



2110 ACTION RAKE



Revision #05
Starting Ser. #021AR10001

HSMFG0120

PART#67831

Manufactured By
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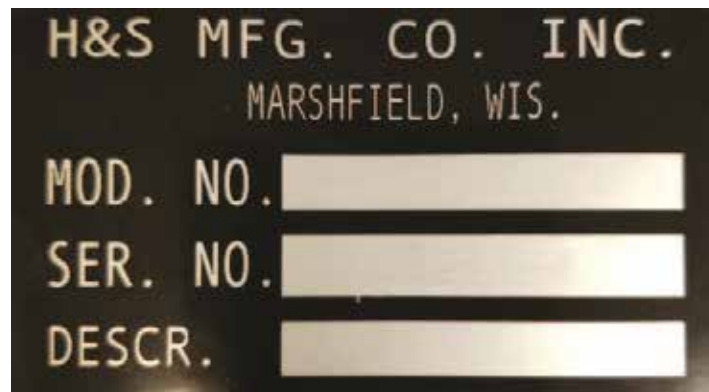
INSTRUCTIONS FOR ORDERING PARTS

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)



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
FRAME COMPONENTS

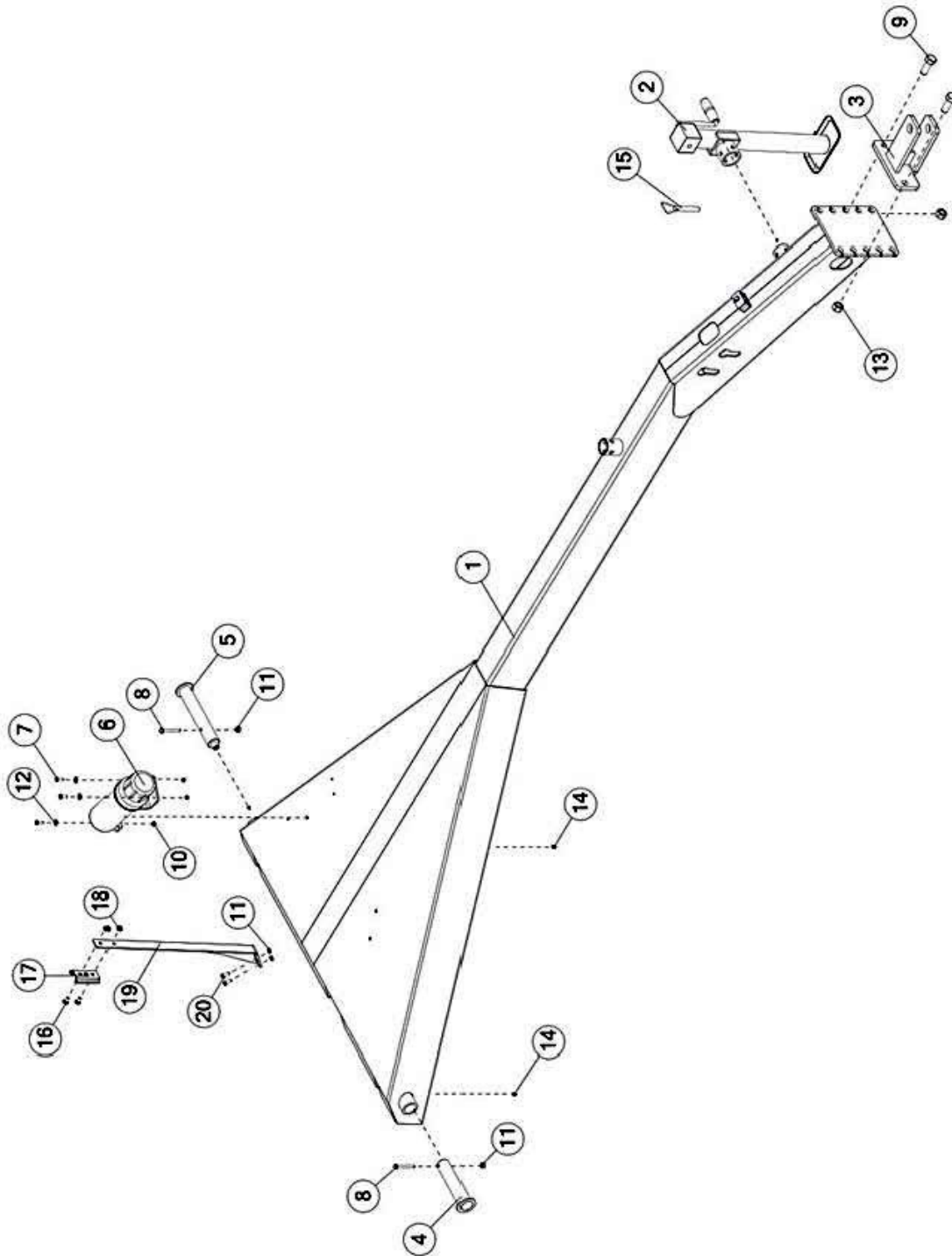


FIGURE 1

FRAME COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	69909	MAIN FRAME W/DECALS
2	1	BFR753A	JACK, SIDE WIND, 2000#
3	1	10ERWE06	CLEVIS
4	1	10WR7	PIVOT ARM PIN
5	1	0240WE05	PIVOT ARM PIN
6	1	S522	MANUAL HOLDER
7	3	YBHH08100	BOLT HEX, 1/4 - 20 X 3/4 G5 BOLT
8	2	YBHH10080	HEX, 5/16 - 18 X 2-1/2 G5 BOLT
9	2	YBHH24018	HEX, 3/4 - 10 X 2 G8
10	3	YNRL08005	NUT HEX, 1/4 - 20
11	4	YNRL10005	NUT HEX, 5/16 - 18
12	3	YWFL08005	WASHER FLAT, 1/4
13	2	YNRL24005	NUT HEX, 3/4 - 10
14	2	G89	STRAIGHT GREASE ZERK, 1/4 - 28
15	1	12N117	JACK PIN
16	2	YBCR10030	BOLT CARR, 5/16 - 18 X 3/4 G5
17	1	F97	SMV BRACKET
18	2	YNSF10006	NUT FLANGE, 5/16 - 18 BRACKET
19	1	75209	BOLT HEX, 5/16 - 18 X 3/4 G5
20	2	YBHH10105	

