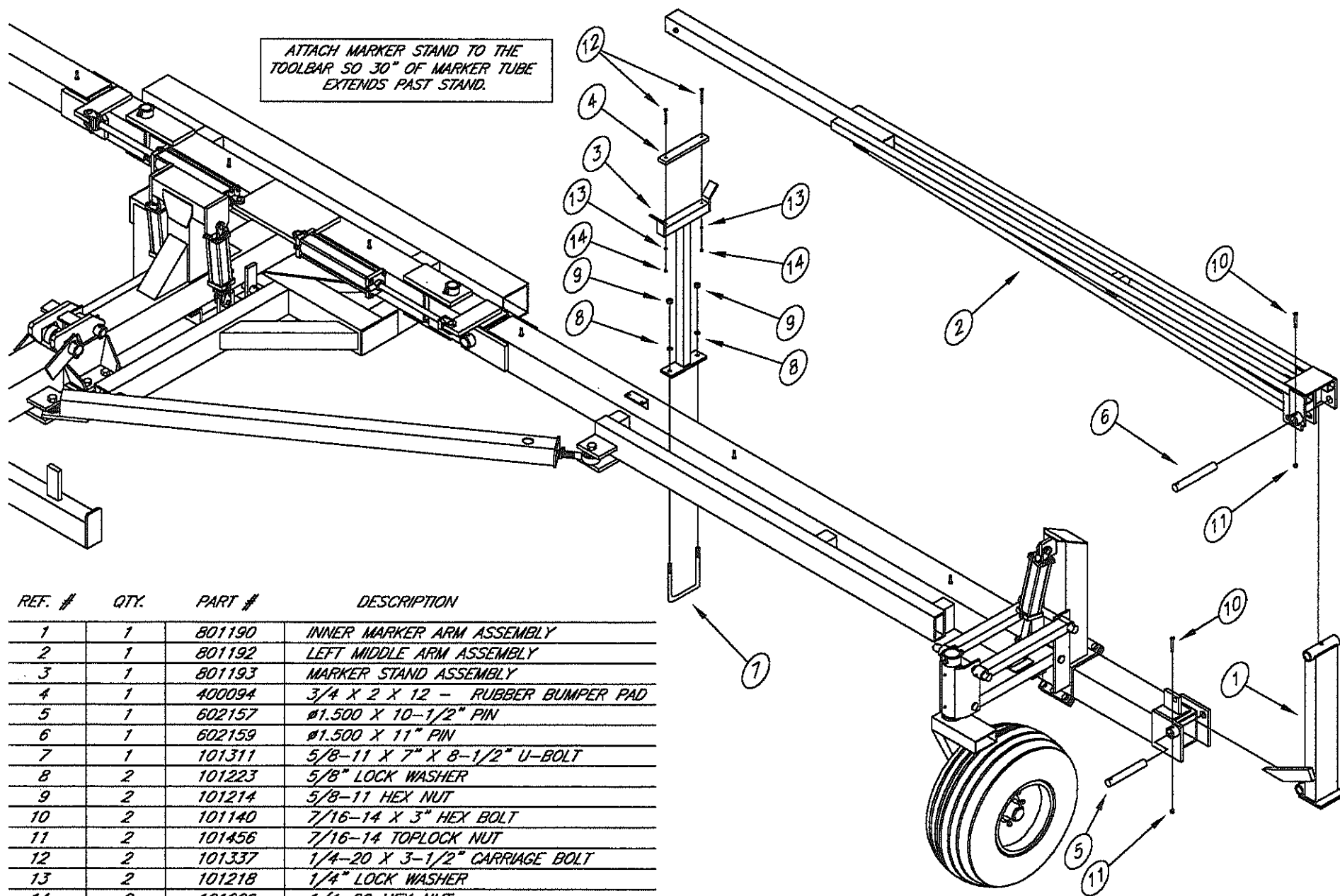
RIGHT MARKER & MARKER STAND ASSEMBLY

ATTACH MARKER STAND TO THE
TOOLBAR SO 30" OF MARKER TUBE
EXTENDS PAST STAND.

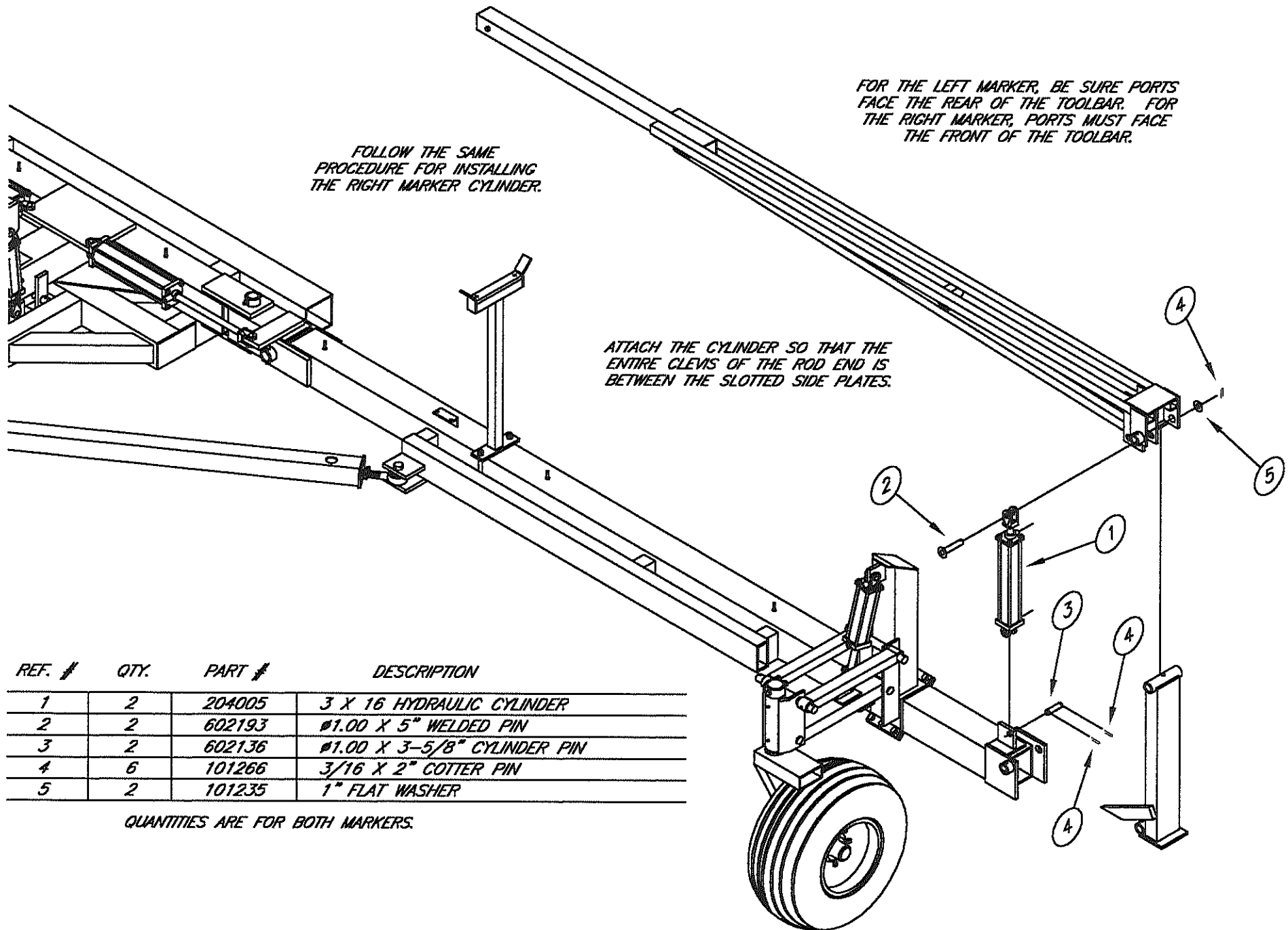
REF. #	QTY.	PART #	DESCRIPTION
1	1	801190	INNER MARKER ARM ASSEMBLY
2	1	801191	RIGHT MIDDLE ARM ASSEMBLY
3	1	801193	MARKER STAND ASSEMBLY
4	1	400094	3/4 X 2 X 12 - RUBBER BUMPER STRIP
5	1	602157	#1.500 X 10-1/2" PIN
6	1	602159	#1.500 X 11" PIN
7	1	101311	5/8-11 X 7" X 8-1/2" U-BOLT
8	2	101223	5/8" LOCK WASHER
9	2	101214	5/8-11 HEX NUT
10	2	101140	7/16-14 X 3" HEX BOLT
11	2	101456	7/16-14 TOPLOCK NUT
12	2	101337	1/4-20 X 3-1/2" CARRIAGE BOLT
13	2	101218	1/4" LOCK WASHER
14	2	101209	1/4-20 HEX NUT



LEFT MARKER ASSEMBLY AND STAND



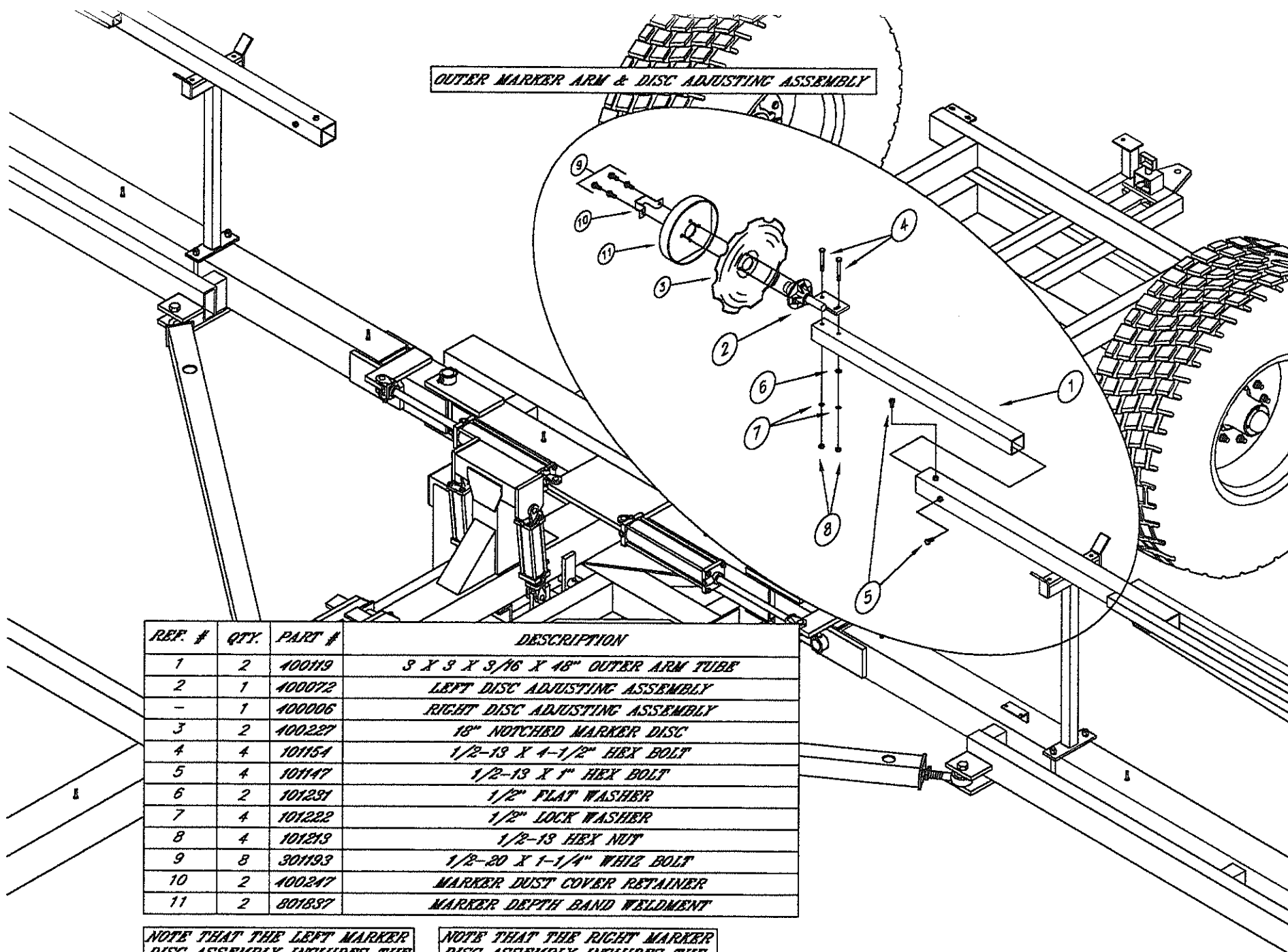
MARKER CYLINDER INSTALLATION



REF. #	QTY.	PART #	DESCRIPTION
1	2	204005	3 X 16 HYDRAULIC CYLINDER
2	2	602193	#1.00 X 5" WELDED PIN
3	2	602136	#1.00 X 3-5/8" CYLINDER PIN
4	6	101266	3/16 X 2" COTTER PIN
5	2	101235	1" FLAT WASHER

QUANTITIES ARE FOR BOTH MARKERS.

OUTER MARKER ARM & DISC ADJUSTING ASSEMBLY

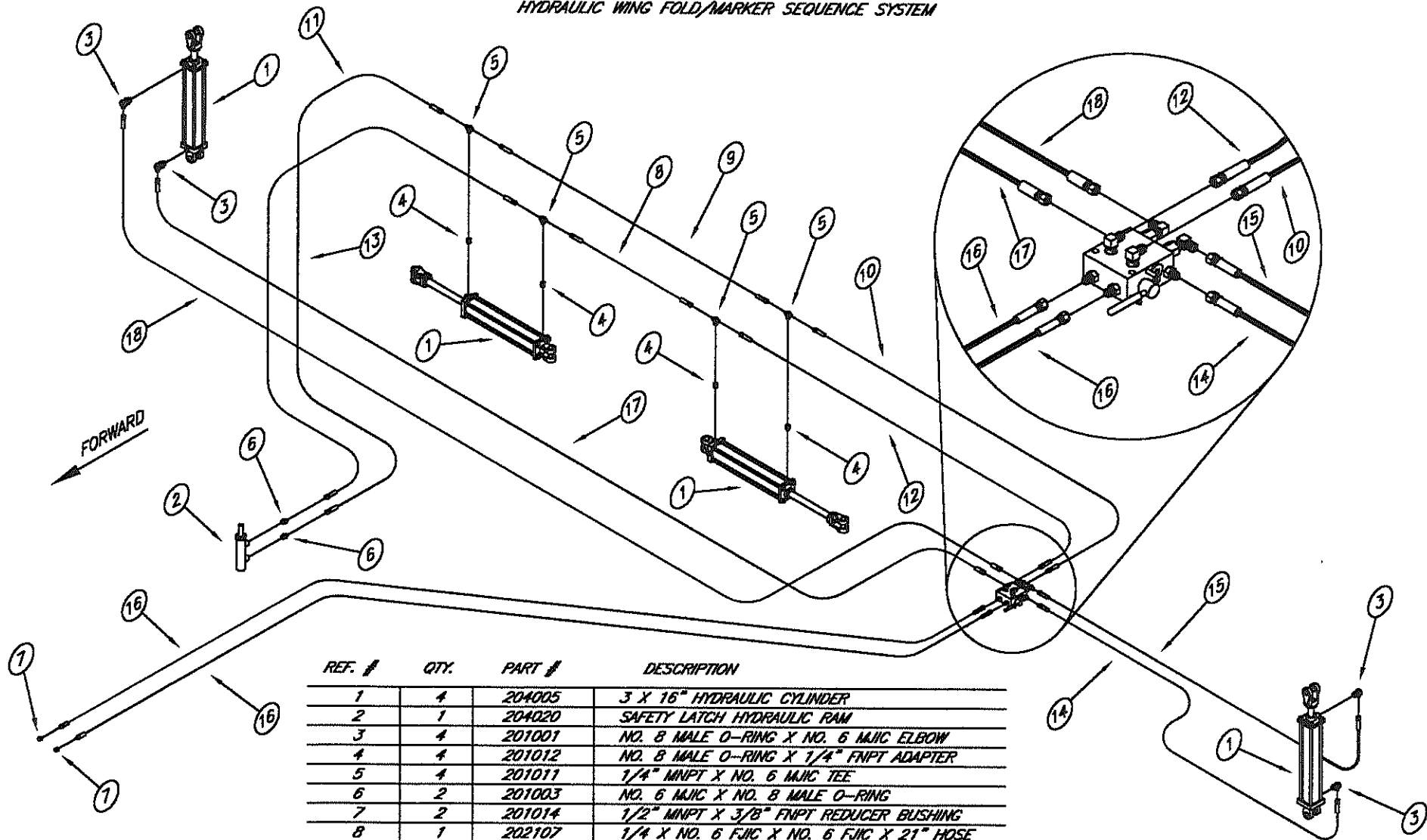


REF. #	QTY.	PART #	DESCRIPTION
1	2	400119	3 X 3 X 3/16 X 48" OUTER ARM TUBE
2	1	400072	LEFT DISC ADJUSTING ASSEMBLY
-	1	400006	RIGHT DISC ADJUSTING ASSEMBLY
3	2	400227	18" NOTCHED MARKER DISC
4	4	101154	1/2-13 X 4-1/2" HEX BOLT
5	4	101147	1/2-13 X 1" HEX BOLT
6	2	101291	1/2" FLAT WASHER
7	4	101222	1/2" LOCK WASHER
8	4	101213	1/2-13 HEX NUT
9	8	301193	1/2-20 X 1-1/4" WHIZ BOLT
10	2	400247	MARKER DUST COVER RETAINER
11	2	801837	MARKER DEPTH BAND WELDMENT

NOTE THAT THE LEFT MARKER DISC ASSEMBLY INCLUDES THE FOLLOWING:
 801323 - LEFT SPINDLE WELD
 310159 - 4 BOLT HUB ASSEMBLY

NOTE THAT THE RIGHT MARKER DISC ASSEMBLY INCLUDES THE FOLLOWING:
 801323 - RIGHT SPINDLE WELD
 310159 - 4 BOLT HUB ASSEMBLY

HYDRAULIC WING FOLD/MARKER SEQUENCE SYSTEM



ROUTE THE 1/4" HOSES FROM THE TRACTOR DOWN THE HITCH TUBE, THEN THRU THE LEFT PULLARM TUBE TO THE COMBINATION VALVE AS SHOWN.

REF. #	QTY.	PART #	DESCRIPTION
1	4	204005	3 X 16" HYDRAULIC CYLINDER
2	1	204020	SAFETY LATCH HYDRAULIC RAM
3	4	201001	NO. 8 MALE O-RING X NO. 6 MAJIC ELBOW
4	4	201012	NO. 8 MALE O-RING X 1/4" FNPT ADAPTER
5	4	201011	1/4" MNPT X NO. 6 MAJIC TEE
6	2	201003	NO. 6 MAJIC X NO. 8 MALE O-RING
7	2	201014	1/2" MNPT X 3/8" FNPT REDUCER BUSHING
8	1	202107	1/4 X NO. 6 FJIC X NO. 6 FJIC X 21" HOSE
9	1	202089	1/4 X NO. 6 FJIC X NO. 6 FJIC X 59" HOSE
10	1	202006	1/4 X NO. 6 FJIC X NO. 6 FJIC X 72" HOSE
11	1	202007	1/4 X NO. 6 FJIC X NO. 6 FJIC X 84" HOSE
12	1	202122	1/4 X NO. 6 FJIC X NO. 6 FJIC X 92" HOSE
13	1	202226	1/4 X NO. 6 FJIC X NO. 6 FJIC X 104" HOSE
14	1	202038	1/4 X NO. 6 FJIC X NO. 6 FJIC X 162" HOSE
15	1	202039	1/4 X NO. 6 FJIC X NO. 6 FJIC X 180" HOSE
16	2	202236	1/4 X 3/8" MNPT X NO. 6 FJIC X 312" HOSE
17	1	202087	1/4 X NO. 6 FJIC X NO. 6 FJIC X 354" HOSE
18	1	202086	1/4 X NO. 6 FJIC X NO. 6 FJIC X 372" HOSE

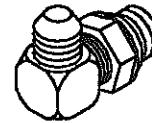
HYDRAULIC COMPONENTS



201010



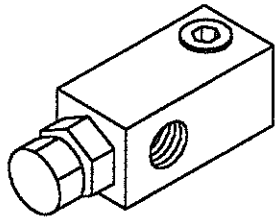
201020



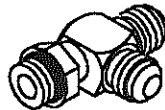
201002



201014



203005



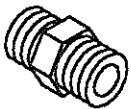
201037



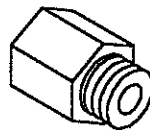
201003



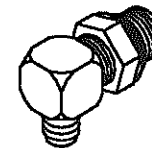
201012



201016



201013



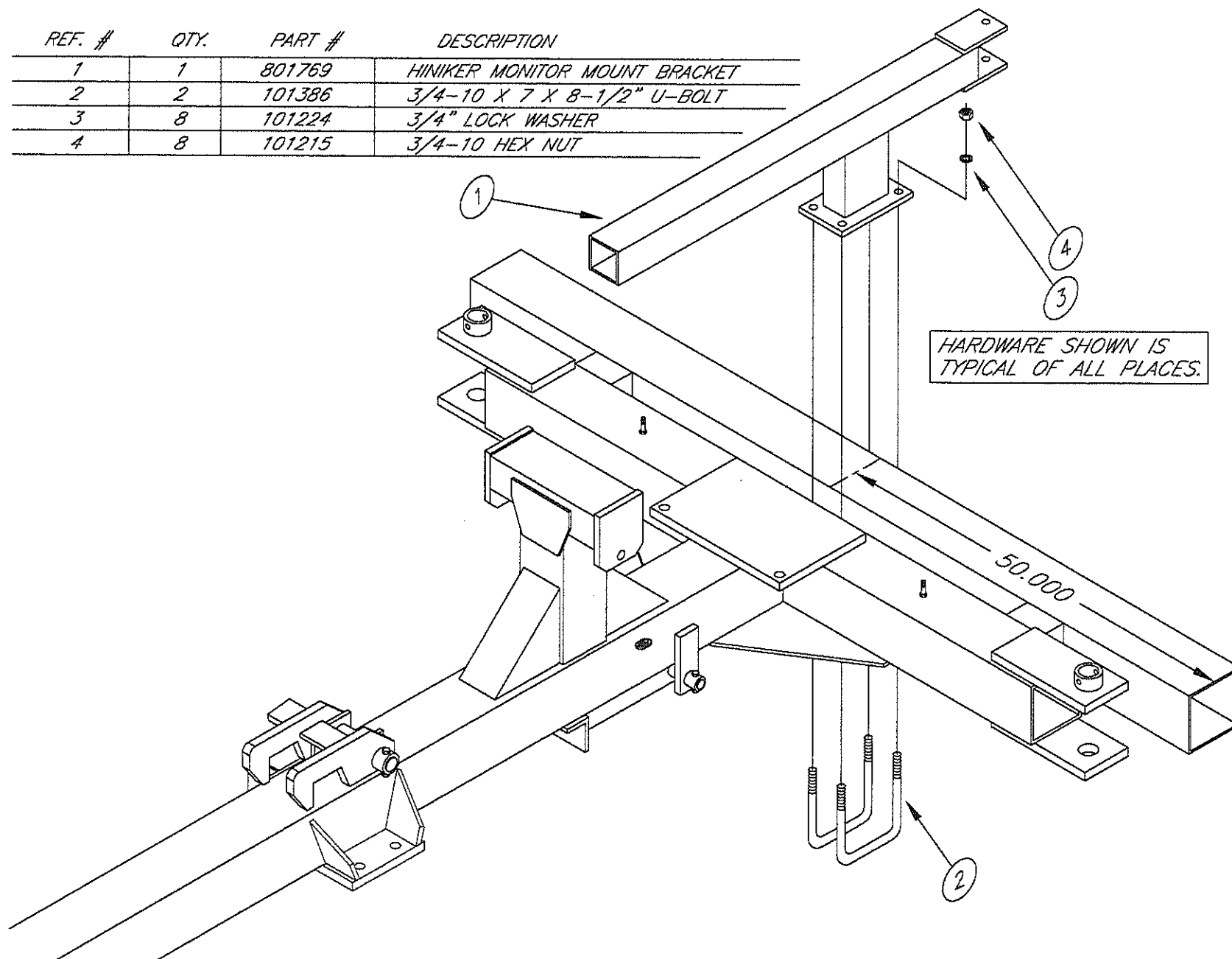
201001



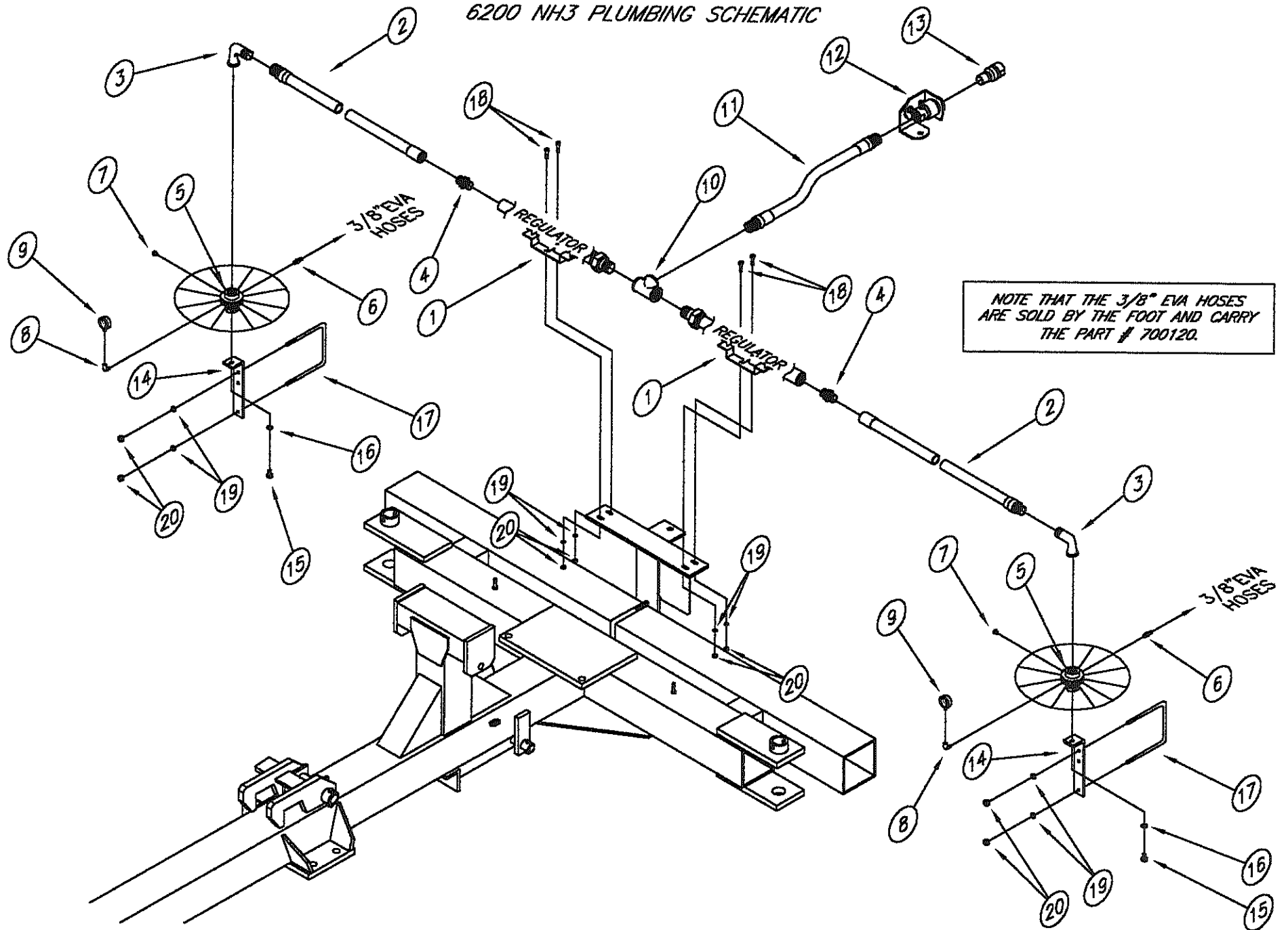
201011

HINIKER MONITOR BRACKET ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801769	HINIKER MONITOR MOUNT BRACKET
2	2	101386	3/4-10 X 7 X 8-1/2" U-BOLT
3	8	101224	3/4" LOCK WASHER
4	8	101215	3/4-10 HEX NUT



6200 NH3 PLUMBING SCHEMATIC



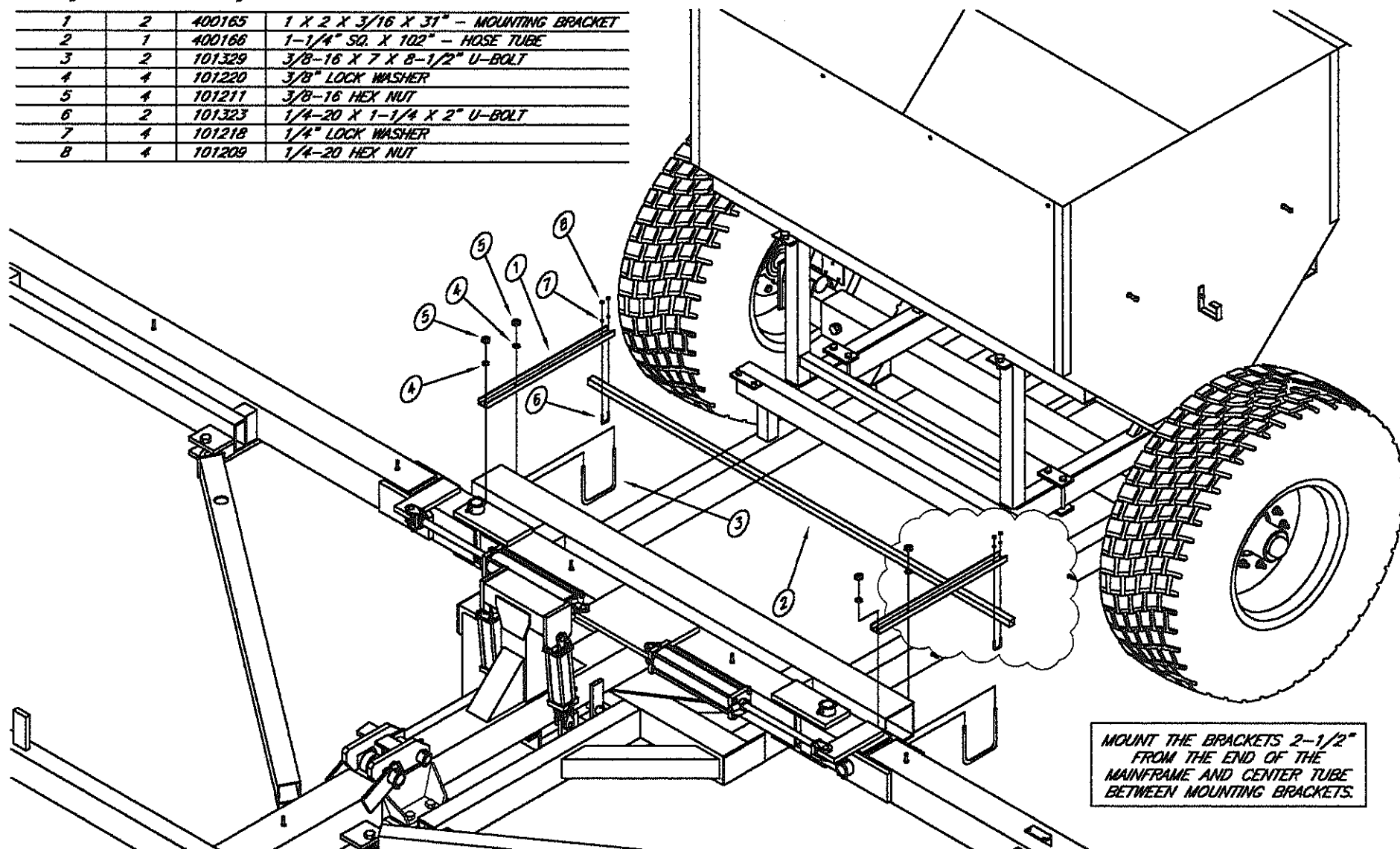
6200 NH3 PLUMBING SCHEMATIC

REF. #	QTY.	PART #	DESCRIPTION
1	2	700273	NH3/B9500 METER W/ HYDRAULIC SHUT-OFF
2	2	700274A	1" AA HOSE X 120" LONG
3	2	700256	1" ST. ELBOW - BLACK PIPE
4	2	700306	1" MNPT X 1" FNPT SWIVEL COUPLER
5	2	700272	NH3 MANIFOLD - 14 OUTLET
6	16	700277	1/4" MNPT X 3/8" HOSE BARB
7	10	700211	1/4" MNPT X 1/2" PLUG
8	2	700254	1/4" MNPT X 1/4" FNPT BLACK ELBOW
9	2	700235A	2.5" STAINLESS GAUGE - 0-100 PSI
10	1	700076	1-1/4" BLACK MI TEE
11	1	700301	1-1/4" AA HOSE X 120" LONG
12	1	700276	1-1/4" QUICK-COUPLER ASSEMBLY
13	1	700278	1-1/4" MALE COUPLER TIP (NH3)
14	2	400142	3/8 X 2 X 12-1/2" - MANIFOLD BRACKET
15	2	101397	1/2-13 X 3/4" HEX BOLT
16	1	101152	1/2-13 X 3-1/2" HEX BOLT
17	1	101231	1/2" FLAT WASHER
18	3	101222	1/2" LOCK WASHER
19	1	101213	1/2-13 HEX NUT
20	2	101329	3/8-16 X 7 X 8-1/2" U-BOLT
21	4	101125	3/8-16 X 1" HEX BOLT
22	8	101220	3/8" LOCK WASHER
23	8	101211	3/8-16 HEX NUT

COMPLETE NH3 SYSTEM MAY BE ORDERED USING PART # 900056. THE SYSTEM INCLUDES: THE ANHYDROUS BRACKET, THE NH3 PLUMBING KIT, THE NH3 PRESSURE GAUGE ASSEMBLY, AND TWO B9500 CONTINENTAL REGULATORS. NOTE THAT EVA HOSES ARE NOT INCLUDED AND MUST BE ORDERED SEPARATELY AT THE DESIRED LENGTH.

