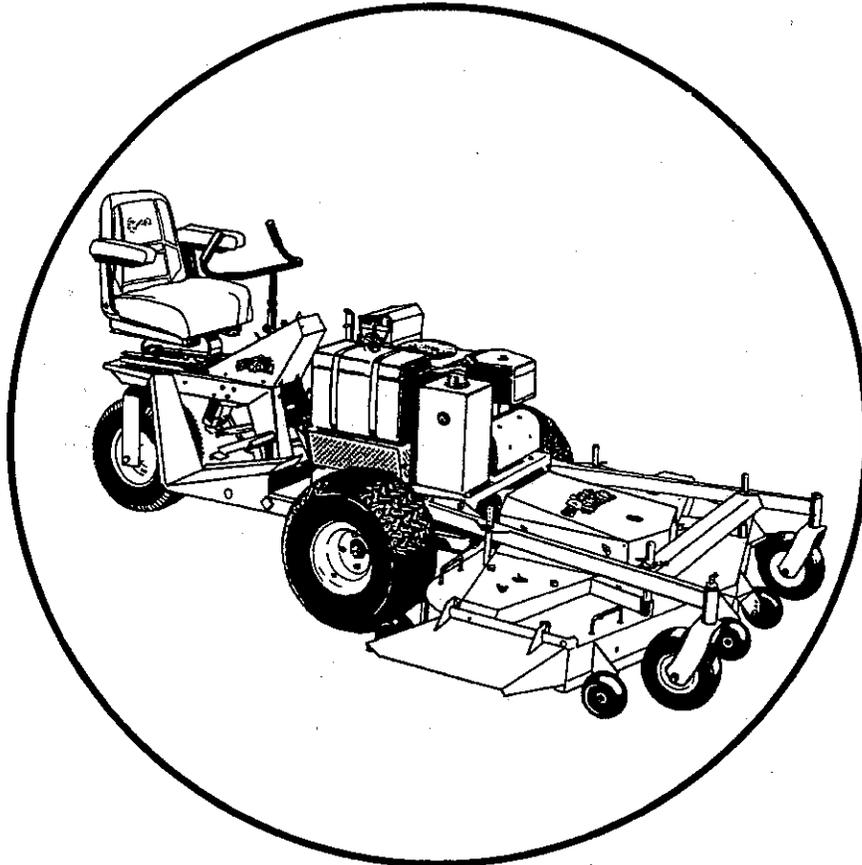




For Serial Nos.
115,000 and Higher

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 right hand rear surface of the engine deck below the fuel tank and for the deck is on front support pin gusset on right hand side of 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 _____

EXMARK PARTS PLUS® PROGRAM

EFFECTIVE DATE: September 1, 1995

Program

If your Exmark dealer does not have the Exmark part in stock, Exmark will get the parts to the dealer the next business day or the part will be FREE* Guaranteed!!

How the Program Works

1. If dealer does not have part in stock for a "down" unit at the time of request by customer, the dealer contacts his distributor by 1:00 p.m., local time, and requests Exmark Parts Plus® shipment of six (6) line items or less.
2. Distributor ships part(s) to dealer or customer, as requested by dealer, same day, overnight UPS. Distributor bills dealer for part and freight charges where applicable.
3. If distributor does not have the part(s) in stock to satisfy Exmark Parts Plus® order, he contacts Exmark by 3:00 p.m., central time, with an Exmark Parts Plus® order of six (6) line items or less.
4. If order is received by 3:00 p.m. central time, Exmark ships part(s) direct to dealer or customer, as requested by distributor, same day, overnight UPS. Exmark bills the distributor for parts and shipping charges, where applicable.
5. The customer pays for the part and freight if it is shipped under the Exmark Parts Plus® and if it arrive in accordance to the program.
6. Who pays for the part and freight if it fails to arrive overnight in accordance to the program?
 - A. Under any circumstance the customer does not pay.
 - B. If the part does not arrive overnight due to:
 1. The dealer not submitting the Exmark Parts Plus® order to his Exmark distributor by 1:00 p.m., the dealer pays for the part and freight.
 2. The Distributor being unable to ship the part the same day or not submitting the Exmark Parts Plus® order to Exmark by 3:00 p.m., central time, the Distributor pays for the part and freight.
 3. Exmark being unable to ship the part and the Exmark parts order is received by 3:00 p.m., central time, Exmark pays for the part and freight.
 4. If the part does not arrive overnight due to the shipper (UPS), the shipper pays for the freight and Exmark pays for the part.



The following restrictions apply -- The Exmark Parts Plus® Program is available only through participating Exmark Dealers and applies only to orders submitted on this program Monday through Thursday. UPS has initiated a Saturday delivery program to many areas of the continental United States and can be requested for an overnight shipment on Friday to be delivered Saturday. The next day air charge, plus the Saturday delivery fee will be the responsibility of the purchaser. Exmark Mfg. will assume no responsibility for Saturday delivery shipments. To qualify, all Exmark Parts Plus® orders must be received by Exmark by 3:00 p.m., central time. Orders must be six (6) line items or less. Exclusions from the Exmark Parts Plus® Program are: Any wholegood or accessory in its entirety, engines and engine replacement parts, 5-speed Peerless transmissions and 5-speed transaxles, hydraulic or hydrostatic wheel motors, cutter decks and engine decks or any item exceeding United Parcel Service size and weight restrictions.

Due to UPS restrictions, aerosol spray paint is considered a hazardous material and cannot be shipped via UPS next day or Second Day Air.

Exmark Manufacturing stocks a limited supply of parts for transaxles, pumps and wheel motors. These parts can be ordered for Next Day Air shipment but will not be guaranteed per the Parts Plus Program.

