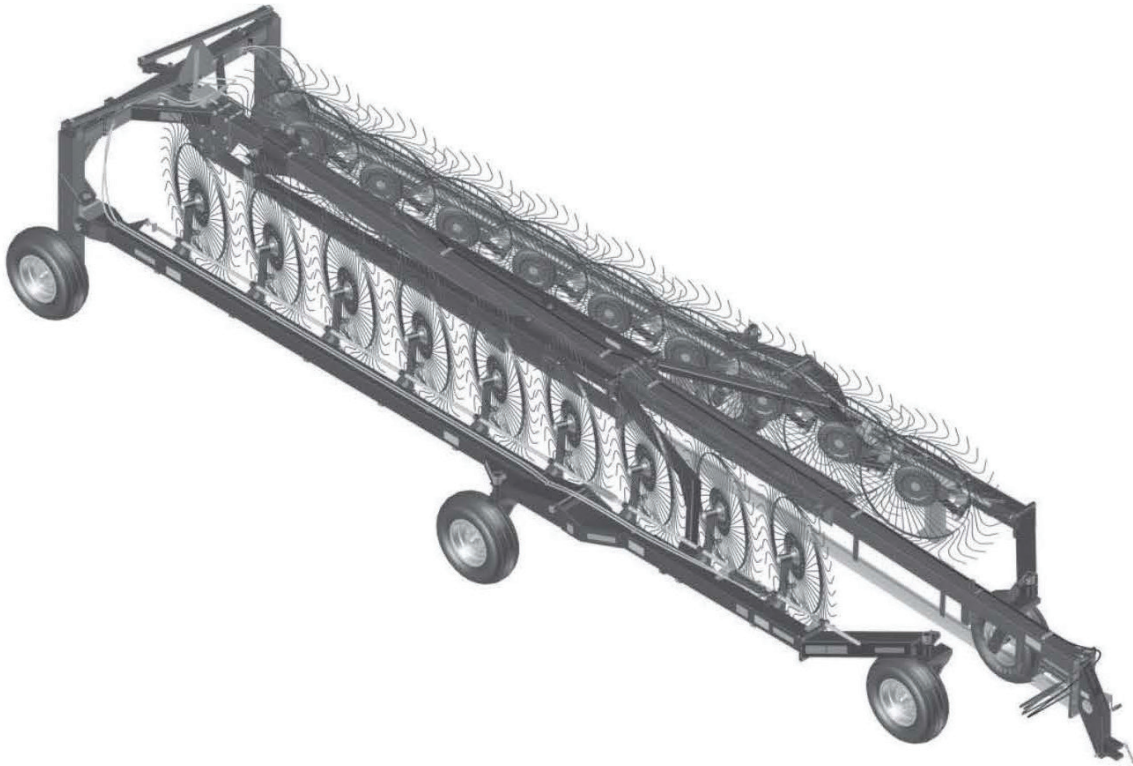


H&S

PARTS BOOK

6118 FLEX-FRAME RAKE



Revision #05

Starting Ser. #021FF18001

HSMFG0120

PART #60311

Manufactured by:

H&S MANUFACTURING CO., INC.

2608 S. HUME AVE. MARSHFIELD, WI 54449

(715) 387-3414 - FAX (715) 384-8736 - WWW.HSMFGCO.COM

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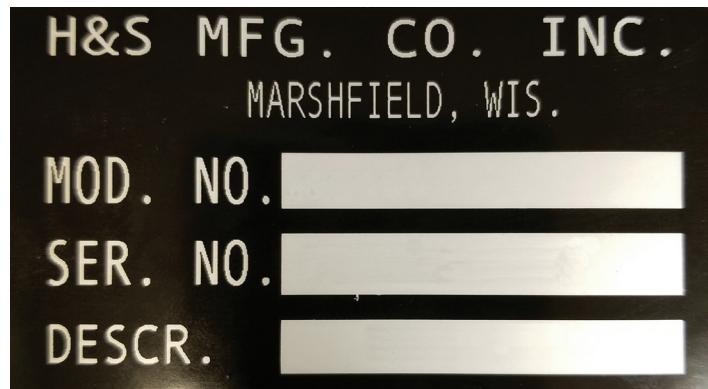
INSTRUCTIONS FOR ORDERING PARTS

All service parts should be ordered through your authorized H&S dealer. He will be able to give you faster service if you will provide them with the following:

1. Model & Serial Number - Both can be located on the left, rear main frame of your unit.
2. All references to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order complete part number.
4. If your dealer has to order parts - give shipping instructions:

VIA truck - large pieces (please specify local truck lines)

VIA United Parcel Service (include full address)



H&S MFG. CO. INC.
MARSHFIELD, WIS.
MOD. NO.
SER. NO.
DESCR.

PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

ABOUT IMPROVEMENTS

H&S IS CONTINUALLY STRIVING TO IMPROVE IT'S PRODUCTS

We must therefore, reserve the right to make improvements or changes whenever it becomes practical to do so, without incurring any obligation to make changes or additions to the equipment previously sold.

FIGURE 1 MAIN FRAME FRONT

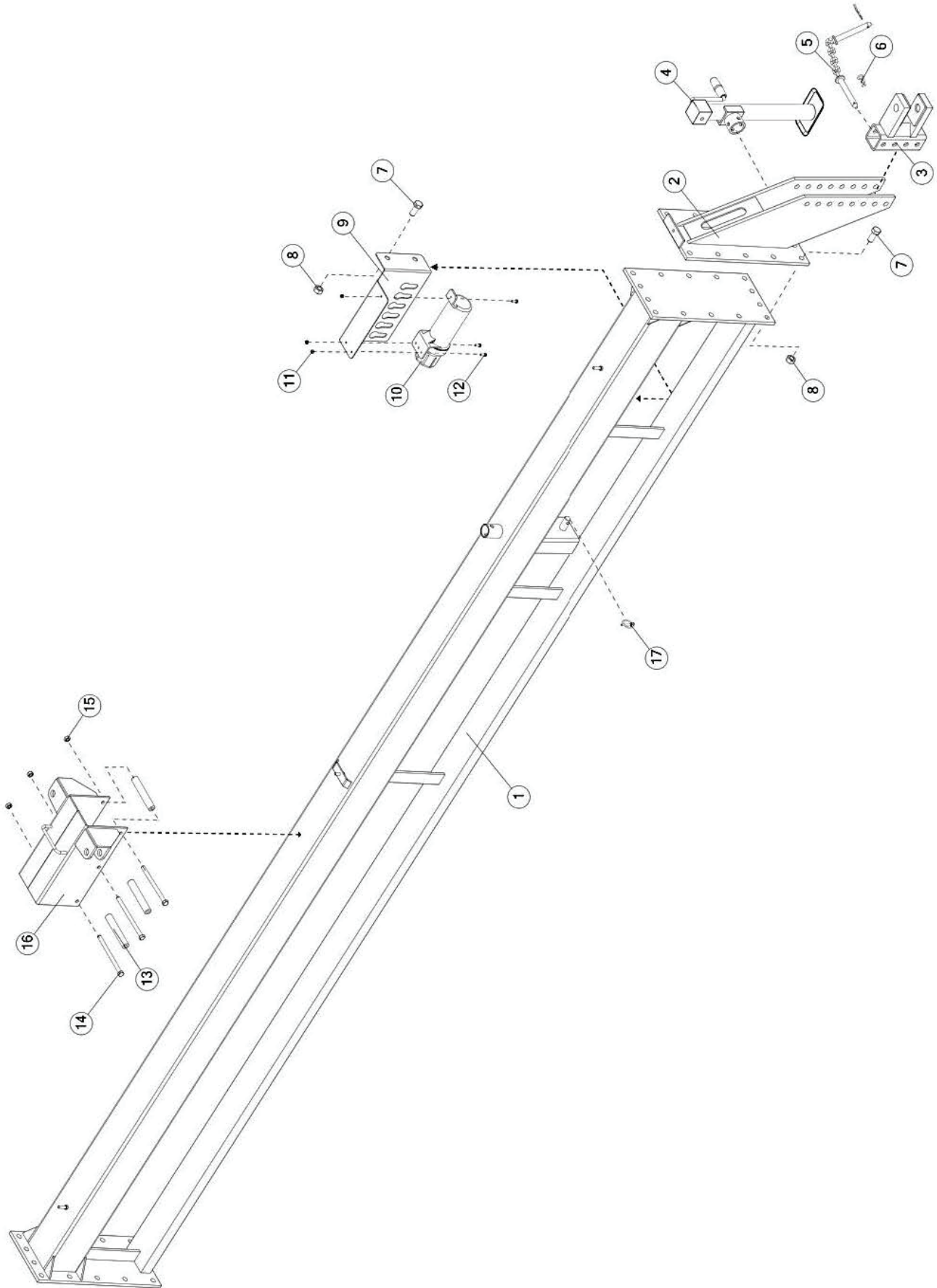


FIGURE 1

MAIN FRAME FRONT

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	57901	POLE FRONT
2	1	FR25	HITCH RECEIVER
*	1	SC10100	SAFETY CHAIN 10,100 LB
3	1	HD83	HITCH CLEVIS
4	1	BFR753A	SIDEWIND JACK
5	1	87599	HITCH PIN
6	2	YPHR02010	HAIR PIN
7	14	YBHH24014	BOLT HEX, 3/4 X 1-3/4 G5
8	14	YNTL24005	NUT HEX, TOP LOCK, 3/4
9	1	60269	HOSE HOLDER
10	1	S522	MANUAL HOLDER
11	3	YNNY08005	NUT HEX, NYLON LOCKNUT, 1/4
12	3	YBHH08100	BOLT HEX, 1/4 X 3/4 G5
13	3	58298	SLIDER SPACER
14	3	YBHH16180	BOLT HEX, 1/2 X 7 G5
15	3	YNTL16005	NUT HEX, TOP LOCK, 1/2
16	1	58303	LINKAGE SLIDER FRONT
17	1	YPLY12010	LYNCH PIN, 3/8 X 1-3/4
*	1	78464	HITCH EXTENSION

*MEANS NOT SHOWN

FIGURE 2 MAIN FRAME MIDDLE

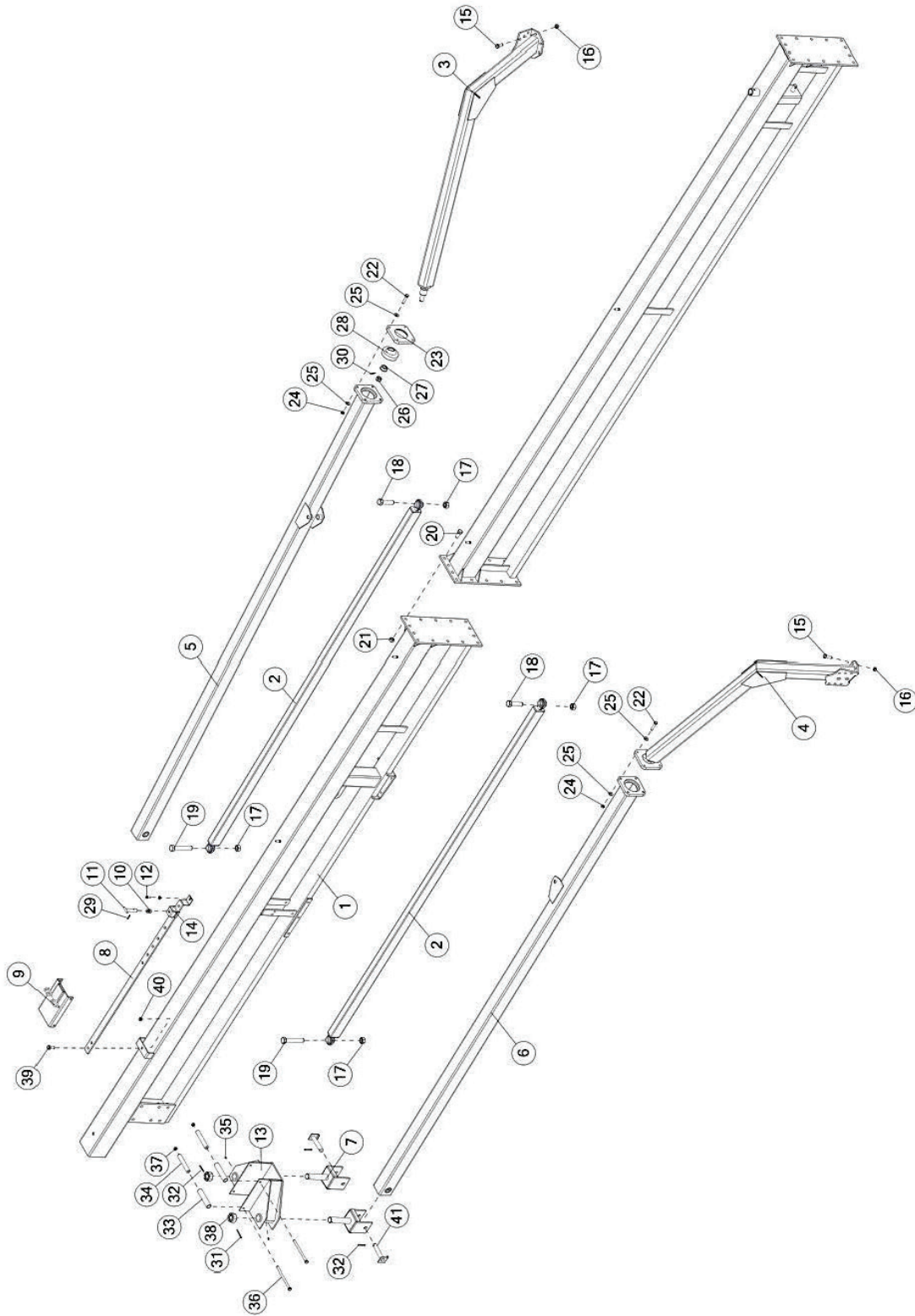


FIGURE 2

MAIN FRAME MIDDLE

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	58293	POLE BACK
2	2	BFR458	LINKAGE FRONT
3	1	58352	ARM LH
4	1	58353	ARM RH
5	1	63371	LINKAGE ARM LH
6	1	63372	LINKAGE ARM RH
7	2	BFR476	LINKAGE YOKE BACK RH
8	1	67416	WIDTH ADJUSTMENT BAR
9	1	58380	WIDTH ADJUSTMENT STOP
10	1	BFR240	SPRING
11	1	BFR241	ADJUSTMENT HANDLE
12	1	YBFB10002	BOLT FLANGE, 5/16 X 1/2
13	1	58251	LINKAGE SLIDER BACK
14	1	55748	WIDTH ADJUSTMENT LOCK
15	8	YBHH20020	BOLT HEX, 5/8 X 1-3/4 G5
16	8	YN TL20005	NUT HEX, TOP LOCK, 5/8
17	4	YN TL32005	NUT HEX, TOP LOCK, 1
18	2	YBHH32015	BOLT HEX, 1 X 4 G5
19	2	YBHH32025	BOLT HEX, 1 X 6 G5
20	14	YBHH24014	BOLT HEX, 3/4 X 1-3/4 G5
21	14	YN TL24005	NUT HEX, TOP LOCK, 3/4
22	8	YBHH16080	BOLT HEX, 1/2 X 2-1/2 G5
23	4	58287	BEARING SUPPORT
24	8	YN TL16006	NUT HEX, TOP LOCK, 1/2
25	16	YWFL16005	WASHER FLAT, 1/2
26	2	YN SL28005	NUT HEX, SLOTTED, 7/8
27	2	58301	BALL SPACER
28	2	58409	PITCH ROD BALL PIN
29	1	YPCT05005	COTTER PIN, 5/32 X 1
30	2	YPCT05020	COTTER PIN, 5/32 X 1-3/4
31	1	YPCT05035	COTTER PIN, 5/32 X 2-1/2
32	3	YPCT06020	COTTER PIN, 3/16 X 2
33	2	58297	BACK SLIDER ROLLER
34	2	58298	SLIDER SPACER
35	2	G89	STRAIGHT ZERK 1/4-28 X 90
36	2	YBHH16182	BOLT HEX, 1/2 X 8 G5
37	2	YN TL16005	NUT HEX, TOP LOCK, 1/2
38	2	YN SL40005	NUT HEX, SLOTTED, 1-1/2
39	1	YBHH20010	BOLT HEX, 5/8 X 1-1/2 G5
40	1	YN TL16006	NUT HEX, TOP LOCK, 1/2
41	2	BFR479	PIVOT YOKE SHAFT PIN RH

