

# 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 him with the following:

1. Model & Serial Number - Both can be located on the front main frame cross tubing, left side of hitch.
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)

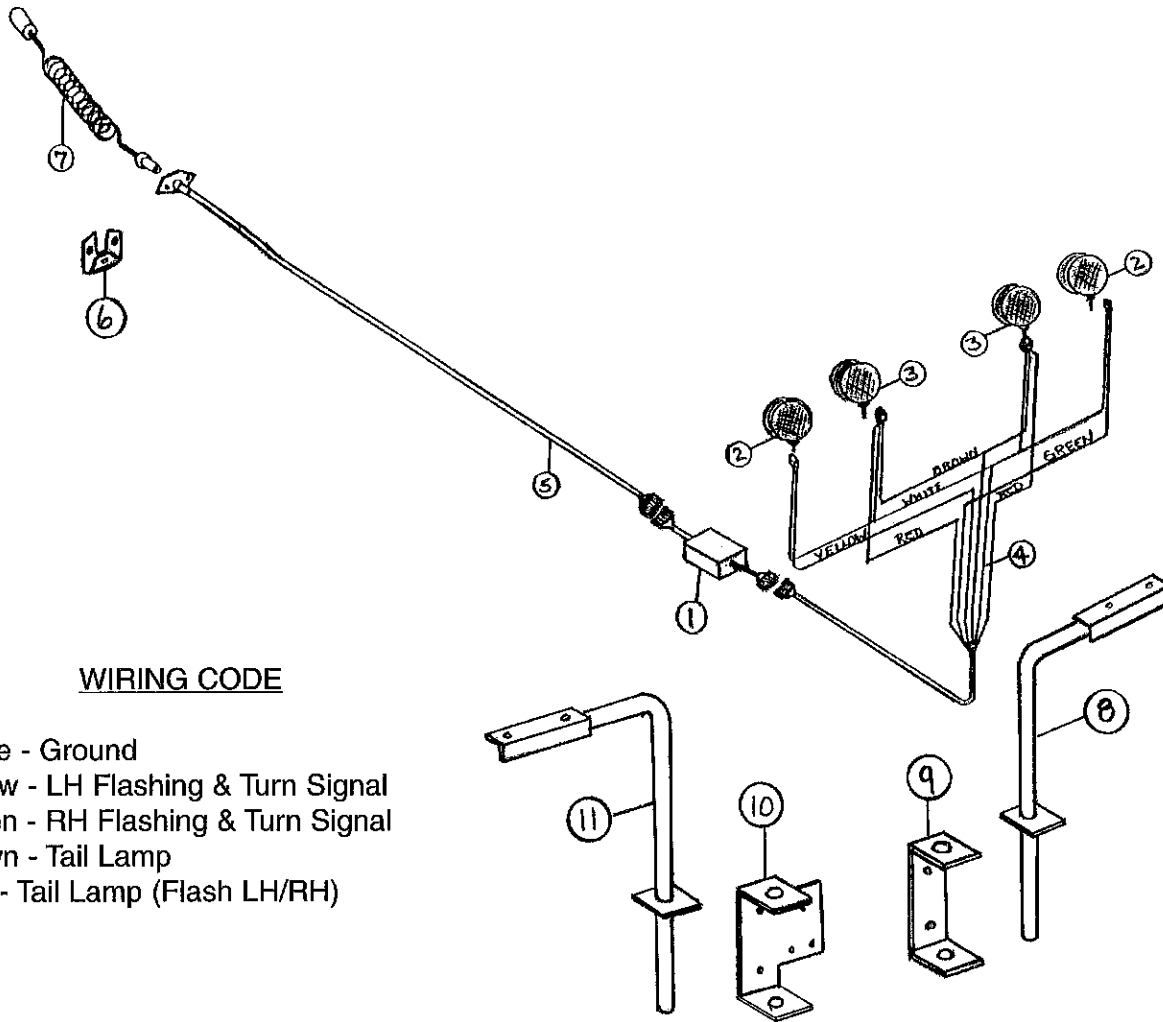
<b>H&amp;S MFG. CO. INC.</b>	
MARSHFIELD, WIS.	
MOD. NO.	<input type="text"/>
SER. NO.	<input type="text"/>
DESCR.	<input type="text"/>

PLEASE RECORD NUMBERS FOR YOUR UNIT FOR QUICK REFERENCE

## ABOUT IMPROVEMENTS

H&S IS CONTINUALLY STRIVING TO IMPROVE ITS' 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.



**WIRING CODE**

White - Ground  
 Yellow - LH Flashing & Turn Signal  
 Green - RH Flashing & Turn Signal  
 Brown - Tail Lamp  
 Red - Tail Lamp (Flash LH/RH)

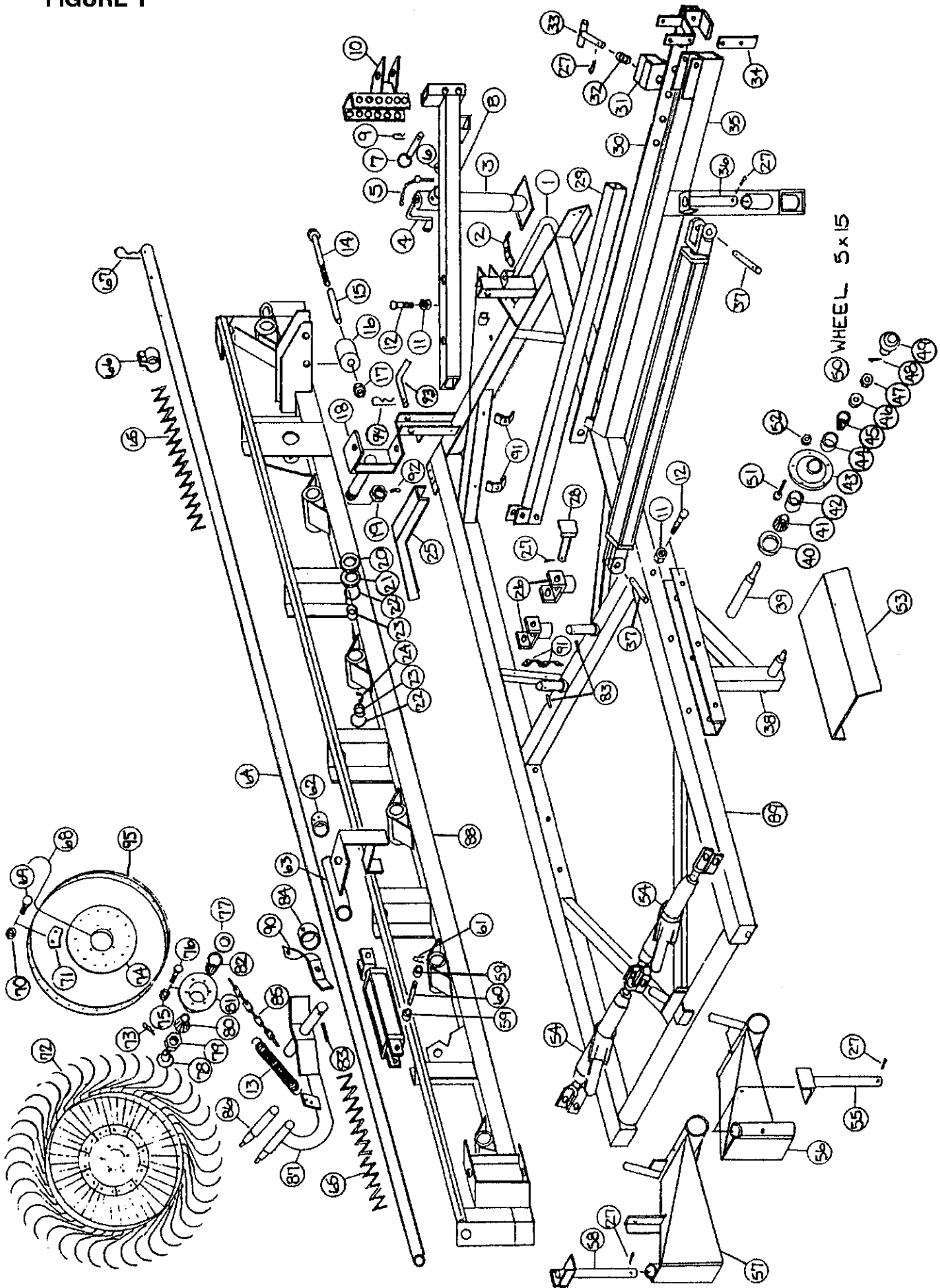
**OPTIONAL RAKE LIGHTING DIAGRAM**

ITEM	PART NO.	DESCRIPTION
1.	S441	Light Module
2.	DWM129	Amber Light
3.	BFR675	Red Light
4.	BFR695	Light Harness (6 WIRE)
5.	BFR687	8 Wheel Light Harness
*	BFR688	12 Wheel Light Harness
*	BFR669	16 Wheel Light Harness
6.	BFR659	Mounting Bracket
7.	S317	Optional Tractor Cord
8.	BFR686	Right Rear Light Arm
9.	BFR683	Mounting Bracket RH
10.	BFR684	Mounting Bracket LH
11.	BFR685	Left Rear Light Arm
*	BFR690	8 Wheel Deluxe Comp. Light Harness Less Optional Tractor Cord
*	BFR691	12 Wheel Deluxe Comp. Light Harness Less Optional Tractor Cord
*	BFR692	16 Wheel Deluxe Comp. Light Harness Less Optional Tractor Cord

**NOTE:** \* (Means Not Shown)



FIGURE 1

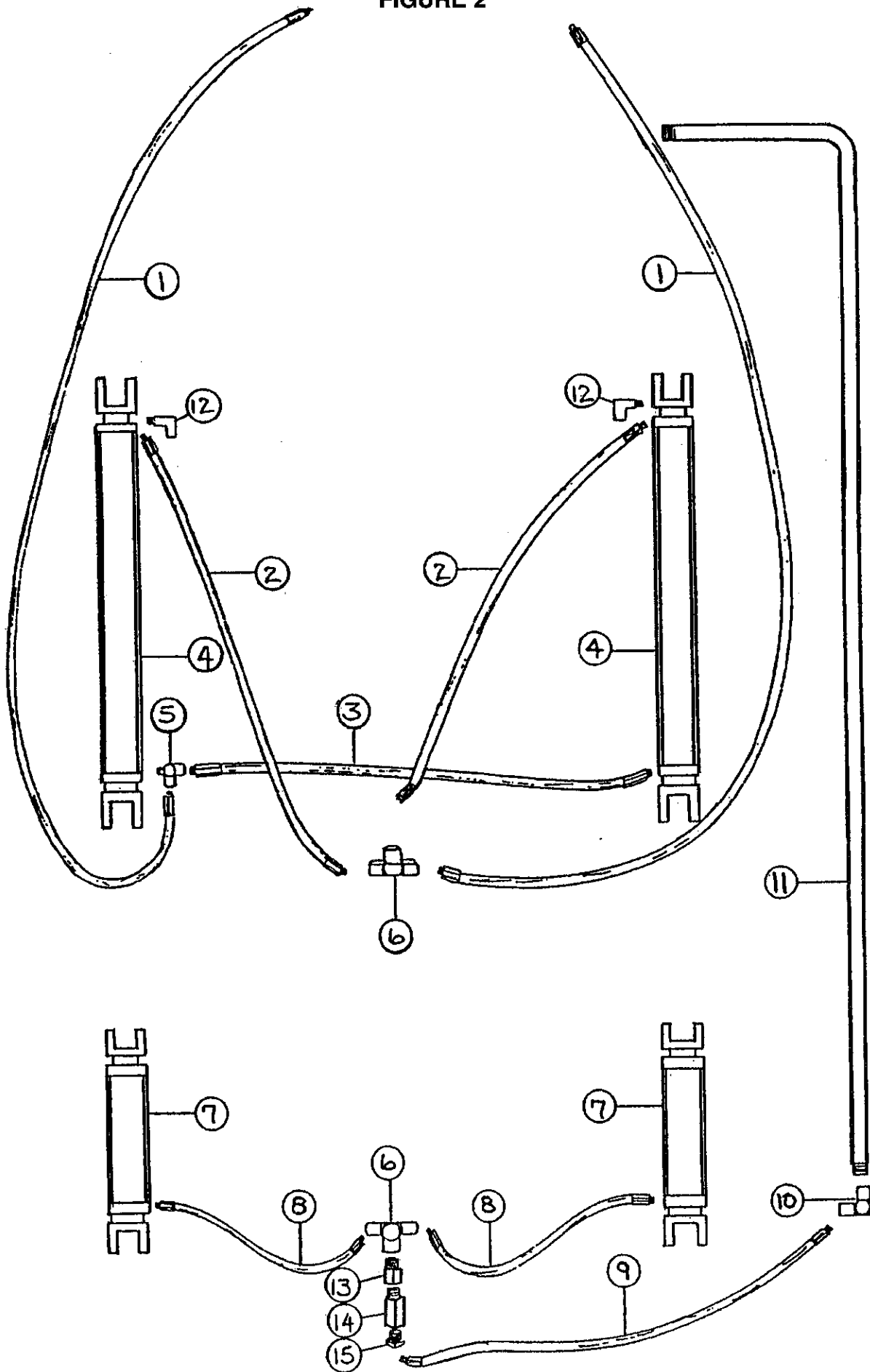


**FIGURE 1**  
**H&S 12 WHEEL DELUXE BI-FOLD RAKE**  
**MAIN FRAME**

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	BFR222	Hydraulic Pipe	51.	BFR143	Stud Bolt
2.	23N67	Hose Clamp	52.	BFR144	Nut
3.	12N11	Jack	53.	BFR134	Fender RH
4.	12N12	Jack Handle	*	BFR135	Fender LH
5.	12N13	Jack Pin & Chain	54.	T138	Ratchet Jack
6.	12N14	Jack Mount	*	T139	Ratchet Jack Handle
7.	BFR5	Hitch Pin	*	T140	Ratchet Jack Pawl
8.	BFR676	Pole	*	T141	Ratchet Jack Spring
9.	BFR7	Hair Pin	55.	BFR248	RH Hinge Pin
10.	BFR129	Hitch	56.	BFR249	RH Beam Hinge
11.	HE7	Lock Nut	57.	BFR250	LH Beam Hinge
12.	HE6	3/4" x 4-1/2" Bolt GR.5	58.	BFR251	LH Hinge Pin
13.	BFR138	Spring	59.	BFR47	Spacer
14.	BFR224	1/2" x 4-1/2" Bolt GR.5	60.	T143	Hydraulic Cylinder Pin
15.	BFR225	Roller Axle	61.	T144	Clip Pin
16.	BFR226	Poly Roller	62.	BFR83	Hydraulic Lift Clamp
17.	R29	1/2" Nut	63.	BFR39	LH Hydraulic Lift Bracket
18.	BFR227	Front Yoke	*	BFR40	RH Hydraulic Lift Bracket
19.	BFR228	1-1/4" Slotted Nut	64.	BFR130	Lifting Pipe
20.	BFR229	Steel Washer	65.	BFR84	Compression Spring
21.	BFR221	Poly Washer	66.	BFR34	Pipe Clamp
22.	S99	"O" Ring	67.	BFR694	Hair Pin
23.	G16	Bushing	68.	T176	Rake Wheel Tooth
24.	BFR230	Spacer	69.	T175	10mm x 25mm Carriage Bolt
25.	BFR231	Ramp LH	70.	BFR652	10mm Lock Nut
*	BFR232	Ramp RH	71.	T178	Rake Tooth Clip
26.	BFR233	Back Cylinder Mount	72.	T174	LH Rake Wheel
27.	T72	5/32" x 1-1/2" Center Pin	*	BFR31	RH Rake Wheel
28.	BFR234	Back Cylinder Pin	73.	T169	Cotter Pin
29.	BFR235	RH Inner Sleeve	74.	T179	Rake Wheel Center
*	BFR236	LH Inner Sleeve	75.	T166	10mm Nut
30.	BFR237	Sleeve Adjustable Bar RH	76.	T168	10mm x 25mm Bolt
*	BFR238	Sleeve Adjustable Bar LH	77.	T163	Seal
31.	BFR239	Sleeve Adjustable Lock	78.	T173	Hub Cap
32.	BFR240	Spring	79.	T172	Nut
33.	BFR241	Adjustment Handle	80.	T170	Outer Bearing
34.	BFR242	Cylinder Holder Clamp	*	T171	Outer Race
35.	BFR680	RH Outer Sleeve	81.	BFR32	Rake Wheel Hub
*	BFR681	LH Outer Sleeve	82.	T164	Inner Bearing
36.	BFR245	Outer Sleeve Pin	*	T165	Inner Race
37.	BFR246	Cylinder Pin	83.	3G22	Roll Pin
38.	BFR141	RH Axle Assembly	84.	BFR82	Pipe Clamp
*	BFR142	LH Axle Assembly	85.	BFR140	Chain
39.	BFR56	Spindle	86.	BFR36	Rake Wheel Spindle
40.	BFR57	Seal	87.	BFR265A	Rake Arm LH
41.	BFR58	Inner Bearing	*	BFR266A	Rake Arm RH
42.	BFR59	Inner Race	88.	BFR252	Rake Beam LH
43.	BFR60	Hub	*	BFR253	Rake Beam RH
44.	BFR61	Outer Race	89.	BFR254	Main Frame
45.	BFR62	Outer Bearing	90.	BFR255	Spring Bracket LH
46.	BFR63	Washer	*	BFR256	Spring Bracket RH
47.	BFR64	Nut	91.	BFR257	Hose Clamp
48.	BFR65	Cotter Pin	92.	T56	5/32" x 2" Cotter Pin
49.	BFR66	Hub Cap	93.	BFR158	Lock Pin
50.	BFR67	Wheel 5 x 15	94.	ES7	Hair Pin
			95.	T177	Outer Ring

**NOTE: \*** (Means Not Shown)

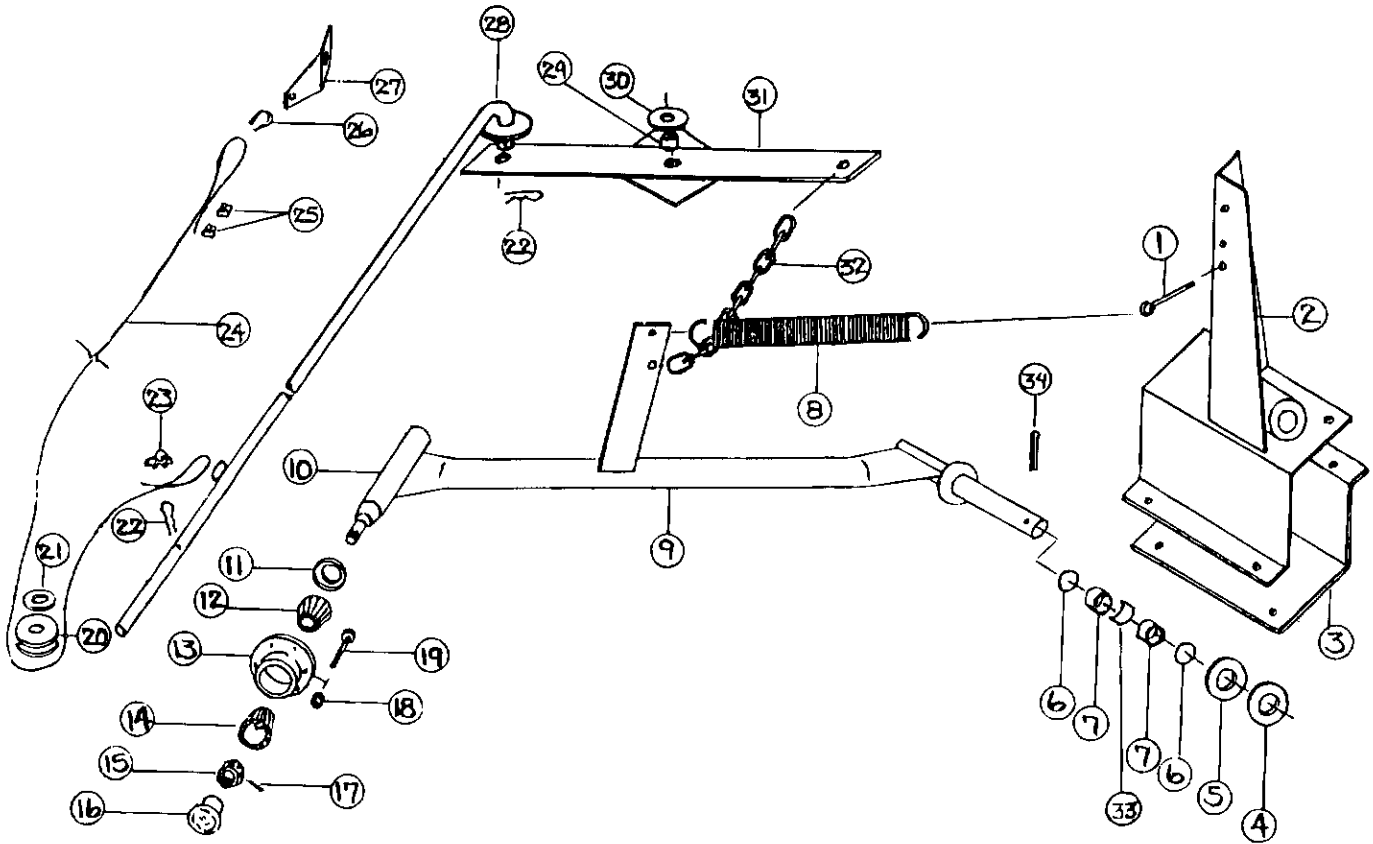
FIGURE 2



**FIGURE 2**  
**H&S 12 WHEEL DELUXE BI-FOLD RAKE**  
**HYDRAULICS**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1.	BFR284	96" Hydraulic Hose
2.	BFR285	72" Hydraulic Hose
3.	BFR286	30" Hydraulic Hose
4.	BFR288A	Hydraulic Open Cylinders 48"
5.	23N116	Tee
6.	BFR74	3/8" Female Tee
7.	BFR69A	Hydraulic Lift Cylinders
8.	BFR46	48" Hydraulic Hose
9.	BFR287	36" Hydraulic Hose
10.	HE59	3/8" Female Elbow
11.	BFR222	Hydraulic Pipe
12.	23N234	3/8" Street Elbow
13.	BFR555	Adapter
14.	BFR554	Flow Valve
15.	JB82	Bushing 3/8" to 1/2"

FIGURE 3



H&S 12 WHEEL DELUXE BI-FOLD RAKE  
KICKER WHEEL

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	ES10	"I" Bolt	17.	T169	Cotter Pin
2.	BFR214	Lift Tower	18.	T166	10mm Nut
3.	BFR113	Bottom Bracket	19.	T168	10mm x 25mm Bolt
4.	BFR229	Steel Washer	20.	BFR292	Poly Pulley
5.	BFR221	Poly Washer	21.	T73	Washer
6.	S99	"O" Ring	22.	ES7	Hair Pin
7.	G16	Bushing	23.	BFR220	Cable Clamp
8.	BFR138	Spring	24.	BFR219	Cable
9.	BFR215	Kicker Arm	25.	ES15	Sleeve
10.	BFR36	Spindle	26.	ES14	Thimble
11.	T163	Seal	27.	BFR281	Cable End Bracket
12.	T164	Inner Bearing	28.	BFR218	Lifting Rod
*	T165	Inner Race	29.	BFR282	Bell Crank Spacer
13.	BFR32	Rake Wheel Hub	30.	BFR217	Bell Crank Washer
14.	T170	Outer Bearing	31.	BFR216	Bell Crank
*	T171	Outer Race	32.	BFR140	Kicker Arm Chain
15.	T172	Nut	33.	BFR230	Spacer
16.	T173	Hub Cap	34.	3G22	Roll Pin
		<b>NOTE: *</b> (Means Not Shown)	*	BFR31	Rake Wheel RH



**FIGURE 4**  
**H&S 12 WHEEL DELUXE BI-FOLD RAKE**  
**CASTER WHEEL**

ITEM	PART NO.	DESCRIPTION
1.	BFR179	Washer
2.	BFR625	Bronze Bushing
3.	BFR267	Brake Pad
4.	BFR268	Brake
5.	BFR269	Bronze Washer
6.	F26	Roll Pin
7.	BFR270	Complete Fork
8.	BFR271	1" Nylon Lock Nut
9.	BFR272A	Spacer
10.	BFR273	Seal
11.	BFR274	Bearing
12.	BFR275	Race
13.	BFR276	Hub
14.	BFR277	Tire
15.	BFR278A	Spacer
16.	BFR279	Axle Shaft
17.	BFR280A	<del>Wheel</del> Rim
18.	BFR325	Lug Bolt

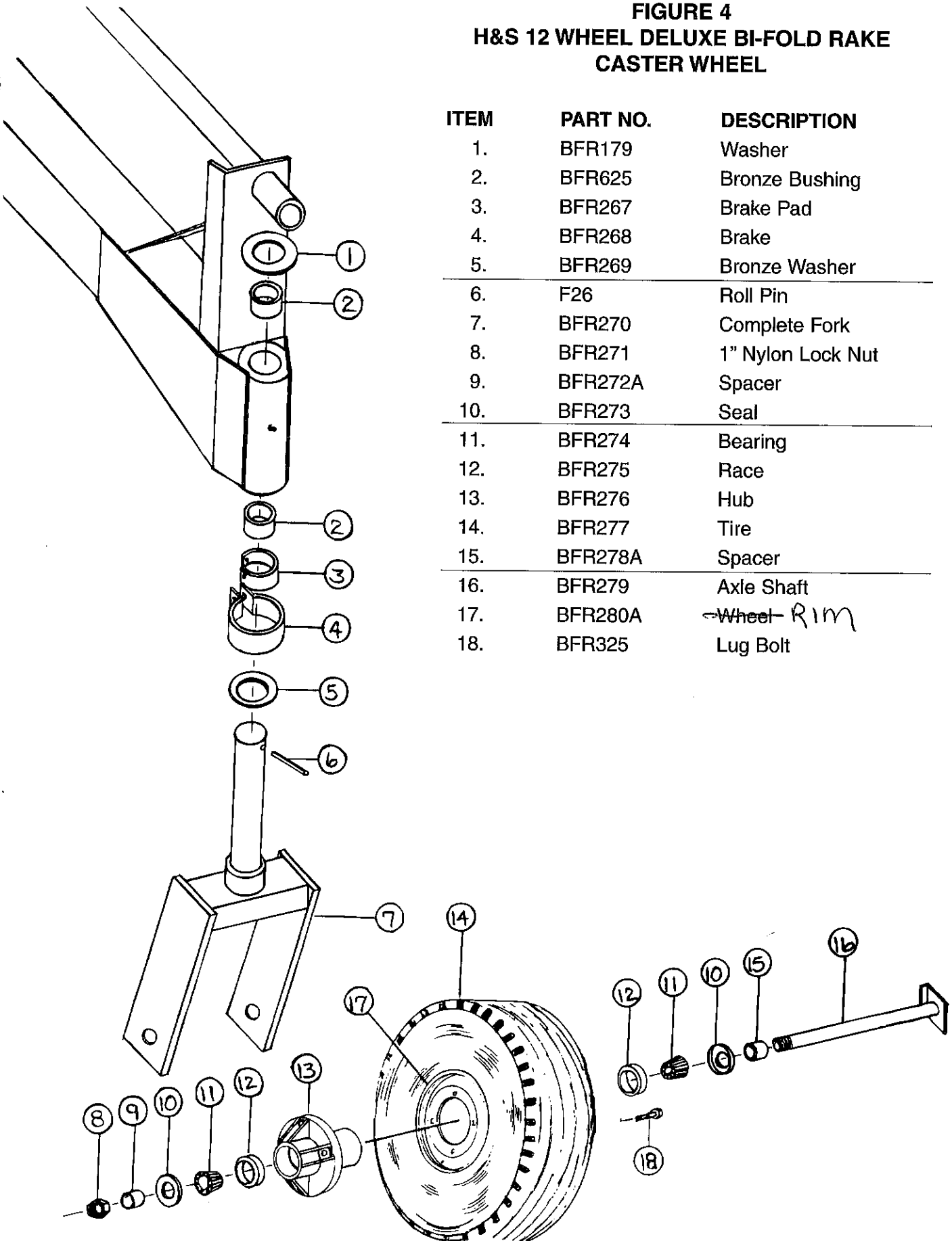
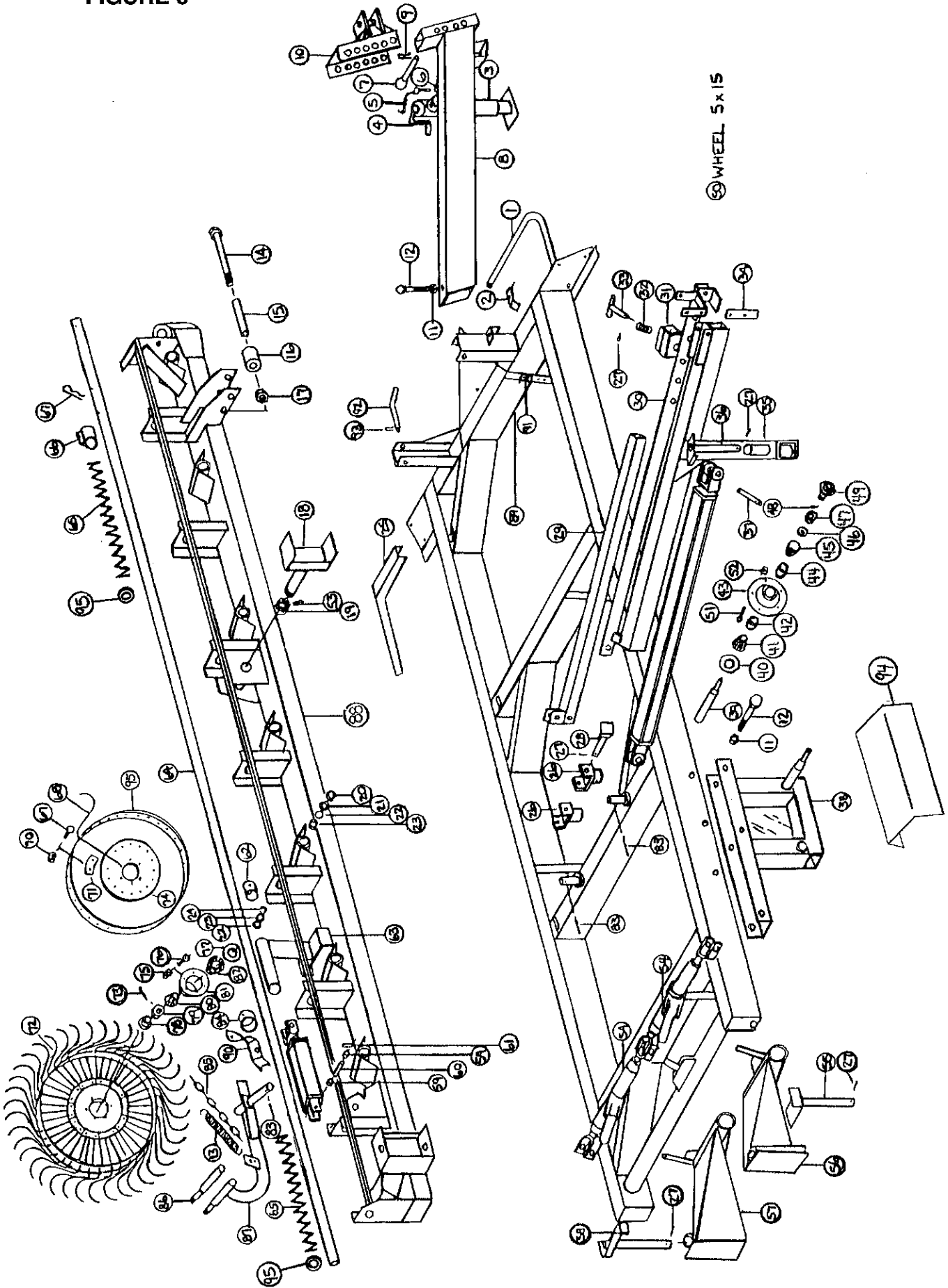


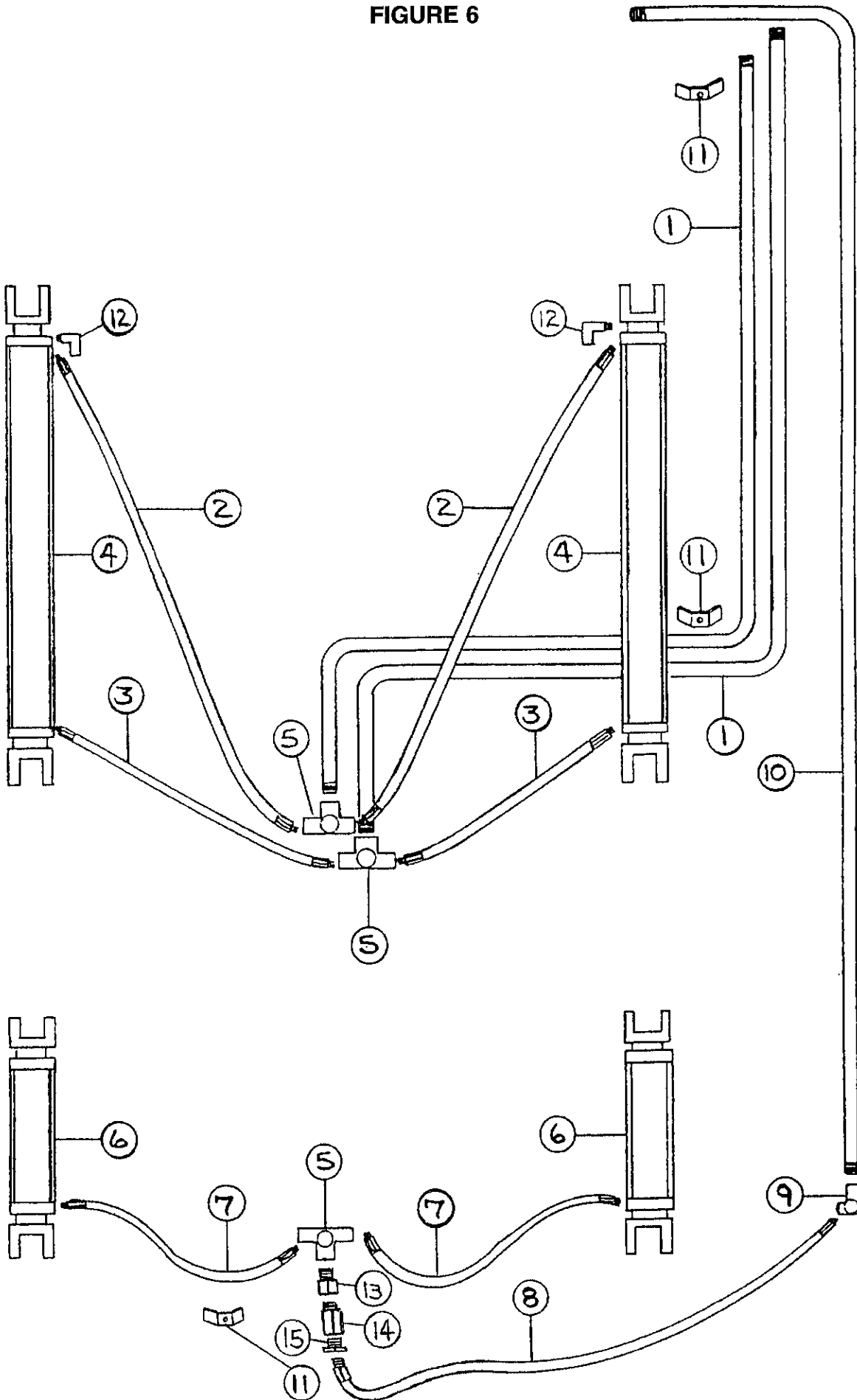
FIGURE 5



**FIGURE 5**  
**H&S 16 WHEEL DELUXE BI-FOLD RAKE**  
**MAIN FRAME**

ITEM	PART NO.	DESCRIPTION	ITEM	PART NO.	DESCRIPTION
1.	BFR155	Hydraulic Pipe	50.	BFR67	Wheel 5 x 15
2.	23N67	Hose Clamp	51.	BFR143	Stud Bolt
3.	12N11	Jack	52.	BFR144	Nut
4.	12N12	Jack Handle	53.	T56	5/32" x 2" Cotter Pin
5.	12N13	Jack Pin & Chain	54.	T138	Ratchet Jack
6.	12N14	Jack Mount	*	T139	Ratchet Jack Handle
7.	BFR5	Hitch Pin	*	T140	Ratchet Jack Pawl
8.	BFR677	Pole	*	T141	Ratchet Jack Spring
9.	BFR7	Hair Pin	55.	BFR300	RH Hinge Pin
10.	BFR157	Hitch	56.	BFR301	RH Beam Hinge
11.	HE7	Lock Nut	57.	BFR302	LH Beam Hinge
12.	BFR50	3/4" x 7" Bolt GR.5	58.	BFR303	LH Hinge Pin
13.	BFR138	Spring	59.	BFR47	Spacer
14.	BFR224	1/2" x 4-1/2" Bolt GR.5	60.	T143	Hydraulic Cylinder Pin
15.	BFR225	Roller Axle	61.	T144	Clip Pin
16.	BFR226	Poly Roller	62.	BFR83	Hydraulic Lift Clamp
17.	R29	1/2" Nut	63.	BFR304	LH Hydraulic Lift Bracket
18.	BFR227	Front Yoke	*	BFR305	RH Hydraulic Lift Bracket
19.	BFR228	1-1/4" Slotted Nut	64.	BFR163	Lifting Pipe
20.	BFR229	Steel Washer	65.	BFR84	Compression Spring
21.	BFR221	Poly Washer	66.	BFR34	Pipe Clamp
22.	S99	"O" Ring	67.	BFR694	Hair Pin
23.	G16	Bushing	68.	T176	Rake Wheel Tooth
24.	BFR230	Spacer	69.	T175	10mm x 25mm Carriage Bolt
25.	BFR298	Ramp LH	70.	BFR652	10mm Lock Nut
*	BFR299	Ramp RH	71.	T178	Rake Tooth Clip
26.	BFR233	Back Cylinder Mount	72.	T174	LH Rake Wheel
27.	T72	5/32" x 1-1/2" Center Pin	*	BFR31	RH Rake Wheel
28.	BFR234	Back Cylinder Pin	73.	T169	Cotter Pin
29.	BFR235	RH Inner Sleeve	74.	T179	Rake Wheel Center
*	BFR236	LH Inner Sleeve	75.	T166	10mm Nut
30.	BFR237	Sleeve Adjustable Bar RH	76.	T168	10mm x 25mm Bolt
*	BFR238	Sleeve Adjustable Bar LH	77.	T163	Seal
31.	BFR239	Sleeve Adjustable Lock	78.	T173	Hub Cap
32.	BFR240	Spring	79.	T172	Nut
33.	BFR241	Adjustment Handle	80.	T170	Outer Bearing
34.	BFR242	Cylinder Holder Clamp	*	T171	Outer Race
35.	BFR678	RH Outer Sleeve	81.	BFR32	Rake Wheel Hub
*	BFR679	LH Outer Sleeve	82.	T164	Inner Bearing
36.	BFR245	Outer Sleeve Pin	*	T165	Inner Race
37.	BFR246	Cylinder Pin	83.	3G22	Roll Pin
38.	BFR647	RH Axle Assembly	84.	BFR82	Pipe Clamp
*	BFR648	LH Axle Assembly	85.	BFR140	Chain
39.	BFR56	Spindle	86.	BFR36	Rake Wheel Spindle
40.	BFR57	Seal	87.	BFR265A	Rake Arm LH
41.	BFR58	Inner Bearing	*	BFR266A	Rake Arm RH
42.	BFR59	Inner Race	88.	BFR306	Rake Beam LH
43.	BFR60	Hub	*	BFR307	Rake Beam RH
44.	BFR61	Outer Race	89.	BFR308	Main Frame
45.	BFR62	Outer Bearing	90.	BFR255	Spring Bracket LH
46.	BFR63	Washer	*	BFR256	Spring Bracket RH
47.	BFR64	Nut	91.	BFR257	Hose Clamp
48.	BFR65	Cotter Pin	92.	BFR158	Lock Pin
49.	BFR66	Hub Cap	93.	ES7	Hair Pin
	<b>NOTE: *</b> (Means Not Shown)		94.	BFR646	Fender
			95.	T177	Outer Ring

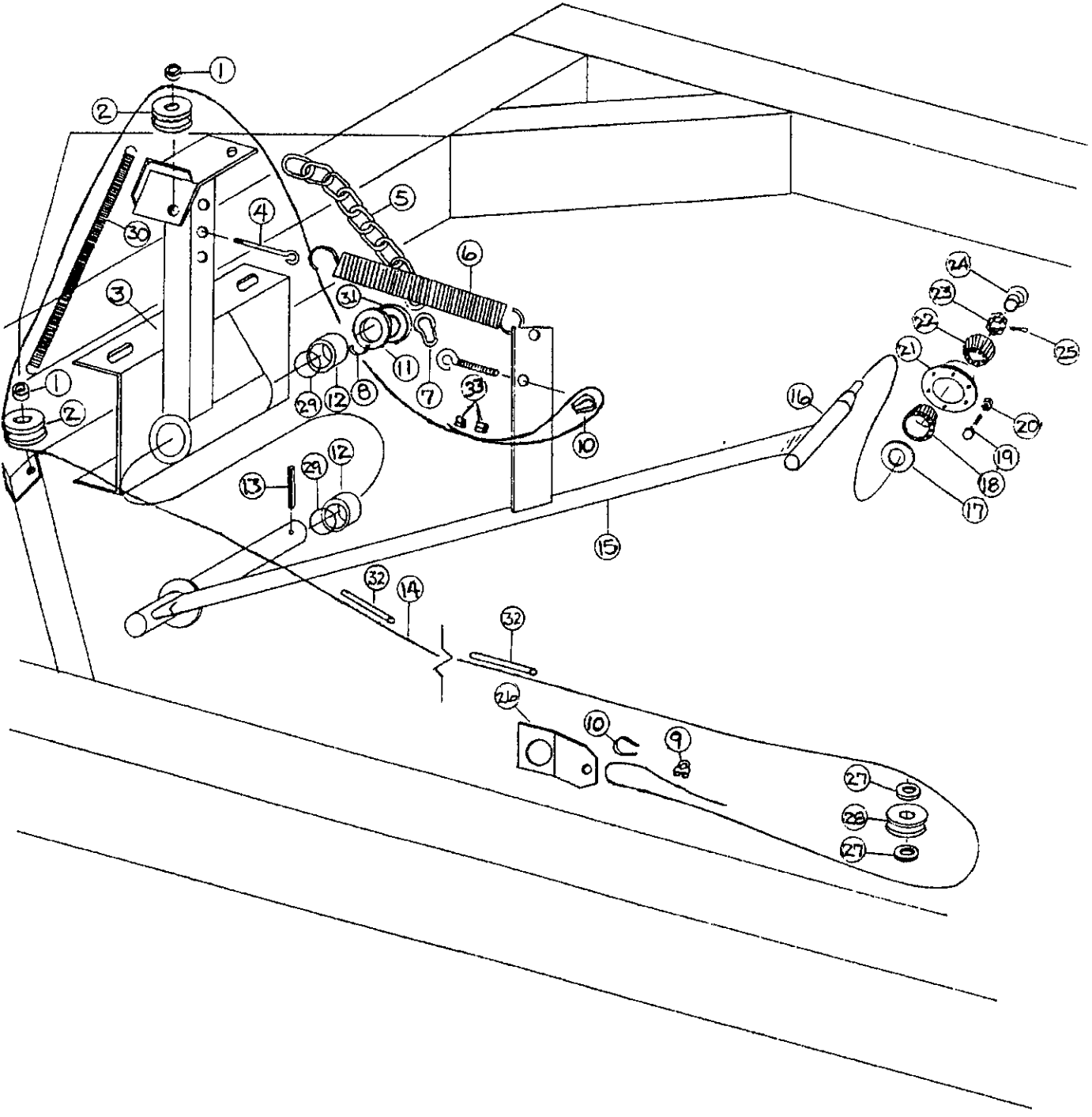
FIGURE 6



**FIGURE 6**  
**H&S 16 WHEEL DELUXE BI-FOLD RAKE**  
**HYDRAULICS**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1.	BFR314	Hydraulic Open Pipe
2.	BFR285	72" Hydraulic Hose
3.	BFR315	20" Hydraulic Hose
4.	BFR288A	Hydraulic Open Cylinders 48"
5.	BFR74	3/8" Female Tee
6.	BFR69A	Hydraulic Lift Cylinder
7.	BFR46	48" Hydraulic Hose
8.	BFR507	44" Hydraulic Hose
9.	HE59	3/8" Female Elbow
10.	BFR155	Hydraulic Lift Pipe
11.	BFR257	Hose Clamp
12.	23N234	3/8" Street Elbow
13.	BFR555	Adapter
14.	BFR554	Flow Valve
15.	JB82	Bushing 3/8" to 1/2"

FIGURE 7



**FIGURE 7**  
**H&S 16 WHEEL DELUXE BI-FOLD RAKE**  
**OPTIONAL KICKER WHEEL**

<b>ITEM</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
1.	ST81	Spacer
2.	BFR292	Poly Pulley
3.	BFR293	Lift Tower
4.	ES10	"I" Bolt
5.	BFR294	Kicker Arm Chain
6.	BFR138	Spring
7.	BFR295	Snap Hook
8.	BFR230	Spacer
9.	BFR220	Cable Clamp
10.	ES14	Thimble
11.	BFR221	Poly Washer
12.	G16	Bushing
13.	3G22	Roll Pin
14.	BFR296	Cable
15.	BFR215	Kicker Arm
16.	BFR36	Spindle
17.	T163	Seal
18.	T164	Inner Bearing
*	T165	Inner Race
19.	T168	10mm x 25mm Bolt
20.	T166	10mm Nut
21.	BFR32	Rake Wheel Hub
22.	T170	Outer Bearing
*	T171	Outer Race
23.	T172	Nut
24.	T173	Hub Cap
25.	T169	Cotter Pin
26.	BFR281	Cable End Bracket
27.	BFR33	Washer
28.	BFR283	Poly Pulley
29.	S99	"O" Ring
30.	23N187	Spring
31.	BFR229	Steel Washer
32.	BFR317	Plastic Cable Guard Hose
*	BFR31	Rake Wheel RH
33.	ES5	Cable Clamp (crimped)

**NOTE: \*** (Means Not Shown)

**FIGURE 8  
H&S 16 WHEEL DELUXE BI-FOLD RAKE  
CASTER WHEEL**

ITEM	PART NO.	DESCRIPTION
1.	BFR309	Gauge Wheel Washer
2.	BFR527	Bronze Bushing
3.	BFR310	Brake Pad
4.	BFR311	Brake Collar
5.	RG24	Bronze Washer
6.	BFR313	Roll Pin 5/16" x 2-3/4"
7.	BFR312	Complete Fork RH
*	BFR316	Complete Fork LH
8.	BFR56	Spindle
9.	BFR57	Seal
10.	BFR58	Inner Bearing
11.	BFR143	Stud Bolt
12.	BFR60	Hub
13.	BFR144	Nut
14.	BFR62	Outer Bearing
15.	BFR63	Washer
16.	BFR65	Cotter Pin
17.	BFR66	Hub Cap
18.	BFR59	Inner Race
19.	BFR61	Outer Race
20.	BFR64	Nut
21.	BFR67	Wheel 5 x 15

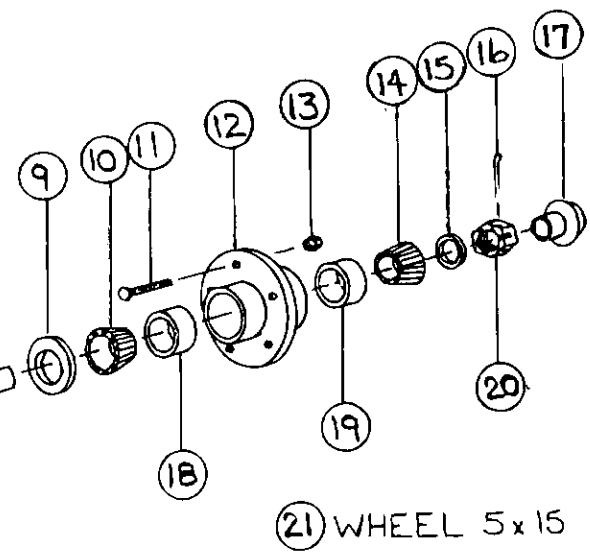
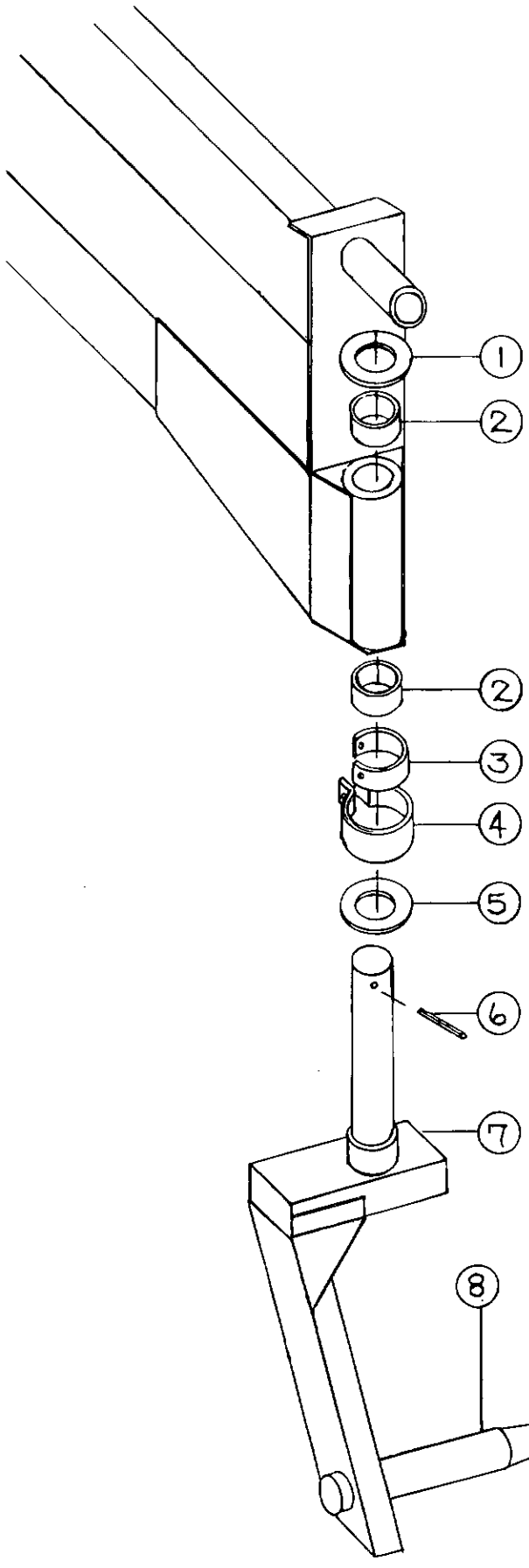
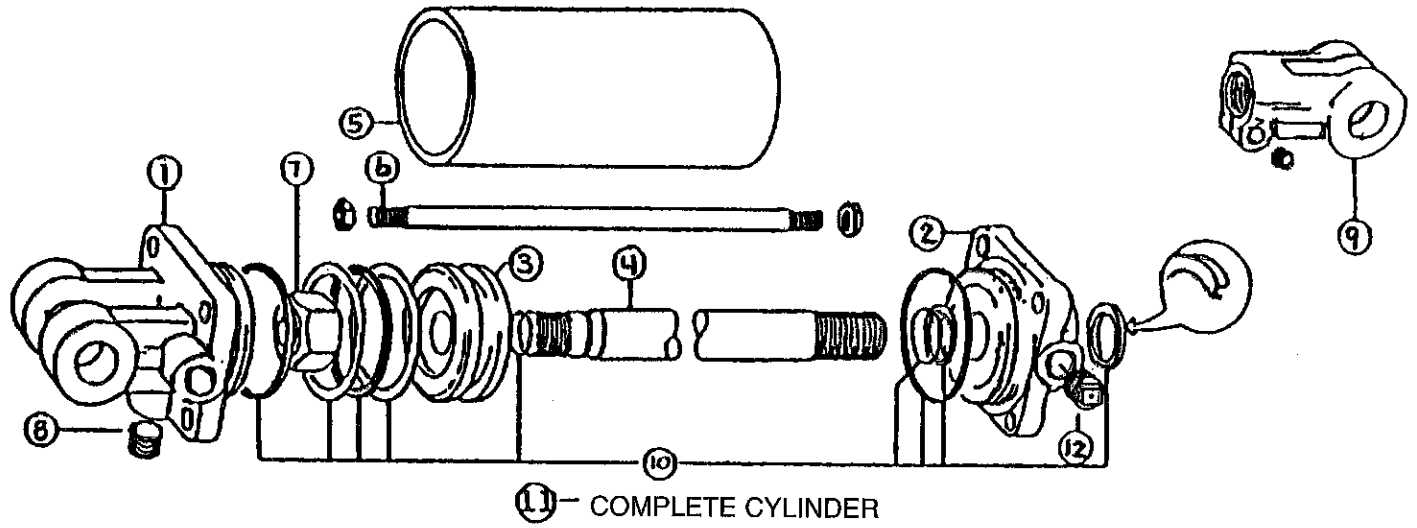




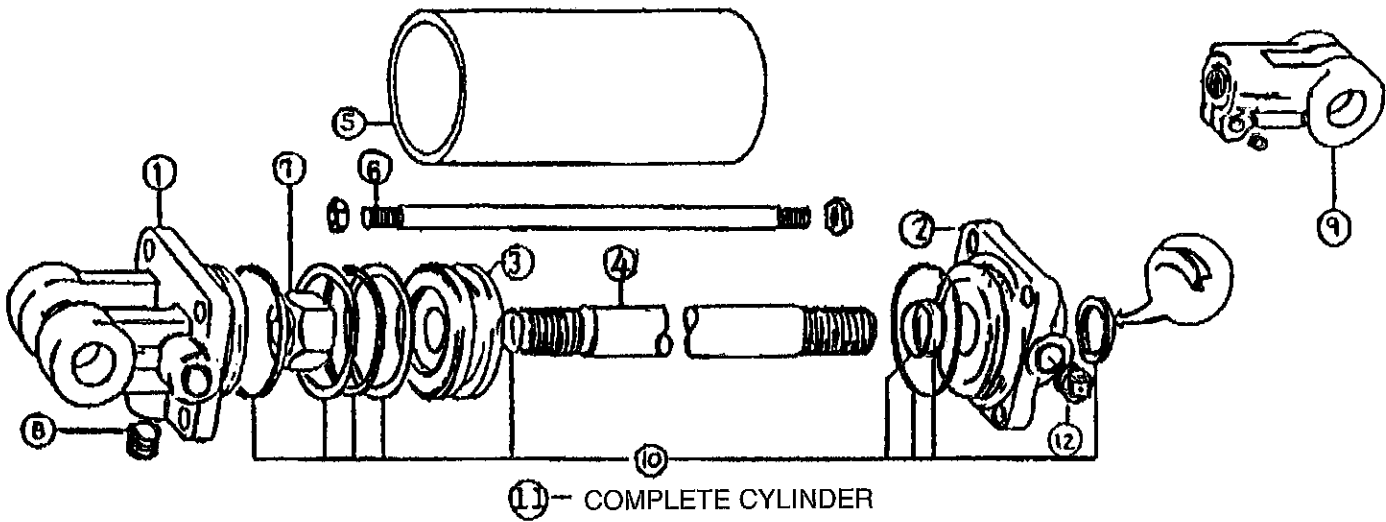
FIGURE 9



**H&S 16 WHEEL DELUXE BI-FOLD RAKE  
HYDRAULIC LIFT CYLINDER**

ITEM	PART NO.	DESCRIPTION
1.	23N142A	Clevis Cap
2.	23N143A	Rod Cap
3.	23N144	Piston
4.	T184A	Rod
5.	BFR68	Cylinder Tube
6.	T186	Tie Rod
7.	23N148	Piston Nut
8.	23N149	Plug
9.	23N150A	Rod Clevis
10.	23N151	Seal Kit
11.	BFR69A	Complete Cylinder
12.	BFR70	Vent Plug

**FIGURE 10  
OPENING CYLINDER**



**H&S 12 WHEEL DELUXE BI-FOLD RAKE  
16 WHEEL DELUXE RAKE (2004 & Newer)  
HYDRAULIC OPEN CYLINDER**

ITEM	PART NO.	DESCRIPTION
1.	23N142A	Clevis Cap
2.	23N143A	Rod Cap
3.	23N144	Piston
4.	BFR322A	Rod
5.	BFR323	Cylinder Tube
6.	BFR324	Tie Rod
7.	23N148	Piston Nut
8.	23N149	Plug
9.	23N150A	Rod Clevis
10.	23N151	Seal Kit
11.	BFR288A	Complete Cylinder