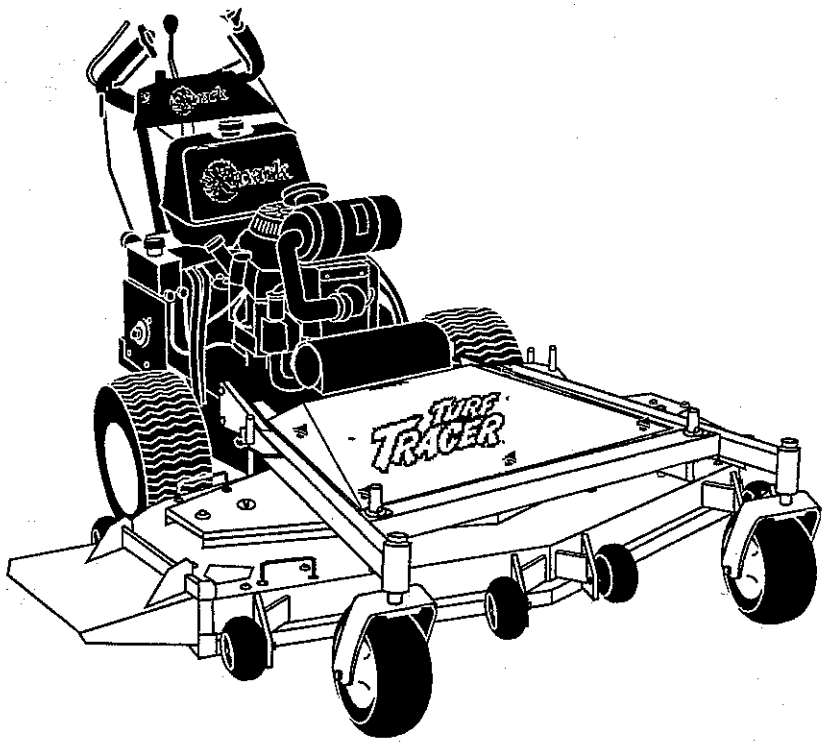
For Turf Tracer
Serial Nos. 440,000 & Higher
and
FMD524 & FMD604
Serial Nos. 440,000 & Higher

eXmark® MFG. CO. INC.



PARTS MANUAL

TURF TRACER®

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 located on top of the engine frame on the left hand side of the machine just inside the left wheel.
The Serial No. Plate for the mower deck is located 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) _____

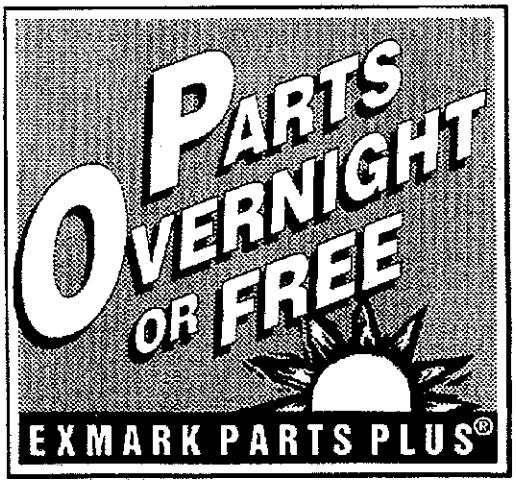
Date Purchased _____

Part No. 103-4868

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.

⚠ WARNING

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

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52" DECK GROUP FMD524

Item	Part No.	Description	Qty.
1	103-0862	Capscrew, 5/8-18 x 2 3/4, Gr8	3
2	323-6	Capscrew, 3/8-16 x 1	2
3	98-5975	Washer, Disc Spring 3/8	11
4	3290-357	Nut, Whizlock 3/8-16	17
5	323-7	Capscrew, 3/8-16 x 1 1/4	18
6	3217-46	Nut, HH 3/4-16 Heavy	3
7	103-2802	Washer, Spring Disc	3
8✚	103-2794	Sheave, Blade Drive	3
9	103-2535	Spacer, Guard Bottom	3
10✚	103-2785	Spindle, Outer Blade (Short)	2
11	1-373034	Washer, Pivot	6
12✚	103-2786	Spindle, Center Blade (Long)	1
13	103-2982	Key, 1/4 x 3/16 x 3/4	4
14✚	103-2793	Sheave, Mower Drive	1
15✚	103-1330	Guard, Bearing Top	3
16✚	103-2547	Housing W/Bearings	3
17	322-3	Capscrew, 5/16-18 x 3/4	1
18	103-2969-01	Cover, Deck	2
19	103-2329	Belt, Blade Drive	1
20	323-23	Capscrew, 3/8-16 x 4.5	1
21●	103-3199	Housing, Cutter Complete (Center)	1
22●	103-3200	Housing, Cutter Complete (Outer)	2
23	103-3209	Spacer, Tube	1
24	1-413425	Spacer	2
25	103-0865	Washer, Blade Bolt Hvy	3
26	323-9	Capscrew, 3/8-16 x 1 3/4	2
27	1-603050	Spacer	4
28	1-633988	Spacer	1
29	1-800017	Bolt, Tap 5/16-18 x 3 1/4	2
30	1-513791	Bushing	1
31	3256-3	Washer, 5/16 Flat	6
32	323-12	Capscrew, 3/8-16 x 2 1/2	4
33	3219-3	Nut, Hex 3/8-24	2
34	1-603805	Idler	1
35	1-613098	Idler	1
36	103-2335	Deck, 103-2321-01 W/ Decals	1

Item	Part No.	Description	Qty.
37	103-2348-01	Chute, Discharge	1
38	322-5	Capscrew, 5/16-18 x 1	2
39	3296-29	Nut, Nyloc 5/16-18	8
40	322-2	Capscrew, 5/16-18 x 5/8	5
41	1-303516	Pulley, V-Idler	2
42	32128-20	Nut, Whizlock 5/16-18	8
43	1-806332	Roll Pin, 1/4 x 1-1/2	2
44✳	1-414521	Link Assy	2
45	1-603413	Spring, Extension	1
46	1-603497	Pulley, Idler	1
47	3234-11	Screw, Whizlock 3/8-16 x 1	2
48	3296-39	Nut, Nyloc 3/8-16	20
49	3256-4	Washer, 3/8	3
50	1-513034	Bearing, Pivot	4
51	1-602604	Idler Arm Assy W/Bearings	1
52	1-603384	Bushing, Idler Pivot	2
53	1-602865	Idler Arm, W/ Bearings Deck Drive	1
54	302-40	Zerk, 1/4-28 (90°)	2
55	103-2327	Complete Deck Assembly	1
56	1-413525	Link, Rear Deck Support	2
57	1-613204	Balljoint	2
58◆	1-603299	Roller, Anti Scalp	6
59	98-5961	Capscrew, 3/8-16 x 4 Gr8	6
60	1-603602	Bushing, Roller	6
61	1-603620-01	Bracket, Spring Anchor	1
62	1-800805	Capscrew, 3/8-16 x 3-1/2 Gr8	2
63	1-603414	Spring, Extension	1
64	1-602913-01	Baffle	1
65	1-603001	Rod, Deck Support	2
66	3256-24	Washer, 3/8 SAE Flat	5
67	103-2528	Blade, Notched	3
	103-1578	Blade, Solid	3
	103-2508	Blade, Low Lift	3
▲	103-2518	Blade, Mulching	3
68	1-806009	Hairpin, Cotter	4
69	1-323539	Spacer	2

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

✚ Apply Mobil HTS grease (P/N 103-5217 1.5 oz packet) (or a food-grade anti-sieze) between the spindles & bearings and spindles & sheaves and under top bearing guard. DO NOT use a copper or nickel based anti-sieze.

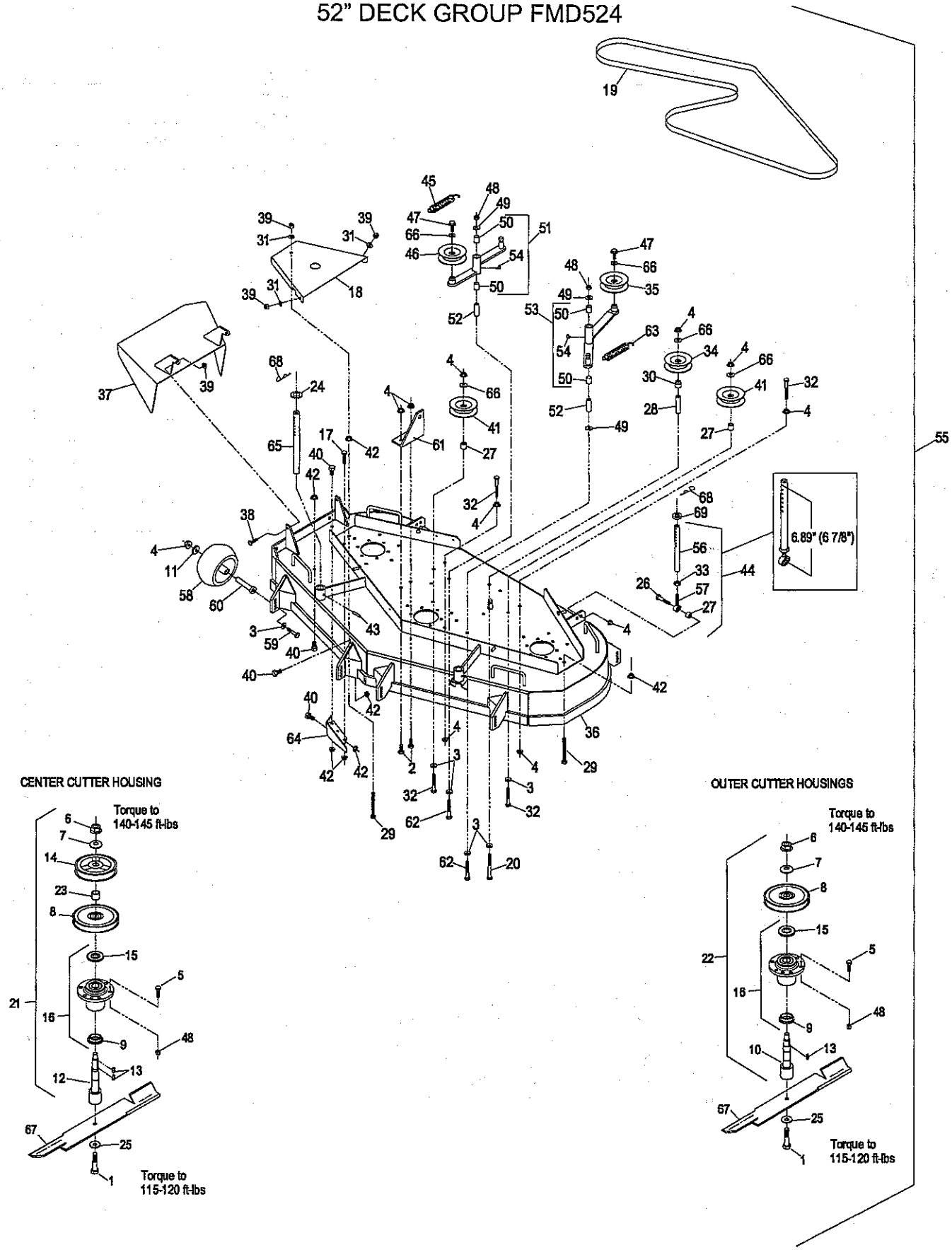
● Complete cutter housings also include items #1 & #25.

✳ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on next 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 th other by an equal amount.

◆ Kit 103-3168 includes antiscalp roller, bushing, & mounting hardware.

▲ Requires installation of Micro-Mulch accessory for proper mulching. Mulch kit P/N MK524.

52" DECK GROUP FMD524



60" DECK GROUP FMD604

Item	Part No.	Description	Qty.
1	103-0862	Capscrew, 5/8-18 x 2 3/4, Gr8	3
2	323-6	Capscrew, 3/8-16 x 1	2
3	98-5975	Washer, Disc Spring 3/8	11
4	3290-357	Nut, Whizlock 3/8-16	17
5	323-8	Capscrew, 3/8-16 x 1 1/2	18
6	3217-46	Nut, HH 3/4-16 Heavy	3
7	103-2802	Washer, Spring Disc	3
8✚	103-2794	Sheave, Blade Drive	3
9	103-2535	Spacer, Guard Bottom	3
10✚	103-2785	Spindle, Outer Blade (Short)	2
11	1-373034	Washer, Pivot	6
12✚	103-2786	Spindle, Center Blade (Long)	1
13	103-2982	Key, 1/4 x 3/16 x 3/4	4
14✚	103-2791	Sheave, Mower Drive	1
15✚	103-1330	Guard, Bearing Top	3
16✚	103-2547	Housing W/Bearings	3
17	322-3	Capscrew, 5/16-18 x 3/4	1
18✳	1-414521	Link Assy	2
19	1-633173	Belt, Blade Drive	1
20	323-23	Capscrew, 3/8-16 x 4.5	1
21●	103-3205	Housing, Cutter Complete (Center)	1
22●	103-3200	Housing, Cutter Complete (Outer)	2
23	103-3209	Spacer, Tube	1
24	1-413425	Spacer	2
25	103-0865	Washer, Blade Bolt Hvy	3
26	323-9	Capscrew, 3/8-16 x 1 3/4	2
27	1-603050	Spacer	4
28	1-633988	Spacer	1
29	1-800017	Bolt, Tap 5/16-18 x 3 1/4	2
30	1-513791	Bushing	1
31	3256-3	Washer, 5/16 Flat	6
32	323-12	Capscrew, 3/8-16 x 2 1/2	4
33	3219-3	Nut, Hex 3/8-24	2
34	1-603805	Idler	1
35	1-613098	Idler	1
36	103-2278	Deck, 103-2267-01 W/ Decals	1
37	103-2349-01	Chute, Discharge	1

Item	Part No.	Description	Qty.
38	322-5	Capscrew, 5/16-18 x 1	2
39	3296-29	Nut, Nyloc 5/16-18	8
40	322-2	Capscrew, 5/16-18 x 5/8	5
41	1-303516	Pulley, V-Idler	2
42	32128-20	Nut, Whizlock 5/16-18	8
43	103-2967-01	Shield, Belt RH	1
44	103-2968-01	Shield, Belt LH	1
45	1-603413	Spring, Extension	1
46	1-603497	Pulley, Idler	1
47	3234-11	Screw, Whizlock 3/8-16 x 1	2
48	3296-39	Nut, Nyloc 3/8-16	20
49	3256-4	Washer, 3/8	3
50	1-513034	Bearing, Pivot	4
51	1-602604	Idler Arm Assy W/Bearings	1
52	1-603384	Bushing, Idler Pivot	2
53	1-602865	Idler Arm, W/ Brngs Deck Drive	1
54	302-40	Zerk, 1/4-28 (90°)	2
55	103-2279	Complete Deck Assy	1
56	1-413525	Link, Rear Deck Support	2
57	1-613204	Balljoint	2
58◆	1-603299	Roller, Anti Scalp	6
59	98-5961	Capscrew, 3/8-16 x 4 Gr8	6
60	1-603602	Bushing, Roller	6
61	1-603620-01	Bracket, Spring Anchor	1
62	1-800805	Capscrew, 3/8-16 x 3 1/2 Gr8	2
63	1-603414	Spring, Extension	1
64	1-602913-01	Baffle	1
65	1-603001	Rod, Deck Support	2
66	3256-24	Washer, 3/8 SAE Flat	5
67	103-2530	Blade, Notched	3
	103-1580	Blade, Solid	3
	103-2510	Blade, Low Lift	3
▲	103-0301	Blade, Mulching	3
68	1-806009	Hairpin, Cotter	4
69	1-323539	Spacer	2
70	1-806332	Roll Pin, 1/4 X 1-1/2	2

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

✚ Apply Mobil HTS grease (P/N 103-5217 1.5 oz packet) (or a food-grade anti-sieze) between the spindles & bearings and spindles & sheaves and under top bearing guard. DO NOT use a copper or nickel based anti-sieze.

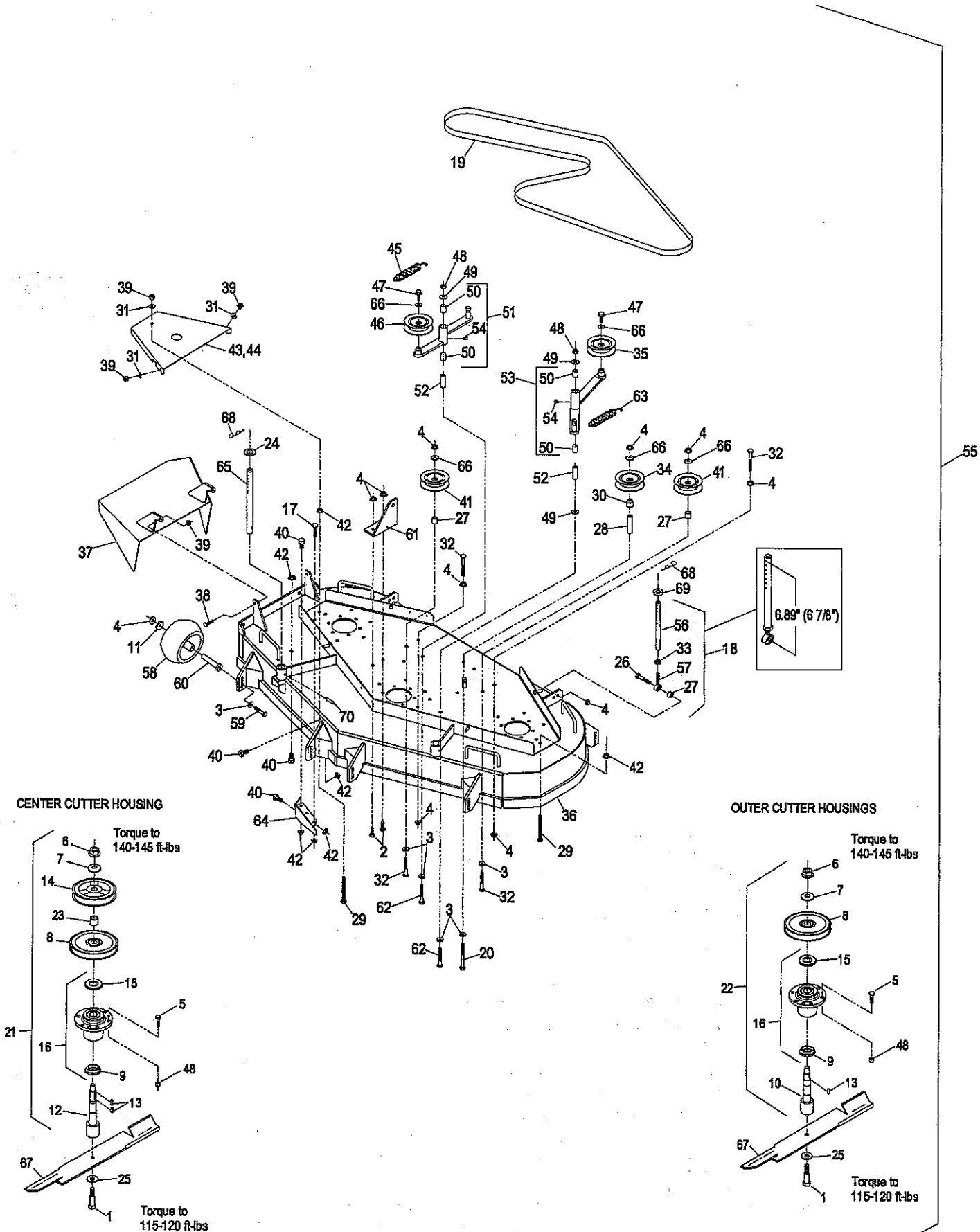
● Complete cutter housings also include items #1 & #25.

✳ Link assembly nominal length is 6.89" (or approx. 6 7/8") between center of ball joint & center of furthest hole. See diagram on next 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 th other by an equal amount.

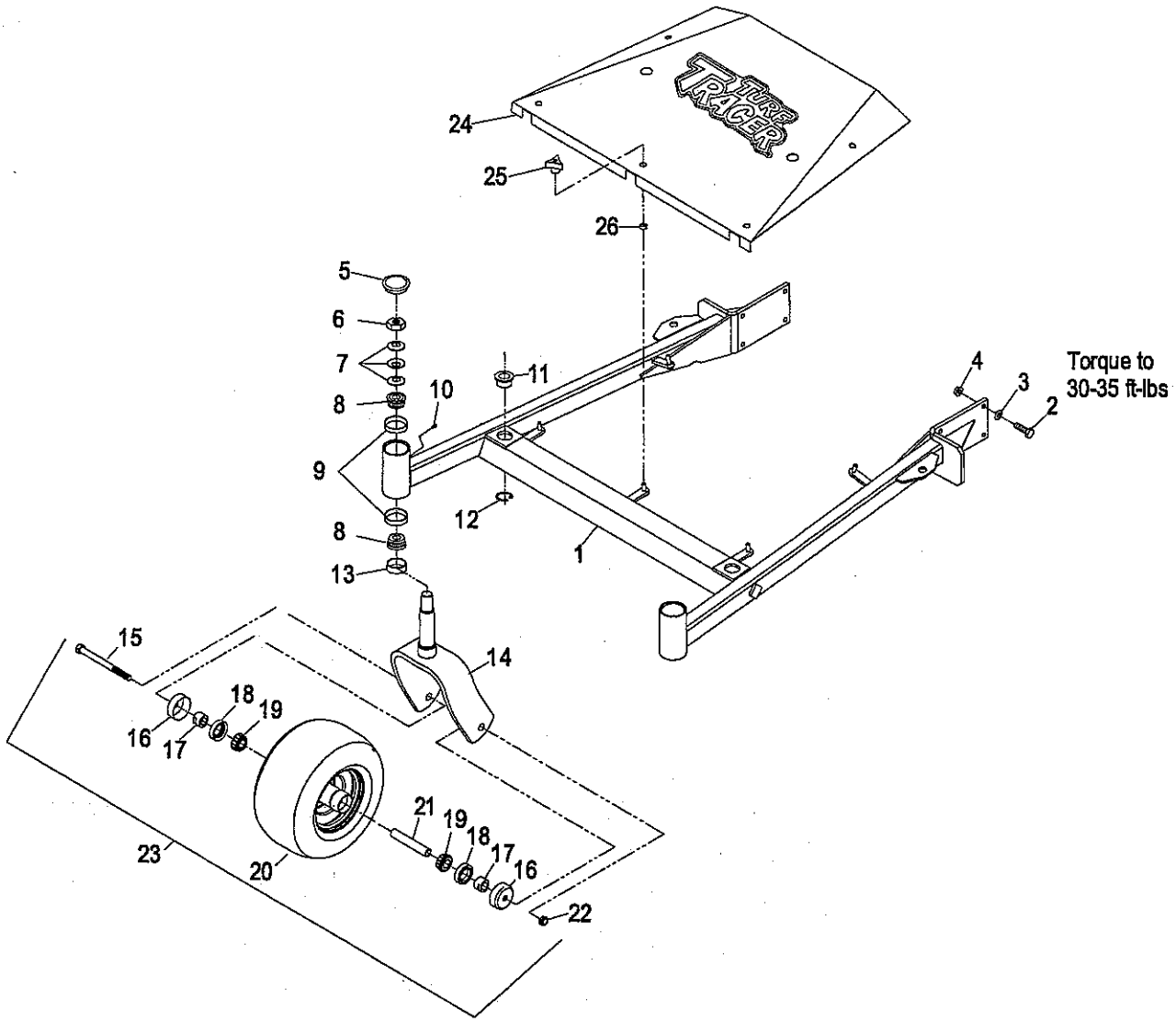
◆ Kit 103-3168 includes antiscalp roller, bushing, & mounting hardware.

▲ Requires installation of Micro-Mulch accessory for proper mulching. Mulch kit P/N MK604.

60" DECK GROUP FMD604



52" and 60" DECK SUPPORT FMD524 and FMD604



Item	Part No.	Description	Qty.
1▲	103-1895	Support, Deck (103-4959-01) (52")	4
▲	103-1896	Support, Deck (103-4960-01) (60")	
2	323-7	Capscrew, 3/8-16 x 1 1/4	8
3	98-5975	Washer, Disc Spring 3/8	8
4	3290-357	Nut, Whizlock 3/8-16	8
5	103-4882	Cap, Grease	2
6	3296-51	Nut, Nyloc 3/4-10	2
7	1-633508	Washer, Spring Disk	6
8	1-543509	Bearing, Cone Tapered Roller	4
9	1-543508	Bearing, Cup Tapered Roller	4
10	1-811010	Plug	2
11	1-513336	Bushing, Deck Support	2
12	32120-33	Ring, Retaining (External)	2
13	1-543511	Seal, Grease	2
14	103-1891-01	Fork, Caster	2

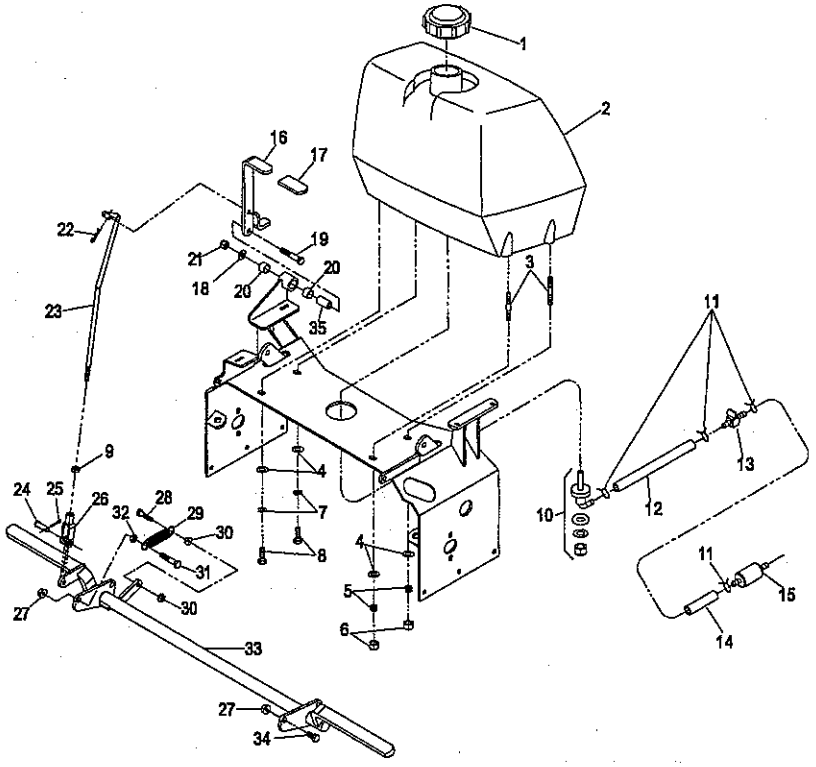
Item	Part No.	Description	Qty.
15	325-20	Capscrew, 1/2-13 x 6	2
16	103-2768	Guard	4
17✚	103-3051	Spacer, Nut	4
18	103-0063	Seal, Caster	4
19	1-633585	Bearing, Cone	4
20	1-513032	Tire, 11 x 4-5 4 Ply	2
21	103-3157	Axle, Caster	2
22	3296-45	Nut, Nyloc 1/2-13 Thin	2
23	103-3800	Asm, Wheel & Tire With Axle.	2
24	103-2332	Shield, Belt (103-2319-01) W/Decal (52")	1
	103-2275	Shield, Belt (103-2273-01) W/Decal (60")	1
25	1-323385	Knob, 3 Prong	5
26	1-323417	Washer, Belt Cover Mounting	5

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

✚ Use Pro-Lock, Nut Type (P/N 1-840022, .5ml tube) on spacer nut, Item #17.

▲ Includes frame weldment plus items #5, #9, #10, #11, #12 and #13.

ENGINE DECK GROUP



Item	Part No.	Description	Qty.
1	103-2107	Cap, Gas	1
2	103-1929	Gas Tank	1
3◆	1-633023	Stud, Fuel Tank	2
4	3256-23	Washer, Flat 5/16 Std	4
5	1-633349	Spring, Fuel Tank	2
6	3296-47	Nut, Nyloc 5/16-18	2
7	1-805005	Washer, 5/16 Lock	2
8	322-3	Screw, 5/16-18 x 3/4	2
9	3220-3	Nut, 3/8-24 Jam	1
10✚	103-2605	Fitting, Fuel Bulkhd W/ Screen	1
11	1-303077	Clamp, Fuel Line	4
12	1-543649	Hose, Fuel 7.0 (KAW)	1
	1-303022	Hose, Fuel 8.5 (KOH)	1
13	1-603770	Valve, Fuel	1
14	1-603776	Hose, Fuel 2.5 (KOH)	1
	1-303022	Hose, Fuel 8.5 (KAW)	1
15	**Kohler**	Part No. 2405002 Fuel Filter	1
	Kawasaki	Part No. 49019-7001 Fuel Filter	1
16	103-3423	Lever, Park Brake (103-2208-03) W/Decal & Grip	1

Item	Part No.	Description	Qty.
17	1-303020	Grip, Lever	1
18	3256-24	Washer, 3/8 SAE Flat	1
19	323-10	Screw, 3/8-16 x 2	1
20	1-413347	Sleeve, Bushing	2
21	3296-39	Nut, 3/8-16 Nyloc	1
22	1-806003	Hairpin, Cotter	1
23	103-1951	Linkage, Park Brake	1
24	1-808285	Pin, Clevis 3/8 x 1 1/8	1
25	3272-10	Pin, Cotter 1/8 x 3/4	1
26	1-633131	Yoke, Brake Linkage	1
27	3290-357	Nut, 3/8-16 Whizlock	4
28	322-6	Screw, 5/16-18 x 1 1/4	1
29	1-323161	Spring	1
30	32128-20	Nut, 5/16-18 Whizlock	2
31	323-9	Screw, 3/8-16 x 1 3/4	1
32	3218-3	Nut, Jam 3/8-16	1
33	103-2205-03	Brake Weldmt	1
34	323-4	Screw, 3/8-16 x 3/4	3
35	1-413344	Bushing, Pivot	1

Exmark black touch up spray paint – Gloss black.

✚ Use Pro-lock, nut type (P/N 1-840022, .5ml tube) on fuel fitting threads.

◆ Use Pro-lock, retaining type (P/N 1-840023, .5cc tube) on stud threads going into the tank.

Kohler Replacement Parts List

(Refer to Engine Owner's Manual)

Description	Kohler P/N
Air Filter Element – Outer	2508301-S
Air Filter Element – Inner	2508304-S

Kawasaki Replacement Parts List

Description	Kawasaki P/N
Air Filter Element Kit (Inner & Outer)	11010-7004

ENGINE DECK GROUP (cont.)

Item	Part No.	Description	Qty.
1	103-3422	Eng Deck 103-2963-01 W/ Decals	1
2✳	103-1963	Valve, Oil Drain (KOH)	1
3✳	103-1965	Valve, Oil Drain (KAW)	1
4	103-1966	Adapter, M20-2.5 x 3/8 NPT	1
5	1-602997	Hub, 4 Bolt	2
	1-633926	Stud	8
6	103-1715	Tire And Wheel Assy	2
	103-2237	Tire Only 18 x 8.50	2
	103-2238	Wheel Only	2
7	242-50	Nut, Wheel	8
8	1-807019	Key, Woodruff 1" x 1/4"	2
9	1-806800	Pin, Cotter 9/64 x 1 1/2	2
10	32136-5	Nut, 3/4-16-2B Slotted Hex	2
11	1-613089	Anchor, Spring	2
12	1-413510	Clip, Loom 2.06 Dia	3
13	1-807259	Key, 1/4 x 1/4 x 1	1
14	103-2240	Belt, Deck Drive(52")	1
	1-603306	Belt, Deck Drive(60")	1
15	103-0662	Clutch W/Plastic Tie	1
16	1-633543-03	Strap, Clutch	1
17	1-323195	Standoff, Clutch	1
18	1-303287	Plastic Tie, Small	1
19	103-1167	Joint, .38x.38FE LH Ball End (ECS)	2
20●	1-653035	Sheave, 4 1/4 O.D	1
21	1-413010	Sheave, Pump	2
22	1-807272	Key, 5mm Sq x 25mm	2
23▲	1-803050	Setscrew, 5/16-18 x 3/4	4
24	1-603843	Pulley, Idler	1
25	1-603496	Bushing, Idler	1
26	1-602521	Idler Arm W/Bushings	1
27	1-603044	Bushing, Idler Pivot	1
28	1-603402	Spring, Extension	1
29	103-4681	Bearing, Pivot	2
30	302-19	Zerk, Grease 1/4-20	3
31	1-633102	Bearing, Flanged	2
32	1-613206	Rod, Control Arm	2
33	1-323245	Spring	1
34	1-603676	Swivel	2
35	1-413151	Knob, Tracking	1
36	103-4673-01	Support, Tank/Handle (ECS)	1
	103-5353-01	Support, Tank/Handle (Pistol Grip)	1
37	103-1561-01	Arm, Control LH	1
38	103-1562-01	Arm,Control RH(Not Shown)	1
39	1-613271	Belt,Hyd Trans Drive ("A" Belt)	1
40	1-603693	Spring, Extension	2
41	103-2234-01	Crank Weldmt	1
42	1-603737	Bolt, Neutral Return	2
43	103-0265	Spring, Neutral Return (ECS)	2
	1-603807	Spring, Neutral Return (Pistol Grip)	2

Item	Part No.	Description	Qty.
44	1-603735	Bushing, Flanged	2
45	1-303105	Yoke, Adjustable	2
46	322-3	Screw, 5/16-18 x 3/4	13
47	103-2421	Tube, Pump Link Spacer (ECS)	2
48	3290-357	Nut, 3/8-16 Whizlock (ECS)	4
	3290-357	Nut, 3/8-16 Whizlock (Pistol Grip)	3
49	32128-20	Nut, 5/16-18 Whizlock	28
50	322-38	Screw, 5/16-18 x 4 1/2	1
51	322-6	Screw, 5/16-18 x 1 1/4	1
52▲	3212-10	Screw, 7/16-20 x 2 1/2 (KOH)	1
	3212-12	Screw, 7/16-20 x 3 (KAW)	1
53	1-603610	Washer, Spring Disc	2
54	1-633545	Spacer, Clutch Anchor	2
55	1-613235	Washer	4
56	3296-29	Nut, Nyloc 5/16-18	5
57	322-7	Screw, 5/16-18 x 1 1/2	4
58	1-303334	Washer, 5/16 Disc Spring	4
59	1-800016	Bolt, Tap 5/16-18 x 1 1/4	2
60▲	323-12	Screw, 3/8-16 x 2 1/2	1
61	3253-5	Washer, Lock 3/8 Heavy	1
62	1-373034	Washer, Pivot	1
63	3231-29	Screw, 3/8-16 x 1 3/4	1
64	1-806003	Hairpin, Cotter	2
65	1-808280	Clevis Pin	2
66	3256-23	Washer, 5/16	11
67	1-403180	Screw, 5/16-18 x 1-3/8 Special	2
68	1-603903	Spacer	1
69	3219-2	Nut 5/16-24 Regular	7
70	3220-2	Nut, 5/16-24 Jam	2
71	3256-2	Washer, 1/4	2
72	323-8	Screw, 3/8-16 x 1 1/2 (ECS)	2
73	322-6	Screw , 5/16-18 x 1-1/4	2
74	1-805005	Washer, Lock 5/16 Heavy	4
75▲	1-809056	Screw,3/8 x 3/8 Sckt Hd Shld	2
76	3256-24	Washer, 3/8 SAE Flat	3
77	3234-12	Screw, Whizlock 3/8-16 x 3/4	8
78	1-633630	Grommet	2
79	103-1576	Rod, Drive Lever (ECS)	2
	1-613189	Rod, Drive Lever (Pistol Grip)	2
80▲	1-803022	Setscrew, 5/16-18 x 5/8	2
81	3272-5	Cotter Pin	2
82	1-303335	Plastic Tie (Large)	1
83	103-2224	Shield, Drag	1
84	3256-3	Washer, Flat 5/16 Std	3
85	3220-16	Nut, Jam 3/8-24 LH	2
86	3128-2	Nut, Jam 5/16-18	2
87	103-1235	Swivel	2
88	32151-47	E-ring	2

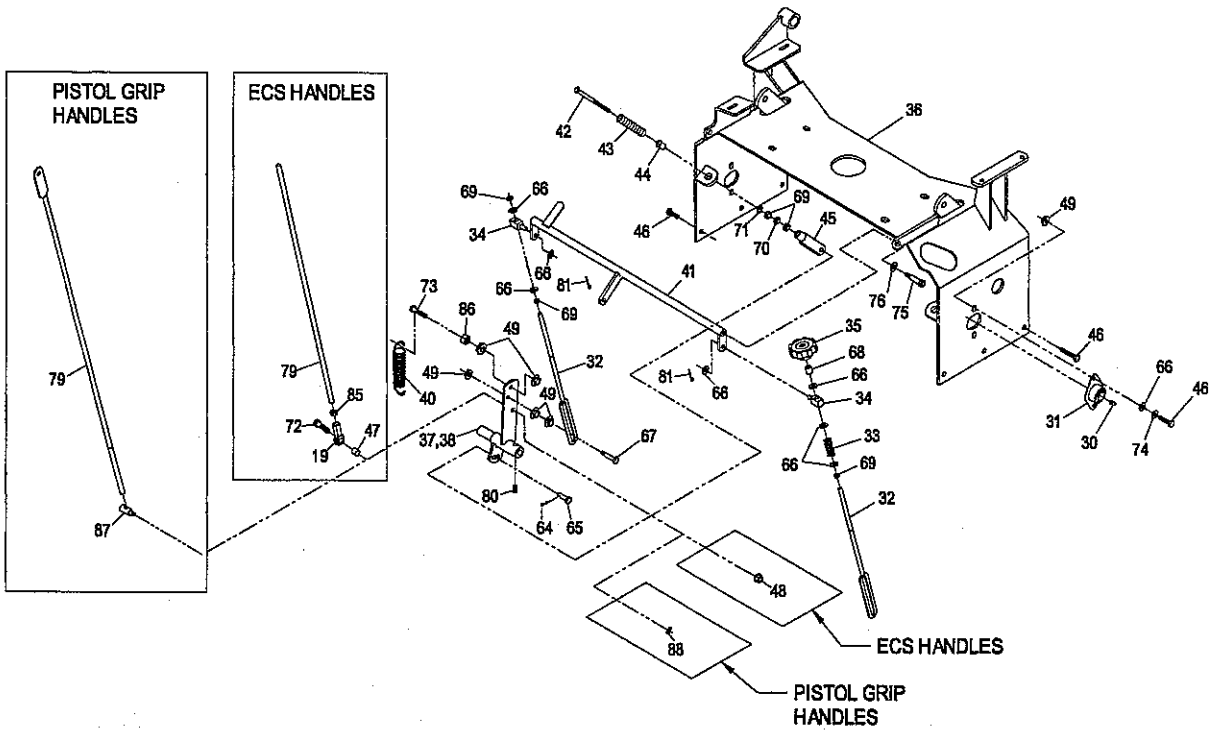
Exmark black touch up spray paint – Gloss black.
Exmark red touch up spray paint - P/N 1-850337.

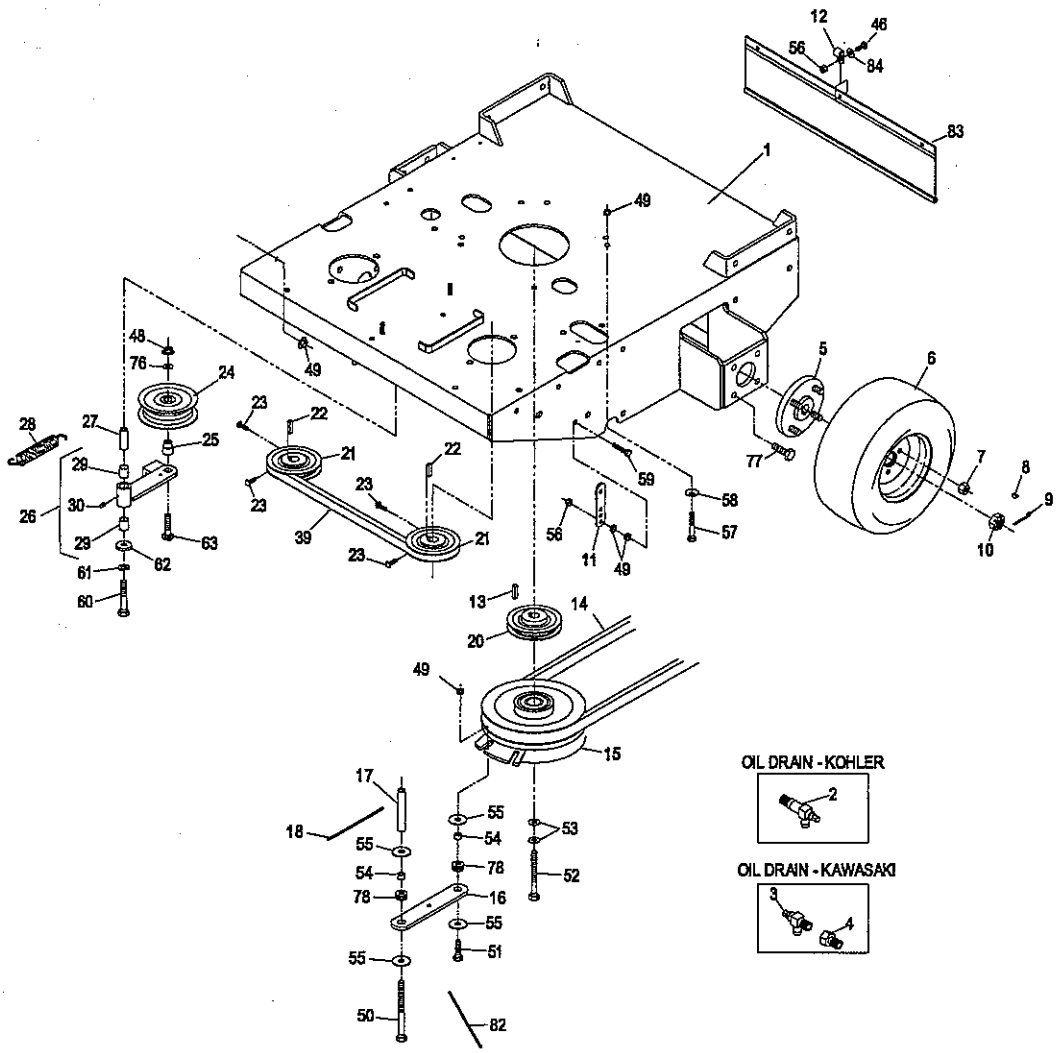
✳ Use Teflon Pipe Sealant or equivalent on threads.

● Install sheave with long end of hub up.

▲ Use Pro-Lock, nut type (P/N 1-840022, .5cc tube) on setscrew threads, shoulder bolt threads, clutch retaining bolt, and pump drive idler bolt.

ENGINE DECK GROUP (cont.)





ECS UPPER HANDLES AND CONTROLS

Item	Part No.	Description	Qty.
1	322-9	Screw, 5/16-18 x 1 3/4	2
2	1-806003	Hairpin Cotter	2
3✚	103-1566-03	Lever Weldmt OPC LH	1
4◆	1-803322	Setscrew, 5/16-24 x 5/16	2
5	1-303365	Bushing, Nylon	2
6	103-0769-03	Lever Axle Weldmt, OPC	1
7	1-303363	Spring, OPC Extension	1
8✚	103-1567-03	Lever Weldmt, OPC RH	1
9	1-807513	Bolt, #10-24 x 1/2 Carriage	2
10	1-513592	Knob, Red Throttle	1
11	1-633696	Cable, Throttle	1
12	3296-2	Nut, #10-24 Nylock	2
13	103-1537-03	Handle Weldmt, Upper ECS	1
14	103-0815	Grip, Handle Bar	2
15	1-413152	Bearing	4
16	103-2466-03	Lever, Drive LH	1
17	103-0027	Bushing, Drive Lever	2
18	321-14	Screw,1/4-20 x 2 3/4	2
19	32128-33	Nut, 1/4-20 Whizlock	12
20	103-0464	Pin,1/8 x 1/2 Spring	2
21	3256-22	Washer 1/4 SAE Flat	10
22	1-303435	Washer, 1/4 Disc Spring	6
23	103-1371	Thumb Latch Asm RH(Shown)	1
	103-1372	Thumb Latch Asm LH (Not Shown)	1
24◆	103-0235	Screw, 1/4-20 x 1-1/8 W/Nylon	2
25	103-2465-03	Lever, Drive RH	1

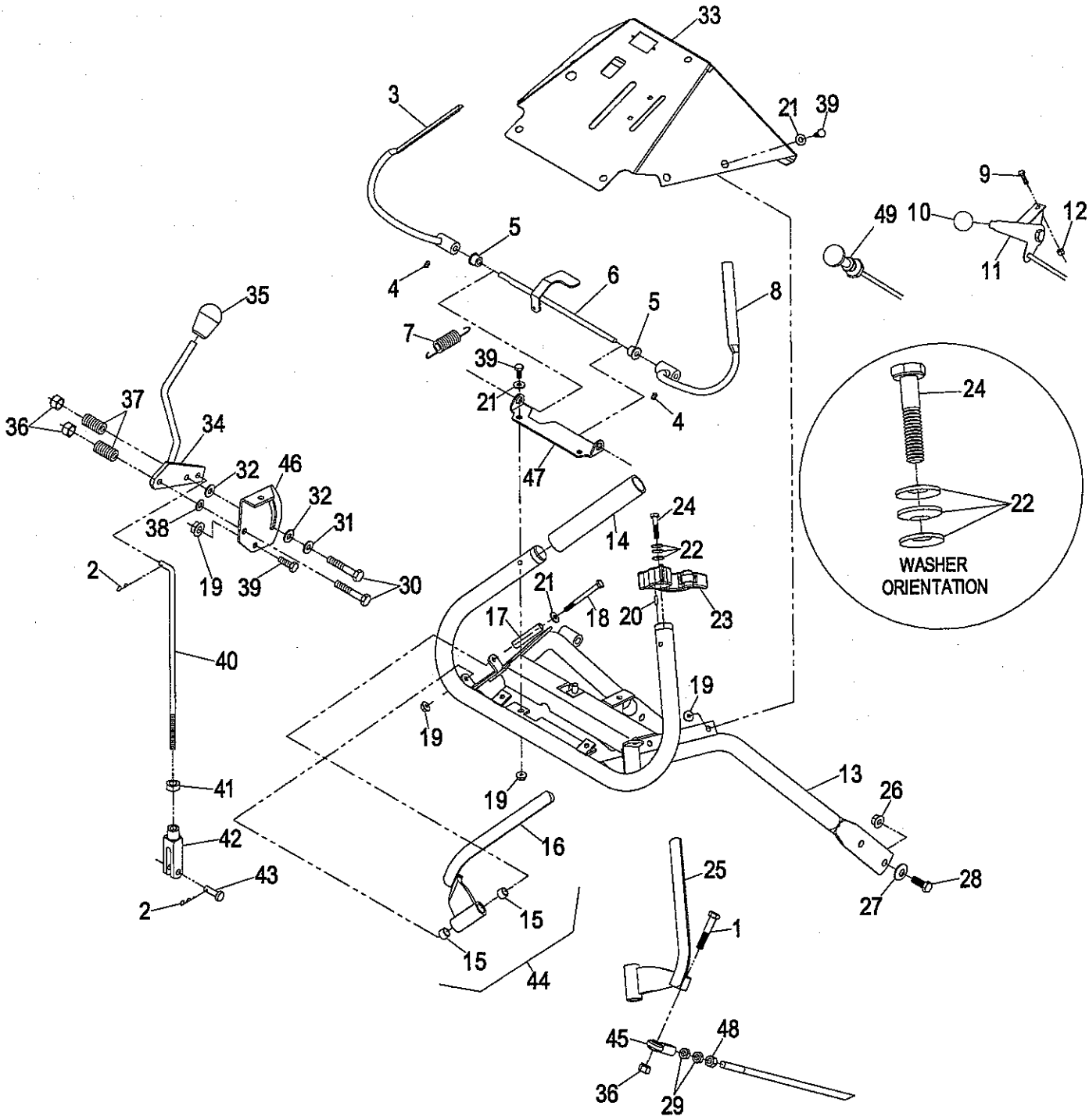
Item	Part No.	Description	Qty.
26	3290-357	Nut, 3/8-16 Whizlock	4
27	98-5975	Washer, 3/8 Disc Spring	4
28	323-6	Screw, 3/8-16 x 1	4
29	3220-3	Nut, Jam 3/8-24	4
30	322-10	Screw, 5/16-18 x 2	2
31	1-603716	Washer, Friction Disc	1
32	1-323244	Washer, Friction	2
33	103-1552	Console 103-1538-03 W/ Decals	1
34	103-0773	Speed Shift Weldmt	1
35	103-0423	Knob .38-16 Nyloc	1
36	3296-29	Nut, 5/16-18 Nyloc	4
37	1-323245	Spring, Compression	2
38	3256-23	Washer 5/16 SAE Flat	1
39	321-3	Screw, 1/4-20 x 5/8	10
40	1-413225	Rod, Speed Control	1
41	3220-2	Nut, 5/16-24 Jam	1
42	1-303105	Yoke	1
43	1-808280	Clevis Pin 5/16 x 1	1
44	103-2513	Asm, Drive Lever RH	1
	103-2514	Asm, Drive Lever LH	1
45	103-2463	Joint,.31 Ball End	2
46	103-0503	Bracket, Shifter Slide	1
47	103-0489-03	Bracket, OPC Axle	1
48	3219-3	Nut, Reg Hex 3/8-24	2
49	1-603336	Choke Control Push/Pull	1

Exmark black touch up spray paint – Gloss black.

◆ Use Pro-Lock nut type, (P/N. 1-840022, .5cc tube) on setscrew threads and thumb latch screw threads.

✚ Use Pro-Lock retaining type, (P/N. 1-840023, .5cc tube) on inside of bore of OPC hub.

ECS UPPER HANDLES AND CONTROLS



PISTOL GRIP HANDLES AND CONTROLS

Item	Part No.	Description	Qty.
1	103-0215	Handle Widmnt W/Decals	1
2	1-303097	Grip, Handle	2
3	1-612187-01	Rod Wldmnt, OPC	1
4	1-303363	Spring	1
5✚	1-412183-03	Lever Wldmt, OPC LH	1
6	1-303365	Bushing, Nylon	2
7✚	1-412185	Lever Weldmt, OPC RH	1
8◆	1-803322	Setscrew 5/16-24 x 5/16	2
9	1-633696	Throttle Control	1
	1-613247	Throttle Control (KOH)	1
10	1-513592	Knob, Red Throttle	1
11	1-603336	Choke Control Push/Pull	1
12	103-0219	Asm Drive Lever RH W/Bushing (Shown)	1
13	103-0218	Asm Drive Lever LH W/Bushing (Not Shown)	1
14	1-603749	Bushing, Drive Lever	2
15	1-413152	Bearing, Sleeve	4
16	1-612168	Latch, Thumb RH W/Grip (Shown)	1
17	1-612167	Latch, Thumb LH W/Grip	1
18	1-303019	Grip, Vinyl Latch	2
19	106-2748	Lever, Shifter	1
20◆	1-603175	Knob, 1-3/8	1
21	1-323245	Spring, Compression	2

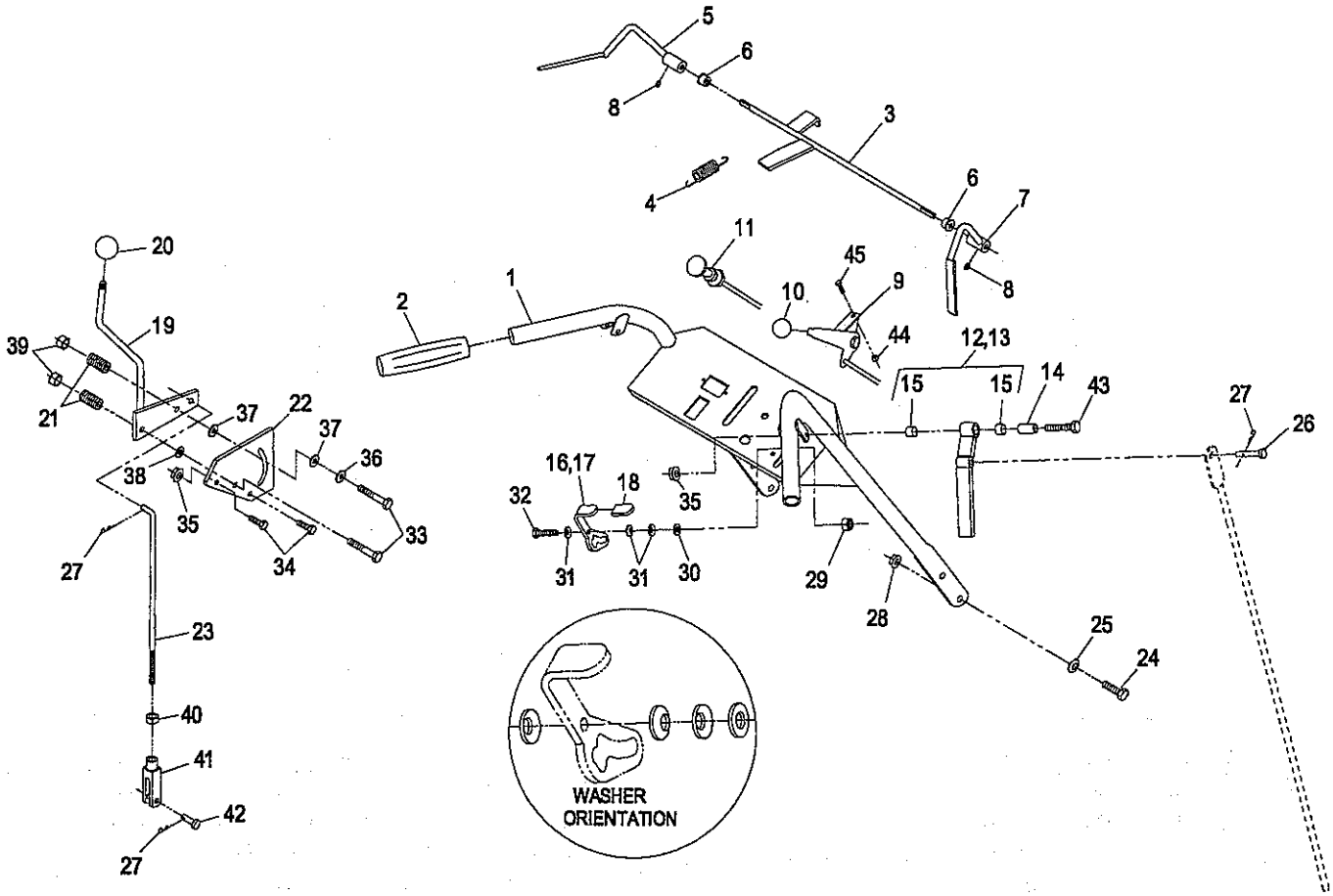
Item	Part No.	Description	Qty.
22	1-603730	Plate, Shifter Lever	1
23	1-603700	Rod, Speed Control	1
24	323-6	Screw, 3/8-16 x 1	4
25	98-5975	Washer, Spring Disk	4
26	1-613055	Pin, Clevis	2
27	1-806003	Hairpin Cotter	4
28	3290-357	Nut, Whizlock 3/8-16	4
29	3296-42	Nut, Nylock 1/4-20	2
30	3256-2	Washer, 1/4 Std Flat	2
31	1-303435	Washer, 1/4 Disc Spring	6
32	321-10	Screw, 1/4-20 x 1-3/4	2
33	322-10	Screw, 5/16-18 x 2	2
34	321-3	Screw, 1/4-20 x 5/8	2
35	32128-33	Nut, Whizlock 1/4-20	4
36	1-603716	Washer, Friction	1
37	1-323244	Washer, Friction	2
38	3256-23	Washer, 5/16 Flat	1
39	3296-29	Nut, Nylock 5/16-18	2
40	3220-2	Nut, Jam 5/16	1
41	1-303105	Yoke, Adjustable	1
42	1-808280	Pin, Clevis	1
43	321-9	Screw, 1/4-20 x 1-1/2	2
44	3296-2	Nut, Nylock 10-24	2
45	1-807513	Screw, 10-24 x 1/2	2

Exmark black touch up spray paint – Gloss black.

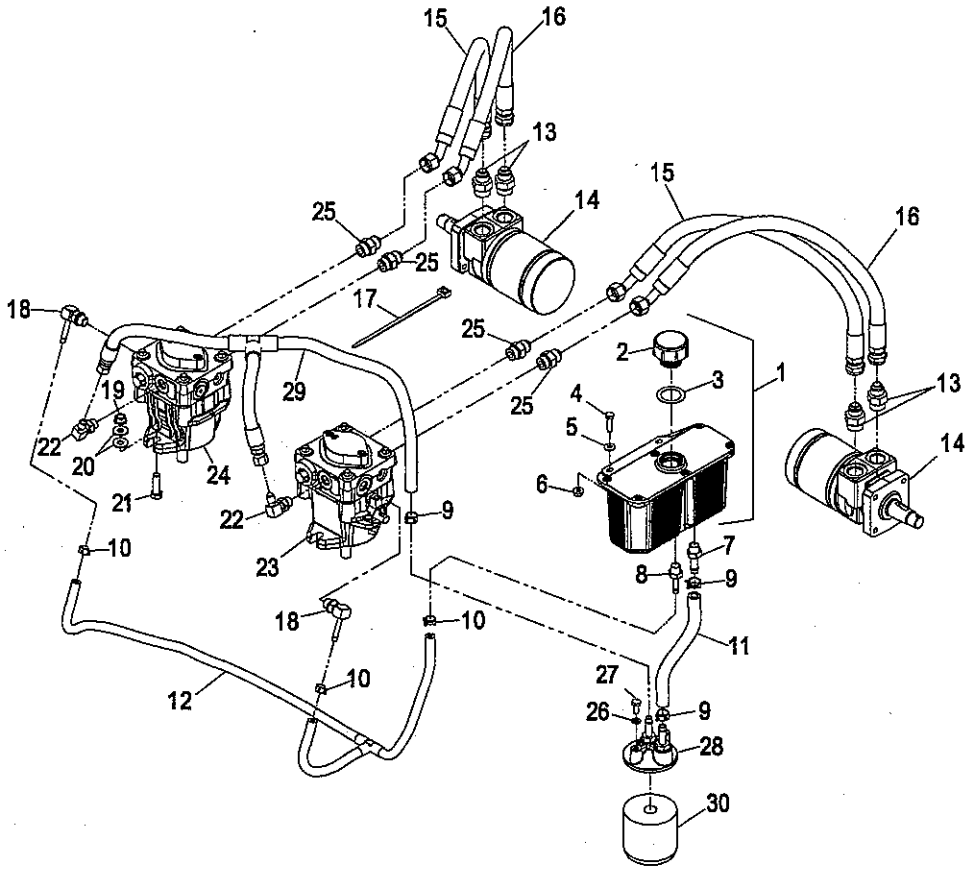
◆ Use Pro-Lock nut type, (P/N. 1-840022, .5cc tube) on setscrew threads and thumb latch screw threads.

✚ Use Pro-Lock retaining type, (P/N. 1-840023, .5cc tube) on inside of bore of OPC hub.

PISTOL GRIP HANDLES AND CONTROLS



HYDRAULICS GROUP



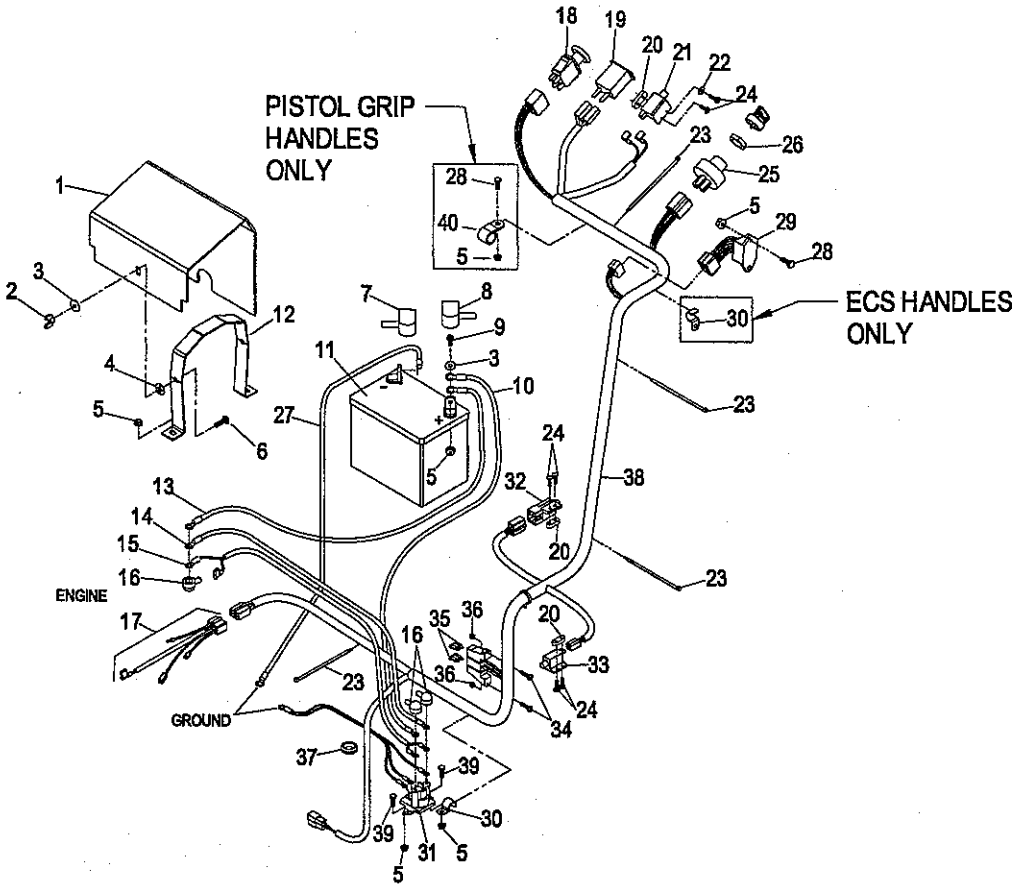
Item	Part No.	Description	Qty.
1	103-1947	Asm, Hydraulic Reservoir	1
2	103-1948	Cap, Hydraulic Reservoir	1
3	103-1949	Gasket, Reservoir Cap	1
4	321-6	Screw, 1/4-20 x 1	2
5	3256-22	Washer, 1/4 SAE Flat	2
6	32128-33	Nut, Whizlock 1/4-20	2
7	103-1912	Adapter, Straight	1
	1-603921	O-Ring	1
8	103-1801	Adapter, Straight	1
	1-603921	O-Ring	1
9	103-1988	Clamp, Hose (11/16)	3
10	103-1716	Clamp, Hose (17/32)	3
11	103-2958	Hose, Charge	1
12	103-4607	Asm, Case Drain Hose	1
13	1-603991	Fitting, Straight Connector	4
	1-603919	Boss O-Ring	1
	1-603992	Flare O-Ring	1
14	1-603718	Motor, Wheel	2
	1-000119	Kit, Seal	1
	1-000138	Kit, Bearing	1
15	103-4609	Hose, Hydro	2
16	103-4610	Hose, Hydro	2
17	1-303335	Tie, Cable (Large)	1
18	103-1799	Elbow, 90°	2
	1-603921	O-Ring	1

Item	Part No.	Description	Qty.
19	3290-357	Nut, Whizlock 3/8-16	4
20	3256-3	Washer, 5/16 Std	8
21	323-7	Screw, 3/8-16 x 1-1/4	4
22	103-1802	Elbow, 90°	2
	1-603921	O-Ring	1
23	103-4611	Pump, Hydro	1
	103-2664	Kit, Input Shaft 10A	1
	94-6922	Kit, Thrust Bearing 10A	1
	103-2666	Kit, Cylinder Block 10A	1
	105-6184	Kit, Overhaul Seal	1
24	103-4247	Pump, Hydro	1
	103-2664	Kit, Input Shaft 10A	1
	94-6922	Kit, Thrust Bearing 10A	1
	103-2666	Kit, Cylinder Block 10A	1
	105-6184	Kit, Overhaul Seal	1
25	1-603990	Adapter, Straight Thread	4
	1-603920	Boss O-Ring	1
	1-603992	Flare O-Ring	1
26	1-805004	Washer, 1/4 Lock	2
27	321-3	Screw, 1/4-20 x 5/8	2
28	103-2889	Asm, Filter Head	1
29	103-4608	Asm, Charge Hose	1
30	1-513211	Element, Oil Filter	1
▲	1-523541	Element, Oil Filter(Winter)	1

Exmark black touch up spray paint – Gloss black.

▲ Use only for operation below 32°F (0°C).

ELECTRICAL GROUP



Item	Part No.	Description	Qty.
1	103-3424	Cover, Battery (1-603105) W/Decal	1
2	1-803038	Wingnut, 1/4-20	2
3	3256-2	Washer, 1/4 Flat	4
4	1-803037	Nut, Retaining 1/4-20	2
5	32128-33	Nut, Whizlock 1/4-20 (ECS)	7
	32128-33	Nut, Whizlock 1/4-20 (Pistol Grip)	8
6	1-807512	Bolt, Carriage 1/4-20 x 3/4	2
7	1-543390	Insulator, Battery -	1
8	1-543391	Insulator, Battery +	1
9	321-4	Screw, 1/4-20 x 3/4	2
10▲	1-513053	Cable, Battery To Solenoid (+)	1
11	103-0293	Battery, 12V Manifold	1
12	1-603814-03	Strap, Battery Holddown	1
13*	1-523281	Cable, Battery To Starter	1
14▲	1-603488	Cable, Solenoid To Starter (+)	1
15*	103-1126	Harness, Solenoid To Starter	1
16	1-543393	Insulator, Solenoid	3
17▲	1-613262	Harness, Wiring	1
18	1-633673	Switch, PTO	1
19	1-513374	Meter, Engine Hour	1
20	1-633181	Plate, Tapped	3
21	1-513051	Switch, N.O.	1
22	3256-14	Washer, Flat #10 (ECS Only)	1
23	1-303335	Plastic Tie (ECS)	4

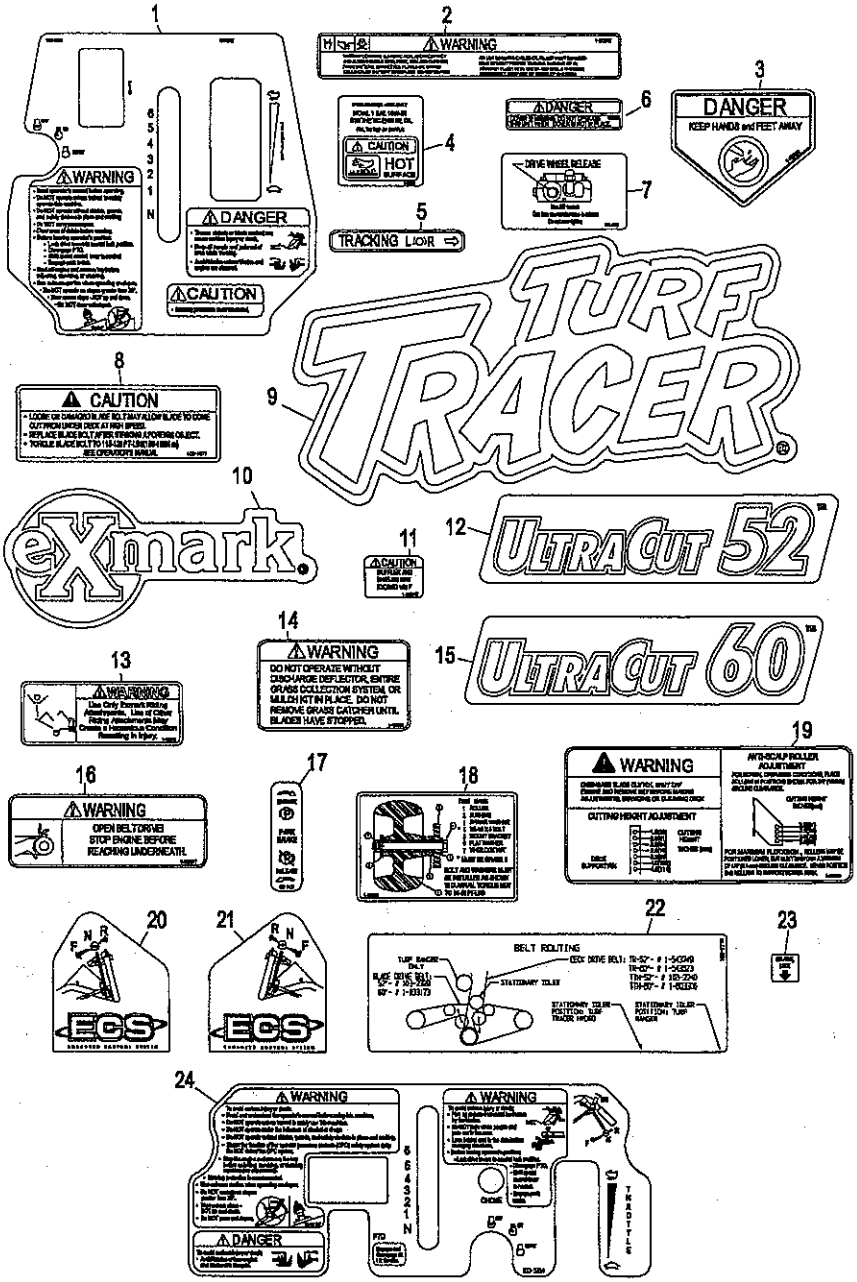
Item	Part No.	Description	Qty.
	1-303335	Plastic Tie (Pistol Grip)	3
24	3290-500	Screw, #10-24 x 5/8	6
25	1-543070	Switch, Ignition W/Keys	1
	1-603511	Key, Ignition	1
	103-2106	Key, Exmark Logo	1
26	103-0498	Nut, Ignition	1
27	1-543767	Cable, Ground	1
28	321-3	Screw, 1/4-20 x 5/8 (ECS)	1
	321-3	Screw, 1/4-20 x 5/8 (Pistol Grip)	2
29	1-613198	Module, Safety Interlock	1
30	103-1193	Clip, Loom Half (ECS)	2
	103-1193	Clip, Loom Half (Pistol Grip)	1
31	1-513075	Switch, 12V Solenoid	1
32	1-633111	Switch, N.O./N.C.	1
33	1-513152	Switch, N.C.	1
34	1-803075	Screw, #10-24 x 3/4	2
35	1-816001	Fuse, Blade 20 Amp	2
36	3296-2	Nut, Nyloc #10-24	2
37	1-543286	Grommet	1
38	103-1540	Harness, Wiring (ECS)	1
	103-5380	Harness, Wiring (Pistol Grip)	1
39	321-2	Screw, 1/4-20 x 1/2	2
40	1-513762	Clip, Loom (Pistol Grip Only)	1

Exmark black touch up spray paint – Gloss black.
Apply dielectric grease to all electrical connectors.

* Kohler units only.

▲ Kawasaki units only.

DECALS



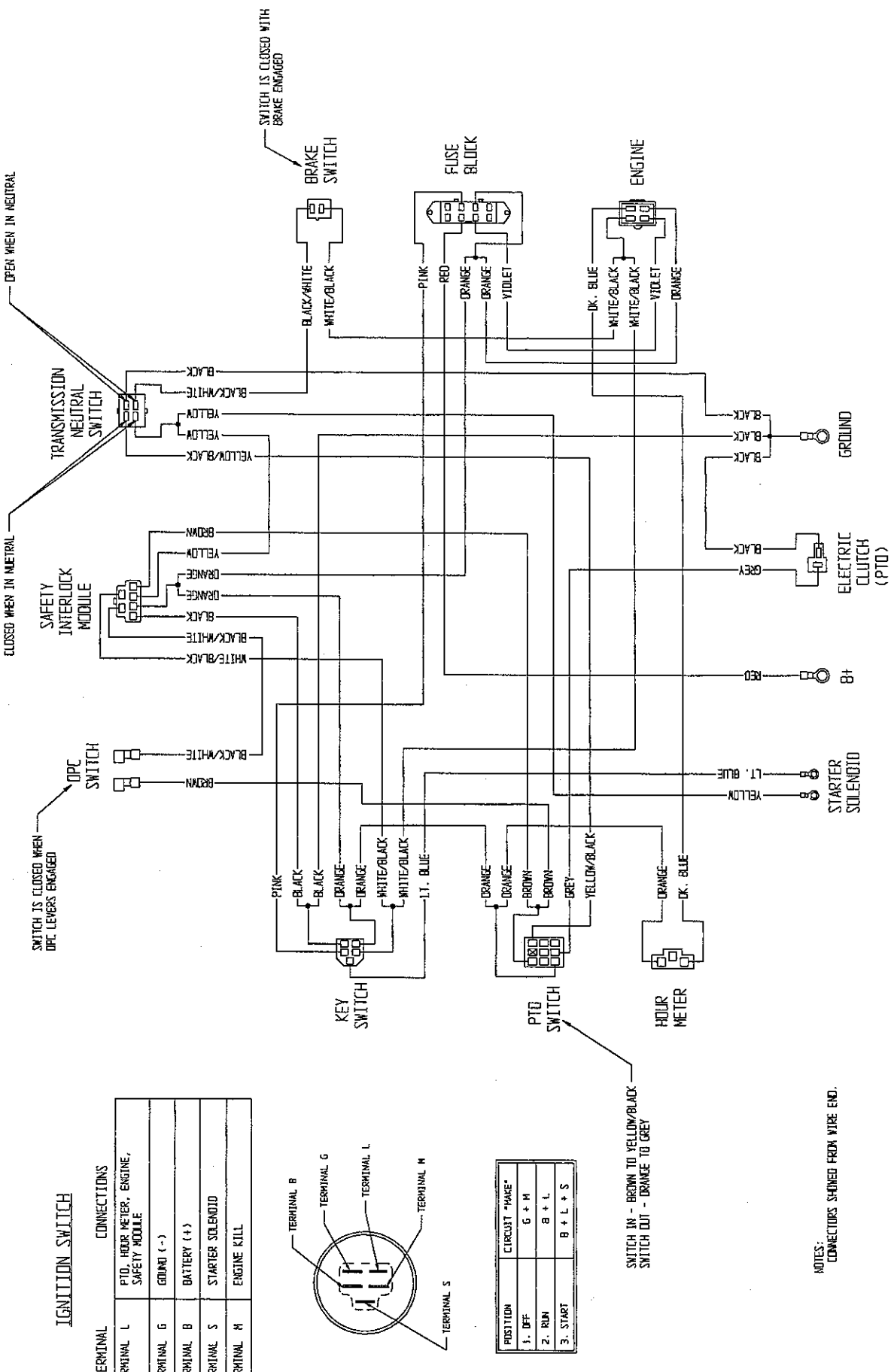
Item	Part No.	Description	Qty.
1✚	103-1541	Decal, Console ECS	1
2	1-513747	Decal, Battery	1
3	1-403005	Danger Label	2
4	1-523552	Decal, Hydraulic Tank	1
5	1-413214	Decal, Tracking	1
6	98-5954	Decal, Missing Cover	3
7	103-4935	Decal, Drive Wheel Release	1
8	103-1077	Decal, Bolt Torque	1
9	103-3013	Decal, Turf Tracer	1
10	103-2882	Decal, Exmark logo	1
11	1-513746	Decal, Muffler	1
12	103-1145	Decal, Ultracut 52	1
13	1-403143	Decal, Sulky Warning	1

Item	Part No.	Description	Qty.
14	1-303508	Decal, Discharge Warning	1
15	103-1146	Decal, Ultracut 60	1
16	1-303517	Decal, Belt Drive	1
17	103-2432	Decal, Park Brake	1
18	1-323540	Decal, Roller Mounting	1
19	1-553049	Decal, Mower Deck	1
20✚	103-2242	Decal, LH ECS Instruction	1
21✚	103-2243	Decal, RH ECS Instruction	1
22	103-2239	Decal, Belt Route	1
23◆	1-303102	Decal, Neutral Lock	2
24◆	103-5354	Decal, Console	1
	103-5828	Kit, Decal Complete	

✚ Decal for ECS handles only.

◆ Decal for pistol grip handles only.

ELECTRICAL DIAGRAM



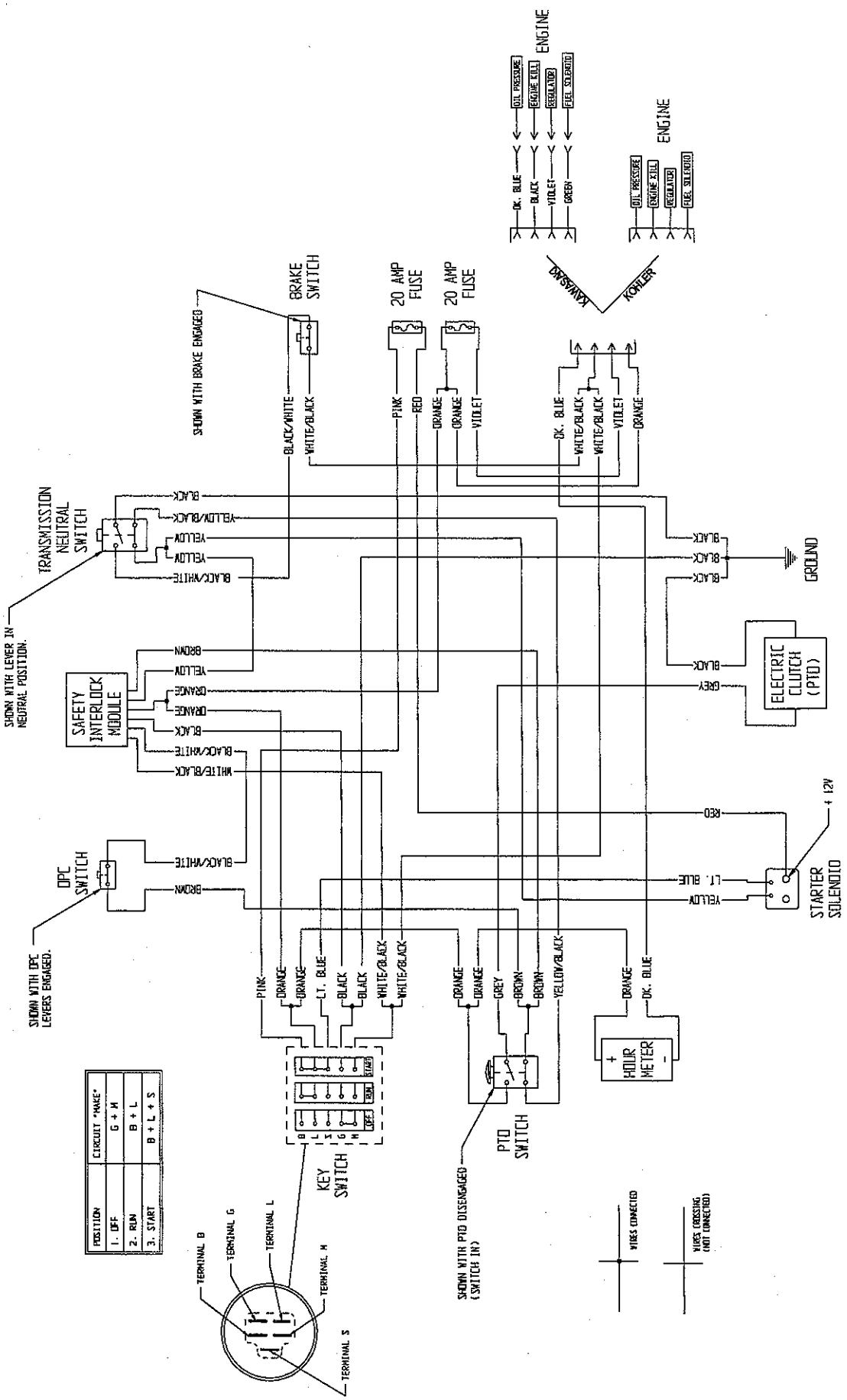
IGNITION SWITCH

TERMINAL	CONNECTIONS
TERMINAL L	PTO, HOUR METER, ENGINE, SAFETY MODULE
TERMINAL G	GROUND (-)
TERMINAL B	BATTERY (+)
TERMINAL S	STARTER SOLENOID
TERMINAL M	ENGINE KILL

POSITION	CIRCUIT "MAKE"
1. OFF	G + M
2. RUN	B + L
3. START	B + L + S

NOTES:
CONNECTORS SHOWED FROM WIRE END.

ELECTRICAL LOGIC SCHEMATIC



NOTES

NOTES

SERVICE RECORD

Date	Description of Work Done	Service Done By

SEE EXMARK'S COMPLETE LINE OF PRODUCTS FOR TURF CARE

LAZER Z®	LAZER Z® HP
LAZER Z® XP	LAZER Z® CT
TURF RANGER®	VIKING HYDRO
TURF TRACER®	TURF TRACER® HP
METRO®	METRO® HP
ULTRA VAC™	ULTRA VAC™ QDS
GRASS CATCHER	MICRO-MULCH ™ ACCESSORY

SELF STEERING SULKY

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