FIGURE 3
MAIN FRAME REAR

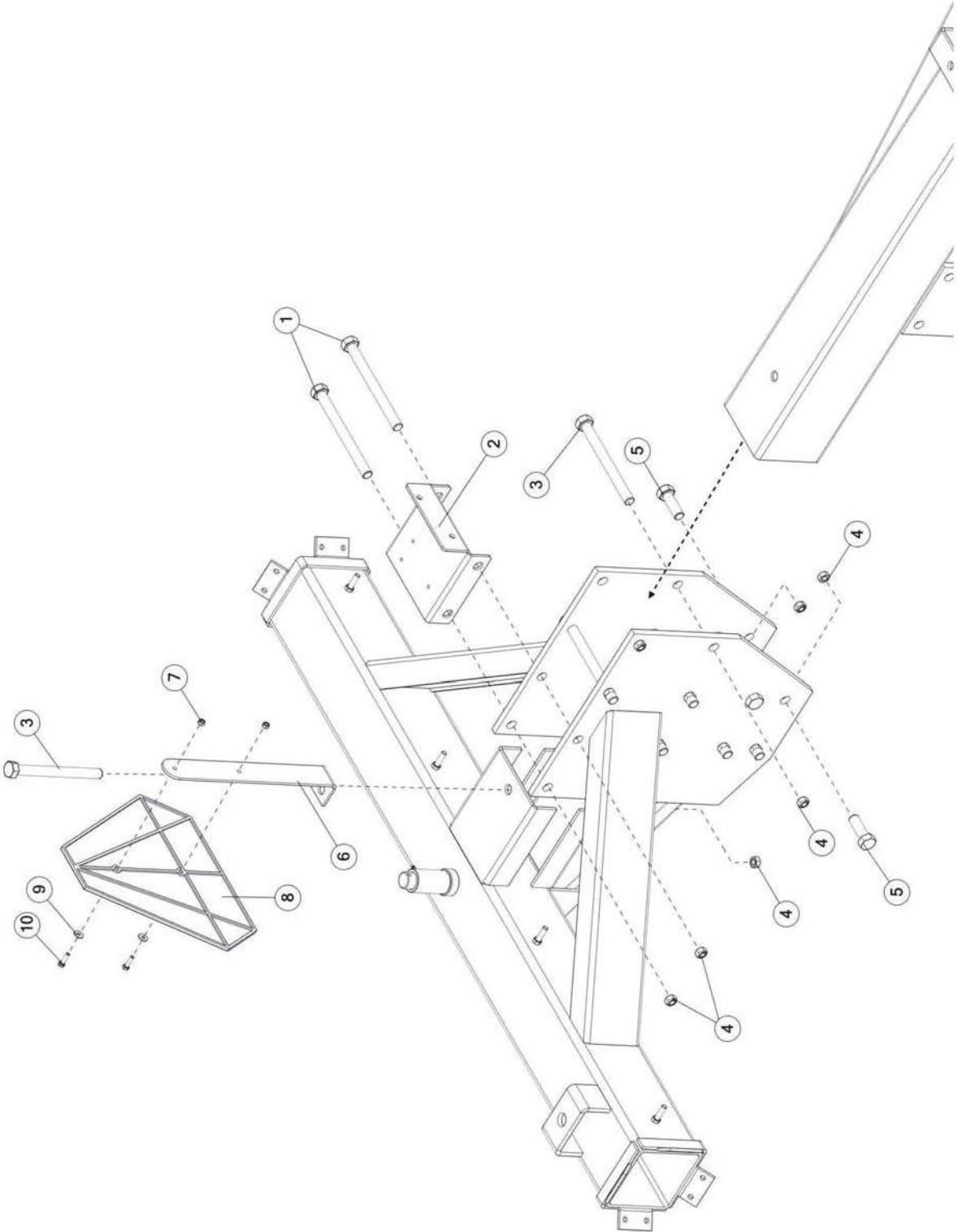


FIGURE 3
MAIN FRAME REAR

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	YBHH24115	BOLT HEX , 3/4 X 8-1/2 G5
2	1	58411	HYD MOUNT
3	9	YBHH24110	BOLT HEX, 3/4 X 8 G5
4	15	YNL16006	NUT HEX, TOP LOCK, 1/2
5	4	YBHH24035	BOLT HEX, 3/4 X 2-1/4 G5
6	1	63408	SMV BRACKET
7	2	YNNY08005	NUT HEX, NYLON LOCKNUT, 1/4
8	1	BFR723	SMV SIGN
9	2	YWFL08005	WASHER FLAT, 1/4
10	2	YBHH08010	BOLT HEX, 1/4 X 1 G5

FIGURE 4 REAR FRAME & AXLE ASSEMBLY

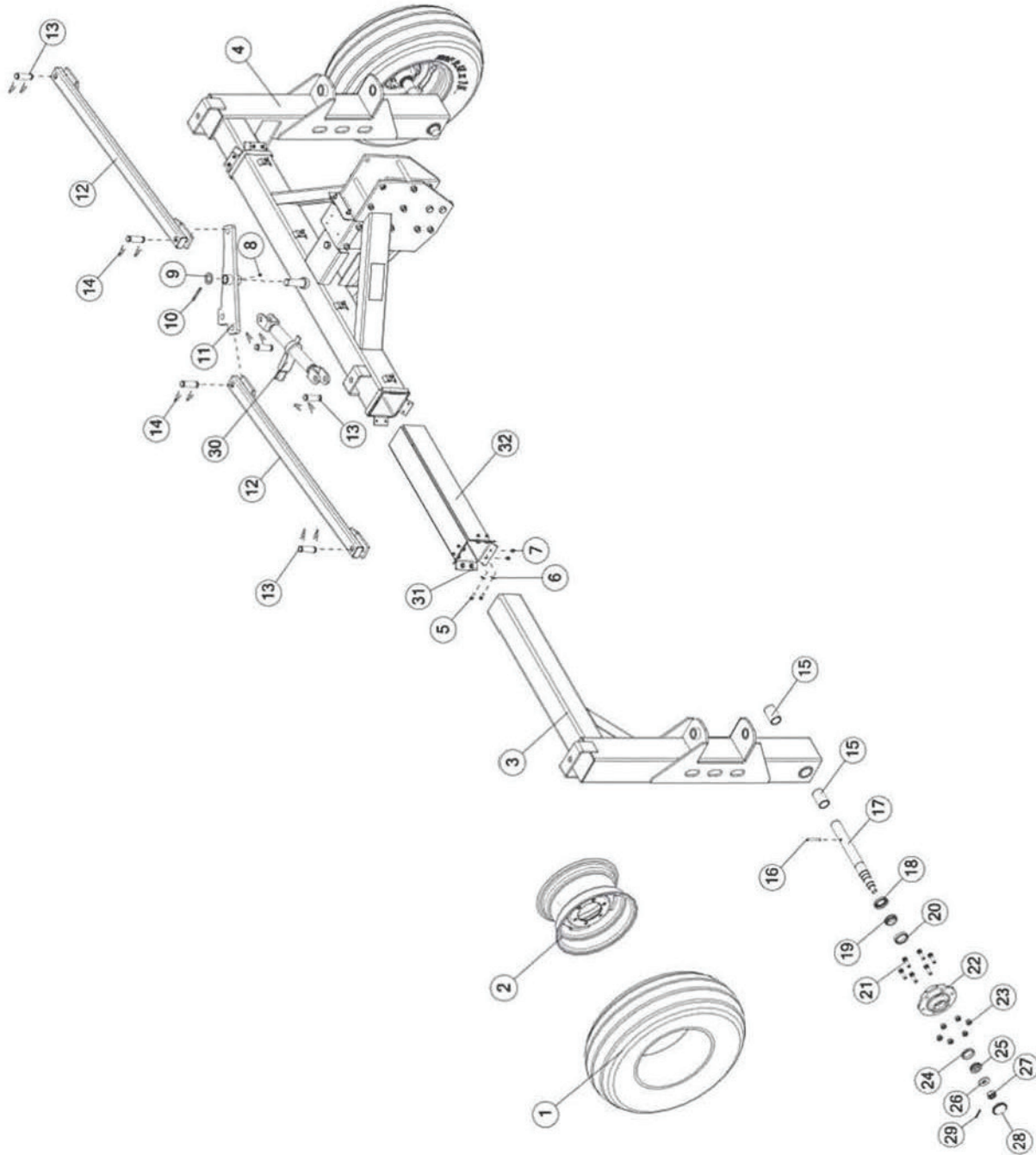


FIGURE 4

REAR FRAME & AXLE ASSEMBLY

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	UR2	TIRE AND TUBE 11L X 15
2	2	12N24	WHEEL 15 X 8, 6 BOLT
*	2	33417	WHEEL W/11LX15 8 PLY IMPL TIRE
3	1	60200	UPRIGHT RH
4	1	60199	UPRIGHT LH
5	16	YBHH10010	BOLT HEX, 5/16 X 1 G5
6	16	YWFL10005	WASHER FLAT, 5/16
7	16	YNL10005	NUT HEX, TOP LOCK, 5/16
8	1	G89	STRAIGHT ZERK, 1/4 - 28 X 90
9	1	BFR229	WASHER
10	1	YPCT08010	COTTER PIN, 1/4 X 2-1/2
11	1	HD8	CAM ARM
12	2	FR9	CYLINDER LINK
13	6	T143	HYD CYLINDER PIN
14	8	53371	HYD CYLINDER PIN
15	4	58275	BUSHING
16	2	YPEX12025	EXPANSION PIN, 3/8 X 2-3/4
17	2	FR55	BACK SPINDLE
18	2	12N17	SEAL
19	2	12N18	INNER BEARING
20	2	12N19	INNER RACE
21	12	YBSD16005	BOLT STUD, 1/2 X 1-7/8
22	2	RG101	HUB W/RACES & STUDS
23	12	YNWL16005	NUT WHEEL, 1/2
24	2	17G146	OUTER RACE
25	2	17G145	OUTER BEARING
26	2	HD200	ROAD WHEEL SPINDLE WASHER
27	2	YNL28005	NUT HEX, SLOTTED, 7/8
28	2	17G144	HUB CAP
29	2	YPCT05010	COTTER PIN, 5/32 X 1-1/2
30	1	T138	RATCHET JACK W/ HANDLE
31	4	FR52	THICK POLY SLIDES
32	4	FR53	THIN POLY SLIDES

FIGURE 5 RIGHT CASTER

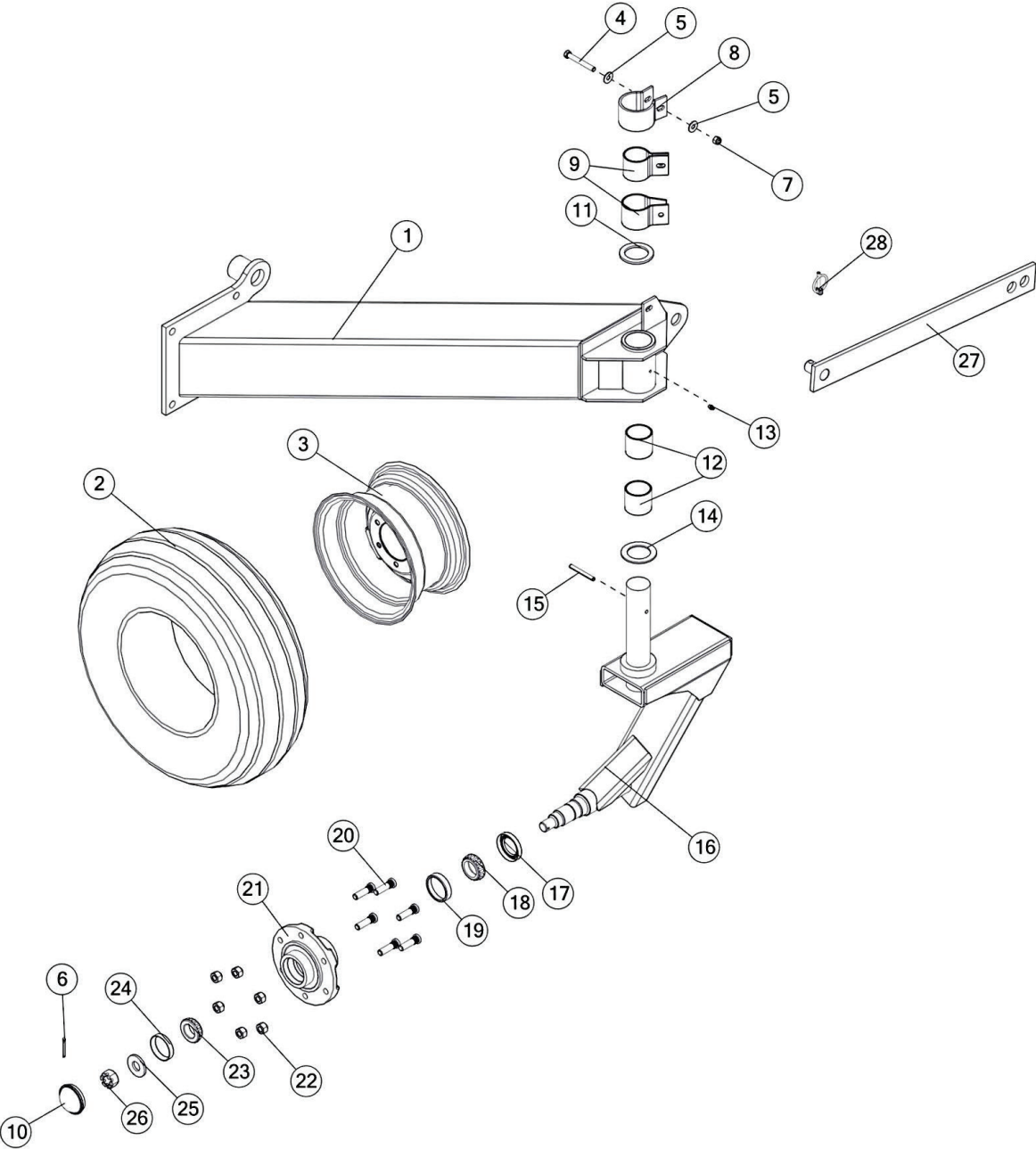


FIGURE 5 RIGHT CASTER

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	60236	STANDOFF RH
2	2	UR2	TIRE AND TUBE 11L X 15
3	2	12N24	WHEEL 15 X 8, 6 BOLT
*	2	33417	WHEEL W/11LX15 8 PLY IMPL TIRE
4	2	YBHH12125	BOLT HEX, 3/8 X 3 G5
5	4	YWFL12005	WASHER FLAT, 3/8
6	2	YPCT05010	COTTER PIN, 5/32 X 1-1/2
7	2	YNNY12005	NUT HEX, NYLON LOCKNUT, 3/8
8	2	BFR311	BRAKE COLLAR
9	4	BFR310	BRAKE PAD
10	2	17G144	HUB CAP
11	2	BFR309	GAUGE WHEEL WASHER
12	4	RG26	STEEL BUSHING
13	2	G89	STRAIGHT ZERK, 1/4 - 28 X 90
14	2	RG24	BRONZE WASHER THRUST
15	2	YPEX10025	EXPANSION PIN, 5/16 X 2-3/4
16	2	FR23	CASTER RH
17	2	12N17	SEAL
18	2	12N18	INNER BEARING
19	2	12N19	INNER RACE
20	12	YBSD16005	BOLT STUD, 1/2 X 1-7/8
21	2	RG101	HUB W/RACES & STUDS
22	12	YNWL16005	WHEEL NUT, 1/2
23	2	12N25	OUTER BEARING
24	2	12N21	OUTER RACE
25	2	HD200	ROAD WHEEL SPINDLE WASHER
26	2	YNSL28005	NUT HEX, SLOTTED, 7/8
27	1	58362	TRANSPORT LOCK BAR
28	1	YPLY12010	LYNCH PIN, 3/8 X 1-3/4

*MEANS NOT SHOWN

FIGURE 6
LEFT CASTER

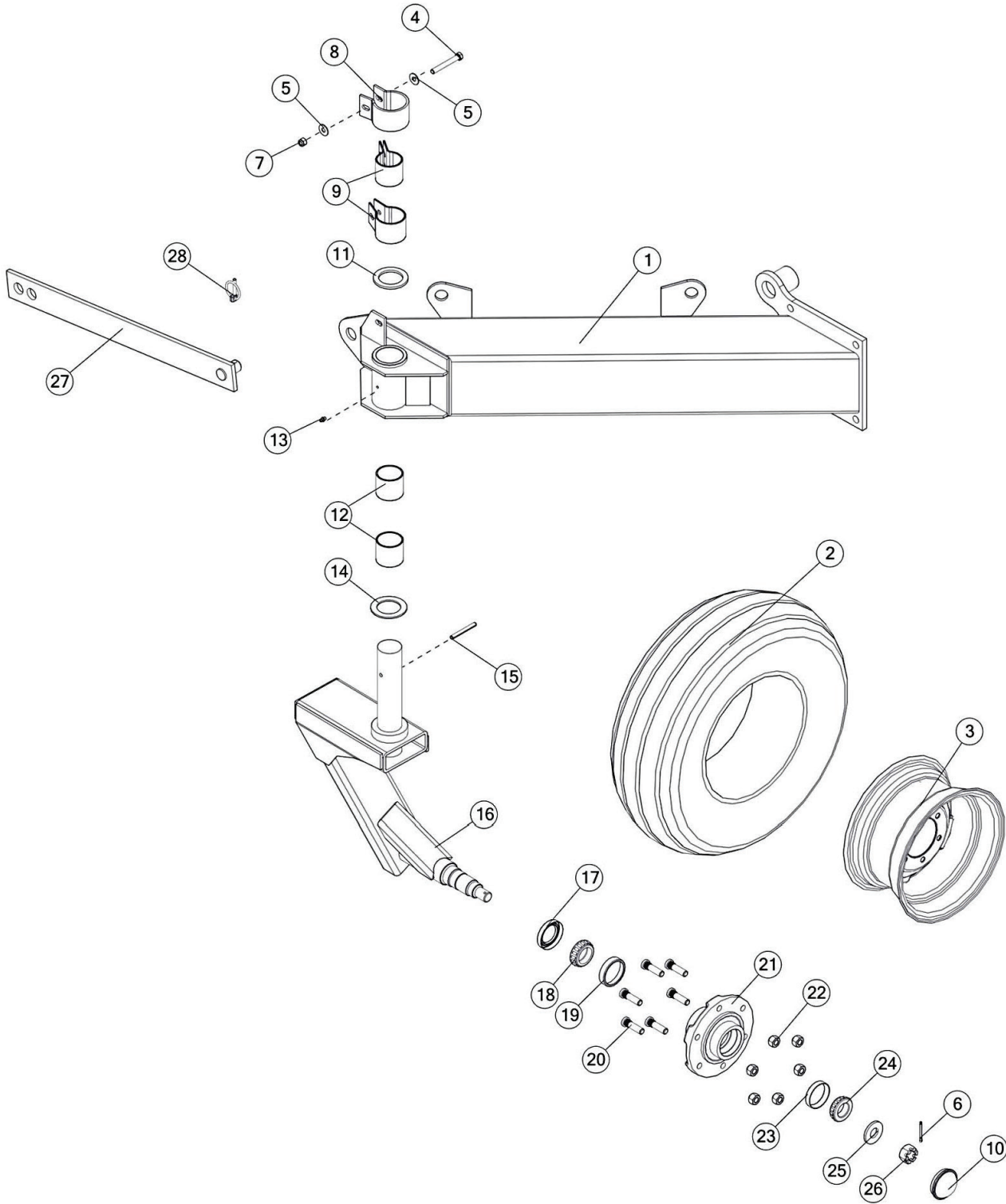


FIGURE 6 LEFT CASTER

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	60235	STANDOFF LH
2	2	UR2	TIRE AND TUBE 11L X 15
3	2	12N24	WHEEL 15 X 8, 6 BOLT
*	2	33417	WHEEL W/11LX15 8 PLY IMPL
4	2	YBHH12125	BOLT HEX, 3/8 X 3 G5
5	4	YWFL12005	WASHER FLAT, 3/8
6	2	YPCT05010	COTTER PIN, 5/32 X 1-1/2
7	2	YNNY12005	NUT HEX, NYLON LOCKNUT, 3/8
8	2	BFR311	BRAKE COLLAR
9	4	BFR310	BRAKE PAD
10	2	17G144	HUB CAP
11	2	BFR309	GAUGE WHEEL WASHER
12	4	RG26	STEEL BUSHING
13	2	G89	STRAIGHT ZERK, 1/4 - 28 X 90
14	2	RG24	BRONZE WASHER
15	2	YPEX10025	EXPANSION PIN, 5/16 X 2-3/4
16	2	FR22	CASTER LH
17	2	12N17	SEAL
18	2	12N18	INNER BEARING
19	2	12N19	INNER RACE
20	12	YBSD16005	BOLT STUD, 1/2 X 1-7/8
21	2	RG101	HUB W/RACES & STUDS
22	12	YNWL16005	WHEEL NUT, 1/2
23	2	12N25	OUTER BEARING
24	2	12N21	OUTER RACE
25	2	HD200	ROAD WHEEL SPINDLE WASHER
26	2	YNSL28005	NUT HEX, SLOTTED, 7/8
27	1	58362	TRANSPORT LOCK BAR
28	1	YPLY12010	LYNCH PIN, 3/8 X 1-3/4

*MEANS NOT SHOWN

FIGURE 7 RIGHT & LEFT FRONT RAKE BEAMS

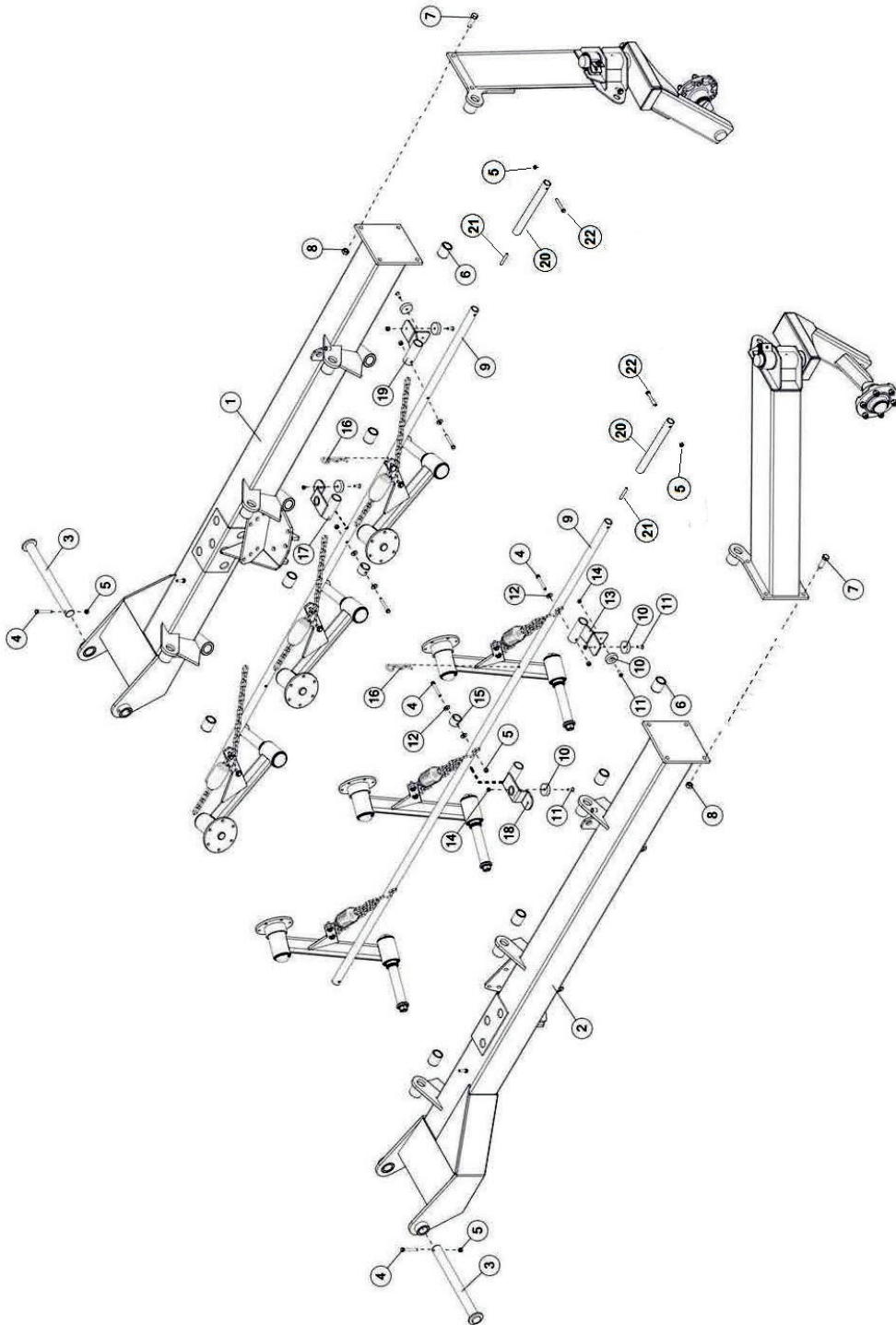


FIGURE 7

RIGHT & LEFT FRONT RAKE BEAMS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	58349	RAKE BEAM FRONT, LH
2	1	58357	RAKE BEAM FRONT, RH
3	2	FR8	PIVOT PIN
4	6	YBHH12110	BOLT HEX, 3/8 X 2-3/4 G5
5	8	YNTL12005	NUT HEX, TOP LOCK, 3/8
6	8	HD128	BUSHING
7	8	YBHH20025	BOLT HEX, 5/8 X 2 G5
8	8	YNHX20005	NUT HEX, 5/8
9	2	83226	LIFT PIPE FRONT
10	6	FR51	SLIDER PAD
11	6	YSFS10005	SCREW, FLAT HEAD SOCKET CAP, 5/16 X 1
12	6	YWFL12005	WASHER FLAT, 3/8
13	1	FR39	PIPE STABILIZER RH
14	8	YNTL10005	NUT HEX, TOP LOCK, 5/16
15	2	FR50	SLIDE STOP
16	2	YPHR08040	HAIR PIN, 1/4 X 5
17	1	FR31	PIPE LIFTER LH
18	1	FR32	PIPE LIFTER RH
19	1	FR40	PIPE STABILIZER LH
20	2	83170	LIFT PIPE EXTENSION
21	2	FR63	CONNECTOR
22	2	YBHH12060	HEX BOLT, 3/8 x 1-3/4

FIGURE 8 **RIGHT & LEFT BACK RAKE BEAMS**

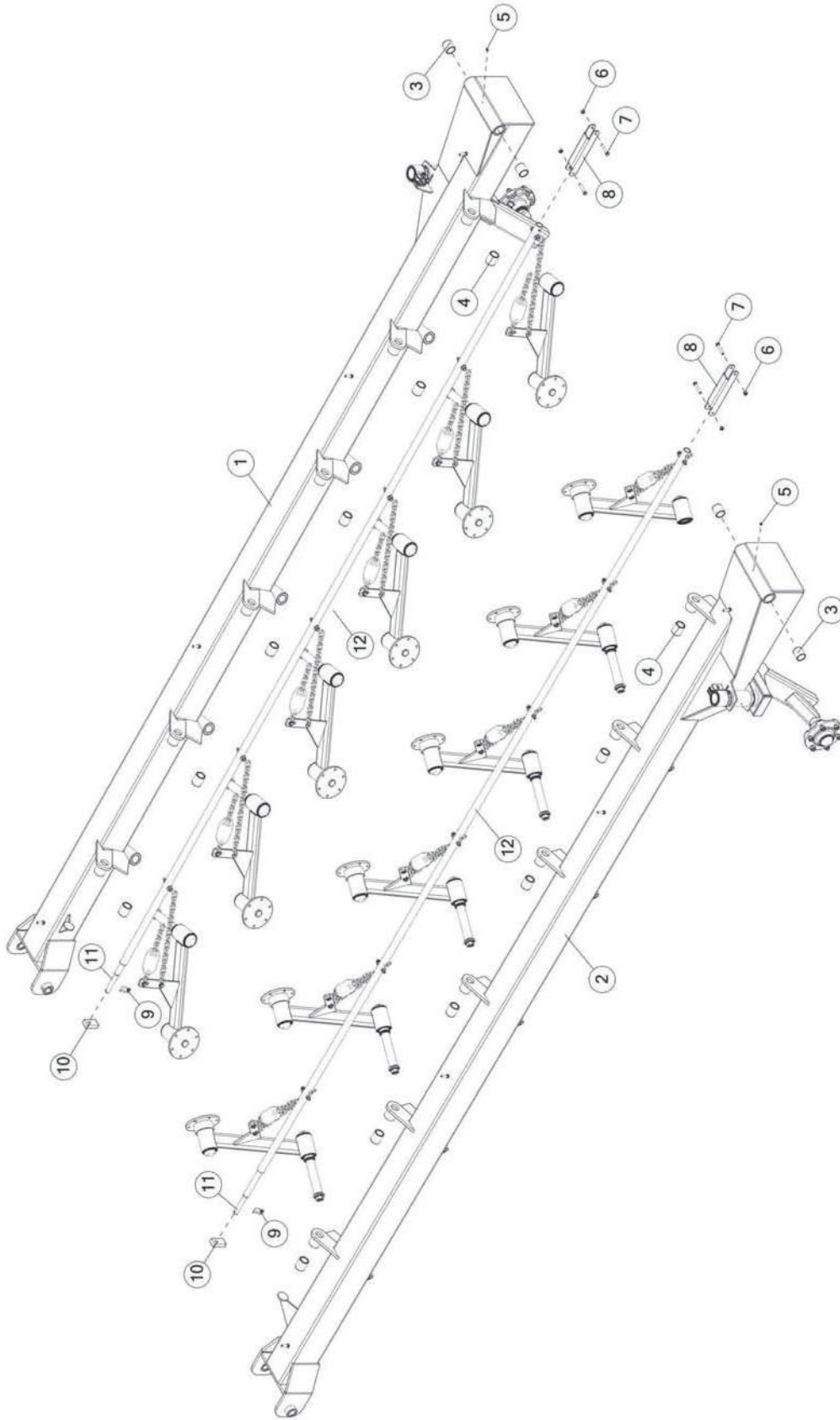


FIGURE 8
RIGHT & LEFT BACK RAKE BEAMS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	FR13	RAKE BEAM REAR LH
2	1	FR14	RAKE BEAM REAR RH
3	4	FR83	IRON BUSHING
4	12	HD128	BUSHING
5	2	G89	STRAIGHT ZERK, 1/4 - 28 X 90
6	4	YNL12005	NUT HEX, TOP LOCK, 3/8
7	4	YBHH12105	BOLT HEX, 3/8 X 2-1/4 G5
8	2	58392	PIPE LINKAGE
9	2	YPLY08011	LYNCH PIN, 1/4 X 1-9/16
10	2	64103	RAKE PRESSURE HANDLE
11	2	BFR486	RAKE ARM LOCK-UP SHAFT
12	2	FR57	LIFT PIPE REAR

FIGURE 9 **U-JOINT ASSEMBLY**

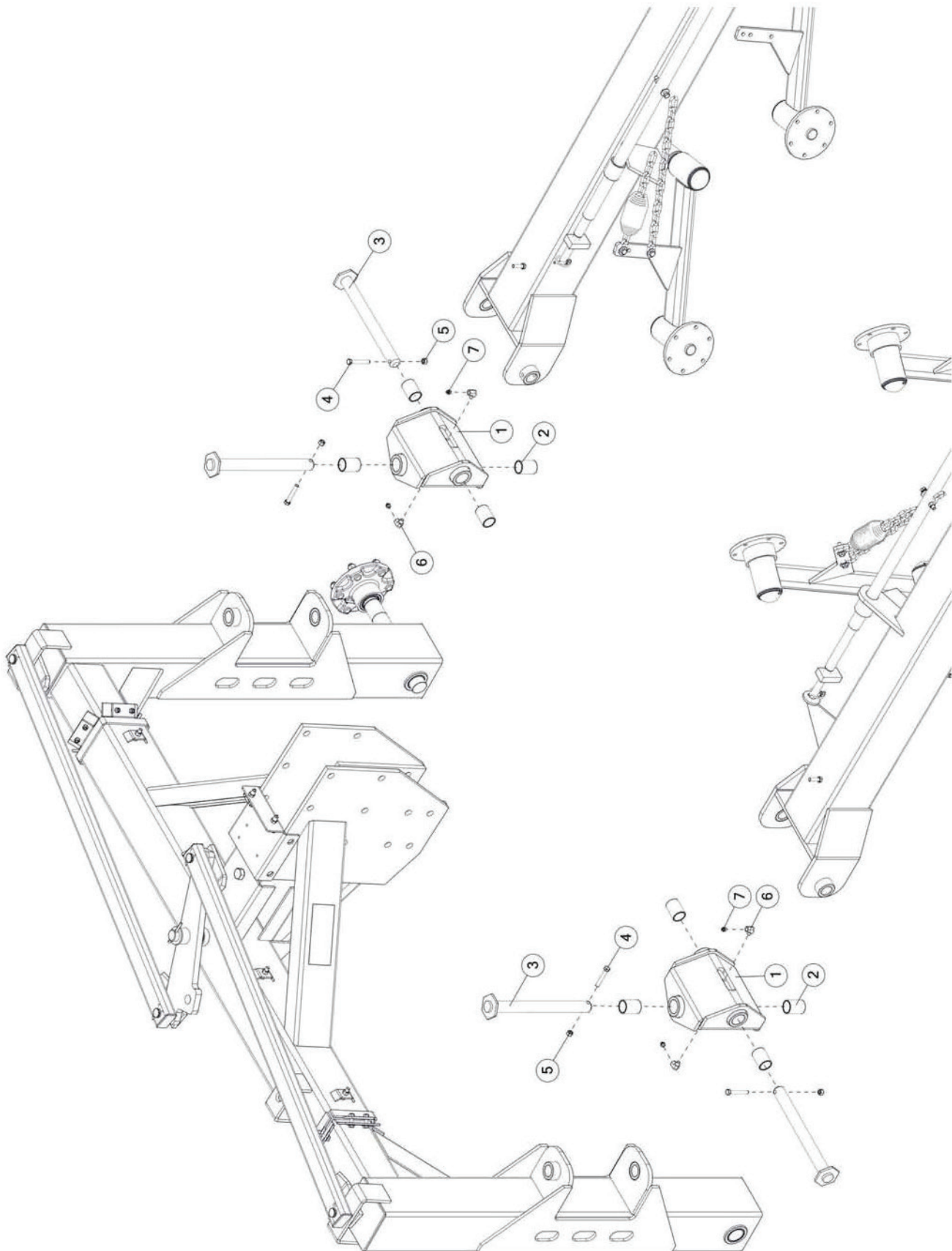


FIGURE 9
U-JOINT ASSEMBLY

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	FR5	U-JOINT
2	8	RG132	BUSHING
3	4	FR10	U-JOINT PIN
4	4	YBHH12090	BOLT HEX, 3/8 X 2-1/2 G5
5	4	YNL12005	NUT HEX, TOP LOCK, 3/8
6	4	58453	ELBOW, 1/8
7	4	BFR28	GREASE ZERK, 1/8 NPT

FIGURE 10 RAKE WHEEL ASSEMBLY

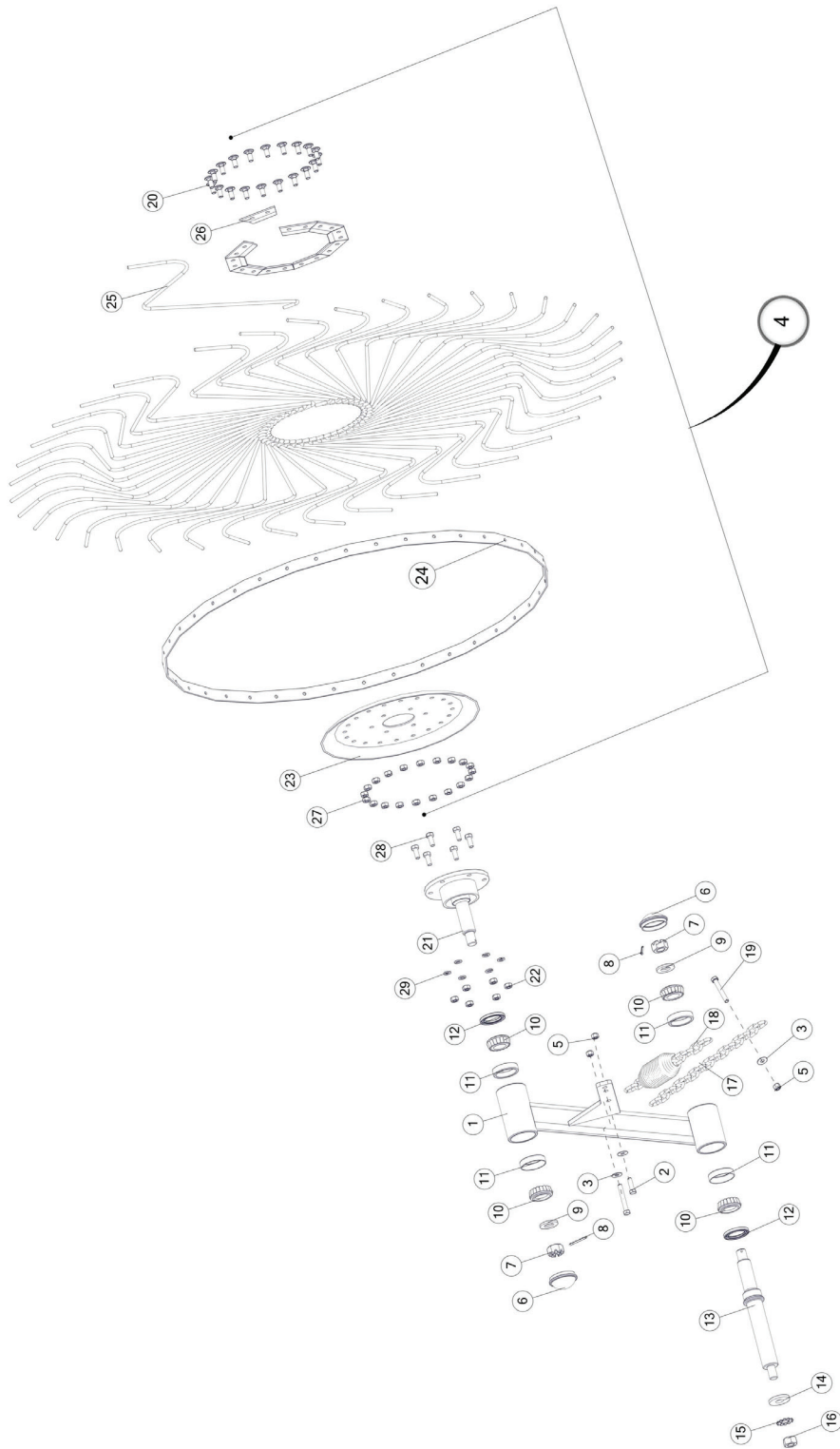


FIGURE 10

RAKE WHEEL ASSEMBLY

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	9	FR6	RAKE ARM RH
*	9	FR7	RAKE ARM LH
2	36	YBHH12035	BOLT HEX, 3/8-16 X 1-1/4 G5
3	54	YWFL12005	WASHER FLAT, 3/8
4	9	FR70	RAKE WHEEL RH, 60
*	9	FR69	RAKE WHEEL LH, 60
5	54	YNTL12005	NUT HEX, TOP LOCK, 3/8
6	36	17G144	HUB CAP
7	36	YNLS28005	NUT HEX, SLOTTED, 7/8
8	36	YPCT05010	COTTER PIN, 5/32 X 1-1/2
9	36	YWFL28010	WASHER FLA, 7/8
10	72	HD122	TAPERED BEARING
11	72	3G18	BEARING RACE
12	36	HD124	SEAL
13	18	FR54	PIVOT SPINDLE FRONT
14	18	HD157	PIVOT WASHER
15	18	YWSI24005	WASHER LOCK, STAR, INTERNAL/EXTERNAL, 3/4
16	18	YNHX24004	NUT HEX, 3/4 G5
17	18	FR58	CHAIN (15 LINKS)
18	18	8771	SPRING
19	18	YBHH12110	BOLT HEX, 3/8 X 2-3/4 G5
20	360	YBCR76005	BOLT CARRIAGE, 10MM X 25MM
21	18	FR24	HUB
22	108	YNHX76015	NUT HEX, M10-1.5
23	18	FR71	RAKE WHEEL CENTER
24	18	FR72	RAKE WHEEL OUTER RING
25	720	FR73	RAKE WHEEL TOOTH
26	360	FR74	RAKE TOOTH CLIP
27	360	YNLC76005	NUT LOCK, 10 MM
28	105	YBHH76015	BOLT HEX, M10-1.5 X 25, 10.9
29	108	YWLO76015	WASHER LOCK, M10

