



# AR08/AR10/AR12 ACTION RAKE

## PARTS BOOK



Revision #2

AR08 Starting Serial #412067

AR10 Starting Serial #414440

AR12 Starting Serial #416494

HSMFG1113

Part #59744

Manufactured By  
**H&S MANUFACTURING CO., INC.**

P.O. BOX 768 (715) 387-3414 FAX (715) 384-5463  
MARSHFIELD, WISCONSIN 54449

**CONTENTS**

Instructions for Ordering Parts ..... 1

Frame Components ..... 2-3

Rake Beams & Wheels ..... 4-5

Lift Arms & Hydraulics ..... 6-7

Optional Kicker Wheels ..... 8-11

Hydraulic Cylinder ..... 12

Parts Notes ..... 13-14

# **INSTRUCTIONS FOR ORDERING PARTS**

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

1. Model & Serial number is located on the left front of the main frame of your unit.
2. All reference to left or right apply to the machine as viewed from the rear.
3. Parts should not be ordered from illustration only. Please order by 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.	<input type="text"/>
SER. NO.	<input type="text"/>
DESCR.	<input type="text"/>

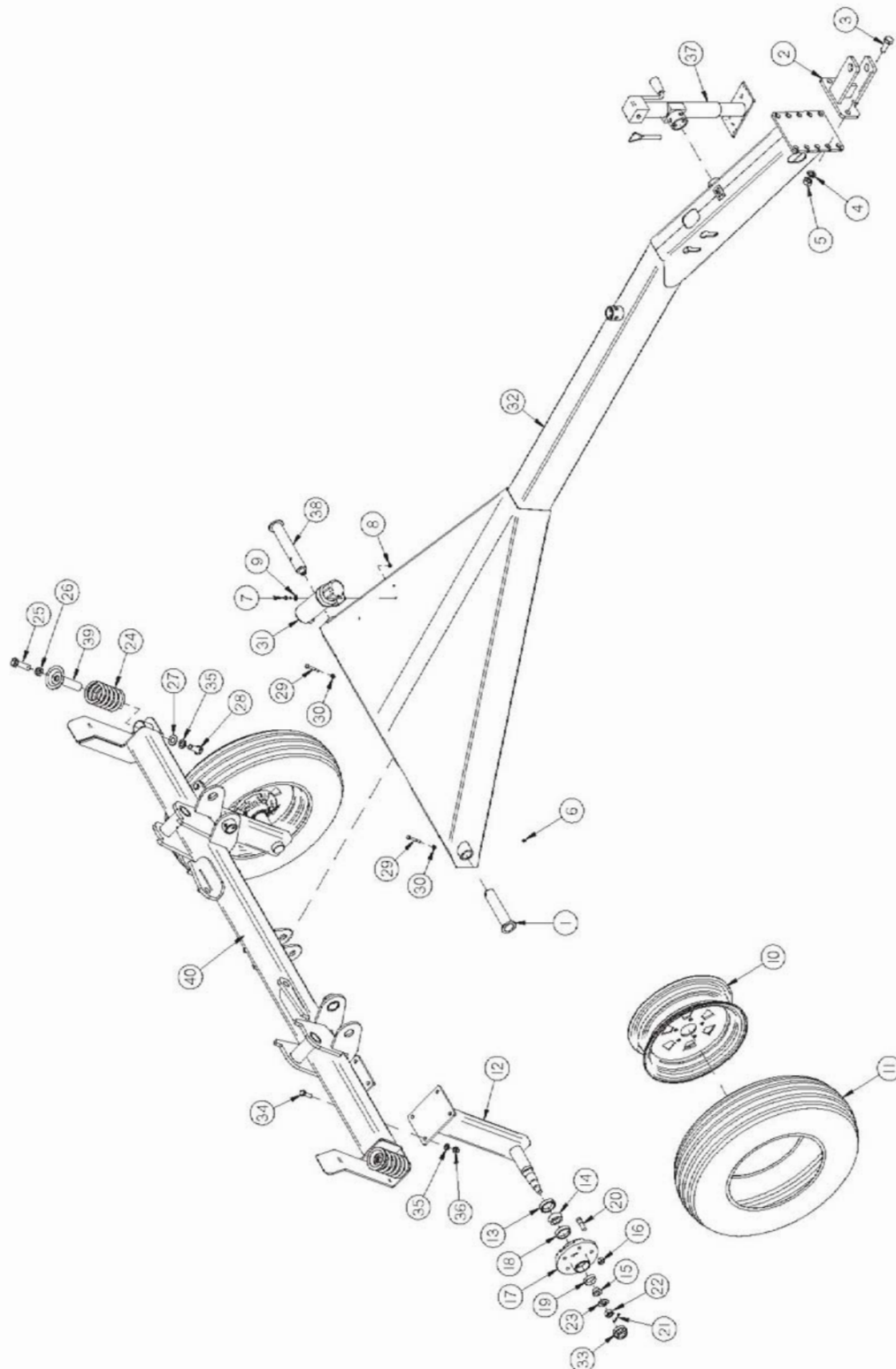
PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