FIGURE 2
SLIDER & COMPONENTS

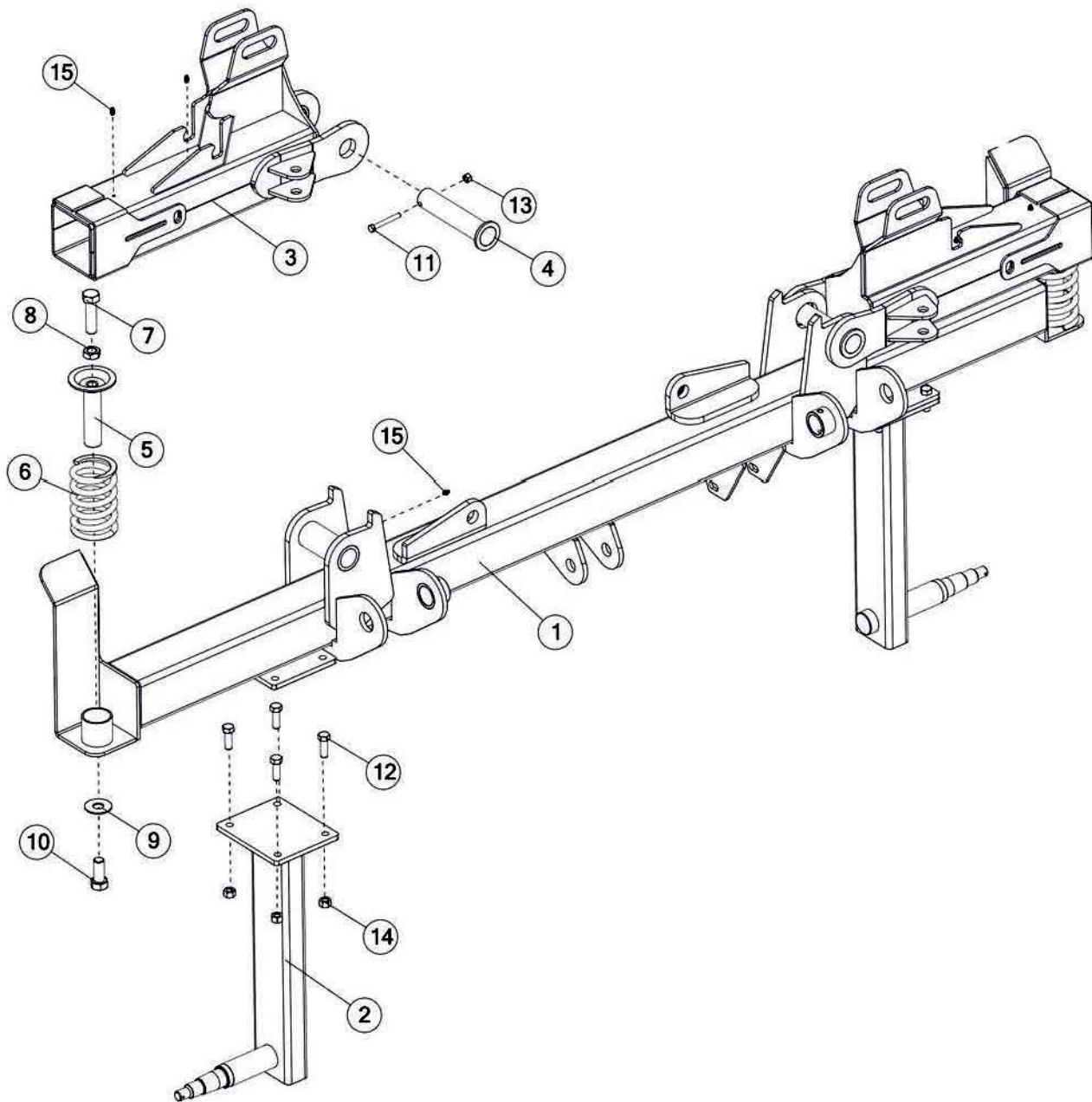


FIGURE 2

SLIDER & COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	69945	MAIN FRAME W/DECALS REAR
2	2	10ERWE07	AXLE WELDMENT
3	1	69950	SLIDER W/DECALS RH
*	1	69949	SLIDER W/DECALS LH
4	2	10WR7	PIVOT ARM PIN
5	2	10ERWE05	SPRING HOLDER
6	2	10WR47	SPRING
7	2	YBHH24042	BOLT HEX, 3/4 - 10 X 2-3/4 G5
8	2	YNJM24010	NUT JAM, 3/4 - 10 G2
9	2	YWFL24005	WASHER FLAT, 3/4
10	2	YBHH24014	BOLT HEX, 3/4-10 X 1-3/4 G5
11	2	YBHH10080	BOLT HEX, 5/16 X 2-1/2 G5
12	8	YBHH16030	BOLT HEX, 1/2 X 1-1/2 G5
13	2	YNRL10005	NUT HEX, REVERSIBLE-SIDE LOCK, 5/16 - 18
14	8	YNRL16005	NUT HEX, REVERSIBLE-SIDE LOCK, 1/2 - 13
15	6	G89	STRAIGHT GREASE ZERK, 1/4 - 28