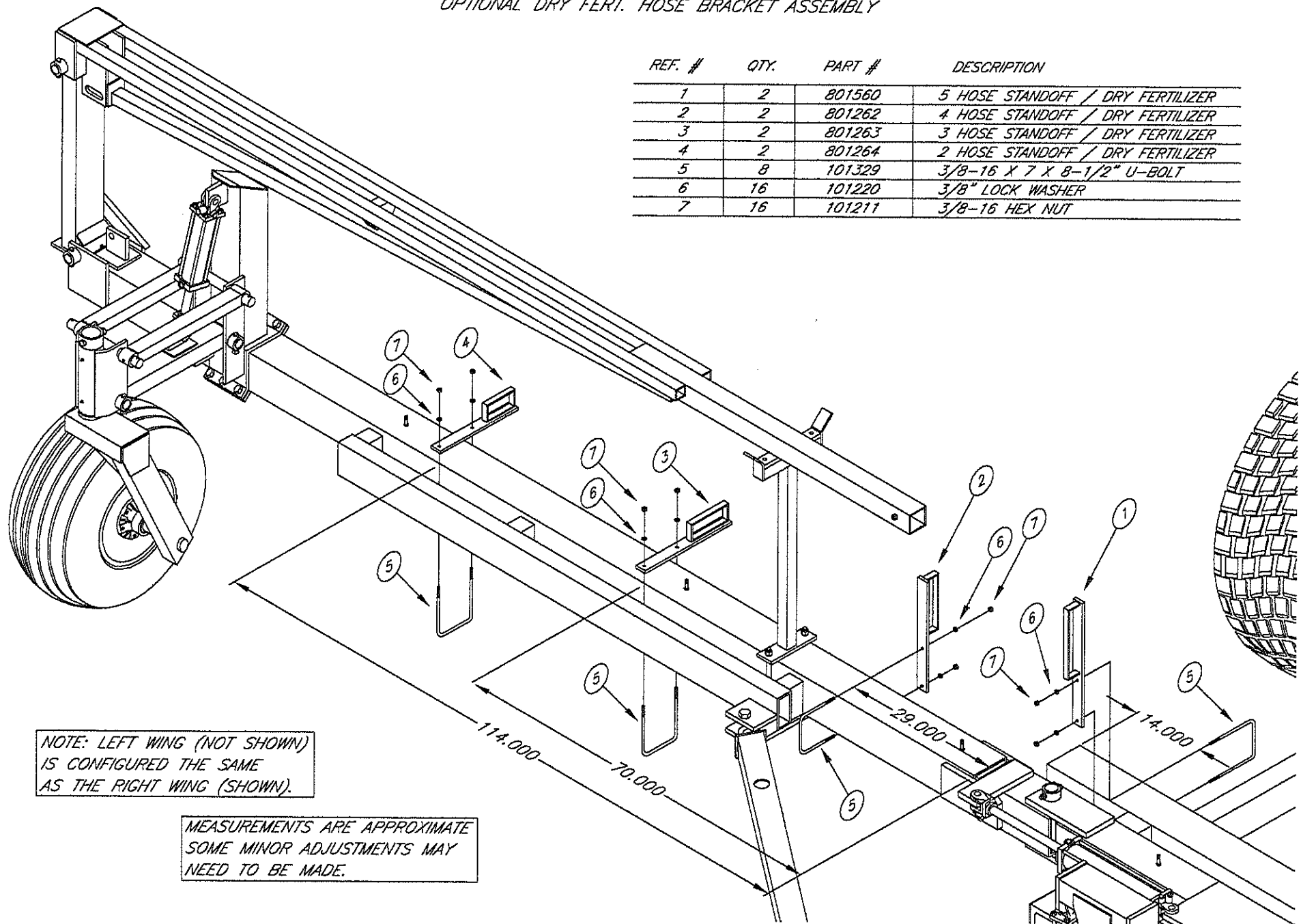
DRY FERTILIZER HOSE SUPPORT TUBE

REF. #	QTY.	PART #	DESCRIPTION
1	2	400165	1 X 2 X 3/16 X 31" - MOUNTING BRACKET
2	1	400168	1-1/4" SQ. X 102" - HOSE TUBE
3	2	101329	3/8-16 X 7 X 8-1/2" U-BOLT
4	4	101220	3/8" LOCK WASHER
5	4	101211	3/8-16 HEX NUT
6	2	101323	1/4-20 X 1-1/4 X 2" U-BOLT
7	4	101218	1/4" LOCK WASHER
8	4	101209	1/4-20 HEX NUT



OPTIONAL DRY FERT. HOSE BRACKET ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	2	801560	5 HOSE STANDOFF / DRY FERTILIZER
2	2	801262	4 HOSE STANDOFF / DRY FERTILIZER
3	2	801263	3 HOSE STANDOFF / DRY FERTILIZER
4	2	801264	2 HOSE STANDOFF / DRY FERTILIZER
5	8	101329	3/8-16 X 7 X 8-1/2" U-BOLT
6	16	101220	3/8" LOCK WASHER
7	16	101211	3/8-16 HEX NUT



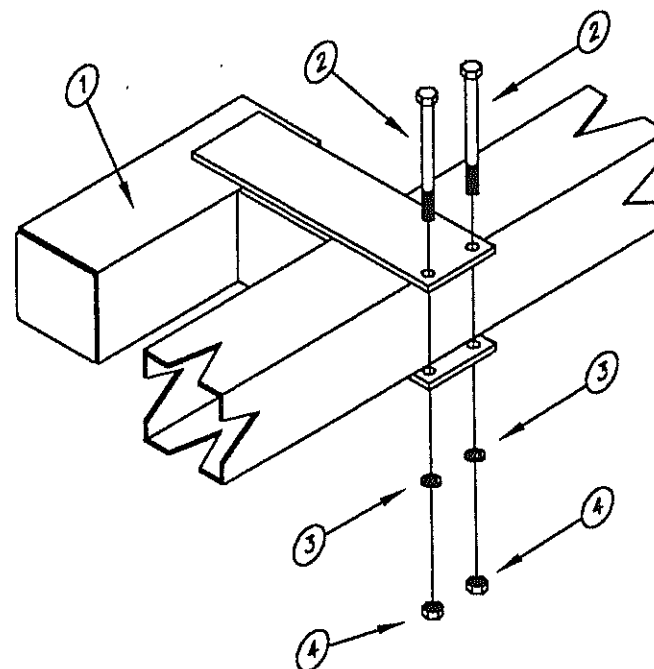
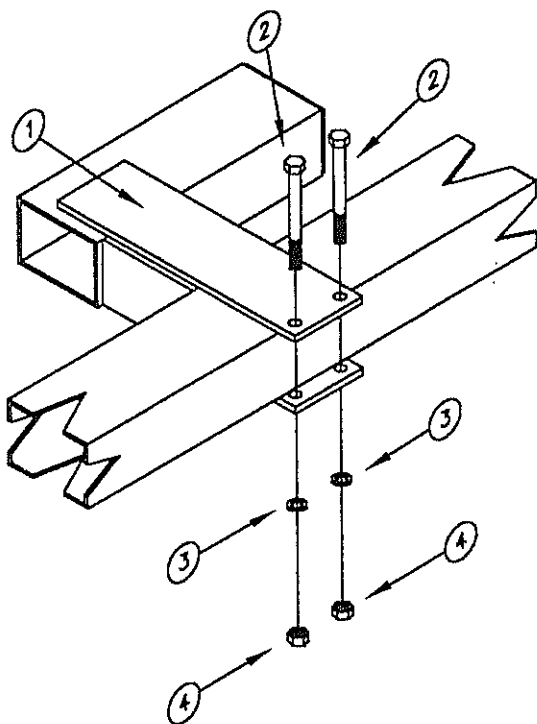
NOTE: LEFT WING (NOT SHOWN)
IS CONFIGURED THE SAME
AS THE RIGHT WING (SHOWN).

MEASUREMENTS ARE APPROXIMATE
SOME MINOR ADJUSTMENTS MAY
NEED TO BE MADE.

OFFSET BRACKET ASSEMBLY

REF #	QTY	PART #	DESCRIPTION
1	1	801731	OFFSET BRACKET FOR 7 X 5 TUBE
2	2	101438	3/4-10 X 7-1/2" HEX BOLT
3	2	101224	3/4" LOCK WASHER
4	2	101215	3/4-10 HEX NUT

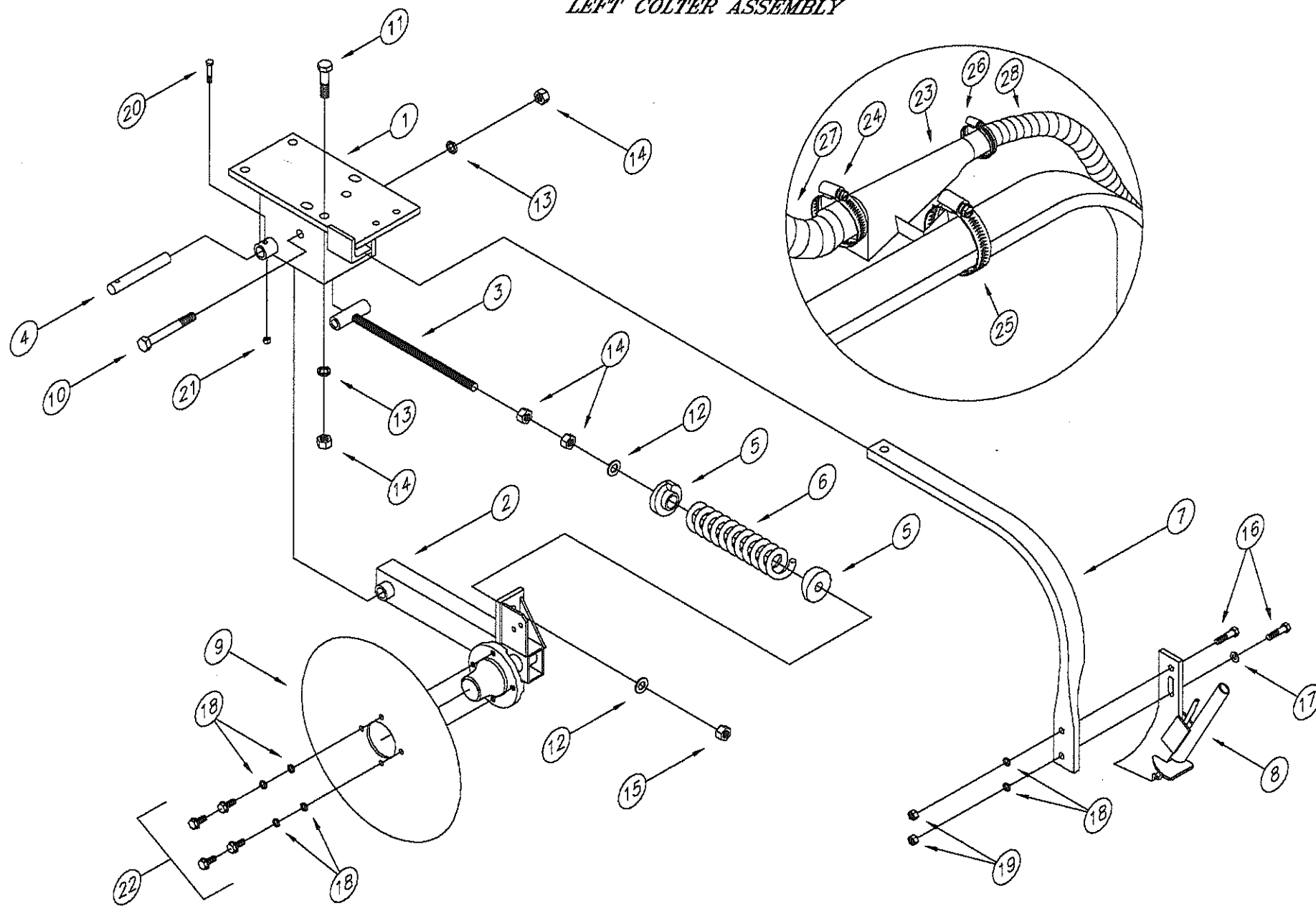
ENTIRE ASSEMBLY (ITEMS 1-4) MAY BE ORDERED USING PART # 900072.



REF #	QTY	PART #	DESCRIPTION
1	1	801730	OFFSET BRACKET FOR 7 X 7 TUBE
2	2	101182	3/4-10 X 9" HEX BOLT
3	2	101224	3/4" LOCK WASHER
4	2	101215	3/4-10 HEX NUT

ENTIRE ASSEMBLY (ITEMS 1-4) MAY BE ORDERED USING PART # 900074.

*COMBINATION DRY FERTILIZER AND AMMONIA
LEFT COLTER ASSEMBLY*



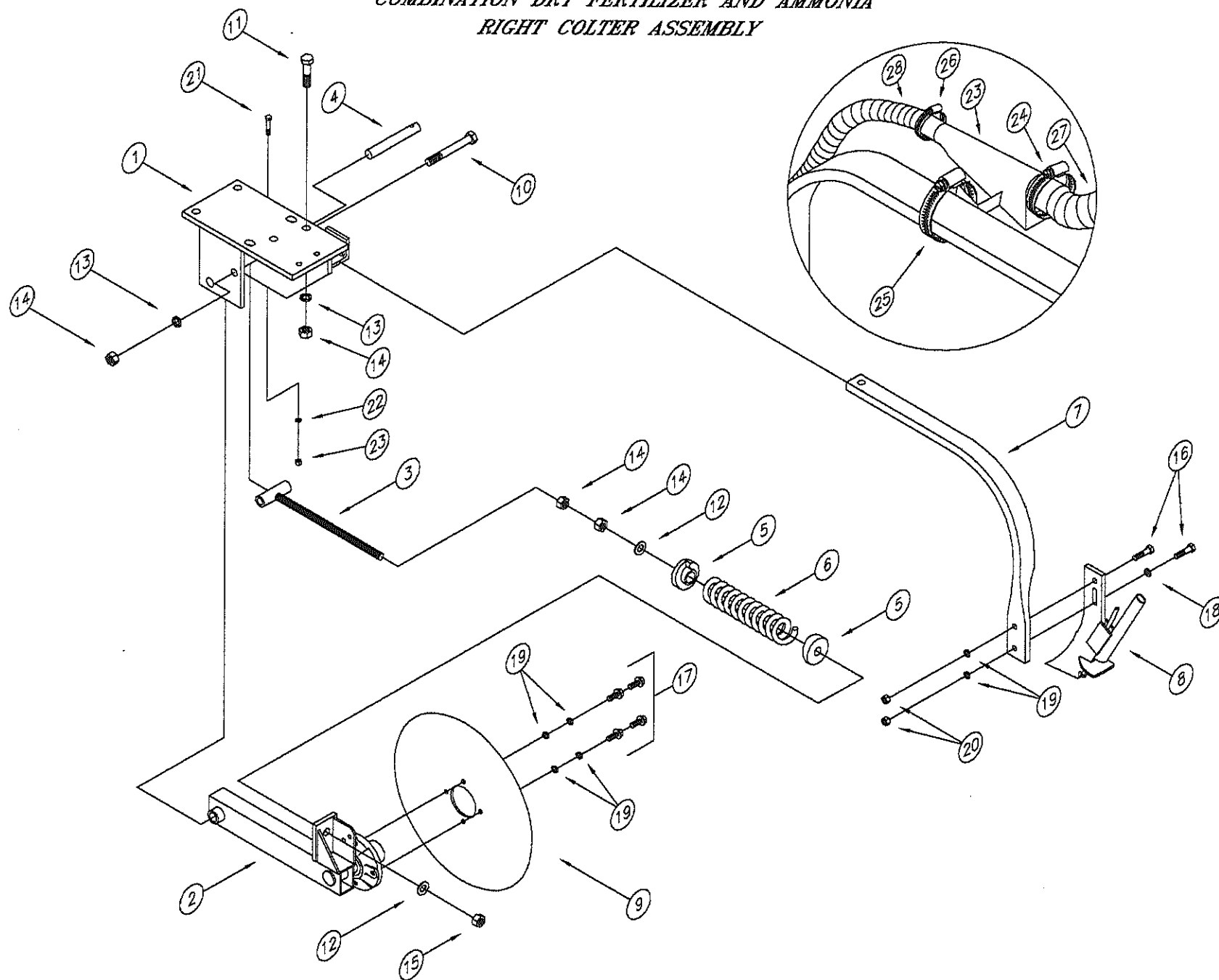
LEFT COLTER ASSEMBLY COMPLETE - 900011L - SPECIFY # 801261 DRY KNIFE

REF. #	QTY.	PART #	DESCRIPTION	REVISED: 11/11/04
1	1	801325	UNIVERSAL AMMONIA MOUNTING BRACKET - LEFT	
2	1	801204	LEFT SPINDLE TUBE & BUSHING ASSEMBLY	
3	1	801198	SPRING TENSION ROD WELDMENT	
4	1	602212	Ø1.00 X 7-1/4" PIN	
5	2	400096	SPRING RETAINER CASTING	
6	1	400095	COMPRESSION SPRING	
7	1	900037	SIDE MOUNT SHANK	
8	1	801261	DRY FERTILIZER INJECTION KNIFE	
9	1	400097	20" SMOOTH COLTER	
10	1	101179	3/4-10 X 6" HEX BOLT	
11	1	101422	3/4-10 X 3" HEX BOLT - GR 8 YELLOW ZINC	
12	2	101233	3/4" FLAT WASHER	
13	2	101224	3/4" LOCK WASHER	
14	4	101215	3/4-10 HEX NUT	
15	1	101459	3/4-10 TOPLOCK NUT PLT.	
16	2	101149	1/2-13 X 2" HEX BOLT	
17	1	101231	1/2" FLAT WASHER	
18	6	101222	1/2" LOCK WASHER	
19	2	101213	1/2-13 HEX NUT	
20	1	101127	3/8-16 X 2" HEX BOLT	
21	1	101455	3/8-16 TOPLOCK NUT PLT.	
22	4	301193	1/2-20 X 1-1/4" WHIZ BOLT	
23	-	450074	2 X 1-1/4" STAINLESS AIR DIFFUSER-LEFT	
24	-	700130	2" STAINLESS HOSE CLAMP	
25	-	700131	3" STAINLESS HOSE CLAMP	
26	-	700129	1-1/4" (#24) STAINLESS HOSE CLAMP	
27	-	202170	2" DRY FERT. HOSE (SOLD BY FOOT)	
28	-	202172	1-1/4" DRY FERT. HOSE (SOLD BY FOOT)	
-	-	450034	2 X 1-1/2" STAIN. AIR DIFFUSER	
-	-	450035	2 X 1-1/4" DIFFUSER-SPLITTER	
-	-	202171	1-1/2" DRY FERT. HOSE (SOLD BY FOOT)	
-	2	**	3/4-10 U-BOLT (NOT SHOWN)	
-	4	101224	3/4" LOCK WASHER (NOT SHOWN)	
-	4	101215	3/4-10 HEX NUT (NOT SHOWN)	

** FOR 7 X 7 TUBE, USE 3/4-10 X 7 X 8-1/2" U-BOLT - PART # 101386.

** FOR 7 X 5 TUBE, USE 3/4-10 X 7 X 6-1/2" U-BOLT - PART # 101315.

*COMBINATION DRY FERTILIZER AND AMMONIA
RIGHT COLTER ASSEMBLY*



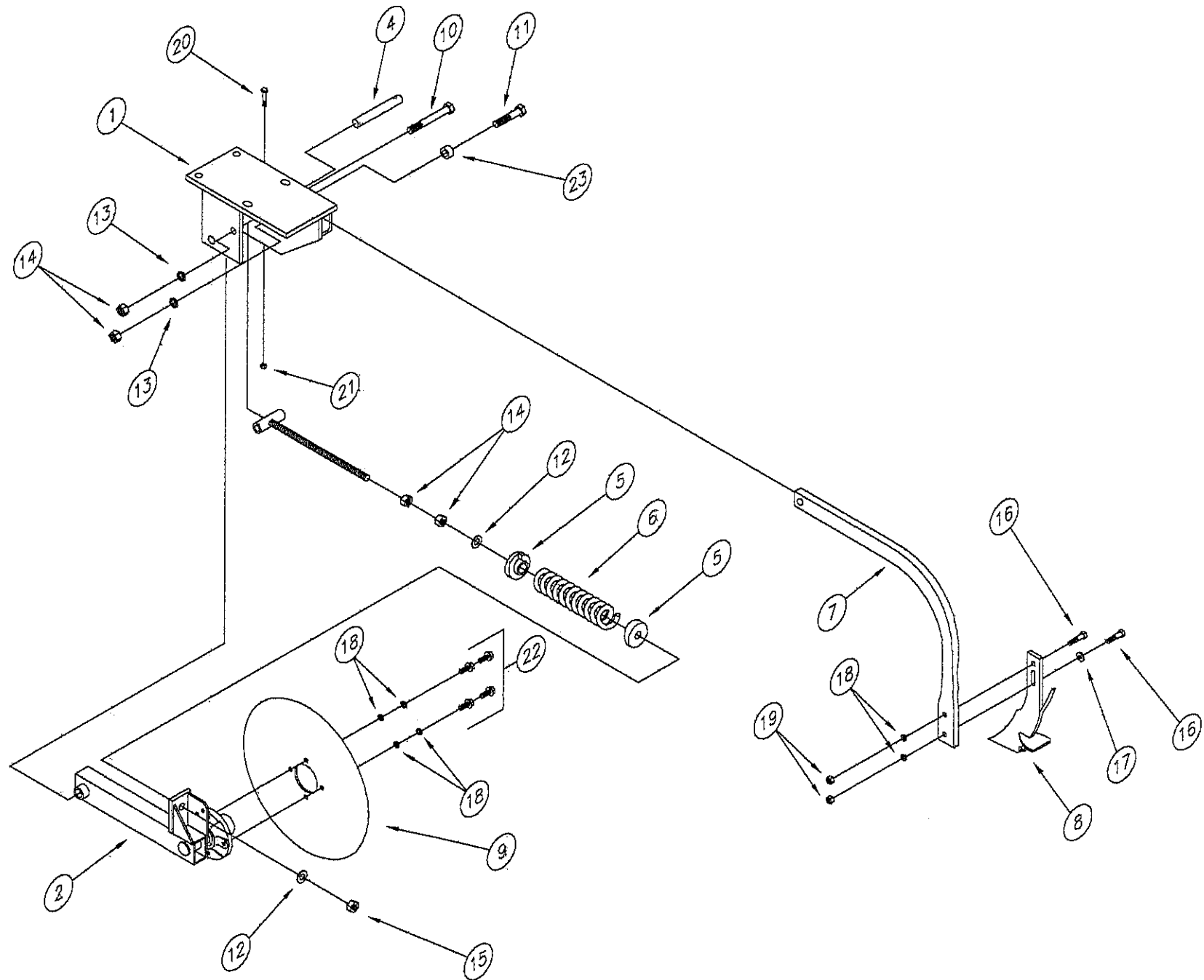
RIGHT COLTER ASSEMBLY COMPLETE - 900011R - SPECIFY # 801261 DRY KNIFE

REF. #	QTY.	PART #	DESCRIPTION	REVISED: 11/11/04
1	1	801326	UNIVERSAL AMMONIA MOUNTING BRACKET - RIGHT	
2	1	801203	RIGHT SPINDLE TUBE & BUSHING ASSEMBLY	
3	1	801198	SPRING TENSION ROD WELDMENT	
4	1	602212	Ø1.00 X 7-1/4" PIN	
5	2	400096	SPRING RETAINER CASTING	
6	1	400095	COMPRESSION SPRING	
7	1	900037	SIDE MOUNT SHANK	
8	1	801261	DRY FERTILIZER INJECTION KNIFE	
9	1	400097	20" SMOOTH COLTER	
10	1	101179	3/4-10 X 6" HEX BOLT	
11	1	101422	3/4-10 X 3" HEX BOLT - GR 8 YELLOW ZINC	
12	2	101233	3/4" FLAT WASHER	
13	2	101224	3/4" LOCK WASHER	
14	4	101215	3/4-10 HEX NUT	
15	1	101459	3/4-10 TOPLOCK NUT PLT.	
16	2	101149	1/2-13 X 2" HEX BOLT	
17	1	101231	1/2" FLAT WASHER	
18	6	101222	1/2" LOCK WASHER	
19	2	101213	1/2-13 HEX NUT	
20	1	101127	3/8-16 X 2" HEX BOLT	
21	1	101455	3/8-16 TOPLOCK NUT PLT.	
22	4	301193	1/2-20 X 1-1/4" WHIZ BOLT	
23	-	450075	2 X 1-1/4" STAINLESS AIR DIFFUSER-RIGHT	
24	-	700130	2" STAINLESS HOSE CLAMP	
25	-	700131	3" STAINLESS HOSE CLAMP	
26	-	700129	1-1/4" (#24) STAINLESS HOSE CLAMP	
27	-	202170	2" DRY FERT. HOSE (SOLD BY FOOT)	
28	-	202172	1-1/4" DRY FERT. HOSE (SOLD BY FOOT)	
-	-	450034	2 X 1-1/2" STAIN. AIR DIFFUSER	
-	-	450035	2 X 1-1/4" DIFFUSER-SPLITTER	
-	-	202171	1-1/2" DRY FERT. HOSE (SOLD BY FOOT)	
-	2	**	3/4-10 U-BOLT (NOT SHOWN)	
-	4	101224	3/4" LOCK WASHER (NOT SHOWN)	
-	4	101215	3/4-10 HEX NUT (NOT SHOWN)	

** FOR 7 X 7 TUBE, USE 3/4-10 X 7 X 8-1/2" U-BOLT - PART # 101386.

** FOR 7 X 5 TUBE, USE 3/4-10 X 7 X 6-1/2" U-BOLT - PART # 101315.

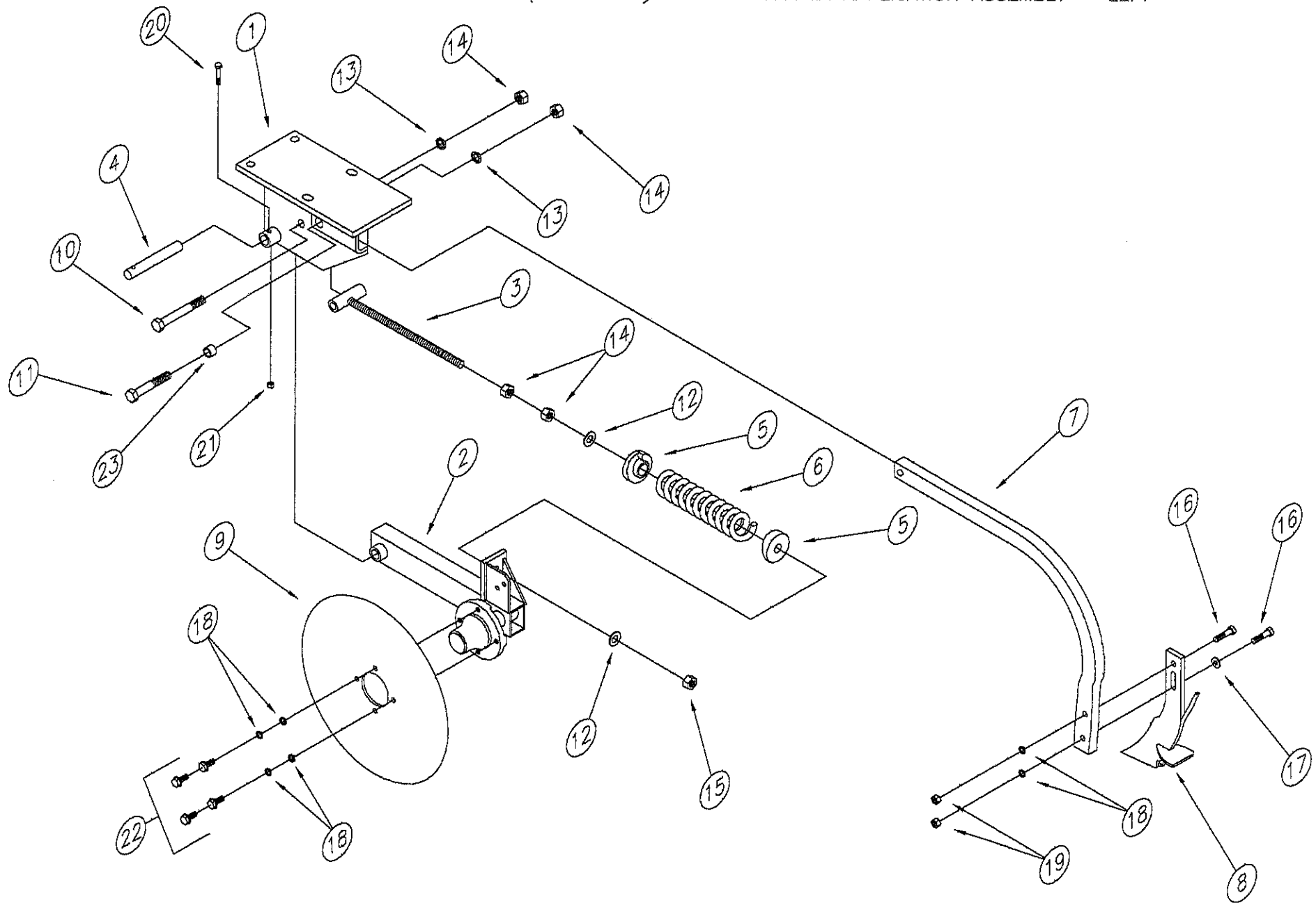
SINGLE (EDGE BENT) COLTER AMMONIA APPLICATION ASSEMBLY - RIGHT



RIGHT (EDGE BENT) COLTER ASSEMBLY COMPLETE – 900134R

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>801829</i>	<i>EDGE BENT SHANK MOUNTING BRKT. – RIGHT</i>
<i>2</i>	<i>1</i>	<i>801203</i>	<i>RIGHT SPINDLE TUBE & BUSHING ASSEMBLY</i>
<i>3</i>	<i>1</i>	<i>801198</i>	<i>SPRING TENSION ROD WELDMENT</i>
<i>4</i>	<i>1</i>	<i>602163</i>	<i>Ø1.00 X 7" PIN</i>
<i>5</i>	<i>2</i>	<i>400096</i>	<i>SPRING RETAINER CASTING</i>
<i>6</i>	<i>1</i>	<i>400095</i>	<i>COMPRESSION SPRING</i>
<i>7</i>	<i>1</i>	<i>900135</i>	<i>EDGE BENT SHANK</i>
<i>8</i>	<i>1</i>	<i>–</i>	<i>AMMONIA KNIFE – SEE KNIFE OPTION PAGE</i>
<i>9</i>	<i>1</i>	<i>400097</i>	<i>20" SMOOTH COLTER</i>
<i>10</i>	<i>1</i>	<i>101179</i>	<i>3/4–10 X 6" HEX BOLT</i>
<i>11</i>	<i>1</i>	<i>101480</i>	<i>3/4–10 X 3–1/2" HEX BOLT – GR 8 YEL. ZINC</i>
<i>12</i>	<i>2</i>	<i>101233</i>	<i>3/4" FLAT WASHER</i>
<i>13</i>	<i>2</i>	<i>101224</i>	<i>3/4" LOCK WASHER</i>
<i>14</i>	<i>4</i>	<i>101215</i>	<i>3/4–10 HEX NUT</i>
<i>15</i>	<i>1</i>	<i>101459</i>	<i>3/4–10 TOPLOCK NUT</i>
<i>16</i>	<i>2</i>	<i>101149</i>	<i>1/2–13 X 2" HEX BOLT</i>
<i>17</i>	<i>1</i>	<i>101231</i>	<i>1/2" FLAT WASHER</i>
<i>18</i>	<i>6</i>	<i>101222</i>	<i>1/2" LOCK WASHER</i>
<i>19</i>	<i>2</i>	<i>101213</i>	<i>1/2–13 HEX NUT</i>
<i>20</i>	<i>1</i>	<i>101127</i>	<i>3/8–16 X 2" HEX BOLT</i>
<i>21</i>	<i>1</i>	<i>101455</i>	<i>3/8–16 TOPLOCK NUT</i>
<i>22</i>	<i>4</i>	<i>301193</i>	<i>1/2–20 X 1–1/4" WHIZ BOLT</i>
<i>23</i>	<i>1</i>	<i>602233</i>	<i>1–1/4 O.D. X .774 I.D. X 3/4" BUSHING</i>
<i>–</i>	<i>2</i>	<i>101316</i>	<i>3/4–10 U-BOLT (NOT SHOWN)</i>
<i>–</i>	<i>4</i>	<i>101224</i>	<i>3/4" LOCK WASHER (NOT SHOWN)</i>
<i>–</i>	<i>4</i>	<i>101215</i>	<i>3/4–10 HEX NUT (NOT SHOWN)</i>