## **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**



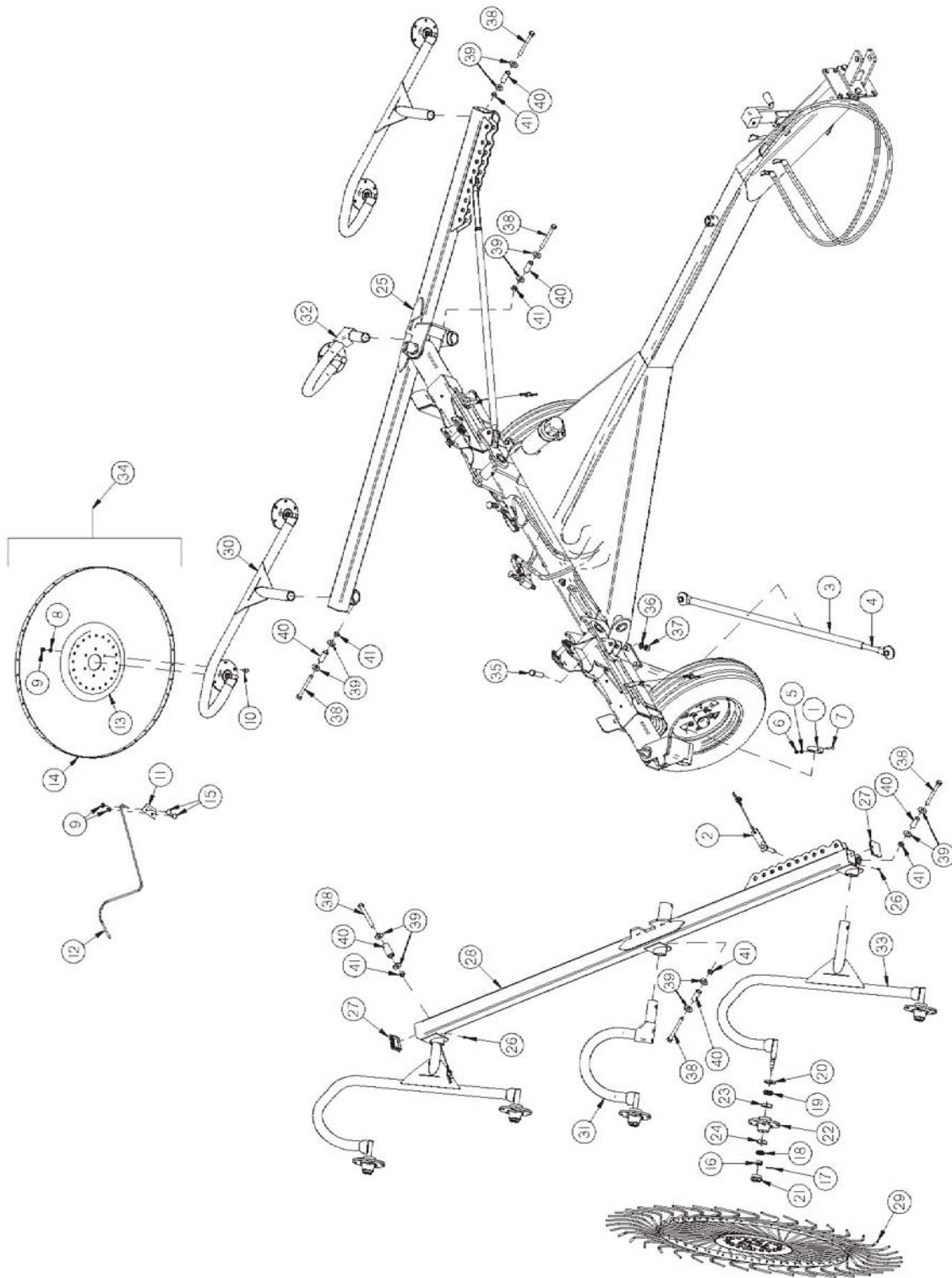
# FIGURE 1

## FRAME COMPONENTS

<u>PART #</u>				
<u>ITEM</u>	<u>8 WHEEL</u>	<u>10 WHEEL</u>	<u>12 WHEEL</u>	<u>DESCRIPTION</u>
1	10WR7	"	"	RAKE ARM PIN (TWO OF THESE REQUIRED ON 8 WHEEL RAKE)
2	10ERWE06	"	"	10ER CLEVIS
3	YBHH24018	"	"	BOLT 3/4"-10 X 2 GR 8 YELLOW ZINC
4	YWLO24005	"	"	WASHER, LOCK, 3/4"
5	YNHX24006	"	"	HEX NUT 3/4"-10 GR. 8
6	G89	"	"	.250 x 28 STRAIGHT GREASE ZERK
7	YBHH08100	"	"	BOLT, 1/4" X 3/4" GR. 5
8	YNRL08005	"	"	HEX NUT, REVERSIBLE-SIDE LOCK, 1/2"-20
9	YWFL08005	"	"	FLAT WASHER
10	8603	"	"	RIM - 15 X5 5 BOLT
11	8604	"	"	205/75D15 LRC Bias Tire
*	8605	"	"	205/75D15 LRC BIAS TIRE ON 15X5. THIS IS ITEM 10,11, ASSY.
12	10ERWE07	"	"	AXLE WELDMENT 60 IN WHEEL
13	CAT5	"	"	SEAL
14	CAT6	"	"	INNER CONE
15	CAT10	"	"	OUTER CONE
16	CAT14	"	"	WHEEL NUT 1/2"-20
