



**PARTS MANUAL  
FOR  
HAGIE STS NITROGEN TOOLBAR**

**HAGIE MANUFACTURING COMPANY**

721 CENTRAL AVENUE WEST  
BOX 273  
CLARION, IOWA 50525-0273

COVERS MACHINE SERIAL NUMBERS:

NTB 17001-17500  
HSTB 17001-17500

10-16 493709  
01-18

To obtain the most current parts manual for your machine, please visit [www.hagie.com](http://www.hagie.com).

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## NITROGEN TOOLBAR IDENTIFICATION

Each Hagie toolbar is identified by means of a frame serial number. This serial number denotes the model, the year in which it was built, and the number of the toolbar. To ensure prompt, efficient service when ordering parts or requesting service repairs from your local John Deere dealer, record the serial number in the space provided below.

**NOTE:** Reference to left hand and right hand used throughout this manual refers to the position when seated in the operator's seat facing forward.

*This manual is not intended to be a complete guide for machine maintenance and repairs. If you are not properly trained to perform service on this machine, contact your local John Deere dealer for assistance. Improper maintenance or repair may result in property damage, personal injury, or death.*

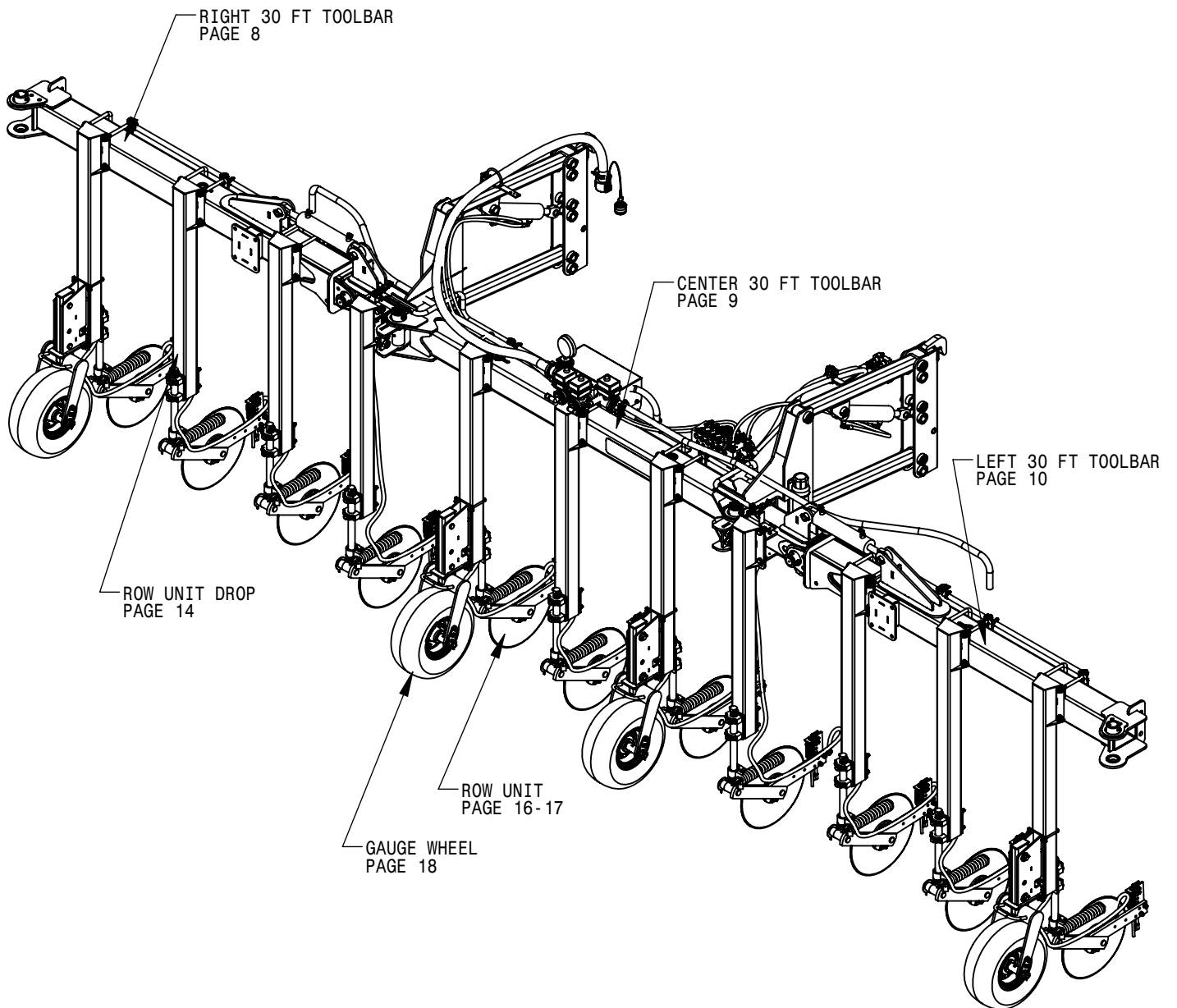
NITROGEN TOOLBAR SERIAL NUMBER

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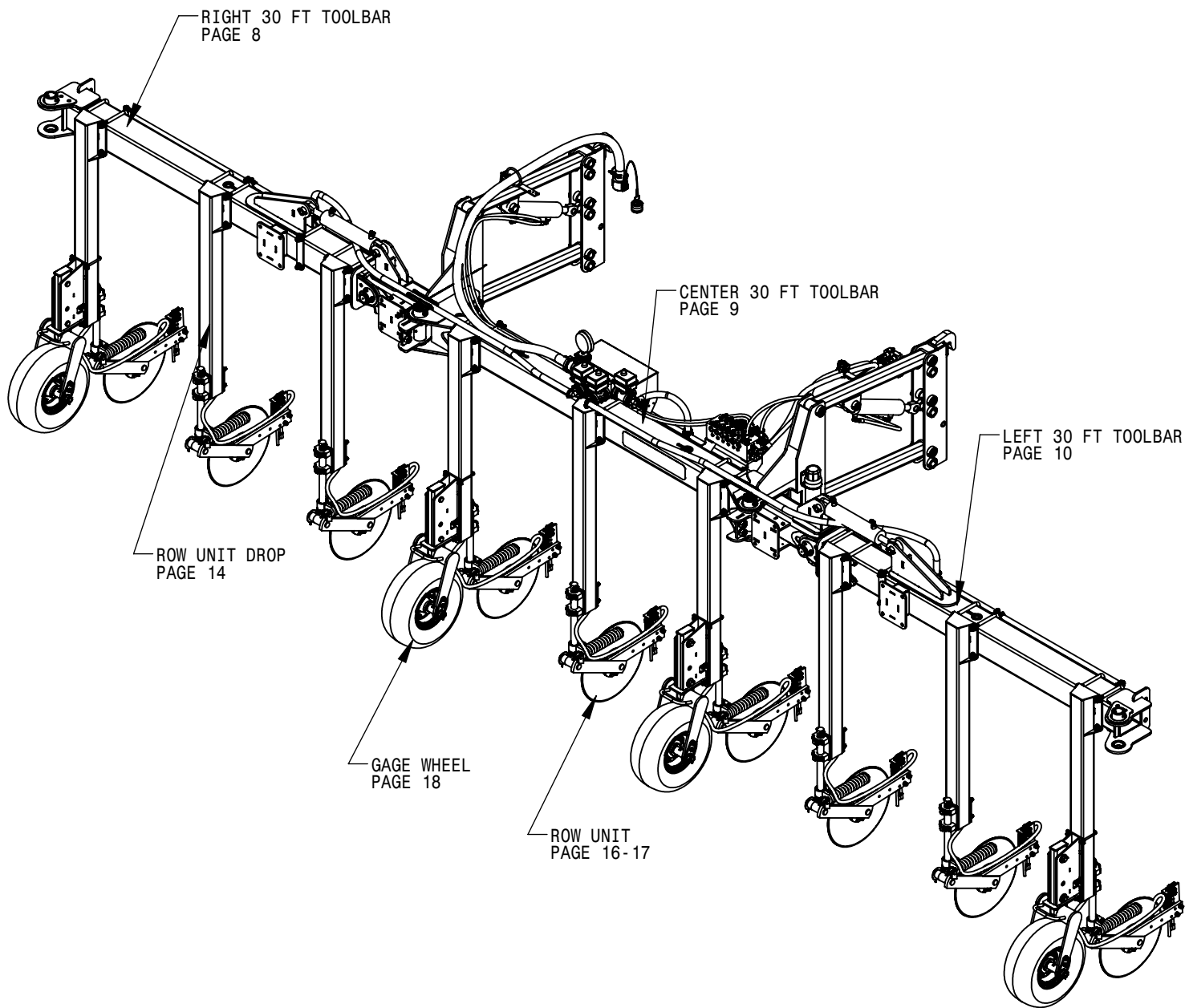
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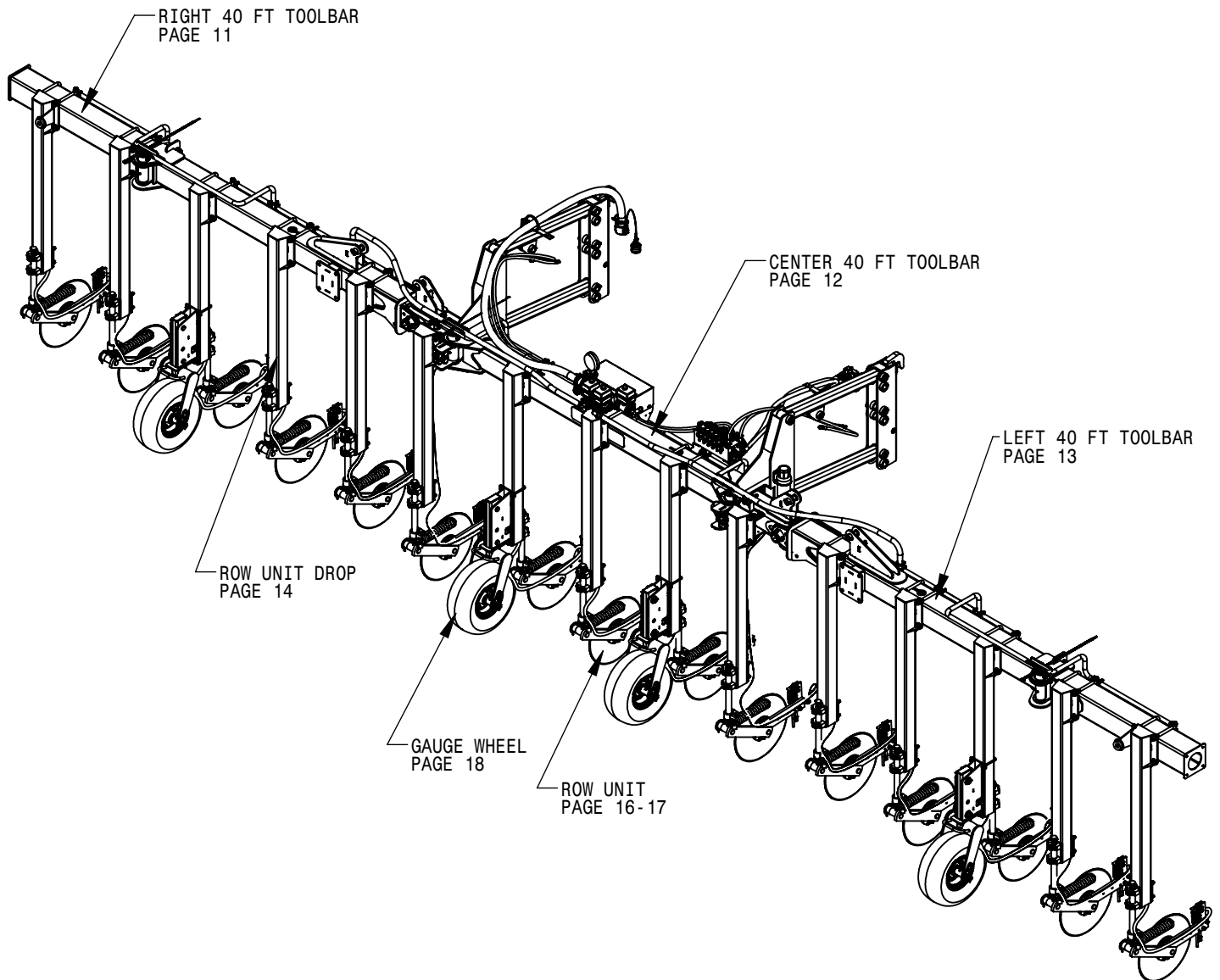
30 FT TOOLBAR  
12 ROW 30" SPACING



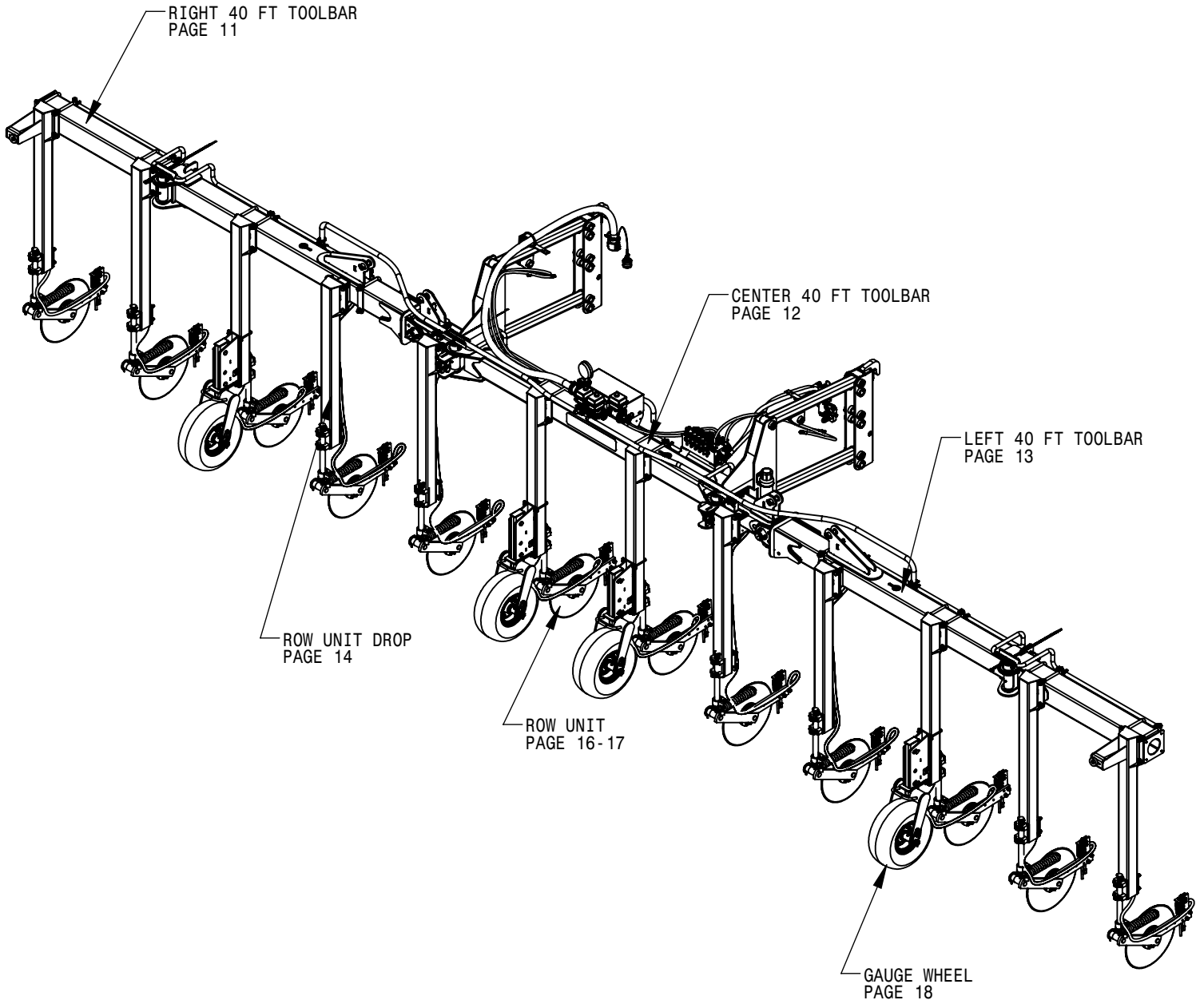
30 FT TOOLBAR  
18 ROW SKIP 20" SPACING

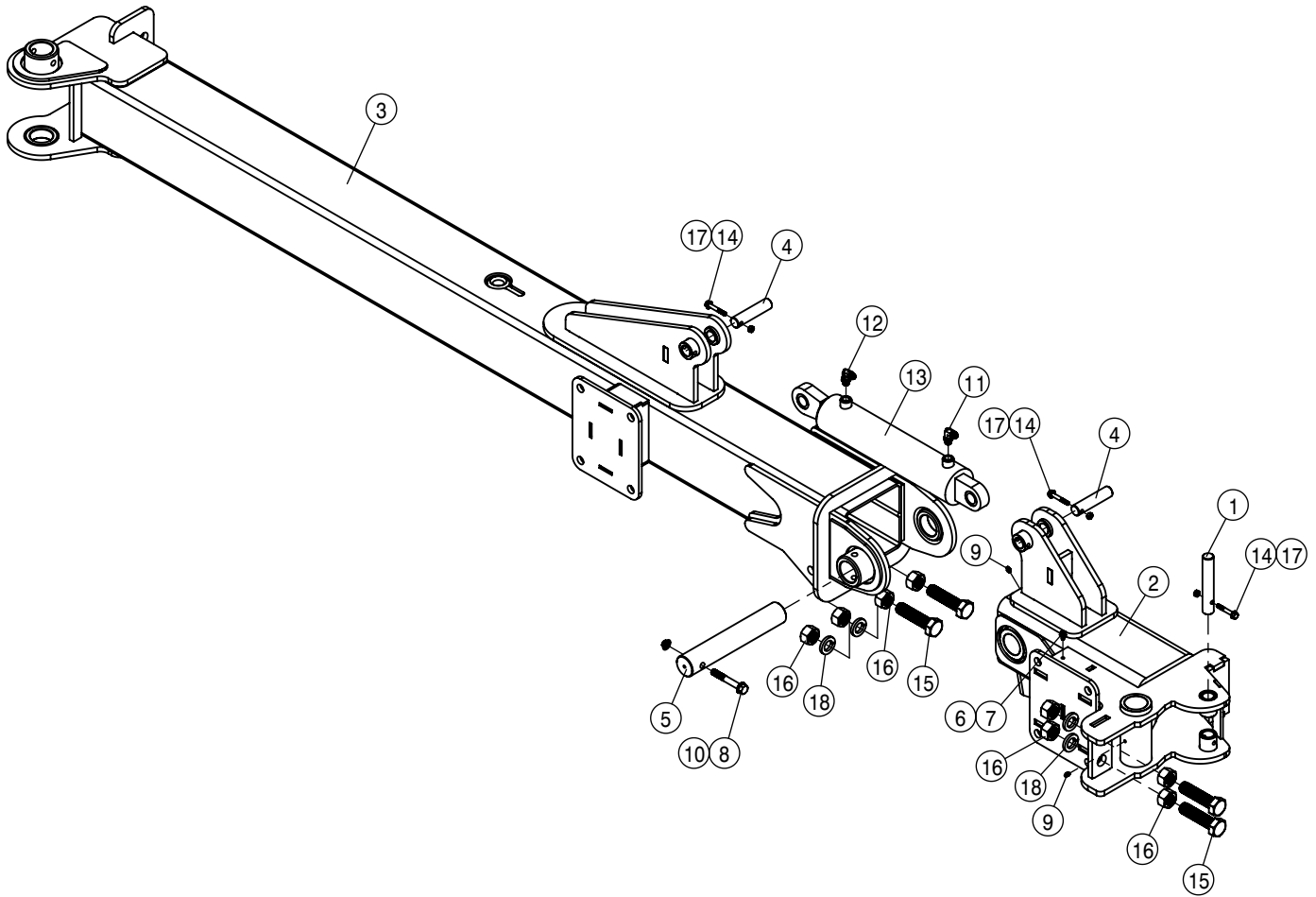


40 FT TOOLBAR  
16 ROW 30" SPACING



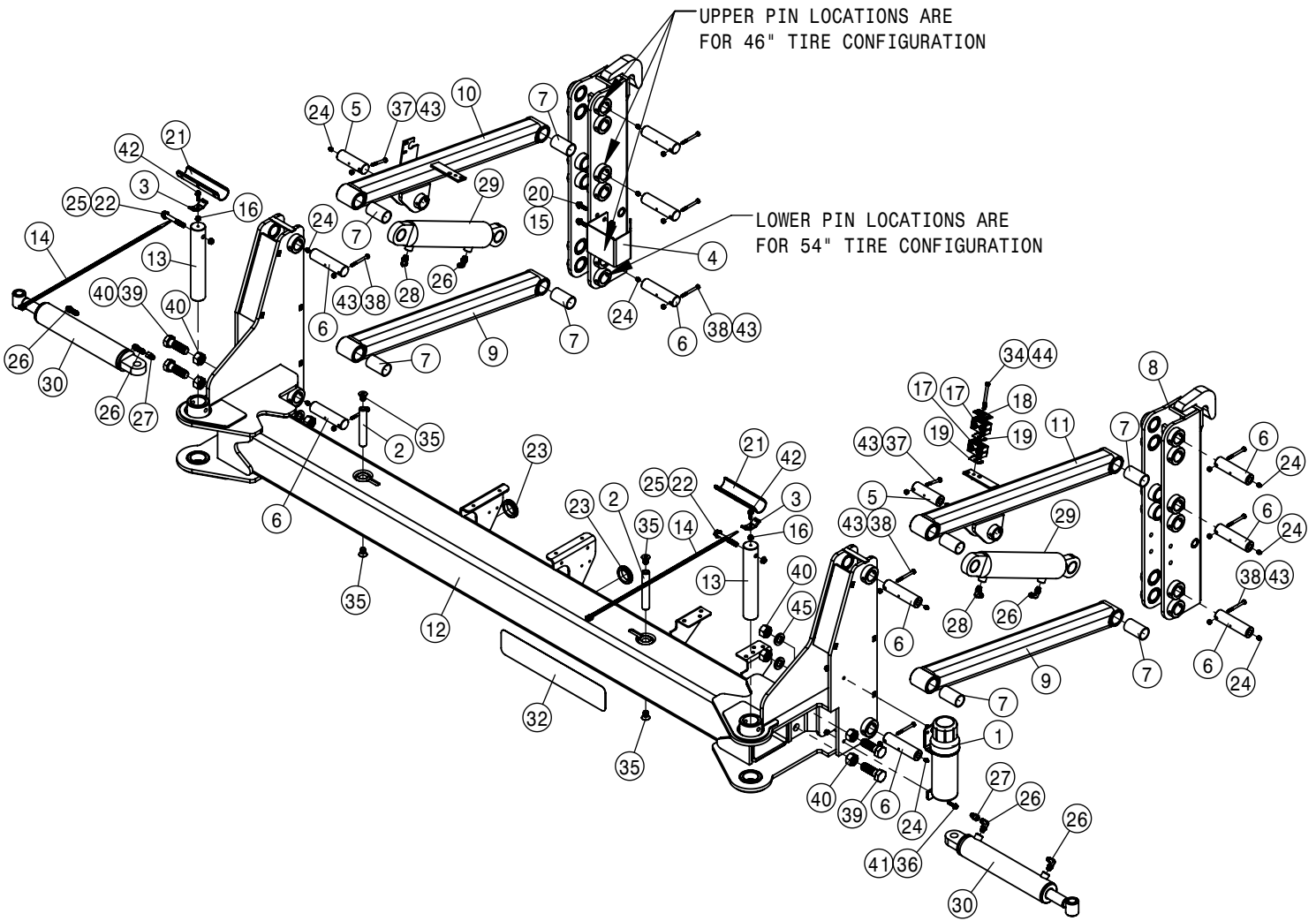
40 FT TOOLBAR  
24 ROW SKIP 20" SPACING





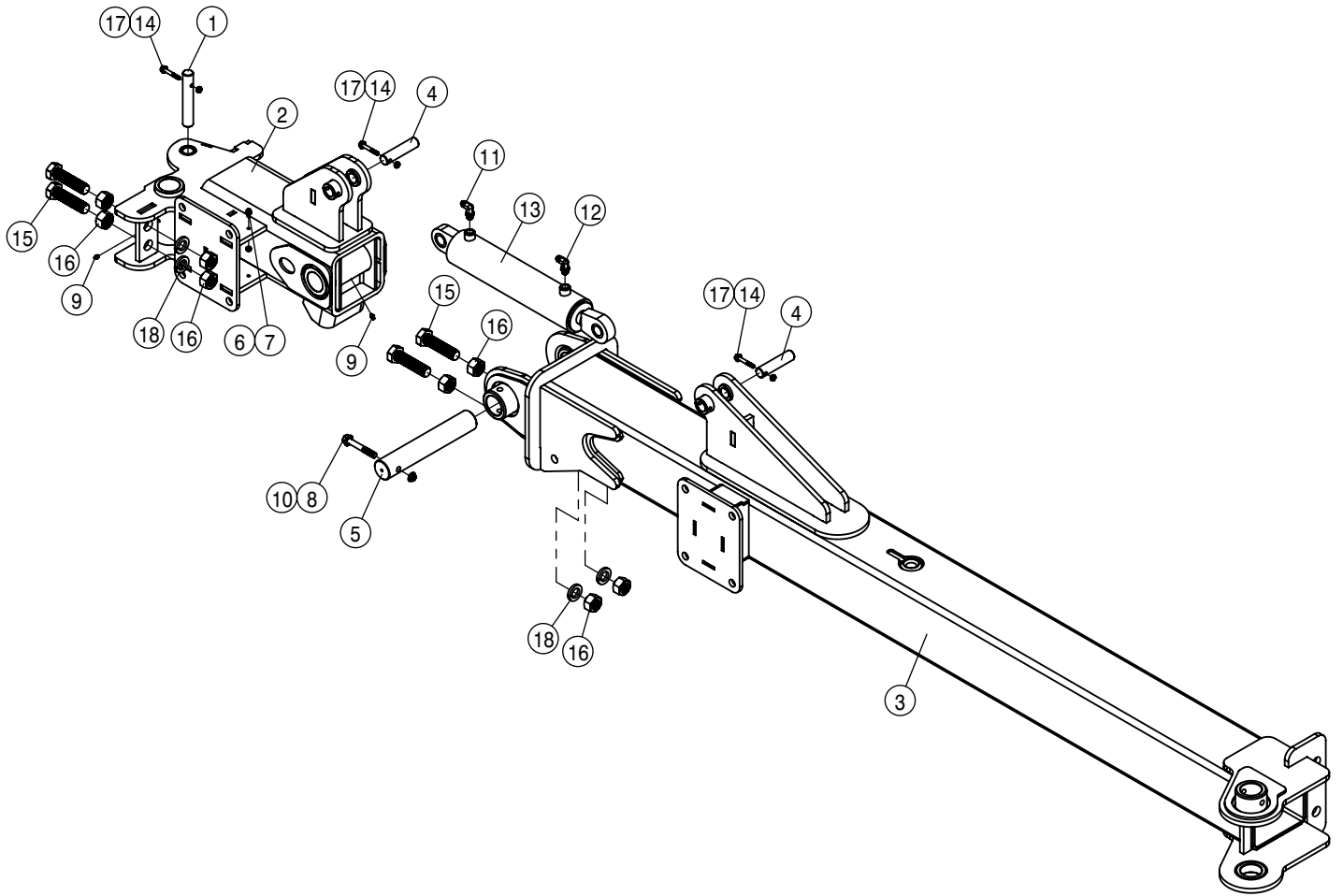
RIGHT 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439386	ARTICULATOR FLD CYL PIN,NTB' 10
2	1	439948	RH OUTRGR ARTICULAR WLD, NTB ' 13
3	1	440086	RH OUTRGR WLD NTB 13
4	2	440106	OUTRGR CYL PIN, NTB 13
5	1	440275	PIN, 2.00 OD, 11.75 LG
6	1	470089	1/4UNC HEX NYL-LOC NUT
7	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
8	1	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
9	2	471005	GREASE ZERK, 1/4-28 X 1/2
10	1	472029	3/8-16UNC HEX FLG NUT SER SS
11	1	618119	9/16MJIC-90-9/16MOR LBO
12	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
13	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
14	3	900493	5/16UNC X 2 HHSFB SS
15	4	900536	1" UNC X 4" HEX BOLT FULL THREAD
16	8	910017	1" UNC HEX NUT
17	3	914017	5/16-18UNC STOVER NUT SS
18	4	920508	1" LOCK WASHER



