

# **Technical Manual**

## **SCAG'S COMMERCIAL MOWER**

### **MODELS**

ST-18-B Tractor  
SM-61 Cutter Deck  
SM-48 Cutter Deck  
SM-42 Cutter Deck

**Scag Power Equipment, Inc.  
W226 N900 Eastmound Drive  
Waukesha, WI 53186**

**Part No. 01001  
Printed in USA 10-83  
Revised 9-84**

**WARNING**

If incorrectly used, this machine can cause severe injury. Those who use and maintain the machine should be trained in its proper use, warned of its dangers, and should read entire manual before attempting to set up, operate, adjust or service the machine.

**LIMITED WARRANTY-COMMERCIAL EQUIPMENT**

This warranty extends to the original retail purchaser only and commences on the date of original retail purchase.

Any part of the Scag commercial mower manufactured by Scag and found in the reasonable judgement of Scag to be defective in material or workmanship, will be repaired or replaced by an authorized service dealer without charge for parts and labor.

The Scag mower including any defective part must be returned to an authorized Scag service dealer within the warranty period. The expense of delivering the mower to the dealer for warranty work and the expense of returning it back to the owner after repair or replacement will be paid for by the owner. Scag's responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Scag mower. Proof of purchase will be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized Scag service dealer.

This warranty is limited to one year from the date of original retail purchase for any Scag mower that is used for commercial purposes, or any other income-producing purpose (90 days for rental use).

This warranty does not cover any mower that has been subject to misuse, neglect, negligence, or accident, or that has been operated in any way contrary to the operating instructions as specified in the Technical Manual. The warranty does not apply to any damage to the mower that is the result of improper maintenance, or to any mower or parts that have not been assembled or installed as specified in the Technical Manual. The warranty does not cover any mower that has been altered or modified so as to adversely affect the product's operation, performance or durability or that has been altered or modified so as to change the intended use of the product. In addition, the warranty does not extend to repairs made necessary by normal

wear, or by the use of parts or accessories which, in the reasonable judgement of Scag, are either incompatible with the Scag mower or adversely affect its operation, performance or durability. This warranty does not cover engines, electric starters, batteries, belts and tires which are warranted separately by their manufacturer and for a different period of time.

Scag Power Equipment reserves the right to change or improve the design of any mower without assuming any obligation to modify any mower previously manufactured.

*All other implied warranties are limited in duration to the one (1) year warranty period or ninety (90) days for mowers used for rental purpose. Accordingly, any such implied warranties including merchantability, fitness for a particular purpose, or otherwise, are disclaimed in their entirety after the expiration of the appropriate one-year or ninety day warranty period. Scag's obligation under this warranty is strictly and exclusively limited to the repair or replacement of defective parts and Scag does not assume or authorize anyone to assume for them any other obligation. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.*

*Scag assumes no responsibility for incidental, consequential or other damages including, but not limited to, expense for gasoline, expense of delivering the mower to an authorized service dealer and expense of returning it back to the owner mechanic's travel time, telephone or telegram charges, rental of a like product during the time warranty repairs are being performed, travel, loss or damage to personal property, loss of revenue, loss of use of the mower, loss of time or inconvenience. Some states do not allow the exclusion or limitation of incidental or consequential damages. So the above limitation or exclusion may not apply to you.*

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

## SPECIFICATIONS/STANDARD FEATURES

**ENGINE:**

Commercial 18 HP Briggs and Stratton twin cylinders, cast iron sleeves, dual element air filter, magnetron ignition, electric start.

**TRANSAXLE:**

Peerless 5-speed forward from 1.5 - 6 mph, 2.5 mph reverse @ 3,600 RPM, ball bearing axle support, hardened steel gears.

**FUEL TANK:**

3 U.S. Gallons, 11.4 Liters.

**BRAKE SYSTEM:**

Disc brake for stopping and parking, stainless steel cable.

**INSTRUMENT PANEL:**

Ammeter, hour meter, key switch, fuses, throttle and choke with stainless steel cables.

**TIRES:**

Drive Wheels 16 x 6.50 tubeless Turf Saver tread on 40 inch centers.

Rear Wheel 16 x 6.50 tubeless tire, taper roller bearings.

Caster Wheels 8.60 x 2.80-4, 4 ply, with inner tube, split rims, roller bearings.

**STEERING:**

Aircraft yoke-type steering handle, stainless steel cable.

**SEAT:**

Deluxe arm rests, lumbar back support, fully contoured and foam padded, adjustable fore and aft, safety belt bar.

**SAFETY GROUP:**

Foot actuated engine kill, transaxle neutral interlock, blade clutch safety switch.

**ELECTRIC SYSTEM:**

12 volt battery, 30 AH, 3 amp dc alternator.

**LIFT SYSTEM:**

Manual winch with automatic safety brake-clutch, stainless steel cable.

**TRAVEL CONTROL:**

Integrated foot pedal clutch - brake, stainless steel cable.

**RIDER FRAME:**

Hybrid tractor-trailer with stabilized pivot mount.

**CUTTER DECK:**

7 and 10 gauge steel weldment, cast aluminum greasable spindle housings with dual ball bearings, extra large cast iron pulleys, novel blade design provides constant overlap even after multiple sharpenings.

**CERTIFICATION:**

Meets applicable ANSI, OSHA, and European health and safety standards.

SPECIFICS FOR MODEL	ST-18B WITH SM 48	ST-18B WITH SM 61
Engine	18 HP at 3600 RPM	18 HP at 3600 RPM
True Cutting Width	48.0 inches - 122 cm.	61.0 inches - 155 cm.
Height of Cut	1 to 4 inches	1 to 4 inches
Overall Width	49 inches	62-1/8 inches
Overall Length	90-1/2 inches	98 inches
Weight	650 lbs.	700 lbs.

**WARNING**

Do NOT travel straight down slopes exceeding 14 degrees (25 percent). When climbing a steep slope and the tires begin to slip, the grade is too steep for safe operation. Angle the mower to a less steep slope until tires stop slipping and traction is regained. Raising the cutter deck slightly will improve traction.

# SAFETY RECOMMENDATIONS

## Recommended Practices from the American Standard Safety Specifications for Power Lawn Mowers

### Training

1. Regard your mower as a piece of power equipment and teach this regard to all who operate this unit.
2. Never allow children or young teenagers to operate the mower.
3. Be sure you know how to stop the mowers and engine at a moment's notice.
4. Instruct children to keep away from the area of operation at all times.

### Preparation

1. Before starting operation, clear the entire green area of all debris that could catch on or be thrown by the mowers.
2. Unless there is very good artificial light, mow only during the daylight.
3. Fill gasoline-driven mowers outdoors. Avoid spilling gasoline and don't fill the tank while engine is running or while you are smoking.

### Operation

1. Give complete and undivided attention to the job at hand.
2. Keep the area of operation clear of all persons.
3. Don't start engine and cutter blades until you are ready to start mowing. Stop the engine whenever you leave the operator seat.
4. If an object has been struck, stop machine, check for breakage and replace any damaged parts prior to continuation of operation.

5. Do not pass or stand on the grass discharge side of any mower with the engine running. Stop operation when another person approaches.

### Maintenance and Storage

1. Follow implicitly the manufacturer's recommendations for maintenance.
2. Never adjust the mowers or change attachments until the engine has been turned off and the spark plug wire disconnected.
3. If carburetor adjustment is necessary, stand to one side and keep feet and hands in the clear while making adjustments.
4. Keep engine free from accumulations of grass, leaves, or excessive grease. An accumulation of these combustible materials may result in a fire.
5. Store gasoline in a safe container in a cool, dry place.
6. Keep the mower and fuel container in locked storage to prevent children from playing and tampering with them.
7. Maximum mowing results and safety can only be expected if the mower is maintained and operated correctly.
8. Gasoline powered equipment or fuel containers should not be stored in basement or any closed area where heating or heat appliances or open pilot lights are present unless fuel is completely drained from power equipment and fuel containers.