SINGLE (EDGE BENT) COLTER AMMONIA APPLICATION ASSEMBLY - LEFT

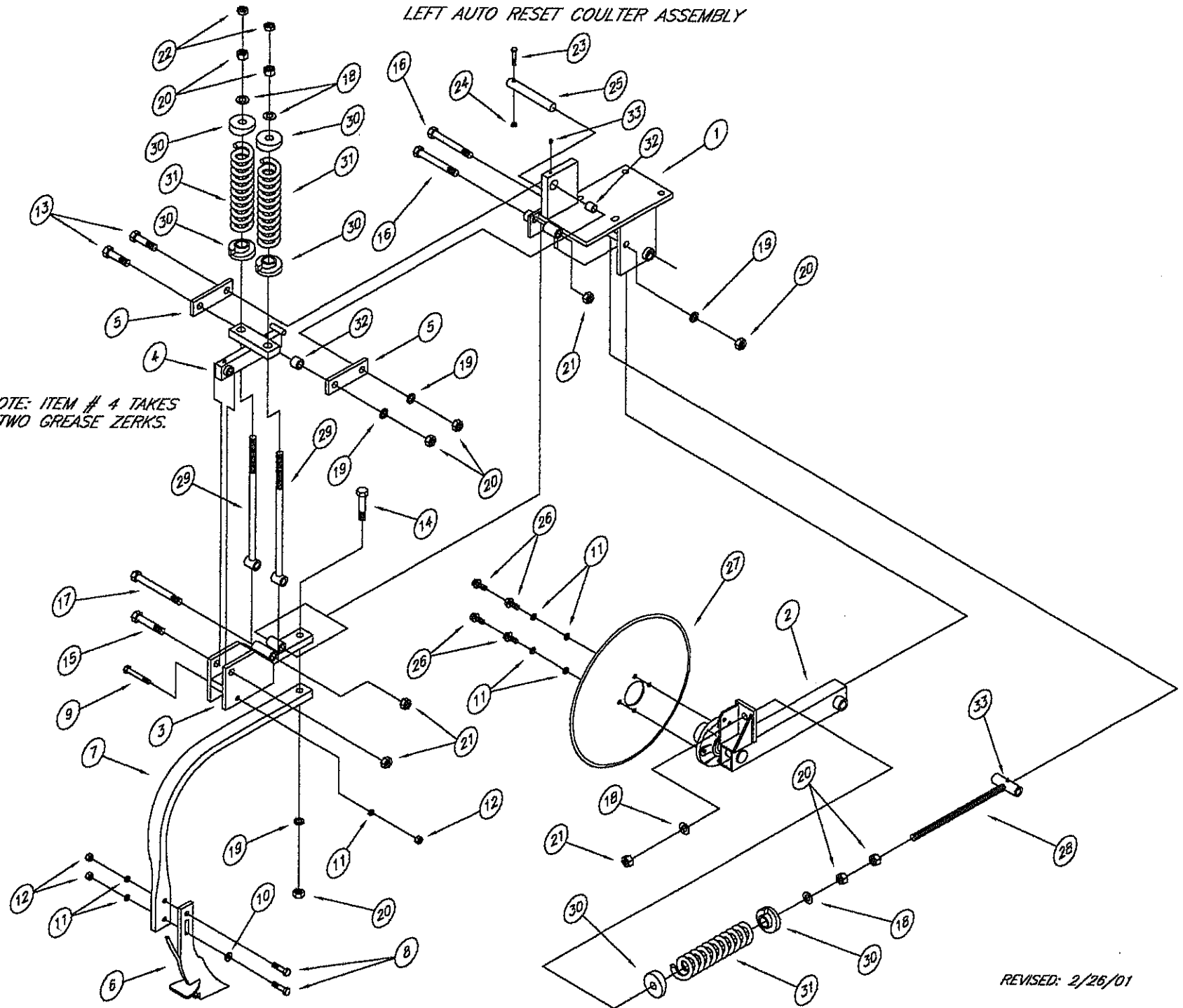


LEFT (EDGE BENT) COLTER ASSEMBLY COMPLETE – 900134L

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>801830</i>	<i>EDGE BENT SHANK MOUNTING BRKT. – LEFT</i>
<i>2</i>	<i>1</i>	<i>801204</i>	<i>LEFT SPINDLE TUBE & BUSHING ASSEMBLY</i>
<i>3</i>	<i>1</i>	<i>801198</i>	<i>SPRING TENSION ROD WELDMENT</i>
<i>4</i>	<i>1</i>	<i>602212</i>	<i>Ø1.00 X 7-1/4" PIN</i>
<i>5</i>	<i>2</i>	<i>400096</i>	<i>SPRING RETAINER CASTING</i>
<i>6</i>	<i>1</i>	<i>400095</i>	<i>COMPRESSION SPRING</i>
<i>7</i>	<i>1</i>	<i>900135</i>	<i>EDGE BENT SHANK</i>
<i>8</i>	<i>1</i>	<i>–</i>	<i>AMMONIA KNIFE – SEE KNIFE OPTION PAGE</i>
<i>9</i>	<i>1</i>	<i>400097</i>	<i>20" SMOOTH COLTER</i>
<i>10</i>	<i>1</i>	<i>101179</i>	<i>3/4-10 X 6" HEX BOLT</i>
<i>11</i>	<i>1</i>	<i>101480</i>	<i>3/4-10 X 3-1/2" HEX BOLT – GR 8 YEL. ZINC</i>
<i>12</i>	<i>2</i>	<i>101233</i>	<i>3/4" FLAT WASHER</i>
<i>13</i>	<i>2</i>	<i>101224</i>	<i>3/4" LOCK WASHER</i>
<i>14</i>	<i>4</i>	<i>101215</i>	<i>3/4-10 HEX NUT</i>
<i>15</i>	<i>1</i>	<i>101459</i>	<i>3/4-10 TOPLOCK NUT</i>
<i>16</i>	<i>2</i>	<i>101149</i>	<i>1/2-13 X 2" HEX BOLT</i>
<i>17</i>	<i>1</i>	<i>101231</i>	<i>1/2" FLAT WASHER</i>
<i>18</i>	<i>6</i>	<i>101222</i>	<i>1/2" LOCK WASHER</i>
<i>19</i>	<i>2</i>	<i>101213</i>	<i>1/2-13 HEX NUT</i>
<i>20</i>	<i>1</i>	<i>101127</i>	<i>3/8-16 X 2" HEX BOLT</i>
<i>21</i>	<i>1</i>	<i>101455</i>	<i>3/8-16 TOPLOCK NUT</i>
<i>22</i>	<i>4</i>	<i>301193</i>	<i>1/2-20 X 1-1/4" WHIZ BOLT</i>
<i>23</i>	<i>1</i>	<i>602233</i>	<i>1-1/4 O.D. X .774 I.D. X 3/4" BUSHING</i>
<i>–</i>	<i>2</i>	<i>101316</i>	<i>3/4-10 U-BOLT (NOT SHOWN)</i>
<i>–</i>	<i>4</i>	<i>101224</i>	<i>3/4" LOCK WASHER (NOT SHOWN)</i>
<i>–</i>	<i>4</i>	<i>101215</i>	<i>3/4-10 HEX NUT (NOT SHOWN)</i>

LEFT AUTO RESET COULTER ASSEMBLY

NOTE: ITEM # 4 TAKES
TWO GREASE ZERKS.



REVISED: 2/26/01

LEFT AUTO RESET COULTER ASSEMBLY COMPLETE - 900082L

REFERENCE #	QUANTITY	PART #	DESCRIPTION
1	1	801684	LEFT MOUNTING BRACKET
2	1	801204	LEFT SPINDLE TUBE & BUSHING ASSEM.
3	1	801686	SHANK MOUNTING BRACKET
4	1	801687	AUTO RESET BRACKET
5	2	400201	1/2 X 2 X 6-1/8" PIVOT PLATE
6	1	-	AMMONIA KNIFE - SEE KNIFE OPTION PAGE
7	1	900037	SIDE MOUNT SHANK
8	2	101149	1/2-13 X 2" HEX BOLT PLT.
9	1	101153	1/2-13 X 4" HEX BOLT PLT.
10	1	101231	1/2" FLAT WASHER PLT.
11	7	101222	1/2" LOCK WASHER PLT.
12	3	101213	1/2-13 HEX NUT PLT.
13	2	101173	3/4-10 X 3" HEX BOLT PLT.
14	1	101422	3/4-10 X 3" HEX BOLT - GR 8 YELLOW ZINC
15	1	101175	3/4-10 X 4" HEX BOLT PLT.
16	2	101179	3/4-10 X 6" HEX BOLT PLT.
17	1	101180	3/4-10 X 7" HEX BOLT PLT.
18	4	101233	3/4" FLAT WASHER PLT.
19	4	101224	3/4" LOCK WASHER PLT.
20	8	101215	3/4-10 HEX NUT PLT.
21	4	101459	3/4-10 TOPLOCK NUT PLT.
22	2	101382	3/4-10 JAM NUT PLT.
23	1	101127	3/8-16 X 2" HEX BOLT PLT.
24	1	101455	3/8-16 TOPLOCK NUT PLT.
25	1	602212	#1.00 X 7-1/4" PIN
26	4	301193	1/2-20 X 1-1/4" WHIZ BOLT PLT.
27	1	400097	20" SMOOTH COULTER BLADE
28	1	801198	SPRING TENSION ROD - 15" LONG
29	2	801688	SPRING TENSION ROD - 17-1/2" LONG
30	6	400096	SPRING RETAINER CASTING
31	3	400095	COMPRESSION SPRING
32	2	602211	1.250" O.D. X .774" I.D. X 1-1/16" BUSH.
33	4	101252	1/4-28 STRAIGHT GREASE ZERK
-	2	**	3/4-10 U-BOLT PLT. (NOT SHOWN)
-	4	101224	3/4" LOCK WASHER PLT. (NOT SHOWN)
-	4	101215	3/4-10 HEX NUT PLT. (NOT SHOWN)

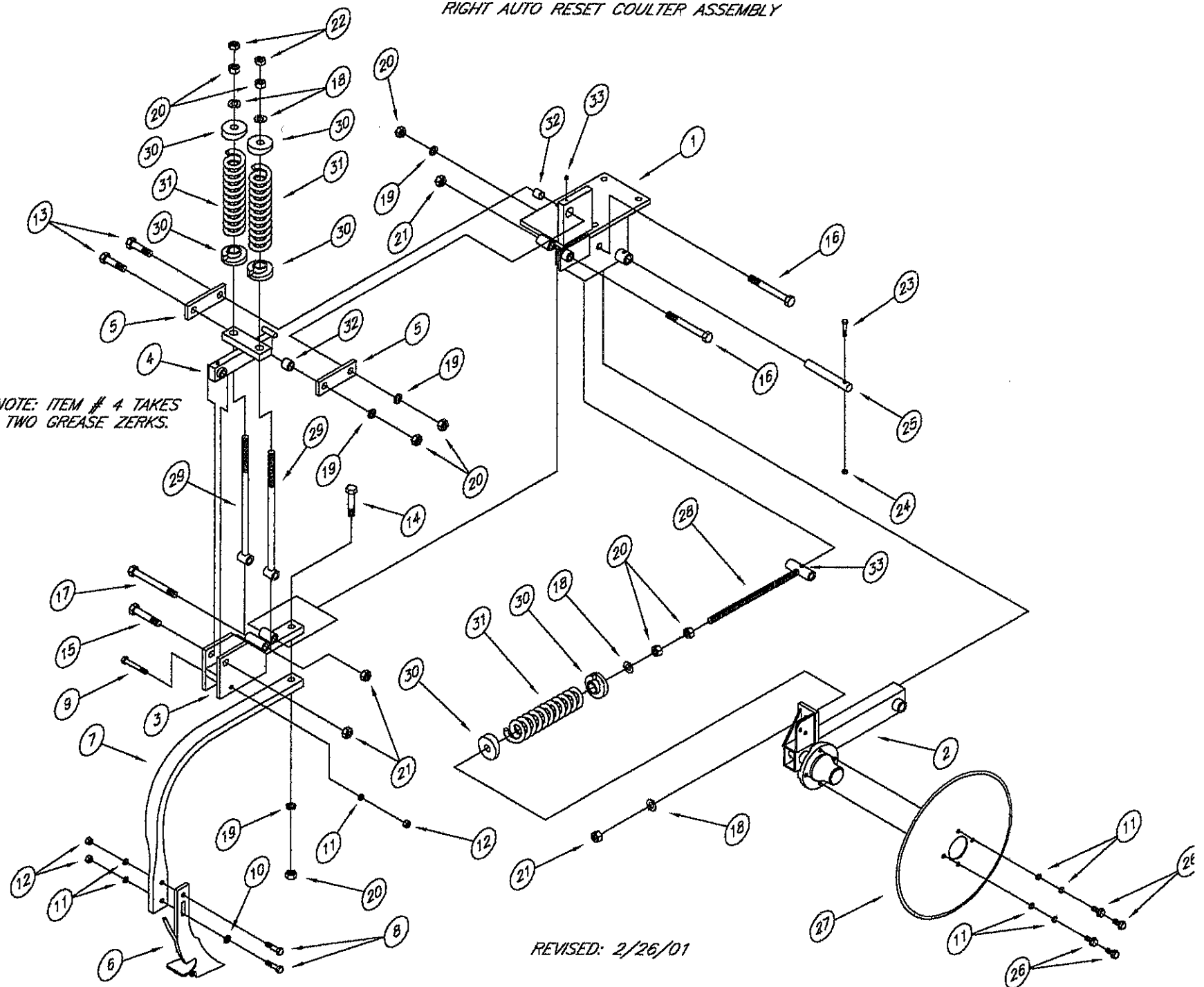
REVISED: 10/10/01

** FOR 7 X 7 BAR, USE 3/4-10 X 7 X 9" U-BOLT - PART # 101316.

** FOR 7 X 5 BAR, USE 3/4-10 X 7 X 6-1/2" U-BOLT - PART # 101315.

RIGHT AUTO RESET COULTER ASSEMBLY

NOTE: ITEM # 4 TAKES
TWO GREASE ZERKS.



REVISED: 2/26/01

RIGHT AUTO RESET COULTER ASSEMBLY COMPLETE - 900082R

REFERENCE #	QUANTITY	PART #	DESCRIPTION
1	1	801685	RIGHT MOUNTING BRACKET
2	1	801203	RIGHT SPINDLE TUBE & BUSHING ASSEM.
3	1	801686	SHANK MOUNTING BRACKET
4	1	801687	AUTO RESET BRACKET
5	2	400201	1/2 X 2 X 6-1/8" PIVOT PLATE
6	1	-	AMMONIA KNIFE - SEE KNIFE OPTION PAGE
7	1	900037	SIDE MOUNT SHANK
8	2	101149	1/2-13 X 2" HEX BOLT PLT.
9	1	101153	1/2-13 X 4" HEX BOLT PLT.
10	1	101231	1/2" FLAT WASHER PLT.
11	7	101222	1/2" LOCK WASHER PLT.
12	3	101213	1/2-13 HEX NUT PLT.
13	2	101173	3/4-10 X 3" HEX BOLT PLT.
14	1	101422	3/4-10 X 3" HEX BOLT - GR 8 YELLOW ZINC
15	1	101175	3/4-10 X 4" HEX BOLT PLT.
16	2	101179	3/4-10 X 6" HEX BOLT PLT.
17	1	101180	3/4-10 X 7" HEX BOLT PLT.
18	4	101233	3/4" FLAT WASHER PLT.
19	4	101224	3/4" LOCK WASHER PLT.
20	8	101215	3/4-10 HEX NUT PLT.
21	4	101459	3/4-10 TOPLOCK NUT PLT.
22	2	101382	3/4-10 JAM NUT PLT.
23	1	101127	3/8-16 X 2" HEX BOLT PLT.
24	1	101455	3/8-16 TOPLOCK NUT PLT.
25	1	602212	Ø1.00 X 7-1/4" HINGE PIN
26	4	301193	1/2-20 X 1-1/4" WHIZ BOLT PLT.
27	1	400097	20" SMOOTH COULTER BLADE
28	1	801198	SPRING TENSION ROD - 15" LONG
29	2	801688	SPRING TENSION ROD - 17-1/2" LONG
30	6	400096	SPRING RETAINER CASTING
31	3	400095	COMPRESSION SPRING
32	2	602211	1.250" O.D. X .774" I.D. X 1-1/16" BUSH.
33	4	101252	1/4-28 STRAIGHT GREASE ZERK
-	2	**	3/4-10 U-BOLT PLT. (NOT SHOWN)
-	4	101224	3/4" LOCK WASHER PLT. (NOT SHOWN)
-	4	101215	3/4-10 HEX NUT PLT. (NOT SHOWN)

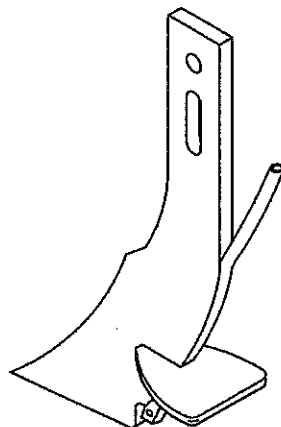
REVISED: 10/10/01

** FOR 7 X 7 BAR, USE 3/4-10 X 7 X 9" U-BOLT - PART # 101316.

** FOR 7 X 5 BAR, USE 3/4-10 X 7 X 6-1/2" U-BOLT - PART # 101315.

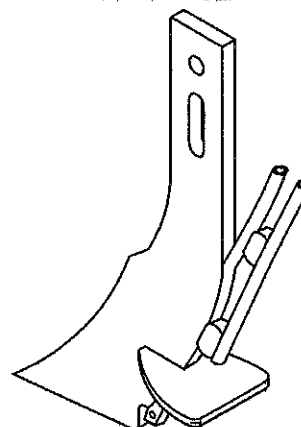
KNIFE OPTIONS

STANDARD KNIFE WITH
BEAVER TAIL SEALER



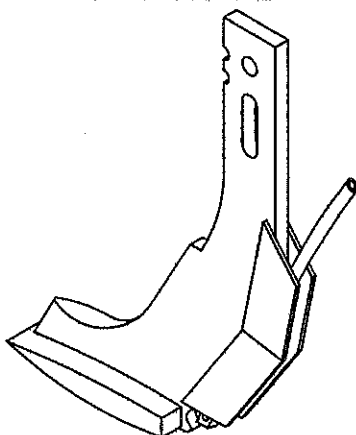
400099 3/8" NH3 TUBE
400191 1/2" NH3 TUBE

STANDARD KNIFE WITH
LIQUID TUBE



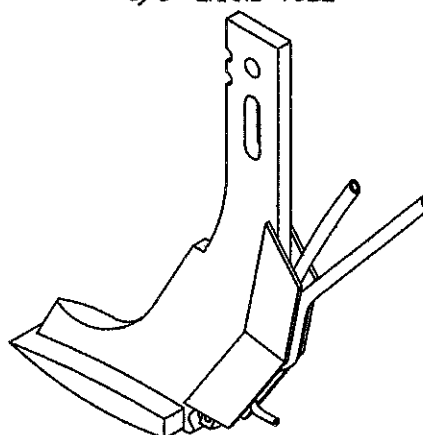
400190 3/8" NH3 TUBE
400192 1/2" NH3 TUBE

STANDARD MOLE KNIFE
ANHYDROUS ONLY



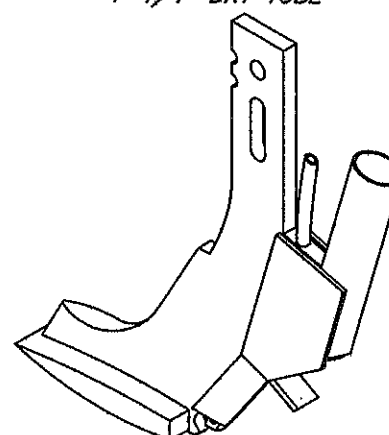
400197 3/8" NH3 TUBE
400195 1/2" NH3 TUBE

MOLE KNIFE WITH
3/8" LIQUID TUBE



900102 3/8" NH3 TUBE
900103 1/2" NH3 TUBE

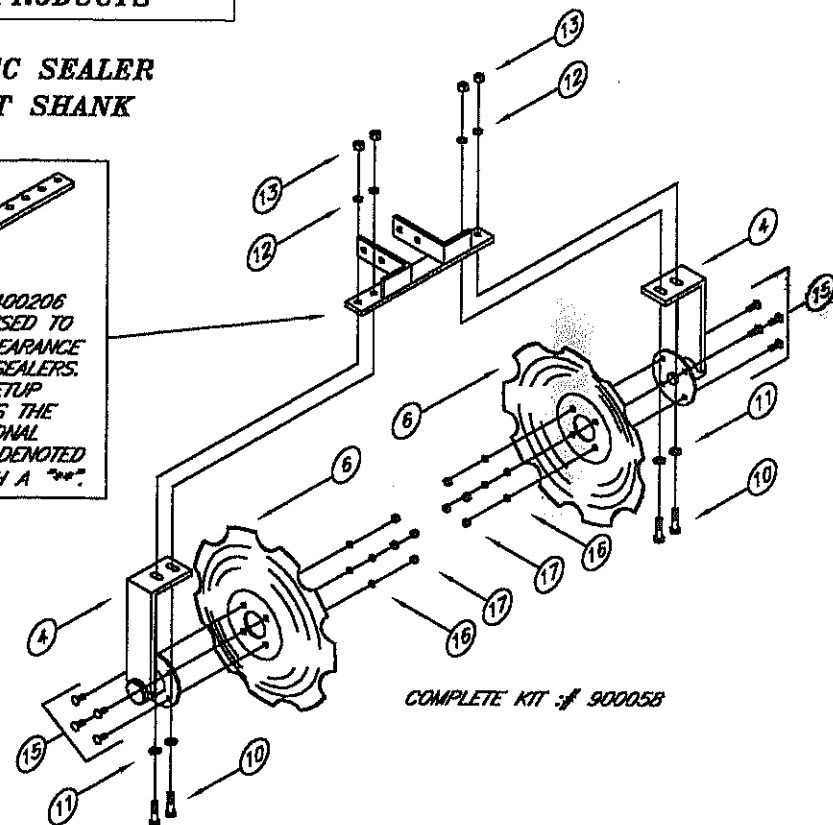
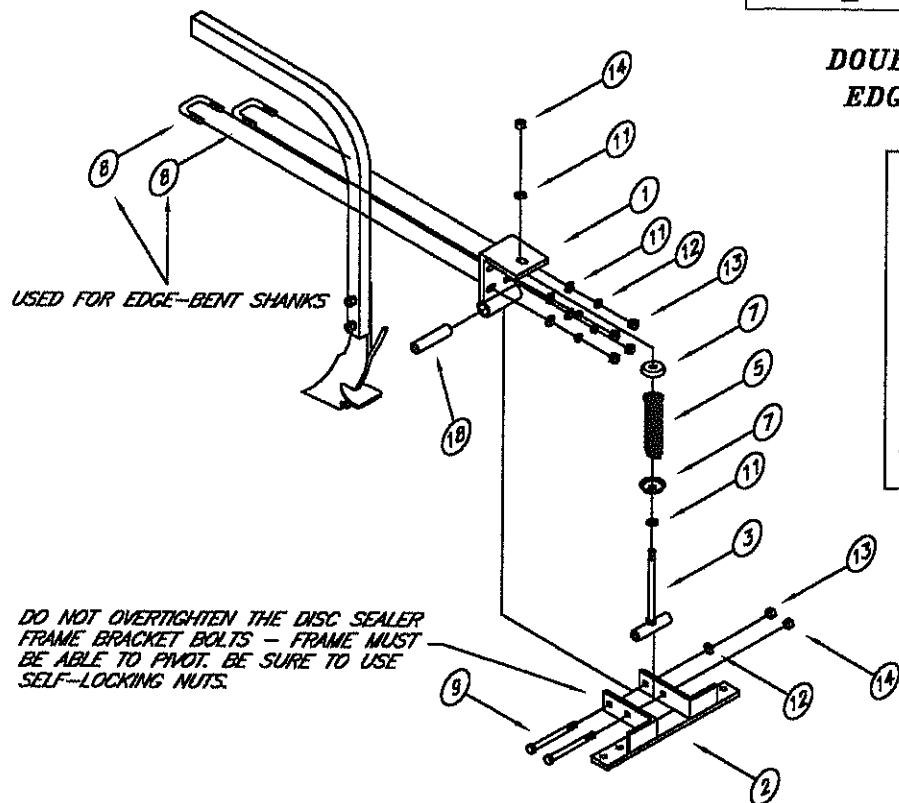
MOLE KNIFE WITH
1-1/4" DRY TUBE



900100 3/8" NH3 TUBE
900101 1/2" NH3 TUBE



DOUBLE DISC SEALER EDGE-BENT SHANK



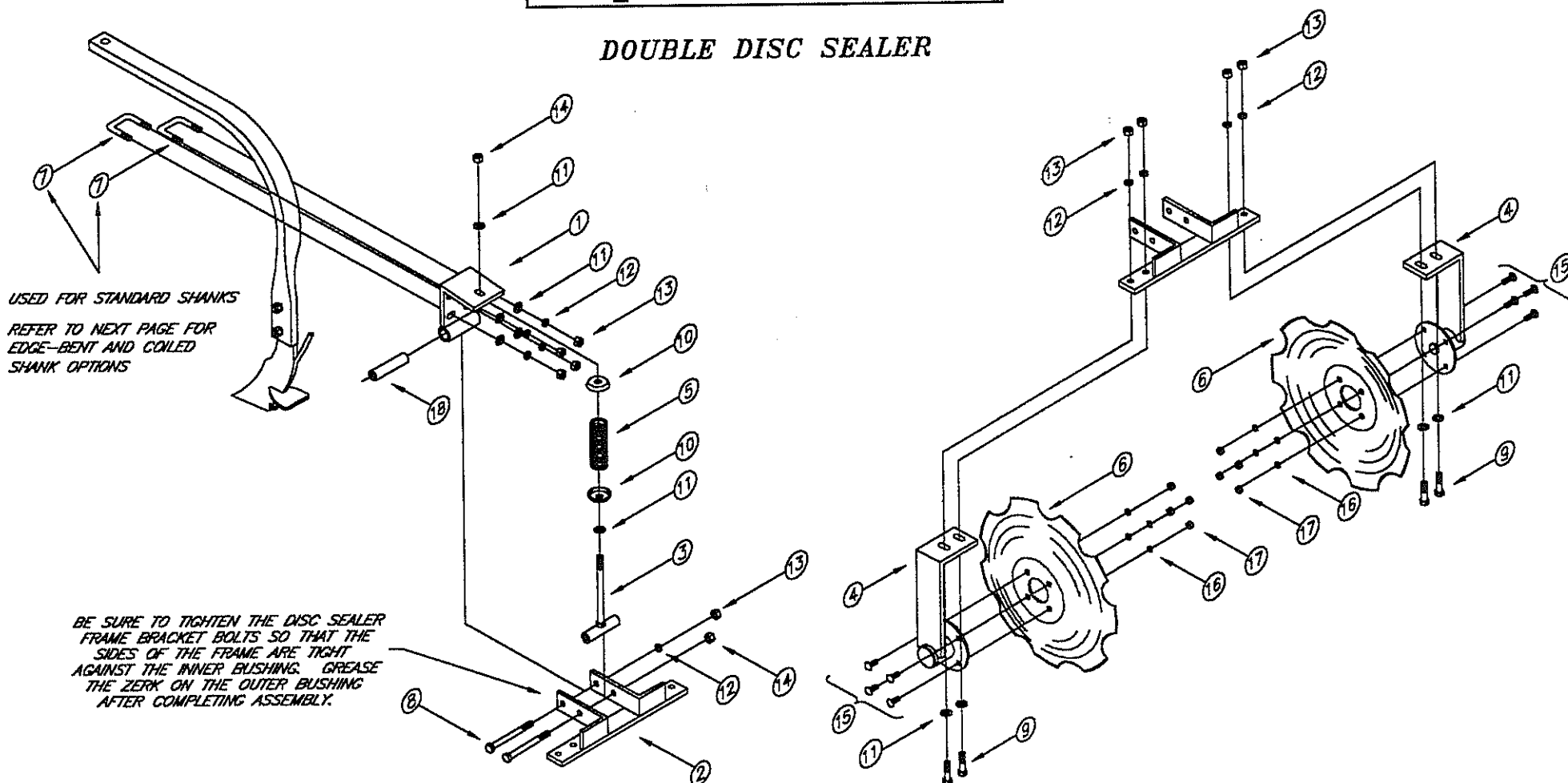
REF. #	QTY.	PART #	DESCRIPTION
1	1	801694	SHANK MOUNTING BRACKET
2	1	801327	DISC SEALER FRAME BRACKET
3	1	801329	SPRING PIVOT BOLT & BUSHING ASSEMBLY
4	2	801330	SEALER ARM ASSEMBLY
5	1	400123	COMPRESSION SPRING
6	2	400107	18" NOTCHED DISC
7	2	101299	5/8" CUP WASHER
8	2	101365	1/2-13 X 3-1/2" U-BOLT-PLT.
9	2	101156	1/2-13 X 5-1/2" HEX BOLT
10	4	101149	1/2-13 X 2" HEX BOLT
11	10	101231	1/2" FLAT WASHER

REF. #	QTY.	PART #	DESCRIPTION	REVISED: 1/22/01
12	9	101222	1/2" LOCK WASHER	
13	9	101213	1/2-13 HEX NUT	
14	2	101457	1/2-13 TOPLOCK NUT	
15	8	101357	3/8-16 X 1" CARRIAGE BOLT	
16	8	101220	3/8" LOCK WASHER	
17	8	101211	3/8-16 HEX NUT	
18	1	602214	1.000 O.D. X .524 I.D. X 4-1/8" BUSHING	
**	2	101150	1/2-13 X 2-1/2" HEX BOLT	
**	2	101222	1/2" LOCK WASHER	
**	2	101213	1/2-13 HEX NUT	