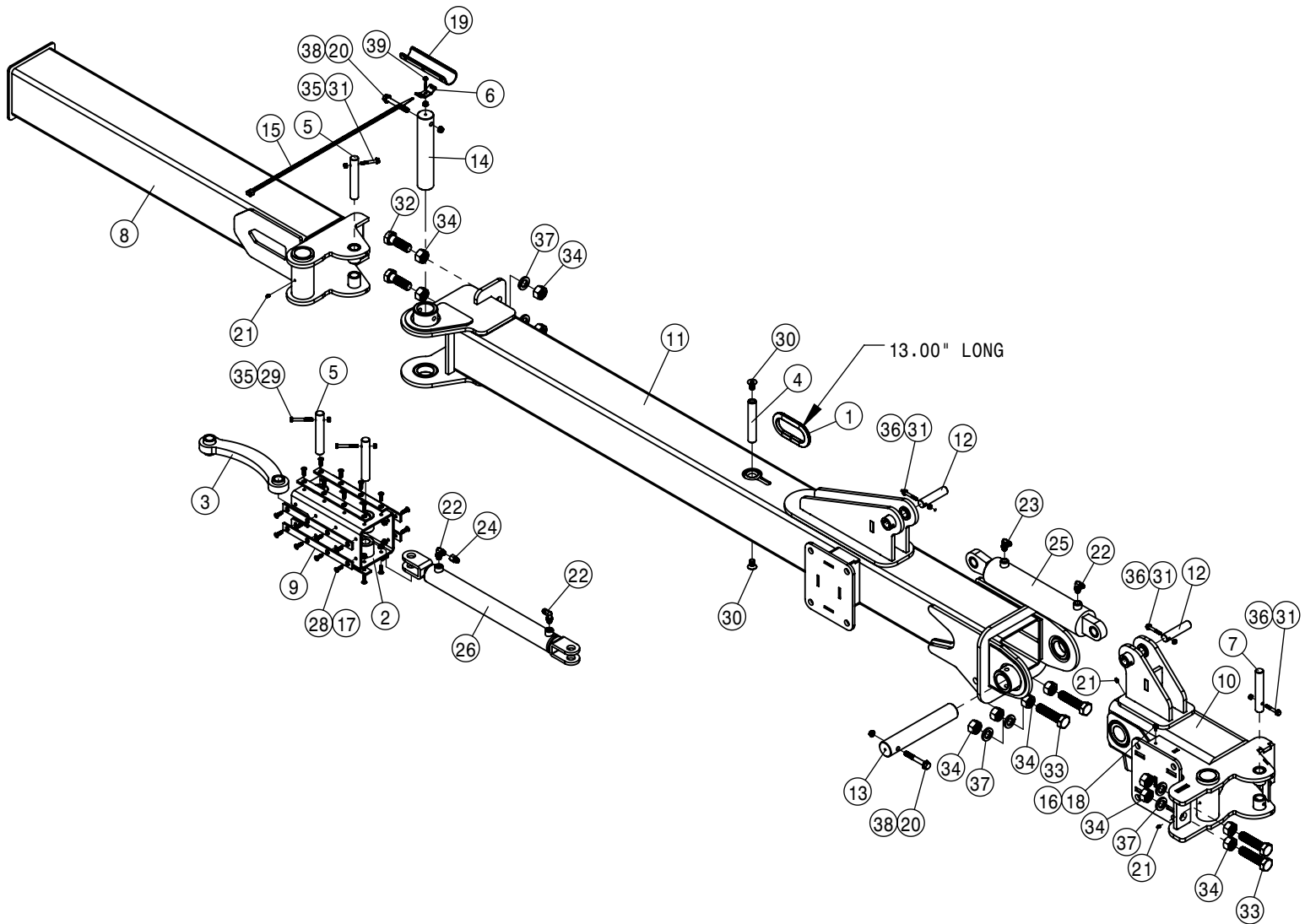


CENTER 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	344017	MANUAL CANISTER W/NEOPREN SEAL
2	2	439077	OUTRGR FOLD CYL MT PIN, NTB 03
3	2	439113	HOSE RETAINER STS NTB
4	1	439396	RECEPTACLE QUICK ATTACH BRKT, NTB '13
5	2	440257	PIN, 1.50 OD, 4.75 LG, DRILLED
6	10	440258	PIN, 1.50 OD, 6.00 LG, DRILLED
7	8	440263	BEARING, COMPOSITE
8	2	440266	QUICK ATTACH MT WLD
9	2	440269	WELDMENT, LOWER LIFT ARM
10	1	440270	WELDMENT, RH UPPER LIFT ARM
11	1	440271	WELDMENT, LH UPPER LIFT ARM
12	1	440274	CTR TOOLBAR WLD
13	2	440275	PIN, 2.00 OD, 11.75 LG
14	2	470000	.50 X 28" CABLE TIE - UV BLACK NYLON
15	2	470087	3/8-16UNC HEX FLG NUT SER MC GR5
16	2	470113	5/16UNC SERR FLG LOCK NUT
17	2	470275	TUBE CLAMP BODY, 1.00-1.000
18	1	470276	CLAMP COVER PLATE, SNGL, 2.55LG
19	2	470281	STACK BOLT SAFETY LOCK PLATE
20	2	470329	3/8UNC X 1 1/4 HHSFB GR5 MC
21	2	470369	HOSE PROTECTOR, 8" BLACK
22	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
23	2	470552	GROMMET, 1.75ID .250GW 2.00GD

CENTER 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
24	12	471021	GREASE ZERK 1/8 NPT STRAIGHT
25	2	472029	3/8-16UNC HEX FLG NUT SER SS
26	6	618119	9/16MJIC-90-9/16MOR LBO
27	2	618732	9/16JIC .031 ORIFICE ADPTR
28	2	618738	9/16MJIC-90-9/16MOR .055 CHK
29	2	621159	3.00 X 11.00 X 1.38 CYLINDER
30	2	621566	OUTRGR FOLD CYL, 2.50 X 11.00
NS	1	621567	REPAIR KIT, HYD CYL 621566
32	1	650450	DECAL, NTB 30'
NS	1	650451	DECAL SHEET, 30' NTB '13
34	1	900075	5/16UNC X 3 3/4 HEX BOLT
35	4	900393	5/8UNC X 1" FLT SOC CAP SCR
36	2	900490	5/16UNC X 1 1/4 HHSFB SS
37	2	900494	5/16UNC X 2 1/2 HHCS SS
38	10	900496	5/16UNC X 3 HHCS SS
39	4	900534	1" UNC X 3" HEX BOLT
40	8	910017	1" UNC HEX NUT
41	2	910119	5/16-18UNC HEX FLG NUT SER SS
42	2	910126	5/16UNC X 1 HHSFB SS
43	12	910132	5/16-18UNC NYLOCK NUT SS
44	1	914002	5/16UNC HEX STOVER NUT
45	4	920508	1" LOCK WASHER

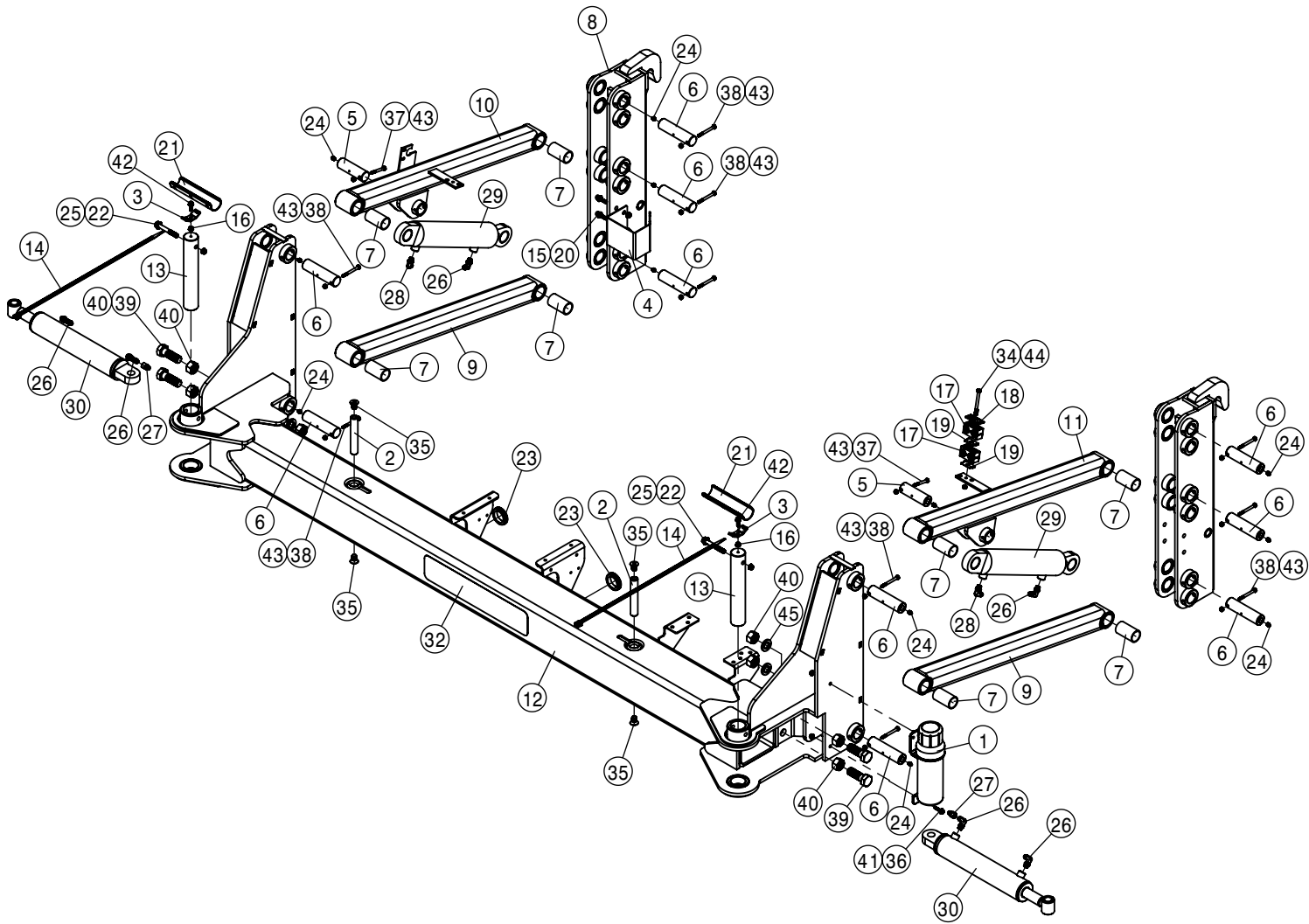


LEFT 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439386	ARTICULATOR FLD CYL PIN,NTB' 10
2	1	439949	LH OUTGRG ARTICULAR WLD, NTB '12
3	1	440087	LH OUTGRG WLD NTB 13
4	2	440106	OUTGRG CYL PIN, NTB 13
5	1	440275	PIN, 2.00 OD, 11.75 LG
6	1	470089	1/4UNC HEX NYL-LOC NUT
7	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
8	1	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
9	2	471005	GREASE ZERK, 1/4-28 X 1/2
10	1	472029	3/8-16UNC HEX FLG NUT SER SS
11	1	618119	9/16MJIC-90-9/16MOR LBO
12	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
13	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
14	3	900493	5/16UNC X 2 HHSFB SS
15	4	900536	1" UNC X 4" HEX BOLT FULL THREAD
16	8	910017	1" UNC HEX NUT
17	3	914017	5/16-18UNC STOVER NUT SS
18	4	920508	1" LOCK WASHER



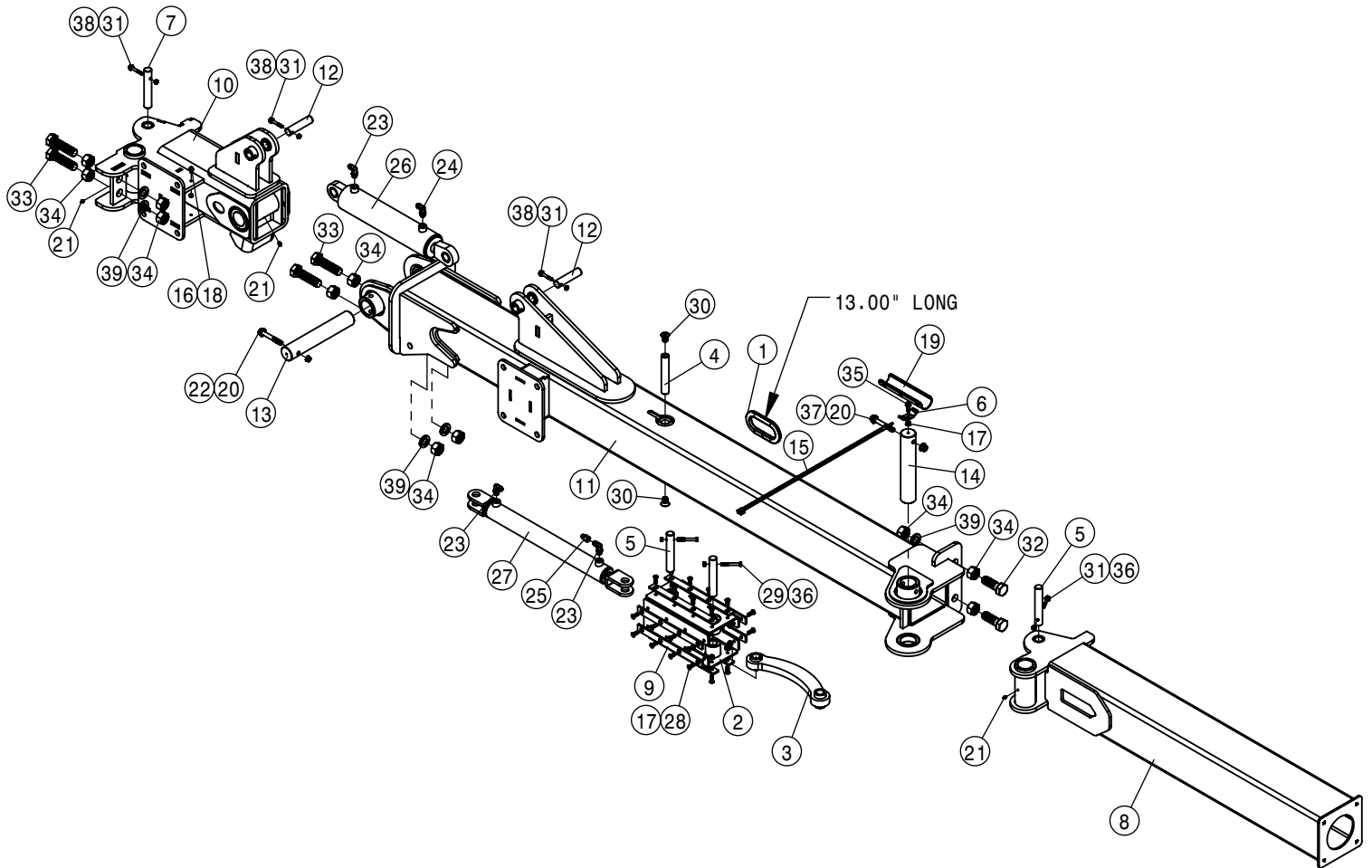
RIGHT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	0.33	193012	QUICKEDGE TRIM .135 TO .250
2	1	439054	OUTRGR EXT FOLD SLIDE WLD, NTB
3	1	439060	OUTRGR EXT FOLD ARM WLD, NTB 03
4	1	439077	OUTRGR FOLD CYL MT PIN, NTB 03
5	3	439078	ARTICULAR FOLD CYL PIN, NTB
6	1	439113	HOSE RETAINER STS NTB
7	1	439386	ARTICULATOR FLD CYL PIN, NTB 10
8	1	439400	OUTER FOLD WELDMNT, NTB40' 12
9	8	439450	FOLD SIDE WEAR STRIP, 16R NTB
10	1	439948	RH OUTRGR ARTICULAR WLD, NTB '13
11	1	440086	RH OUTRGR WLD NTB 13
12	2	440106	OUTRGR CYL PIN, NTB 13
13	1	440275	PIN, 2.00 OD, 11.75 LG
14	1	440276	PIN, 2.00 OD, 10.75 LG
15	1	470000	.50 X 28" CABLE TIE - UV BLACK NYLON
16	1	470089	1/4UNC HEX NYL-LOC NUT
17	33	470113	5/16UNC SERR FLG LOCK NUT
18	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
19	1	470369	HOSE PROTECTOR, 8" BLACK
20	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT

RIGHT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
21	3	471005	GREASE ZERK, 1/4-28 X 1/2
22	3	618119	9/16MJIC-90-9/16MOR LBO
23	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
24	1	618732	9/16JIC .031 ORIFICE ADPTR
25	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
26	1	621568	OUTRGR FOLD CYL, 2.00 X 18
NS	1	621569	REPAIR KIT, HYD CYL 621568
28	32	900060	5/16UNC X 1" FLT SOC CAP SCR BO
29	3	900070	5/16UNC X 2 1/2 BOLT
30	2	900393	5/8UNC X 1" FLT SOC CAP SCR
31	4	900493	5/16UNC X 2 HHSFB SS
32	2	900534	1" UNC X 3" HEX BOLT
33	4	900536	1" UNC X 4" HEX BOLT FULL THREAD
34	12	910017	1" UNC HEX NUT
35	4	914002	5/16UNC HEX STOVER NUT
36	3	914017	5/16-18UNC STOVER NUT SS
37	6	920508	1" LOCK WASHER
38	2	472029	3/8-16UNC HEX FLG NUT SER SS
39	1	470767	10-32UNF X 1 1/2 HHSFB MC



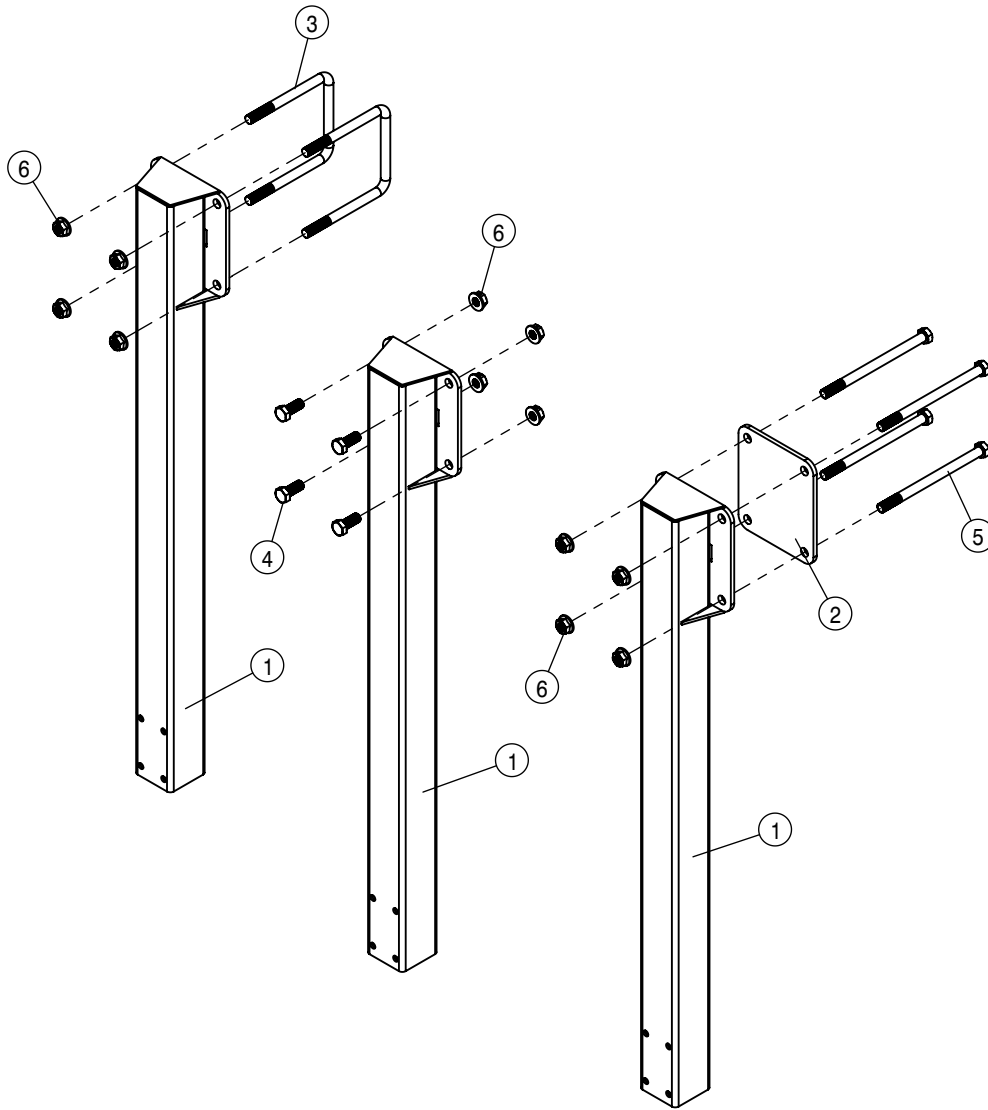
CENTER 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	344017	MANUAL CANISTER W/NEOPREN SEAL
2	2	439077	OUTRGR FOLD CYL MT PIN, NTB 03
3	2	439113	HOSE RETAINER STS NTB
4	1	439396	RECEPTACLE QUICK ATTACH BRKT, NTB '13
5	2	440257	PIN, 1.50 OD, 4.75 LG, DRILLED
6	10	440258	PIN, 1.50 OD, 6.00 LG, DRILLED
7	8	440263	BEARING, COMPOSITE
8	2	440266	QUICK ATTACH MT WLD
9	2	440269	WELDMENT, LOWER LIFT ARM
10	1	440270	WELDMENT, RH UPPER LIFT ARM
11	1	440271	WELDMENT, LH UPPER LIFT ARM
12	1	440274	CTR TOOLBAR WLD
13	2	440275	PIN, 2.00 OD, 11.75 LG
14	2	470000	.50 X 28" CABLE TIE - UV BLACK NYLON
15	2	470087	3/8-16UNC HEX FLG NUT SER MC GR5
16	2	470113	5/16UNC SERR FLG LOCK NUT
17	2	470275	TUBE CLAMP BODY, 1.00-1.000
18	1	470276	CLAMP COVER PLATE, SNGL, 2.55LG
19	2	470281	STACK BOLT SAFETY LOCK PLATE
20	2	470329	3/8UNC X 1 1/4 HHSFB GR5 MC
21	2	470369	HOSE PROTECTOR, 8" BLACK
22	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
23	2	470552	GROMMET, 1.75ID .250GW 2.00GD

CENTER 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
24	12	471021	GREASE ZERK 1/8 NPT STRAIGHT
25	2	472029	3/8-16UNC HEX FLG NUT SER SS
26	6	618119	9/16MJIC-90-9/16MOR LBO
27	2	618732	9/16JIC .031 ORIFICE ADPTR
28	2	618738	9/16MJIC-90-9/16MOR .055 CHK
29	2	621159	3.00 X 11.00 X 1.38 CYLINDER
30	2	621566	OUTRGR FOLD CYL, 2.50 X 11.00
NS	1	621567	REPAIR KIT, HYD CYL 621566
32	1	650449	DECAL, NTB 40'
NS	1	650452	DECAL SHEET, 40' NTB' 13
34	1	900075	5/16UNC X 3 3/4 HEX BOLT
35	4	900393	5/8UNC X 1" FLT SOC CAP SCR
36	2	900490	5/16UNC X 1 1/4 HHSFB SS
37	2	900494	5/16UNC X 2 1/2 HHCS SS
38	10	900496	5/16UNC X 3 HHCS SS
39	4	900534	1" UNC X 3" HEX BOLT
40	8	910017	1" UNC HEX NUT
41	2	910119	5/16-18UNC HEX FLG NUT SER SS
42	2	910126	5/16UNC X 1 HHSFB SS
43	12	910132	5/16-18UNC NYLOCK NUT SS
44	1	914002	5/16UNC HEX STOVER NUT
45	4	920508	1" LOCK WASHER

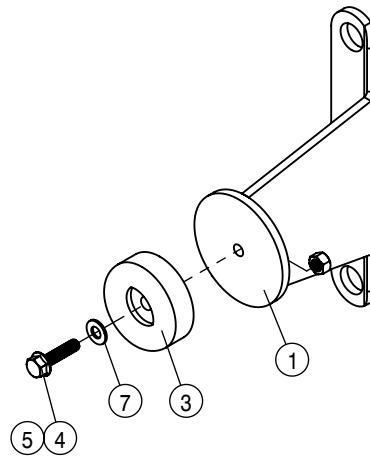
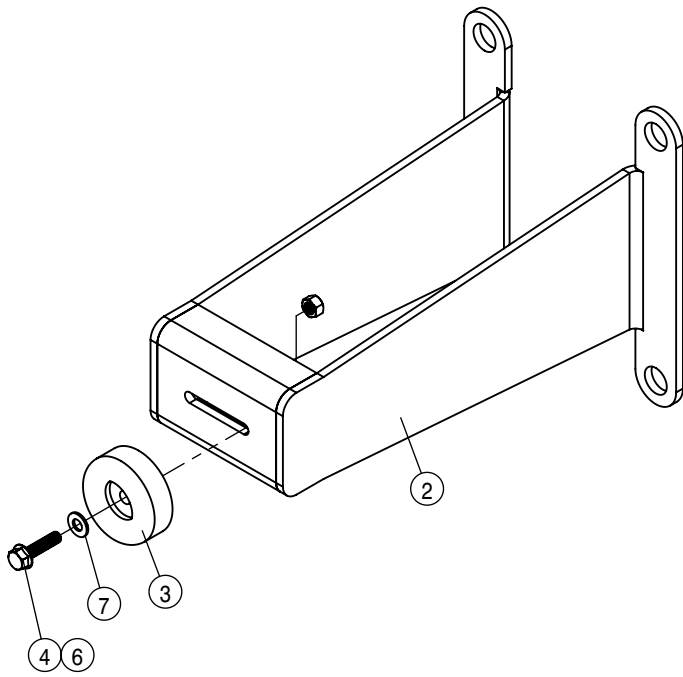


LEFT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	0.33	193012	QUICKEDGE TRIM .135 TO .250
2	1	439054	OUTRGR EXT FOLD SLIDE WLD, NTB
3	1	439060	OUTRGR EXT FOLD ARM WLD,NTB 03
4	1	439077	OUTRGR FOLD CYL MT PIN, NTB 03
5	3	439078	ARTICULAR FOLD CYL PIN, NTB
6	1	439113	HOSE RETAINER STS NTB
7	1	439386	ARTICULATOR FLD CYL PIN,NTB' 10
8	1	439400	OUTER FOLD WELDMNT, NTB40' 12
9	8	439450	FOLD SIDE WEAR STRIP, 16R NTB
10	1	439949	LH OUTRGR ARTICULAR WLD, NTB ' 12
11	1	440087	LH OUTRGR WLD NTB 13
12	2	440106	OUTRGR CYL PIN, NTB 13
13	1	440275	PIN, 2.00 OD, 11.75 LG
14	1	440276	PIN, 2.00 OD, 10.75 LG
15	1	470000	.50 X 28" CABLE TIE - UV BLACK NYLON
16	1	470089	1/4UNC HEX NYL-LOC NUT
17	33	470113	5/16UNC SERR FLG LOCK NUT
18	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
19	1	470369	HOSE PROTECTOR, 8" BLACK
20	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT

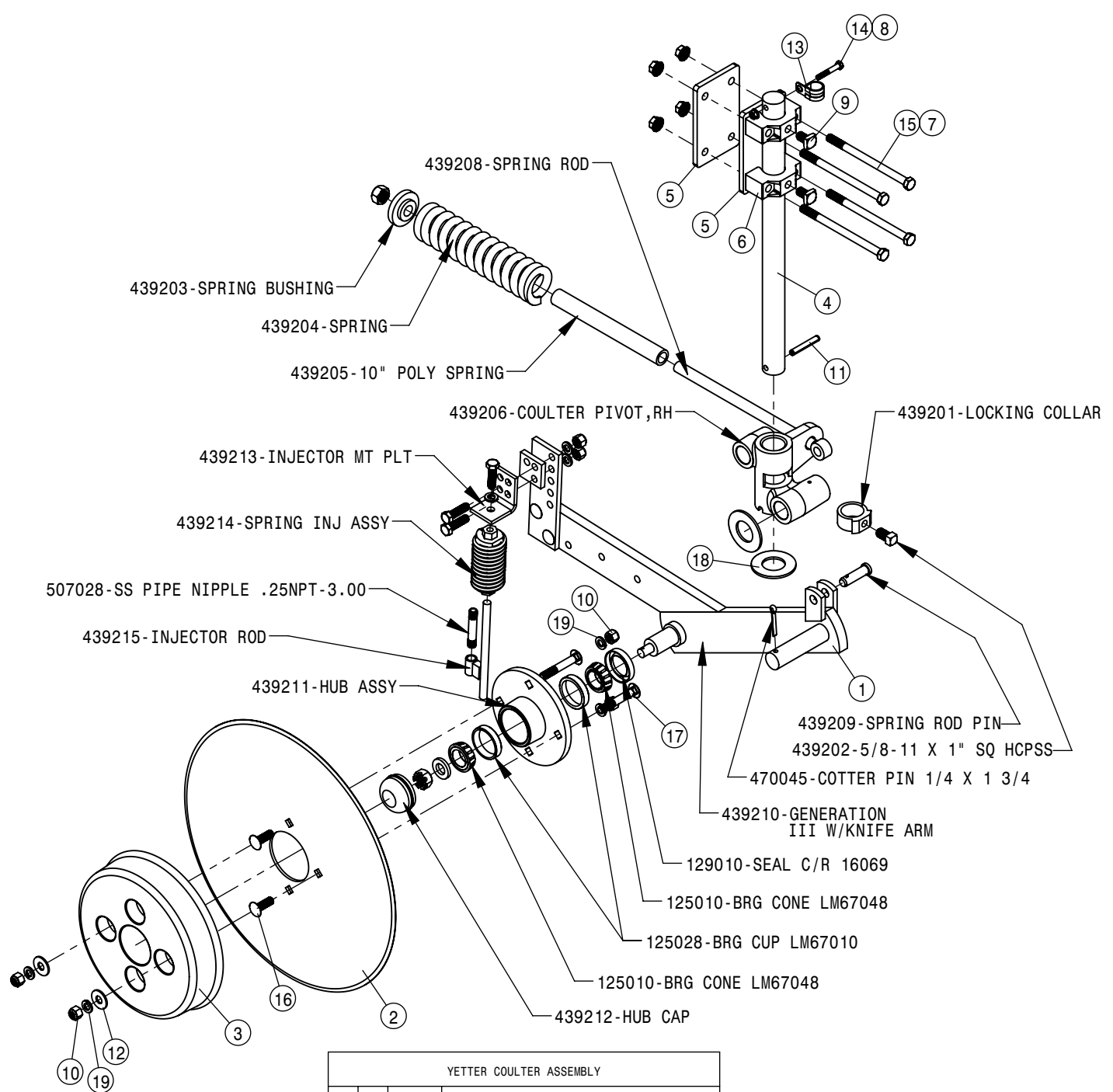
LEFT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
21	3	471005	GREASE ZERK, 1/4-28 X 1/2
22	1	472029	3/8-16UNC HEX FLG NUT SER SS
23	3	618119	9/16MJIC-90-9/16MOR LBO
24	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
25	1	618732	9/16JIC .031 ORIFICE ADPTR
26	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
27	1	621568	OUTRGR FOLD CYL, 2.00 X 18
28	32	900060	5/16UNC X 1" FLT SOC CAP SCR BO
29	2	900070	5/16UNC X 2 1/2 BOLT
30	2	900393	5/8UNC X 1" FLT SOC CAP SCR
31	4	900493	5/16UNC X 2 HHSFB SS
32	2	900534	1" UNC X 3" HEX BOLT
33	4	900536	1" UNC X 4" HEX BOLT FULL THREAD
34	12	910017	1" UNC HEX NUT
35	1	910126	5/16UNC X 1 HHSFB SS
36	3	914002	5/16UNC HEX STOVER NUT
37	1	914015	1/2-13UNC CTRLK FLG NUT MC GR5
38	3	914017	5/16-18UNC STOVER NUT SS
39	6	920508	1" LOCK WASHER



ROW UNIT DROP ASSEMBLY				
DET	QTY	P/N	DESCRIPTION	
1	3	439080	ROW DROP WLD, NTB STS 03	
2	1	439082	ROW DROP MT PLATE, NTB STS 03	
3	2	473981	.750UNC-7.00ID-8.50 U-BOLT SQ YZ	
4	4	900402	3/4UNC X 1 3/4 HEX BOLT	
5	4	900422	3/4UNC X 11.00" HEX BOLT	
6	12	914012N	3/4UNC CNTLCK SM FLG HEX NUT	

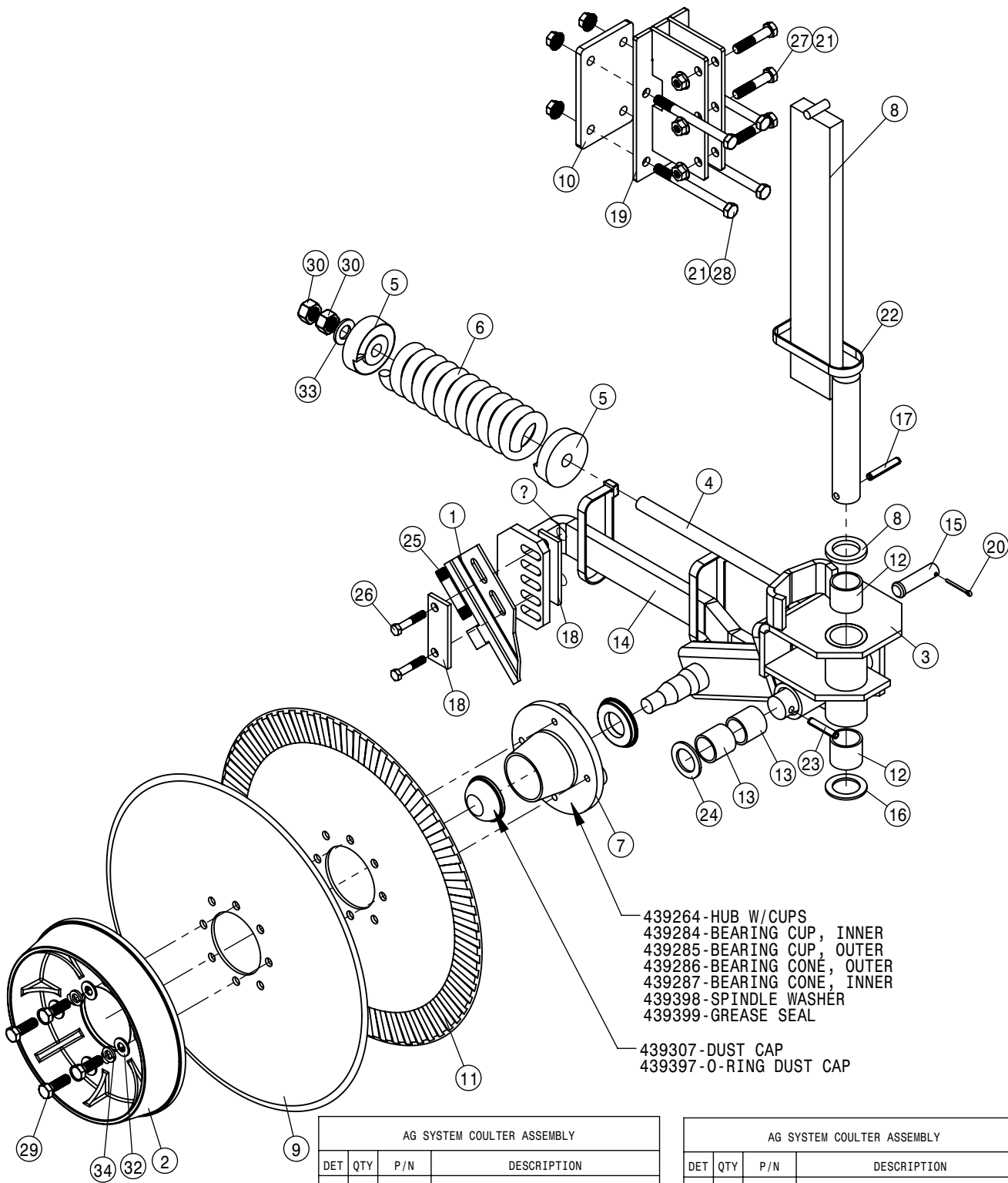


BUMPER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439110	RUBBER BUMPER MT WLD, NTB 03
2	1	439117	RUBBER BUMPER MT EXT WLD,NTB
3	2	470098	RUBBER BUMPER 2.500 OD X .375 ID
4	2	900066N	5/16UNC X 1 1/4 SERR.FLG.HEX BOLT
5	1	914002	5/16UNC HEX STOVER NUT
6	1	914002N	5/16UNC HEX STOVER NUT YZ
7	2	920001N	5/16 SAE FLAT WASHER SS



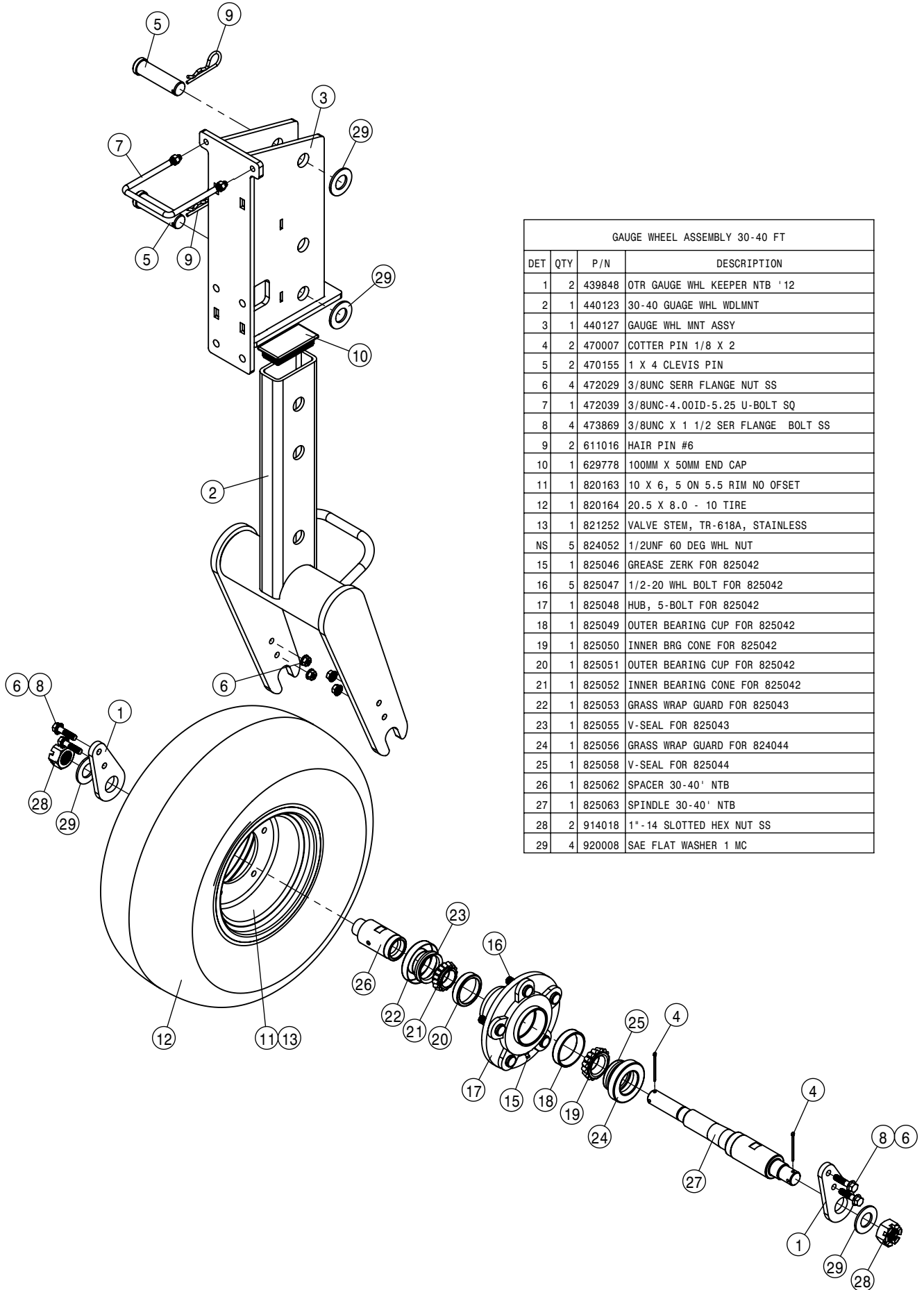
YETTER COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439105	YETTER COULTER, 20" GEN III
2	1	439106	20" SMOOTH BLADE, YETTER
3	1	439107	POLY GAUGE WHEEL, YETTER
4	1	439108	22" SHANK, YETTER
5	2	439915	BACK PLATE MOUNT
6	2	440076	MT CLAMP, COULTER ASSY, NTB' 12
7	4	470360N	1/2UNC SERR FLG HEX NUT YZ
8	1	470570	5/16UNC HEX FLG CNTR LOCK NUT
9	2	470855	9/16UNC X .75 SQUARE HEAD SET SCREW
10	4	473007	1/2UNC HEX NUT, NYLOC
11	1	473937	ROLL PIN, 3/8DIA X 2 1/2
12	2	483041	1/2 REGULAR FLAT WASHER
13	1	520121	CUSH CLAMP, #16 1IN X 3/4W
14	1	900069	5/16UNC X 2" HEX BOLT
15	4	900281N	1/2UNC X 7 1/2 HEX BOLT
16	2	901255	1/2UNC X 1 1/2 CARR BOLT
17	2	901271	1/2UNC X 3 1/4" CARR BOLT
18	1	920013	1 1/2 SAE FLAT WASHER
19	4	920504	1/2 LOCK WASHER





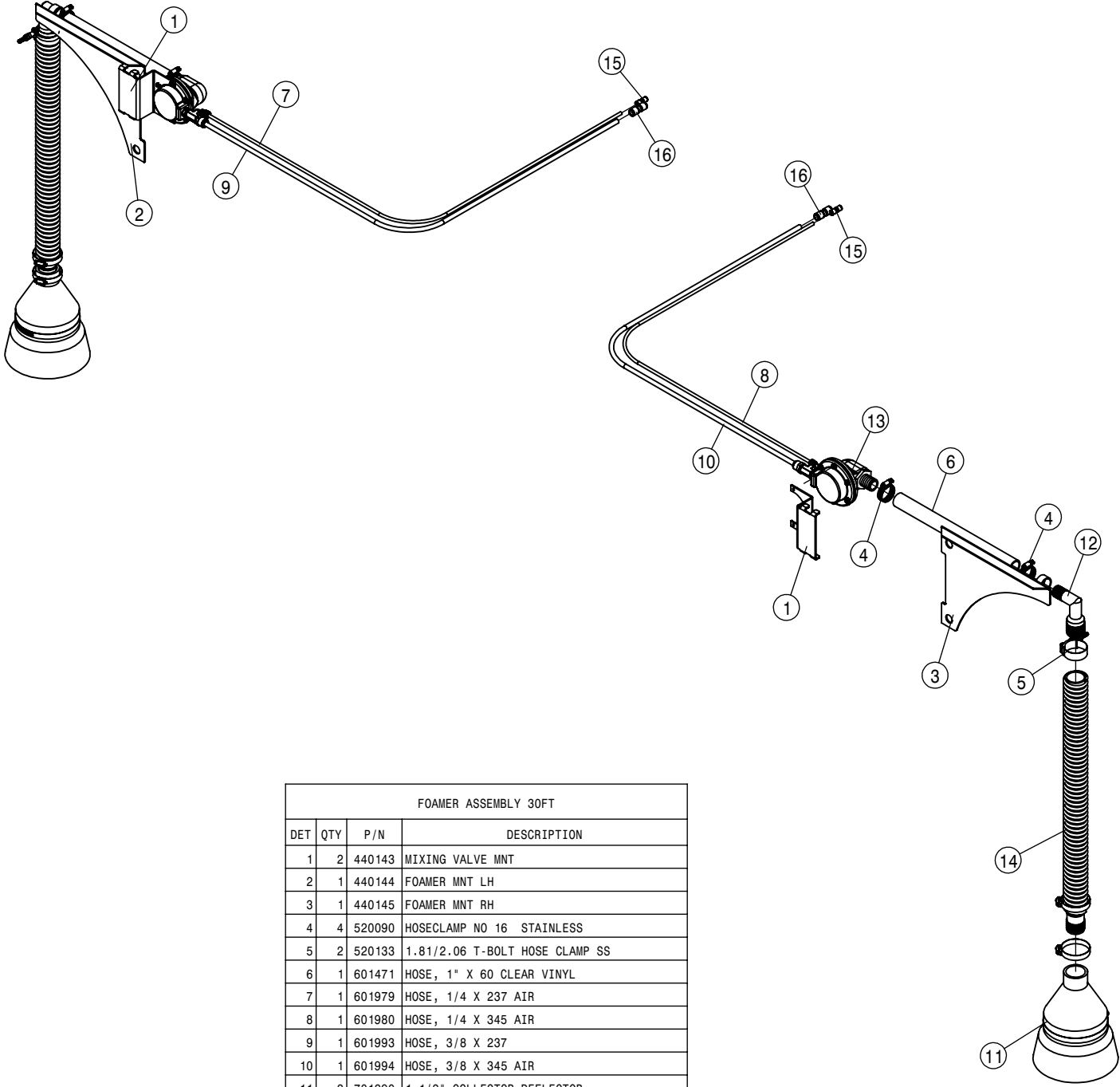
AG SYSTEM COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439219	SPRAY NOZZLE BRKT
2	1	439224	DEPTH WHEEL
3	1	439225	CENTER MOUNT HOUSING
4	1	439226	EYE BOLT, SPRING RETAINER
5	2	439227	SPRING STOP
6	1	439229	COMPRESSION SPRING
7	1	439264	HUB WITH CUP
8	1	439789	COULTER SWIVEL BAR
9	1	439790	COULTER BLADE, 20" SMOOTH
10	1	439915	BACK PLATE MOUNT
11	1	440081	COULTER BLADE, 20" FLUTED
12	2	440176	SWIVEL BUSHING
13	2	440177	PIVOT BUSHING
14	1	440178	PIVOT ARM
15	1	440179	SPRING PIVOT PIN
16	1	440180	1.5" WASHER
17	1	440181	ROLL PIN, 3/8DIA X 2 1/4

AG SYSTEM COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
18	2	440184	HOSE LOOP BRKT
19	1	440186	AG SYSTEMS COULTER MNT BRKT
20	1	470035	COTTER PIN 5/32 1 3/4 LG
21	7	470360N	1/2UNC SERR FLG HEX NUT YZ
22	4	470555	CABLE TIE, 1/2 X 15" BLACK NYL
23	1	473962	ROLL PIN, 3/8 X 2
24	1	483022	1.375 X 2.125 X .134 MACH WASH
25	1	507028	SS PIPE NIPPLE .25NPT-3.00
26	2	900133	3/8UNC X 2" HEX BOLT
27	3	900268	1/2UNC X 2 1/2 HEX BOLT
28	4	900277	1/2UNC X 5 1/2 HEX BOLT
29	4	900303	1/2UNF X 1 1/2 HEX BOLT
30	2	910012	3/4UNC HEX NUT
31	4	910042	3/8-16UNC HEX FLG NUT SM MC GR8
32	4	920004	1/2 SAE FLAT WASHER
33	1	920006	3/4 SAE FLAT WASHER
34	4	920504	1/2 LOCK WASHER



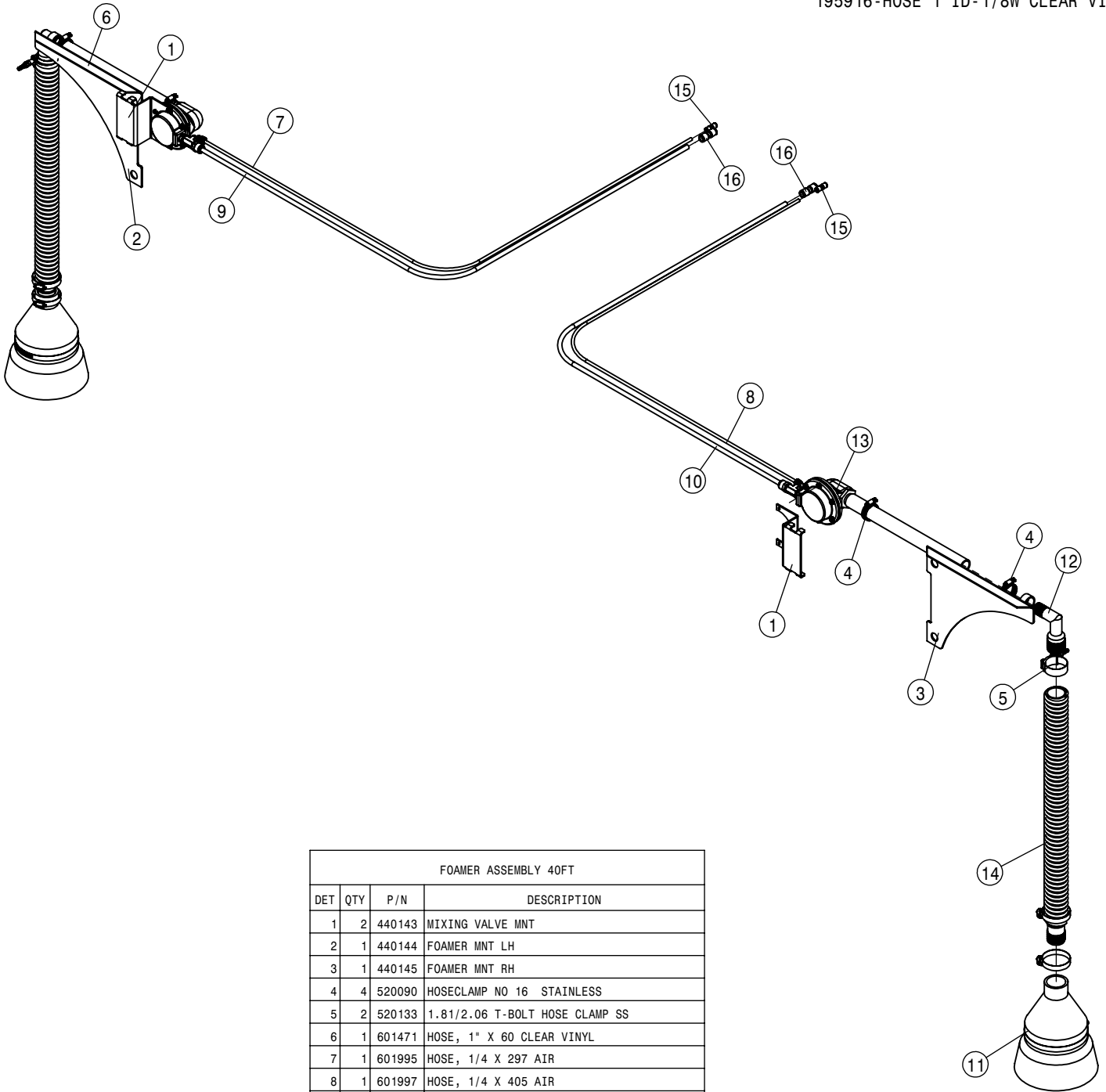
GAUGE WHEEL ASSEMBLY 30-40 FT			
DET	QTY	P/N	DESCRIPTION
1	2	439848	OTR GAUGE WHL KEEPER NTB '12
2	1	440123	30-40 GAUGE WHL WDLMNT
3	1	440127	GAUGE WHL MNT ASSY
4	2	470007	COTTER PIN 1/8 X 2
5	2	470155	1 X 4 CLEVIS PIN
6	4	472029	3/8UNC SERR FLANGE NUT SS
7	1	472039	3/8UNC-4.00ID-5.25 U-BOLT SQ
8	4	473869	3/8UNC X 1 1/2 SER FLANGE BOLT SS
9	2	611016	HAIR PIN #6
10	1	629778	100MM X 50MM END CAP
11	1	820163	10 X 6, 5 ON 5.5 RIM NO OFFSET
12	1	820164	20.5 X 8.0 - 10 TIRE
13	1	821252	VALVE STEM, TR-618A, STAINLESS
NS	5	824052	1/2UNF 60 DEG WHL NUT
15	1	825046	GREASE ZERK FOR 825042
16	5	825047	1/2-20 WHL BOLT FOR 825042
17	1	825048	HUB, 5-BOLT FOR 825042
18	1	825049	OUTER BEARING CUP FOR 825042
19	1	825050	INNER BRG CONE FOR 825042
20	1	825051	OUTER BEARING CUP FOR 825042
21	1	825052	INNER BEARING CONE FOR 825042
22	1	825053	GRASS WRAP GUARD FOR 825043
23	1	825055	V-SEAL FOR 825043
24	1	825056	GRASS WRAP GUARD FOR 824044
25	1	825058	V-SEAL FOR 825044
26	1	825062	SPACER 30-40' NTB
27	1	825063	SPINDLE 30-40' NTB
28	2	914018	1"-14 SLOTTED HEX NUT SS
29	4	920008	SAE FLAT WASHER 1 MC