17	CAT8	"	"	HUB WITH RACES
18	CAT7	"	"	INNER BEARING RACE
19	CAT9	"	"	OUTER BEARING RACE
20	CAT128A	"	"	STUD BOLT 1/2"-20 UNF X 1-7/8" GR 5
21	YPCT05010	"	"	COTTER PIN, 5/32" X 1-1/2"
22	YNSL24010	"	"	HEX NUT, SLOTTED, 3/4"-16
23	YWFL24005	YWFL24010	"	WASHER, FLAT, 3/4" USS
*	10WR49	"	"	COMPLETE HUB
24	10WR47	"	12WR1	RAKE ARM SPRING
25	YBHH24042	"	"	3/4-10 X 2-3/4 GR. 5 TAP BOLT
26	YNJM24010	"	"	HEX NUT, JAM, 3/4"-10
27	YWFL24005	"	"	FLAT WASHER
28	YBHH24014	"	"	BOLT, 3/4"-10 X 1-3/4" GR. 5
29	YBHH10085	"	"	5/16"-18 x 2-1/2" GR. 5
30	YNTL10005	"	"	NUT, 5/16" TOP LOCK
31	S522	"	"	MANUAL HOLDER
32	10ERWE01	"	12ERWE12	POLE
33	CAT46	"	"	HUB CAP
34	YBHH16055	"	"	BOLT, 1/2" X 1-3/4" GR 5
35	YWLO16005	"	"	WASHER, LOCK, 1/2"
36	YNHX16005	"	"	HEX NUT, 1/2"
37	BFR753A	"	"	JACK 2000# SIDE WIND
38	-	0240WE05	"	PIVOT ARM PIN
39	10ERWE05	"	"	SPRING HOLDER
40	8ERWE01	10ERWE02	12ERWE11	FRAME WELDMENT

**NOTE: " MEANS SAME AS PREVIOUS MODEL**  
**- MEANS NOT USED ON THIS MODEL**  
**\* MEANS NOT SHOWN**

**FIGURE 2**  
**RAKE BEAMS AND WHEELS**





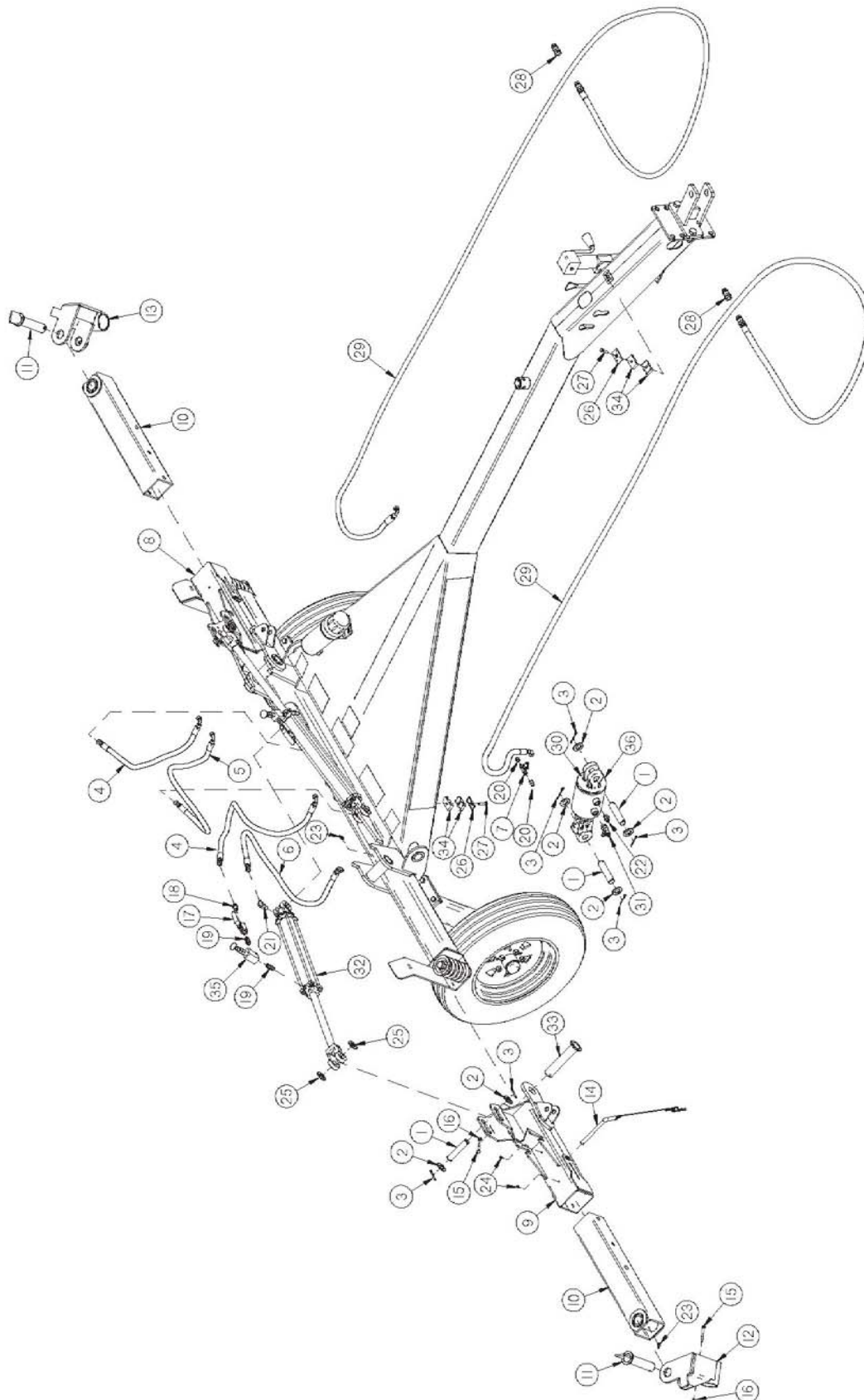
## FIGURE 2

### RAKE BEAMS AND WHEELS

<u>PART #</u>				
<u>ITEM</u>	<u>8 WHEEL</u>	<u>10 WHEEL</u>	<u>12 WHEEL</u>	<u>DESCRIPTION</u>
1	10WR8	"	"	PIVOT THRUST WASHER
2	10ERAS20	"	"	WIDTH LINK PIN ASSEMBLY
3	8WR8	10WR31	"	LINK ROD
4	"	10WR9	"	ADJUSTING ROD
*	8WRAS07	10WRAS04	"	FOR ITEM 3-4, LINK ROD ASSEMBLY
5	YWLO10005	"	"	WASHER, LOCK, 5/16"
6	YNHX10005	"	"	HEX NUT
7	YBHH10110	"	"	BOLT, 5/16" X 3-1/2" GR 5
8	YWLO76015	"	"	WASHER, LOCK, M10
9	YNHX76015	"	"	HEX NUT, M10-1.5
10	YBHH76015	"	"	BOLT, M10-1.5 (25MM)
11	FR74	"	"	RAKE TOOTH CLIP
12	FR73	"	"	60" WHEEL TOOTH
13	FR71	"	"	RAKE WHEEL CENTER
14	FR72	"	"	RAKE WHEEL BAND
15	YBCR76005	"	"	CARR. BOLT, 10MM X 25MM
16	T172	"	"	1.5 X 18MM CASTLE NUT
17	1088	"	"	RETAINING CLIP (REPLACES T169)
