

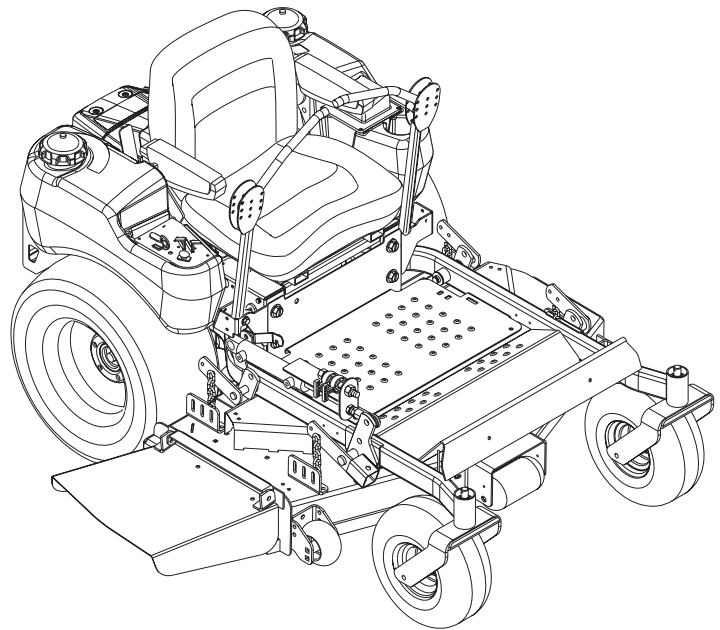


Promaster 144Z / 148Z / 152Z / 160Z

Parts Manual

Models

- 992077 19HP-144Z
- 992078 21HP-148Z
- 992079 23HP-152Z
- 992080 23HP-160Z
- 992081 25HP-152Z
- 992082 25HP-160Z
- 992310 19HP-144Z
- 992311 21HP-148Z



THE MANUAL

Before you operate your unit, carefully and completely read manuals supplied with the unit. The contents will provide you with an understanding of safety instructions and controls during normal operation and maintenance.

For your safety and the safety of others always read, understand, and follow all DANGER, WARNING, and CAUTION messages found in manuals and on safety decals.

Hardware descriptions are given in decimals.

Decimals to Fractions			
.063	1/16	.563	9/16
.125	1/8	.625	5/8
.188	3/16	.688	11/16
.250	1/4	.750	3/4
.313	5/16	.813	13/16
.375	3/8	.875	7/8
.438	7/16	.938	15/16
.500	1/2	1.00	1

SERVICE AND REPLACEMENT PARTS

When ordering replacement parts or making service inquiries, know the Model and Serial numbers of your unit and engine.

Numbers are located on the product registration card in the unit literature package. They are printed on a serial number label, located on the frame of your unit.

- Record Unit Model and Serial numbers here:

- Record Engine Model and Serial numbers here:

UNAUTHORIZED REPLACEMENT PARTS

Use only Gravelly replacement parts. The replacement of any part on this vehicle with anything other than a Gravelly authorized replacement part may adversely affect the performance, durability, or safety of this unit and may void the warranty. Gravelly disclaims liability for any claims or damages, whether warranty, property damage, personal injury or death arising out of the use of unauthorized replacement parts.

PRODUCT REGISTRATION

The Gravelly dealer must register the product at the time of purchase. Registering the product will help the company process warranty claims or contact you with the latest service information. All claims meeting requirements during the limited warranty period will be honored, whether or not the product registration card is returned. Keep a proof of purchase if you do not register your unit.

Customer Note: If Dealer does not register your product, please fill out, sign and return the product registration card to Gravelly or go to www.gravelly.com.

YOUR SATISFACTION IS IMPORTANT

Questions? Please follow these helpful steps:

1. Refer to the manuals supplied with your unit.
They will guide you through safe and proper operation and maintenance.
They contain specifications on your unit.
If your questions are not answered in these manuals, go to step number two.
2. Contact Your Dealer.
Our dealers will be happy to supply any service or advice required to keep your unit operating at peak efficiency.
A factory trained staff is available to support your equipment needs. They stock genuine Gravelly parts and lubricants manufactured with the same precision and skill as the original.
If your questions are not resolved by the support staff, ask for the manager or owner.
When contacting your Dealer supply your model and serial numbers.

TO SPEED PARTS ORDERING:

1. Know the model and serial numbers of your unit.
2. Know the part number required.
3. Know the quantity required.
4. Know the part description.

MODELS

Domestic

Model 992077

19HP Kawasaki with 44" Mower Deck
Serial No. 000101 and up

Model 992078

21HP Kawasaki with 48" Mower Deck
Serial No. 000101 and up

Model 992079

23HP Kawasaki with 52" Mower Deck
Serial No. 000101 and up

Model 992080

23HP Kawasaki with 60" Mower Deck
Serial No. 000101 and up

Model 992081

25HP Kohler with 52" Mower Deck
Serial No. 000101 and up

Model 992082

25HP Kohler with 60" Mower Deck
Serial No. 000101 and up

International

Model 992310

19HP Kawasaki with 44" Mower Deck
Serial No. 003000 and up

Model 992311

21HP Kawasaki with 48" Mower Deck
Serial No. 003000 and up

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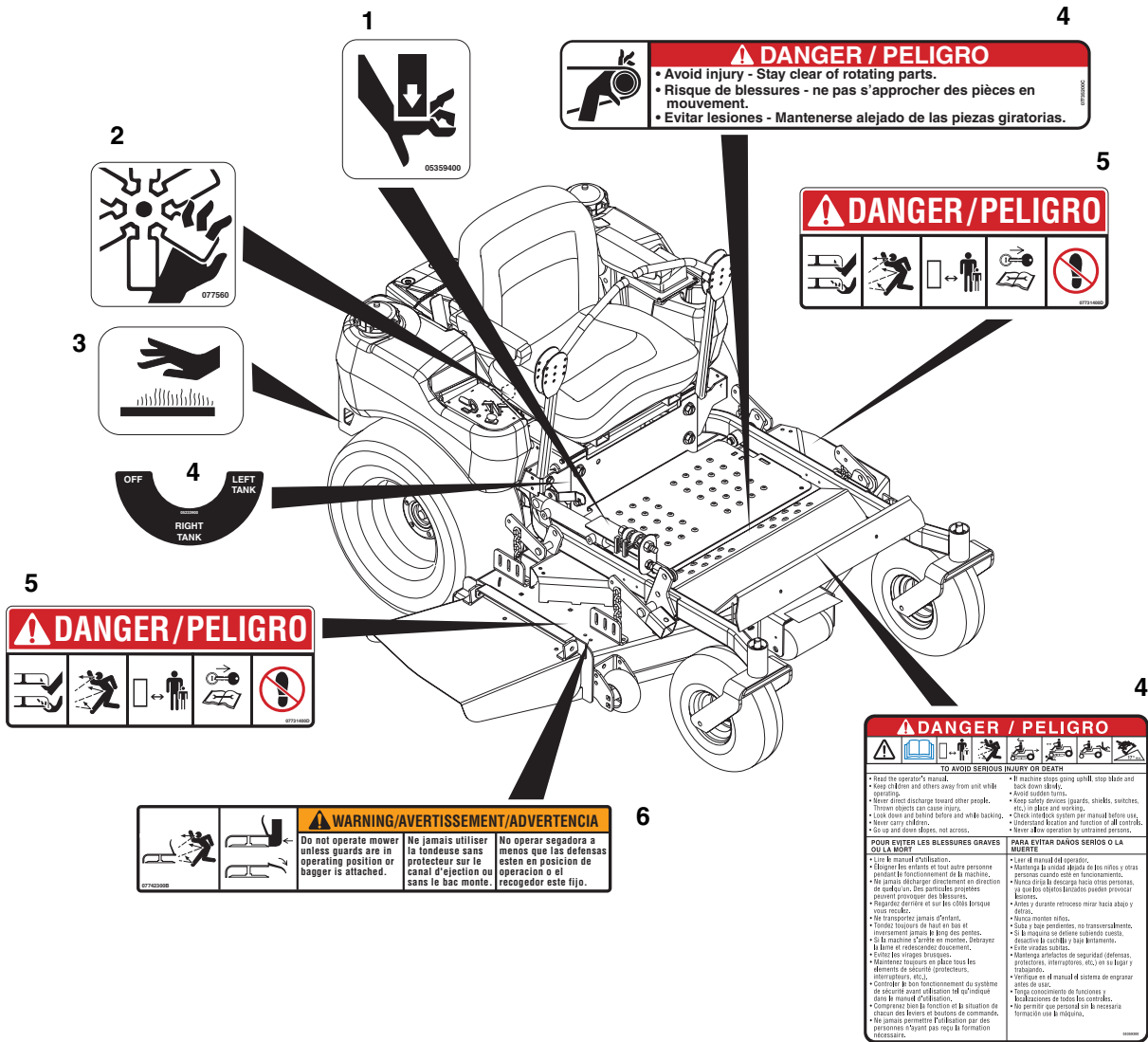
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DECALS

Model 992077, 078, 079, 080, 081, 082, 310, 311

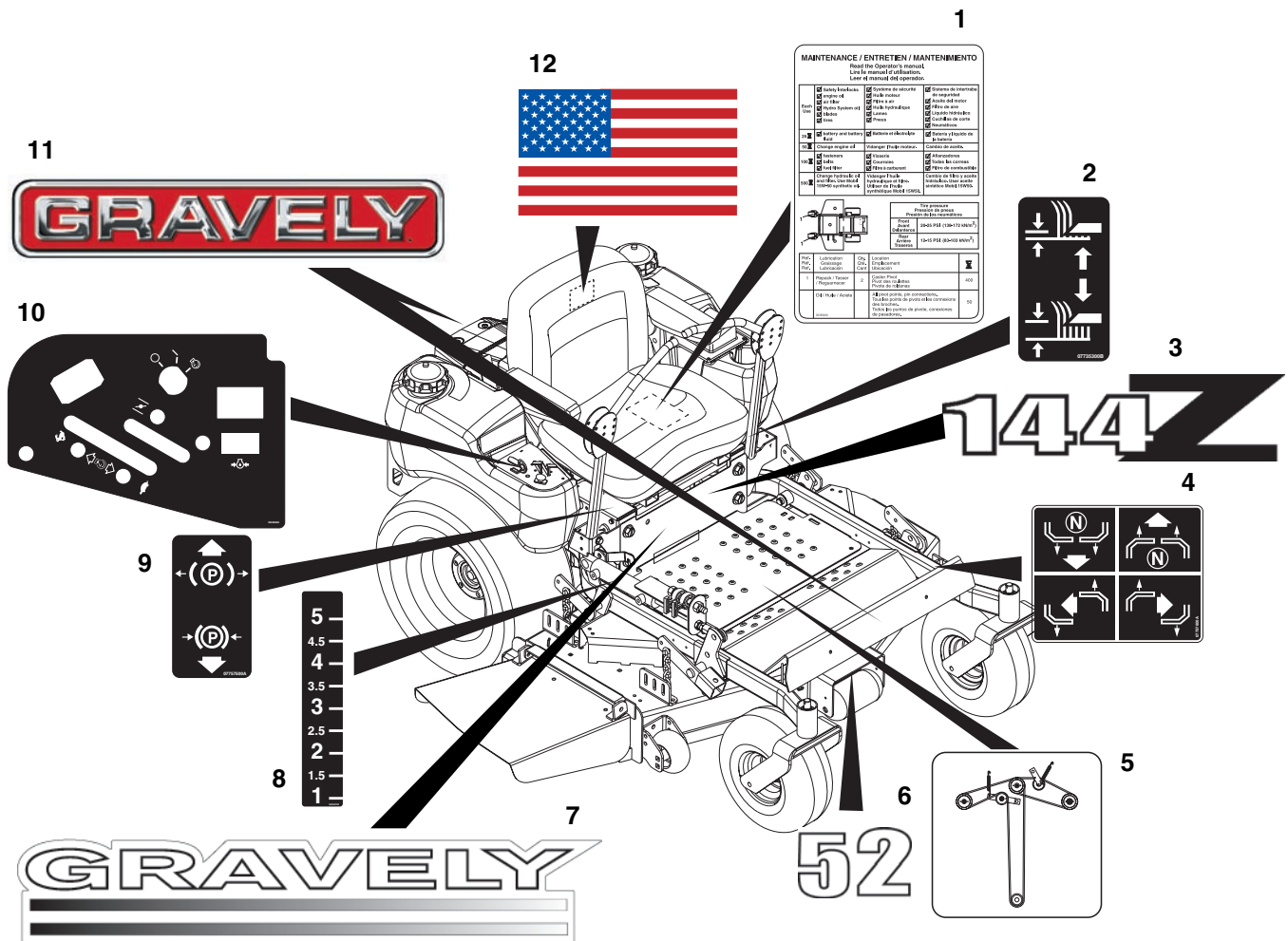


Item	Part No.	Qty.	Description
1	05359400	1	Decal, Pinch Point
2	07756000	1	Decal, Danger Fan
3	07754100	2	Decal, Hot Surface
4	69229100	1	Set, Decal-Common Danger/Fuel
5	07731400	2	Decal, Mower Pan Head Danger
6	07742300	1	Decal, Warning

PD3540

DECALS

Model 992077, 078, 079, 080, 081, 082, 310, 311

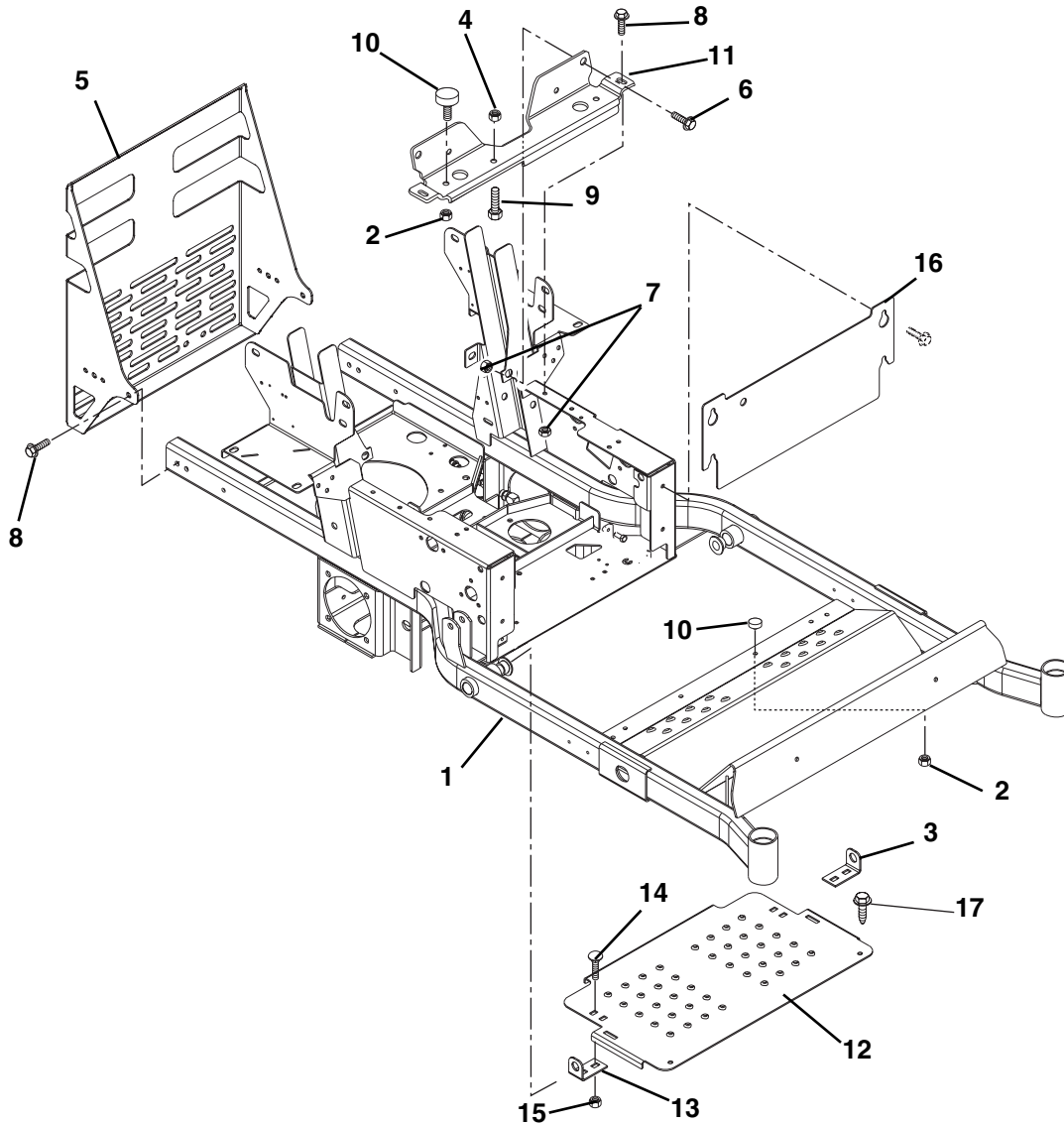


PD3283

Item	Part No.	Qty.	Description
1	05359200	1	Decal, Service Instructions
2	07735300	1	Decal, Lift Lever
3	05358900	1	Decal, PM 152Z (079, 081)
	05358700	1	Decal, PM 144Z (077)
	05358800	1	Decal, PM 148Z (078)
	05359000	1	Decal, PM 160Z (080, 082)
4	07757600	1	Decal, Instructional Steering
5	07734600	1	Decal, Belt Diagram
6	05234500	1	Decal, 52 (079, 081)
	05359100	1	Decal, 44 (077)
	05233300	1	Decal, 48 (078)
	05232000	1	Decal, 60 (080, 082)
7	05304300	1	Decal, ZT Hood
8	05354700	1	Decal, Height of Cut
9	07757500	1	Decal, Parking Brake Lever
10	05358600	1	Decal, Control Panel
11	05225500	2	Decal, 15" Gravely Logo
12	05305100	1	Decal, American Flag

FRAME

Model 992077, 078, 079, 080, 081, 082, 310, 311

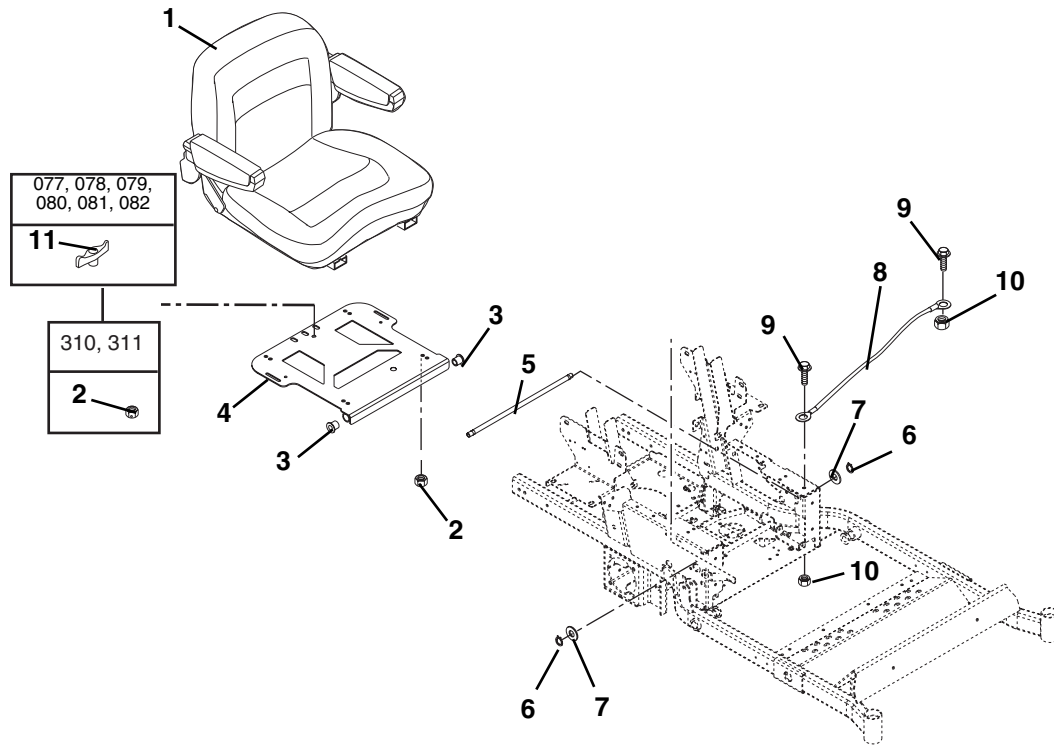


PD3550

Item	Part No.	Qty.	Description
1	09281251	1	Intermediate Z Frame (077, 078, 079, 081)
	09281351	1	Intermediate Z Frame (080, 082)
2	06530400	6	Nut, Spin Lock Flange .312-18
3	09267151	1	Hinge, Footboard Left Hand
4	06543100	1	Nut, Locking Top Flange .31-18
5	09292251	1	Bumper/Guard
6	07049900	2	Bolt, Serrated Flange Washer Head .38-16 x 1.00
7	07053300	2	Nut, Retainer .375-16 x .37
8	07412900	8	Screw, Tapping Hex Washer Head .38-16 x .50
9	05947500	1	Bolt, Hex .31-18 x 1.25 Grade 5
10	07533600	6	Bumper, Rubber
11	09283251	1	Seat Support
12	09282653	1	Footrest Panel
13	09267251	1	Hinge, Footboard Right Hand
14	06223900	4	Bolt, Round Head Square Neck .38-16 x .75 Grade 5
15	06542000	4	Nut, Locking Top Flange .38-16
16	09297253	1	Access Panel
17	07414100	2	Screw, Tapping .38-16 x 1.00 Hex Washer Head (310, 311)

SEAT

Model 992077, 078, 079, 080, 081, 082, 310, 311

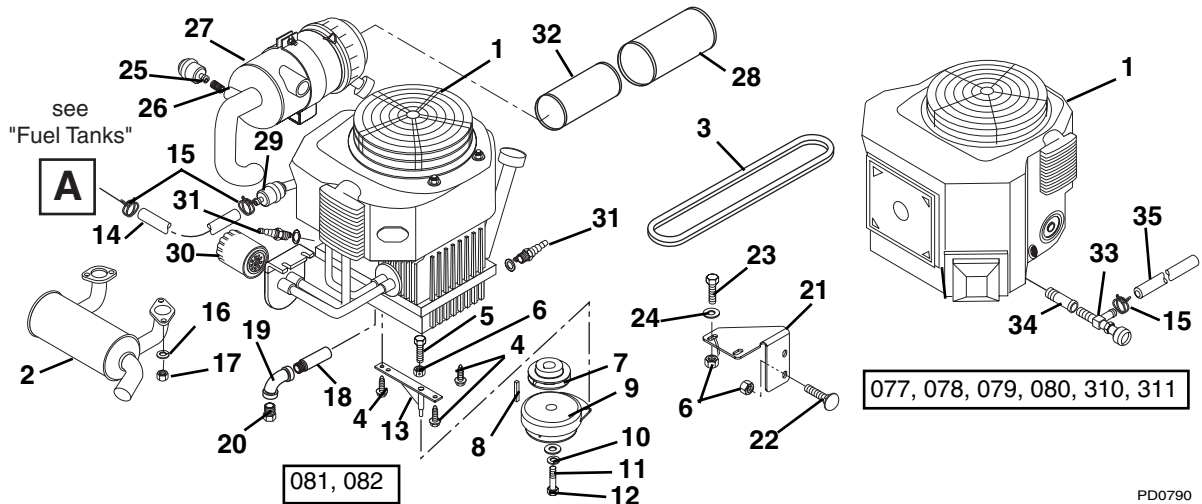


PD3560

Item	Part No.	Qty.	Description
1	09214500	1	Seat
2	06543100	4	Nut, Locking Top Flange .31-18 (077, 078, 079, 080, 081, 082)
	06543100	5	Nut, Locking Top Flange .31-18 (310, 311)
3	034738	2	Bushing, Flange .515 x .750 x .745 x 1.00
4	00164351	1	Seat Pivot Mount
5	09282700	1	Rod, Seat Frame Pivot
6	05717100	2	Ring, Retaining External .500 x .050
7	06432500	2	Washer, Thrust 1.14 x 1.50 x .20
8	044486	1	Cable, Hood
9	05946800	2	Bolt, Hex .25-20 x .75 Grade 5
10	06543500	2	Nut, Locking Top Flange .25-20
11	07531700	1	Knob, Wing .312-18 (077, 078, 079, 080, 081, 082)

ENGINE AND CLUTCH

Model 992077, 078, 079, 080, 081, 082, 310, 311

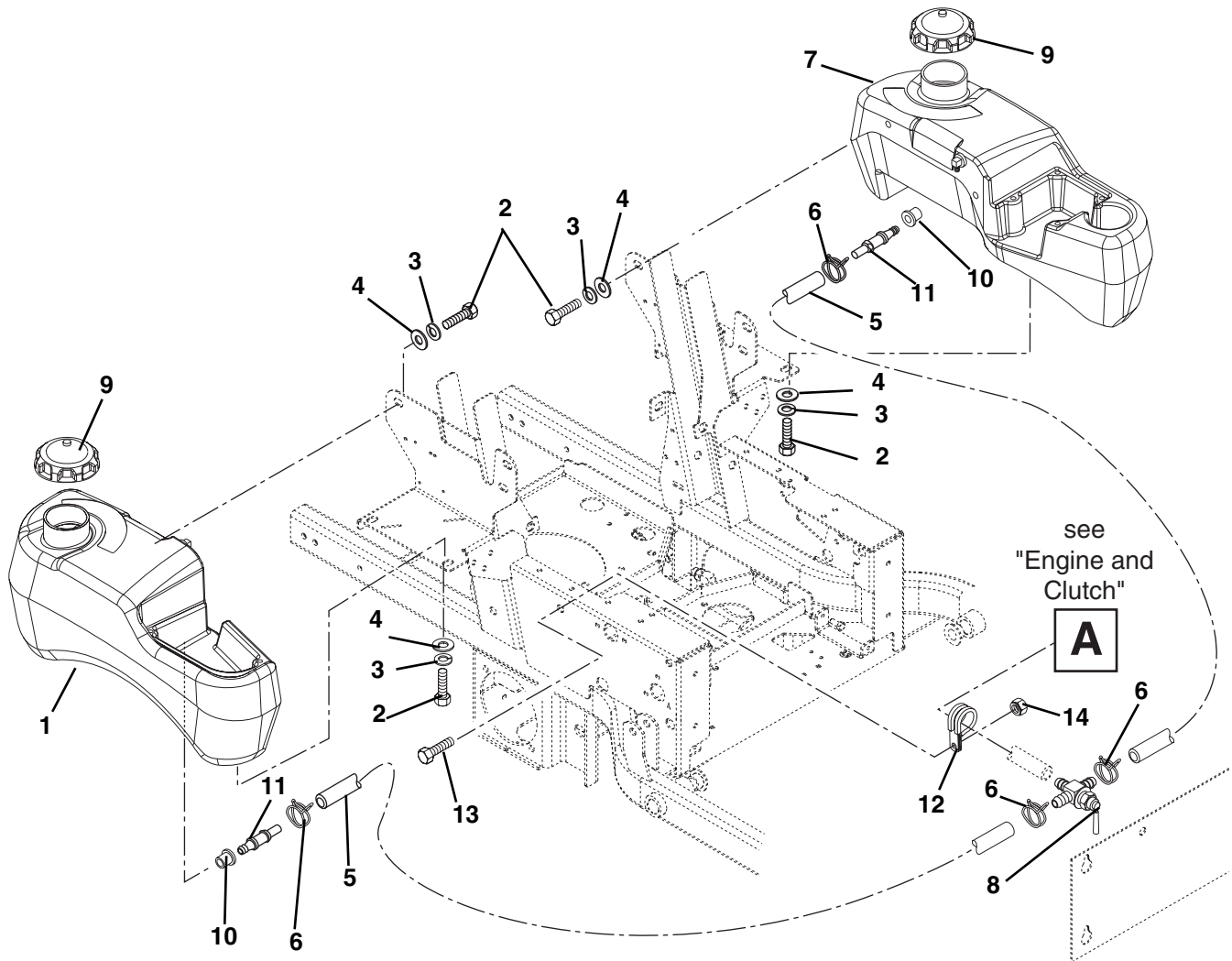


PD0790

Item	Part No.	Qty.	Description
1	08270000	1	Engine, Kohler, 25HP (081, 082)
	08268800	1	Engine, Kawasaki 19HP (077, 310)
	08268000	1	Engine, Kawasaki 21HP (078, 311)
	08268900	1	Engine, Kawasaki 23HP (079, 080)
2	09294800	1	Muffler, Kohler (081, 082)
	09281600	1	Muffler, Kawasaki (077, 078, 079, 080, 310, 311)
3	07218000	1	V-Belt HA 52 x .535 G48667
4	07414100	3	Screw, Tapping Hex Washer Head .38-16 x 1.00
5	05952400	1	Bolt, Hex .31-18 x 1.50 Grade 5
6	06543100	5	Nut, Locking Top Flange .31-18 (081, 082)
	06543100	1	Nut, Locking Top Flange .31-18 (077, 078, 079, 080, 310, 311)
7	07327700	1	Pulley-V 4.00 x 1.125 with Key 1.42 Height
8	039160	1	Key, Square .25 x .625 x .25 SAE 8630 OR SAE 1035
9	09232700	1	Clutch, Electric
10	06445000	1	Washer, Flat Steel .515 x 1.625 x .25
11	06309300	1	Washer, Locking .44 x .109
12	05964600	1	Bolt, Hex .44-20 x 2.50 Grade 5
13	09282300	1	Weldment, Clutch Anchor
14	021134	31 in	Gas Line, Bulk .25 ID
15	06939100	23	Hose, Clamp
16	06308600	4	Washer, Lock .31 x .078 Regular (Included with item 1)
17	06538600	4	Nut, Hex M8-1.25 (Included with item 1)
18	02749600	1	Nipple (081, 082)
19	07023500	1	Elbow .375-18 (081, 082)
20	00113800	1	Pipe Plug (081, 082)
21	09295751	1	Bracket, Oil Filter Mounting-Kohler (081, 082)
22	06212200	2	Bolt, Round Head Square Neck .31-18 x .62 (081, 082)
23	05946900	2	Bolt, Hex .31-18 x 1.00 Grade 5 (081, 082)
24	06435700	2	Washer, Flat Steel .38 x .875 x .083 (081, 082)
25	09258800	1	Filter Minder (081, 082)
26	07065800	1	Nipple, .125 NPT (081, 082)
27	09257500	AR	Assembly, Air Cleaner
28	21537000	AR	Filter, Outer Element
29	21539500	AR	Fuel Filter, Kohler (081, 082)
	21410800	AR	Fuel Filter, Kawasaki (077, 078, 079, 080, 310, 311)
30	21397200	AR	Oil Filter, Kohler (081, 082)
	21535800	AR	Oil Filter, Kawasaki (077, 078, 079, 080, 310, 311)
31	21525900	AR	Spark Plug, Kohler (081, 082)
	21536100	AR	Spark Plug, Kawasaki (077, 078, 079, 080, 310, 311)
32	21536900	AR	Filter, Inner Element
33	035329	1	Cock, Oil Drain (077, 078, 079, 310, 311)
34	035328	1	Adapter, Oil Drain (077, 078, 079, 310, 311)
35	021134	8 in	Gas Line, Bulk .25" ID (077, 078, 079, 310, 311)

FUEL TANKS AND HOSES

Model 992077, 078, 079, 080, 081, 082, 310, 311

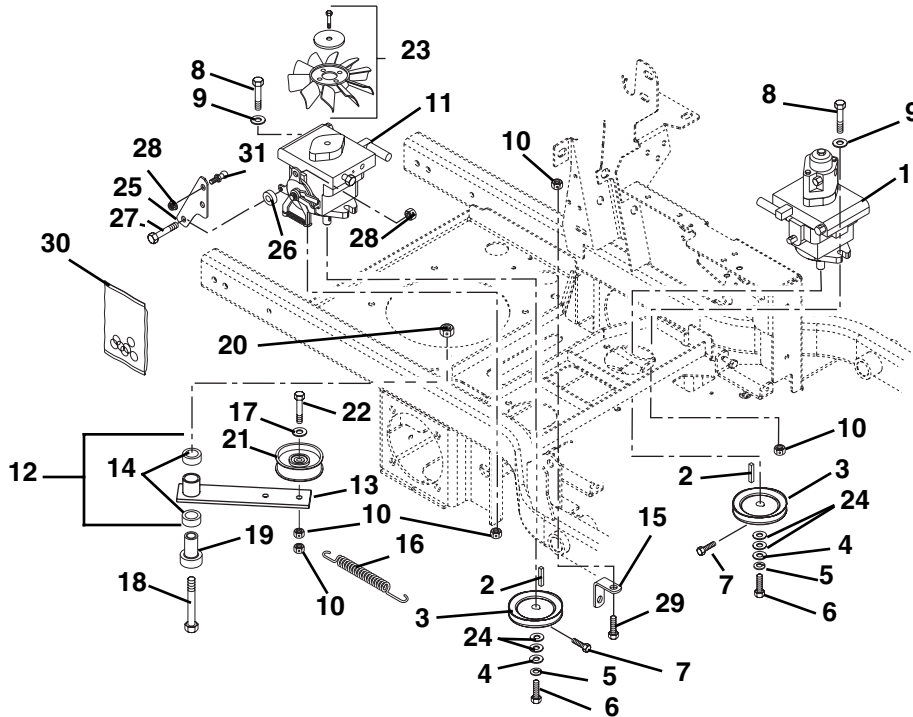


PD3660

Item	Part No.	Qty.	Description
1	09281500	1	Tank, Gas - Right Hand
2	05947000	8	Bolt, Hex .31-18 x .75 Grade 5
3	06308600	8	Washer, Locking .31 x .078
4	06435700	8	Washer, Flat Steel .38 x .875 x .083
5	021134	75 in	Gas Line, Bulk .25" ID
6	06939100	4	Hose, Clamp
7	00191100	1	Tank, Left Hand Fuel (EYE-Q) 100 Series
8	09258200	1	Valve, Fuel
9	09239500	2	Cap, Gas
10	050246	AR	Bushing
11	07064500	AR	Fuel Tank Fitting
12	06918200	1	Clamp, Cushioned Steel (081, 082)
13	05948700	1	Bolt, Hex .38-16 x 1.00 Grade 5 (081, 082)
14	06542000	1	Nut, Locking Top Flange .38-16 (081, 082)

TRANSMISSION

Model 992077, 078, 079, 080, 081, 082, 310, 311

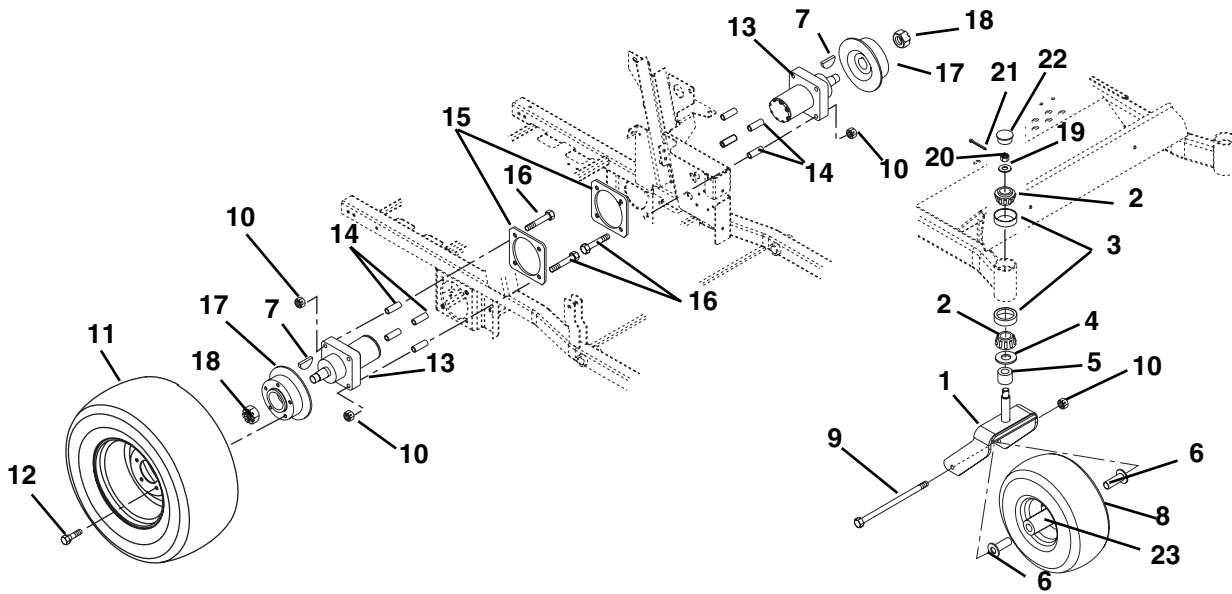


PD3670

Item	Part No.	Qty.	Description
1	09285100	1	Hydrostat BDP with Auxiliary
2	050995	2	Key, Straight 5mm x 25mm x 5mm
3	051138	2	Sheave 4.0 x .199
4	416904	2	Washer, Flat Steel .281 x 1.00 x .063
5	06308400	2	Washer, Locking .25 x .062
6	05969800	2	Bolt, Hex M6 x 1.0 x 12
7	05947900	4	Bolt, Hex .25-20 x .50 Grade 5
8	05958000	4	Bolt, Hex .38-16 x 1.25 Grade 5
9	06444300	4	Washer, Flat Steel .39 x .75 x .125
10	06542000	7	Nut, Locking Top Flange .38-16
11	09285200	1	Pump
12	09219000	1	Assembly, Idler Arm Guard Drive (Includes 13 & 14)
13	09217051	1	Weldment, Idler Arm Ground Drive
14	05435800	2	Bearing, 1.00 x 1.12 x .75
15	09231100	1	Anchor, Idler Spring
16	08336000	1	Spring, Tension .120 x .845 x 6.50
17	06444300	1	Washer, Flat Steel .39 x .75 x .125
18	05965800	1	Bolt, Hex .50-13 x 3.50 Grade 5
19	07053100	1	Bearing, Pedestal Powdered Metal
20	06543600	1	Nut, Locking Top Flange .50-13
21	07327500	1	Idler, Flat 4.00 x 1.06
22	05962900	1	Bolt, Hex .38-16 x 2.25 Grade 5
23	09274900	1	Fan, Cooling
24	06442800	4	Washer, Flat Steel .656 x 1.31 x .095
25	09282900	2	Bracket, Return to Neutral/Damper
26	02513500	2	Spacer .344 x 1.00 x .375
27	05947500	2	Bolt, Hex .31-18 x 1.25 Grade 5
28	06543100	4	Nut, Locking Top Flange .31-18
29	05959400	1	Bolt, Hex .38-16 x .75 Grade 5
30	59203600	AR	Kit, Pump Seal (BDP-10A)(One kit required for each pump)
31	03652200	2	Stud, Ball

MOTORS AND WHEELS

Model 992077, 078, 079, 080, 081, 082, 310, 311

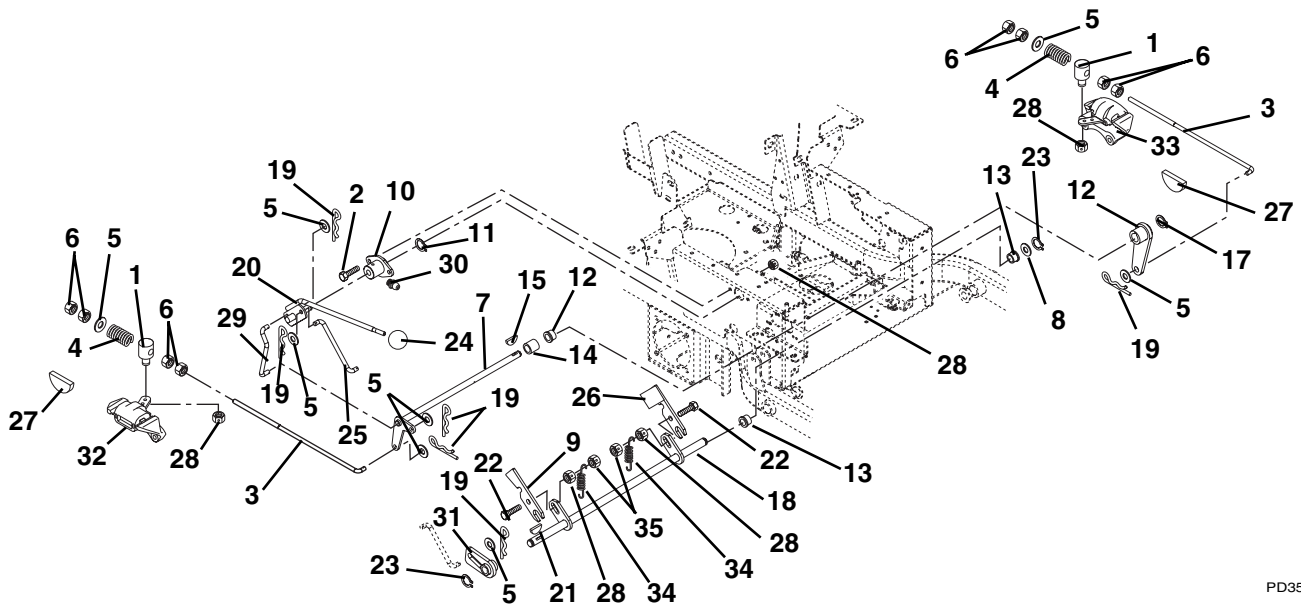


PD3680

Item	Part No.	Qty.	Description
1	09282451	2	Fork
2	69000300	4	Bearing, Cone with Grease
3	038109	4	Bearing, Cup 1.98 x .420
4	00531400	2	Bearing Seal 1.5 x 2 x .18
5	00531500	2	Spacer, PM, 1.03 I.D. x 1.5 O.D. x .375
6	00160900	4	Spacer, Wheel
7	117977	AR	Key, Woodruff .31 x 1.00 (Included with 13)
8	07147800	2	Wheel/Tire Assembly
	07147100	AR	Tire, 15 x 6-6
9	05961200	2	Bolt, Hex .50-13 x 9.00 Grade 5
10	06543600	10	Nut, Locking Top Flange .50-13
11	07152300	2	Wheel, Tire Assembly 23 x 10.50 -12 (080, 081, 082)
	07149000	AR	Tire 23 x 10.50 (078, 079, 080, 081, 082, 311)
	07148900	2	Wheel, Tire 23 x 10.50 - 12 Multi-Trac (078, 079, 081, 311)
	07159400	2	Wheel, Tire Assembly 23 x 9 50-12 (077, 310)
	07159500	AR	Tire, 23 x 9.50-12 Multitrac (077, 310)
12	07067700	10	Bolt, Lug Grade 8; .50-20 Unf x .75 Long 60 Degree
13	09262800	2	Hydraulic Wheel Motor (includes 18 & 7)
14	05531400	8	Bushing, Sleeve .513 x .748 x 2.13
15	09278500	2	Plate, Motor Support
16	07067300	8	Bolt, Hex .50-13 x 5.00 Grade 5
17	09247100	2	Hub and Disc
18	06541900	AR	Nut, Lock Jam Patch (Included with 13)
19	06441500	2	Washer, Flat Steel .755 x 1.375 x .062
20	00595500	2	Nut, Slotted .75-16
21	06712300	2	Pin, Cotter .16 x 1.00
22	038919	2	Cap, Dust
23	05435700	AR	Bearing, 25MM I.D. x 52MM OD x 15MM

BRAKES

Model 992077, 078, 079, 080, 081, 082, 310, 311

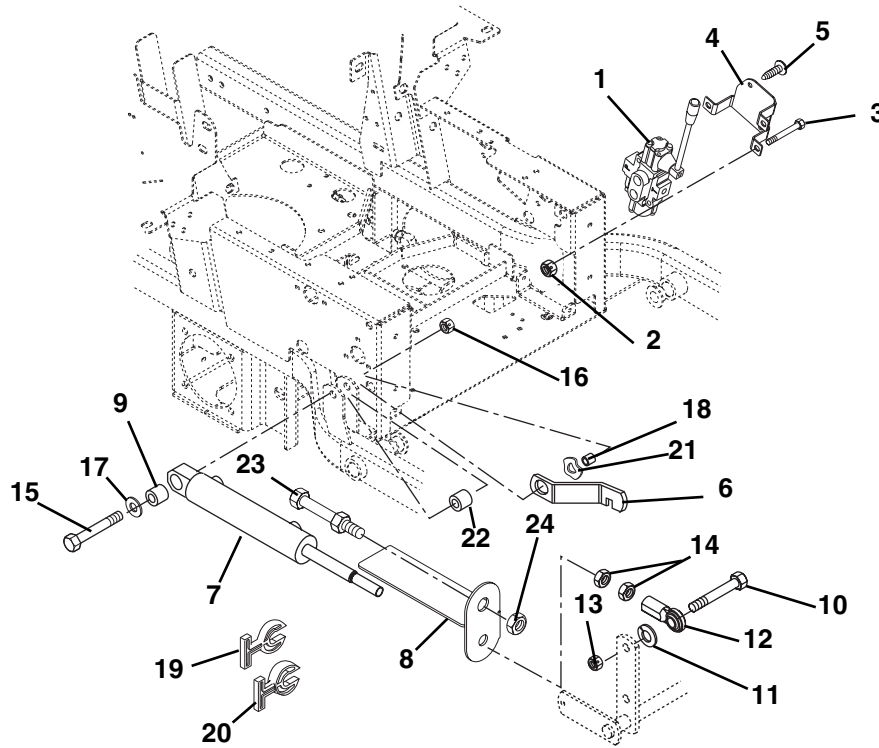


PD3570

Item	Part No.	Qty.	Description
1	09267300	2	Pivot, Brake Rod
2	05947000	2	Bolt, Hex .31-18 x .75 Grade 5
3	09248000	2	PTO Link Rod
4	08328500	2	Spring, Compression .143 x .710 x 2.00
5	06436200	8	Washer, Flat Steel .406 x .812 x .065
6	06529400	8	Nut, Hex .38-16
7	00258700	1	Weldment, Brake Cross Shaft
8	06439200	1	Washer, Flat Steel .505 x 1.00 x .062
9	09267700	1	Slide, Interlocking Brake
10	05534100	1	Bushing, Flange
11	05709200	1	Ring, Retaining External .625 x .05
12	010174	2	Bushing, Flange Nylon .762 x 1.00 x .58 x 1.48
13	05503100	2	Bushing, Flange .50 x .75 x .75 x 1.00
14	05500900	1	Bushing, Sleeve .75 X 1.00 X .75
15	124549	1	Key, Woodruff .19 x .75 Hard #9
16	00258600	1	Weldment, Brake Arm,
17	05714600	1	Ring, Retaining External .689 x .077
18	09284000	1	Weldment, Mechanical Brake
19	06714800	6	Pin, Hair
20	09269300	1	Weldment, Brake Actuating
21	124545	1	Key, Woodruff .13 x .63
22	05947500	2	Bolt, Hex .31-18 x 1.25 Grade 5
23	05717100	2	Ring, Retaining External .50 x .05
24	039360	1	Knob, Steering Lock
25	09268400	1	Linkage, Brake Actuating
26	09275900	1	Interlock, Safety Switch
27	09200600	2	Pad, Disk Brake
28	06543100	6	Nut, Locking Top Flange .31-18
29	09268300	1	Linkage, Brake Actuating
30	411027	1	Fitting, Lube .25-28 x .256
31	09268100	1	Weldment, Parking Brake Hub
32	09279000	1	Brake, Right Hand Caliper
33	09279100	1	Brake, Left Hand Caliper
34	08328700	2	Spring, Tension .061 x .50 x 3.0
35	06529800	2	Nut, Locking Center .31-18

LIFT VALVE AND CYLINDER

Model 992077, 078, 079, 080, 081, 082, 310, 311

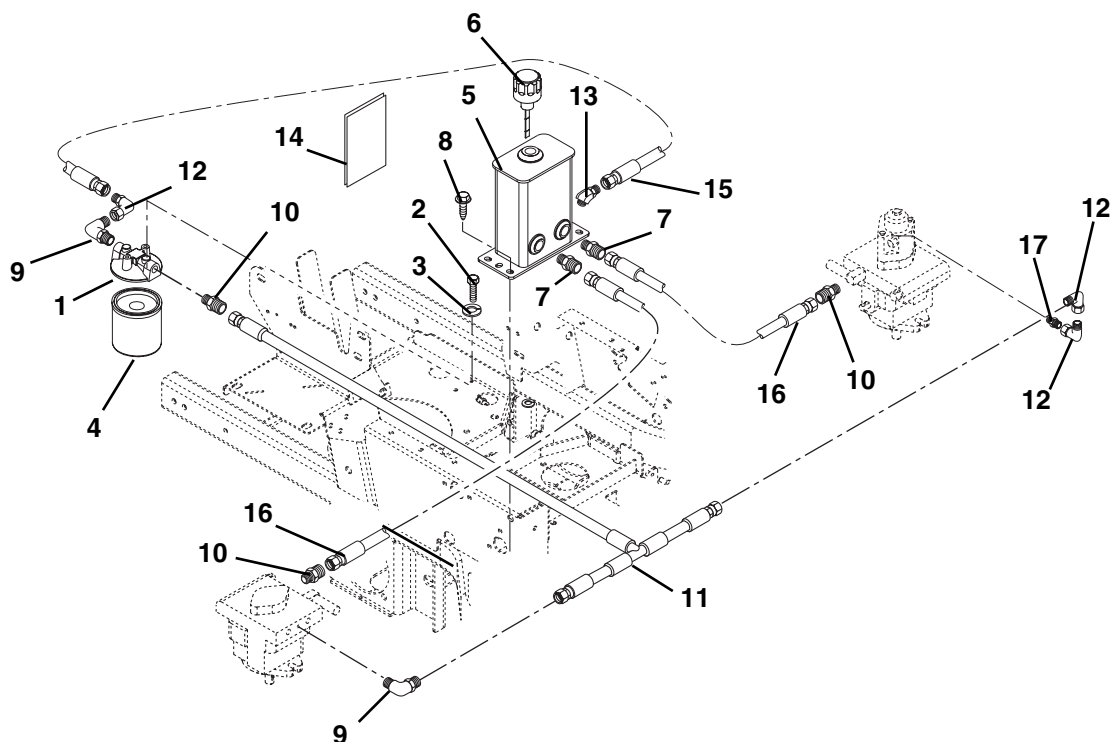


PD3580

Item	Part No.	Qty.	Description
1	09285000	1	Valve, Hydraulic
2	06543100	2	Nut, Locking Top Flange .31-18
3	05952600	2	Bolt, Hex .31-18 x 2.50 Grade 5
4	09283051	1	Valve Mounting Bracket
5	07412900	3	Screw, Tapping .38-16 x .50 Hex Washer Head
6	09250300	1	Latch
7	09245100	1	Cylinder, Hydraulic Lift
8	00184500	1	Strap, Cut Indicator/Guard
9	09215200	1	Bushing .516 x 1.000 x 1.050
10	05930700	1	Bolt, Hex .62-11 x 2.25 Grade 8
11	06309500	1	Washer, Lock .62 x .156
12	09221600	1	Rod End - Female - Right Hand .63
13	06535300	1	Nut, Locking Center .62-11
14	06539600	2	Nut, Jam .625-18
15	05965800	1	Bolt, Hex .50-13 x 3.50 Grade 5
16	06543600	1	Nut, Locking Top Flange .50-13
17	06445000	1	Washer, Flat Steel .515 x 1.625 x .25
18	05532100	1	Bushing, Flange .515 x .75 x .275 x 1.12
19	09212200	6	Stop, Cylinder .34 Thick
20	09212300	6	Stop, Cylinder .68 Thick
21	09252000	1	Washer, Wave .076 x 1.12 xz .08
22	09293600	1	Spacer .50 I.D. x .88 O.D. x .88
23	09260800	1	Post
24	06536900	1	Nut, Jam Center Lock .75-16

HYDRAULIC TANK, FILTER AND PUMP TO TANK CIRCUIT

Model 992077, 078, 079, 080, 081, 082, 310, 311

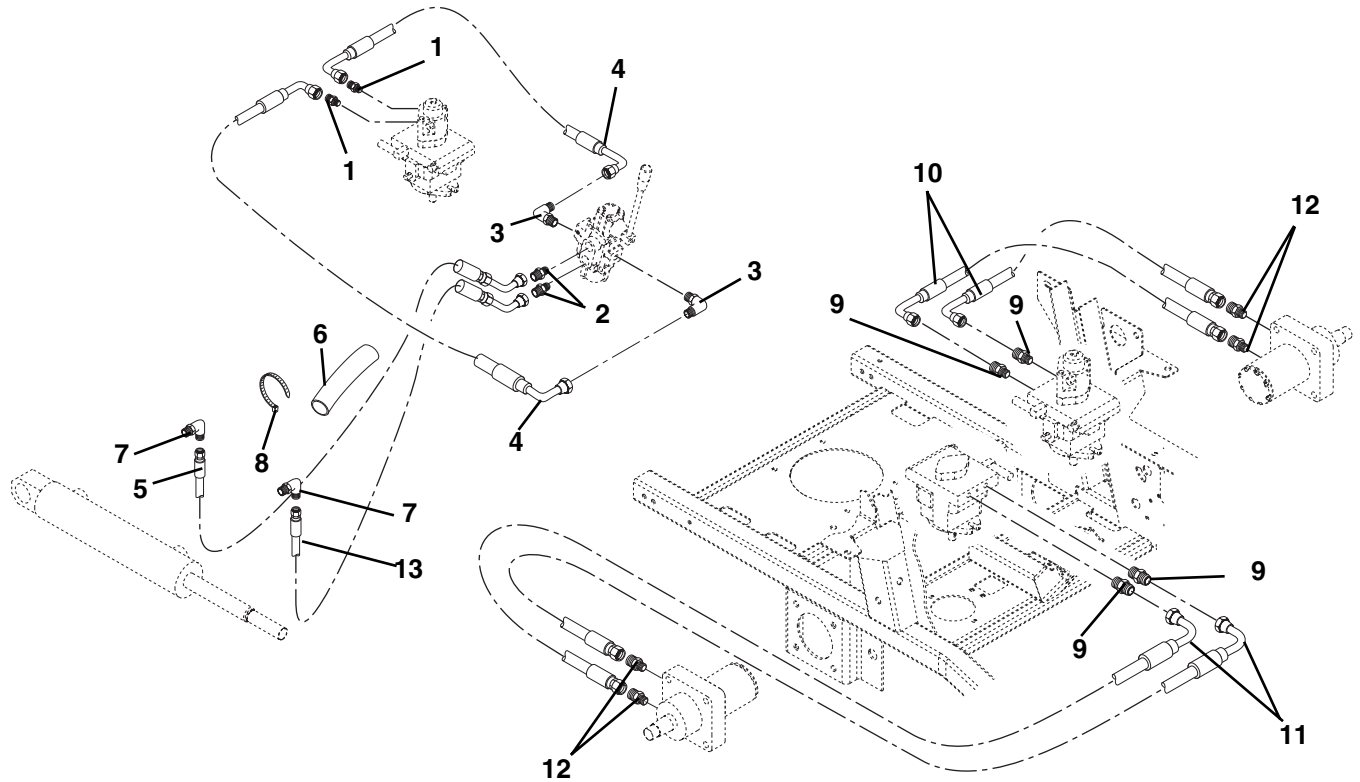


PD3590

Item	Part No.	Qty.	Description
1	09072100	1	Head, Filter
2	05947900	2	Bolt, Hex .25-20 x .50 Grade 5
3	06308400	2	Washer, Locking .25 x .062
4	09246900	1	Oil Filter
5	00161051	1	Tank, Hydraulic
6	09273900	1	Hydraulic Tank Dipstick
7	07061100	2	Adapter, Straight
8	07412900	2	Screw, Tapping .38-16 x .50 Hex Washer Head
9	018828	2	Adapter
10	07017500	3	Adapter, Pipe .56-18 "O"Ring to .56-18
11	00161200	1	Hose, Tee Assembly .38"
12	018818	3	Adapter
13	07000002	1	Fitting, Hydraulic 45 Degree
14	09286900	1	Shield, Heat 5.50 x 4.50
15	09282500	1	Hose,Hydraulic
16	00161100	2	Hose, Hydraulic
17	09234700	1	Adapter

DECK LIFT AND MOTORS TO PUMP CIRCUITS

Model 992077, 078, 079, 080, 081, 082, 310, 311

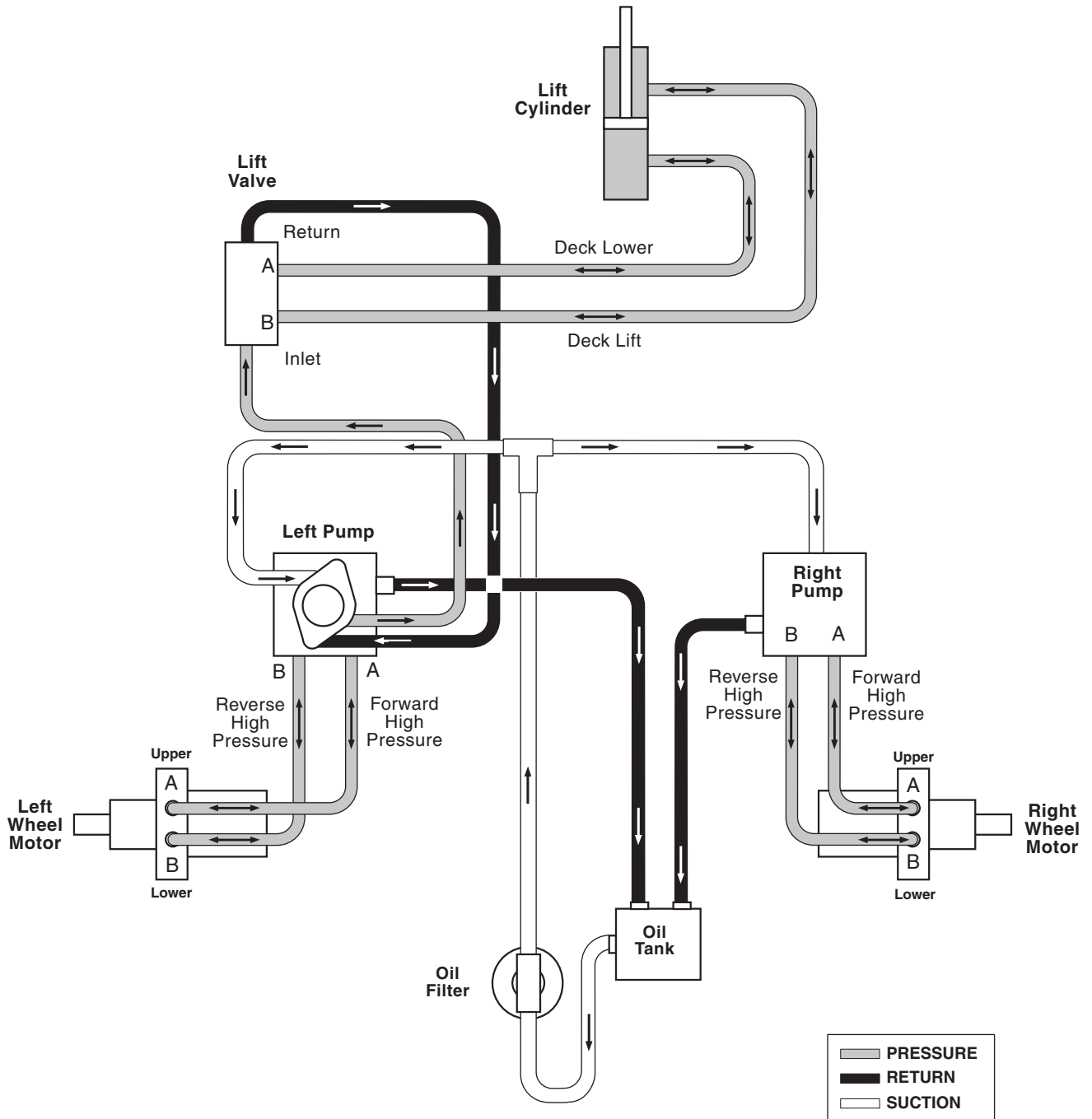


PD3690

Item	Part No.	Qty.	Description
1	07063700	2	Fitting, Hydraulic
2	07063800	2	Fitting, Hydraulic
3	07067500	2	Fitting, Hydraulic Elbow
4	09283600	2	Hose, Hydraulic
5	09275600	1	Hose, Hydraulic
6	09249400	2	Sleeve, Protective 24"
7	07063900	2	Fitting, Hydraulic Elbow
8	036313	2	Cable Tie
9	07059900	4	Adapter, Hydraulic
10	09281800	2	Hose, Hydraulic
11	09281700	2	Hose, Hydraulic
12	07062100	4	Adapter, Hydraulic
13	09275400	1	Hose, Hydraulic

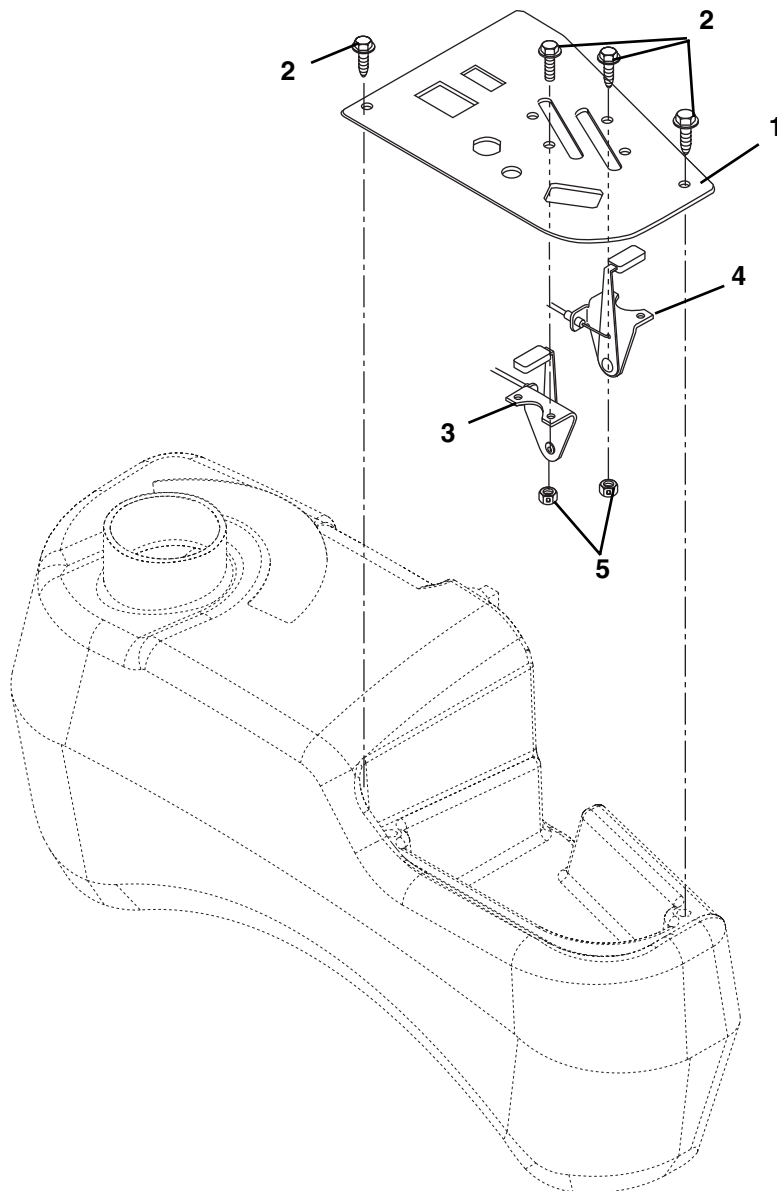
HYDRAULIC DIAGRAM

Model 992077, 078, 079, 080, 081, 082, 310, 311



CONTROL PANEL

Model 992077, 078, 079, 080, 081, 082, 310, 311

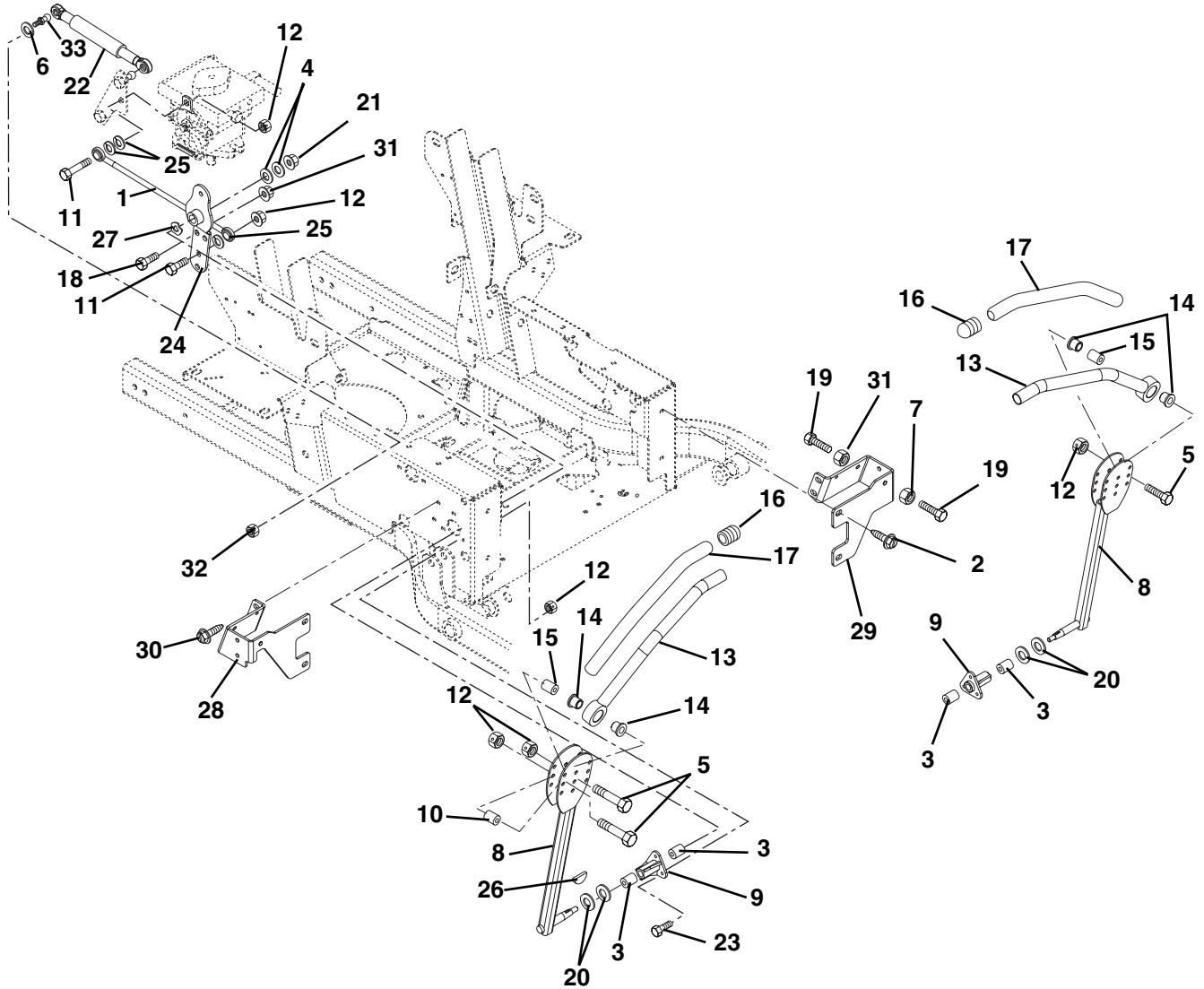


PD3650

Item	Part No.	Qty.	Description
1	09284951	1	Panel, Control
2	06116700	6	Screw, Machine 10-24 x .50 Hex Washer Head
3	06949400	1	Cable, Throttle
4	06950100	1	Cable, Kohler Choke (081, 082)
	06949500	1	Cable, Choke, Kawasaki (077, 078, 079, 080, 310, 311)
5	06536000	4	Nut, Locking Nylon 10-24 With Insert

STEERING CONTROLS

Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3630

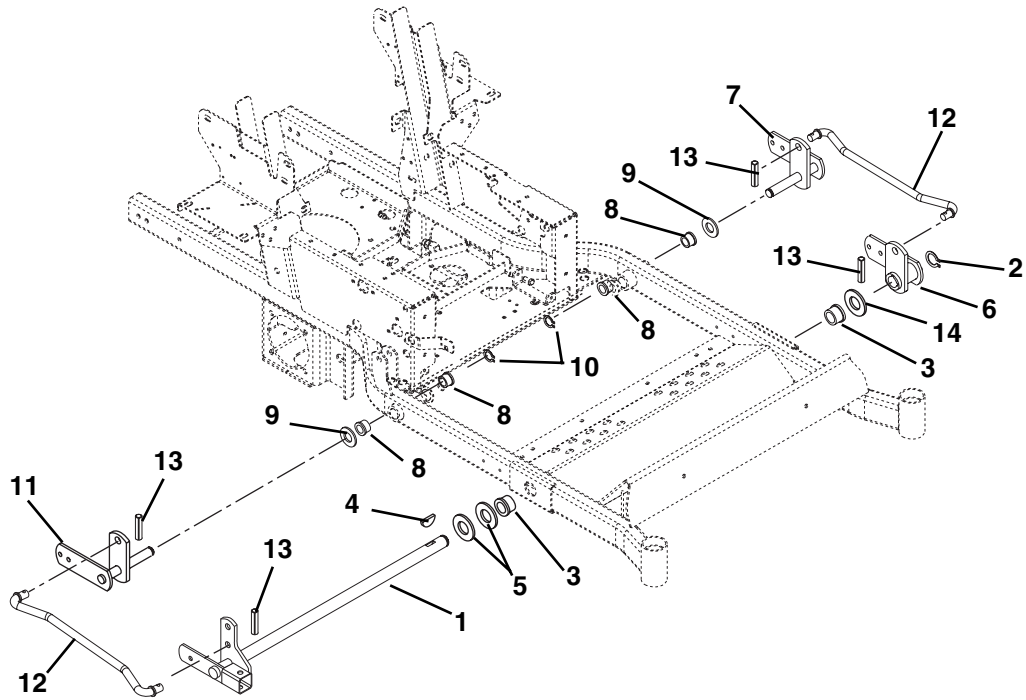
STEERING CONTROLS

Model 992077, 078, 079, 080, 081, 082, 310, 311

Item	Part No.	Qty.	Description
1	09285300	2	Assembly, Steering Rod
2	07415400	4	Screw, Tapping .38-16 x .75 Hex Washer Head
3	05436800	4	Bushing .625 x .75 x .50
4	06435700	4	Washer, Flat Steel .38 x .875 x .083
5	05957400	6	Bolt, Hex .31-18 x 1.75 Grade 5
6	06437200	2	Washer, Flat Steel .344 x .688 x .065
7	06535900	2	Nut, Hex Jam .375-16
8	09285751	2	Control Arm
9	09294600	2	Housing, Bushing
10	09235700	4	Eccentric
11	05947500	4	Bolt, Hex .31-18 x 1.25 Grade 5
12	06543100	16	Nut, Locking Top Flange .31-18
13	09235500	1	Handle, Left Hand
	09235600	1	Handle, Right Hand
14	035172	4	Bushing, Flange Nylon .762 x 1.48 x .44
15	09235400	2	Spacer
16	09211400	2	Caplug, Handlebar
17	09246800	2	Grip, Handlebar
18	05974000	2	Bolt, Hex .375-16 x 1.75
19	05958000	4	Bolt, Hex .38-16 x 1.25 Grade 5
20	06436100	4	Washer, Flat Steel .63 x 1.005 x .062
21	06542000	2	Nut, Locking Top Flange .38-16
22	09258900	2	Damper, Control
23	05947000	6	Bolt, Hex .31-18 x .75 Grade 5
24	00163700	2	Arm, Pivot
25	06308600	4	Washer, Locking .31 x .078 Regular
26	124545	2	Key, Woodruff .13 x .63
27	03704900	2	Wave Washer
28	09287351	1	Stop, Steering - Right Hand
29	09287451	1	Stop, Steering - Left Hand
30	07412900	4	Screw, Tapping .38-16 x .50 Hex Washer Head
31	06537200	4	Nut, Locking Jam Center .375-16
32	06541700	4	Nut, Locking Nylon M8-1.25
33	03652200	2	Stud, Ball

DECK LIFT

Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3640

Item	Part No.	Qty.	Description
1	09289700	1	Weldment, Lift Arm
2	050203	1	Ring, Retaining External 1.00 x .078
3	018355	2	Bushing, Flange Nylon 1.020 x 1.385 x .75 x 1.75
4	124553	1	Key, Woodruff .25 x 1.00
5	06443000	2	Washer, Flat Steel 1.063 x 2.00 x .134
6	09289800	1	Lift Arm - Front
7	09290000	1	Lift Arm Shaft - Left Hand
8	010174	4	Bushing, Flange Nylon .762 x 1.0 x .580 x 1.48
9	036407	2	Washer, Hardened Steel .758 x 1.23 x .031
10	026300	2	Ring, Retaining External .689 x .077
11	09289900	1	Lift Arm Shaft - Right Hand
12	00164700	2	Rod, Lift Assist
13	05800700	4	Pin, Roll .25 x 1.25
14	06435300	1	Washer, Hardened Thrust 1.00 x 1.55 x .03

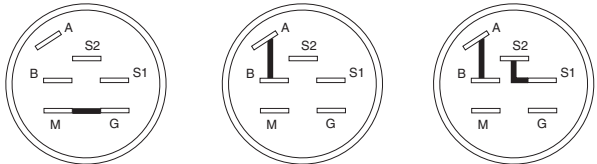

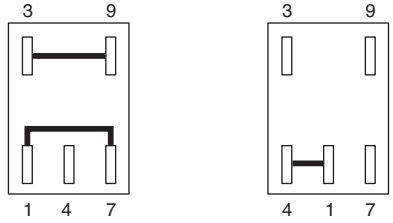
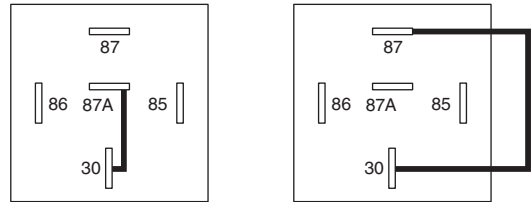
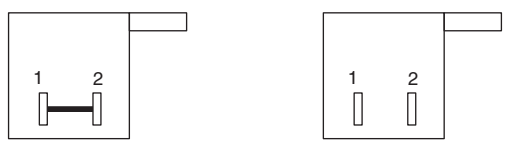
CONTINUITY DIAGRAM

Model 992077, 078, 079, 080, 081, 082, 310, 311

The diagrams below show the various states of connection for electrical components.

The solid lines on switches show continuity.

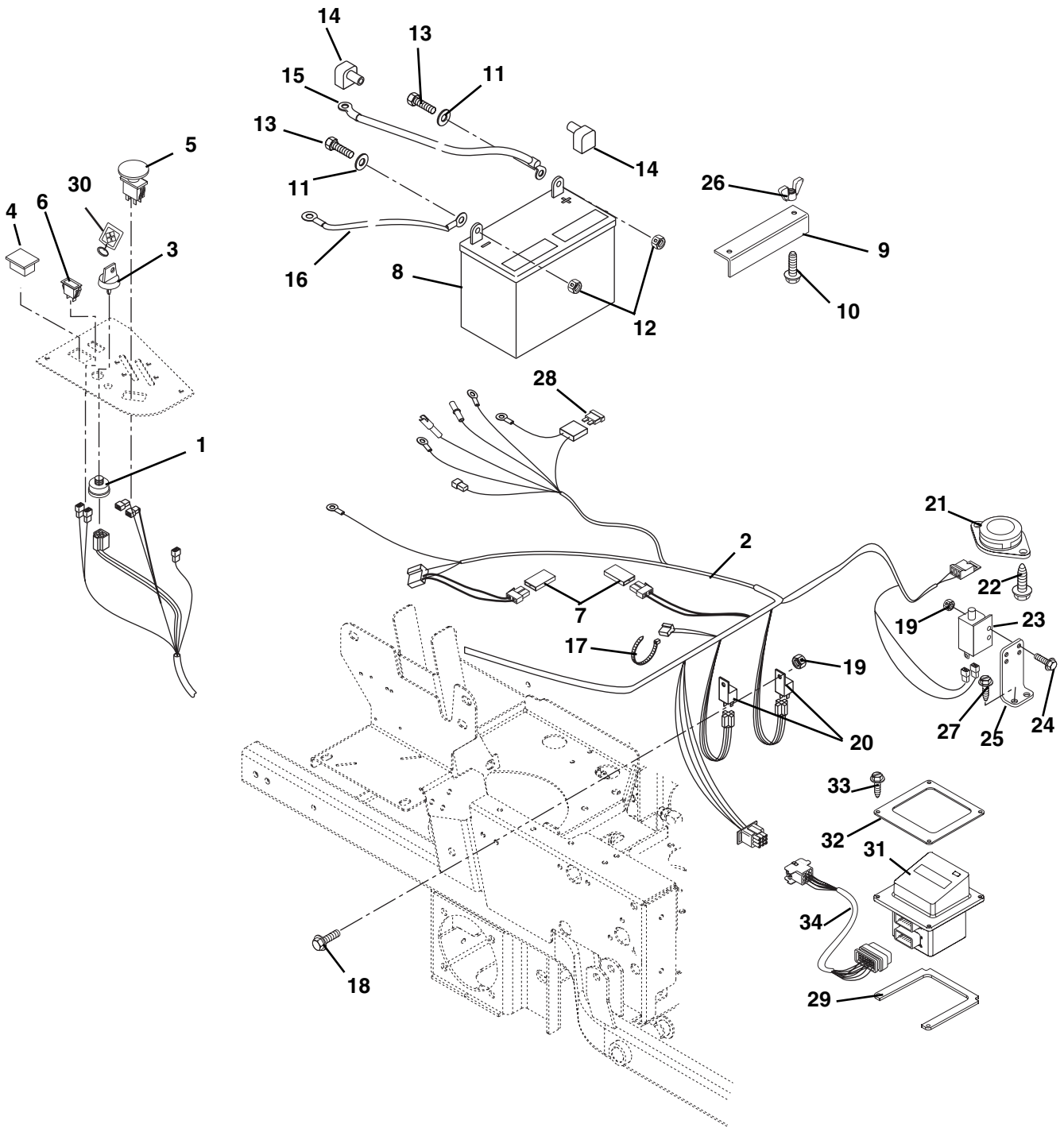
NOTE: All switches are viewed from the rear.

<p>Key Switch (09089700)</p>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> OFF RUN START </div>	<p>Seat Switch (045036)</p>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> OPERATOR OFF SEAT OPERATOR ON SEAT </div>
<p>PTO Switch (01545600)</p>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> DISENGAGED (down position) ENGAGED (up position) </div>	<p>Relay (040216)</p>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> NOT ENERGIZED ENERGIZED </div>
<p>Brake Switch (03657100)</p>  <div style="display: flex; justify-content: space-around; margin-top: 5px;"> BUTTON IN BUTTON OUT </div>	

PD3840

ELECTRICAL SYSTEM

Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3620

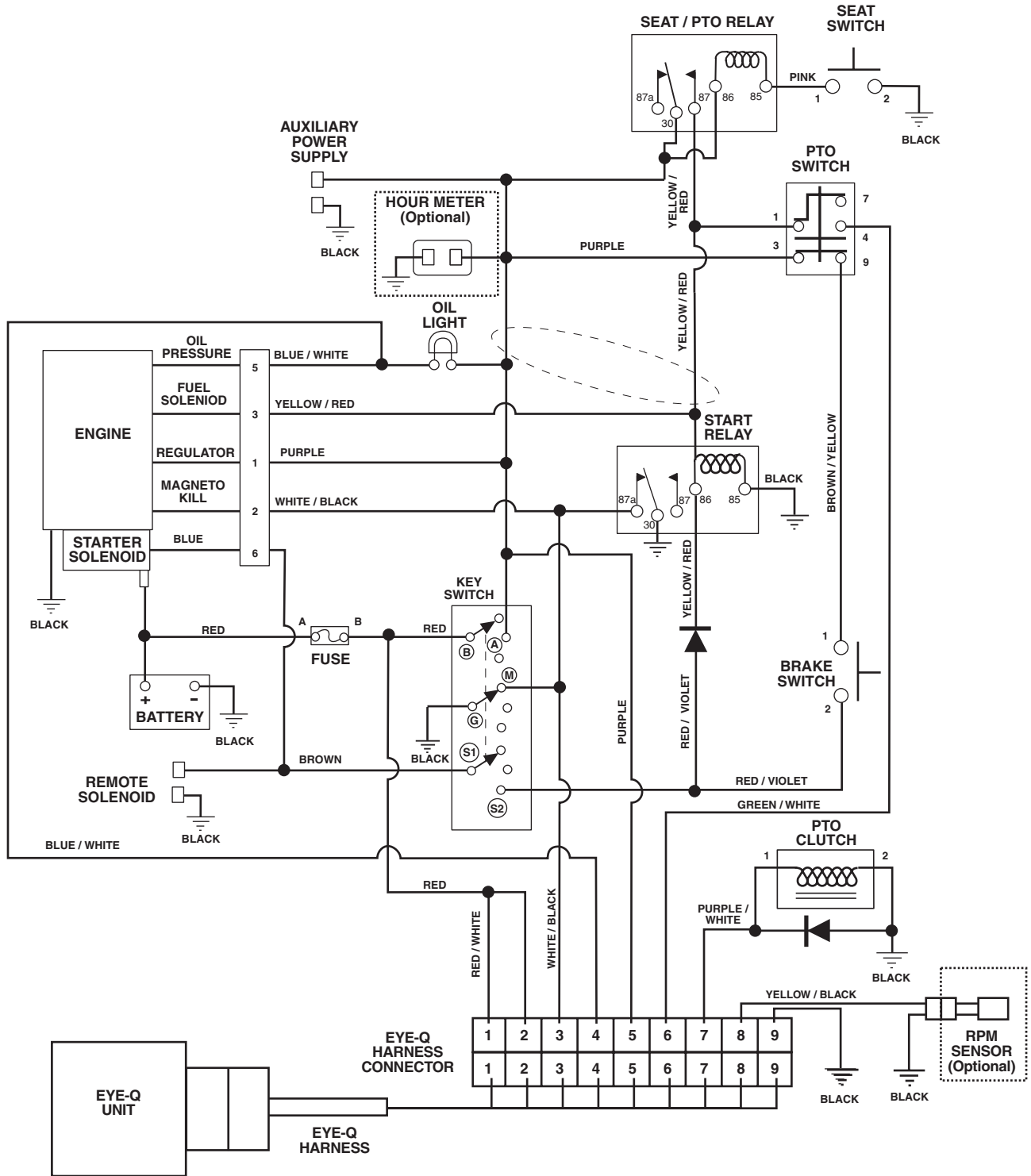
ELECTRICAL SYSTEM

Model 52992077, 078, 079, 080, 081, 082, 310, 311

Item	Part No.	Qty.	Description
1	09089700	1	Key Switch
2	00250900	1	Harness, Z-6 Pin (EYE-Q)
3	09287000	1	Key with Shield
4	00539300	1	Plug
5	01545600	1	Switch, Clutch With Retainer Ring
6	050673	1	Light, Indicator Kit
7	09293500	2	Diode, Connector Shell
8	01554800	1	Battery
9	015258	1	Hold Down
10	06226400	2	Bolt, Round Head Square Neck .25-20 x 7.50
11	06437300	2	Washer, Flat Steel .281 x .620 x .065
12	06543500	2	Nut, Locking Top Flange .25-20
13	05946800	2	Bolt, Hex .25-20 x .75 Grade 5
14	039619	2	Insulator
15	09295800	1	Positive Cable 22"
16	042130	1	Cable, Negative Battery
17	036313	4	Cable Tie
18	06116700	2	Screw, Machine 10-24 x .50 Hex Washer Head
19	06536000	4	Nut, Locking Nylon 10-24 With Insert
20	040216	AR	Relay (Included with Harness)
21	045036	1	Seat Switch
22	07411900	2	Screw, Tapping 12-24 x .50 Hex Washer Head
23	03657100	1	Switch, Single Pole
24	06116900	2	Screw, Machine 10-24 x .75 Hex Washer Head
25	09282851	1	Mount, Brake Switch
26	06537500	2	Nut, Locking Wing .25-20
27	07412000	2	Screw, Tapping .25-20 x .50 Hex Washer Head
28	00524600	AR	Fuse, 30 Amp (Included with Harness)
29	00252251	1	Spacer, Enclosure Mounting (Bottom)
30	045842	1	Key Chain
31	00251600	1	Assembly, Eye-Q
32	00265751	1	Plate, Eye-Q Stiffener (Top)
33	06100002	4	Screw, Machine 10-24 x 1.0 Slotted Pan Black
34	00251400	1	Harness, Eye-Q

WIRING DIAGRAM

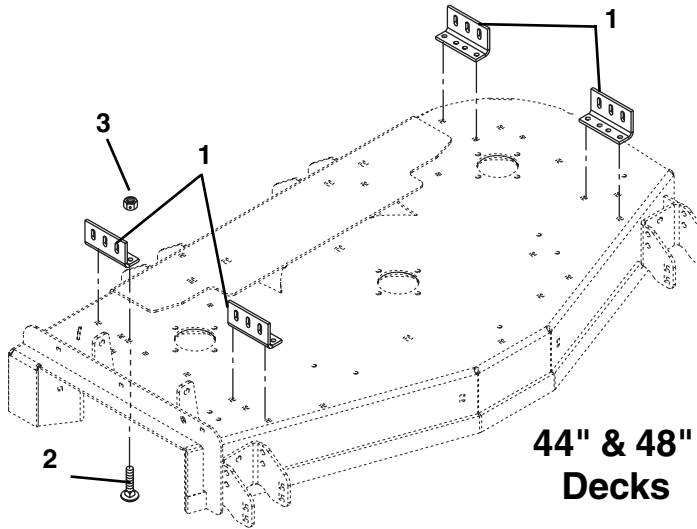
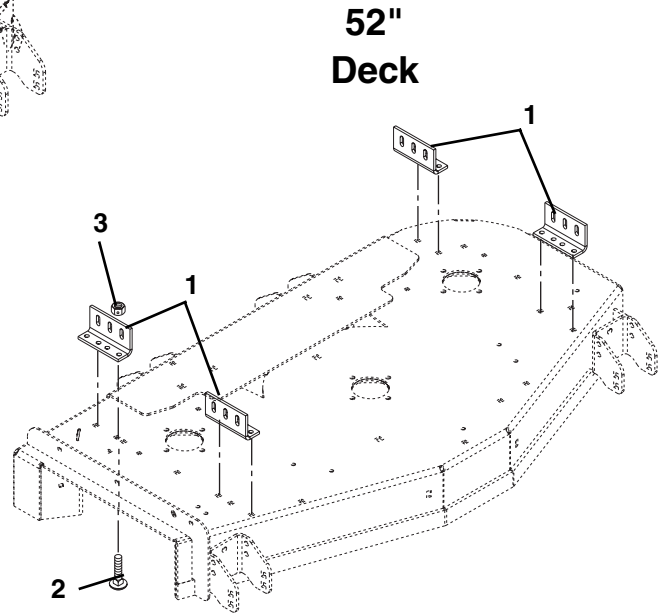
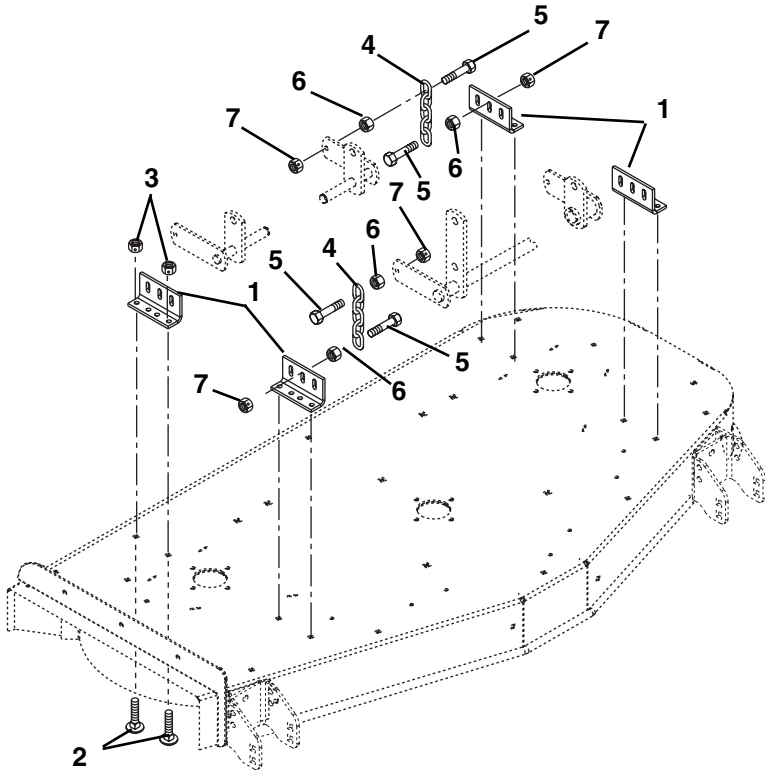
Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3231

MOUNTING BRACKETS

Model 992077, 078, 079, 080, 081, 082, 310, 311

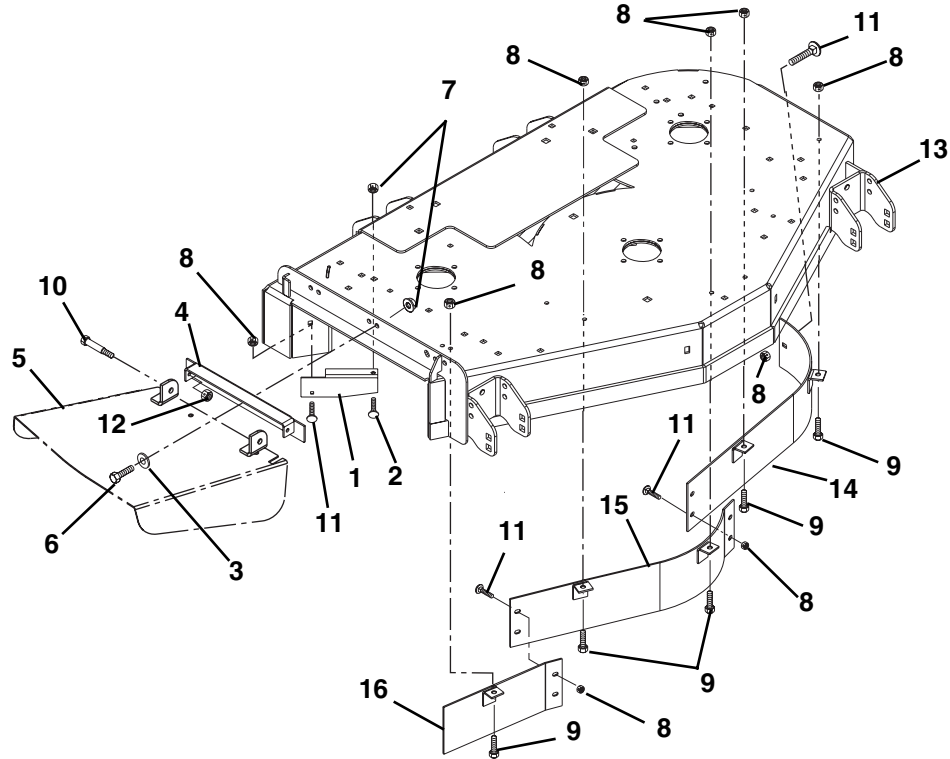


PD3830

Item	Part No.	Qty.	Description
1	09290153	4	Bracket, Mower Mounting
2	06223600	8	Bolt, Round Head Square Neck .38-16 x 1.00 Grade 2
3	06542000	8	Nut, Locking Top Flange .38-16
4	09284700	4	Chain, Link
5	05959700	8	Bolt, Hex .50-13 x 2.00 Grade 5
6	06543300	8	Nut, Spin Lock Flange .50-13
7	06543600	8	Nut, Locking Top Flange .50-13

DECK, DISCHARGE CHUTE AND BAFFLES

Model 992077, 078, 079, 080, 081, 082, 310, 311

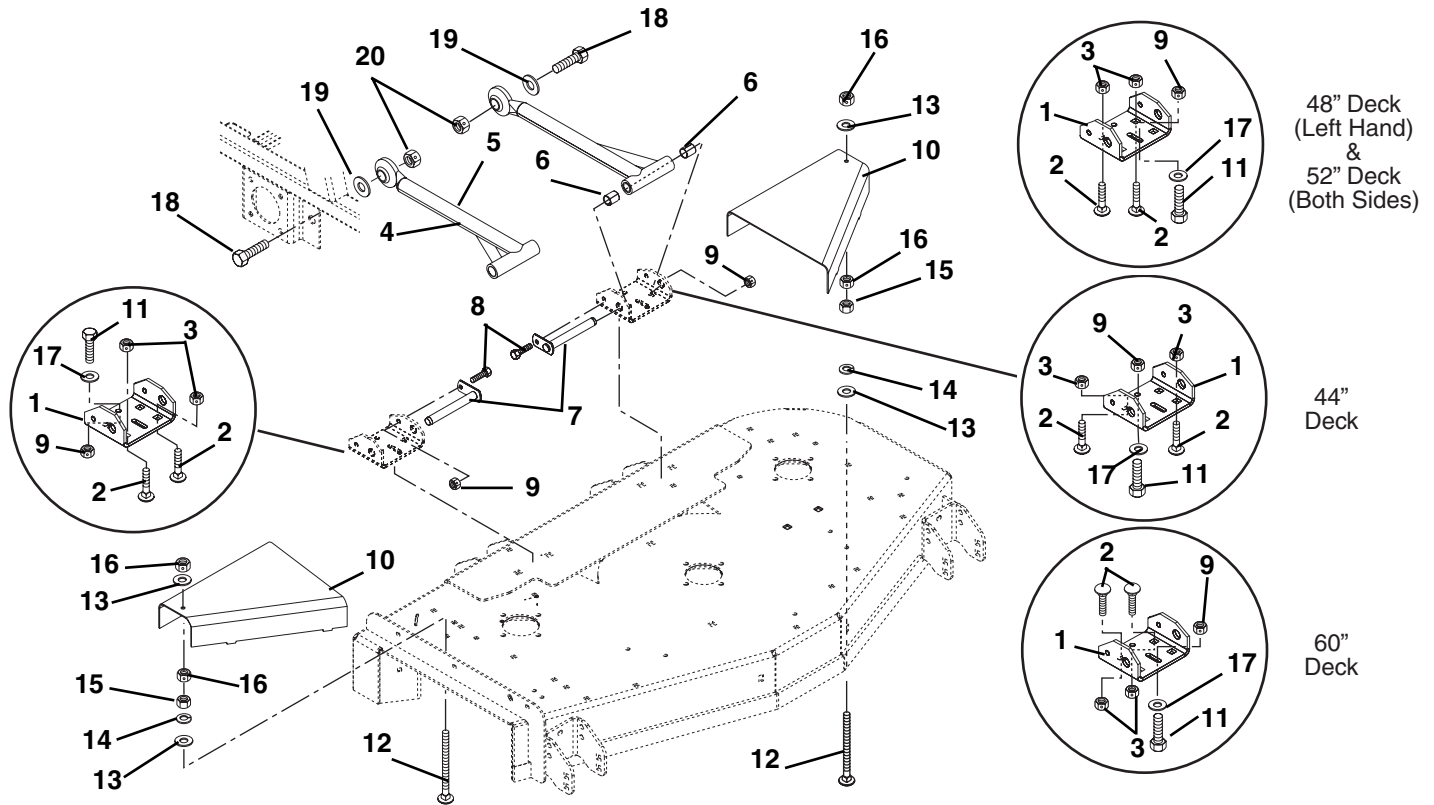


PD3701

Item	Part No.	Qty.	Description
1	04921951	1	Deflector, 52" (079, 081)
	09238451	1	Deflector, 60" (080, 082)
	04939851	1	Deflector, 44" (077, 078, 310, 311)
2	06223600	1	Bolt, Round Head Square Neck .38-16 x 1.00 Grade 5
3	06435700	3	Washer, Flat Steel .38 x .875 x .083 (077, 078, 079, 081, 310, 311)
4	09286753	1	Weldment Discharge Chute Bracket (077, 078, 079, 081, 310, 311)
	00253253	1	Weldment Discharge Chute Bracket (080, 082)
5	09286153	1	Chute, Discharge (310, 311)
	00198253	1	Chute, Discharge (080, 082)
	00252953	1	Chute, Discharge (077, 078, 079, 081)
6	05948700	3	Bolt, Hex .38-16 x 1.00 Grade 5
7	06542000	4	Nut, Locking Top Flange .38-16
8	06543100	11	Nut, Locking Top Flange .31-18
9	05947000	5	Bolt, Hex .31-18 x .75 Grade 5
10	07056500	2	Bolt, Shoulder .38-16 x .50 Socket Head
11	06215700	6	Bolt, Round Head Square Neck .31-18 x .75 Grade 5
12	06529600	2	Nut, Locking Center .38-16
13	09284453	1	Weldment, 52" Mower Deck (079, 081)
	09288253	1	Weldment, 60" Mower Deck (080, 082)
	04940253	1	Weldment, 44" Mower Deck Float (077, 310)
	09283853	1	Weldment, 48" Mower Deck (078, 311)
14	04921651	1	Baffle, Left Front - 52" (079, 081)
	09241651	1	Baffle, Left Front - 60"(080, 082)
	04938951	1	Baffle, Left Front - 44" (077, 310)
	04918951	1	Baffle, Left Front - 48" (078, 311)
15	04921751	1	Weldment, Baffle Center Front - 52" (079, 081)
	09241751	1	Weldment, Baffle Center Front - 60" (080, 082)
	04939051	1	Weldment, Baffle Center Front - 44" (077, 310)
	04919051	1	Weldment, Baffle Center Front - 48" (078, 311)
16	04921851	1	Weldment, Baffle Right Front - 52" (079, 081)
	09241851	1	Weldment, Baffle Right Front - 60" (080, 082)
	04939151	1	Weldment, Baffle Right Front - 44" (077, 310)
	04919651	1	Weldment, Upper Baffle Right - 48" (078, 311)

MOUNTING ARMS AND BELT GUARDS

Model 992077, 078, 079, 080, 081, 082, 310, 311

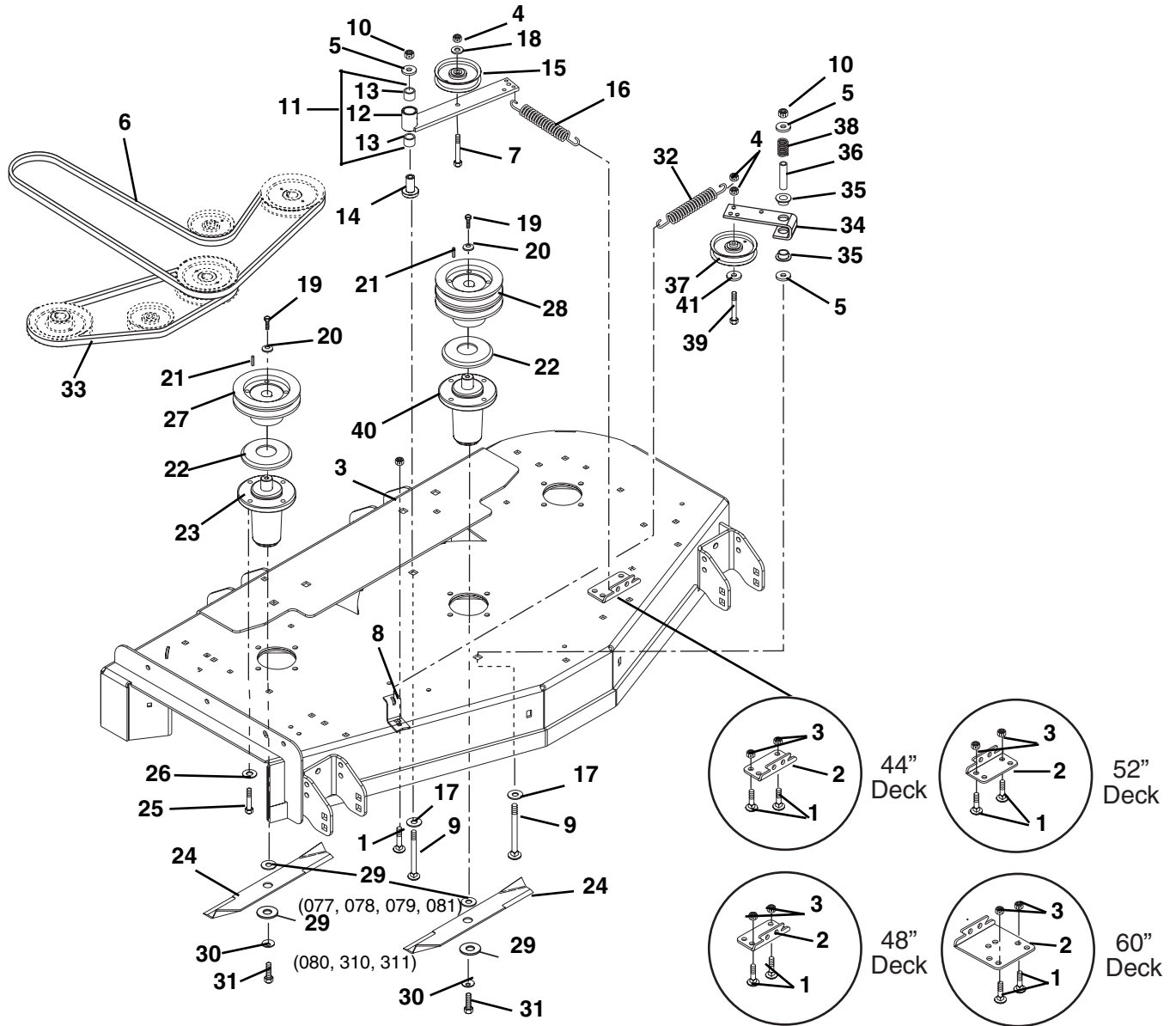


PD0770

Item	Part No.	Qty.	Description
1	09240453	2	Bracket, Mower Mounting (Rear)
2	06221200	4	Bolt, Round Head Square Neck .50-13 x .75 Grade 5
3	06519700	4	Nut, Locking Center Jam .50-13
4	09282000	2	Assembly, Mower Mounting (Includes Items 5 and 6)
5	09282151	AR	Mower Mounting Arm
6	05435900	AR	Bearing, .75 x .875 x 1.00
7	09238900	2	Weldment, Mower Mounting Pin
8	05959400	2	Bolt, Hex .38-16 x .75 Grade 5
9	06542000	4	Nut, Locking Top Flange .38-16
10	09246253	1	Guard, Pulley Left Hand (079, 081)
	09246353	1	Guard, Pulley Right Hand (079, 081)
	09240853	1	Guard, Pulley Left Hand (080, 082)
	09240753	1	Guard, Pulley Right Hand (080, 082)
	09283553	2	Guard, Pulley (077, 078)
11	06223900	2	Bolt, Round Head Square Neck .38-16 x .75 Grade 5
12	06225300	4	Bolt, Round Head Square Neck Full Thread .312-18 x 3.50 (077, 078, 079, 081, 310, 311)
	06225300	2	Bolt, Round Head Square Neck Full Thread .312-18 x 3.50 (080, 082)
13	06437200	8	Washer, Flat Steel .344 x .688 x .065 (077, 078, 079, 081, 310, 311)
	06437200	4	Washer, Flat Steel .344 x .688 x .065 (080, 082)
14	06308600	4	Washer, Locking .31 x .078 (077, 078, 079, 081, 310, 311)
	06308600	2	Washer, Locking .31 x .078 (080, 082)
15	06529200	4	Nut, Hex .31-18 (077, 078, 079, 081, 310, 311)
	06529200	2	Nut, Hex .31-18 (080, 082)
16	06529800	8	Nut, Locking Center .31-18 (077, 078, 079, 081, 310, 311)
	06529800	4	Nut, Locking Center .31-18 (080, 082)
17	06436200	2	Washer, Flat Steel .406 x .812 x .065
18	05969500	2	Bolt, Hex .875-9 x 2.75 Grade 5
19	06444700	2	Washer, Flat Steel .875 x 1.50 x .120
20	06539700	2	Nut, Locking Center .875-9

BELTS, SPINDLES, IDLERS AND BLADES

Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3710

Item	Part No.	Qty.	Description
1	06223900	3	Bolt, Round Head Square Neck .38-16 x .75 Grade 5 (077, 078, 079, 081, 310, 311)
	06221400	3	Bolt, Round Head Square Neck .38-16 x 1.25 Grade 2 (080, 082)
2	09248353	1	Bracket, Spring (077, 078, 079, 081, 310, 311)
	09099700	1	Bracket, Spring (080, 082)
3	06542000	3	Nut, Locking Top Flange .38-16
4	06529600	3	Nut, Locking Center .38-16
5	415543	3	Washer, Flat Steel .531 x 1.25 x .10
6	07241100	1	V-Belt, B-Section 51.50 x .625 (077, 079, 081, 310)
	07239300	1	V-Belt, B-Section 55.75 x .625 (080, 082)
	07241000	1	V-Belt, B-Section 48.80 x .625 (078, 311)
7	05961400	1	Bolt, Hex .38-16 x 2.75 Grade 5

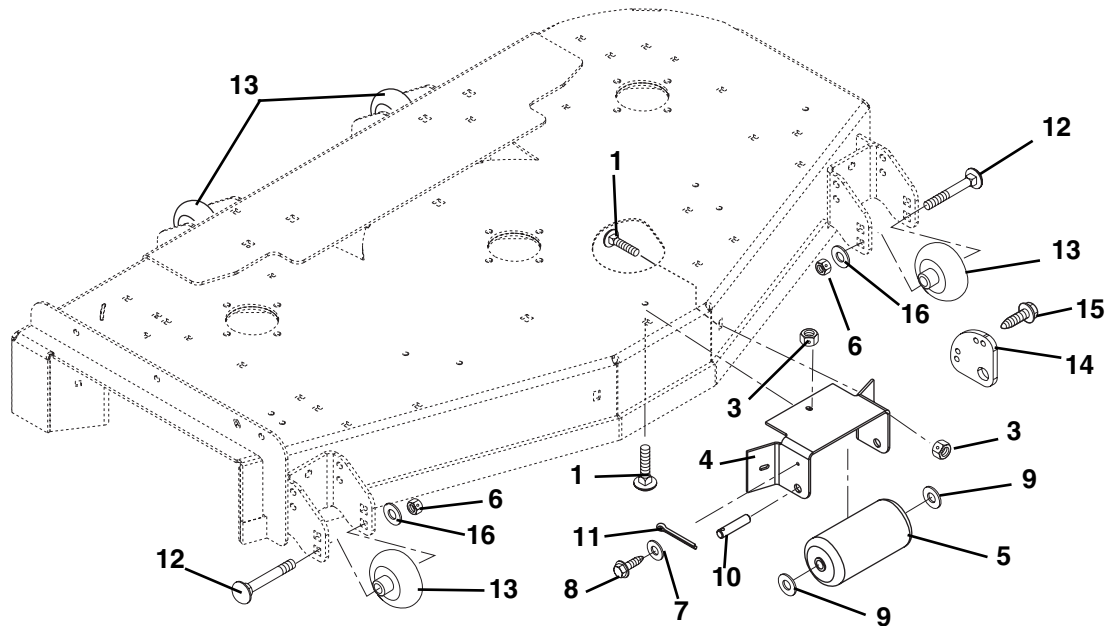
BELTS, SPINDLES, IDLERS AND BLADES

Model 992077, 078, 079, 080, 081, 082, 310, 311

Item	Part No.	Qty.	Description
8	09245353	1	Anchor, Spring
9	06225000	2	Bolt, Round Head Square Neck .50-13 x 3.50 Grade 5
10	06543600	2	Nut, Locking Top Flange .50-13
11	09248400	1	Assembly, Idler Pivot Arm (Contains Items 12 & 13)
12	09248551	AR	Weldment, Idler Pivot Arm
13	05435800	AR	Bearing, 1.00 x 1.12 x .75
14	07053100	1	Bearing, Pedestal Powdered Metal
15	07327800	1	Idler, Flat 4.00 x .38 (2.00 W)
16	08335100	2	Spring, External .09 x 1.00 x 6.00
17	06441500	2	Washer, Flat Steel .755 x 1.375 x .062 (077, 078, 079, 081, 082, 310, 311)
18	446470	1	Washer, Flat Steel .375 x 1.125 x .065
19	05974500	3	Bolt, Hex .38-16 x 1.00 Grade 8
20	00597000	3	Washer, Cupped Serrated .375
21	06611200	3	Key, Square .25 x .25 x 1.00 RC 40-50
22	09238200	AR	Slinger, Dust
23	59201000	2	Assembly, Maintenance Free Spindle
24	04916400	3	Blade, Mower (18.00) (079, 081)
	04917900	AR	Blade, Mulching (18.00) (079, 081)
	09081200	3	Blade, Mower 60" (080, 082)
	08899100	AR	Blade, Mower 60" Tungsten Mulch (080, 082)
	04919100	3	Blade, Mower (077, 078)
	04936000	3	Blade, 32" (16.25) (310, 311)
	04920600	AR	Blade, Mulching (077, 078)
25	05948700	12	Bolt, Hex .38-16 x 1.00 Grade 5
26	06308800	12	Washer, Locking .38 x .094 Regular
27	09242500	2	Weldment, Spindle Sheave 5.00 (077, 078, 079, 081, 310, 311)
	09238500	2	Weldment, Spindle Sheave 6.00 (080, 082)
28	09253200	1	Sheave, Double (5.25) (077, 078, 079, 081, 310, 311)
	09253100	1	Sheave, Double (6.25") (080, 082)
29	06435200	3	Washer, Flat .64 x 1.81 x .250
30	06445700	3	Washer, Bellville .63 x 1.625 x .14
31	05978900	3	Bolt, Hex .62-18 x 1.75 Grade 8
32	08336100	1	Spring, Extension
33	049028	1	V-Belt, B-Section 19.10 x .672 (079, 081)
	07235000	1	V-Belt, B-Section 23.94 x .625 (080, 082)
	07202900	1	V-Belt, 5L-Section 49.97 x .672 (077, 078, 310, 311)
34	034120	1	Arm, Idler Pivot
35	010174	2	Bushing, Flange .762 x 1.00 x .58 x 1.48 Nylon
36	034119	1	Spacer .56 x .75 x 2.44 Steel
37	07327600	1	V-Idler, 4.00 x .38
38	020444	1	Spring, Compression .085 x .80 x 1.00
39	05962900	1	Bolt, Hex .38-16 x 2.25 Grade 5
40	59202600	1	Spindle Assembly (Center)
41	06436200	1	Washer, Flat Steel .406 x .812 x .065

ROLLERS

Model 992077, 078, 079, 080, 081, 082, 310, 311



PD3780

Item	Part No.	Qty.	Description
1	06223600	3	Bolt, Round Head Square Neck .38-16 x 1.00 Grade 5) (077, 078, 079, 081, 310, 311)
2	06221400	3	Bolt, Round Head Square Neck .38-16 x 1.25 Grade 2 (080, 082)
3	06542000	3	Nut, Locking Top Flange .38-16
4	04920853	1	Bracket, Anti-Scalp Roller
5	09078100	1	Roller
6	06540600	4	Nut, Locking Nylon .50-13
7	06437300	1	Washer, Flat Steel .281 x .62 x .065
8	07414200	1	Screw, Tapping .25-20 x .75 Hex Washer Head
9	06442800	2	Washer, Flat Steel .656 x 1.31 x .095
10	09075300	1	Pin
11	06713100	1	Pin, Cotter .25 x 2.0
12	06225900	4	Bolt, Round Head Square Neck .50-13 x 5.00 Grade 2
13	09253700	4	Wheel, 3 x 5
14	09290353	2	Anti-Scalp Washer
15	07401900	3	Screw, Tapping .25-20 x .62 Hex Washer Head
16	06441900	4	Washer, Flat Steel .531 x 1.06 x .095



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