## ASSEMBLY INSTRUCTIONS

1. Remove all crating and packing materials.
2. Lay out loose bolts and nuts according to the "Where Used" as listed in the loose parts packing list.
3. Set the cutter deck level, about 2 inches off the floor.
4. Remove belt cover.
5. Move tractor assembly to cutter deck so that mounting brackets clear engine deck.
6. Unwind winch lift cable and tilt engine deck to horizontal position. Insert drift pins on each side to temporarily locate holes.

### IMPORTANT

7. Use lower set of holes in brackets for mowing two inches and above (for under two inches use upper set of holes). Insert six 7/16 - 14 x 1 bolts, flat washers, lock washers and nuts. Tighten all six bolts very securely. Then go back and retorqued each one.
8. Raise cutter deck using lift winch and assemble front caster wheels using six 5/16 - 18 x 3/4 bolts, lock washers and nuts.
9. Untie mower engage control rod and insert into bell crank lever under engine deck at rear left side. Secure with hair pin.

**10.** Route belt from engine to cutter deck over center spindle pulley. Be sure belt clears the belt guide saddle at center spindle and lies on the stamped steel guide pulley support bracket, between the pulley and its belt guide.

**11.** Push mower engage lever forward until it snaps to rest. Adjust belt tension as specified in adjustment section. **Do Not Adjust Too Tight!**

**12.** Install grass discharge deflector chute using two 5/16 - 18 x 1 bolts and lock nuts.

**13.** Place seat assembly on rider support channel using 2nd and 3rd hole aft from steering handle. Install two 7/16 - 14 x 1-1/4 bolts, lock washers and nuts. Stand back and sight straight ahead. Align seat spring parallel with frame. Tighten bolts very hard.

**14.** Adjust arm rests to horizontal position (if necessary) by turning setscrew in rear of each arm.

**15.** Insert steering handle on shaft and secure with one 5/16 - 18 x 1-1/2 bolt, 2 washers and locknut. Tighten very hard.

**16.** Reduce tire pressure to values specified in

maintenance section.

**NOTE:** Tires are over inflated for shipping purposes.

**17.** Remove battery and fill each cell with 1.265 specific gravity, battery grade electrolyte to level indicator. **Do Not Fill** more than 3/16" above plates. Allow battery to set for 20 minutes. Refill to level. Battery may be placed on charge at 3 amperes for maximum capacity (not usually necessary).

**18. CAUTION:** Reinstall battery. **Connect positive lead first.**

**CAUTION:** Note that battery contains sulfuric acid which is poison and causes severe burns. Avoid contact with skin, eyes or clothing. Flush spills with water.

**19.** Check engine crankcase. It was filled at the factory, but may need additional oil for proper level.

**20.** Fill fuel tank.

**21.** Open shut-off under tank.

**22.** After initial run and inspection of cutter belt, replace belt cover.

## ADJUSTMENTS

**1.** Check that all belts clear their belt guides by about 1/8 to 3/16 inch. Adjust guides if necessary.

**2.** Adjust engine to cutter deck turnbuckle so that about 10 lb. pull sideways deflects belt 1/2 inch. **Do Not Overtighten!** Only a moderate force should be used on control lever.

**3.** Adjust cutter deck "double B" belt by turning lock nut on "J" pull rod. About 10 lbs. pull sideways deflects belt 1/2 inch. Test belt at short section between center spindle and left hand spindle (do not test long section at rear of deck).

### IMPORTANT

Readjust new belt tensions after 4 hours of operation and again after about 24 hours to take up initial stretch.

**4.** Transaxle shifter neutral may require adjustment so that starter engages at neutral stop. Rotate swivel joint if necessary to lengthen or shorten the shift rod.

**5.** Set parking brake before starting engine.

**6. Please Remember:**

To start engine, three safety switches must be activated:

1. The shift lever must be in neutral.
2. The mower engage lever must be pulled all the way back (and held there).
3. The left foot safety switch pedal must be depressed.

**7.** Run new engine at half speed about 5 minutes

before applying any load.

**8.** Adjust fuel-air mixture valves according to specifications in engine manual.

**9.** Release parking brake by depressing right hand foot pedal, lift brake lever and rotate 90 degrees.

**10.** Readjust neutral, if necessary.

### BRAKE ADJUSTMENT

**11.** Brake must be adjusted in following sequence: With transaxle belt engaged (foot pedal in up position) move brake cable guide pulley to permit brake lever to rest against its stop. Move pulley in mounting slot to make this adjustment. Then adjust brake lever nuts to permit free movement of lever about 1/8 inch from stop by pushing lever sideways with hand. Lock jam nut securely. If brake lever is too tight, shifting may be impossible and brake wear will be excessive.

### FOOT PEDAL

**12.** Adjust foot pedal control cable sheath by adjusting the two cable mounting nuts, so that the pedal is about 4-1/4 inches above foot rest plate.

### TIRE PRESSURES

**13.** Recommended pressures:

Caster Wheels	25 PSI
Rear Steering Wheel	25 PSI
Drive Wheels	15 PSI

# OPERATING INSTRUCTIONS

**1.** Read and understand the section on safety suggestions before any attempt to operate.

## IMPORTANT

**2.** Always turn winch handle two additional turns counterclockwise for more slack after cutter deck is lowered, to provide floatation. To raise deck turn winch handle clockwise.

**3.** Always transport with cutter deck down and lift cable in float position.

**4.** Start engine.

**5.** Depress foot pedal, shift out of neutral, and very gently release foot pedal.

**6.** To stop, depress foot pedal to disengage transaxle and to apply brake.

**7.** While making turns, depress foot pedal slightly to make gentle, smooth turns.

**8.** Engage cutter deck belt by pushing mower engage lever forward until it snaps to rest.

## WARNING

Never run cutter blades with cutter deck in raised position.

# ROUTINE MAINTENANCE SERVICE

## EVERY DAY

**1.** Check engine oil. Do not fill above dipstick marks.

**2.** Clean engine blower screen (more frequently in dirty, dusty conditions).

**3.** Clean debris under belt cover.

**4.** Sharpen cutter blades.

## EVERY WEEK

**1.** Change engine oil.

**2.** Check battery acid level. Add distilled water if

necessary, but do not fill over 3/16 inch above plates. Excess acid will overflow while running and damage painted surfaces.

**3.** Clean carburetor air filter.

**4.** Check tire pressures.

## EVERY MONTH

**1.** Grease all fittings, brake lever and winch.

**2.** Clean and gap sparkplugs.

**3.** Adjust brake lever.

# LUBRICATION

Every two hundred hours of operation lubricate all grease fittings. Periodically apply LPS to moving parts at the cutter deck idler pulley cam links.

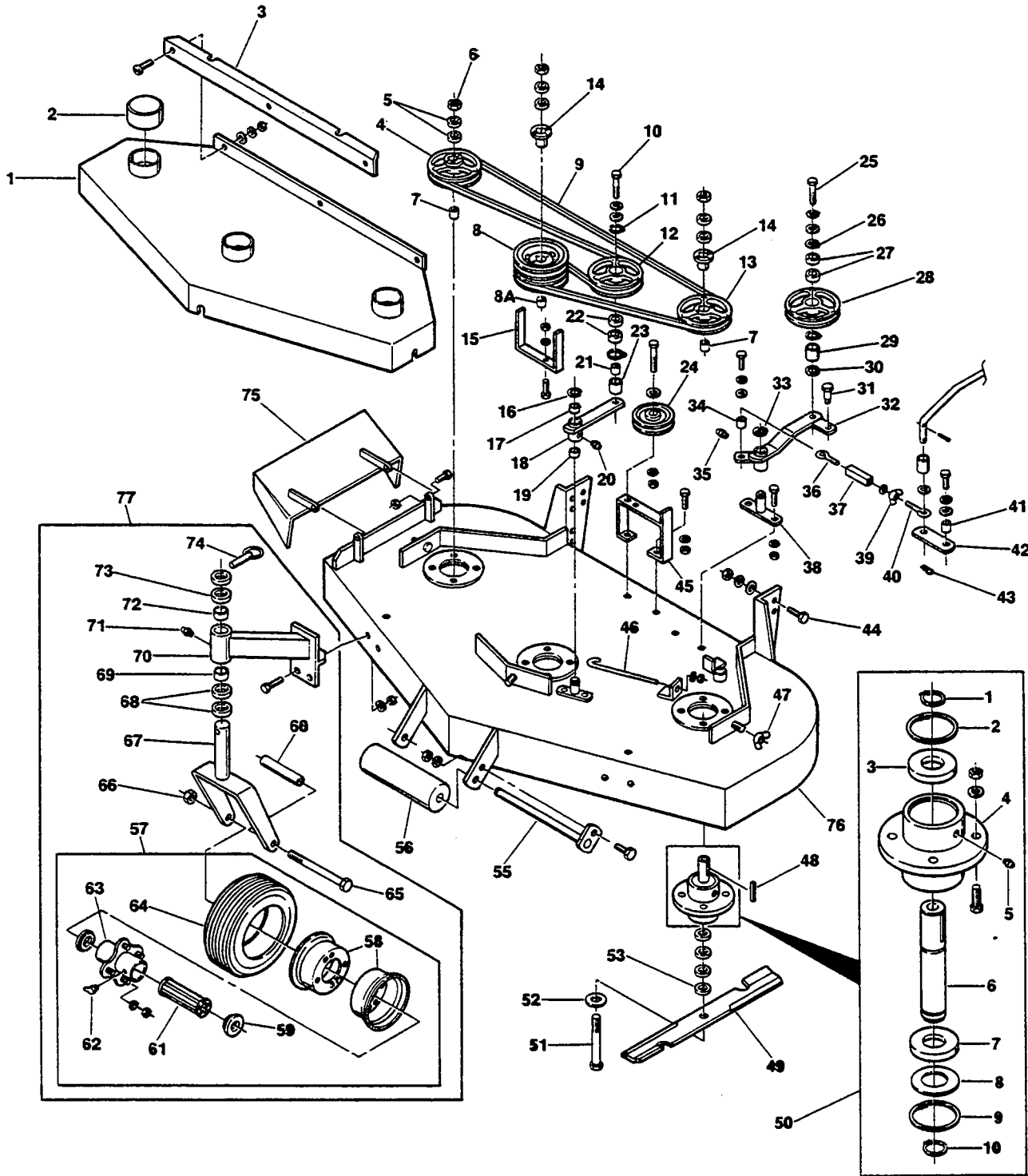
Grease gears, shaft and handle threads on winch. **Do not** oil brake mechanism on winch.

Apply grease between transaxle brake lever and brake pins.

## Location of grease fittings

Location of grease fittings	Number
Caster Wheels	2
Caster wheel pivot shaft	2
Spindle bearings	3
Idler pulley pivots	3
Rider frame pivots	2
Controls bellcrank	2
Left hand axle bearing	1
Steering handle	1
Foot pedal	1
Rear wheel vertical pivot	1
Rear wheel bearings	1
Total Number	19

# CUTTER DECK ASSEMBLY

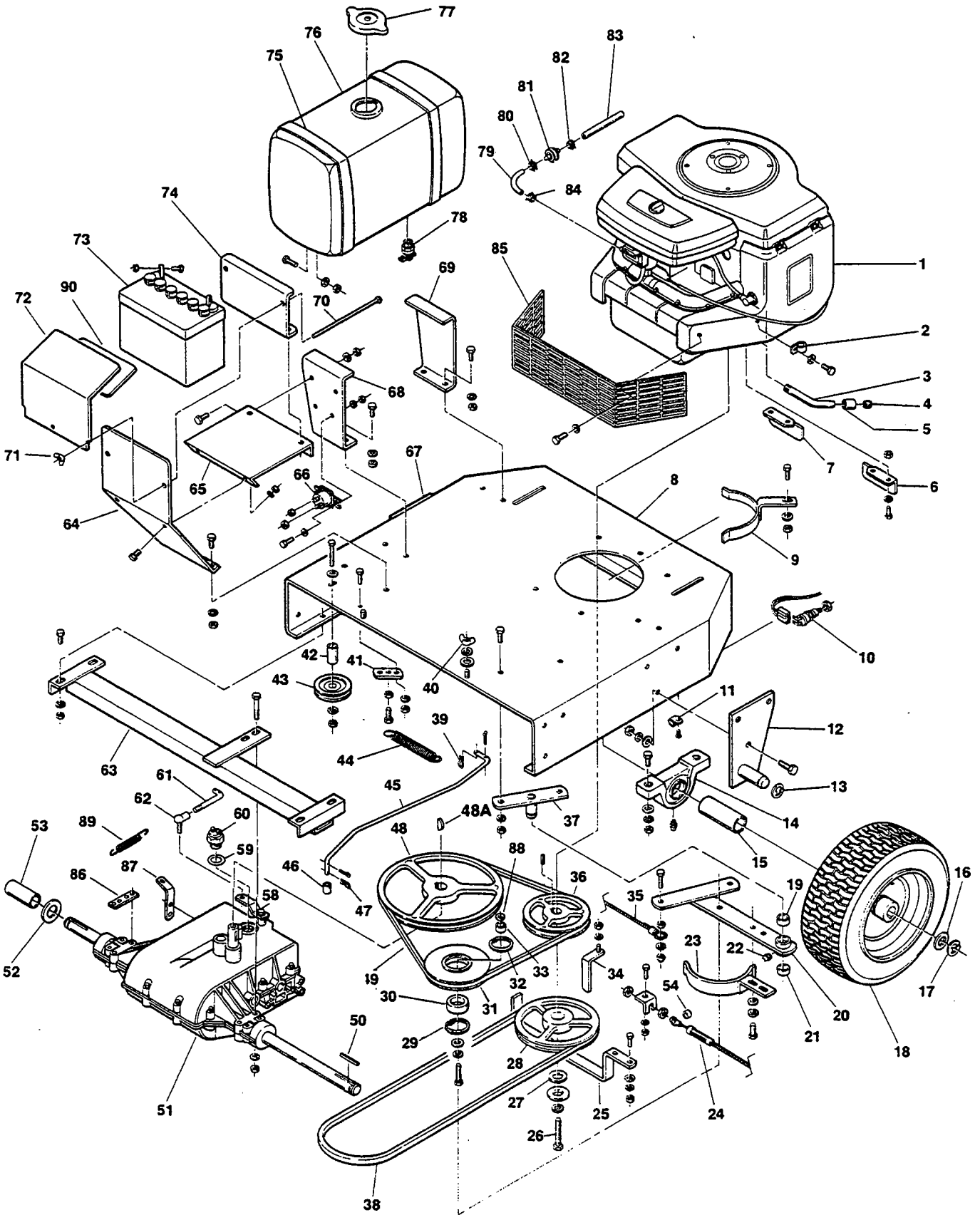


**CUTTER DECK ASSEMBLY**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	45032	Belt Cover Weldment 61" Cutter Deck	42	42057	Cam Link
1	45005	Belt Cover Weldment 48" Cutter Deck	43	04062-01	Hairpin
1	45048	Belt Cover Weldment 42" Cutter Deck	44	04001-27	Bolt, Hex Head 7/16-14 x 1
2	48098	Spindle Shield	45	45012	Idler Pulley Support
3	42045	Skirt - Belt Cover	46	43028	J Pull Rod
4	48127	Pulley - Cutter Spindle	47	04022-04	Wing Nut
5	43038	Spacer - Cutter Blade	48	04063-01	Key 1/4 x 1/4 x 1-1/4
6	04020-09	Nut, Hex Head 5/8-11	49	48111	Cutter Blade - 61" Cutter Deck
7	42057-01	Spacer - Spindle Shaft	49	48110	Cutter Blade - 48" Cutter Deck
8	48128	Pulley - 61" Cutter Deck	50	46020	Cutter Spindle Assy.
8	48129	Pulley - 48" Cutter Deck	50-1	04050-04	Retaining Ring
8A	42057-02	Spacer - Spindle Shaft	50-2	04050-07	Retaining Ring
9	48084	Belt - 61" Cutter Deck	50-3	48101	Bearing
9	48082	Belt - 48" Cutter Deck	50-4	41001	Spindle Housing
10	04001-35	Bolt, Hex Head 1/2-20 x 2-1/2	50-5	48114-02	Grease Fitting
11	04050-06	Retaining Ring	50-6	43001-02	Spindle, Cutter Blade
12	48062	Pulley - Idler	50-7	48101	Bearing
13	48127	Pulley - Cutter Spindle	50-8	04041-02	Washer
14	48141	Pulley, Taper Cone	50-9	04050-07	Retaining Ring
15	42063	Belt Guide - 61" Cutter Deck	50-10	04050-04	Retaining Ring
15	42004	Belt Guide - 48" Cutter Deck	51	04001-41	Bolt, Hex Head 5/8-13 x 9-1/2
16	04050-02	Retaining Ring	52	04040-10	Washer
17	48100-05	Bearing	53	43038	Spacer - Cutter Blade
18	45016	Idler Arm Weldment	55	45046	Guide Roller Shaft Weldment
19	48100-05	Bearing	56	48038	Guide Roller
20	48114-01	Grease Fitting	57	48006-01	Caster Wheel - Complete Assy.
21	43045	Sleeve	58	48006-04	Rim Pair - Caster Wheel
22	48102	Bearing	59	48006-07	Retainer
23	43040	Spacer	60	43022	Sleeve
24	48068	Pulley - Belt Guide	61	48006-06	Roller Bearing
25	04001-34	Bolt, Hex Head 1/2-20 x 2 (Thin Head)	62	48114-03	Grease Fitting
26	04050-06	Retaining Ring	63	48006-05	Hub Assy.
27	48102	Bearing	64	48006-02	Tire Only - Caster Wheel
28	48062	Pulley - Idler	—	48006-03	Inner Tube Only - Caster Wheel
29	43045	Sleeve	65	04001-37	Bolt, Hex Head 1/2-13 x 5-1/2
30	43041	Spacer	66	04021-07	Lock Nut, Hex Head 1/2-13
31	43054	Shoulder Bolt	67	45006	Caster Yoke Weldment
32	45017	Idler Arm Weldment	68	43037	Spacer - Caster Wheel
33	04050-02	Retaining Ring	69	48100-01	Bearing
34	43042	Sleeve	70	45007	Caster Support Weldment
35	48114-01	Grease Fitting	71	48114-01	Grease Fitting
36	04070-02	Eyebolt - Left Hand Thread	72	48100-01	Bearing
37	43025	Turnbuckle	73	43037	Spacer - Caster Wheel
38	45037	Idler Pivot Weldment	74	04066-01	Quick Pin
39	04022-02	Wing Nut	75	45029	Discharge Chute Weldment
40	04070-01	Eyebolt - Right Hand Thread	76	45031	Cutter Deck Weldment - 61"
41	43042	Sleeve	76	45001	Cutter Deck Weldment - 48"
			76	45047	Cutter Deck Weldment - 42"
			77	46011	Caster Wheel and Support Assy.



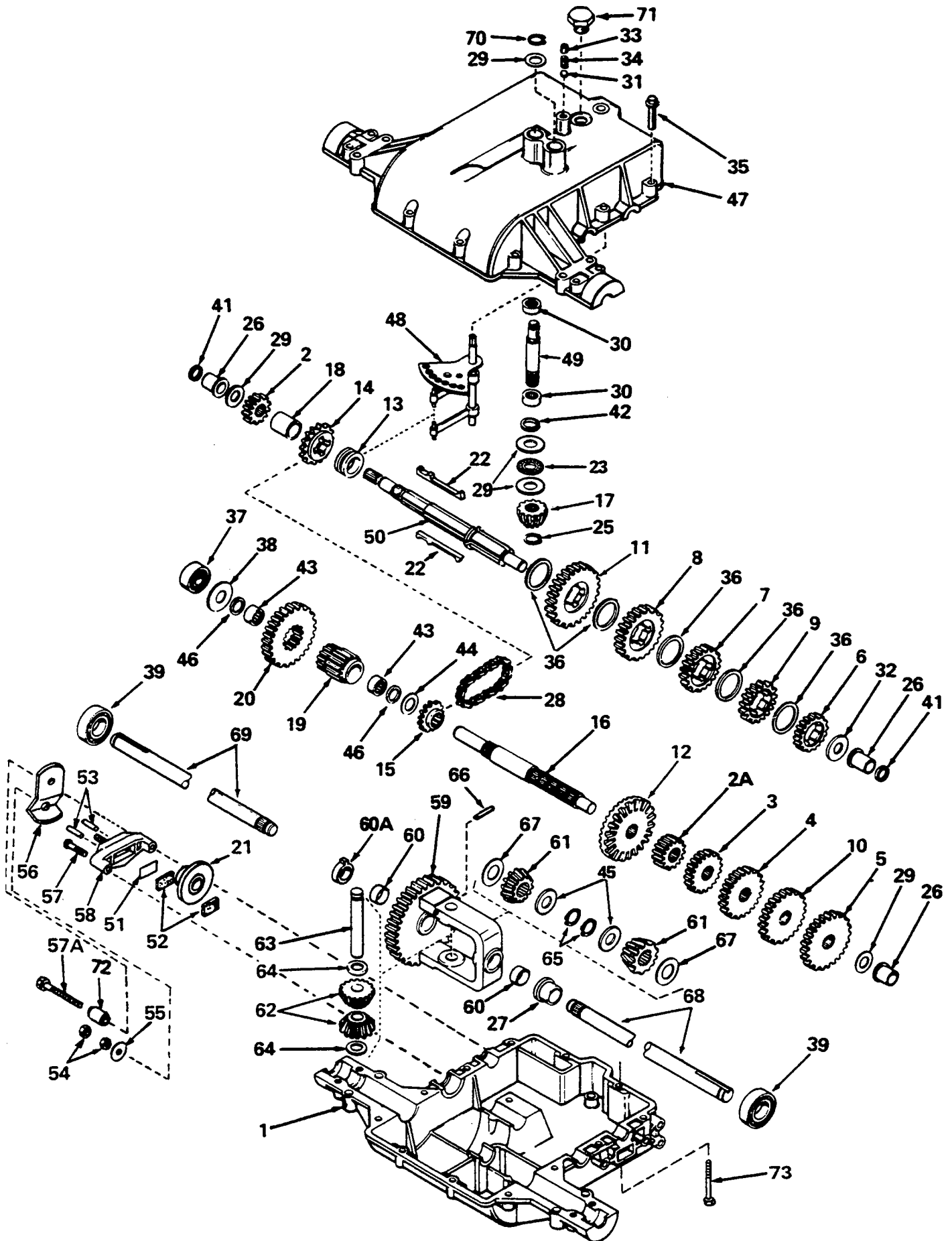
# ENGINE DECK ASSEMBLY



**ENGINE DECK ASSEMBLY**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	48002	Engine, 18 HP Briggs & Stratton	44	48051	Spring, Belt Clutch
2	48030	Clamp	45	43031	Belt Clutch Rod
3	48115	Oil Drain Extension	46	43043	Sleeve
4	48117	Oil Drain Plug	47	04062-01	Hairpin
5	48116	Pipe Coupler	48	48064	Pulley, Transaxle
6	42068	Heat Shield - LH	48A	04063-07	Woodruff Key #9
7	42067	Heat Shield - RH	49	48080	Belt, A Section
8	45003	Engine Deck Weldment	50	04063-04	Key, 3/16 x 3/16 x 3-1/2
9	45013	Belt Guide - Engine	51	48003	Transaxle
10	48019	Safety Switch - Blade Clutch	52	04041-09	Thrust Washer
11	48030	Clamp	53	43019-01	Drive Axle Spacer - RH
12	45027-02	Hitch Bracket Weldment-LH	54	43049	Foot Cable Sleeve
13	04050-02	Retaining Ring	58	42061	Shift Lever
14	48104	Bearing, Pillow Block	59	48122-01	Fiber Washer - .010
15	43019-02	Drive Axle Spacer-LH	59	48122-02	Fiber Washer - .020
16	04041-08	Thrust Spacer	60	48021	Neutral Safety Switch
17	04050-02	Retaining Ring	61	43029	Shift Connector Rod
18	48004-01	Drive Wheel Assy., Tire & Rim	62	48118	Ball Joint
—	48004-02	Tire Only	63	45034	Transaxle Support
—	48004-03	Rim Only	64	42052	Battery Support
19	48100-05	Bronze Bearing	65	42051	Battery Shelf
20	45018	Idler Arm Weldment	66	48016	Starter Solenoid
21	48100-05	Bronze Bearing	67	45027-01	Hitch Bracket Weldment-RH
22	48114-01	Grease Fitting	68	42042	Fuel Tank Bracket, Front
23	45014	Belt Guide, Idler Pulley	69	42044	Fuel Tank Bracket Rear
24	48047	Foot Clutch Cable Assy.	70	04003-01	Bolt, Carriage 1/4-20 x 6
25	42064	Belt Guide - Engine	71	04022-01	Wing Nut
26	04001-29	Bolt, Hex Head 7/16-20 x 1-1/2	72	42024	Battery Cover
27	43048	Spacer, Crankshaft	73	48015	Battery
28	48070	Pulley, Engine	74	42055	Battery Clamp
29	04050-06	Retaining Ring	75	42048	Fuel Tank Strap
30	48102	Bearing, Idler Pulley	76	48054	Fuel Tank, 3 Gallon
31	48065	Pulley, Idler	77	48055	Fuel Tank Cap
32	04050-06	Retaining Ring	78	48056	Fuel Shut-off Valve
33	43044	Sleeve	79	48058-01	Fuel Hose - Short
34	45036	Belt Guide - Engine	80	48059	Hose Clamp
35	48046	Brake Cable Assy.	81	48057	Fuel Filter
36	48063	Pulley, Engine	82	48059	Hose Clamp
37	45015	Idler Pivot Weldment	83	48058-02	Fuel Hose - Long
38	48083	Belt, B Section - 61" Deck	84	48059	Hose Clamp
38	48081	Belt, B Section - 48" Deck	85	42125	Muffler Guard
39	04062-01	Hairpin	86	42075	Spacer, Transaxle Mtg.
40	04022-04	Wing Nut	87	42076	Rear Brace, Transaxle
41	42060	Spring Mounting Bracket	88	43039	Spacer, Idler Pulley
42	43024	Spacer, Brake Cable Pulley	89	48052	Spring, Brake Return
43	48066	Pulley, Brake Cable	90	48099	Battery Cover Insulation

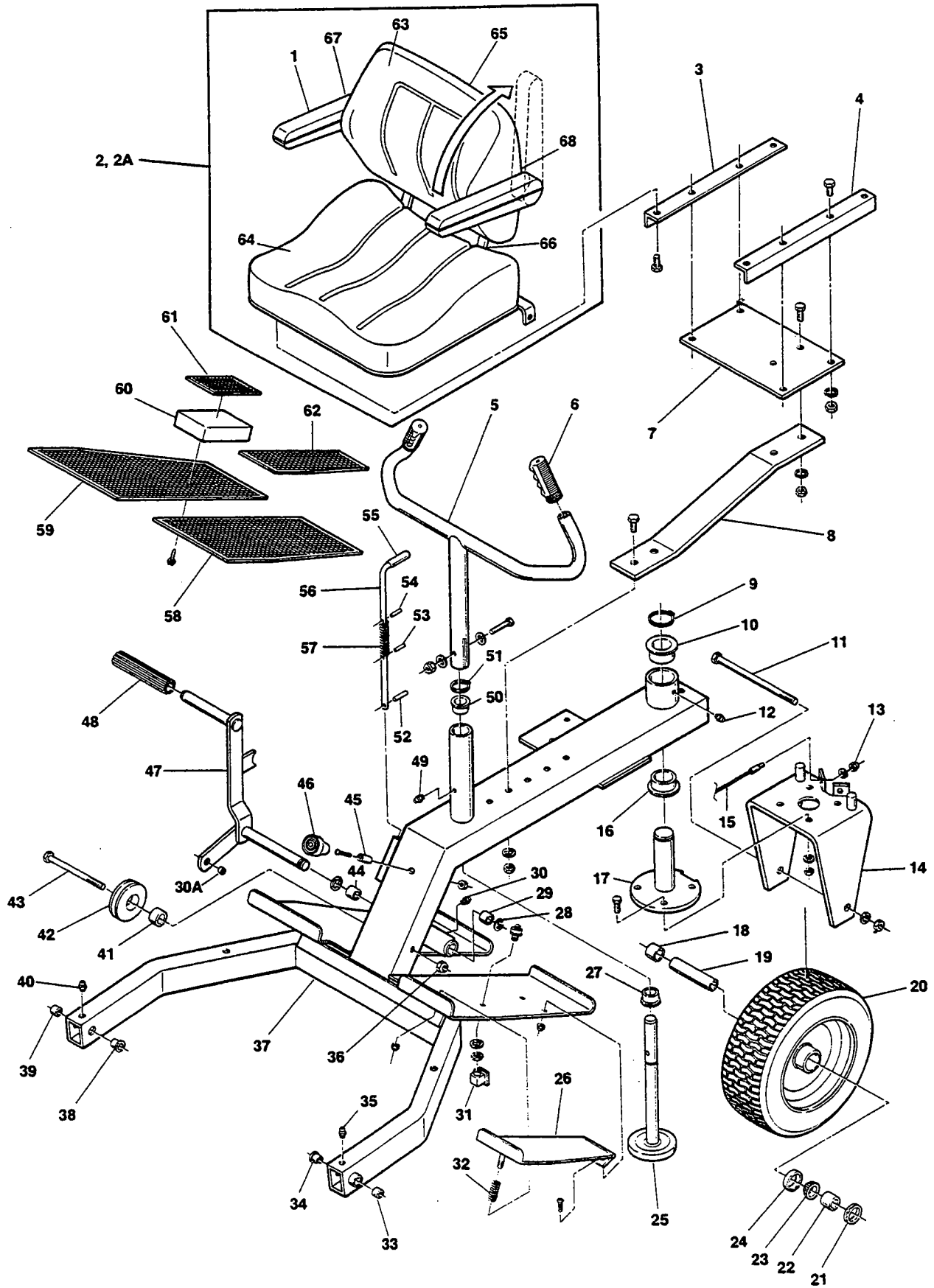
# TRANSAXLE ASSEMBLY



**TRANSAXLE ASSEMBLY**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	770071A	Case, Transaxle	39	780119	Bearing, Ball
2	778136	Gear, Spur (15 Teeth)	41	788051	Ring, Square Cut
2A	778145	Gear, Spur (12 Teeth)	42	788057	Ring, Square Cut
3	778151	Gear, Spur (15 Teeth)	43	780112	Bearing, Needle
4	778126A	Gear, Spur (20 Teeth)	44	780114	Washer, Flat
5	778128A	Gear, Spur (28 Teeth)	45	780114	Washer
6	778122A	Gear, Spur (22 Teeth)	46	788053	Ring, Square Cut
7	778124A	Gear, Spur (30 Teeth)	47	772084	Cover, Transaxle
8	778125	Gear, Spur (35 Teeth)	48	784290	Rod & Fork Assy., Shift
9	778123A	Gear, Spur (25 Teeth)	49	776135	Shaft, Input
10	778127A	Gear, Spur (25 Teeth)	50	776183A	Shaft, Brake
11	778146A	Gear, Spur (37 Teeth)	51	790007	Plate, Brake Pad
12	778154	Gear, Bevel (42 Teeth)	52	790006	Pad, Brake
13	784266	Collar, Shift	53	786026	Pin, Dowel
14	786083	Sprocket (18 Teeth)	54	792075	Locknut, 5/16-24
15	786082	Sprocket (9 Teeth)	55	792076	Washer, Flat
16	776204	Shaft, Counter	56	790016	Lever, Brake
17	778176	Bevel Pinion, Input	57	792073	Screw, Hex Hd., Thread Forming, 1/4-20 x 1/-1/4
18	786074	Spacer	57A	792085	Screw, Hex Hd. Thread Forming, 1/4-20 x 2-1/4
19	778138	Pinion, Output	58	790005	Holder, Brake Pad
20	778139	Gear, Output	59	778175	Gear Assy., Differential (Incl. 2 of No. 60)
21	790003	Disk, Brake	60	780064	Bushing
22	792089A	Key	60A	780120	Bushing
23	780071	Bearing, Thrust	61	778166	Gear, Bevel
25	788040	Ring, Retaining	62	778131	Pinion, Bevel
26	780105A	Bushing, Flanged	63	786034	Pin, Drive
27	780118A	Bushing, Flanged	64	780065	Washer, Thrust
28	786081	Chain, Roller (No. 41 Chain, 24 Links)	65	792109	Ring, Retaining
29	780072	Washer, Thrust	66	792040	Pin, Roll
30	780122	Bearing, Needle	67	780001	Washer, Thrust
31	792077	Ball, Steel	68	774558	Axle (25-1/4" Long)
32	780109	Washer, Thrust	69	774506	Axle (13-1/4" Long)
33	792078	Screw, Set, 3/8-16 x 3/8	70	792035	Ring, Retaining
34	792079	Spring	71	792074	Plug, Hex Hd., 9/16-18 Thread
35	792073	Screw, Hex Hd. Thread Forming, 1/4-20 x 1-1/4	72	786092	Spacer
36	780108	Washer, Thrust	73	04007	Special Bolt
37	780121	Bearing, Ball		788067	Gear Grease, Bentonite
38	780113	Washer, Flat			

