



# Parts Manual

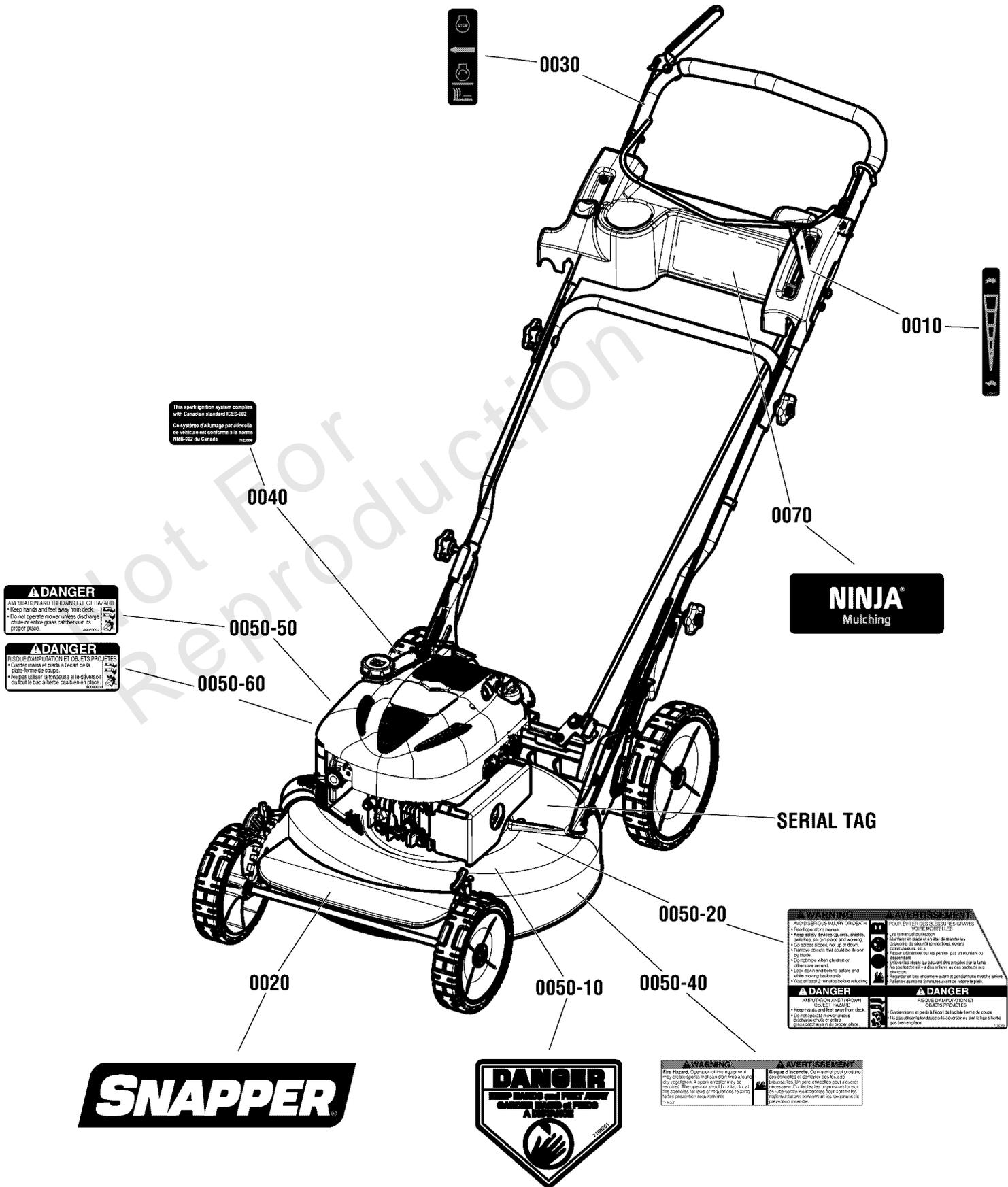
Mfg. No: 7800981A-00  
RP2185020, 21" 8.5 TP Steel Deck  
Recycling Series 20



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Not For  
Reproduction



**SNAPPER**

**DANGER**  
 For hands and feet and other projections  
 Avertissement  
 Pour les mains, les pieds et autres projections