18	600014	"	"	OUTER BEARING RACE
19	600012	"	"	INNER BEARING RACE
20	T163	"	"	SEALING WASHER
21	T173	"	"	HUB CAP
22	BFR32	"	"	HUB WITH RACES
23	600012	"	"	INNER BEARING RACE
24	600014	"	"	OUTER BEARING RACE
25	8ERWE05	10ERWE09	12ERWE10	LEFT RAKE BEAM
26	G89	"	"	1/4" x 28 STRAIGHT GREASE ZERK
27	1075	"	"	TUBING CAP 3" X 3" SQ.
28	8ERWE04	10ERWE03	12ERWE09	RIGHT RAKE BEAM
29	FR70	"	"	60" RAKE WHEEL RH
30	12ERWE04	"	"	LEFT CANE WELDMENT
*	55971	"	"	LEFT CANE WELDMENT (NO HUBS)
31	-	10ERWE11	-	CENTER CANE WELDMENT RH
32	-	10ERWE12	-	CENTER CANE WELDMENT LH
33	12ERWE08	"	"	RIGHT CANE WELDMENT
*	55972	"	"	RIGHT CANE WELDMENT (NO HUBS)
34	FR69	"	"	60" RAKE WHEEL LH
35	YBHH24050	"	"	BOLT, 3/4" X 3" GR. 5
36	YWLO24005	"	"	WASHER, LOCK, 3/4"
37	YNHX24005	"	"	HEX NUT, 3/4"-10 PLATED
38	YBHH12160	"	"	BOLT, 3/8 X 3-3/4
39	YWFL12005	"	"	WASHER, FLAT, 3/8 USS
40	59100	"	"	SPACER, TUBE
41	YNRL12005	"	"	HEX NUT, REVERSIBLE-SIDE LOCK,
*	59101	"	"	PIN, CANDY CANE ASSEMBLY

