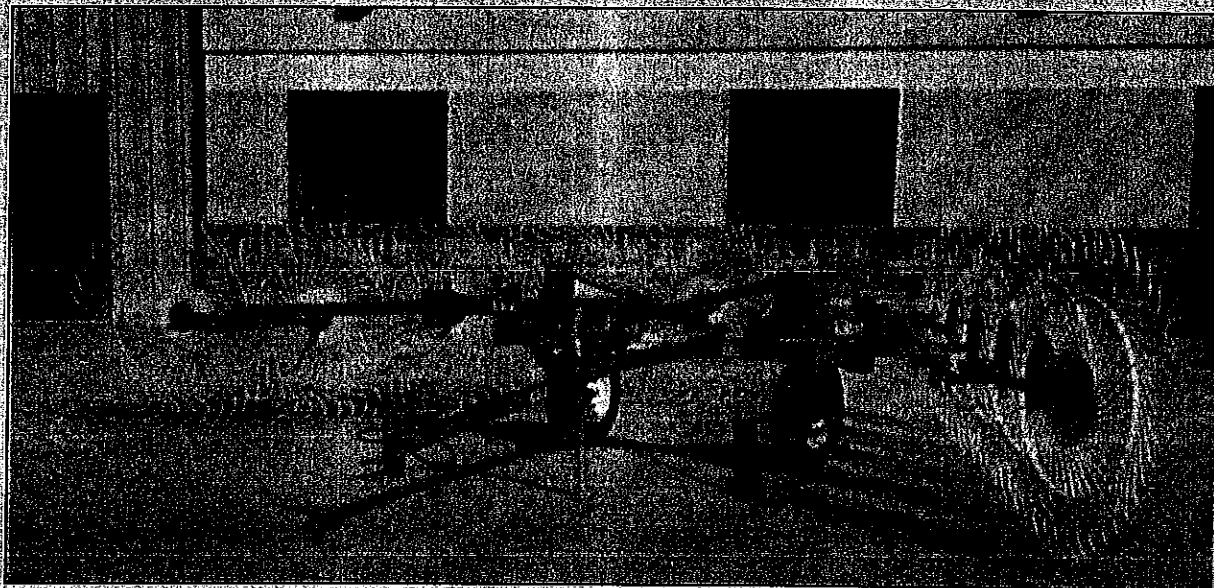


H&S

V-RAKES

V-8 V-10 V-12



WARNING

READ AND UNDERSTAND THIS MANUAL BEFORE
OPERATING THIS EQUIPMENT.

UNSAFE OPERATION OR MAINTENANCE OF THIS EQUIPMENT CAN RESULT IN SERIOUS
INJURY OR DEATH.

OPERATOR'S MANUAL

and

PARTS LIST

10-4-2008

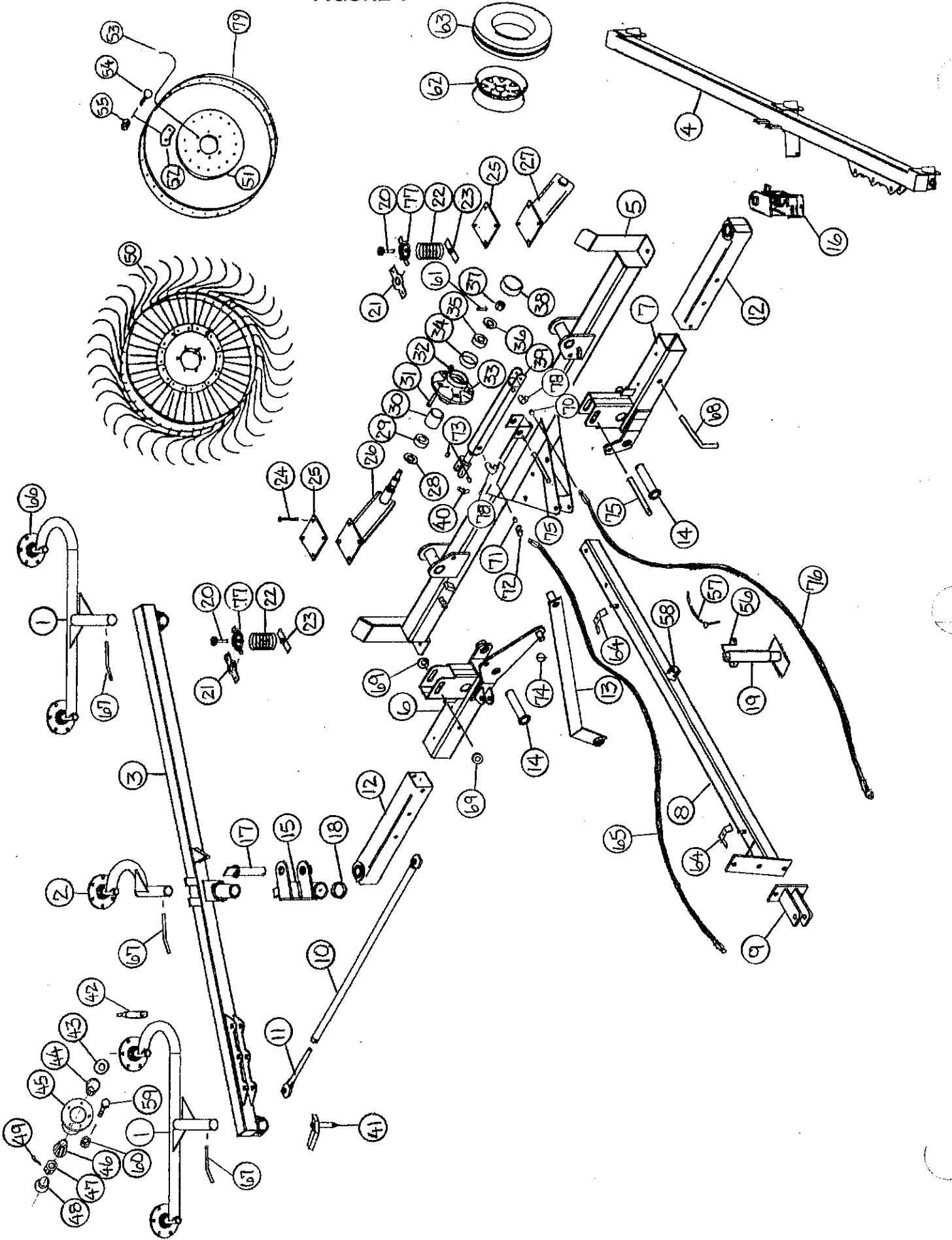
Manufactured By

H&S MANUFACTURING CO., INC.

P.O. BOX 768 • (715) 387-3414 FAX (715) 384-5463

MARSHFIELD, WISCONSIN 54449

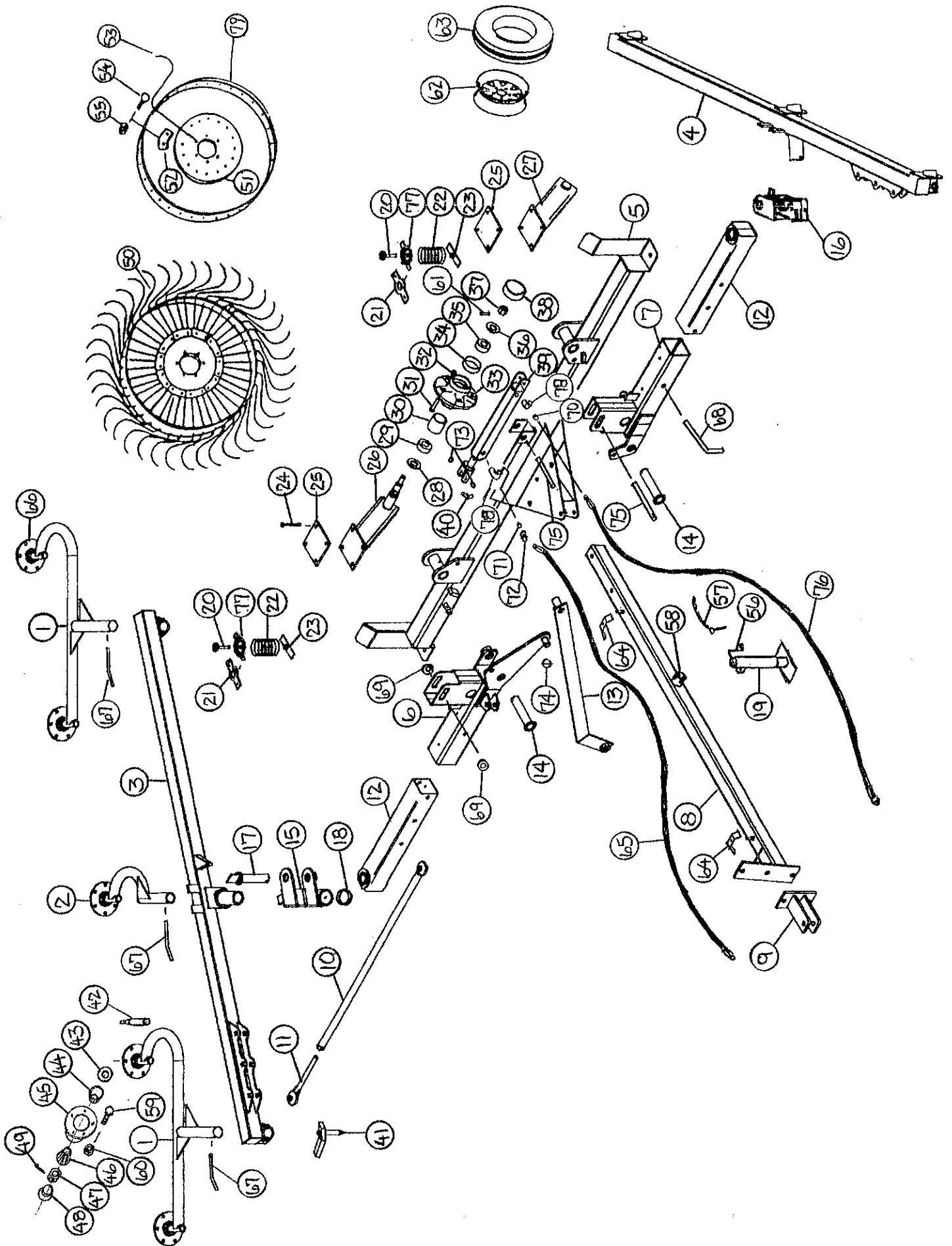
FIGURE 1



**FIGURE 1
H&S V-RAKES**

ITEM	PART NUMBERS / RAKE SIZE			DESCRIPTION
	8WR	10WR	12WR	
1.	10WR22	"	"	Rake Arm
2.	—	10WR23	—	Single Rake Arm
3.	8WR1	10WR24	12WR2	Right Rake Beam
4.	8WR2	10WR25	12WR3	Left Rake Beam
5.	8WR9	10WR26	12WR4	Main Frame
6.	8WR7	10WR27	"	Right Lifter Arm
7.	8WR6	10WR28	"	Left Pivot Arm Housing
8.	10WR29	"	"	Pole
9.	10WR30	"	"	Hitch
10.	8WR8	10WR31	"	Link Rod
11.	10WR9	"	"	Adjusting Rod
12.	8WR5	10WR34	"	Slide Arm
13.	10WR35	"	12WR5	Lifting Linkage
14.	10WR7	"	"	Rake Arm Pins
15.	10WR36	"	"	Right Pivot Bracket
16.	10WR37	"	"	Left Pivot Bracket
17.	10WR6	"	"	Rake Beam Pin
18.	10WR8	"	"	Pivot Thrust Washer
19.	BFR223	"	"	Jack
20.	10WR16	"	"	Spring Adjustment
21.	10WR46	"	"	Spring Bottom
22.	10WR47	"	12WR1	Spring
23.	10WR3	"	"	Spring Clamp
24.	16SV77	"	"	Bolt 1/2" x 6" GR.5
25.	—	—	10WR38	Axle Plate
26.	10WR32	"	"	Right Axle
27.	10WR33	"	"	Left Axle
28.	CAT5	"	"	Seal
29.	CAT6	"	"	Inner Bearing
30.	CAT7	"	"	Inner Race
31.	CAT128A	"	"	Hub Stud
32.	CAT14	"	"	Hub Nut
33.	10WR49	"	"	Ground Wheel Hub
34.	CAT9	"	"	Outer Race
35.	CAT10	"	"	Outer Bearing
36.	BFR63	"	"	Washer
37.	T35	"	"	Nut
38.	CAT13	"	"	Hub Cap
39.	10WR11A	"	"	Cylinder 2-1/2" x 16"
40.	10WR4	"	"	Transport Pins
41.	10WR5	"	"	Slide Lock Pin
42.	BFR36	"	"	Spindle
43.	T163	"	"	Seal

FIGURE 1



**FIGURE 1
H&S V-RAKES**

ITEM	PART NUMBERS / RAKE SIZE			DESCRIPTION
	8WR	10WR	12WR	
44.	T164	"	"	Inner Bearing
*	T165	"	"	Inner Race
45.	BFR32	"	"	Rake Wheel Hub
46.	T170	"	"	Outer Bearing
*	T171	"	"	Outer Race
47.	T172	"	"	Nut
48.	T173	"	"	Hub Cap
49.	T169	"	"	Cotter Pin
50.	BFR31	"	"	RH Rake Wheel
*	T174	"	"	LH Rake Wheel
51.	T179	"	"	Rake Wheel Center
52.	T178	"	"	Rake Tooth Clip
53.	T176	"	"	Rake Wheel Tooth
54.	T175	"	"	10MM x 25MM Carriage Bolt
55.	T166	"	"	10MM Nut
56.	BFR3	"	"	Jack Handle
57.	BFR4	"	"	Jack Pin & Chain
58.	12N14	"	"	Jack Mount
59.	T168	"	"	10MM x 25MM Bolt
60.	T166	"	"	10MM Nut
61.	T37	"	"	Cotter Pin
62.	CAT195	"	"	Wheel 13 x 4.5
63.	CAT198	"	"	Tire ST175 x 80D13
64.	23N67	"	"	Hose Holder
65.	10WR10	"	"	Hose 3/8" x 145"
66.	BFR76	"	"	Hub - Complete
67.	10WR13	"	"	Pin 3"
68.	10WR14	"	"	Pin 5"
69.	16SV136	"	"	Washer
70.	BFR70	"	"	Vent Plug
71.	BFR120	"	"	Orifice
72.	BFR122	"	"	Male Adapter Union
*	BFR617	"	"	Adapter Union & Orifice
73.	BFR33	"	"	Washer
74.	F56	"	"	Lynch Pin
75.	LW55	"	"	Pin
77.	10WR15	"	"	Spring Holder
OPTIONAL DOUBLE ACTING CYLINDER:				
76.	10WR10	"	"	Hose 3/8" X 145"
78.	—	—	23N234	90° Street Elbow
79.	T177	"	"	Outer Ring

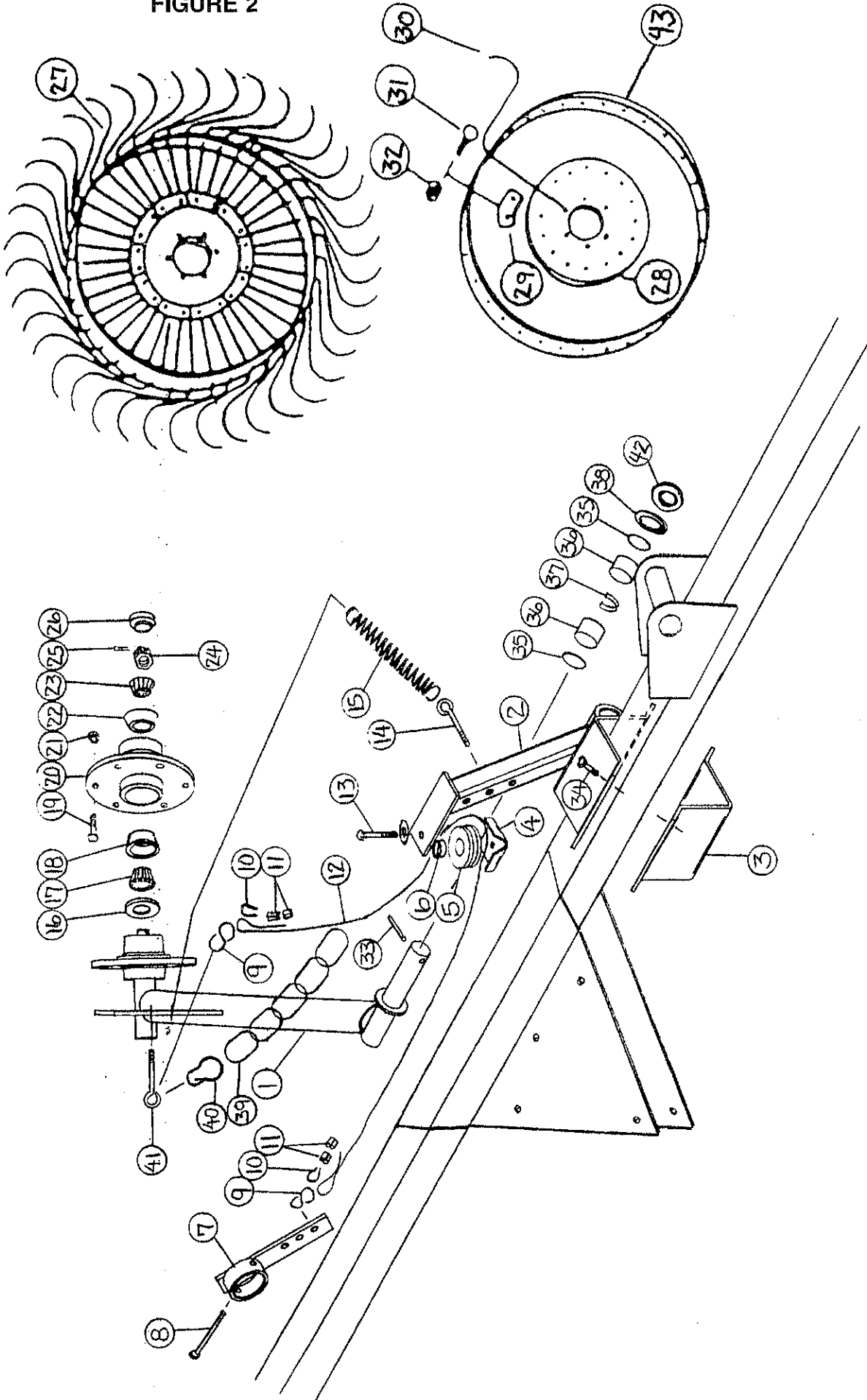
NOTE: #70 Vent Plug Not Used on Double Acting Cylinder

NOTE: * (Means Not Shown)

— (Means Not Used on This Model)

" (Means Same Part No. as Preceding Model)

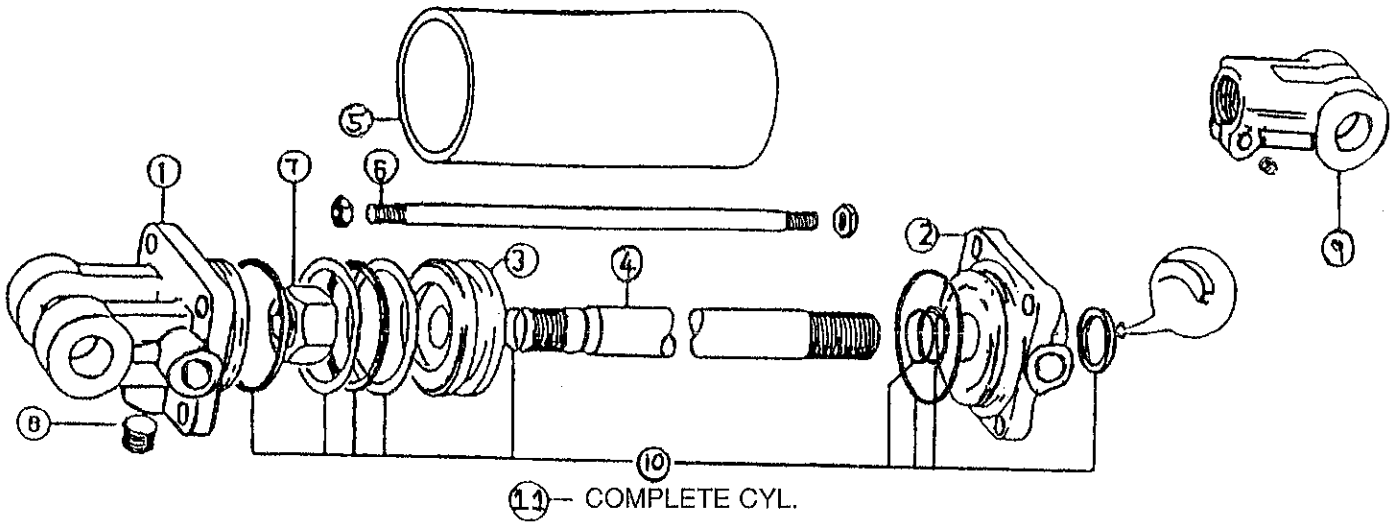
FIGURE 2



**FIGURE 2
H&S V-RAKES
OPTIONAL KICKER WHEEL**

ITEM	10WR	12WR	DESCRIPTION
1.	10WR41	"	Kicker Arm
2.	10WR39	"	Mounting Bracket Top
3.	10WR20	"	Mount
4.	10WR19	"	Pulley Mount
5.	BFR292	"	Poly Pulley
6.	ST81	"	Spacer
7.	10WR40	"	Pivot Mount
8.	10WR18	"	Bolt 5/16" x 3" GR.5
9.	F87	"	"S" Hook
10.	ES14	"	Cable Protector
11.	ES5	"	Crimp On Clamp
12.	12WR6	"	Cable (57")
13.	T19	"	Bolt 3/8" x 2" GR.5
14.	ES10	"	I-Bolt (5/16" x 4" Overall)
15.	BFR110	"	Spring
16.	T163	"	Seal
17.	T164	"	Inner Bearing
18.	T165	"	Inner Race
19.	T168	"	Hub Bolt
20.	BFR32	"	Hub
21.	T166	"	Hub Nut
22.	T171	"	Outer Race
23.	T170	"	Outer Bearing
24.	T172	"	Nut
25.	T169	"	Cotter Pin
26.	T173	"	Hub Cap
27.	10WR17	"	48" Kicker Wheel
28.	T179	"	Rake Wheel Center
29.	T178	"	Rake Tooth Clip
30.	10WR42	"	Rake Wheel Tooth
31.	T168	"	Bolt 10MM x 25MM
32.	T166	"	10MM Lock Nut
33.	3G22	"	Roll Pin
34.	12V45	"	Bolt 1/2" x 1-1/2" GR.5
35.	S99	"	"O" Ring
36.	G16	"	Bronze Bushing
37.	BFR230	"	Bearing Spacer
38.	BFR221	"	Poly Washer
39.	10WR44	"	Chain - 5 Links
40.	BFR295	"	Snap Hook
41.	10WR43	"	3/8" x 1" I-Bolt
42.	BFR229	"	Washer
43.	T177	"	Outer Ring

NOTE " (Means Same Part No. as Preceding Model)



**FIGURE 3
H&S V-RAKES**

PART NUMBERS / RAKE SIZE

ITEM	8WR	10WR	12WR	DESCRIPTION
1.	T181A	"	"	Clevis Cap
2.	T182A	"	"	Rod Cap
3.	T183	"	"	Piston
4.	23N145A	"	"	Rod
5.	10WR45	"	"	Cylinder Tube
6.	23N147	"	"	Tie Rod
7.	23N148	"	"	Piston Nut
8.	23N149	"	"	Plug
9.	23N150A	"	"	Rod Clevis
10.	T187	"	"	Seal Kit
11.	10WR11A	"	"	Complete Hydraulic Cylinder

NOTE: " (Means Same Part No. as Preceding Model)