**WARNING**  
 TO AVOID SERIOUS INJURY OR DEATH  
 Read operator's manual.  
 • Keep safety devices (guards, shields, switches) on, locked and working.  
 • Do not adjust, fix or tamper with safety devices.  
 • Do not touch safety devices when they are in the "off" position.  
 • Lock down and behind before and while mowing backwards.  
 • Stop at once if you feel any vibration or noise.  
**AVERTISSEMENT**  
 POUR ÉVITER DES LÉSURES GRAVES  
 VOUSSE PROTECTEZ  
 Lire le manuel d'utilisation.  
 • Garder les dispositifs de sécurité (garde-roues, boucliers, interrupteurs) enfoncés, bloqués et fonctionnant.  
 • Ne pas régler, réparer ou modifier les dispositifs de sécurité.  
 • Ne pas toucher les dispositifs de sécurité lorsqu'ils sont en position "arrêt".  
 • Verrouiller et reculer avant et pendant le moutage à l'arrière.  
 • Arrêter immédiatement si vous ressentez des vibrations ou du bruit.

**WARNING**  
 Fire Hazard: Operation of this equipment may create sparks that can start fires around dry vegetation. A spark arrester may be required. The operator should control local fire agencies for laws or regulations relating to this spark-arresting device.  
**AVERTISSEMENT**  
 Risque d'incendie: L'utilisation de cet équipement peut créer des étincelles qui peuvent allumer des végétaux secs. Un coupe-étincelles peut être requis. L'opérateur doit consulter les agences locales pour les lois ou les règlements relatifs à cet appareil coupe-étincelles.

## Decal Group

REF NO	PART NO	QTY	DESCRIPTION
0010	7075471YP	1	DECAL, Speed Shift
0020	7104148YP	1	DECAL, Logo, Snapper, 7.88"
0030	7029782MA	1	DECAL, OPC Bail International Symbol
0040	7102996YP	1	DECAL, ICES, Canadian Spark Compliance
0050	7106353YP	1	DECAL, Sheet, WBM Compliance
0050-10	7105261YP	1	DECAL, CPSC, Cut Finger, French/English
0050-20	-----	1	DECAL, Warning/Danger, English/French
0050-40	-----	1	DECAL, Spark Arrestor, English/French
0050-50	84002306	1	DECAL, Danger, English
0050-60	84002307	1	DECAL, Danger, French
0070	770112	1	DECAL, Ninja

Not For  
Reproduction

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**Footnotes:**

(Included on Decal Sheet #7106353YP)



