

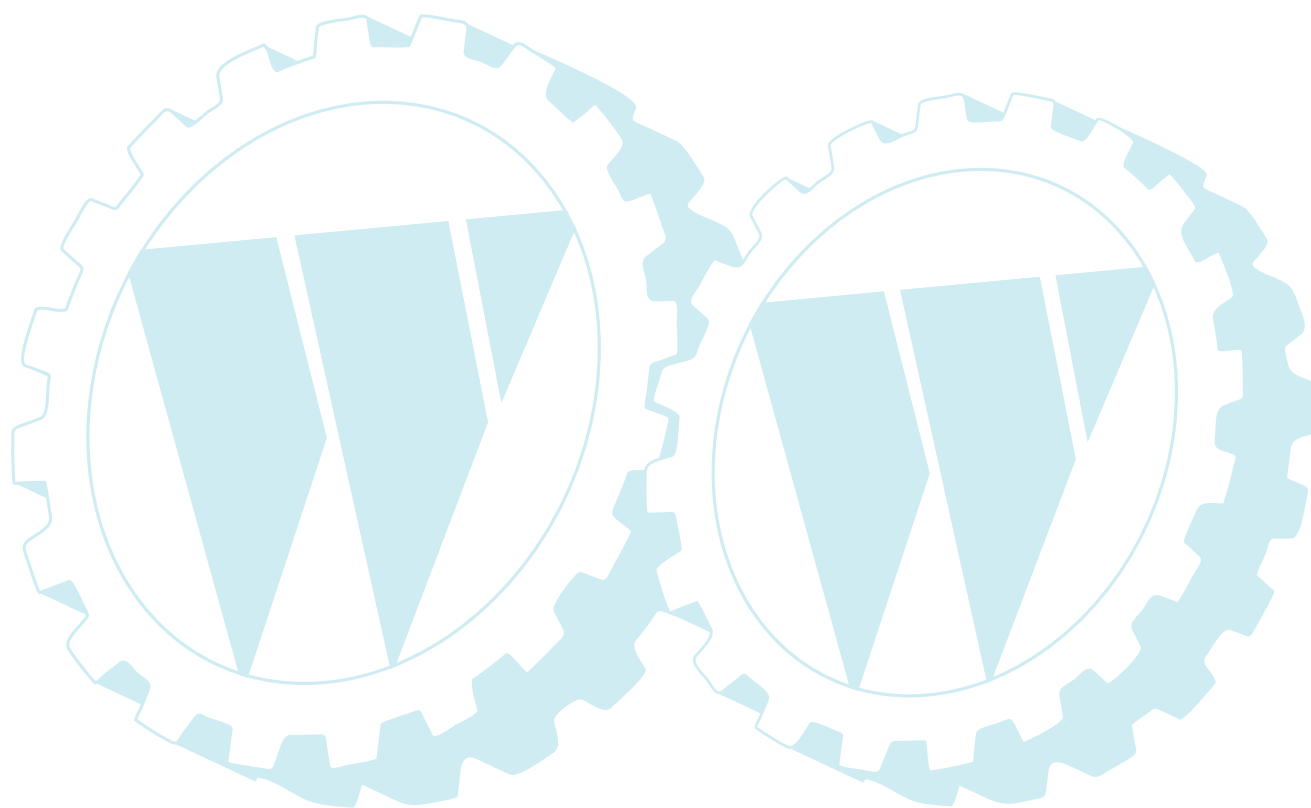
ILLUSTRATED PARTS BREAKDOWN

POULAN

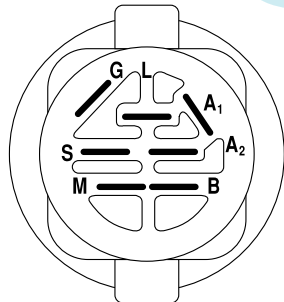
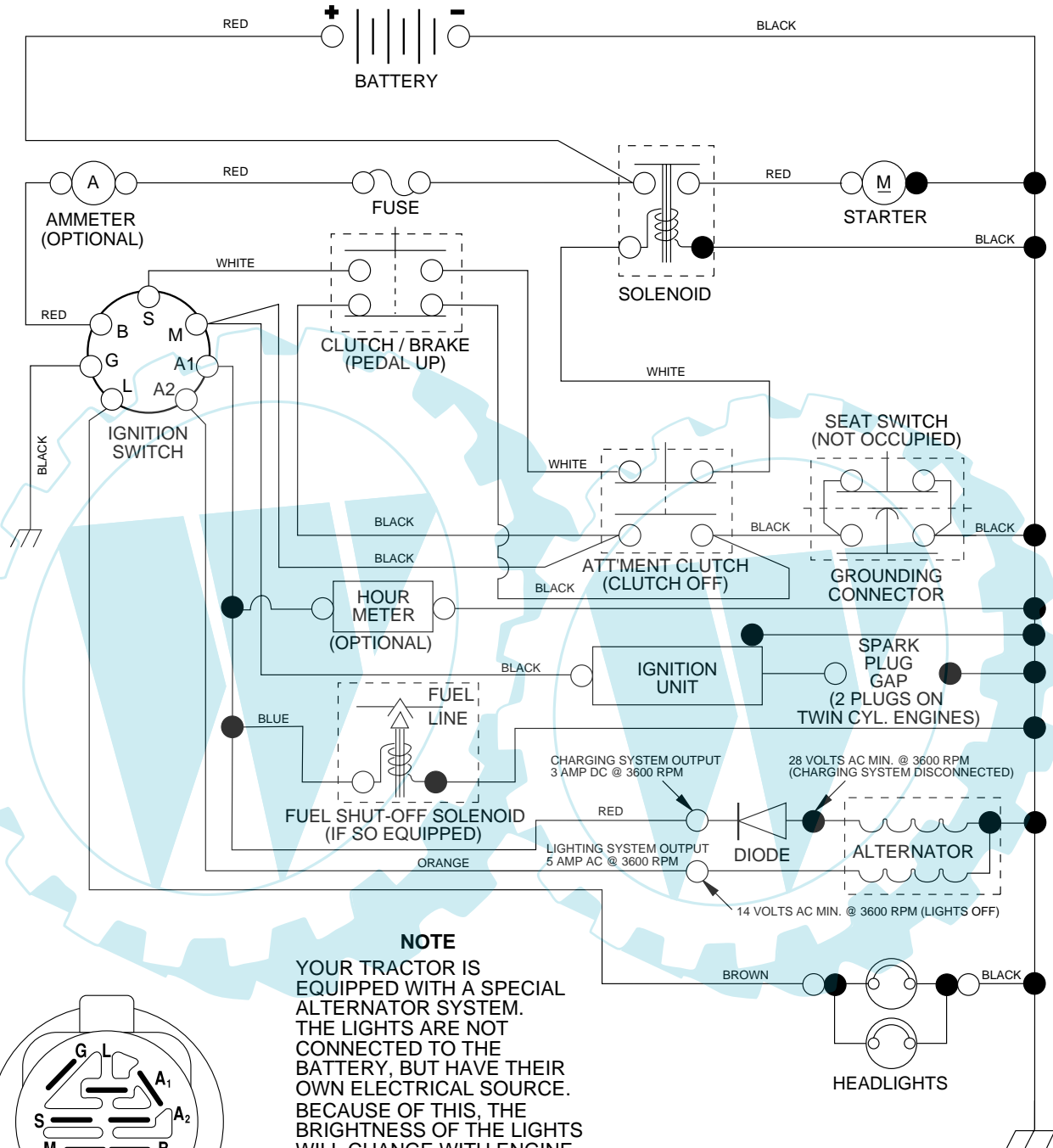
11.0 HP LAWN TRACTOR

MODEL NO. PO1192 (PO1192A)

964 77 47-01



TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
SCHEMATIC



IGNITION SWITCH

POSITION	CIRCUIT	"MAKE"
OFF	M+G+A1	NONE
RUN/LIGHT	B+A1	A2+L
RUN	B+A1	NONE
START	B + S + A1	NONE

NOTE
 YOUR TRACTOR IS EQUIPPED WITH A SPECIAL ALTERNATOR SYSTEM. THE LIGHTS ARE NOT CONNECTED TO THE BATTERY, BUT HAVE THEIR OWN ELECTRICAL SOURCE. BECAUSE OF THIS, THE BRIGHTNESS OF THE LIGHTS WILL CHANGE WITH ENGINE SPEED. AT IDLE THE LIGHTS WILL DIM. AS THE ENGINE IS SPEEDED UP, THE LIGHTS WILL BECOME THEIR BRIGHTEST.

WIRING INSULATED CLIPS

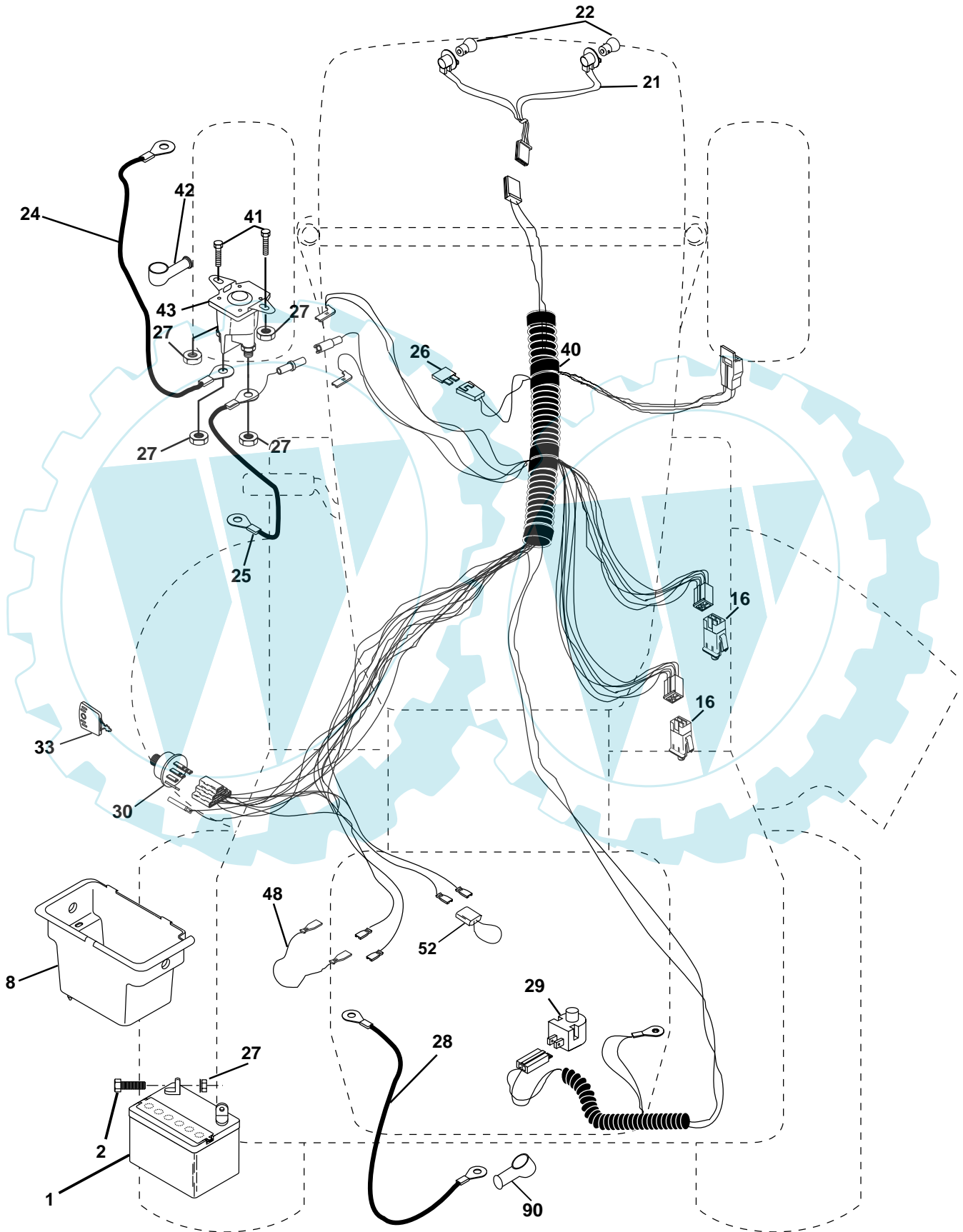
NOTE: IF WIRING INSULATED CLIPS WERE REMOVED FOR SERVICING OF UNIT, THEY SHOULD BE REPLACED TO PROPERLY SECURE YOUR WIRING.

NON-REMOVABLE CONNECTIONS

REMOVABLE CONNECTIONS

REPAIR PARTS

TRACTOR -- MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
ELECTRICAL



REPAIR PARTS

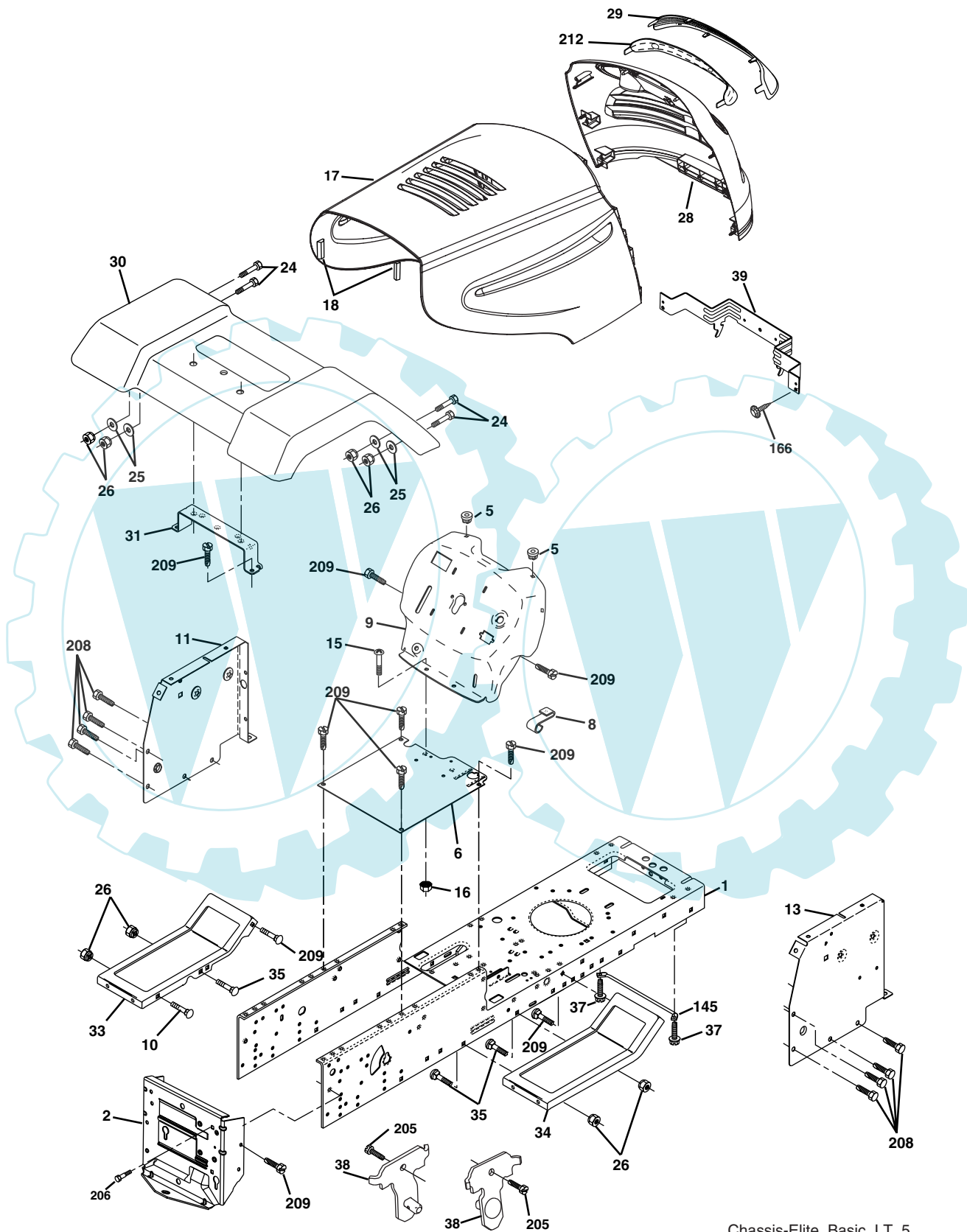
TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
ELECTRICAL

KEY NO.	PART NO.	DESCRIPTION
1	532 16 34-65	Battery
2	874 76 04-12	Bolt Hex Hd 1/4-20 unc x 3/4
8	532 17 66-89	Box Battery
16	532 17 61-38	Switch Interlock
21	532 18 37-59	Harness Asm Light W/4152j
22	532 00 41-52	Bulb Light #1156
24	532 12 47-80	Cable Battery 6 Ga. 11"red
25	532 14 61-47	Cable Battery
26	532 17 51-58	Fuse 20 AMP
27	873 51 04-00	Nut Keps Hex 1/4-20 unc
28	532 12 47-73	Cable Ground 6 Ga. 12"black
29	532 12 13-05	Switch Plunger Nc Gray
30	532 17 55-66	Switch Ign
33	532 14 04-01	Key Ign
40	532 17 97-20	Harness Ign
41	871 11 04-08	Bolt Blk Fin Hex 1/4-20
42	532 13 15-63	Cover Terminal Red
43	532 17 88-61	Solenoid
48	532 14 08-44	Adapter Ammeter
52	532 14 19-40	Protection Wire Loop
90	532 18 04-49	Cover Terminal Battery

NOTE: All component dimensions given in U. S.
inches 1 inch = 25.4 mm.

REPAIR PARTS

TRACTOR -- MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
CHASSIS



Chassis-Elite_Basic_LT_5

REPAIR PARTS

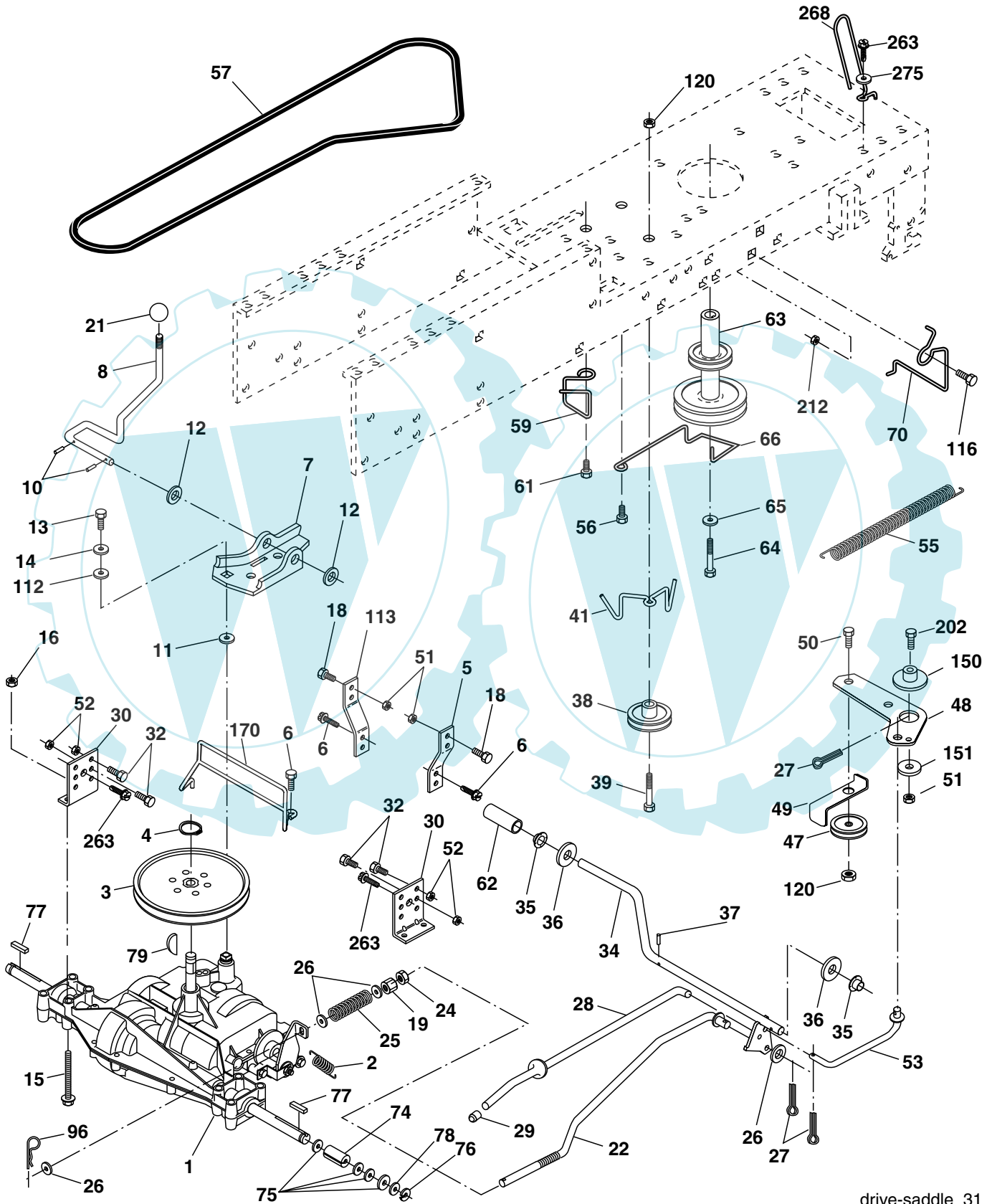
TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
CHASSIS

KEY NO.	PART NO.	DESCRIPTION
1	532 17 46-20	Chassis
2	532 17 65-54	Drawbar, Stretch
5	532 15 52-72	Bumper, Hood/Dash
6	532 17 46-43	Saddle
8	532 15 51-38	Clip Retainer Slide-On
9	532 18 54-80	Dash
10	872 14 06-08	Bolt, Carriage 3/8-16 x 1
11	532 17 49-96	Panel Dash LH
13	532 18 69-52	Panel Silkscr Dash RH
15	874 18 05-12	Screw Mach TRHD 5/16-18 unc x 3/4
16	873 51 05-00	Nut Keps 5/16-18 unc
17	532 18 65-80	Hood
18	532 12 69-38	Bumper Hood
24	874 78 06-16	Bolt Fin Hex 3/8-16 unc x 1 Gr. 5
25	819 13 13-12	Washer 13/32 x 13/16 x 12 Ga.
26	873 80 06-00	Nut Lock Hex w/Ins 3/8-16 unc
28	532 18 35-52	Grille/Lens Asm. (Includes key nos. 29 and 212)
29	532 18 58-46	Lens Grille Basic Bar
30	532 19 10-03	Fender
31	532 13 66-19	Bracket Fender Repl 109873X
33	532 18 25-07	Footrest Pnt LH
34	532 18 25-08	Footrest Pnt RH
35	872 11 06-06	Bolt Rdhd Sht Sqnk 3/8-16 x 3/4
37	817 49 05-08	Screw Thdrol 5/16-18 x 1/2 TYT
38	532 17 57-10	Bracket Asm. Pivot Mower
39	532 17 47-14	Bracket Pivot
145	532 15 65-24	Rod Pivot Chassis/Hood
166	532 17 18-75	Screw Hwhd Hi-Lo #13-16 x 5/8
205	817 49 06-08	Screw Thdrol 3/8-16 x 1/2
206	532 17 01-65	Bolt Shoulder 5/16-18
208	817 67 06-08	Screw Thdrol 3/8-16 x 1/2
209	817 00 06-12	Screw Hex Wsh Thdrol 3/8-16
212	532 18 35-50	Insert Lens Reflect
---	532 00 54-79	Plug Button Blk 359 Dia Choke

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm.

REPAIR PARTS

TRACTOR -- MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
DRIVE



drive-saddle_31

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01

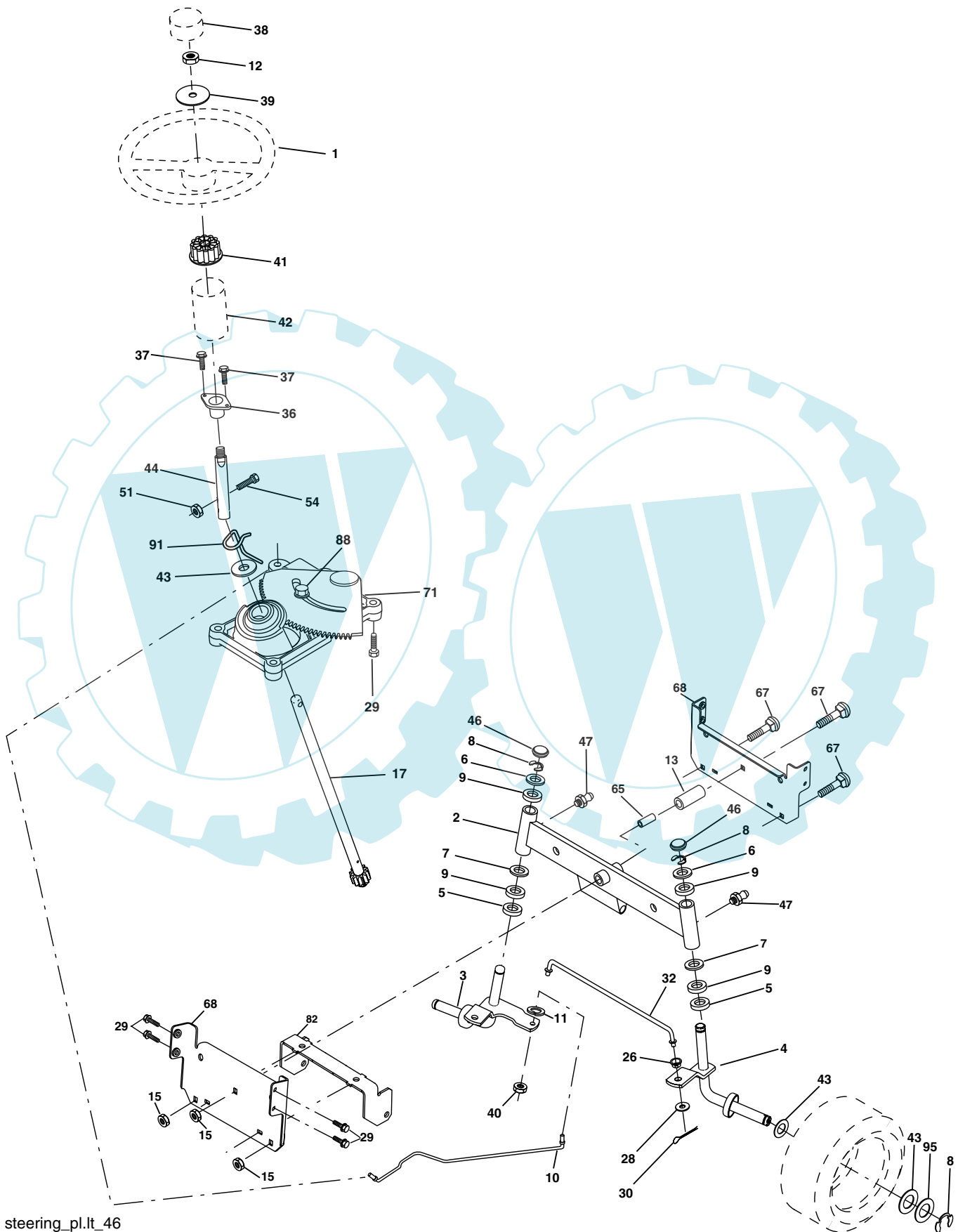
DRIVE

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	-----	Transaxle Peerless Model 204-506B (Order parts from transaxle manufacturer)	49	532 12 32-05	Retainer Belt Style Spring
2	532 14 66-82	Spring Return Brake	50	872 11 06-12	Bolt Carr Sh 3/8-16 x 1-1/2 Gr. 5
3	532 12 36-66	Pulley Transaxle 18"tires	51	873 68 06-00	Nut Crownlock 3/8-16 unc
4	812 00 00-28	Ring Retainer # 5100-62	52	873 68 05-00	Nut Crownlock 5/16-18 unc
5	532 12 15-20	Strap Torque 30 Degrees RH	53	532 10 57-10	Link Clutch 7 66
6	817 00 05-12	Screw 5/16-18 x 3/4	55	532 10 57-09	Spring Return Clutch 6 75
7	532 16 22-40	Plate Rod Shift T/a	56	817 06 06-20	Screw 3/8-16 x 1-1/4
8	532 13 16-79	Rod Shifter Blk	57	532 13 08-01	V-Belt Ground Drive 95
10	876 02 04-16	Pin Cotter 1/8 x 1 Cad	59	532 16 96-91	Keeper Belt Chassis Span Ctr
11	532 10 57-01	Washer Plate Shf 388 Sq Hole	61	817 12 06-14	Screw 3/8-16 x .875
12	819 15 12-16	Washer 15/32 x 3/4 x 16 Ga.	62	532 12 48-72	Cover Pedal Blk Round
13	874 55 04-12	Bolt 1/4-28 unf Gr. 8 w/Patch	63	532 18 02-19	Engine Pulley
14	810 04 04-00	Washer Lock Hvy Helical 1/4	64	532 17 39-37	Bolt Hex 7/16-20 x 4 Gr. 5
15	874 49 05-44	Bolt Hex Flghd 5/16-18 Gr. 5	65	810 04 07-00	Washer Lock Hvy Hlcl Spr 7/16
16	873 80 05-00	Nut 5/16-18	66	532 15 47-78	Keeper Belt Engine
18	874 78 06-16	Bolt Fin Hex 3/8-16 unc x 1 Gr. 5	70	532 18 02-18	Guide Belt Mower Drive RH
19	873 80 06-00	Nut lock Hex w/Ins 3/8-16 Unc	74	532 13 70-57	Spacer Axle
21	532 10 69-33	Knob Rd 1/2-13 Plstc Thds Blk	75	532 12 17-49	Washer 25/32 x 1 1/4 x 16 Ga.
22	532 13 08-04	Rod Brake LT	76	812 00 00-01	E-ring #5133-75
24	873 35 06-00	Nut Hex Jam 3/8-16 unc	77	532 12 35-83	Key Square 2 0 x 1845/ 1865
25	532 10 68-88	Spring Rod Brake 2 00 Zinc	78	532 12 17-48	Washer 25/32 x 1-5/8 x 16 Ga.
26	819 13 13-16	Washer 13/32 x 13/16 x 16 Ga.	79	532 12 50-96	Key Woodruff
27	876 02 04-12	Pin Cotter 1/8 x 3/4 Cad	96	532 00 44-97	Retainer Spring 1"
28	532 17 57-65	Rod Brake Parking LT/YT	112	819 09 12-10	Washer 9/32 x 3/4 x 10 Ga.
29	532 07 16-73	Cap Brake Parking Black	113	532 12 72-85	Strap Torque 90 Degrees LH
30	532 17 49-73	Bracket Transmission	116	872 14 06-08	Bolt Rdhd Sq Neck 3/8-16 x 1
32	874 76 05-12	Bolt Fin Hex 5/16-18 x 3/4	120	873 90 06-00	Nut Lock Flg 3/8-16
34	532 17 55-78	Shaft Asm Pedal Foot Nibbed	150	532 17 54-56	Spacer Retainer Lt
35	532 12 01-83	Bearing Nylon Blk 629 Id	151	819 13 32-10	Washer 13/32 x 2 x 10 Ga.
36	819 21 16-16	Washer 21/32 x 1 x 16 Ga.	170	532 18 74-14	Keeper, Belt Transaxle
37	532 12 49-63	Pin Roll 3/16 x 1"	202	872 11 06-14	Bolt Carr Sh 3/8-16 x 1-3/4 Gr. 5
38	532 17 91-14	Pulley Composite Flat	212	532 14 52-12	Nut Hex Flg Lock
39	872 11 06-22	Bolt 3/8-16 x 2-3/4	263	817 00 06-12	Screw 3/8-16 x 3/4
41	532 17 55-56	Keeper Belt Idler	268	532 18 24-02	Guard Muffler RH
47	532 12 77-83	Pulley Idler V Groove Plastic	275	819 13 16-14	Washer 13/32 x 1 x 14 Ga.
48	532 15 44-07	Bellcrank Clutch Grnd Drv STL			

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
STEERING



steering_pl.it_46

REPAIR PARTS

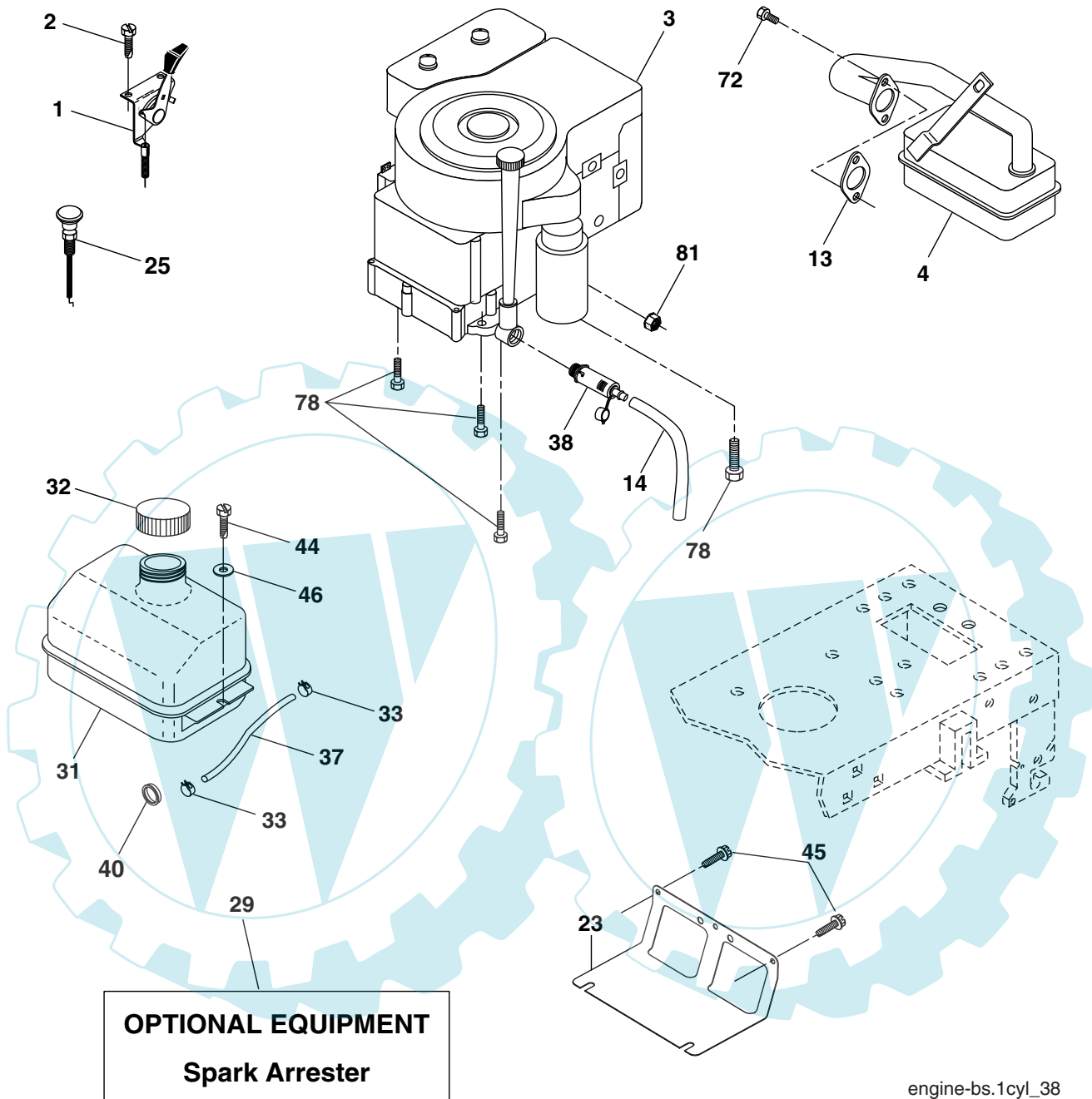
TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
STEERING

KEY NO.	PART NO.	DESCRIPTION
1	532 13 97-68	Wheel Steering
2	532 17 51-31	Axle Asm
3	532 16 98-40	Spindle Asm LH
4	532 16 98-39	Spindle Asm RH
5	532 12 49-31	Bearing Race Thrust Harden
6	532 12 17-48	Washer 25/32 x 1-5/8 x 16 Ga.
7	819 27 20-16	Washer 27/32 x 1-1/4 x 16 Ga.
8	812 00 00-29	Ring Klip #t5304-75
9	532 12 49-37	Bearing Col Strg Blk
10	532 17 51-21	Link Drag
11	810 04 06-00	Washer Lock Hvy Hlcl Spr 3/8
12	873 94 08-00	Nut Hex Jam Toplock 1/2-20
13	532 13 65-18	Spacer earing Axle Front
15	532 14 52-12	Hexflange Lock
17	532 18 06-41	Shaft Asm Strg
26	532 12 68-47	Bushing Link Drag Blk LR
28	819 13 14-16	Washer 13/32 x 7/8 x 16 Ga.
29	817 00 06-12	Screw 3/8-16 x 3/4
30	876 02 04-12	Pin Cotter 1/8 x 3/4 Cad
32	532 13 04-65	Rod Tie Wire Form 19 75 Mech
36	532 15 50-99	Bushing Strg 5/8 Id Dash
37	532 15 29-27	Screw
38	532 14 01-75	Cap Wheel Steer
39	819 18 38-12	Washer 9/16 x 2-3/8
40	873 54 06-00	Nut Crownlock 3/8-24
41	532 18 67-37	Adaptor Wheel Strg
42	532 16 96-33	Boot Dash Mtl Steering Blk
43	532 12 17-49	Washer 25/32 x 1 1/4 x 16 Ga.
44	532 18 06-40	Extension Steering
46	532 12 12-32	Cap Spindle Fr Top Blk
47	532 18 32-26	Fitting Grease
51	873 54 04-00	Nut 1/4-28
54	871 13 04-20	Bolt Hex 1/4-28 x 1-1/4
65	532 16 03-67	Spacer Brace Axle
67	872 11 06-18	Bolt RDHD SQNK 3/8-16 x 2-1/4
68	532 16 98-27	Brace Axle
71	532 17 51-46	Steering Asm.
82	532 16 98-35	Bracket Susp Chassis Front
88	532 17 51-18	Bolt Shoulder 7/16-20
91	532 17 55-53	Clip Steering
95	532 18 89-67	Washer Harden .793 x 1.637 x 060

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm.

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
ENGINE



engine-bs.1cyl_38

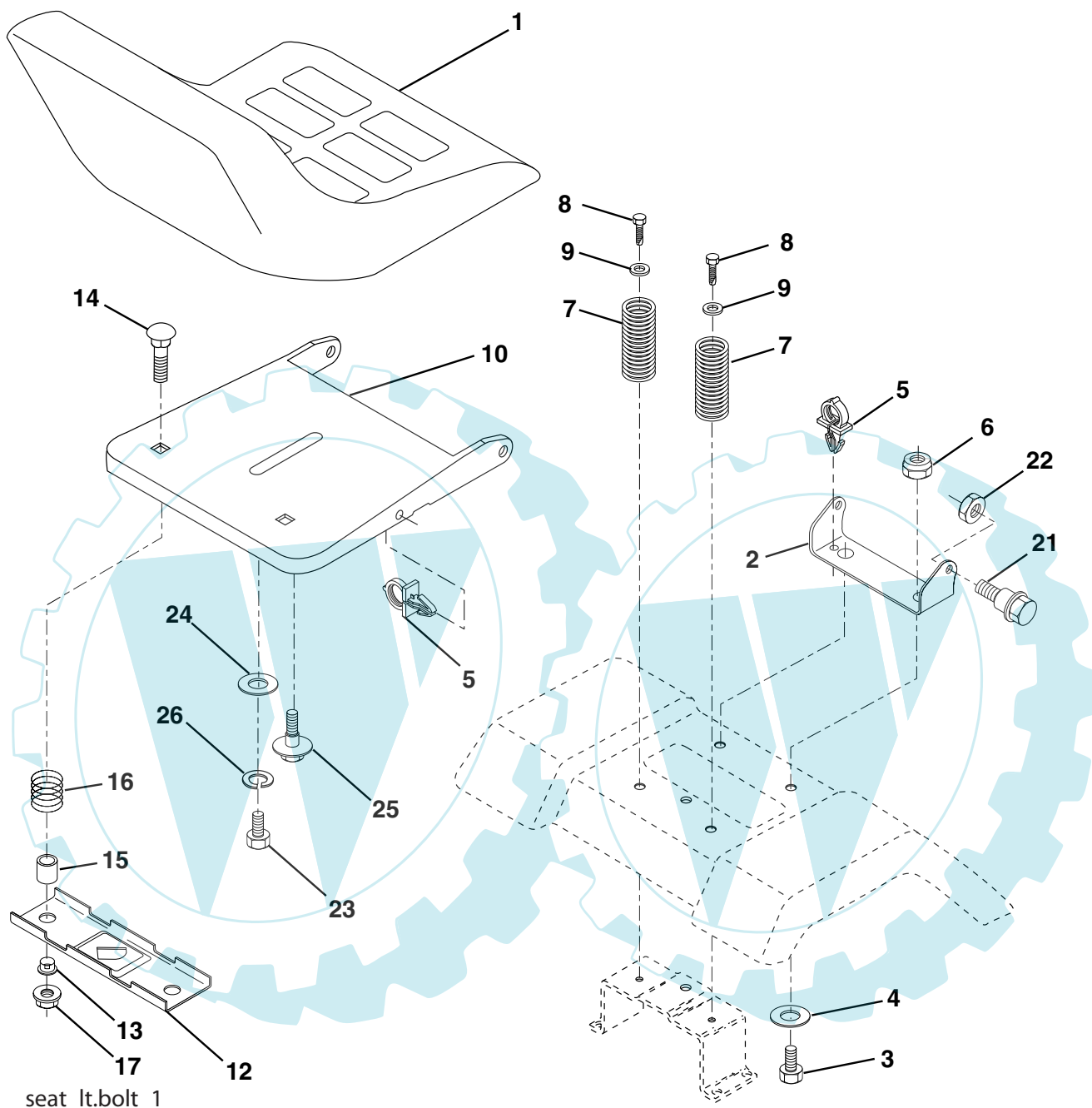
KEY NO.	PART NO.	DESCRIPTION
1	532 17 05-51	Control Throttle
2	817 72 04-08	Screw Hex Thd Cut 1/4-20 x 1/2
3	-----	Engine, B&S 28A807 (Order parts from engine manufacturer)
4	532 17 97-58	Muffler Exhaust B&S
13	532 16 52-91	Gasket Eng 1 313 Id Tin Plated
14	532 14 84-56	Tube Drain Oil Easy
23	532 16 98-37	Shield BRN/DBR Guard
25	532 18 09-45	Control Choke
29	532 13 71-80	Kit Spark Arrester (Flat Scrn)
31	532 18 49-00	Tank Fuel Front
32	532 14 05-27	Cap Asm Fuel

KEY NO.	PART NO.	DESCRIPTION
33	532 12 34-87	Clamp Hose
37	532 13 70-40	Line Fuel 20"
38	532 18 16-54	Plug Drain Oil
40	532 12 40-28	Bushing Snap Nyl Blk Fuel Line
44	817 67 04-12	Screw Thdrol 1/4-20 x 3/4
45	817 00 06-12	Screw Hex Wsh Thdrol 3/8-16
46	819 09 14-16	Washer 9/32 x 7/8 x 16 Ga.
72	532 18 39-06	Screw Socket Head 5/16-18 x 1
78	817 06 06-20	Screw 3/8-16 x 1-1/4
81	873 51 04-00	Nut Keps Hex 1/4-20 unc

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

TRACTOR -- MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
SEAT



seat_lt.bolt_1

KEY NO.	PART NO.	DESCRIPTION
1	532 17 53-89	Seat
2	532 14 05-51	Bracket Seat Pivot
3	871 11 06-16	Bolt Hex 3/8 - 16 x 1
4	819 13 16-10	Washer 13/32 x 1 x10 Ga.
5	532 14 50-06	Clip Push-In Hinged
6	873 80 06-00	Nut Lock Hex w/Ins 3/8 - 16
7	532 12 41-81	Spring Seat Cprsn 2 250 Blk Zi
8	817 00 06-16	Screw 3/8-16 x 1.5
9	819 13 16-14	Washer 13/32 x 1 x 14 Ga.
10	532 18 24-93	Pan Pnt Seat (Blk)
12	532 12 12-46	Bracket Pnt Mounting Switch
13	532 12 12-48	Bushing Snap Blk Nyl

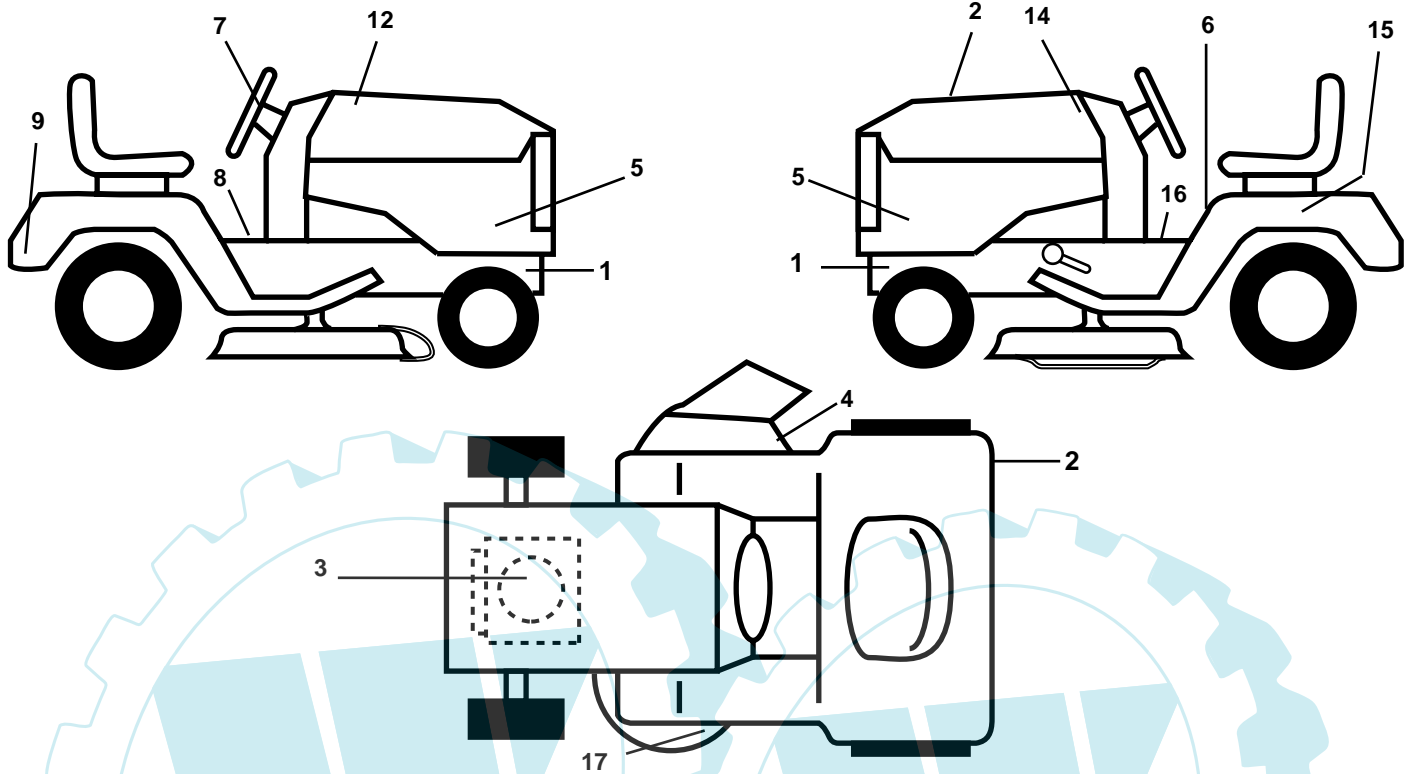
KEY NO.	PART NO.	DESCRIPTION
14	872 05 04-12	Bolt Rdhd Sht Nk 1/4 - 20 x 1 -1/2
15	532 13 43-00	Spacer Split .28 x .96
16	532 12 12-50	Spring Cprsn
17	532 12 39-76	Nut Lock 1/4 Lge Flg
21	532 17 18-52	Bolt Shoulder 5/16-18 unc-2A
22	873 80 05-00	Nut Lock Hex w/Ins 5/16 - 18
23	871 11 08-14	Bolt Hex
24	819 17 19-12	Washer 17/32 x 1-3/16 x 12 Ga.
25	532 12 70-18	Bolt Shoulder 5/16-18 x .62
26	810 04 08-00	Washer Lock Hvy Hlcl Spr 1/2

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm.

REPAIR PARTS

TRACTOR -- MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01

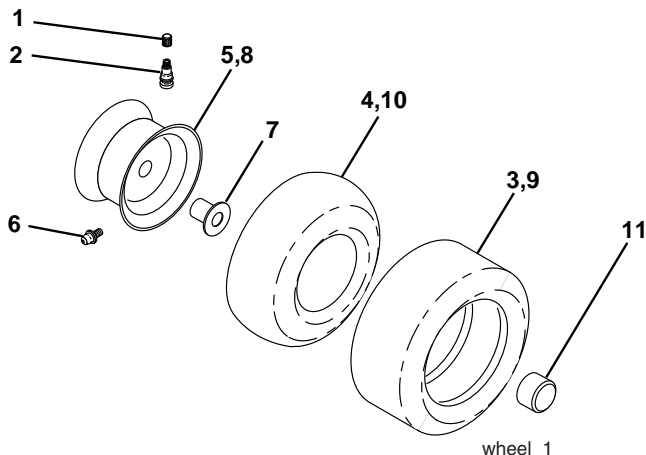
DECALS



KEY NO.	PART NO.	DESCRIPTION
1	532 15 97-36	Decal, Chassis Hot Muffler
2	532 18 04-32	Decal, Fender DB/CE
3	532 18 47-64	Decal, Engine HP
4	532 18 21-66	Decal, Cutfinger
5	532 18 97-04	Decal, SDPNL
6	532 15 97-37	Decal, Brake/Clutch Symbol
7	532 18 97-05	Decal, Ins Str Wh
8	532 14 07-37	Decal, Brake Parking Saddle
9	532 15 81-66	Decal, Fender

KEY NO.	PART NO.	DESCRIPTION
12	532 18 89-77	Decal, Hood RH
14	532 18 89-78	Decal, Hood LH
15	532 14 50-05	Decal, Caution, Battery
16	532 14 54-98	Decal, Read Owner's Manual
17	532 13 68-32	Decal, V-Belt Sch.
--	532 16 25-98	Decal, Load Limit
--	532 13 83-11	Decal, Handle Lft Height Adj.
--	532 18 51-49	Manual, Operator's (Euro)
--	532 18 52-38	Manual, Operator's (Scand)

WHEELS & TIRES

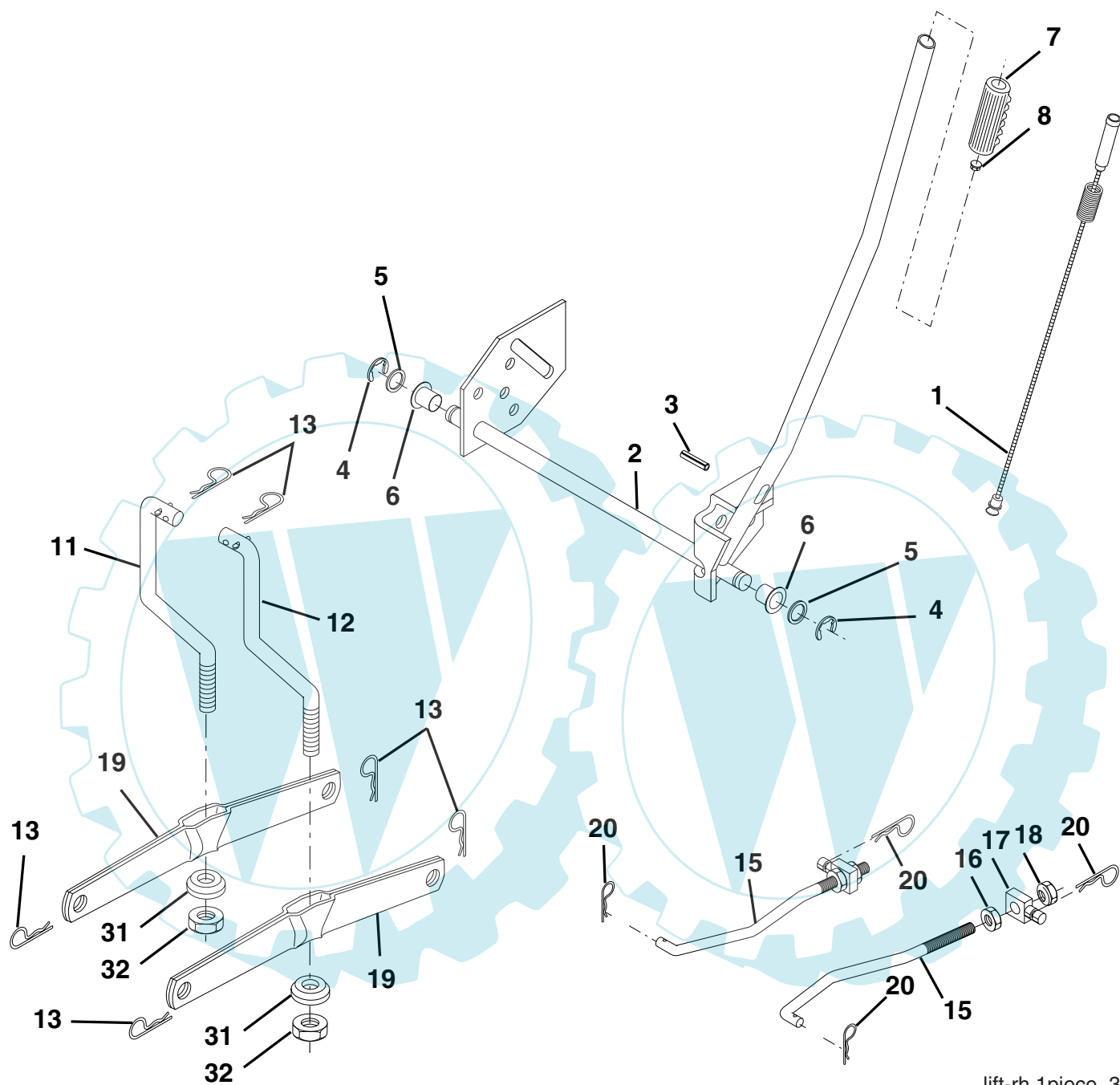


KEY NO.	PART NO.	DESCRIPTION
1	532 05 91-92	Cap, Tire valve
2	532 06 51-39	Stem, Valve
3	532 10 62-22	Tire, Front
4	532 05 99-04	Tube, Front (Service item only)
5	532 18 33-37	Rim assembly, 6"front
6	532 12 49-57	Fitting, Grease (Front wheel only)
7	532 12 49-59	Bearing, Flange (Front wheel only)
8	532 18 33-38	Rim assembly, 8" rear
9	532 10 62-68	Tire, Rear
10	532 00 71-52	Tube, Rear (Service item only)
11	532 17 50-39	Cap, Hub Axle
--	532 14 43-34	Sealant, Tire (10 oz. Tube)

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
MOWER LIFT



lift-rh.1piece_3

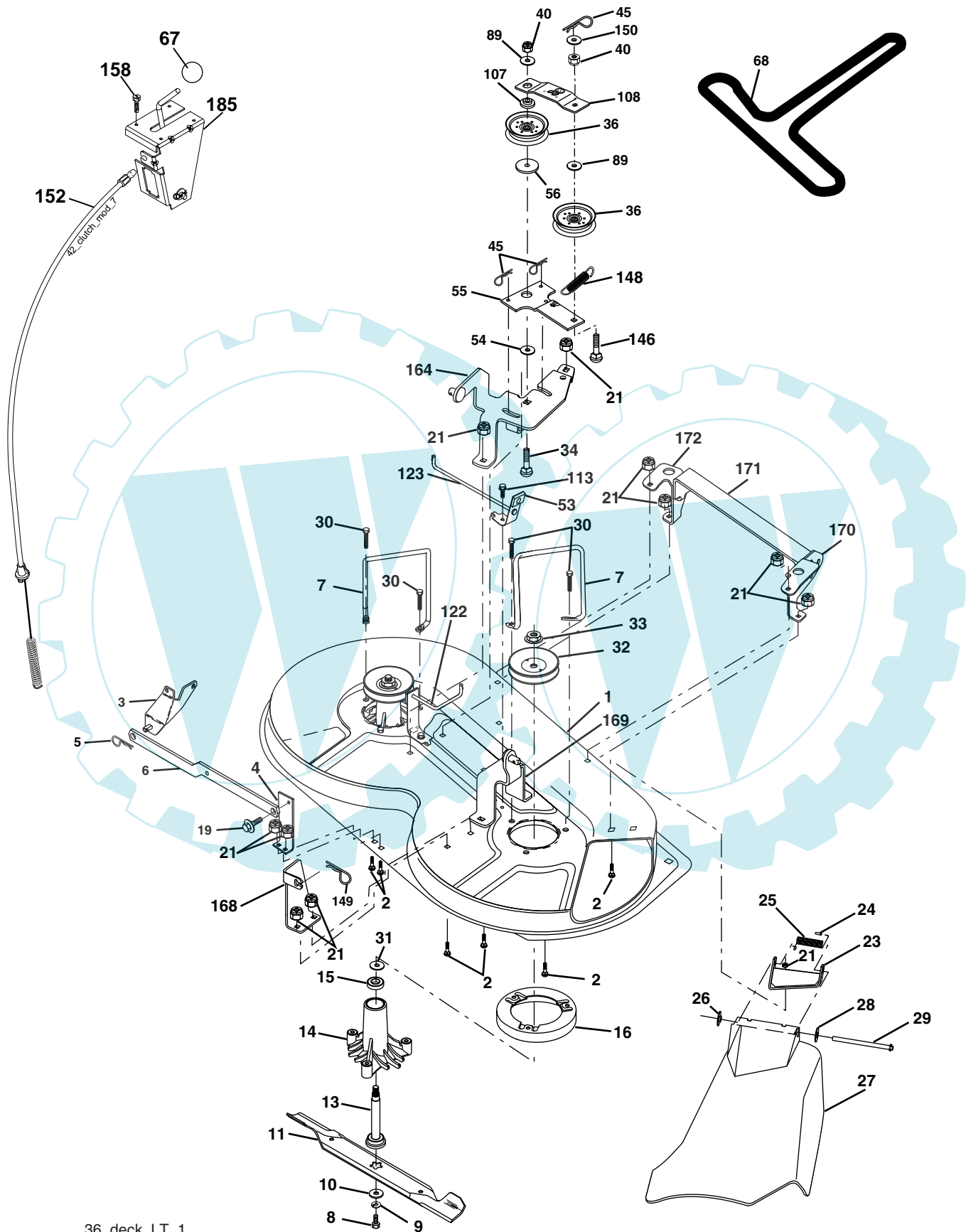
KEY NO.	PART NO.	DESCRIPTION
1	532 15 94-61	Wire Asm Inner/Sprg w/plunger
2	532 15 94-76	Shaft Asm Lift RH
3	532 18 88-22	Pin Groove 1 500 Zinc
4	812 00 00-02	E Ring #5133-62
5	819 21 16-21	Washer 21/32 x 1 x 21 Ga.
6	532 12 01-83	Bearing Nylon Blk 629 Id
7	532 10 94-13	Grip Handle Bicycle Matte Blk
8	532 12 45-26	Button Plunger Black
11	532 13 98-65	Link Lift LH Fixed Length
12	532 13 98-66	Link Lift RH Fixed Length
13	532 12 46-70	Retainer Spring

KEY NO.	PART NO.	DESCRIPTION
15	532 17 32-88	Link Front
16	873 35 08-00	Nut Jam Hex 1/2-13 unc
17	532 17 56-89	Trunnion
18	873 80 08-00	Nut Lockw/Wsh 1/2-13 unc
19	532 13 98-68	Arm Suspension Rear
20	532 16 35-52	Retainer, Spring
31	532 16 98-65	Bearing Pvt Lift
32	873 54 06-00	Nut Crownlock 3/8-24

NOTE: All component dimensions given in U.S. inches
1 inch = 25.4 mm.

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
MOWER DECK



36_deck_LT_1

REPAIR PARTS

TRACTOR - - MODEL NUMBER PO1192A, PRODUCT NO. 964 77 47-01
MOWER DECK

KEY NO.	PART NO.	DESCRIPTION	KEY NO.	PART NO.	DESCRIPTION
1	532 17 45-95	Mower Housing Assembly	53	532 13 08-40	Brake Assembly
2	532 14 05-06	Bolt	54	532 17 85-15	Washer, Hardened
3	532 13 80-17	Bracket Assembly, Sway Bar	55	532 13 38-40	Idler Arm Assembly
4	532 17 56-54	Bracket Sway Bar	56	532 16 57-23	Spacer, Retainer
5	532 12 46-70	Retainer Spring	67	532 10 69-32	Knob Rd 3/8-16 Plstc Thd
6	532 17 80-24	Bar Sway Deck	68	532 18 02-13	Belt
7	532 14 06-08	Keeper Belt	89	819 13 13-11	Washer 13/32 x 13/16 x 1 Ga.
8	532 85 08-57	Bolt, Hex 3/8-24 x 1.25 Gr. 8	107	532 13 35-02	Spacer, Retainer
9	810 03 06-00	Washer, Lock Hvy Hlcl 3/8	108	532 13 35-03	Stiffener, Idler Arm
10	532 14 02-96	Washer, Hardened	113	817 49 05-08	Screw Thdrol 5/16-18 x 1/2
11	532 13 84-96	Blade, Mower	122	532 17 45-05	Rod, Brake LH
13	532 13 76-45	Shaft Assembly, Mandrel, Vented	123	532 17 45-04	Rod, Brake RH
14	532 12 87-74	Housing, Mandrel, Vented	146	532 16 58-91	Bolt Carriage Idler
15	532 11 04-85	Bearing, Ball, Mandrel	148	532 16 90-22	Spring Return Idler
16	532 17 44-93	Stripper, Mower Deck	149	532 16 58-98	Retainer Spring Yellow Zinc
19	532 13 28-27	Bolt, Shoulder	150	819 09 12-10	Washer 9/32 x 3/4 x 10 Ga.
21	873 68 05-00	Nut Crownlock 5/16-18	152	532 17 60-79	Clutch Cable
23	532 13 66-31	Bracket, Mower Deflector	158	817 72 04-08	Screw Hex Thd Cut 1/4-20 x 1/2
24	532 10 53-04	Cap, Sleeve	164	532 17 49-76	Bracket Asm Idler Support
25	532 12 37-13	Spring, Torsion, Deflector	168	532 17 23-77	Bracket Deck Cable
26	532 11 04-52	Nut, Push	169	532 17 49-77	Bracket Asm Suspension
27	532 17 61-62	Shield, Deflector	170	532 17 23-59	Bracket Suspension RH
28	819 11 10-16	Washer 11/32 x 5/8 x 16 Ga.	171	532 16 52-37	Brace Support Susp. Frt
29	532 12 19-80	Rod, Hinge	172	532 17 23-55	Bracket Suspension LF
30	532 17 39-84	Screw Thdrol.	185	532 18 82-34	Head Asm Cable Clutch
31	532 18 76-90	Washer, Spacer	--	532 13 07-94	Mandrel Assembly (Includes Housing, Shaft and Shaft Hardware Only - Pulley Not Included)
32	532 15 35-31	Pulley, Mandrel	--	532 18 13-76	Replacement Mower, Complete
33	532 17 83-42	Nut, Toplock			
34	872 11 06-14	Bolt Rdhd 3/8-16 x 1-3/4			
36	532 13 14-94	Pulley, Idler, Flat			
40	873 68 06-00	Nut, Crownlock 3/8-16			
45	532 12 47-88	Retainer, Spring			

NOTE: All component dimensions given in U.S. inches
 1 inch = 25.4 mm