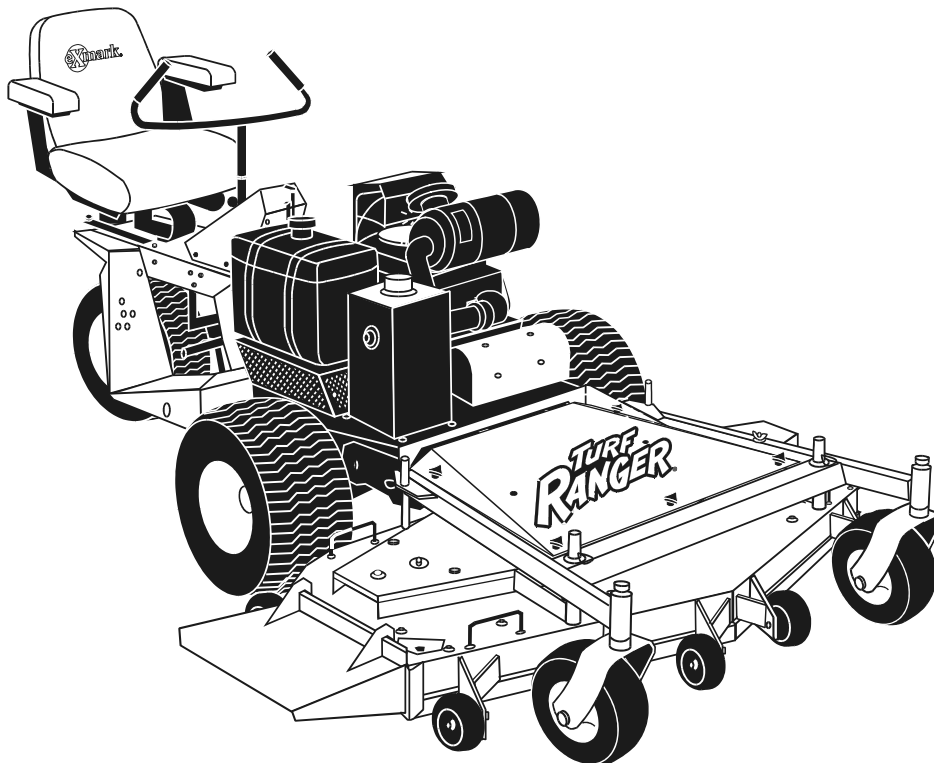




For Turf Ranger
Serial Nos. 370,000 & higher
and
FMD523 & FMD603
Serial Nos. 260,000 & Higher
or
FMD524 & FMD604
Serial Nos. 320,000 & Higher



PARTS MANUAL

TURF RANGER

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 of the tractor is on the right hand rear surface of the engine deck below the fuel tank. The Serial No. Plate for a FMD523 & FMD603 is on the rear left hand top side of the deck plate next to the handle. The Serial No. plate for a FMD524 & FMD604 is on the rear right hand belt cover support under the front frame. For Ease of ordering and reference, we suggest that you record the information requested in the following identification table.

Place Tractor Model No. and Serial No. Label Here
(Included in Literature Pack)
or Fill in Below

Tractor Model No. _____

Tractor Serial No. _____

Place Mower Deck Model No. and Serial No. Label Here
(Included in Literature Pack)
or Fill in Below

Mower Deck Model No. _____

Mower Deck Serial No. _____

Engine Model No. and Spec. No. (Code)

Engine Serial No. (E/No)

Date Purchased

EXMARK PARTS PLUS® PROGRAM

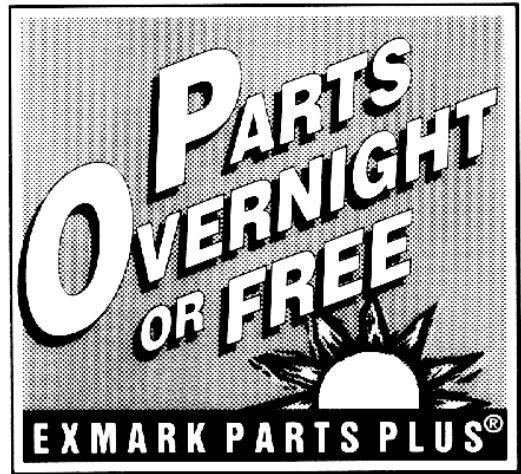
EFFECTIVE DATE: September 1, 1995

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 arrives 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. Parts Plus service is available only in the 48 contiguous United States. 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.

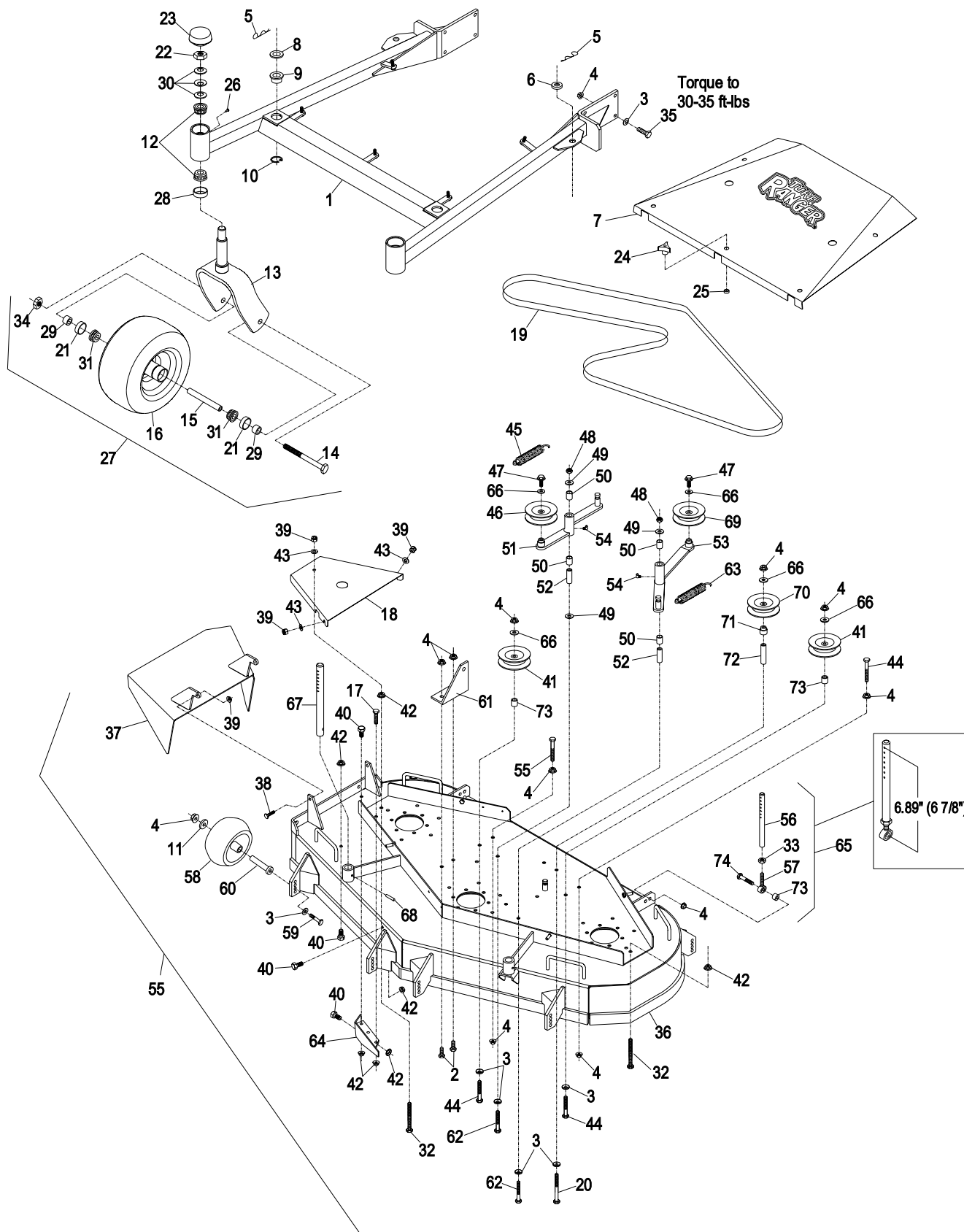


**READ OPERATOR'S MANUAL BEFORE
OPERATING OR SERVICING EXMARK EQUIPMENT.**

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52" MOWER DECK FMD524



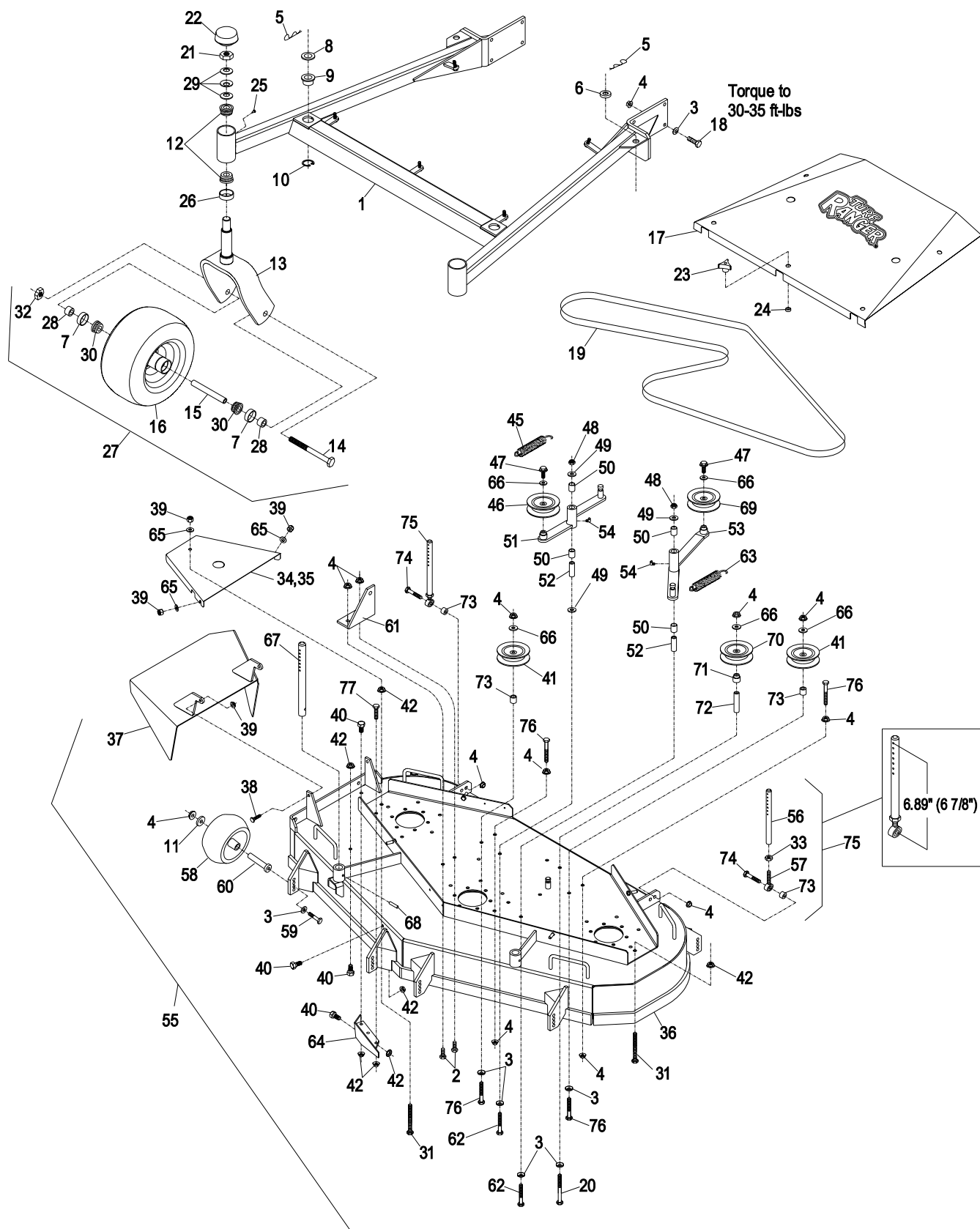
52" MOWER DECK FMD524

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-1895	Support, deck 103-2324-01		37	103-2348-01	Chute, Discharge	1
		w/ bsgs, brgs, seals & caps	2	38	322-5	Capscrew, 5/16-18 x 1	2
2	323-6	Capscrew, 3/8-16 x 1	2	39	3296-29	Nut, nyloc 5/16-18	8
3	98-5975	Washer, disc spring 3/8	19	40	322-2	Capscrew, 5/16-18 x 5/8	5
4	3290-357	Nut, whizlock 3/8-16	25	41	1-303516	Pulley, V-Idler	2
5	1-806009	Hairpin, .177	4	42	32128-20	Nut, whizlock 5/16-18	8
6	1-323539	Spacer	2	43	3256-3	Washer, 5/16 flat	6
7	103-2333	Shield, belt (103-2319-01) w/ decal	1	44	323-12	Capscrew, 3/8-16 x 2 1/2	4
8	1-413425	Spacer	2	45	1-603413	Spring, extension	1
9	1-513336	Bushing, deck support	2	46	1-603497	Pulley, Idler	1
10	32120-33	Ring, retaining (external)	2	47	3234-11	Screw, whizlock 3/8-16 x 1	2
11	1-373034	Washer, pivot	6	48	3296-39	Nut, nylock 3/8-16	2
12	1-543509	Bearing cone, tapered roller	4	49	3256-4	Washer, 3/8	3
	1-543508	Bearing cup, tapered roller	4	50	1-513034	Bearing, pivot	4
13	103-1891-01	Fork, caster	2	51	1-602604	Idler arm assy w/bearings	1
14	325-20	Capscrew, 1/2-13 x 6	2		1-602591-03	Arm, deck idler	1
15	103-2355	Spacer, front caster	2	52	1-603384	Bushing, idler pivot	2
16	103-1687	Tire & Wheel Asm.	2	53	1-602865	Idler arm, w/ brngs deck drive ...	1
	1-513032	Tire, 11 x 4-5 4 ply	2		1-602867-03	Arm, deck drive idler	1
	103-2274	Wheel	2	54	302-40	Zerk, 1/4-28 (90°)	2
	1-633584	Bearing cup	4	55▽	103-2327	Complete deck assembly	1
17	322-3	Capscrew, 5/16-18 x 3/4	1	56	1-413525	Link, rear deck support	2
18	103-2969-01	Cover, deck	2	57	1-613204	Balljoint	2
19	103-2329	Belt, blade drive	1	58	1-603299	Roller, anti scalp	6
20	323-23	Capscrew, 3/8-16 x 4.5	1	59	98-5961	Capscrew, 3/8-16 x 4 Gr8	6
21	103-0063	Seal, caster	4	60	1-603602	Bushing, roller	6
22	3296-51	Nut, nyloc 3/4-10	2	61	1-603620-01	Bracket, spring anchor	1
23	1-543513	Cap, grease	2	62	1-800805	Capscrew, 3/8-16 x 3-1/2 Gr8 ...	2
24	1-323385	Knob, 3 prong	5	63	1-603414	Spring, extension	1
25	1-323417	Washer, belt cover mounting ...	5	64	1-602913-01	Baffle	1
26	1-811010	Plug	2	65❖	1-414521	Link Assy	2
27	103-2495	Caster Wheel Assy.	2	66	3256-24	Washer, 3/8 SAE Flat	5
28	1-543511	Seal, grease	2	67	1-603001	Rod, deck support	2
29	1-633581	Spacer, bearing	4	68	1-806332	Roll pin, 1/4 x 1-1/2	2
30	1-633508	Washer, spring disk	6	69	1-613098	Idler	1
31	1-633585	Bearing, cone	4	70	1-603805	Idler	1
32	1-800017	Bolt, Tap 5/16-18 x 3 1/4	2	71	1-513791	Bushing	1
33	3219-3	Nut, hex 3/8-24	2	72	1-633988	Spacer	1
34	3296-45	Nut, nyloc 1/2-13 thin	2	73	1-603050	Spacer	4
35	323-7	Capscrew, 3/8-16 x 1 1/4	8	74	323-9	Capscrew, 3/8-16 x 1 3/4	2
36	103-2335	Deck, 103-2321-01 w/ decals	1				

Exmark red touch up spray paint - P/N 1-850337

- ❖ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on previous page. Initially adjust both links to this dimension, then adjust to where both links are equally supporting rear of mower deck by lengthening one link and shortening the other by an equal amount.
- ▽ Complete Deck Assembly includes Mower Deck Cutter Housing Assemblies & Blades. See Page 6 & 7.

60" MOWER DECK FMD604



60" MOWER DECK FMD604

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-1896	Support, deck 103-2249-01 w/bsgs, brgs, seals, & cap.....	1	38	322-5	Capscrew, 5/16-18 x 1	2
2	323-6	Capscrew, 3/8-16 x 1	2	39	3296-29	Nut, nyloc 5/16-18	8
3	98-5975	Washer, disc spring 3/8	19	40	322-2	Capscrew, 5/16-18 x 5/8	5
4	3290-357	Nut, whizlock 3/8-16.....	25	41	1-303516	Pulley, V-Idler	2
5	1-806009	Hairpin, .177	4	42	32128-20	Nut, whizlock 5/16-18	8
6	1-323539	Spacer	2	43	103-3209	Spacer, tube	1
7	103-0063	Seal, caster	4	44▽	103-2791	Sheave, mower drive.....	1
8	1-413425	Spacer	2	45	1-603413	Spring, extension.....	1
9	1-513336	Bushing, deck support	2	46	1-603497	Pulley, idler.....	1
10	32120-33	Ring, retaining (external).....	2	47	3234-11	Screw, whizlock 3/8-16 x 1	2
11	1-373034	Washer, pivot.....	6	48	3296-39	Nut, nylock 3/8-16	2
12	1-543509	Bearing cone, tapered roller.....	4	49	3256-4	Washer, 3/8.....	3
	1-543508	Bearing cup, tapered roller.....	4	50	1-513034	Bearing, pivot	4
13	103-1891-01	Fork, caster.....	2	51	1-602604	Idler arm assy w/bearings.....	1
14	325-20	Capscrew, 1/2-13 x 6	2		1-602591-03	Arm, Deck Idler	1
15	103-2355	Spacer, front caster.....	2	52	1-603384	Bushing, idler pivot.....	2
16	103-1687	Tire & Wheel Asm.....	2	53	1-602865	Idler arm, w/ brgs deck drive	1
	1-513032	Tire, 11 x 4-5 4 ply	2		1-602867-03	Arm, deck drive idler	1
	103-2274	Wheel.....	2	54	302-40	Zerk, 1/4-28 (90°).....	2
	1-633584	Bearing cup.....	4	55▽	103-2279	Complete Deck Assy	1
17	103-2276	Cover, w/ decal	1	56	1-413525	Link, rear deck support.....	2
18	323-7	Capscrew, 3/8-16 x 1 ¼	8	57	1-613204	Balljoint.....	2
19	1-633173	Belt, blade drive	1	58	1-603299	Roller, anti scalp.....	6
20	323-23	Capscrew, 3/8-16 x 4.5	1	59	98-5961	Capscrew, 3/8-16 x 4 Gr8	6
21	3296-51	Nut, nyloc ¾-10.....	2	60	1-603602	Bushing, roller	6
22	1-543513	Cap, grease	2	61	1-603620-01	Bracket, spring anchor	1
23	1-323385	Knob, 3 prong	5	62	1-800805	Capscrew, 3/8-16 x 3 ½ Gr8.....	2
24	1-323417	Washer, belt cover mounting	5	63	1-603414	Spring, extension.....	1
25	1-811010	Plug.....	2	64	1-602913-01	Baffle.....	1
26	1-543511	Seal, grease.....	2	65	3256-3	Washer, 5/16 flat.....	6
27	103-2495	Caster Wheel Assy.	2	66	3256-24	Washer, 3/8 SAE Flat.....	5
28	1-633581	Spacer, bearing.....	4	67	1-603001	Rod, deck support.....	2
29	1-633508	Washer, spring disk	6	68	1-806332	Roll pin, 1/4 x 1-1/2	2
30	1-633585	Bearing, cone.....	4	69	1-613098	Idler	1
31	1-800017	Bolt, Tap 5/16-18 x 3 ¼	2	70	1-603805	Idler	1
32	3296-45	Nut, nyloc ½-13 thin	2	71	1-513791	Bushing	1
33	3219-3	Nut, hex 3/8-24	2	72	1-633988	Spacer	1
34	103-2967-01	Shield, Belt RH	1	73	1-603050	Spacer.....	4
35	103-2968-01	Shield, Belt LH.....	1	74	323-9	Capscrew, 3/8-16 x 1 3/4	2
36	103-2278	Deck, 103-2267-01 w/ decals.....	1	75❖	1-414521	Link Assy.....	2
37	103-2349-01	Chute, Discharge.....	1	76	323-12	Capscrew, 3/8-16 x 2 ½	4
				77	322-3	Capscrew, 5/16-18 x 3/4	1

Exmark red touch up spray paint - P/N 1-850337

- ❖ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on previous page. Initially adjust both links to this dimension, then adjust to where both links are equally supporting rear of mower deck by lengthening one link and shortening the other by an equal amount.
- ▽ Complete Deck Assembly includes Mower Deck Cutter Housing Assemblies & Blades. See Page 6 & 7.

**S/N 352,000 & HIGHER
(3/4-16 TOP SPINDLE NUT)**

CENTER

Torque to 140-145 ft-lbs

23

24

32

38

25

33

26

5

14

27

26

8

28

31

30

12

19

13

Torque to 115-120 ft-lbs

35

CENTER

Torque to 75-80 ft-lbs

1
2
16
15
3
20
4
5
14
37
6
4
8
18
7
9
11
12
19
13
17

Torque to 115-120 ft-lbs

[illegible]

CENTER

Torque to 75-80 ft-lbs

1, 2, 16, 15, 3, 20, 26, 14, 5, 27, 26, 8, 28, 9, 11, 12, 19, 13

Torque to 115-120 ft-lbs

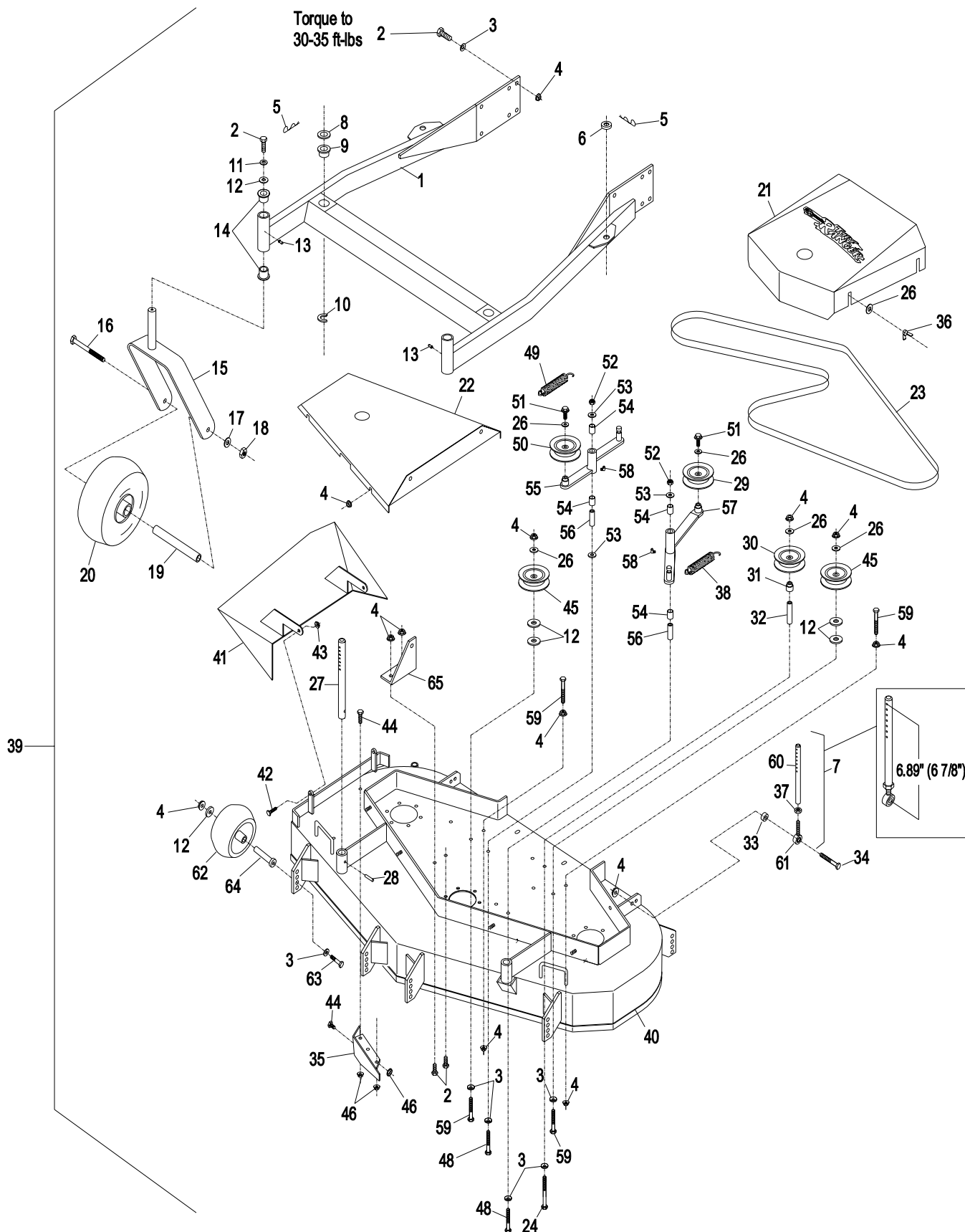
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FMD 524 & 604 MOWER DECK CUTTER HOUSING ASSY

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	32128-58	Nut, Flange 5/8-18 UNF.....	3	17	3296-39	Nut, Nyloc 3/8-16	18
2	1-513208	Washer, Spring Disc	3	18	1-323533	Spacer, Shv/Brg	3
3 ▽	1-633701	Sheave, blade drive	3	19	103-0865	Washer, Blade bolt hvy	3
4 ▽	1-513016	Bearing	6	20 ▽	103-1331	Guard, Bearing top	3
5	1-323532	Housing, bearing	3	21 ▲	103-2328	Housing, Cutter Complete (center 524).	1
6	1-323528	Spacer, bearing	3	▲	103-2314	Housing, Cutter Complete (center 604).	1
7	1-633573	Guard, dust	3	22 ▲	103-1140	Housing, Cutter Complete(outer) 2	2
8	32120-8	Snap ring	3	23	3217-46	Nut, HH 3/4-16 Heavy	3
9	10-8040	Key, square	4	24	103-2802	Washer, Spring Disc	3
10 ▽	103-2326	Spindle, outer blade (short).....	2	25 ▽	103-2794	Sheave, Blade Drive	3
11 ▽	103-2219	Spindle, center blade (long)	1	26 ▽	103-2477	Bearing, Ball	6
12	103-2528	Blade, notched (524)	3	27	103-2534	Spacer, Bearing	3
	103-1578	Blade, solid (524)	3	28	103-2535	Spacer, Guard Bottom	3
	103-2508	Blade, low lift (524)	3	29 ▽	103-2785	Spindle, Outer Blade (Short)	2
◆	103-2518	Blade, mulching (524)	3	30 ▽	103-2786	Spindle, Center Blade (Long)	1
	103-2530	Blade, notched (604)	3	31	103-2982	Key, 1/4 x 3/16 x 3/4	4
	103-1580	Blade, solid (604)	3	32 ▽	103-2793	Sheave, Mower Drive (524 deck)	3
	103-2510	Blade, low lift (604)	3		103-2791	Sheave, Mower Drive (604 deck)	3
◆	103-0301	Blade, mulching (604)	3	33 ▽	103-1330	Guard, bearing top	3
13	103-0862	Capscrew, 5/8-18x2 3/4, Gr8 ...	3	34	103-2547	Cutter housing assembly	3
14	323-8	Capscrew, 3/8-16 x 1 1/2 (604).	18	35 ▲	103-3199	Housing, Cutter Complete (center 524).	1
	323-7	Capscrew, 3/8-16 x 1 1/4 (524).	18	▲	103-3205	Housing, Cutter Complete (center 604).	1
15	1-603504	Spacer, tube	1	36 ⊗ ▲	103-3200	Housing, Cutter Complete (outer)	2
16 ▽	1-603581	Sheave, mower drive (524)	1	37 ★		Housing w/brg spacer & ring	3
	103-2270	Sheave, mower drive (604)	1	38	103-3209	Spacer, tube	1

- ◆ Requires installation of Micro-Mulch accessory for proper mulching. (Mulch Kit P/N MK524 or MK604)
- ▽ Apply Mobil HTS Grease (or a food grade anti-seize) between the spindles & bearings, between spindles & sheaves, and under top of bearing guard. DO NOT use a copper or nickel based anti-seize.
- ⊗ Complete cutter housing assembly 103-3200 can be used on decks with S/N 320,000 thru 351,999. However, belt shields must be replaced with new shields with larger spindle holes. P/N 103-2969-01 (2 required) for FMD524; P/N's 103-2967-01 (RH) and 103-2968-01 (LH) for FMD 604.
- ★ This assembly is now serviced by kit number 103-2547.
- ▲ Complete cutter housings also include Items 13 & 19

52" MOWER DECK FMD523



52" MOWER DECK FMD523

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-604960	Support, deck (1-612092-01) w/ bshgs & decals.....	1	31Δ	1-513791	Bushing.....	1
	323-6	Capscrew, 3/8-16 x 1	12	32Δ	1-633988	Spacer	1
3	98-5975	Washer, disc spring 3/8	19	33	1-603050	Spacer	2
4	3290-357	Nut, whizlock 3/8-16	33	34	323-9	Capscrew, 3/8-16 x 1 3/4	2
5	1-806009	Hairpin, .177	4	35	1-602913-01	Baffle	1
6	1-323539	Spacer, blade driver.....	2	36	1-543678	Wingnut, nylock	4
7❖	1-414521	Link Assy	2	37	3219-3	Nut, hex 3/8-24	2
8	1-413425	Spacer	2	38	1-603414	Spring, Extension.....	2
9	1-513336	Bushing, deck support	2	39Φ	103-1305	Asm, complete deck	1
10	32120-33	Ring, retaining (external)	2	40	1-612155	Deck, 1-612287-01 w/decals, rods & baffle	1
11	3253-5	Washer, lock 3/8hvy spring	2	41	1-602571-01	Chute, discharge.....	1
12	1-373034	Washer, pivot.....	12	42	322-5	Capscrew, 5/16-18 x 1	2
13	302-52	Zerk, 1/8 NPT (straight).....	2	43	3296-29	Nut, nylock 5/16-18	2
14	1-303514	Bearing, flange thrust.....	4	44	322-2	Capscrew, 5/16-18 x 5/8	6
15	1-522143-01	Fork, caster	2	45	1-303516	Pulley, V-Idler	2
16	325-20	Capscrew, 1/2-13 x 6	2	46	32128-20	Nut, whizlock 5/16-18	6
17	3253-7	Washer, lock 1/2	2	47◆	103-2171	Kit, semi-pneu wheel replacem't	1
18	3217-9	Nut, 1/2-13.....	2	48	1-800805	Capscrew, 3/8-16x3 1/2 Gr8	2
19★	1-513547	Spacer, front caster (pneumatic)	2	49	1-603413	Spring, extension.....	1
■★	103-2169	Spacer, front caster (semi-pneumatic)	2	50	1-603497	Pulley, idler	1
20★	103-1224	Tire/wheel asm(semi-pneumatic)	2	51	3239-11	Screw, whizlock 3/8-16 x 1	2
★	1-513648	Tire/wheel asm (pneumatic)	2	52	3296-39	Nut, nylock 3/8-16	2
	1-513809	Roller Bearing (all).....	2	53	3256-4	Washer, 3/8	3
★	1-513810	Bushing (pneumatic).....	4	54	1-513034	Bearing, pivot	4
○★	103-2170	Bushing (semi-pneumatic)	4	55	1-602604	Idler arm assy w/bearings.....	1
★	1-513807	Wheel & Hub (pneumatic).....	2		1-602591-03	Arm, deck idler.....	1
★	1-513808	Tire 9 x 3.50-4 4-ply (pneumatic)	2	56	1-603384	Bushing, idler pivot.....	2
	1-544835	Cover w/decals	1	57	1-602865	Idler arm, w/brgs deck drive....	1
22	1-602545-01	Cover, deck.....	2		1-602867-03	Arm, deck drive idler	1
23	1-603576	Belt, blade drive	1	58	302-40	Zerk, 1/4-28 (90°).....	2
24Δ	323-23	Capscrew, 3/8-16 x 4 1/2	1	59	323-11	Capscrew, 3/8-16 x 2-1/4	4
25	103-1305	Asm, complete deck.....	1	60	1-413525	Link, rear deck support	2
26	3256-24	Washer, 3/8 SAE	9	61	1-613204	Balljoint.....	2
27	1-603001	Rod, deck support.....	2	62	1-603299	Roller, anti scalp.....	6
28	1-806332	Roll pin, 1/4 x 1-1/2	2	63	98-5961	Capscrew, 3/8-16 x 4 Gr8.....	6
29	1-613098	Pulley, flat idler	1	64	1-603602	Bushing, roller	6
30Δ	1-603805	Idler	1	65	1-603620-01	Bracket, spring anchor.....	1

❖ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on previous page. Initially adjust both links to this dimension, then adjust to where both links are equally supporting rear of mower deck by lengthening one link and shortening the other by an equal amount.

★ FMD523 & FMD603 decks with Serial No. 274,506 & above have semi-pneumatic caster tires. FMD523 & FMD603 decks with Serial No. 274,505 & below have pneumatic caster tires

■ Front caster spacer for semi-pneumatic caster tires can be identified by yellow zinc plating.

○ Bushing for semi-pneumatic caster tires can be identified by a groove on the face.

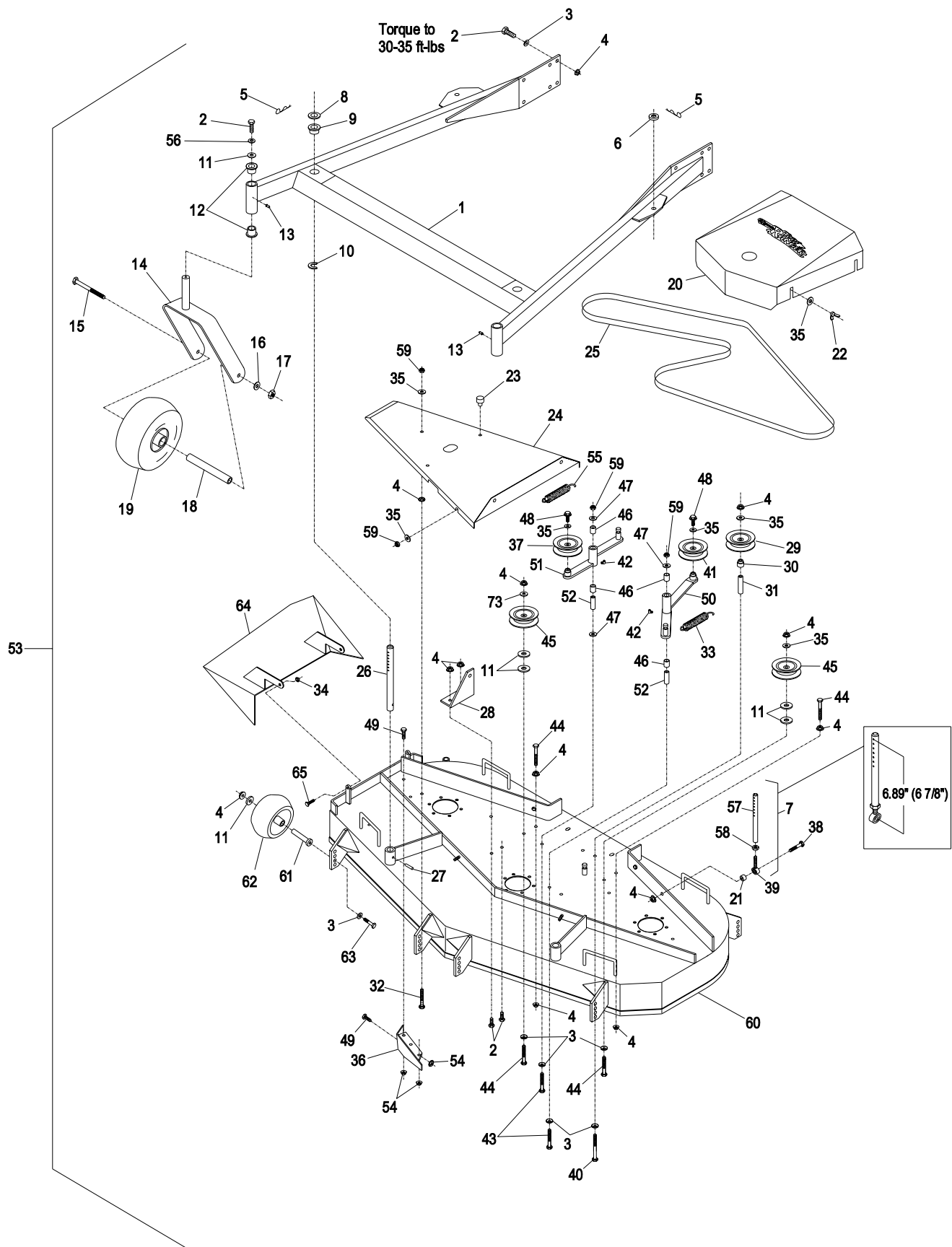
◆ Kit 103-2171 used to install semi-pneumatic casters on machines originally fitted with pneumatic casters. Includes 103-1224 & 103-2169. Order 2 per machine.

Exmark red touch up spray paint - P/N 1-850337

Δ Provided in Turf Ranger bolt bag.

Φ Complete Deck Assembly includes Mower Deck Cutter Housing Assemblies & Blades. See Page 10.

60" MOWER DECK FMD603



60" MOWER DECK FMD603

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-604847	Support, deck 1-612094-01 w/bshgs&decals.....	1	32	1-800031	Tapbolt, 3/8-16 x 2 3/4.....	2
2	323-6	Capscrew, 3/8-16 x 1.....	12	33	1-603414	Spring, extension.....	1
3	98-5975	Washer, disc spring 3/8.....	19	34	3296-29	Nut, nylock 5/16-18.....	2
4	3290-357	Nut, whizlock 3/8-16.....	26	35	3256-24	Washer, 3/8 SAE.....	13
5	806009	Hairpin, .177.....	4	36	1-602913-01	Baffle.....	1
6	1-323537	Spacer.....	2	37	1-603497	Pulley, idler.....	1
7◆	1-414521	Link Assy.....	2	38	323-9	Capscrew, 3/8-16 x 1 3/4.....	2
8	1-413425	Washer.....	2	39	1-613204	Balljoint.....	2
9	1-513336	Bushing, deck support.....	2	40▽	323-23	Capscrew, 3/8-16x4 ½ (Gr 5).....	1
10	32120-33	Ring, retaining (external).....	2	41	1-613098	Pulley, flat idler.....	1
11	1-373034	Washer, pivot.....	12	42	302-40	Zerk, 1/4-28 (90°).....	2
12	1-303514	Bearing, flange thrust.....	4	43	1-800805	Capscrew, 3/8-16 x 3.5.....	2
13	302-52	Zerk, 1/8 NPT (straight).....	2	44	323-11	Capscrew, 3/8-16 x 2-1/4.....	4
14	1-522143-01	Fork, caster.....	2	45	1-303516	Pulley, V-idler.....	2
15	325-20	Capscrew, 1/2-13 x 6.....	2	46	1-513034	Bearing, pivot.....	4
16	3253-7	Washer, lock 1/2.....	2	47	3256-4	Washer, 3/8 stdn flat.....	3
17	3217-9	Nut, 1/2-13.....	2	48	3239-11	Bolt, whizlock 3/8-16 x 1.....	2
18★	1-513547	Spacer, front caster (pneumatic).....	2	49	322-2	Capscrew, 5/16-18 x 5/8.....	3
■★	103-2169	Spacer, front caster (semi-pneumatic).....	2	50	1-602867-03	Arm, deck drive idler.....	1
19★	103-1224	Tire/whl asm(semi-pneumatic).....	2		1-602865	Idler arm asm, deck drive w/brgs.....	1
★	1-513648	Tire/whl assy(pneumatic).....	2	51	1-602591-03	Arm, deck idler.....	1
	1-513809	Roller Bearing (all).....	2		1-602604	Idler arm, w/bearings.....	1
★	1-513810	Bushing (pneumatic).....	4	52	1-603384	Bushing, idler pivot.....	2
◆★	103-2170	Bushing (semi-pneumatic).....	4	53Φ	103-1306	Asm, complete deck.....	1
★	1-513807	Wheel & Hub (pneumatic).....	2	54	32128-20	Nut, whizlock 5/16-18.....	3
★	1-513808	Tire 9x3.50-4 4-ply (pneumatic).....	2	55	1-603413	Spring, extension.....	1
20	1-544849	Cover w/ decal.....	1	56	3253-5	Washer, lock 3/8 hvy spring.....	2
21	1-603050	Spacer.....	2	57	1-413525	Link, rear deck support.....	2
22	1-543678	Wingnut, nylon insert.....	4	58	3219-3	Nut, hex 3/8-24.....	2
23	1-513291	Bumper, seat.....	2	59	3296-39	Nut, nylock 3/8-16.....	8
24	1-542588-01	Cover, deck.....	2	60	1-612149	Deck, 1-612286-01 w/decals, rods & baffle.....	1
25	1-603045	Belt, blade drive.....	1	61	1-603602	Bushing, roller.....	6
26	1-603001	Rod, deck support.....	2	62	1-603299	Roller, anti scalp.....	6
27	1-806332	Roll pin, 1/4 x 1-1/2.....	2	63	98-5961	Capscrew, 3/8-16x4 (Gr 8).....	6
28	1-603620-01	Bracket, spring anchor.....	1	64	1-542606-01	Chute, discharge.....	1
29▽	1-603805	Idler.....	1	65	323-5	Capscrew, 5/16-18 x 1.....	2
30▽	1-513791	Bushing.....	1	66□	103-2171	Kit, semi-pneumatic wheel replacement.....	1
31▽	1-633988	Spacer.....	1				

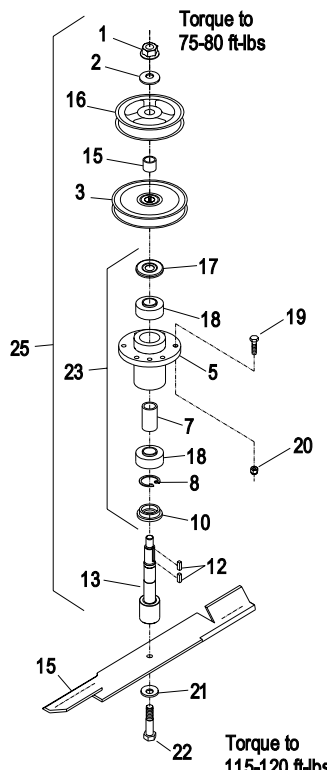
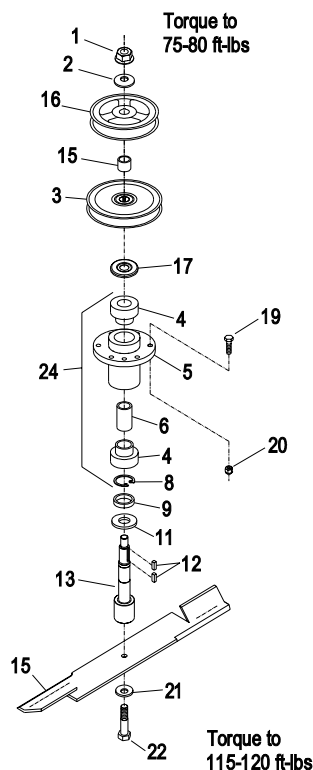
- ◆ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on previous page. Initially adjust both links to this dimension, then adjust to where both links are equally supporting rear of mower deck by lengthening one link and shortening the other by an equal amount.
- ★ FMD523 & FMD603 decks with Serial No. 274,506 & above have semi-pneumatic caster tires. FMD524 & FMD604 decks with Serial No. 274,505 & below have pneumatic caster tires.
- Kit 103-2171 used to install semi-pneumatic casters on machines originally fitted with pneumatic casters. Includes 103-1224 & 103-2169. Order 2 per machine.
- Front caster spacer for semi-pneumatic caster tires can be identified by yellow zinc plating.
- ◆ Bushing for semi-pneumatic caster tires can be identified by a groove on the face.
Exmark red touch up spray paint - P/N 1-850337
- ▽ Provided in Turf Ranger bolt bag.
- Φ Complete Deck Assembly includes Mower Deck Cutter housing Assemblies and Blades. See Page 10.

FMD523-603 MOWER DECK CUTTER HOUSINGS

CENTER CUTTER HOUSING

ORIGINAL EQUIPMENT

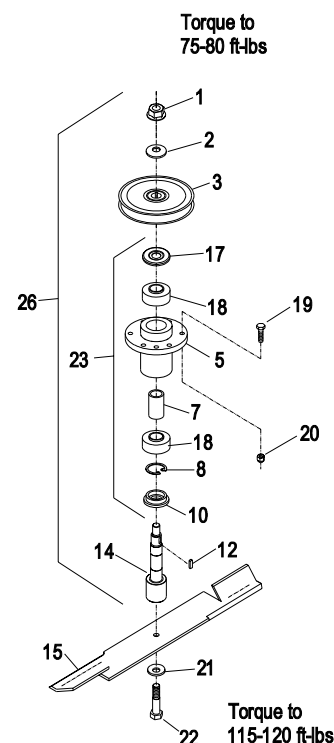
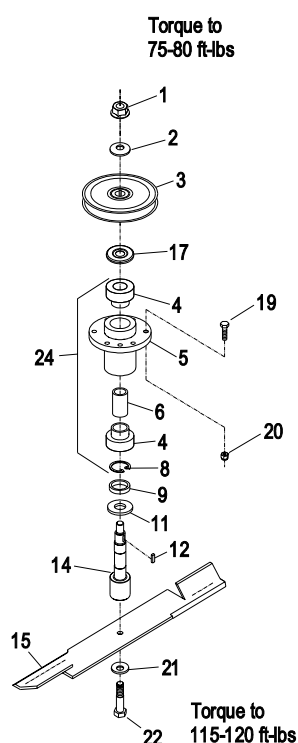
SERVICE ASSEMBLY



OUTER CUTTER HOUSING

ORIGINAL EQUIPMENT

SERVICE ASSEMBLY



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	32128-58	Nut, Flange 5/8-18 UNF	3	15	103-2530	Blade, notched (603).....	3
2	1-513208	Washer, Spring Disc.....	3		103-1580	Blade, solid (603)	3
3∇	1-553039	Sheave, blade drive	3		103-2510	Blade, low lift (603)	3
4∇	1-513016	Bearing	6	◆	103-0301	Blade, mulching (603)	3
5	1-323532	Housing, bearing	3	16∇	1-603581	Sheave, mower drive (523).....	1
6	1-323528	Spacer, bearing	3		103-2270	Sheave, mower drive (603).....	1
7	103-2534	Spacer, bearing	3	17∇	103-1331	Guard, Bearing top	3
8	32120-8	Snap ring	3	18∇	103-2477	Bearing, Ball	6
9	1-323533	Spacer, Shv/Brg	3	19	323-7	Capscrew, 3/8-16 x 1-1/4.....	18
10	103-2535	Spacer, Guard Bottom.....	3	20	3296-39	Nut, Nyloc 3/8-16	18
11	1-633573	Guard, dust.....	3	21	103-0865	Washer, Blade bolt hvy	3
12	3257-32	Key, #61 Woodruff.....	4	22	103-0862	Capscrew, 5/8-18 x 2-3/4, GR8 ..	1
13∇	103-0959	Spindle, center blade (long).....	1	23	103-2547	Cutter Housing Assy	1
14∇	103-0958	Spindle, outer blade (short)	2	24*		Cutter Housing Assy	1
15	103-2528	Blade, notched (523)	3	25▲	103-1185	Housing, Cutter Complete (center 523) .	1
	103-1578	Blade, solid (523).....	3		103-1186	Housing, Cutter Complete (center 603) .	1
	103-2508	Blade, low lift (523).....	3	26▲	103-1187	Housing, Cutter Complete (outer)	2
◆	103-2518	Blade, mulching (523).....	3				

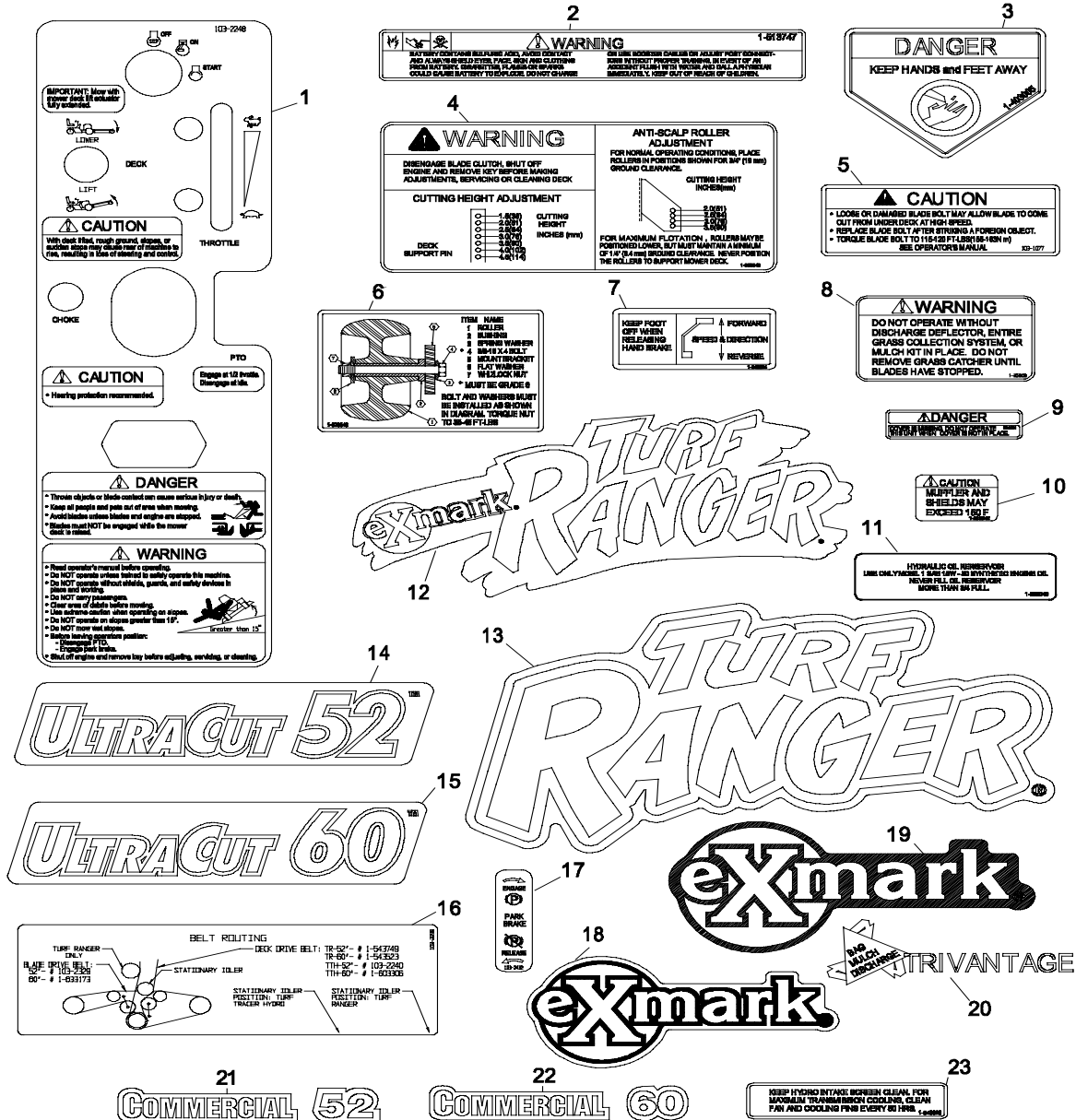
◆ Requires installation of Micro-Mulch accessory for proper mulching. (Mulch Kit P/N MK523 or MK603)

∇ Apply Mobil HTS Grease (or a food grade anti-seize) between the spindles & bearings, between spindles & sheaves, and under top bearing guard. DO NOT use a copper or nickel based anti-seize.

▲ Complete cutter housings also include Items 21 & 22.

* This assembly now serviced by kit number 103-2457.

DECALS

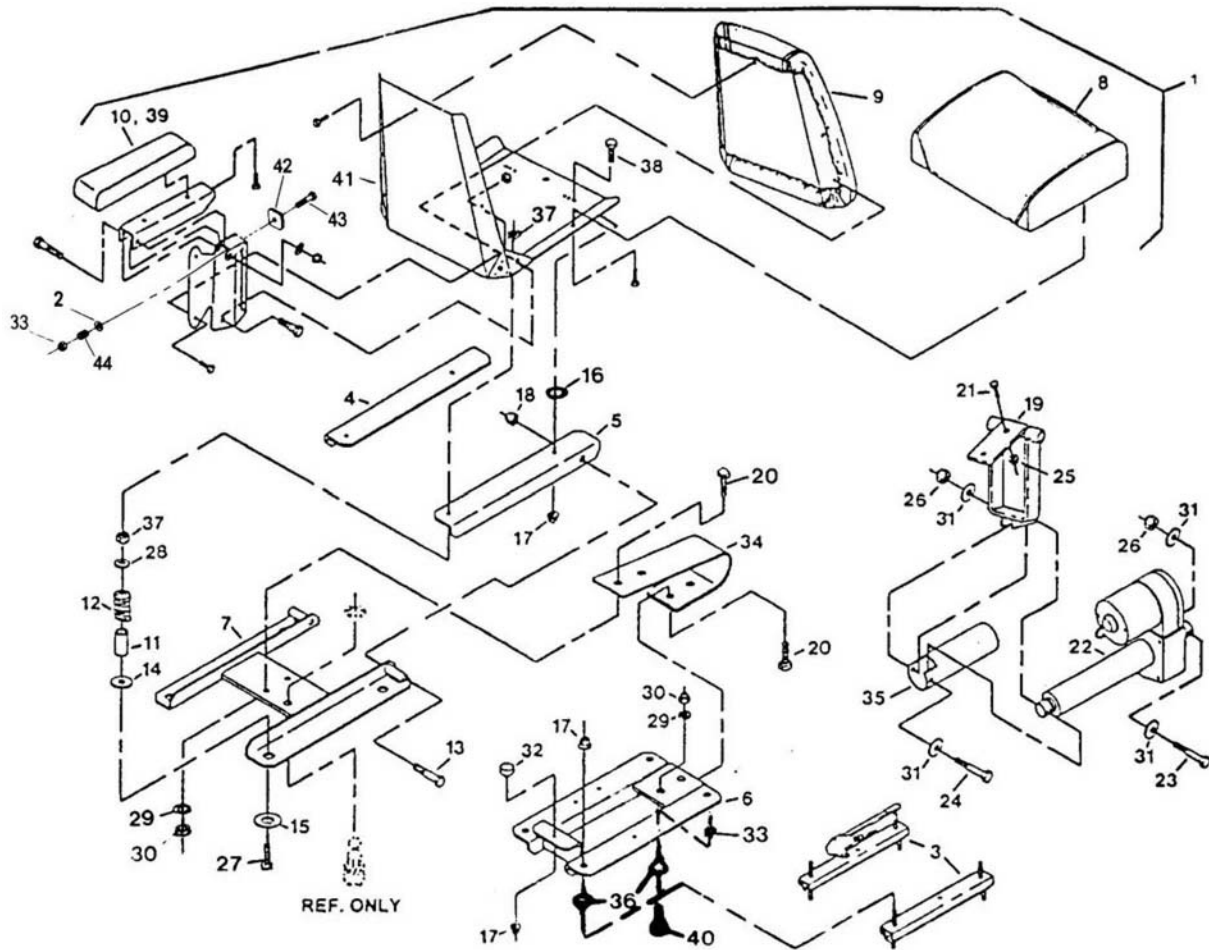


Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-2248	Decal, Console	1	14▲	103-1145	Decal, Ultracut 52	1
2	1-513747	Decal, Battery	1	15▲	103-1146	Decal, Ultracut 60	1
3	1-403005	Decal, Danger	2	16▲	103-2239	Decal, Belt Routing	1
4	1-553049	Decal, Mower Deck	1	*	1-613100	Decal, Belt Routing	1
5	103-1077	Decal, Bolt Torque	1	17	103-2432	Decal, Brake Lever	1
6	1-323540	Decal, Roller Mounting	1	18	1-643103	Decal, "Exmark"	2
7	1-543624	Decal, Foot Pedal	1	19	103-2882	Decal, Exmark logo	1
8	1-303508	Decal, Discharge Warning	1	20*	1-303520	Decal, Tri-Vantage	1
9	98-5954	Decal, Missing Cover	3	21*	1-403132	Decal, Commercial 52"	1
10	1-513746	Decal, Muffler	1	22*	1-613050	Decal, Commercial 60"	1
11	1-553040	Decal, Hydraulic Tank	1	23	1-543620	Decal, Intake	1
12*	1-543293	Decal, Turf Ranger "Swash".	1	*	1-551016	Decal Kit Complete	1
13▲	103-3014	Decal, Turf Ranger	1	▲	103-2550	Decal Kit Complete	1

* FMD523 or FMD603

▲ FMD524 or FMD604

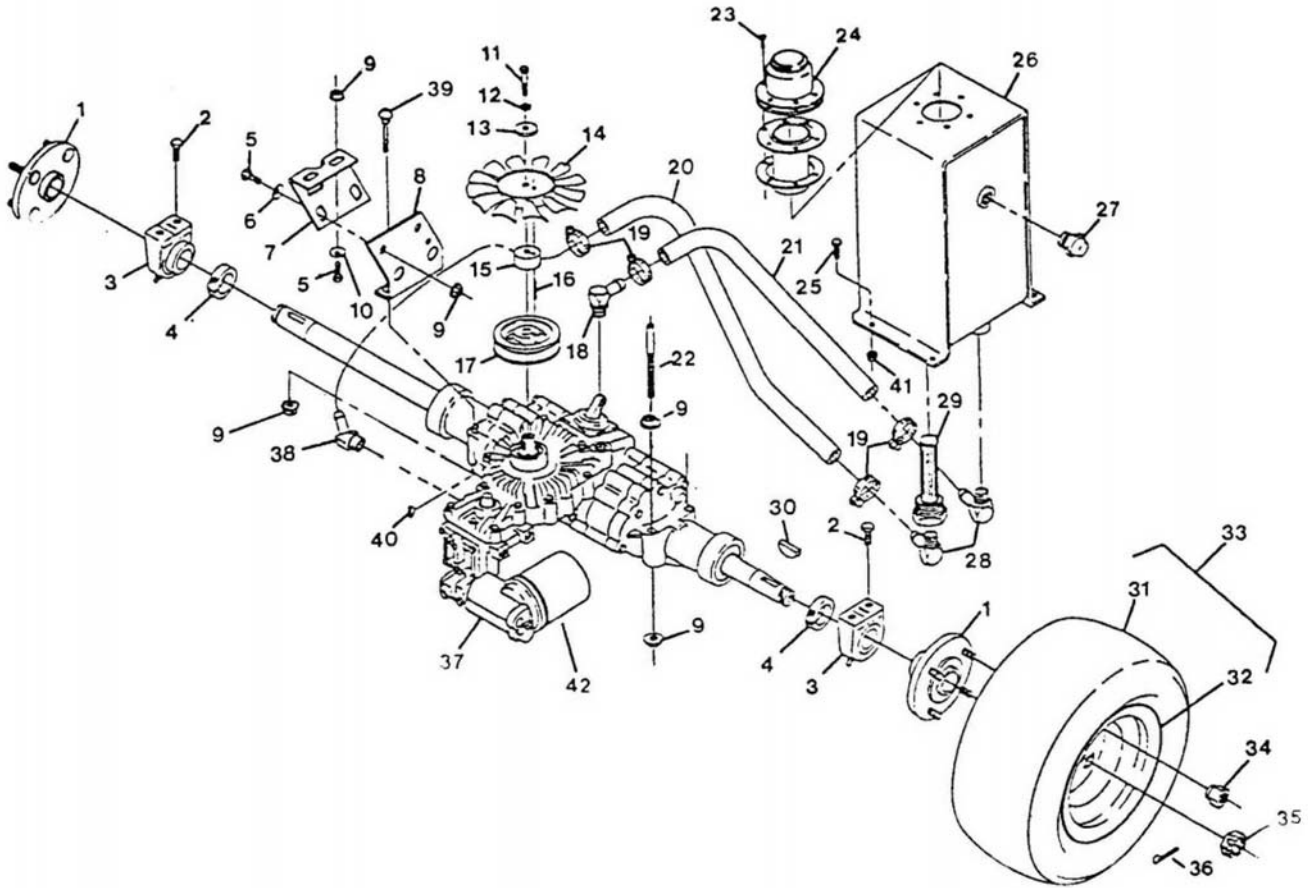
SEAT ASSY and LIFT ACTUATOR



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-0465	Seat complete w/armrests	1	23	3212-9	Screw, 7/16-20 x 5	1
2	3256-23	Washer, 5/16 SAE	1	24	3212-12	Screw, 7/16-20 x 3	1
3	1-543357	Seat track, adjustable (6")	1	25	3290-357	Nut, flange 3/8-16	2
4	1-543319-03	Rail, seat (LH)	1	26	3296-7	Nut, nylock 7/16-20	2
5	1-543321-03	Rail, seat (RH)	1	27	1-800015	Tap bolt, 5/16-18 x 2 1/2	2
6	1-542307	Base rail, seat	1	28	3256-3	Washer, 5/16	2
7	1-542315-03	Seat rail wldmnt	1	29	3253-7	Washer, lock 1/2	4
8	103-0290	Cushion, seat	1	30	3217-9	Nut, nylock 1/2-13	4
9	103-0289	Cushion, back rest	1	31	3256-25	Washer, 7/16	4
10	103-0292	Pad, arm rest (RH)	1	32	1-543963	Bumper, rubber	1
11	1-513479	Bushing, spring guide	2	33	3296-29	Nut, nylock 5-16-18	4
12	1-513296	Spring	2	34	1-543356	Spring, seat (TR)	1
13	325-13	Screw, 1/2-13 x 3 1/4	2	35	1-543834	Guard, actuator	1
14	325-6	Washer, 1/2	2	36	1-543401	Spacer, track	6
15	1-213069	Strut, adjustment spacer	2	37	3217-6	Nut, 5/16-18	2
16	3256-4	Flatwasher, 3/8 std	2	38	323-3	Screw, 5/16-18 x 3/4	2
17	32128-20	Nut, whizlock 5/16-18	9	39	103-0291	Pad, arm rest (LH)	1
18	3296-23	Nut, nylock 1/2-13	2	40	32122-14	Screw, 5/16-18 x 3/4 CR	2
19	1-542283	Pivot wldmnt, actuator	1	41	1-633859	Seat Frame	1
20	325-5	Screw, 1/2-13 x 1 1/4	4	42	103-0284	Tab, armrest adjustment	2
21	323-6	Screw, 3/8-16 x 1	2	43	322-7	Screw, 5/16-18 11/2	2
22	1-543241	Actuator, linear	1	44	1-633349	Spring, compression	1

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Exmark red touch up spray paint - P/N 1-850337

AXLE and HYDRAULICS



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-602997	Hub, wheel (tapered)	2	22	1-543054	Pin, guide	2
	1-613150	Stud, 1/2-20.....	8	23	1-802002	Screw, 10-32x1/2 thrd cttng	6
2	3234-12	Screw, whizlock 3/8-16x3/4	4	24	1-543541	Breather, filler & cap	1
3*	1-543485	Bearing, pillow base.....	2	25	322-3	Capscrew, 5/16-18 x 3/4 ..	1
f	1-840022	Pro-Lock, Nut Type (.5cc Tube) Use on Setscrews in Bearings.		26	1-542913-03	Tank, hydraulic.....	1
4*	1-373021	Clamp, collar (1")	2	27	1-543894	Oil Eye, hyd tank.....	1
5	323-4	Capscrew, 3/8-16 x 3/4	4	28	1-543889	Elbow, 90°	2
6	98-5975	Washer, disc spring 3/8	2	29	1-543864	Suction strainer	1
7	1-543996-01	Stabilizer, axle (upper)	1	30	1-807019	Key, woodruff 1 x 1/4	2
8	1-543476-01	Stabilizer, (axle lower).....	1	31	1-543680	Tire, 20 x 10-8	2
9	3290-357	Nut, whizlock 3/8-16.....	10	32	1-513042	Rim.....	2
10	3256-4	Washer, 3/8 stdn. Flat.....	2	33	1-543396	Tire and wheel assy	2
11	321-9	Capscrew, 1/4-20 x 1-1/2... ..	1	34	242-50	Nut, wheel 1/2-20	8
12	1-805004	Lockwasher, 1/4 hvy spring	1	35	32136-5	Nut, slotted 3/4-16.....	2
13	1-503033	Washer, pulley retainer	1	36	1-806800	Pin, cotter, 9/64 x 1-1/2	2
14	1-543359	Fan, 7" OD/10 blade	1	37	1-543055	Transaxle 851-114 Series	1
15	1-543317	Spacer, fan.....	1	38	1-543888	Elbow, 45°	1
16	1-806328	Rollpin, 7/32 x 7/8	1	f	1-603919	O-Ring.....	1
17	1-543928	Pulley, cast iron.....	1	39	1-807525	Bolt, 3/8-16x2-3/4 carriage	2
18	1-543887	Elbow, 90°	1	f	1-840022	Pro-Lock, Nut Type (.5cc Tube) Use on Threads.	
f	1-603919	O-Ring	1	40	3257-32	Key, woodruff 3/8 x 5/16 ..	1
19	1-543892	Hose Clamp	4	41	32128-20	Nut, whizlock 5/16-18.....	4
20	1-543930	Hose, 16.5 Push Lok.....	1	42	1-513211	Element, oil filter	1
21	1-543931	Hose, 8.0 Push Lok.....	1				

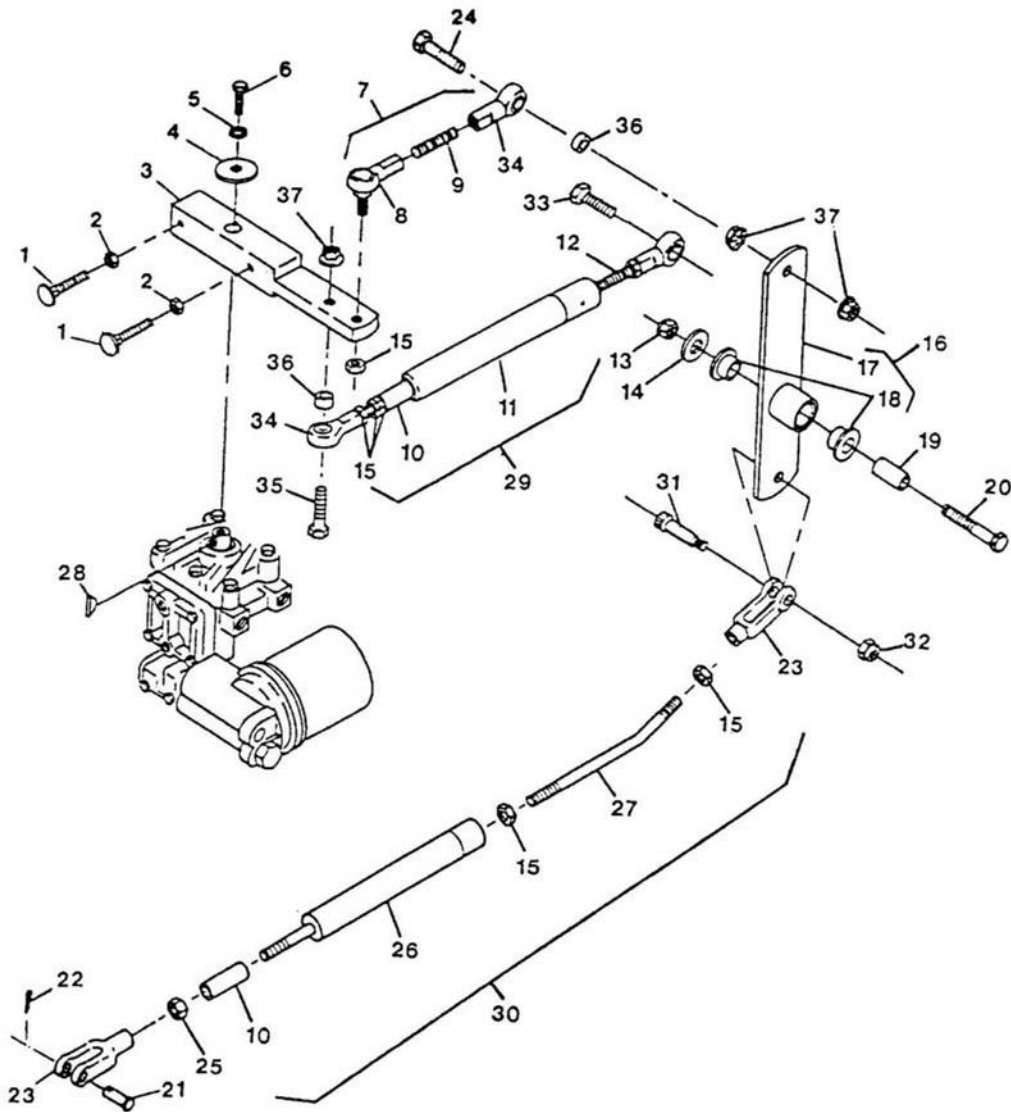
f Not Illustrated.

* Apply antisieze compound to bore.

Exmark black touch up spray paint - Gloss black

Exmark red touch up spray paint - P/N 1-850337

MOTION CONTROLS

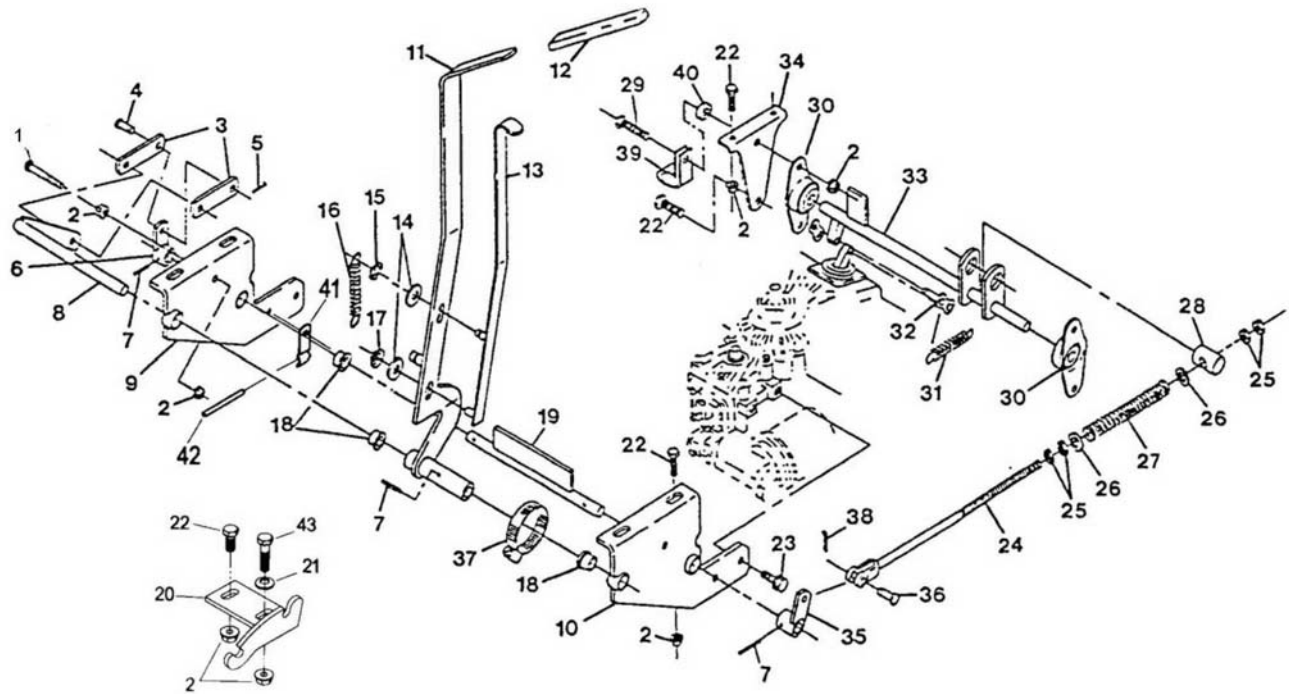


Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-807522	Bolt, carriage 5/16-18 x 2 ...	2	19	1-543486	Bushing.....	1
2	3217-6	Nut, 5/16-18.....	2	20	322-12	Capscrew, 5/16-18 x 2-1/2	1
3	1-542916-01	Arm, transaxle.....	1	21	1-808280	Pin, clevis 5/16 x 1	1
4	1-503033	Washer, pulley retainer	1	22	3272-5	Pin, cotter 3/32 x 1/2	1
5	1-805004	Washer,lock 1/4 hvy spring	1	23	1-303105	Yoke, adjustable.....	2
6	1-800751	Capscrew, 1/4-20 x 1-1/2 ...	1	24	322-7	Capscrew, 5/16-18 x 1-1/2	1
7	1-544722	Linkage, motion control	1	25	3219-2	Nut, 5/16-24.....	1
8	1-513132	Joint, ball	1	26	1-512136-03	Housing, override	1
9	1-543710	Rod, end	1	27	1-543052	Rod, link.....	1
f	1-840022	Pro-Lock,Nut Type (.5ml Tube) Use on both Rod ends		28	3257-1	Key, woodruff #3, 1/8x1/2.	1
10	1-513479	Bushing, spring guide.....	2	29	1-542725	Spring assy, pedal (center)	1
11	1-542724-01	Centering spring wldmnt....	1	30	1-542053	Spring, pedal (override)....	1
12	1-543148	Rod, end	1	31	1-809057	Screw, 5/16x3/4 sckt hd shld	1
13	3296-29	Nut, nylock 5/16-18	1	32	3296-42	Nut, nylock 1/4-20	1
14	3256-3	Washer, 5/16 stdn. flat	1	33	3210-5	Capscrew, 5/16-24 x 1	1
15	3220-2	Nut, jam 5/16-24 (RH)	8	34	1-543017	Ball joint.....	3
16	1-544711	Idler linkage S/A	1	35	322-6	Capscrew, 5/16-18 x 1-1/4	1
17	1-542144-01	Linkage, idler	1	36	1-603500	Spacer	2
18	1-513140	Bearing, control	2	37	32128-20	Nut, whizlock 5/16-18	3

Exmark black touch up spray paint - Gloss black

f Not Illustrated.

PARKING BRAKE



Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	322-11	Capscrew, 5/16-18 x 2-1/4...	1	23	3234-5	Bolt, whizlock 5/16-18 x 3/4	4
2	32128-20	Nut, whizlock, 5/16-18.....	13	f	1-840022	Pro-Lock Nut Type (.5ml Tube) Use on bolt threads	
3	1-543115	Link, brake.....	2	24	1-543721	Linkage, brake	1
4	1-808278	Pin, clevis 5/16 x 3/4	2	25	3220-3	Nut, jam 3/8-24 pltd	4
5	3272-10	Pin, cotter 1/8 x 3/4	2	26	3256-4	Washer, 3/8	2
6	1-542123-01	Arm, butterfly control	1	27	1-543132	Spring, brake protect	1
7	1-806328	Roll pin, 7/32 x 7/8	3	28	1-543129	Pin, trunion.....	1
8	1-542190	Pivot wldmt, brake lever	1	29	322-5	Capscrew, 5/16-18 x 1	1
9	1-552058-01	Support, transmission (LH) .	1	30	1-543514	Flange mntg (side).....	2
10	1-552059-01	Support, transmission (RH).	1	31	1-543543	Spring, 3 x 1/2.....	1
11	103-3437	Lever, Brake (1-542192-01) w/ grip & decal	1	32	1-543745	Link, connector #60	1
12	1-303020	Grip (adjustment lever)	1	33	1-542748-01	Jackshaft, brake	1
13	1-542719-01	Trigger, brake	1	34	1-543138	Mount, jackshaft bearing ...	1
14	3256-23	Washer, 5/16.....	2	35	1-542121	Arm, brake control	1
15	32120-35	E Ring.....	1	36	1-808280	Pin, clevis, 5/16 x 1	1
16	1-513468	Spring, brake handle.....	1	37	1-543892	Clamp, hose.....	1
17	1-543798	Pushnut, 5/16.....	1	38	3272-5	Pin, clevis 3/32 x 1/2.....	1
18	1-513140	Bearing control.....	4	39	1-213148	Clamp.....	1
19	1-542125-01	Butterfly	1	40	1-543007	Spacer.....	1
20	1-542900-01	Quadrant, brake	1	41	1-553056	Spring, dump valve	1
21	1-303334	Washer, disc 5/16	2	42	1-806339	Rollpin 1/4 x 3	1
22	322-3	Capscrew, 5/16-18 x 3/4	9	43	322-6	Capscrew, 5/16-18 x 1 1/4.	1

Exmark red touch up spray paint - P/N 1-850337

f Not Illustrated.

This diagram is an exploded view of a mechanical assembly, likely a piece of industrial machinery. It features numerous numbered components (1 through 71) that are shown in their relative positions to be assembled. Key parts include a large central housing (10), a motor or actuator unit (6), a control box (38), and various structural beams and brackets (19, 21, 61). The assembly is held together by a variety of fasteners, including screws (e.g., 16, 17, 20, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71), bolts (e.g., 15, 18, 21, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71), and nuts (e.g., 16, 17, 20, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71). The diagram uses dashed lines to indicate the assembly path and alignment of the parts.

ENGINE DECK GROUP

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-303426	Fuel line, 15"	1	38	103-3442	Cover,Batt (1-543891) w/decal.	1
2	1-303306	Fuel line, 10"	1	39	1-807259	Key, 1/4 x 1/4 x 1	1
3	1-603770	Valve, fuel line	1	40	1-543929	Pulley, engine	1
4	1-543277	Elbow, fuel tank w/screen ..	1	41	1-551061	Clutch,Elec w/ties(Warner)	1
5	1-513645	Bushing, fuel valve	1	42	1-603609	Bushing, clutch keeper	1
6	1-543364	Tank, gas	1	43	1-603610	Washer, spring disc 7/16 ...	2
7	1-303077	Clamp, gas line	4	44♦	3212-12	Capscrew, 7/16-20 x 3	1
8	1-303465-03	Strap, fuel tank	2		1-840022	Pro-Lock, Nut type (.5 ml tube)	
9	1-801062	Screw, 1/4-20 x 2-1/2	2	45	1-543523	Belt, deck drive (60" Deck)	1
10	1-303315	Gas tank pad	2		1-543749	Belt, deck drive (52" Deck)	1
11	1-513508	Cap, fuel tank	1	46	1-553053	Spacer	1
12	1-542045	Screen, air intake	1	47	1-303021	Grip (drive lever)	2
13	1-809024	Nut, retainer 1/4-20	1	48	1-373034	Washer, pivot	2
14	1-543791	Screw, thumb 1/4-20 x 3/4 .	1	49	3230-3	Bolt, carriage 5/16-18x1-1/4.	1
15	323-4	Capscrew, 3/8-16 x 3/4	4	50	3231-29	Bolt, carriage 3/8-16x1-3/4	1
16	3290-357	Nut, flange 3/8-16	7	51	1-513170	Spring	1
17	323-10	Capscrew, 3/8-16 x 2	1	52	3296-29	Nut, nylock 5/16-18	4
18	1-413099	Pulley, idler 5 3/4 OD	1	53	1-543274	Bushing, steel	1
19	1-542958-01	Cross member	1	54	1-543502	Bushing, bronze	1
20	1-543879	Bushing, idler	1	55	1-542270-01	Arm, hyd drive idler	1
21	1-542069-03	Mount, battery	1	56	1-213069	Strut, adjustment spacer	3
22	32128-20	Nut, whizlock 5/16-18	10	57	3296-39	Nut, nylock 3/8-16	2
23	322-3	Capscrew, 5/16-18 x 3/4	3	58	1-543008	Pulley, idler (steel)	1
24	1-543882	Bolt, hold down	2	59	3256-24	Washer, 3/8 SAE	1
25	323-11	Capscrew, 3/8-16 x 2-1/4 ...	2	60	1-543548	Belt, "A" (transmission drive)	1
26	1-543792	Wingnut, nylock 1/4	4	61	1-543258-01	Plate, skid	1
27	1-543296	Grommet, fuel line	1	62	325-5	Capscrew, 1/2-13 x 1.25	2
28	1-633630	Grommet	2	63	3253-7	Washer, 1/2	2
29	1-633545	Spacer, Grommet	2	64	3217-9	Nut, 1/2-13	2
30	1-613235	Washer	4	65	103-2308	Spacer, crankshaft	1
31	322-14	Capscrew, 5/16-18 x 3	1	66*	103-1963	Valve,oil drain	1
32	1-603401	Spacer	1	67	103-3441	Deck,Engine (1-552073-01)	
33	1-633543-03	Strap, Clutch	1			w/ tank pads & decals	1
34	1-543286	Grommet	1	68	Kohler Part No. 2405002	Fuel Filter	1
35	1-805005	Washer, lock 5/16	1	69	3256-3	Washer, 5/16	1
36	322-6	Capscrew, 5/16-18 x 1-1/4 .	1	70	1-303334	Washer, disc spring 5/16 ...	4
37	1-303335	Plastic tie, large	2	71	322-9	Capscrew, 5/16-18 x 1-3/4	4

* Use Teflon Pipe Sealant or equivalent on threads.

Exmark red touch up spray paint - P/N 1-850337

Exmark black touch up spray paint - Gloss black

♦ Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on clutch bolt.

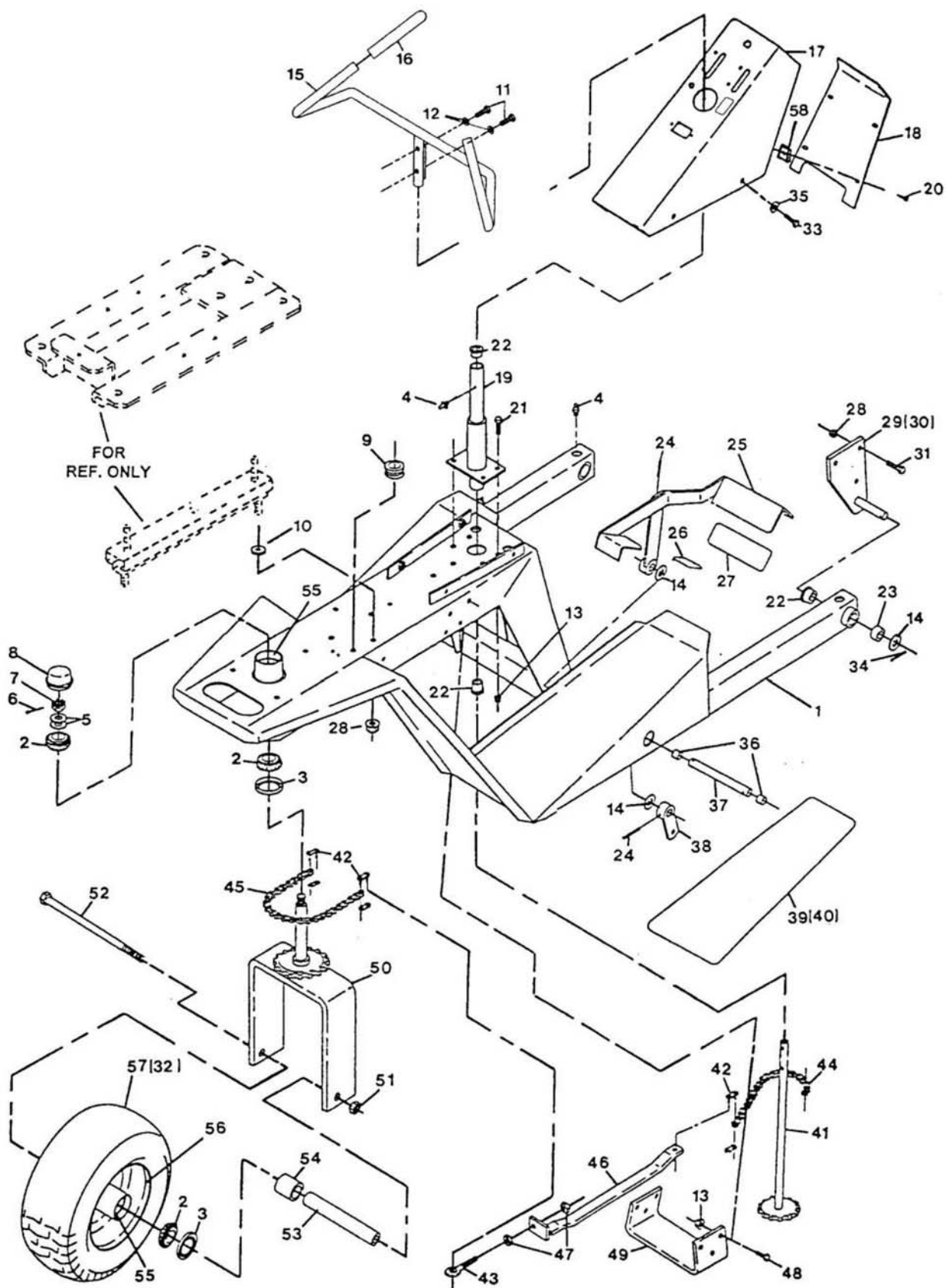
Note: Kit 103-2250 is required to install FMD524 or FMD604 deck to Turf Ranger with Serial No. 319,999 & below. Item 18 idler and item 48 washer are included in kit.

Kohler Replacement Parts List

(Refer to Engine Owner's Manual)

Description	Kohler Part No.
Air Filter Element - Outer	2508301-S
Air Filter Element- Inner	2508304-S

RIDER FRAME and STEERING



RIDER FRAME and STEERING

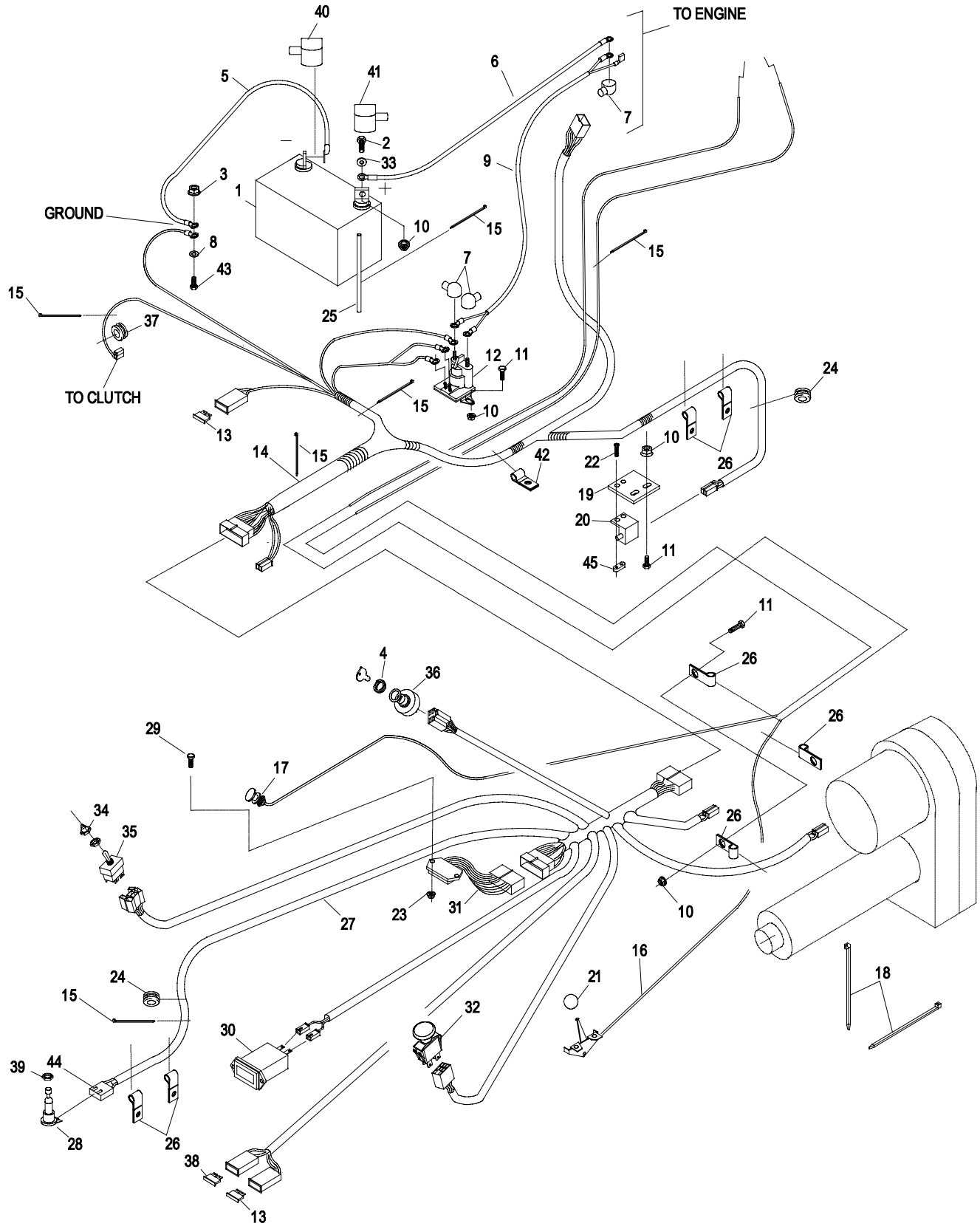
Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-3440	Frame, rider (1-542920-01) w/.. pads,decal,bsgs, & brg cups	1	30 ^f	1-542194-01	Bracket, pivot(LH).....	1
2	1-543509	Bearing cone, tapered roller	4	31	322-5	Capscrew, 5/16-18 x 1	5
3	1-543511	Seal, grease	3	32	1-543679	Tire, 18 x 7.50-8	1
4	302-19	Zerk, 1/4-28 (straight).....	3	33	321-3	Capscrew, 1/4-20 x 5/8	4
5	3256-28	Washer, 3/4sae	2	34	1-806332	Rollpin, 1/4 x 1-1/2	2
6	3272-17	Pin, cotter 5/32 x 1.25.....	1	35	3256-22	Washer, 1/4	4
7	32136-5	Nut, slotted 3/4-16	1	36	1-513588	Bearing, DU.....	2
8	1-543513	Cap, grease	1	37	1-543172-01	Shaft, foot pedal	1
9	1-543296	Grommet.....	1	38	1-542140-01	Lever, foot pedal.....	1
10	3256-3	Washer, 5/16	2	39	1-543159	Pad, rider anti-skid (R)	1
				40	1-543158	Pad, rider anti-skid (L).....	1
11	323-7	Capscrew, 3/8-16 x 1-1/4 ...	2	^f 41	1-552025	Shaft, steering	1
12	98-5975	Washer, 3/8 disc spring	2	42	1-543573	Link, connector #40.....	4
13	3290-357	Nut, flange 3/8-16	10	43	1-543579	Eyebolt, 5/16-18	2
14	1-303007	Washer, 6" caster pivot	4	44	1-543885	Chain, #40-29 Pitch.....	1
15	1-552023-03	Handle bar	1	45	1-543886	Chain, #40-33 Pitch.....	1
16	1-303097	Grip, handle bar.....	2	46	1-542870-01	Link	2
17	103-3438	Console (1-553063-01) w/ decals .	1	47	3218-2	Nut, jam 5/16-18.....	4
18	1-543482-01	Cover, console	1	48	323-6	Capscrew, 3/8-16 x 1	6
19	1-542728-03	Steering post.....	1	49	1-553007-01	Stop, actuator	1
20	32104-60	Screw, 10-24 x 1/2.....	4	50	1-542872-01	Mount, steering wheel.	1
21	323-4	Capscrew, 3/8-16 x 3/4	4	51	1-803042	Nut, torque 5/8-11	1
22	1-303199	Bushing, 6" caster flange....	4	52	1-800346	Capscrew, 5/8-11 x 10-1/2. .	1
23	1-303200	Sleeve, 6" caster.....	2	53	1-543552	Bushing, wheel.....	1
24	1-806331	Roll Pin, 1/4 x 1-1/4	2	54	1-543556	Spacer, wheel (short).....	2
25	103-3439	Pedal, Ft (1-542183-01) w/ pad...	1	55	1-543508	Bearing cup	4
26	1-543161	Pad, reverse control pedal .	1	56	1-543674	Rim	1
27	1-543160	Pad, forward control pedal .	1	57	1-543397	Tire/whl assy, 18.0 x 7.50-8	1
28	32128-20	Nut, whizlock 5/16-18	9	58	1-803055	U-clip, #10-24.....	4
29	1-542196-01	Bracket, pivot (RH)	1				

^f Not Illustrated.

Exmark red touch up spray paint - P/N 1-850337

Exmark black touch up spray paint - Gloss black

ELECTRICAL GROUP

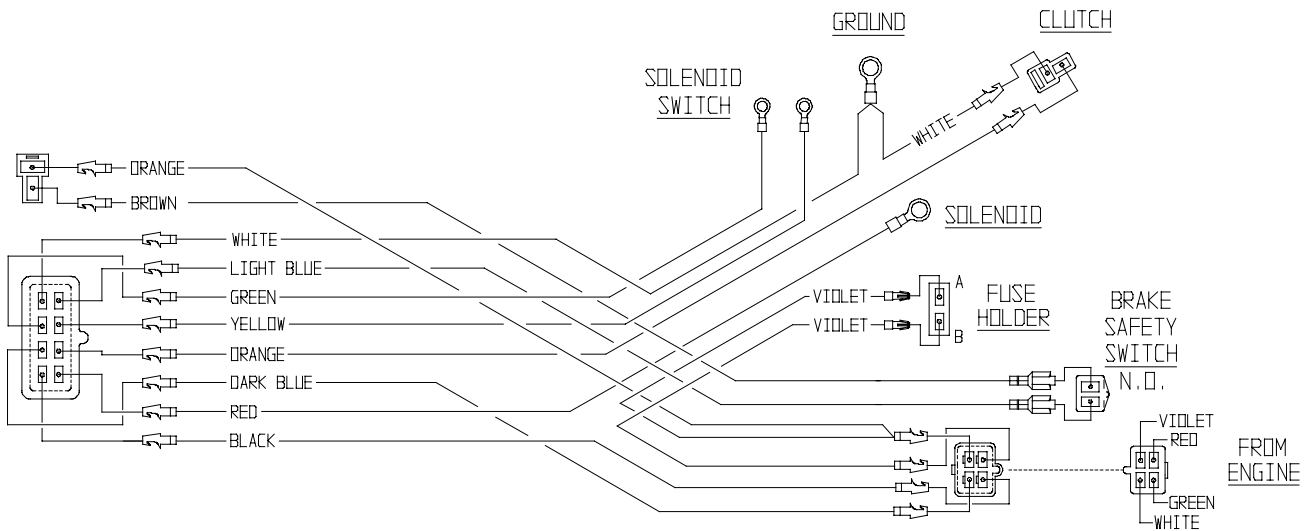


ELECTRICAL GROUP

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-0293	Battery, 12 volt	1	25	1-809040	Hose, Battery manifold (23")	1
2	321-4	Capscrew, 1/4-20 x 3/4	2	26	1-513762	Clip, 1/2" Loom	7
3	32128-20	Nut, whizlock 5/16-18.....	1	27	1-553064	Harness, wire (rider)	1
4	103-0498	Nut, Ignition	1	28	1-603760	Switch, seat safety	1
5	1-543767	Wire, ground (-)	1	29	1-807527	Bolt, carriage. 10-24 x 3/4 ...	4
6	1-603488	Wire, starter.....	1	30	1-513374	Meter, engine hours.....	1
7	1-543393	Insulator, solenoid (pos. +) ..	3	31	1-543316	Module, safety interlock.....	1
8	1-303334	Washer, disc spring 5/16	1	32	1-633673	Switch, toggle w/clip term	1
9	103-1126	Harness, wire	1	33	3256-2	Flatwasher, 1/4	2
10	32128-33	Nut, whizlock 1/4-20.....	12	34	1-543386	Boot, toggle switch	1
11	321-3	Capscrew, 1/4-20 x 5/8	10	35	1-543385	Switch, toggle DPDT	1
12	1-513075	Switch, 12 volt solenoid	1	36	1-543070	Ignition switch w/keys	1
13	1-816001	Fuse, blade 20 AMP	2		103-2106	Key, Exmark logo.....	1
14	1-543065	Harness, wire (engine).....	1		1-603511	Ignition key.....	1
15	1-303287	Plastic tie, (small).....	7	37	1-543286	Grommet.....	1
16	1-633696	Cable, throttle.....	1	38	1-816003	Fuse, blade 30 AMP	1
17	1-603336	Cable, choke	1	39	1-543348	Nut, 5/8-32 (seat switch).....	1
18	1-303335	Plastic tie, (large)	2	40	1-543391	Insulator, battery positive.....	1
19	1-323128	Bracket, safety switch	1	41	1-543390	Insulator, battery negative ...	1
20	1-513051	Switch, neutral lockout	1	42	1-603727	Clip, 9/16 Loom.....	1
21	1-513592	Knob, red ball.....	1	43	322-9	Capscrew, 5/16-18 x 1-3/4 ..	1
22	32108-55	Screw, 10-24 x 5/8 flathead .	2	44	1-543335	Connector, Packard 2-way ..	1
23	3296-2	Nut, nylock 10-24	4	45	1-633181	Plate, tapped.....	1
24	1-543296	Grommet	1				

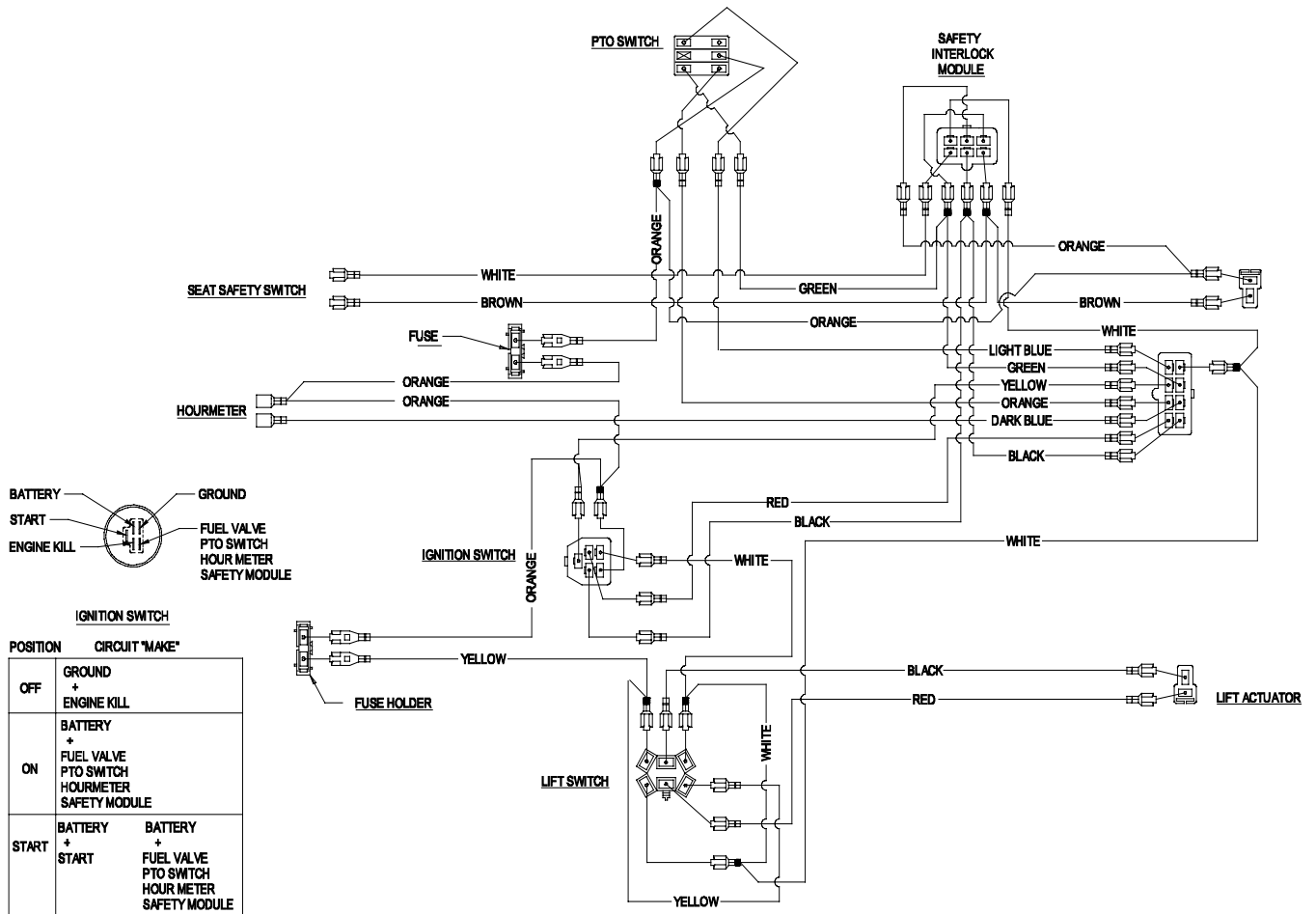
NOTE: Apply dielectric grease to all electrical connectors.

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.

SERVICE RECORD

[illegible]

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