**NOTE: " MEANS SAME AS PREVIOUS MODEL**  
**- MEANS NOT USED ON THIS MODEL**

**FIGURE 3**  
**LIFT ARMS AND HYDRAULICS**





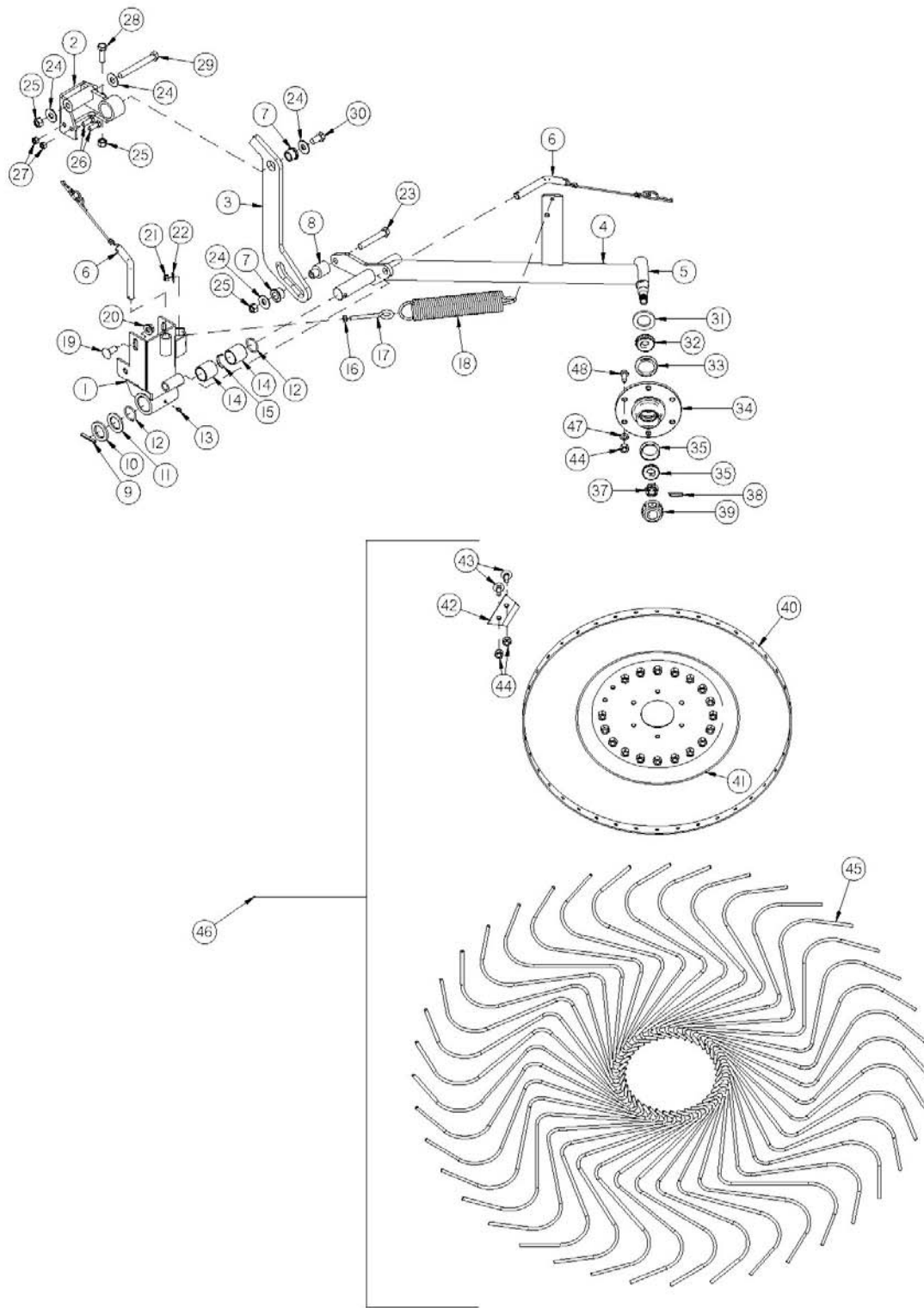
# **FIGURE 3**

## **LIFT ARMS AND HYDRAULICS**

<b><u>PART #</u></b>				
<b><u>ITEM</u></b>	<b><u>8 WHEEL</u></b>	<b><u>10 WHEEL</u></b>	<b><u>12 WHEEL</u></b>	<b><u>DESCRIPTION</u></b>
1	LW55	"	"	CYLINDER PIN, LONG
2	16SV136	"	"	SPEED CONTROL WASHER
3	YPCT06020	"	"	COTTER PIN 3/16" X 2"
4	10ERMS02	"	"	HOSE, 90 DEG ENDS
5	10ERMS07	"	"	HOSE, 90 DEG ENDS
6	10ERMS08	"	"	HOSE, 90 DEGREE ENDS
7	8005	"	"	06 BULKHEAD TEE FITTING
8	-	10ERWE04	"	LEFT SLIDER HOUSING WELDMENT
9	-	12ERWE07	"	RIGHT SQUARE SLIDER HOUSING
10	-	10WR34	"	ASSY, SLIDE ARM
*	8ERWE08	-	-	MAIN BEAM ARM LH
*	8ERWE07	-	-	MAIN BEAM ARM RH
11	10WR6	"	"	RAKE BEAM PIN
12	12ERWE06	"	"	12ER RIGHT INTERMEDIATE LINKAGE
13	12ERWE05	"	"	12ER LEFT INTERMEDIATE LINKAGE
14	10ERAS01	"	"	ARM SLIDER PIN ASSEMBLY
15	YBHH10080	"	"	5/16"-18 x 2-1/2" GR. 5
16	YNTL10005	"	"	NUT, 5/16" TOP LOCK
17	59235	"	"	VALVE, BALL, 3/8" HIGH PRESSURE
18	CHM202	"	"	3/8" MALE NPT TO 06 MALE 90 ELBOW
19	16SV351	"	"	3/8" NIPPLE
20	"	58144	"	FITTING 6 XHX7-S .062 ORIFICE
21	CHM164	"	"	MALE ELBOW CTX ~ 6-6 CTX
22	CHM207	"	"	06 TO 3/4"-16 ORB STRT FITTING
23	RG21	"	"	1/4"-28 45° ZERK
24	G89	"	"	1/4" x 28 STRAIGHT GREASE ZERK
25	BFR33	"	"	WASHER
26	CHM277	"	"	3/8" COVER PLATE
27	YBHH10010	"	"	BOLT, 5/16" X 1" GR. 5
28	DWM205	"	"	MALE QUICK COUPLER 1/2"
29	10ERMS04	"	12ERMS01	HOSE, TRACTOR
30	1059	"	"	CYLINDER, ACTION REPHASE
31	1076	"	"	TEE, 1/2" ORB TO 3/8" JIC
32	56015	"	"	HYD. CYLINDER, 2" X 16"
33	10WR7	"	"	RAKE ARM PIN
34	CHM278	"	"	3/8" DOUBLE HOSE CUSHIONS
35	8735	"	"	SEQUENCE VALVE
36	56611	"	"	CYLINDER, ACTION REPHASE
*	56975	"	"	SEAL KIT