## Drive System

REF NO	PART NO	QTY	DESCRIPTION
0110-10	704008	1	O-RING, 1.0 ID X 1.25 OD X 0.125 Thk
0110-20	7012114SM	1	BUSHING, Differential Link
0110-30	704009	1	RING, Split, .68 x .93 x .44 (Black)
0110-40	7029025YP	1	SPRING, Extension, .58 x 3.2
0110-50	7031809YP	1	HOLDER, Bearing (Outer Half), ZC/CL
0110-60	7046784YP	1	BELT, Engine Drive (Stretch)
0070-10	703970	1	SPACER, .328 ID X .623 OD X .151 Thick
0070-20	7015753YP	2	BALL JOINT, 1/4-28
0070-30	7073913YP	1	BELL CRANK, Black Zinc
0070-40	7074145YP	1	LINK, Transfer (1/4-28 thread)
0070-60	703461	3	NUT, 1/4-28 Hex, GR5, Zinc/Clear
0070-70	703409	4	NUT, Serrated Lock Flange, 5/16-18
0070-100	703408	1	SCREW, Hex Head Cap, 5/16-18 X 7/8, GR5
0070-110	7073822BMYP	1	BRACKET, Bell Crank
0080	7061275YP	1	KIT, Drive Disc, Steel (includes Disc, Bushing & Nut)
0080-10	703971	1	BUSHING, 0.385 ID X 0.925 OD X 1.018 Thk, ZC/CL
0080-20	7073528YP	1	DRIVE DISC, Steel (Includes Bushing)
0090-10	703836	1	STUD, 3/8-24 X 2.38, Single End, ZC/CL
0090-20	7012122YP	1	SPRING, Clutch, Adjustable Tension
0090-30	7012126YP	1	SPRING, Idler Torsion
0090-40	703946	1	WASHER, Flat
0090-50	7019383YP	1	PULLEY, Poly-V, 2" OD, .65" Wide, Steel
0090-70	7028014YP	1	BALL BEARING, Spherical O.D., .38 I.D.
0090-80	7031873YP	1	HOLDER, Bearing (Inner Half)
0091	7051921YP	1	ASSEMBLY, Clutch Idler (Pulley, Nut, Bolt, Bushings & Spacer)
0091-20	7012124YP	1	PULLEY, Flat Idler, .25 ID, 2.25 OD
0091-40	703972	1	NUT, 1/4-28 Hex Top Lock, GR 5, BZ
0091-50	703828	1	SCREW, 1/4-28 x 1-3/8" Hex Head Cap, Grade 5, CZ/CL
0091-60	7600173YP	1	KIT, Idler Arm, Bushing & Spacer Assembly
0092-20	7032832AYP	1	ARM, Clutch Idler
0092-30	703974	1	SPACER, Idler Arm (.500 ID x .970 Long), ZC/CL
0092-120	703312	1	PIN, Cotter, 3/32 X 3/4
0092-130	703895	2	NUT, Hex, 3/8-24
0092-150	7072284YP	1	SHAFT, Hex (3/8-24 thread, one end)
0092-160	703458	1	NUT, 3/8-24 Hex Center Lock, GR B, YZ
0100-20	7012354YP	1	BELT, Poly-V, Kevlar, V21
0100-30	7012616YP	1	SUPPORT, Foot Guard
0100-60	7029008YP	1	GUARD, Foot, P21 EURO, Long
0100-90	703978	1	BOLT, Carriage, Short Neck, 1/4-20 x 1/2, G5
0100-100	703127	1	NUT, Hex, 1/4-20
0100-110	703587	1	WASHER, 5/16, Internal Lock, Zinc/Clear
0100-120	1753983YP	1	SCREW, Truss Head
0100-130	703462	3	WASHER, Internal Tooth, 1/4
0100-150	7034179BMYP	1	LINK, Differential, Commercial
0100-160	703940	1	WASHER, 0.445 ID X 0.780 OD X 0.025 Thk, Wave, ZC/CL
0120	703301	1	BOLT, Hex, 5/16-24 x 1.
0140	704130	2	SCREW, Hex Head, 1/4-20 X 1/2
0160	703354	2	SCREW, Flange, Whiz-Lock, 5/16-18 X 3/4
0170	703947	1	NUT, 5/16-18 X .625, Weld, ZC/CL
0180	703896	1	NUT, 5/16-24, Hex Center Lock, GR B, Zinc/Clear
0190	703118	3	WASHER, Flat, 7/8, GR5



