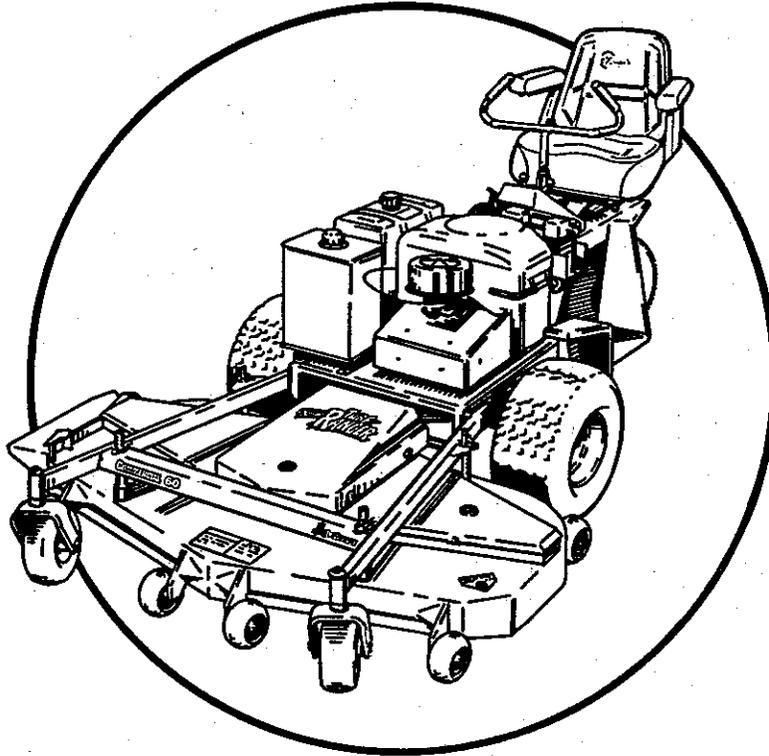




For Serial Nos.
102,000 and Higher

Turf Ranger



Parts Manual

CONGRATULATIONS on the purchase of your new Exmark mower. This product has been carefully designed and manufactured to give you a maximum amount of dependability and years of trouble-free operation.

If additional information is needed, or should you require trained mechanic service, contact your authorized Exmark equipment dealer or distributor.

If you need to order replacement parts from your dealer, always give the model number and serial number of your mower as well as the part number, description and quantity of the part needed.

The Serial No. plate is located on the top, right hand side of the engine frame. The Serial No. plate for the deck is located on the front support pin gusset on the right hand side of the deck. For ease of ordering and reference, we suggest that you record the information requested in the following identification table.

Tractor Model No. _____

Tractor Serial No. _____

Deck Model No. _____

Deck Serial No. _____

Date Purchased _____

Purchased from _____

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SAFETY RECOMMENDATIONS FOR ALL EXMARK MOWER USERS

TRAINING

1. Read the instructions carefully. Be familiar with the controls and the proper use of the equipment. Regard the Exmark mower as a piece of power equipment and teach this regard to all who operate this unit.
2. Avoid mowing while people, especially when children or pets, are nearby. Never allow children, teenagers, or people unfamiliar with these instructions to use the mower. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

PREPARATION

1. The use of personal protective equipment, such as (but not limited to) protection for the eyes, ears, feet and head is recommended.
2. While mowing, always wear substantial footwear and long trousers. **Do Not** operate the equipment when barefoot, wearing baggy clothing or trousers with loose strings, or while wearing open sandals.
3. Thoroughly inspect the area where the equipment will be used. Remove all stones, sticks, wire, bones and other foreign objects which can result in personal injury.

OPERATION

WARNING

- **Failure to follow safety instructions and cautious operating practices can result in serious injury.**
1. This mower was designed for one operator only. Keep all others away from mower during operation.
 2. Give complete undivided attention to the job at hand.
 3. Mow only in daylight or good artificial light.

DANGER

- **Do Not** operate the engine in a confined area where dangerous carbon monoxide fumes can collect.
4. When feasible, avoid operating the equipment in wet grass.
 5. Mow *across* the face of steep slopes, never up and down. Use extreme caution when changing directions on slopes. **Do Not** mow excessively steep slopes.
 6. Use extreme caution when backing up.
 7. Stop the blades when transporting the mower across any surface other than grass, and when transporting the mower to and from the area to be mowed.
 8. **Never** operate the mower with damaged guards, shields, or without operating safety devices in place. **Do Not** mow without grass deflector or entire grass collection system in place and in proper working condition.
 9. **Do Not** change the governor settings or overspeed the engine. Operating an engine at excessive speed may increase the hazard of personal injury.
 10. Fill the gas tank with the recommended fuel specified by the engine manufacturer.

DANGER

- **Fuel is highly flammable. Never remove the cap of the gas tank while engine is running or when engine is hot. Add fuel before starting the engine.**
 - **Refuel outdoors or in a well ventilated area. Do Not** smoke when refueling or operating the equipment.
 - **If fuel is spilled, Do Not attempt to start the engine. Move away from the spill and avoid creating any source of ignition or sparks until fuel vapors have dissipated.**
11. Before starting engine; place transmission in neutral, and disengage the blade and wheel drive clutches. Follow engine manufacturer recommendations for starting engine.
 12. Start the engine with feet well away from the blades.
 13. Keep hands, feet and clothing away from rotating parts while the mower is being operated.

CAUTION

- **The engine can become very hot. Always allow the engine to cool before servicing or making any repairs near the engine area.**
14. Stop the engine and remove ignition key:
 - Before checking, adjusting, servicing or clearing blockages.

- After striking a foreign object to inspect mower for damage. Make any necessary repairs before restarting and operating the mower.
- Before refueling.
- Whenever you leave the mower.
- Before making height adjustments.
- Before removing grasscatcher.
- Before cleaning blockages.

WARNING

- **If it is necessary to raise the deck or mower for service or repairs, Do Not rely solely on the lift actuator, or mechanical or hydraulic jacks for support. Properly support the deck or mower using adequate jack stands or equivalent support.**
15. Return the throttle control to the idle position for 30 seconds for engine cool down before stopping the engine.
 16. The fuel system is provided with a shut-off valve. The fuel shut-off valve is used when transporting the mower to and from the job site and when the mower will be stored and not in use for a few days.
 17. If jump starting is required, connect positive (+) power cable from booster battery to the positive (+) terminal post on starter solenoid switch (this post has the positive battery cable hooked to it). Connect the ground (-) cable from booster battery to any engine deck ground (preferably the engine block).
 18. Disconnect cables in the reverse order after engine has started.

MAINTENANCE AND STORAGE

CAUTION

- **Although hazard control and accident prevention are partially dependent upon the design and configuration of the equipment, these factors are also dependent upon the awareness, concern, prudence and proper training of the personnel involved in the operation, transport, storage and maintenance of the equipment.**
 - **It is essential that all operator safety guards and mechanisms be connected and in proper operating condition prior to mowing.**
1. Follow the engine manufacturer's recommendations as detailed in the engine manual, for maintenance and service on the engine.
 2. Keep engine and engine area free of grass, leaves, excessive grease and oil, and other debris which can accumulate in these areas. Some of these materials can become combustible and result in a fire.

3. Maximum mowing results and safety can be achieved if the mower is properly maintained and operated correctly.
4. Keep all guards, shields and other safety devices *in place* and in safe working condition.
5. Check all bolts and hydraulic fittings frequently to maintain proper tightness.
6. If carburetor adjustment is necessary, disengage the blade and wheel drive, stand to one side keeping hands and feet away from the mower deck, make appropriate adjustments.
7. Check for worn or deteriorating components and belts which could create a hazard. Replace or repair as necessary.
8. All replacement parts must be equivalent or the same as the parts supplied as original equipment.

DANGER

- **Fuel is *highly flammable*. Do Not store fuel in an enclosed area where heating appliance or open flame is present. Store fuel in a container designed specifically for that purpose.**
9. Store fuel in a cool dry place. Keep fuel and mower in locked storage to prevent children from playing or tampering with them.

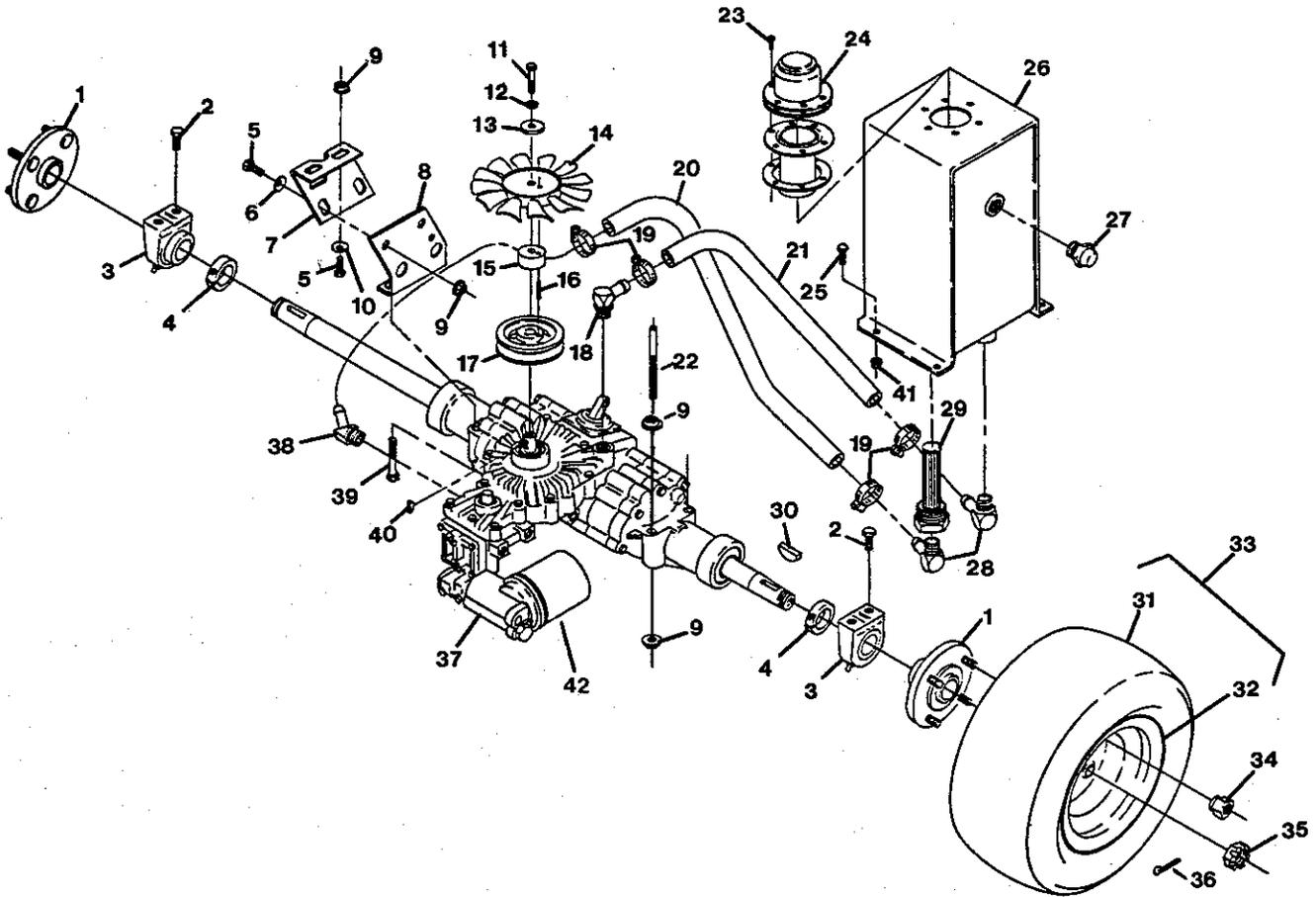
CAUTION

- **Hydraulic fluid escaping under pressure may have sufficient force to penetrate the skin and cause serious injury. If foreign fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may occur.**
- **Use paper or cardboard to check for leaks. NEVER use your hands.**
- **Safely relieve all pressure in the system before disconnecting the lines or before performing work on the hydraulic system.**

SAFETY SIGNS

1. Familiarize yourself with the instruction and safety labels. They are critical to the safe operation of your Exmark commercial mower. Remove all grease, dirt and debris from safety signs. Safety signs must be replaced if they are missing or illegible.
2. Safety signs may be affixed by peeling off the backing to expose the adhesive surface. Apply only to a clean dry surface. Smooth to remove air bubbles.
3. When new components are installed, insure that current safety signs are affixed to the replaced component. New safety signs may be obtained from your authorized Exmark dealer or distributor, or from Exmark Mfg. Co. Inc.

AXLE and HYDRAULICS

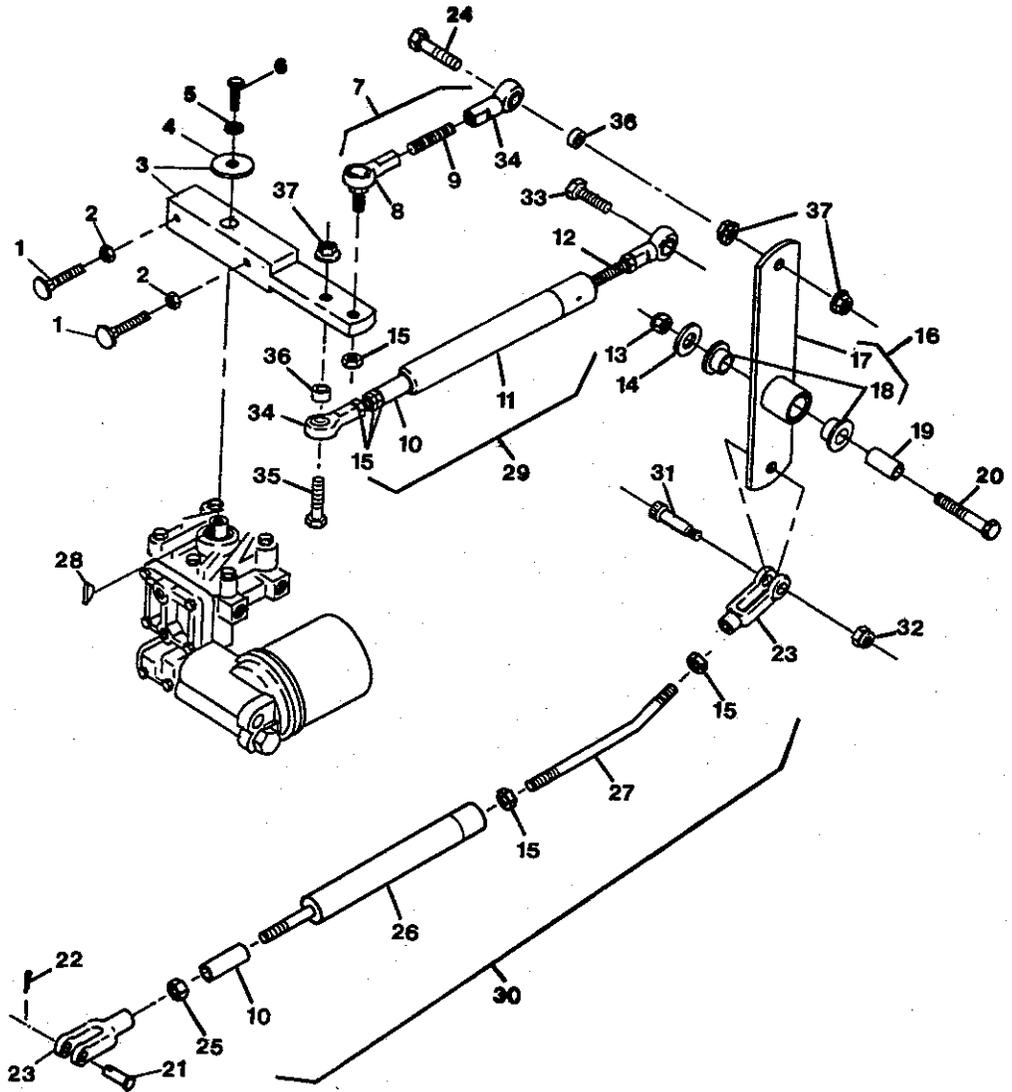


Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1*	602997	Hub, wheel (tapered).....	2	22	543054	Pin, guide.....	2
2	803045	Screw, whizlock 3/8-16 x 3/4 ..	4	23	802002	Screw, 10-32 x 1/2 thrd cttng .	6
3*	543485	Bearing, pillow base.....	2	24	543541	Breather, filler & cap.....	1
f	840022	Pro-Lock, Nut Type (.5cc Tube) Use on Setscrews in Bearings.		25	800271	Capscrew, 5/16-18 x 3/4	1
4*	373021	Clamp, collar (1").....	2	26	542913	Tank, hydraulic.....	1
5	800290	Capscrew, 3/8-16 x 3/4.....	4	27	543894	Oil Eye, hyd tank.....	1
6	303327	Washer, disc spring 3/8.....	2	28	543889	Elbow, 90°.....	2
7	543996	Stabilizer, axle (upper).....	1	29	543864	Suction strainer.....	1
8	542612	Stabilizer, (axle lower).....	1	30	807018	Key, woodruff 1 1/4 x 5/16.....	2
9	809007	Nut, whizlock 3/8-16.....	8	31	543680	Tire, 20 x 10-8.....	2
10	805260	Washer, 3/8 std. flat.....	2	32	513042	Rim.....	2
11	800256	Capscrew, 1/4-20 x 1-1/2.....	1	33	543396	Tire and wheel assy.....	2
12	805004	Lockwasher, 1/4 hvy. spring ...	1	34	513011	Nut, wheel 1/2-20.....	8
13	503033	Washer, pulley retainer.....	1	35	803040	Nut, slotted 3/4-16.....	2
14	543359	Fan, 7" OD/10 blade.....	1	36	806800	Pin, cotter, 9/64 x 1-1/2.....	2
15	543317	Spacer, fan.....	1	37	543055	Transaxle 851-114 Series.....	1
16	806328	Rollpin, 7/32 x 7/8.....	1	38	543888	Elbow, 45°.....	1
17	543928	Pulley, cast iron.....	1	f	603919	O-Ring.....	1
18	543887	Elbow, 90°.....	1	39	800298	Capscrew, 3/8-16 x 2-1/2.....	2
f	603919	O-Ring.....	1	f	840022	Pro-Lock, Nut Type (.5cc Tube) Use on Threads	
19	543892	Hose Clamp.....	4	40	807006	Key, woodruff 3/8 x 5/16.....	1
20	543930	Hose, 17.25 Push Lok.....	1	41	809001	Nut, whizlock 5/16-18.....	4
21	543931	Hose, 8.0 Push Lok.....	1	42	513211	Oil filter element.....	1

* Apply Anti-Seize compound to bore.

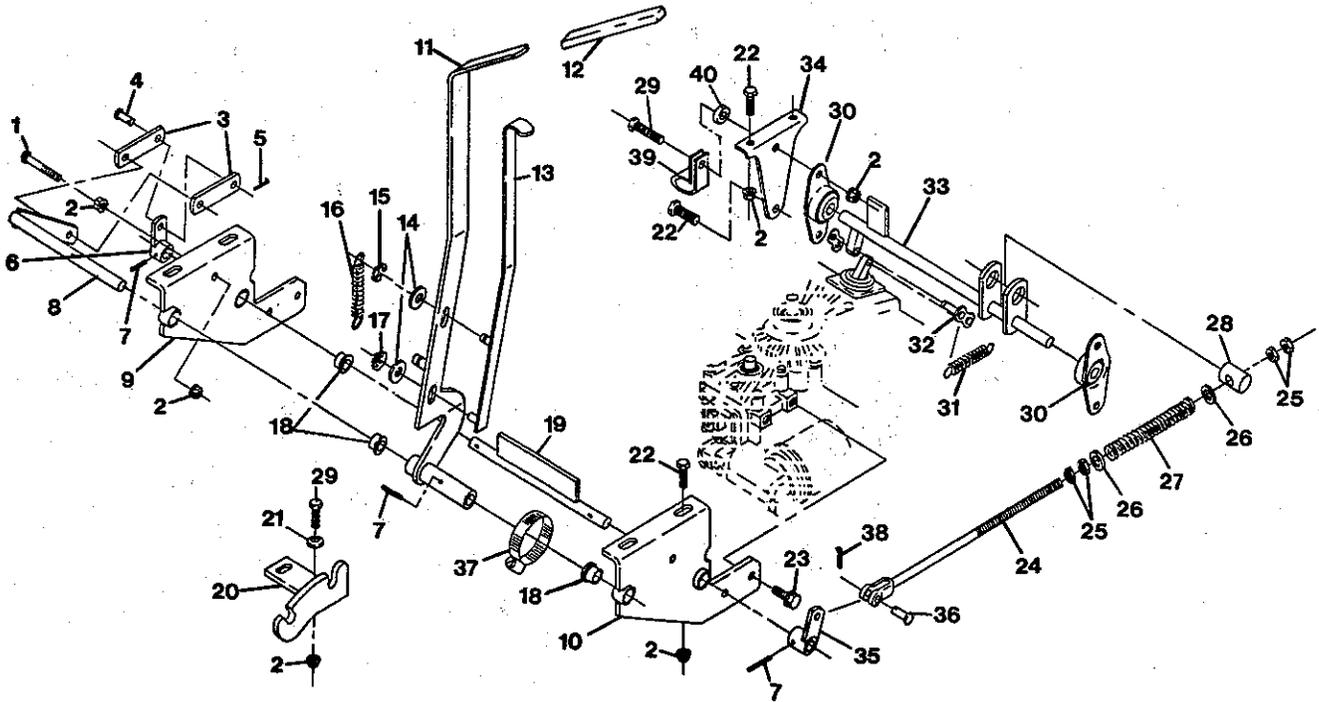
f Not Illustrated.

MOTION CONTROLS



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	807522	Bolt, carriage 5/16-18 x 2.....	2	20	800279	Capscrew, 5/16-18 x 2-1/2	1
2	804506	Nut, 5/16-18	2	21	808280	Pin, clevis 5/16 x 1	1
3	542916	Arm, transaxle.....	1	22	806753	Pin, cotter 3/32 x 1/2	1
4	503033	Washer, pulley retainer.....	1	23	303105	Yoke, adjustable.....	2
5	805004	Washer, lock 1/4 hvy spring....	1	24	800275	Capscrew, 5/16-18 x 1-1/2	1
6	800751	Capscrew, 1/4-20 x 1-1/2.....	1	25	804521	Nut, 5/16-24.....	1
7	544722	Linkage, motion control.....	1	26	512136	Housing, override	1
8	513132	Joint, ball.....	1	27	543052	Rod, link.....	1
9	543710	Rod, end	1	28	807002	Key, woodruff #3, 1/8 x 1/2.....	1
10	513479	Bushing, spring guide	2	29	542725	Spring assy, pedal (center)	1
11	542724	Centering spring wldmnt.....	1	30	542053	Spring, pedal (override).....	1
12	543148	Rod, end	1	31	809057	Screw, 5/16 x 3/4 sckt hd shld	1
13	804256	Nut, nylock 5/16-18.....	1	32	804255	Nut, nylock 1/4-20	1
14	805258	Washer, 5/16 stnd. flat.....	1	33	800513	Capscrew, 5/16-24 x 1	1
15	804758	Nut, jam 5/16-24 (RH).....	13	34	543017	Ball joint.....	3
16	544711	Idler linkage S/A.....	1	35	800274	Capscrew, 5/16-18 x 1-1/4	1
17	542144	Linkage, idler	1	36	603500	Spacer	2
18	513140	Bearing, control.....	2	37	809001	Nut, whizlock 5/16-18.....	3
19	543486	Bushing.....	1				

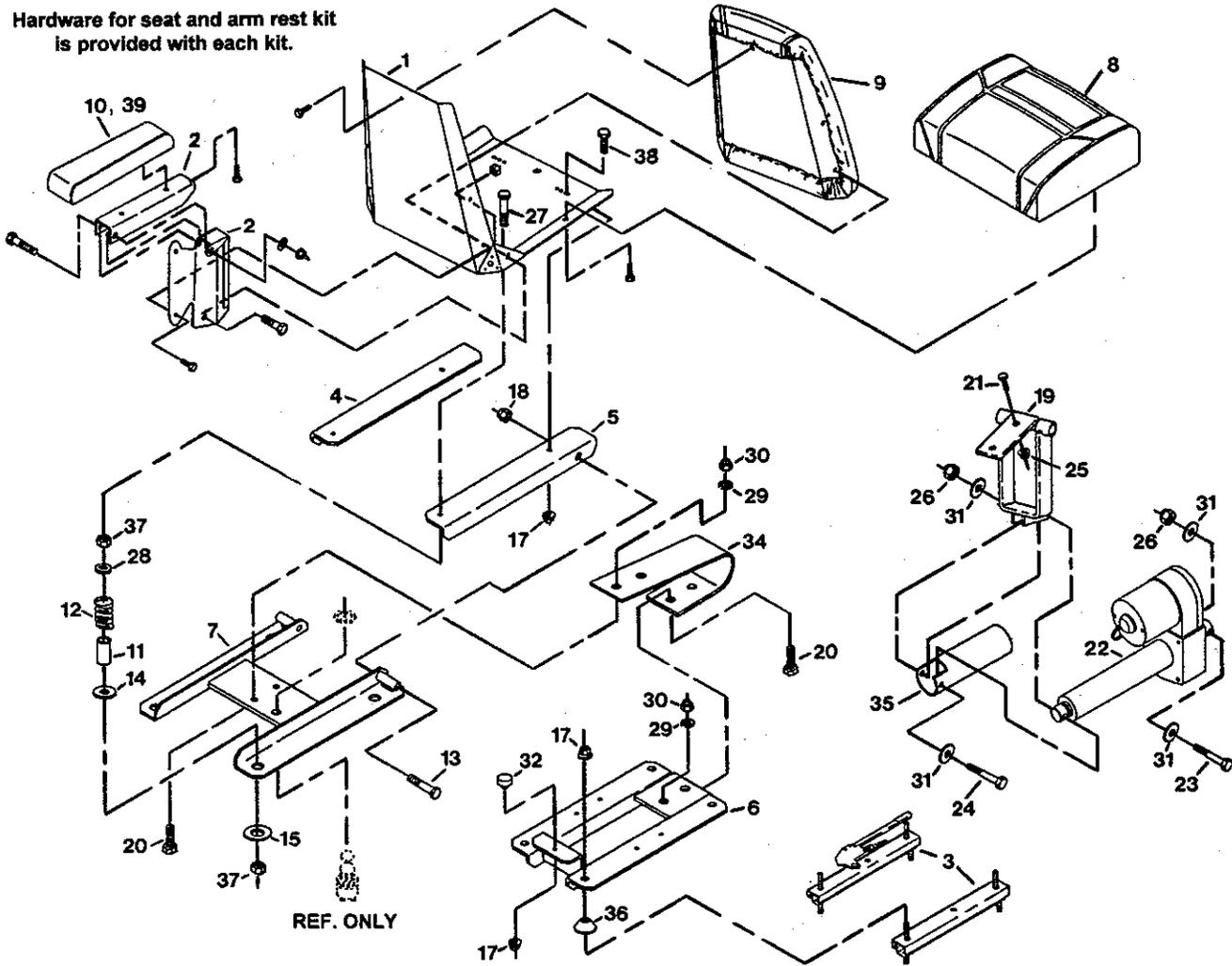
PARKING BRAKE



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	800278	Capscrew, 5/16-18 x 2-1/4.....	1	21	303334	Washer, disc 5/16.....	2
2	809001	Nut, whizlock, 5/16-18	13	22	800271	Capscrew, 5/16-18 x 3/4	9
3	543115	Link, brake	2	23	803032	Bolt, whizlock 5/16-18 x 3/4....	4
4	808278	Pin, clevis 5/16 x 3/4.....	2	24	543721	Linkage, brake.....	1
5	806761	Pin, cotter 1/8 x 3/4.....	2	25	804760	Nut, jam 3/8-24 pltd	4
6	542123	Arm, butterfly control.....	1	26	805260	Washer, 3/8	2
7	806328	Roll pin, 7/32 x 7/8	1	27	543132	Spring, brake protect.....	1
8	542190	Pivot wldmt, brake lever.....	1	28	543129	Pin, trunion	1
9	542924	Support, transmission (LH)....	1	29	800273	Capscrew, 5/16-18 x 1	2
10	542926	Support, transmission (RH)	1	30	543514	Flange mntg (side)	2
11	542192	Handle, brake	1	31	543543	Spring, 3 x 1/2	1
12	303020	Grip (adjustment lever)	1	32	543745	Link, connector #60	1
13	542719	Trigger, brake	1	33	542748	Jackshaft, brake	1
14	805257	Washer, 5/16	2	34	543138	Mount, jackshaft bearing	1
15	808512	E Ring	1	35	542121	Arm, brake control	1
16	513468	Spring, brake handle.....	1	36	808280	Pin, clevis, 5/16 x 1	1
17	543798	Pushnut, 5/16.....	1	37	543892	Clamp, hose	1
18	513140	Bearing control	4	38	806753	Pin, clevis 3/32 x 1/2	1
19	542125	Butterfly.....	1	39	213148	Clamp	1
20	542900	Quadrant, brake.....	1	40	543007	Spacer	1

SEAT ASSEMBLY and LIFT ACTUATOR

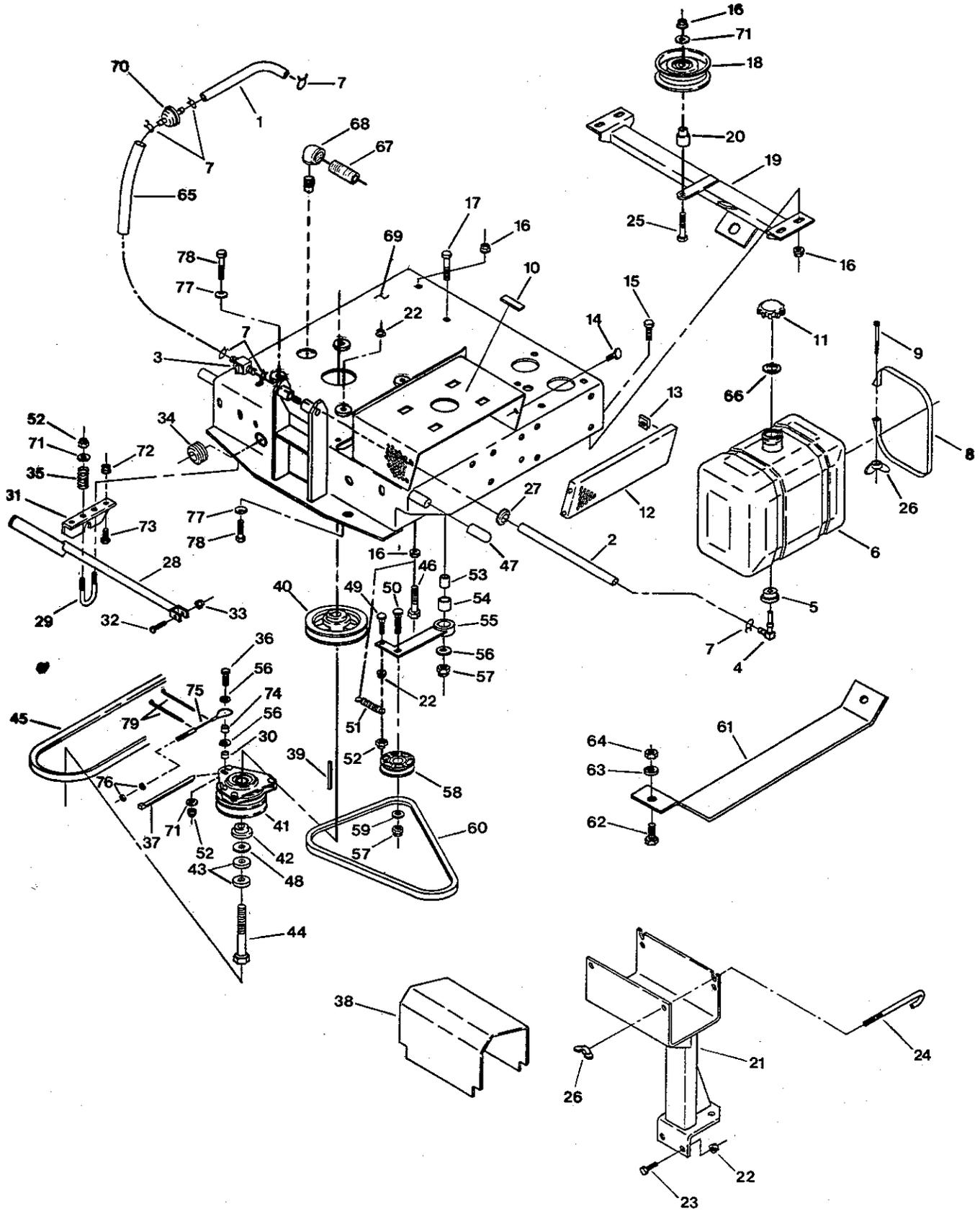
Hardware for seat and arm rest kit is provided with each kit.



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	543347	Seat with cushions.....	1	21	800290	Screw, 3/8-16 x 3/4	2
2	543406	Kit, armrest (optional)	1	22	543241	Actuator, linear	1
3	543357	Seat track, adjustable (6").....	1	23	800825	Screw, 7/16-20 x 5	1
4	543319	Rail, seat (LH).....	1	24	800820	Screw, 7/16-20 x 3	1
5	543321	Rail, seat (RH)	1	25	809007	Nut, flange 3/8-16.....	2
6	542307	Base rail, seat.....	1	26	804263	Nut, nylock 7/16-20	2
7	542315	Seat rail wldmnt	1	27	800015	Tap bolt, 5/16-18 x 2 1/2	2
8	543407	Cushion, seat.....	1	28	805258	Washer, 5/16	2
9	543408	Cushion, back rest.....	1	29	805008	Washer, lock 1/2.....	4
10	543409	Pad, arm rest (RH).....	1	30	804509	Nut, nylock 1/2-13	4
11	513479	Bushing, spring guide	2	31	805261	Washer, 7/16	4
12	513296	Spring	2	32	543963	Bumper, rubber	1
13	800338	Screw, 1/2-13 x 3 1/4.....	2	33	543348	Nut, 5/8-32.....	1
14	805264	Washer, 1/2	2	34	543356	Spring, seat (TR).....	1
15	213069	Strut, adjustment spacer.....	2	35	543834	Guard, actuator	1
16	603760	Switch, seat safety.....	1	36	543401	Spacer, track	4
17	809001	Nut, whizlock 5/16-18	9	37	804506	Nut, 5/16-18.....	2
18	804265	Nut, nylock 1/2-13.....	2	38	800271	Screw, 5/16-18 x 3/4	2
19	542283	Pivot wldmnt, actuator	1	39	543411	Pad, arm rest (LH).....	1
20	800326	Screw, 1/2-13 x 1 1/4.....	4				

◇ This hardware (4 ea.) comes with the seat track, see Page 9 for additional track mounting hardware.

ENGINE DECK GROUP



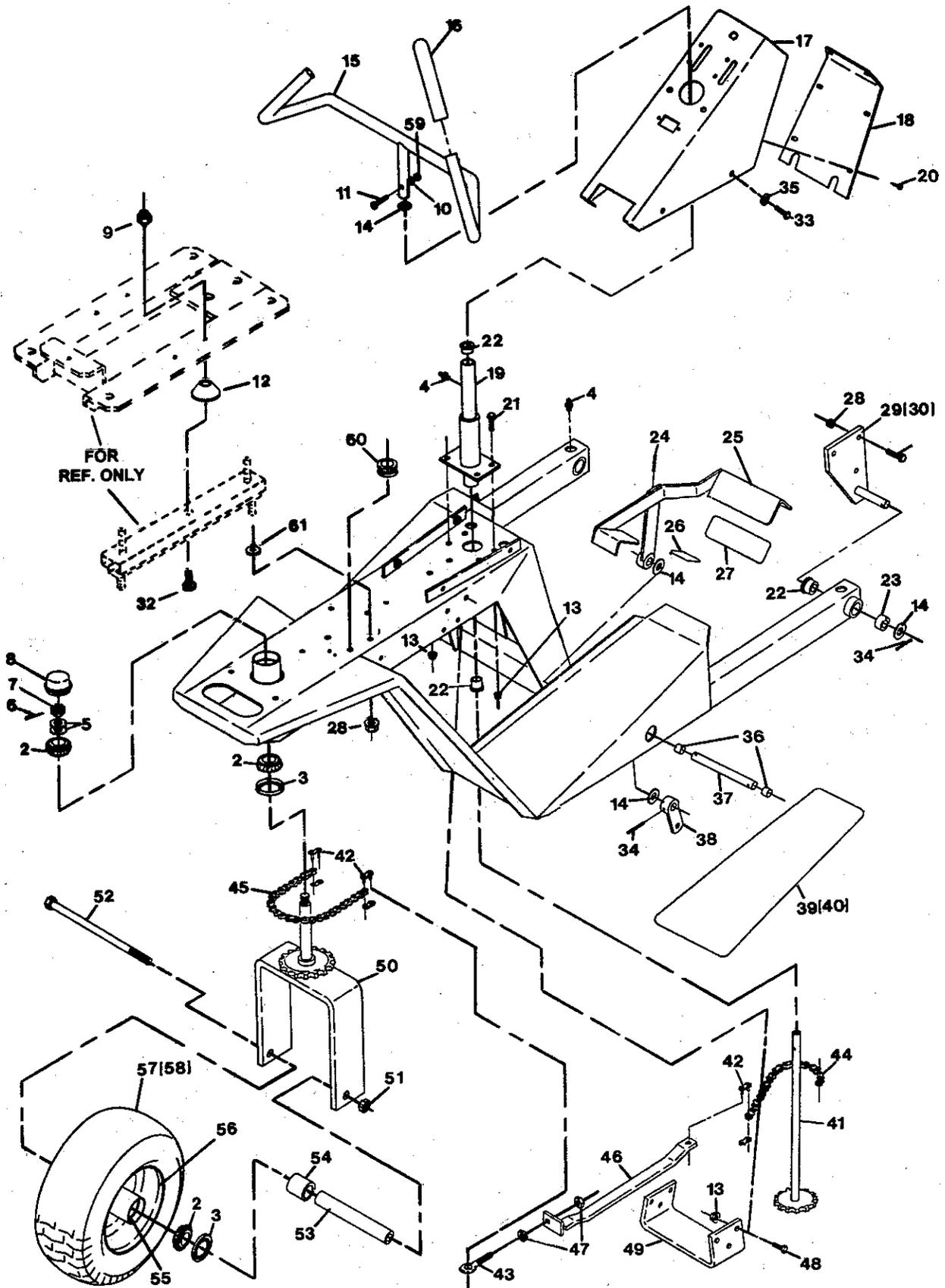
ENGINE DECK GROUP

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	513581	Fuel line, 18"	2	42	603609	Bushing, clutch keeper	1
2	303306	Fuel line	1	43	603610	Washer, spring disc 7/16	2
3	603770	Valve, fuel line	1	44	800820	Capscrew, 7/16-20 x 3	1
4	543277	Elbow, fuel tank w/screen	1		840022	Pro-Lock, Nut type (.5 ml Tube) Use on Threads	
5	513645	Bushing, fuel valve	1	45	323300	Belt, deck drive (60" Deck)	1
6	543364	Tank, gas	1		543028	Belt, deck drive (52" Deck)	1
7	303077	Clamp, gas line	6	46	800295	Capscrew, 3/8-16 x 1-3/4	1
8	303465	Strap, fuel tank	2	47	303021	Grip (drive lever)	2
9	801060	Screw, 1/4-20 x 2	2	48	373034	Washer, pivot	1
10	303315	Gas tank pad	2	49	807518	Bolt, carriage 5/16-18 x 1-1/4	1
11	513508	Cap, fuel tank	1	50	807517	Bolt, carriage 3/8-16 x 1-3/4	1
12	542045	Screen, air intake	1	51	513170	Spring	1
13	809024	Nut, retainer 1/4-20	1	52	804256	Nut, nylock 5/16-18	4
14	543791	Screw, thumb 1/4-20 x 3/4	1	53	543274	Bushing, steel	1
15	800290	Capscrew, 3/8-16 x 3/4	4	54	543502	Bushing, bronze	1
16	809007	Nut, flange 3/8-16	7	55	542270	Arm, hyd drive idler	1
17	800296	Capscrew, 3/8-16 x 2	1	56	213069	Strut, adjustment spacer	3
18	543877	Pulley, idler 5 3/4 OD	1	57	804257	Nut, nylock 3/8-16	2
19	542958	Cross member	1	58	543008	Pulley, idler (steel)	1
20	543879	Bushing, idler	1	59	805260	Washer, 3/8	1
21	542069	Mount, battery	1	60	543548	Belt, "A" (transmission drive)	1
22	809001	Nut, whizlock 5/16-18	9	61	543258	Plate, skid	1
23	800271	Capscrew, 5/16-18 x 3/4	4	62	800326	Capscrew, 1/2-13 x 1.25	2
24	543882	Bolt, hold down	2	63	805008	Washer, 1/2	2
25	800297	Capscrew, 3/8-16 x 2-1/4	1	64	804509	Nut, 1/2-13	2
26	543792	Wingnut, nylock 1/4	4	65	543649	Fuel line, 7"	1
27	543296	Grommet, fuel line	1	66	303321	Gasket, fuel tank	1
28	542948	Lever, drive release	1	67*	543064	Nipple, 3/8 NPT x 1.5	1
29	543935	U-Bolt, 5/16-18	1	68*	303428	Elbow, 3/8 NPT	1
30	543007	Spacer, clutch anchor	1	69	542268	Deck, engine	1
31	543933	Bracket, neutral lever	1	70	303197	Gas filter	1
32	801056	Screw, 12-24 x 1 3/8	1	71	805258	Washer, 5/16	4
33	804254	Nut, nylock 12-24	1	72	809012	Nut, whizlock 1/4-20	2
34	543286	Grommet	1	73	800251	Capscrew, 1/4-20 x 5/8	2
35	303160	Compression spring	2	74	323093	Spacer	1
36	800275	Capscrew, 5/16-18 x 1-1/2	1	75	542046	Cable assembly	1
37	303335	Plastic tie, large	1	76	804255	Nut, nylock 1/4-20	2
38	543891	Battery cover	1	77	303334	Washer, disc spring 5/16	4
39	807259	Key, 1/4 x 1/4 x 1	1	78	800276	Capscrew, 5/16-18 x 1-3/4	4
40	543929	Pulley, engine	1	79	303287	Plastic tie, small	2
41◇	542322	Clutch, electric (Warner)	1				

* Use Teflon Pipe Sealant or equivalent on threads.

◇ For units with Serial No.'s 102,000 or lower, replace electric clutch with Clutch Kit, Part No. 541353. This kit includes the new Warner clutch and the necessary parts to install this kit to your unit.

RIDER FRAME and STEERING

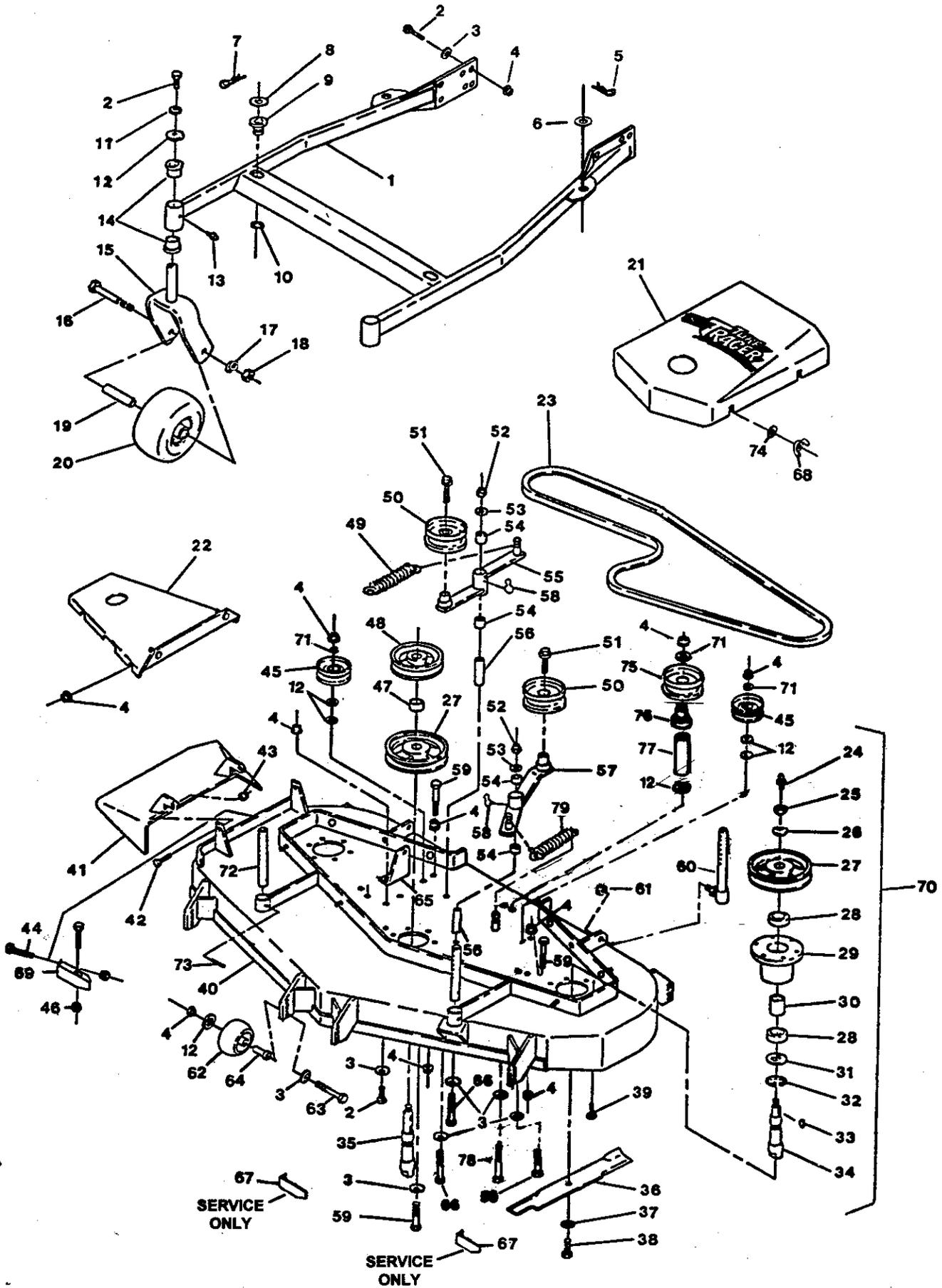


RIDER FRAME and STEERING

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	542920	Frame, rider	1	32	801070	Screw, 5/16-18 x 3/4 CR	2
2	543509	Bearing, tapered roller	4	33	800251	Capscrew, 1/4-20 x 5/8	4
3	543511	Seal, grease	3	34	806332	Rollpin, 1/4 x 1-1/2	2
4	811006	Zerk, 1/4-28 (straight)	3	35	805255	Washer, 1/4	4
5	805269	Washer, 3/4	2	36	513588	Bearing, DU	2
6	806770	Pin, cotter 5/32 x 1.25	1	37	543172	Shaft, foot pedal	1
7	803040	Nut, slotted 3/4-16	1	38	542140	Lever, foot pedal	1
8	543513	Cap, grease	1	39	543159	Pad, rider anti-skid (R)	1
9	804256	Nut, nylock 5/16-18	2	40 ^f	543158	Pad, rider anti-skid (L)	1
10	805259	Washer, 3/8	1	41	542850	Shaft, steering	1
11	800294	Capscrew, 3/8-16 x 1-1/2	1	42	543573	Link, connector #40	4
12	543401	Spacer, seat track	2	43	543579	Eyebolt, 5/16-18	2
13	809007	Nut, flange 3/8-16	11	44	543885	Chain, #40-29 Pitch	1
14	303007	Washer, 6" caster pivot	5	45	543886	Chain, #40-33 Pitch	1
15	542428	Handle bar	1	46	542870	Link	2
16	543575	Grip, handle bar	2	47	804751	Nut, jam 5/16-18	4
17	542939	Console	1	48	800292	Capscrew, 3/8-16 x 1	6
18	543716	Cover, console	1	49	553007	Stop, actuator	1
19	542854	Steering post	1	50	542872	Mount, steering wheel	1
20	802006	Screw, 10-24 x 1/2	6	51	803042	Nut, torque 5/8-11	1
21	800290	Capscrew, 3/8-16 x 3/4	4	52	800346	Capscrew, 5/8-11 x 10-1/2	1
22	303199	Bushing, 6" caster flange	4	53	543552	Bushing, wheel	1
23	303200	Sleeve, 6" caster	2	54	543556	Spacer, wheel (short)	2
24	806331	Roll Pin, 1/4 x 1-1/4	2	55	543508	Bearing, cup	2
25	542183	Pedal, foot	1	56	543674	Rim	1
26	543161	Pad, reverse control pedal	1	57	543397	Tire/whl assy, 18.0 x 6.50-8 ...	1
27	543160	Pad, forward control pedal	1	58	543679	Tire, 18 x 6.50-8	1
28	809001	Nut, whizlock 5/16-18	13	59	804257	Nut, nylock 3/8-16	1
29	542196	Bracket, pivot (RH)	1	60	543296	Grommet	1
30 ^f	542194	Bracket, pivot (LH)	1	61	805258	Washer, 5/16	2
31	800273	Capscrew, 5/16-18 x 1	5				

^f Not Illustrated.

52" MOWER DECK



52" MOWER DECK

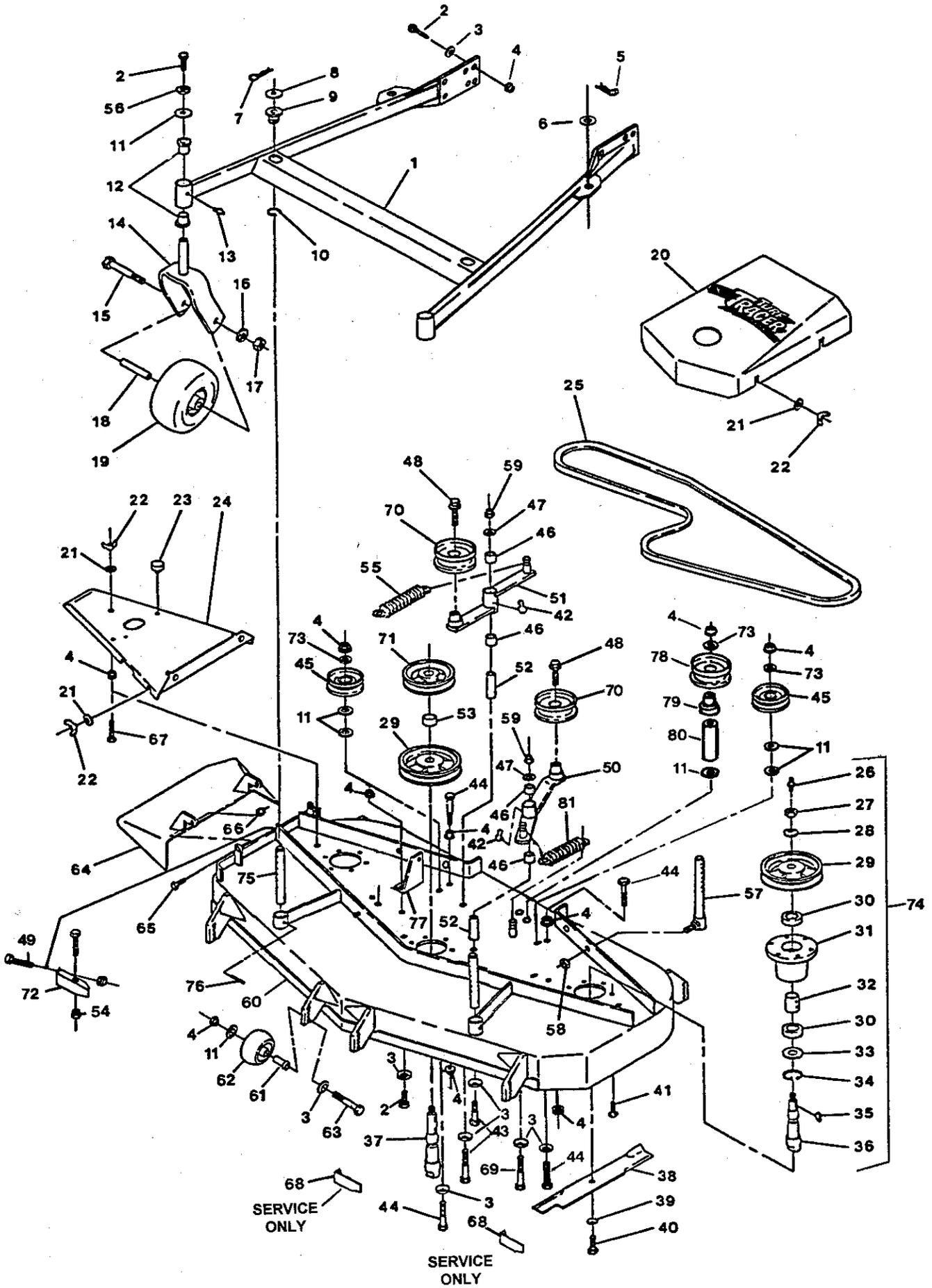
Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	604960	Support, deck 602939 w/ bushings & decals.....	1	40	602961	Deck, 612007 with support rods & baffle.....	1
2	800292	Capscrew, 3/8-16 x 1.....	12	41	602571	Chute, discharge.....	1
3◇	303327	Washer, disc spring 3/8.....	20	42	800273	Capscrew, 5/16-18 x 1.....	2
4◇	809007	Nut, whizlock 3/8-16.....	29	43	804256	Nut, nylock 5/16-18.....	2
5	806006	Hairpin, 5/8.....	2	44	800270	Capscrew, 5/16-18 x 5/8.....	13
6	303164	Spacer, blade driver.....	2	45	303516	Pulley, V-Idler.....	2
7	806007	Hairpin, 7/8.....	2	46	809001	Nut, whizlock 5/16-18.....	13
8	513338	Washer.....	2	47	603504	Spacer, tube.....	1
9	513336	Bushing, deck support.....	2	48	603581	Sheave, mower drive.....	1
10	808507	Ring, retaining (external).....	2	49	603413	Spring, extension.....	1
11	805006	Washer, lock 3/8 hvy spring....	2	50	603497	Pulley, idler.....	2
12◇	373034	Washer, pivot.....	13	51	803016	Screw, whizlock 3/8-16 x 1....	2
13	811001	Zerk, 1/8 NPT (straight).....	2	52	804257	Nut, nylock 3/8-16.....	2
14	303514	Bearing, flange thrust.....	4	53	805260	Washer, 3/8.....	2
15	522143	Fork, caster.....	2	54	513034	Bearing, pivot.....	4
16	800334	Capscrew, 1/2-13 x 6.....	2	55	602604	Idler arm assy w/bearings.....	1
17	805008	Washer, lock 1/2.....	2		602591	Arm, deck idler.....	1
18	804509	Nut, 1/2-13.....	2	56	603384	Bushing, idler pivot.....	2
19	513547	Spacer, front caster.....	2	57	602865	Idler arm, w/bearings deck drive.....	1
20	513648	Tire/wheel assy, 9 x 3.50-4....	2		602867	Arm, deck drive idler.....	1
	513807	Wheel.....	2		811008	Zerk, 1/4-28 (90°).....	2
	513808	Tire 9 x 3.50-4.....	2	58	811008	Zerk, 1/4-28 (90°).....	2
	513809	Bearing.....	2	59	800297	Capscrew, 3/8-16 x 2-1/4.....	4
	513810	Bushing.....	4	60	603540	Link, rear deck support.....	2
21	542300	Cover with decal, (deck drive belt).....	1	61	803031	Nut, torque 3/8-24.....	2
22	602545	Cover, deck.....	2	62	603299	Roller, anti scalp.....	6
23	603576	Belt, blade drive.....	1	63	800807	Capscrew, 3/8-16 x 4.....	6
24	811006	Zerk, 1/4-28 (straight).....	3	64	603602	Bushing, roller.....	6
25	804510	Nut, 5/8-18 UNF.....	3	65	603620	Bracket, spring anchor.....	1
26	513208	Spring, disk.....	3	66	800805	Capscrew, 3/8-16 x 3 1/2.....	2
27	513207	Sheave, blade drive.....	3	67†	602911	Baffle.....	2
28	303057	Bearing, ball 305K.....	6	68	543678	Wingnut, nylock.....	4
29	513186	Housing, bearing.....	3	69	602913	Baffle.....	1
30	513188	Spacer, bearing.....	3	70	604621	Housing, cutter complete (center).....	1
31	513193	Seal, dust.....	3		604262	Housing, cutter complete (outer).....	2
32	808506	Snap ring, 2.59 x 08TK.....	3	71◇	805258	Washer, 5/16.....	5
33	807006	Key, woodruff #61.....	4	72	603001	Rod, deck support.....	2
34	603031	Spindle, outer blade.....	2	73	806332	Roll pin, 1/4 x 1-1/2.....	2
35	603022	Spindle, center blade.....	1	74	805259	Washer.....	4
36	603637	Blade, 18" diameter.....	3	75◇	603805	Idler.....	1
	603844	Blade, low lift.....	3	76◇	513791	Bushing.....	1
‡	603873	Blade, mulching.....	3	77◇	603494	Spacer.....	1
37	513435	Washer, disc spring 1/2.....	3	78◇	800302	Capscrew, 3/8-16 x 4.....	1
38	800531	Capscrew, 1/2-20 x 1 (RH).....	3	79	603414	Spring, extension.....	1
39	809035	Bolt, taptite 3/8-16 x 1.....	18				

‡ Requires installation of Micro-Mulch accessory for proper mulching.

† Service only. Requires (2 ea.) 809001 and (2 ea.) 800270 for installation.

◇ These parts are available in an Idler Pulley Kit (Part No. 601806). Each kit contains one item each of the referenced item number.

60" MOWER DECK



60" MOWER DECK

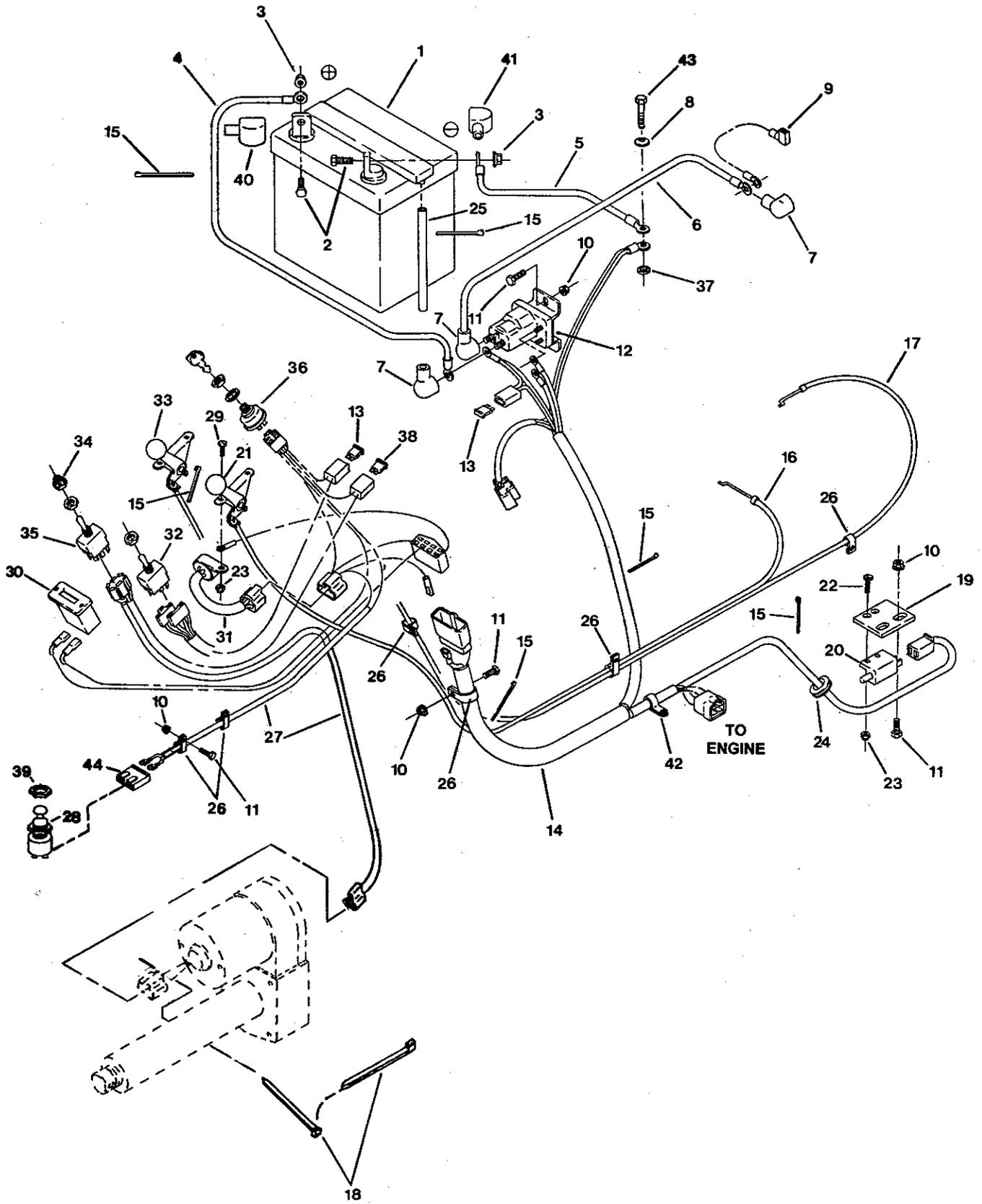
Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	604847	Support, deck 602593 w/ bushings & decals	1	41	809035	Bolt, taptite 3/8-16 x 1.....	18
2	800292	Capscrew, 3/8-16 x 1.....	12	42	811008	Zerk, 1/4-28 (90°)	2
3⇧	303327	Washer, disc spring 3/8	19	43	800805	Capscrew, 3/8-16 x 3.5	2
4⇧	809007	Nut, whizlock 3/8-16	23	44	800297	Capscrew, 3/8-16 x 2-1/4	4
5	806006	Hairpin, 5/8	2	45	303516	Pulley, V-idler	2
6	303164	Spacer, blade driver.....	2	46	513034	Bearing, pivot.....	4
7	806007	Hairpin, 7/8	2	47	805260	Washer, 3/8 stdn flat	2
8	513338	Washer	2	48	803016	Bolt, whizlock 3/8-16 x 1.....	2
9	513336	Bushing, deck support	2	49	800270	Capscrew, 5/16-18 x 5/8	13
10	808507	Ring, retaining (external)	2	50	602867	Arm, deck drive idler.....	1
11⇧	373034	Washer, pivot.....	13		602865	Idler arm assy, deck drive (with bearings).....	1
12	303514	Bearing, flange thrust.....	12	51	602591	Arm, deck idler	1
13	811001	Zerk, 1/8 NPT (straight)	2		602604	Idler arm, w/bearings.....	1
14	522143	Fork, caster.....	2	52	603384	Bushing, idler pivot.....	2
15	800334	Capscrew, 1/2-13 x 6.....	2	53	603504	Spacer, tube	1
16	805008	Washer, lock 1/2	2	54	809001	Nut, whizlock 5/16-18.....	13
17	804509	Nut, 1/2-13	2	55	603413	Spring, extension.....	1
18	513547	Spacer, front caster	2	56	805006	Washer, lock 3/8 (hvy spring). 2	
19	513648	Tire/whl assy, 9 x 3.50-4.....	2	57	603540	Link, rear deck support.....	2
	513807	Wheel.....	2	58	803031	Nut, torque 3/8-24	2
	513808	Tire 9 x 3.50-4.....	2	59	804257	Nut, nylock3/8-16	2
	513809	Bearing	2	60	602962	Deck, 612003 with support rods & baffle	1
	513810	Bushing	4	61	603602	Bushing, roller.....	6
20	542301	Cover w/decals (deck drv belt) .	1	62	603299	Roller, anti scalp	6
21	805259	Washer, 3/8	10	63	800807	Capscrew, 3/8-16 x 4 (Gr 8)...	6
22	543678	Wingnut, nylon insert	4	64	542606	Chute, discharge	1
23	513291	Bumper, seat	2	65	800273	Capscrew, 5/16-18 x 1	2
24	542588	Cover, deck.....	2	66	804256	Nut, nylock 5/16-18	2
25	603045	Belt, blade drive	1	67	800031	Tapbolt, 3/8-16 x 2 3/4	2
26	811006	Zerk, 1/4-28 (straight)	3	68†	602911	Baffle	2
27	804510	Nut, 5/8-18 UNF.....	3	69⇧	800302	Capscrew, 3/8-16 x 4 (Gr 5)...	1
28	513208	Washer, disc spring	3	70	603497	Pulley, idler.....	2
29	513207	Sheave, blade drive	3	71	613024	Sheave, mower drive.....	1
30	303057	Bearing, ball 305K.....	6	72	602913	Baffle	1
31	513186	Bearing, housing	3	73⇧	805258	Washer, 5/16	5
32	513188	Spacer, bearing	3	74	604262	Cutter housing, (outer, cmplt) .	2
33	513193	Seal, dust.....	3		614025	Cutter housing, (cntr, cmplt) ..	1
34	808506	Snap ring, 2.59 x 08TK.....	3	75	603001	Rod, deck support	2
35	807006	Key, woodruff 5/8 x 3/16	4	76	806332	Roll pin, 1/4 x 1-1/2.....	2
36	603031	Spindle, outer blade	2	77	603620	Bracket, spring anchor	1
37	603022	Spindle, center blade	1	78⇧	603805	Idler.....	1
38	603283	Blade, 20 1/2" diameter	3	79⇧	513791	Bushing.....	1
	603661	Blade, low lift.....	3	80⇧	603494	Spacer.....	1
‡	603874	Blade, mulching	3	81	603414	Spring, extension.....	1
39	513435	Washer, 1/2 disc spring	3				
40	800531	Capscrew, 1/2-20 x 1 (RH).....	3				

‡ Requires installation of Micro-Mulch accessory for proper mulching.

† Service only. Requires (2 ea.) 809001 and (2 ea.) 800270 for installation.

⇧ These parts are available in an Idler Pulley Kit (Part No. 601806). Each kit contains one item each of the referenced item number.

ELECTRICAL GROUP

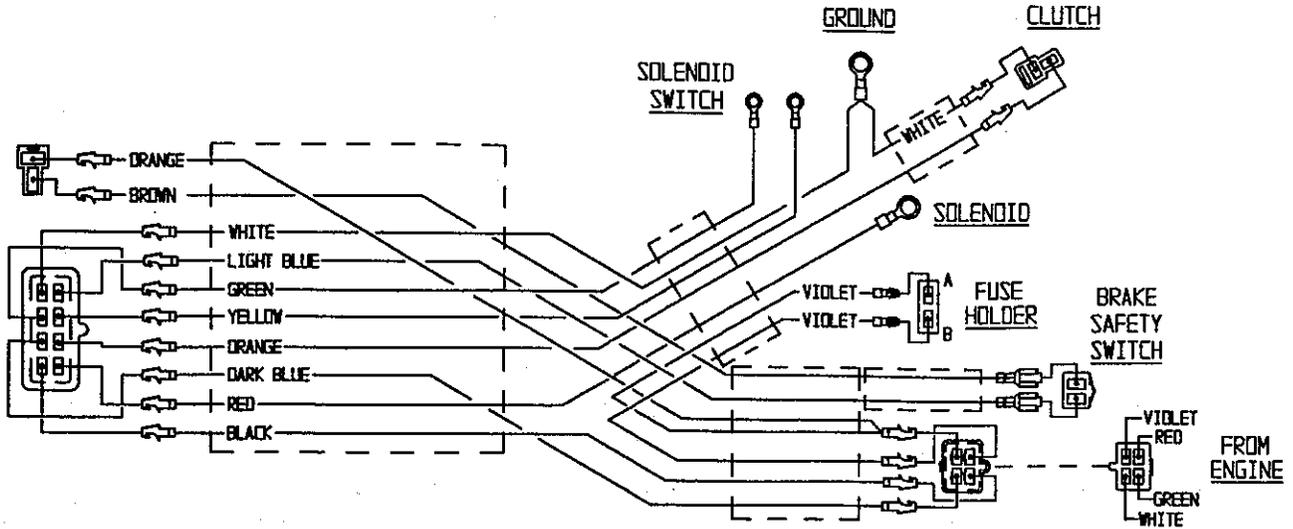


ELECTRICAL GROUP

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	603479	Battery, 12 volt.....	1	24	543296	Grommet	1
2	800271	Capscrew, 5/16-18 x 3/4.....	2	25	809040	Hose, battery manifold (23")...	1
3	809001	Nut, whizlock 5/16-18	2	26	513762	Clip, 1/2" Loom	6
4	513053	Wire, battery (pos. +)	1	27	543243	Harness, wire (rider).....	1
5	543767	Wire, ground (-).....	1	28	603760	Switch, seat safety	1
6	513582	Wire, starter	1	29	801039	Screw, mach. 10-24 x 5/8.....	4
7	543393	Insulator, solenoid (pos. +)	3	30	513374	Meter, engine hours	1
8	303334	Washer, disc spring 5/16	1	31	543316	Module, safety interlock.....	1
9	543084	Wire, starter (solenoid)	1	32	543018	Switch, toggle w/clip term.....	1
10	809012	Nut, whizlock 1/4-20	10	33	513593	Knob, black ball	1
11	800251	Capscrew, 1/4-20 x 5/8.....	10	34	543386	Boot, toggle switch	1
12	513075	Switch, 12 volt solenoid	1	35	543385	Switch, toggle DPDT	1
13	816001	Fuse, blade 20 AMP	2	36	543070	Ignition switch.....	1
14	543065	Harness, wire (engine).....	1		603511	Ignition key	2
15	303287	Plastic tie, (small).....	6	37	805506	Washer, lock 5/16 (internal tooth)	1
16	543697	Cable, throttle	1				
17	543072	Cable, choke.....	1	38	816003	Fuse, blade 30 AMP	1
18	303335	Plastic tie, (large)	2	39	543348	Nut, 5/8-32 (seat switch)	1
19	323128	Bracket, safety switch.....	1	40	543391	Insulator, battery positive	1
20	513051	Switch, neutral lockout.....	1	41	543390	Insulator, battery negative	1
21	513592	Knob, red ball.....	1	42	603727	Clip, 9/16 Loom	1
22	803017	Screw, 10-24 x 5/8 ctr.....	2	43	800276	Capscrew, 5/16-18 x 1-3/4	1
23	804252	Nut, nylock 10-24.....	6	44	543335	Connector, Packard 2-way.....	1