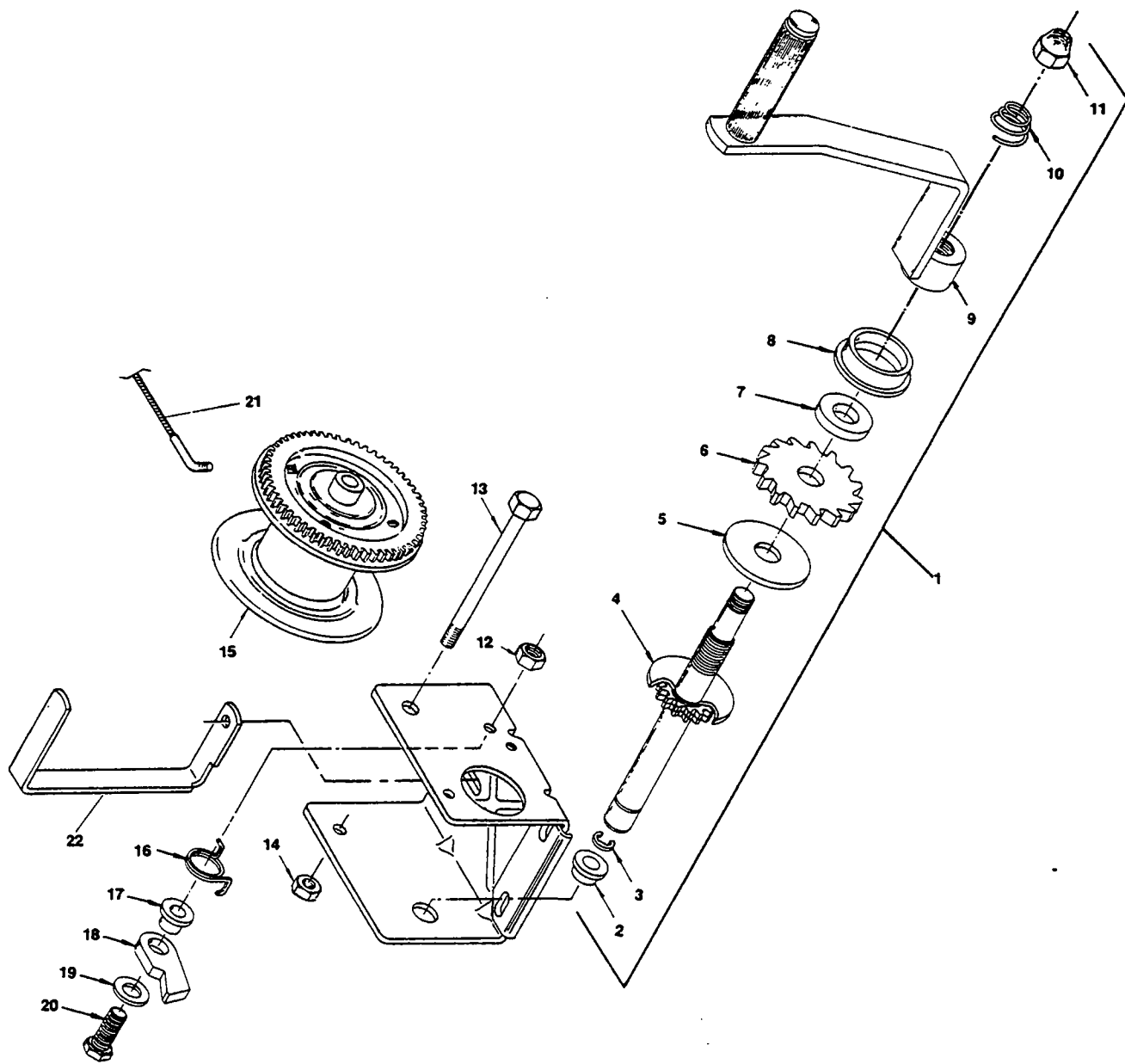
# RIDER FRAME ASSEMBLY



**RIDER FRAME ASSEMBLY**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	48013-02	Arm Rest	33	48100-06	Bronze Bearing
2	48013-01	Seat Assy., Complete	34	48100-03	Bronze Bearing
2A	48014	Seat (No Arm Rests)	35	48114-01	Grease Fitting
3	42056	Seat Mounting Bracket	36	04021-07	Lock Nut, Hex Head 1/2-13
4	42056	Seat Mounting Bracket	37	45004	Steering Frame Weldment
5	45010	Steering Handle Weldment	38	48100-03	Bronze Bearing
6	48094	Handle Grip	39	48100-06	Bronze Bearing
7	42025	Seat Mounting Plate	40	48114-01	Grease Fitting
8	42026	Seat Support Spring	41	48100-04	Bronze Bearing
9	04050-05	Retaining Ring	42	48067	Pulley, Winch Cable
10	48100-02	Bronze Bearing	43	04001-36	Bolt, Hex Head, 1/2-13 x 5
11	04001-40	Bolt, Hex Head 5/8-11 x 9	44	48100-06	Bronze Bearing
12	48114-01	Grease Fitting	45	43046	Bumper Stop
13	04021-03	Lock Nut, Hex Head 1/4-28	46	48097	Bumper Stop Cover
14	45035	Rear Wheel Yoke Weldment	47	45019	Foot Pedal Weldment
15	48042	Steering Cable Assembly	48	48096	Foot Pedal Sleeve
16	48100-02	Bronze Bearing	49	48114-01	Grease Fitting
17	45008	Rear Wheel Pivot Weldment	50	48100-01	Bronze Bearing
18	43020-02	Rear Wheel Spacer, Long	51	04050-03	Retaining Ring
19	43021	Rear Wheel Sleeve	52	04060-02	Roll Pin
20	48005-01	Rear Wheel Tire & Rim Assy. w/Bearings	53	04060-01	Roll Pin
—	48004-02	Tire Only	54	04060-01	Roll Pin
—	48005-03	Rim Only	55	48095	Grip
21	48005-06	Grease Seal	56	43027	Parking Brake Lever
22	43020-01	Rear Wheel Spacer, Short	57	48053	Spring
23	48005-05	Bearing Cone	58	48040	Rubber Pad, LH
24	48005-04	Bearing Cup	59	48039	Rubber Pad, RH
25	45009	Steering Shaft Weldment	60	48036	Heel Rest
26	45033	Foot Safety Switch Weldment	61	48037	Rubber Pad, Heel Rest
27	48100-01	Bronze Bearing	62	48041	Rubber Pad, Safety Pedal
28	04050-02	Retaining Ring	63	48013-03	Backrest Cushion
29	48100-06	Bronze Bearing	64	48013-04	Seat Cushion
30	48114-01	Grease Fitting	65	48013-05	Rear Cover
30A	43049	Foot Cable Sleeve	66	48013-06	Frame Assy.
31	48026	Foot Safety Switch	67	48013-07	Arm Mounting Bracket, RH
32	48049	Spring, Foot Safety Switch	68	48013-08	Arm Mounting Bracket, LH

# WINCH LIFT SYSTEM



## WINCH LIFT SYSTEM

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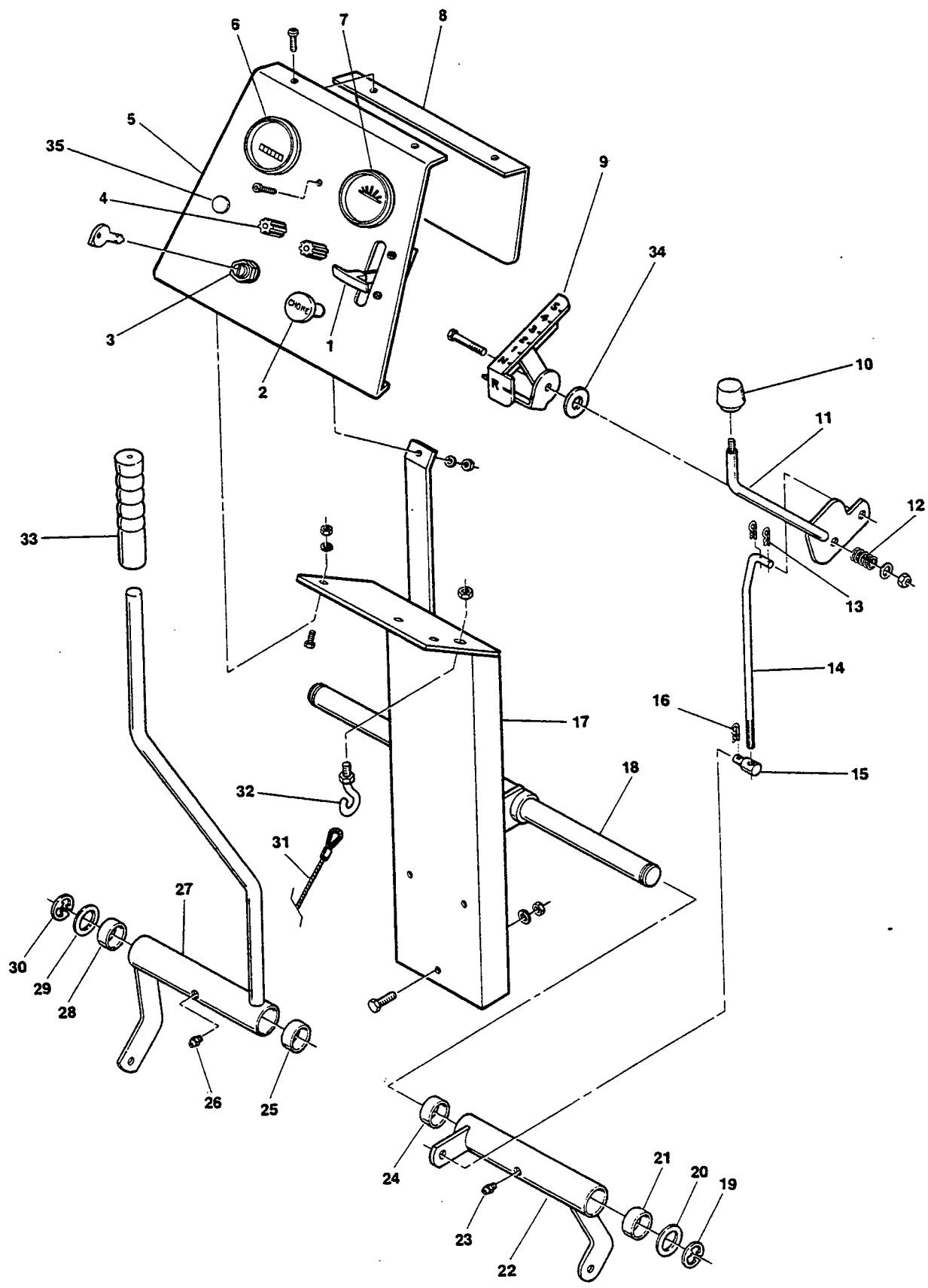
Ref. No.	Part No.	Description
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1	48043	Winch Assy.
2	204009	Shaft Bushing
3	205116	E-Ring
4	304228	Drive Shaft
5	204362	Pressure Plate
6	404164	Ratchet Wheel
7	404163	Pressure Washer
8	204359	Shaft Bushing
9	304381	Winch Handle
10	204364	Handle Spring
11	205015	Handle Nut
12	205011	Hex Locknut 3/8-16
13	205008	Reel Shaft
14	205155	Lock Nut 7/16-14
15	304227	Winch Reel
16	204363	Ratchet Spring
17	404166	Ratchet Spacer
18	404409	Ratchet Pawl
19	205024	Flat Washer
20	205167	Ratchet Bolt
21	48045	Winch Cable Assy.
22	42127	Cable Guide