PROGRESSIVE
FARM PRODUCTS

DOUBLE DISC SEALER



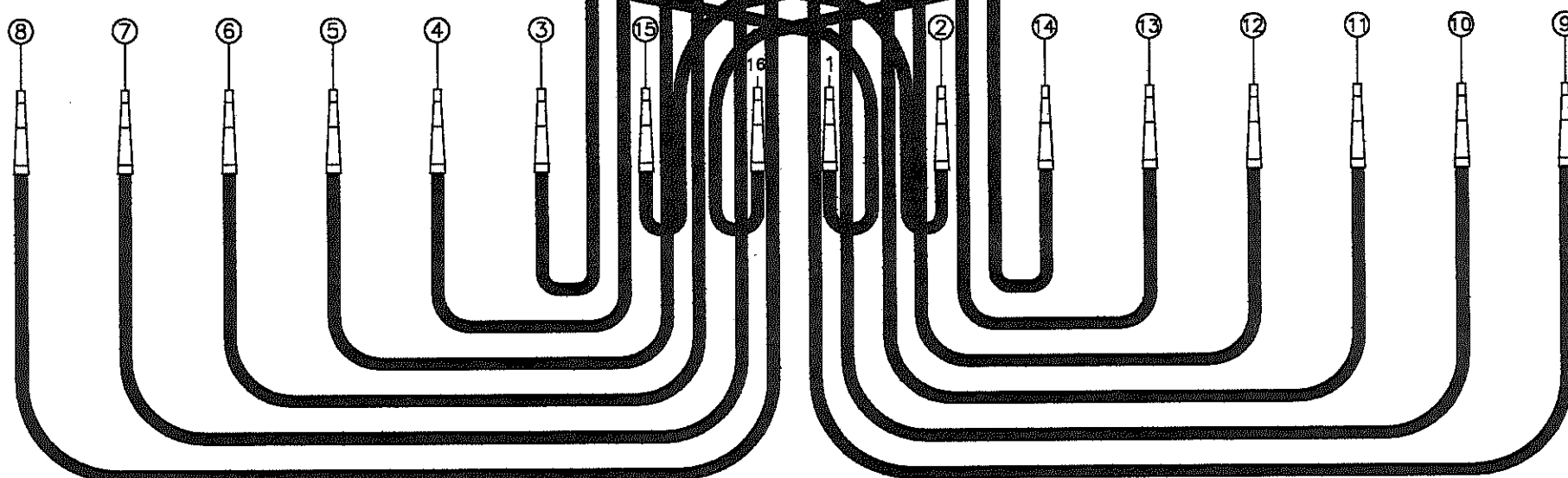
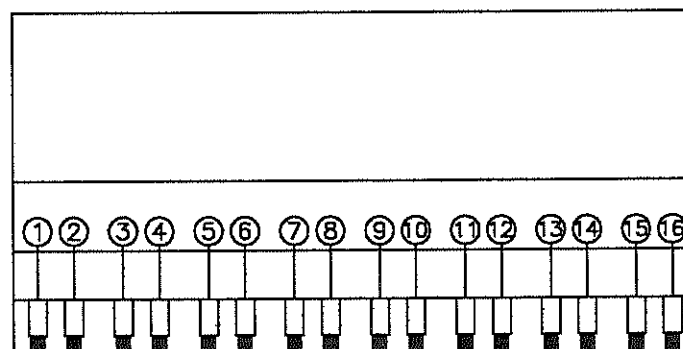
REF. #	QTY.	PART #	DESCRIPTION
1	1	801694	SHANK MOUNTING BRACKET
2	1	801327	DISC SEALER FRAME BRACKET
3	1	801329	SPRING PIVOT BOLT & BUSHING ASSEMBLY
4	2	801330	SEALER ARM ASSEMBLY
5	1	400123	COMPRESSION SPRING
6	2	400107	18" NOTCHED DISC
7	2	101355	1/2-13 X 2" X 2-1/2" U-BOLT
8	2	101156	1/2-13 X 5-1/2" HEX BOLT
9	4	101149	1/2-13 X 2" HEX BOLT

REF. #	QTY.	PART #	DESCRIPTION
10	2	101299	5/8" CLIP WASHER
11	10	101231	1/2" FLAT WASHER
12	9	101222	1/2" LOCK WASHER
13	9	101213	1/2-13 HEX NUT
14	2	101240	1/2-13 SELF-LOCKING HEX NUT
15	8	101357	3/8-16 X 1" CARRIAGE BOLT
16	8	101220	3/8" LOCK WASHER
17	8	101211	3/8-16 HEX NUT
18	1	602214	1.000 O.D. X .524 I.D. X 4-1/8" BUSHING

16 ROW DRY FERTILIZER HOSE LAYOUT

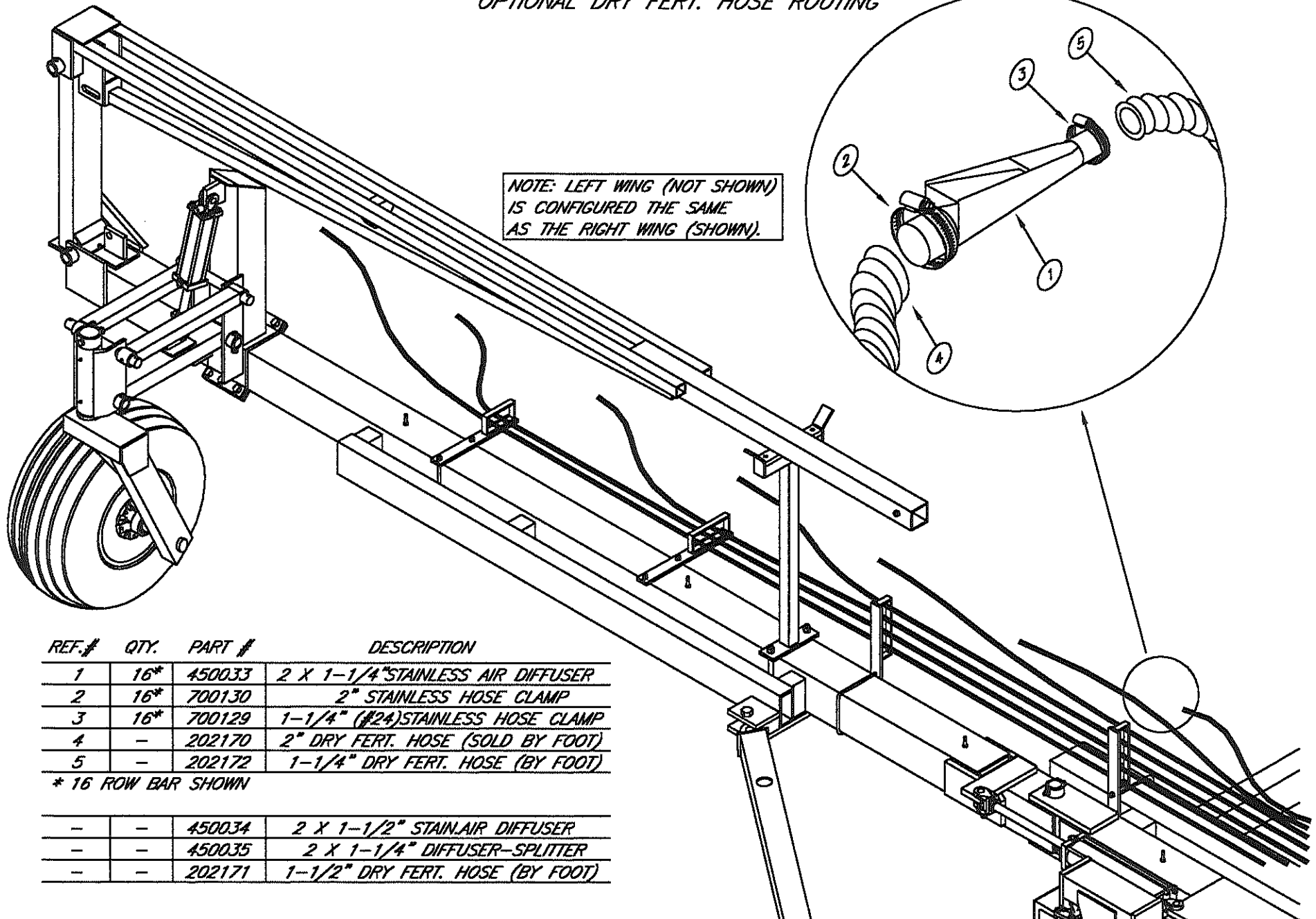
NOTE: THE ONLY PURPOSE OF THIS DRAWING IS TO AID IN THE ROUTING OF THE DRY FERT. HOSES. THIS IS NOT AN ACCURATE DEPICTION OF HOW THE HOSES WILL LOOK ONCE ASSEMBLED. DURING ASSEMBLY, BE SURE TO LOOP THE HOSES IN A MANNER SUCH THAT THERE ARE MINIMAL BENDS. THIS WILL ENSURE MAXIMUM EFFICIENCY AND EQUAL DISTRIBUTION OF FERTILIZER.

12 AND 8 ROW HOSES ARE BASICALLY THE SAME. RUN THE LONGEST HOSES FROM THE CENTER OUTLETS AND SHORTER HOSES FROM END OUTLETS.

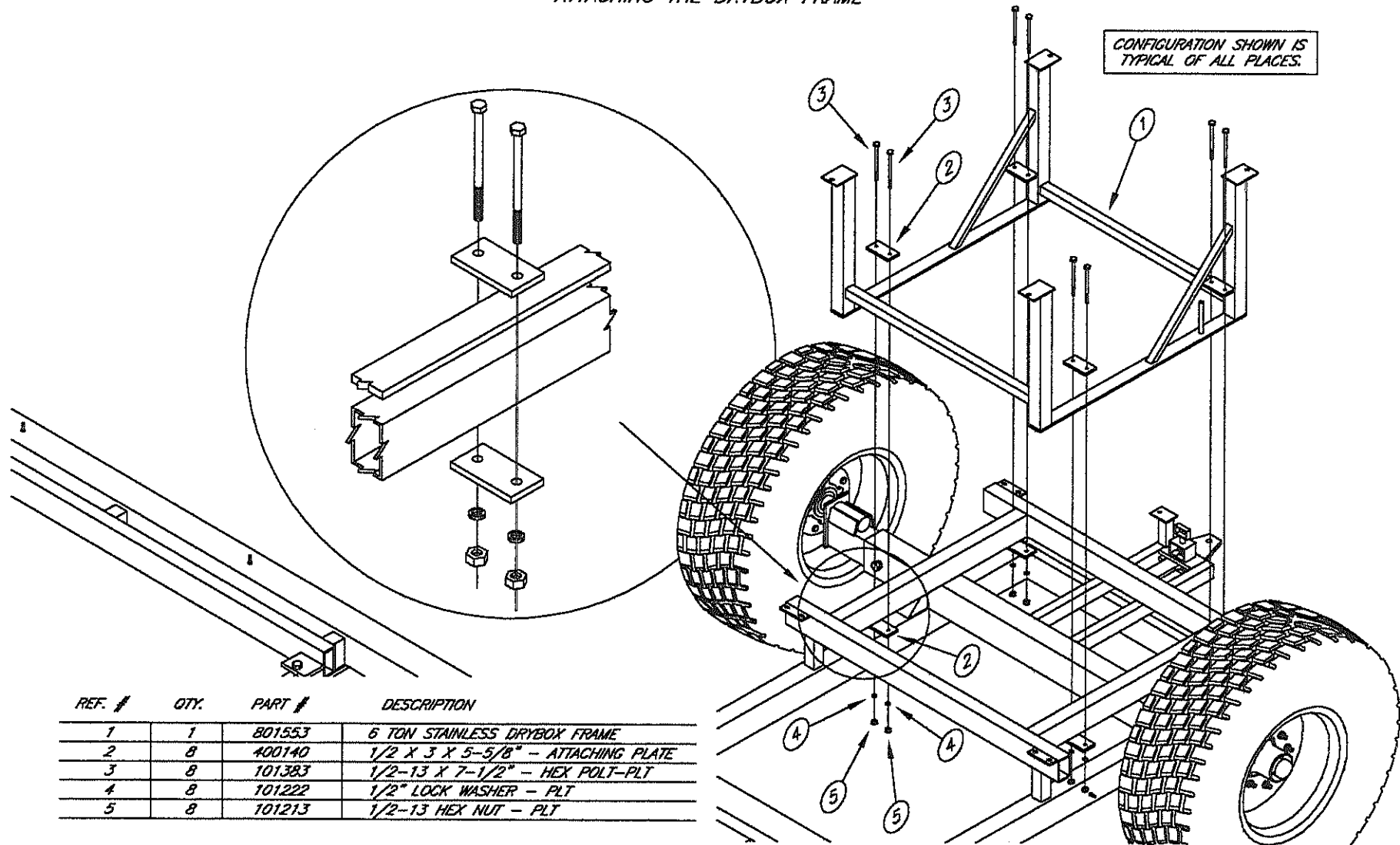


16 ROW TOOLBAR

OPTIONAL DRY FERT. HOSE ROUTING

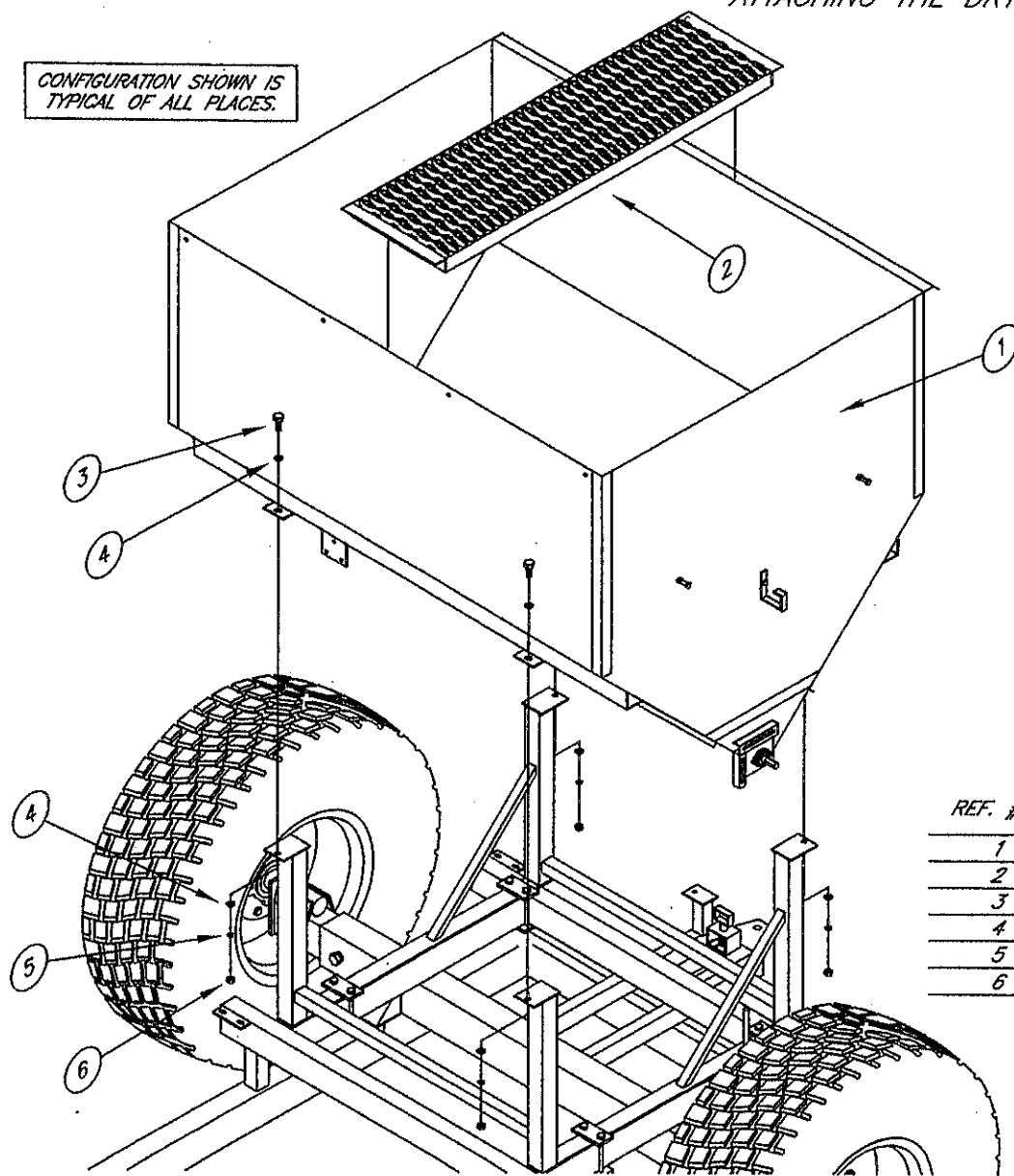


ATTACHING THE DRYBOX FRAME



ATTACHING THE DRYBOX

CONFIGURATION SHOWN IS
TYPICAL OF ALL PLACES.



COMPLETE DRYBOX (BOX, FRAME, PLATES, &
MOUNTING HARDWARE) PART NUMBERS:

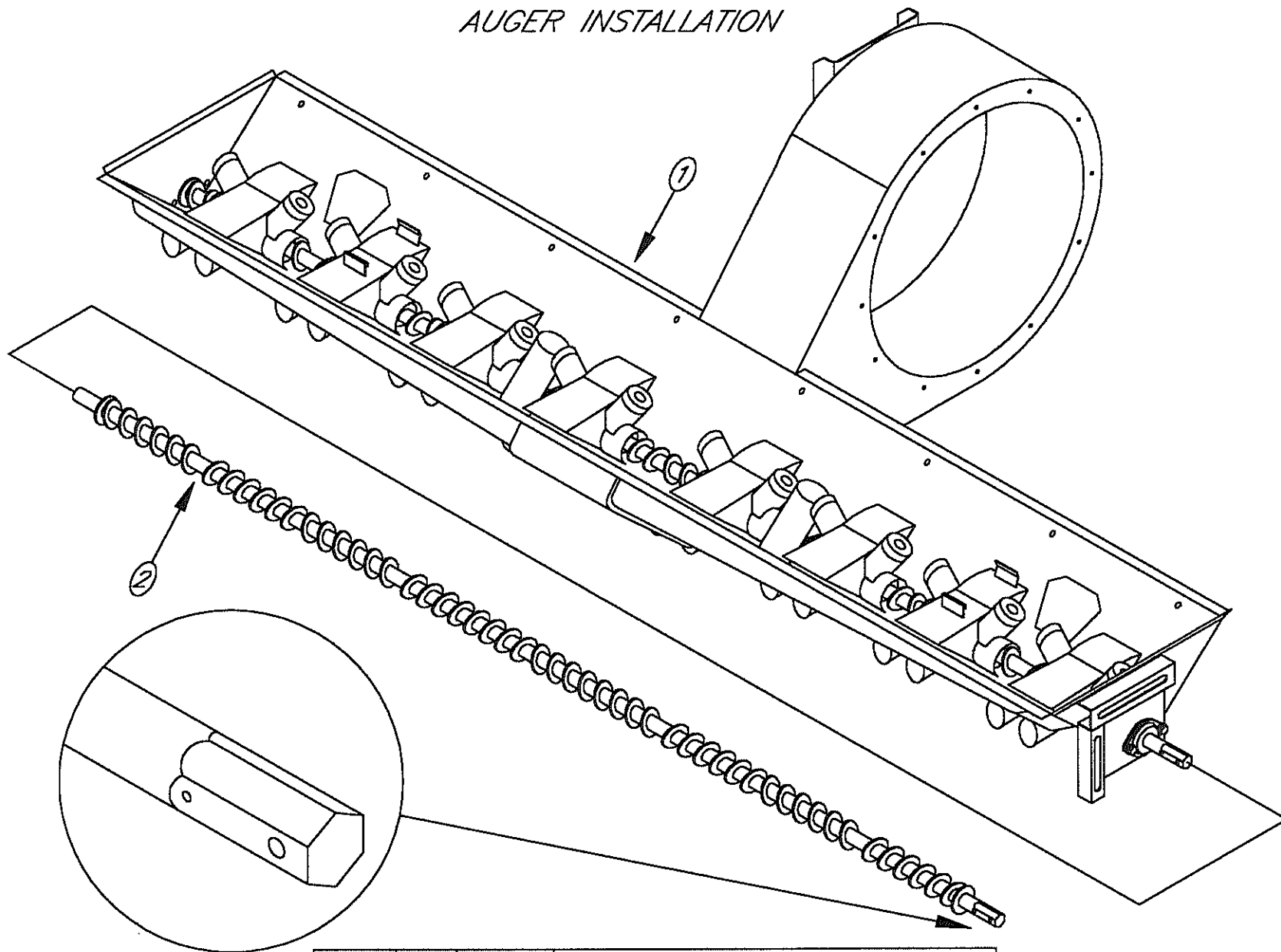
6 TON 8 ROW STAINLESS - 900060S
6 TON 12 ROW STAINLESS - 900039S
6 TON 16 ROW STAINLESS - 900048S

DRYBOX PART NUMBERS:

6 TON 8 ROW STAINLESS - 801555S
6 TON 12 ROW STAINLESS - 801556S
6 TON 16 ROW STAINLESS - 801557S

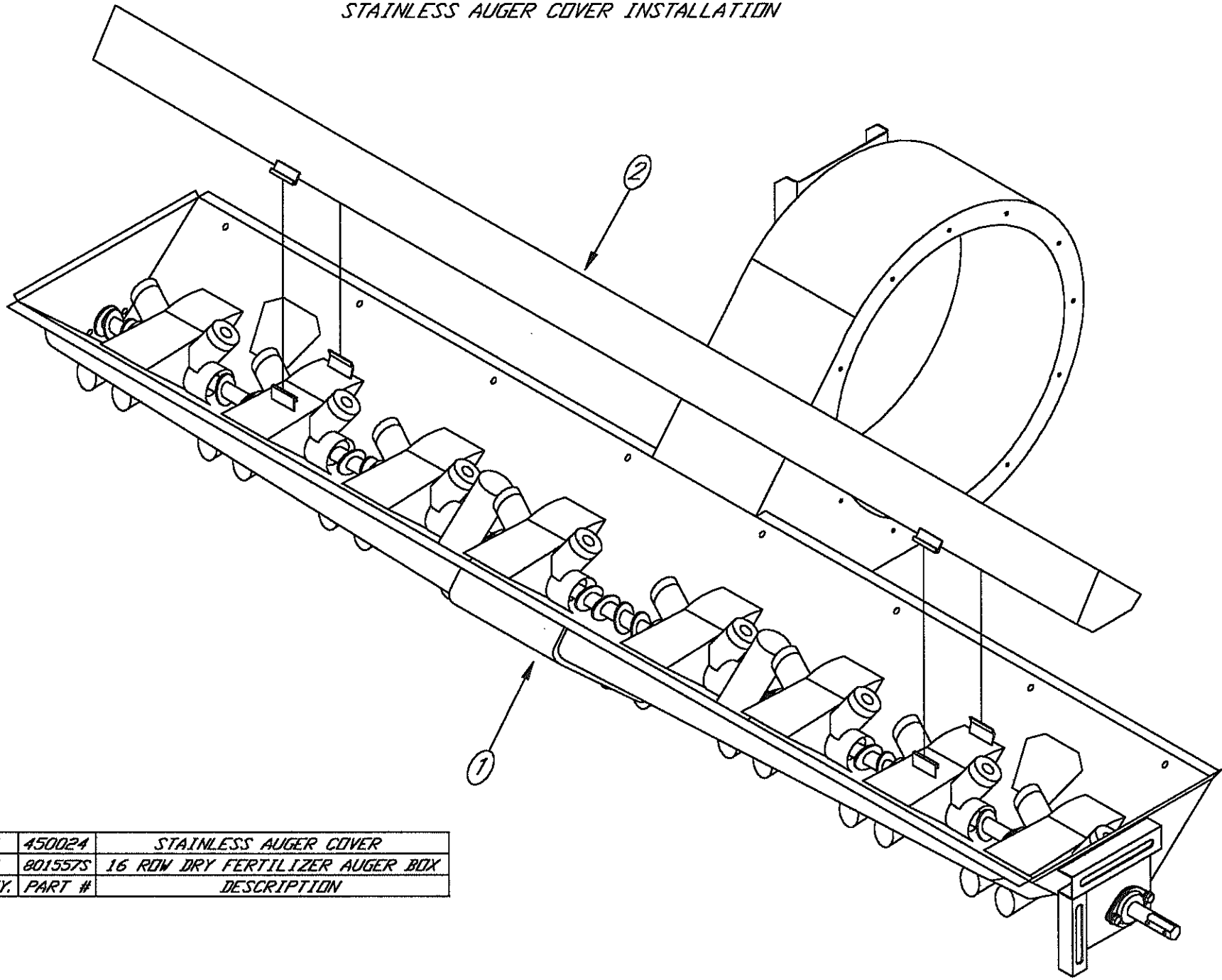
REF. #	QTY.	PART #	DESCRIPTION
1	1	SEE ABOVE	DRYBOX
2	1	801570	SCREENING GRATE
3	4	101148	1/2-13 X 1-1/2" HEX BOLT
4	8	101231	1/2" FLAT WASHER
5	4	101222	1/2" LOCK WASHER
6	4	101213	1/2-13 HEX NUT

AUGER INSTALLATION



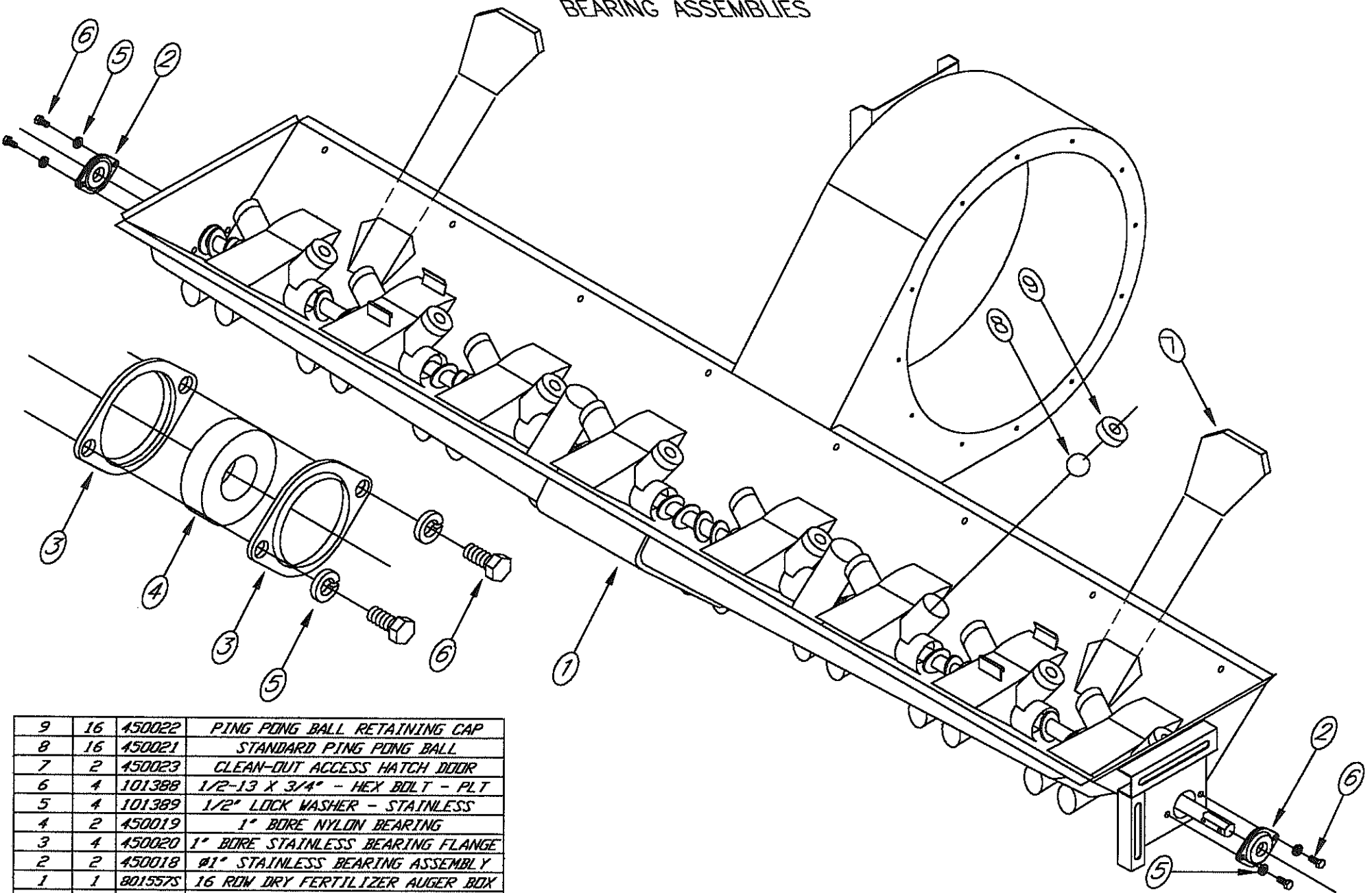
2	1	450025	16 ROW STAINLESS STEEL AUGER
1	1	801557S	16 ROW DRY FERTILIZER AUGER BOX
REF. #	QTY.	PART #	DESCRIPTION

STAINLESS AUGER COVER INSTALLATION



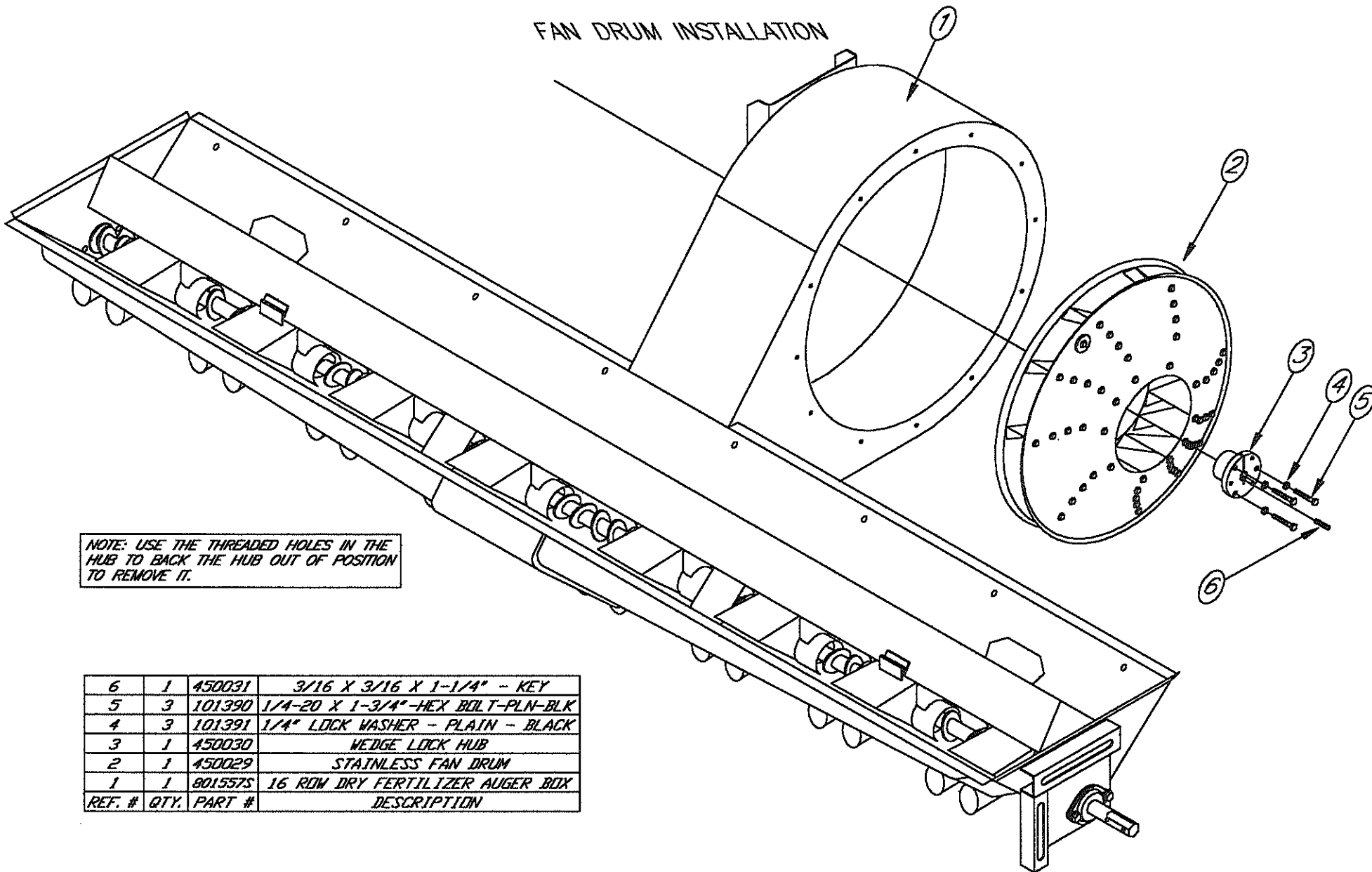
2	1	450024	STAINLESS AUGER COVER
1	1	801557S	16 ROW DRY FERTILIZER AUGER BOX
REF. #	QTY.	PART #	DESCRIPTION