*MEANS NOT SHOWN

FIGURE 11
HYDRAULICS

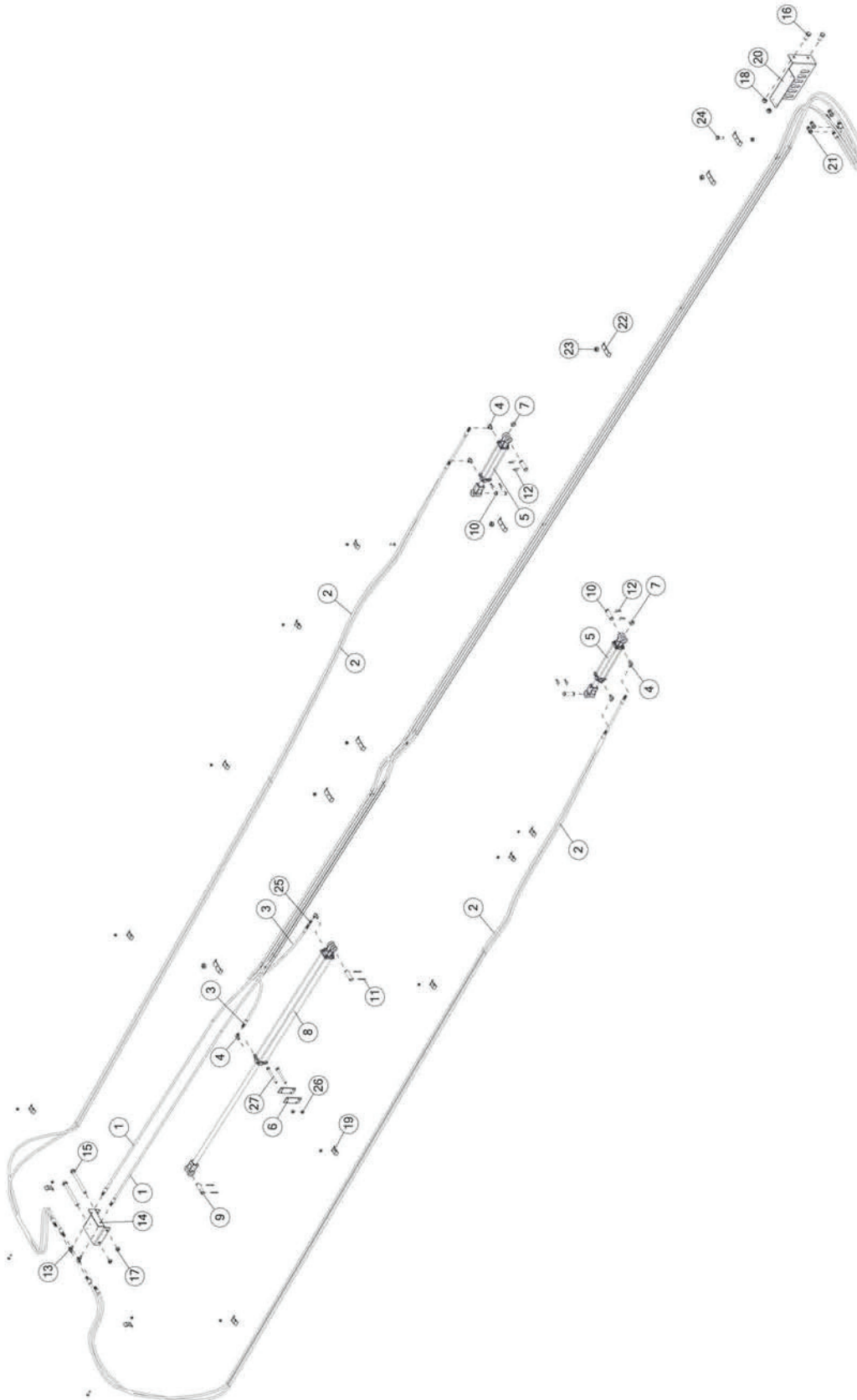


FIGURE 11 HYDRAULICS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	58445	HYD HOSE, MAIN
2	4	58403	HYD HOSE, LIFT CYL
3	2	58446	HYD HOSE, MAIN
4	6	58444	MALE ELBOW 37 DEG, 3/8
5	2	56000	HYD CYLINDER, 2 X 10
6	2	58692	CYLINDER SPACER
7	2	58374	SPACER
8	1	60374	CYLINDER, 2-1/2 X 40
9	2	BFR634	CYLINDER PIN
10	4	T143	HYD CYLINDER PIN
11	4	YPCT06020	COTTER PIN, 3/16 X 2
12	8	53371	CYLINDER PIN
13	2	58414	BULKHEAD TEE, #4
14	1	58411	HYD MOUNT
15	2	YBHH24115	BOLT HEX, 3/4 X 8-1/2 G5
16	2	YBHH24014	BOLT HEX, 3/4 X 1-3/4 G5
17	2	YNHX24004	NUT HEX, 3/4 G5
18	2	YNTL24005	NUT HEX, TOP LOCK, 3/4 - 10
19	12	23N67	HOSE BRACKET, FRONT
20	1	60269	HOSE HOLDER
21	4	DWM205	MALE QUICK COUPLER
22	6	58448	HOSE BRACKET
23	15	YNTL12005	NUT HEX, TOP LOCK, 3/8
24	1	YBHH20020	BOLT HEX, 3/8 X 1-1/2 G5
25	1	58109	IN-LINE CONNECTOR, ORIFICE, 4-XHX7-S .047
26	2	YNRL16005	NUT HEX, REVERSIBLE-SIDE LOCK, 1/2
27	2	YBHH16160	BOLT HEX, 1/2 X 5-1/2 G5

FIGURE 12
LIFT CYLINDER

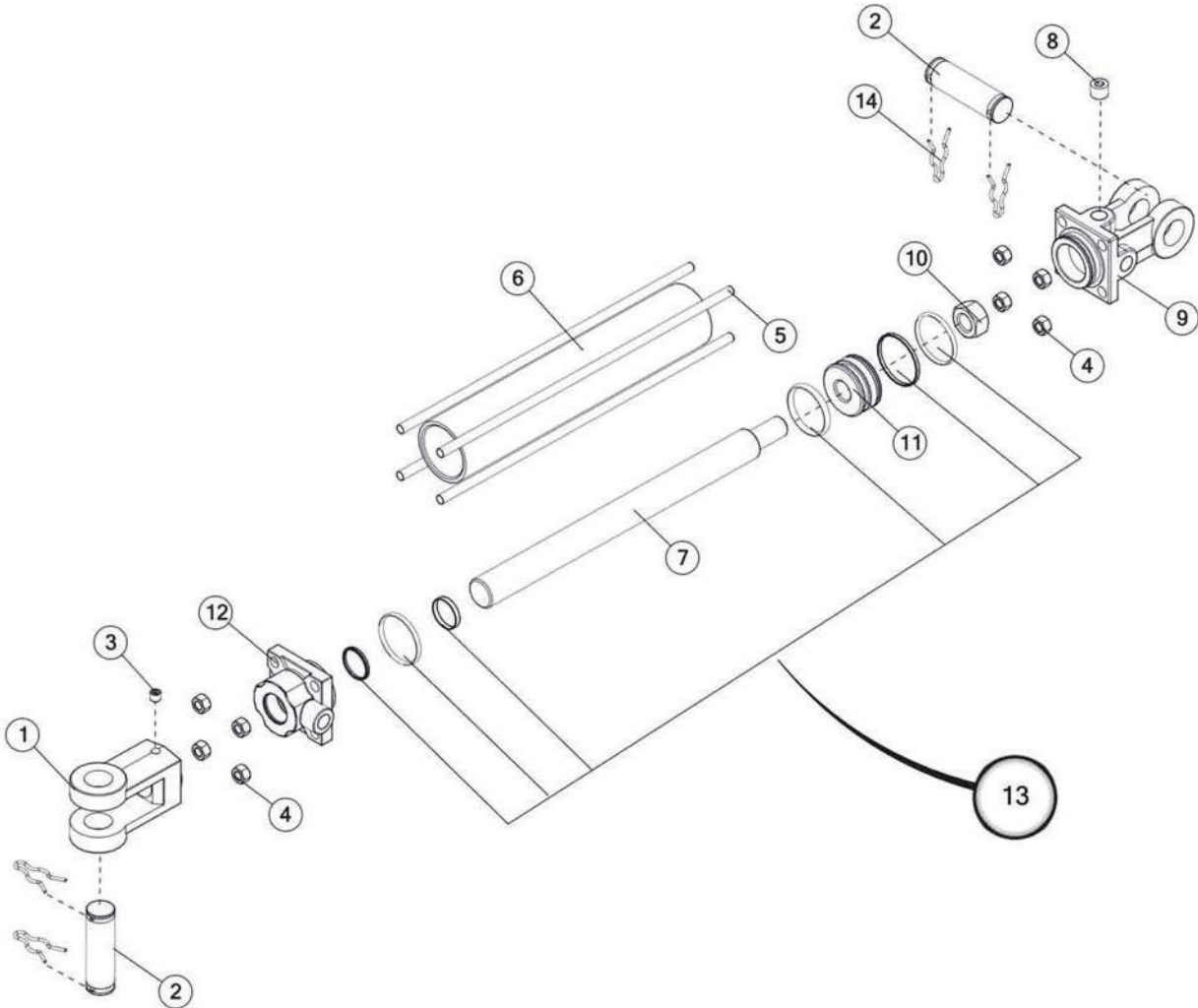


FIGURE 12 LIFT CYLINDER

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	23N150A	ROD CLEVIS
2	2	T143	HYD CYLINDER PIN
3	1	YSSO12015	SCREW SET, SOCKET, 3/8 X 3/8
4	8	YNHX12006	NUT HEX, 3/8
5	4	16SV170	TIE ROD
6	1	16SV169	CYLINDER TUBE
7	1	16SV168A	CYLINDER ROD
8	1	23N149	PLUG
9	1	23N142A	CLEVIS CAP
10	1	23N148	PISTON NUT
11	1	56180	PISTON
12	1	56174	ROD CAP
13	1	56187	SEAL KIT
14	1	53371	CYLINDER PIN
*	1	56000	HYD CYLINDER 2 X 10

***MEANS NOT SHOWN**

FIGURE 13 OPTIONAL HYDRAULIC REAR OPENING CYLINDER

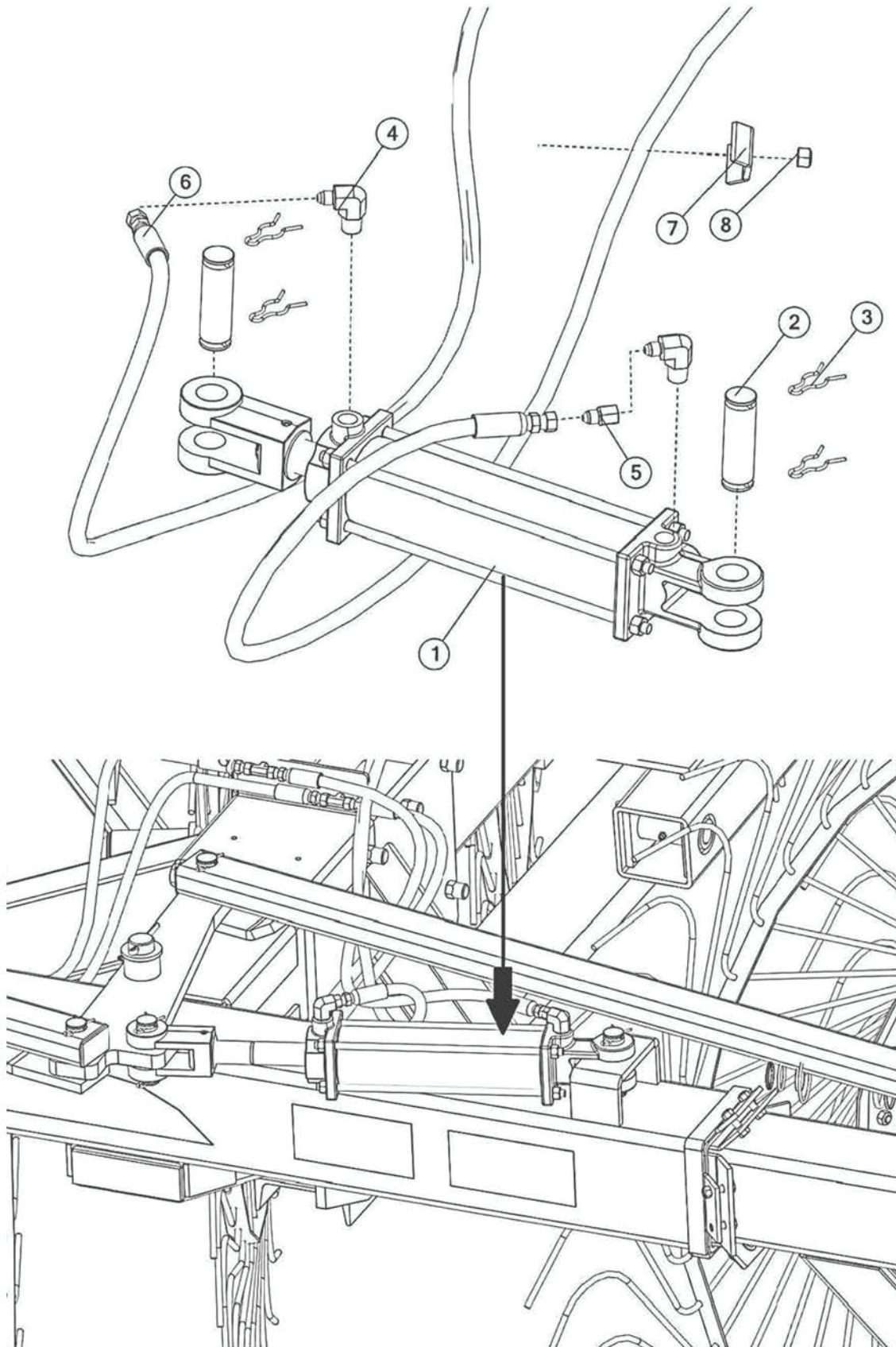


FIGURE 13

OPTIONAL HYDRAULIC REAR OPENING CYLINDER

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	71743	HYD CYLINDER, 2-1/2 X 8 W/ORB PORTS
2	2	T143	HYD CYLINDER PIN
3	4	YPHR02020	HAIR PIN
4	2	CHM268	ELBOW (6 C50X-S)
5	1	58142	FITTING 6 XHX7-S .031 ORIFICE
6	2	71760	HYD HOSE, 6 X 505, 6 FEMALE JIC, 8 MALE ORB
7	1	23N67	HOSE BRACKET
8	1	YNL12005	NUT HEX, TOP LOCK, 3/8
*	1	56188	SEAL KIT
*	2	67148	QUICK COUPLER TIP