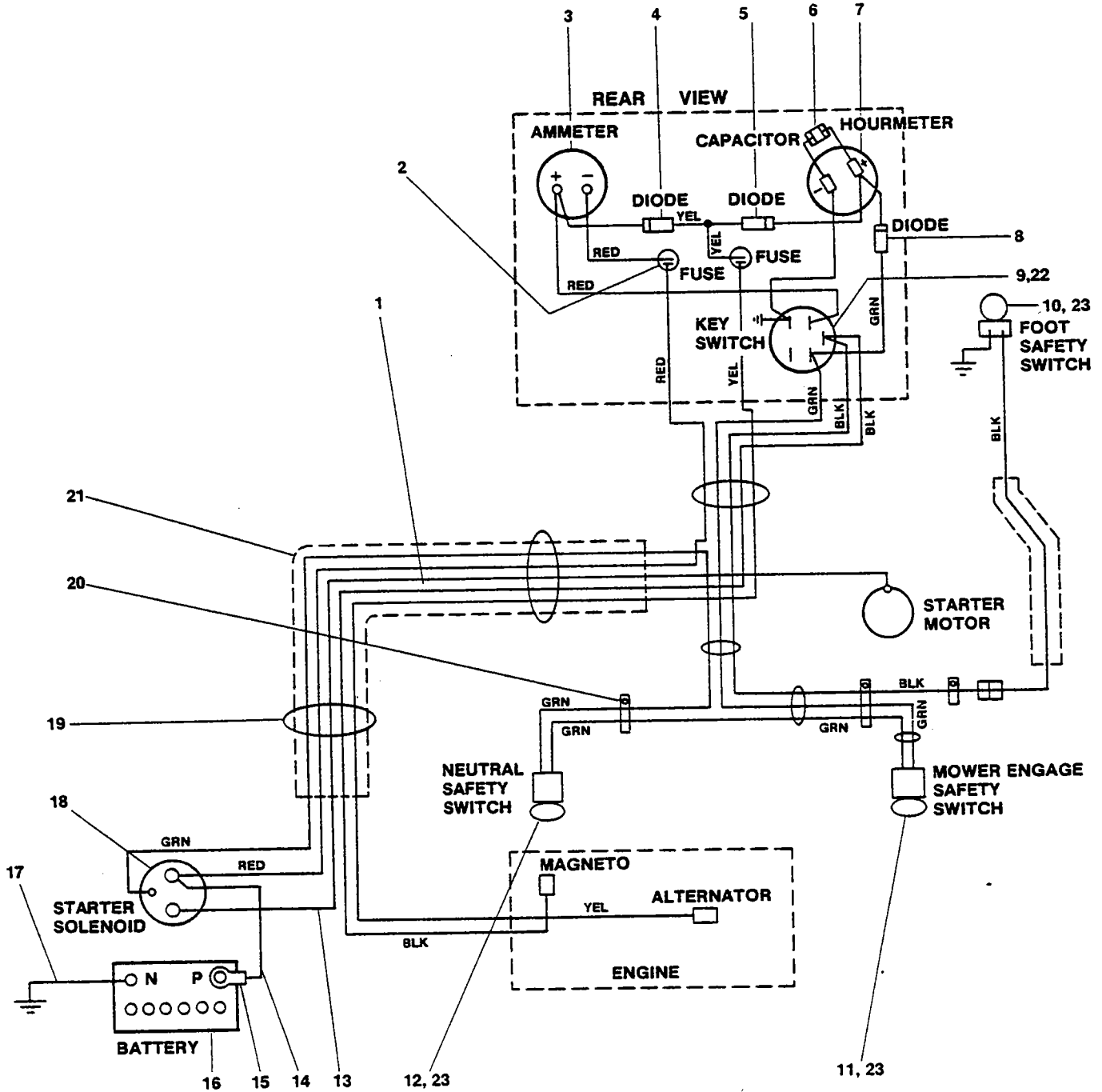
# INSTRUMENT PANEL



**INSTRUMENT PANEL**

Ref. No.	Part No.	Description
1	48090	Throttle Control
2	48091	Choke Control
3	48017	Starter Key Switch
4	48024	Fuse Holder
—	48025	Fuse, 20 Ampere
5	42049	Instrument Panel
6	48023	Hourmeter
7	48022	Ammeter
8	42050	Instrument Panel Cover
9	45024	Shift Quadrant Weldment
10	48092	Shifter Knob
11	45023	Shifter Handle Weldment
12	48050	Spring - Shifter Lever
13	04062-01	Hairpin
14	43030	Shift Adjust Rod
15	43032	Swivel Joint
16	04062-01	Hairpin
17	45025	Console Support Weldment
18	43017	Bell Crank Shaft
19	04050-02	Retainer Ring
20	04041-08	Spacer Washer
21	48100-06	Bronze Bearing
22	45021	Shifter Bell Crank Weldment
23	48114-01	Grease Fitting
24	48100-06	Bronze Bearing
25	48100-06	Bronze Bearing
26	48114-01	Grease Fitting
27	45022	Mower Engage Bell Crank Weldment
28	48100-06	Bronze Bearing
29	04041-08	Spacer Washer
30	04050-02	Retainer Ring
31	48045	Winch Cable Assy.
32	04070-03	Eyebolt, 3/8-16
33	48093	Grip, Mower Lever
34	04041-10	Washer 2 x 3/8 x 16 Ga.
35	48035	Snap-in Plug

# ELECTRICAL SYSTEM



## ELECTRICAL SYSTEM

Ref. No.	Part No.	Description
1	48031	Wiring Harness
2	48024	Fuse Holder
—	48025	Fuse
3	48022	Ammeter
4	48123	Diode
5	48123	Diode
6	48124	Capacitor
7	48023	Hour Meter
8	48123	Diode
9	48017	Key Switch
10	48026	Foot Safety Switch
11	48019	Mower Engage Safety Switch
12	48021	Neutral Safety Switch
13	48029-02	Battery Cable
14	48029-03	Battery Cable
15	48126	Rubber Boot
16	48015	Battery
17	48029-01	Battery Cable
18	48016	Starter Solenoid
19	48028	Cable Tie
20	48030	Cable Clamp
21	48033	Plastic Conduit
22	48018	Connector, Starter Switch
23	48020	Connector, Safety Switch

## DECALS

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48071	OPEI Danger
48072	Heavy Duty Commercial
48073	Danger - Rotating Blades
48074	Shifter Index
48076	Throttle
48077	Scag's Logo
48078	Mower Engage
48079	Key Switch
48088	Brake System
48089	Maintenance

## TOUCH-UP PAINT

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48008	Scag's Gold - Aerosol
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And finally:

## **PLEASE BE CAREFUL**

1. Keep all shields in place, especially grass discharge guard.
2. Stop machine and remove spark plug wire to adjust or service.
3. When mechanism becomes clogged, stop engine before cleaning.
4. Keep hands, feet and clothing away from power-driven parts.
5. Keep off implement unless seat or platform is provided.
6. Keep others off.

**FAILURE TO FOLLOW CAUTIOUS OPERATING PRACTICES CAN RESULT IN SERIOUS OPERATOR INJURY.  
BESIDES, WE WOULD LIKE YOU TO CONTINUE TO ENJOY AND PROFIT BY USING OUR PRODUCTS.**