BULK HOSE  
 195906-1/40D AIR BRAKE TUBING  
 195915-3/80D AIR BRAKE TUBING  
 195916-HOSE 1"ID-1/8W CLEAR VINYL

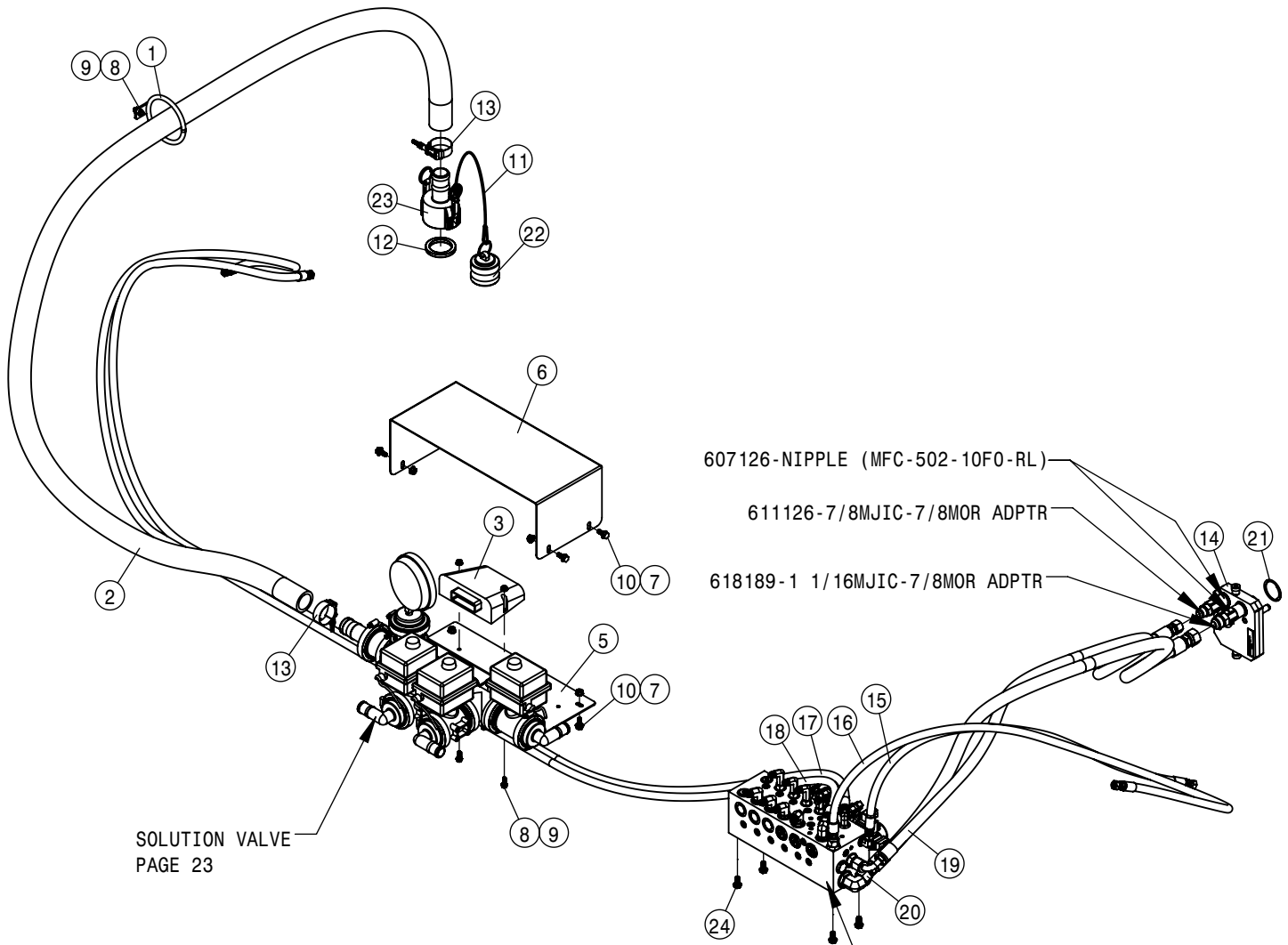


FOAMER ASSEMBLY 30FT			
DET	QTY	P/N	DESCRIPTION
1	2	440143	MIXING VALVE MNT
2	1	440144	FOAMER MNT LH
3	1	440145	FOAMER MNT RH
4	4	520090	HOSECLAMP NO 16 STAINLESS
5	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
6	1	601471	HOSE, 1" X 60 CLEAR VINYL
7	1	601979	HOSE, 1/4 X 237 AIR
8	1	601980	HOSE, 1/4 X 345 AIR
9	1	601993	HOSE, 3/8 X 237
10	1	601994	HOSE, 3/8 X 345 AIR
11	2	701290	1 1/2" COLLECTOR DEFLECTOR
12	2	701291	1" X 1.5" BOOM END ELBOW
13	2	701298	RICHWAY FOAMHEAD ASSEMBLY
14	2	701334	2' DROP HOSE 1 1/2"
15	2	711054	1/4 NYL TUBE UNION, STRAIGHT
16	2	711055	3/8 NYL TUBE UNION, STRAIGHT

BULK HOSE  
 195906-1/40D AIR BRAKE TUBING  
 195915-3/80D AIR BRAKE TUBING  
 195916-HOSE 1"ID-1/8W CLEAR VINYL



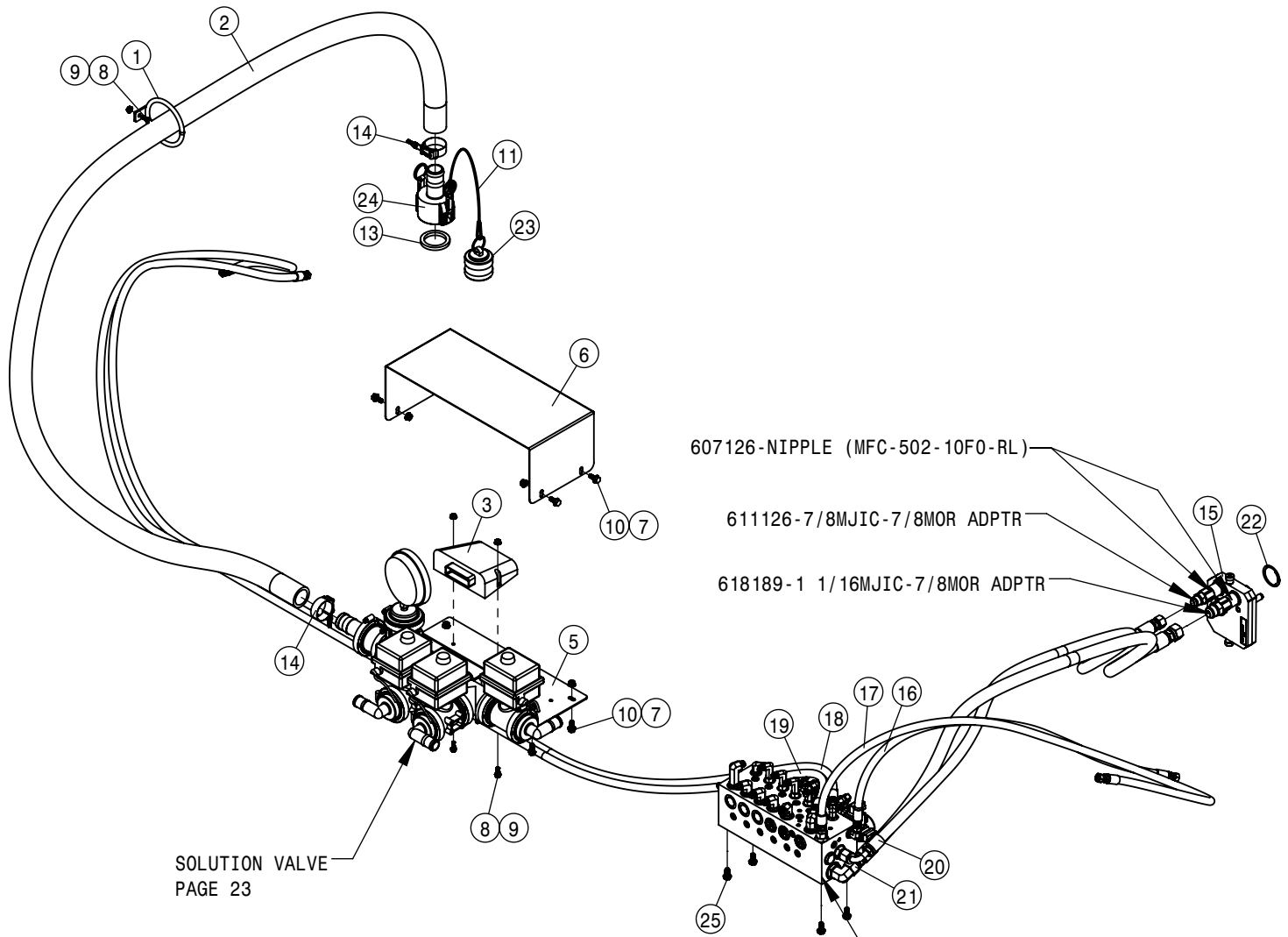
FOAMER ASSEMBLY 40FT			
DET	QTY	P/N	DESCRIPTION
1	2	440143	MIXING VALVE MNT
2	1	440144	FOAMER MNT LH
3	1	440145	FOAMER MNT RH
4	4	520090	HOSECLAMP NO 16 STAINLESS
5	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
6	1	601471	HOSE, 1" X 60 CLEAR VINYL
7	1	601995	HOSE, 1/4 X 297 AIR
8	1	601997	HOSE, 1/4 X 405 AIR
9	1	602001	HOSE, 3/8 X 297 AIR
10	1	602002	HOSE, 3/8 X 405 AIR
11	2	701290	1 1/2" COLLECTOR DEFLECTOR
12	2	701291	1" X 1.5" BOOM END ELBOW
13	2	701298	RICHWAY FOAMHEAD ASSEMBLY
14	2	701334	2' DROP HOSE 1 1/2"
15	2	711054	1/4 NYL TUBE UNION, STRAIGHT
16	2	711055	3/8 NYL TUBE UNION, STRAIGHT



SOLUTION VALVE  
PAGE 23

HYDRAULIC VALVE  
PAGE 24

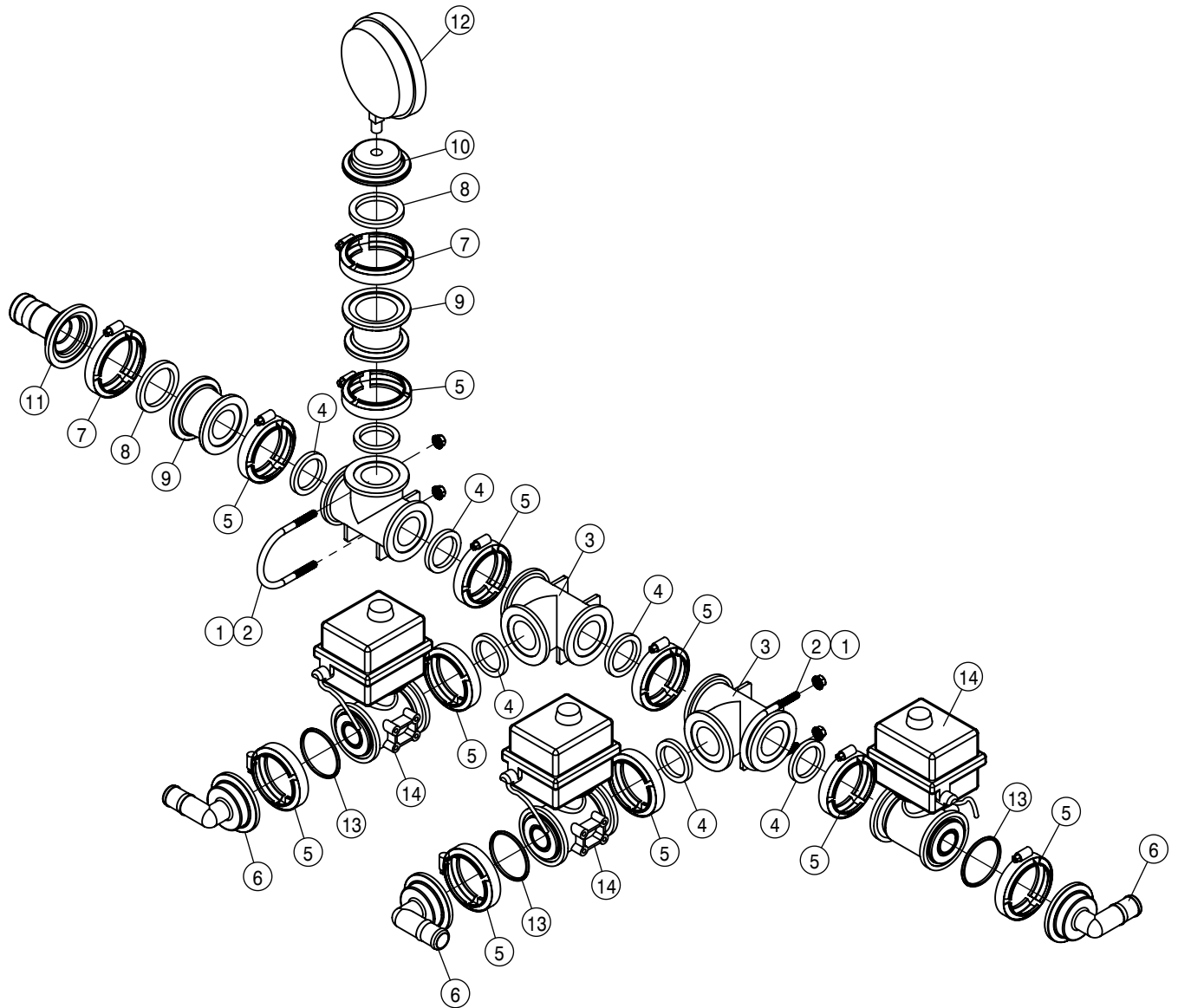
30 FT CONNECTION KIT ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	165954	HOSE RING WLD
2	1	197124-110	HOSE 1 1/2 2-FBR BR BLK EPDM
3	1	292015	IQAN-MC2 MODULE
NS	1	294292	30-40 NTB HARNESS
5	1	439194	ELECT CTRL MT PANEL, NTB 05
6	1	439195	ELECT CTRL BOX COVER, NTB 05
7	8	470113	5/16UNC SERR FLG LOCK NUT
8	3	470118	1/4 UNC X 3/4 SER FLG BOLT
9	3	470121	1/4 UNC SERR FLG LOCK NUT
10	8	470233	5/16UNC X 3/4 SERR FLG HEX BOLT
11	1	470322	LANYARD 8" NYLON LOOP/LOOP
12	1	500231	2"FP FLANGE GASKET,EXTRA THICK
13	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
14	1	607114	MOBILE HALF COUPLER ASSY, 0502
15	1	617392	06-451TC-06FJX-06FJX-47 H/A
16	1	617393	06-451TC-08FJX-06FJX-67 H/A
17	1	617394	06-451TC-06FJX-06FJX-140 H/A
18	1	617395	06-451TC-08FJX-06FJX-153 H/A
19	1	617396	10-451TC-10FJX90-10FJX-67 H/A
20	1	617397	12-451TC-12FJX-12FJX-70 H/A
21	1	629546	SNAP RING, 1.637 EXTERNAL
22	1	690392	PLUG FOR 2.00 FEMALE COUPLER
23	1	696243	2" FEMALE CAM CPLR - 1 1/2" HOSE BRB
24	4	900128	3/8UNC X 3/4 HEX BOLT



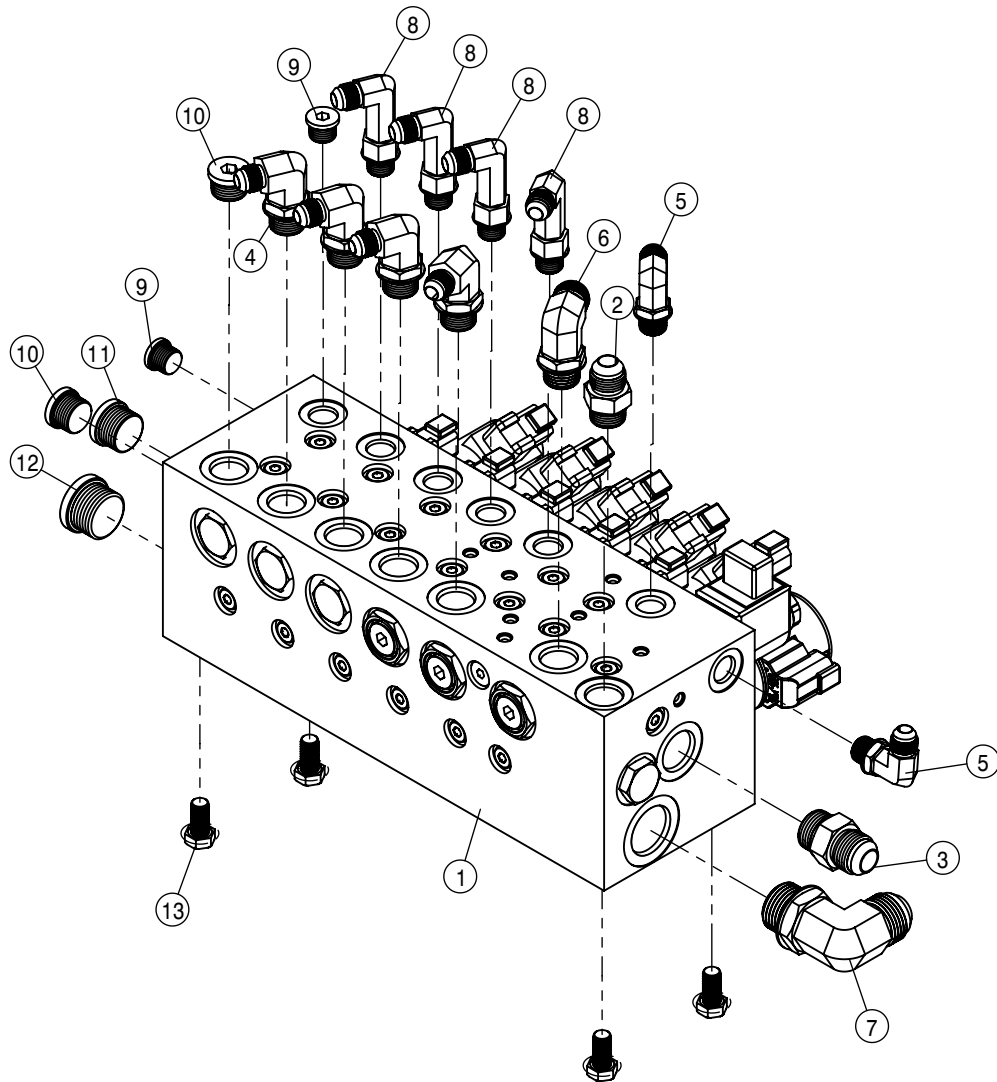
SOLUTION VALVE  
PAGE 23

HYDRAULIC VALVE  
PAGE 25

40 FT CONNECTION KIT ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	165954	HOSE RING WLD
2	1	197124-110	HOSE 1 1/2 2-FBR BR BLK EPDM
3	1	292015	IQAN-MC2 MODULE
NS	1	294292	30-40 NTB HARNESS
5	1	439194	ELECT CTRL MT PANEL, NTB 05
6	1	439195	ELECT CTRL BOX COVER, NTB 05
7	8	470113	5/16UNC SERR FLG LOCK NUT
8	3	470118	1/4 UNC X 3/4 SER FLG BOLT
9	3	470121	1/4 UNC SERR FLG LOCK NUT
10	8	470233	5/16UNC X 3/4 SERR FLG HEX BOLT
11	1	470322	LANYARD 8" NYLON LOOP/LOOP
NS	1	499366	STS NTB WIRING DIAGRAM 16
13	1	500231	2"FP FLANGE GASKET,EXTRA THICK
14	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
15	1	607114	MOBILE HALF COUPLER ASSY, 0502
16	1	617392	06-451TC-06FJX-06FJX-47 H/A
17	1	617393	06-451TC-08FJX-06FJX-67 H/A
18	1	617394	06-451TC-06FJX-06FJX-140 H/A
19	1	617395	06-451TC-08FJX-06FJX-153 H/A
20	1	617396	10-451TC-10FJX90-10FJX-67 H/A
21	1	617397	12-451TC-12FJX-12FJX-70 H/A
22	1	629546	SNAP RING, 1.637 EXTERNAL
23	1	690392	PLUG FOR 2.00 FEMALE COUPLER
24	1	696243	2" FEMALE CAM CPLR - 1 1/2" HOSE BRB
25	4	900128	3/8UNC X 3/4 HEX BOLT

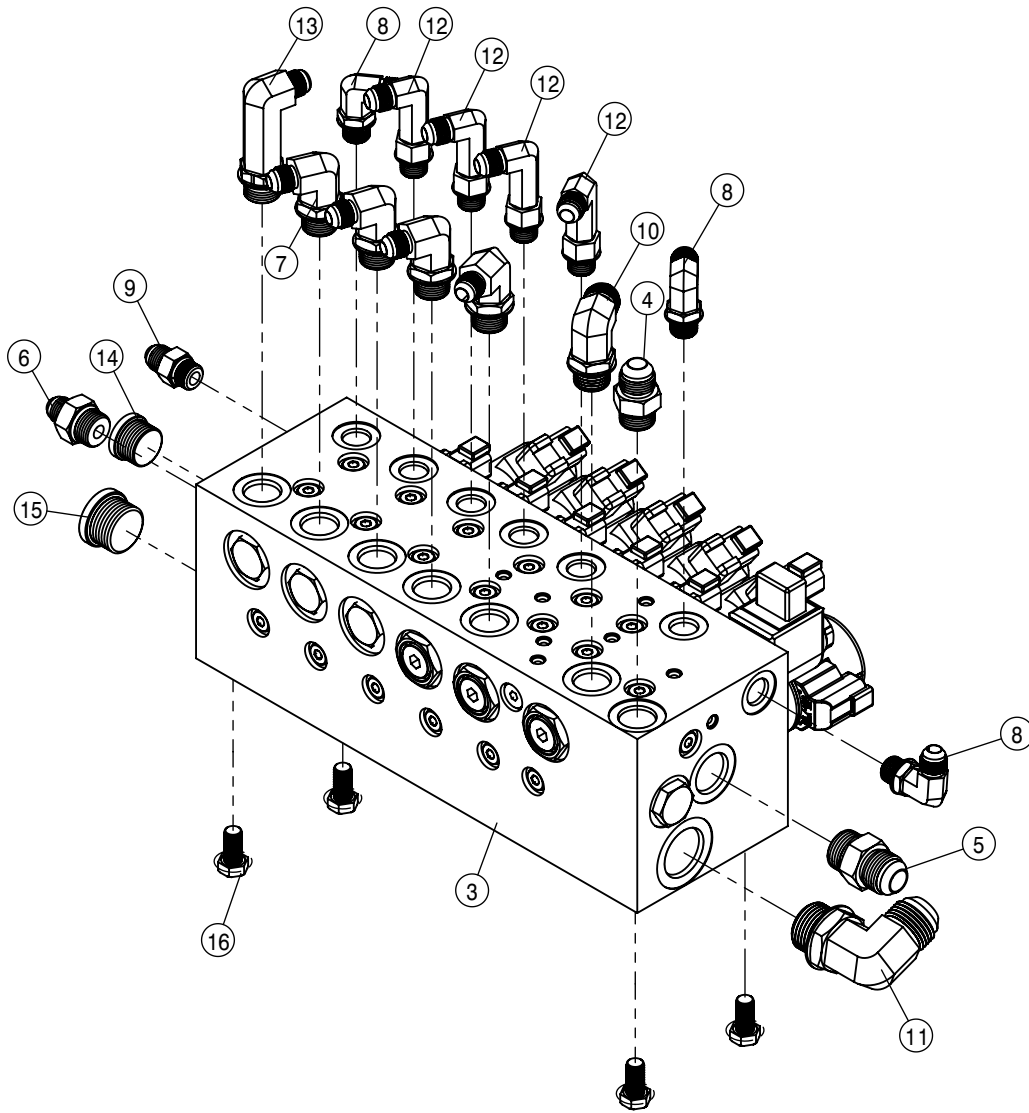


SOLUTION CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	4	470113	5/16UNC SERR FLG LOCK NUT
2	2	472195	5/16UNC-2 11/16ID-3 9/16U-BOLT
3	3	500151	2" FLANGE TEE, POLY
4	7	500158	1 1/2" GASKET FOR 2" FLANGE
5	10	500160	2" FLANGE CLAMP S.S.
6	3	500189	2" FLANGE-90-1" HOSE BARB POLY
7	2	500194	2" FP FLANGE CLAMP S.S.
8	2	500195	2" FP FLANGE GASKET EPDM
9	2	500199	2"FP FLANGE-2"FLAGE REDU POLY
10	1	500229	2"FP FLANGE PLUG, 1/4FNPT POLY
11	1	500230	2" FP FLANGE PLUG-1 1/2" HOSE BARB
12	1	690359	PRESSURE GA GLYCERI 100 PSI
13	3	696254	O-RING, KZCO FLANGED VALVE
14	3	696256	VALVE, KZCO C2F-60B-M-S9

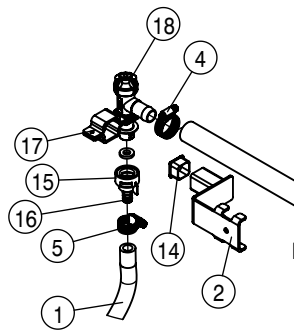


30 FT TOOLBAR CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	606402	HYD VLV 6 SEC W/FLOAT
2	1	611125	3/4MJIC-3/4MOR ADPTR
3	1	611126	7/8MJIC-7/8MOR ADPTR
4	4	618115	9/16MJIC-90-3/4MOR LBO
5	2	618119	9/16MJIC-90-9/16MOR LBO
6	1	618241	3/4MJIC-90-3/4MOR LBO
7	1	618248	1 1/16MJIC-90-1 1/16MOR LBO
8	4	618440	9/16MJIC-90-9/16MOR EX LG LBO
9	2	618754	9/16 MOR PLUG, HEX SOCKET
10	2	618755	3/4MOR PLUG, HEX SOCKET
11	1	618756	7/8 MOR PLUG, HEX SOCKET
12	1	618757	1 1/16MOR PLUG, HEX SOCKET
13	4	900128	3/8UNC X 3/4 HEX BOLT

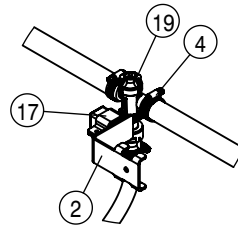




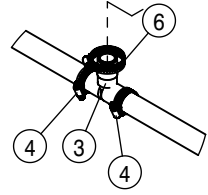
40 FT TOOLBAR CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
NS	1	499194	HYD SCHEM, NTB STS '16
NS	1	499366	STS NTB WIRING DIAGRAM 16
3	1	606402	HYD VLV 6 SEC W/FLOAT
4	1	611125	3/4MJIC-3/4MOR ADPTR
5	1	611126	7/8MJIC-7/8MOR ADPTR
6	1	618109	9/16MJIC-3/4MOR ADPTR
7	4	618115	9/16MJIC-90-3/4MOR LBO
8	3	618119	9/16MJIC-90-9/16MOR LBO
9	1	618126	9/16MJIC-9/16MOR ADPTR
10	1	618241	3/4MJIC-90-3/4MOR LBO
11	1	618248	1 1/16MJIC-90-1 1/16MOR LBO
12	4	618440	9/16MJIC-90-9/16MOR EX LG LBO
13	1	618709	9/16MJIC-90-3/4MOR EX LG LBO
14	1	618756	7/8 MOR PLUG, HEX SOCKET
15	1	618757	1 1/16MOR PLUG, HEX SOCKET
16	4	900128	3/8UNC X 3/4 HEX BOLT