*MEANS NOT SHOWN

FIGURE 14 OPTIONAL TANDEM AXLE

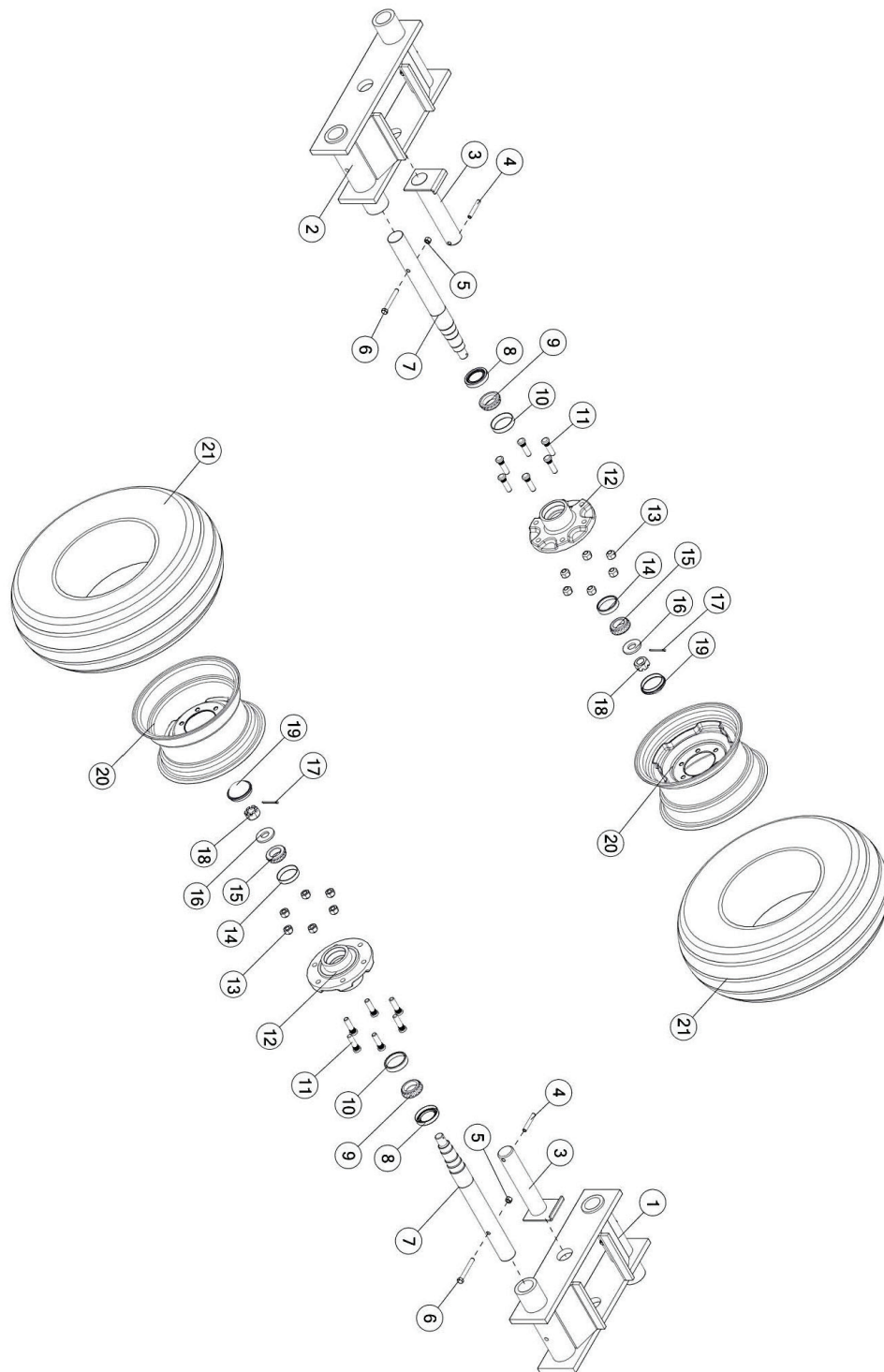


FIGURE 14

OPTIONAL TANDEM AXLE

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	58299	TANDEM RH
2	1	58300	TANDEM LH
3	2	58277	AXLE PIVOT PIN
4	2	YPEX12023	EXPANSION PIN, 3/8 X 2-1/2
5	4	YNTL12005	NUT HEX, TOP LOCK, 3/8
6	4	YBHH12120	BOLT HEX, 3/8 X 3 G5
7	2	FR55	BACK SPINDLE
8	2	12N17	SEAL
9	2	12N18	INNER BEARING
10	2	12N19	INNER RACE
11	12	YBSD16005	BOLT STUD, 1/2 X 1-7/8
12	2	RG101	HUB W/RACES AND STUDS
13	12	YNWL16005	NUT WHEEL, 1/2
14	2	17G146	OUTER RACE
15	2	17G145	OUTER BEARING
16	2	HD200	ROAD WHEEL SPINDLE WASHER
17	2	YPCT05010	COTTER PIN, 5/32 X 1-1/2
18	2	YNSL28005	NUT HEX, SLOTTED, 7/8 - 14
19	2	17G144	HUB CAP
20	2	12N24	WHEEL 15 X 8, 6 BOLT
21	2	UR2	TIRE AND TUBE 11L X 15
*	2	33417	WHEEL W/11LX15 8 PLY IMPL TIRE

*MEANS NOT SHOWN

FIGURE 15 OPTIONAL 2 WHEEL EXTENSION

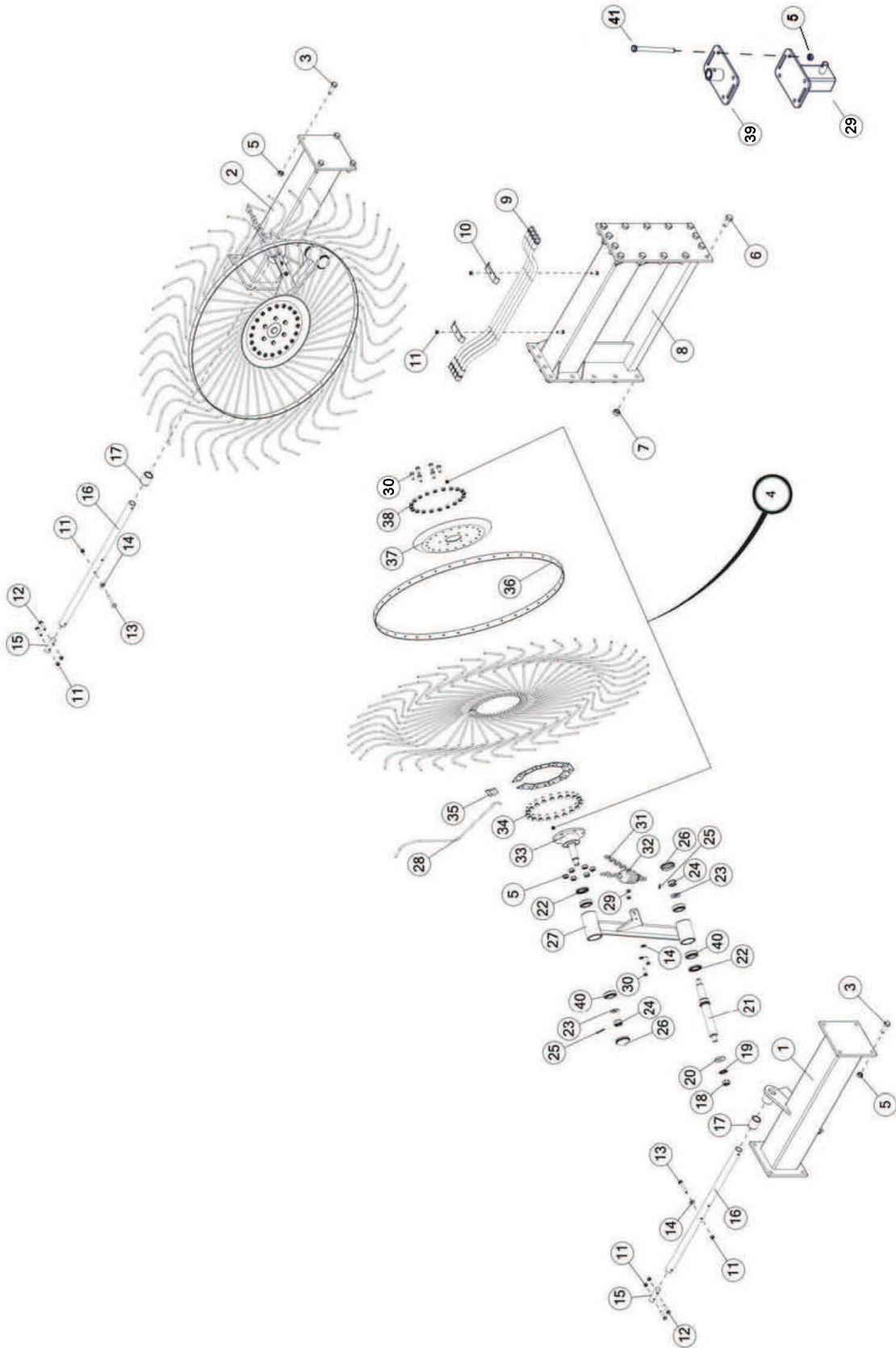


FIGURE 15

OPTIONAL 2 WHEEL EXTENSION

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	FR61	BEAM FRONT RH
2	1	FR62	BEAM FRONT LH
3	8	YBHH20025	BOLT HEX, 5/8 X 2 G5
4	1	FR70	RAKE WHEEL, 60 IN RH
*	1	FR69	RAKE WHEEL 60 IN LH
5	24	YNTL20005	NUT HEX, TOP LOCK, 5/8
6	14	YBHH24014	BOLT HEX, 3/4 X 1-3/4 G5
7	14	YNTL24005	NUT HEX, TOP LOCK, 3/4
8	1	60513	EXTENSION POLE
9	4	BFR635	HOSE, 3/8 X 33 1/2 FP & 1/2 MP
10	2	58448	HOSE BRACKET
11	10	YNTL12005	NUT HEX, TOP LOCK, 3/8
12	2	YBHH12060	BOLT HEX, 3/8 X 1-3/4 G5
13	2	YBHH12110	BOLT CARRIAGE, 3/8 X 2-3/4 G5
14	4	YWFL12005	WASHER FLAT, 3/8
15	2	FR63	LIFT PIPE CONNECTOR
16	2	83169	LIFT PIPE
17	2	HD128	BUSHING
18	2	YNHX24004	NUT HEX, 3/4 G5
19	2	YWSI24005	WASHER, LOCK, STAR, INTERNAL/EXTERNAL, 3/4
20	2	HD157	PIVOT WASHER
21	2	FR54	PIVOT SPINDLE FRONT
22	4	HD124	SEAL
23	4	HD121	WASHER
24	4	YNSL28005	NUT HEX SLOTTED, 7/8
25	4	YPCT05010	COTTER PIN, 5/32 X 1-1/2
26	4	17G144	HUB CAP
27	1	FR6	RAKE ARM RH
*	1	FR7	RAKE ARM LH
28	40	FR73	RAKE WHEEL TOOTH
29	5	FR29	TRANSPORT POST
30	16	YBHH12035	BOLT HEX, 3/8 X 1-1/4 G5
31	2	FR58	CHAIN (15 LINKS)
32	2	8771	RAKE WHEEL SPRING
33	2	FR24	RAKE WHEEL HUB
34	40	YBCR76005	BOLT CARRIAGE, 10MM X 25MM
35	20	FR74	RAKE TOOTH CLIP
36	2	FR72	RAKE WHEEL OUTER RING
37	2	FR71	RAKE WHEEL CENTER
38	40	YNHX76015	NUT HEX, M10-1.5
39	1	FR66	JACK STORAGE HOLDER
40	8	58714	RACE
41	4	YBHH20110	BOLT, 5/8 X 8

*MEANS NOT SHOWN

FIGURE 16 WIND GUARD

31-1420 10/11 24 1401-1000-1-01 1/11-01

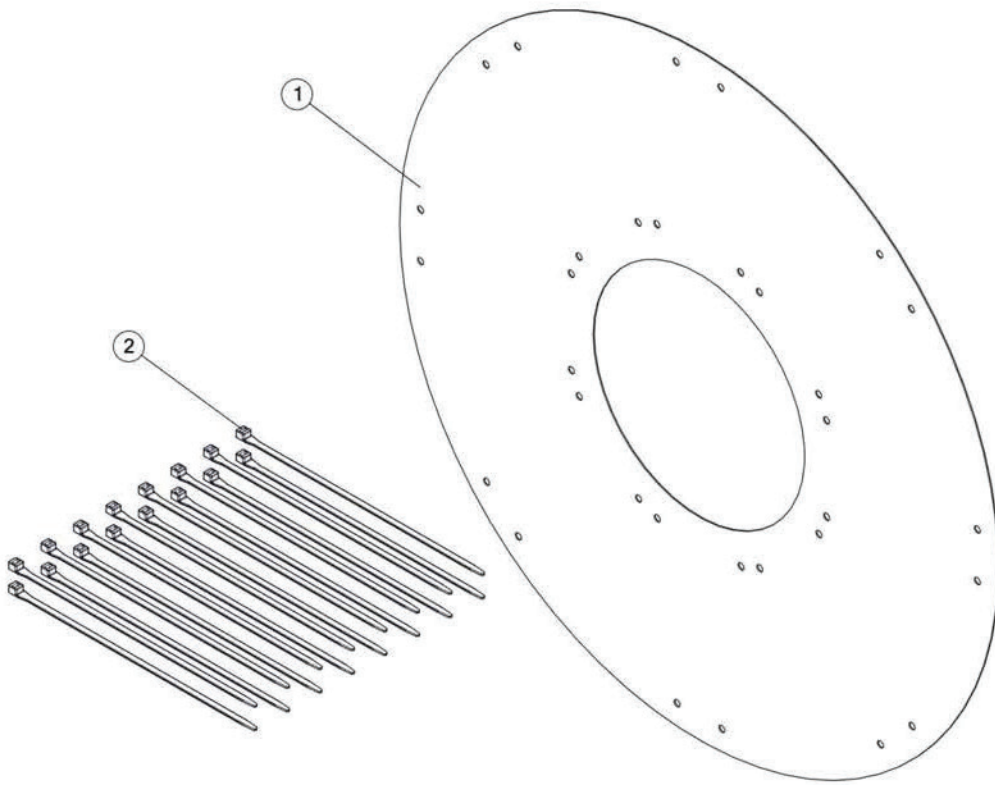


FIGURE 16
WIND GUARD

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	59039	POLY WIND GUARD, FOR 60 RAKE WHEEL
2	16	CIZT105	ZIPTIE

FIGURE 17 OPTIONAL LIGHTING

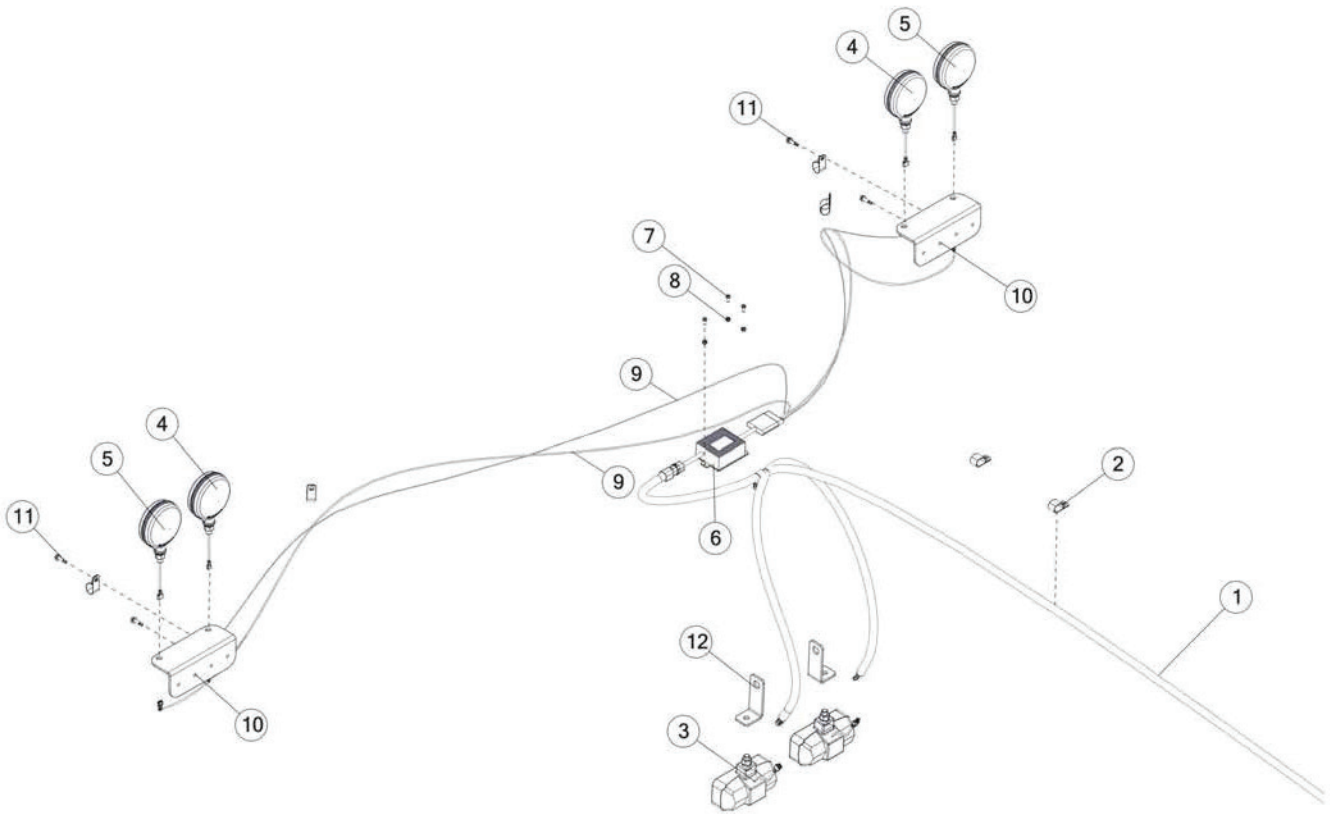


FIGURE 17

OPTIONAL LIGHTING

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	60537	MAIN HARNESS
2	8	HGV72	CUSHION WIRE CLAMP
3	2	DWM130	FLOODLIGHT - WORKING LIGHT
4	2	BFR675	RED LIGHT
5	2	DWM129	YELLOW HAZARD THIN LIGHT 2-WAY
6	1	S441	LIGHT MODULE
7	3	YSPP64005	MISC. PHILLIPS PAN HEAD TYPE, 10 X 1/2
8	3	YNNY62005	HEX, NYLON INSERT LOCKNUT, 8
9	1	FR2	RAKE HARNESS REAR
10	2	67811	LIGHT BRACKET REAR
11	4	YSDR08005	SCREW HEX, WASHER HEAD, 1/4 X 1
12	2	BFR675	LIGHT BRACKETS