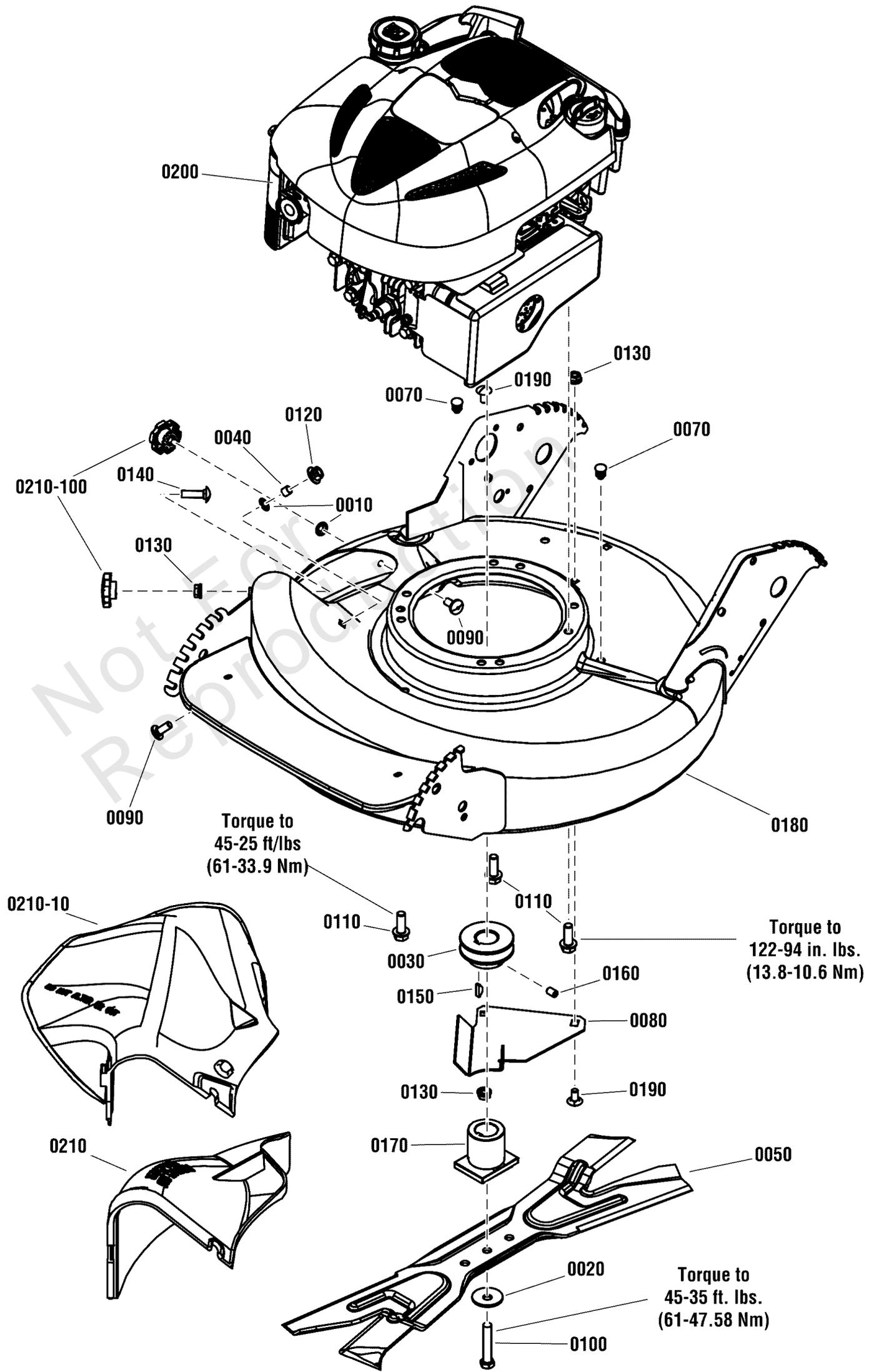
## Drive System

REF NO	PART NO	QTY	DESCRIPTION
0200	703167	1	SCREW, Hex Washer Head, Taptite, 5/16-18 x 1-1/4
0210	703457	1	NUT, 3/8-16, Hex, GR 5, Zinc/Clear
0220	703464	1	PIN, Cotter, 1/16 x 1/2, GR5
0230	7033985AYP	1	HANDLE, Lower, ADJ, LH
0240	7033986AYP	1	HANDLE, Lower, ADJ, RH
0250	7052987BMYP	1	ASSEMBLY, Deck Bracket, P21S
0250-10	703973	4	BUSHING, Flanged, .381 x .625 x .62, Metal, CZ/CL
0250-20	703941	1	SPACER, .50 ID X .650 OD X 1.750, Thk, ZC/CL
0250-30	7033774YP	1	BRACKET, Deck, P21S
0260	703350	1	WASHER, 5/16, Flat SAE, Zinc/Clear
0270	703447	1	BOLT, 5/16-18 X .625, Carriage, GR5, Zinc/Clear
0280	703332	1	WASHER, Flat, 1/4
0290-10	703975	2	RETAINING RING, 3/4" ID, ZC/CL
0290-20	703837	1	STUD, 3/8-24 X 4.5, Plate, ZC/CL
0290-30	7041855YP	1	DRIVEN DISC, Cantilever
0290-40	703590	1	WASHER, .406
0290-50	703930	3	WASHER, 3/8 Internal Tooth Lock, BZ
0291-10	7029027YP	1	BEARING, 3/4" ID, Ball, Commercial
0291-20	7300977AYP	1	THRUST PLATE, Short, Black
0291-30	704061	4	SCREW, 10-32 x 1/4 Hex Washer Self-Tap, BZ

# Engine, Deck & Blade Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 7800981A-00



## Engine, Deck & Blade Group

REF NO	PART NO	QTY	DESCRIPTION
0010	703297	2	RETAINER, 5/16 X 5/8
0020	703963	1	WASHER, Cone
0030	7105122YP	1	PULLEY, Engine (25mm I. D. x 2-1/8 O.D.)
0040	7024340SM	1	SPACER
0050	7026407AYP	1	BLADE, 21" Ninja Mulching
0070	7046780SM	2	PLUG, Hole, .44" OD
0080	7074568YP	1	COVER, Belt, Zinc/Clear
0090	703185	2	BOLT, Carriage, 5/16-18 X 3/4
0100	703999	1	SCREW, 3/8-24 x 2" Hex Head Cap, GR 5
0110	704000	3	SCREW, Hex Washer Head, Taptite, 3/8-16 x 1
0120	704001	1	NUT, Hex Flange, 5/16-18
0130	703409	2	NUT, Serrated Lock Flange, 5/16-18
0140	704002	1	BOLT, 5/16-18 X 1.125, Carriage, ZC/CL
0150	703891	1	KEY, Woodruff, Plain, 3/16 x 5/8
0160	704003	1	SET SCREW, 5/16-18 x 1/2" Hex Recess
0170	7101414YP	1	HUB, Blade, 21 WBM, 25MM ID, 2 Position
0180	7600034DYP	1	KIT, Deck, 21" AIR, Non-Adj., W/Decals
0190	703447	2	BOLT, 5/16-18 X .625, Carriage, GR5, Zinc/Clear
0200	123P02-0060-F1	1	* ENGINE, B&S 8.5 GT, 850 PRO Series, Model 123P02-0060-F1
0210	7029149YP	1	COVER, Mulching, 21" Deck
0210-10	7042965YP	1	CHUTE, 21" Side Discharge
0210-100	7101022YP	2	KNOB, Fluted

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### Footnotes:

NOTE: \* Purchase engine & engine parts from engine service outlets.



## Handle Group

REF NO	PART NO	QTY	DESCRIPTION
0010	7014343YP	2	BUSHING, Flanged, .27 ID, Nylon, Black
0020	704031	1	PIN, 1/4 X 1.5", Clevis, ZC/CL
0030	7026219YP	1	CLAMP, 7/8" Double Cable
0040	7028407YP	1	GRIP, International Symbol, 4.6" Black
0050	704004	2	WASHER, .406 ID X 1.0 OD X .063 Thk, Flat Nylon
0060	7028488MA	1	GUIDE, 1/4-20, Rope, CL/ZC
0070	703964	2	WASHER, 7/16" ID, 1" OD, .060 Thk, Flat, ZC/CL
0080	7034604YP	1	CABLE, Clutch Control, 41.25" L
0090-40	7023813SM	1	CLIP, Wiring Harness
0090-50	7105085YP	4	KNOB, 5 Prong, 5/16-18
0090-80	703587	4	WASHER, 5/16, Internal Lock, Zinc/Clear
0090-140	703059	4	BOLT, 5/16-18 X 2.00 Conical Head, SN ZC/CL
0090-180	7106232AYP	1	HANDLE, Middle, Black
0110	7074003YP	1	BRACKET, Shift, Black Zinc
0110-10	7024641YP	4	WIRE TIE, 5.5" L
0110-20	704030	1	PIN, 5/16 X 1.044, Self-Locking Cotter, Zinc/Clear
0110-30	7075182YP	1	KNOB, Shift, Red
0110-50	7074133YP	1	ROD, Speed Control (35.5" L, 1/4-28 thread)
0110-60	703350	1	WASHER, 5/16, Flat SAE, Zinc/Clear
0110-70	703460	1	NUT, #8-32, Hex, Zinc/Clear
0110-80	703351	1	SCREW, #8-32 X 0.50, Machine Fillister Head, Zinc/Clear
0110-90	703961	4	SCREW, 1/4-20 X .550, T-30 Pan Head Torx, Self-Tapping, Zinc/Clear
0120	7074113YP	1	LEVER, Shift
0130	703232	1	NUT, 1/4-20, Nylock, GR A, Zinc/Clear
0140	703234	3	SCREW, 1/4-20 X 1.5, Hex Head Cap, GR5, ZC/CL
0140-60	7106275YP	1	PANEL, Dash, ES W/O Throttle
0150	704005	1	NUT, 1/4, Push, Zinc/Clear
0160	703462	3	WASHER, 1/4 Internal Tooth Lock, YZ
0170	703127	2	NUT, 1/4-20, G5 Zinc/Clear
0180	703589	1	SCREW, 3/8-16 x 2, Hex Head Cap, GR5, Zinc/Clear
0190	703347	1	NUT, 3/8-16, Hex Center-Lock, GR B, Zinc/Clear
0200	7023810YP	1	FOAM GRIP, 18.75"
0230	7074473BMYP	1	HANDLE, CLUTCH
0240	704006	1	WASHER, 3/8" ID x 3/4" OD, Belleville, Zinc/Clear
0250	7106257YP	1	CABLE, OPC, 50.56" Long, Z Ends, Snap-in, for Over-the-Top Bail
0260	7106258AYP	1	HANDLE, Upper, 17.53" Wide, Black
0270	7106255AYP	1	BAIL, OPC, Over-the-Top, Black
0280	7106274BMYP	1	BRACKET, Panel Mount, Black
0290	7033985AYP	1	HANDLE, Lower, ADJ, LH
0300	7033986AYP	1	HANDLE, Lower, ADJ, RH



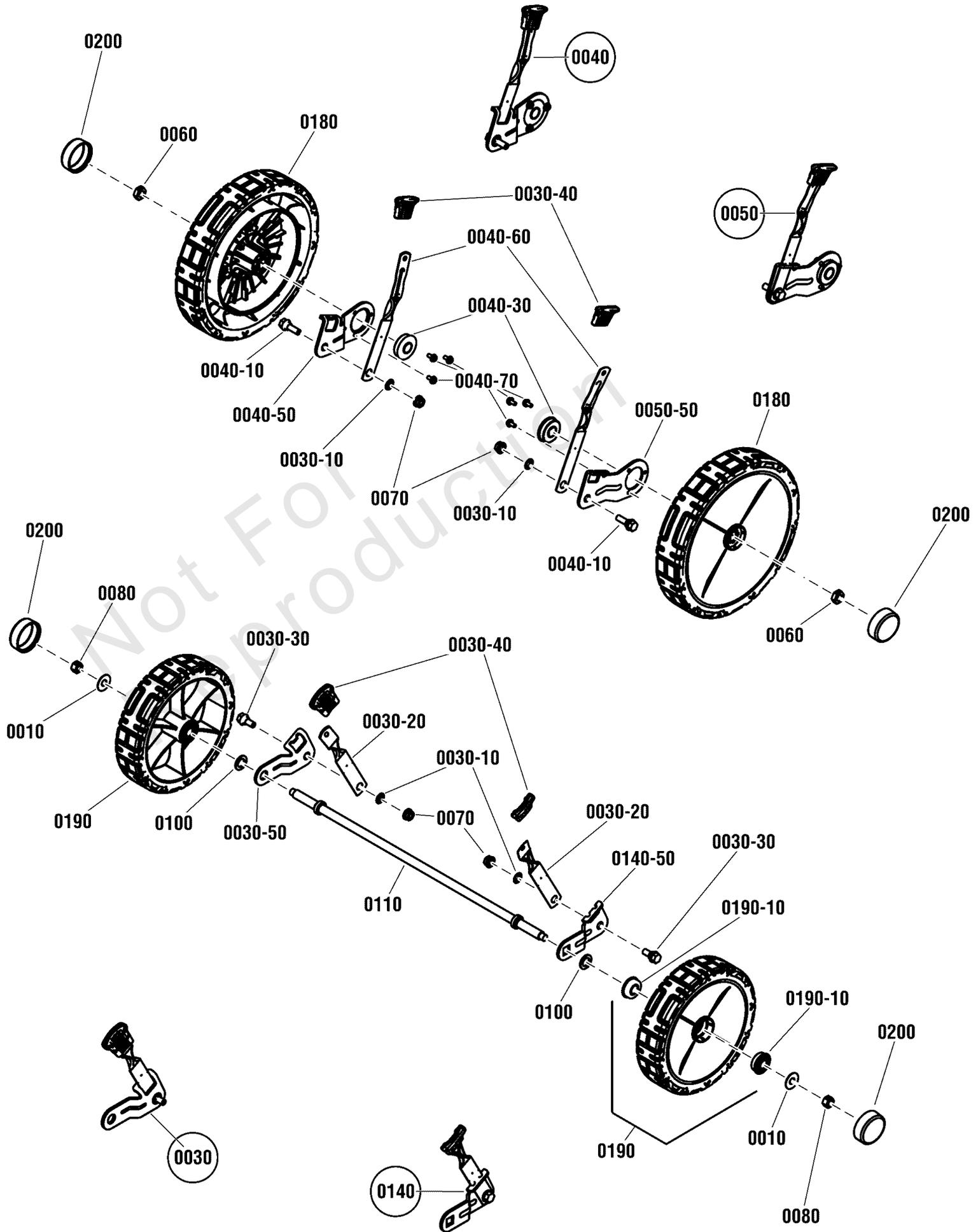
## Transmission Assembly

REF NO	PART NO	QTY	DESCRIPTION
0020	7012354YP	1	BELT, Poly-V, V21
0030	7012616YP	1	SUPPORT, Foot Guard
0040	-----		GREASE, Darina 00 (Not Shown, Use 4oz. Max)
0050	703931	1	PLUG, Transmission Housing, .702 OD
0060	7029008YP	1	GUARD, Foot
0090	703978	1	BOLT, 1/4-20 X 1/2, Carriage, GR5 YZ
0100	703127	1	NUT, 1/4-20, G5 Zinc/Clear
0110	7090391SM	1	WASHER, 5/16, Internal Lock, Zinc/Clear
0120	1753983YP	1	SCREW, 5/16-18 x 5/8 Truss Head Torx
0130	703462	1	WASHER, 1/4 Internal Tooth Lock, YZ
0140	7053943YP	1	ASSEMBLY, Transmission, 21P
0140-10	7011110YP	4	SHAFT, Pinion, .471 OD, 1.5" Long
0140-40	7011774YP	1	GASKET, V21
0140-50	7012495YP	1	GEAR, 46T, V21
0140-60	703933	4	SPACER, .700 OD x .480 ID x .380 L, ZC/CL
0140-80	7019213YP	1	PULLEY, Poly-V (3.5 O.D.)
0140-90	7021115YP	4	GEAR, Pinion (12 Tooth, .625 Thick)
0140-100	7031965YP	2	WASHER, 1.25 X .765 X .03, Thrust, ZC/CL
0140-110	7031970YP	2	PLATE, Differential Gear, V21
0140-120	7050767YP	1	ASSEMBLY, Input Gear
0140-130	7051903AYP	1	WELDMENT, Differential Bracket
0140-140	703934	1	SPACER, .820 OD X .720 ID X .330 L
0140-20	7050830YP	1	ASSEMBLY, Short Axle
0140-30	7050831YP	1	ASSEMBLY, Long Axle
0150	7053939YP	1	ASSEMBLY, Left Housing
0150-10	7012314YP	2	SEAL, 5/8" ID
0150-20	7029033YP	1	HOUSING, Left Hand
0150-30	7029035YP	2	BEARING, Tapered, Differential Housing
0160	7051908YP	1	ASSEMBLY, Housing, Right Hand
0160-30	703935	3	BOLT, 5/16-24 x 1-1/8" Rib Neck, GR 5, ZC/BK
0160-40	7024442YP	3	GASKET, 5/8" O.D.
0160-50	7029034YP	1	HOUSING, Right Hand
0160-70	7073963YP	1	BEARING, Ball, 1.125 OD, .440 ID, 3.8 Wide
0170	703936	3	WASHER, .325 ID X .850 OD X .041 Thk, Internal External Lock, Type A, ZC/CL
0180	703937	4	NUT, #10-32, Nyloc, GR A, ZC/CL
0190	703938	4	SCREW, #10-32 x 1-1/2 Hex Head Cap GR5, ZC/CL
0210	703349	1	WASHER, .453 X .75 X .073, Flat, ZC/CL
0220	703459	4	NUT, 5/16-24, Hex Crown Lock, GR C, Zinc/Clear
0230	703939	1	WASHER, .32 ID x 1.40 OD x .10 Thk, Bellville, ZC/CL
0240	703833	4	SCREW, 1/4-20 x 1 Hex Washer Self-Tap, ZC/CL
0250	7034179BMYP	1	LINK, Differential, Commercial
0260	703940	1	WASHER, 0.445 ID X 0.780 OD X 0.025 Thk, Wave, ZC/CL

# Wheel & Height-of-Cut Group

Note: Unless noted otherwise, use the standard torque specifications

Mfg. No: 7800981A-00



## Wheel & Height-of-Cut Group

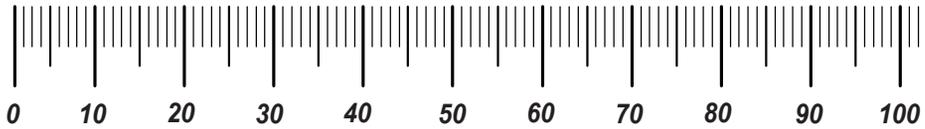
REF NO	PART NO	QTY	DESCRIPTION
0010	703966	2	WASHER, 1 OD x .387 ID, Flat
0030	7600180YP	1	KIT, Front Wheel Arm Assembly, RH
0030-10	703297	4	RETAINER, 5/16 X .625, Push Nut, GR 5, Zinc/Clear
0030-20	7012325YP	2	LATCH, Height
0030-30	703839	2	BOLT, 5/16-18 X .750, Hex Washer Head Shoulder, Zinc/Clear
0030-40	7103793YP	4	GRIP, Height Latch, Black
0030-50	7031017YP	1	WHEEL ARM, Front, Round Hole, RH, Clear
0040	7054246YP	1	ASSEMBLY, Wheel Arm, Long, RR
0040-10	703840	2	BOLT, 5/16-18 X 1.0, Hex Washer Head .435 Dia. Shoulder, ZC/CL
0040-30	7012312YP	2	BEARING, 9/16" ID
0040-50	7032722YP	1	ARM, Wheel, Right Rear, Zinc/Clear
0040-60	7035717YP	2	LATCH, Height Adjusting, (long)
0040-70	703967	6	SCREW, #10-32 x 3/8, Torx Hex Washer Head Self-Tap, ZC/CL
0050	7054247YP	1	ASSEMBLY, Wheel Arm, Left Rear, Long
0050-50	7032723YP	1	ARM, Wheel, Left Rear, Zinc/Clear
0050	7054247YP	1	ASSEMBLY, Wheel Arm, Left Rear, Long
0060	770537	2	NUT, 7/16-20, Hex Flanged Center Lock, ZC/CL
0070	703409	4	NUT, Serrated Lock Flange, 5/16-18
0080	703347	2	NUT, 3/8-16, Hex Center-Lock, GR B, Zinc/Clear
0100	703835	2	WASHER, Shim, .875 x .531 x .060
0110	7100752YP	1	AXLE, Easy Line (20.44" L, 3/8-16 Threads)
0140	7600183YP	1	ASSEMBLY, Front Left Wheel Arm (.512 Square Hole)
0140-50	7011393YP	1	WHEEL ARM, L.H. Front (.512 Square Hole) CZ/CL
0180	7503280YP	2	ASSEMBLY, Wheel, 10"X2" DD" Insert Drive, Cool Gray
0190	7503282YP	2	ASSEMBLY, Wheel, 8 X 2 Idle w/Bearings, Gray
0190-10	7101380YP	4	BALL BEARING, 1-1/8 O.D., Flange
0200	7106302YP	4	HUBCAP, Round, 1.7" OD, Gray

# 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.

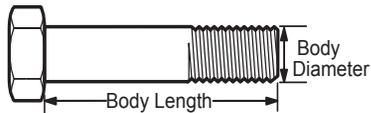


Nut, M8

Thread Diameter (mm)

Inside Diameter (in)      Threads per inch

Nut, 1/2-16

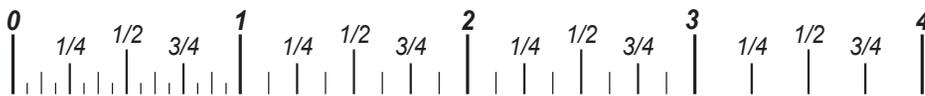


Screw, M8- 1.25 x 25

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).

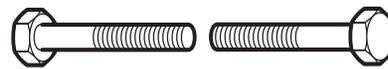
When bolt or capscrew is identified as 1/2 - 16 x 2" (M8 - 1.25 x 50), this means the *Nominal size*, or body diameter is 1/2 inch (8mm metric thread diameter), the second number, 16, represents the *threads per inch*, (*distance between threads*). The final number is the body length of the bolt or screw,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

## NOTES

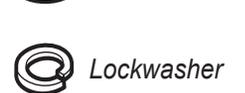
- These torque values are to be used for all hardware excluding: locknuts, self-tapping screws, thread forming screws, sheet metal screws and socket head setscrews.
- Recommended seating torque values for locknuts:
  - for prevailing torque locknuts - use 65% of grade 5 torques.
  - for flange whizlock 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

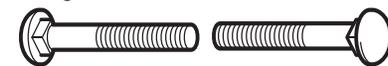
Hex Head Capscrew



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

