



**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 19001-19500

09-18 493819 (PC13682)

To obtain the most current parts manual for your machine, please visit www.hagie.com.

© 2018 Hagie Manufacturing Company. Clarion, Iowa USA

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.

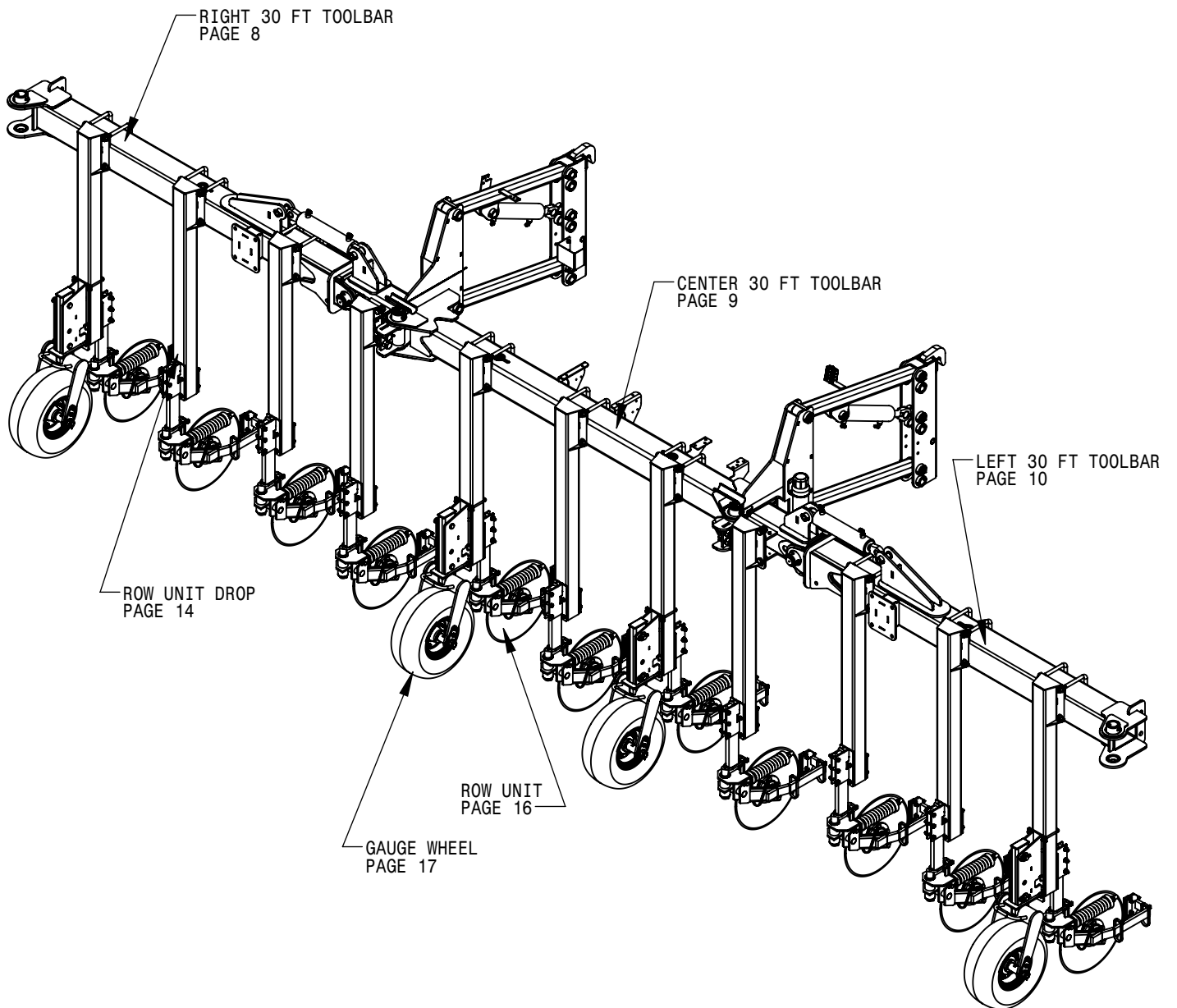
This manual is not intended to be a complete guide for machine maintenance and repairs. If you are not properly trained to perform service on this machine, contact your local John Deere dealer for assistance. Improper maintenance or repair may result in property damage, personal injury, or death.

NITROGEN TOOLBAR SERIAL NUMBER

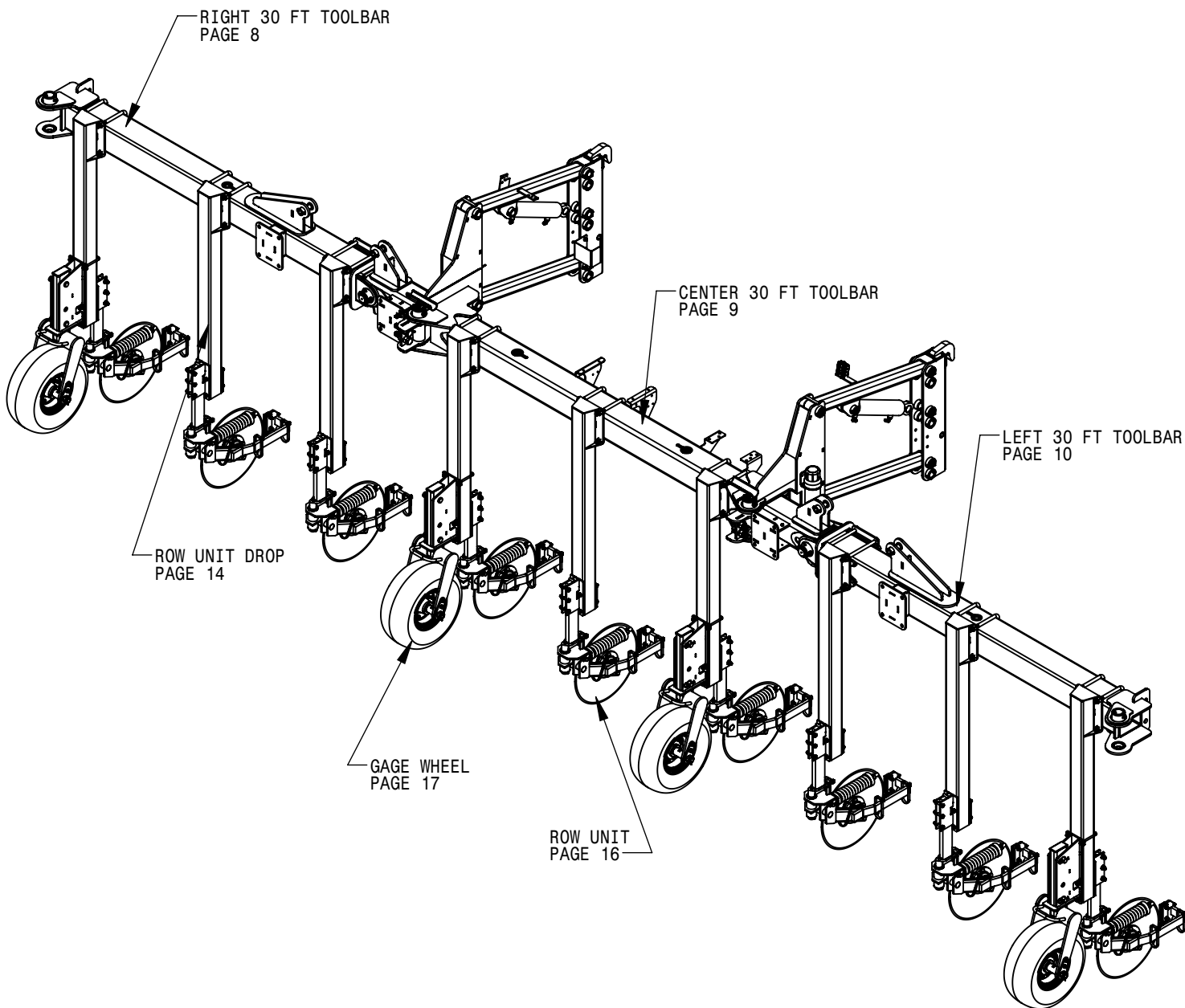
TABLE OF CONTENTS

TOOLBAR ASSEMBLY 30-40 FT	4-13
ROW UNIT DROP ASSEMBLY 30-40 FT.	14
BUMPER ASSEMBLY 30-40 FT	15
COULTER ASSEMBLY 30-40 FT.	16
GAUGE WHEEL 30-40 FT	17
FOAMER DROP AND HOSE ASSEMBLY 30-40 FT	18-19
IQAN MODULE ASSEMBLY.	20
TOOLBAR LIGHTS.	21
QUICK ATTACH ASSEMBLY.	22
CONTROL VALVE ASSEMBLY 30 FT.	23
CONTROL VALVE ASSEMBLY 40 FT.	24
SOLUTION CONTROL VALVE ASSEMBLY	25-26
SOLUTION HOSING 30-40 FT	27-30
HYDRAULIC DIAGRAM 30-40 FT.	32-35
WIRING DIAGRAM 30-40 FT	36-37