FIGURE 18 OPTIONAL KICKER WHEEL

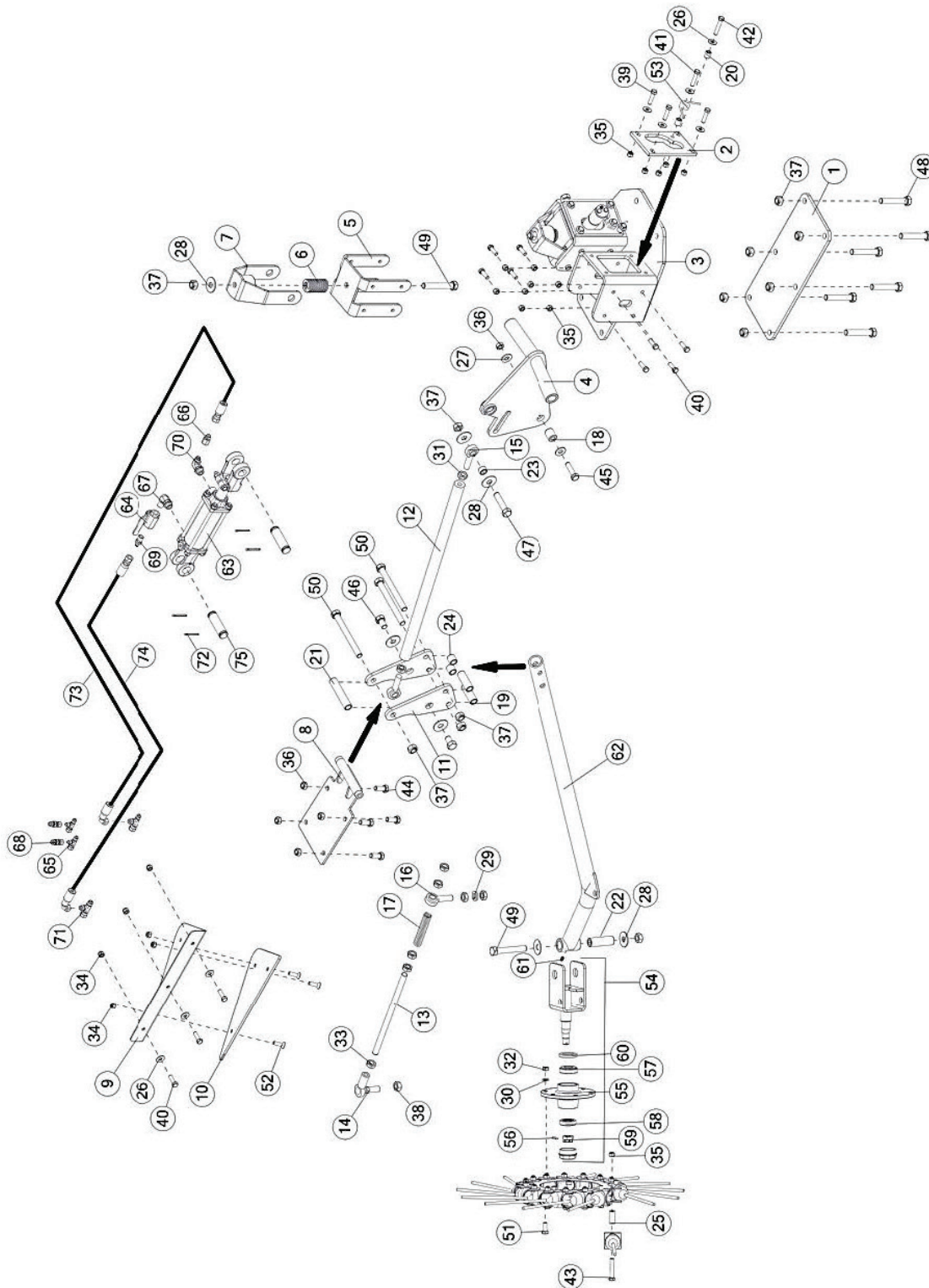


FIGURE 18

OPTIONAL KICKER WHEEL

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	71496	PLATE
2	2	71526	PLATE
3	1	71486	KICKER MAIN
4	1	71495	KICKER BELL
5	2	71500	SPRING BASE BRACKET
6	2	71574	DIE SPRING
7	2	71534	SPRING YOKE
8	1	71521	PIVOT
9	1	71185	KICKER DEFLECTOR BRACKET
10	1	71192	POLY DEFLECTOR PANEL, 1/4
11	2	71522	PLATE
12	1	71601	TUBE
13	1	71618	ALLTHREAD, 5/8 X 12.5
14	1	71599	BALL JOINT BEARING, 5/8
15	1	71593	ROD END BEARING, 5/8 LH
16	2	71594	ROD END BEARING RH
17	1	71296	SPRING
18	1	71487	BUSHING
19	2	71548	STEEL BUSHING
20	2	71568	TUBE
21	1	71577	STEEL BUSHING
22	1	71584	BUSHING
23	1	71605	STEEL BUSHING
24	2	71536	STEEL BUSHING
25	1	70807	TUBE
26	8	YWFL12005	WASHER FLAT, 3/8
27	2	YWFL16005	WASHER FLAT, 1/2
28	4	YWFL20005	WASHER FLAT, 5/8
29	1	YWLO20005	WASHER LOCK, 5/8
30	6	YWLO76015	WASHER LOCK, M10
31	2	YNJM20011	NUT HEX, 5/8 G5
32	6	YNHX76015	NUT HEX, M10-1.5
33	8	YNJM20010	NUT HEX, JAM, 5/8
34	6	YNNY12005	NUT HEX, NYLON LOCKNUT, 3/8
35	24	YNTL12005	NUT HEX, TOP LOCK, 3/8
36	5	YNTL16005	NUT HEX, TOP LOCK, 1/2
37	12	YNTL20005	NUT HEX, TOP LOCK, 5/8
38	1	YNTL20006	NUT HEX, TOP LOCK, 5/8
39	6	YBHH12025	BOLT HEX, 3/8 X 1-1/2 G5
40	11	YBHH12035	BOLT HEX, 3/8 X 1-1/4 G5
41	2	YBHH12060	BOLT HEX, 3/8 X 1-3/4 G5
42	2	YBHH12075	BOLT HEX, 3/8 X 2 G5
43	15	YBHH12100	BOLT HEX, 3/8 X 2-1/4 G5
44	4	YBHH16045	BOLT HEX, 1/2 X 1-1/4 G5

FIGURE 18 OPTIONAL KICKER WHEEL

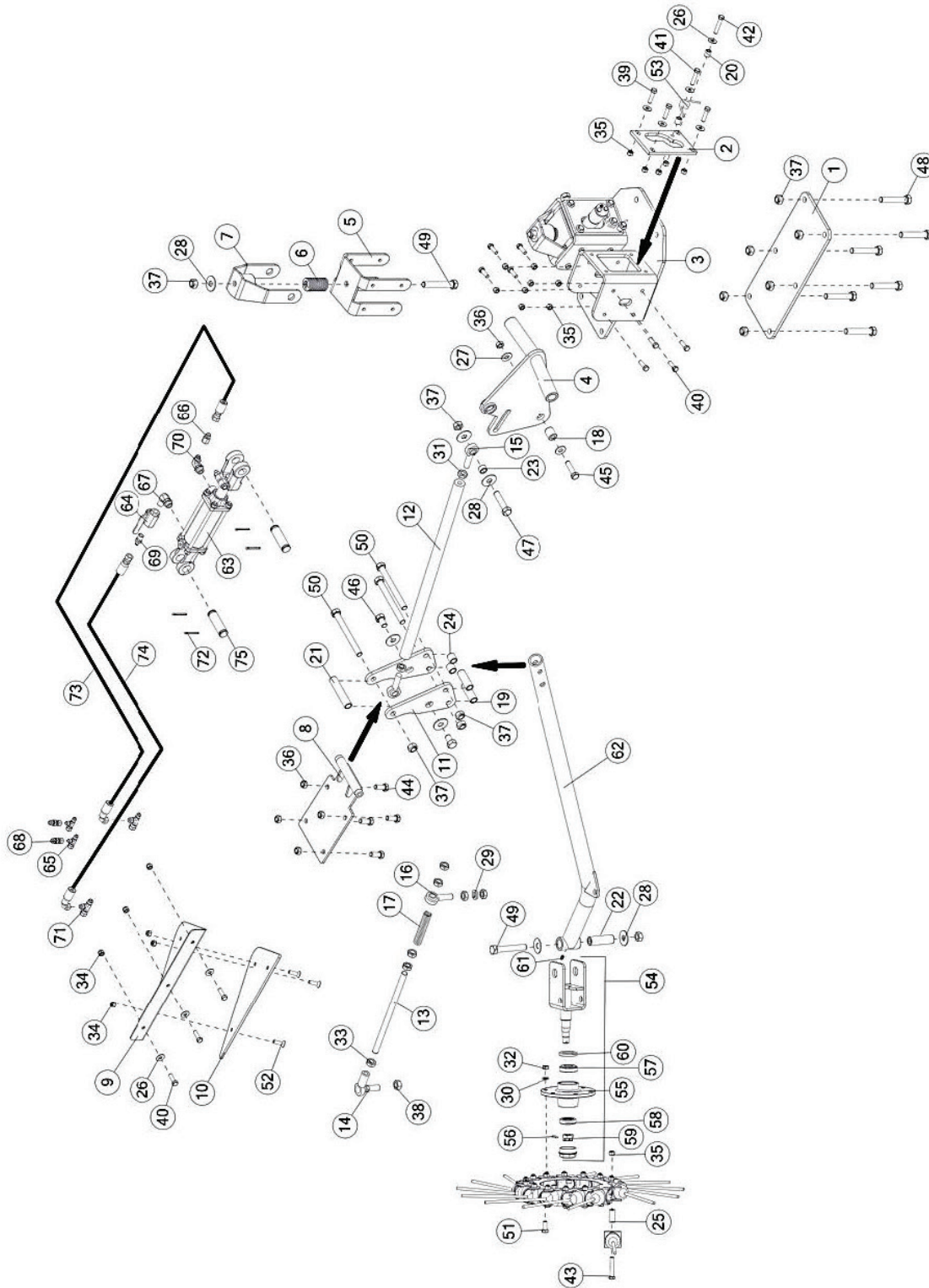


FIGURE 18

OPTIONAL KICKER WHEEL

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
45	1	YBHH16065	BOLT HEX, 1/2 X 2 G5
46	2	YBHH20005	BOLT HEX, 5/8 X 1 G5
47	1	YBHH20045	BOLT HEX, 5/8 X 2-3/4 G5
48	6	YBHH20055	BOLT HEX, 5/8 X 3-1/2 G5
49	2	YBHH20065	BOLT HEX, 5/8 X 4 G5
50	3	YBHH20103	BOLT HEX, 5/8 X 6-1/2 G5
51	6	YBHH76015	BOLT HEX, SCREW, M10, 1.5, 25MM, 10.9,
52	3	YSFS12005	SCREW FLAT, HEAD SOCKET CAP, 3/8 X 1-1/4
53	2	71570	TORSION SPRING
54	1	71581	SPINDLE B
55	1	1086	RAKE WHEEL HUB
56	1	1088	RETAINING CLIP
57	1	600012	TAPER BEARING
58	1	600014	TAPER BEARING
59	1	T172	NUT HEX, CASTLE, 18MM - 1.5 G2
60	1	T163	SEAL
61	1	MS26	SHORT SHANK ZERK (STRAIGHT)
62	1	71529	CENTER POLE
63	1	70797	HYD CYL, 10.2 X 14.2
*	1	72160	CYLINDER TIE ROD
*	1	72161	SEAL KIT
64	1	16SV338	BALL VALVE, 3/8
65	2	58101	FITTING 4 R6X-S
66	1	58142	FITTING 6 XHX7-S .031 ORIFICE
67	1	70158	FTG,90,3/4ORB,3/8NPT,STL
68	2	71802	FTG, ST, 6 MALE JIC, 4 FEMALE JIC, STL, EXPANDER
69	1	CHM202	3/8 MALE NPT TO -6 MALE JIC
70	1	CHM206	06 90 DEG TO 3/4-16 ORB FITTING
71	2	CHM242	SWIVEL RUN TEE 6-R6X-S FITTING
72	4	YPCT05010	COTTER PIN 5/32 X 1-1/2
73	1	71780	HYD HOSE, 6, 201, 6 JIC, 6 JIC
74	1	71778	HYD HOSE, 6, 193, 6 JIC, 6 JIC
75	2	T143	HYD CYLINDER PIN

