

OWNER'S/ OPERATOR'S MANUAL

MODEL NO.'s

SG-26

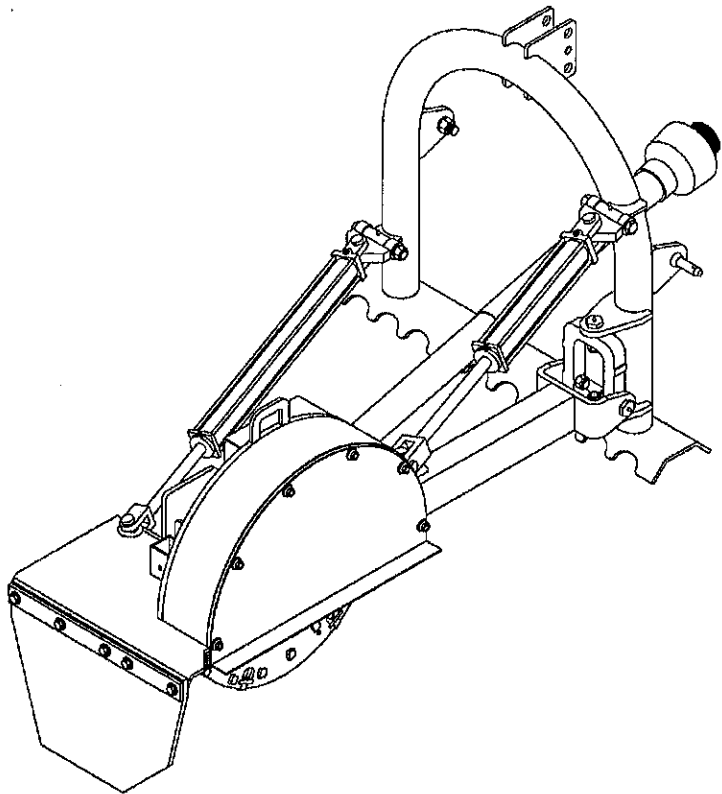
SG-26H

SG-36

CAUTION

For Safe Operation
Read Rules And
Instructions Carefully

SINO LEEINGLES, PIDA AYUDA
A AIGUIEN QUE SI LO LEA
PARA QUE LE TRADUZCA LAS
MEDIDAS DE SEGURIDAD.



STUMP GRINDERS for **TRACTORS and SKID STEERS**

Safety Instructions
Tractor Preparation
Operating Instructions

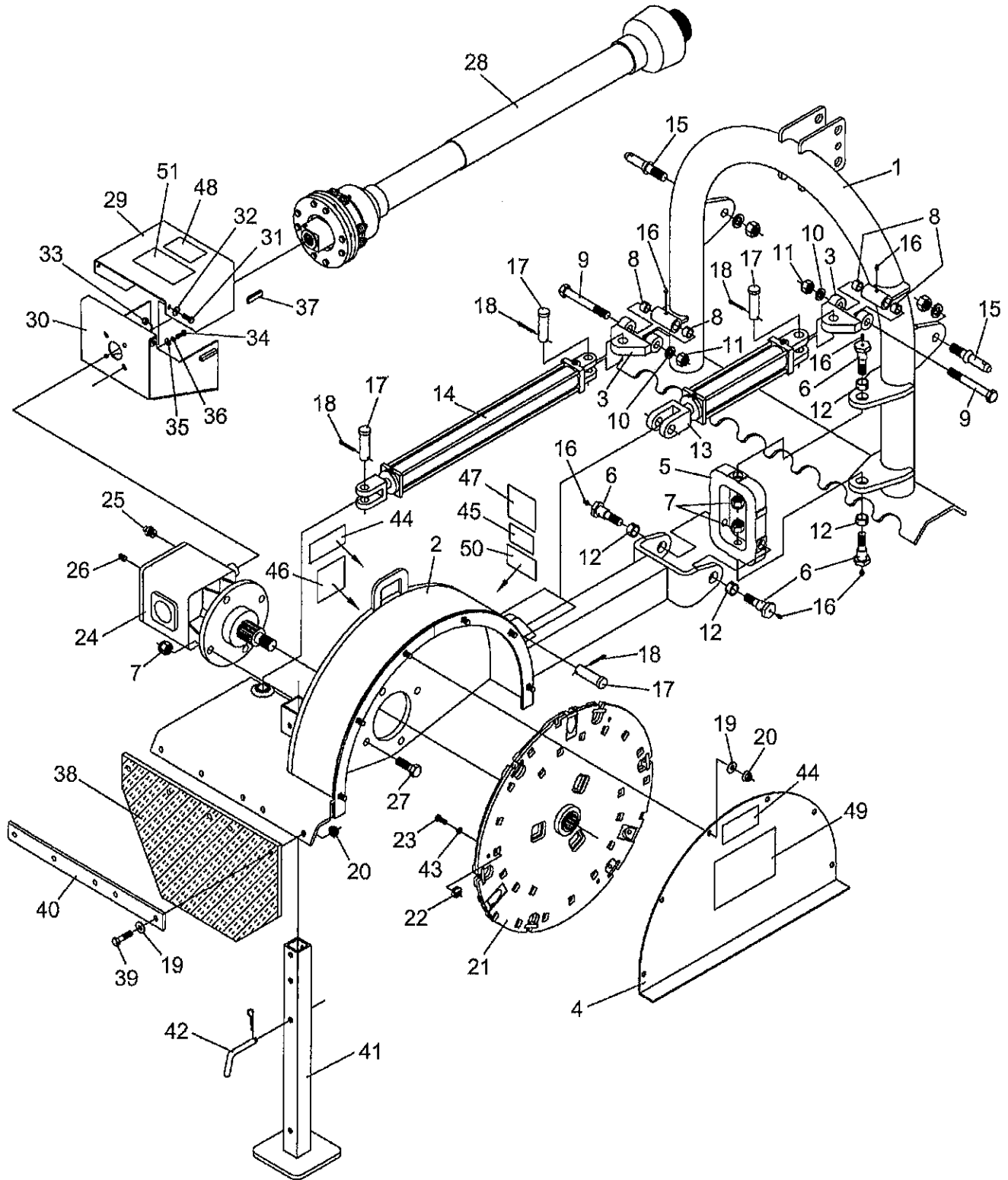
Assembly & Mounting
Maintenance
Repair Parts

CAUTION

**THE FOLLOWING SAFETY PRECAUTIONS SHOULD BE THOROUGHLY UNDERSTOOD
BEFORE ATTEMPTING TO BEGIN ASSEMBLING THIS MACHINE**

1. Select an area for assembly that is clean and free of any debris which might cause persons working on the assembly to trip.
2. Do not lift heavy parts or assemblies. Use crane, jack, tackle, fork trucks or other mechanical devices.
3. Preview the assembly instructions in your operator's manual before proceeding further.
4. If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also insure that the blocking material is on a clean, dry surface.
5. Never put hands, or any part of body, under blocked up assemblies if at all possible.
6. After completing assembly, thoroughly inspect the machine to be sure that all nuts, bolts, hydraulic fittings or any other fastened assemblies have been thoroughly tightened.
7. Before operating the machine, thoroughly read the operation section of your operator's manual.
8. Before operating, read the maintenance section of your operator's manual to be sure that any parts requiring lubrication, such as gearboxes, are full, to avoid any possible damage.
9. **Before operating equipment – if you have any questions regarding the proper assembly or operation, contact your dealer or representative.**

SG-26 STUMP GRINDER PARTS DRAWING

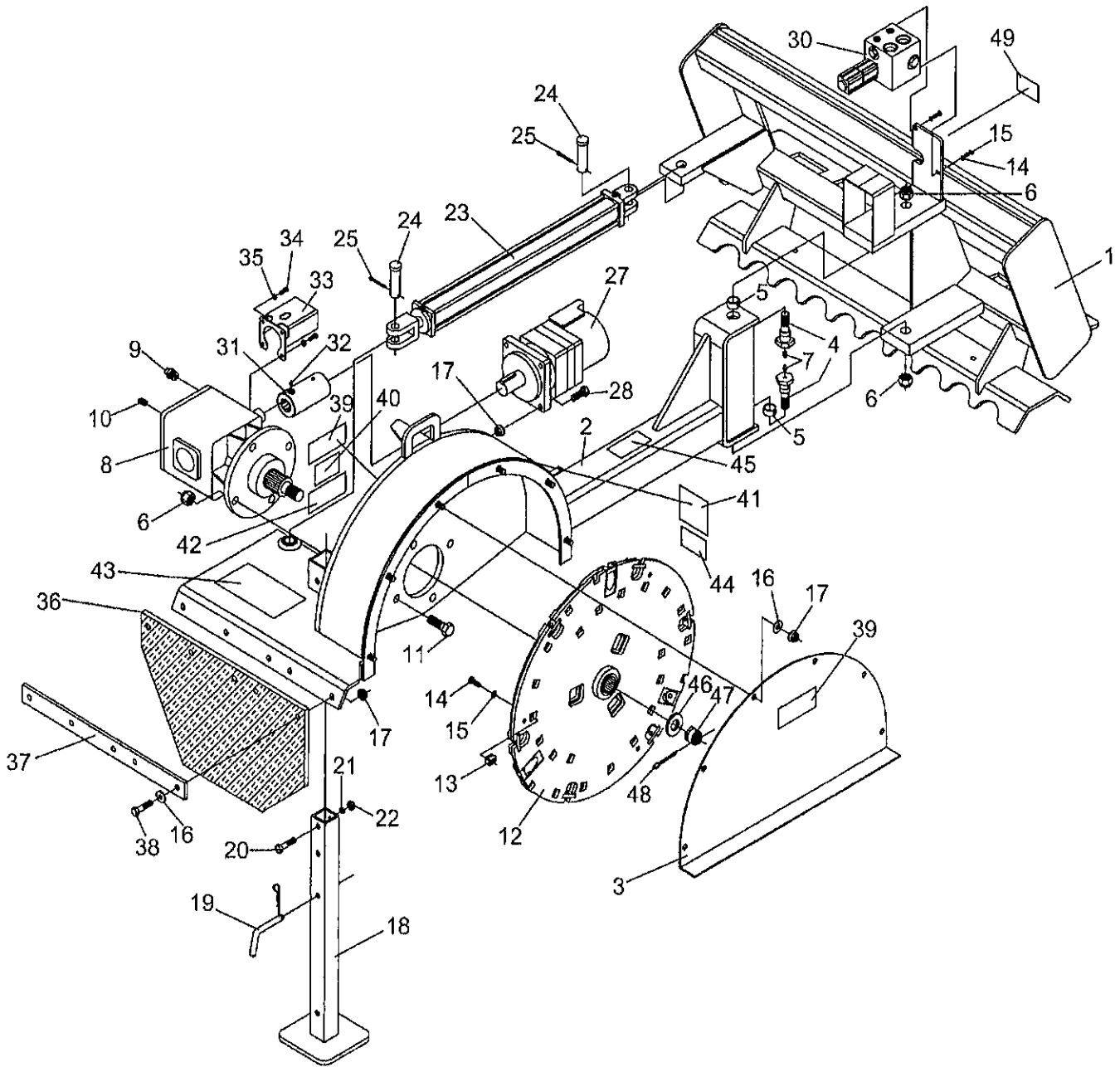


SG-26 STUMP GRINDER PARTS LIST

Ref. No.	Part No.	Description	No. Req'd.
1	811505	3 Pt. Yoke Weldment	1
2	811515	Housing Weldment	1
3	811525	Anchor Weldment	2
4	811510	Wheel Guard Weldment	1
5	811522	Pivot Cross (7" x 10")	1
6	811517	Special Bolt 3/4"-10NC	4
7	2500084	Nut 3/4"-10NC Vibration Proof	8
8	803185	Bushing, Spring (3/4" ID x 1" OD x 5/8")	4
9	2503035	Bolt 3/4"-10NC x 6" Hex Head Gr.5	2
10	2502001	Washer 3/4" Springlock	2
11	2500002	Nut 3/4"-10NC Full Hex	2
12	2505034	Bushing, Spring (1" ID x 1 1/4" OD x 5/8")	4
13	2504215	Hydraulic Cylinder 2 1/2 x 10	1
14	2504120	Hydraulic Cylinder 2 x 24	1
15	590108	Draw Pin (AK-578)	2
16	2504049	Drive Zerk 5/16"	6
17	863070	Cylinder Pin Ø1"	4
18	2504121	Cotter Pin 3/16" x 1 1/2"	4
19	2501003	Washer 1/2" Flat	11
20	2500040	Nut 1/2"-13NC Whlz Flange Hex	11
21	811531	Grinder Wheel Weldment (SG-26)	1
22	811534	Carbide Tooth *	33
23	2503061	Bolt 3/8"-16NC x 1" Hex Head Gr.8	33
24	811567	Gearbox Assembly w/Plugs	1
25	2504072	Breather Plug 1/2"NPT	1
26	2504222	Pipe Plug 1/4"NPT Square Head	1
27	2503258	Bolt 3/4"-10NC x 2 1/4" Hex Head Gr.5	4
28	650475	PTO Assembly	1
	650497	PTO Half (Implement End)	1
	650498	PTO Half (Tractor End)	1
29	811540	Lid, Shield	1
30	811520	PTO Shield Weldment	1
31	2503011	Bolt 3/8"-16NC x 1" Hex Head Gr.2	2
32	2501004	Washer 3/8" Flat	2
33	2500042	Nut 3/8"-16NC Hex Nylock	2
34	2503123	Bolt M8 x 12mm Hex Head	4
35	2501012	Washer 5/16" Flat	4
36	2502011	Washer 5/16" Springlock	4
37	811559	Edging Strip 2"	2
38	811541	Rubber Guard	1
39	2503007	Bolt 1/2"-13NC x 2" Hex Head Gr.2	5
40	811547	Guard Retainer Strap	1
41	811557	Stand Weldment	1
42	341826	Hitch Pin 1/2" x 3 1/2"	1
43	2502008	Washer 3/8" Springlock	33
44	101027	Safety Sign-Warning (Stand Clear)	2
45	101101	Safety Sign-Warning (540 RPM)	1
46	101103	Safety Sign-Danger (Keep Away)	1
47	101122	Safety Sign-Warning (Hi-Pressure)	1
48	101186	Safety Sign-Warning (Shields)	1
49	101206	Safety Sign-Danger (Debris)	1
50	101219	Safety Sign-Warning (Valve)	1
51	101201	Safety Sign-Warning (Manual)	1

* NOTE: Order 811600 for repair kit containing (12) twelve carbide teeth, bolts & washers

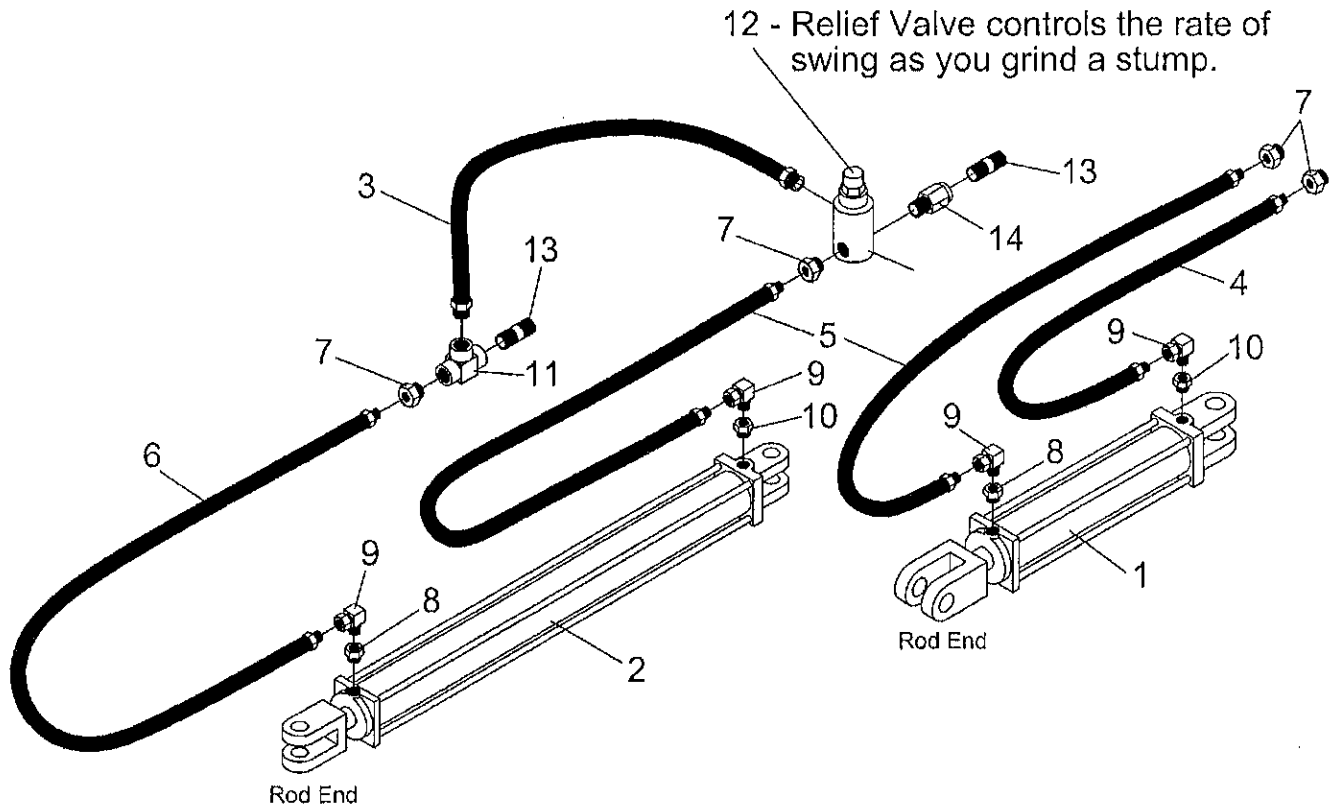
SG-26H STUMP GRINDER PARTS DRAWING



SG-26H STUMP GRINDER PARTS LIST

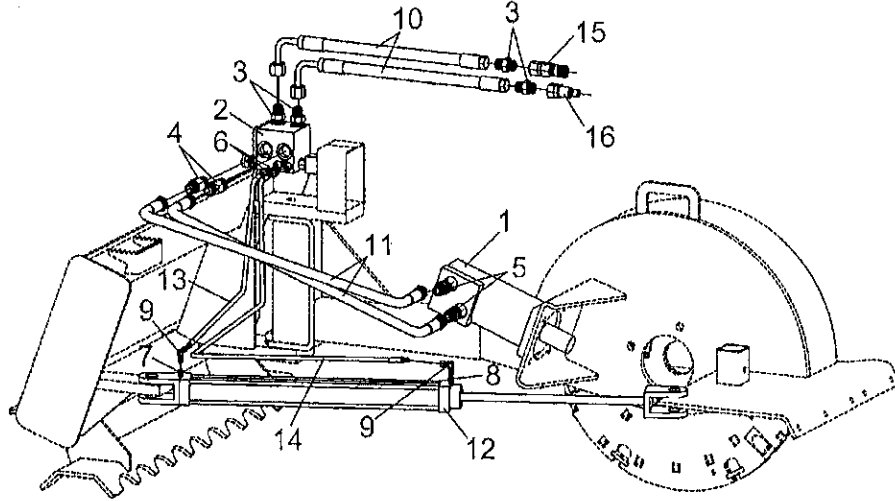
Ref. No.	Part No.	Description	No. Req'd.
1	811641	Mount Weldment (SG-26H)	1
2	811651	Housing Weldment	1
3	811510	Wheel Guard Weldment	1
4	811517	Special Bolt 3/4"-10NC x 3 1/2"	2
5	2505034	Bushing, Spring (1" ID x 1 1/4" OD x 5/8")	2
6	2500084	Nut 3/4"-10NC Vibration Proof	6
7	2504049	Drive Zerk 5/16"	2
8	811567	Gearbox Assembly w/Plugs	1
9	2504072	Breather Plug 1/2"NPT	1
10	2504222	Pipe Plug 1/4"NPT Square Head	1
11	2503258	Bolt 3/4"-10NC x 2 1/4" Hex Head Gr.5	4
12	811531	Grinder Wheel Weldment (SG-26)	1
13	811534	Carbide Tooth	33
14	2503061	Bolt 3/8"-16NC x 1" Hex Head Gr.8	35
15	2502008	Washer 3/8" Springlock	35
16	2501003	Washer 1/2" Flat	11
17	2500040	Nut 1/2"-13NC Whiz Flange Hex	15
18	811557	Stand Weldment	1
19	341826	Hitch Pin 1/2" x 3 1/2"	1
20	2503012	Bolt 1/2"-13NC x 3" Hex Head Gr.2	1
21	2502002	Washer 1/2" Springlock	1
22	2500003	Nut 1/2"-13NC Hex	1
23	2504120	Hydraulic Cylinder 2 x 24	1
24	863070	Cylinder Pin Ø1"	2
25	2504121	Cotter Pin 3/16" x 1 1/2"	2
26	2505517	Reducer Bushing 3/8" to 1/4"	1
27	2505643	Hydraulic Motor, SG-26H (Char-Lynn)	1
28	2503118	Bolt 1/2"-13NC x 2" Hex Head Gr.5	4
30	2505644	Valve Assembly, SG-26H	1
31	2506017	Shaft Coupling, SG-26H	1
32	2504014	Zerk, Grease 1/8"NPT	1
33	811657	Guard Weldment	1
34	2503304	Bolt M8 x 16mm Hex Head	4
35	2502011	Washer 5/16" Springlock	4
36	811541	Rubber Guard	1
37	811547	Guard Retainer Strap	1
38	2503007	Bolt 1/2"-13NC x 2" Hex Head Gr.2	5
39	101027	Safety Sign-Warning (Stand Clear)	2
40	101188	Safety Sign-Gearbox Notice	1
41	101122	Safety Sign-Warning (Hi-Pressure)	1
42	101186	Safety Sign-Warning (Shields)	1
43	101206	Safety Sign-Danger (Debris)	1
44	101219	Safety Sign-Warning (Valve)	1
45	101201	Safety Sign-Warning (Manual)	1
46	650286	Blank Washer (31 x 56 x 6)	1
47	650287	Castle Nut M30 x 2.0 (8.8)	1
48	650482	Cotter Pin B6 x 60	1
49	101292	Decal - Valve Control	1

SG-26/SG-36 STUMP GRINDER HYDRAULIC DIAGRAM & PARTS LIST



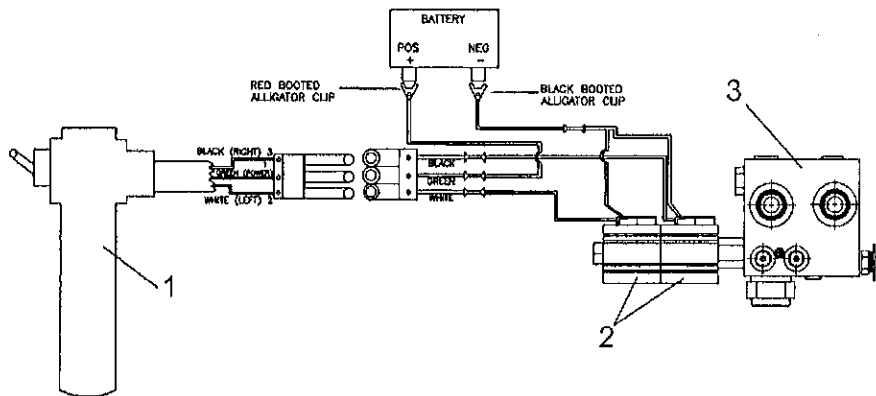
Ref. No.	Part No.	Description	No. Req'd.
1	2504215	Hydraulic Cylinder 2 1/2" x 10"	1
2	2504120	Hydraulic Cylinder 2" x 24"	1
3	2505630	Hose, Hydraulic 1/2" ID x 12"	1
4	2505532	Hose, Hydraulic 1/4" ID x 60"	1
5	2505533	Hose, Hydraulic 1/4" ID x 72"	2
6	2505537	Hose, Hydraulic 1/4" ID x 96"	1
7	2505507	Bushing, Reducer 1/2" to 1/4"	4
8	2505626	Bushing, Reducer 3/8" to 1/4" w/ .040" Orifice	2
9	2505530	Elbow, 90° Swivel 1/4"-18NPT	4
10	2505517	Bushing, Reducer 3/8" to 1/4"	2
11	2505553	Tee, Hydraulic 1/2"NPT	1
12	2505641	Valve, Relief (Low Pressure)	1
13	2505512	Pipe Nipple 1/2" x 2"	2
14	2505642	(Optional) Throttle Valve (For Closed Center Hyd. Systems)	1

SG-26H STUMP GRINDER HYDRAULIC PARTS LIST



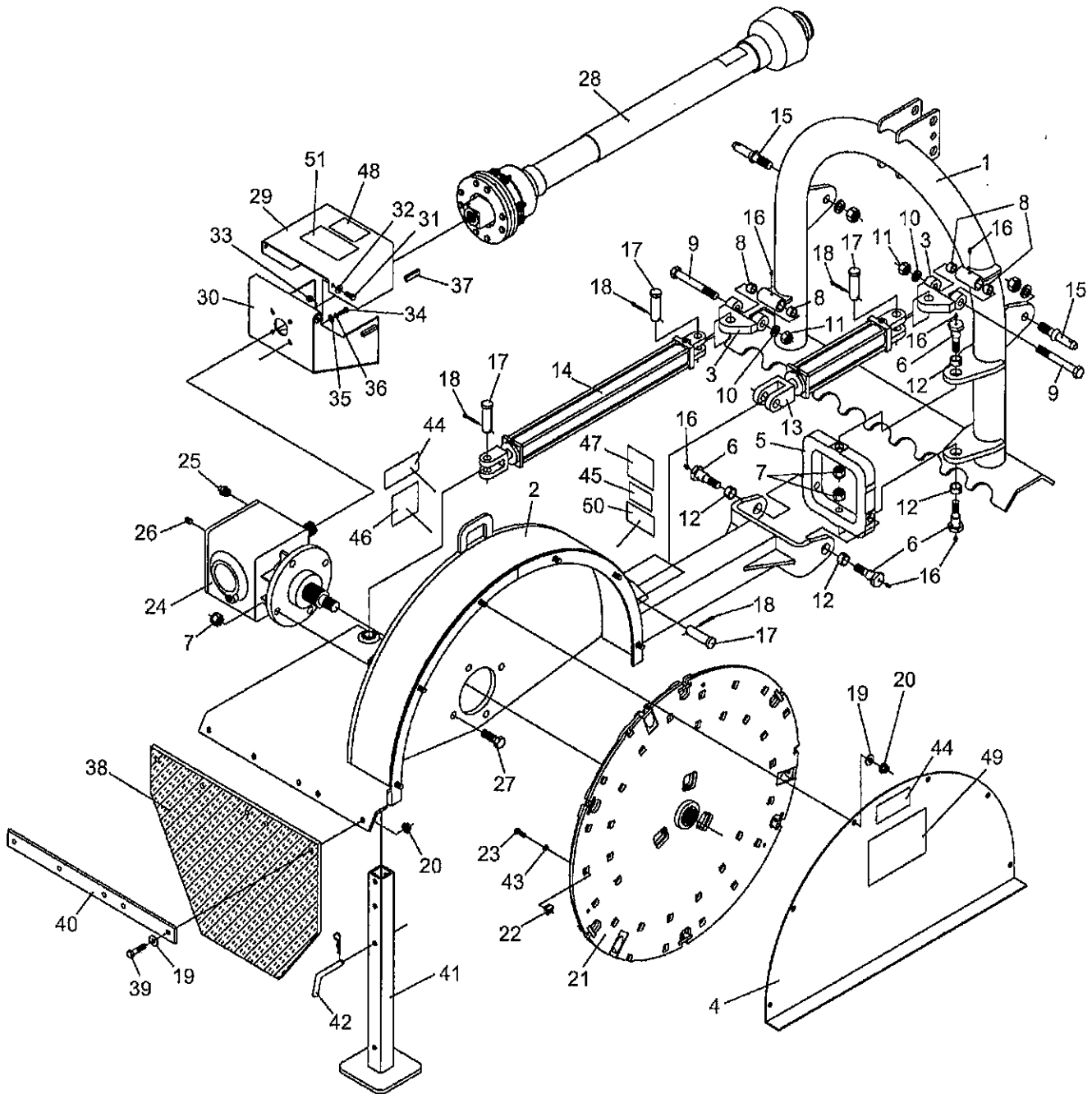
Ref. No.	Part No.	Description	No. Req'd.
1	2505643	Hydraulic Motor	1
2	2505644	Valve Assembly	1
3	2505651	Hydraulic Adapter 3/4" Male (JIC) x 3/4" Male (O-Ring)	4
4	2505649	Hydraulic Adapter, Live Swivel 3/4" Male (JIC) x 3/4" Male (O-Ring)	2
5	2505670	Hydraulic Adapter 3/4" Male (JIC) x 1" Male (O-Ring)	2
6	2505652	Hydraulic Adapter 1/4" NPT Female x 1/4" Male (O-Ring)	2
7	2505517	Reducer Bushing 3/8" to 1/4"	1
8	2505626	Reducer Bushing 3/8" to 1/4" w/ .040" Orifice	1
9	2505530	90° Swivel Elbow 1/4"-18NPT	2
10	2505648	Hydraulic Hose 3/4" x 50"	2
11	2505647	Hydraulic Hose 3/4" x 48"	2
12	2504120	Hydraulic Cylinder 2 x 24	1
13	2505505	Hydraulic Hose 1/4" x 36"	1
14	2505536	Hydraulic Hose 1/4" x 66"	1
15	2505659	Flat Face Coupler 3/4" Female O-Ring	1
16	2505660	Flat Face Coupler 3/4" Male O-Ring	1

SG-26H STUMP GRINDER WIRING DIAGRAM PARTS LIST



Ref. No.	Part No.	Description	No. Req'd.
1	2507013	Switch Assembly w/ Male Connector	1
2	2507014	Coil 12VDC	2
3	2505644	Valve Assembly (includes Coils)	1

SG-36 STUMP GRINDER PARTS DRAWING

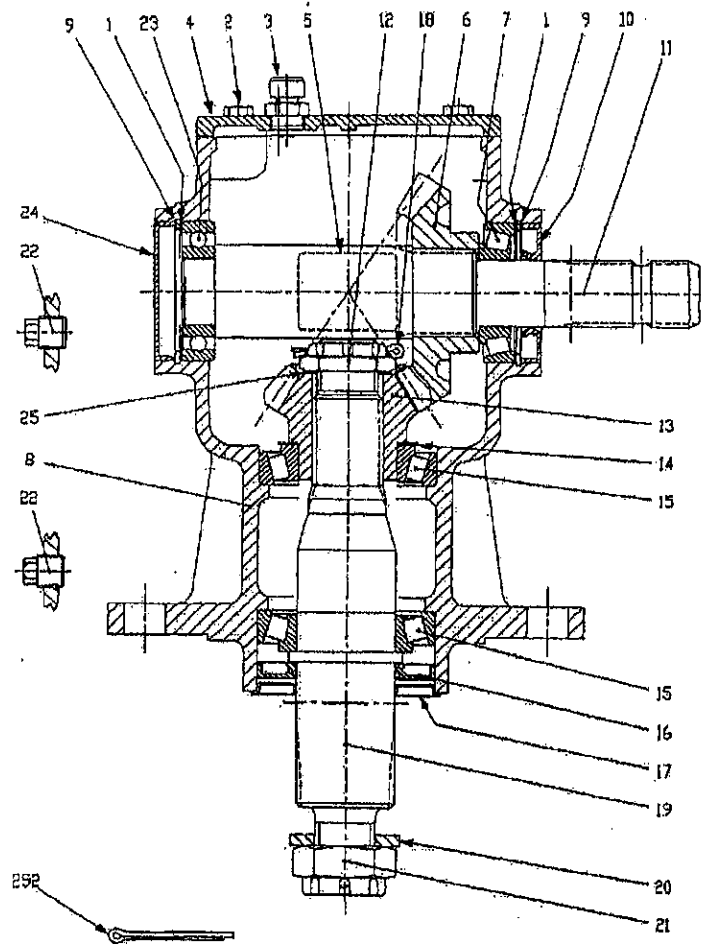


SG-36 STUMP GRINDER PARTS LIST

Ref. No.	Part No.	Description	No. Req'd.
1	811505	3 Pt. Yoke Weldment	1
2	811545	Housing Weldment	1
3	811525	Anchor Weldment	2
4	811560	Wheel Guard Weldment	1
5	811551	Pivot Cross (10" x 10")	1
6	811517	Special Bolt 3/4"-10NC	4
7	2500084	Nut 3/4"-10NC Vibration Proof	8
8	803185	Bushing, Spring (3/4" ID x 1" OD x 5/8")	4
9	2503035	Bolt 3/4"-10NC x 6" Hex Head Gr.5	2
10	2502001	Washer 3/4" Springlock	2
11	2500002	Nut 3/4"-10NC Full Hex	2
12	2505034	Bushing, Spring (1" ID x 1 1/4" OD x 5/8")	4
13	2504215	Hydraulic Cylinder 2 1/2 x 10	1
14	2504120	Hydraulic Cylinder 2 x 24	1
15	590078	Draw Pin (AK-2118)	2
16	2504049	Drive Zerk 5/16"	6
17	883070	Cylinder Pin Ø1"	4
18	2504121	Cotter Pin 3/16" x 1 1/2"	4
19	2501003	Washer 1/2" Flat	11
20	2500040	Nut 1/2"-13NC Whiz Flange Hex	11
21	811536	Grinder Wheel Weldment (SG-36)	1
22	811534	Carbide Tooth *	42
23	2503061	Bolt 3/8"-16NC x 1" Hex Head Gr.8	42
24	811572	Gearbox Assembly w/Plugs	1
25	2504072	Breather Plug 1/2"NPT	1
26	2504222	Pipe Plug 1/4"NPT Square Head	1
27	2503085	Bolt 3/4"-10NC x 2 1/2" Hex Head Gr.5	4
28	650280	PTO Assembly	1
	650329	PTO Half (Implement End)	1
	650328	PTO Half (Tractor End)	1
29	811540	Lid, Shield	1
30	811520	PTO Shield Weldment	1
31	2503011	Bolt 3/8"-16NC x 1" Hex Head Gr.2	2
32	2501004	Washer 3/8" Flat	2
33	2500042	Nut 3/8"-16NC Hex Nylock	2
34	2503123	Bolt M8 x 12mm Hex Head	4
35	2501012	Washer 5/16" Flat	4
36	2502011	Washer 5/16" Springlock	4
37	811559	Edging Strip 2"	2
38	811571	Rubber Guard	1
39	2503007	Bolt 1/2"-13NC x 2" Hex Head Gr.2	5
40	811548	Guard Retainer Strap	1
41	811557	Stand Weldment	1
42	341826	Hitch Pin 1/2" x 3 1/2"	1
43	2502008	Washer 3/8" Springlock	42
44	101027	Safety Sign-Warning (Stand Clear)	2
45	101101	Safety Sign-Warning (540 RPM)	1
46	101103	Safety Sign-Danger (Keep Away)	1
47	101122	Safety Sign-Warning (Hi-Pressure)	1
48	101186	Safety Sign-Warning (Shields)	1
49	101206	Safety Sign-Danger (Debris)	1
50	101219	Safety Sign-Warning (Valve)	1
51	101201	Safety Sign-Warning (Manual)	1

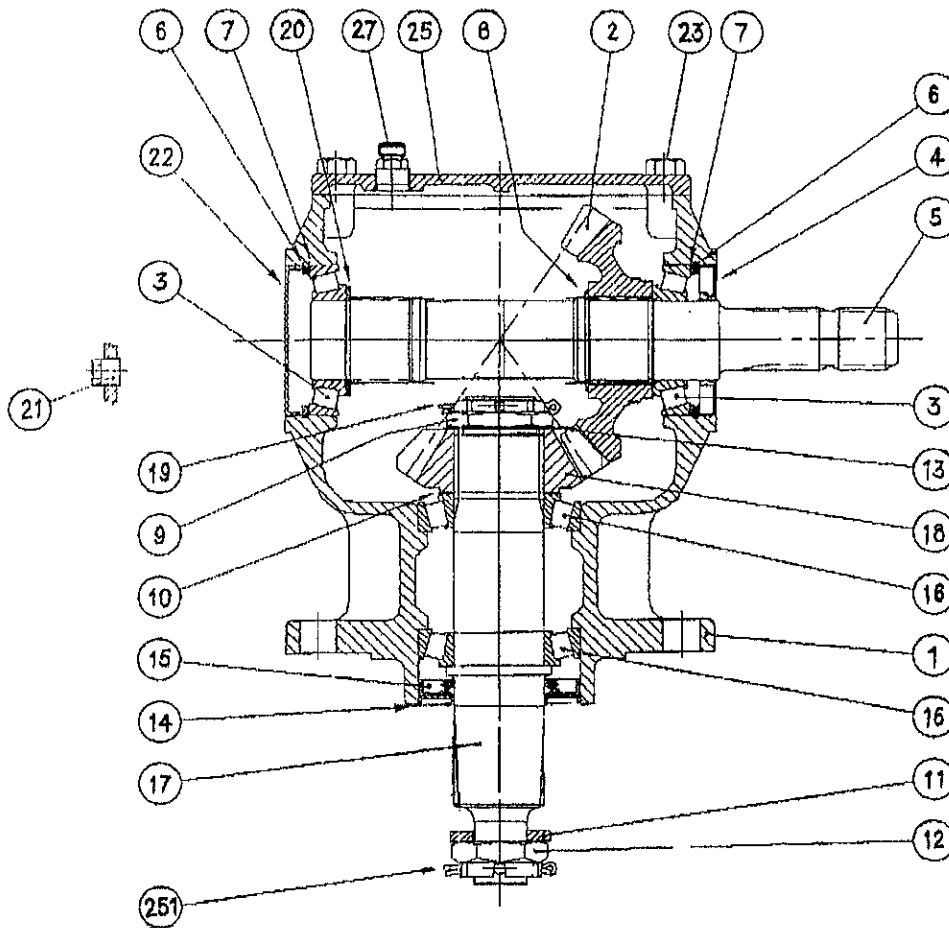
* NOTE: Order 811600 for repair kit containing (12) twelve carbide teeth, bolts & washers

SG-26 GEARBOX PARTS DRAWING & LIST



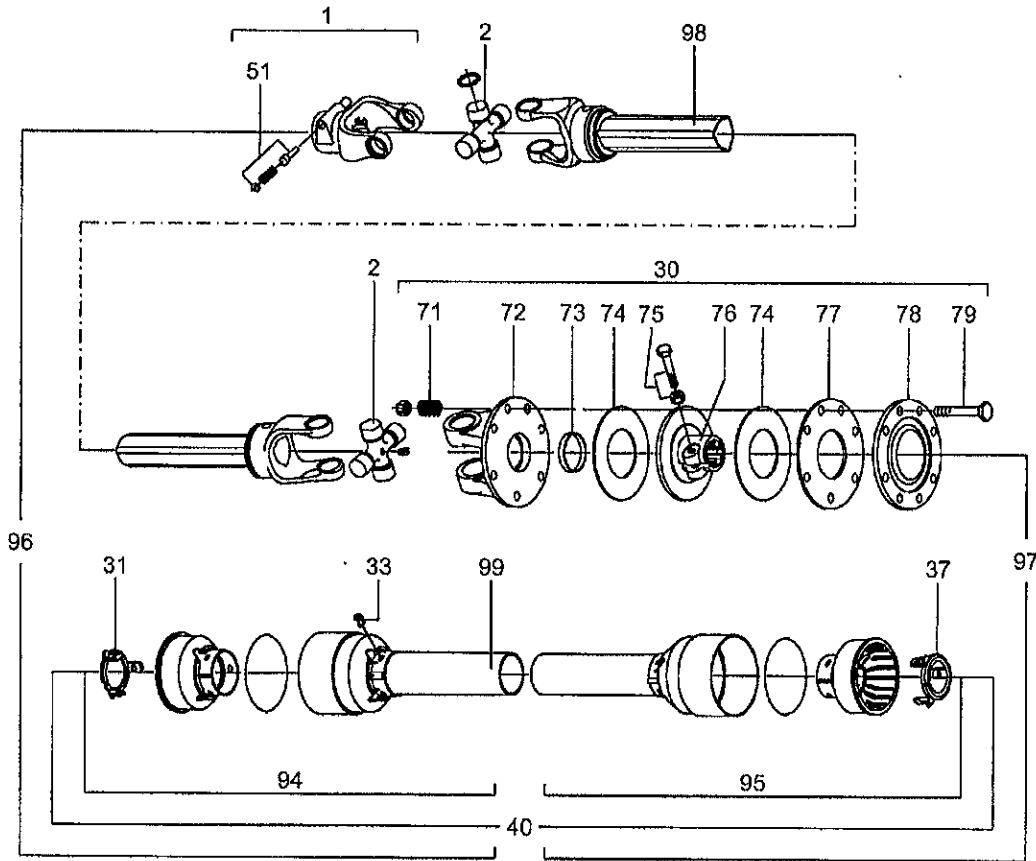
Ref. No.	Worksaver Part No.	Comer Part No.	Description	No. Req'd.
1	650267	0.248.7500.00	Shim Kit (60.3 x 71.7)	2
2	650481	8.1.1.00041	Bolt M8 x 22 HH (8.8)	4
3	2504072	8.6.7.00289	1/2" Oil Filler Vent Plug	1
4	811563		Cover	1
5	Not Available	0.124.7135.00	Plate	1
6	650473	0.132.6004.00	Crown Z21 M5.7	1
7	650281	8.0.9.00026	Roller Bearing 30207 (35 x 72 x 18.25)	1
8	650290	0.140.0300.00	Housing	1
9	650264	8.5.2.00131	Snap Ring (72 x 75 x 2.5)	2
10	650282	8.7.3.00055	Oil Seal (35 x 72 x 10)	1
11	650283	0.140.2000.00	Input Shaft	1
12	650484	0.132.7106.00	Castle Nut M30 x 1.5	1
13	650431	0.116.6204.00	Conic Pinion Z14 M5.7	1
14	650422	0.712.7500.00	Shim Kit (50.3 x 70.3)	1
15	650423	8.0.9.00469	Roller Bearing 30210 (50 x 90 x 21.75)	2
16	650289	8.7.1.01107	Oil Seal (50 x 90 x 10)	1
17	650288	0.139.7100.00	Protective Washer	1
18	650489	8.4.7.01111	Cotter Pin B4 x 50	1
19	650285	0.140.3002.00	Output Shaft	1
20	650286	0.139.7101.00	Flat Washer (31 x 56 x 6)	1
21	650287	0.140.7102.00	Castle Nut M30 x 2 (8.8)	1
22	709052	8.6.5.00008	3/8" Solid Plug	2
23	171017	8.0.1.00870	Ball Bearing 6207 (35 x 72 x 17)	1
24	650263	8.7.0.00744	Oil Cap (Ø72 x 10)	1
25	650291	0.102.7510.00	Shim Kit (30.3 x 44 x 1)	1
252	650482	8.4.7.00146	Cotter Pin - Uni 1336 B6 x 60	1
NS	2504222		Pipe Plug 1/4" NPT Square Head	1

SG-36 GEARBOX PARTS DRAWING & LIST



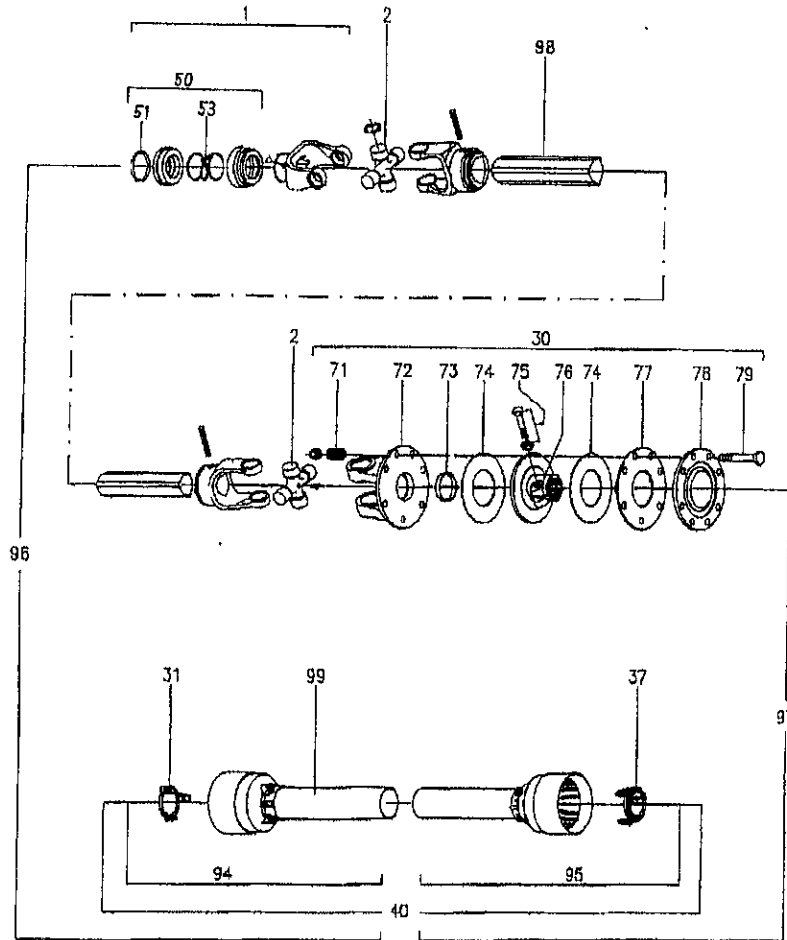
Ref. No.	Worksaver Part No.	Comer Part No.	Description	No. Reqd.
1	811574	U0.100.0300.03	Casting & Machining	1
2	811575	U0.100.6205.02	Gear Crown Z19 M8	1
3	811580	8.0.9.00143	Bearing 30209 (45 x 85 x 20.75)	2
4	811581	8.7.3.00331	Oil Seal (45 x 85 x 10)	1
5	811576	U0.100.2002.01	Input Shaft 1 3/8" Z6	1
6	811582	8.5.2.00332	Snap Ring (85 x 88.5 x 3)	2
7	811583	0.709.7500.00	Shim Kit (70.3 x 84.7)	2
8	811584	8.5.1.00533	Snap Ring (50 x 47 x 2)	1
9	811585	0.132.7107.00	Castle Nut M40 x 1.5	1
10	650422	0.712.7500.00	Shim Kit (50.3 x 70.3)	1
11	650286	0.139.7101.00	Flat Washer (31 x 56 x 6)	1
12	650434	8.2.2.00555	Castle Nut M30 x 2	1
13	811586	0.285.7510.00	Shim (40.3 x 61.7 x 1)	1
14	650288	0.139.7100.00	Protective Washer	1
15	650289	8.7.1.01107	Oil Seal (50 x 90 x 10)	1
16	650423	8.0.9.00469	Roller Bearing 30210 (50 x 90 x 21.75)	2
17	811577	U0.100.3003.02	Shaft Output	1
18	811578	U0.100.5204.02	Pinion Z13 M8	1
19	811587	8.4.7.02265	Cotter Pin B5 x 60	1
20	811588	0.252.7525.00	Shim (45.3 x 65.3 x 2.5)	1
21	709052	8.6.5.00006	3/8" Solid Plug	1
22	811589	0.121.7101.00	Oil Cap (85 x 10)	1
23	811590	8.1.1.00031	Bolt M8 x 25 HHB (8,8)	4
25	811573		Cover	1
27	2504072	8.6.7.00269	1/2" Oil Filler Vent Plug	1
251	650482	8.4.7.00146	Cotter Pin - Uni 1336 B6 x 60	1
NS	2504222		Pipe Plug 1/4" NPT Square Head	1

SG-26 PTO SHAFT PARTS DRAWING & LIST



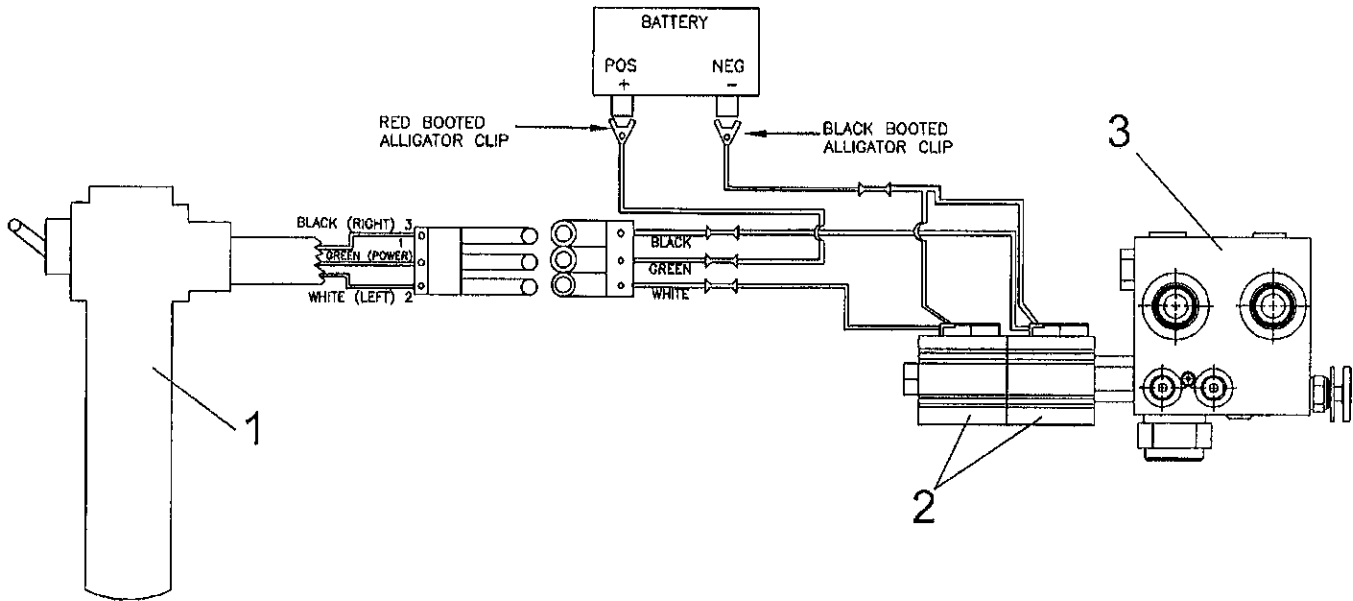
Ref. No.	Worksaver Part No.	Ref. No. (E & G)	Description	No. Req'd.
	650475	07.582.024.10	Complete Driveline Assembly	1
1	650701	141.025.001	Push Pin Yoke 112	1
2	650702	180.015.130	Cross Journal Set	2
30	650740	146.252.011	Complete Disc Clutch	1
31	650710	180.015.009	Guard Retaining Collar for Outer Tube	1
33	650712	190.000.019	Bolt, Plastic Retainer	6
37	650716	180.015.008	Guard Retaining Collar for Inner Tube	1
40	650763	142.250.007.7520	Complete Guard	1
51	650719	166.026.004	Push Pin Set 1 3/8"	1
71	650745	180.019.017	Spring	8
72	650746	151.015.038	Flanged Yoke	1
73	650747	180.019.019	Bushing	1
74	650748	180.019.018	Lining Ring	2
75	650749	165.000.502	Bolt M12 x 1.25 x 65 w/Nut	2
76	650750	151.018.018	Clutch Support	1
77	650751	180.019.014	Inner Plate	1
78	650752	180.019.116	Pressure Plate	1
79	650753	165.000.549	Bolt M10 x 85 w/Nut	8
94	650764	142.251.170.7520	Half Female Guard	1
95	650765	142.251.247.7521	Half Male Guard	1
96	650766	123.250.708.10	Half Female Shaft w/Guarding	1
97	650767	123.250.398.10	Half Male Shaft w/Guarding	1
98	650726	190.000.098	"DANGER" Label for Outer Tube	1
99	650727	190.000.099	"DANGER" Label for Outer Guard Tube	1

SG-36 PTO SHAFT PARTS DRAWING & LIST



Ref. No.	Worksaver Part No.	Comer Part No.	Description	No. Req'd.
	650280	07.682.088.10	Complete Driveline Assembly	1
1	650292	141.026.544	Complete Collar Yoke C12	1
2	650293	180.016.130	Cross Journal Set	2
30	650294	148.262.011	Complete Disc Clutch F22	1
31	650295	180.016.016	Guard Retaining Collar for Outer Tube	1
37	650296	180.016.015	Guard Retaining Collar for Inner Tube	1
40	650297	142.260.051.7620	Complete Guard	1
50	650298		Slide Lock Collar Repair Kit	1
51	650299	190.000.451	Outer Circlip	1
53	650314	180.016.487	Spring, Collar	1
71	650745	180.019.017	Spring, Disc Clutch	8
72	650317	151.016.037	Flanged Yoke	1
73	650747	180.019.019	Bushing	1
74	650748	180.019.018	Lining Ring	2
75	650749	165.000.502	Bolt M12 x 1.25 x 65 w/Nut	1
76	650750	151.018.018	Clutch Support F22	1
77	650751	180.019.014	Inner Plate	1
78	650752	180.019.116	Pressure Plate	1
79	650753	165.000.549	Bolt M10 x 85 w/Nut	8
94	650318	142.261.033.7620	Half Female Guard	1
95	650319	142.261.334.7620	Half Male Guard	1
96	650328	123.360.226.10	Half Female Shaft w/Guarding (Tractor End)	1
97	650329	123.460.286.10	Half Male Shaft w/Guarding (Implement End)	1
98	650726	190.000.098	"DANGER" Label for Outer Tube	1
99	650727	190.000.099	"DANGER" Label for Outer Guard Tube	1

SG-26H STUMP GRINDER WIRING DIAGRAM & PARTS LIST



Ref. No.	Part No.	Description	No. Req'd.
1	2507013	Switch Assembly w/ Male Connector	1
2	2507014	Coil 12VDC	2
3	2505644	Valve Assembly (includes Coils)	1

! SAFETY PRECAUTIONS !

**MOST ACCIDENTS OCCUR BECAUSE OF NEGLIGENCE OR CARELESSNESS.
AVOID NEEDLESS ACCIDENTS BY FOLLOWING ALL OF THE SAFETY PRECAUTIONS LISTED BELOW.**

- Machinery should be operated only by those who are responsible and are authorized to do so.
- Stop the engine, lower all equipment, lock the brakes, and remove the ignition key before dismounting from the tractor.
- Never stand between tractor and implement while tractor is being backed to hitch.
- Loose fitting clothing should not be worn, to avoid catching on various parts.
- Detach Implement in area where children normally do not play.
- When performing adjustments or maintenance on an implement, first lower it to the ground or block it securely at a workable height.
- Only a qualified operator should be permitted on tractor when in operation; no riders allowed.
- Make certain everyone is in the clear before starting tractor or raising or lowering equipment.
- Operate the tractor and implement only while seated in the driver's seat.
- Reduce speed when transporting mounted implements to avoid bouncing and momentary loss of steering control.
- A heavy load can cause instability of the tractor. Use extreme care during road travel. Slow down on turns and watch out for bumps. Tractor may need front counterweights to counter-balance the weight of the implement.
- Reduce speed on hillsides or curves so there is no danger of tipping.
- Avoid driving too close to the edge of ditches or creeks.
- Do not transport implement on public roads without reflectors and slow moving vehicle emblem in daylight and with approved warning lights at night and other periods of poor visibility.
- Due to the width of some implements, use extra caution on highways, farm roads, and when approaching gates.
- Always be sure the implement is in the proper position for transport.
- Keep alert and watch the front as well as the rear when working with the implement.

OWNER'S/ OPERATOR'S MANUAL

MODEL NO.'s

SG-26

SG-26H

SG-36

**WHEN ORDERING REPAIR
PARTS, ALWAYS GIVE THE
FOLLOWING INFORMATION:**

1. PART NUMBER
2. PART DESCRIPTION
3. MODEL NUMBER
4. NAME OF ITEM

JULY 2007

Equip tractors with roll-over protection (ROPS) and keep all machinery guards in place.

Keep children away from danger all day, every day . . .

Please work, drive, play and live each day with care and concern for your safety and that of your family and fellow citizens.

**MAKE EVERY DAY
A HOLIDAY
FROM ACCIDENTS**

WORKSAVER, INC.

P.O. BOX 100 LITCHFIELD, IL 62056-0100 (217) 324-5973
WEB: <http://www.worksaver.com> E-MAIL: sales@worksaver.com

TROUBLE-SHOOTING

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Stump grinder wheel raises during cut	<ol style="list-style-type: none"> 1. Dull teeth. 2. Foreign object in stump. 	<p>Rotate or replace teeth.</p> <p>Check – remove object if possible.</p>
Tractor stalls	<ol style="list-style-type: none"> 1. Too large of cut. 2. Tractor or skid steer too small. 3. Tractor PTO rpm too low. 4. Too heavy of cut. 5. Teeth dull. 	<p>Reduce cut depth or reposition power unit so wheel only cuts part of stump.</p> <p>Use larger power unit.</p> <p>Operate at 540 PTO rpm.</p> <p>Only apply interrupted hydraulic pressure to swing cylinder (let tractor or skid steer recover rpm before applying more side cutting pressure).</p> <p>Replace teeth.</p>
Breaking cutting teeth	<ol style="list-style-type: none"> 1. Contact with stones or other foreign objects. 	<p>Check – remove stones or foreign object.</p> <p>Replace broken teeth.</p>
Stump grinder will not grind stump enough below ground level	<ol style="list-style-type: none"> 1. Toplink needs adjusting. 	<p>Adjust toplink.</p>
Stump grinder will not grind high enough	<ol style="list-style-type: none"> 1. Toplink needs adjusting. 	<p>Adjust toplink.</p>
Stump grinder wheel shows wear	<ol style="list-style-type: none"> 1. Operating too long with dull teeth. 2. Operating below ground level in abrasive soil conditions. 3. Operating wheel with teeth missing. 4. Contact with foreign objects. 	<p>Replace or rotate teeth more often.</p> <p>Do not grind stumps below ground more than necessary.</p> <p>Always operate cutting wheel with full set of cutting teeth. Check wheel often.</p> <p>Be more observant when operating.</p>

TROUBLE-SHOOTING (continued)

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Teeth wear too fast	1. Cutting in sandy conditions.	Don't grind below ground more than necessary.
	2. Cutting in rocky conditions.	Remove rocks from around stump.
	3. Operator not raising wheel when returning to "start" position.	Raise wheel slightly before returning to "start" position (see page 24).
	4. Cutting teeth hitting foreign object in stump.	Check stump for wire, iron, spike, horseshoe, etc. Remove.
	5. Operator not rotating teeth.	Rotate teeth.
Stump grinder seems to require excessive power	1. Advancing into stump too rapidly or too great a cut.	Take less cut or reduce hydraulic feed pressure (see page 27).
	2. Worn or dull teeth.	Rotate or replace teeth.
	3. Tractor not large enough.	Use larger tractor.
	4. Skid steer not producing enough hydraulic flow.	Check skid steer hydraulic system.
Stump grinder moves from side to side when cutting	1. Loose tractor sway chains or bars, or sway block improperly installed.	Adjust sway chains, bars, or sway blocks.
	2. Stump grinder not properly latched on skid steer.	Check latches.
Stump grinder will not cut all the time (slip clutch drive)	1. Slip clutch slipping.	Adjust slip clutch according to instructions.
	2. Tractor PTO clutch slipping.	Check tractor PTO – replace clutch if necessary.
	3. Low hydraulic oil.	Check oil level.
	4. Teeth dull and stump is hardwood.	Replace teeth.
	5. See – "Stump grinder will not feed into stump".	

TROUBLE-SHOOTING (continued)

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Hydraulic hose failure	1. Power unit hydraulic relief pressure setting is very high and may cause hydraulic hose failure.	Check power unit hydraulic system and adjust relief valve.
	2. Hoses are worn or frayed.	Replace hose.
	3. Hose rating may be too low for hydraulic system pressure.	Replace with higher rated hoses.
	4. Hose is being pinched by movement of 3 pt. mount or 3 pt. linkage.	Reroute hose and refasten.
Hydraulic oil overheats	1. Hydraulic oil level in tractor or skid steer may be low.	Check and add oil.
	2. Hydraulic oil or oil filter in tractor or skid steer may be dirty.	Change oil and filter according to power unit manufacturer's recommendations.
	3. Hydraulic oil reservoir of tractor or skid steer may be small.	Allow time for oil to cool down.
	4. Tractor has closed center hydraulic system.	Flow control should be at minimum flow. If no flow control, add restrictor orifice (throttle valve) to reduce flow (see page 22).
Stump grinder wheel will not feed into stump	1. Too big of a cut.	Raise wheel and take less cut.
	2. Operator cut rear part of stump first. Front uncut part of stump is holding wheel arm.	Raise and reposition stump grinder to cut front part of stump – then go back to rear to cut deeper.
	3. Teeth very dull.	Replace teeth.
	4. Low hydraulic oil in tractor or tractor is on steep hill and oil in reservoir is away from pump inlet.	Check oil level. Reposition tractor in other direction (if possible).
	5. Quick couplers on swing cylinder hoses not properly engaged (or wrong couplers for tractor remote hydraulic outlets).	Check couplers and make sure they are connected properly.
	6. Relief valve setting too low.	Check and increase relief valve pressure. (Best if checked with pressure gauge.)

TROUBLE-SHOOTING (continued)

PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Gearbox noisy	1. Rough gears.	Run in or change gears.
	2. Worn bearings.	Replace bearing.
	3. Low oil in gearbox.	Check level and add oil.
Gearbox leaking	1. Damaged oil seal.	Replace seal.
	2. Bent shaft.	Replace oil seal and shaft.
	3. Shaft rough in oil seal area.	Replace or repair shaft.
	4. Oil seal installed wrong.	Replace seal.
	5. Oil seal not sealing in the housing.	Replace seal or use a sealant on outside diameter of seal.
	6. Oil level too high.	Drain oil to proper level.
	7. Hole in gearbox.	Replace gearbox.
	8. Gasket damaged.	Replace gasket.
	9. Bolts loose.	Tighten bolts.
Gearbox overheating	1. Low on lubricant.	Fill to proper level.
	2. Improper type lubricant.	Replace with proper lubricant.
	3. Excessive trash build-up around gearbox.	Remove trash.
Excessive vibration	1. Check gearbox bolts.	Tighten if loose.
	2. Check for loose nut and cutting wheel.	Tighten if loose.
	3. Check for bent output shaft. If shaft is bent, oil will normally leak from output seal.	Replace shaft if bent.
	4. Drivelines not phased correctly. Implement and tractor yokes must be in line.	Replace driveline.
	5. Wire or rope wrapped around cutting wheel.	Remove wire or rope.
	6. Teeth worn.	Replace teeth.
	7. Teeth missing on wheel.	Check and replace teeth.
	8. Too heavy cut.	Reduce cutting depth or reduce hydraulic feed pressure.