BEARING ASSEMBLIES



9	16	450022	PING PONG BALL RETAINING CAP
8	16	450021	STANDARD PING PONG BALL
7	2	450023	CLEAN-OUT ACCESS HATCH DOOR
6	4	101388	1/2-13 X 3/4" - HEX BOLT - PLT
5	4	101389	1/2" LOCK WASHER - STAINLESS
4	2	450019	1" BORE NYLON BEARING
3	4	450020	1" BORE STAINLESS BEARING FLANGE
2	2	450018	#1" STAINLESS BEARING ASSEMBLY
1	1	801557S	16 ROW DRY FERTILIZER AUGER BOX
REF. #	QTY.	PART #	DESCRIPTION

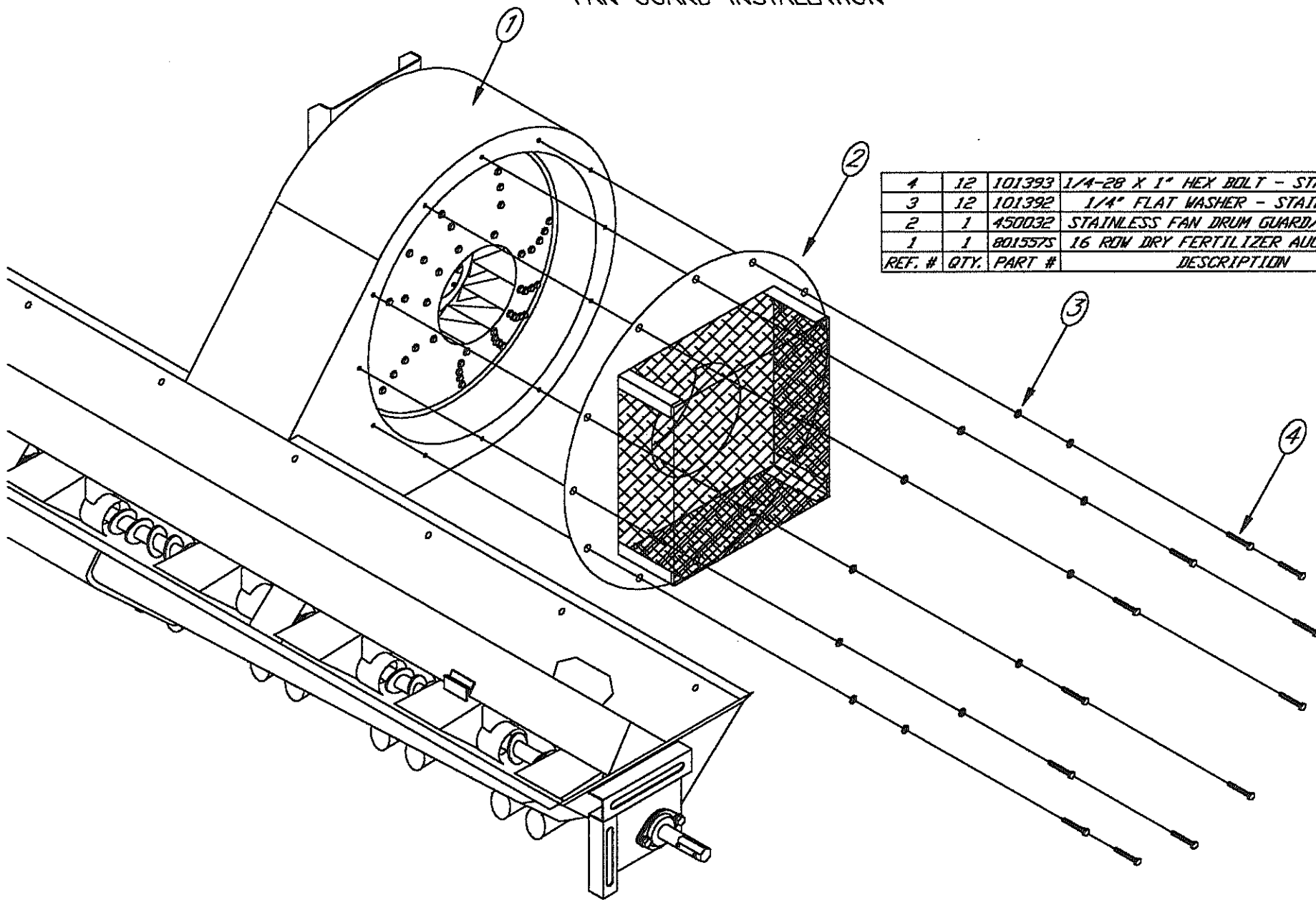
FAN DRUM INSTALLATION



NOTE: USE THE THREADED HOLES IN THE HUB TO BACK THE HUB OUT OF POSITION TO REMOVE IT.

6	1	450031	3/16 X 3/16 X 1-1/4" - KEY
5	3	101390	1/4-20 X 1-3/4"-HEX BOLT-PLN-BLK
4	3	101391	1/4" LOCK WASHER - PLAIN - BLACK
3	1	450030	WEDGE LOCK HUB
2	1	450029	STAINLESS FAN DRUM
1	1	801557S	16 ROW DRY FERTILIZER AUGER BOX
REF. #	QTY.	PART #	DESCRIPTION

FAN GUARD INSTALLATION



4	12	101393	1/4-28 X 1" HEX BOLT - STAINLESS
3	12	101392	1/4" FLAT WASHER - STAINLESS
2	1	450032	STAINLESS FAN DRUM GUARD/SCREEN
1	1	801557S	16 ROW DRY FERTILIZER AUGER BOX
REF. #	QTY.	PART #	DESCRIPTION

QTY.	PART#	DESCRIPTION
1	730032	ADAPTER FOR 6200 FAN DRIVE (OHLA)
1	730031	CASAPPA HYDRAULIC PUMP MOTOR
2	101143SS	7/16-14 X 4-1/2" HEX BOLT-STAINLESS
4	101229	3/8" FLAT WASHER-PLT.
2	101221	7/16" LOCK WASHER-PLT.

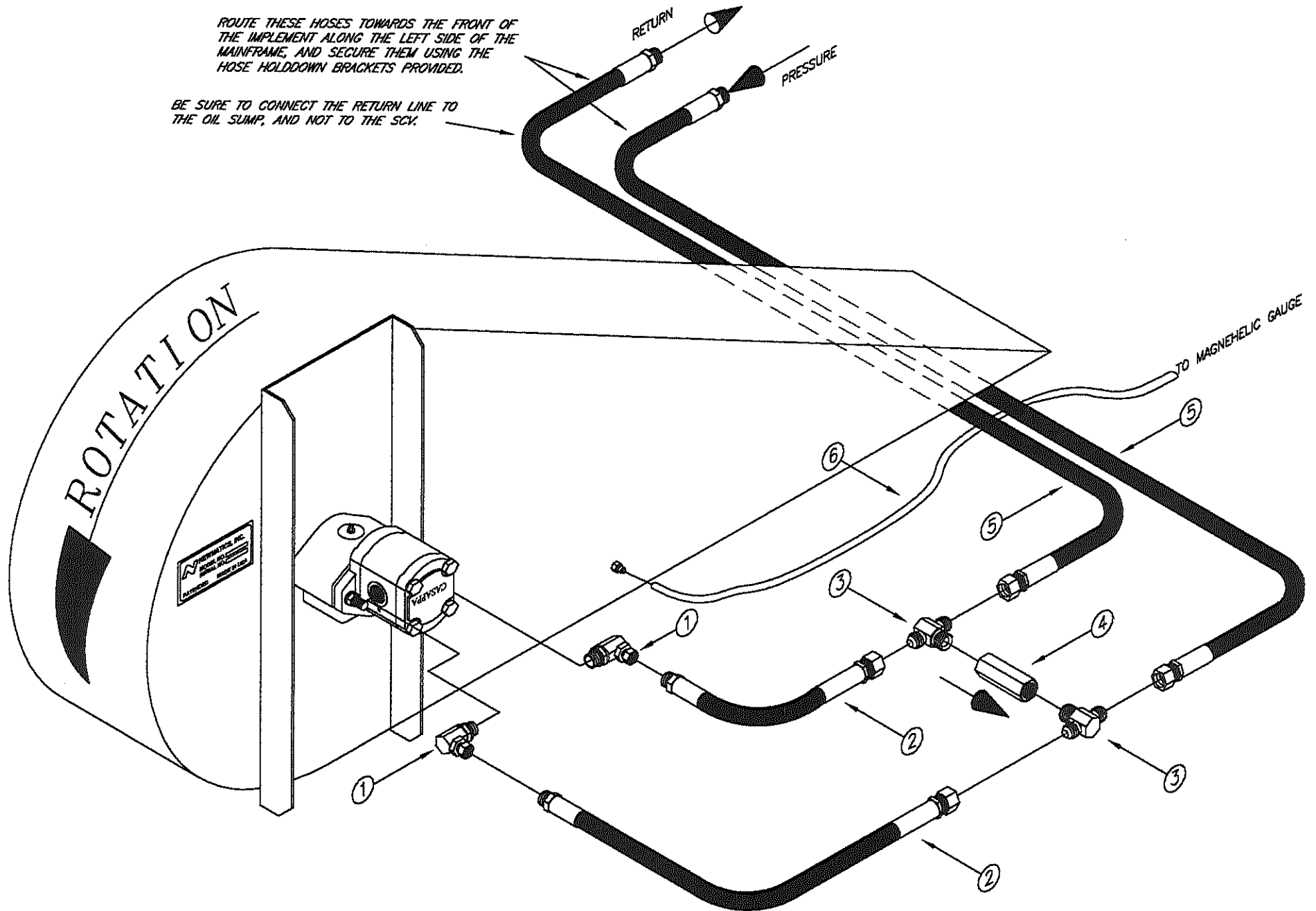
NOTE: OHLA IS TO HAVE 15 PUMPS OF GREASE BEFORE INITIAL USE AND PER SEASON.

NOTE: CASAPPA MOTOR IS MOUNTED WITH INLET AWAY FROM MACHINE AND UPSIDEDOWN.

HYDRAULIC FAN DRIVE SYSTEM

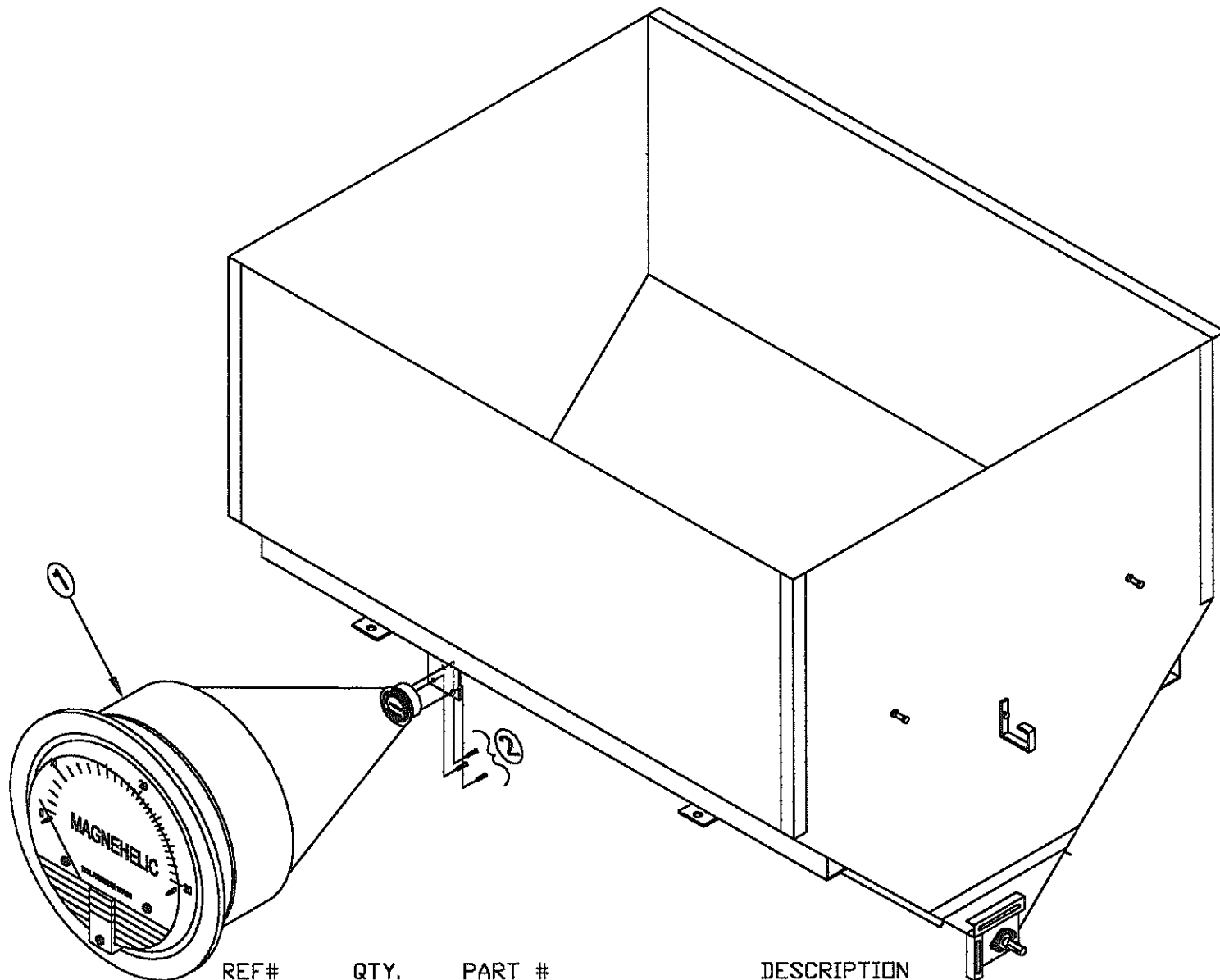
ROUTE THESE HOSES TOWARDS THE FRONT OF THE IMPLEMENT ALONG THE LEFT SIDE OF THE MAINFRAME, AND SECURE THEM USING THE HOSE HOLDDOWN BRACKETS PROVIDED.

BE SURE TO CONNECT THE RETURN LINE TO THE OIL SUMP, AND NOT TO THE SCV.

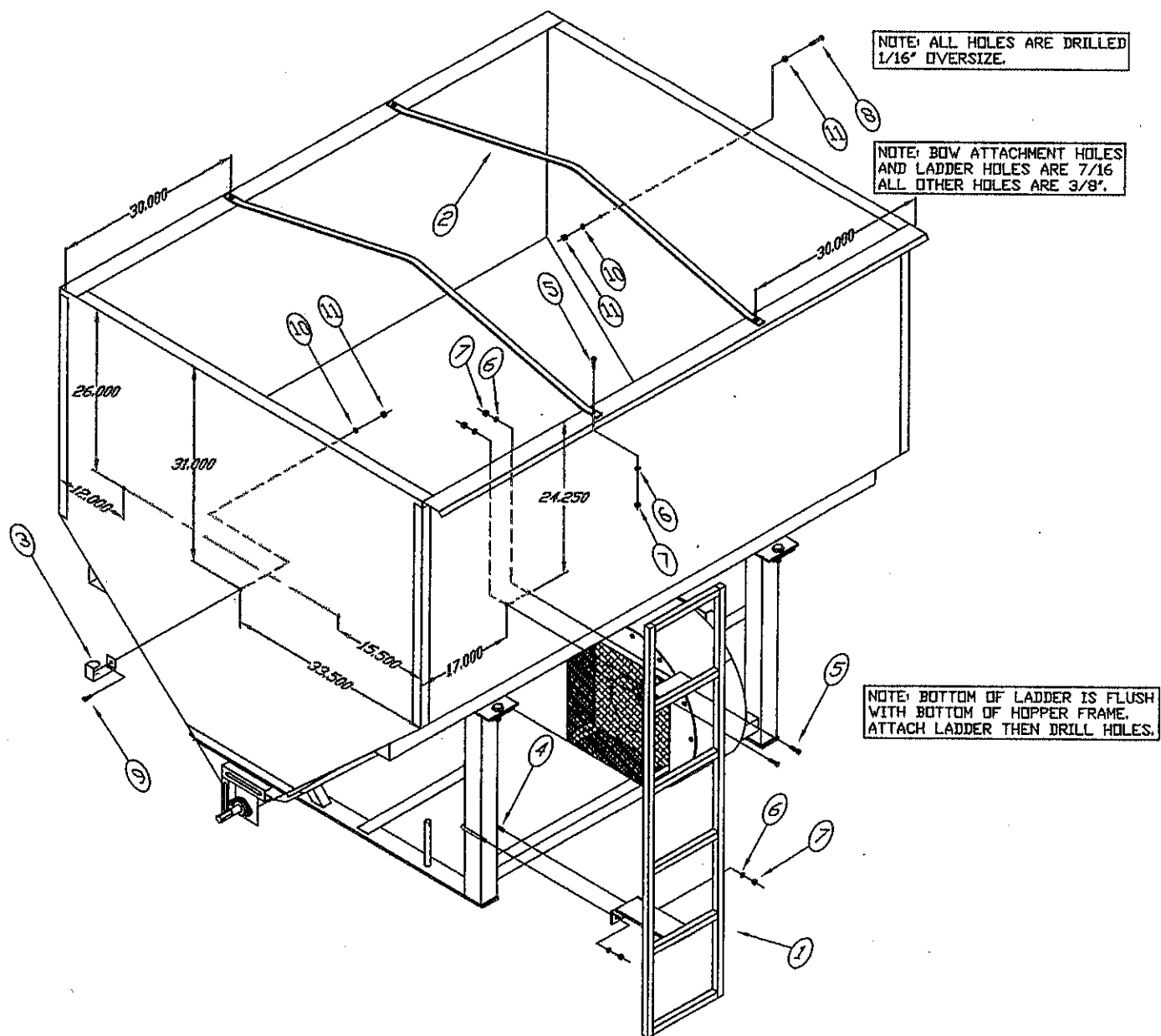


HYDRAULIC FAN DRIVE SYSTEM – PARTS LIST

<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>2</i>	<i>201054</i>	<i>3/4" MNPT O-RING X 1/2" FNPT SWIVEL</i>
<i>2</i>	<i>2</i>	<i>202141</i>	<i>1/2 X 13" X 1/2 MNPT X 8FJX</i>
<i>3</i>	<i>2</i>	<i>201044</i>	<i>1/2" MNPT X NO.8 MJIC BRANCH TEE</i>
<i>4</i>	<i>1</i>	<i>203005A</i>	<i>CHECK VALVE – METRO</i>
<i>5</i>	<i>2</i>	<i>201142</i>	<i>1/2 X 32'0" X 8FJX X 1/2 MNPT</i>
<i>6</i>	<i>1</i>	<i>202173</i>	<i>1/4 X 48" – CLEAR MOISTURE TUBE</i>



REF#	QTY.	PART #	DESCRIPTION
1	1	450036	MOISTURE GAUGE - MAGNEHELIC
2	3	101398	No. 6-32 X 1/4" - MACHINE SCREW

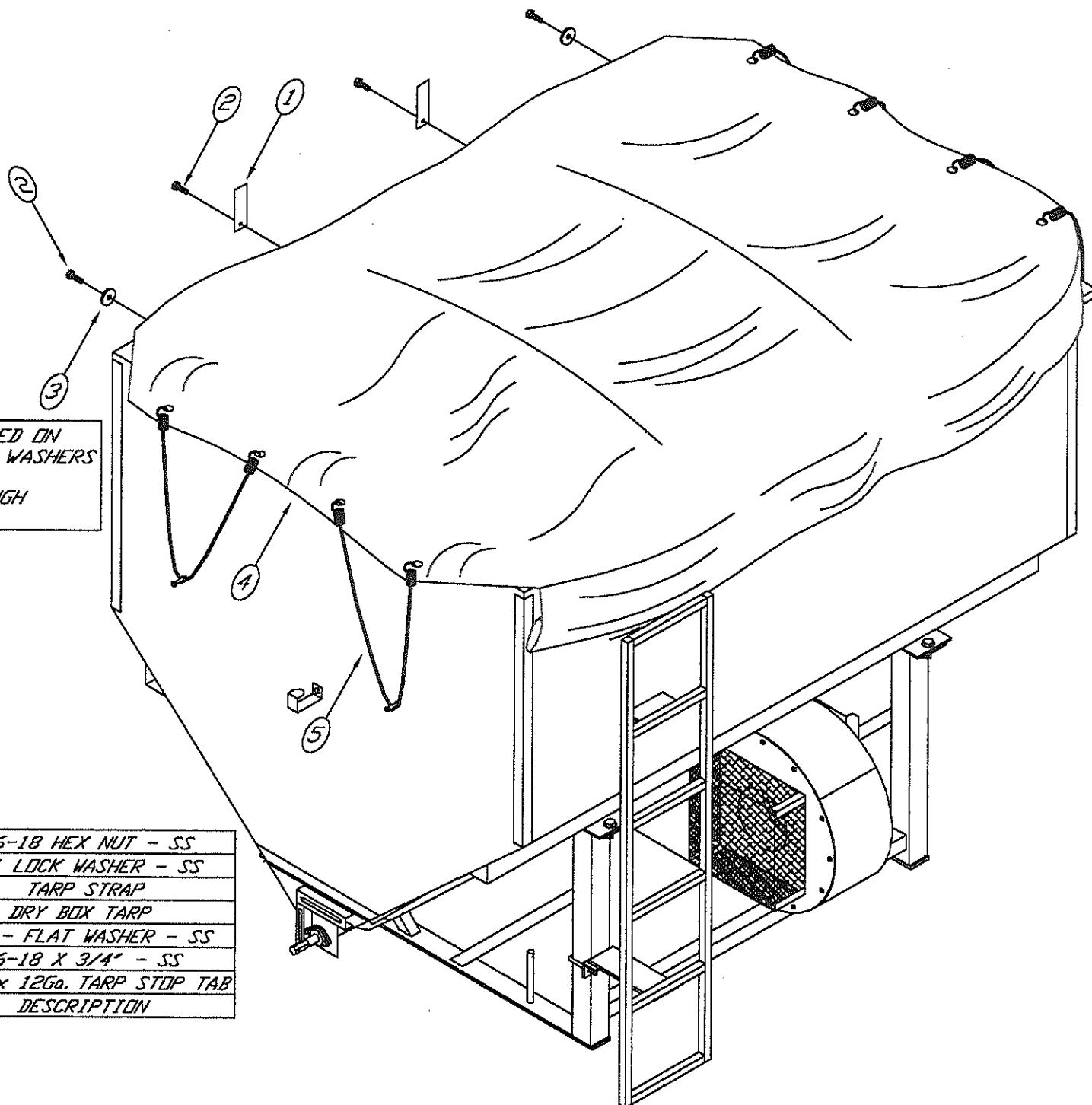


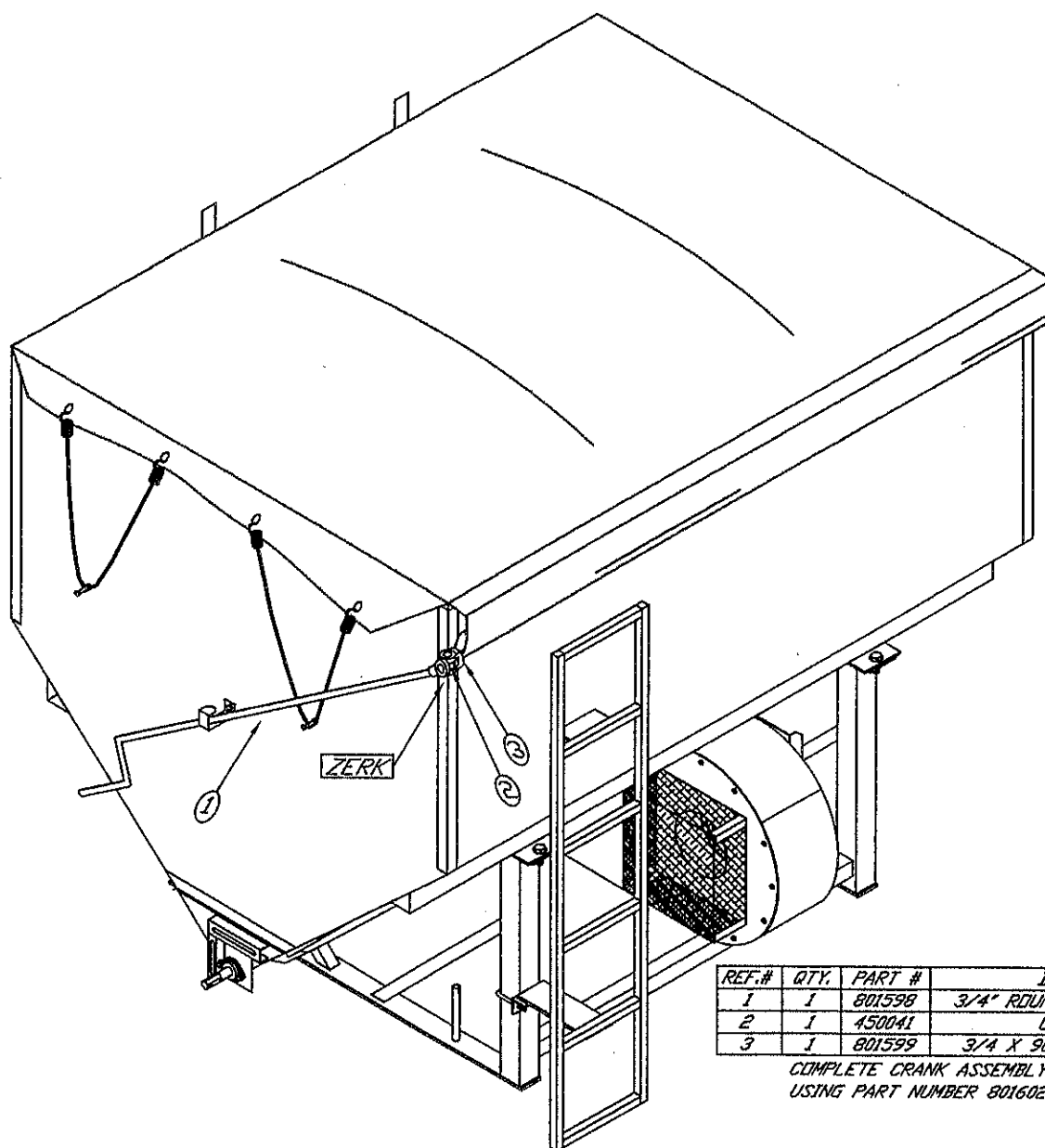
<i>REF. #</i>	<i>QTY.</i>	<i>PART #</i>	<i>DESCRIPTION</i>
<i>1</i>	<i>1</i>	<i>801571</i>	<i>DRY BOX LADDER WELDMENT</i>
<i>2</i>	<i>2</i>	<i>400152</i>	<i>TARP BOWS</i>
<i>3</i>	<i>1</i>	<i>400153</i>	<i>CRANK HANDLE KEEPER</i>
<i>4</i>	<i>1</i>	<i>101303</i>	<i>3/8-16 X 3 X 4" U-BOLT - PLT</i>
<i>5</i>	<i>6</i>	<i>101125SS</i>	<i>3/8-16 X 1" - SS</i>
<i>6</i>	<i>8</i>	<i>101220SS</i>	<i>3/8" LOCK WASHER - SS</i>
<i>7</i>	<i>8</i>	<i>101211SS</i>	<i>3/8-16 HEX NUT - SS</i>
<i>8</i>	<i>4</i>	<i>101116SS</i>	<i>5/16-18 X 2" HEX BOLT - SS</i>
<i>9</i>	<i>1</i>	<i>101114SS</i>	<i>5/16-18 X 1" HEX BOLT - SS</i>
<i>10</i>	<i>5</i>	<i>101219SS</i>	<i>5/16 LOCK WASHER - SS</i>
<i>11</i>	<i>9</i>	<i>101210SS</i>	<i>5/16-18 HEX NUT - SS</i>

NOTE: ALL PIECES ARE SECURED ON THE INSIDE WITH 5/16" LOCK WASHERS AND HEX NUTS (NOT SHOWN). ALL HARDWARE PASSES THROUGH THE TARP AND THE DRYBOX.