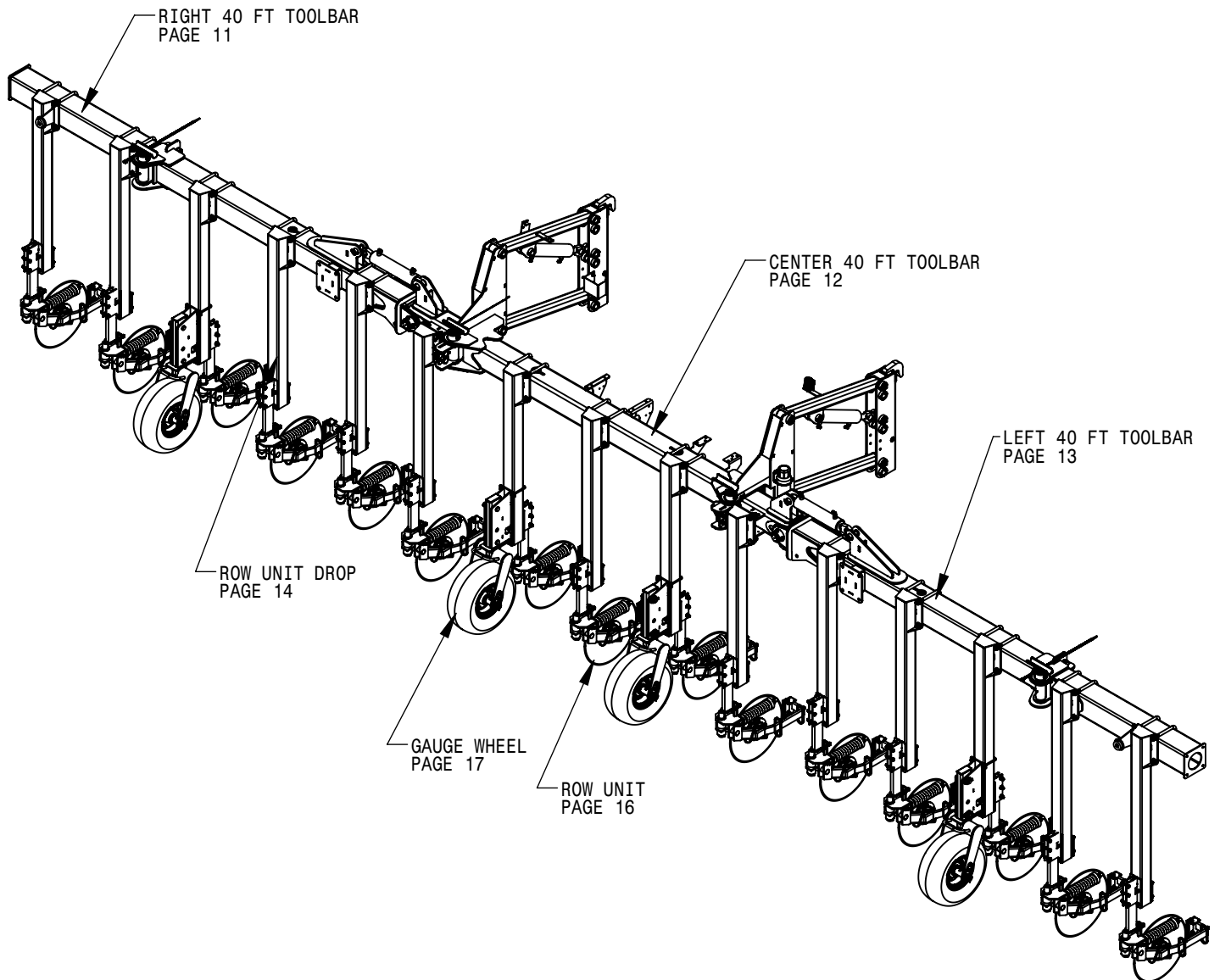
30 FT TOOLBAR
12 ROW 30" SPACING



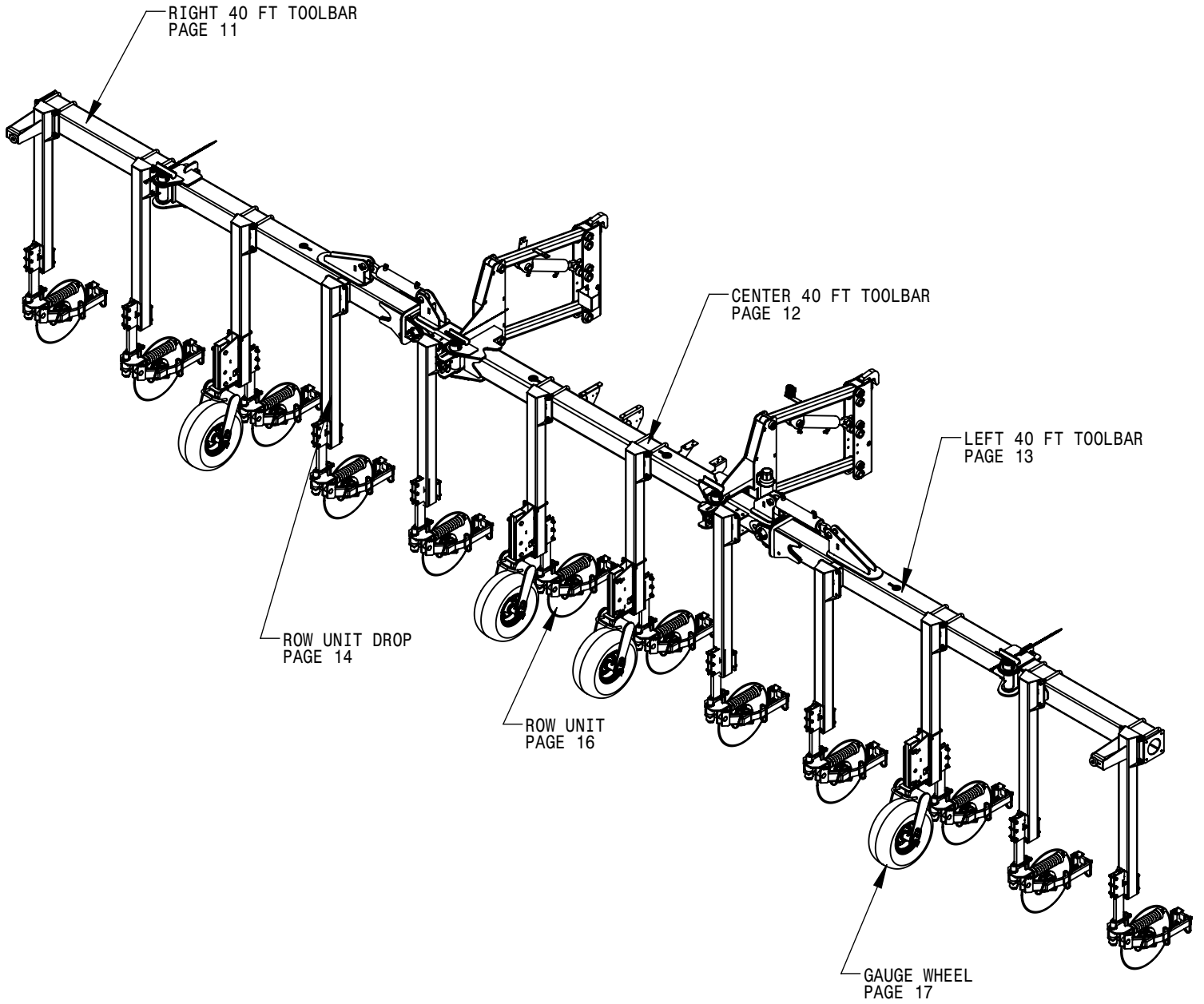
30 FT TOOLBAR
18 ROW SKIP 20" SPACING

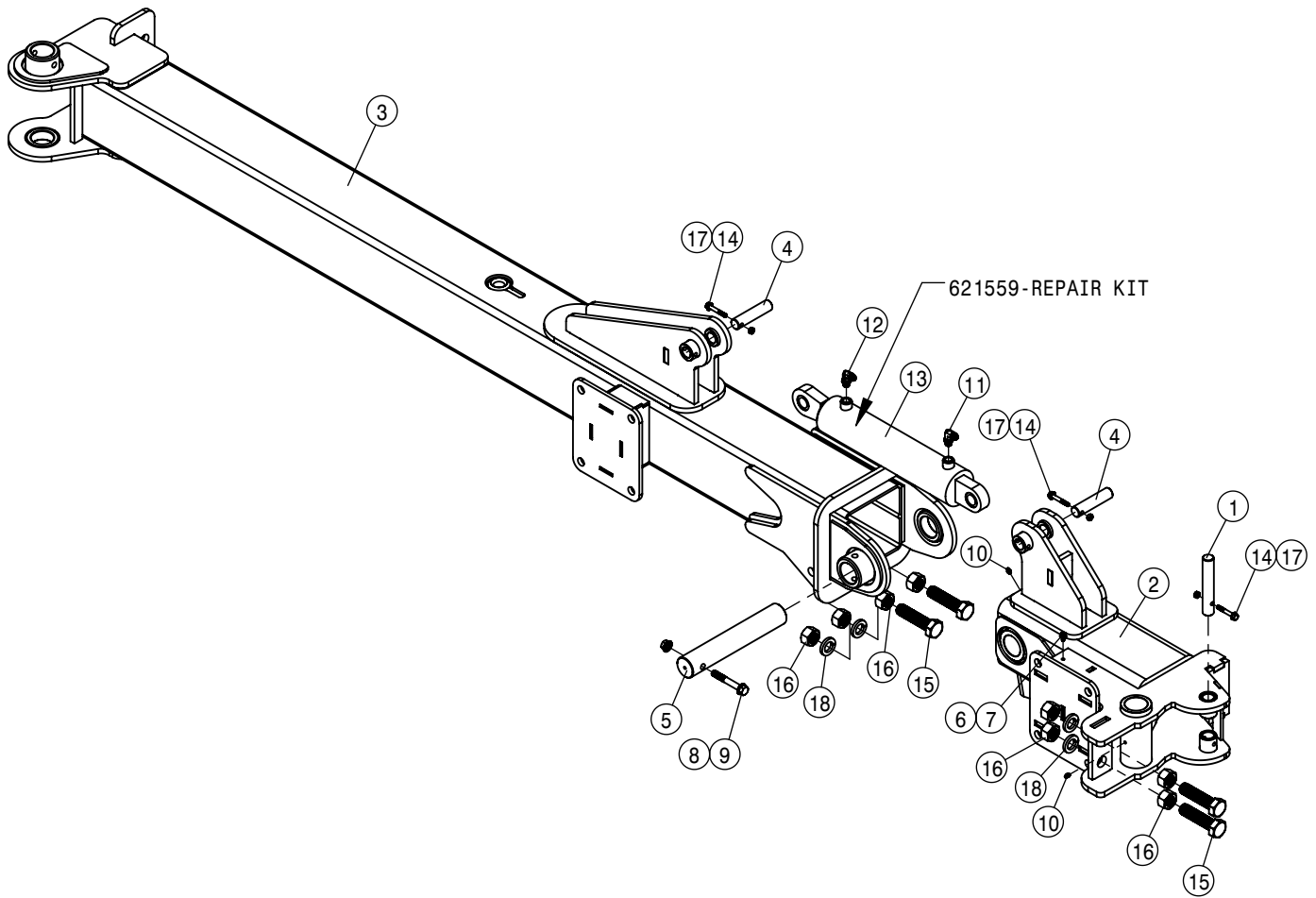


40 FT TOOLBAR
16 ROW 30" SPACING

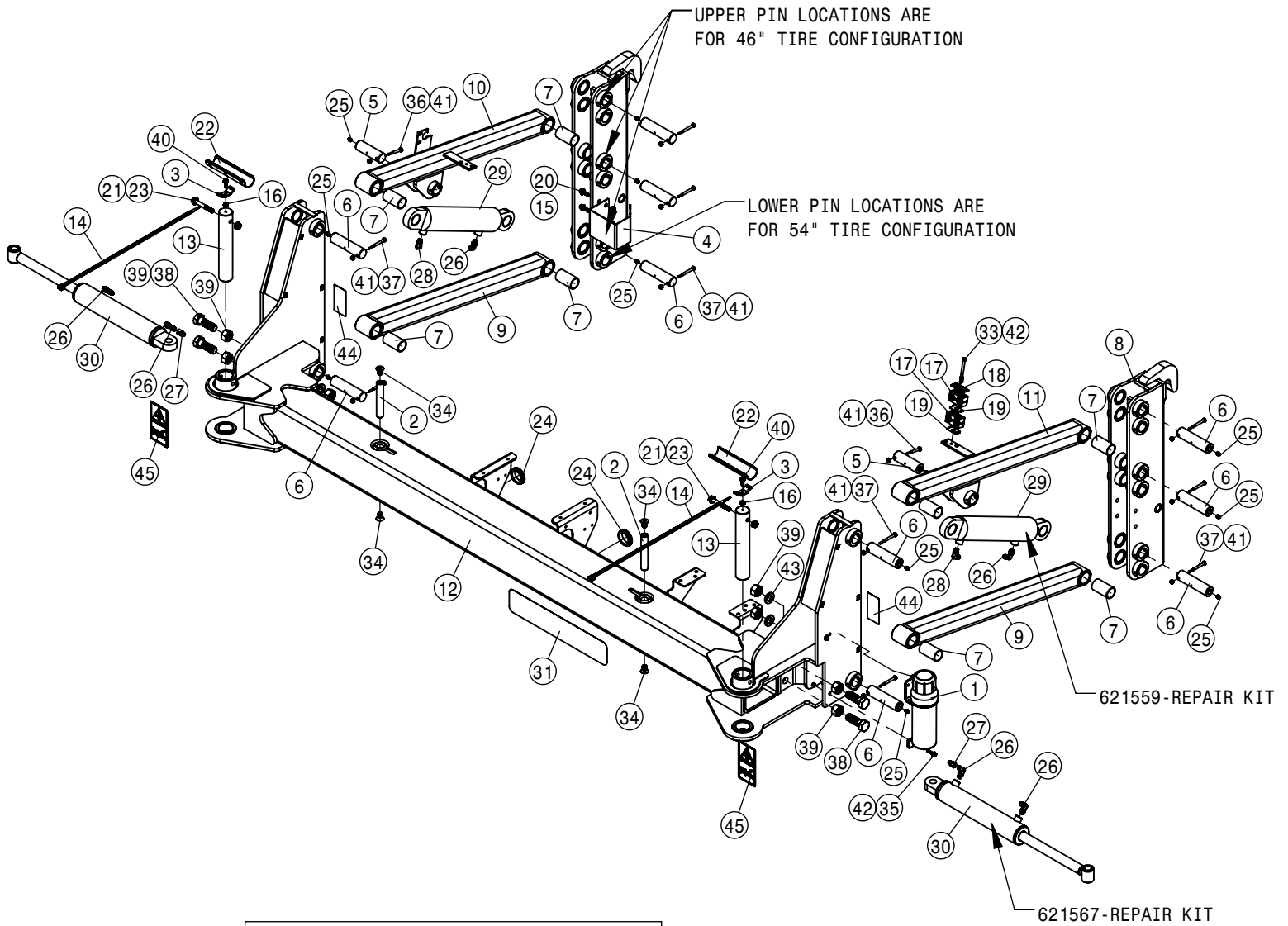


40 FT TOOLBAR
24 ROW SKIP 20" SPACING



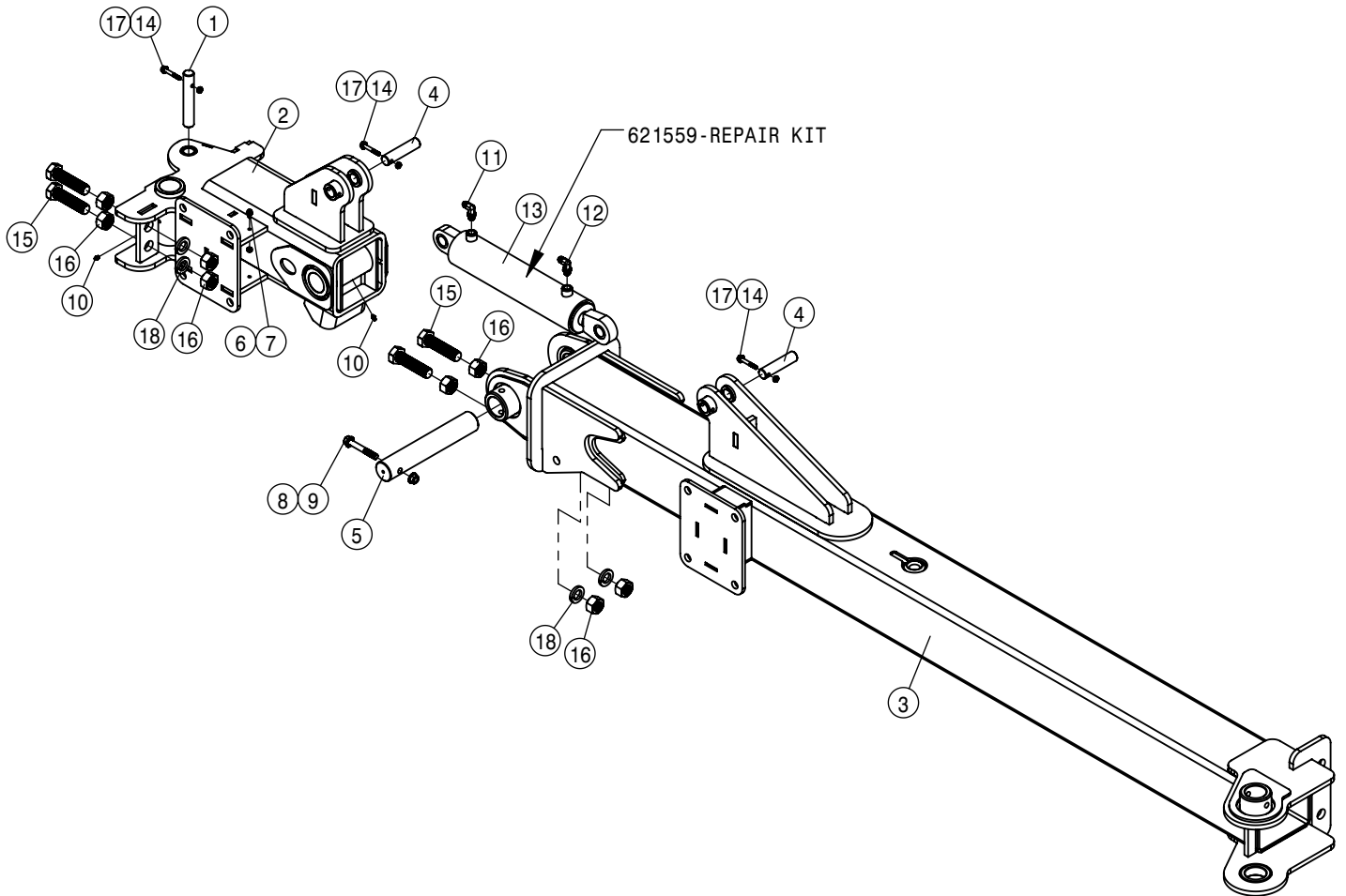


RIGHT 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439386	ARTICULATOR FLD CYL PIN,NTB' 10
2	1	439948	RH OUTRGR ARTICULAR WLD, NTB ' 13
3	1	440086	RH OUTRGR WLD NTB 13
4	2	440106	OUTRGR CYL PIN, NTB 13
5	1	440275	PIN, 2.00 OD, 11.75 LG
6	1	470089	1/4UNC HEX NYL-LOC NUT
7	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
8	1	470360	1/2-13UNC HEX FLG NUT SER MC GR5
9	1	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
10	2	471005	GREASE ZERK, 1/4-28 X 1/2
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

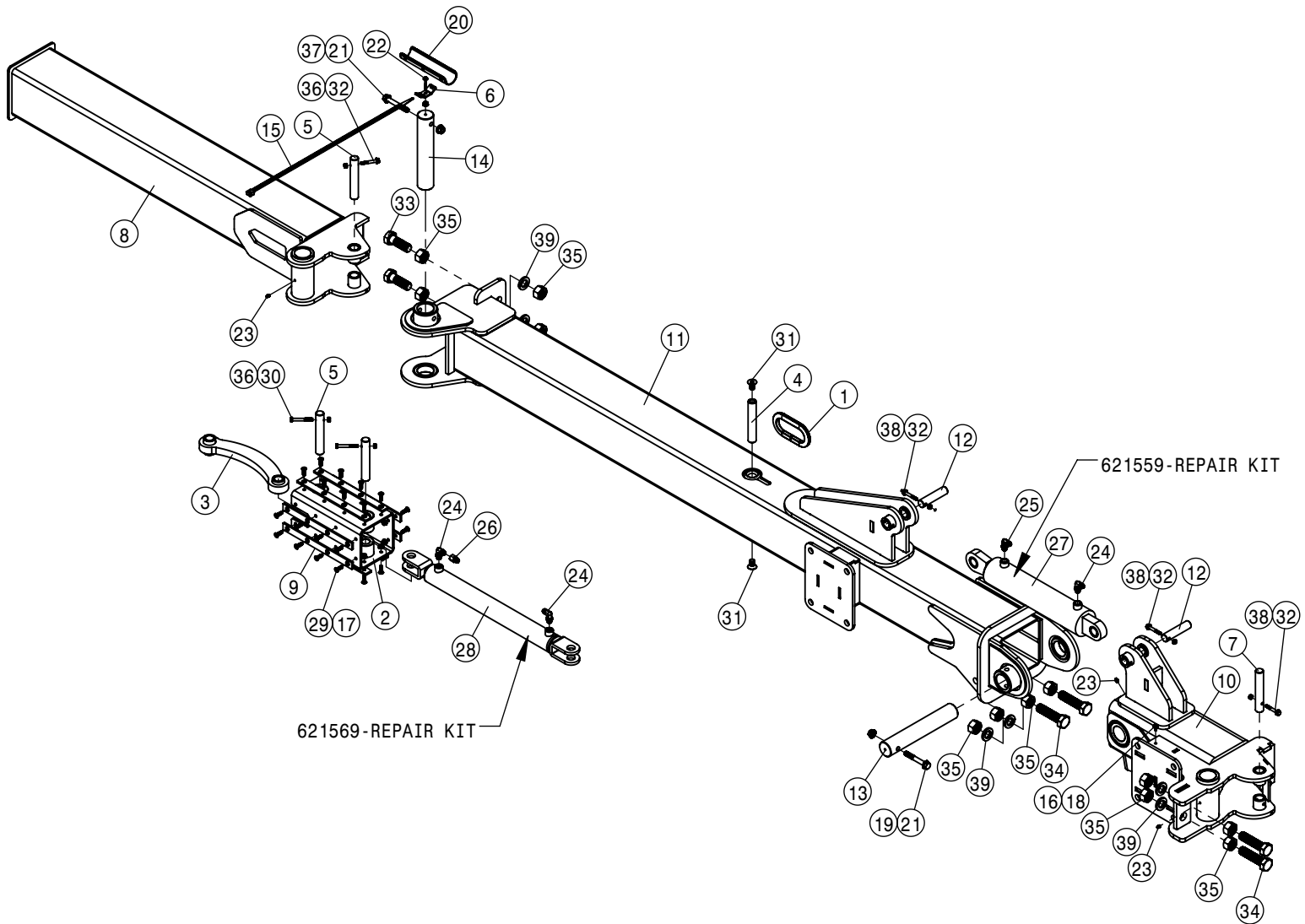


CENTER 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	344017	MANUAL CANISTER W/NEOPREN SEAL
2	2	439077	OUTRGR FOLD CYL MT PIN, NTB 03
3	2	439113	HOSE RETAINER STS NTB
4	1	439396	RECEPTACLE QUICK ATTACH BRKT, NTB '13
5	2	440257	PIN, 1.50 OD, 4.75 LG, DRILLED
6	10	440258	PIN, 1.50 OD, 6.00 LG, DRILLED
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	470360	1/2-13UNC HEX FLG NUT SER MC GR5
22	2	470369	HOSE PROTECTOR, 8" BLACK
23	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT

CENTER 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
24	2	470552	GROMMET, 1.75ID .250GW 2.00GD
25	12	471021	GREASE ZERK 1/8 NPT STRAIGHT
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
31	1	650450	DECAL, NTB 30'
NS	1	650451	DECAL SHEET, 30' NTB'13
33	1	900075	5/16UNC X 3 3/4 HEX BOLT
34	4	900393	5/8UNC X 1" FLT SOC CAP SCR
35	3	900490	5/16UNC X 1 1/4 HHSFB SS
36	2	900494	5/16UNC X 2 1/2 HHCS SS
37	10	900496	5/16UNC X 3 HHCS SS
38	4	900534	1" UNC X 3" HEX BOLT
39	8	910017	1" UNC HEX NUT
40	2	910126	5/16UNC X 1 HHSFB SS
41	12	910132	5/16-18UNC NYLOCK NUT SS
42	4	914002	5/16-18UNC STOVER NUT MC GR5
43	4	920508	1" LOCK WASHER
44	3	CC40740	ATTENTION DECAL
45	2	N408912	LABEL, LABEL-HAND CRUSH

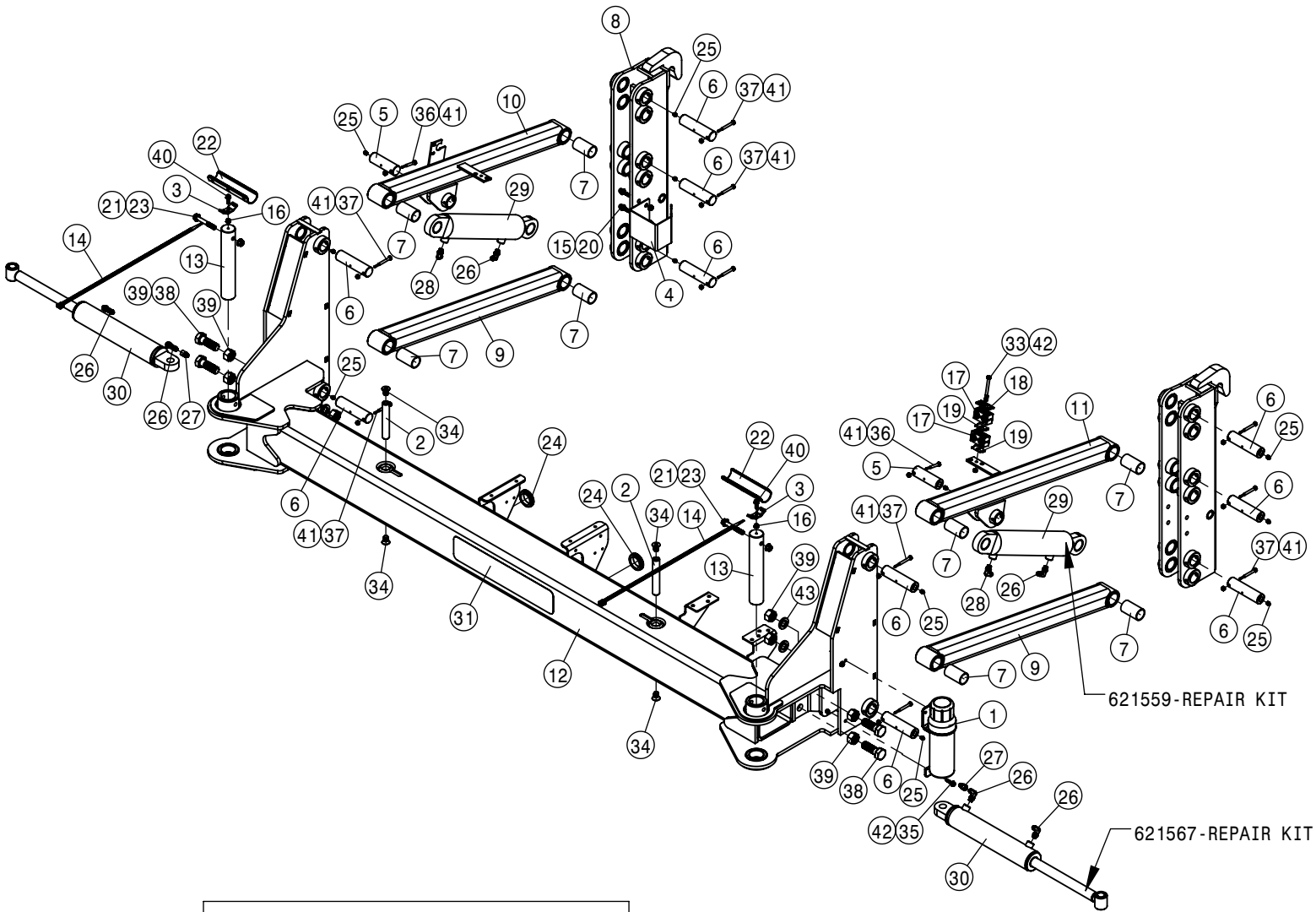


LEFT 30FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	439386	ARTICULATOR FLD CYL PIN,NTB' 10
2	1	439949	LH OUTRGR ARTICULAR WLD, NTB '12
3	1	440087	LH OUTRGR WLD NTB 13
4	2	440106	OUTRGR CYL PIN, NTB 13
5	1	440275	PIN, 2.00 OD, 11.75 LG
6	1	470089	1/4UNC HEX NYL-LOC NUT
7	1	470122	1/4UNC X 1/2 HHSFB GR5 MC
8	1	470360	1/2-13UNC HEX FLG NUT SER MC GR5
9	1	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
10	2	471005	GREASE ZERK, 1/4-28 X 1/2
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



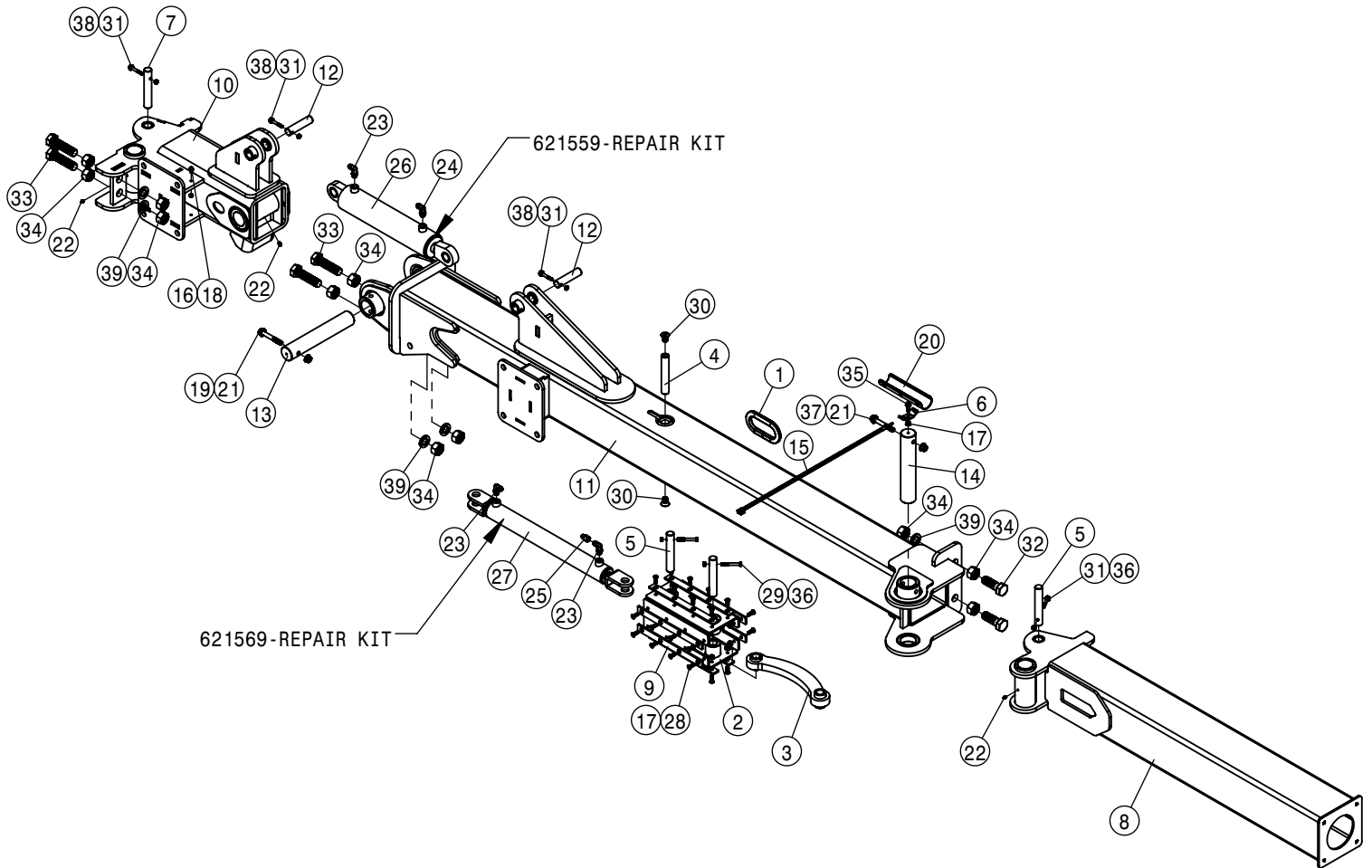
RIGHT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	193012-013	QUICKEDGE TRIM .135 TO .250
2	1	439054	OUTRGR EXT FOLD SLIDE WLD, NTB
3	1	439060	OUTRGR EXT FOLD ARM WLD, NTB 03
4	1	439077	OUTRGR FOLD CYL MT PIN, NTB 03
5	3	439078	ARTICULAR FOLD CYL PIN, NTB
6	1	439113	HOSE RETAINER STS NTB
7	1	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	470360	1/2-13UNC HEX FLG NUT SER MC GR5
20	1	470369	HOSE PROTECTOR, 8" BLACK

RIGHT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
21	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
22	1	470767	10-32UNF X 1 1/2 HHSFB MC
23	3	471005	GREASE ZERK, 1/4-28 X 1/2
24	3	618119	9/16MJIC-90-9/16MOR LBO
25	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
26	1	618732	9/16JIC .031 ORIFICE ADPTR
27	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
28	1	621568	OUTRGR FOLD CYL, 2.00 X 18
29	32	900060	5/16UNC X 1" FLT SOC CAP SCR BO
30	3	900070	5/16UNC X 2 1/2 BOLT
31	2	900393	5/8UNC X 1" FLT SOC CAP SCR
32	4	900493	5/16UNC X 2 HHSFB SS
33	2	900534	1" UNC X 3" HEX BOLT
34	4	900536	1" UNC X 4" HEX BOLT FULL THREAD
35	12	910017	1" UNC HEX NUT
36	4	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



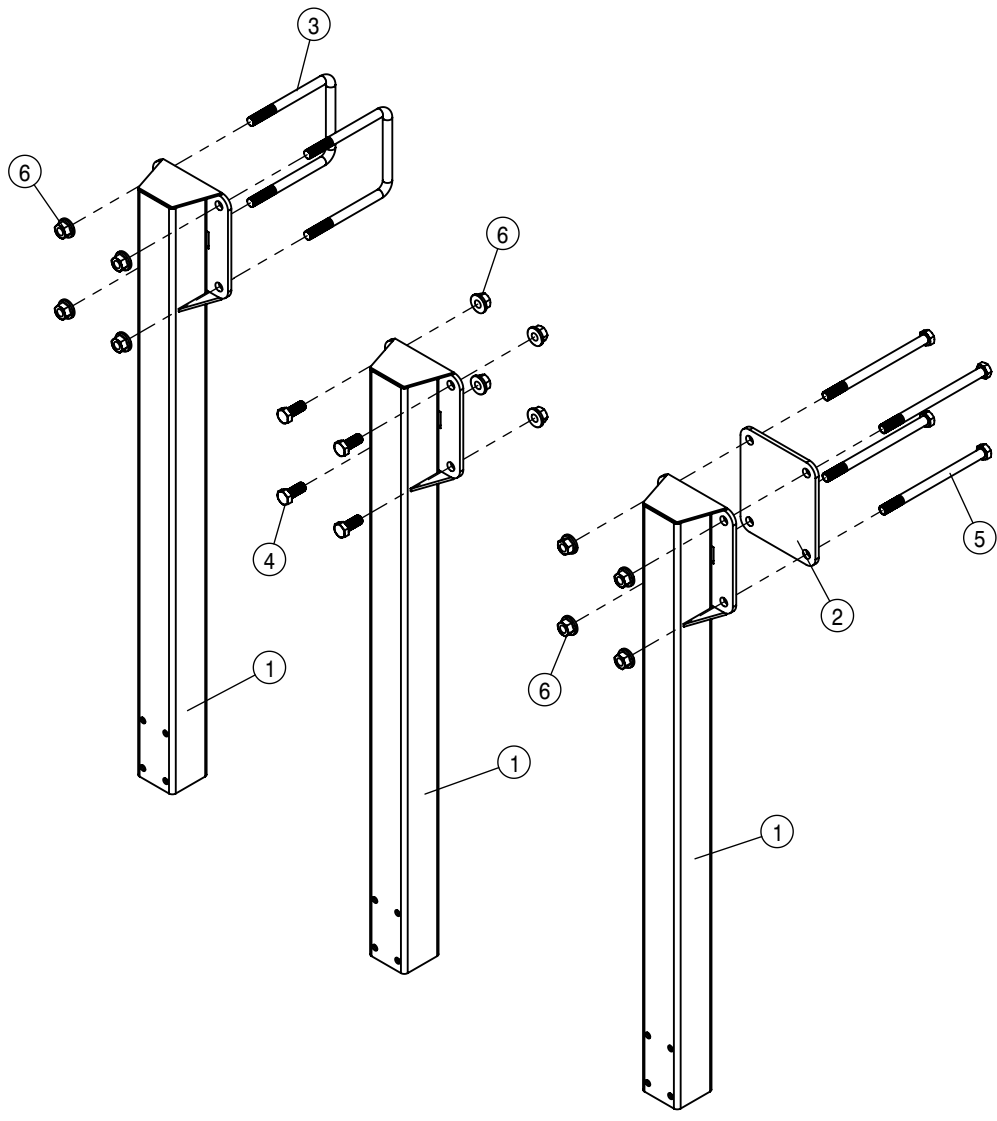
CENTER 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	344017	MANUAL CANISTER W/NEOPREN SEAL
2	2	439077	OUTRGR FOLD CYL MT PIN, NTB 03
3	2	439113	HOSE RETAINER STS NTB
4	1	439396	RECEPTACLE QUICK ATTACH BRKT, NTB '13
5	2	440257	PIN, 1.50 OD, 4.75 LG, DRILLED
6	10	440258	PIN, 1.50 OD, 6.00 LG, DRILLED
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	470360	1/2-13UNC HEX FLG NUT SER MC GR5
22	2	470369	HOSE PROTECTOR, 8" BLACK
23	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT

CENTER 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
24	2	470552	GROMMET, 1.75ID .250GW 2.00GD
25	12	471021	GREASE ZERK 1/8 NPT STRAIGHT
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
31	1	650449	DECAL, NTB 40'
NS	1	650452	DECAL SHEET, 40' NTB' 13
33	1	900075	5/16UNC X 3 3/4 HEX BOLT
34	4	900393	5/8UNC X 1" FLT SOC CAP SCR
35	3	900490	5/16UNC X 1 1/4 HHSFB SS
36	2	900494	5/16UNC X 2 1/2 HHCS SS
37	10	900496	5/16UNC X 3 HHCS SS
38	4	900534	1" UNC X 3" HEX BOLT
39	8	910017	1" UNC HEX NUT
40	2	910126	5/16UNC X 1 HHSFB SS
41	12	910132	5/16-18UNC NYLOCK NUT SS
42	4	914002	5/16-18UNC STOVER NUT MC GR5
43	4	920508	1" LOCK WASHER

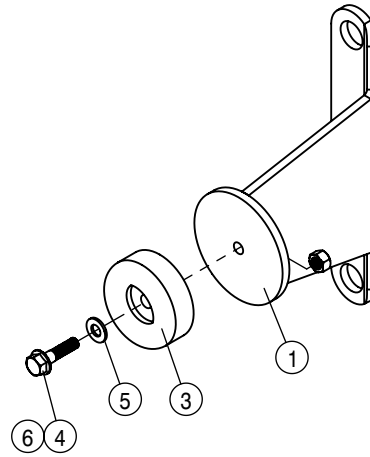
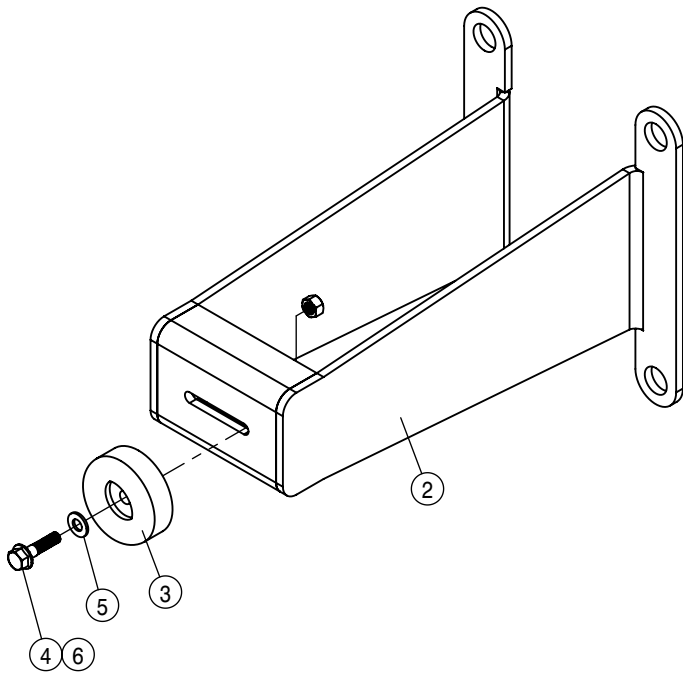


LEFT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	193012-013	QUICKEDGE TRIM .135 TO .250
2	1	439054	OUTRGR EXT FOLD SLIDE WLD, NTB
3	1	439060	OUTRGR EXT FOLD ARM WLD,NTB 03
4	1	439077	OUTRGR FOLD CYL MT PIN, NTB 03
5	3	439078	ARTICULAR FOLD CYL PIN, NTB
6	1	439113	HOSE RETAINER STS NTB
7	1	439386	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	470360	1/2-13UNC HEX FLG NUT SER MC GR5
20	1	470369	HOSE PROTECTOR, 8" BLACK

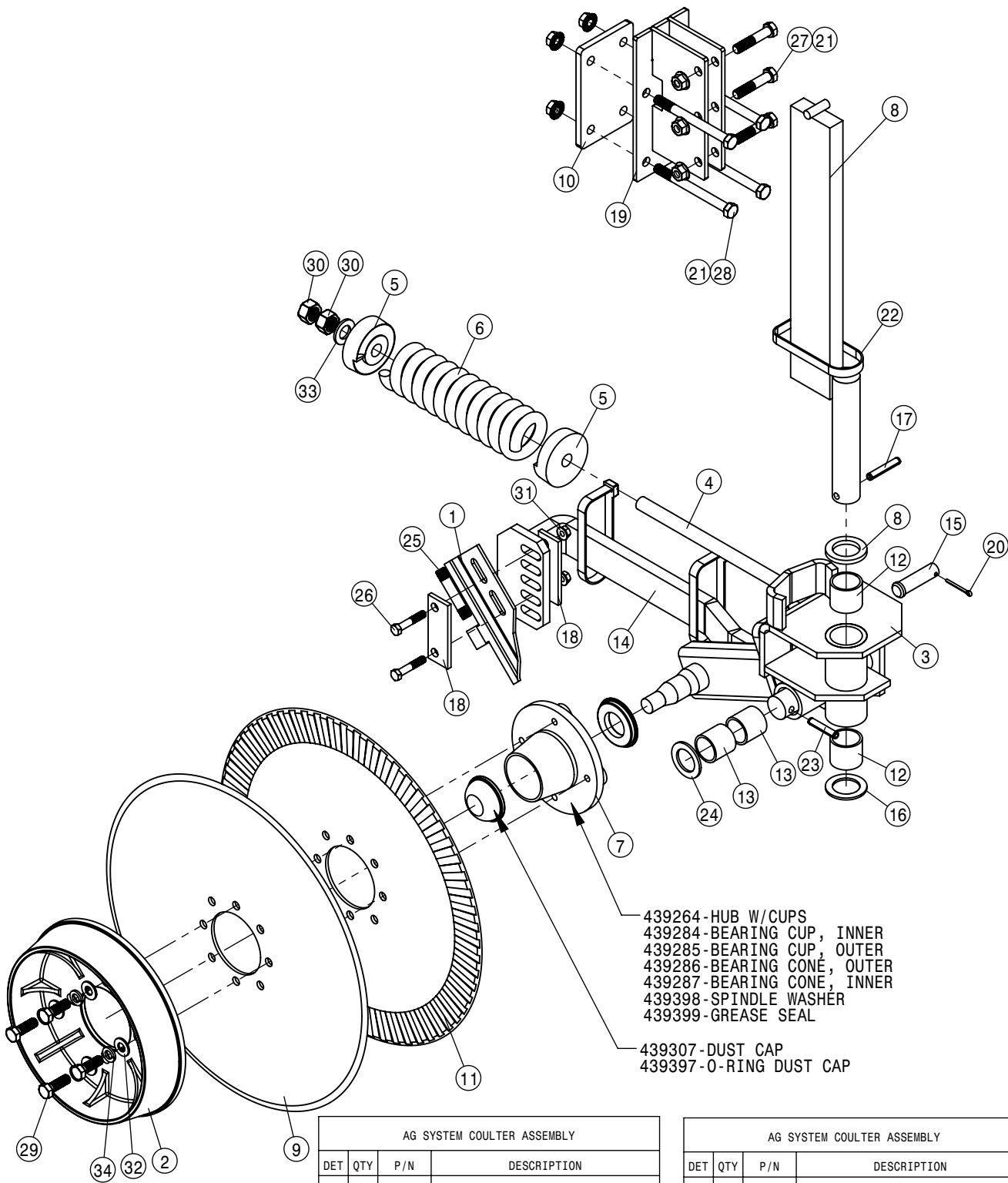
LEFT 40FT TOOLBAR ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
21	2	470546	1/2UNC X 3-1/2" SER FLANGE BOLT
22	3	471005	GREASE ZERK, 1/4-28 X 1/2
23	3	618119	9/16MJIC-90-9/16MOR LBO
24	1	618689	9/16MOR-90-9/16MJ .042 CHK VLV
25	1	618732	9/16JIC .031 ORIFICE ADPTR
26	1	621153	3.00 X 11.00 X 1.38 LEVEL CYL.
27	1	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	910111	3/4-10UNC CTRLK FLG NUT MC GR5	



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	900490	5/16UNC X 1 1/4 HHSFB SS
5	2	910113	SAE FLAT WASHER 5/16 SS
6	2	914002	5/16UNC HEX STOVER NUT

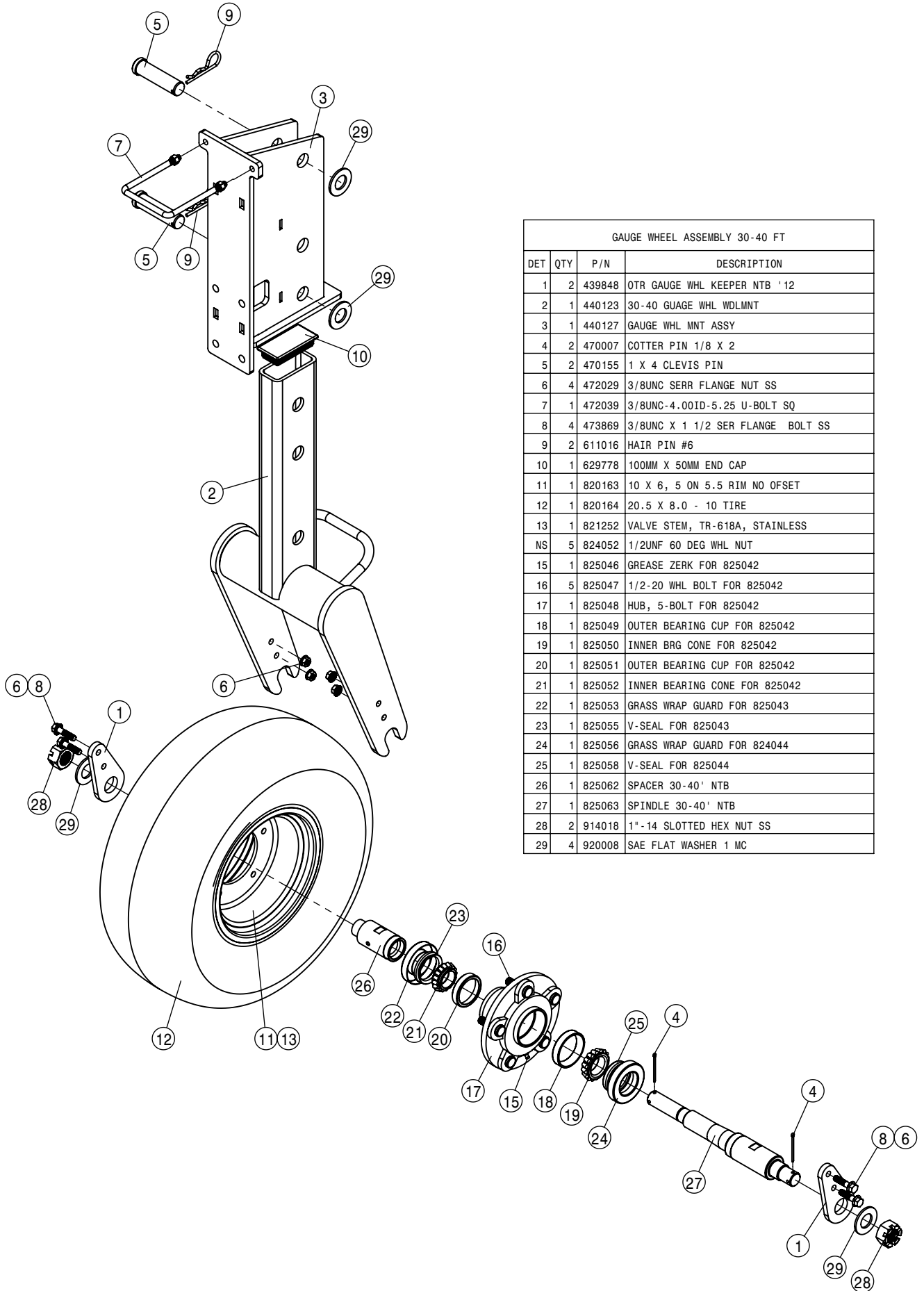


439264-HUB W/CUPS
 439284-BEARING CUP, INNER
 439285-BEARING CUP, OUTER
 439286-BEARING CONE, OUTER
 439287-BEARING CONE, INNER
 439398-SPINDLE WASHER
 439399-GREASE SEAL

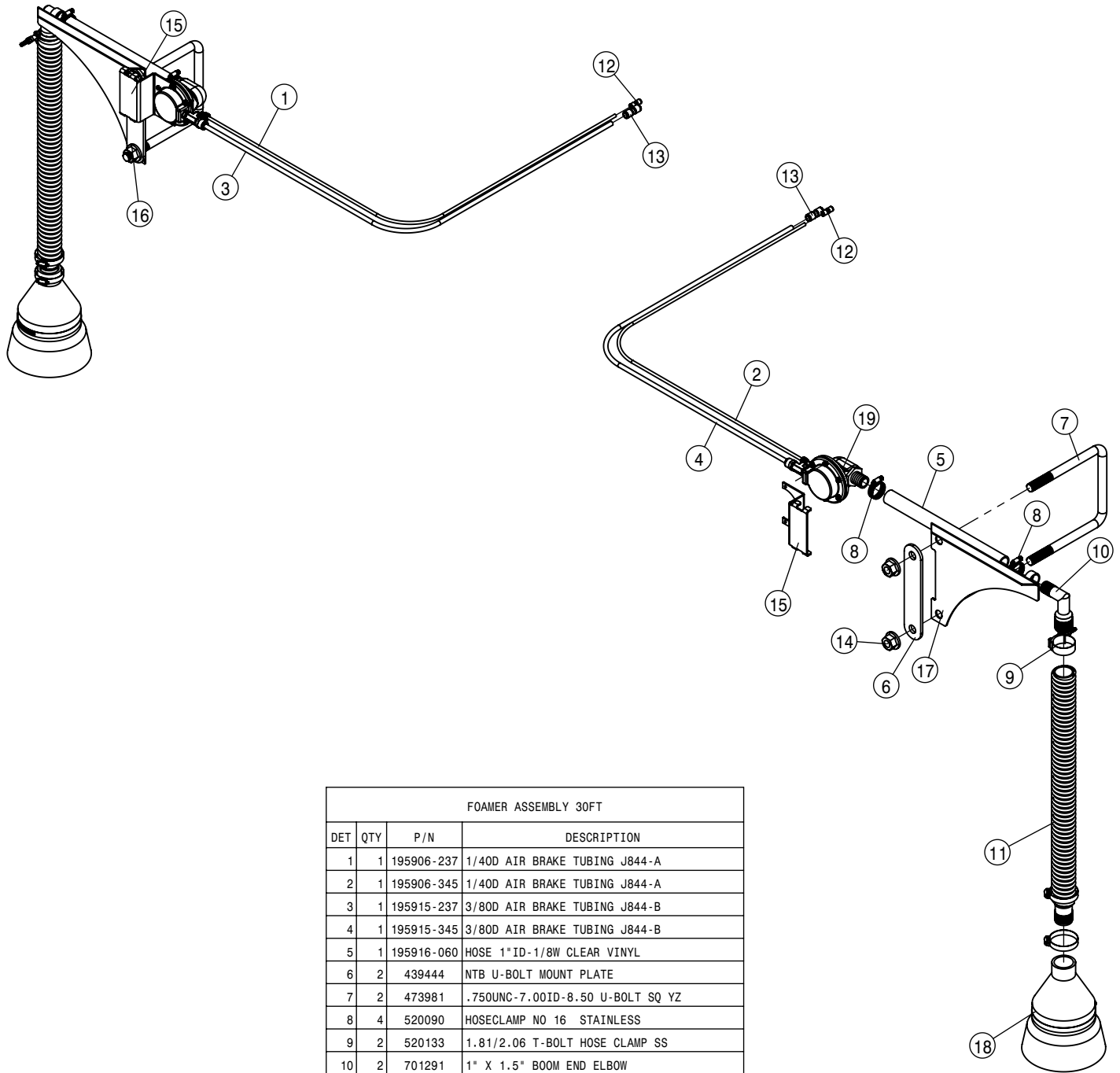
439307-DUST CAP
 439397-O-RING DUST CAP

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

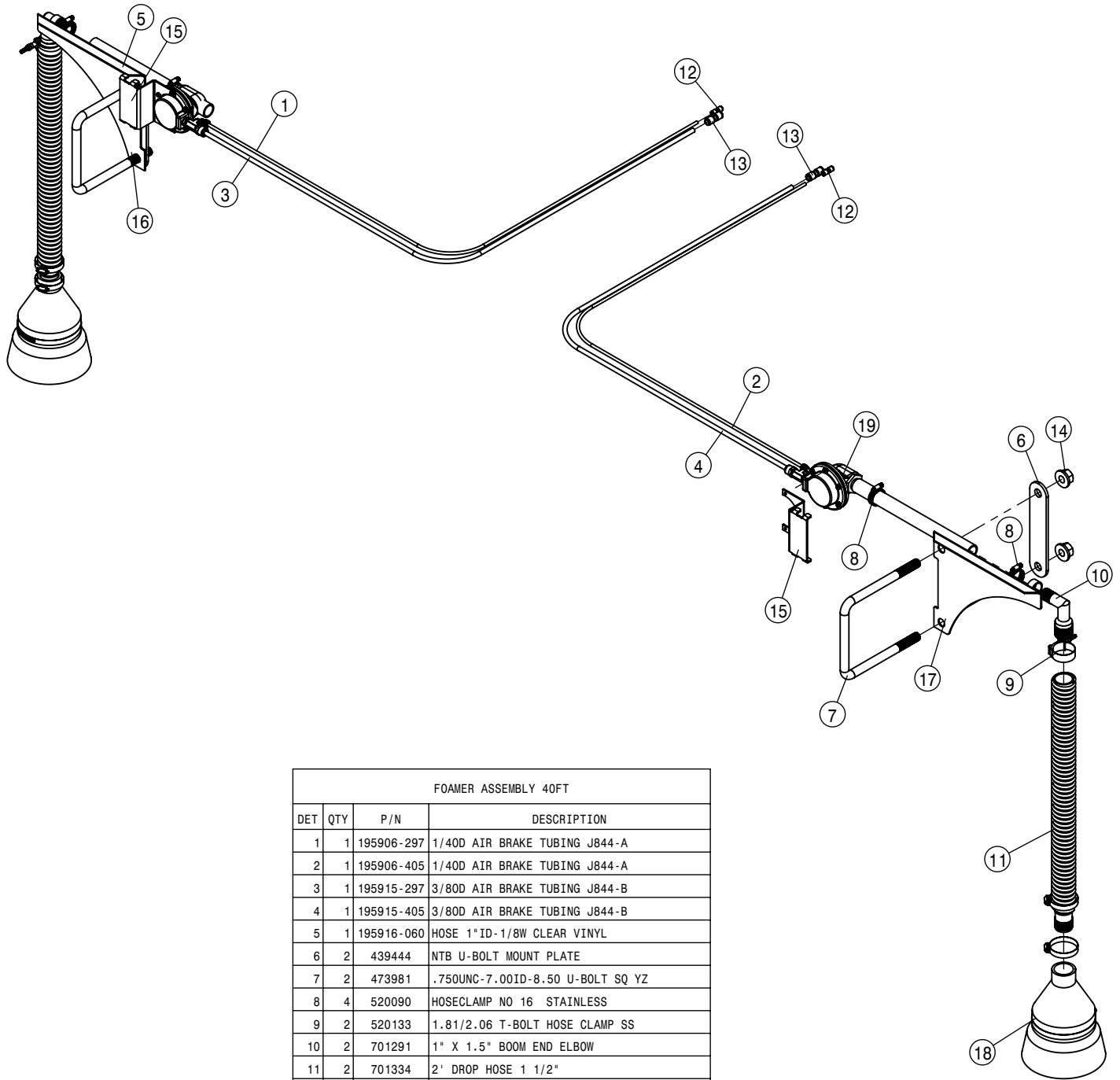
AG SYSTEM COULTER ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
18	2	440184	HOSE LOOP BRKT
19	1	440186	AG SYSTEMS COULTER MNT BRKT
20	1	470035	COTTER PIN 5/32 1 3/4 LG
21	7	470360	1/2-13UNC HEX FLG NUT SER MC GR5
22	4	470555	CABLE TIE, 1/2 X 15" BLACK NYL
23	1	473962	ROLL PIN, 3/8 X 2
24	1	483022	1.375 X 2.125 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	2	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



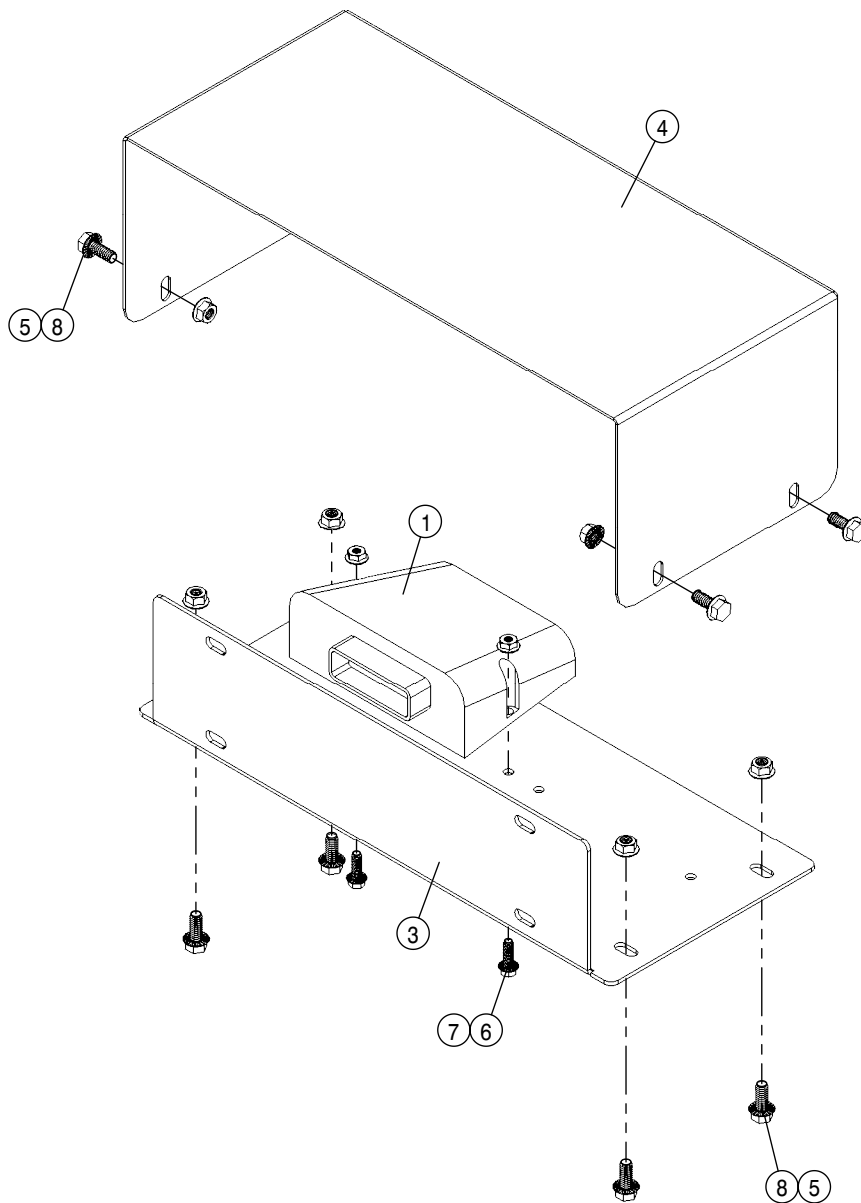
GAUGE WHEEL ASSEMBLY 30-40 FT			
DET	QTY	P/N	DESCRIPTION
1	2	439848	OTR GAUGE WHL KEEPER NTB '12
2	1	440123	30-40 GAUGE WHL WDLMNT
3	1	440127	GAUGE WHL MNT ASSY
4	2	470007	COTTER PIN 1/8 X 2
5	2	470155	1 X 4 CLEVIS PIN
6	4	472029	3/8UNC SERR FLANGE NUT SS
7	1	472039	3/8UNC-4.00ID-5.25 U-BOLT SQ
8	4	473869	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



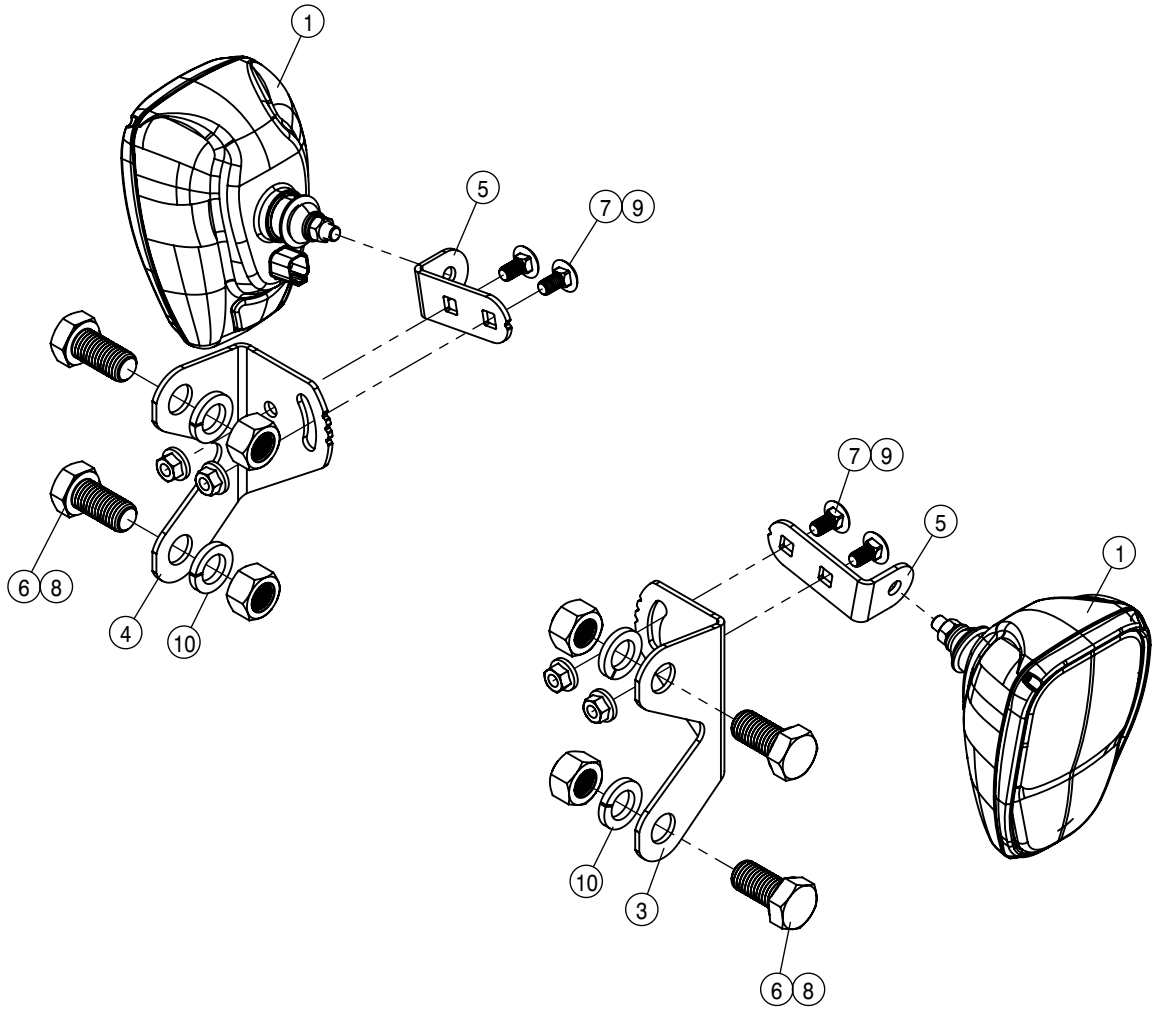
FOAMER ASSEMBLY 30FT			
DET	QTY	P/N	DESCRIPTION
1	1	195906-237	1/40D AIR BRAKE TUBING J844-A
2	1	195906-345	1/40D AIR BRAKE TUBING J844-A
3	1	195915-237	3/80D AIR BRAKE TUBING J844-B
4	1	195915-345	3/80D AIR BRAKE TUBING J844-B
5	1	195916-060	HOSE 1"ID-1/8W CLEAR VINYL
6	2	439444	NTB U-BOLT MOUNT PLATE
7	2	473981	.750UNC-7.00ID-8.50 U-BOLT SQ YZ
8	4	520090	HOSECLAMP NO 16 STAINLESS
9	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
10	2	701291	1" X 1.5" BOOM END ELBOW
11	2	701334	2' DROP HOSE 1 1/2"
12	2	711054	1/4 NYL TUBE UNION, STRAIGHT
13	2	711055	3/8 NYL TUBE UNION, STRAIGHT
14	4	910111	3/4-10UNC CTRLK FLG NUT MC GR5
15	2	440143	MIXING VALVE MNT
16	1	440144	FOAMER MNT LH
17	1	440145	FOAMER MNT RH
18	2	701290	1 1/2" COLLECTOR DEFLECTOR
19	2	701298	RICHWAY FOAMHEAD ASSEMBLY



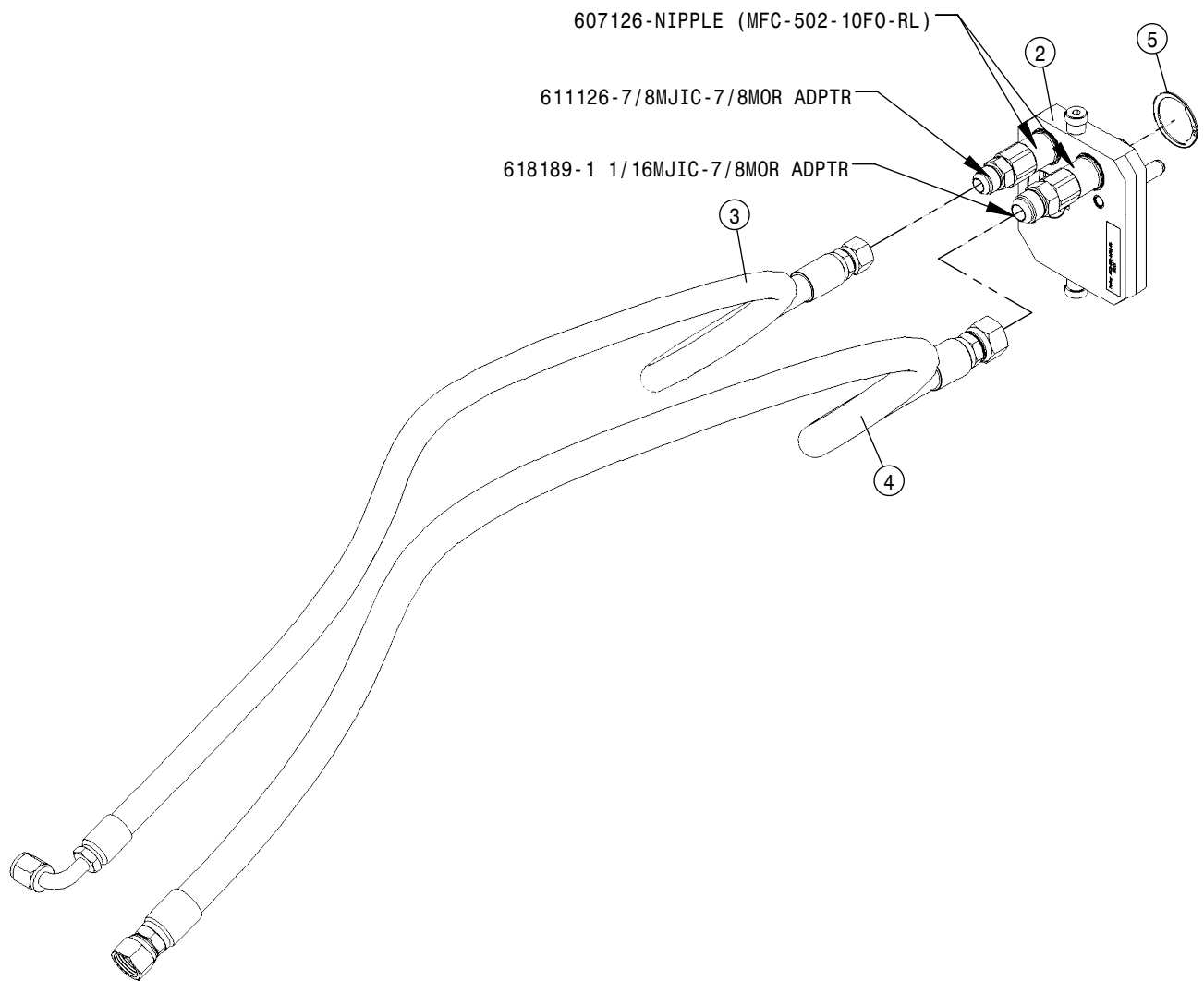
FOAMER ASSEMBLY 40FT			
DET	QTY	P/N	DESCRIPTION
1	1	195906-297	1/40D AIR BRAKE TUBING J844-A
2	1	195906-405	1/40D AIR BRAKE TUBING J844-A
3	1	195915-297	3/80D AIR BRAKE TUBING J844-B
4	1	195915-405	3/80D AIR BRAKE TUBING J844-B
5	1	195916-060	HOSE 1"ID-1/8W CLEAR VINYL
6	2	439444	NTB U-BOLT MOUNT PLATE
7	2	473981	.750UNC-7.00ID-8.50 U-BOLT SQ YZ
8	4	520090	HOSECLAMP NO 16 STAINLESS
9	2	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
10	2	701291	1" X 1.5" BOOM END ELBOW
11	2	701334	2' DROP HOSE 1 1/2"
12	2	711054	1/4 NYL TUBE UNION, STRAIGHT
13	2	711055	3/8 NYL TUBE UNION, STRAIGHT
14	4	910111	3/4-10UNC CTRLK FLG NUT MC GR5
15	2	440143	MIXING VALVE MNT
16	1	440144	FOAMER MNT LH
17	1	440145	FOAMER MNT RH
18	2	701290	1 1/2" COLLECTOR DEFLECTOR
19	2	701298	RICHWAY FOAMHEAD ASSEMBLY



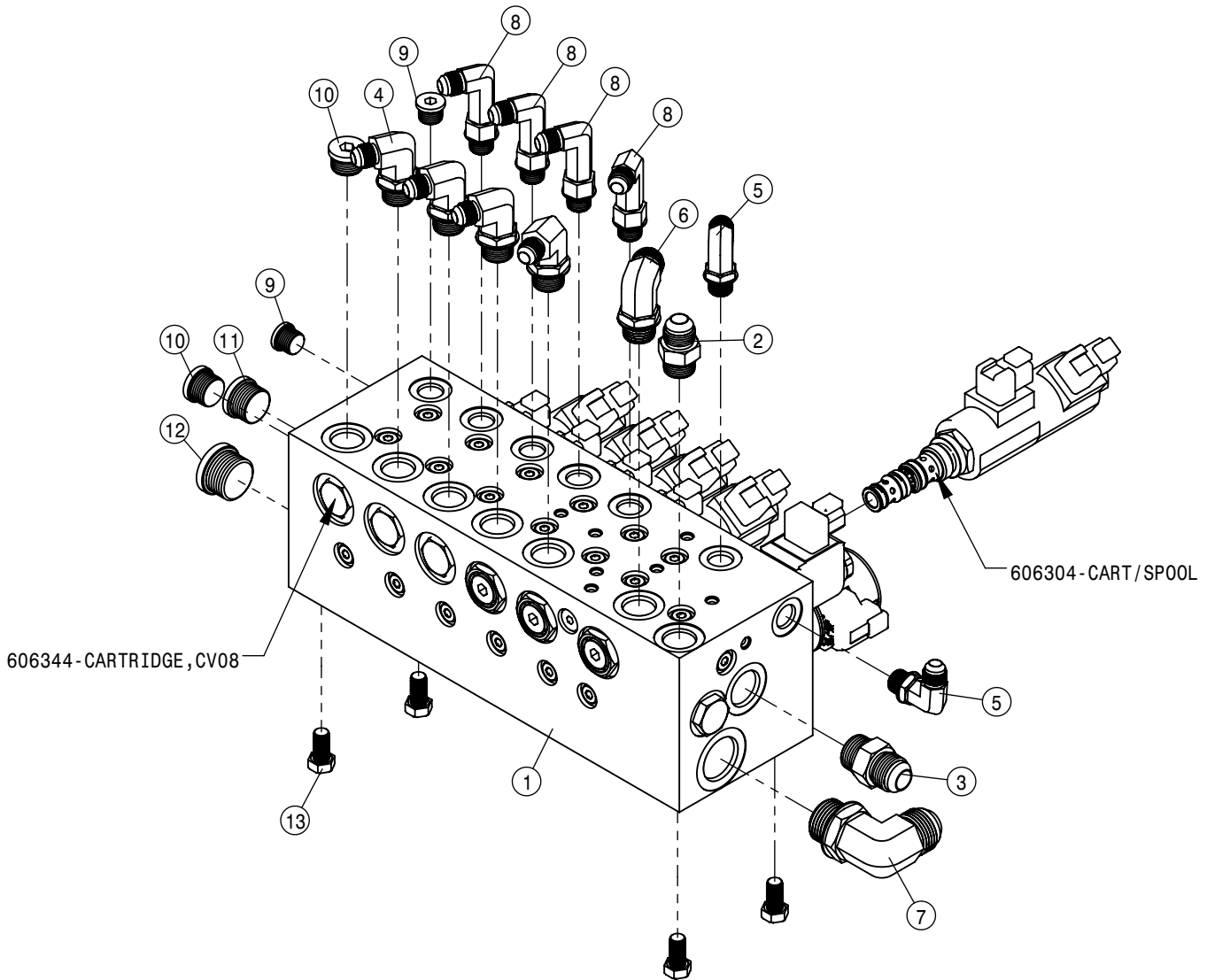
IQAN MODULE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	292015	IQAN-MC2 MODULE
NS	1	294406	30-40 NTB HARNESS
3	1	439194	ELECT CTRL MT PANEL, NTB 05
4	1	439195	ELECT CTRL BOX COVER, NTB 05
5	8	470113	5/16UNC SERR FLG LOCK NUT
6	2	470118	1/4 UNC X 3/4 SER FLG BOLT
7	2	470121	1/4 UNC SERR FLG LOCK NUT
8	8	470233	5/16UNC X 3/4 SERR FLG HEX BOLT



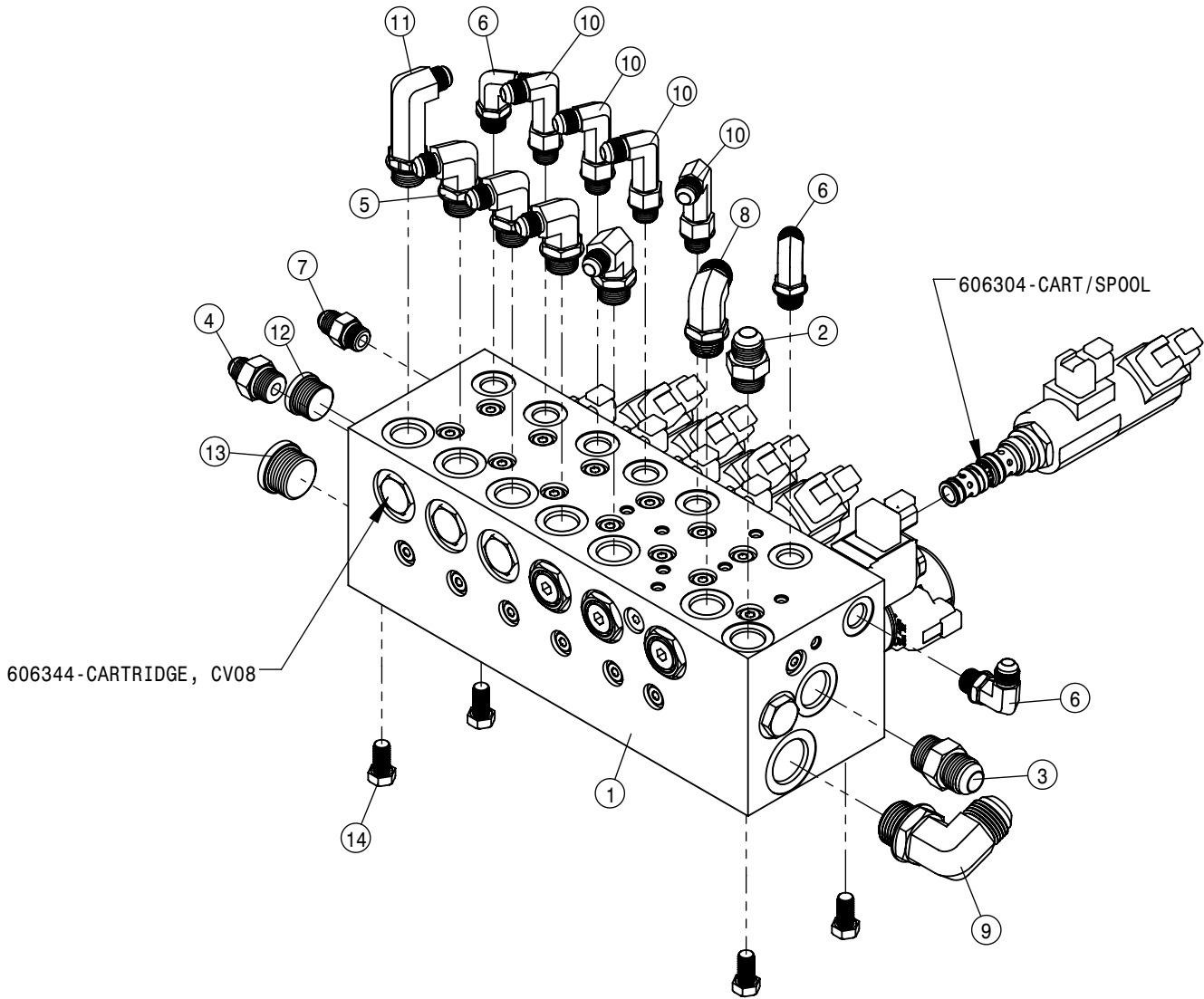
TOOLBAR HEADLIGHT ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	2	292556	HEAD/FLASHER LIGHT
NS	2	294405	HARNESS, NTB LIGHT EXT.
3	1	440684	LH HEADLIGHT/FLASHER BRKT, NTB
4	1	440685	RH HEADLIGHT/FLASHER BRKT, NTB
5	2	440686	HEADLIGHT MT TAB, NTB
6	4	900529	1" UNC X 2" HEX BOLT
7	4	901253	1/2-13 UNC X 1 RHSQNB GR5 MC
8	4	910017	1" UNC HEX NUT
9	4	914015	1/2-13UNC CTRLK FLG NUT MC GR5
10	4	920508	1" LOCK WASHER



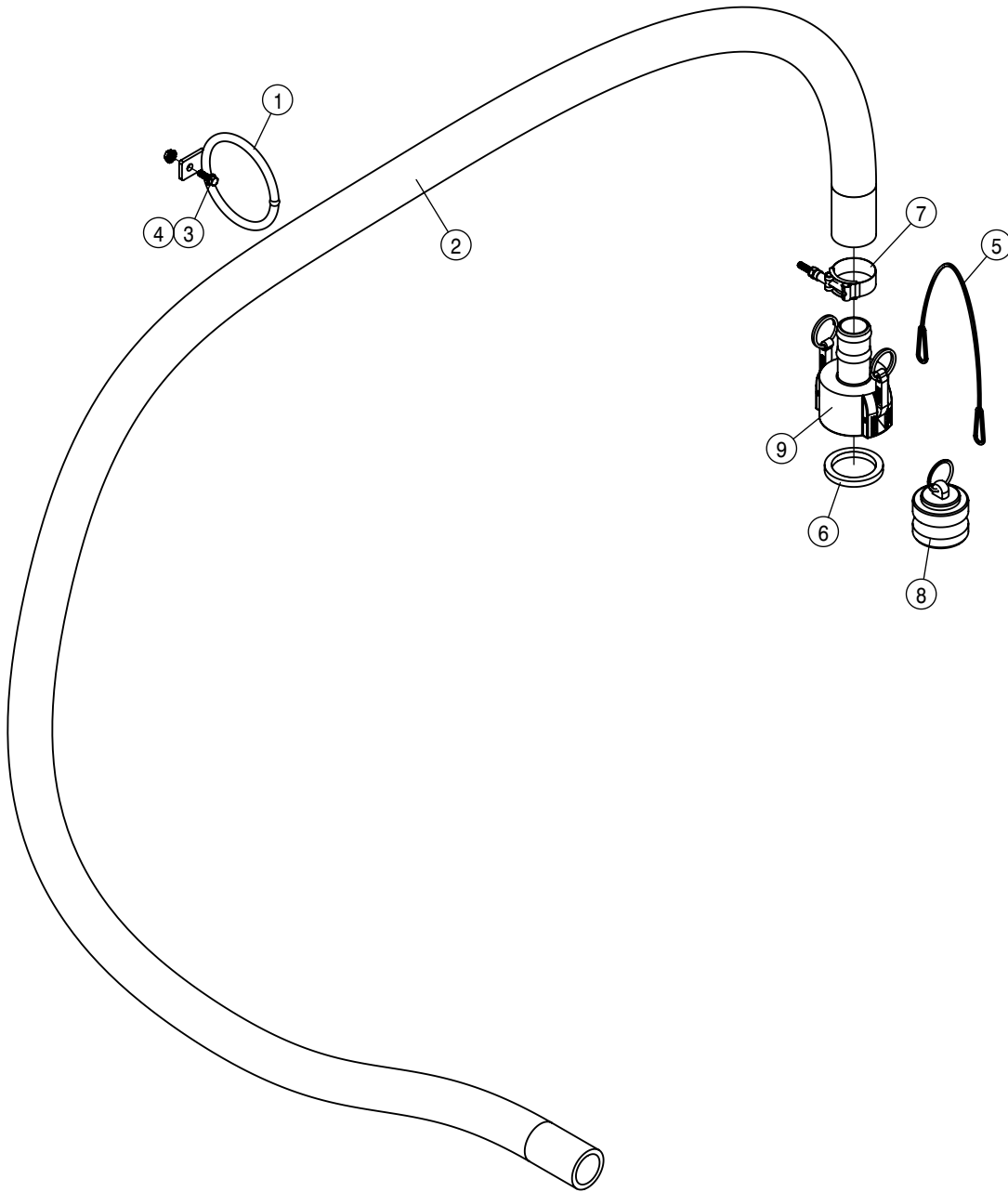
QUICK ATTACH ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
NS	1	294406	30-40 NTB HARNESS
2	1	607114	MOBILE HALF COUPLER ASSY, 0502
3	1	617396	10-451TC-10FJX90-10FJX-67 H/A
4	1	617397	12-451TC-12FJX-12FJX-70 H/A
5	1	629546	SNAP RING, 1.637 EXTERNAL



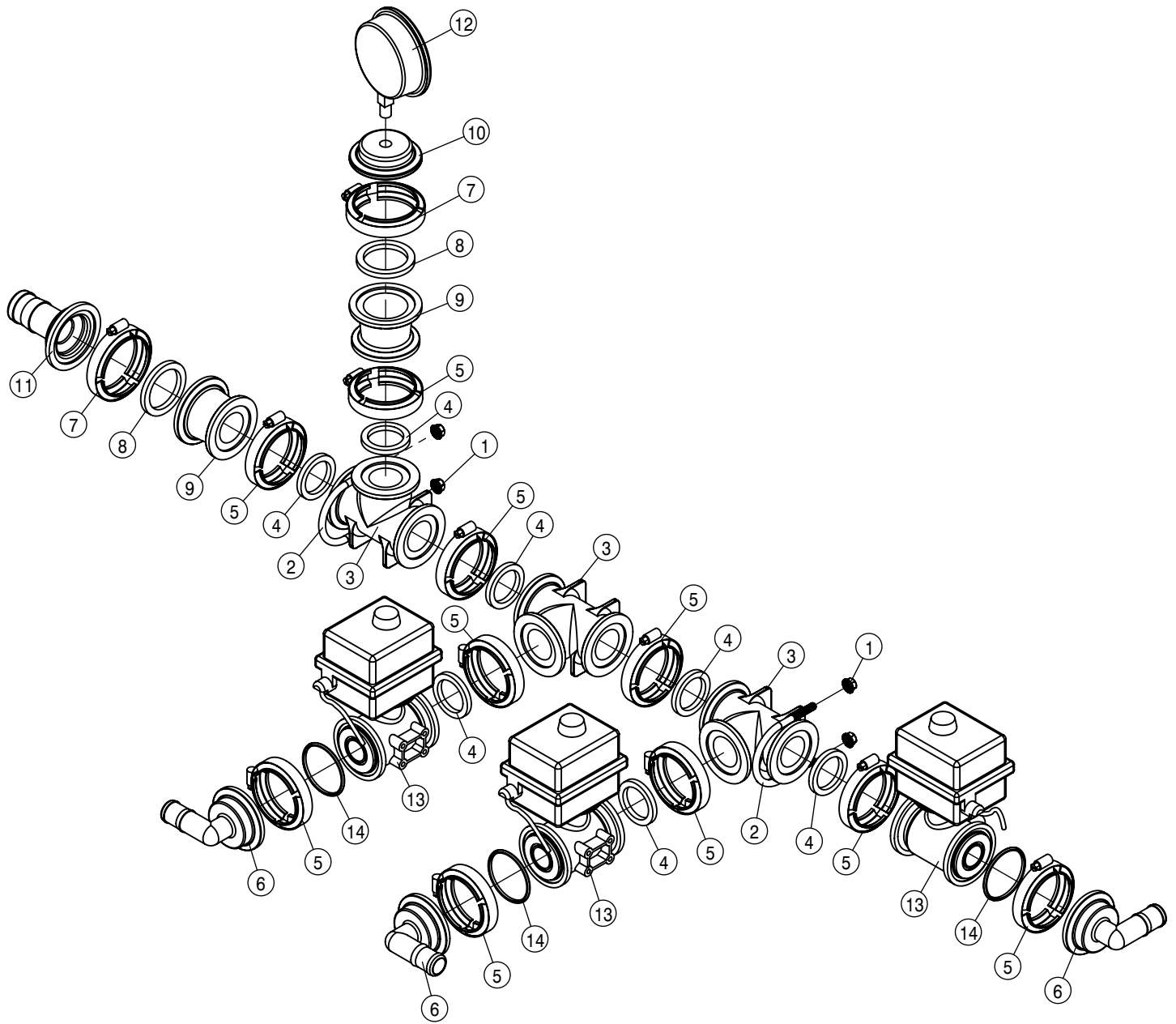
30 FT TOOLBAR CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	606402	HYD VLV 6 SEC W/FLOAT
2	1	611125	3/4MJIC-3/4MOR ADPTR
3	1	611126	7/8MJIC-7/8MOR ADPTR
4	4	618115	9/16MJIC-90-3/4MOR LBO
5	2	618119	9/16MJIC-90-9/16MOR LBO
6	1	618241	3/4MJIC-90-3/4MOR LBO
7	1	618248	1 1/16MJIC-90-1 1/16MOR LBO
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



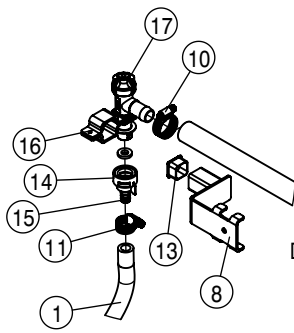
40 FT TOOLBAR CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	606402	HYD VLV 6 SEC W/FLOAT
2	1	611125	3/4MJIC-3/4MOR ADPTR
3	1	611126	7/8MJIC-7/8MOR ADPTR
4	1	618109	9/16MJIC-3/4MOR ADPTR
5	4	618115	9/16MJIC-90-3/4MOR LBO
6	3	618119	9/16MJIC-90-9/16MOR LBO
7	1	618126	9/16MJIC-9/16MOR ADPTR
8	1	618241	3/4MJIC-90-3/4MOR LBO
9	1	618248	1 1/16MJIC-90-1 1/16MOR LBO
10	4	618440	9/16MJIC-90-9/16MOR EX LG LBO
11	1	618709	9/16MJIC-90-3/4MOR EX LG LBO
12	1	618756	7/8 MOR PLUG, HEX SOCKET
13	1	618757	1 1/16MOR PLUG, HEX SOCKET
14	4	900128	3/8UNC X 3/4 HEX BOLT



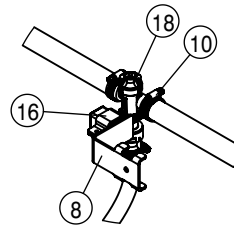
SOLUTION QUICK ATTACH ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	1	165954	HOSE RING WLD
2	1	197124-110	HOSE 1 1/2 2-FBR BR BLK EPDM
3	1	470118	1/4 UNC X 3/4 SER FLG BOLT
4	1	470121	1/4 UNC SERR FLG LOCK NUT
5	1	470322	LANYARD 8" NYLON LOOP/LOOP
6	1	500231	2"FP FLANGE GASKET,EXTRA THICK
7	1	520133	1.81/2.06 T-BOLT HOSE CLAMP SS
8	1	690392	PLUG FOR 2.00 FEMALE COUPLER
9	1	696243	2" FEMALE CAM CPLR - 1 1/2" HOSE BRB



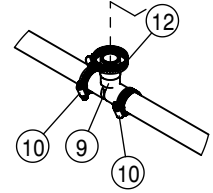
SOLUTION CONTROL VALVE ASSEMBLY			
DET	QTY	P/N	DESCRIPTION
1	4	470113	5/16UNC SERR FLG LOCK NUT
2	2	472195	5/16UNC-2 11/16ID-3 9/16U-BOLT
3	3	500151	2" FLANGE TEE, POLY
4	7	500158	1 1/2" GASKET FOR 2" FLANGE
5	10	500160	2" FLANGE CLAMP S.S.
6	3	500189	2" FLANGE-90-1" HOSE BARB POLY
7	2	500194	2" FP FLANGE 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	690832	PRESS GA GLYCERI 160 PSI
13	3	696256	VALVE, KZCO C2F-60B-M-S9
14	3	N208245	O-RING, KZCO FLANGED VALVE



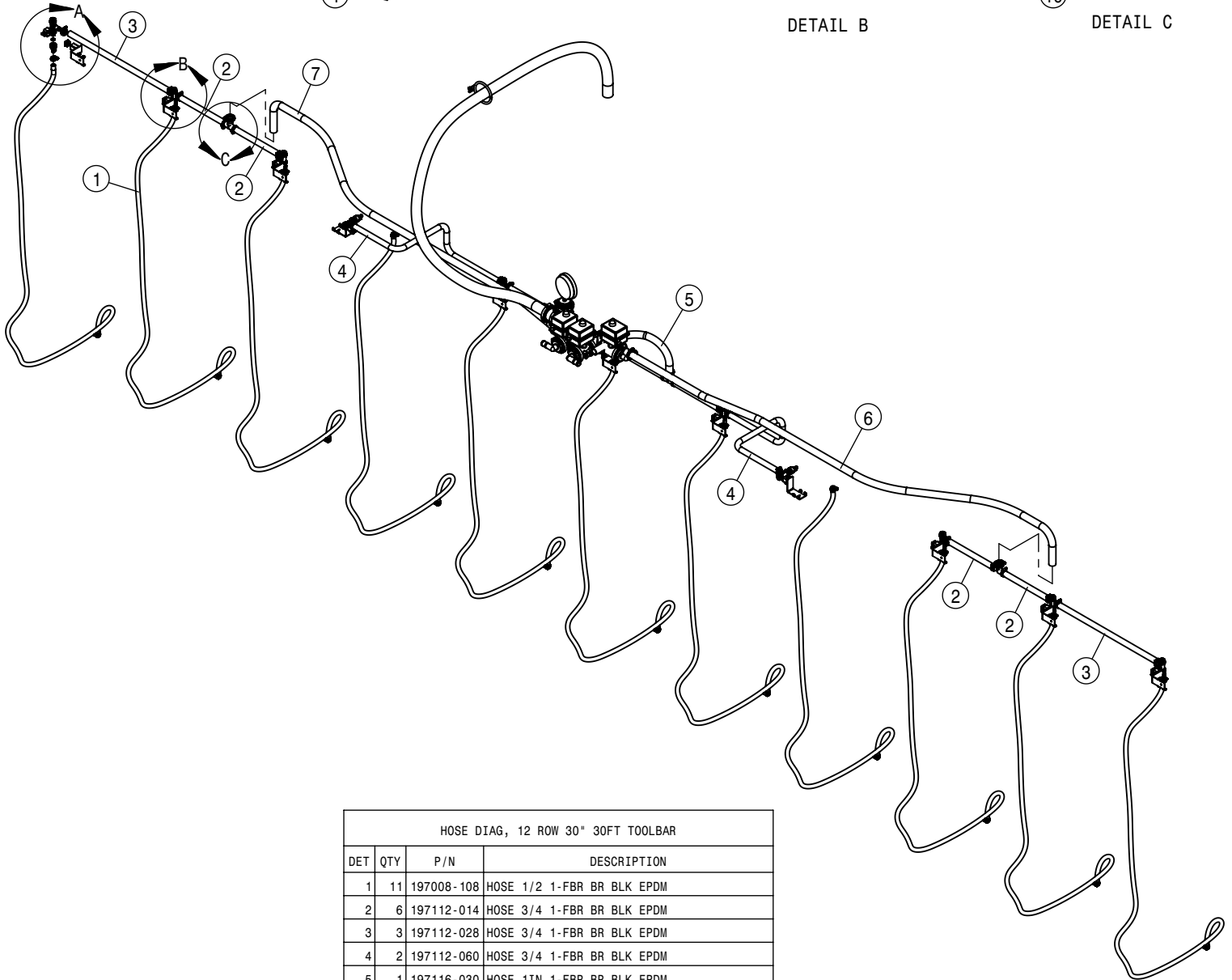
DETAIL A



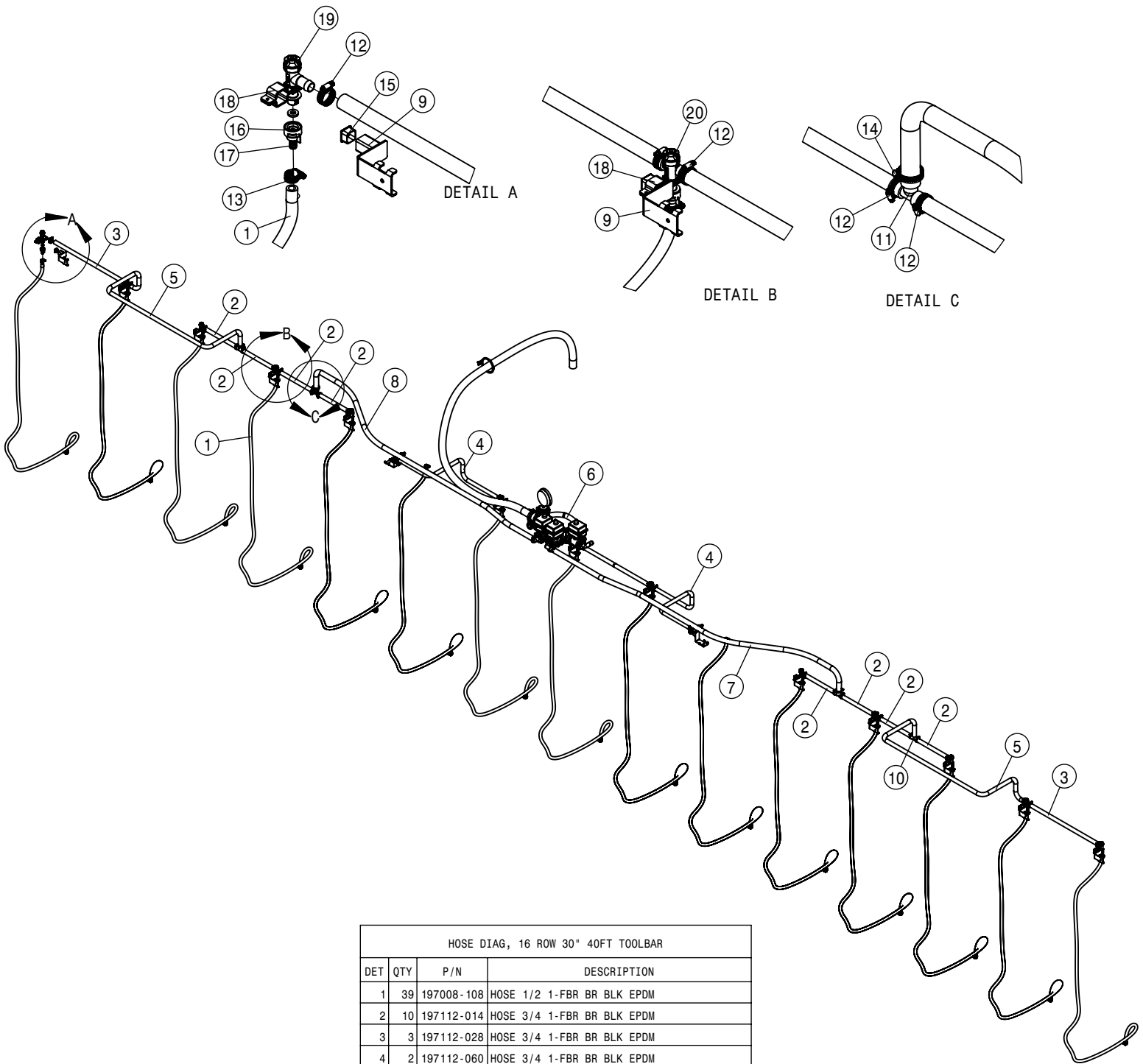
DETAIL B



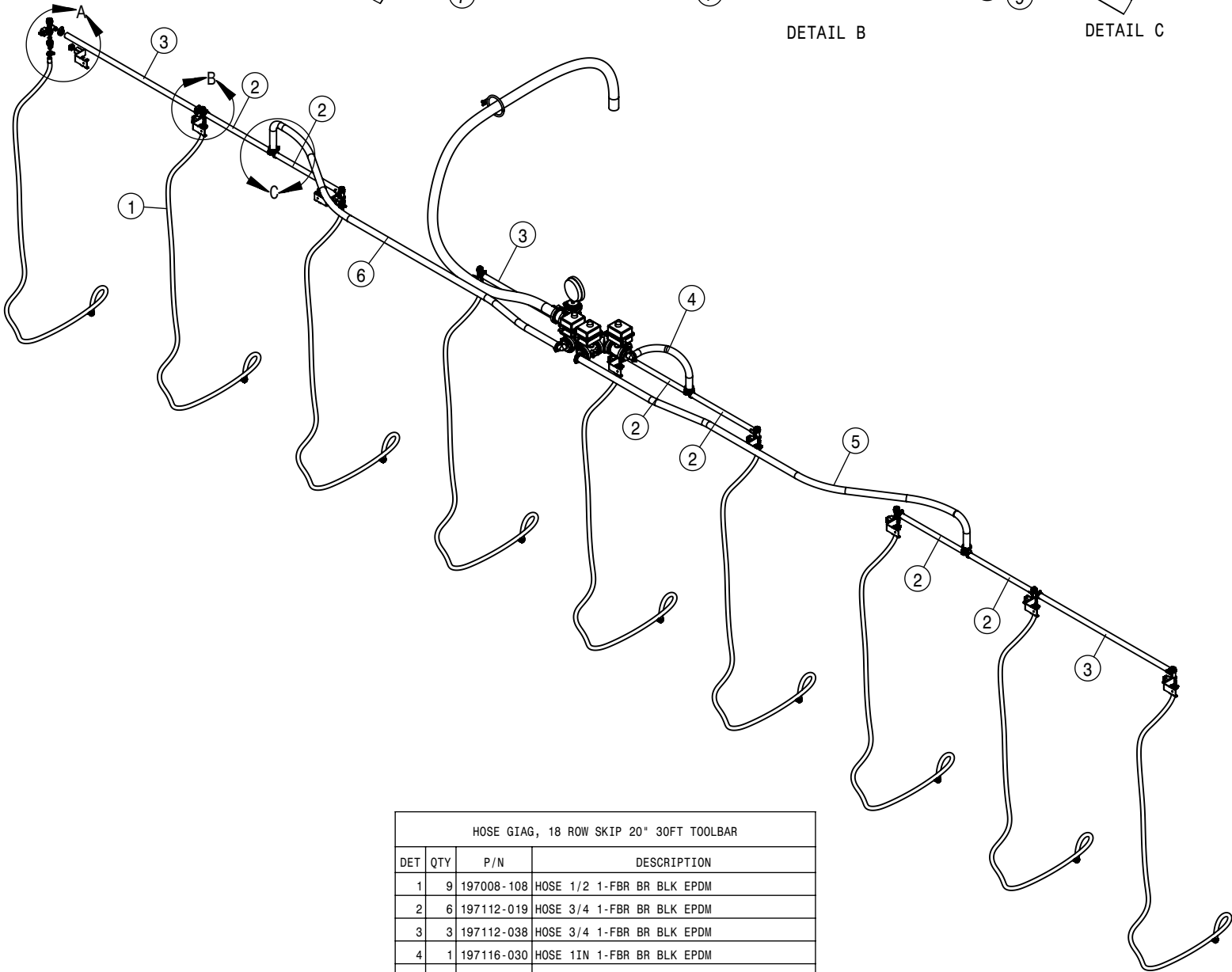
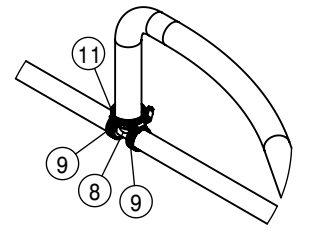
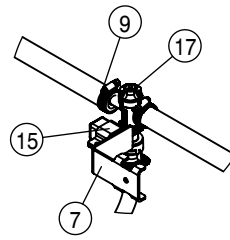
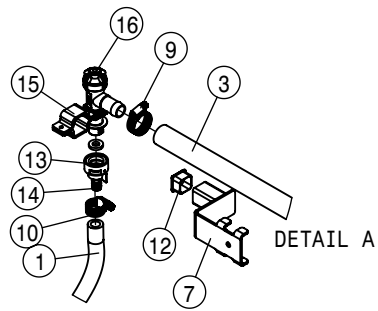
DETAIL C



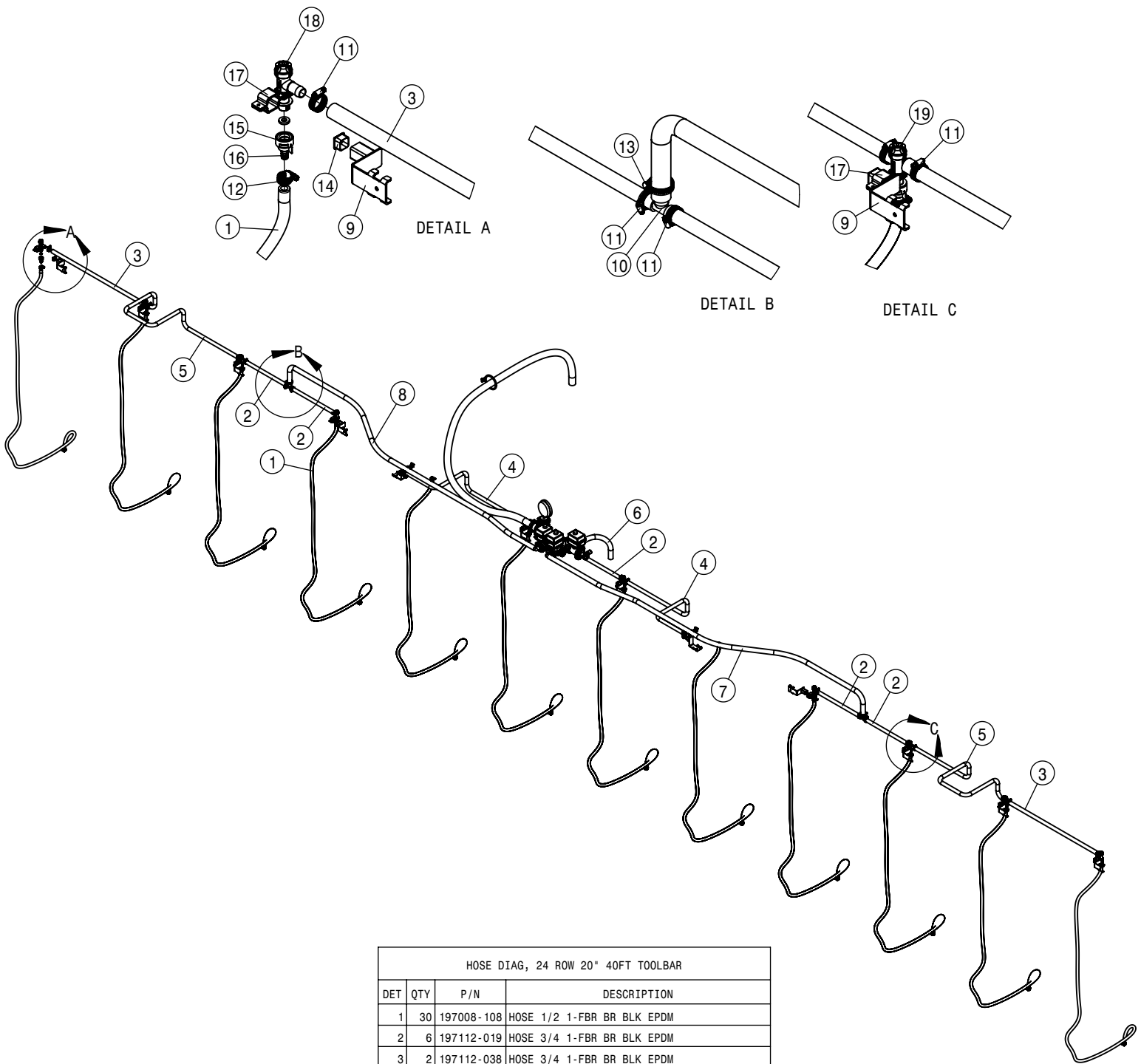
HOSE DIAG, 12 ROW 30" 30FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	11	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	6	197112-014	HOSE 3/4 1-FBR BR BLK EPDM
3	3	197112-028	HOSE 3/4 1-FBR BR BLK EPDM
4	2	197112-060	HOSE 3/4 1-FBR BR BLK EPDM
5	1	197116-030	HOSE 1IN 1-FBR BR BLK EPDM
6	1	197116-110	HOSE 1IN 1-FBR BR BLK EPDM
7	1	197116-120	HOSE 1IN 1-FBR BR BLK EPDM
8	11	439096	TIP MT BRKT WLD, NTB STS 03
9	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
10	25	520055	HOSE CLAMP NO 12 STAINLESS
11	22	520070	HOSE CLAMP NO 8 STAINLESS
12	7	520087	HOSE CLAMP NO 20 STAINLESS
13	11	629727	FINISH PLUG 1" SQ 16 GA
14	11	737790	CAP SET,ROUND,RED QUICK TEEJET
15	11	737791	1/2" TEEJET HOSE SHANK, NYLON
16	11	737817	NOZZLE BRACKET
17	6	737829	QUICK TJET LBO,1-TIP BODY .75
18	5	737830	QUICK TJET TEE,1-TIP BODY .75



HOSE DIAG, 16 ROW 30" 40FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	39	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	10	197112-014	HOSE 3/4 1-FBR BR BLK EPDM
3	3	197112-028	HOSE 3/4 1-FBR BR BLK EPDM
4	2	197112-060	HOSE 3/4 1-FBR BR BLK EPDM
5	2	197112-070	HOSE 3/4 1-FBR BR BLK EPDM
6	1	197116-030	HOSE 1IN 1-FBR BR BLK EPDM
7	1	197116-110	HOSE 1IN 1-FBR BR BLK EPDM
8	1	197116-120	HOSE 1IN 1-FBR BR BLK EPDM
9	15	439096	TIP MT BRKT WLD, NTB STS 03
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	78	520070	HOSE CLAMP NO 8 STAINLESS
14	6	520087	HOSE CLAMP NO 20 STAINLESS
15	15	629727	FINISH PLUG 1" SQ 16 GA
16	15	737790	CAP SET,ROUND,RED QUICK TEEJET
17	15	737791	1/2" TEEJET HOSE SHANK, NYLON
18	15	737817	NOZZLE BRACKET
19	8	737829	QUICK TJET LBO,1-TIP BODY .75
20	7	737830	QUICK TJET TEE,1-TIP BODY .75

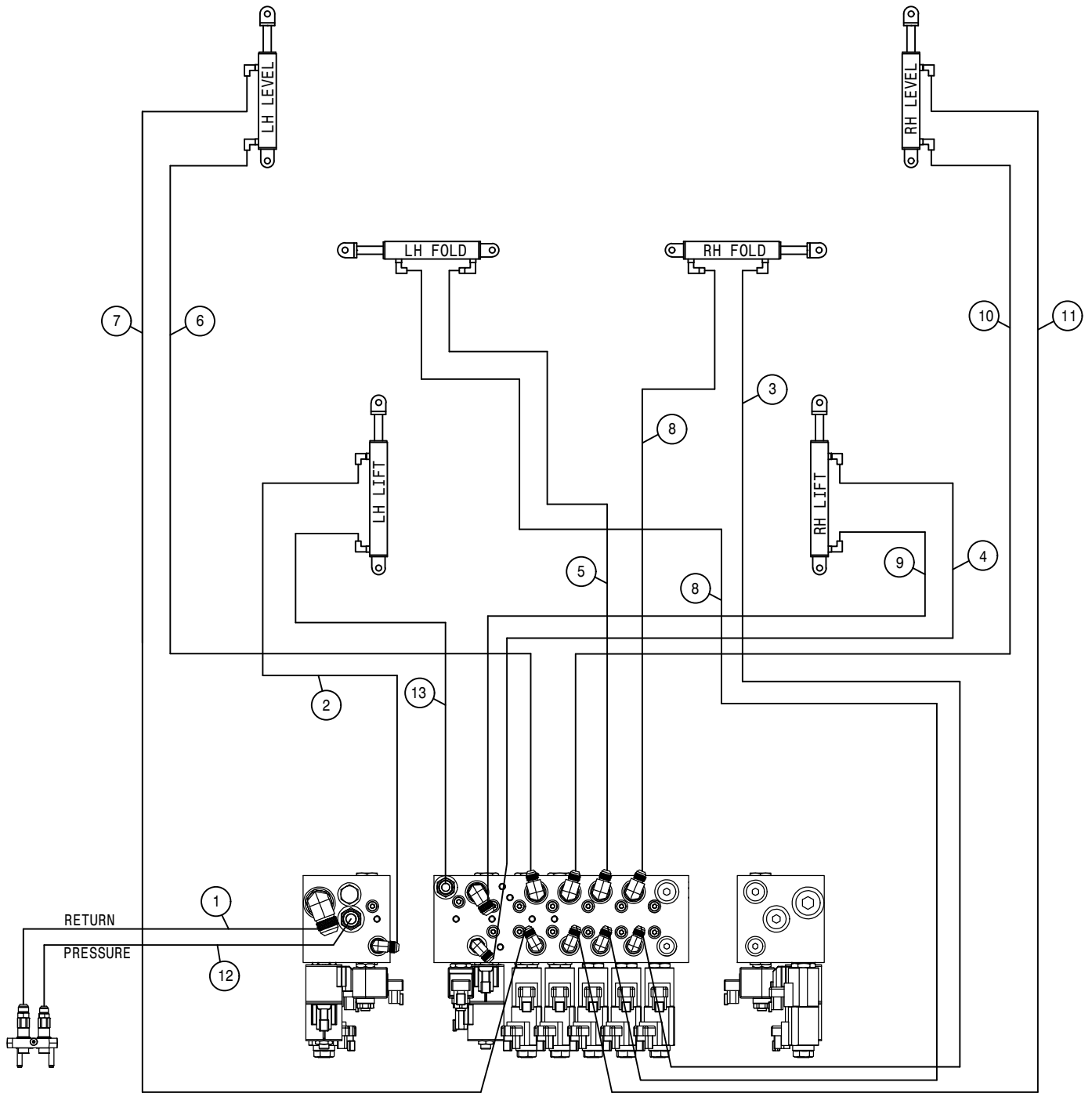


HOSE GIAG, 18 ROW SKIP 20" 30FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	9	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	6	197112-019	HOSE 3/4 1-FBR BR BLK EPDM
3	3	197112-038	HOSE 3/4 1-FBR BR BLK EPDM
4	1	197116-030	HOSE 1IN 1-FBR BR BLK EPDM
5	1	197116-110	HOSE, 1 X 110 1BR BLK EPDM
6	1	197116-120	HOSE 1IN 1-FBR BR BLK EPDM
7	9	439096	TIP MT BRKT WLD, NTB STS 03
8	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
9	18	520055	HOSE CLAMP NO 12 STAINLESS
10	18	520070	HOSE CLAMP NO 8 STAINLESS
11	6	520087	HOSE CLAMP NO 20 STAINLESS
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



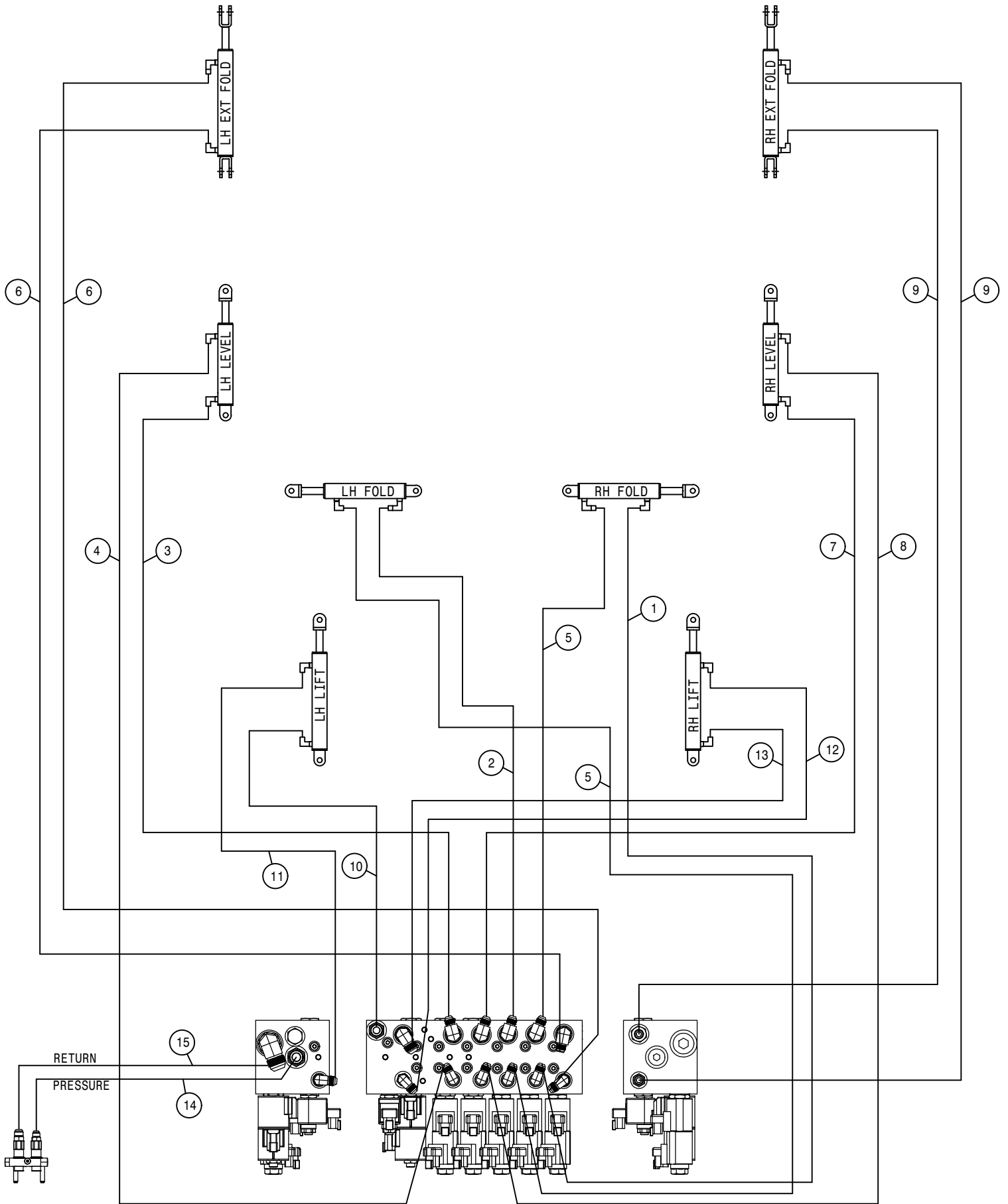
HOSE DIAG, 24 ROW 20" 40FT TOOLBAR			
DET	QTY	P/N	DESCRIPTION
1	30	197008-108	HOSE 1/2 1-FBR BR BLK EPDM
2	6	197112-019	HOSE 3/4 1-FBR BR BLK EPDM
3	2	197112-038	HOSE 3/4 1-FBR BR BLK EPDM
4	2	197112-060	HOSE 3/4 1-FBR BR BLK EPDM
5	2	197112-070	HOSE 3/4 1-FBR BR BLK EPDM
6	1	197116-030	HOSE 1IN 1-FBR BR BLK EPDM
7	1	197116-110	HOSE 1IN 1-FBR BR BLK EPDM
8	1	197116-120	HOSE 1IN 1-FBR BR BLK EPDM
9	12	439096	TIP MT BRKT WLD, NTB STS 03
10	3	500121	1"BRNCH-3/4 HOSE BARB TEE,POLY
11	24	520055	HOSE CLAMP NO 12 STAINLESS
12	62	520070	HOSE CLAMP NO 8 STAINLESS
13	6	520087	HOSE CLAMP NO 20 STAINLESS
14	12	629727	FINISH PLUG 1" SQ 16 GA
15	12	737790	CAP SET,ROUND,RED QUICK TEEJET
16	12	737791	1/2" TEEJET HOSE SHANK, NYLON
17	12	737817	NOZZLE BRACKET
18	6	737829	QUICK TJET LBO,1-TIP BODY .75
19	6	737830	QUICK TJET TEE,1-TIP BODY .75

This Page Intentionally Blank



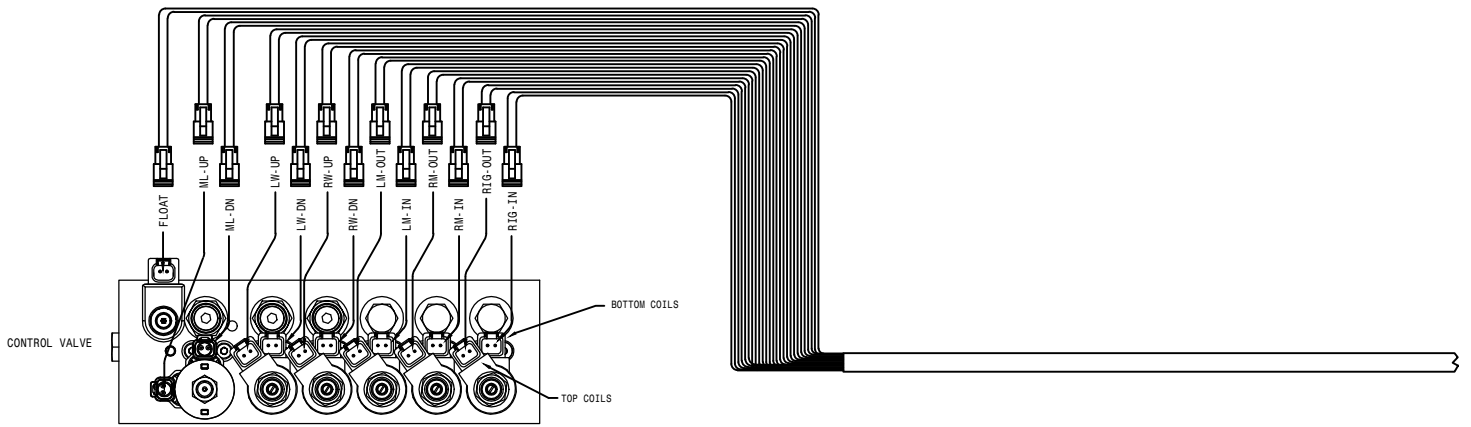
NITROGEN T-BAR 30FT HYD DIAGRAM 2016-19
REFERENCE DRAWING NO. 499367_RevB

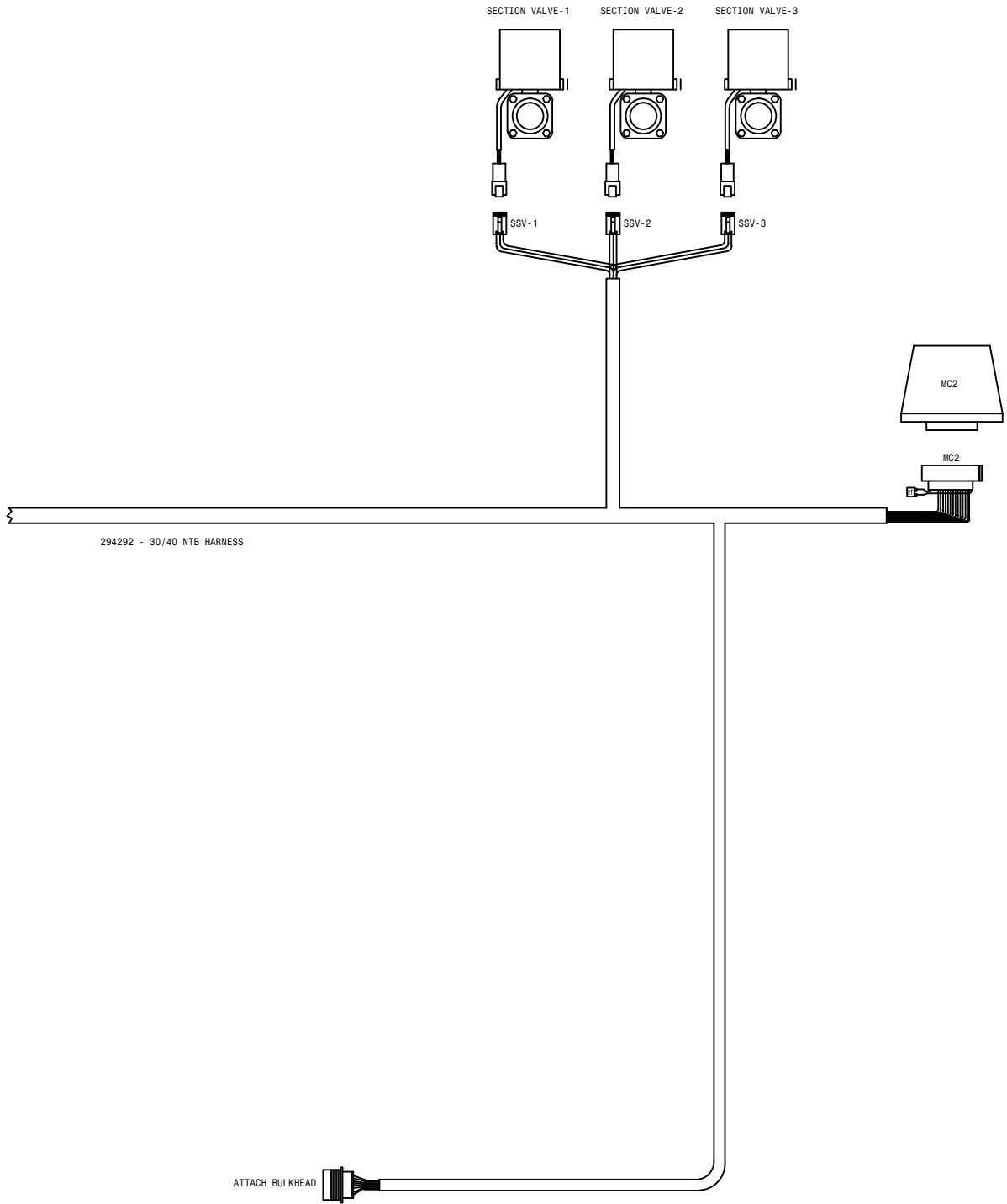
DET.	QTY	PART NO.	DESCRIPTION		DET.	QTY	PART NO.	DESCRIPTION	
1	1	617397	12-387TC-12FJX-12FJX-70	H/A	8	2	616177	04-387TC-06FJX-06FJX-74	H/A
2	1	617392	06-387TC-06FJX-06FJX-47	H/A	9	1	617395	06-387TC-08FJX-06FJX-153	H/A
3	1	616560	04-387TC-06FJX-06FJX-87	H/A	10	1	616561	04-387TC-06FJX-06FJX-132	H/A
4	1	617394	06-387TC-06FJX-06FJX-140	H/A	11	1	616180	04-387TC-06FJX-06FJX-143	H/A
5	1	616209	04-387TC-06FJX-06FJX-64	H/A	12	1	617396	10-387TC-10FJX90-10FJX-67	H/A
6	1	616084	04-387TC-06FJX-06FJX-46	H/A	13	1	617393	06-387TC-08FJX-06FJX-67	H/A
7	1	616176	04-387TC-06FJX-06FJX-58	H/A					



NITROGEN T-BAR 40FT HYD DIAGRAM 2016-19
REFERENCE DRAWING NO. 499368_RevB

DET.	QTY	PART NO.	DESCRIPTION		DET.	QTY	PART NO.	DESCRIPTION	
1	1	616560	04-387TC-06FJX-06FJX-87	H/A	9	2	616260	04-387TC-06FJX-06FJX-200	H/A
2	1	616209	04-387TC-06FJX-06FJX-64	H/A	10	1	617393	06-387TC-08FJX-06FJX-67	H/A
3	1	616084	04-387TC-06FJX-06FJX-46	H/A	11	1	617392	06-387TC-06FJX-06FJX-47	H/A
4	1	616176	04-387TC-06FJX-06FJX-58	H/A	12	1	617394	06-387TC-06FJX-06FJX-140	H/A
5	2	616177	04-387TC-06FJX-06FJX-74	H/A	13	1	617395	06-387TC-08FJX-06FJX-153	H/A
6	2	616414	04-387TC-06FJX-06FJX-126	H/A	14	1	617396	10-387TC-10FJX90-10FJX-67	H/A
7	1	616561	04-387TC-06FJX-06FJX-132	H/A	15	1	617397	12-387TC-12FJX-12FJX-70	H/A
8	1	616180	04-387TC-06FJX-06FJX-143	H/A					





294292 - 30/40 NTB HARNESS

ATTACH BULKHEAD

03-04-16	TLM
STS NTB WIRING DIAGRAM 2016-18	
REV_A 03-04-16	499366

Notes: