

# SEARS

## owners manual

Model No.  
502.255090



# CRAFTSMAN<sup>®</sup>

## 10 HP. ELECTRIC START 30" MOWER 5 SPEED REAR ENGINE RIDER

### CAUTION:

Read And Follow  
All Safety Rules  
And Instructions Before  
Operating This  
Equipment.

- Assembly
- Operation
- Maintenance
- Service and Adjustment
- Repair Parts

# SAFETY RULES

Safe Operation Practices for Riding Vehicles  
As Recommended by American National Standards Institute

**This cutting machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death to the operator or bystanders.**

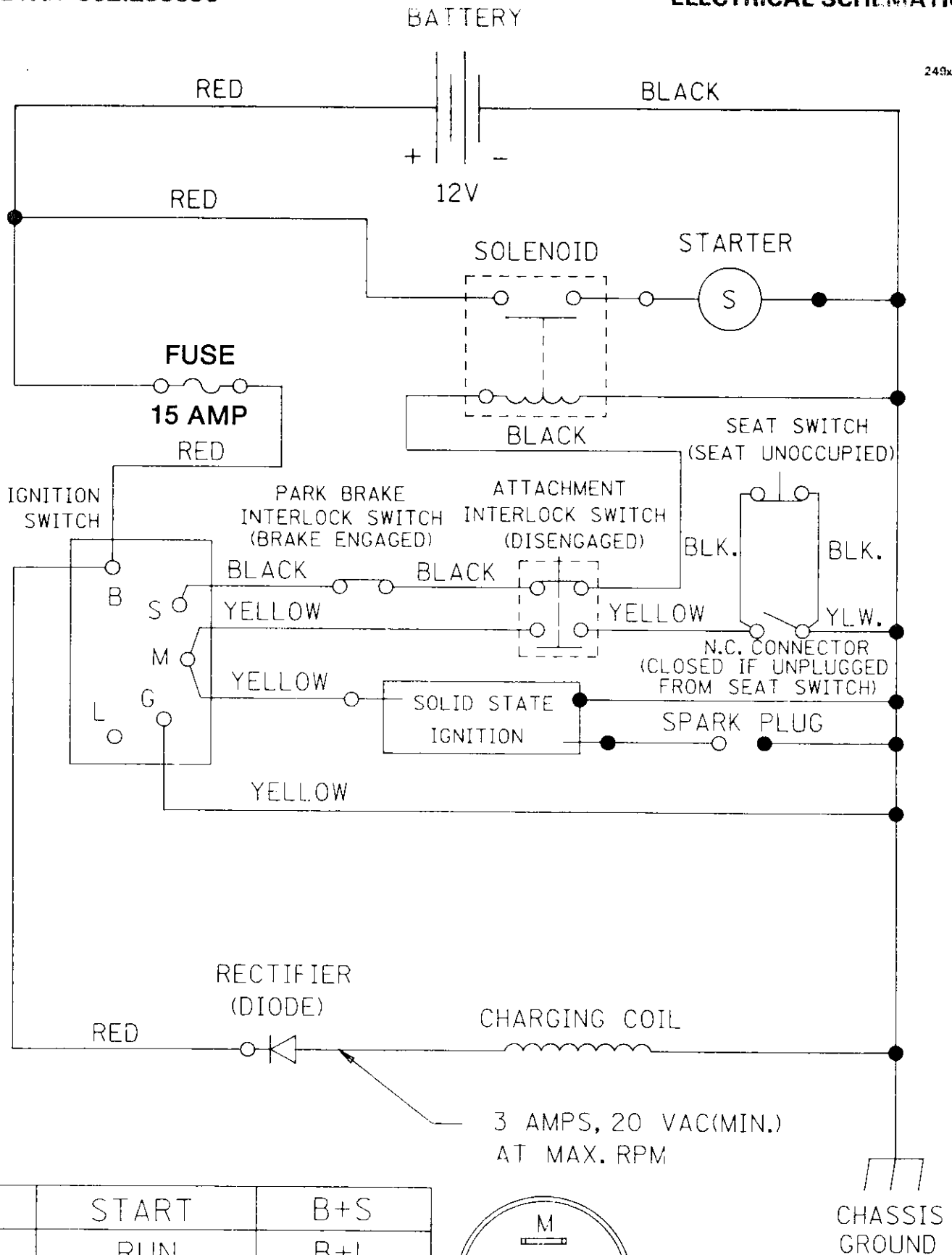
## GENERAL OPERATION:

1. Read, understand, and follow all instructions in the Instruction Book, on the machine, on the engine, and with any attachments before starting.
2. Only allow responsible adults familiar with the instructions to operate the machine.
3. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blade.
4. Be sure the area is clear of other people before mowing. Stop the machine if anyone enters the area.
5. Never carry passengers.
6. Disengage all attachment clutches and shift into Neutral before attempting to start the engine.
7. Disengage power to the mower or any attachments before backing up. Do not mow in reverse unless absolutely necessary. Always look down and behind before and while backing.
8. Be aware of the direction the mower discharge. Do not point discharge from the mower at anyone or at places where people may be. Do not operate the mower without either the entire grass bagger or the mower guard in place.
9. Slow down before turning.
10. Never leave a machine unattended with the engine running. Always disengage the blade(s), set the parking brake, stop the engine and remove the key before dismounting.
11. Disengage power to attachment(s) when transporting or not in use. Disengage the blade(s) when not mowing.
12. Stop the engine before removing the grass bagger or unclogging the chute.
13. Mow only in daylight or good artificial light.
14. Do not operate the machine while under the influence of alcohol or drugs or when very tired.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra caution when loading or unloading the machine when using a trailer or truck for transporting.
17. Always wear safety glasses or an eye shield when you operate the unit to protect your eyes from foreign objects that can be thrown from the unit. Always wear eye protection when you make an adjustment or repair to the machine.
18. Use care when pulling loads or using heavy equipment.
  - a. Use only approved drawbar hitch points.
  - b. Limit loads to those you can safely control.
  - c. Do not turn sharply. Use care when backing.
  - d. Use counterweights or wheel weights when suggested in the Instruction Book.

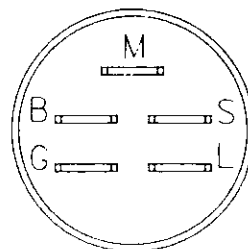
## CHILDREN:

**Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. Never assume that children will remain where you last saw them.**

1. Keep children out of the mowing area and in the watchful care of an adult other than the operator.
2. Be alert and turn the engine off if children enter the area.
3. Before and when backing, look behind and down for small children.
4. Never carry children or any passengers. They may fall off and be seriously injured or interfere with the safe operation of the machine.
5. Never allow children to operate the machine. Instruct children in the dangers of the machine.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure vision.



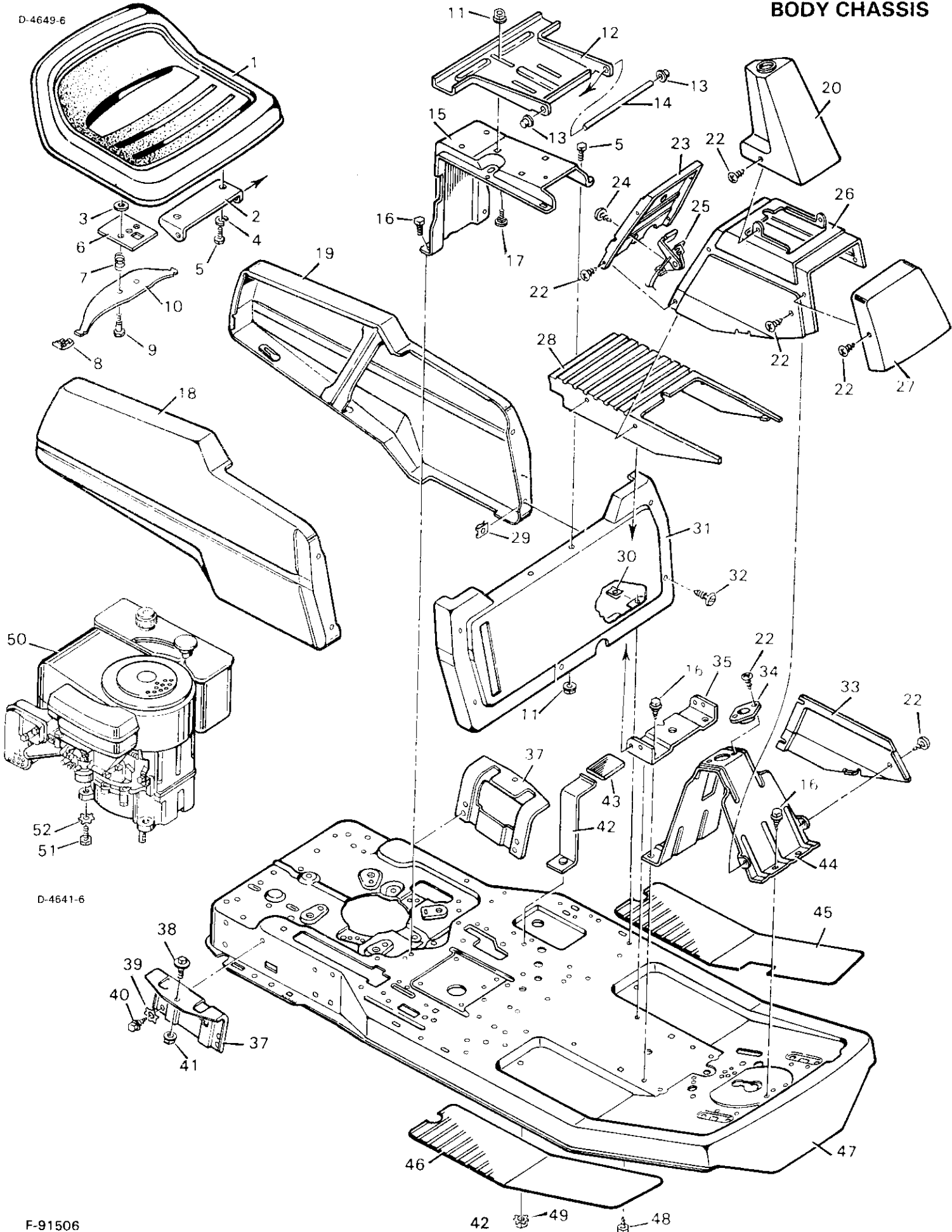
POS.	FUNCTION	CIRCUIT
3	START	B+S
2	RUN	B+L
1	OFF	G+M



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REPAIR PARTS  
BODY CHASSIS

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D-4641-6

F-91506

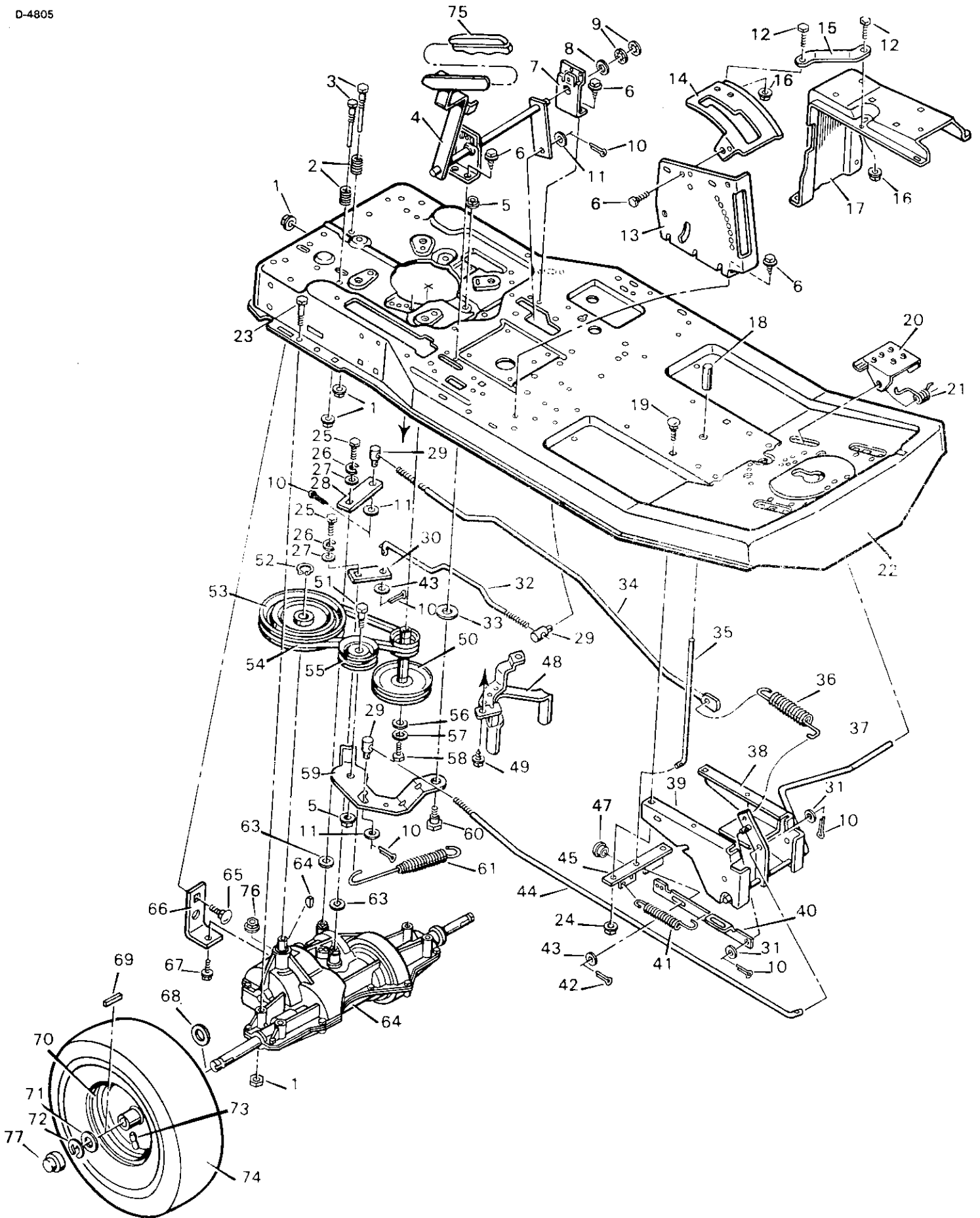
**MODEL NO. 502.255090**

**REPAIR PARTS  
BODY CHASSIS**

<b>KEY NO.</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>MFG. NO.</b>	<b>KEY NO.</b>	<b>DESCRIPTION</b>	<b>PART NO.</b>	<b>MFG. NO.</b>
1	Seat	56542		33	Panel -Left, Access	56406E601	
2	Hinge, Seat	56516E601		34	Bearing, Steering Post	56022	
3	Retainer	28x64		35	Bracket, Cover Mounting	56411E601	
4	Lockwasher	STD551131	18x16	37	Support, Body	56122E601	
5	Bolt, Hex	STD523106	1x45	38	Bolt, Shoulder	9x29	
6	Plate Assy., Seat Switch	91963Z		39	Lockwasher	STD551231	19x6
7	Spring, Compression	164x22		40	Screw	26x49	
8	Glide, Seat Spring	91822		41	Locknut, Flange	STD541437	15x84
9	Bolt, Shoulder	9x38		42	Clamp Assembly, Battery	55253Z	
10	Spring, Seat	91964		43	Cover, Battery Clamp	55804	
11	Locknut, Flange	STD541431	15x88	44	Support, Steering Column	56404E601	
12	Bracket, Seat Pivot	56518E601		45	Mat -Left, Floor	56415	
13	Cap, Push On	28x23		46	Mat -Right, Floor	56414	
14	Rod, Seat Hinge	56537Z		47	Frame	56587E601	
15	Support, Seat	56519E601		48	Screw	6x74	
16	Screw	26x249		49	Nut, Keps	STD541431	15x76
17	Bolt, Carriage	STD533107	2x53	50	Engine, Tecumseh	+	
18	Panel, Right Side	55418E601			Model 143.416032		
19	Panel, Left Side	55419E601		51	Bolt, Engine Mount	25x6	
20	Cover, Steering Column	56402		52	Lockwasher	STD551237	19x8
22	Screw, Tapping	26x250			• Decal - Red Strip, Right Body	44x1096	
23	Panel, Control	56400			• Decal - Red Strip, Left Body	44x1097	
24	Screw	STD610803	26x201		• Decal - Grey Strip, Right Body	44x1098	
25	Throttle Control	56420			• Decal - Grey Strip, Left Body	44x1099	
26	Console	56405E601			• Decal, Shift	44x1476	
27	Cap, Front Console	56407E601			• Decal, Right & Left Console	44x1100	
28	Cover, Lower Console	56401			• Decal, Right & Left Console	44x1723	
29	Receptacle	28x52			• Decal, Front Console Cap	44x1063	
30	J-Nut	28x18			• Decal, Clutch/Brake	44x524	
31	Panel, Front	56413E601			• Decal, Front Panel Caution	44x1951	
32	Screw, Southco	91330			• Decal, Front Panel Hi/Lo	44x1067	

+ NOTE: See replacement parts pages 58-61 for component parts.

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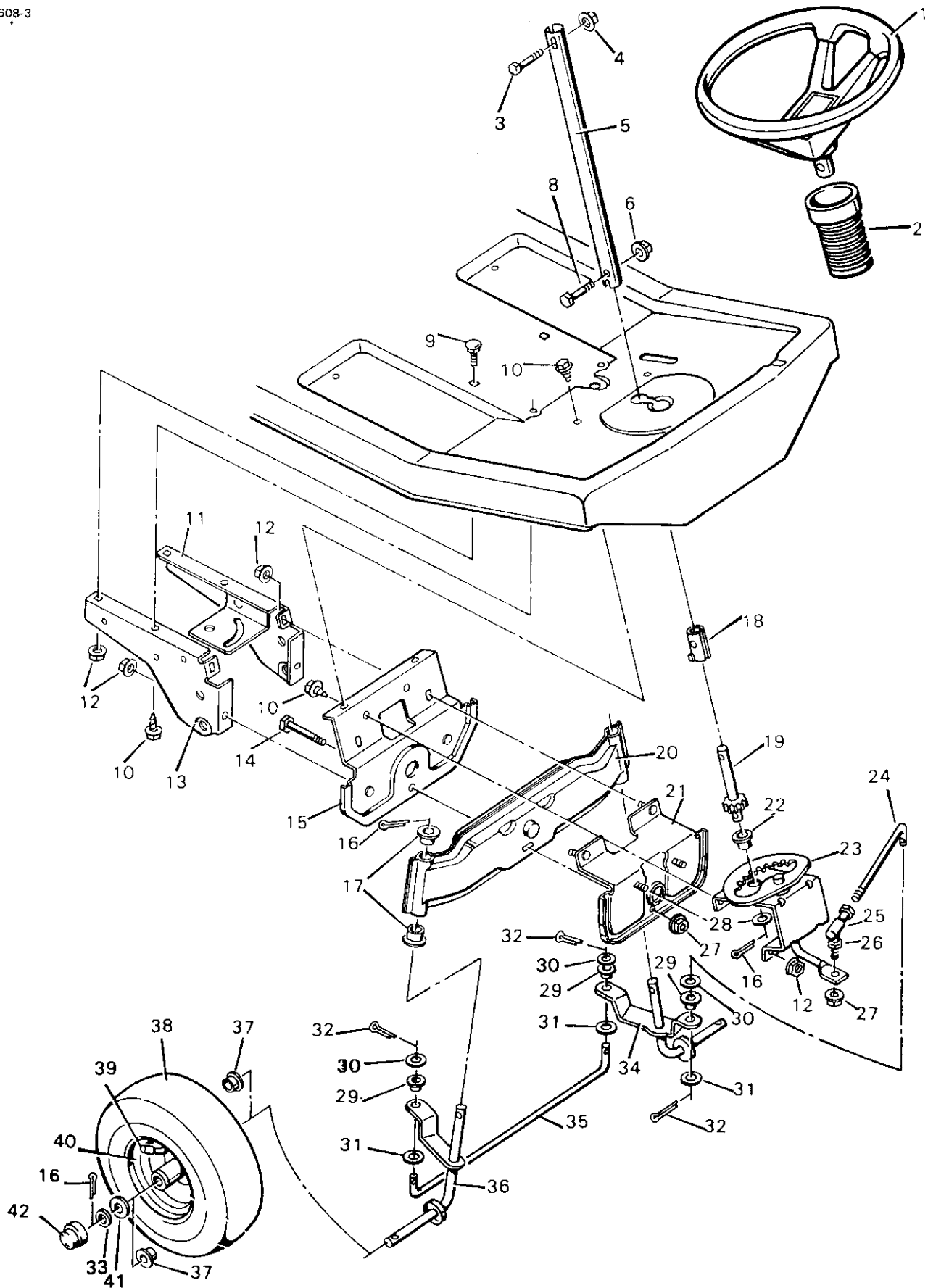
KEY NO.	DESCRIPTION	PART NO.	MFG. NO.	KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Locknut, Flange	STD541431	15x88	41	Spring, Extension	165x84	
2	Spring, Compression	164x1		42	Pin, Cotter	STD560907	30x50
3	Guide, Belt	55826		43	Washer	17x46Z	
4	Shifter Assembly	56524E601		44	Rod, Clutch	56531Z	
5	Locknut, Flange	STD541437	15x84	45	Stop, Parking Brake	56592E701	
6	Screw	26x249		47	Grommet	56593	
7	Bracket, Mounting	56502E601		48	Guide, Belt	56508Z	
8	Washer	17x100		49	Screw	26x49	
9	Nut, Speed	28x60		50	Pulley Assembly, Stack	56513Z	
10	Pin, Cotter	STD560907	30x20	51	Bolt, Hex	STD523715	1x111
11	Washer	STD551037	17x53Z	52	Ring, Retainer	STD582062	11x7
12	Bolt, Hex	STD522506	1x38	53	Pulley, Drive	56562	
13	Plate, Index	56595E601		54	Belt, Motion Drive	37x65	
14	Gate, Shift	56594E601		55	Pulley, Idler	56526	
15	Brace, Shift Gate	56529E601		56	Washer	17x170	
16	Locknut, Flange	STD541425	15x89	57	Lockwasher	STD551243	19x35
17	Support, Seat	56519E601		58	Bolt, Hex	1x80	
18	Grip, Parking Brake	55873		59	Bracket, Idler	56520E701	
19	Bolt, Carriage	STD533107	2x64	60	Bolt, Shoulder	9x42	
20	Pedal	56409E601		61	Spring, Extension	165x81	
21	Spring, Torsion	166x18		63	Washer	17x148	
22	Frame	56587E601		64	Transaxle	+	
23	Bolt, Hex	1x124			Dana Model 4450-1		
24	Nut, Flange	STD541031	15x79	65	Bolt, Carriage	STD533107	2x53
25	Bolt, Hex	1x82		66	Bracket, Transaxle	56503Z	
26	Lockwasher	STD551125	18x32	67	Bolt, Hex	1x139	
27	Washer	17x37Z		68	Washer	17x160	
28	Yoke, Brake	56500Z		69	Key, Square	56534	
29	Nut, Adjusting	21920		70	Wheel & Tire Assembly	90590E601	
30	Yoke, Shift	56505Z		71	Washer	17x115	
31	Washer	STD551031	17x47Z	72	E-Ring	STD581075	11x3
32	Rod, Shift	56591Z		73	Valve Stem (Incl'd with key 70)	24373	
33	Washer	17x174HT		74	Tire Only (Incl'd with key 70)	90589	
34	Rod, Brake	56530Z		75	Grip, Shift Lever	56161	
35	Rod, Parking Brake	56410Z		76	Locknut, Hex	STD541413	15x43
36	Spring, Extension	165x85		77	Hub Cap	24582	
37	Lever, Pedal	56511E601					
38	Plate -Left, Suspension	55384E601					
39	Plate -Right, Suspension	56023E601					
40	Link, Parking Brake	56565Z					

+ See replacement parts pages 56-57 for component parts.

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# REPAIR PARTS STEERING SYSTEM

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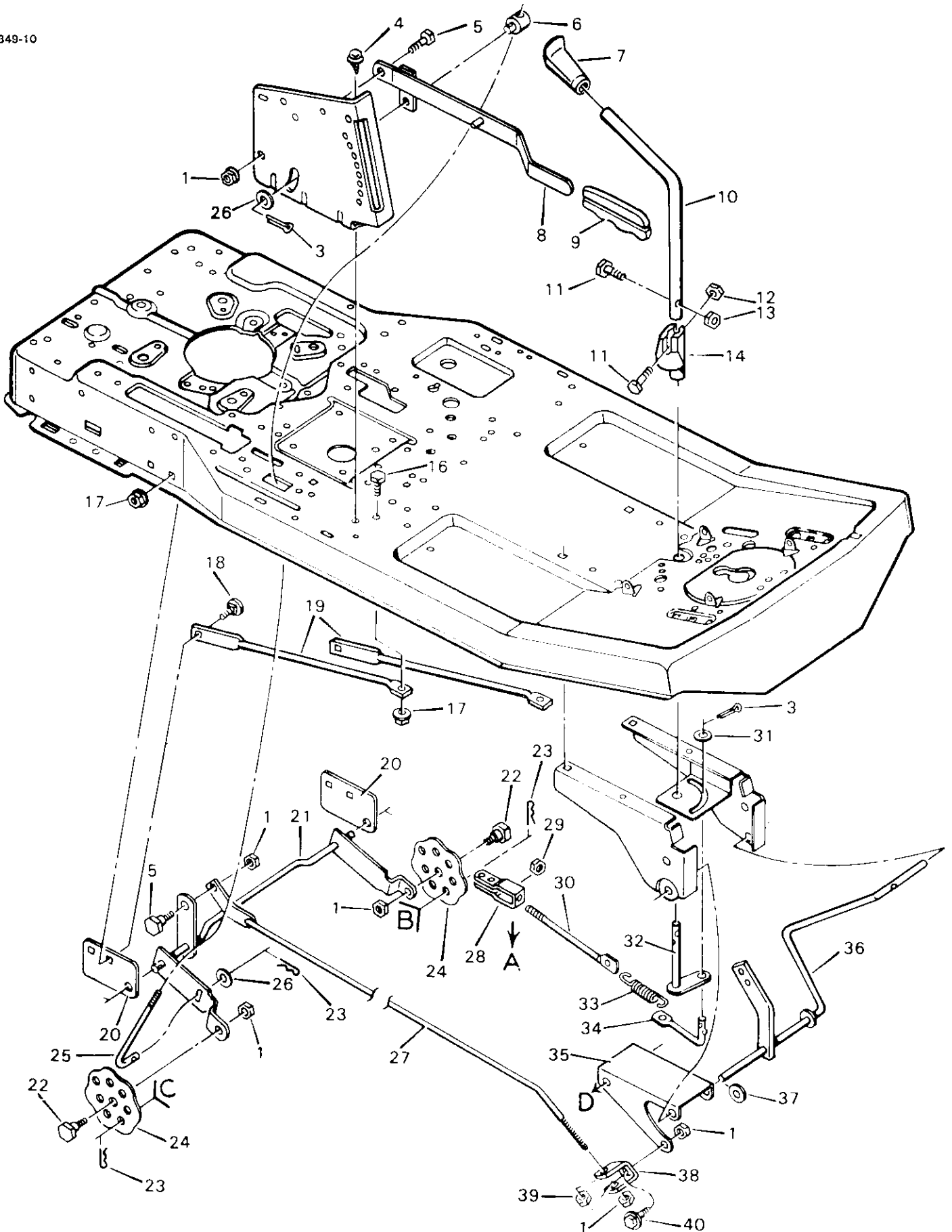


KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Steering Wheel	92077	
2	Bellows, Steering Post	91298	
3	Bolt, Hex	STD523115	1x102
4	Locknut, Flange	STD541431	15x88
5	Post, Steering	56417C	
6	Nut, Hex	STD541531	15x90
8	Bolt, Hex	1x126	
9	Bolt, Carriage	STD533107	2x64
10	Screw	26x249	
11	Plate -Left, Suspension	55384E601	
12	Nut, Flange	STD541031	15x79
13	Plate -Right, Suspension	56023E601	
14	Bolt, Hex	STD623725	1x69
15	Support, Front Axle	55937E701	
16	Pin, Cotter	STD561220	30x49
17	Bearing, Spindle	55003	
18	Adapter, Steering Post	56416	
19	Gear, Pinion	56418	
20	Axle Assembly, Front	55024E601	
21	Hanger Assembly, Front Axle	55655E701	
22	Bearing	55168	
23	Sector Assembly	55746E701	
24	Rod, Drag Link	55046E701	
25	Ball Joint, Steering	21031	
26	Nut, Hex	15x61	
27	Locknut, Flange	STD541537	15x87
28	Washer	17x87	
29	Bearing, Flanged	55547	
30	Washer	STD551037	17x53
31	Washer	17x161	
32	Pin, Cotter	STD560907	30x20
33	Washer	17x100Z	
34	Spindle Assembly, Left	55381E601	
35	Rod, Tie	55026E701	
36	Spindle Assembly, Right	55380E601	
37	Bearing, Wheel	56105	
38	Tire Only (Incl'd with key 40)	55386	
39	Valve Stem (Incl'd with key 40)	24373	
40	Wheel & Tire Assembly	55387E601	
41	Washer	24583	
42	Hub Cap	24582	

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REPAIR PARTS  
MOWER HOUSING SUSPENSION