*MEANS NOT SHOWN

FIGURE 18 OPTIONAL KICKER WHEEL

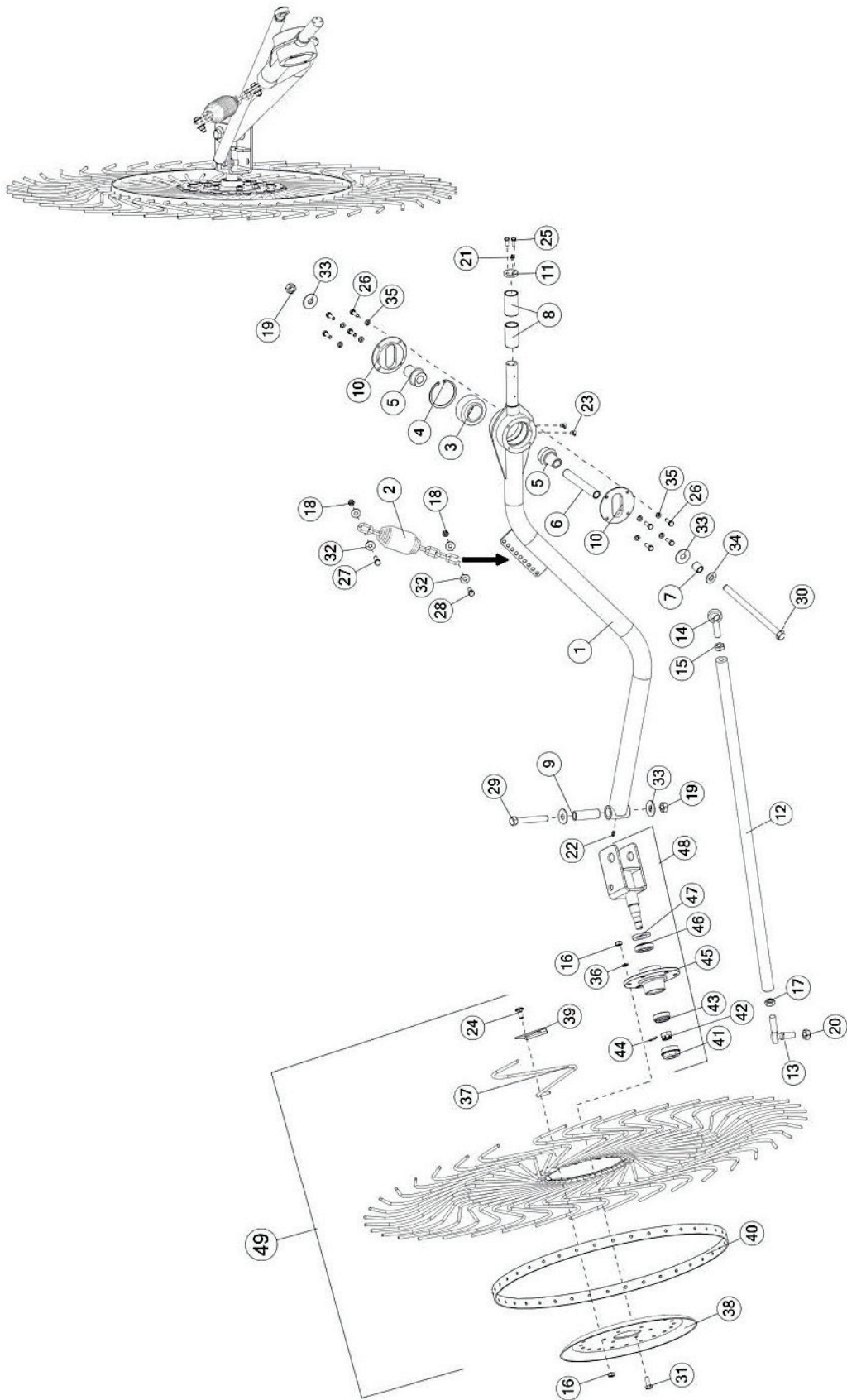


FIGURE 18

OPTIONAL KICKER WHEEL

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	71558	POLE RH
*	1	71560	POLE LH
2	2	8771	RAKE WHEEL SPRING
3	2	71553	BEARING
4	2	71608	SNAP RING
5	2	71550	STEEL BUSHING
6	2	71535	BUSHING
7	2	71536	STEEL BUSHING
8	4	71563	BUSHING
9	2	71584	BUSHING
10	4	71562	PLATE
11	2	71993	KEEPER PLATE
12	2	71600	TIE ROD SHAFT
13	2	71598	BALL JOINT BEARING, 5/8
14	2	71593	ROD END BEARING, 5/8 LH
15	2	YNJM20011	NUT HEX, JAM, 5/8 G5
16	52	YNHX76015	NUT HEX, M10-1.5
17	2	YNJM20010	NUT HEX, JAM, 5/8
18	4	YNTL12005	NUT HEX, TOP LOCK, 3/8
19	4	YNTL20005	NUT HEX, TOP LOCK, 5/8
20	2	YNTL20006	NUT LOCK, 5/8
21	2	G89	STRAIGHT ZERK, 1/4 - 28 X 90
22	2	MS26	SHORT SHANK ZERK (STRAIGHT)
23	4	RG51	GREASE ZERK, 1/4-28, 90 DEGREE
24	20	YBCR76005	BOLT CARRIAGE, 10MM X 25MM
25	4	YBHH08102	BOLT HEX, 1/4 X 3/4 G8
26	16	YBHH10105	BOLT HEX, 5/16 X 3/4 G5
27	2	YBHH12025	BOLT HEX, 3/8 X 1-1/2 G5
28	2	YBHH12035	BOLT HEX, 3/8 X 1-1/4 G5
29	2	YBHH20065	BOLT HEX, 5/8 X 4 G5
30	2	YBHH20120	BOLT HEX, 5/8 X 9 G5
31	12	YBHH76015	BOLT HEX, M10-1.5 (25MM)
32	4	YWFL12005	WASHER FLAT, 3/8
33	8	YWFL20005	WASHER FLAT, 5/8
34	2	YWFL20010	WASHER FLAT, 5/8
35	16	YWLO10005	WASHER LOCK, 5/16
36	12	YWLO76015	WASHER LOCK, M10
37	80	10WR42	RAKE WHEEL TOOTH, 49 IN BLACK
38	2	FR71	RAKE WHEEL CENTER
39	10	FR74	RAKE TOOTH CLIP
40	2	T177A	RAKE WHEEL OUTER RING
41	2	T173	HUB CAP
42	2	T172	NUT HEX, CASTLE, 18MM - 1.5 G2
43	2	600014	TAPER BEARING
44	2	1088	RETAINING CLIP

*MEANS NOT SHOWN

FIGURE 18 OPTIONAL KICKER WHEEL

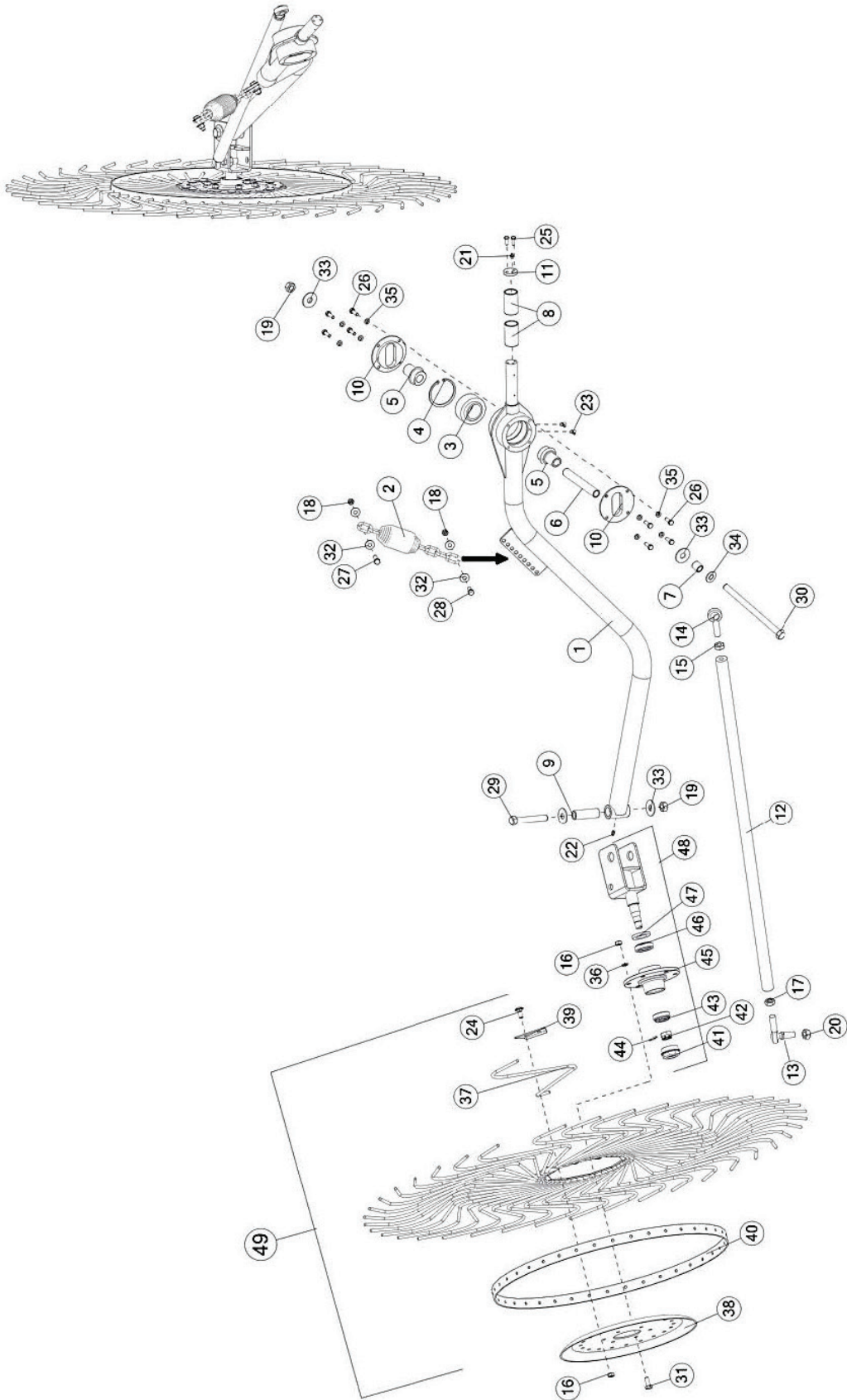


FIGURE 18
OPTIONAL KICKER WHEEL

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
45	2	1086	RAKE WHEEL HUB
46	2	600012	TAPER BEARING
47	2	T163	SEAL
48	2	71580	SPINDLE A
49	1	10WR17	RAKE WHEEL 49 IN LH
*	1	71622	RAKE WHEEL 49 IN RH

***MEANS NOT SHOWN**

FIGURE 19 OPTIONAL BUMPER KIT

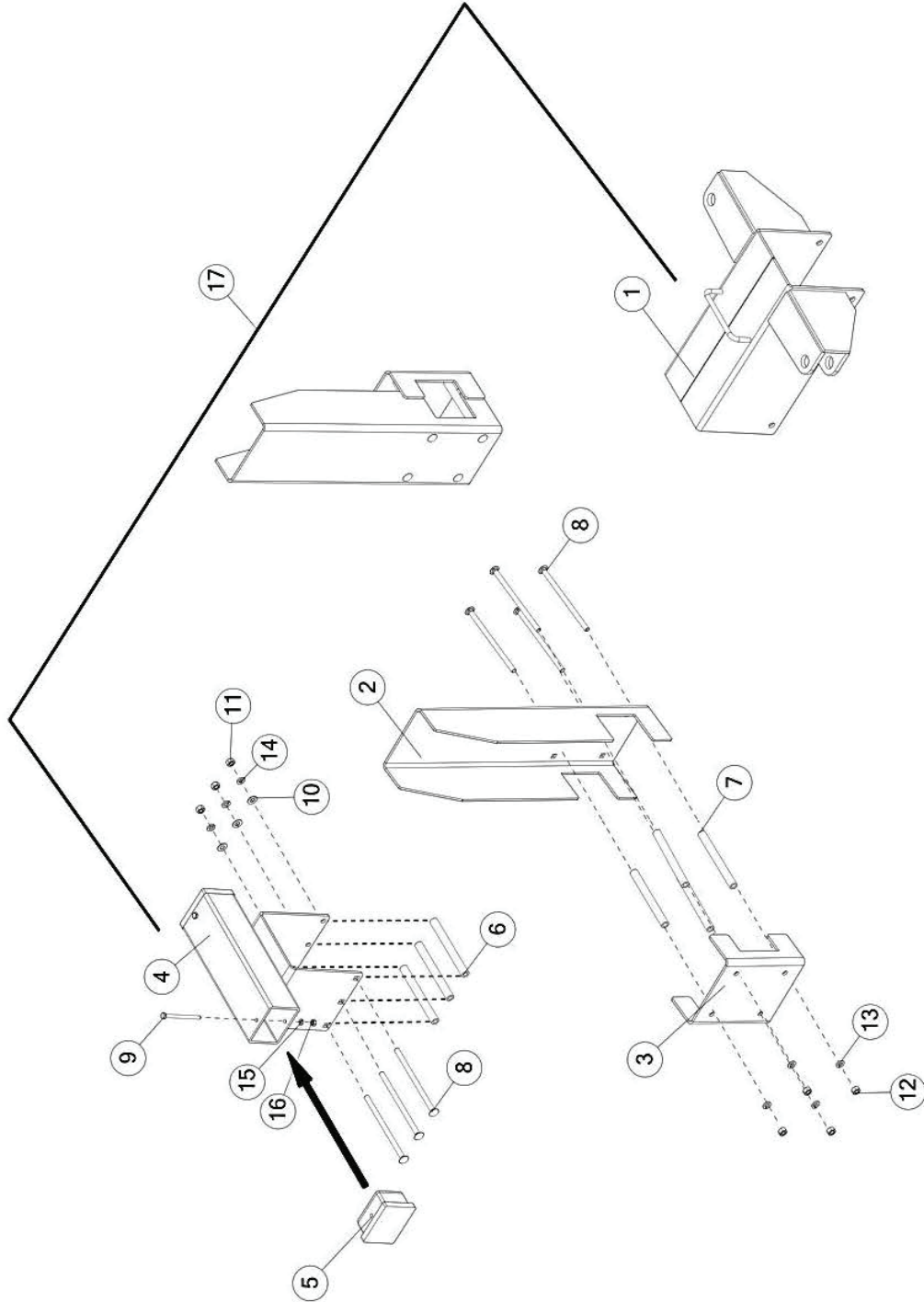


FIGURE 19
OPTIONAL BUMPER KIT

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	76465	LINKAGE SLIDER FRONT
2	2	75574	RAKE ARM BUMPER PLATE
3	2	75575	RAKE BUMPER BACK PLATE
4	1	76478	BUMPER
5	2	75763	BLACK PLUG, UHMW, 3 X 4 X 2
6	3	76467	SPACER TUBE
7	8	75576	SPACER TUBE
8	11	YBCR12130	BOLT CARRIAGE, 3/8 X 7 G2
9	2	YBHH08092	BOLT HEX, 1/4 X 3-1/2 G5
10	11	YNHX12005	NUT HEX, 3/8
11	11	YWLO12005	WASHER LOCK, 3/8
12	2	YWLO08005	WASHER LOCK, 1/4
13	2	YNHX08007	NUT HEX, 1/4 G5
14	1	76469	BUMPER KIT

PARTS NOTES

CHANGE NOTES

1. Replace BFR611 WITH 67416, FIGURE 2.
2. Replace YSST10005 WITH YBFB10002, FIGURE 2.
3. Replace HD121 WITH YWFL28010, FIGURE 10.
4. Replace 58714 WITH 3G18, FIGURE 10
5. Replace YBHH10010 WITH YBHH10105, FIGURE 19
6. Replace BFR450 with 87599, FIGURE 1

H&S MFG. CO.

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SEAL OF QUALITY