7*	4	101210SS	5/16-18 HEX NUT - SS
6*	4	101219	5/16" LOCK WASHER - SS
5	4	450072	TARP STRAP
4	1	450071	DRY BOX TARP
3	2	101228SS	5/16" - FLAT WASHER - SS
2	4	101113SS	5/16-18 X 3/4" - SS
1	2	400154	2 x 6 x 12Ga. TARP STOP TAB
REF. #	QTY.	PART #	DESCRIPTION

* not shown



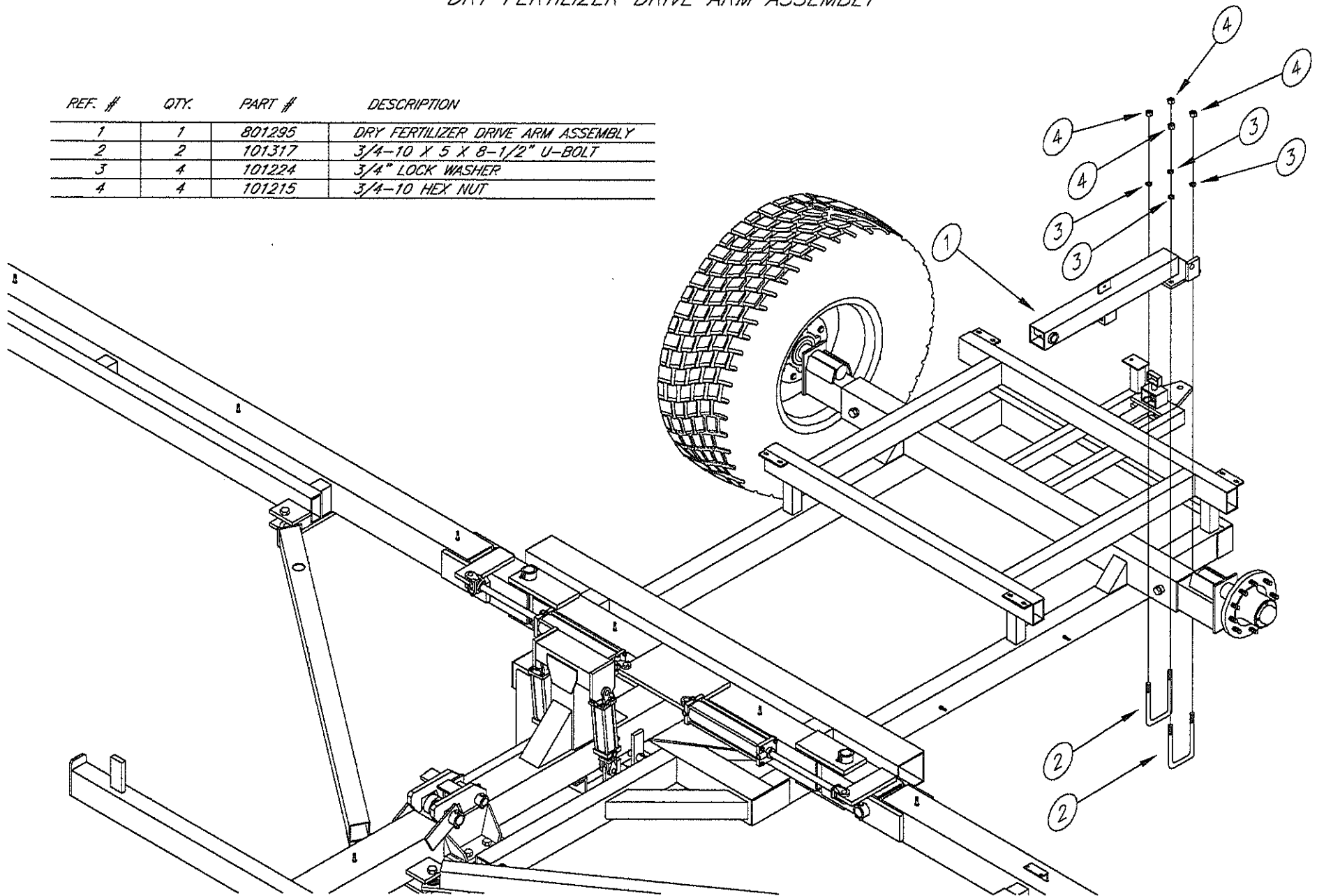


REF.#	QTY.	PART #	DESCRIPTION
1	1	801598	3/4" ROUND X 66" - CRANK
2	1	450041	U-JOINT
3	1	801599	3/4 X 96" - TARP ROLLER

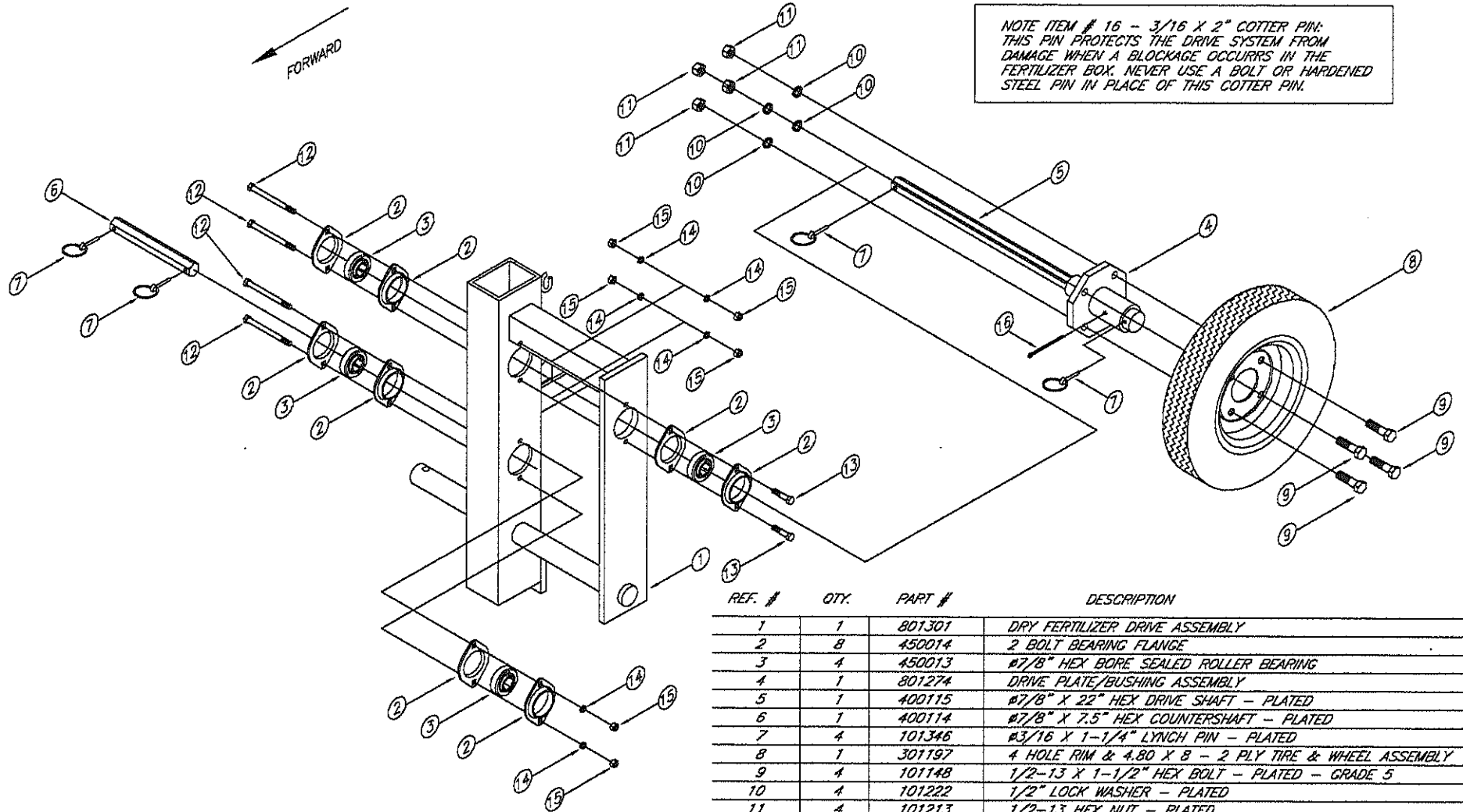
COMPLETE CRANK ASSEMBLY AVAILABLE
USING PART NUMBER 801602.

DRY FERTILIZER DRIVE ARM ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801295	DRY FERTILIZER DRIVE ARM ASSEMBLY
2	2	101317	3/4-10 X 5 X 8-1/2" U-BOLT
3	4	101224	3/4" LOCK WASHER
4	4	101215	3/4-10 HEX NUT

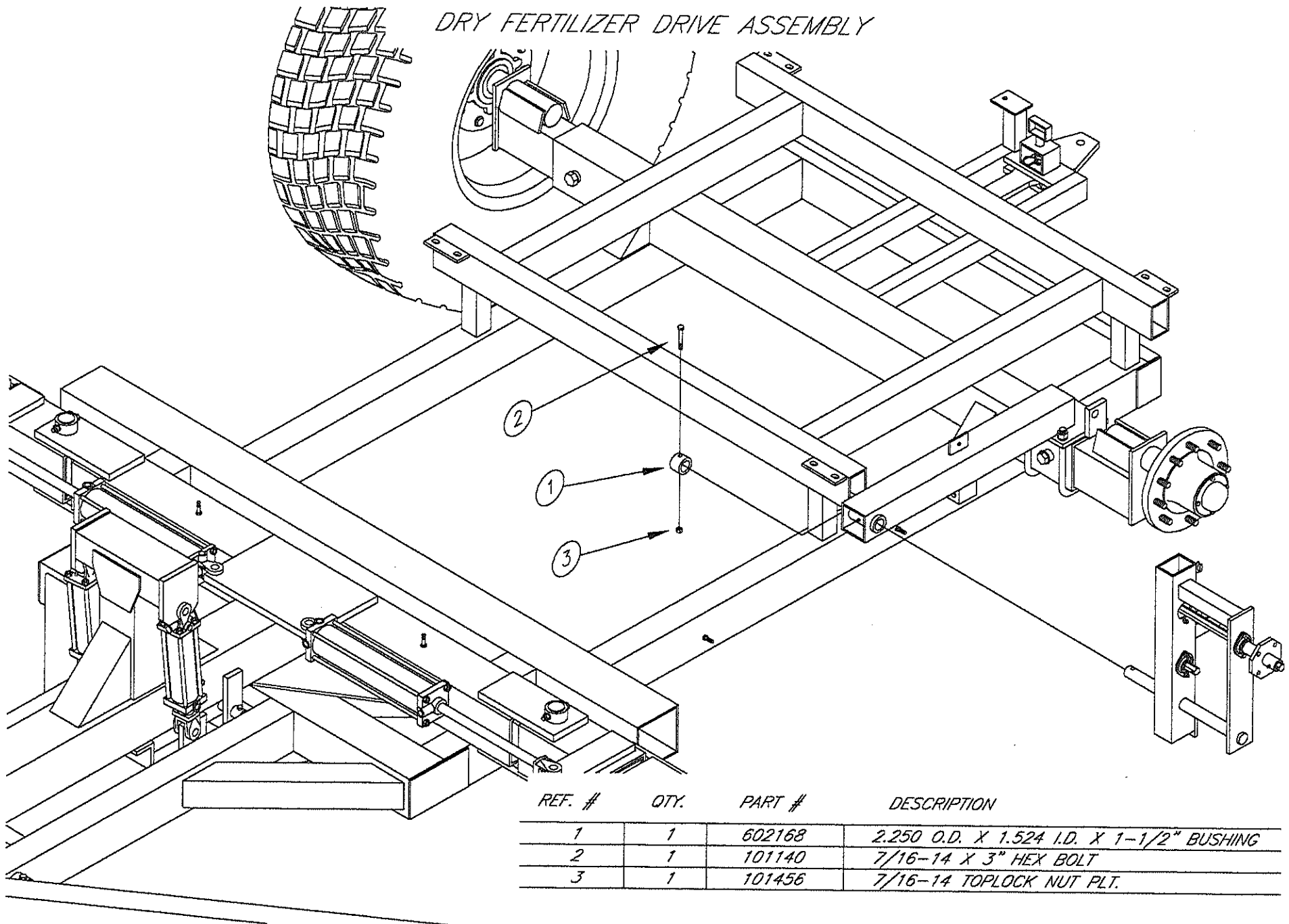


DRY FERTILIZER DRIVE ASSEMBLY



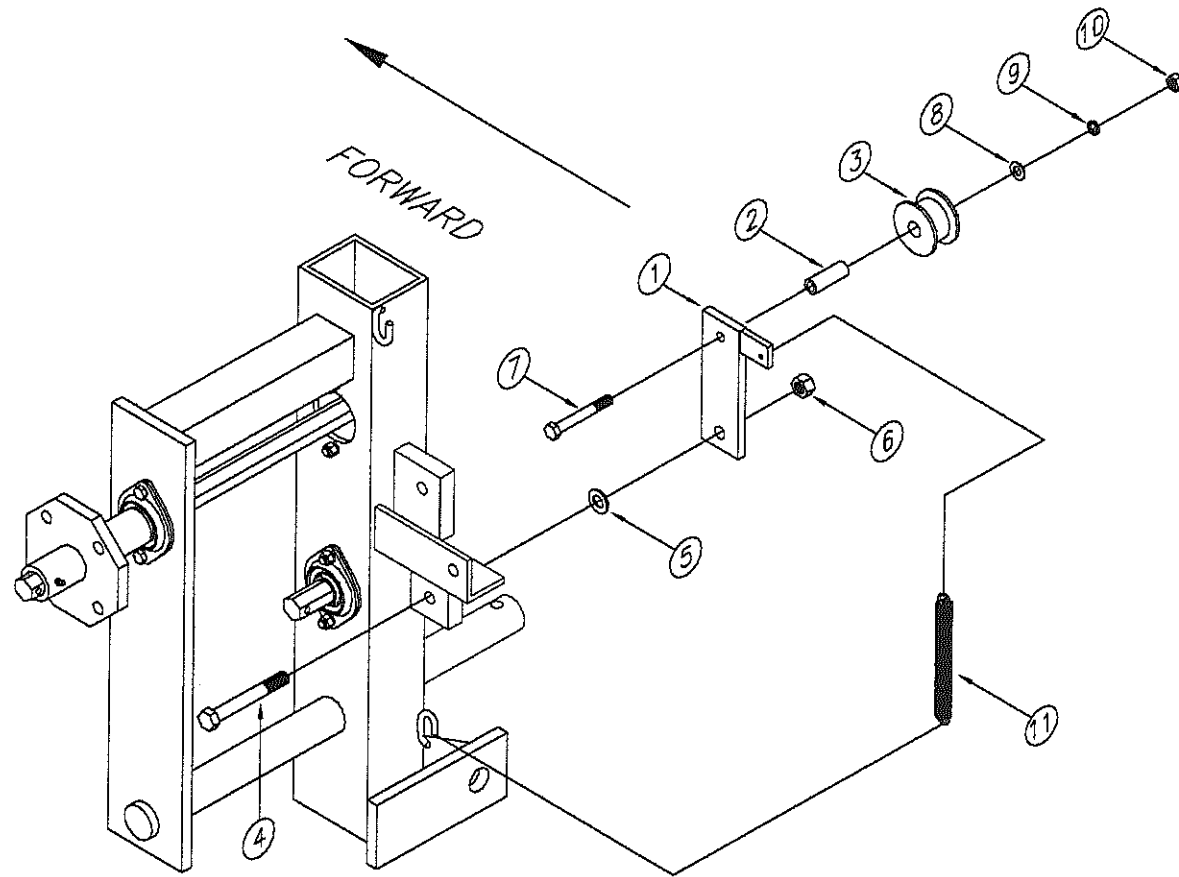
REF. #	QTY.	PART #	DESCRIPTION
1	1	801301	DRY FERTILIZER DRIVE ASSEMBLY
2	8	450014	2 BOLT BEARING FLANGE
3	4	450013	#7/8" HEX BORE SEALED ROLLER BEARING
4	1	801274	DRIVE PLATE/BUSHING ASSEMBLY
5	1	400115	#7/8" X 22" HEX DRIVE SHAFT - PLATED
6	1	400114	#7/8" X 7.5" HEX COUNTERSHAFT - PLATED
7	4	101346	#3/16 X 1-1/4" LYNCH PIN - PLATED
8	1	301197	4 HOLE RIM & 4.80 X 8 - 2 PLY TIRE & WHEEL ASSEMBLY
9	4	101148	1/2-13 X 1-1/2" HEX BOLT - PLATED - GRADE 5
10	4	101222	1/2" LOCK WASHER - PLATED
11	4	101213	1/2-13 HEX NUT - PLATED
12	4	101120	5/16-18 X 4" HEX BOLT - PLATED - GRADE 5
13	2	101115	5/16-18 X 1-1/2" HEX BOLT - PLATED - GRADE 5
14	6	101219	5/16" LOCK WASHER
15	6	101210	5/16-18 HEX NUT - PLATED
16	1	101387	3/16 X 3-1/4" COTTER PIN - PLATED

DRY FERTILIZER DRIVE ASSEMBLY



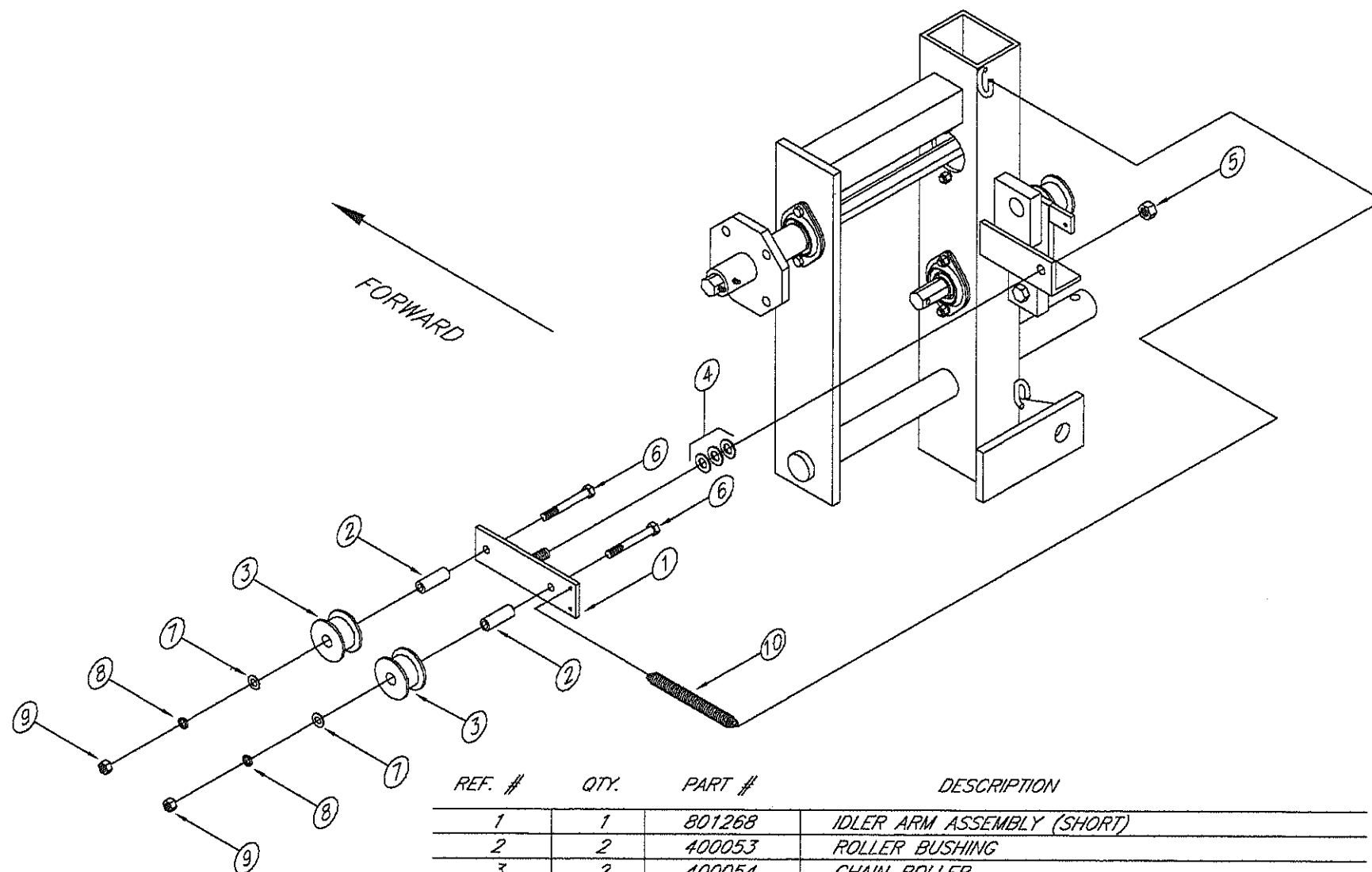
REF. #	QTY.	PART #	DESCRIPTION
1	1	602168	2.250 O.D. X 1.524 I.D. X 1-1/2" BUSHING
2	1	101140	7/16-14 X 3" HEX BOLT
3	1	101456	7/16-14 TOPLOCK NUT PLT.

SINGLE ROLLER CHAIN TIGHTENER ASSEMBLY



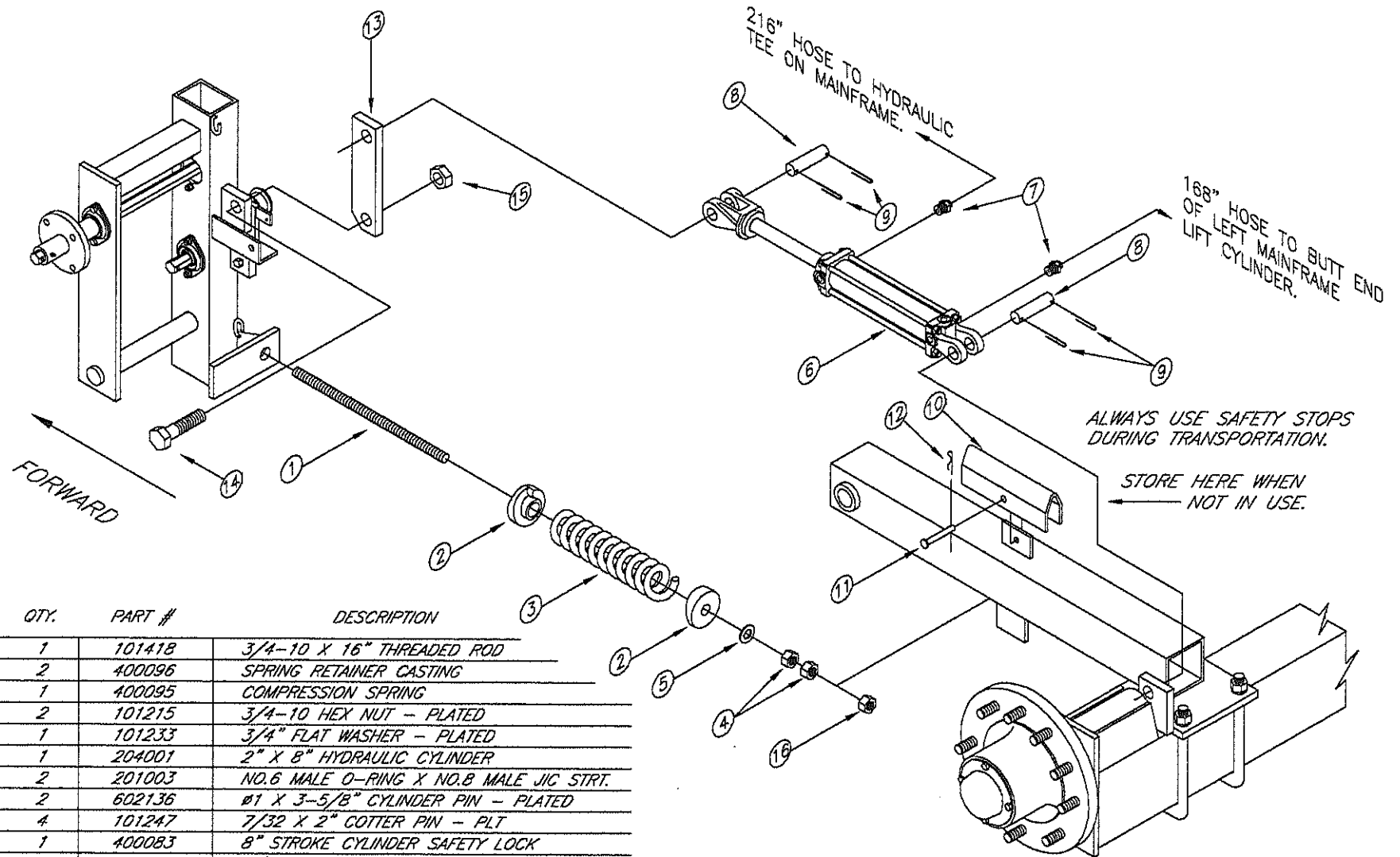
REF. #	QTY.	PART #	DESCRIPTION
1	1	801267	IDLER ARM ASSEMBLY (LONG)
2	1	400053	ROLLER BUSHING
3	1	400054	CHAIN ROLLER
4	1	101153	1/2-13 X 4" HEX BOLT - GRADE 5
5	1	101231	1/2" FLAT WASHER - PLATED
6	1	101240	1/2-13 SELF-LOCKING HEX NUT - PLATED
7	1	101129	3/8-16 X 3" HEX BOLT - PLATED
8	1	101229	3/8" FLAT WASHER - PLATED
9	1	101220	3/8" LOCK WASHER - PLATED
10	1	101211	3/8-16 HEX NUT - PLATED
11	1	101345	TIGHTENER EXTENSION SPRING

DOUBLE ROLLER CHAIN TIGHTENER ASSEMBLY



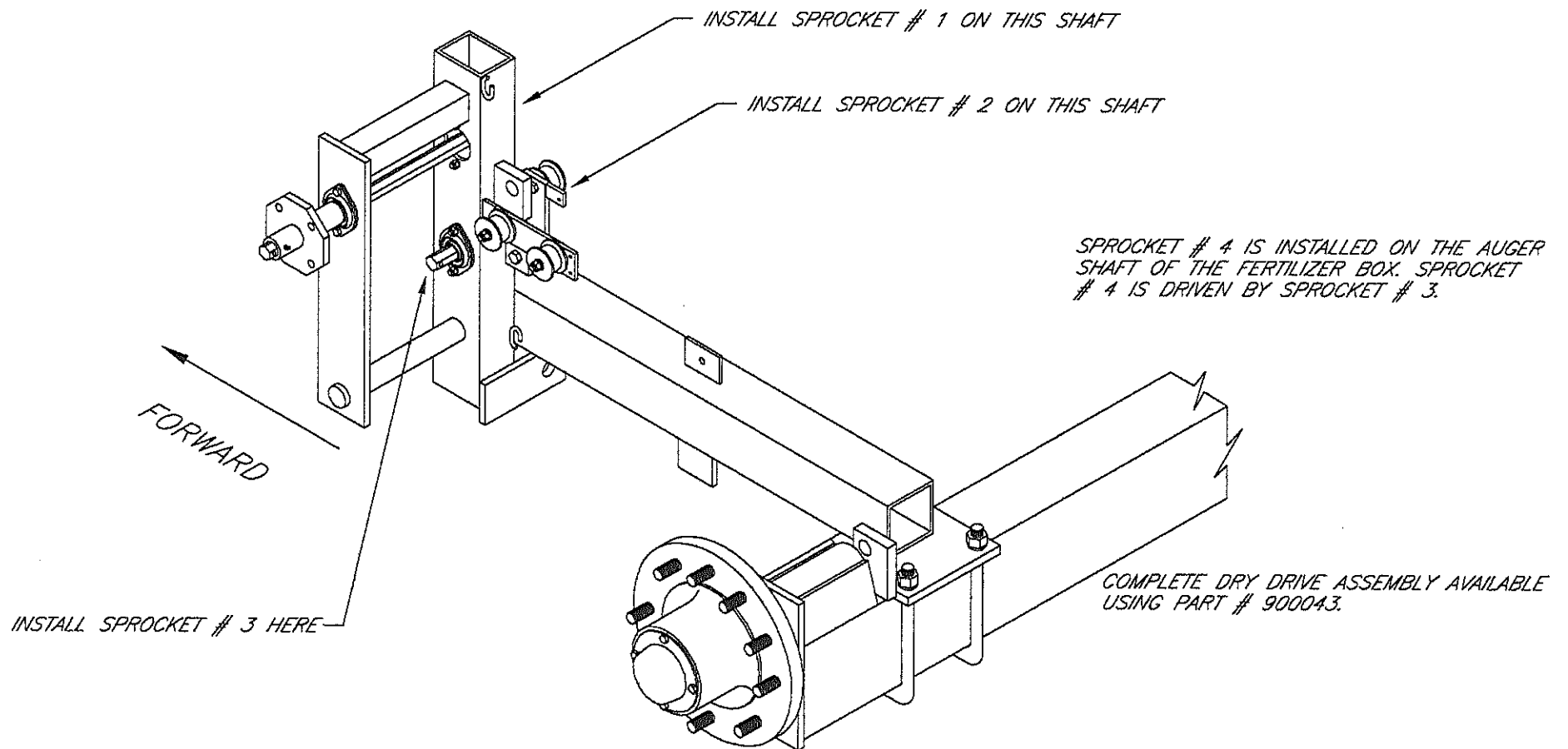
REF. #	QTY.	PART #	DESCRIPTION
1	1	801268	IDLER ARM ASSEMBLY (SHORT)
2	2	400053	ROLLER BUSHING
3	2	400054	CHAIN ROLLER
4	3	101231	1/2" FLAT WASHER - PLATED
5	1	101240	1/2-13 SELF-LOCKING HEX NUT - PLATED
6	2	101129	3/8-16 X 3" HEX BOLT - PLATED
7	2	101229	3/8" FLAT WASHER - PLATED
8	2	101220	3/8" LOCK WASHER - PLATED
9	2	101211	3/8-16 HEX NUT - PLATED
10	1	101345	TIGHTENER EXTENSION SPRING

HYDRAULIC CYLINDER & SPRING TENSIONING ASSEMBLY



REF. #	QTY.	PART #	DESCRIPTION
1	1	101418	3/4-10 X 16" THREADED ROD
2	2	400096	SPRING RETAINER CASTING
3	1	400095	COMPRESSION SPRING
4	2	101215	3/4-10 HEX NUT - PLATED
5	1	101233	3/4" FLAT WASHER - PLATED
6	1	204001	2" X 8" HYDRAULIC CYLINDER
7	2	201003	NO.6 MALE O-RING X NO.8 MALE JIC STRT.
8	2	602136	#1 X 3-5/8" CYLINDER PIN - PLATED
9	4	101247	7/32 X 2" COTTER PIN - PLT
10	1	400083	8" STROKE CYLINDER SAFETY LOCK
11	1	101257	3/8 X 3" LATCH PIN - PLT.
12	1	101258	3/32 X 1-1/2" - HAIR PIN - PLT.
13	1	400236	10 X 2-1/2 X 3/4" FLOATING DRIVE LINK
14	1	101197	1-8 X 3-1/2 HEX BOLT - PLATED
15	1	101461	1-8 TOPLOCK NUT - PLATED
16	1	101459	3/4-10 TOPLOCK NUT - PLATED

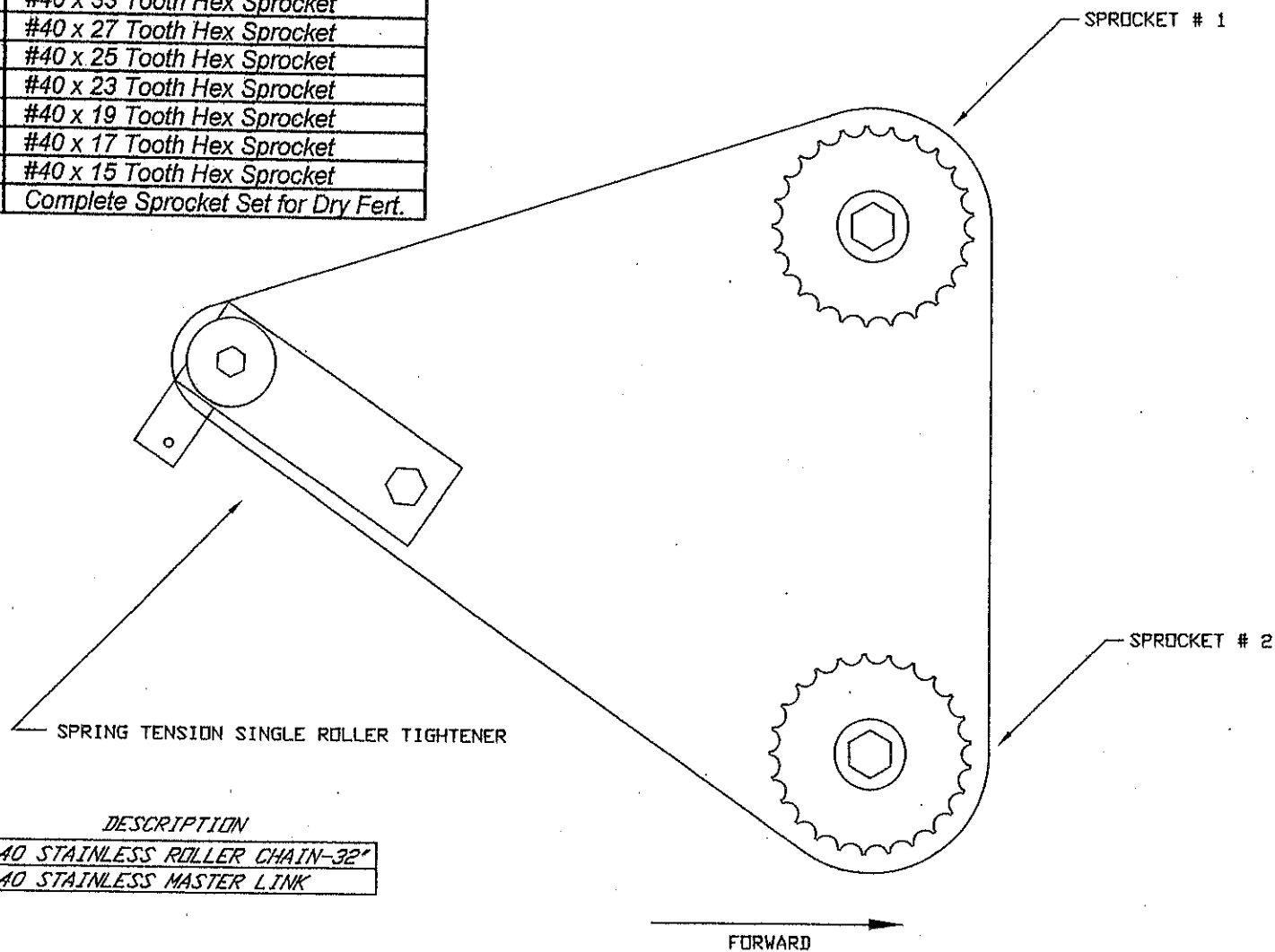
RATE CHANGE SPROCKET LOCATIONS



DRIVE CHAIN SCHEMATIC: PRIMARY DRIVE SHAFT TO COUNTERSHAFT

NO. 40 STAINLESS STEEL ROLLER CHAIN - 32' + MASTER LINK

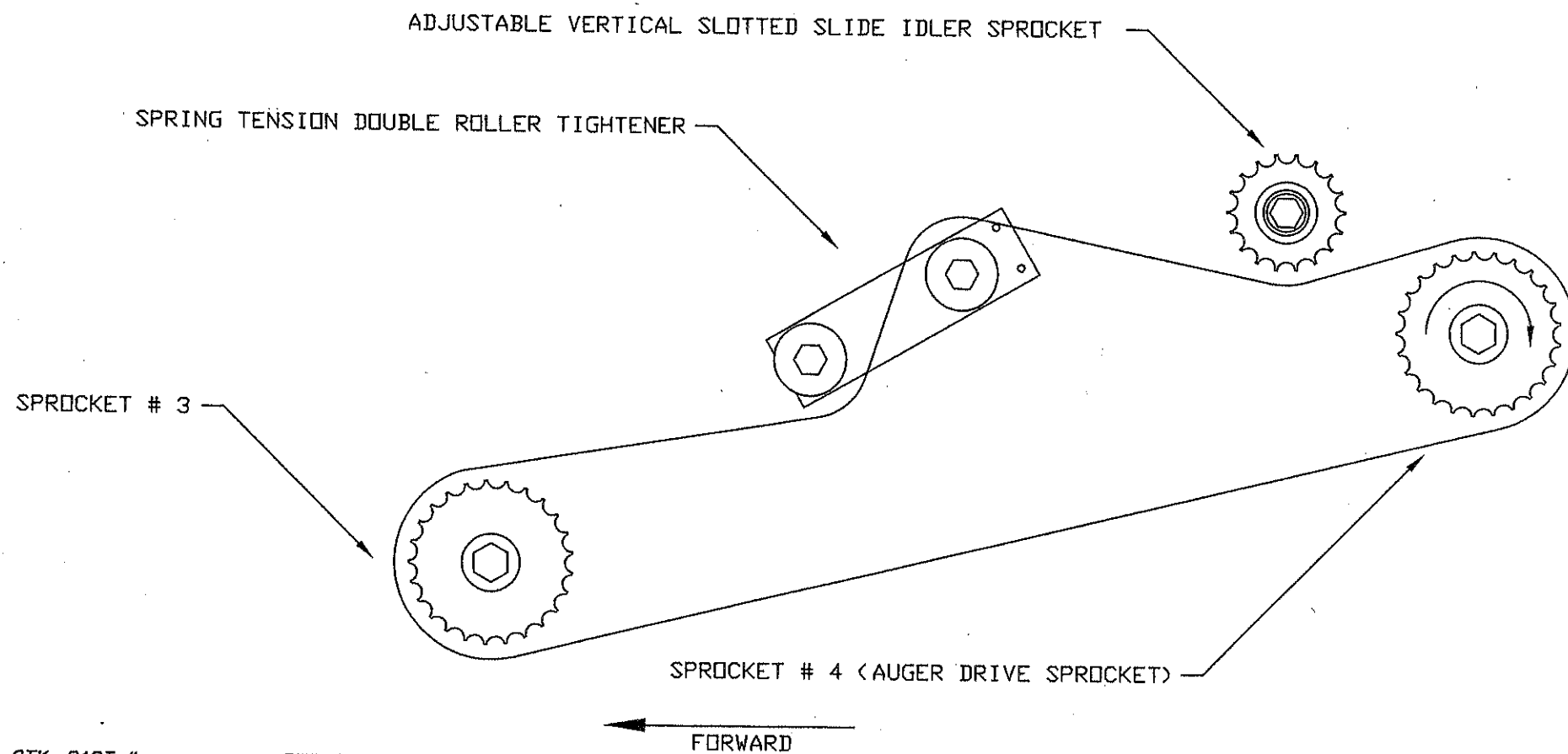
Ref. #	Qty.	Part #	Description
-	1	450047	#40 x 33 Tooth Hex Sprocket
-	1	450048	#40 x 27 Tooth Hex Sprocket
-	1	450049	#40 x 25 Tooth Hex Sprocket
-	1	450050	#40 x 23 Tooth Hex Sprocket
-	1	450051	#40 x 19 Tooth Hex Sprocket
-	1	450052	#40 x 17 Tooth Hex Sprocket
-	1	450053	#40 x 15 Tooth Hex Sprocket
-	1	450054	Complete Sprocket Set for Dry Fert.