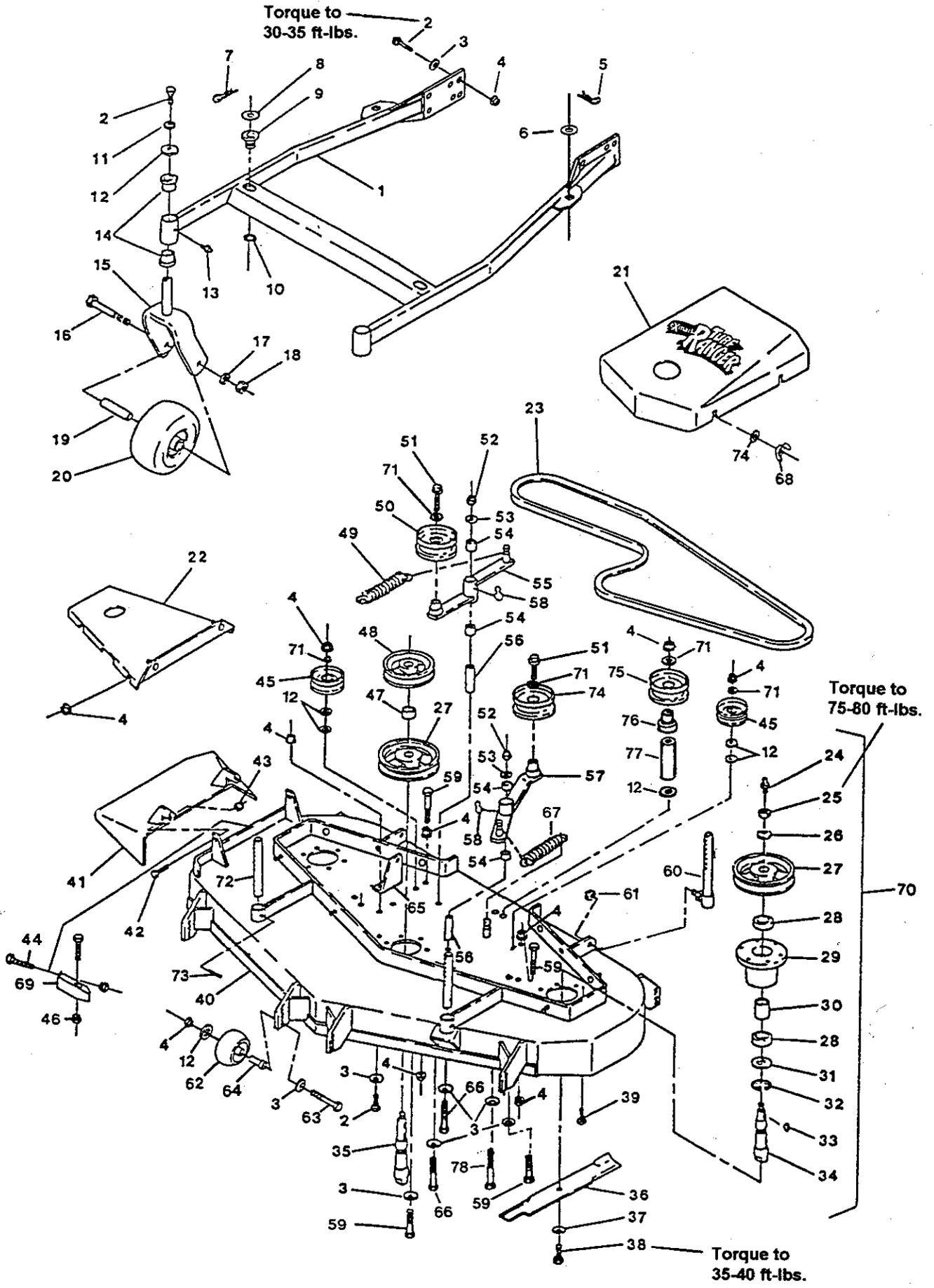


**READ OPERATOR'S OPERATOR'S MANUAL BEFORE
OPERATING OR SERVICING EXMARK EQUIPMENT.**

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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 612092 w/ bushings & decals	1	39	809035	Bolt, taptite 3/8-16 x 1	18
2	800292	Capscrew, 3/8-16 x 1	10	40	602961	Deck, 612007 with support rods & baffle	1
3	303327	Washer, disc spring 3/8	20	41	602571	Chute, discharge	1
4	809007	Nut, whizlock 3/8-16	30	42	800273	Capscrew, 5/16-18 x 1	2
5	806006	Hairpin, 5/8	2	43	804256	Nut, nylock 5/16-18	2
6	303164	Spacer, blade driver	2	44	800270	Capscrew, 5/16-18 x 5/8	13
7	806007	Hairpin, 7/8	2	45	303516	Pulley, V-Idler	2
8	513338	Washer	2	46	809001	Nut, whizlock 5/16-18	13
9	513336	Bushing, deck support	2	47	603504	Spacer, tube	1
10	808507	Ring, retaining (external)	2	48	603581	Sheave, mower drive	1
11	805006	Washer, lock 3/8 hvy spring ...	2	49	603413	Spring, extension	1
12	373034	Washer, pivot	13	50	603497	Pulley, idler	1
13	811001	Zerk, 1/8 NPT (straight)	2	51	803016	Screw, whizlock 3/8-16 x 1	2
14	303514	Bearing, flange thrust	4	52	804257	Nut, nylock 3/8-16	2
15	522143	Fork, caster	2	53	805260	Washer, 3/8	2
16	800334	Capscrew, 1/2-13 x 6	2	54	513034	Bearing, pivot	4
17	805008	Washer, lock 1/2	2	55	602604	Idler arm assy w/bearings	1
18	804509	Nut, 1/2-13	2		602591	Arm, deck idler	1
19	513547	Spacer, front caster	2	56	603384	Bushing, idler pivot	2
20	513648	Tire/wheel assy, 9 x 3.50-4	2	57	602865	Idler arm, w/bearings deck drive	1
	513807	Wheel	2		602867	Arm, deck drive idler	1
	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	603414	Spring, extension	1
28	303543	Bearing, ball	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	805259	Washer, 3/8 SAE	9
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	613098	Pulley, flat idler	1
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
	613101	Blade, 18" notched	3	78	800302	Capscrew, 3/8-16 x 4	1
37	513435	Washer, disc spring 1/2	3				
38	800531	Capscrew, 1/2-20 x 1 (RH)	3				

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

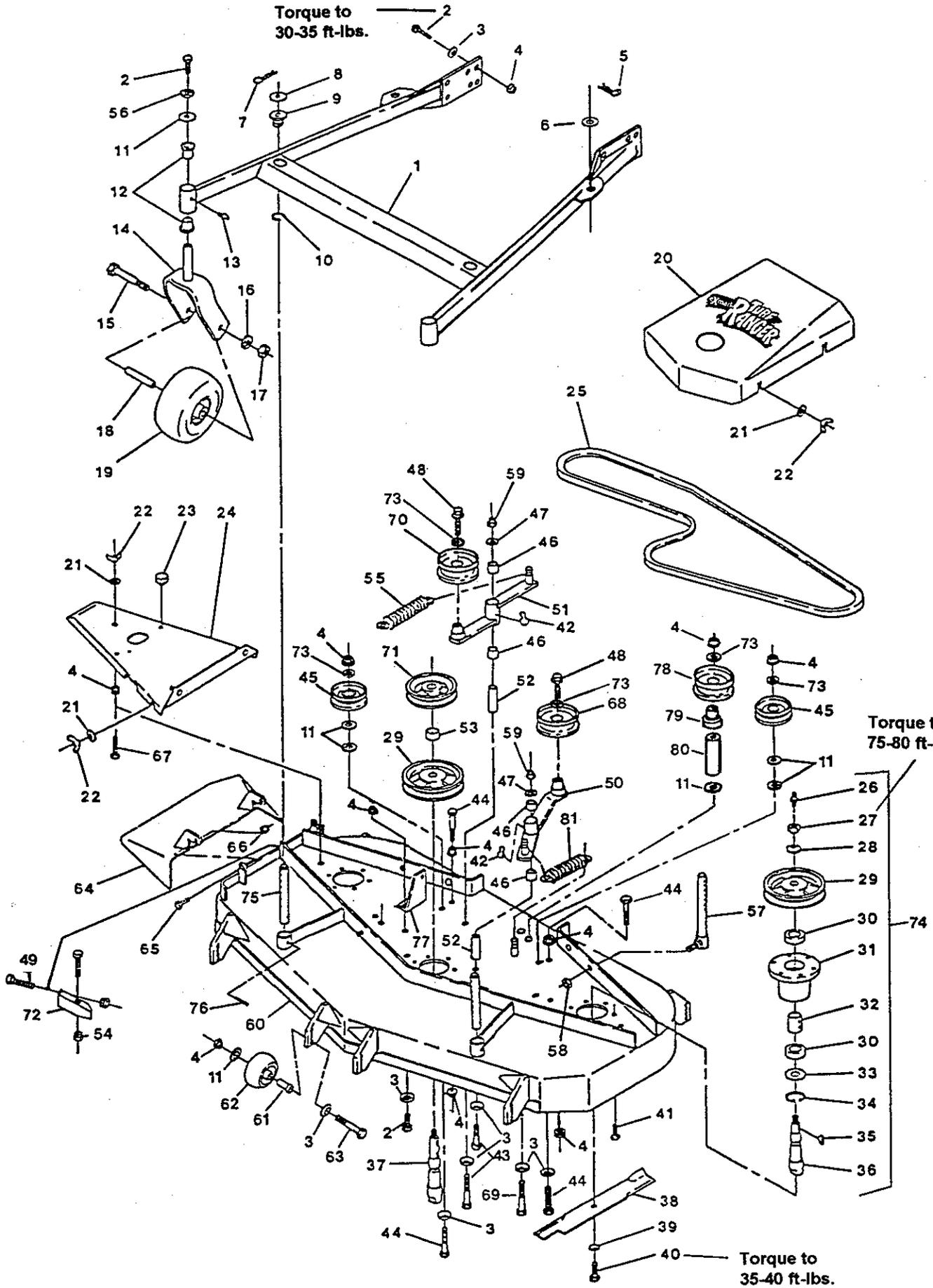
◇ These parts are available in an Idler Pulley Kit (Part No. 601806). Each kit contains one item each of the referenced item number.

60" MOWER DECK

Torque to 30-35 ft-lbs.

Torque to 75-80 ft-lbs.

Torque to 35-40 ft-lbs.



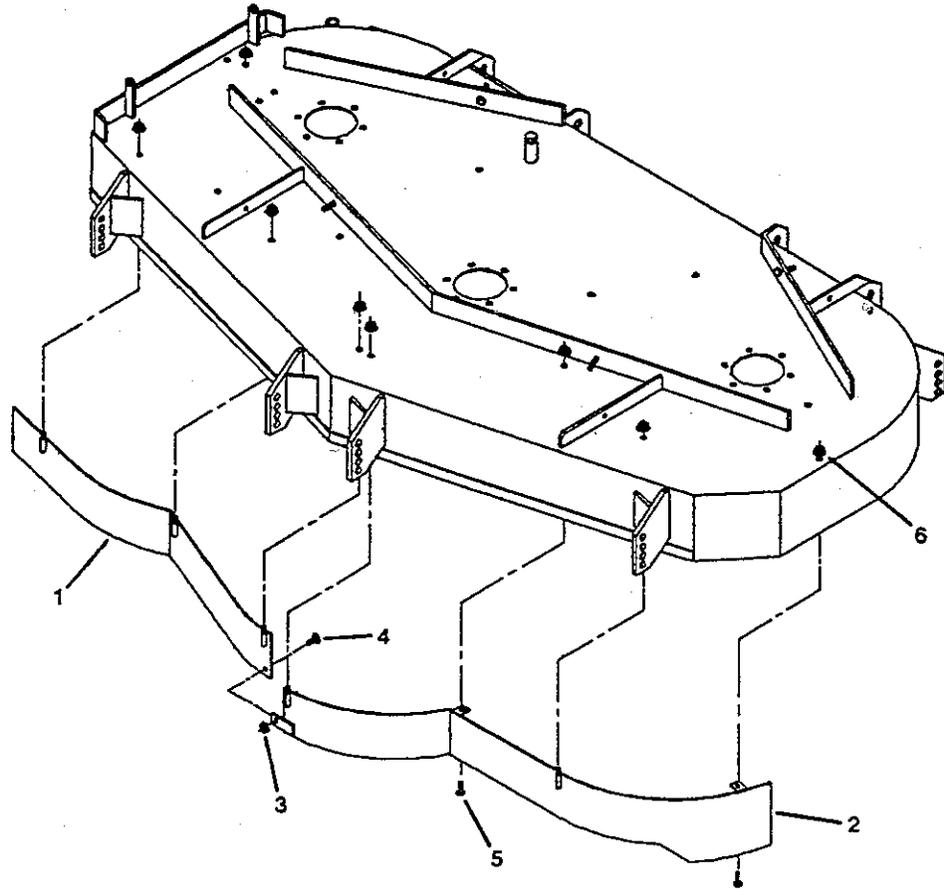
60" MOWER DECK

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	604847	Support, deck 612094 w/ bushings & decals.....	1	40	800531	Capscrew, 1/2-20 x 1 (RH).....	3
2	800292	Capscrew, 3/8-16 x 1	8	41	809035	Bolt, taptite 3/8-16 x 1	18
3↔	303327	Washer, disc spring 3/8.....	12	42	811008	Zerk, 1/4-28 (90°)	2
4↔	809007	Nut, whizlock 3/8-16	24	43	800805	Capscrew, 3/8-16 x 3.5	2
5	806006	Hairpin, 5/8	2	44	800297	Capscrew, 3/8-16 x 2-1/4	4
6	303164	Spacer, blade driver	2	45	303516	Pulley, V-idler	2
7	806007	Hairpin, 7/8	2	46	513034	Bearing, pivot	4
8	513338	Washer	2	47	805260	Washer, 3/8 std flat	2
9	513336	Bushing, deck support.....	2	48	803016	Bolt, whizlock 3/8-16 x 1.....	2
10	808507	Ring, retaining (external).....	2	49	800270	Capscrew, 5/16-18 x 5/8	9
11↔	373034	Washer, pivot	13	50	602867	Arm, deck drive idler.....	1
12	303514	Bearing, flange thrust	4		602865	Idler arm assy, deck drive (with bearings).....	1
13	811001	Zerk, 1/8 NPT (straight).....	2	51	602591	Arm, deck idler	1
14	522143	Fork, caster	2		602604	Idler arm, w/bearings.....	1
15	800334	Capscrew, 1/2-13 x 6	2	52	603384	Bushing, idler pivot.....	2
16	805008	Washer, lock 1/2.....	2	53	603504	Spacer, tube	1
17	804509	Nut, 1/2-13.....	2	54	809001	Nut, whizlock 5/16-18	16
18	513547	Spacer, front caster.....	2	55	603413	Spring, extension.....	1
19	513648	Tire/whl assy, 9 x 3.50-4	2	56	805006	Washer, lock 3/8 (hvy spring)..	2
	513807	Wheel	2	57	603540	Link, rear deck support.....	2
	513808	Tire 9 x 3.50-4	2	58	803031	Nut, torque 3/8-24	2
	513809	Bearing	2	59	804257	Nut, nylock3/8-16	2
	513810	Bushing	4	60	602962	Deck, 612003 with support rods & baffle	1
20	542301	Cover w/decals (deck drv belt).	1		603602	Bushing, roller	6
21	805259	Washer, 3/8	10	61	603299	Roller, anti scalp.....	6
22	543678	Wingnut, nylon insert.....	10	62	800807	Capscrew, 3/8-16 x 4 (Gr 8)....	6
23	513291	Bumper, seat.....	2	63	542606	Chute, discharge	1
24	542588	Cover, deck.....	2	64	800273	Capscrew, 5/16-18 x 1	2
25	603045	Belt, blade drive.....	1	65	804256	Nut, nylock 5/16-18	2
26	811006	Zerk, 1/4-28 (straight).....	3	66	800031	Tapbolt, 3/8-16 x 2 3/4	2
27	804510	Nut, 5/8-18 UNF	3	67	613098	Pulley, flat idler	1
28	513208	Washer, disc spring.....	3	68	800302	Capscrew, 3/8-16 x 4 (Gr 5)....	1
29	513207	Sheave, blade drive.....	3	69↔	603497	Pulley, idler.....	1
30	303543	Bearing, ball	6	70	613024	Sheave, mower drive.....	1
31	513186	Bearing, housing	3	71	602913	Baffle	1
32	513188	Spacer, bearing	3	72	805259	Washer, 3/8 SAE.....	5
33	513193	Seal, dust	3	73↔	604262	Cutter housing, (outer, cmplt)..	2
34	808506	Snap ring, 2.59 x 08TK.....	3		614025	Cutter housing, (cntr, cmplt) ...	1
35	807006	Key, woodruff 5/8 x 3/16.....	4	74	603001	Rod, deck support	2
36	603031	Spindle, outer blade.....	2	75	806332	Roll pin, 1/4 x 1-1/2	2
37	603022	Spindle, center blade.....	1	76	603620	Bracket, spring anchor	1
38	603283	Blade, 20 1/2" diameter	3	77	603805	Idler	1
	603661	Blade, low lift	3	78↔	513791	Bushing	1
‡	603874	Blade, mulching	3	79↔	603494	Spacer	1
	613072	Blade, 18" notched	3	80↔	603414	Spring, extension.....	1
39	513435	Washer, 1/2 disc spring.....	3	81			

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

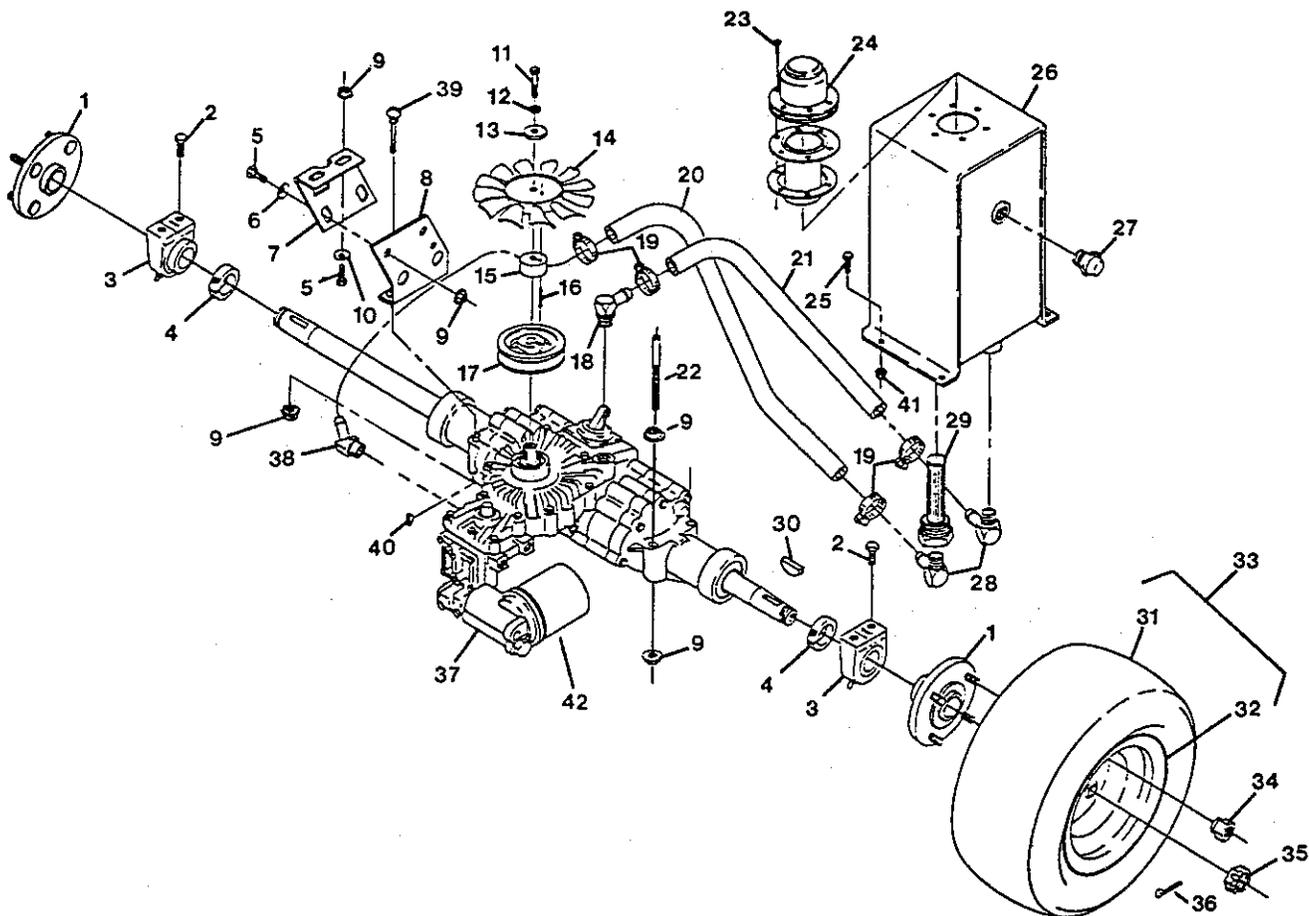
↔ These parts are available in an Idler Pulley Kit (Part No. 601806). Each kit contains one item each of the referenced item number.

FLOW CONTROL BAFFLES 52" & 60"



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	632377	Baffle Weldment RH 52"	1	3	809012	Nut, 1/4-20 Whizlock.....	1
	632235	Baffle Weldment RH 60"	1	4	807512	Bolt, 1/4-20x3/4 Carriage.....	1
2	632375	Baffle Weldment LH 52"	1	5	800270	Screw, 5/16-18x5/8 (52" deck)	2
	632237	Baffle Weldment LH 60"	1	6	809001	Nut, 5/16-18 Whizlock.....	7

AXLE and HYDRAULICS

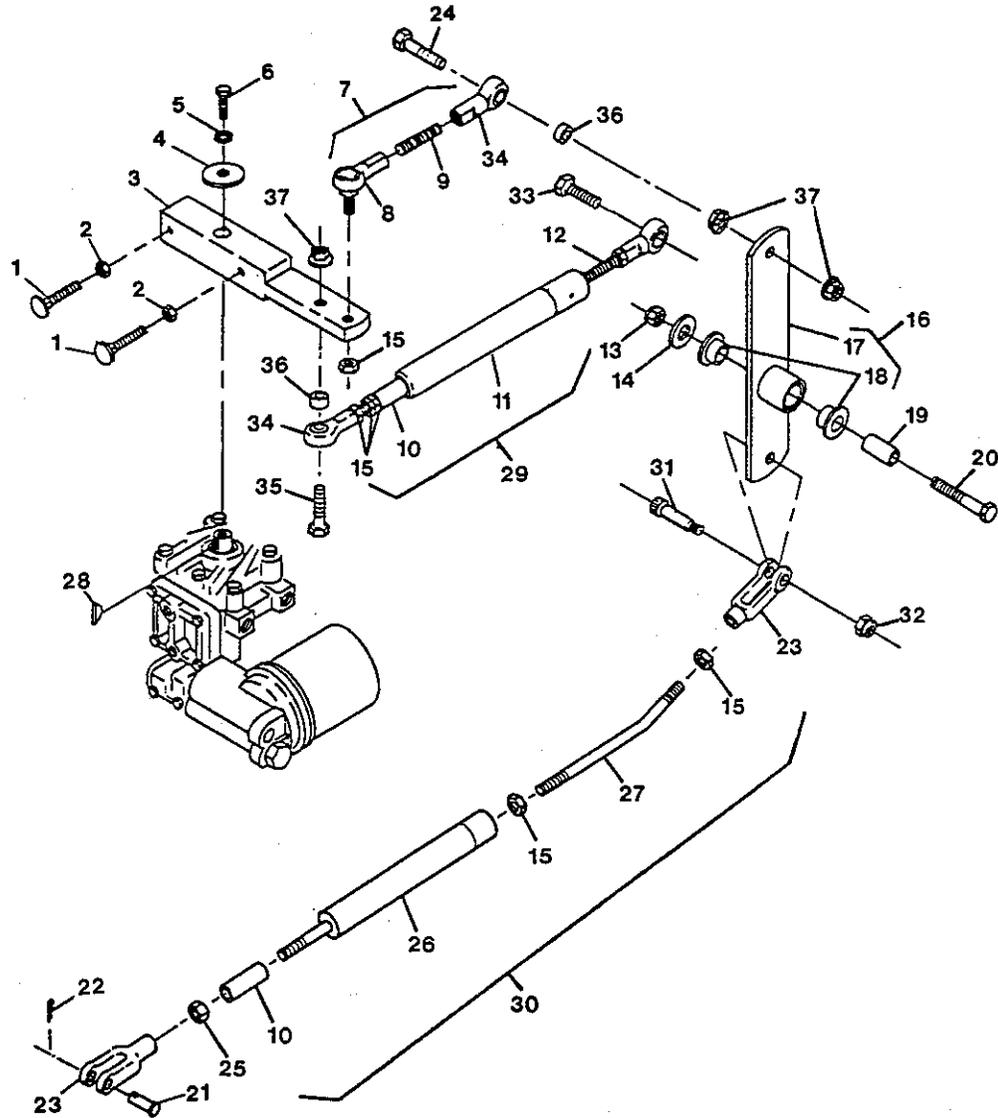


Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1*	602997	Hub, wheel (tapered)	2	22	543054	Pin, guide.....	2
2	803045	Screw, whizlock 3/8-16 x 3/4 ..	4	23	802002	Screw, 10-32 x 1/2 thrd cttng..	6
3*	543485	Bearing, pillow base.....	2	24	543541	Breather, filler & cap	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	543476	Stabilizer, (axle lower).....	1	30	807018	Key, woodruff 1 1/4 x 5/16.....	2
9	809007	Nut, whizlock 3/8-16.....	10	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	807525	Bolt, 3/8-16 x 2-3/4 carriage ...	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.

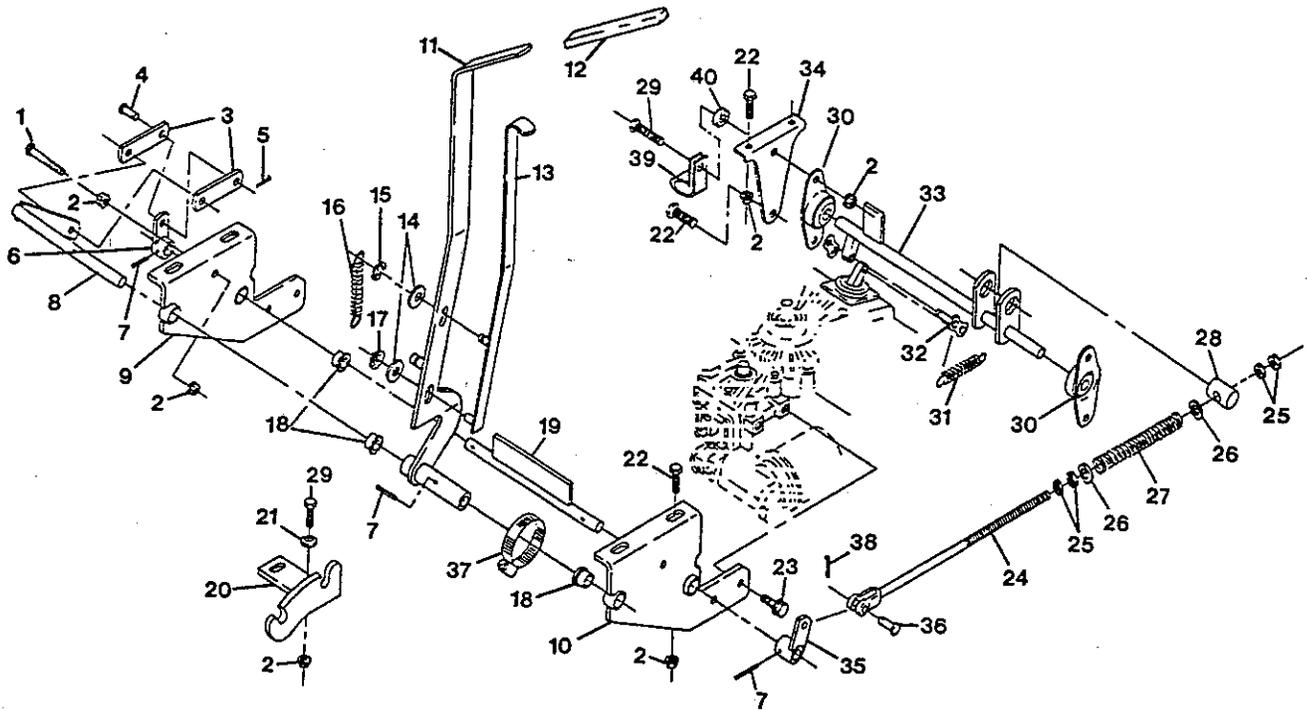
f Not Illustrated.

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 std. 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	3	27	543132	Spring, brake protect.....	1
8	542190	Pivot widmt, 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

ENGINE DECK GROUP

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	513581	Fuel line, 18" (Kohler).....	1	44	800820	Capscrew, 7/16-20 x 3.....	1
2	303306	Fuel line, 10"	1			(18 HP & 22 HP Kohler only)	
3	603770	Valve, fuel line.....	1		800821	Capscrew, 7/16-20 x 3-1/2	1
4	543277	Elbow, fuel tank w/screen	1			(20 HP Vanguard only)	
5	513645	Bushing, fuel valve.....	1		840022	Pro-Lock, Nut type (.5 ml Tube)	
6	543364	Tank, gas	1	45	303080	Belt, deck drive (60" Deck)	1
7	303077	Clamp, gas line (Kohler).....	6		543749	Belt, deck drive (52" Deck)	1
		Clamp, gas line (Vanguard)	4	46	800295	Capscrew, 3/8-16 x 1-3/4	1
8	303465	Strap, fuel tank.....	2	47	303021	Grip (drive lever).....	2
9	801062	Screw, 1/4-20 x 2-1/2.....	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	805259	Washer, 3/8 SAE	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" (Kohler)	1
27	543296	Grommet, fuel line.....	1	66	303427	Nipple, 3/8 NPT x 2.5.....	1
28	542948	Lever, drive release	1	67*	543064	Nipple, 3/8 NPT x 1.5 (Koh)....	1
29	543935	U-Bolt, 5/16-18.....	1	68*	303428	Elbow, 3/8 NPT (Kohler).....	1
30	543007	Spacer, clutch anchor	1	69	542268	Deck, engine.....	1
31	543933	Bracket, neutral lever	1	70	303197	Gas filter (Kohler).....	1
32	800262	Screw, 1/4-20 x 1-3/8.....	1	71	805258	Washer, 5/16	4
33	804255	Nut, nylock 1/4-20	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.....	3
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	80	543214	Spacer, crankshaft.....	1
42	603609	Bushing, clutch keeper.....	1	81	543233	Cap, 3/8 NPT hex	1
43	603610	Washer, spring disc 7/16	2	82	543232	Nipple, 3/8 NPT x 4 (Vanguard)	1
				83	303307	Fuel line, 4" (Vanguard).....	1

* Use Teflon Pipe Sealant or equivalent on threads.

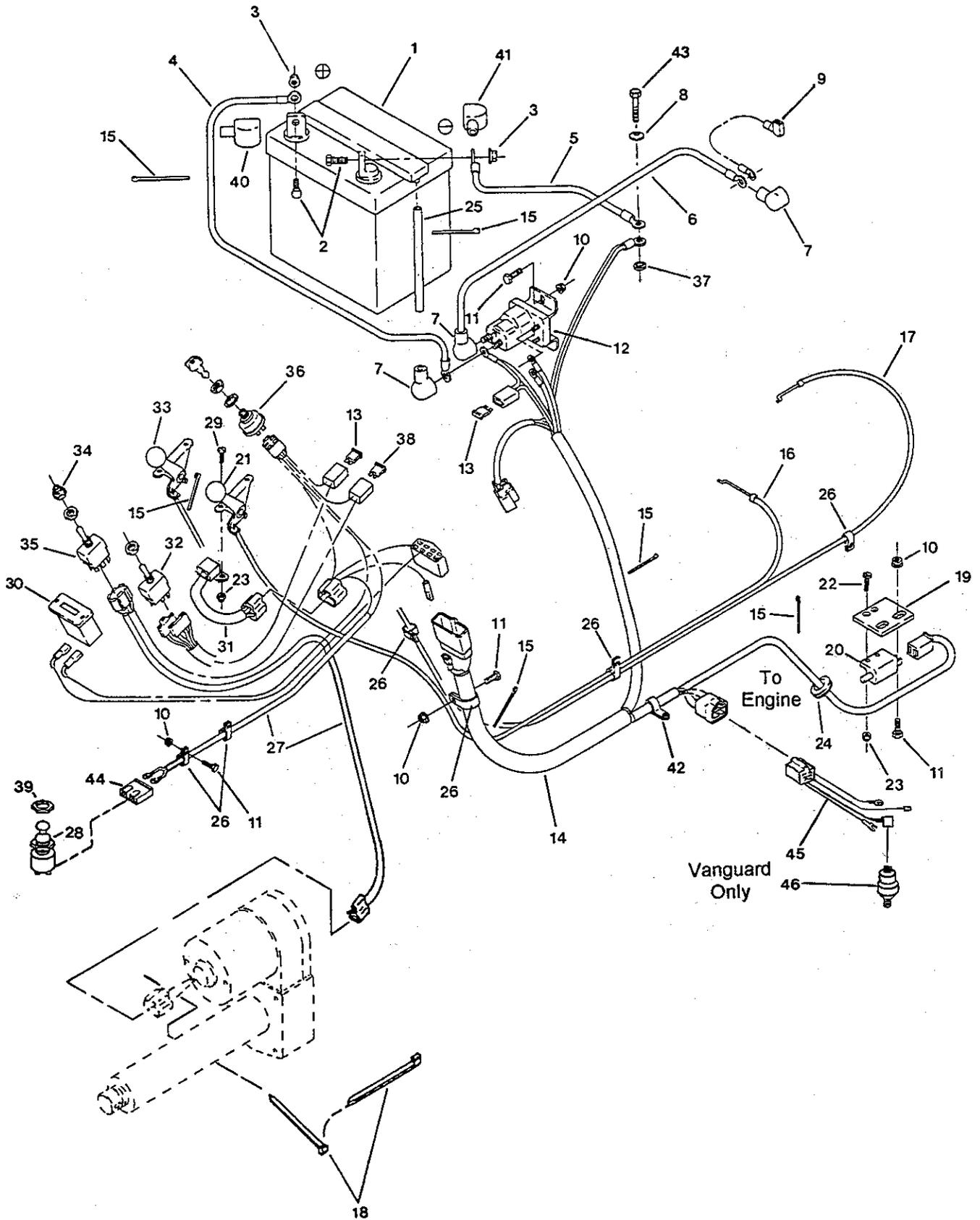
◇ Replace electric clutch with Clutch Kit, Part No. 541353. This kit includes the new Warner clutch and the necessary parts to install this kit to your unit.

RIDER FRAME and STEERING

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	542920	Frame, rider.....	1	31	800273	Capscrew, 5/16-18 x 1.....	5
2	543509	Bearing, tapered roller.....	4	32	801070	Screw, 5/16-18 x 3/4 CR.....	2
3	543511	Seal, grease.....	3	33	800251	Capscrew, 1/4-20 x 5/8.....	4
4	811006	Zerk, 1/4-28 (straight).....	3	34	806332	Rollpin, 1/4 x 1-1/2.....	2
5	805269	Washer, 3/4.....	2	35	805255	Washer, 1/4.....	4
6	806770	Pin, cotter 5/32 x 1.25.....	1	36	513588	Bearing, DU.....	2
7	803040	Nut, slotted 3/4-16.....	1	37	543172	Shaft, foot pedal.....	1
8	543513	Cap, grease.....	1	38	542140	Lever, foot pedal.....	1
9	804256	Nut, nylock 5/16-18.....	2	39	543159	Pad, rider anti-skid (R).....	1
10	805258	Washer, 5/16.....	2	40 ^f	543158	Pad, rider anti-skid (L).....	1
11	800294	Capscrew, 3/8-16 x 1-1/2.....	1	41	542850	Shaft, steering.....	1
12	543401	Spacer, seat track.....	2	42	543573	Link, connector #40.....	4
13	809007	Nut, flange 3/8-16.....	11	43	543579	Eyebolt, 5/16-18.....	2
14	303007	Washer, 6" caster pivot.....	5	44	543885	Chain, #40-29 Pitch.....	1
15	542428	Handle bar.....	1	45	543886	Chain, #40-33 Pitch.....	1
16	543575	Grip, handle bar.....	2	46	542870	Link.....	2
17	543978	Console.....	1	47	804751	Nut, jam 5/16-18.....	4
18	543482	Cover, console.....	1	48	800292	Capscrew, 3/8-16 x 1.....	6
19	542728	Steering post.....	1	49	553007	Stop, actuator.....	1
20	802006	Screw, 10-24 x 1/2.....	4	50	542872	Mount, steering wheel.....	1
21	800290	Capscrew, 3/8-16 x 3/4.....	4	51	803042	Nut, torque 5/8-11.....	1
22	303199	Bushing, 6" caster flange.....	4	52	800346	Capscrew, 5/8-11 x 10-1/2.....	1
23	303200	Sleeve, 6" caster.....	2	53	543552	Bushing, wheel.....	1
24	806331	Roll Pin, 1/4 x 1-1/4.....	2	54	543556	Spacer, wheel (short).....	2
25	542183	Pedal, foot.....	1	55	543508	Bearing, cup.....	2
26	543161	Pad, reverse control pedal.....	1	56	543674	Rim.....	1
27	543160	Pad, forward control pedal.....	1	57	543397	Tire/whl assy, 18.0 x 6.50-8.....	1
28	809001	Nut, whizlock 5/16-18.....	13	58	543679	Tire, 18 x 6.50-8.....	1
29	542196	Bracket, pivot (RH).....	1	59	804257	Nut, nylock 3/8-16.....	1
30 ^f	542194	Bracket, pivot (LH).....	1	60	543296	Grommet.....	1

^f Not Illustrated.

ELECTRICAL GROUP



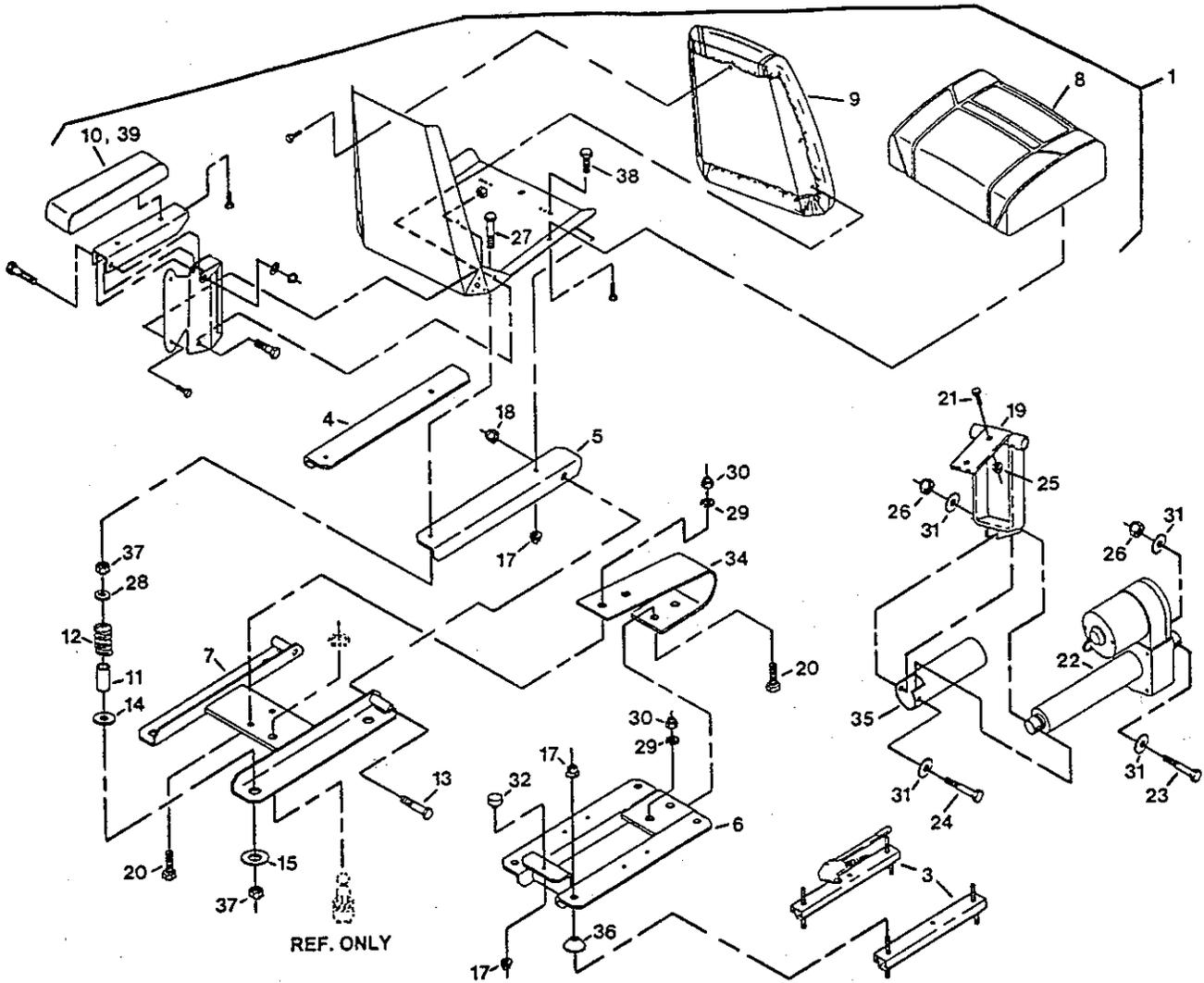
ELECTRICAL GROUP

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	543403	Harness, wire (rider)	1
5	543767	Wire, ground (-)	1	28	603760	Switch, seat safety	1
6	543766	Wire, starter (Kohler)	1	29	807527	Bolt, carriage. 10-24 x 3/4	4
	513582	Wire, starter (B&S Vanguard). ..	1	30	513374	Meter, engine hours	1
7	543393	Insulator, solenoid (pos. +)	3	31	543316	Module, safety interlock	1
8	303334	Washer, disc spring 5/16	1	32	543018	Switch, toggle w/clip term	1
9	543084	Wire, starter solenoid (Koh)....	1	33	513593	Knob, black ball	1
10	809012	Nut, whizlock 1/4-20	10	34	543386	Boot, toggle switch	1
11	800251	Capscrew, 1/4-20 x 5/8	10	35	543385	Switch, toggle DPDT	1
12	513075	Switch, 12 volt solenoid	1	36	543070	Ignition switch	1
13	816001	Fuse, blade 20 AMP	2		603511	Ignition key	2
14	543065	Harness, wire (engine)	1	37	805506	Washer, lock 5/16 (internal tooth)	1
15	303287	Plastic tie, (small)	6	38	816003	Fuse, blade 30 AMP	1
16	543697	Cable, throttle	1	39	543348	Nut, 5/8-32 (seat switch)	1
17	543072	Cable, choke	1	40	543391	Insulator, battery positive	1
18	303335	Plastic tie, (large)	2	41	543390	Insulator, battery negative	1
19	323128	Bracket, safety switch	1	42	603727	Clip, 9/16 Loom	1
20	513051	Switch, neutral lockout	1	43▽	800276	Capscrew, 5/16-18 x 1-3/4	1
21	513592	Knob, red ball	1	44	543335	Connector, Packard 2-way	1
22	803017	Screw, 10-24 x 5/8 ctr	2	45	543225	Harness, eng Adptr (Vanguard) ..	1
23	804252	Nut, nylock 10-24	6	46	603645	Switch, oil pressure (Vanguard) ..	1

▽ This screw is shown in it's proper location on the engine deck illustration (Page 10).

NOTE: Apply dielectric grease to all electrical connectors.

SEAT ASSEMBLY and LIFT ACTUATOR



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	633461	Seat complete /w armrests.....	1	21	800290	Screw, 3/8-16 x 3/4	2
2	543406	Kit, armrest	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.

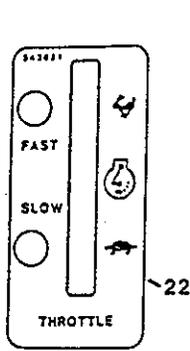
DECALS

WARNING
 BATTERY CONTAINS SULFURIC ACID, AVOID CONTACT AND ALWAYS SHIELD EYES, FACE, SKIN AND CLOTHING FROM BATTERY. CIGARETTES, FLAMES OR SPARKS COULD CAUSE BATTERY TO EXPLODE. DO NOT CHARGE OR USE BOOSTER CABLES OR ADJUST POST CONNECTIONS WITHOUT PROPER TRAINING. IN EVENT OF AN ACCIDENT FLUSH WITH WATER AND CALL A PHYSICIAN IMMEDIATELY. KEEP OUT OF REACH OF CHILDREN.

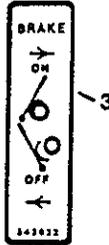


17- **COMMERCIAL 60**

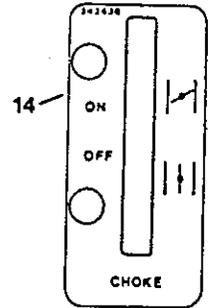
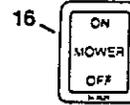
18- **COMMERCIAL 52**



2- **HYDRAULIC OIL RESERVOIR**
 PREMIUM HYDRAULIC OIL MOBIL DTE-26
 NEVER FILL OIL RESERVOIR MORE THAN 3/4 FULL.



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

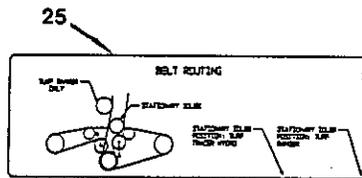


5- **CAUTION**
 MUFFLER AND SHIELDS MAY EXCEED 150°F

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 INCREASE REFLECTOR IN 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. STOP MOWER OFF, BEFORE STARTING ENGINE. BRAKE MUST BE ENGAGED AND MOWER SWITCH MUST BE OFF. RELEASE BRAKE BEFORE DRIVING 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 FLARE OR SLOPE 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.



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

CUTTING HEIGHT ADJUSTMENT

DECK SUPPORT PIN	INCHES (mm)	CUTTING HEIGHT
1.5 (38)	1.5 (38)	1.5 (38)
2.0 (51)	2.0 (51)	2.0 (51)
2.5 (64)	2.5 (64)	2.5 (64)
3.0 (76)	3.0 (76)	3.0 (76)
3.5 (89)	3.5 (89)	3.5 (89)
4.0 (102)	4.0 (102)	4.0 (102)
4.5 (114)	4.5 (114)	4.5 (114)

ANTI-SCALP ROLLER ADJUSTMENT
 FOR MAXIMUM DECK FLATNESS, PLACE ROLLERS IN POSITION. ADJUST CUTTING HEIGHT.

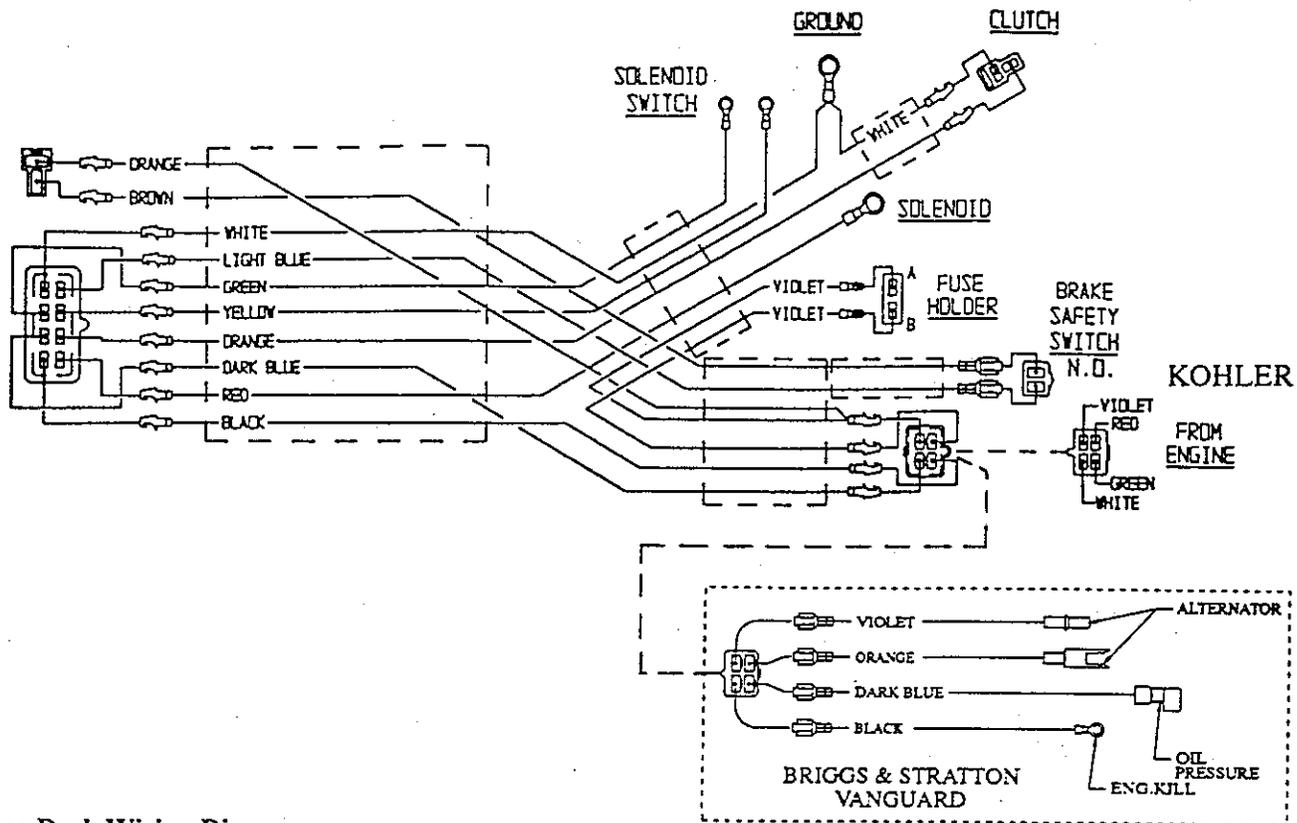
ROLLERS SHOULD MAINTAIN 1/8" CLEARANCE TO GROUND. DO NOT ADJUST ROLLERS TO SUPPORT MOWER DECK.



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	613100	Decal, belt routing	1
12	513739	Ignition Decal	1				
13	513743	Decal, Release	1				
14	543630	Decal, Choke	1				

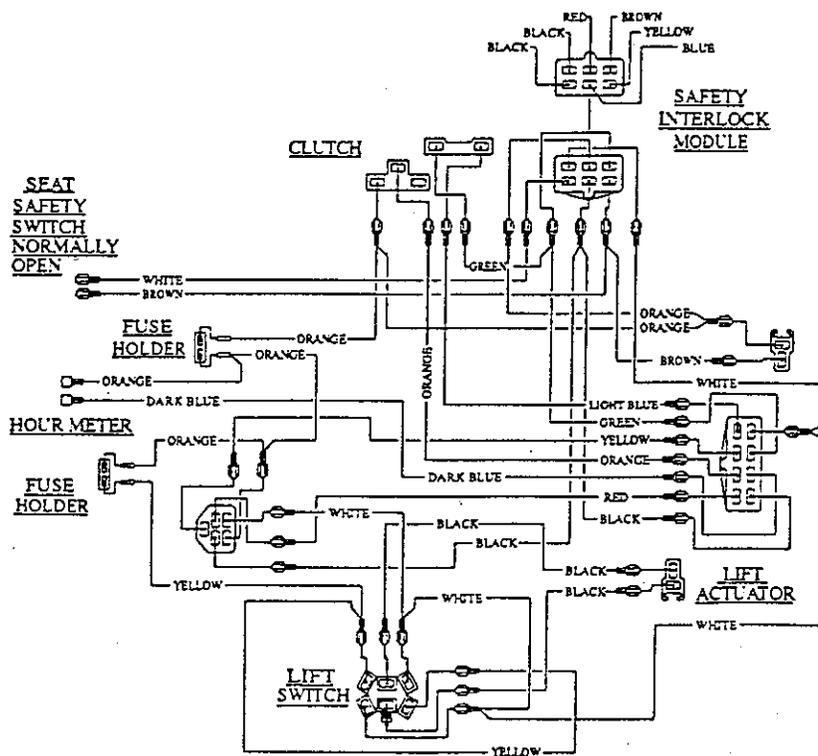
ELECTRICAL DIAGRAM



Engine Deck Wiring Diagram

Note: All connectors are from the wire input side of the connector.

N.O. = Normally Open



Console Wiring Diagram

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

N.O. = Normally Open

NOTES

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

LAZER Z

EXPLORER

EXPLORER II

TURF RANGER

TURF TRACER HYDRO

VIKING 5-SPEED

VIKING HYDRO

METRO

SELF STEERING SULKY

GRASS CATCHER

MICRO-MULCHING ACCESSORY

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BEATRICE, NE. 68310**

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