**NOTE: " MEANS SAME AS PREVIOUS MODEL**  
**- MEANS NOT USED ON THIS MODEL**  
**\* MEANS NOT SHOWN**

**FIGURE 4**  
**OPTIONAL KICKER WHEELS**



## **FIGURE 4**

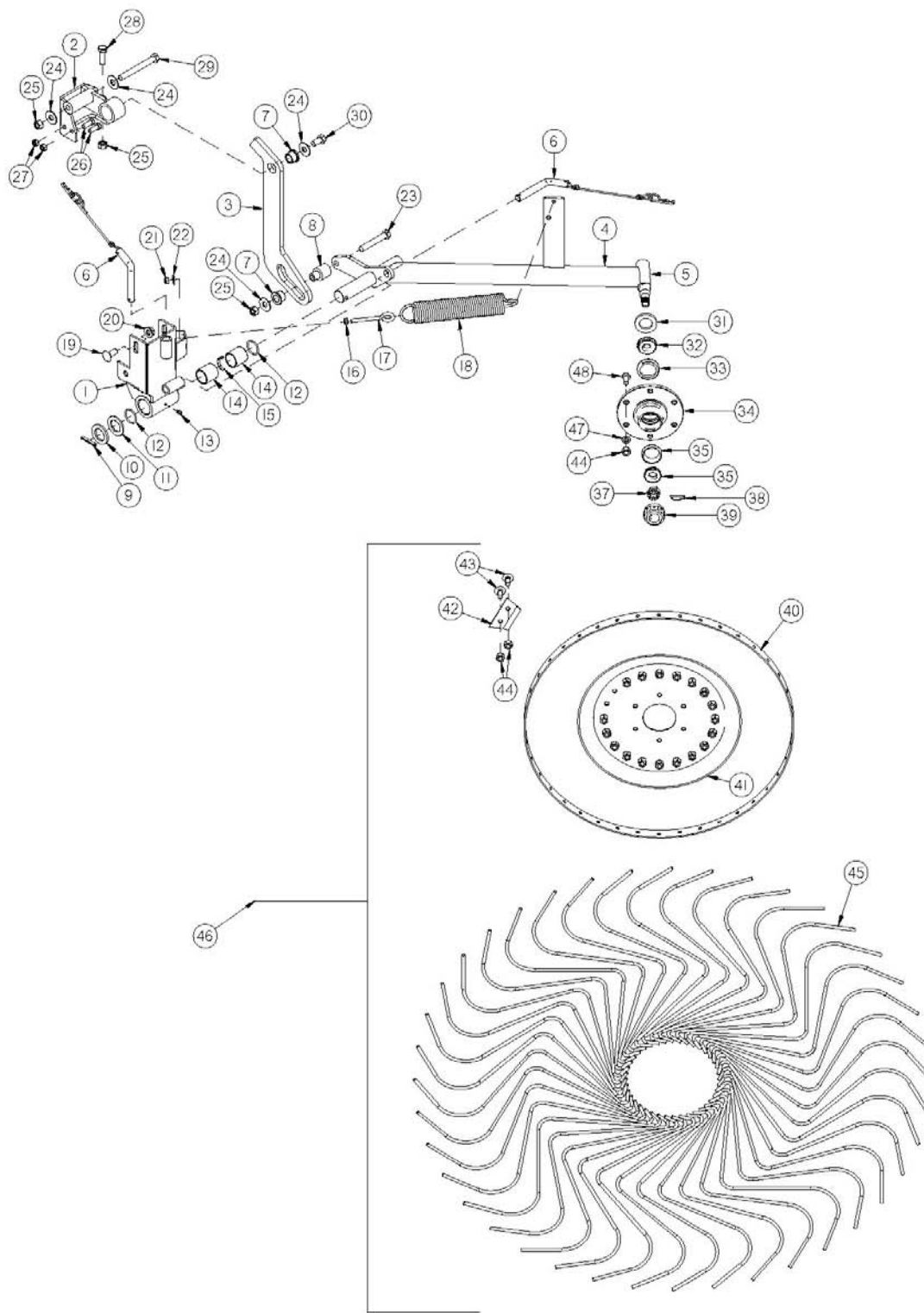
### **OPTIONAL KICKER WHEELS**

<b><u>PART #</u></b>			
<b><u>ITEM</u></b>	<b><u>10 WHEEL</u></b>	<b><u>12 WHEEL</u></b>	<b><u>DESCRIPTION</u></b>
1	0240WE04	"	KICKER MOUNT WELD
2	0240WE07	"	KICKER STOP WELDMENT
3	0240HF03	"	KICKER LEVER LINK FRAME PIVOT
4	0240WE03	"	KICKER ARM WELD
5	BFR36	"	RAKE WHEEL SPINDLE
6	10ERAS08	"	CANE PIN ASSEMBLY
7	8579	"	POLY PIVOT BEARING
8	0240TU04	"	KICKER PIVOT SPACER LOWER
9	YPEX10015	"	EXPANSION PIN, 5/16" X 1-3/4"
10	BFR229	"	WASHER
11	BFR221	"	POLY WASHER
12	S99	"	KICKER O RING
13	G89	"	1/4" X 28 GREASE ZERK
14	G16	"	BRONZE BUSHING 1-1/2" OD X 1-1/4" ID X 1.5"
15	BFR230	"	BEARING SPACER
16	YNHX10005	"	HEX NUT, 5/16"
17	YBTE10030	"	TURNTD EYE BOLT, 5/16" X 3"
18	BFR110	"	SPRING
19	YBCR16015	"	CARR. BOLT, 1/2" X 1-1/4" GR. 5
20	YNSF16005	"	HEX NUT, SERRATED FLANGE, 1/2-13"
21	YNNY10005	"	HEX NUT, NYLON LOCKNUT, 5/16"-18
22	YWFL10005	"	WASHER, FLAT, 5/16" USS
23	YBHH16120	"	BOLT, 1/2" X 3-1/4" GR. 5
24	YWFL16005	"	WASHER, FLAT, 1/2" USS