QTY.	PART #	DESCRIPTION
1	101470	No. 40 STAINLESS ROLLER CHAIN-32'
1	101350	No. 40 STAINLESS MASTER LINK

DRIVE CHAIN SCHEMATIC: FERTILIZER AUGER TO COUNTERSHAFT

NO. 40 STAINLESS STEEL ROLLER CHAIN - 78' + MASTER LINK



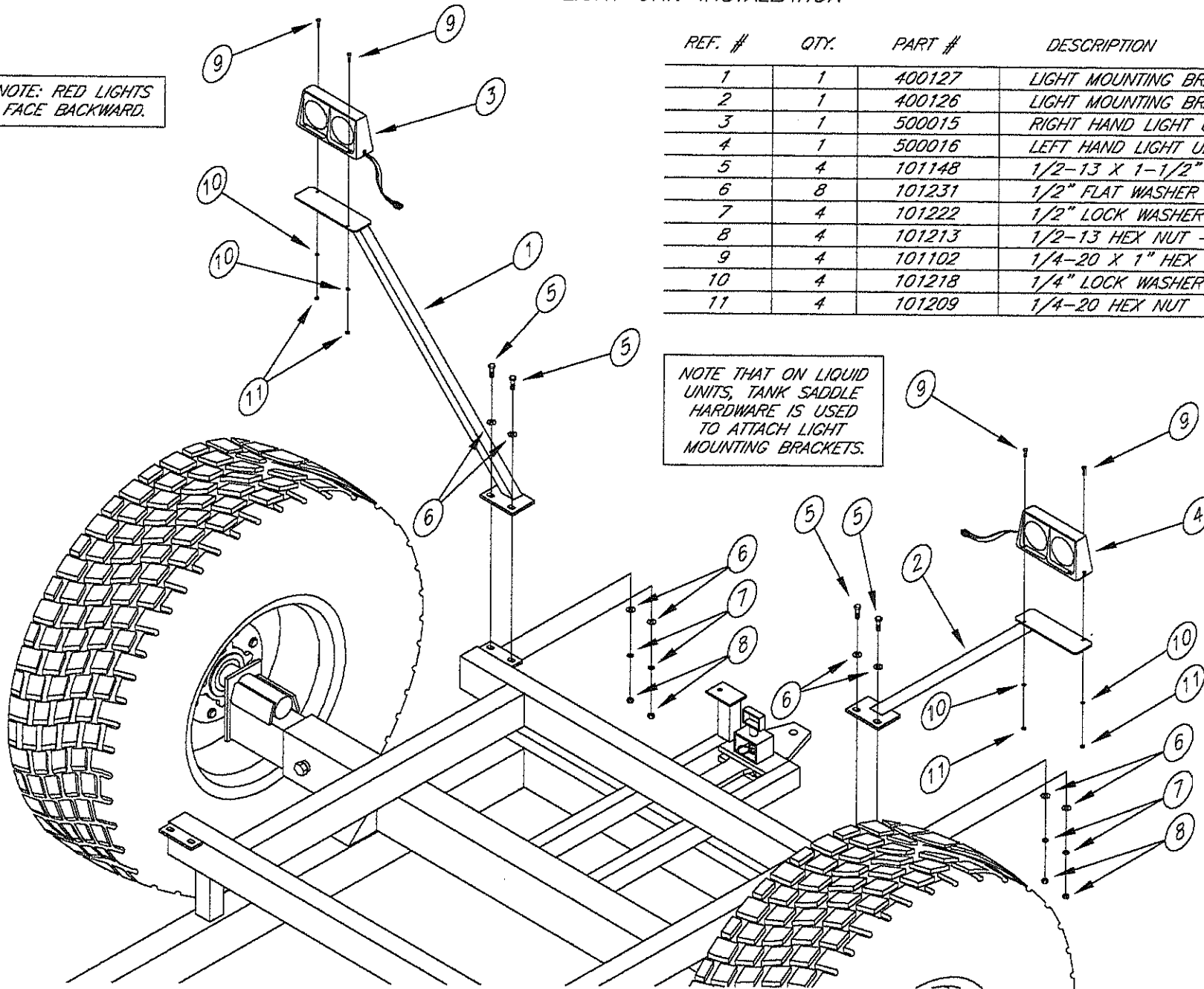
QTY.	PART #	DESCRIPTION
1	101348	No. 40 STAINLESS ROLLER CHAIN-78'
1	101350	No. 40 STAINLESS MASTER LINK

LIGHT UNIT INSTALLATION

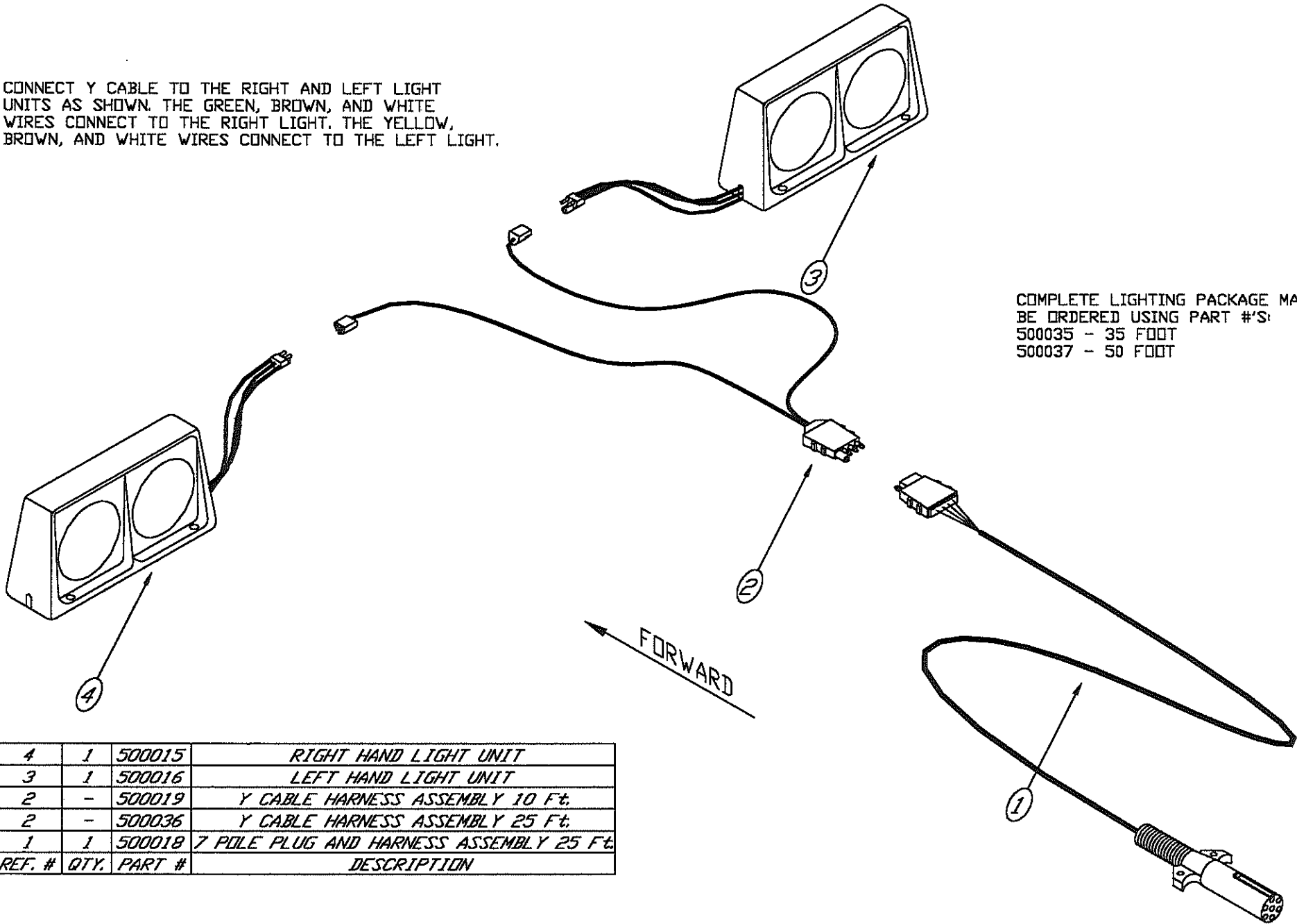
NOTE: RED LIGHTS
FACE BACKWARD.

REF. #	QTY.	PART #	DESCRIPTION
1	1	400127	LIGHT MOUNTING BRACKET (RIGHT)
2	1	400126	LIGHT MOUNTING BRACKET (LEFT)
3	1	500015	RIGHT HAND LIGHT UNIT
4	1	500016	LEFT HAND LIGHT UNIT
5	4	101148	1/2-13 X 1-1/2" BOLT - PLT.
6	8	101231	1/2" FLAT WASHER - PLT.
7	4	101222	1/2" LOCK WASHER - PLT.
8	4	101213	1/2-13 HEX NUT - PLT.
9	4	101102	1/4-20 X 1" HEX BOLT
10	4	101218	1/4" LOCK WASHER
11	4	101209	1/4-20 HEX NUT

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



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.

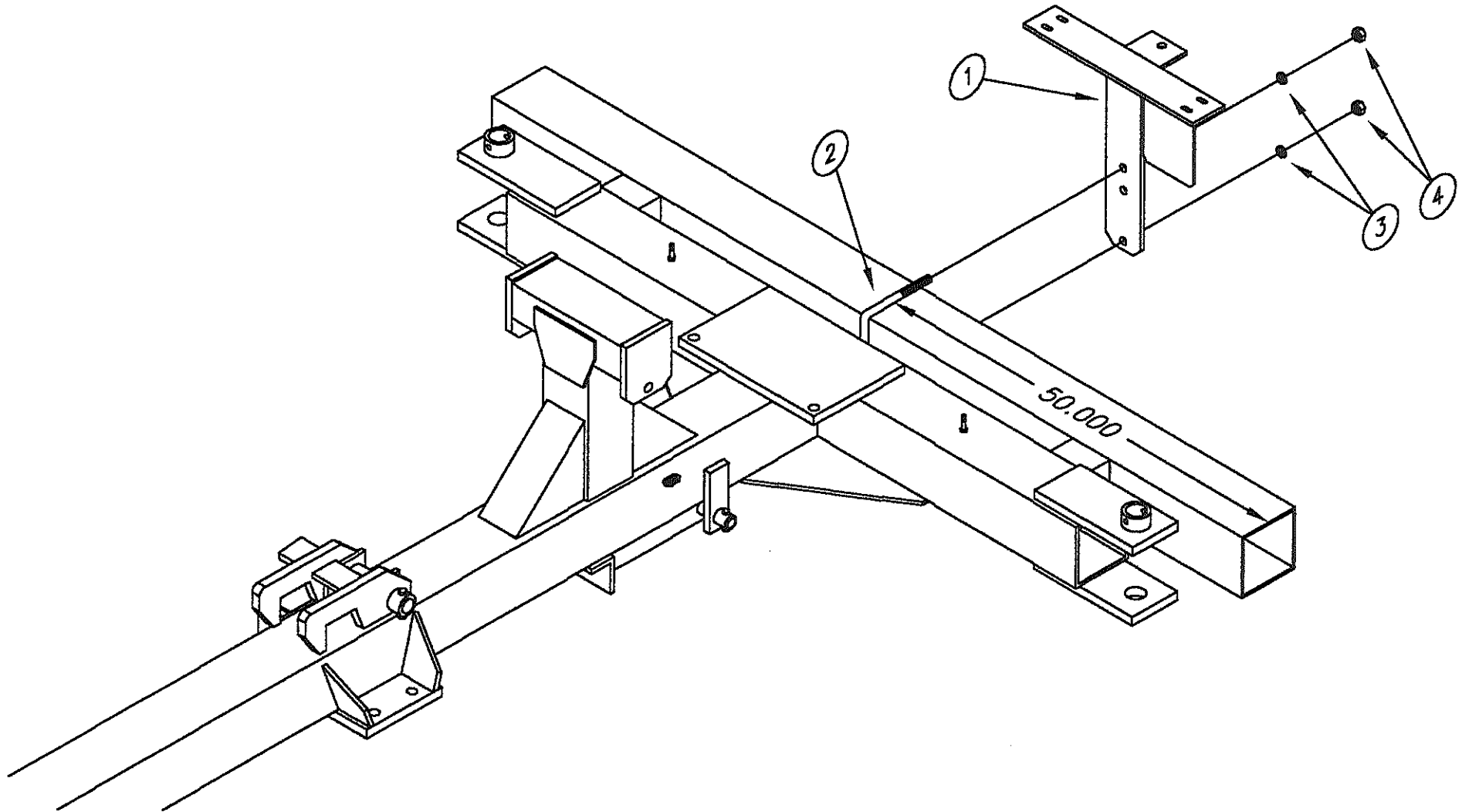


COMPLETE LIGHTING PACKAGE MAY
BE ORDERED USING PART #'S:
500035 - 35 FOOT
500037 - 50 FOOT

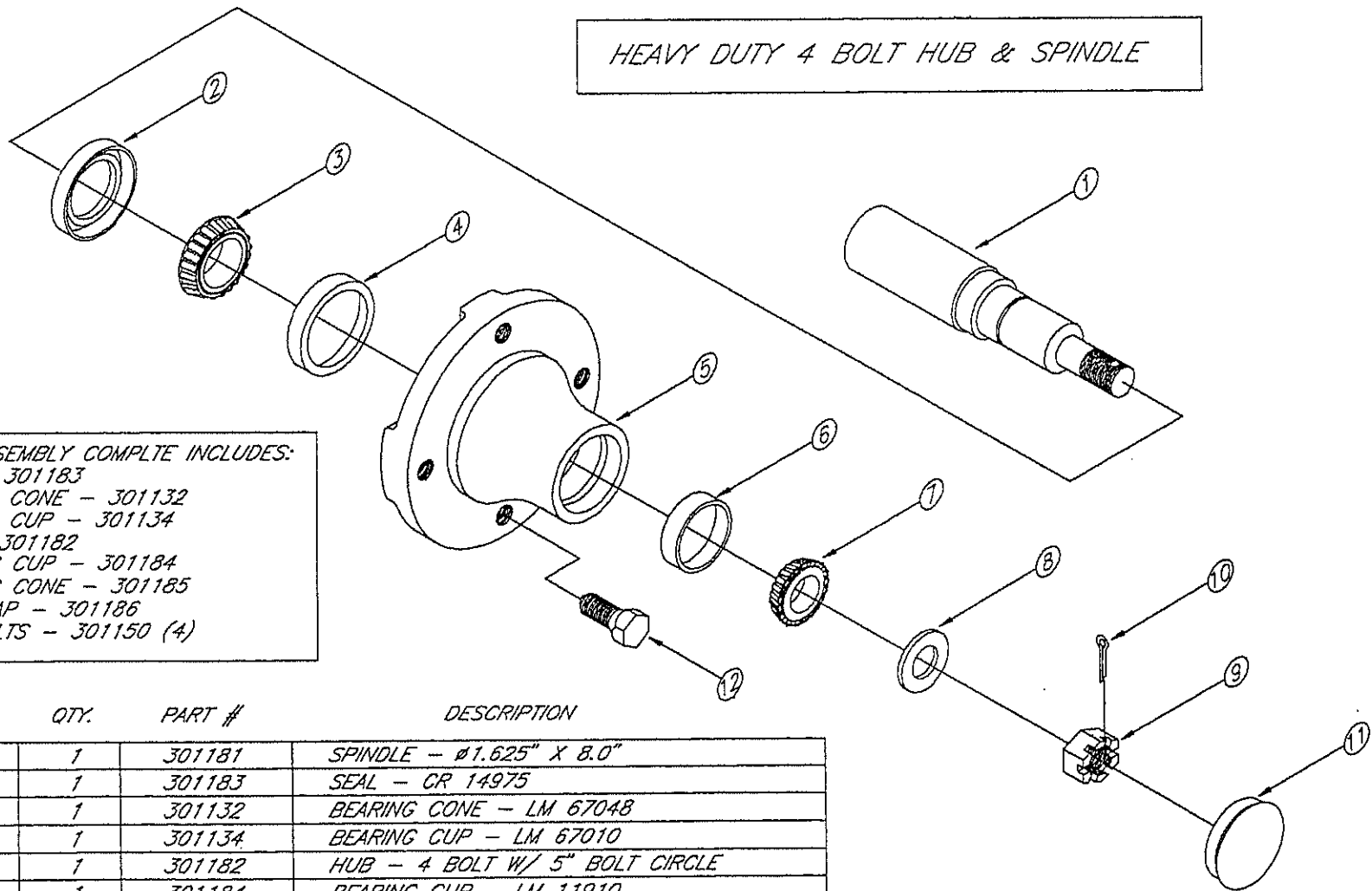
4	1	500015	RIGHT HAND LIGHT UNIT
3	1	500016	LEFT HAND LIGHT UNIT
2	-	500019	Y CABLE HARNESS ASSEMBLY 10 Ft.
2	-	500036	Y CABLE HARNESS ASSEMBLY 25 Ft.
1	1	500018	7 POLE PLUG AND HARNESS ASSEMBLY 25 Ft.
REF. #	QTY.	PART #	DESCRIPTION

REGULATOR BRACKET ASSEMBLY

REF. #	QTY.	PART #	DESCRIPTION
1	1	801271	NH3 DUAL REGULATOR BRACKET
2	1	101386	3/4-10 X 7 X 8-1/2" U-BOLT
3	3	101224	3/4" LOCK WASHER
4	3	101215	3/4-10 HEX NUT



HEAVY DUTY 4 BOLT HUB & SPINDLE



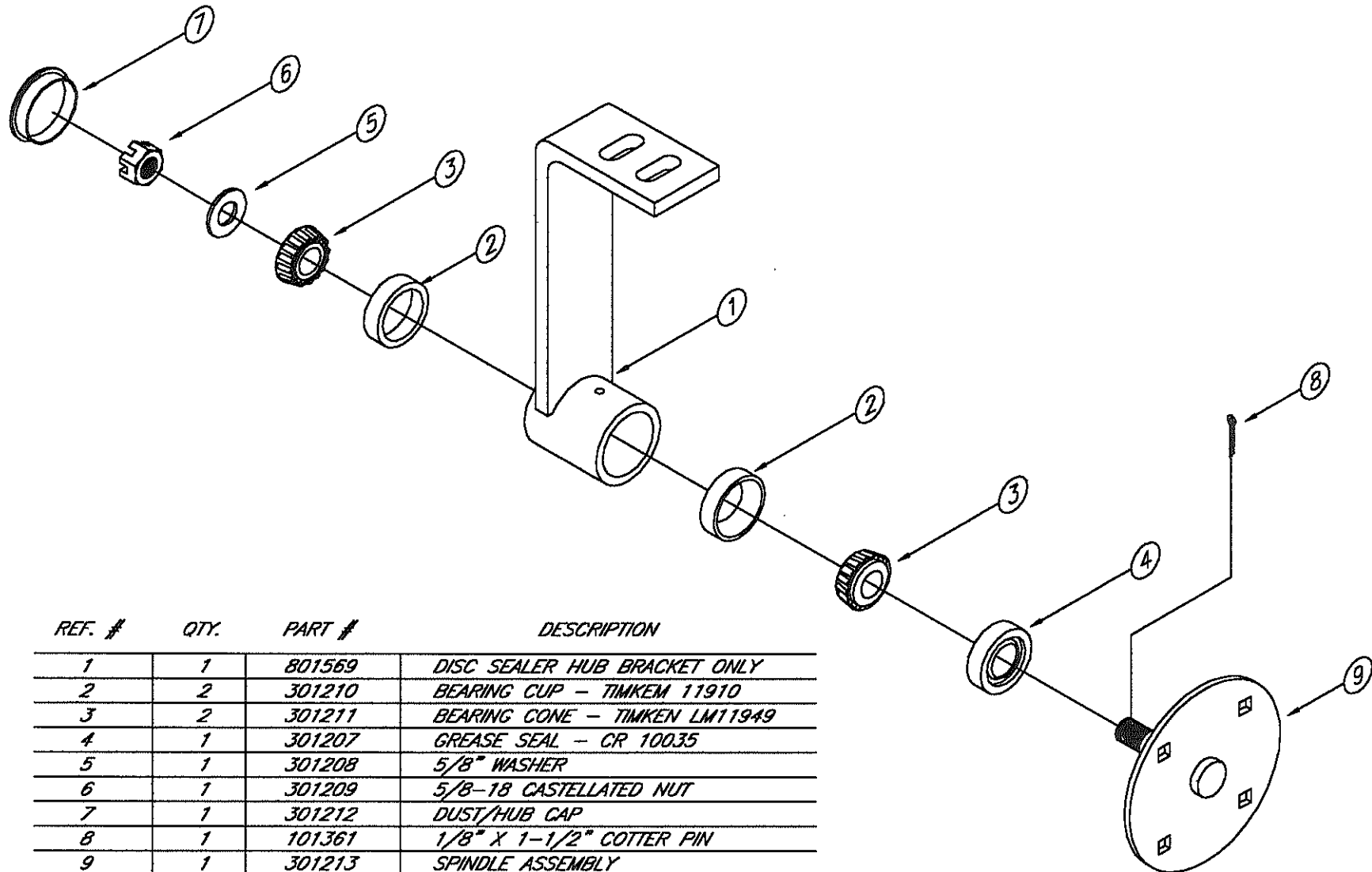
HUB ASSEMBLY COMPLETE INCLUDES:
 SEAL - 301183
 BEARING CONE - 301132
 BEARING CUP - 301134
 HUB - 301182
 BEARING CUP - 301184
 BEARING CONE - 301185
 DUST CAP - 301186
 LUG BOLTS - 301150 (4)

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

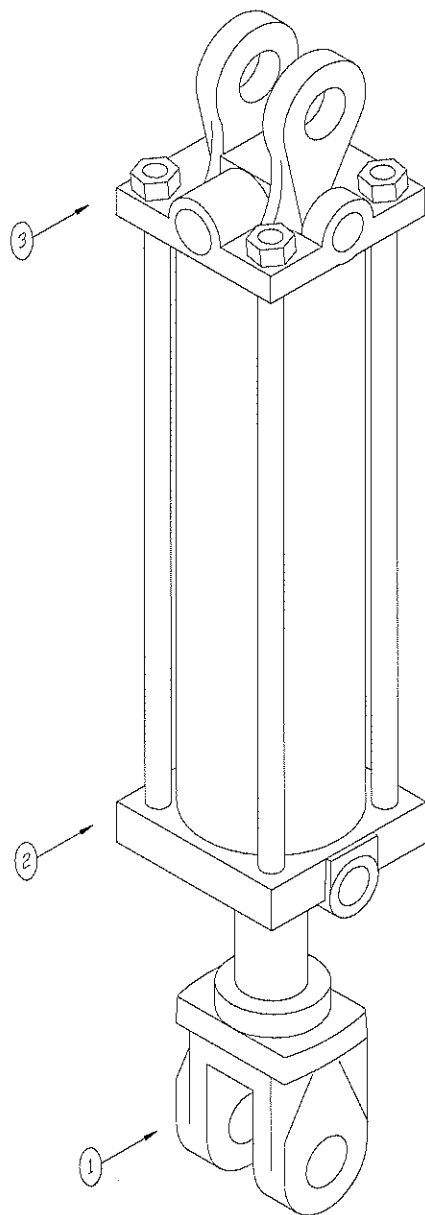
SPINDLE ASSEMBLY COMPLETE INCLUDES:
 SPINDLE - 301181
 WASHER - 301142
 CASTELLATED NUT - 301153
 COTTER PIN - 301152

REVISED 09/08/93

DISC SEALER HUB ASSEMBLY

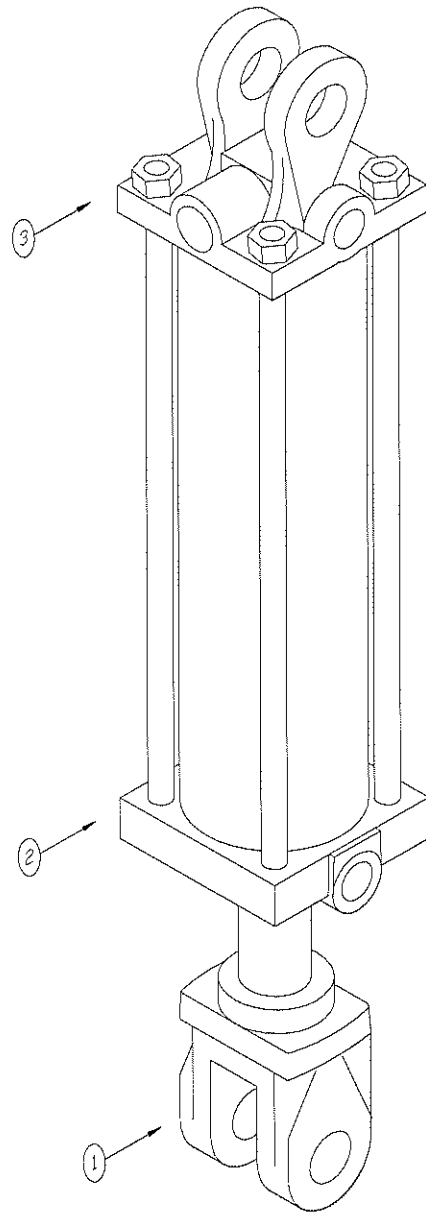


3-1/4 X 10" REPHASE CYLINDER



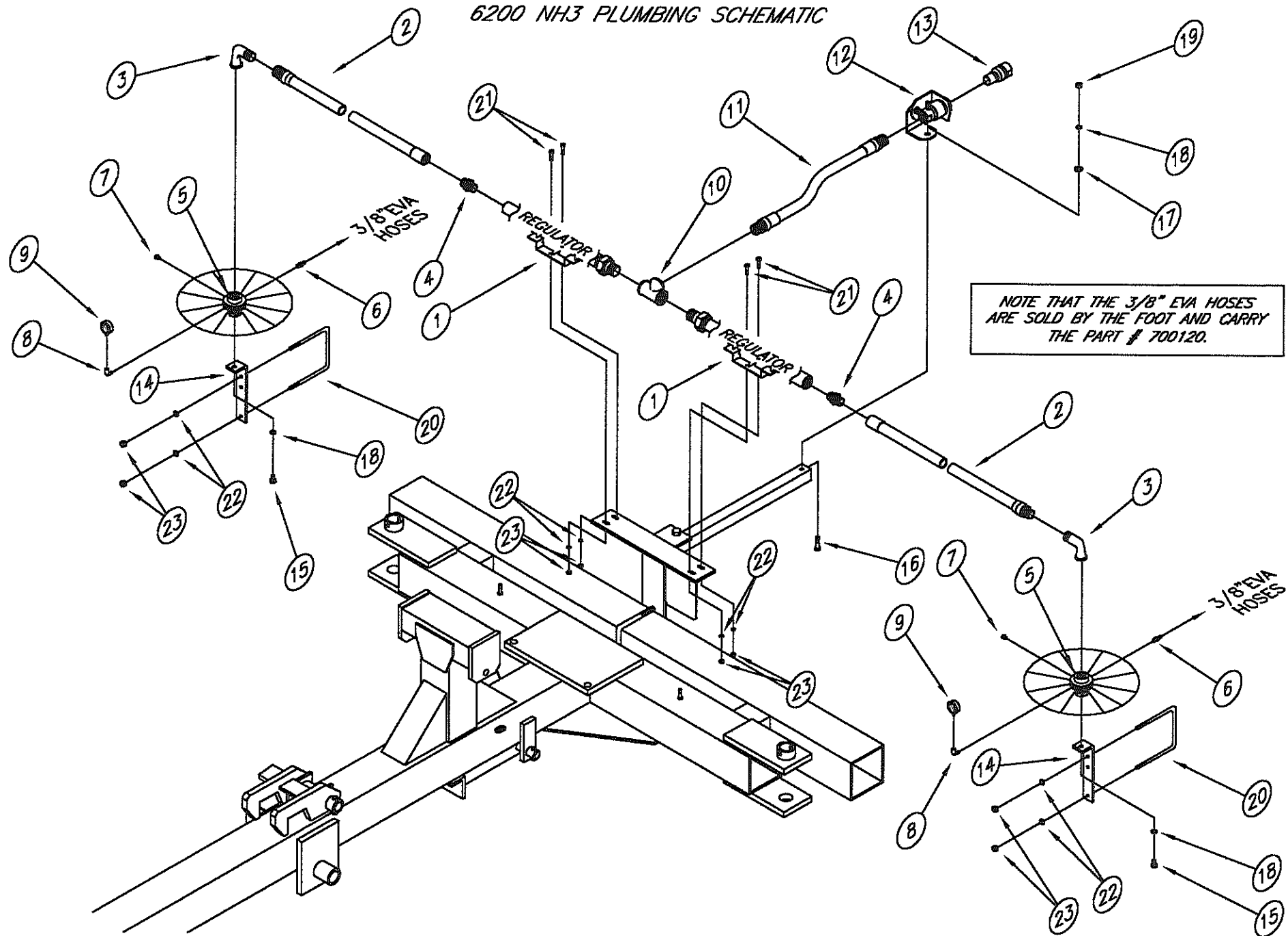
ITEM	QTY	PART#	DESCRIPTION
1	1	205181	ROD CLEVIS
2	1	205182	ROD CAP
3	1	205183	CLEVIS CAP
-	1	204015	3-1/4 X 10" REPHASE CYLINDER
-	1	205178	SEAL KIT

3-1/2 X 10" REPHASE CYLINDER



ITEM	QTY	PART#	DESCRIPTION
1	1	205184	ROD CLEVIS
2	1	205185	ROD CAP
3	1	205186	CLEVIS CAP
-	1	204016	3-1/2X 10" REPHASE CYLINDER
-	1	205179	SEAL KIT

6200 NH3 PLUMBING SCHEMATIC

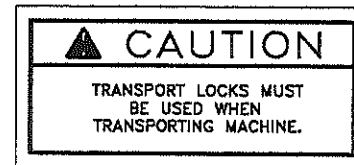
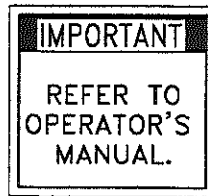
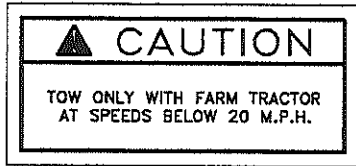
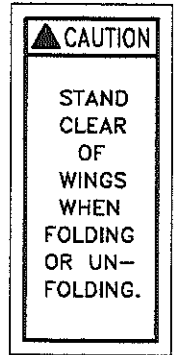
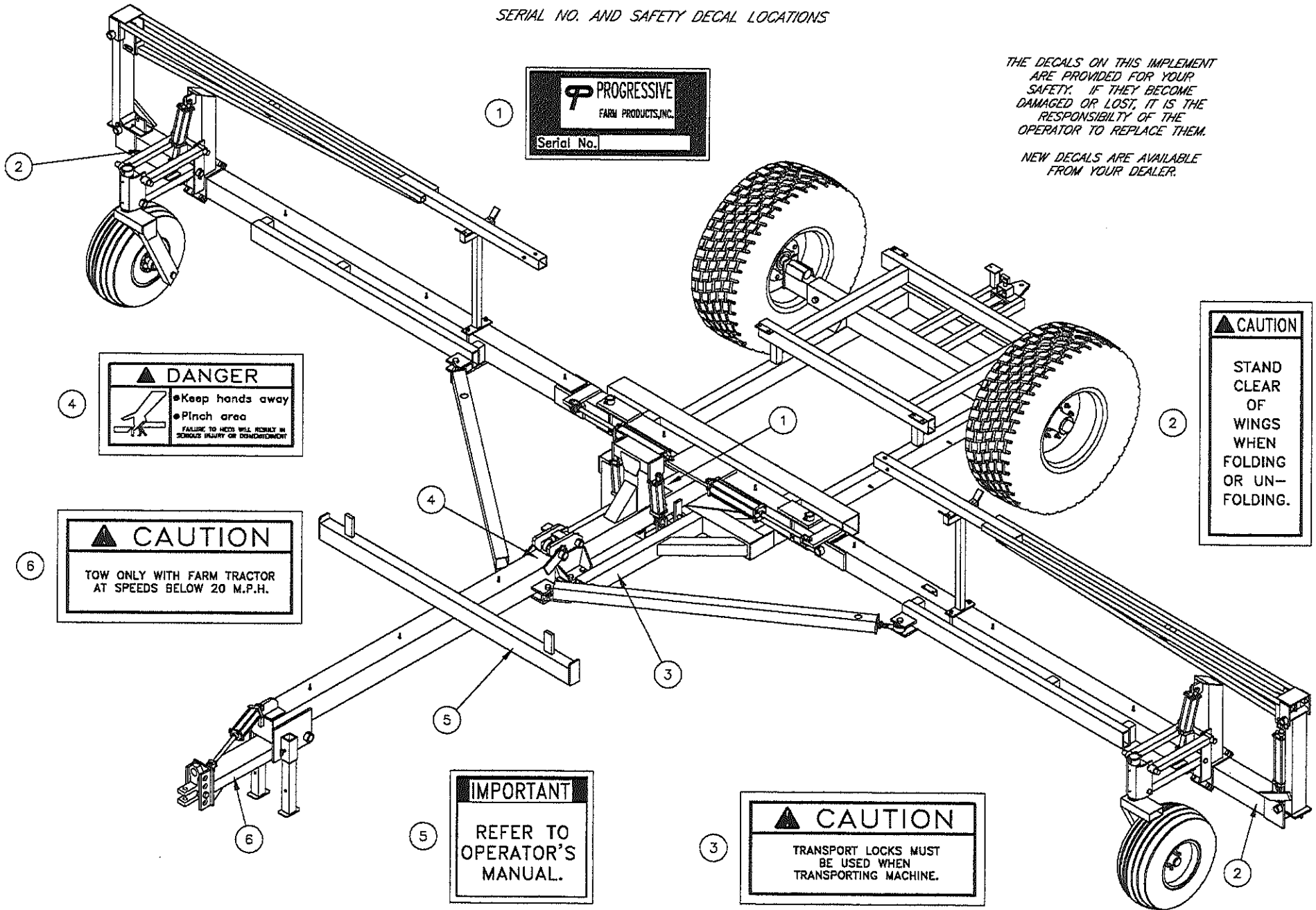


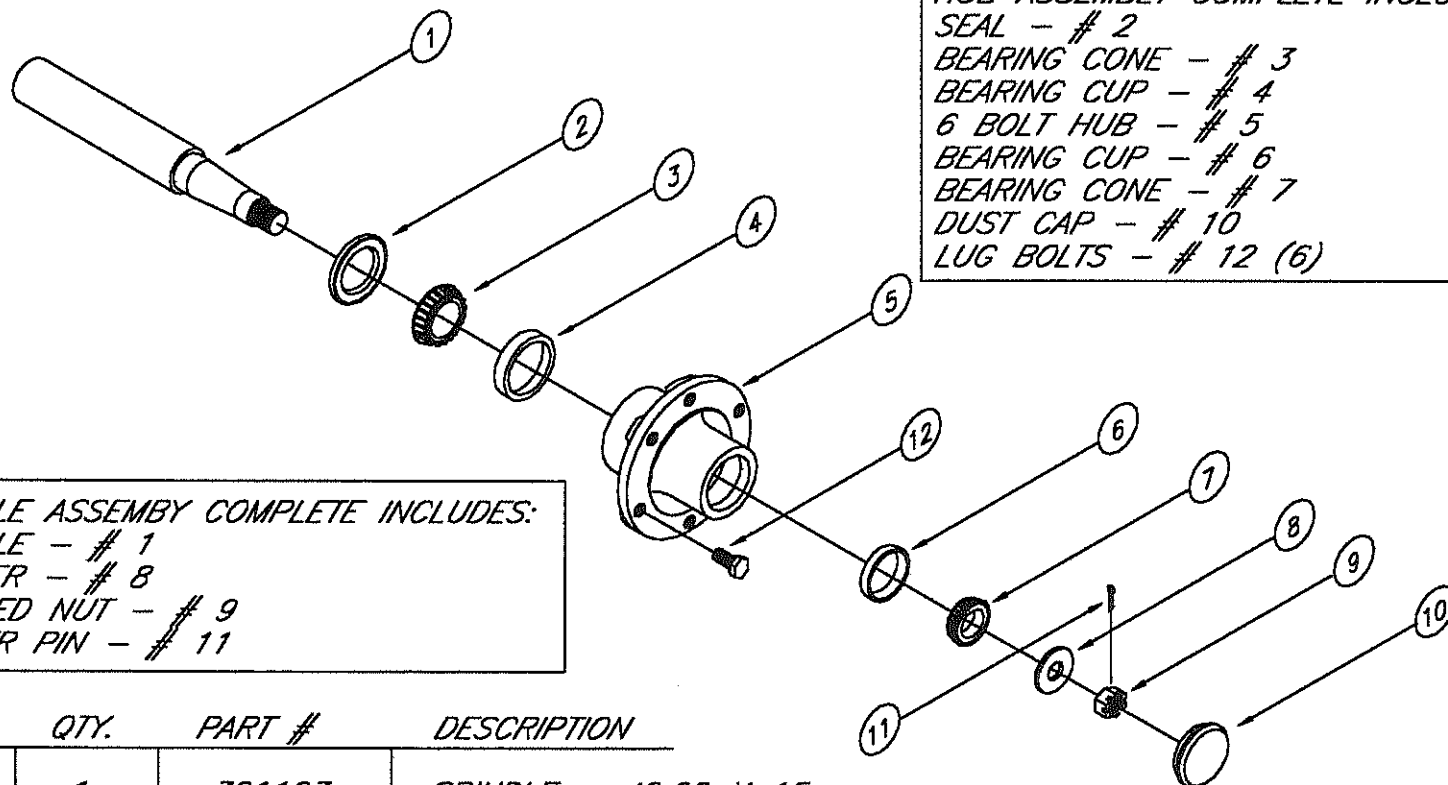
SERIAL NO. AND SAFETY DECAL LOCATIONS



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.





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

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

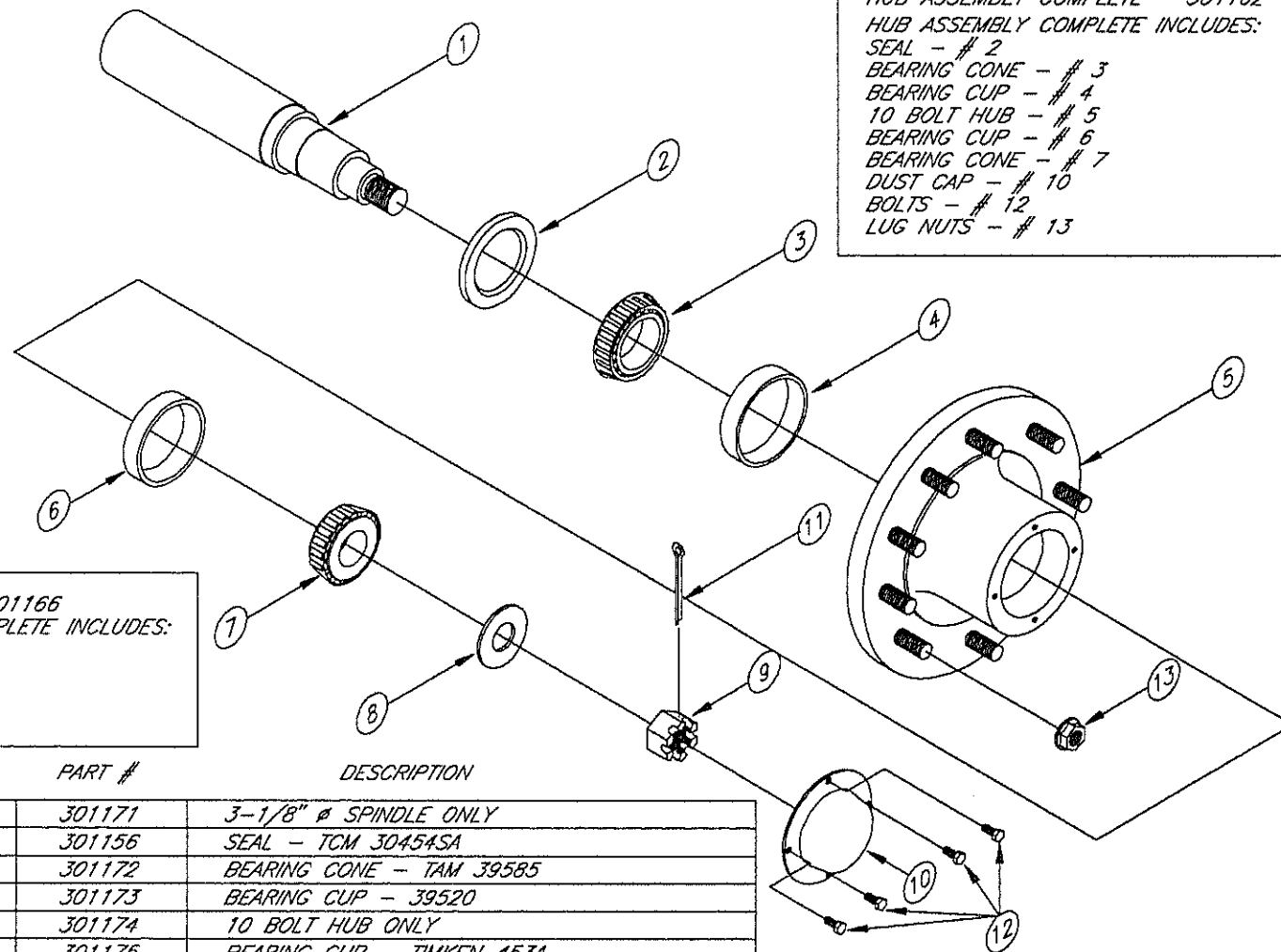
REF. #	QTY.	PART #	DESCRIPTION
1	1	301123	SPINDLE - $\varnothing 2.00 \times 15$
2	1	301154	SEAL - TCM 203062
3	1	301129	BEARING CONE - LM501349
4	1	301135	BEARING CUP - LM501310
5	1	301126	6 BOLT HUB - 6" BOLT CIRCLE
6	1	301134	BEARING CUP - LM67010
7	1	301132	BEARING CONE - LM67048
8	1	301157	WASHER - 2" O.D. $\times$ 13/16" I.D.
9	1	301153	SLOTTED NUT - 3/4 - 16UNF.
10	1	301143	DUST CAP
11	1	301152	COTTER PIN - 5/32 $\times$ 1 3/4
12	6	301151	LUG BOLT - 9/16 - 18UNF. $\times$ 1 1/8 LG.
13	1	301164	SPINDLE ASSEMBLY - COMPLETE
14	1	301160	HUB ASSEMBLY - COMPLETE

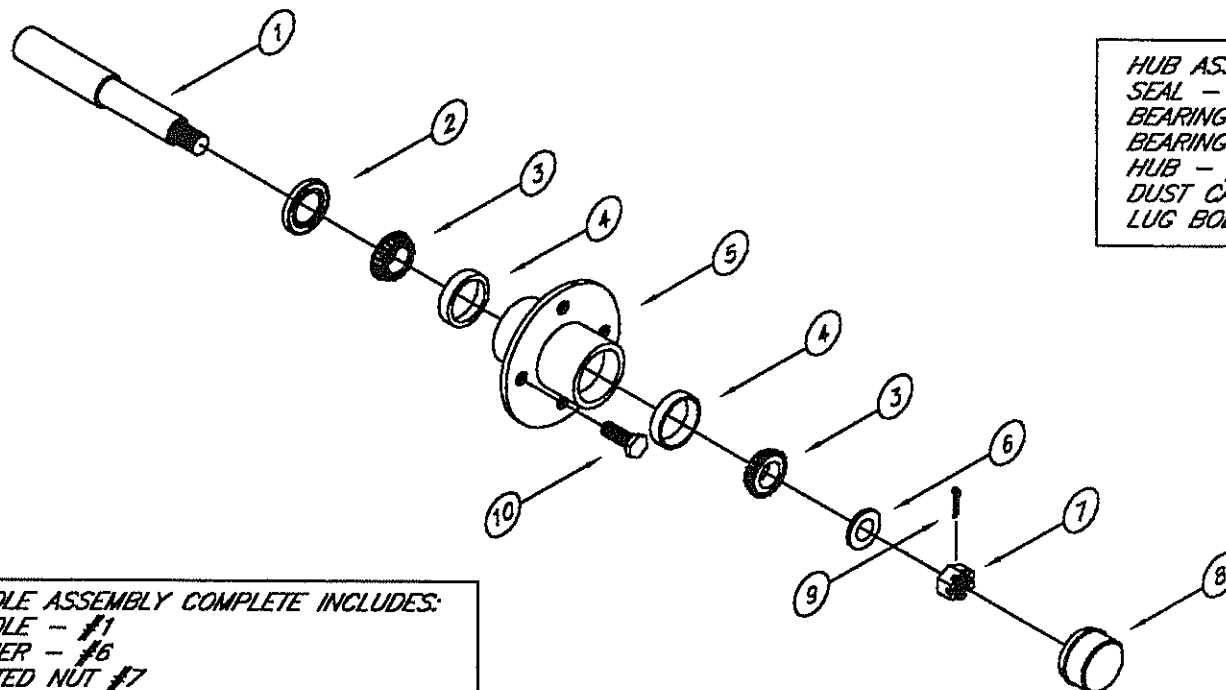
10 BOLT HUB & SPINDLE

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	3-1/8" Ø 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	301180	LUG NUT - 3/4-16





HUB ASSEMBLY COMPLETE INCLUDES:
 SEAL - #2
 BEARING CONES - #3 (2)
 BEARING CUPS - #4 (2)
 HUB - #5
 DUST CAP - #8
 LUG BOLTS - #10 (4)

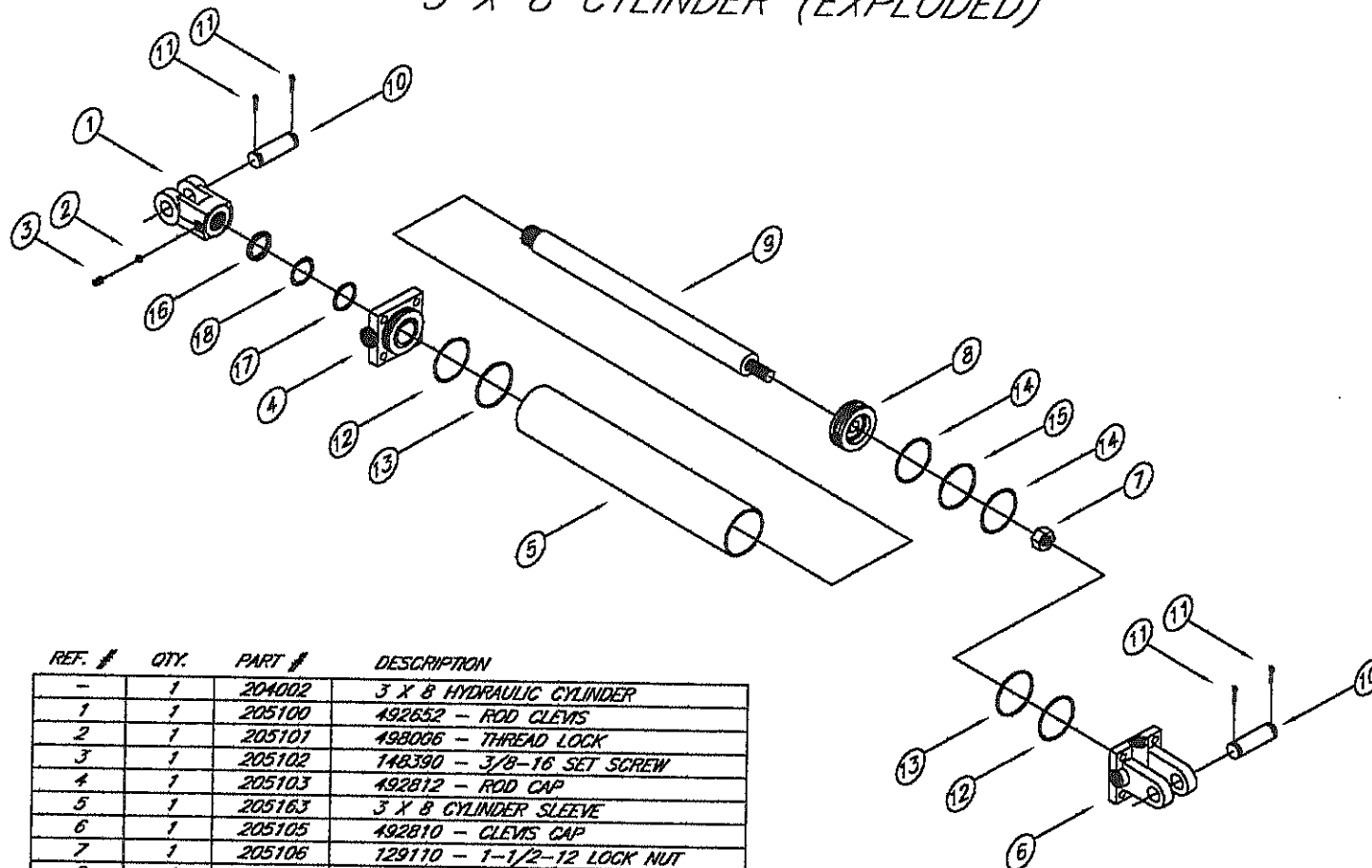
SPINDLE ASSEMBLY COMPLETE INCLUDES:
 SPINDLE - #1
 WASHER - #6
 SLOTTED NUT #7
 COTTER PIN - #9

TIGHTEN THE SLOTTED NUT SUFFICIENTLY TO "LOAD" THE BEARINGS, THEN BACK OFF ONE SLOT. THE HUB SHOULD TURN FREELY, BUT HAVE NO END PLAY.

REF. #	QTY.	PART #	DESCRIPTION
1	1	301145	SPINDLE - #1.25" X 8.5"
2	1	301148	SEAL - CR 12437
3	2	301133	BEARING CONE - L44643
4	2	301138	BEARING CUP - L44610
5	1	301146	4 BOLT HUB - 4" BOLT CIRCLE
6	1	301142	WASHER - 1-1/2" O.D. X 13/16" T.D.
7	1	301153	SLOTTED NUT - 3/4-16 UNF
8	1	301149	DUST CAP
9	1	301152	COTTER PIN - 5/32" X 1-3/4"
10	4	301150	LUG BOLT - 1/2-20 UNF X 1"
11	1	301163	SPINDLE ASSEMBLY - COMPLETE
12	1	301159	HUB ASSEMBLY - COMPLETE

REVISED: 2/21/00

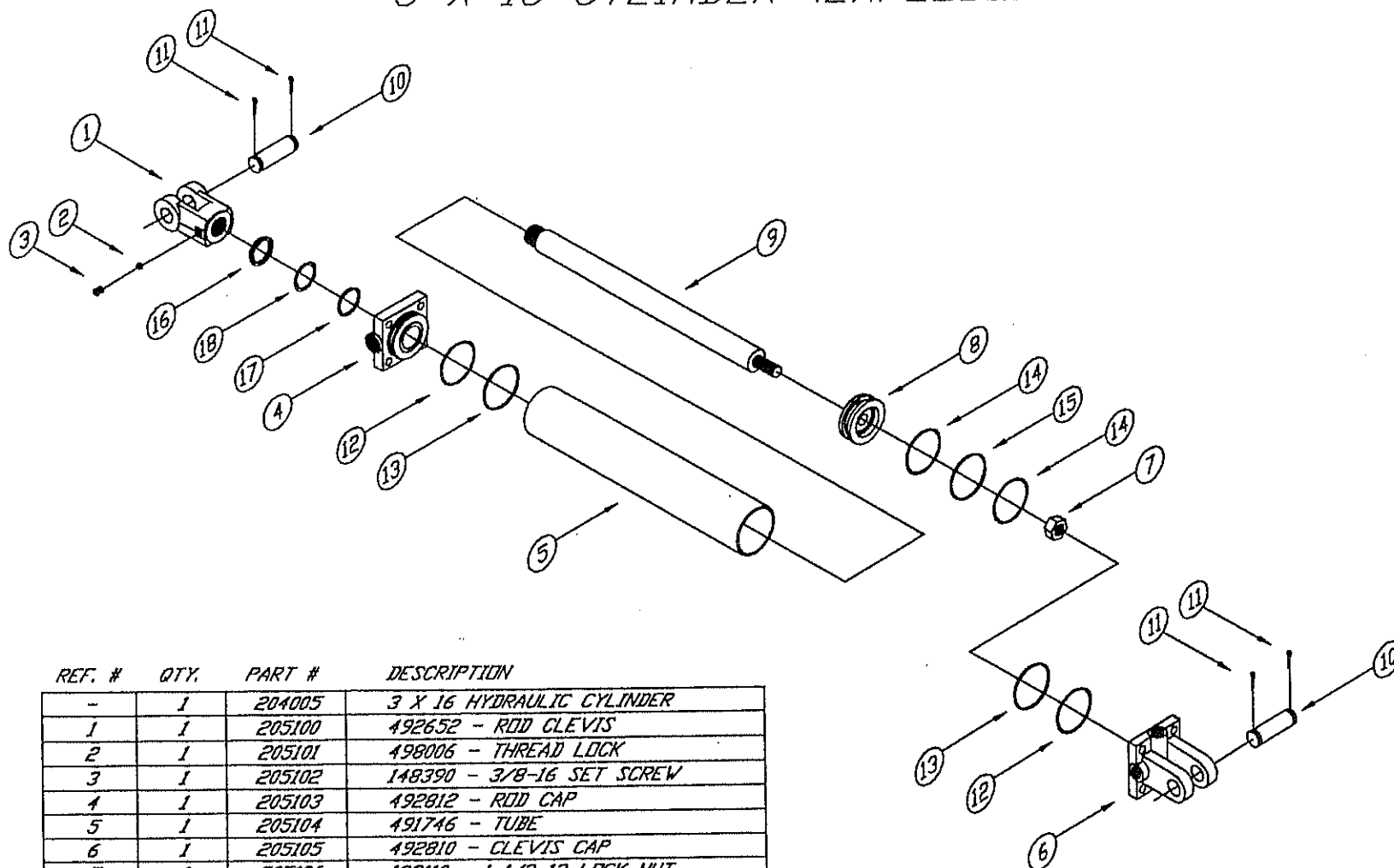
LION 2500 TL SERIES 3 X 8 CYLINDER (EXPLODED)



REF. #	QTY.	PART #	DESCRIPTION
-	1	204002	3 X 8 HYDRAULIC CYLINDER
1	1	205100	492652 - ROD CLEVIS
2	1	205101	498066 - THREAD LOCK
3	1	205102	148390 - 3/8-16 SET SCREW
4	1	205103	492812 - ROD CAP
5	1	205163	3 X 8 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	3 X 8 CYLINDER ROD
10	2	602136	#1" X 3-5/8" PLATED CYLINDER PIN
11	4	101266	#3/16" 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

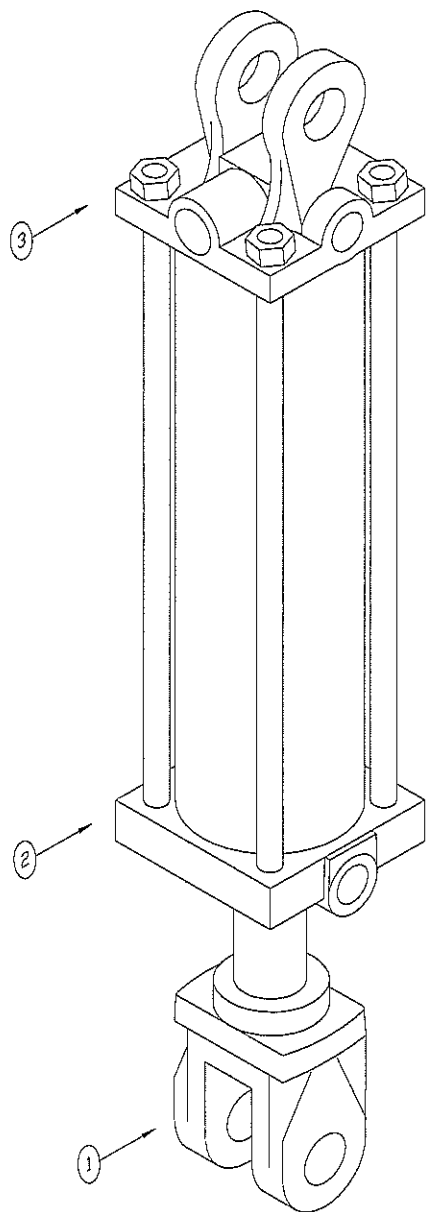
LION 2500 TL SERIES 3 X 16 CYLINDER (EXPLODED)



REF. #	QTY.	PART #	DESCRIPTION
-	1	204005	3 X 16 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	205104	491746 - TUBE
6	1	205105	492810 - CLEVIS CAP
7	1	205106	129110 - 1-1/2-12 LOCK NUT
8	1	205107	492520 - PISTON
9	1	205108	492873 - ROD
10	2	602136	#1" X 3-5/8" PLATED CYLINDER PIN
11	4	101266	#3/16" HAIRPIN
12	2	205017	#40 O-RING B.U.
13	2	205018	#10 O-RING
14	2	205019	#14 O-RING B.U.

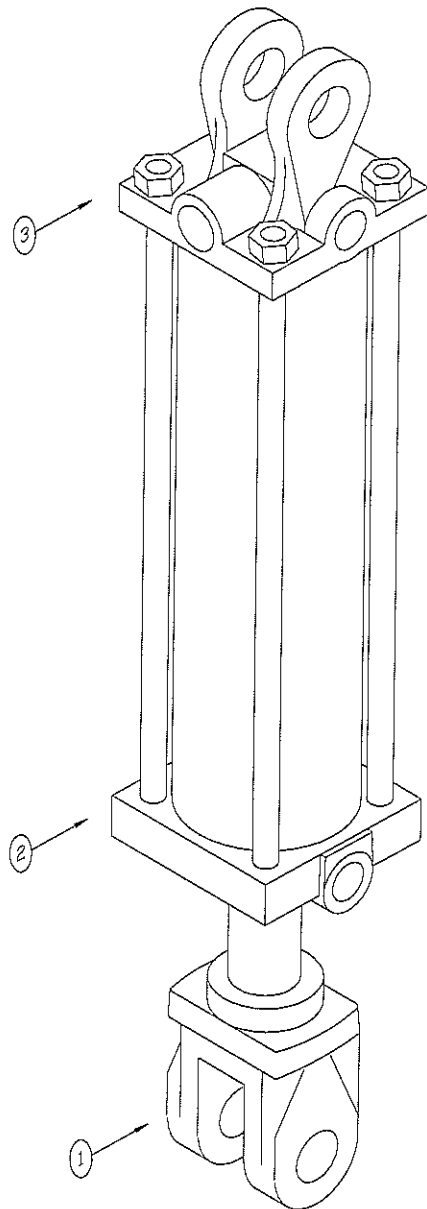
REF. #	QTY.	PART #	DESCRIPTION
15	1	205020	#12 O-RING
16	1	205021	#13 WIPER
17	1	205022	#11 ROD O-RING
18	1	205023	#24 ROD B.U.
-	1	205016	SEAL KIT COMPLETE

3-1/4 X 10" REPHASE CYLINDER



ITEM	QTY	PART#	DESCRIPTION
1	1	205181	ROD CLEVIS
2	1	205182	ROD CAP
3	1	205183	CLEVIS CAP
-	1	204015	3-1/4 X 10" REPHASE CYLINDER
-	1	205178	SEAL KIT

3-1/2 X 10" REPHASE CYLINDER



ITEM	QTY	PART#	DESCRIPTION
1	1	205184	ROD CLEVIS
2	1	205185	ROD CAP
3	1	205186	CLEVIS CAP
-	1	204016	3-1/2X 10" REPHASE CYLINDER
-	1	205179	SEAL KIT

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.**