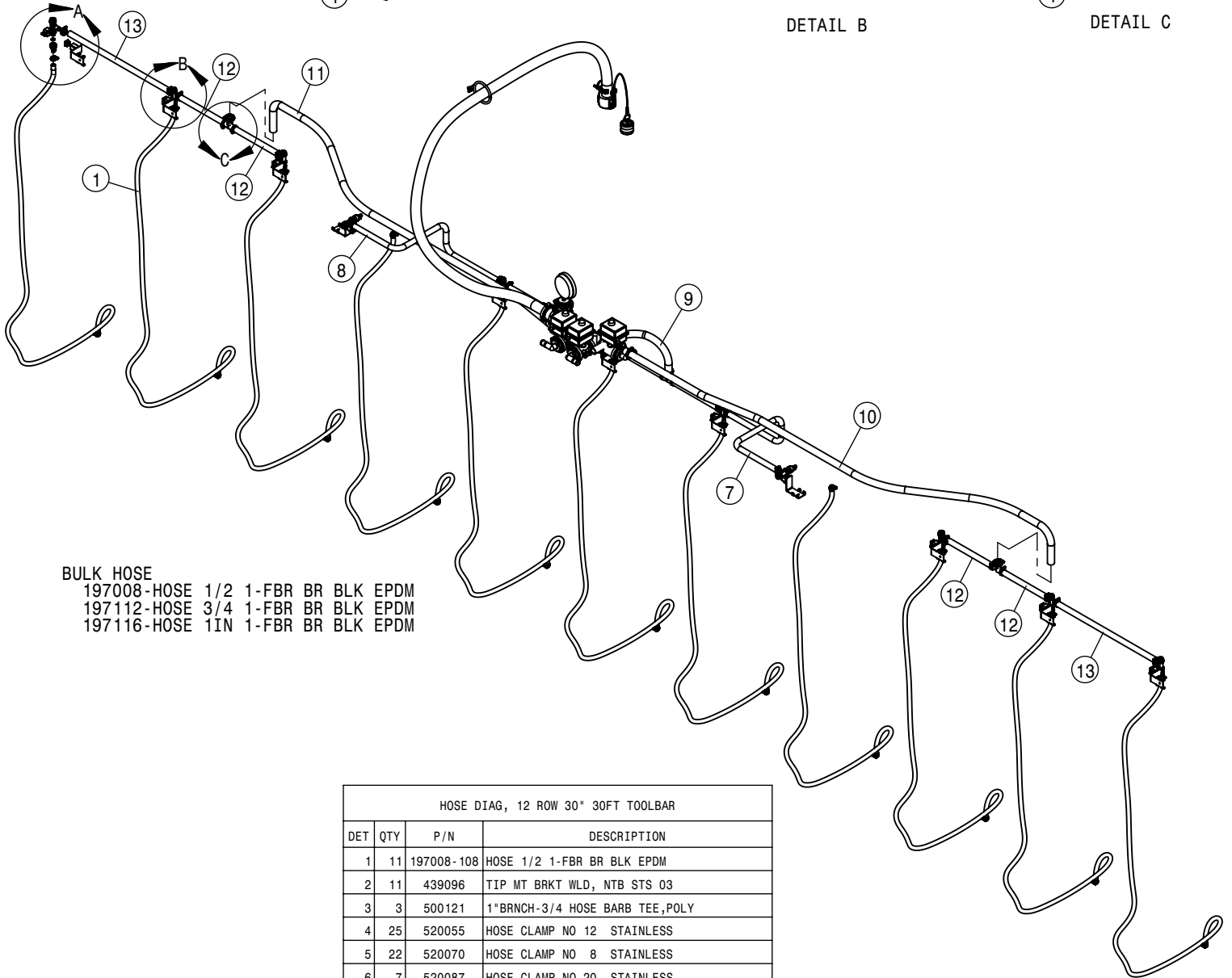
DETAIL A



DETAIL B



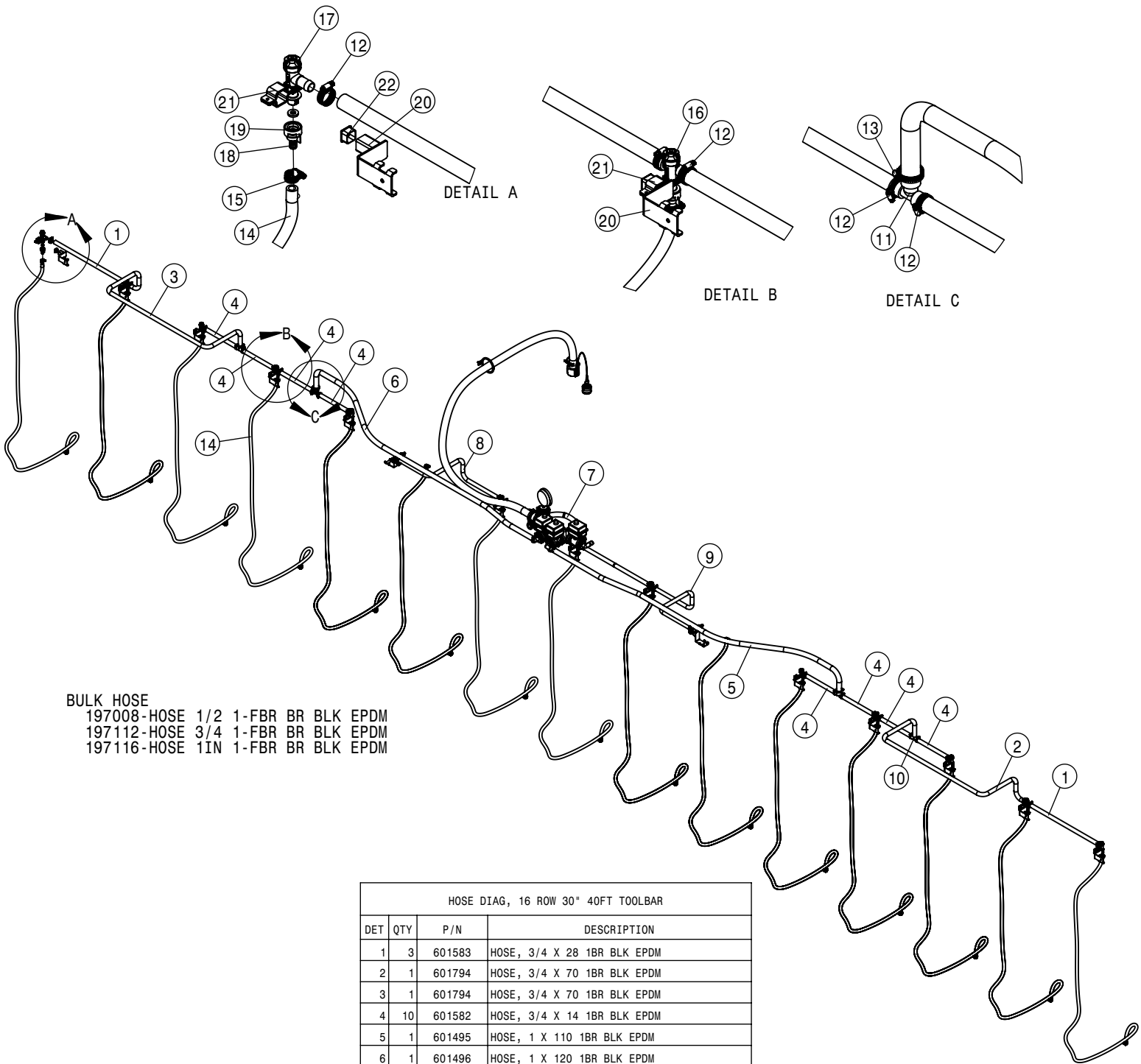
DETAIL C



**BULK HOSE**

- 197008-HOSE 1/2 1-FBR BR BLK EPDM
- 197112-HOSE 3/4 1-FBR BR BLK EPDM
- 197116-HOSE 1IN 1-FBR BR BLK EPDM

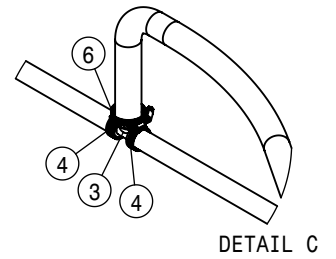
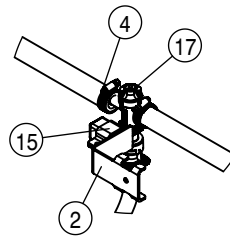
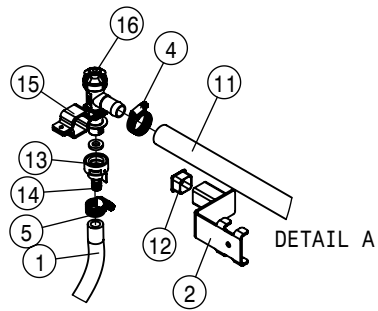
HOSE DIAG, 12 ROW 30" 30FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	11	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	11	439096	TIP MT BRKT WLD, NTB STS 03
3	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
4	25	520055	HOSE CLAMP NO 12 STAINLESS
5	22	520070	HOSE CLAMP NO 8 STAINLESS
6	7	520087	HOSE CLAMP NO 20 STAINLESS
7	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
8	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
9	1	601491	HOSE, 1 X 30 1BR BLK EPDM
10	1	601495	HOSE, 1 X 110 1BR BLK EPDM
11	1	601496	HOSE, 1 X 120 1BR BLK EPDM
12	6	601582	HOSE, 3/4 X 14 1BR BLK EPDM
13	3	601583	HOSE, 3/4 X 28 1BR BLK EPDM
14	11	629727	FINISH PLUG 1" SQ 16 GA
15	11	737790	CAP SET,ROUND,RED QUICK TEEJET
16	11	737791	1/2" TEEJET HOSE SHANK, NYLON
17	11	737817	NOZZLE BRACKET
18	6	737829	QUICK TJET LBO,1-TIP BODY .75
19	5	737830	QUICK TJET TEE,1-TIP BODY .75



**BULK HOSE**

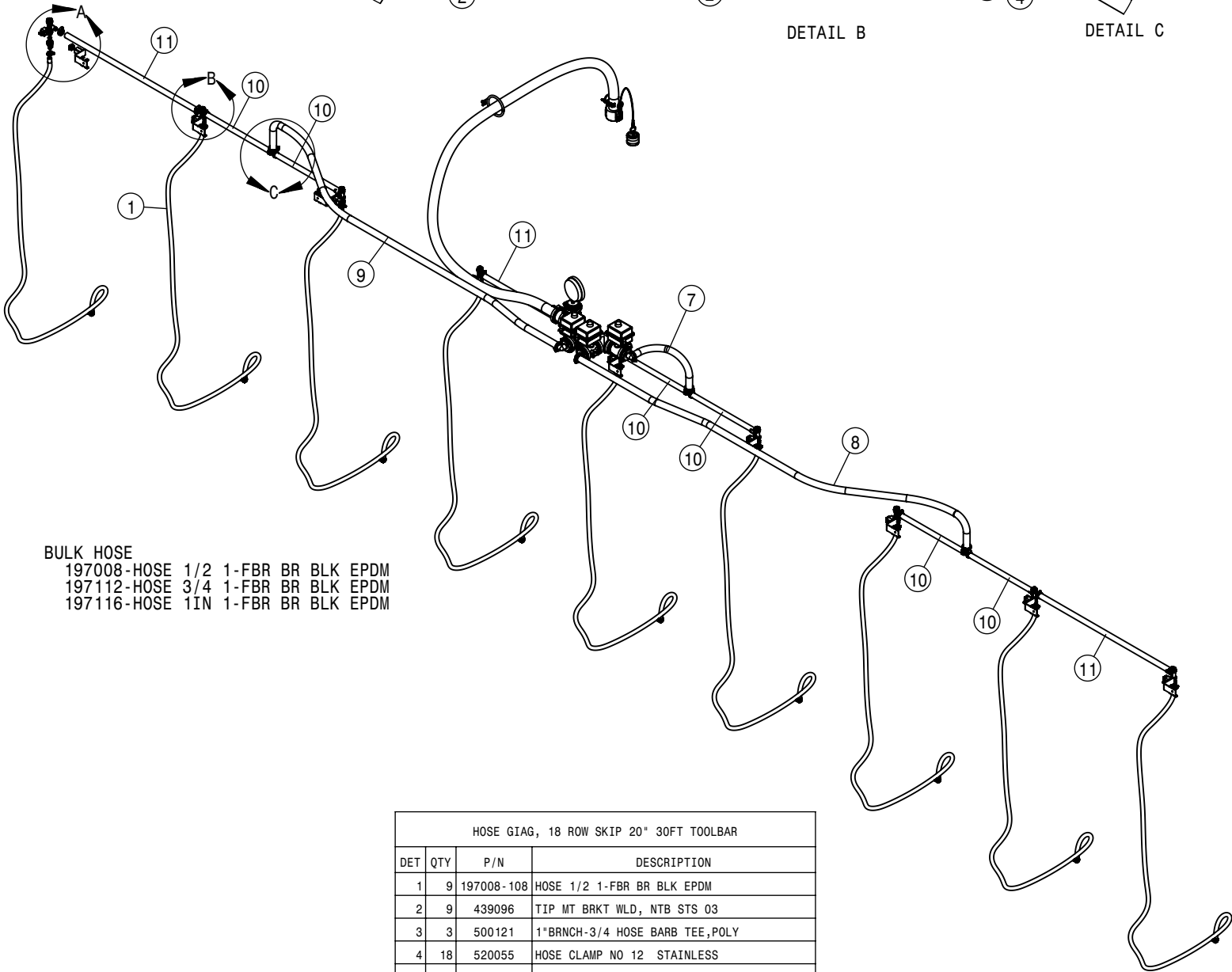
- 197008-HOSE 1/2 1-FBR BR BLK EPDM
- 197112-HOSE 3/4 1-FBR BR BLK EPDM
- 197116-HOSE 1IN 1-FBR BR BLK EPDM

HOSE DIAG, 16 ROW 30" 40FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	3	601583	HOSE, 3/4 X 28 1BR BLK EPDM
2	1	601794	HOSE, 3/4 X 70 1BR BLK EPDM
3	1	601794	HOSE, 3/4 X 70 1BR BLK EPDM
4	10	601582	HOSE, 3/4 X 14 1BR BLK EPDM
5	1	601495	HOSE, 1 X 110 1BR BLK EPDM
6	1	601496	HOSE, 1 X 120 1BR BLK EPDM
7	1	601491	HOSE, 1 X 30 1BR BLK EPDM
8	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
9	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
10	2	500073	3/4 HOSE BARB TEE, POLY
11	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
12	33	520055	HOSE CLAMP NO 12 STAINLESS
13	6	520087	HOSE CLAMP NO 20 STAINLESS
14	39	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
15	78	520070	HOSE CLAMP NO 8 STAINLESS
16	7	737830	QUICK TJET TEE,1-TIP BODY .75
17	8	737829	QUICK TJET LBO,1-TIP BODY .75
18	15	737791	1/2" TEEJET HOSE SHANK, NYLON
19	15	737790	CAP SET,ROUND,RED QUICK TEEJET
20	15	439096	TIP MT BRKT WLD, NTB STS 03
21	15	737817	NOZZLE BRACKET
22	15	629727	FINISH PLUG 1" SQ 16 GA



DETAIL B

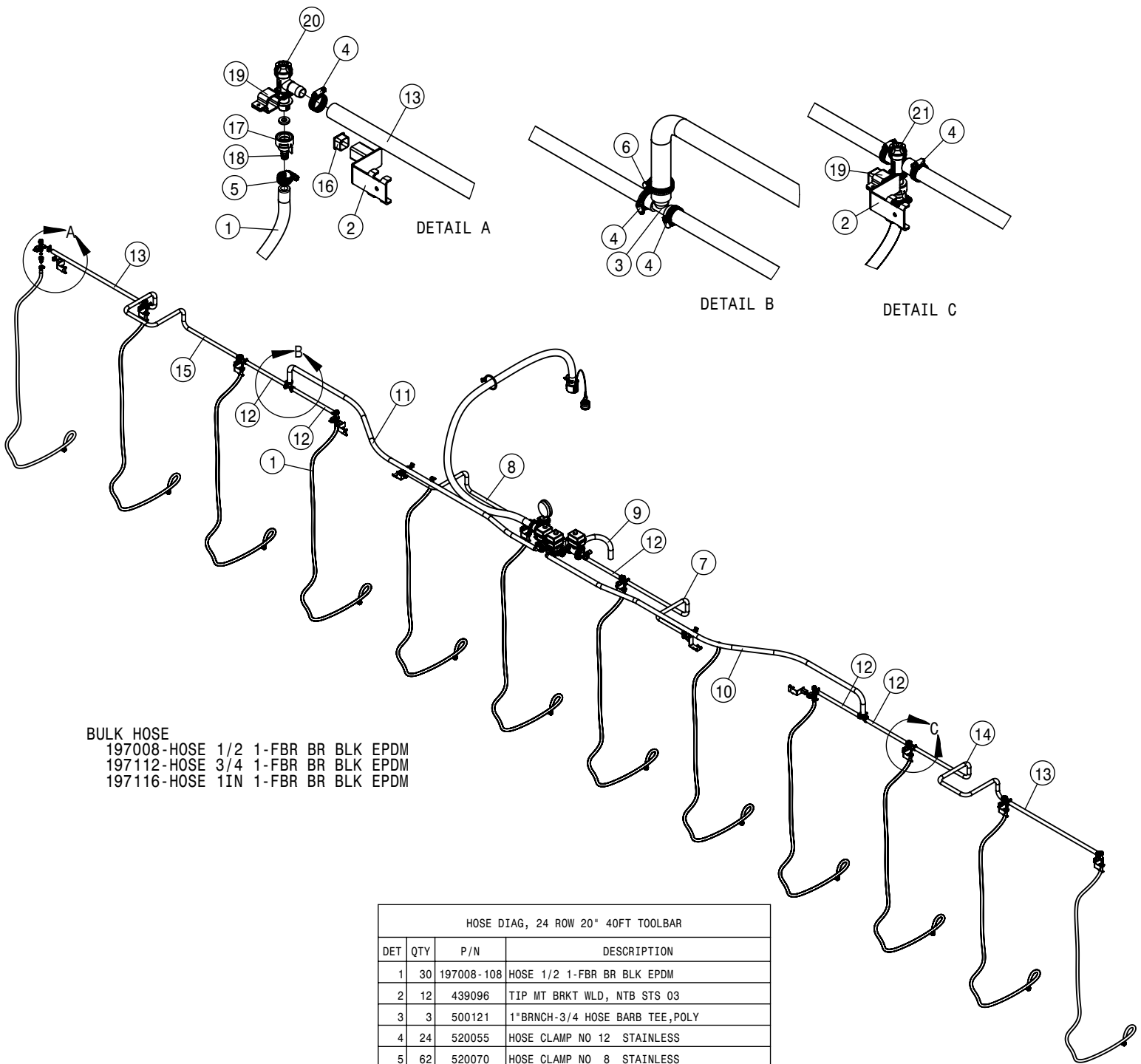
DETAIL C



**BULK HOSE**

- 197008-HOSE 1/2 1-FBR BR BLK EPDM
- 197112-HOSE 3/4 1-FBR BR BLK EPDM
- 197116-HOSE 1IN 1-FBR BR BLK EPDM

HOSE GIAG, 18 ROW SKIP 20" 30FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	9	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	9	439096	TIP MT BRKT WLD, NTB STS 03
3	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
4	18	520055	HOSE CLAMP NO 12 STAINLESS
5	18	520070	HOSE CLAMP NO 8 STAINLESS
6	6	520087	HOSE CLAMP NO 20 STAINLESS
7	1	601491	HOSE, 1 X 30 1BR BLK EPDM
8	1	601495	HOSE, 1 X 110 1BR BLK EPDM
9	1	601496	HOSE, 1 X 120 1BR BLK EPDM
10	6	601603	HOSE, 3/4 X 19 1BR BLK EPDM
11	3	601605	HOSE, 3/4 X 38 1BR BLK EPDM
12	9	629727	FINISH PLUG 1" SQ 16 GA
13	9	737790	CAP SET,ROUND,RED QUICK TEEJET
14	9	737791	1/2" TEEJET HOSE SHANK, NYLON
15	9	737817	NOZZLE BRACKET
16	6	737829	QUICK TJET LBO,1-TIP BODY .75
17	3	737830	QUICK TJET TEE,1-TIP BODY .75