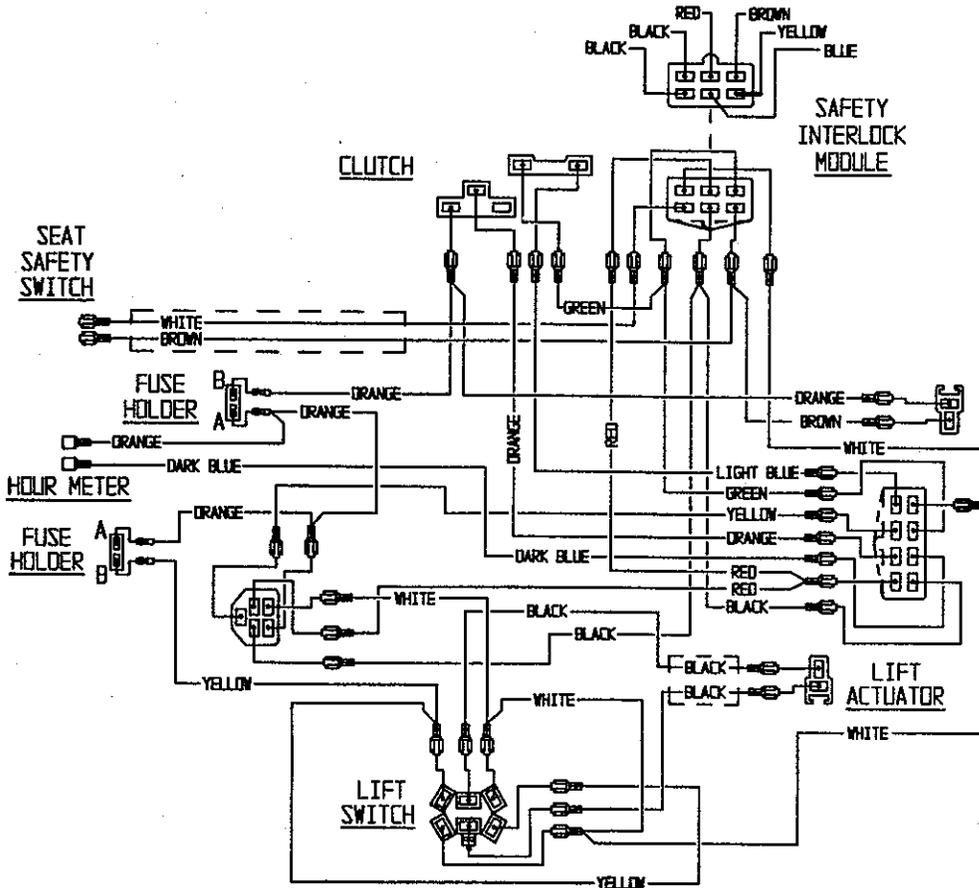
▽ This screw is shown in it's proper location on the engine deck illustration (Page 7).

ELECTRICAL DIAGRAM



Engine Deck Wiring Diagram

NOTE: All connectors are viewed from the *wire input* side of the connector.



Console Wiring Diagram

NOTE: All connectors are viewed from the *wire input* side of the connector.

DECALS

POISON CAUSES SEVERE BURNS
CONTAINS SULFURIC ACID. DANGER! EXPLOSIVE
 AVOID CONTACT WITH SKIN, EYES OR CLOTHING. IN EVENT OF ACCIDENT FLUSH WITH WATER AND CALL A PHYSICIAN IMMEDIATELY.
 KEEP OUT OF REACH OF CHILDREN

COARETTES, FLAMES OR SPARKS COULD CAUSE BATTERY TO EXPLODE. ALWAYS SHIELD EYES AND FACE FROM BATTERY. DO NOT CHARGE OR USE BOOSTER CABLES OR ADJUST POST CONNECTIONS WITHOUT PROPER INSTRUCTIONS AND TRAINING. KEEP VENT CAPS TIGHT AND LEVEL.



17- **COMMERCIAL 60**

18- **COMMERCIAL 52**

2- **HYDRAULIC OIL RESERVOIR**
 PREMIUM HYDRAULIC OIL MOBIL DTE-28
 NEVER FILL OIL RESERVOIR MORE THAN 3/4 FULL.

22- **THROTTLE**
 FAST
 SLOW

12- **START**
 OFF ON

3- **BRAKE**
 ON OFF

9- **CAUTION**
 ALLOW ENGINE TO COOL FOR 2 MINUTES BEFORE REPELING

16- **ON MOWER OFF**

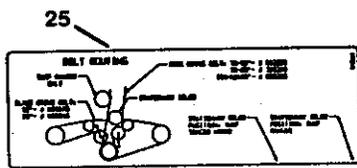
14- **CHOKE**
 ON OFF

5- **CAUTION**
 MUFFLER AND SHIELDS MAY EXCEED 150°F

20- **DANGER**
 KEEP ALL PEOPLE OUT OF AREA WHEN MOWING. THROWN OBJECTS OR BLADE CONTACT CAN CAUSE SERIOUS INJURY OR DEATH.

8- **WARNING**
 DO NOT OPERATE WITHOUT DISCHARGE REFLECTOR OR ENTIRE GRASS COLLECTION SYSTEM IN PLACE. DO NOT REMOVE GRASS CATCHER UNTIL BLADES HAVE STOPPED.

4- **CAUTION**
 READ MANUAL BEFORE OPERATING. CLEAR AREA OF PEOPLE, PETS & DEBRIS BEFORE MOWING. KEEP RIDERS OFF. BEFORE STARTING ENGINE, BRAKE MUST BE ENGAGED AND MOWER SWITCH MUST BE OFF. RELEASE BRAKE BEFORE STARTING OR DAMAGE TO TRANSMISSION MAY RESULT. MOW WITH MOWER DECK LIFT ACTUATOR FULLY EXTENDED. SHUT OFF MOWER BLADES BEFORE LIFTING MOWER DECK. DO NOT ACTIVATE BLADES WHILE DECK IS RAISED. KEEP ALL SHIELDS & GUARDS IN PLACE. USE CAUTION ON SLOPES. DO NOT PARK ON SLOPES UNLESS PARKING BRAKE IS ENGAGED. BEFORE LEAVING SEAT, ENGAGE PARKING BRAKE, TURN OFF MOWER AND SHUT OFF ENGINE. SHUT OFF ENGINE & REMOVE KEY BEFORE MAKING ADJUSTMENTS, SERVICING OR CLEANING.



15- **LOWER DECK LIFT**

10- **KEEP FOOT OFF WHEN RELEASING HAND BRAKE**
 FORWARD REVERSE
 SPEED & DIRECTION



13- **DRIVE WHEEL RELEASE**

19- **DANGER**
 KEEP HANDS AND FEET AWAY



21- **WARNING**
 DISCHARGE BLADE CLUTCH, SHUT OFF ENGINE AND REMOVE KEY BEFORE MAKING ADJUSTMENTS, SERVICING OR CLEANING DECK.

CUTTING HEIGHT ADJUSTMENT

0	1.5 (59)	CUTTING HEIGHT
1	2.0 (79)	
2	2.5 (99)	
3	3.0 (119)	
4	3.5 (139)	
5	4.0 (159)	
6	4.5 (179)	

ANTI-SCALP ROLLER ADJUSTMENT
 FOR MAXIMUM DECK PLATATION, PLACE ROLLERS IN POSITION SHOWN.

ROLLERS SHOULD MAINTAIN 1/4" (6.4) CLEARANCE TO GROUND. DO NOT ADJUST ROLLERS TO SUPPORT WEIGHT DECK.

11- **DANGER**

7- **KEEP HYDRO INTAKE SCREEN CLEAN FOR MAXIMUM TRANSMISSION COOLING, CLEAN FAN AND COOLING FINS EVERY 50 HRS.**

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	513747	Decal, Battery	1	15	543627	Decal, Deck Lift	1
2	543949	Decal, Hydraulic Tank	1	16	543626	Decal, Mower Switch	1
3	543622	Decal, Brake Lever	1	17	613050	Decal, Commercial 60"	1
4	543628	Decal, Instructional	1	18	403132	Decal, Commercial 52"	1
5	513746	Decal, Muffler	1	19	403005	Danger Label	2
6	303520	Decal, Tri-Vantage	1	20	543774	Decal, Danger	1
7	543620	Decal, Intake	1	21	543660	Decal, Mower Deck	1
8	303508	Decal, Discharge Warning	1	22	543631	Decal, Throttle	1
9	303293	Decal, 2 Minute Warning	1	23	543293	Decal, Turf Ranger "Swash" (large)	2
10	543624	Decal, Foot Pedal	1	24	543349	Decal, Turf Ranger "Swash" (small)	2
11	303481	Decal, Carbon Monoxide	1	25	543211	Decal, belt routing	1
12	513739	Ignition Decal	1				
13	513743	Decal, Release	1				
14	543630	Decal, Choke	1				

**SEE EXMARK'S COMPLETE
LINE OF PRODUCTS FOR TURF CARE**

LAZER Z

EXPLORER

EXPLORER II

TURF RANGER

TURF TRACER HYDRO

VIKING

VIKING HYDRO

METRO

SELF STEERING SULKY

TURF RAKE

GRASS CATCHER

MICRO-MULCHING ACCESSORY

**EXMARK MFG. CO. INC.
INDUSTRIAL PARK BOX 808
BEATRICE, NE. 68310**

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