

Parts Manual

Mfg. No: 309029x50A
Mid-Engine Rider (2002)

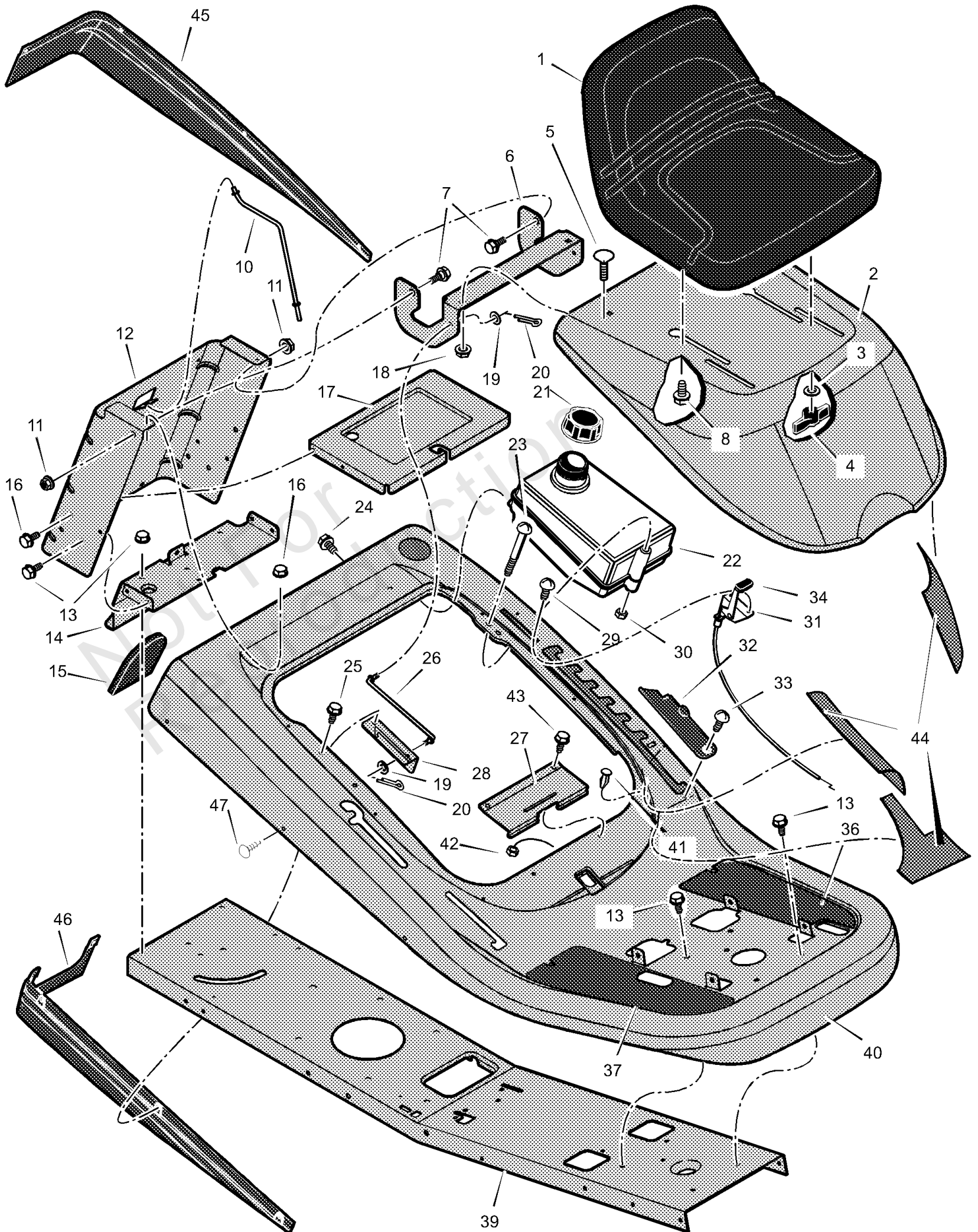
Model Components	Page
Chassis & Hood.....	4
Decals.....	6
Electrical System.....	8
Motion Drive.....	10
Mower Housing.....	14
Mower Housing Suspension.....	18
Steering.....	20
Torque Specification Chart.....	22

Not For
Reproduction

Chassis & Hood

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 309029x50A



Chassis & Hood

REF NO	PART NO	QTY	DESCRIPTION
1	690567		Seat
2	1401027E245		Hood
3	017X47MA		Washer
4	1001054MA		Bolt, Wing
5	002X53MA		Bolt, Carriage
6	1401036E701MA		Bracket, Hinge
7	009X29MA		Bolt, Shoulder
8	009X56MA		Bolt, Shoulder
10	1401113MA		Rod, Battery
11	015X84MA		Nut, Flange
12	1401025E701		Plate, Rear
13	26X249MA		Screw
14	1401050E701		Plate, Hitch
15	1401212		Cover (Gray)
16	26X263MA		Screw
17	1401076E701MA		TRAY, Battery
18	015X79MA		Nut, Flange
19	017X37MA		Washer
20	0031X6MA		Pin, Cotter
21	092317MA		Cap, Fuel Tank -(Included with Ref. No. 22)
22	7601040		Tank, Fuel
23	06X111		Screw -(Included with Ref. No. 22)
24	26X253MA		Screw
25	26X263MA		Screw
26	1401110MA		Rod, Hood Prop
27	1401282MA		Spring, Seat Deck
28	1401056E701		Bracket, Prop Rod
29	26X201MA		Screw
30	15X116MA		Nut, NY-Lock
31	1401248MA		Control, Throttle
32	1401214		Cover, Detent (Gray)
33	009X47MA		Bolt, Shoulder
34			UNKNOWN
36	1401233		Footmat, Left
37	1401232		Footmat, Right
39	1401256E701		Frame
40	1401219E245MA		Deck, Seat
41	094744		Bumper
42	15X116MA		Nut -(Included with Ref. No. 22)
43	0025X2MA		Screw
44	7601036		Kit, Foil Heat Shield
45	1401075		Trim, Left (Gray)
46	1401074		Trim, Right (Gray)
47	0193X1MA		Fastener, Panel
--	F-020604L		Book, Instruction

No
Diagram
Available
Parts List
Only

Decals

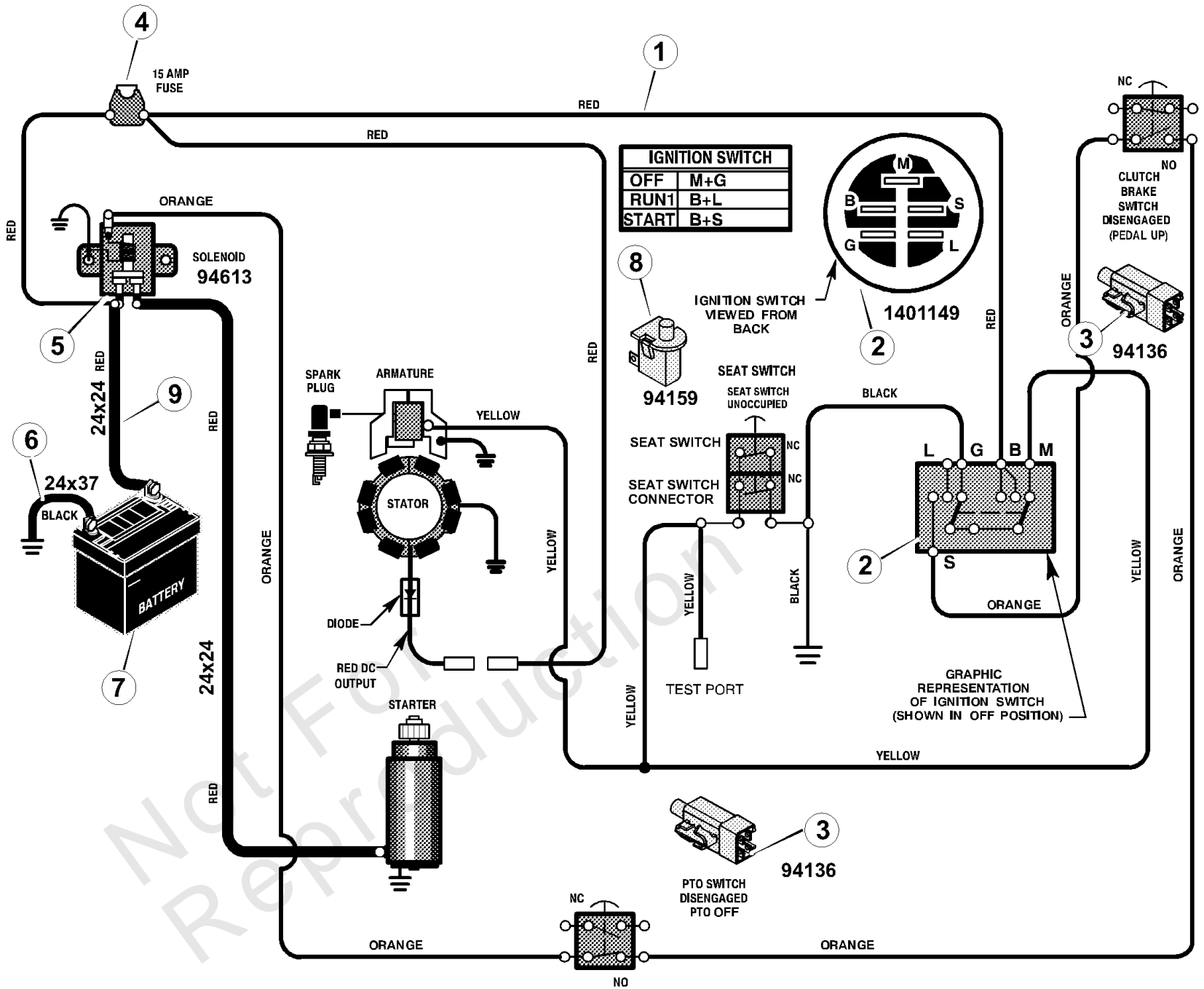
REF NO	PART NO	QTY	DESCRIPTION
	44X7197	1	DEKA
	44X7388MA	2	DECAL, Engine, 10 HP, Briggs & Stratton
	48X826	1	100/76 (Right)
	48X825	1	100/76 (Left)
	44X5430MA	1	Cut Finger
	48X725MA	1	Caution/Warning
	48X727	1	1-6 Height Adjust - Lift Lever
	44X6456MA	1	Deck Leveling
	44X5429	1	No Step
	48X736	1	Brake / Clutch
	48X723	1	Gear Select 5 Speed
	44X5936MA	1	Heat Shield Warning
	48X511	1	Drawbar Warning
	44X6828MA	1	Warning - Pinch Point
	44X2929	1	TUV & GS European Export
	48X724	1	Engagement Lever
	48X726MA	1	Park Brake Symbol
	48X728	1	Throttle Control
	48X729	1	Gas Gauge
	48X827	1	100/76 2n1 (Hood)
	48X861MA	1	Sentinel Logo
	48X828	1	Sentinel by Murray

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Electrical System

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Electrical System

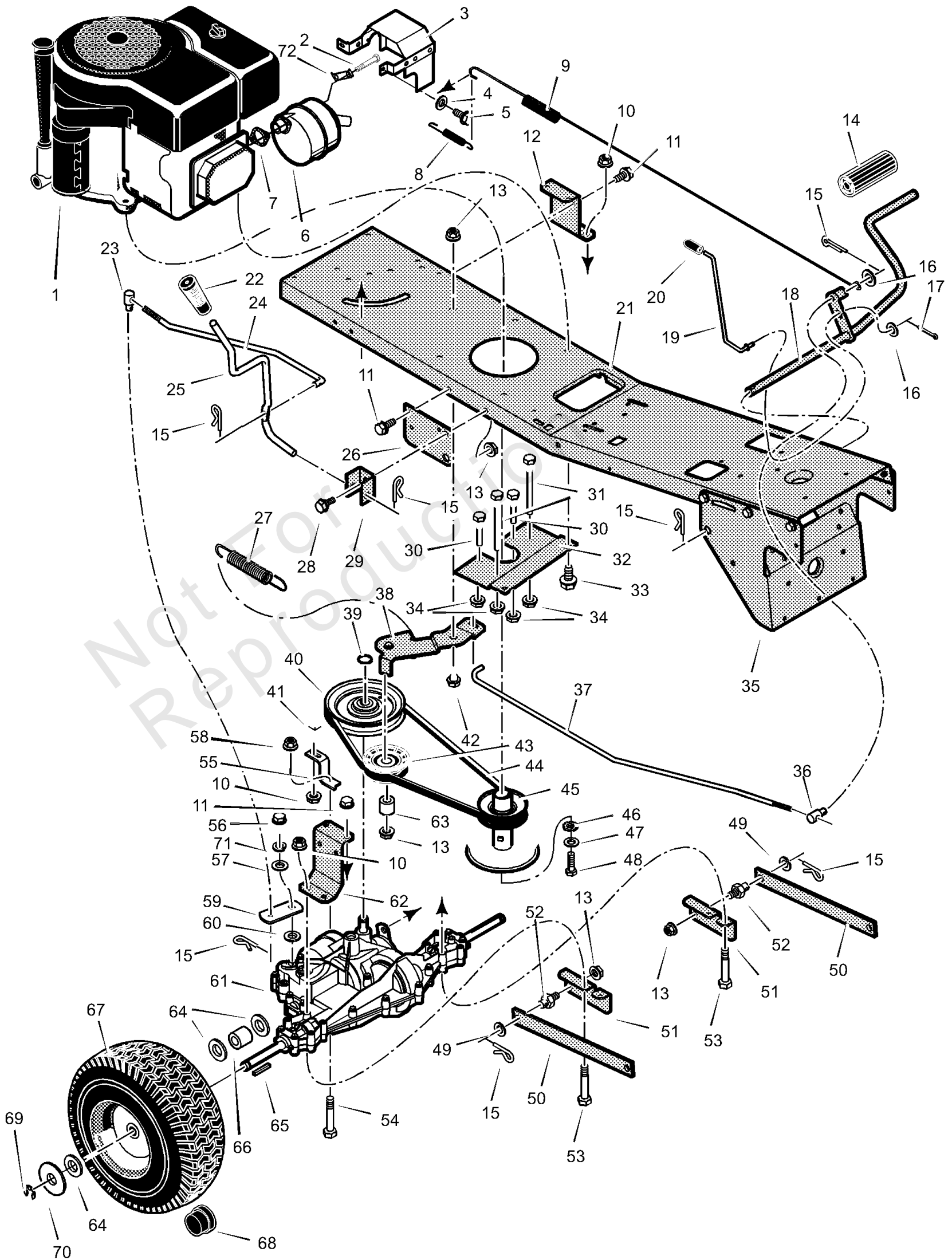
REF NO	PART NO	QTY	DESCRIPTION
1	250X103		Harness, Chassis Wire
2	1401149MA		Switch, Ignition
--	327349MA		Key, Ignition
3	094136MA		Switch, Limit
4	054212		Fuse
--	407078MA		Holder, Fuse
5	094613		Solenoid
--	26X229MA		Screw, Mounting
--	15X116MA		Locknut
6	24X37MA		Cable, Battery Ground
7	092739		Battery
--	002X82MA		Bolt, Carriage
--	014X79MA		Wingnut
8	094159MA		Switch, Seat Sensor
9	024X24MA		Cable, Red Batery
--	690604MA		BOOT, Battery Terminal, Positive

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Motion Drive

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Motion Drive

REF NO	PART NO	QTY	DESCRIPTION
1			Engine, Briggs & Stratton
2	01X134MA		Bolt, Hex
3	1401207		Shield Assembly, Heat
4	018X32MA		Lockwasher
5	0025X2MA		Screw
6	1401251		ffler
7	692236		GASKET, Exhaust
8	165X75MA		Spring, Extension
9	165X148		Spring, Extension
10	015X88MA		Nut
11	26X249MA		Screw
12	1401042		Bracket, Transaxle -Left
13	015X84MA		Nut, Flange
14	021544MA		Cover, Pedal
15	030X20MA		Pin, Cotter
16	017X53MA		Washer
17	030X20MA		Pin, Cotter
18	1401127E701		Pedal Assembly
19	1401112		Rod, Parking Brake
20	091079MA		Grip, Parking Brake Rod
21	1401256E701		Frame
22	94929		Grip, Shift Lever
23	1401148		Nut, Adjusting
24	1401122MA		Link, Shift
25	1401111MA		Lever, Shift
26	1401032		Bracket, Lift Pivot
27	165X147MA		Spring, Extension
28	009X39MA		Bolt, Shoulder
29	1401043		Bracket, Pivot
30	1401104		Guide, Belt -Short
31	1401105MA		Guide, Belt -Long
32	1401057		Plate, Belt Guide
33	0025X7MA		Bolt
34	015X79MA		Nut, Flange
35	1401059		Bracket, Support
36	094815ZMA		Nut, Adjusting
37	1401078		Rod, Clutch
38	1401128		Clutch Arm Assembly
39	0011X7MA		Ring, Retainer
40	1401077MA		Pulley, Drive
41	002X53MA		Bolt, Carriage
42	009X39MA		Bolt, Shoulder
43	690410MA		Pulley, Idler
44	37X110MA		Belt, Motion Drive
45	1401066MA		Pulley, Split Stack
46	019X35MA		Washer, Star
47	17X170MA		Washer
48	01X140MA		Bolt, Hex

Footnotes:

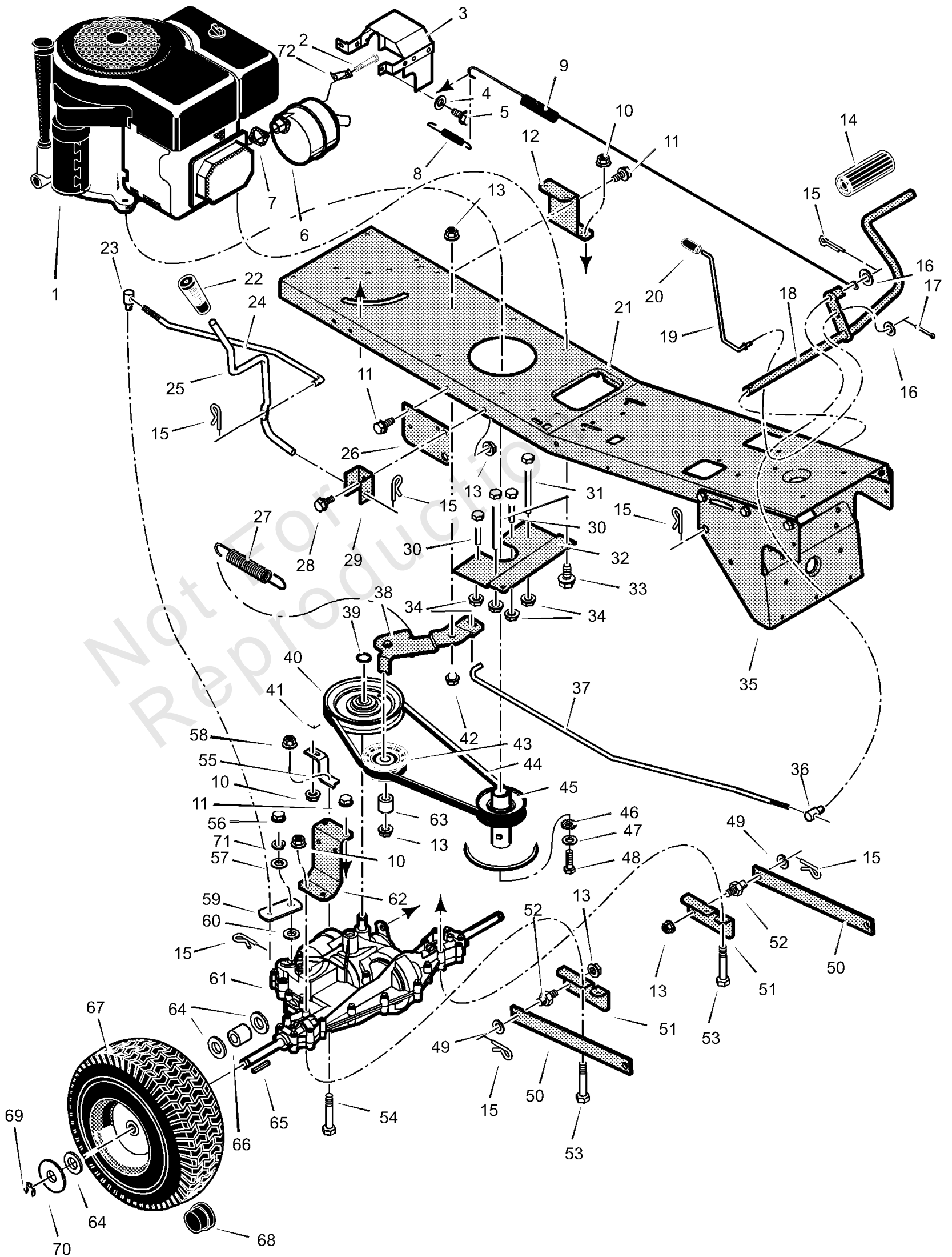
Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

Note** Contact your nearest Peerless transaxle dealer for parts and service.

Motion Drive

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Motion Drive

REF NO	PART NO	QTY	DESCRIPTION
49	17X102MA		Washer
50	1401031E701MA		Arm, Rear
51	1401039		Bracket, Rear Hanger
52	094067MA		Pin, Threaded Shoulder
53	01X155MA		Bolt, Hex
54	01X120MA		Bolt
55	1401051E701		Bracket, Torque Reactor
56	01X145MA		Screw
57	710657		Washer, Shift Yoke
58	015X43MA		Nut
59	1401093		Yoke, Shift
60	17X148MA		Washer
61			Transaxle, Peerless **
62	1401042		Bracket, Transaxle
63	690369MA		Spacer
64	17X160MA		Washer
65	056534MA		Key, Square
66	1401103MA		SPACER, Rear Wheel
67	1401120MA		Wheel, Rear -15" *
68	094618MA		Cap, Hub
69	0011X3MA		E-Ring
70	17X195MA		Washer
71	018X32MA		Lockwasher, Split
72	092378MA		Lock, Screw

Footnotes:

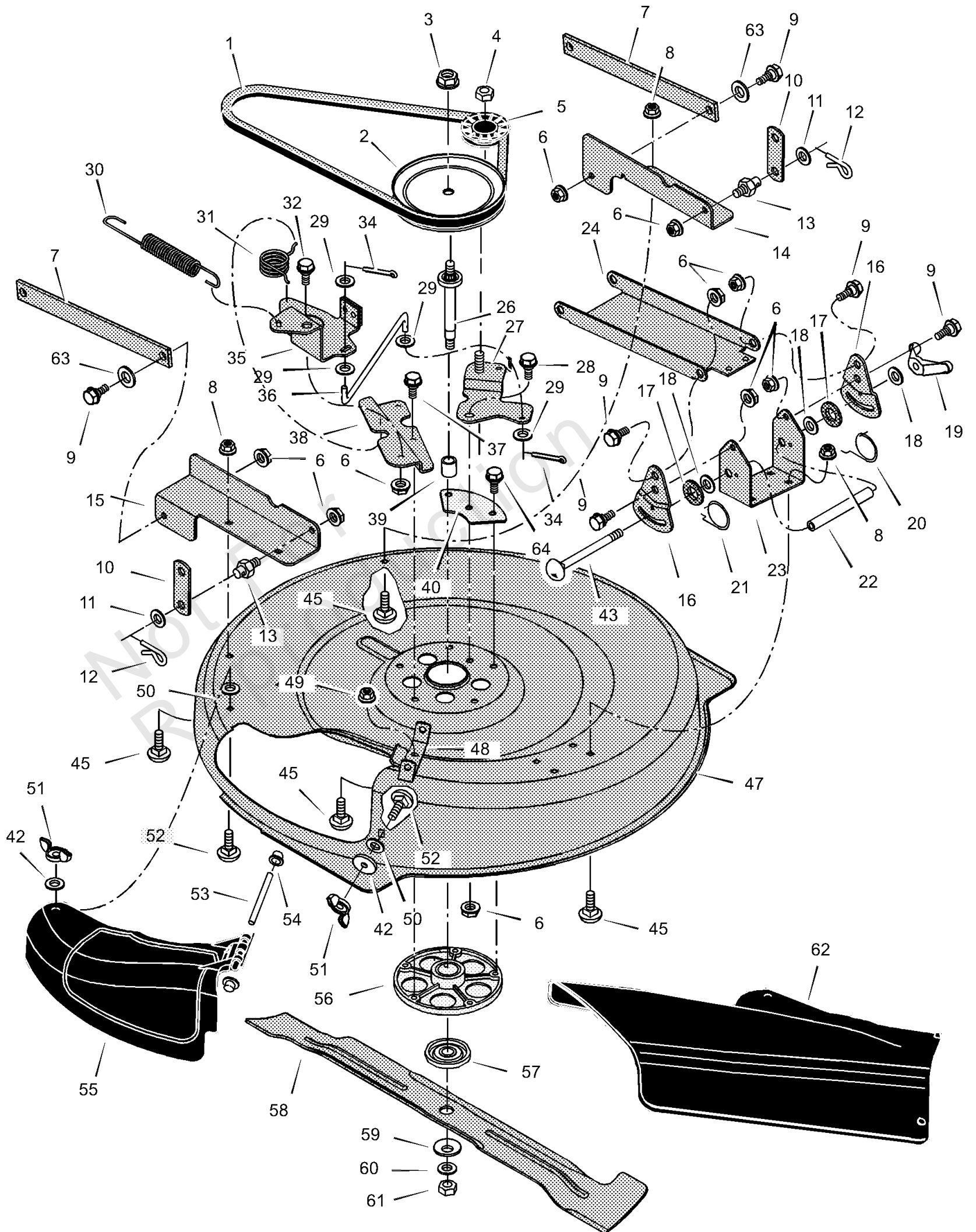
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Mower Housing

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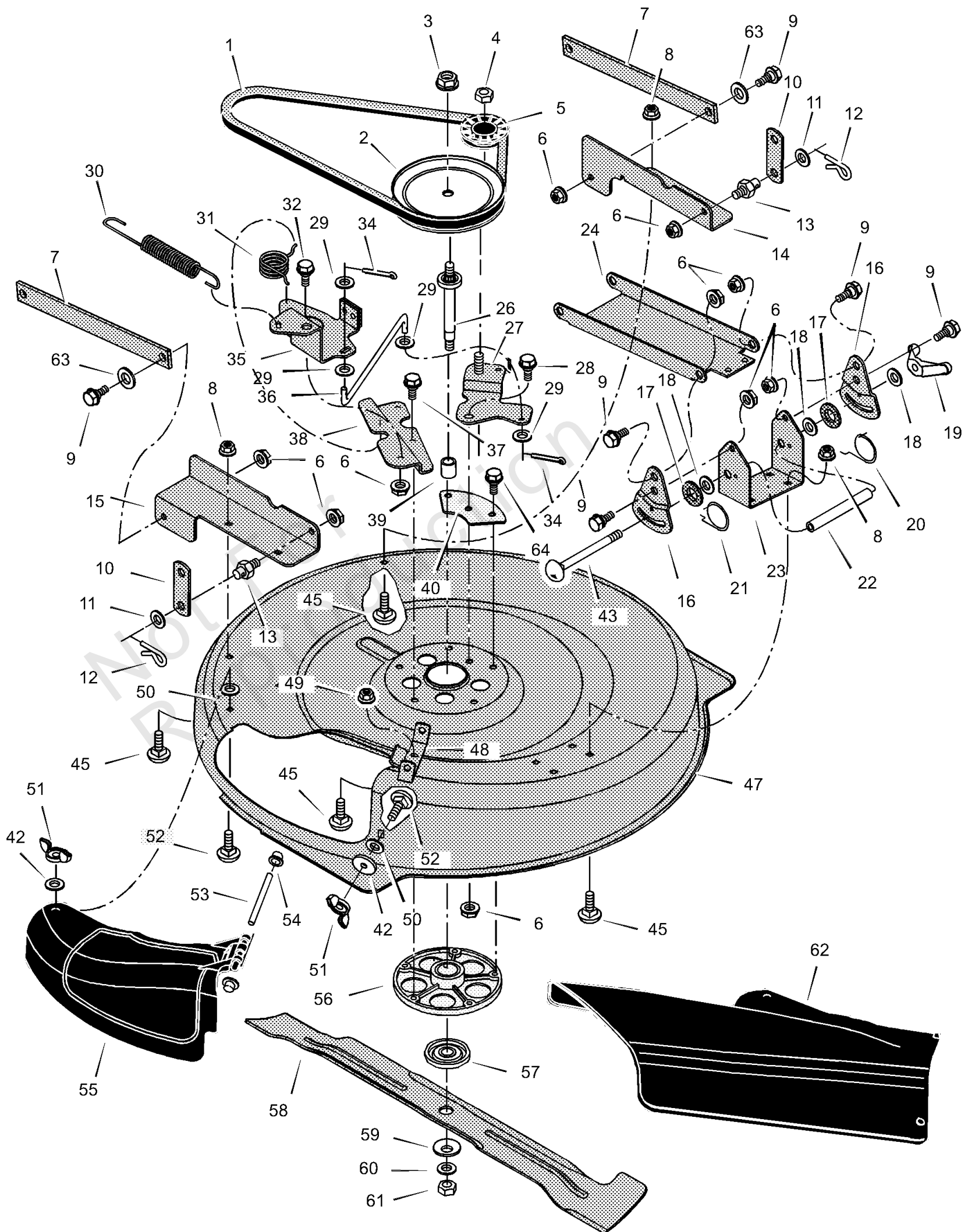
Mower Housing

REF NO	PART NO	QTY	DESCRIPTION
1	37X111MA		Belt, Blade Drive
2	1401092MA		Pulley, Input
3	15X121		Locknut
4	015X98MA		Nut, Flange
5	1401252MA		Pulley, Idler
6	015X84MA		Nut, Flange
7	1401031E701MA		Arm, Rear
8	015X79MA		Nut, Flange
9	009X58MA		Bolt, Shoulder
10	1401033E701		Link, Lift
11	17X102MA		Washer
12	0031X4MA		Pin, Hair
13	094067MA		Pin, Threaded Shoulder
14	1401047E701		Bracket, Left Rear
15	1401235E701		Bracket, Right Rear
16	1401038E701		Plate, Adjustment
17	094137MA		Pad, Friction
18	017X45MA		Washer
19	095004MA		Wingnut
20	166X43MA		Spring, Left Torsion
21	166X42MA		Spring, Right Torsion
22	1401095		Tube, Spacer
23	1401037E701		Bracket, Deck
24	1401040E701MA		Hanger, Front
26	1401065MA		Shaft, Splined
27	1401258E701MA		Arm Assembly, Idler
28	009X39MA		Bolt, Shoulder
29	017X47MA		Washer
30	165X157MA		Spring, Extension
31	166X46MA		Spring, Torsion
32	009X42MA		Bolt, Shoulder
34	030X20MA		Pin, Cotter
35	1401185E701MA		Arm Assembly, Brake
36	1401119MA		Link, Idler Arm
37	0025X7MA		Bolt
38	1401052E701		Bracket, Brake Mounting
39	1401094MA		Spacer, Jackshaft
40	1401259 Z		Plate, Idler Mounting
42	019X45MA		Washer
43	002X94MA		Bolt, Carriage
45	002X53MA		Bolt, Carriage
47	1401028E701		Housing, Blade
48	1401106E701		Hinge, Mulching Cover
49	015X88MA		Nut, Flange
50	028X76MA		Nut, Speed
51	014X86MA		Wingnut
52	002X74MA		Bolt, Carriage
53	091767 Z		Rod, Chute Deflector
54	028X23MA		Cap, Push
55	1401080MA		Cover, Mulch
56	094305		Mandrel Housing

Mower Housing

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Mower Housing

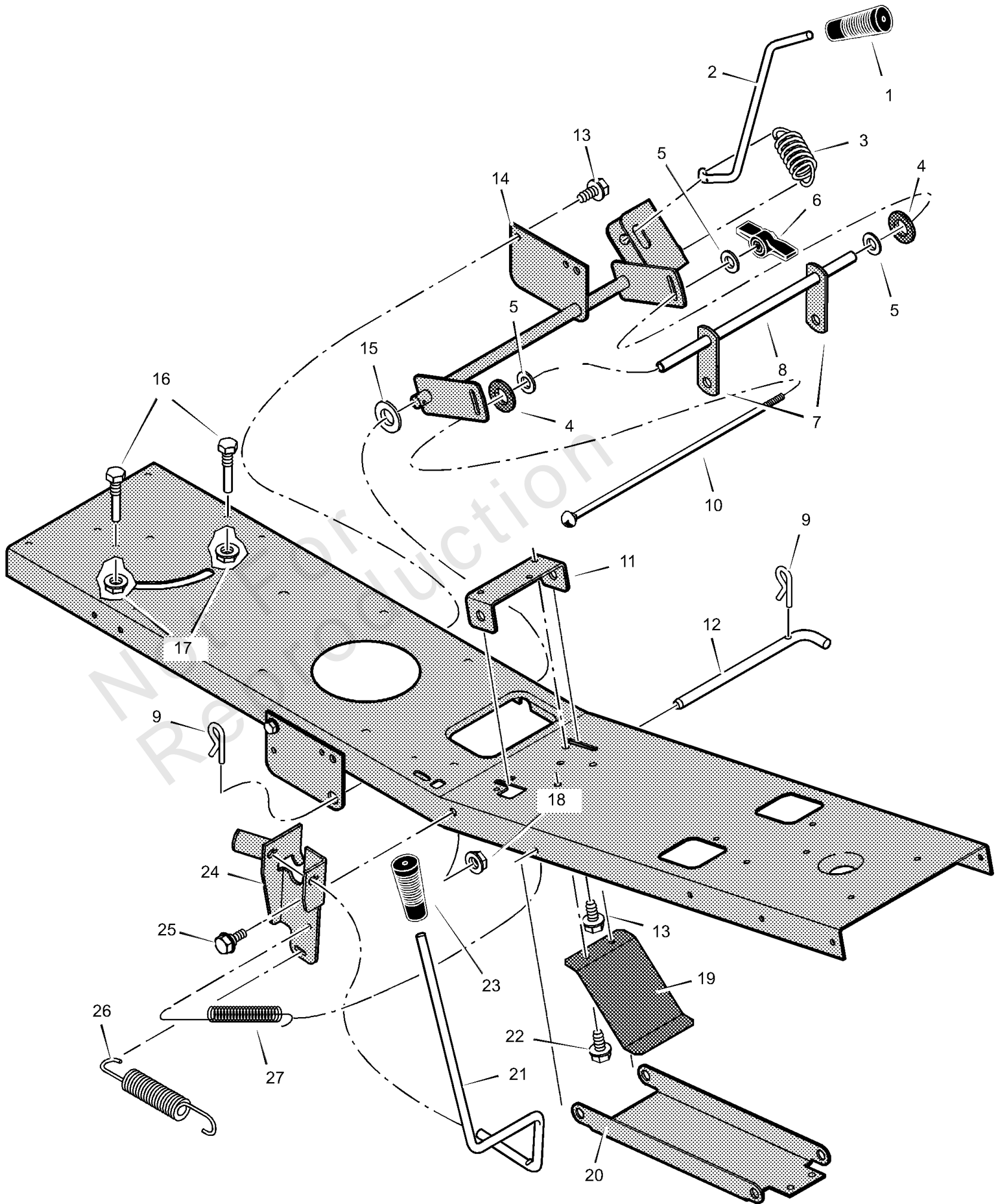
REF NO	PART NO	QTY	DESCRIPTION
57	1001035		Adapter, Blade
58	1401079E701MA		Blade
59	17X166MA		Washer, Cup
60	17X165MA		Washer
61	15X100MA		Nut, Blade Mount
62	1401081MA		Deflector, Chute
63	002X74MA		Bolt, Carriage
64	001X84MA		Bolt

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Mower Housing Suspension

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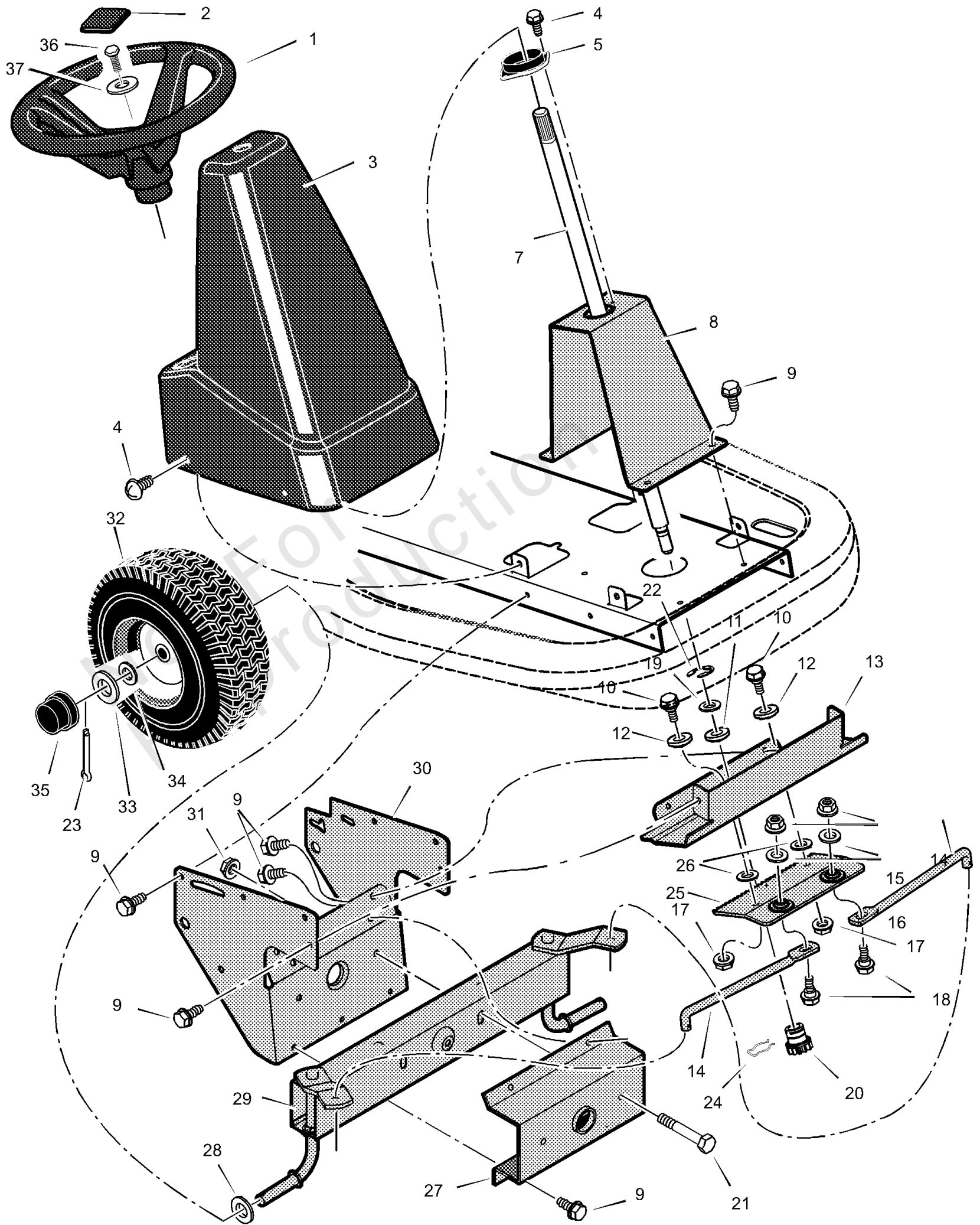
Mower Housing Suspension

REF NO	PART NO	QTY	DESCRIPTION
1	94929		Grip, Lift Lever (Gray)
2	1401117		Lever, Lift
3	165X154		Spring, Extension
4	094137MA		Pad, Friction
5	017X45MA		Washer
6	095004MA		Wingnut
7	1401033E701		Link, Lift
8	1401096		Tube, Spacer
9	0031X4MA		Pin, Hair
10	002X93		Bolt, Carriage
11	1401030E701		Bracket, Front Hanger Pivot
12	1401118MA		Pin, Front Hanger
13	26X249MA		Screw
14	1401129E701		Arm Assembly, Lifter
15	17X165MA		Washer
16	093349MA		Screw, Guide
17	015X79MA		Nut, Flange
18	015X84MA		Nut, Flange
19	1401147		Spring, Leaf
20	1401040E701MA		Hanger, Front
21	1401116		Lever, PTO
22	26X263MA		Screw
23	1401225		Grip, PTO (Gray)
24	1401199E701		Bracket, PTO
25	009X42MA		Bolt, Shoulder
26	165X157MA		Spring, Extension
27	165X92MA		Spring, Extension

Steering

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Steering

REF NO	PART NO	QTY	DESCRIPTION
1	095184		Wheel, Steering (Gray)
2	711325MA		Cap, Steering (Gray)
3	1401068		Console, High (Gray)
4	26X270		Screw
5	1401090MA		Bearing, Upper Steering
7	1401100MA		Shaft, Steering
8	1401055E701MA		Support, Steering
9	26X249MA		Screw
10	009X67MA		Bolt, Shoulder
11	1401098MA		Bearing, Lower Steering
12	1401102MA		Roller
13	1401058E701		Plate, Gear Mounting
14	1401123E701		Link, Drag
15	015X84MA		Nut, Flange
16	17X104MA		Washer
17	015X88MA		Nut, Flange
18	01X111MA		Bolt, Hex
19	17X118		WASHER, 1-1.3 16G FLT
20	1401099MA		Gear, Pinion
21	01X146MA		Bolt, Hex
22	011X28		E-Ring, Retainer
23	030X35MA		Pin, Cotter
24	094131MA		Retainer, Spring
25	1401046E701MA		Rack, Steering
26	17X102MA		Washer
27	1401060E701		Bracket, Axle Front
28	17X157		Washer
29	1401250E701MA		Axle & Spindle Assembly
30	1401059E701		Bracket, Support
31	15X118MA		Nut, Flange
32	1401143		Wheel, Front *
33	17X197MA		Washer
34	17X157		Washer
35	094618MA		Cap, Hub
36	0025X3MA		Screw, Hex
37	17X146MA		Washer

Footnotes:

Note* When you order a tire, make sure to give the brand name of the tire so that the tread pattern on the tire will match.

Hardware Identification & Torque Specifications

Torque Specification Chart								
FOR STANDARD METRIC MACHINE HARDWARE (Tolerance ± 20%)								
Property Class	5.6		8.8		10.9		12.9	
	Class 5.6		Class 8.8		Class 10.9		Class 12.9	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs		ft/lbs	
M3	5.88	.56	13.44	1.28	19.2	1.80	22.92	2.15
M4	13.44	1.28	30.72	2.90	43.44	4.10	52.56	4.95
M5	26.4	2.50	60.96	5.75	5.97	8.10	7.15	9.7
M6	44.64	4.3	7.3	9.9	10.3	14	12.1	16.5
M7	5.2	7.1	12.1	16.5	16.9	23	19.9	27
M8	7.7	10.5	17.7	24	25	34	29	40
M10	15	21	35	48	50	67	59	81
M12	26	36	61	83	86.2	117	103	140
M14	42	58	101	132	136	185	162	220
M16	64	88	147	200	210	285	250	340
M18	89	121	202	275	287	390	346	470
M20	126	171	290	390	405	550	486	660
M22	169	230	390	530	559	745	656	890
M24	217	295	497	375	708	960	840	1140
M27	320	435	733	995	1032	1400	1239	1680
M30	435	590	995	1350	1401	1900	1681	2280
M33	590	800	1349	1830	1902	2580	2278	3090
M36	759	1030	1740	2360	2441	3310	2935	3980
M39	988	1340	2249	3050	3163	4290	3798	5150

Torque Specification Chart						
FOR STANDARD MACHINE HARDWARE (Tolerance ± 20%)						
Hardware Grade	No Marks		SAE Grade 5		SAE Grade 8	
	SAE Grade 2		SAE Grade 5		SAE Grade 8	
Size Of Hardware	in/lbs	Nm.	in/lbs	Nm.	in/lbs	Nm.
	ft/lbs		ft/lbs		ft/lbs	
8-32	19	2.1	30	3.4	41	4.6
8-36	20	2.3	31	3.5	43	4.9
10-24	27	3.1	43	4.9	60	6.8
10-32	31	3.5	49	5.5	68	7.7
1/4-20	66	7.6	8	10.9	12	16.3
1/4-28	76	8.6	10	13.6	14	19.0
5/16-18	11	15.0	17	23.1	25	34.0
5/16-24	12	16.3	19	25.8	29	34.0
3/8-16	20	27.2	30	40.8	45	61.2
3/8-24	23	31.3	35	47.6	50	68.0
7/16-14	30	40.8	50	68.0	70	95.2
7/16-20	35	47.6	55	74.8	80	108.8
1/2-13	50	68.0	75	102.0	110	149.6
1/2-20	55	74.8	90	122.4	120	163.2
9/16-12	65	88.4	110	149.6	150	204.0
9/16-18	75	102.0	120	163.2	170	231.2
5/8-11	90	122.4	150	204.0	220	299.2
5/8-18	100	136	180	244.8	240	326.4
3/4-10	160	217.6	260	353.6	386	525.0
3/4-16	180	244.8	300	408.0	420	571.2
7/8-9	140	190.4	400	544.0	600	816.0
7/8-14	155	210.8	440	598.4	660	897.6
1-8	220	299.2	580	788.8	900	1,244.0
1-12	240	326.4	640	870.4	1,000	1,360.0

The guides and ruler furnished below are designed to help you select the appropriate hardware.



Nut, M8

Thread Diameter (mm)

Inside Diameter (in) Threads per inch

Nut, 1/2-16



Screw, M8- 1.25 x 25

Thread Diameter (mm) Distance between threads (mm) Body Length (mm)

Body Diameter Threads per inch Body Length (in)

Screw, 1/2- 16 x 2



Standard Hardware Sizing

When a washer or nut is identified as 1/2" (M8), this is the *Nominal size*, meaning the *inside diameter* is 1/2 inch (8mm metric thread diameter); if a second number is present it represents the *threads per inch* (distance between threads).

When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw, 2 inches (50mm).

NOTES

- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
 - for prevailing torque locknuts - use 65% of grade 5 torques.
 - for flange whizlock nuts and screws - use 135% of grade 5 torques.
- Unless otherwise noted on assembly drawings, all torque values must meet this specification.

Common Hardware Types

Hex Head Capscrew



Washer



Carriage Bolt



Hex Nut

Wrench & Fastener Size Guide

1/4" Bolt or Nut Wrench—7/16"	5/16" Bolt or Nut Wrench—1/2"	3/8" Bolt or Nut Wrench—9/16"	7/16" Bolt or Nut Wrench (Bolt)—5/8" Wrench (Nut)—11/16"	1/2" Bolt or Nut Wrench—3/4"
M6 Bolt or Nut Wrench—10mm	M8 Bolt or Nut Wrench—13mm	M10 Bolt or Nut Wrench—17mm	M12 Bolt or Nut Wrench—19mm	M14 Bolt or Nut Wrench—22mm