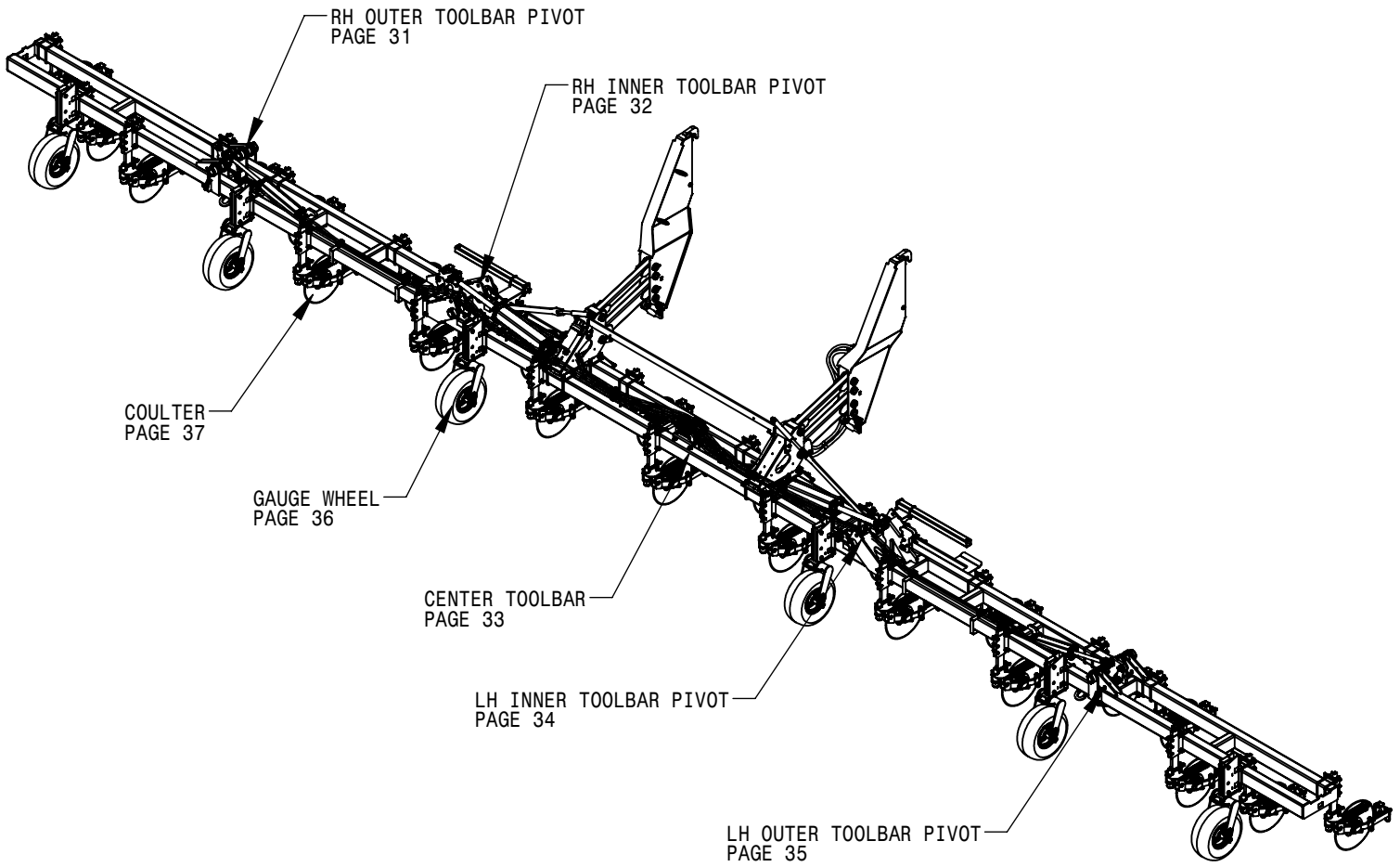


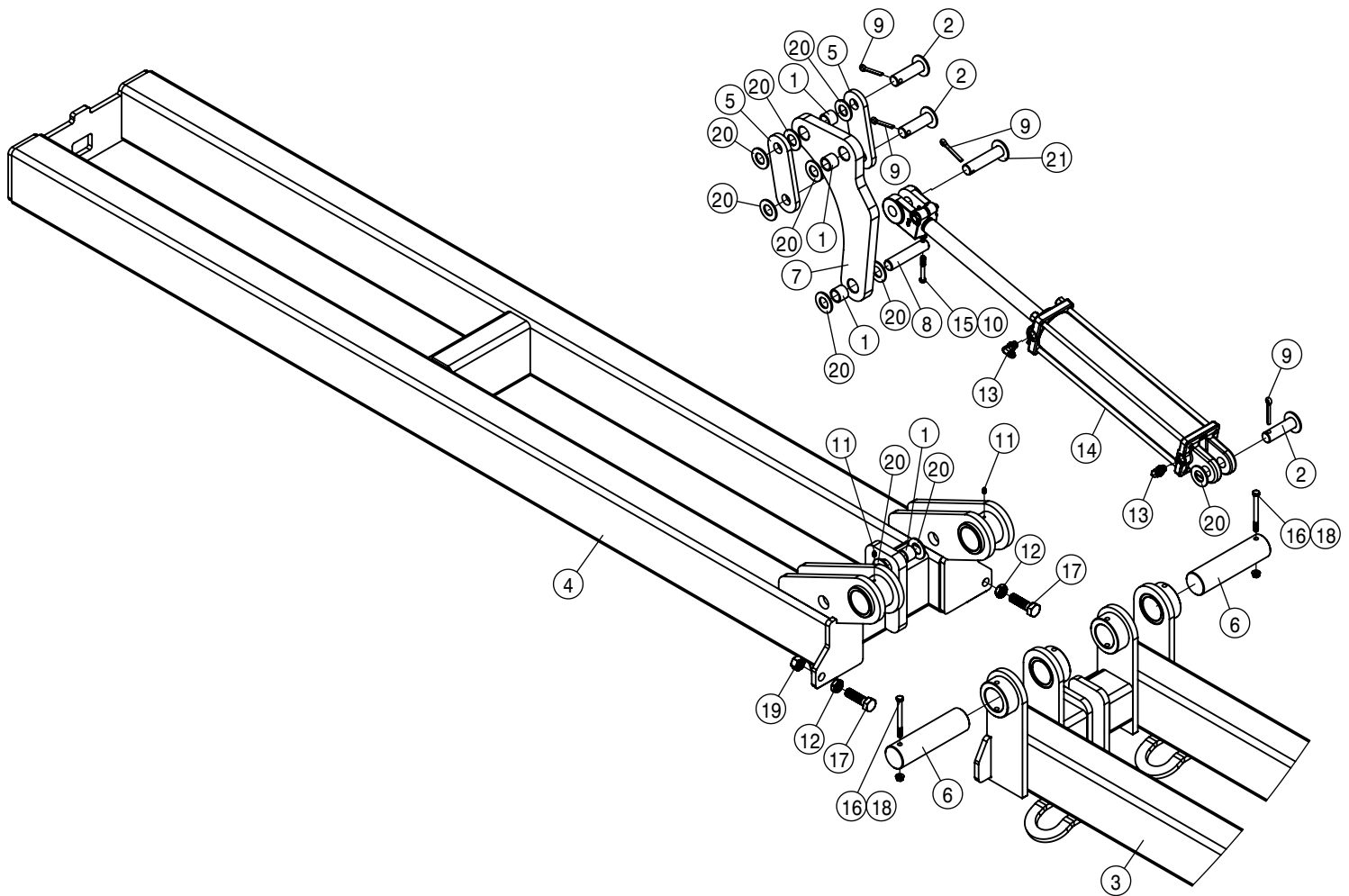
**BULK HOSE**

- 197008-HOSE 1/2 1-FBR BR BLK EPDM
- 197112-HOSE 3/4 1-FBR BR BLK EPDM
- 197116-HOSE 1IN 1-FBR BR BLK EPDM

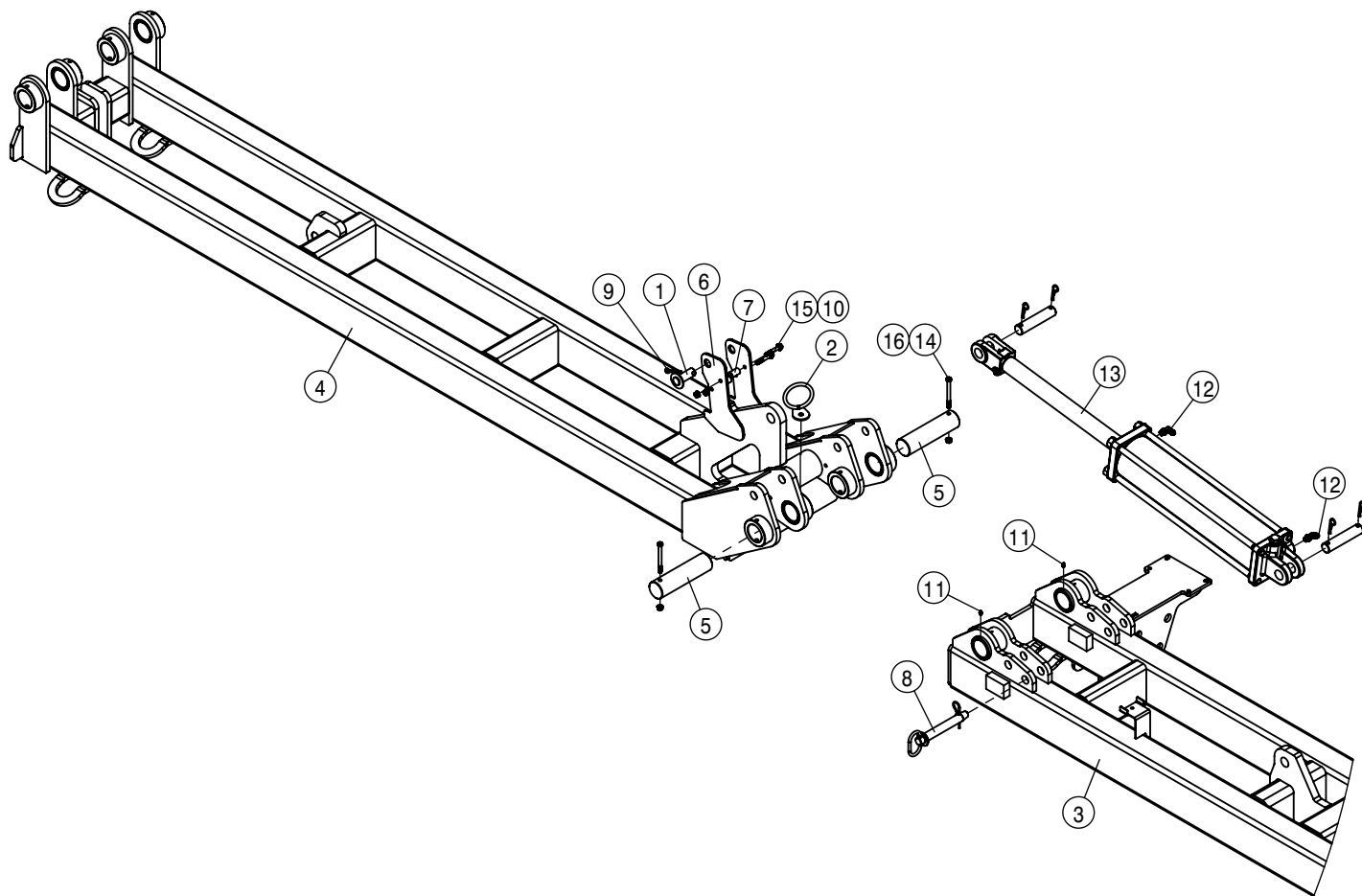
HOSE DIAG, 24 ROW 20" 40FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	30	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	12	439096	TIP MT BRKT WLD, NTB STS 03
3	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
4	24	520055	HOSE CLAMP NO 12 STAINLESS
5	62	520070	HOSE CLAMP NO 8 STAINLESS
6	6	520087	HOSE CLAMP NO 20 STAINLESS
7	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
8	1	601174	HOSE, 3/4 X 60 1BR BLK EPDM
9	1	601491	HOSE, 1 X 30 1BR BLK EPDM
10	1	601495	HOSE, 1 X 110 1BR BLK EPDM
11	1	601496	HOSE, 1 X 120 1BR BLK EPDM
12	6	601603	HOSE, 3/4 X 19 1BR BLK EPDM
13	2	601605	HOSE, 3/4 X 38 1BR BLK EPDM
14	1	601794	HOSE, 3/4 X 70 1BR BLK EPDM
15	1	601794	HOSE, 3/4 X 70 1BR BLK EPDM
16	12	629727	FINISH PLUG 1" SQ 16 GA
17	12	737790	CAP SET,ROUND,RED QUICK TEEJET
18	12	737791	1/2" TEEJET HOSE SHANK, NYLON
19	12	737817	NOZZLE BRACKET
20	6	737829	QUICK TJET LBO,1-TIP BODY .75
21	6	737830	QUICK TJET TEE,1-TIP BODY .75

60 FT TOOLBAR  
24-ROW 30" SPACING



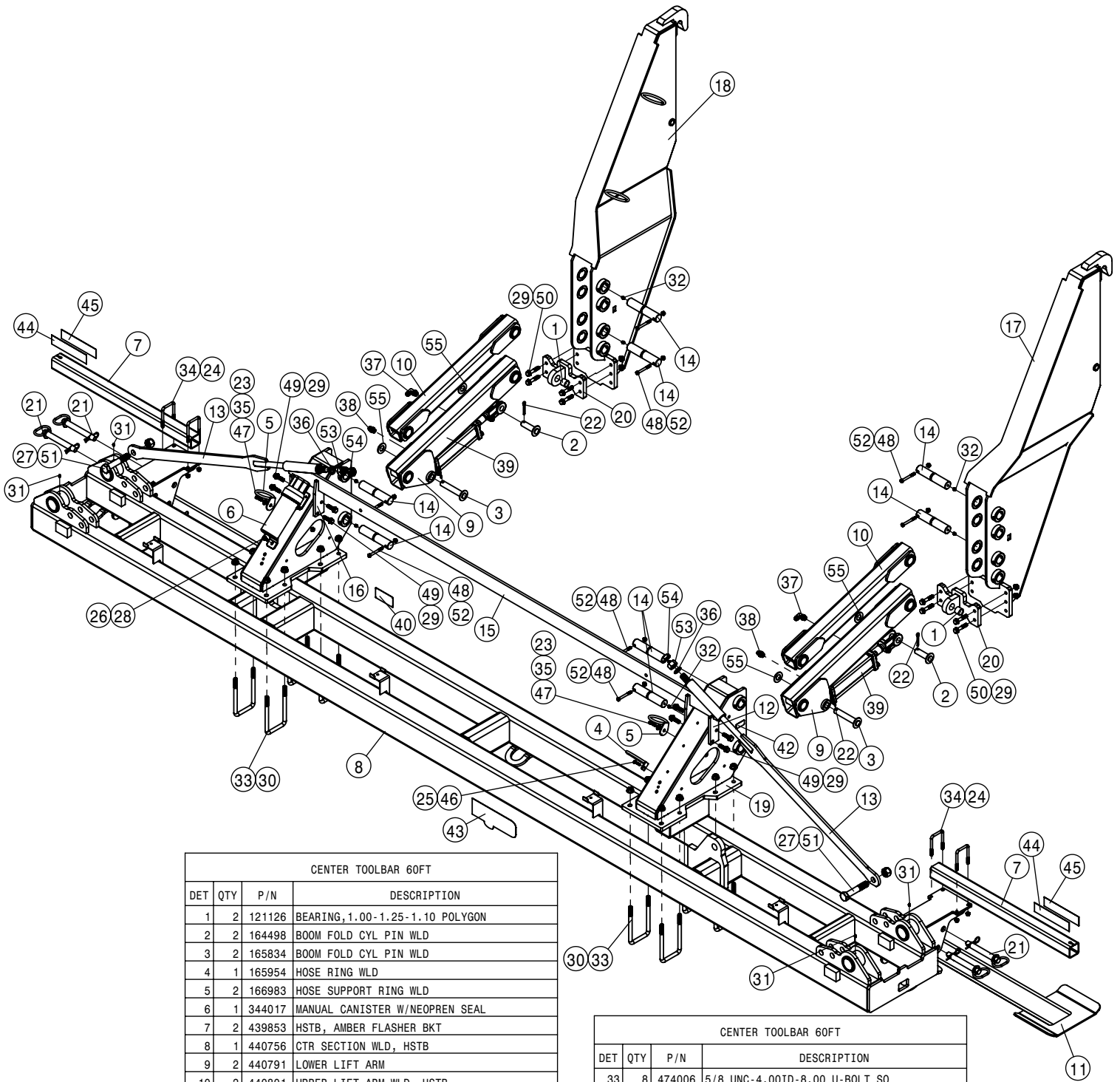


RIGHT OUTER TOOLBAR PIVOT 60FT			
DET	QTY	P/N	DESCRIPTION
1	5	121126	BEARING, 1.00-1.25-1.10 POLYGON
2	3	164498	BOOM FOLD CYL PIN WLD
3	1	440773	INR WING WLD, HSTB '15
4	1	440790	OUTER WING WLD, HSTB '15
5	2	440814	OUTER FOLD LINK, HSTB '15
6	2	440815	FOLD PIN, HSTB '15
7	1	440819	INNER/OUTER FOLD LINK HSTB '15
8	1	440849	FOLD CYL PIN, HSTB
9	4	470012N	5/16 X 2 COTTER PIN SS
10	1	470570	5/16UNC HEX FLG CNTR LOCK NUT
11	2	471005N	GREASE ZERK, 1/4-28 X 1/2 YZ
12	2	472334	3/4UNC HEX JAM NUT
13	2	618972	9/16MOR-90-9/16MJ .031 CHK VLV
14	1	621038	HYD CYL 3.50 X 16.00 X 1.375
15	1	900070	5/16UNC X 2 1/2 BOLT
16	2	900140N	3/8UNC X 4" HEX BOLT
17	2	900404	3/4UNC X 2 1/2 HEX BOLT
18	2	910004N	3/8UNC FLANGE CNTR LOCK NUT
19	2	910012N	3/4UNC HEX NUT
20	10	920008N	1" SAE FLAT WASHER
21	1	A53623	LEVEL CYL PIN WLD, TRANSOM END



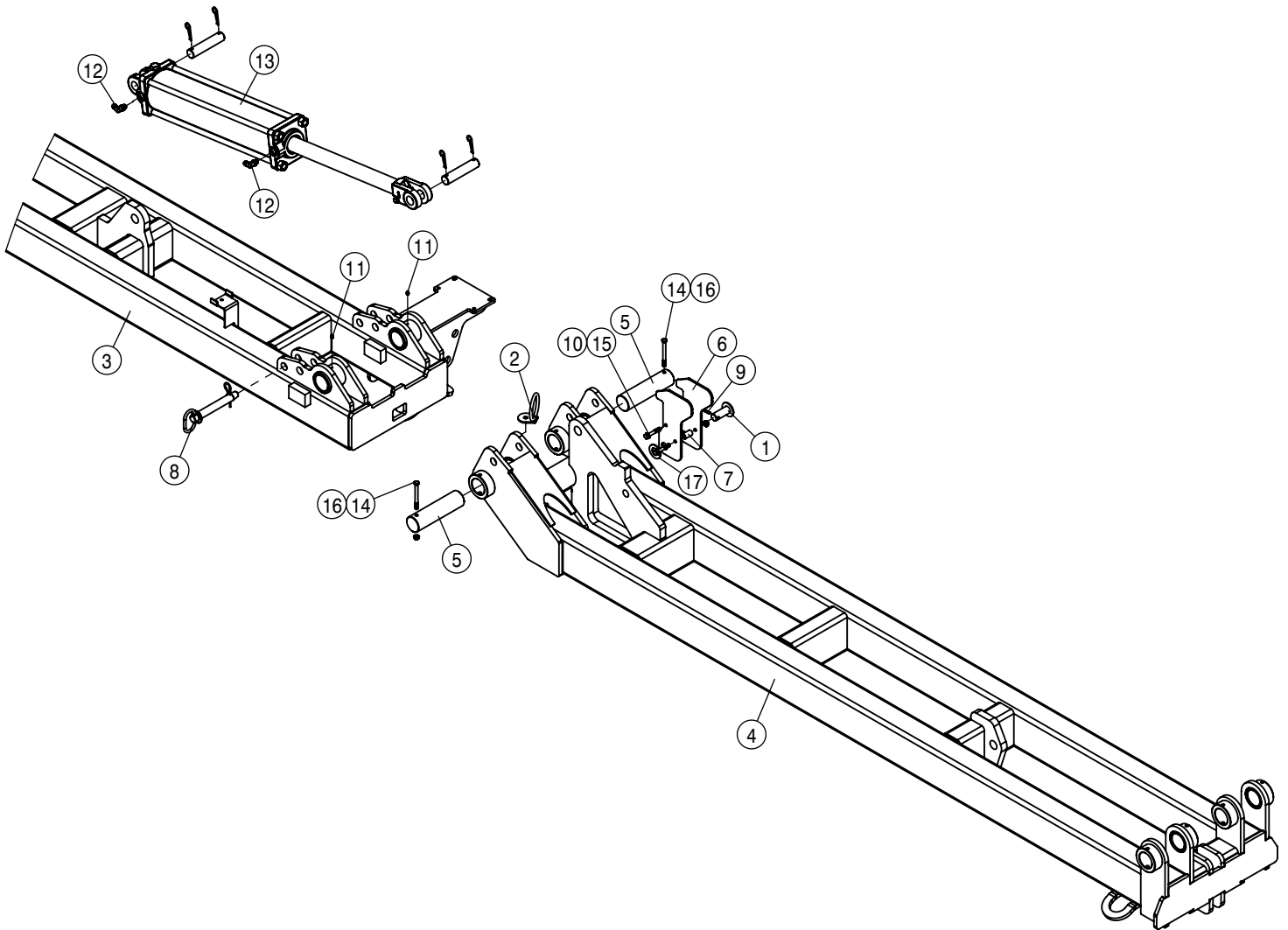
RIGHT INNER TOOLBAR PIVOT 60FT			
DET	QTY	P/N	DESCRIPTION
1	1	164524	BOOMERANG CNTR PIVOT PIN WLD
2	1	166983	HOSE SUPPORT RING WLD
3	1	440756	CTR SECTION WLD, HSTB
4	1	440773	INR WING WLD, HSTB '15
5	2	440815	FOLD PIN, HSTB '15
6	2	440823	WING LATCH, HSTB
7	2	440824	.750 OD X 11 GA X 1.25 TUBE
8	1	440850	HITCH PIN 1.00X6.00 WITH CLIP
9	1	470012N	5/16 X 2 COTTER PIN SS
10	2	470087N	3/8UNC HEX SERR FLG NUT YZ
11	2	471005N	GREASE ZERK, 1/4-28 X 1/2 YZ
12	2	618739	9/16MJIC-90-9/16MOR .065 CHK
13	1	621039	HYD CYL 5.00 X 20.00 X 2.00
14	2	900140N	3/8UNC X 4" HEX BOLT
15	2	900170N	3/8UNC X 2 1/4 SER FLANGE BOLT
16	2	910004N	3/8UNC FLANGE CNTR LOCK NUT



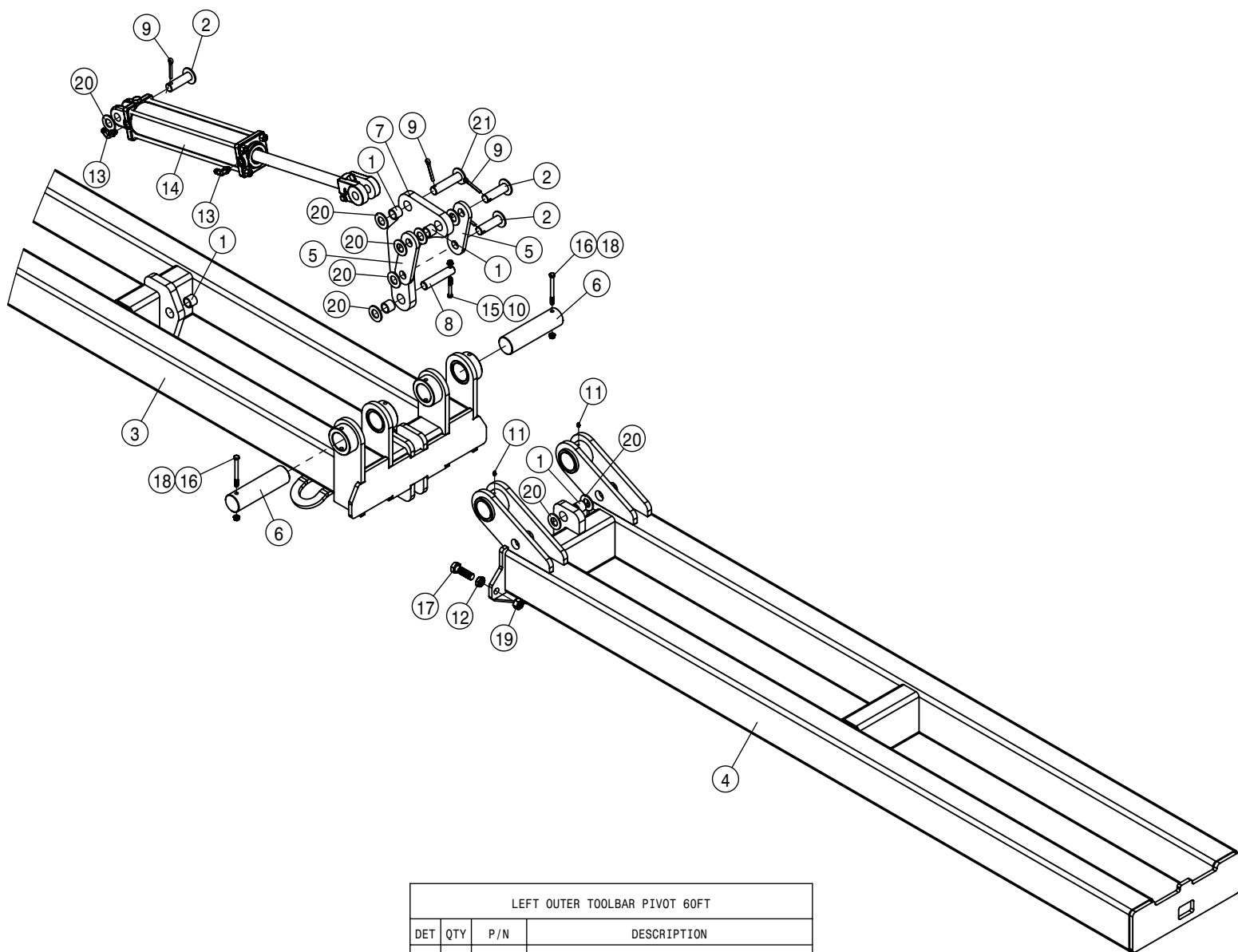


CENTER TOOLBAR 60FT			
DET	QTY	P/N	DESCRIPTION
1	2	121126	BEARING, 1.00-1.25-1.10 POLYGON
2	2	164498	BOOM FOLD CYL PIN WLD
3	2	165834	BOOM FOLD CYL PIN WLD
4	1	165954	HOSE RING WLD
5	2	166983	HOSE SUPPORT RING WLD
6	1	344017	MANUAL CANISTER W/NEOPREN SEAL
7	2	439853	HSTB, AMBER FLASHER BKT
8	1	440756	CTR SECTION WLD, HSTB
9	2	440791	LOWER LIFT ARM
10	2	440801	UPPER LIFT ARM WLD, HSTB
11	2	440809	STAND WLD, HSTB '15
12	2	440817	OUTER SUPPORT, CNTR TIE BAR
13	2	440822	TENSION BAR WLD, HSTB
14	8	440826	GREASABLE PIN, MAIN LIFT HSTB '15
15	1	440827	CNTR TIE BAR WLD, HSTB
16	2	440830	INNER SUPPORT, CNTR TIE BAR
17	1	440841	LH QUICK ATTACH WLD, HSNTB
18	1	440842	RH QUICK ATTACH WLD, HSNTB
19	2	440846	TOOL BAR ADPTR WLD, HSNTB
20	2	440848	MAIN LIFT ADJ MNT WLD, HSTB '15
21	4	440850	HITCH PIN 1.00X6.00 WITH CLIP
22	4	470012N	5/16 X 2 COTTER PIN SS
23	2	470087	3/8UNC HEX SERR FLANGE NUT
24	8	470087N	3/8UNC HEX SERR FLG NUT YZ
25	1	470113	5/16UNC SERR FLG LOCK NUT
26	2	470113N	5/16UNC SERR FLG LOCK NUT SS
27	2	470144	1" UNC HEX NYLOCK NUT YZ
28	2	470234N	5/16UNC X 1" SERR FLG BOLT SS
29	16	470360N	1/2UNC SERR FLG HEX NUT YZ
30	16	470682	5/8UNC HEX FLG CNTR LOCK NUT
31	4	471005N	GREASE ZERK, 1/4-28 X 1/2 YZ
32	8	471021N	GREASE ZERK 1/8 NPT STRAIGHT YZ

CENTER TOOLBAR 60FT			
DET	QTY	P/N	DESCRIPTION
33	8	474006	5/8 UNC-4.00ID-8.00 U-BOLT SQ
34	4	474008	3/8UNC-2.50ID-3 1/2 U-BOLT SQ
35	2	483043	3/8 REGULAR FLAT WASHER
36	2	483070	1.00-1.500D-10GA MACH BUSH
37	2	618241	3/4MJIC-90-3/4MOR LBO
38	2	618973	3/4MJIC-3/4MOR ADPTR
39	2	621037	HYD CYL 3.00 X 8.00 X 1.375
40	1	650315	HAGIE NAMEPLATE
NS	1	650480	HSTB DECAL SHEET
42	2	650485	DECAL, MOUNT BOLT TORQ
43	1	650829	HSTB DECAL 4.5"
44	2	650992	TAPE REFLECTIVE YELLOW 2X9
45	2	650993	TAPE REFLECTIVE RED 2X9
46	1	900066	5/16UNC X 1 1/4 HEX BOLT
47	2	900130	3/8UNC X 1 1/4 HEX BOLT
48	8	900137	3/8UNC X 3 1/4 HEX BOLT
49	8	900266N	1/2UNC X 1 3/4 SERR FLANGE BOLT
50	8	900268N	1/2UNC X 2 1/2 SERR FLG BOLT
51	2	900817	1" UNC X 5 1/2" HEX BOLT GR8 YZ
52	8	910004N	3/8UNC FLANGE CNTR LOCK NUT
53	2	910017N	1" UNC HEX NUT
54	2	910101N	1" UNC HEX JAM NUT
55	4	920008N	1" SAE FLAT WASHER