D-4349-10



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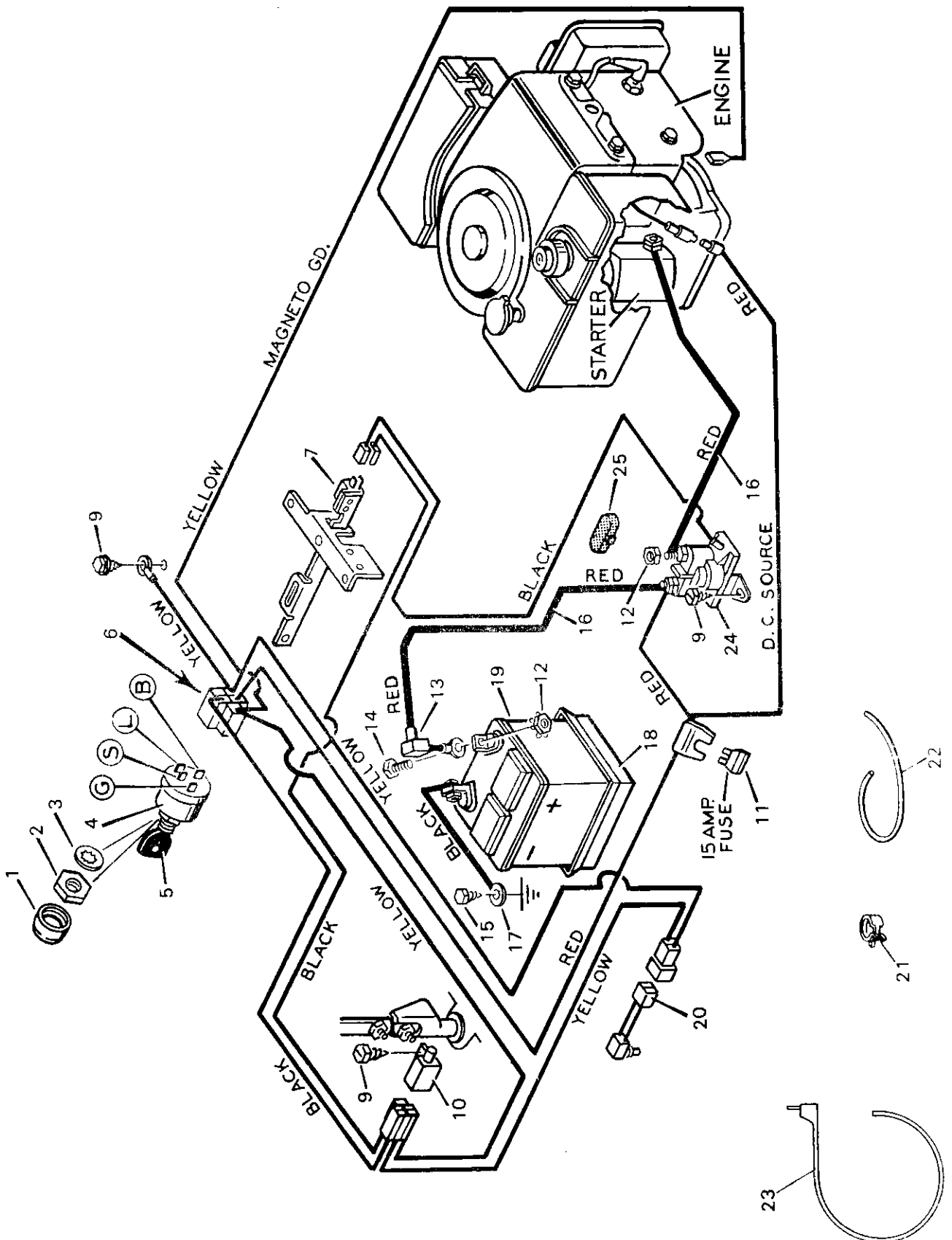
REPAIR PARTS  
MOWER HOUSING SUSPENSION

KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Locknut, Flange	STD541437	15x84
3	Pin, Cotter	STD560907	30x20
4	Screw	26x249	
5	Bolt, Shoulder	9x9Z	
6	Nut, Adjusting	21920	
7	Grip, Blade Control	92055	
8	Lever Assembly, Lift	56031E601	
9	Grip, Lift Lever	56161	
10	Lever, Blade Control	55928Z	
11	Bolt, Hex	STD522510	1x76
12	Nut, Keps	STD541425	15x66
13	Locknut, Flange	STD541425	15x89
14	Cam, Blade Control	55853	
16	Bolt, Hex	STD523106	1x45
17	Locknut, Flange	STD541431	15x88
18	Bolt, Carriage	STD533107	2x64
19	Strut, Frame	55326E701	
20	Plate, Mounting	55270E701	
21	Rod Assembly, Rear Suspension	55346E701	
22	Bolt, Shoulder	9x4	
23	Pin, Hair	STD624005	31x4
24	Plate, Adjusting	55344E601	
25	Rod, Lifter	24839E701	
26	Washer	STD551037	17x53
27	Rod, Suspension	55957E701	
28	Clevis	24471Z	
29	Nut, Hex	STD541031	15x2
30	Link, Blade Drive	55271Z	
31	Washer	17x48	
32	Rod and Arm Assembly	55930E701	
33	Spring, Extension	165x67	
34	Link, Front Deck	55179E701	
35	Bracket, Front Suspension	55139E601	
36	Lever, Pedal	56511E601	
37	Washer	17x122	
38	Clevis	55298	
39	Locknut, Hex	STD541237	15x73
40	Bolt, Shoulder	9x17	



KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Belt, Mower Drive	37x57	
2	Pulley, Splined	91951	
3	Lockwasher	18x33	
4	Locknut, Hex	15x101	
5	Nut, Hex	STD541450	15x41
6	Pulley, Idler	91178	
7	Bracket, Upper Idler	55921E701	
8	Spacer	55895	
9	Assembly, Blade Idler	55979E701	
10	Locknut, Flange	STD541431	15x88
11	Pin, Clevis	29x99	
12	Clevis	24471Z	
13	Bolt, Hex	STD523106	1x45
14	Pin, Hair	STD624003	31x6
15	Guide, Belt	55977E701	
16	Bracket, Lower Idler	55920E701	
17	Bolt, Carriage	STD533107	2x53Z
18	Nut, Flange	STD541031	15x79
19	Guide, Belt	55894E701	
20	Spacer	91925	
21	Bolt, Hex	STD525015	1x127
22	Housing, Mandrel	55962E701	
23	Guide, Belt	55956Z	
24	Bracket, Hanger	55974E701	
25	Spring, Compression	164x1	
26	Nut, Hex	STD541431	15x43Z
27	Spring, Torsional	166x4	
28	Push On Cap	28x23	
29	Rod	21197Z	
30	Hinge, Chute Deflector	55963E701	
32	Spring, Extension	165x68	
34	Bracket, Front	55916E701	
35	Screw	26x216	
36	Bolt, Hex	STD523117	1x75
37	Deflector, Chute	55971	
38	Mandrel	91921	
39	Blade	56060HT	
40	Washer, Belleville	17x166	
41	Washer, Hardened	17x165	
42	Nut, Hex	15x100	
43	Pin, Pull	90828Z	
44	Washer	STD551050	17x67Z
45	Pin, Hair	STD624005	31x4
46	Adapter, Blade	91926	
1-47	Mower Housing, Complete	403330	

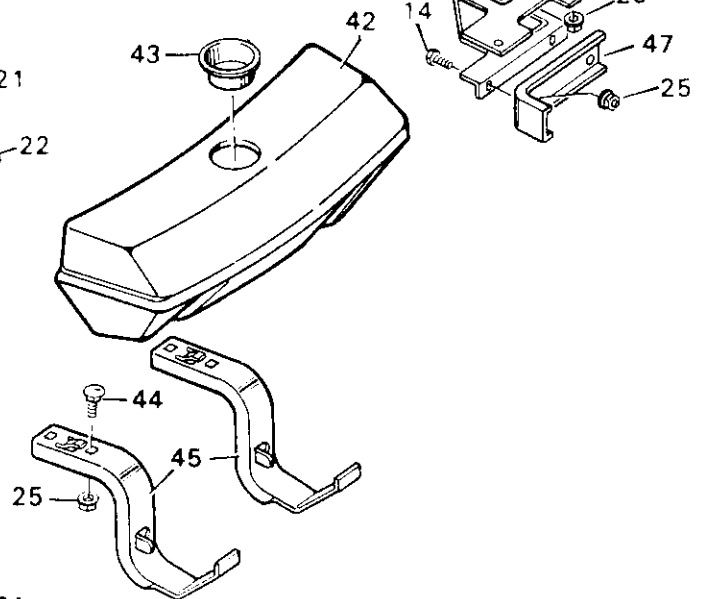
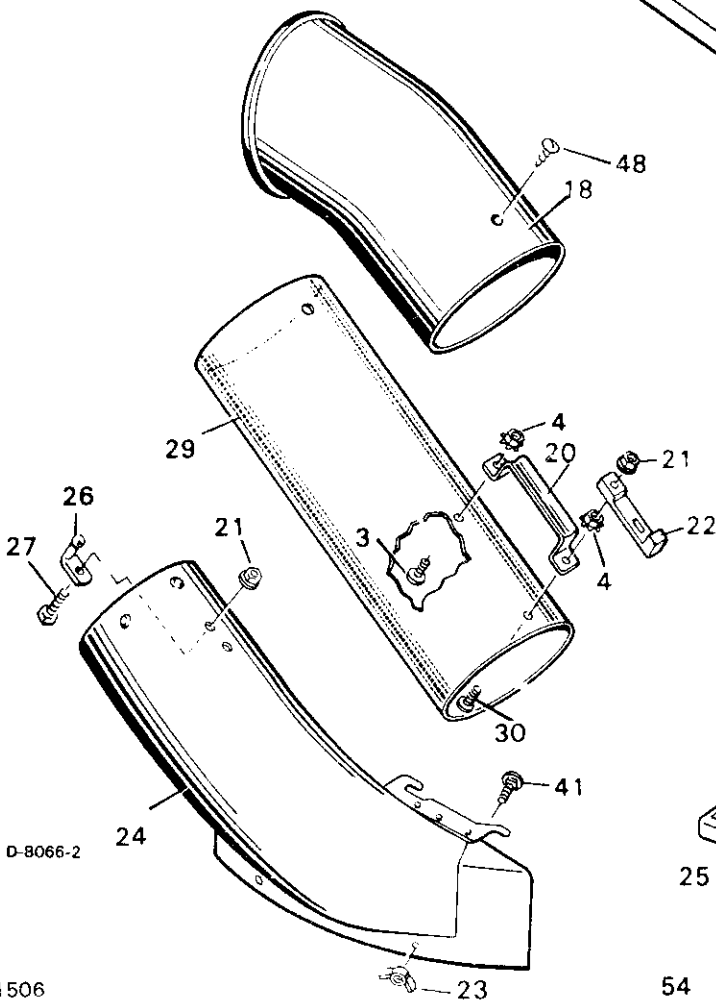
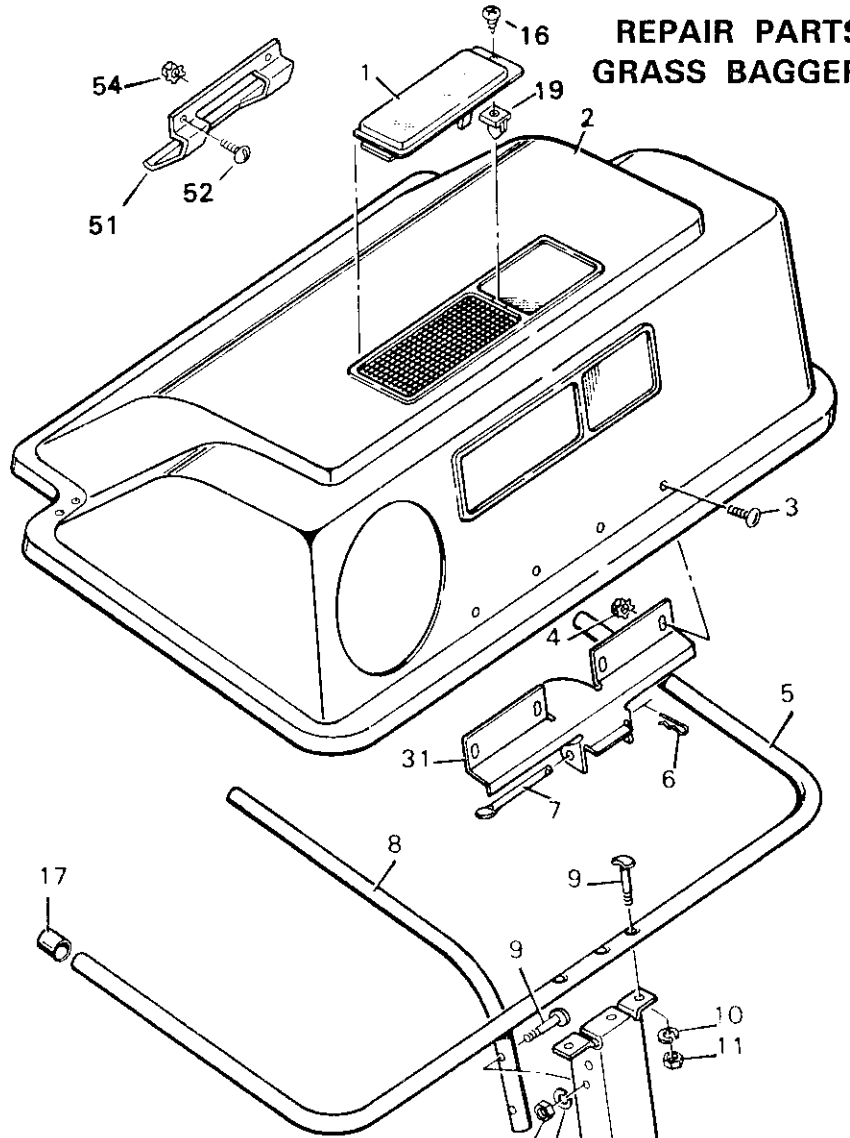
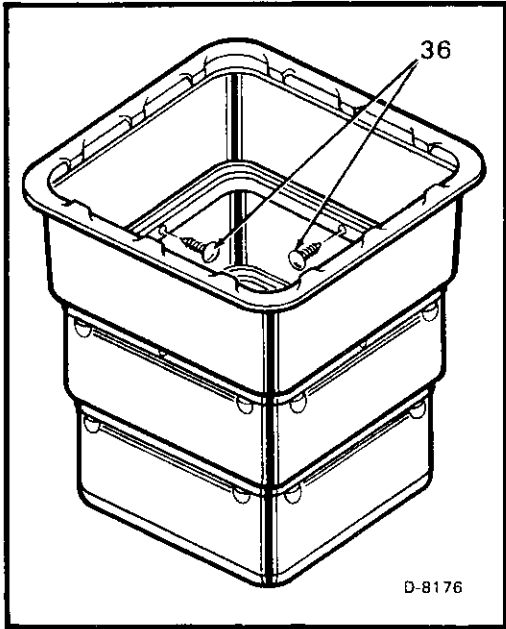
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KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Cap, Ignition Switch	91488	
2	Nut, Ignition Switch	91489	
3	Lockwasher	19x40	
4	Switch, Ignition	21064	
5	Key, Ignition Switch	91275	
6	Harness, Wiring	250x31	
7	Switch, Limit	24273	
9	Screw	26x233	
10	Switch, Blade Control	91299	
11	Fuse	54212	
12	Nut, Keys	STD541425	15x66
13	Boot, Battery Cable	54148	
14	Bolt, Hex	STD522506	1x38
15	Screw	26x249	
16	Cable, Red	24x24	
17	Cable, Black	24x3	
18	Tray, Battery	91896	
19	Battery, Type: U1-5L	92196	
—	Acid, Battery (Electrolyte)	55702	
20	Switch, Seat	91031	
21	Clamp, Drain Tube	91565	
22	Tube, Battery Drain	91584	
23	Tie Strap, Drain Tube	32618	
24	Solenoid	24285	
25	Cover, Solenoid	56049	

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REPAIR PARTS  
GRASS BAGGER



KEY NO.	DESCRIPTION	PART NO.	MFG. NO.
1	Window	54557	
2	Cover	54540	
3	Screw	STD512505	4x24
4	Locknut	STD541425	15x66
5	Tube, "U"	54410E701	
6	Pin, Hair	STD624003	31x6
7	Pin, Hinge	54407Z	
8	Tube, Center	54412E701	
9	Bolt	6x93Z	
10	Lockwasher	STD551131	18x15
11	Nut, Hex	STD541131	15x32
12	Channel Assembly	54422E701	
13	Pin, Channel	54408Z	
14	Bolt, Hex	STD523107	1x91
15	Hitch Assembly	54499E701	
16	Screw	26x246	
17	Cap, End	24862	
18	Elbow	54415	
19	Nut, Expansion	28x56	
20	Handle, Connector Tube	54416E701	
21	Locknut, Flange	STD541425	15x89
22	Latch, Rubber	54695	
23	Wingnut	14x83	
24	Tube, Extension	54519	
25	Locknut	STD541431	15x76
26	Pin, Latch	54563	
27	Bolt, Carriage	STD532507	2x39
29	Tube, Connector	54555	
30	Screw	STD512510	4x71
31	Hinge, Cover	54398E701	
36	Fasteners, Plastic (Included with Key 37)	193x1	
37	Containers (Quantity of 2 included)	54727SE	
41	Bolt, Carriage	STD533107	2x64
42	Shell, Front Weight	55442	
43	Plug, Weight	24863	
45	Bracket, Weight	54551E701	
47	Bracket, Support	54562E701	
48	Screw	26x239	
51	Handle, Plastic	54537	
52	Screw	STD511007	4x21
53	Nut, Hex	STD541410	15x81

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