***MEANS NOT SHOWN**

FIGURE 3
HUB ASSEMBLY

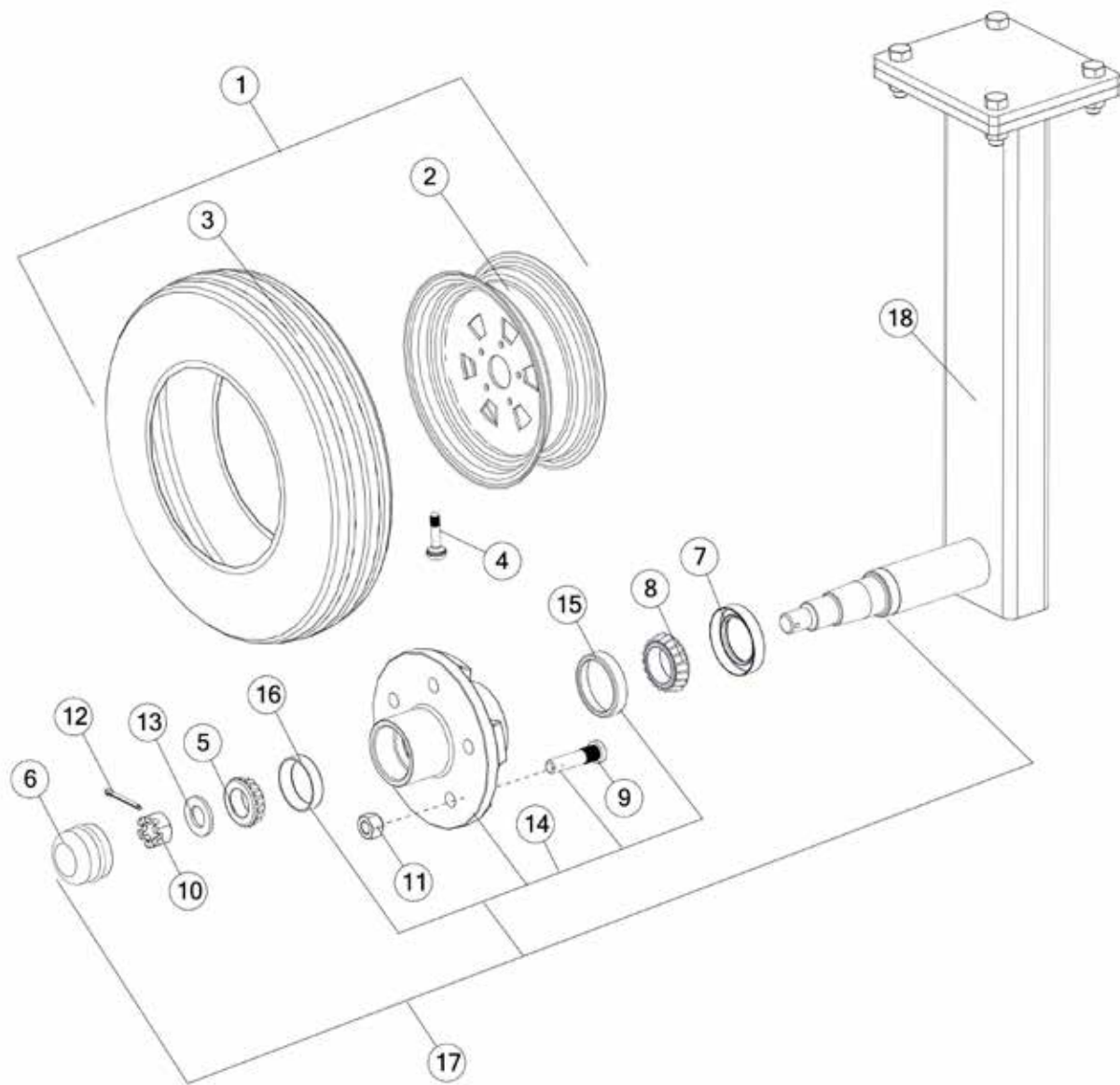


FIGURE 3 **HUB ASSEMBLY**

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	8605	COMPLETE TIRE AND WHEEL
2	2	8603	RIM 15 X 5 5 BOLT
3	2	8604	TIRE 205/75D15 LRC
4	2	72436	VALVE STEM, 1-1/2
5	2	CAT10	OUTER BEARING
6	2	CAT46	CAP
7	2	CAT5	GREASE SEAL
8	2	CAT6	INNER BEARING
9	10	YBSD16018	STUD BOLT
10	2	YNSL24010	NUT HEX, SLOTTED, 3/4 - 16
11	10	YNWL16005	NUT LUG, 1/2 - 20
12	2	YPCT05010	COTTER PIN 5/32 X 1-1/2
13	2	YWFL24010	WASHER FLAT, 3/4
14	2	CAT8	HUB W/RACES
15	2	CAT7	INNER RACE
16	2	BFR275	RACE
17	2	10WR49	COMPLETE HUB
18	2	10ERWE07	AXLE

FIGURE 4

RAKE BEAM & COMPONENTS

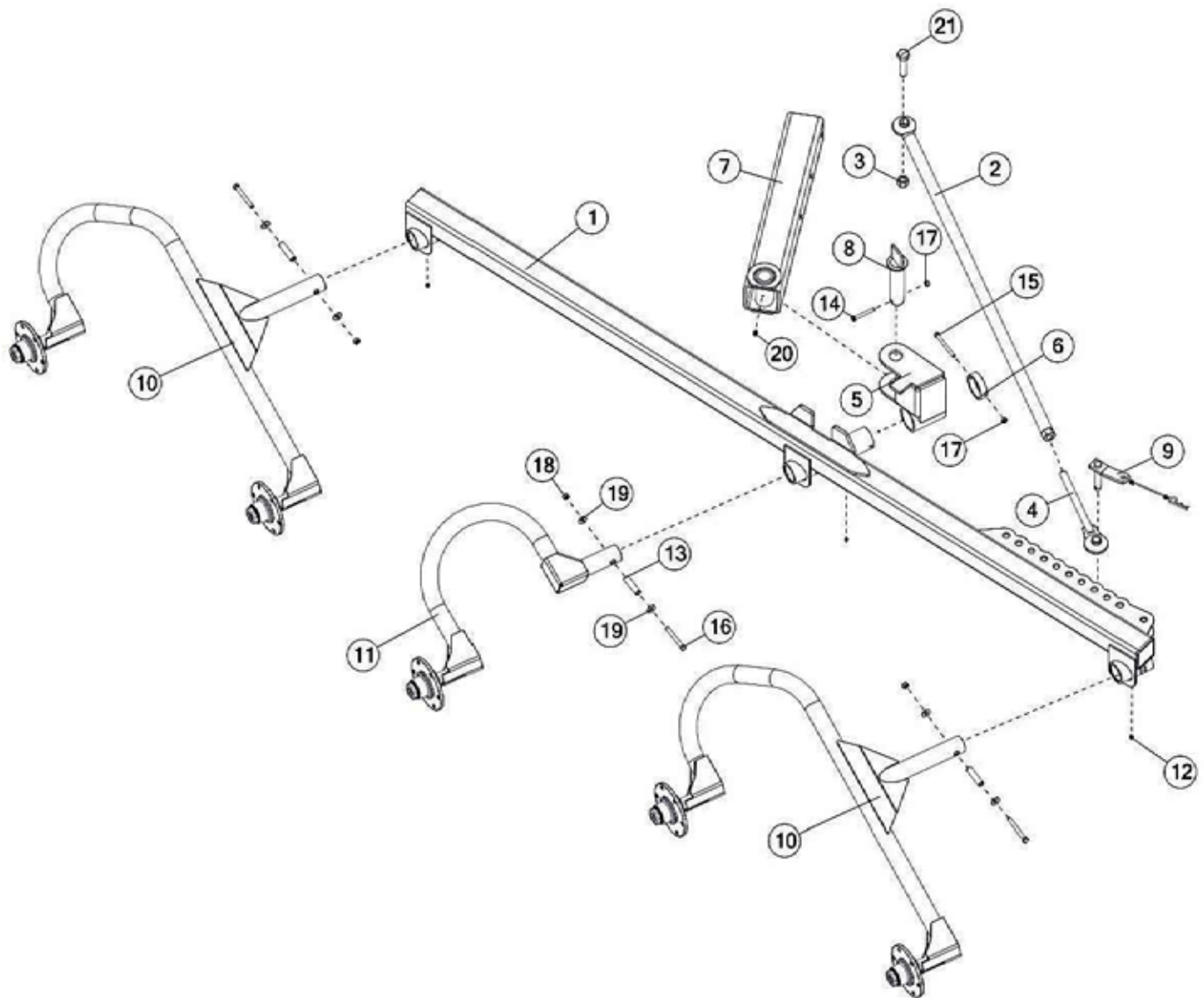


FIGURE 4

RAKE BEAM & COMPONENTS

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	66779	RAKE ARM BEAM RH
*	1	66770	RAKE ARM BEAM LH
2	2	10WR31	LINK ROD
3	2	YNRL24005	NUT HEX, REVERSIBLE-SIDE LOCK, 3/4 - 10
4	2	10WR9	ADJUSTING ROD
5	1	12ERWE06	LINKAGE PIVOT RH
*	1	12ERWE05	LINKAGE PIVOT LH
6	2	10WR8	THRUST WASHER
7	2	10WR34	SLIDE ARM
8	2	10WR6	RAKE BEAM PIN
9	2	10ERAS20	LANYARD W/PIN
10	2	71432	DOUBLE RAKE ARM RH
*	2	71436	DOUBLE RAKE ARM LH
11	1	71472	CENTER CANE RH
*	1	71473	CENTER CANE LH
12	6	G89	STRAIGHT GREASE ZERK, 1/4 - 28
13	6	66247	SPACER
14	2	YBHH10080	BOLT HEX, 5/16 X 2-1/2 G5
15	2	YBHH10110	BOLT HEX, 5/16 X 3-1/2 G5
16	6	YBHH12155	BOLT HEX, 3/8-16 X 3-1/4 G5
17	4	YNRL10005	NUT HEX, REVERSIBLE-SIDE LOCK, 5/16 - 18
18	6	YNRL12005	NUT HEX, REVERSIBLE-SIDE LOCK, 3/8 - 16
19	12	YWFL12005	WASHER FLAT, 3/8
20	2	RG21	GREASE ZERK, 45 DEGREE
21	2	YBHH24050	BOLT HEX, 3/4 X 3 G5

***MEANS NOT SHOWN**

FIGURE 5
RAKE WHEEL ASSEMBLY

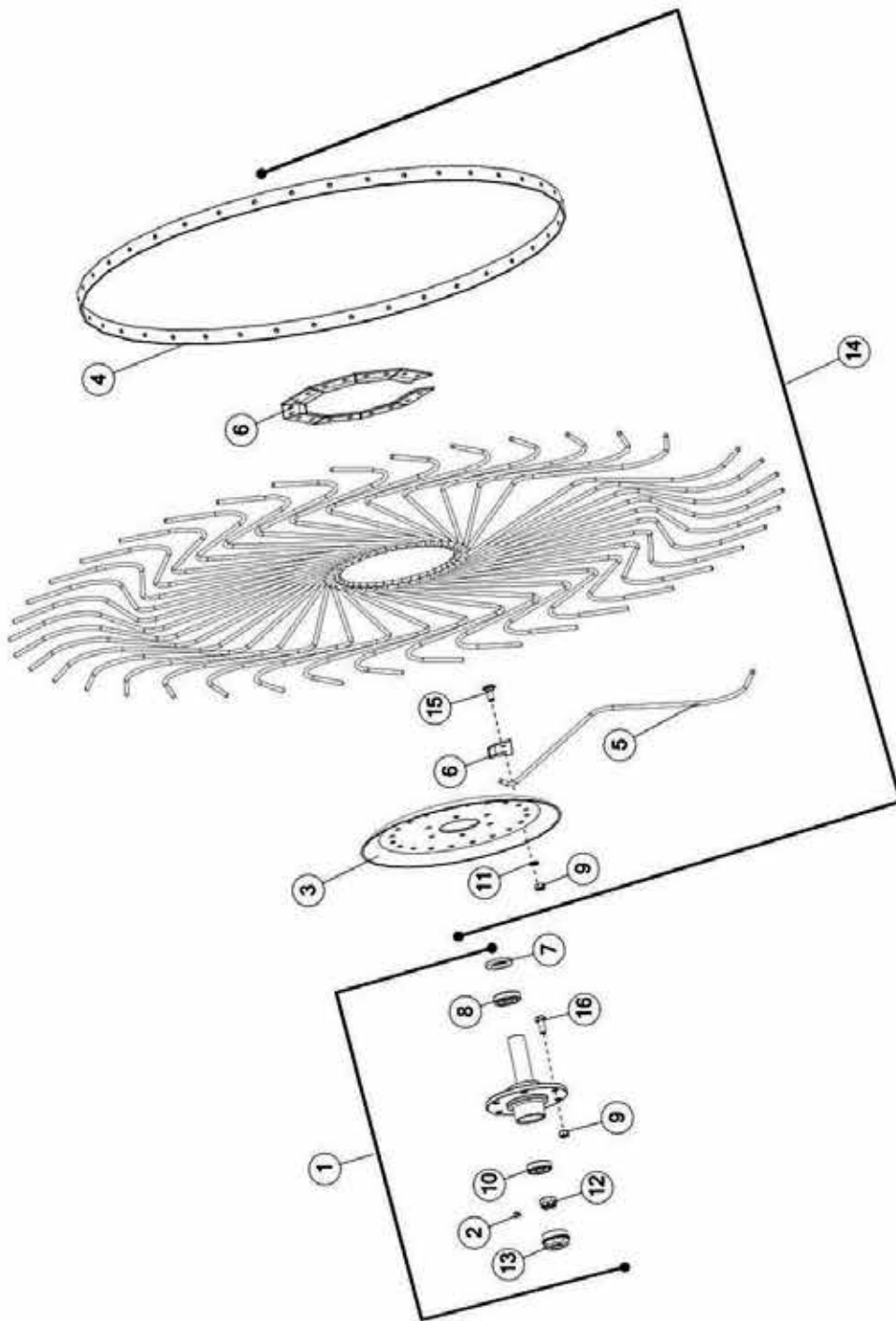


FIGURE 5

RAKE WHEEL ASSEMBLY

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	10	1081	RAKE WHEEL HUB COMPLETE AND SPINDLE
2	10	1088	RETAINING CLIP
3	10	FR71	RAKE WHEEL CENTER
4	10	FR72	RAKE WHEEL OUTER RING
5	400	FR73	RAKE WHEEL TOOTH, 60
6	100	FR74	RAKE TOOTH CLIP
7	10	T163	SEAL
8	10	600012	INNER BEARING AND RACE
9	260	YNHX76015	NUT HEX, M10-1.5
10	10	600014	OUTER BEARING AND RACE
11	200	YWLO76015	WASHER LOCK, M10
12	10	T172	NUT HEX, M18 - 1.5 G2
13	10	T173	CAP
14	5	FR70	RAKE WHEEL RH
*	5	FR69	RAKE WHEEL LH
15	200	YBCR76005	BOLT CARR, M10
16	60	YBHH76015	BOLT HEX, M10 - 1.5

***MEANS NOT SHOWN**

FIGURE 6
OPTIONAL - KICKER WHEEL

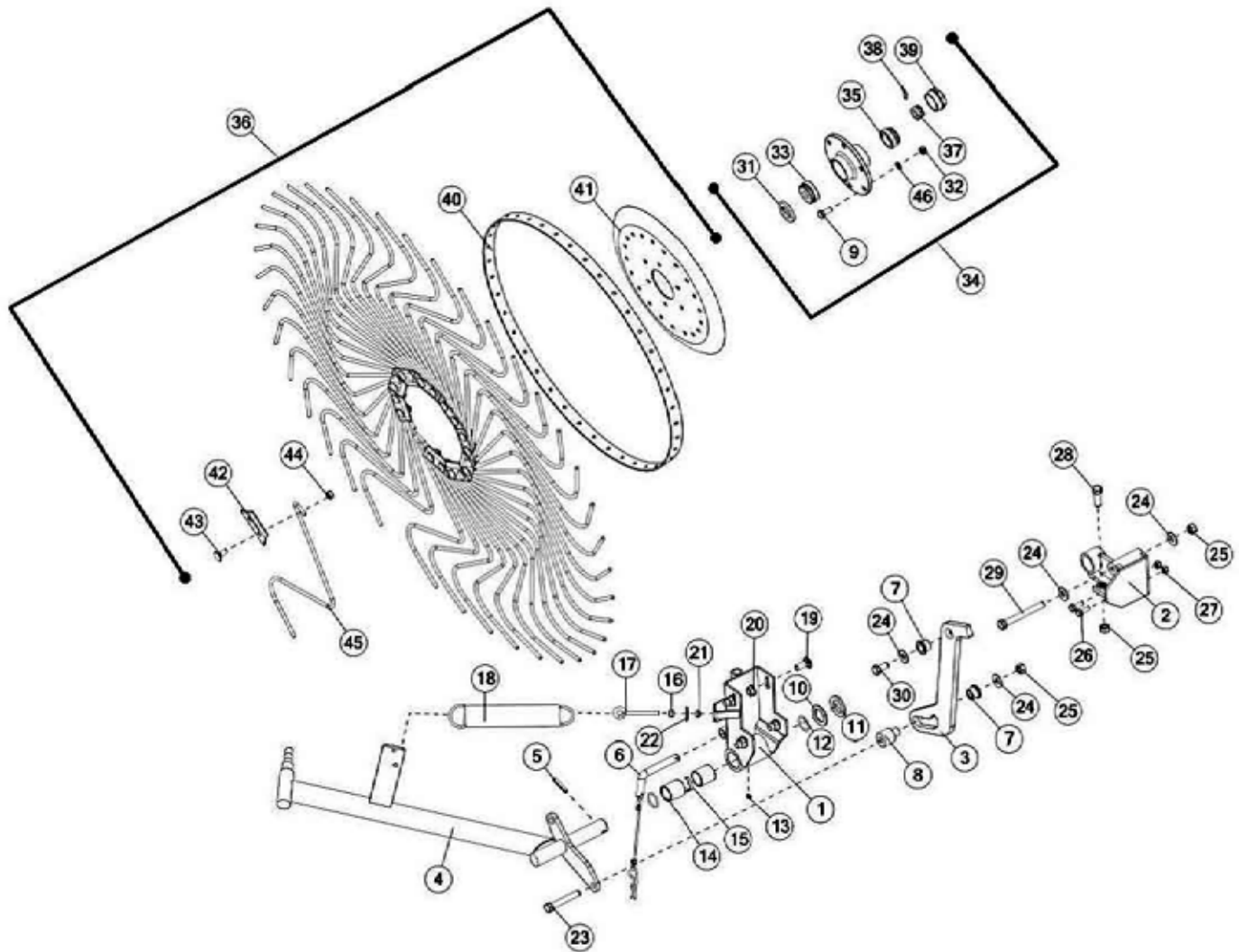


FIGURE 6

OPTIONAL - KICKER WHEEL

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	0240WE04	KICKER MOUNT
2	1	0240WE07	KICKER STOP
3	1	0240HF03	KICKER LEVER LINK FRAME PIVOT
4	1	0240WE03	KICKER ARM
5	1	YPEx10015	EXPANSION PIN, 5/16 X 1-3/4
6	1	10ERAS08	LANYARD, W/CANE PIN
7	2	8579	POLY PIVOT BEARING
8	1	0240TU04	KICKER PIVOT SPACER LOWER
9	6	YBHH76015	BOLT, M10-1.5
10	1	BFR221	POLY WASHER
11	1	BFR229	WASHER
12	2	S99	O-RING
13	1	G89	STRAIGHT GREASE ZERK, 1/4 - 28
14	2	G16	BRONZE BUSHING 1-1/2 X 1-1/4 X 1-1/2
15	1	BFR230	BEARING SPACER
16	1	YNHX10005	HEX NUT, 5/16 G2
17	1	YBTE10030	TURNED EYE BOLT, 5/16 X 3
18	1	BFR110	KICKER WHEEL SPRING
19	4	YBCR16015	BOLT CARR, 1/2 X 1-1/4 G5
20	4	YNSF16005	NUT HEX, SERRATED FLANGED-LOCK, 1/2 - 13
21	1	YNNY10005	NUT HEX, NYLON LOCKNUT, 5/16 - 18
22	1	YWFL10010	WASHER FLAT, 5/16 G8
23	1	YBHH16120	BOLT HEX, 1/2 X 3-1/4 G5
24	4	YWFL16005	WASHER FLAT, 1/2
25	2	YNRL16005	NUT HEX, REVERSIBLE-SIDE LOCK, 1/2 - 13
26	2	YBHH12010	BOLT HEX, 3/8 X 1 G5
27	2	YNRL12005	NUT HEX, REVERSIBLE-SIDE LOCK, 3/8 - 16
28	1	YBHH16030	BOLT HEX, 1/2 X 1-1/2 G5
29	1	YBHH16140	BOLT HEX, 1/2 X 4-1/2 G5
30	1	YBHH16010	BOLT HEX, 1/2 X 1 G5
31	1	T163	SEAL
32	6	YBHH76015	BOLT HEX, M10 - 1.5
33	1	600012	INNER BEARING AND RACE
34	1	1081	RAKE WHEEL HUB AND SPINDLE
35	1	600014	BEARING AND RACE
36	1	10WR17	RAKE WHEEL LH
37	1	T172	NUT HEX, M18 - 1.5 G2
38	1	1088	RETAINING CLIP
39	1	T173	CAP
40	1	T177A	RAKE WHEEL OUTER RING
41	1	FR71	RAKE WHEEL CENTER
42	10	FR74	RAKE TOOTH CLIP
43	20	YBCR76005	BOLT CARR, M10
44	20	YNHX76015	NUT HEX, M10 - 1.5
45	40	10WR42	RAKE WHEEL TOOTH, 49
46	6	YWLO76015	WASHER LOCK, M10

FIGURE 7
HYDRAULICS

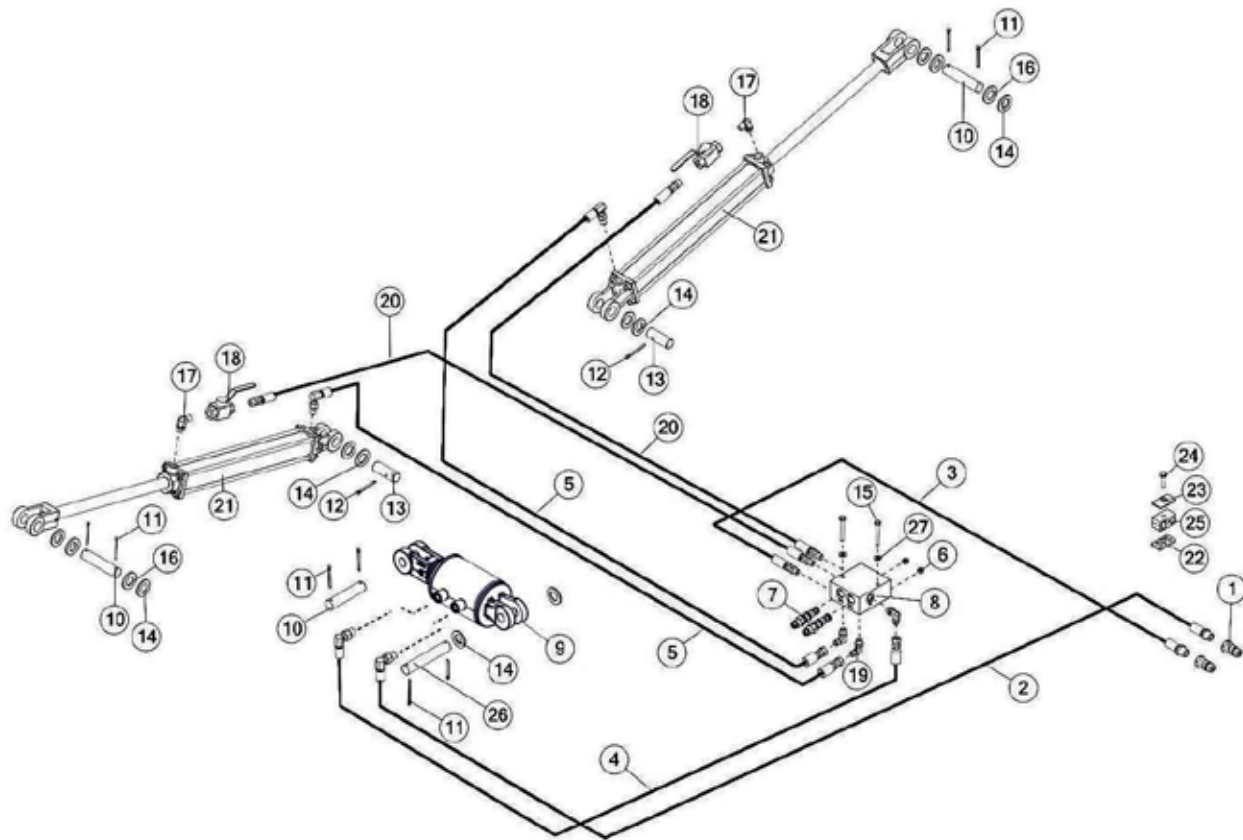


FIGURE 7 **HYDRAULICS**

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	2	67148	QUICK COUPLER
2	1	70101	HYD HOSE, 6, 190IN
3	1	70102	HYD HOSE, 6, 214IN
4	1	70097	HYD HOSE, 6, 20IN
5	2	70094	HYD HOSE, 6, 34IN
6	2	YNRL10005	NUT HEX LOCK, 5/16 G5
7	2	66920	HYD VALVE, COUNTERBALANCE
8	1	60426	HYD MANIFOLD
9	1	56611	HYD CYLINDER, REPHASE
*	1	56975	SEAL KIT
10	3	72884	CYLINDER PIN
11	8	YPCT06020	COTTER PIN, 3/16 X 2
12	2	YPCT07005	COTTER PIN, 7/32 X 2
13	2	23N107	CYLINDER PIN
14	10	16SV136	SHIM
15	2	YBHH10080	BOLT HEX 5/16 X 2-1/2 G5
16	2	BFR33	SHIM
17	2	70113	FITTING 90, 9/16ORB, 3/8NPT
18	2	59235	BALL VALVE, HIGH PRESSURE
19	3	CHM268	FITTING 90, 6JIC, 6ORB
20	2	70098	HYD HOSE, 6, 30IN
21	2	69969	HYD CYLINDER, 2 X 16
22	2	1021	DOUBLE T CLAMP, PLASTIC
23	2	56563	TOP PLATE CLAMP
24	2	56568	BOLT HEX, 5/16 X 1-3/8 G5
25	2	CHM278	BLOCK CLAMP, PLASTIC
26	1	72884	CYLINDER PIN
27	2	YWFL08005	WASHER FLAT, 1/4

***MEANS NOT SHOWN**

FIGURE 8
HYDRAULIC CYLINDER

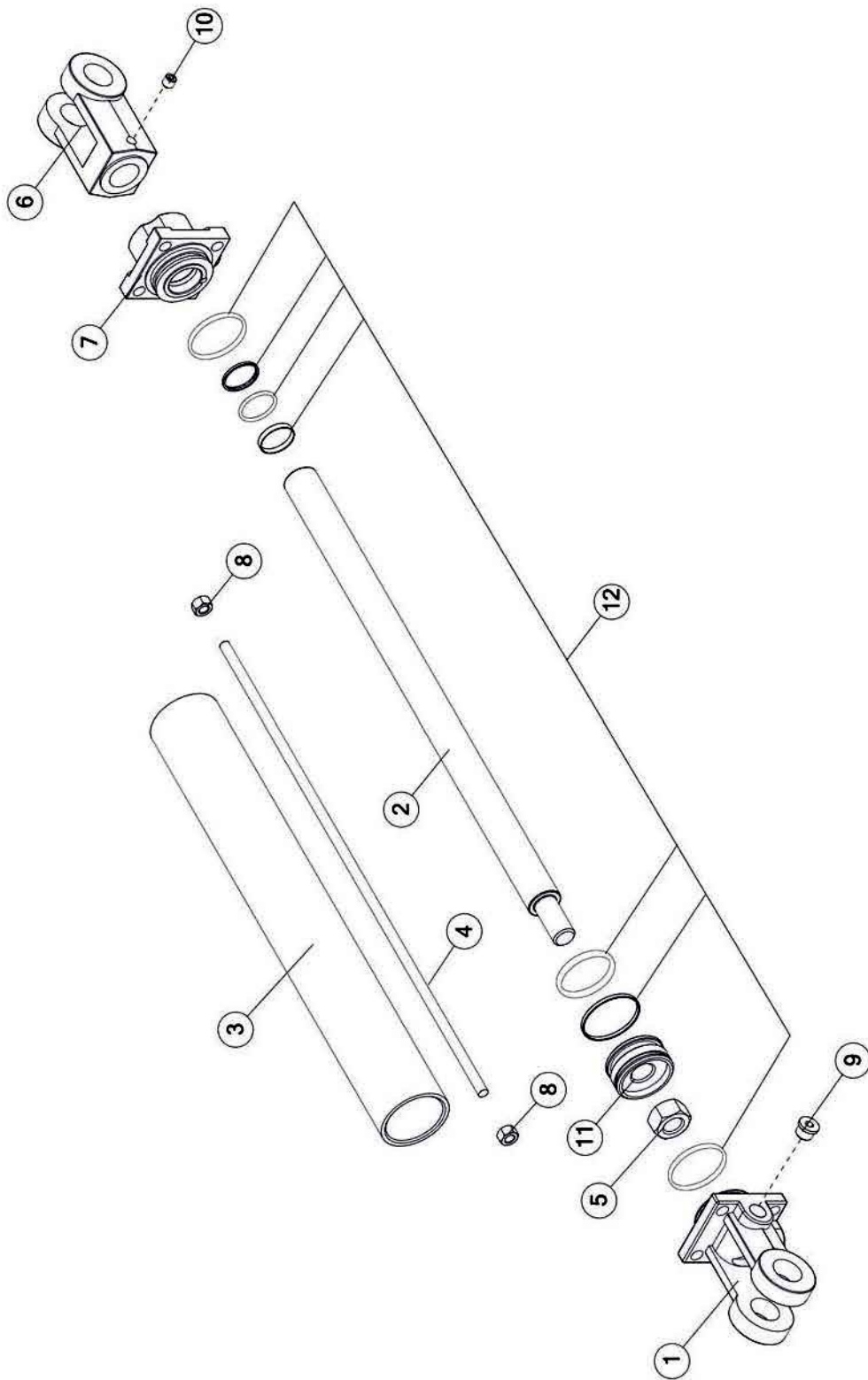


FIGURE 8

HYDRAULIC CYLINDER

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	66932	CLEVIS CAP FOR 2 CYLINDER
2	1	23N145A	ROD
3	1	23N146	CYLINDER TUBE
4	4	23N147	SHAFT
5	1	23N148	PISTON NUT
6	1	23N150A	ROD CLEVIS
7	1	66934	ROD CAP
8	4	YNHX12005	HEX NUT, 3/8 - 16 G2
9	1	SD270	HOLLOW HEX PLUG 6
10	1	YSSO12015	SET SCREW, SOCKET, 3/8 - 24 X 3/8
11	1	56180	PISTON
12	6	56187	SEAL KIT
-	1	69969	COMPLETE HYD. CYLINDER, 2 X 16

FIGURE 9
OPTIONAL - WIND GUARD

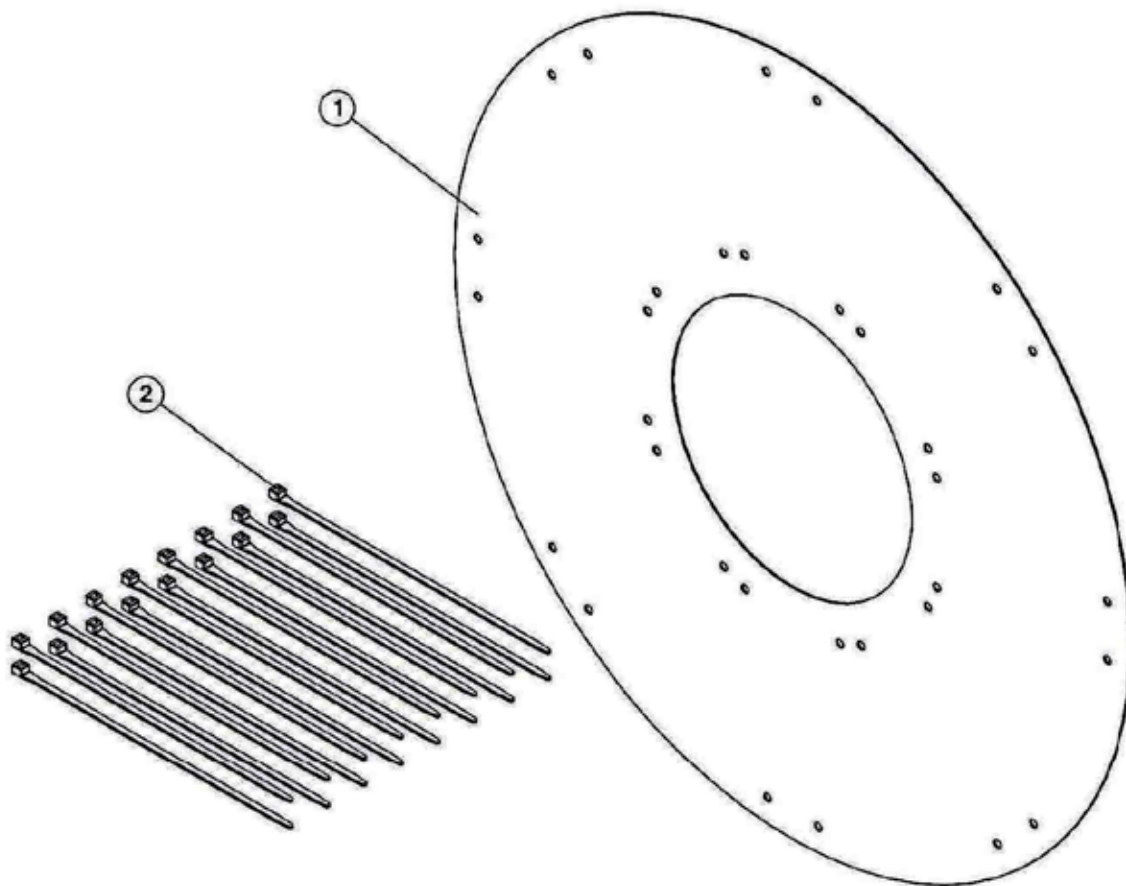


FIGURE 9
OPTIONAL - WIND GUARD

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	59039	POLY WIND GUARD
2	16	CIZT105	ZIPTIE, 15.0 X .30 X .08

FIGURE 10
OPTIONAL - TAIL LIGHT KIT

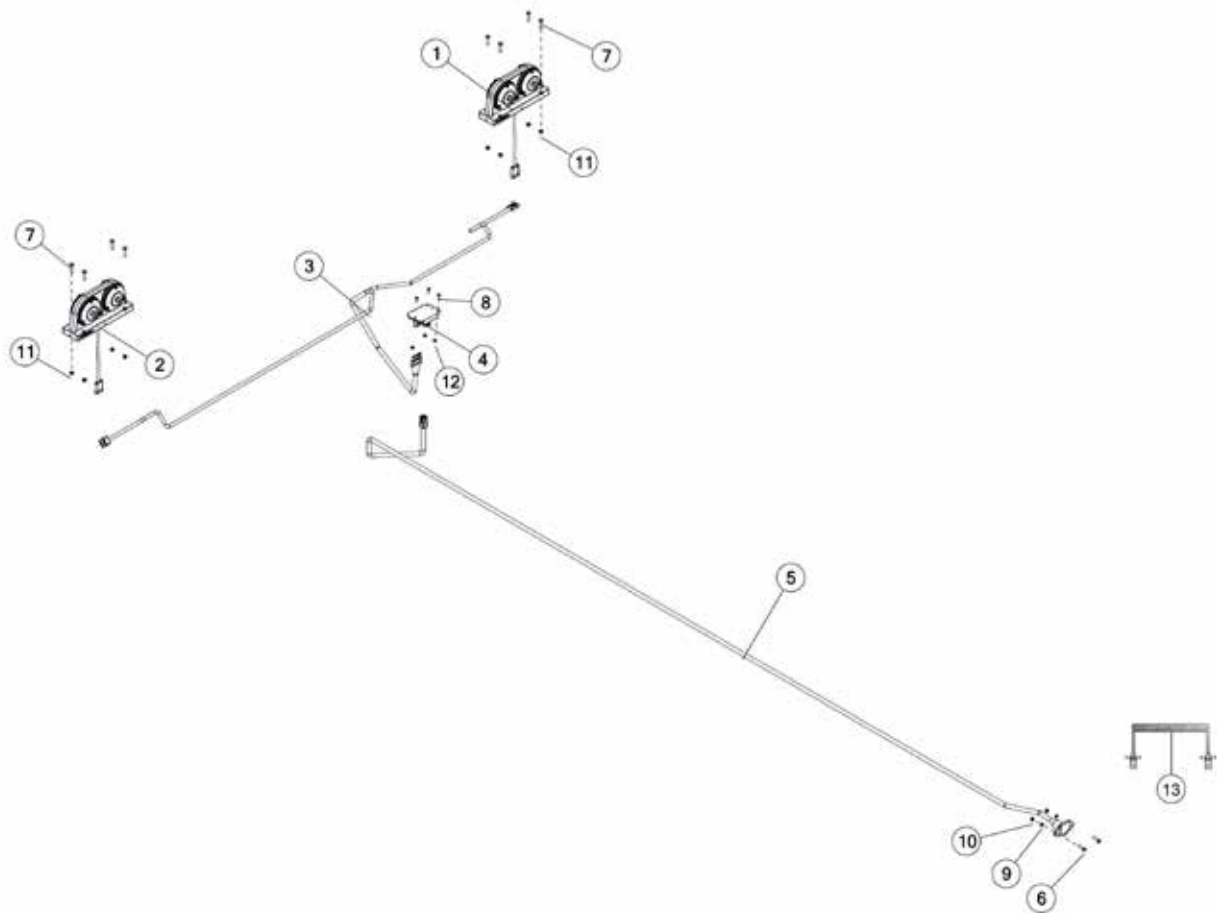


FIGURE 10

OPTIONAL - TAIL LIGHT KIT

<u>ITEM</u>	<u>QTY</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1	1	77923	TAIL LIGHT LH
2	1	77924	TAIL LIGHT RH
3	1	77990	LIGHT HARNESS, REAR
4	1	69908	CONTROL MODULE
5	1	77986	LIGHT HARNESS
6	2	YBHH08005	BOLT HEX, 1/4 X 1 G2
7	8	YBHH08030	BOLT HEX, 1/4 X 1-1/4 G2
8	3	YSPN64005	PAN HEAD, SCREW 10 - 24 X 5/8
9	2	YWLO08005	WASHER LOCK, 1/4
10	2	YNHX08005	NUT HEX, 1/4
11	8	YNNY08005	NUT HEX, 1/4
12	3	YNNY64005	NUT HEX, #10 - 24
13	1	TLPC	TRANSPORT LIGHT CORD

[illegible]

CHANGE NOTES

1. ADDED TLPC TO FIGURE 10

H&S MFG. CO.

products approved

for the

FEMA

SEAL OF QUALITY