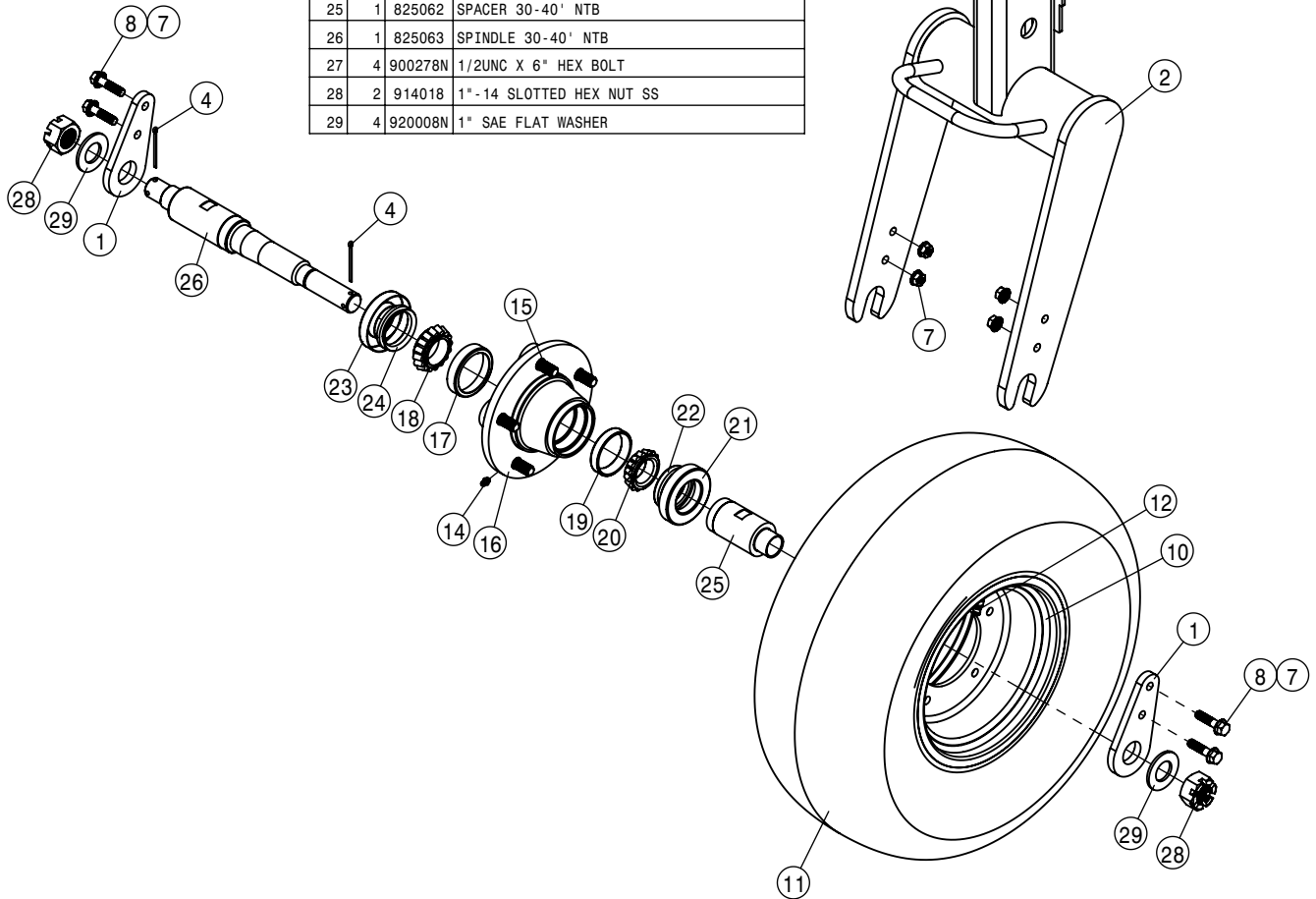


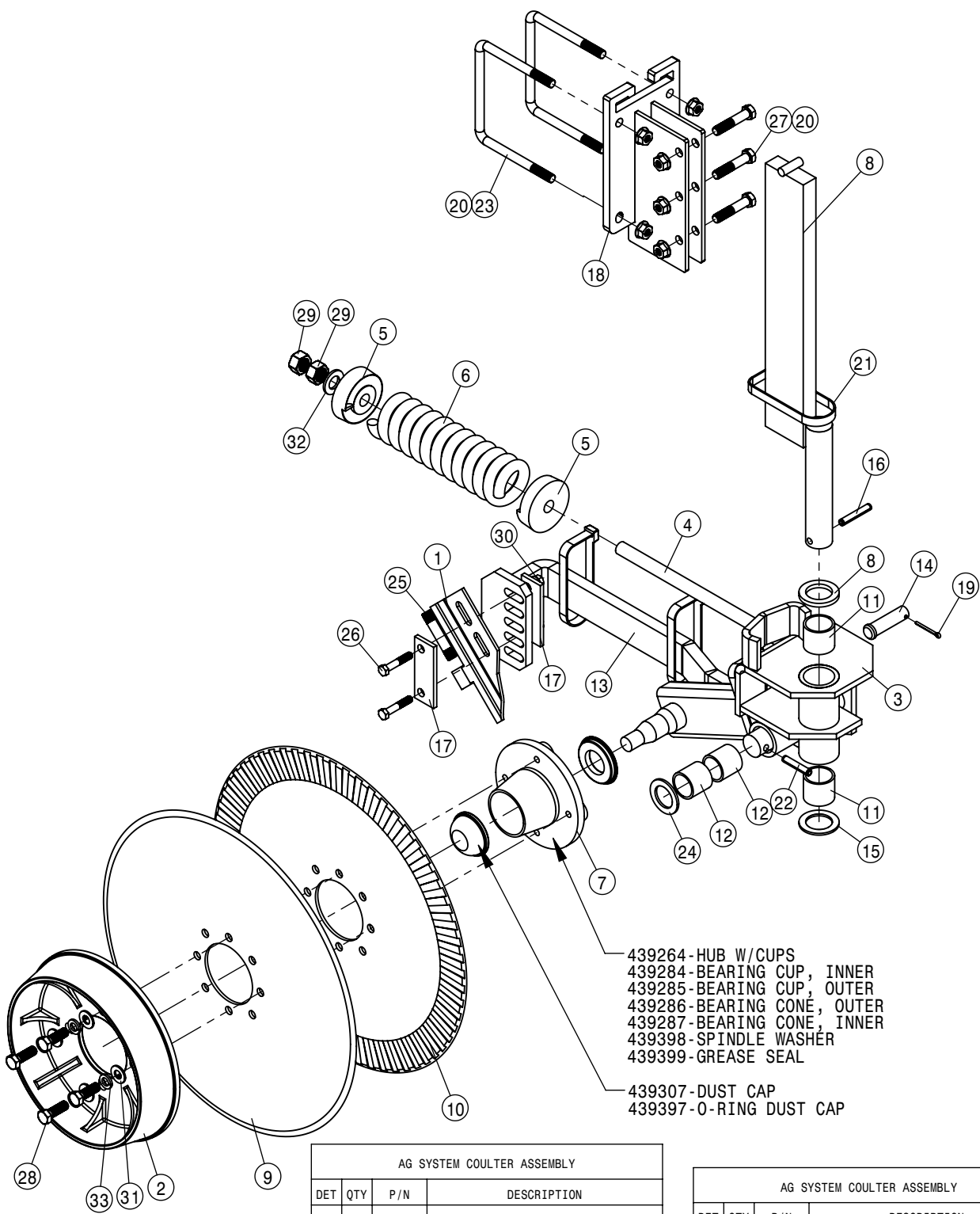
LEFT INNER TOOLBAR PIVOT 60FT			
DET	QTY	P/N	DESCRIPTION
1	1	164524	BOOMERANG CNTR PIVOT PIN WLD
2	1	166983	HOSE SUPPORT RING WLD
3	1	440756	CTR SECTION WLD, HSTB
4	1	440773	INR WING WLD, HSTB '15
5	2	440815	FOLD PIN, HSTB '15
6	2	440823	WING LATCH, HSTB
7	2	440824	.750 OD X 11 GA X 1.25 TUBE
8	1	440850	HITCH PIN 1.00X6.00 WITH CLIP
9	1	470012N	5/16 X 2 COTTER PIN SS
10	2	470087N	3/8UNC HEX SERR FLG NUT YZ
11	2	471005N	GREASE ZERK, 1/4-28 X 1/2 YZ
12	2	618739	9/16MJC-90-9/16MOR .065 CHK
13	1	621039	HYD CYL 5.00 X 20.00 X 2.00
14	2	900140N	3/8UNC X 4" HEX BOLT
15	2	900170N	3/8UNC X 2 1/4 SER FLANGE BOLT
16	2	910004N	3/8UNC FLANGE CNTR LOCK NUT
17	1	920008N	1" SAE FLAT WASHER



LEFT OUTER TOOLBAR PIVOT 60FT			
DET	QTY	P/N	DESCRIPTION
1	5	121126	BEARING, 1.00-1.25-1.10 POLYGON
2	3	164498	BOOM FOLD CYL PIN WLD
3	1	440773	INR WING WLD, HSTB '15
4	1	440790	OUTER WING WLD, HSTB '15
5	2	440814	OUTER FOLD LINK, HSTB '15
6	2	440815	FOLD PIN, HSTB '15
7	1	440819	INNER/OUTER FOLD LINK HSTB '15
8	1	440849	FOLD CYL PIN, HSTB
9	4	470012N	5/16 X 2 COTTER PIN SS
10	1	470570	5/16UNC HEX FLG CNTR LOCK NUT
11	2	471005N	GREASE ZERK, 1/4-28 X 1/2 YZ
12	2	472334	3/4UNC HEX JAM NUT
13	2	618972	9/16MOR-90-9/16MJ .031 CHK VLV
14	1	621038	HYD CYL 3.50 X 16.00 X 1.375
15	1	900070	5/16UNC X 2 1/2 BOLT
16	2	900140N	3/8UNC X 4" HEX BOLT
17	2	900404	3/4UNC X 2 1/2 HEX BOLT
18	2	910004N	3/8UNC FLANGE CNTR LOCK NUT
19	2	910012N	3/4UNC HEX NUT
20	10	920008N	1" SAE FLAT WASHER
21	1	A53623	LEVEL CYL PIN WLD, TRANSOM END

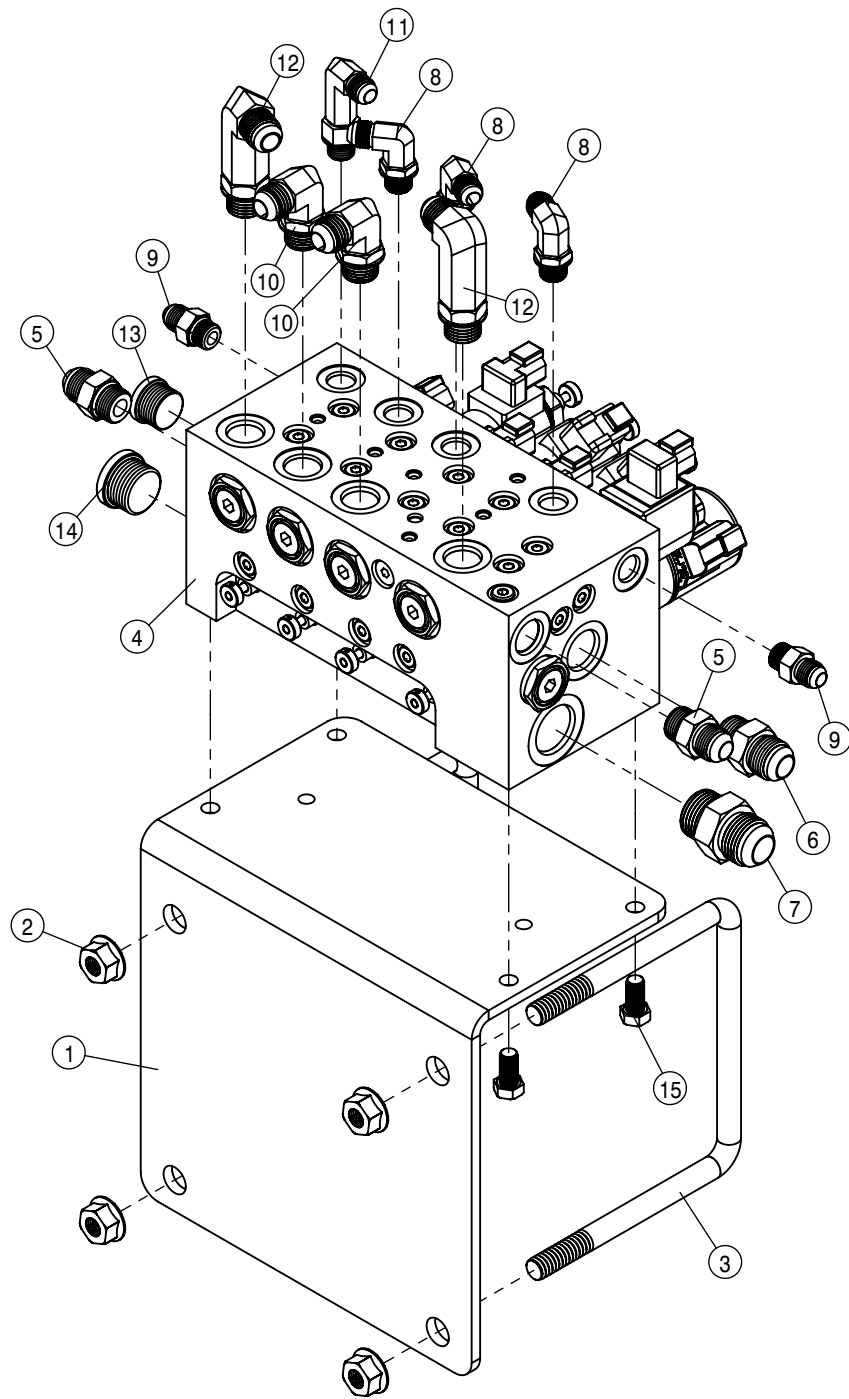
GAUGE WHEEL ASSEMBLY 60FT			
DET	QTY	P/N	DESCRIPTION
1	2	439848	OTR GAUGE WHL KEEPER NTB '12
2	1	440123	30-40 GAUGE WHL WDLMNT
3	1	440743	GAUGE WHL MNT ASSY, HSNBTB
4	2	470007	COTTER PIN 1/8 X 2
5	2	470155	1 X 4 CLEVIS PIN
6	2	470235	HAIR PIN, 1/8 DIA X 2 1/2 LG
7	4	472029	3/8UNC SERR FLANGE NUT SS
8	4	473869	3/8UNC X 1 1/2 SER FLANGE BOLT SS
9	1	629778	100MM X 50MM END CAP
10	1	820163	10 X 6, 5 ON 5.5 RIM NO OFFSET
11	1	820164	20.5 X 8.0 - 10 TIRE
12	1	821252	VALVE STEM, TR-618A, STAINLESS
NS	5	824052	1/2UNF 60 DEG WHL NUT
14	1	825046	GREASE ZERK FOR 825042
15	5	825047	1/2-20 WHL BOLT FOR 825042
16	1	825048	HUB, 5-BOLT FOR 825042
17	1	825049	OUTER BEARING CUP FOR 825042
18	1	825050	INNER BRG CONE FOR 825042
19	1	825051	OUTER BEARING CUP FOR 825042
20	1	825052	INNER BEARING CONE FOR 825042
21	1	825053	GRASS WRAP GUARD FOR 825043
22	1	825055	V-SEAL FOR 825043
23	1	825056	GRASS WRAP GUARD FOR 824044
24	1	825058	V-SEAL FOR 825044
25	1	825062	SPACER 30-40' NTB
26	1	825063	SPINDLE 30-40' NTB
27	4	900278N	1/2UNC X 6" HEX BOLT
28	2	914018	1" - 14 SLOTTED HEX NUT SS
29	4	920008N	1" SAE FLAT WASHER



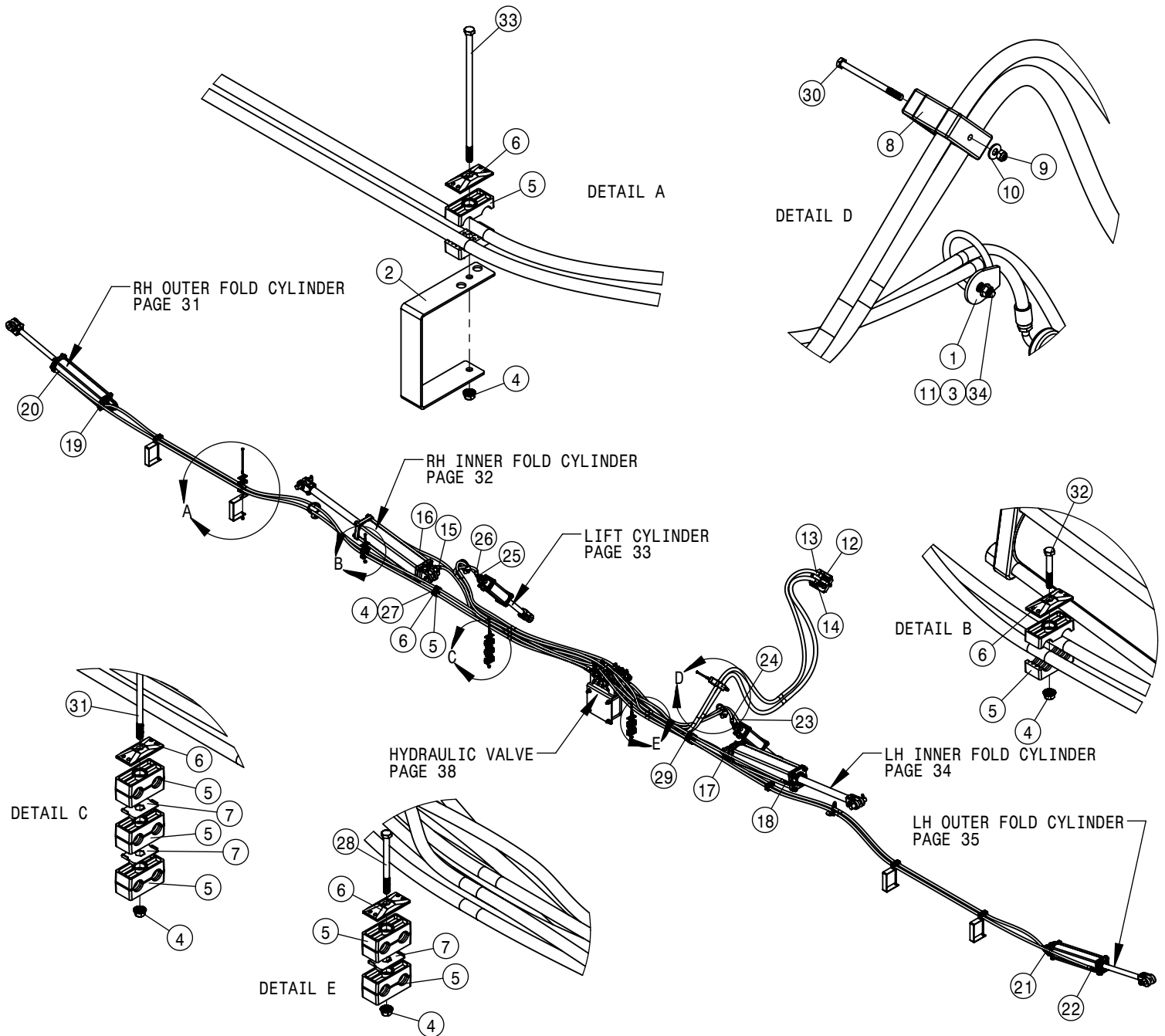


AG SYSTEM COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439219	SPRAY NOZZLE BRKT
2	1	439224	DEPTH WHEEL
3	1	439225	CENTER MOUNT HOUSING
4	1	439226	EYE BOLT, SPRING RETAINER
5	2	439227	SPRING STOP
6	1	439229	COMPRESSION SPRING
7	1	439264	HUB WITH CUP
8	1	439789	COULTER SWIVEL BAR
9	1	439790	COULTER BLADE, 20" SMOOTH
10	1	440081	COULTER BLADE, 20" FLUTED
11	2	440176	SWIVEL BUSHING
12	2	440177	PIVOT BUSHING
13	1	440178	PIVOT ARM
14	1	440179	SPRING PIVOT PIN
15	1	440180	1.5" WASHER
16	1	440181	ROLL PIN, 3/8DIA X 2 1/4
17	2	440184	HOSE LOOP BRKT

AG SYSTEM COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
18	1	440831	COULTER MNT BRKT WLD HSTB '15
19	1	470035	COTTER PIN 5/32 1 3/4 LG
20	7	470360N	1/2UNC SERR FLG HEX NUT YZ
21	4	470555	CABLE TIE, 1/2 X 15" BLACK NYL
22	1	473962	ROLL PIN, 3/8 X 2
23	2	474007	1/2 UNC-6.00ID-5.50 U-BOLT SQ
24	1	483022	1.375 X 2.125 X .134 MACH WASH
25	1	507028	SS PIPE NIPPLE .25NPT-3.00
26	2	900133	3/8UNC X 2" HEX BOLT
27	3	900268	1/2UNC X 2 1/2 HEX BOLT
28	4	900303	1/2UNF X 1 1/2 HEX BOLT
29	2	910012	3/4UNC HEX NUT
30	2	910042	3/8-16UNC HEX FLG NUT SM MC GR8
31	4	920004	1/2 SAE FLAT WASHER
32	1	920006	3/4 SAE FLAT WASHER
33	4	920504	1/2 LOCK WASHER

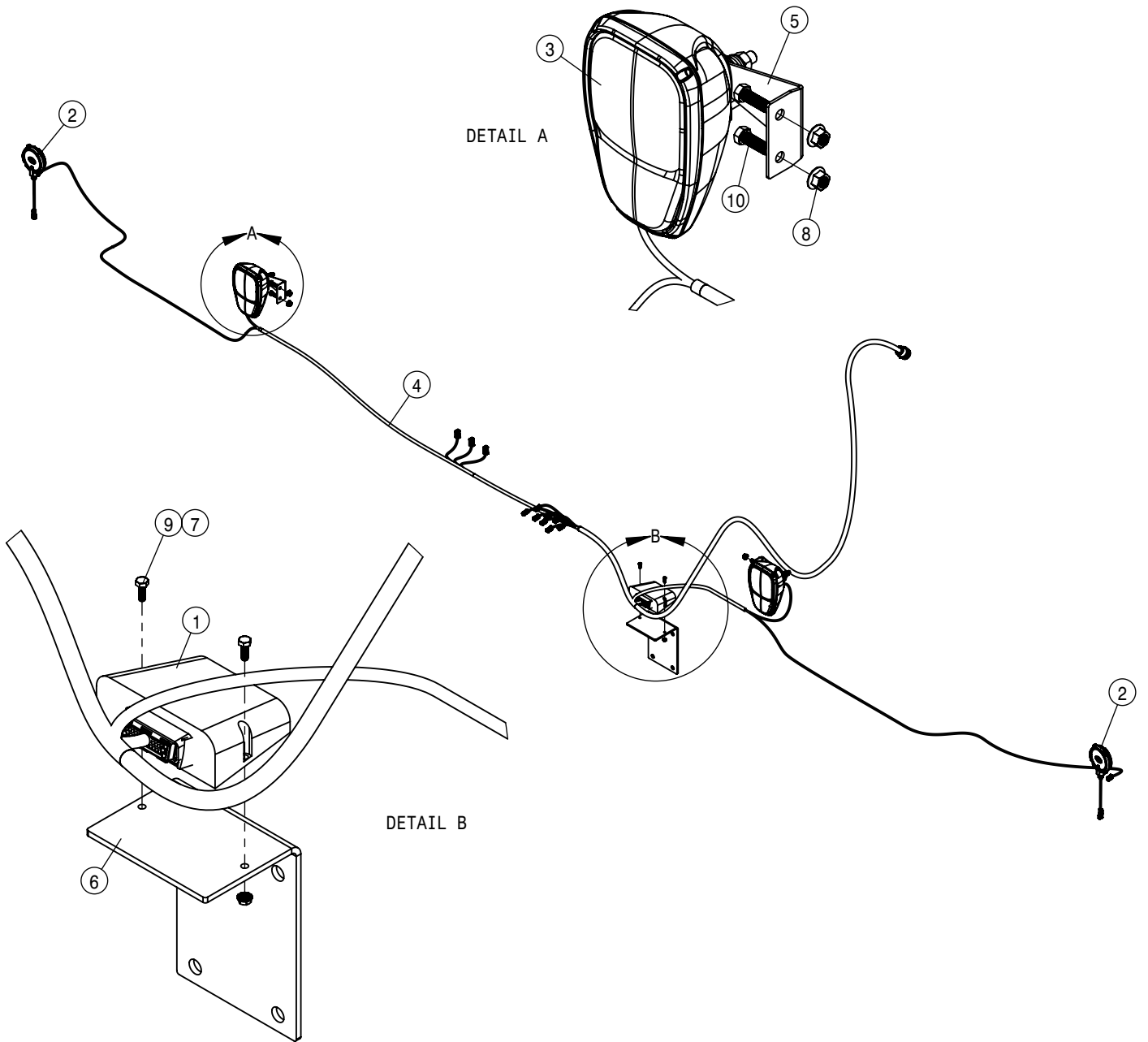


HYDRAULIC VALVE ASSEMBLY 60FT			
DET	QTY	P/N	DESCRIPTION
1	1	439852	VALVE BRKT HSTB '15
2	4	470360	1/2UNC SERR FLG HEX NUT
3	2	474007	1/2 UNC-6.00ID-5.50 U-BOLT SQ
4	1	606453	HYD VALVE, COMATROL, LCNTB
5	2	611125	3/4MJIC-3/4MOR ADPTR
6	1	611126	7/8MJIC-7/8MOR ADPTR
7	1	611127	1 1/16MJIC-1 1/16MOR ADPTR
8	3	618119	9/16MJIC-90-9/16MOR LBO
9	2	618126	9/16MJIC-9/16MOR ADPTR
10	2	618241	3/4MJIC-90-3/4MOR LBO
11	1	618440	9/16MJIC-90-9/16MOR EX LG LBO
12	2	618443	3/4MJIC-90-3/4MOR EX LG LBO
13	1	618756	7/8 MOR PLUG, HEX SOCKET
14	1	618757	1 1/16MOR PLUG, HEX SOCKET
15	4	900128	3/8UNC X 3/4 HEX BOLT



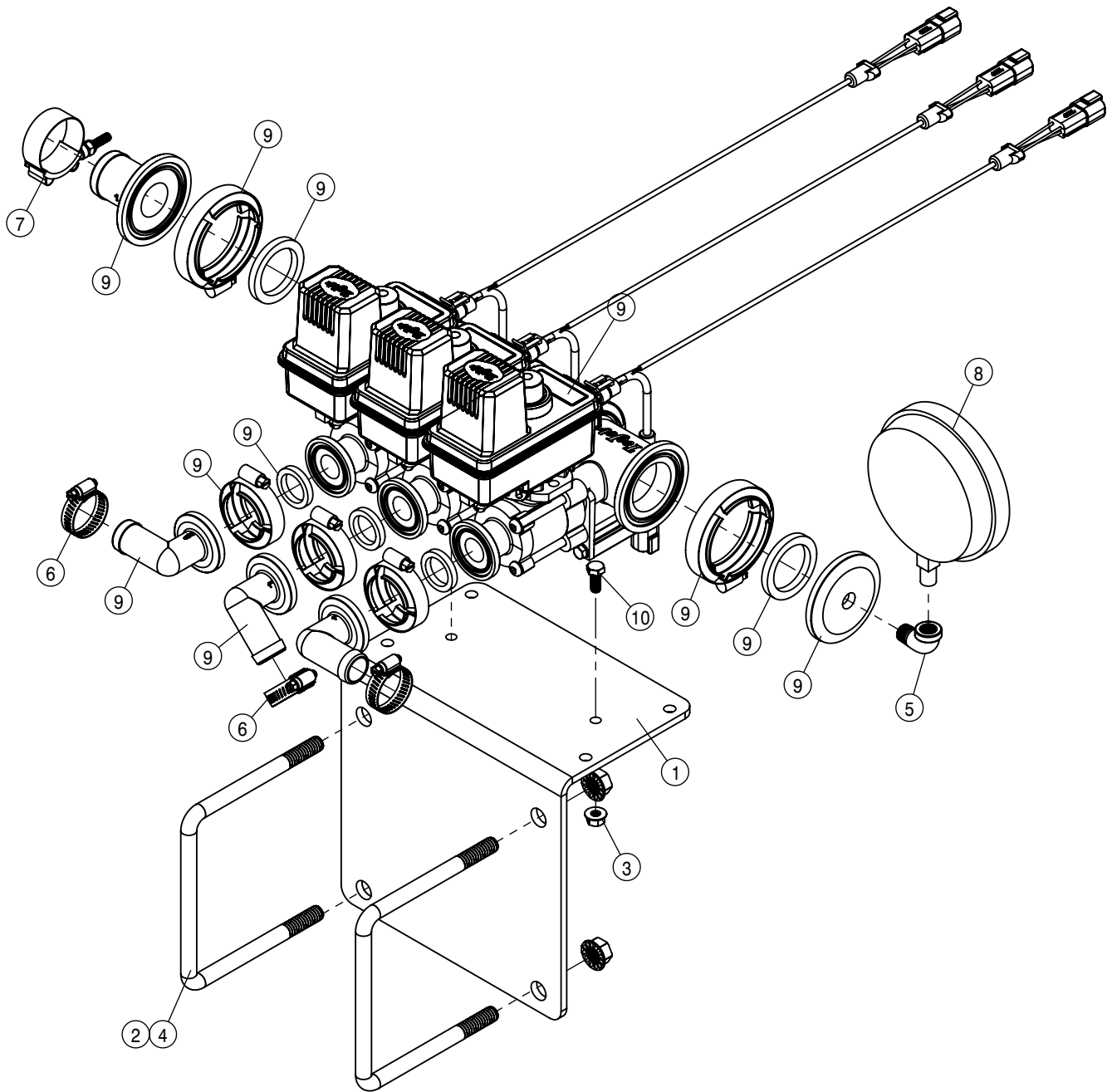
HYDRAULIC HOISING 60FT			
DET	QTY	P/N	DESCRIPTION
1	4	166983	HOSE SUPPORT RING WLD
2	4	439887	HSTB C CLAMP HOSE BKT
3	2	470087	3/8UNC HEX SERR FLANGE NUT
4	10	470113	5/16UNC SERR FLG LOCK NUT
5	14	470274	TUBE CLAMP BODY, .750-.750
6	10	470276	CLAMP COVER PLATE, SNGL, 2.55LG
7	10	470281	STACK BOLT SAFETY LOCK PLATE
8	1	470705	HSTB QUICK ATTACH CLAMP
9	1	473001	5/16UNC HEX NUT, NYLOC
10	1	483040	5/16 REGULAR FLAT WASHER
11	2	483043	3/8 REGULAR FLAT WASHER
12	1	607114	MOBILE HALF COUPLER ASSY, 0502
13	1	617292	10-451TC-10FJX-10FJX-145 H/A
14	1	617293	12-451TC-12FJX-12FJX-144 H/A
15	1	617294	06-451TC-06FJX-08FJX90-76 H/A
16	1	617295	06-451TC-06FJX-06FJX-100 H/A
17	1	617296	06-451TC-06FJX-08FJX90-55 H/A

HYDRAULIC HOISING 60FT			
DET	QTY	P/N	DESCRIPTION
18	1	617297	06-451TC-06FJX-06FJX-78 H/A
19	1	617298	06-451TC-06FJX-08FJX-202 H/A
20	1	617299	06-451TC-06FJX-06FJX-220 H/A
21	1	617300	06-451TC-06FJX-08FJX-187 H/A
22	1	617301	06-451TC-06FJX-06FJX-205 H/A
23	1	617302	06-451TC-06FJX-08FJX-59 H/A
24	1	617303	06-451TC-08FJX90-08FJX-50 H/A
25	1	617304	06-451TC-06FJX-08FJX-102 H/A
26	1	617305	06-451TC-08FJX90-08FJX-93 H/A
27	1	900070	5/16UNC X 2 1/2 BOLT
28	1	900075	5/16UNC X 3 3/4 HEX BOLT
29	1	900076	5/16UNC X 4" HEX BOLT
30	1	900078	5/16UNC X 4 1/2 HEX BOLT
31	1	900081	5/16UNC X 5 1/4 HEX BOLT YZ
32	2	900086	5/16UNC X 2 1/4 HEX BOLT
33	4	900087	5/16UNC X 8 1/2 HEX BOLT
34	2	900130	3/8UNC X 1 1/4 HEX BOLT