**NOTE: " MEANS SAME AS PREVIOUS MODEL**

# FIGURE 4

## OPTIONAL KICKER WHEELS



## **FIGURE 4**

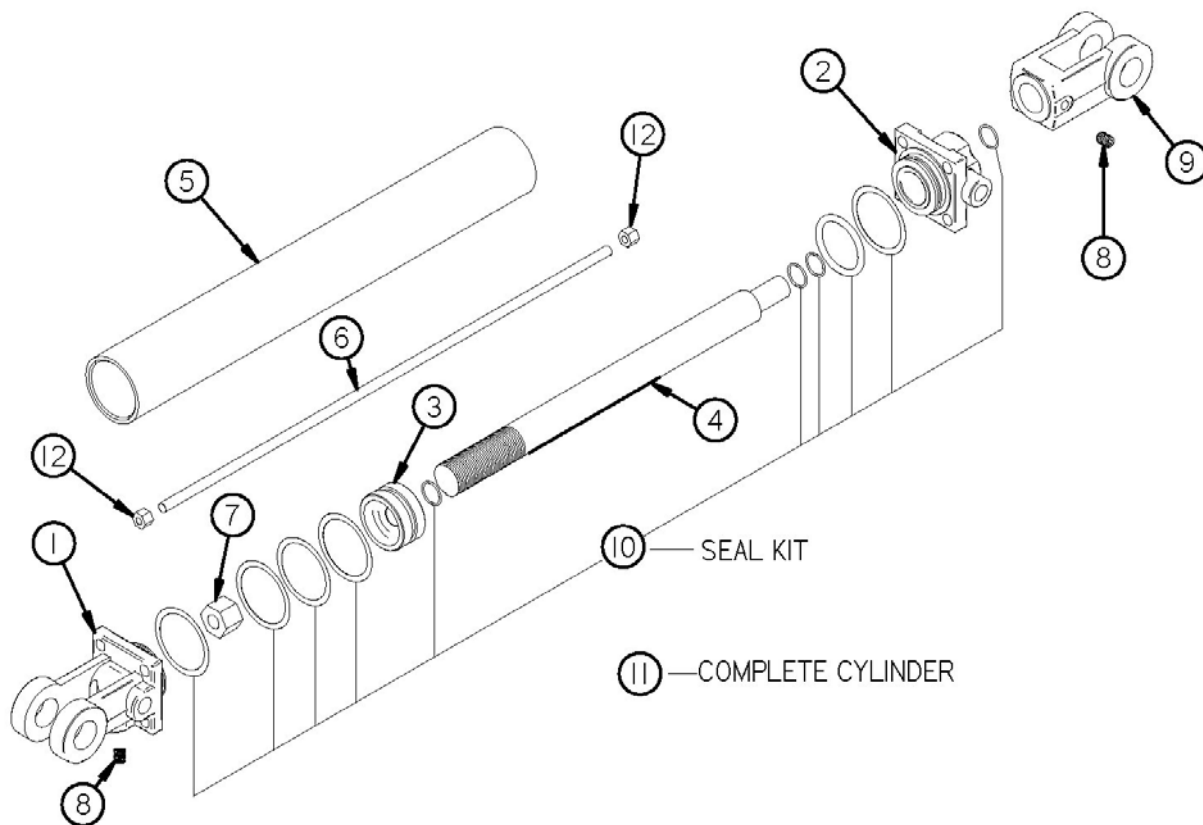
### **OPTIONAL KICKER WHEELS**

<b><u>PART #</u></b>			
<b><u>ITEM</u></b>	<b><u>10 WHEEL</u></b>	<b><u>12 WHEEL</u></b>	<b><u>DESCRIPTION</u></b>
25	YNRL16005	"	HEX NUT, REVERSIBLE-SIDE LOCK, 1/2"-13
26	YBHH12010	"	BOLT, 3/8" X 1" GR. 5
27	YNRL12005	"	HEX NUT, REVERSIBLE-SIDE LOCK, 3/8"-16
28	YBHH16030	"	BOLT, 1/2" X 1-1/2" GR. 5
29	YBHH16140	"	BOLT, 1/2" X 4-1/2" GR. 5
30	YBHH16010	"	BOLT, 1/2" X 1" GR. 5
31	T163	"	SEALING WASHER
32	600012	"	INNER BEARING RACE
33	600012	"	INNER BEARING RACE
34	BFR32	"	HUB WITH RACES
35	600014	"	OUTER BEARING RACE
36	600014	"	OUTER BEARING RACE
37	T172	"	1-1/2" X 18MM CASTLE NUT
38	1088	"	RETAINING CLIP
39	T173	"	HUB CAP
40	T177A	"	RAKE WHEEL BAND
41	T179	"	RAKE WHEEL DISH
42	T178	"	TOOTH CLIP
43	YBCR76005	"	CARR. BOLT, 10MM X 25MM
44	YNHX76015	"	HEX NUT, M10-1.5
45	10WR42	"	RAKE WHEEL TOOTH
46	10WR17	"	LH RAKE WHEEL COMPLETE
47	YWLO76015	"	WASHER, LOCK, M10
48	YBHH76015	"	BOLT, M10-1.5 (25MM)

**NOTE: " MEANS SAME AS PREVIOUS MODEL**

## **FIGURE 5**

### **HYDRAULIC CYLINDER**



<b><u>ITEM</u></b>	<b><u>PART #</u></b>			<b><u>DESCRIPTION</u></b>
	<b><u>8 WHEEL</u></b>	<b><u>10 WHEEL</u></b>	<b><u>12 WHEEL</u></b>	
1	23N142A	"	"	CLEVIS CAP
2	56174	"	"	ROD CAP
3	56180	"	"	PISTON
4	23N145A	"	"	ROD
5	23N146	"	"	CYLINDER TUBE
6	23N147	"	"	TIE ROD
7	23N148	"	"	PISTON NUT
8	23N149	"	"	PLUG
9	23N150A	"	"	ROD CLEVIS
10	56187	"	"	SEAL KIT
11	56015	"	"	COMPLETE HYDRAULIC CYLINDER
12	YNHX12005	"	"	HEX NUT, 3/8"-16

**NOTE: " MEANS SAME AS PREVIOUS MODEL**



[illegible]

[illegible]



# H&S MFG. CO.

products approved

for the

## FEMA

## SEAL OF QUALITY