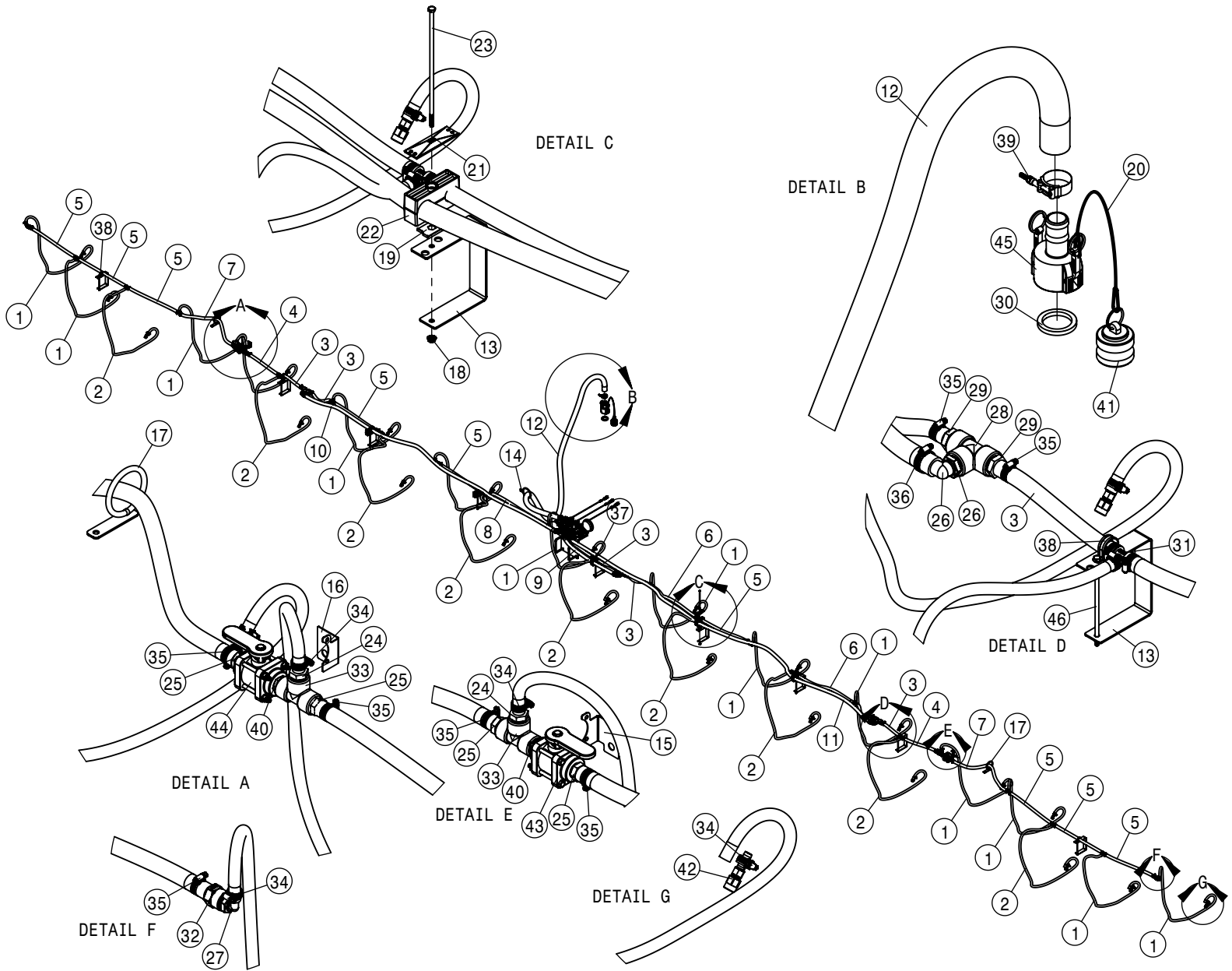


ELECTRICAL WIRING 60FT			
DET	QTY	P/N	DESCRIPTION
1	1	292015	IQAN-MC2 MODULE
2	2	292246	LIGHT, AMBER FLASHER, LED
3	2	292556	HEAD/FLASHER LIGHT
4	1	294290	60FT HSNTB ELEC. HARNESS
5	2	439889	HSTB HEADLIGHT BKT
6	1	439890	HSNTB MODULE BRKT
7	2	470121	1/4 UNC SERR FLG LOCK NUT
8	4	470325	7/16 UNC SERR FLG HEX NUT
9	2	900002	1/4UNC x 3/4 HEX BOLT
10	4	900196	7/16UNC X 1 1/4 HEX BOLT





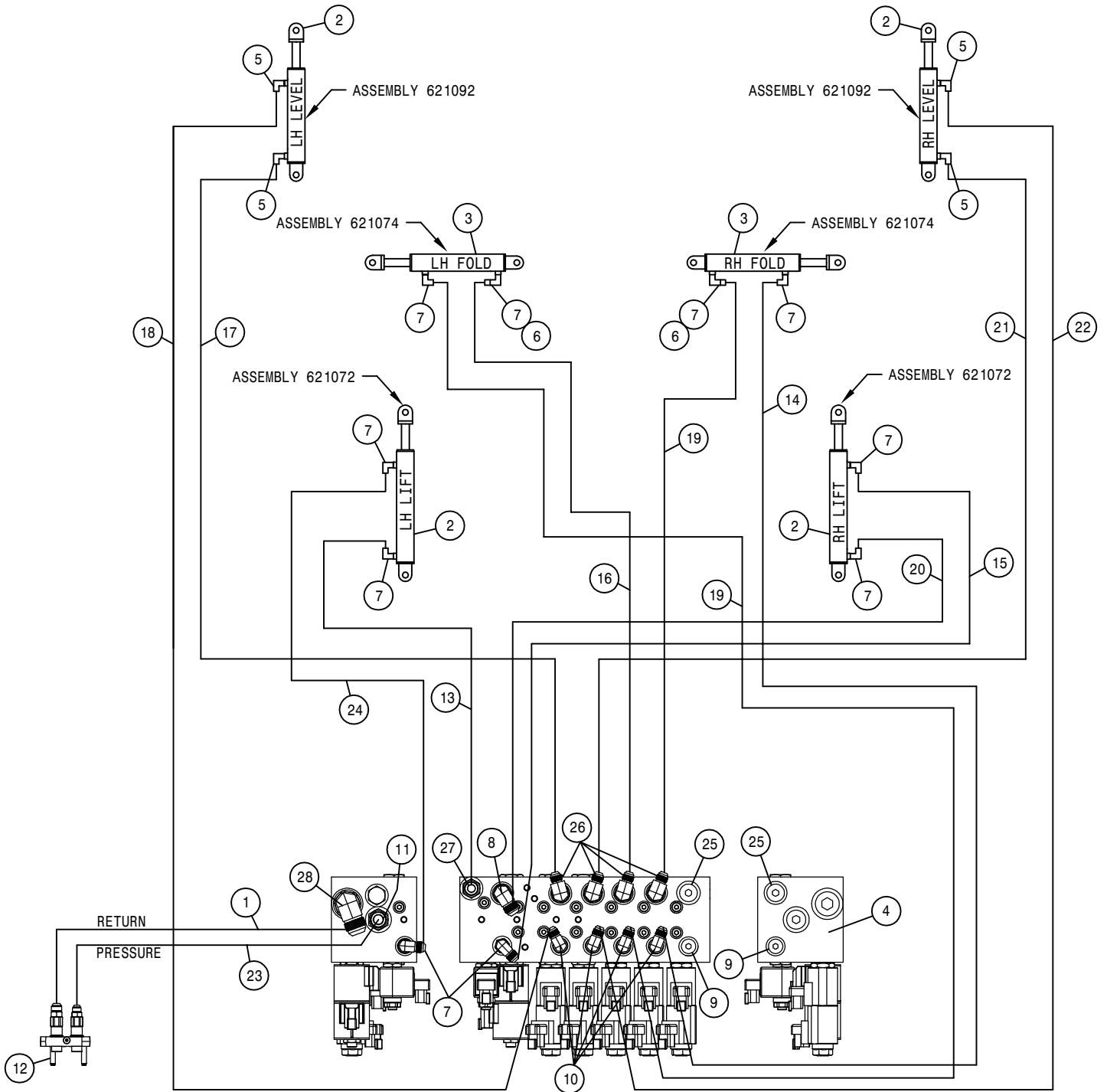
SOLUTION VALVE ASSEMBLY 60FT			
DET	QTY	P/N	DESCRIPTION
1	1	439852	VALVE BRKT HSTB '15
2	4	470360	1/2UNC SERR FLG HEX NUT
3	2	470570	5/16UNC HEX FLG CNTR LOCK NUT
4	2	474007	1/2 UNC-6.00ID-5.50 U-BOLT SQ
5	1	505116	SS PIPE ST EL 90DEG .25NPT
6	3	520090	HOSECLAMP NO 16 STAINLESS
7	1	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
8	1	690359	PRESSURE GA GLYCERI 100 PSI
9	1	696197	TEEJET 450 SERIES MANIFOLD VALVE_SHORT
10	2	900064S	5/16UNC X 3/4" HEX BOLT SS



SOLUTION HOSEING 60FT			
DET	QTY	P/N	DESCRIPTION
1	14	197008-070	HOSE 1/2 1-FBR BR BLK EPDM
2	9	197008-081	HOSE 1/2 1-FBR BR BLK EPDM
3	6	197112-013	HOSE 3/4 1-FBR BR BLK EPDM
4	2	197112-019	HOSE 3/4 1-FBR BR BLK EPDM
5	10	197112-028	HOSE 3/4 1-FBR BR BLK EPDM
6	2	197112-034	HOSE 3/4 1-FBR BR BLK EPDM
7	2	197112-037	HOSE 3/4 1-FBR BR BLK EPDM
8	1	197112-041	HOSE 3/4 1-FBR BR BLK EPDM
9	1	197116-033	HOSE 1IN 1-FBR BR BLK EPDM
10	1	197116-150	HOSE 1IN 1-FBR BR BLK EPDM
11	1	197116-183	HOSE 1IN 1-FBR BR BLK EPDM
12	1	197124-130	HOSE 1 1/2 2-FBR BR BLK EPDM
13	9	439887	HSTB C CLAMP HOSE BKT
14	2	440847	HOSE RING WLD
15	1	440851	MAN SHUT OFF VLV BRKT HSTB '15
16	1	440852	MAN SHUT OFF VLV BRKT HSTB '15
17	2	440854	3" X .41 MTNG HOLE, HOSE KEEPER WLD
18	9	470121	1/4 UNC SERR FLG LOCK NUT
19	5	470281	STACK BOLT SAFETY LOCK PLATE
20	1	470322	LANYARD 8" NYLON LOOP/LOOP
21	5	470722	4 x 1 DUAL CLAMP COVER PLATE
22	5	470724	TUBE CLAMP BODY, 1.18 X 1.38
23	5	473884	1/4-20 UNC X 9 1/2 HEX BOLT

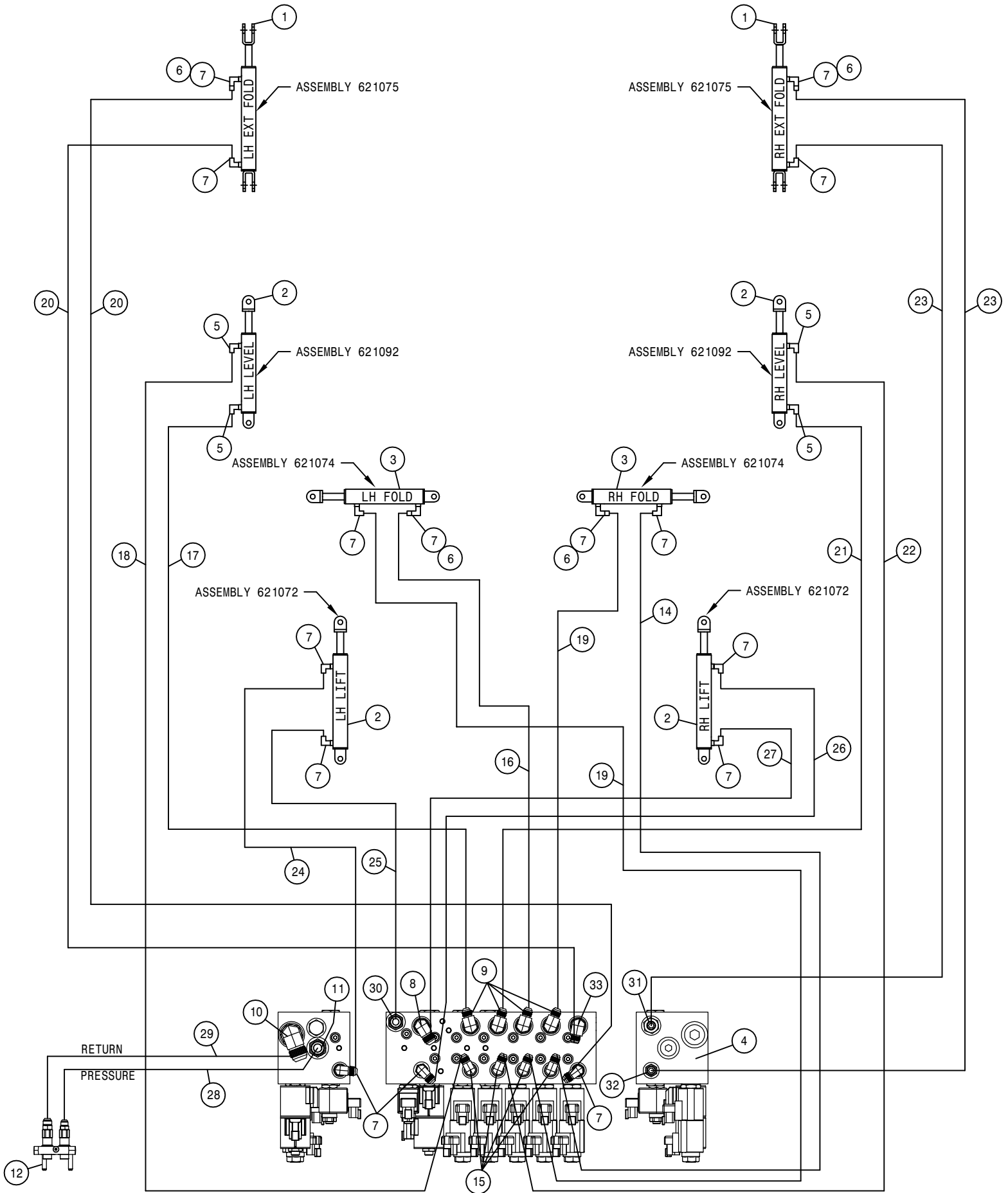
SOLUTION HOSEING 60FT			
DET	QTY	P/N	DESCRIPTION
24	2	500019	3/4NPT-1/2HOSE BARB, POLY
25	4	500022	3/4NPT-3/4HOSE BARB, POLY
26	3	500024	1"NPT-90-1"HOSE BARB, POLY
27	6	500041	3/4NPT-90-1/2" HOSE BARB, POLY
28	3	500075	1" NPT PIPE TEE, POLY
29	6	500108	STRAIGHT-POLY, 1" MPT X 3/4 HOSE BARB
30	1	500231	2"FP FLANGE GASKET,EXTRA THICK
31	15	500284	"3/4 X 3/4 X 1/2" HOSE BARB, POLY
32	6	500290	"3/4NPT-3/4" HOSE BARB POLY
33	2	505218	3/4 NPT PIPE TEE, POLY
34	46	520070	HOSE CLAMP NO 8 STAINLESS
35	46	520080	HOSE CLAMP NO 10 STAINLESS
36	3	520090	HOSECLAMP NO 16 STAINLESS
37	1	520100	CUSH HOSE CLAMP,#24, 1 1/2D X 1/2W
38	4	520102	CUSH HOSE CLAMP,#20, 1 1/4D X 1/2W
39	1	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
40	2	690098	3/4NPT CLOSE NIPPLE, POLY
41	1	690392	PLUG FOR 2.00 FEMALE COUPLER
42	23	696012	TEE-JET HOSE SHANK CHECK VALVE SS
43	1	696135	BALL VALVE, 3/4FNPT POLY
44	1	696135	BALL VALVE, 3/4FNPT POLY
45	1	696243	2" FEMALE CAM CPLR - 1 1/2" HOSE BRB
46	4	900034	1/4UNC X 7" HEX BOLT

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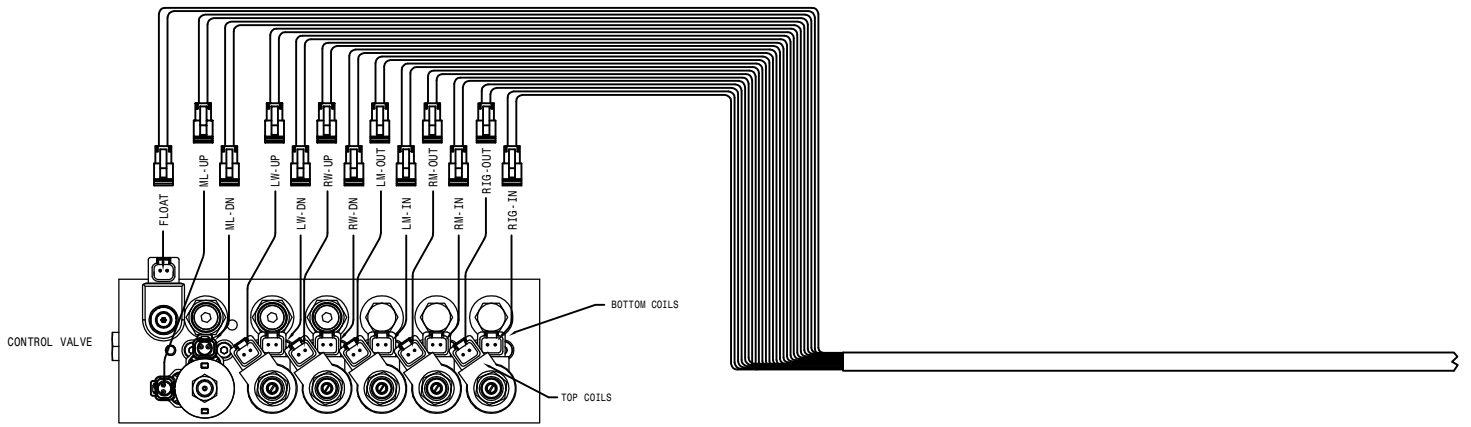
NITROGEN T-BAR 30FT HYD DIAGRAM 2016  
REFERENCE DRAWING NO. 499367\_RevA

DET.	QTY	PART NO.	DESCRIPTION	DET.	QTY	PART NO.	DESCRIPTION
1	1	617397	12-451TC-12FJX-12FJX-70 H/A	15	1	617294	06-451TC-06FJX-08FJX90-76 H/A
2	4	621153	3.00 X 11.00 X 1.38 LEVEL CYL	16	1	616209	04-451TC-06FJX-06FJX-64 H/A
3	2	621566	HYD CYL, 2.50 X 11.00 X 1.375	17	1	616084	04-451TC-06FJX-06FJX-46 H/A
4	1	606402	HYD VLV 6 SEC W/FLOAT	18	1	616176	04-451TC-06FJX-06FJX-58 H/A
5	4	618689	9/16MJ-90-9/16MOR .042 CHK VLV	19	2	616177	04-451TC-06FJX-06FJX-74 H/A
6	2	618732	9/16JIC .031 ORIFICE ADPTR	20	1	617395	06-451TC-08FJX-06FJX-153 H/A
7	10	618119	9/16MJIC-90-9/16MOR LBO	21	1	616561	04-451TC-06FJX-06FJX-132 H/A
8	1	618241	3/4MJIC-90-3/4MOR LBO	22	1	616180	04-451TC-06FJX-06FJX-143 H/A
9	2	618754	9/16MOR PLUG, HEX SOCKET	23	1	617396	10-451TC-10FJX90-10FJX-67 H/A
10	4	618440	9/16MJIC-90-9/16MOR EX LG LBO	24	1	617393	06-451TC-08FJX-06FJX-67 H/A
11	1	611126	7/8MJIC-7/8MOR ADPTR	25	2	618755	3/4MOR PLUG, HEX SOCKET
12	1	607114	MOBILE HALF COUPLER ASSY, 0502	26	4	618115	9/16MJIC-90-3/4MOR LBO
13	1	617392	06-451TC-06FJX-06FJX-47 H/A	27	1	611125	3/4MJIC-3/4MOR ADPTR
14	1	616560	04-451TC-06FJX-06FJX-87 H/A	28	1	618248	1 1/16MJIC-90-1 1/16MOR LBO

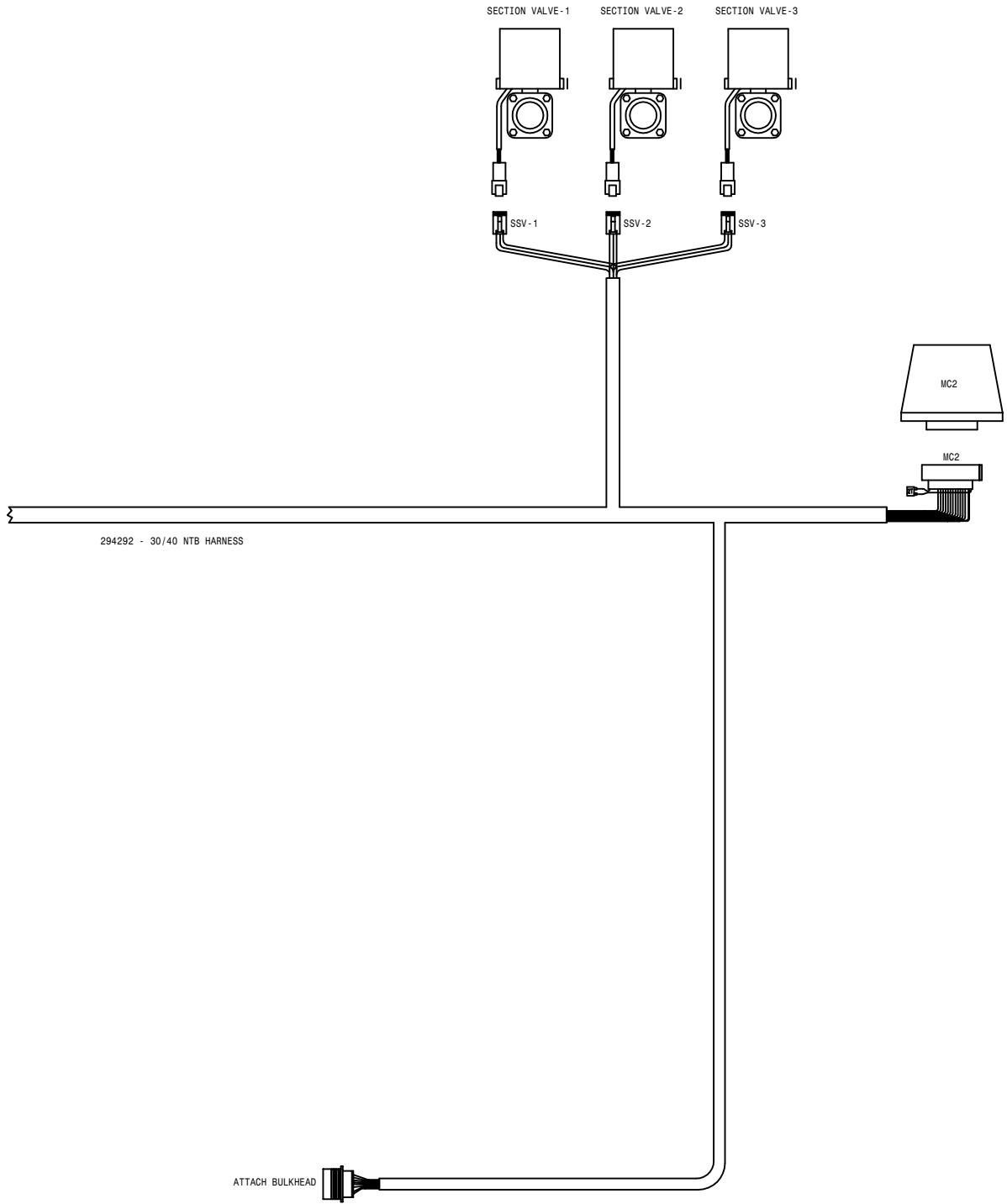


NITROGEN T-BAR 40FT HYD DIAGRAM 2016  
REFERENCE DRAWING NO. 499368\_RevA

DET.	QTY	PART NO.	DESCRIPTION	DET.	QTY	PART NO.	DESCRIPTION	
1	2	621568	HYD CYL, 2.00 X 18.00 X 1.125	18	1	616176	04-451TC-06FJX-06FJX-58	H/A
2	4	621153	3.00 X 11.00 X 1.38 LEVEL CYL	19	2	616177	04-451TC-06FJX-06FJX-74	H/A
3	2	621566	HYD CYL, 2.50 X 11.00 X 1.375	20	2	616414	04-451TC-06FJX-06FJX-126	H/A
4	1	606402	HYD VLV 6 SEC W/FLOAT	21	1	616561	04-451TC-06FJX-06FJX-132	H/A
5	4	618689	9/16MJ-90-9/16MOR .042 CHK VLV	22	1	616180	04-451TC-06FJX-06FJX-143	H/A
6	4	618732	9/16JIC .031 ORIFICE ADPTR	23	2	616260	04-451TC-06FJX-06FJX-200	H/A
7	15	618119	9/16MJIC-90-9/16MOR LBO	24	1	617393	06-451TC-08FJX-06FJX-67	H/A
8	1	618241	3/4MJIC-90-3/4MOR LBO	25	1	617392	06-451TC-06FJX-06FJX-47	H/A
9	4	618115	9/16MJIC-90-3/4MOR LBO	26	1	617294	06-451TC-06FJX-08FJX90-76	H/A
10	1	618248	1 1/16MJIC-90-1 1/16MOR LBO	27	1	617395	06-451TC-08FJX-06FJX-153	H/A
11	1	611126	7/8MJIC-7/8MOR ADPTR	28	1	617396	10-451TC-10FJX90-10FJX-67	H/A
12	1	607114	MOBILE HALF COUPLER ASSY, 0502	29	1	617397	12-451TC-12FJX-12FJX-70	H/A
13	1	618754	9/16MOR PLUG, HEX SOCKET	30	1	611125	3/4MJIC-3/4MOR ADPTR	
14	1	616560	04-451TC-06FJX-06FJX-87 H/A	31	1	618109	9/16MJIC-3/4MOR ADPTR	
15	4	618440	9/16MJIC-90-9/16MOR EX LG LBO	32	1	618126	9/16MJIC-9/16MOR ADPTR	
16	1	616209	04-451TC-06FJX-06FJX-64 H/A	33	1	618709	9/16MJIC-90-3/4MOR EX LG LBO	
17	1	616084	04-451TC-06FJX-06FJX-46 H/A					







294292 - 30/40 NTB HARNESS

ATTACH BULKHEAD

03-04-16 TLM	
STS NTB WIRING DIAGRAM 16	
REV_A 03-04-16	499366

# Notes: