

FaTrak **Parts Manual**



HUSTLER®



Hustler Turf Equipment



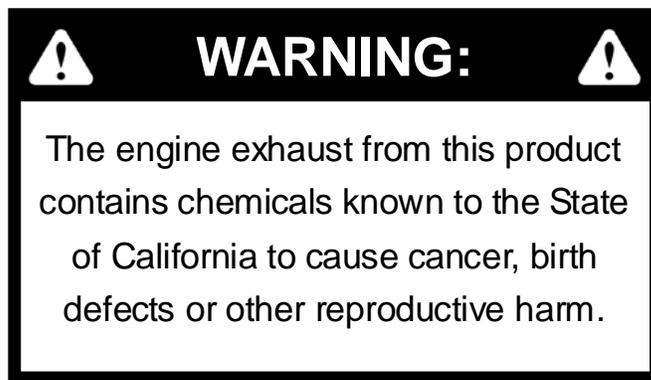
P.O. Box 7000



Hesston, Kansas



67062-2097



IMPORTANT: This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate this engine on any forest-covered, brush-covered, or grass-covered unimproved land. Other states or federal areas may have similar laws.

This spark ignition system complies with Canadian ICES-002.

The Engine Owner's Manual provides information regarding the U.S. Environmental Protection Agency (EPA) and the California Emission Control Regulation of emission systems, maintenance and warranty.

Keep Engine Owner's Manual with your unit. Should the Engine Owner's Manual become damaged or illegible, replace immediately. Replacements may be ordered per the information found in the Product Information section of the owner's manual.

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Chapter 1

General Information

This Manual covers Hustler FasTrak models **928267, 928275, 928291, 928502, & 928520**.

Frequently Ordered Parts

PART NO.	DESCRIPTION
600979	Pump Drive Belt
791335	Deck Belt 48"
789388	Deck Belt 54"
785626	Fuel Filter Honda
068478	Fuel Filter Kawasaki & Kohler
785618	Precleaner Air Filter Honda
785600	Air Filter Element Honda
780155	Precleaner Air Filter Kawasaki 21 Hp
601155	Air Filter Paper Element Kawasaki 21 HP
772111	Precleaner Air Filter Kawasaki 19 HP
772103	Air Filter Element Kawasaki 19 HP
794370	Air Filter Kohler
785634	Engine Oil Filter Honda
772079	Engine Oil Filter Kawasaki
747303	Engine Oil Filter Kohler
600976	Oil Filter ZT 2800
601124	18.50"-L-F-CW Blade
601123	16.50"-L-F-CW Blade

Service Literature

PART NO.	DESCRIPTION
601156	FasTrak Owner's Manual
778423	Kawasaki Engine Manual 21 HP
601158	Kawasaki Engine Manual 19 HP
785642	Honda 18 & 20 HP Engine Manual
794313	Kohler Courage Engine Manual

Note: When ordering parts, you must use the part number as shown for each part, not the index number. Always give the model and serial number to your parts and service representative.

Note: Items sold in bulk such as seals and hoses are sold by the foot.

Using this manual

Illustrations used were current at the time of printing, but subsequent production changes may cause your machine to vary slightly in detail. Excel Industries, Inc. reserves the right to redesign and change the machine as deemed necessary, without notification. If a change has been made to your machine which is not reflected in this parts manual, see your Hustler dealer for current information and parts.

Options Available From Your Dealer

PART NO.	DESCRIPTION
108197	54" FasTrak Mulch Kit
797704	18.50"-MUL-F-CW Blade
797712	18.50"-GAT-F-CW Blade
108223	48" FasTrak Mulch Kit
796623	16.50"-MUL-F-CW Blade
796631	16.50"-GAT-F-CW Blade

Hardware Description Codes & Abbreviations

The following codes are used throughout this parts manual. Refer to this list when ordering parts.

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
CB	Carriage Bolt	MB	Machine Bushing
CE	Clevis Pin	MS	Machine Screw
CP	Cotter Pin	NT	Nut
CN	Clip Nut	SC	Self Tapping Cap Screw
CS	Cap Screw	SH	Socket Head
CW	Cup Washer	SB	Shoulder Bolt
FDRW	Fender Washer	SS	Set Screw
FW	Flat Washer	OD	Outside Diameter
HX	Hex Head	ID	Inside Diameter
LW	Lock Washer		

Standard Torques

The following chart lists the standard torque values for the threaded fasteners found in this manual. Torque all cap screws, nuts and set screws to these values unless a different torque is shown in the Notes section next to the fastener.

SIZE	FT-LBS	NM	SIZE	FT-LBS	NM
.250	8.2	11.1	M3	1	1.3
.312	17	23	M4	2.2	3
.375	30	40	M5	4.5	6.1
.438	48	65	M6	7.7	10.4
.500	73	99	M8	18.5	25
.562	105	143	M10	37	50
.625	145	200	M12	64	87
.750	260	350	M14	80	108.5
.875	420	565	M16	160	215
1.00	625	850	M20	320	435
			M24	555	750

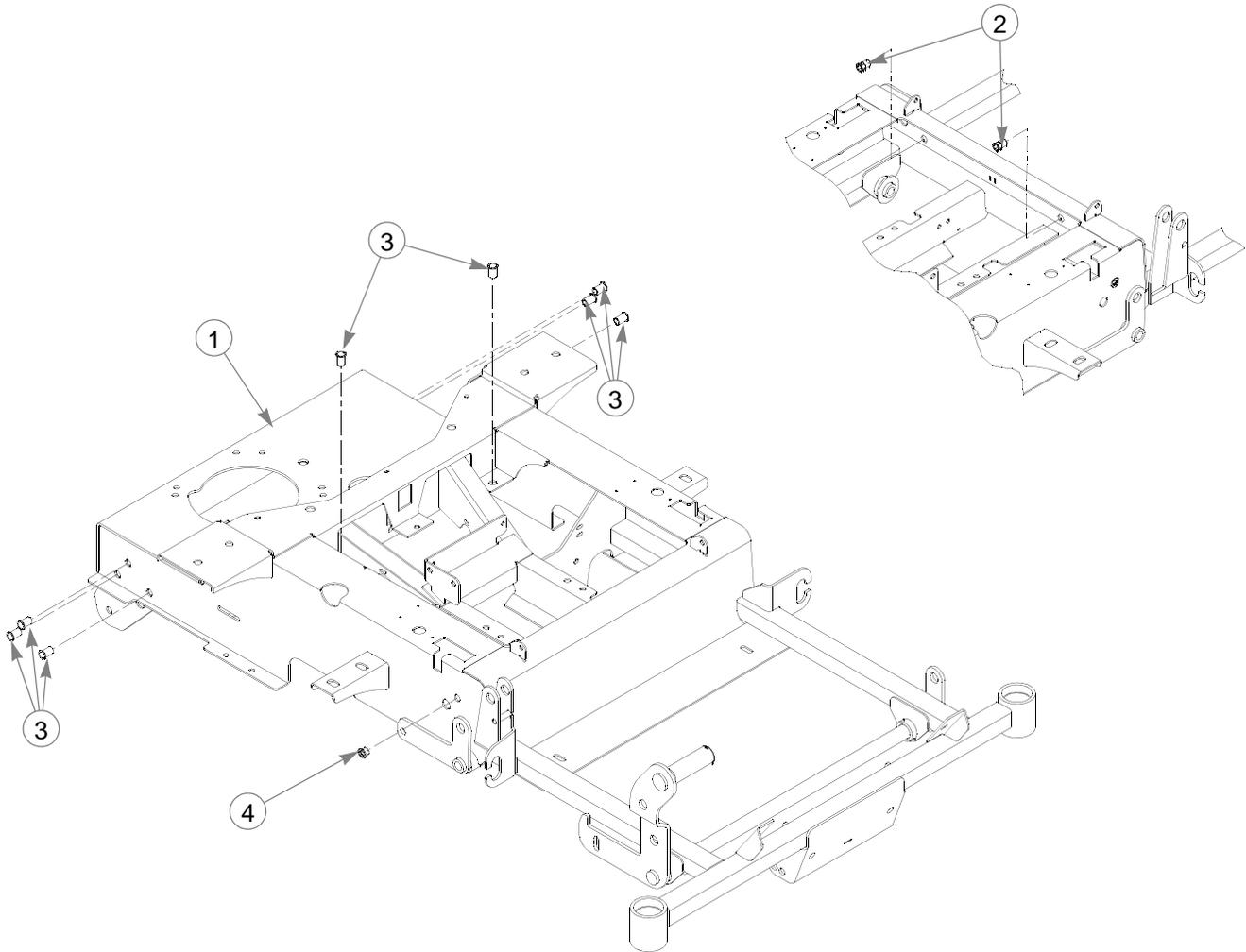
NOTE:

**Loctite® 592 to be used on all pipe threads.
Lubricate all grease zerks.**

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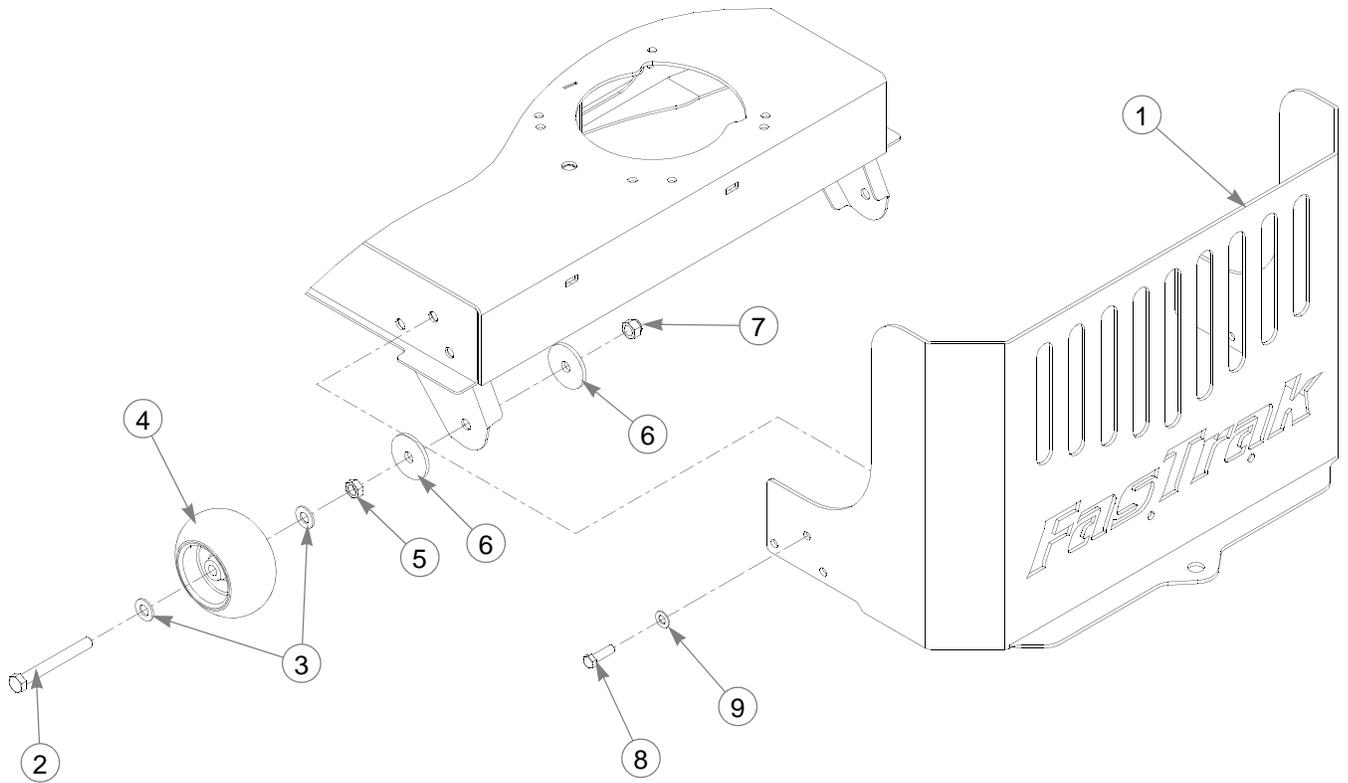
Rivet Nut Installation



INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	548289	107819	1	54" FASTRAK FRAME
	548297	107890	1	48" FASTRAK FRAME
2	N/A	600994	2	3/8-16 THREAD RIVET NUT
3	N/A	808493	8	3/8-16 THREAD RIVET NUT
4	N/A	808485	1	5/16-18 THREAD RIVET NUT

NOTES:

Engine Guard and Anti Rollover Wheels

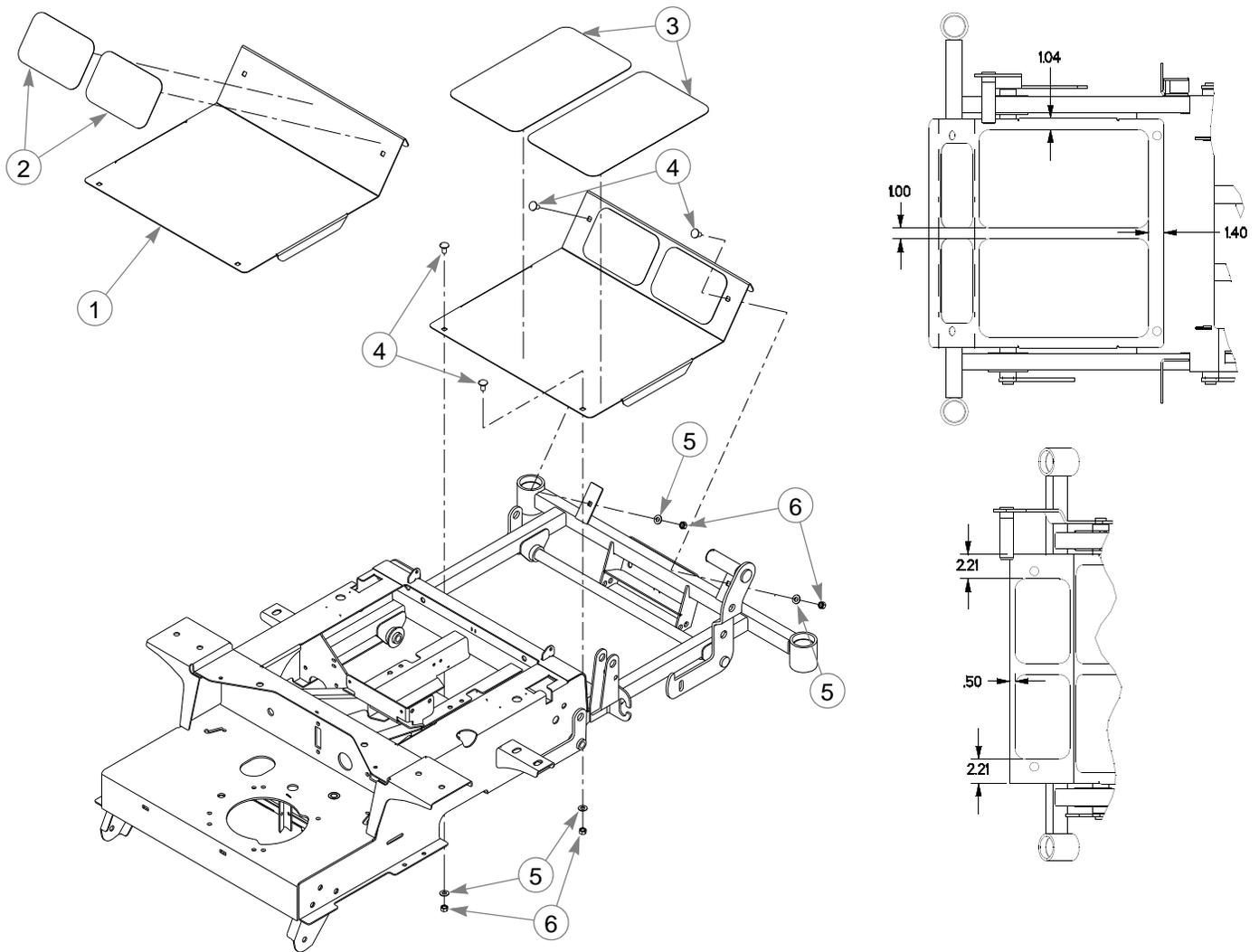


INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	107840	107840	1	FASTRAK ENGINE GUARD
2	781708	N/A	2	CS .500-13 X 4.25 HX G5 ZNYC
3	767962	N/A	4	FW .531 X 1.063 X .090 SAE ZNYC
4	031997	N/A	2	ANTI-SCALP WHEEL
5	053199	N/A	2	NT .500-13 HX JAM ZNYC
6	344267	344267	4	FW .510 X 2.15 X .187 SPL
7	781567	781567	2	NT .500-13 H G8 ZNYC NL
8	052860	052860	6	CS .375-16 X 1.25 HX G5 ZNYC
9	767954	767954	6	FW .406 X .812 X .060 SAE ZNYC
1	788166	788166	2	ANTI SCALP WHEEL ASSEMBLY

NOTES:

1. Includes items 2 through 5.

Footrest Assembly



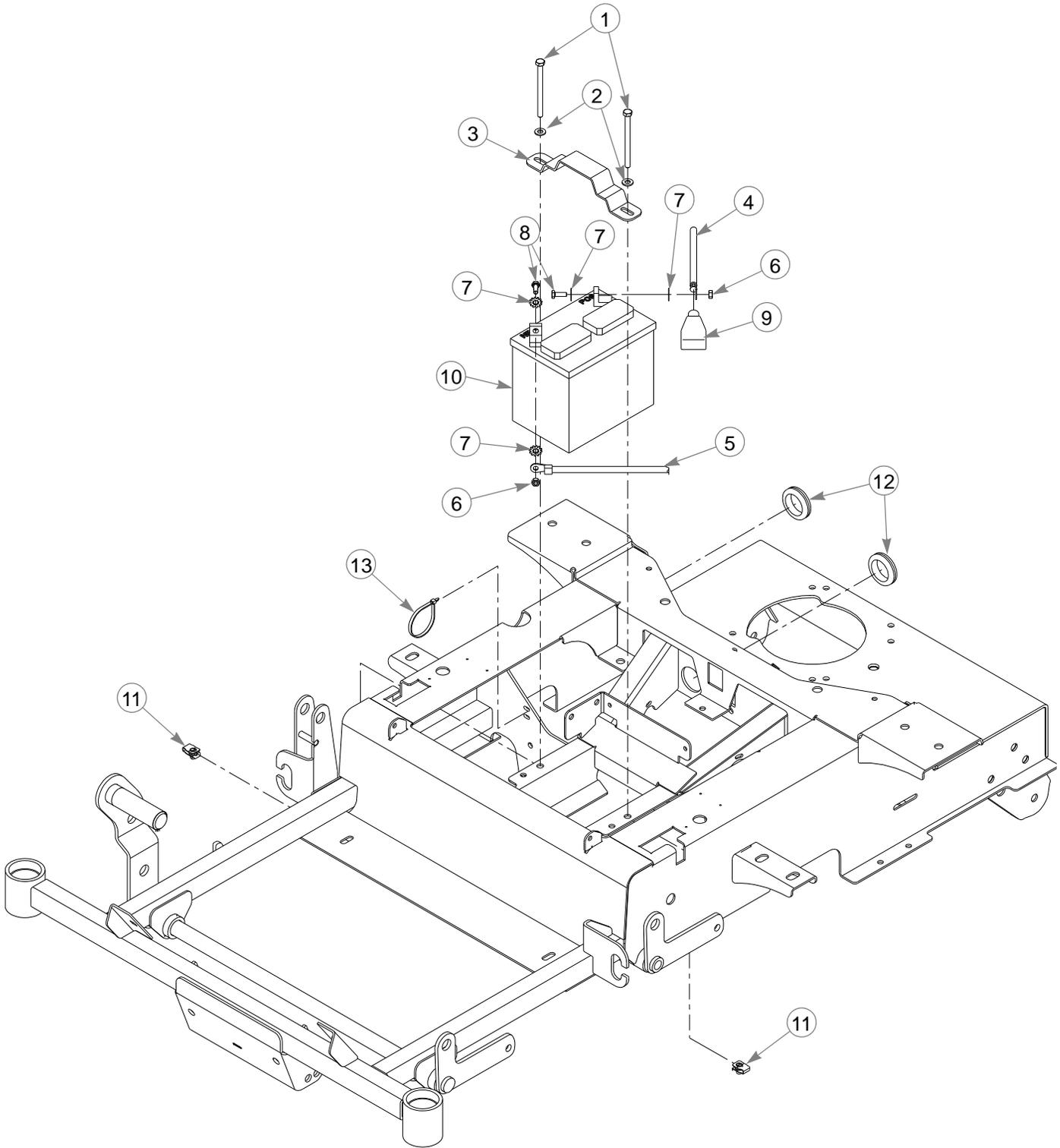
INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	107839	107839	1	FLOOR PLATE
2	785485	785485	2	UPPER STEP TREAD
3	785493	785493	2	LOWER STEP TREAD
4	011320	011320	4	CB .375-16 X .750 STD ZNYC
5	767954	767954	4	FW .406 X .812 X .060 SAE ZNYC
6	054502	054502	4	NT .375-16 HX GRD 5 ZNYC

NOTES:

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Battery Installation



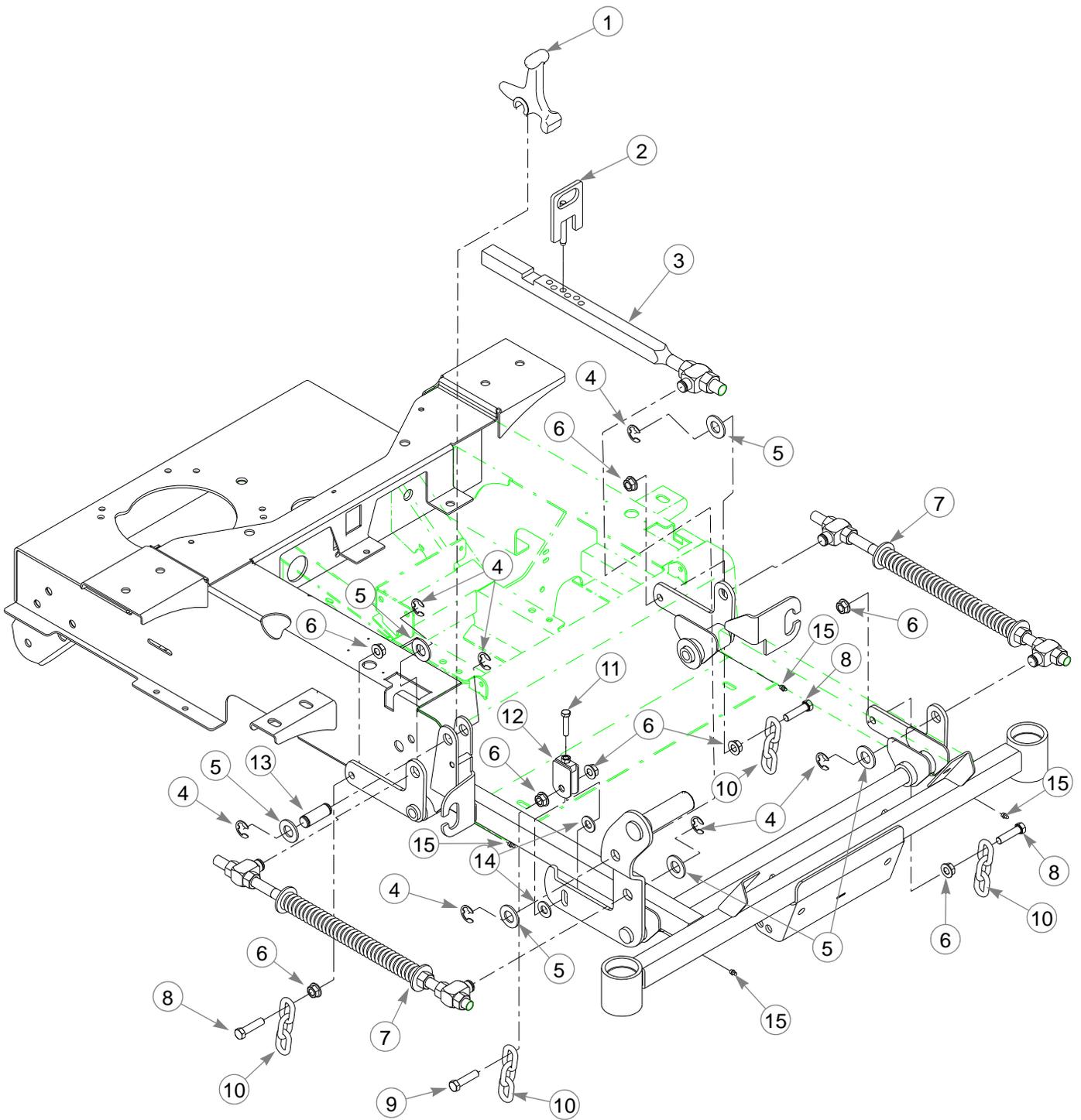
Battery Installation

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION	
	1	714618	714618	2	CS .312-18 X 4.00 HX G5
	2	768523	768523	2	FW .343 X .687 X .051/.080 HD
	3	348417	348417	1	BATTERY CLAMP STRAP
3	4	601062	601062	1	POSITIVE BATTERY CABLE (HONDA)
4	4	601312	601312	1	POSITIVE BATTERY CABLE (KAWASAKI & KOHLER ENGINES)
	5	601063	601063	1	NEGATIVE BATTERY CABLE
	6	024927	024927	2	NT .250-20 HX GR.5 ZNYC
	7	029868	029868	4	LW .250 INT-EXT TOOTH ZNYC
	8	055939	055939	2	CS .250-20 X .750 HX G5
	9	771428	771428	1	RED BATTERY CABLE BOOT
2 1	10	740696	740696	1	BATTERY VU1LH-8
	11	601069	601069	2	CN.312-18 X.200 MAX THK
	12	794644	794644	2	GM 1.50 X 2.12 X 1.75
	13	000331	000331	1	WIRE TIE SMALL/SHORT

NOTES:

1. When performing service on mower, disconnect battery ground cable and do not reconnect to battery until engine is ready to be started. See Owners Manual.
2. Battery is not installed in export models.
3. Used on mowers using Kohler engines with serial numbers prior to 07080126. Also used on mowers using Kawasaki engines with serial numbers prior to 070626321.
4. Used on mowers using Kawasaki engines with serial numbers 070626321 and higher.

Deck Lift Assembly



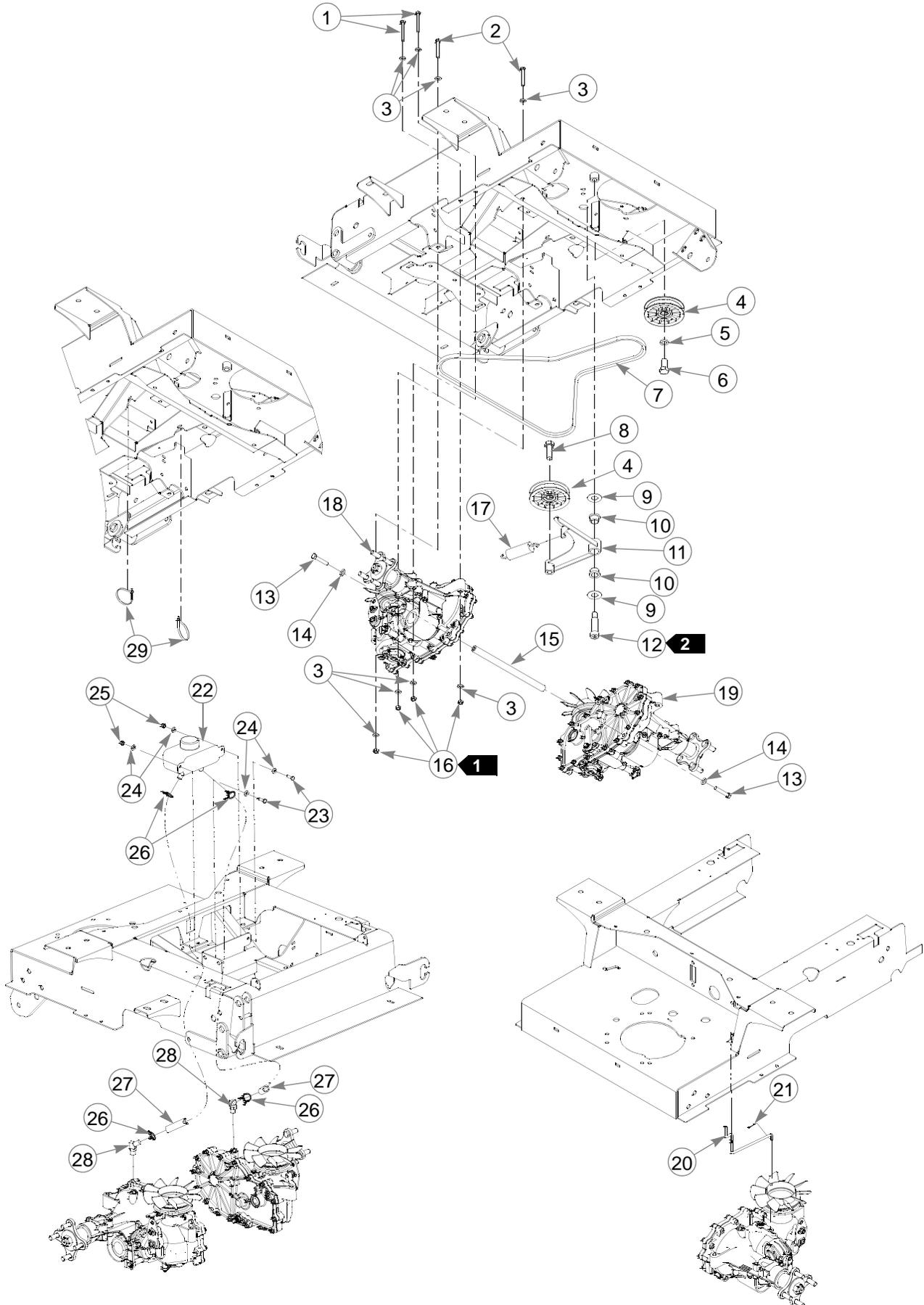
Deck Lift Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	348318	348318	1	STOP HANDLE
2	348284	348284	1	HEIGHT ADJUSTMENT STOP
3	784488	784488	1	DECK LIFT INDICATOR
4	781294	781294	7	E CLIP 1.00 X.625 X.05
5	601681	601681	6	FW .812X1.50X.120 ZNYC
6	704643	704643	8	NT .437-14 HX FLG ZNYC
7	782995	782995	2	DECK LIFT SPRING
8	055749	055749	3	CS .437-14 X 1.75 HX G5
9	781831	781831	1	CS .437-14 X 1.75 FULTH
10	360131	018846	4	DECK LIFT CHAIN (3 LINKS)
11	756270	756270	1	CS .312-18 X 1.50 FLTHR
12	348458	348458	1	DECK LEVELER YOKE
13	781229	781229	1	CE .750 X 2.25 X 1.75 HEADLESS
14	767962	767962	2	FW .406 X .812 X .060 SAE
1	15	015495	4	STRAIGHT GREASE FITTING

NOTES:

1. Apply grease to zerks.

Hydro Transmission Installation



Hydro Transmission Installation

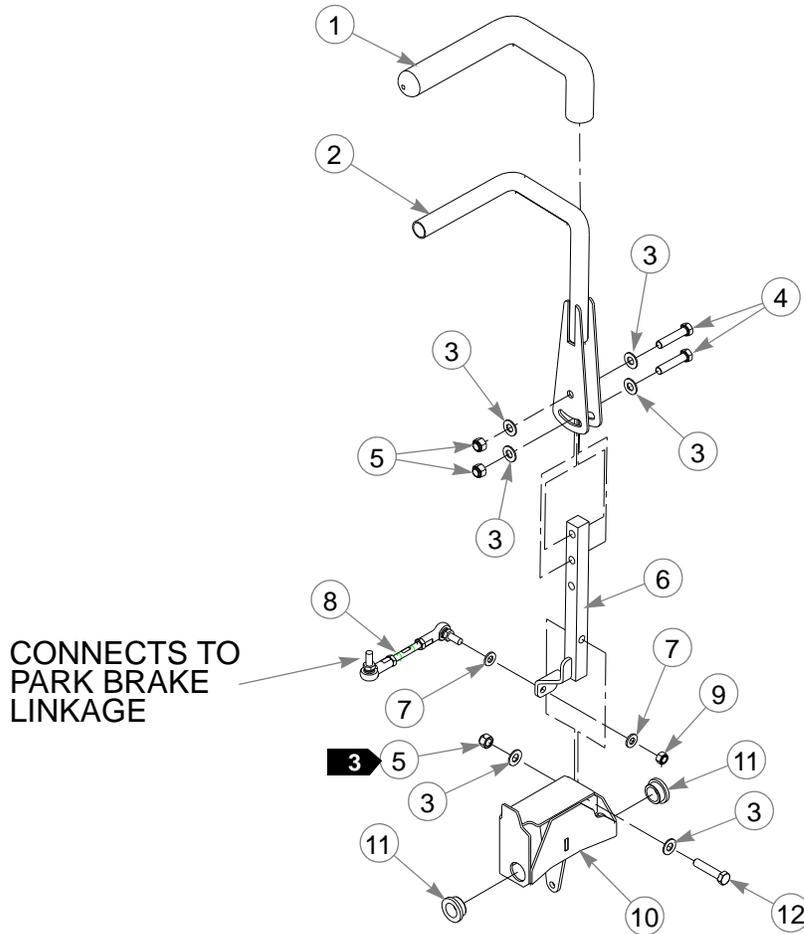
INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	710087	710087	4	CS .312-18X2.500 HX G5
2	038828	038828	4	CS .312-18X2.250 HX G5
3	768523	768523	16	FW .343X.687X.051/.080H
4	784827	784827	2	IDLER PULLEY 4.00"OD
5	028118	028118	1	FW .625X1.00X.134 ZNYC
6	781872	781872	1	CS .625-11X1.25 HX G5 Z
7	600979	600979	1	PUMP DRIVE BELT
8	025007	025007	1	CS .625-11X1.750 HX G5
9	025296	025296	2	FW .760X 1.625X.08 ZNYC
10	781153	781153	2	BUSHING
11	107881	107881	1	PUMP IDLER W/A FASTRAK
12	601084	601084	1	SB .750X 2.000 SH.625-11
13	016410	016410	2	CS .375-16X2.00 G5 ZNYC
14	767954	767954	2	FW .406X .812 X.060 SAE
15	600987	600987	1	ZT SPACER TUBE
16	034272	034272	8	NT .312-18 HX G5 ZNYC
17	036384	036384	1	SPRING 1/4 COIL PL 1.23
18	601020	601020	1	LH TRANS ZT2800 20.69:1
19	601019	601019	1	RH TRANS ZT2800, 20.69:1
20	601088	601088	2	TOW LINK ROD 48/54
21	048553	048553	2	CP .062DX1.000 LG HML Z
22	600759	600759	1	OVERFLOW TANK ASSY
23	055939	055939	2	CS .250-20X .750 HX G5
24	768515	768515	4	FW .281X.625X.051/.080H
25	068551	068551	2	NT .250-20 HXZY NL
26	601001	601001	4	SPRING CLAMP .75" DIA
27	601018	601018	2	OVERFLOW HOSE 10" LONG
28	600880	600880	2	HYD FITTING 45 DEG
29	000331	000331	2	WIRE TIE SMALL/SHORT

NOTES:

1. Torque to 17 ft-lbs.
2. Torque to 100 ft-lbs
3. Service parts available for the transaxles:

601206	ZT2800 FAN, 7"
601207	ZT2800 PULLEY, 4.5"
601221	ZT2800 BRAKE ARM - 2007

Steering Sub-Assembly



ITEM NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	781260	N/A	2	STEERING BAR GRIP
1 2	360487	360487	2	STEERING BAR
3	767954	767954	12	FW .406 X .812 X .060 SAE HD ZN
4	705178	705178	4	CS .375-16X1.750 HX G5
5	086660	086660	6	NT .375-16 HXZY NL
6	107843	107843	1	STEERING ARM W/A LH (SHOWN)
	107842	107842	1	STEERING ARM W/A RH
7	768523	768523	4	FW .343X .687 X .051/.080 HD ZN/YL
8	600991	600991	2	SHORT BRAKE LINK ROD
9	023655	023655	2	NT .312-24 HXZY NL
10	107848	107848	1	STEER PIVOT W/A LH (SHOWN)
	107847	107847	1	STEER PIVOT W/A RH
11	770867	770867	4	IGUS BUSHING
12	705178	705178	2	CS .375-16X1.750 HX G5

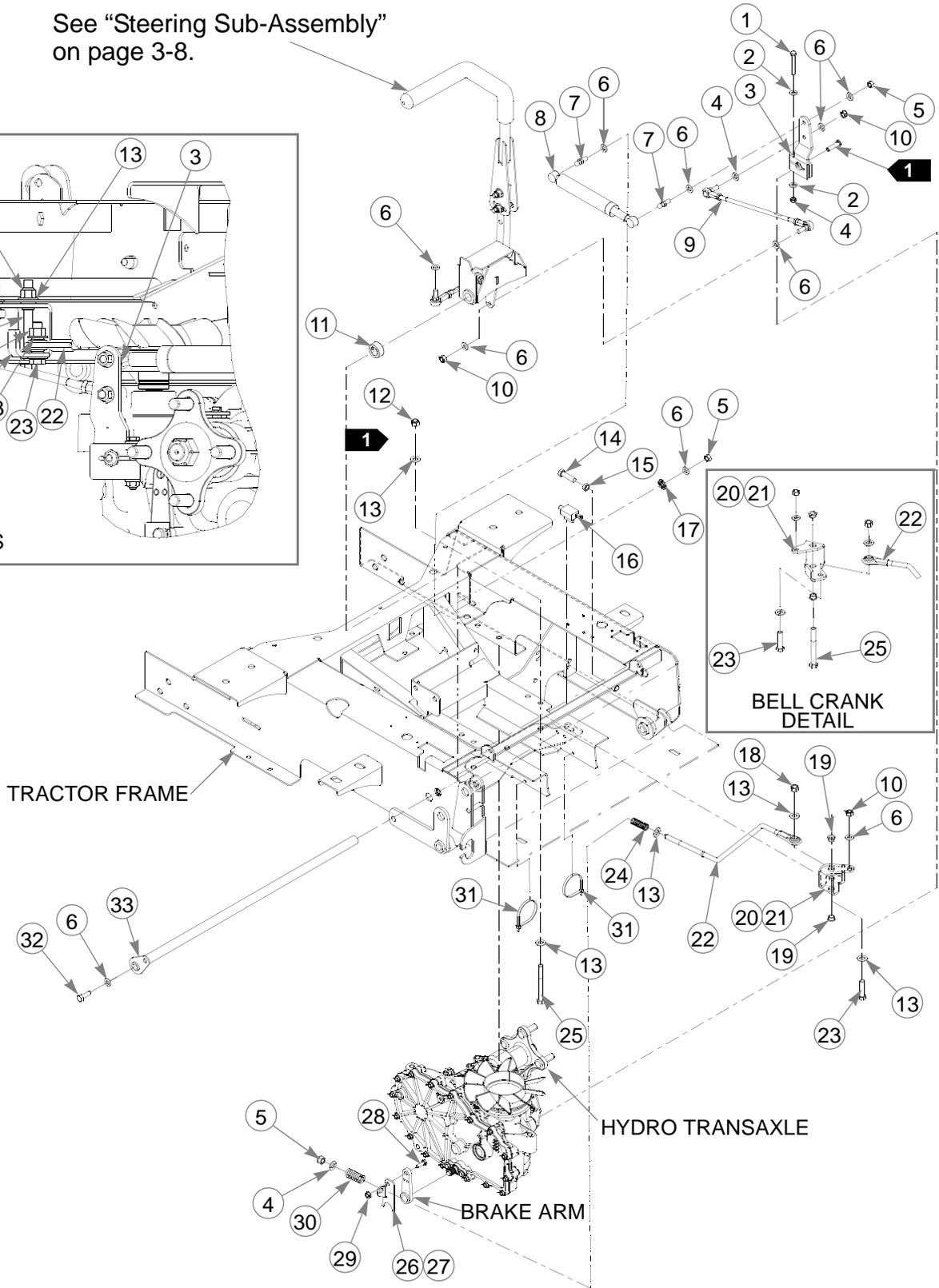
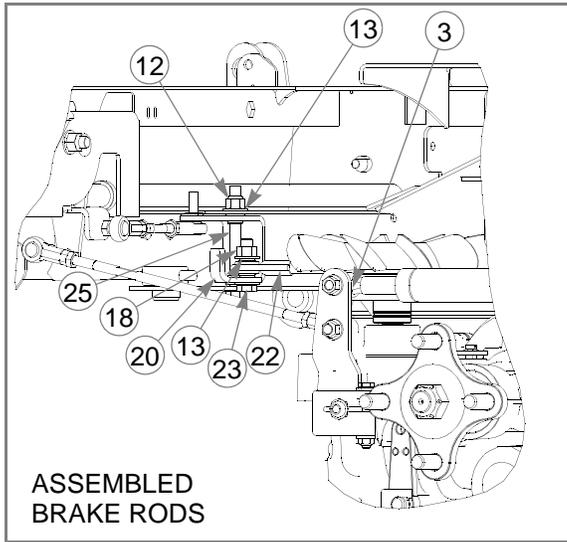
NOTES:

1. Includes Item 1 (781260 Steering Bar Grip).

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Steering and Brake Assembly

See "Steering Sub-Assembly"
on page 3-8.



Steering and Brake Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	704163	704163	2	CS .250-20X2.00 HX G5 Z
2	768515	768515	4	FW .281X.625X.051/.080H
2 3	109318	109318	2	PUMP ARM
4	068551	068551	2	NT .250-20 HXZY NL
5	034272	034272	4	NT .312-18 HX G5 ZNYC
6	768523	768523	21	FW .343X.687X.051/.080H
7	781922	781922	4	BALL STUD DAMPER (FS)
8	600221	600221	2	STEERING DAMPER
9	600981	600981	2	PUMP ROD ASSEMBLY
10	023655	023655	6	NT .312-24 HX ZY NL
11	784439	784439	2	LOCK COLLAR 0.757 ID(FS)
12	086660	086660	4	NT .375-16 HXZY NL
13	767954	767954	12	FW .406X .812 X.060 SAE
14	005116	005116	2	CS .375-16X1.375 HX G5
15	706168	706168	2	NT .375-16 HX JAM GR5 Z
16	601087	601087	2	PLUNGER SWITCH
17	029876	029876	2	LW .312 INT-EXT TOOTH ZN
18	054502	054502	2	NT .375-16 HX GRD 5 ZNY
19	765339	765339	4	IGUS® BUSHING
20	107893	107893	1	BRAKE BELL CRANK LS (SHOWN)
21	107892	107892	1	BRAKE BELL CRANK RS (NOT SHOWN)
22	600989	600989	2	BRAKE ROD ASSEMBLY
23	080655	080655	2	CS .375-16X1.500 HX G5
24	601131	601131	2	BRAKE ARM RET. SPRING
25	005108	005108	2	CS .375-16X3.50 HX G5 Z
26	107894	107894	1	BRAKE SPRING LINK LS (SHOWN)
27	108430	108430	1	BRAKE SPRING LINK RS (NOT SHOWN)
28	055939	055939	2	CS .250-2 0X .750 HX G5
29	016816	016816	2	NT .250-20 HX FL LK ZNY
30	601051	601051	2	OVERTRAVEL SPRING
31	000331	000331	2	WIRE TIE, SMALL/SHORT
32	036236	036236	1	CS .312-18X1.000 HX G5
33	361295	361295	1	PIVOT TUBE W/A PLATED

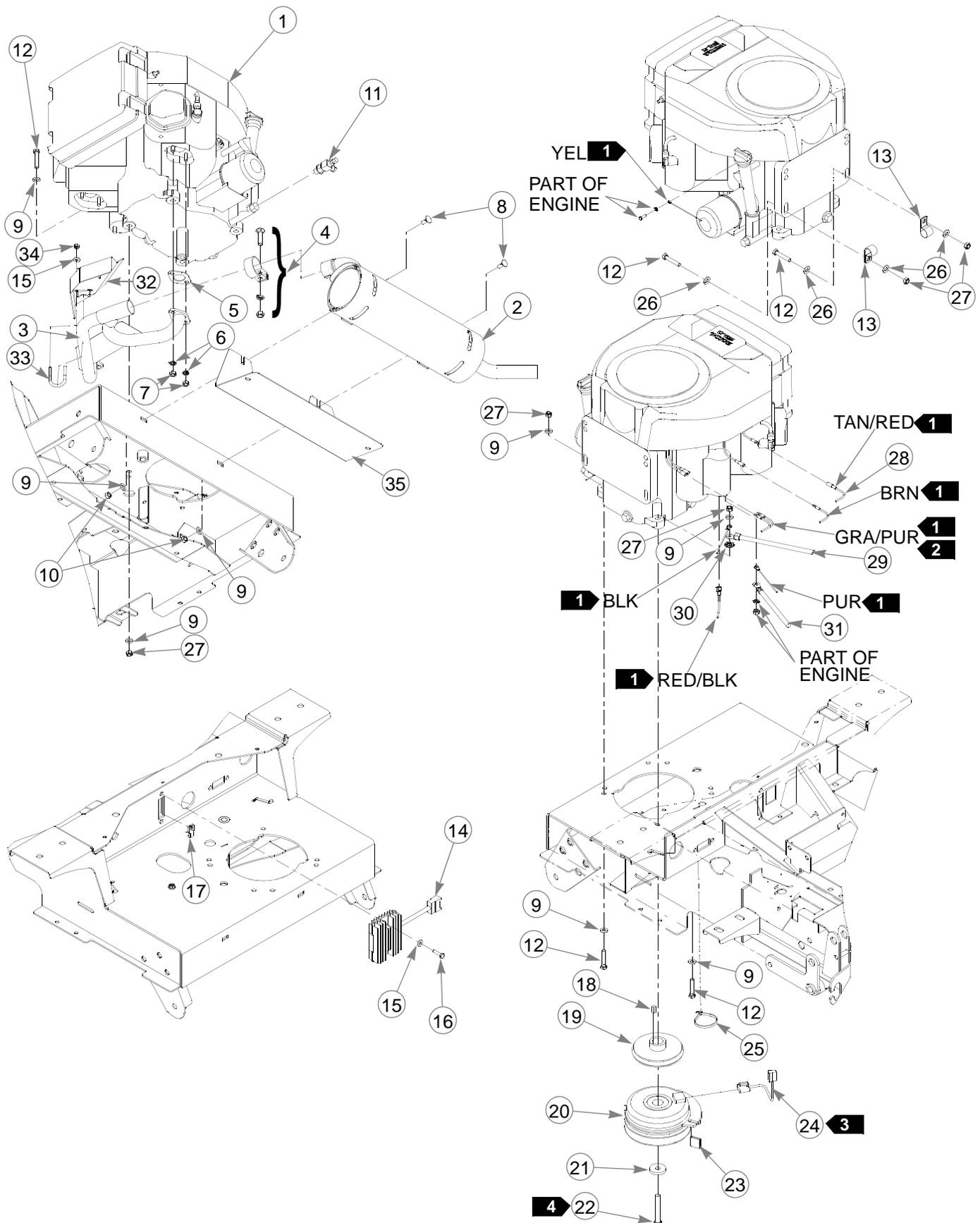
NOTES:

1. Supplied with transmissions.
2. For mowers with serial numbers prior to 07102604, to replace the dampener mount first remove the original control arms from the transmissions—saving the hardware, and replace with items 1,2 3 and 4.

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Honda 18 & 20 HP Engine Installation



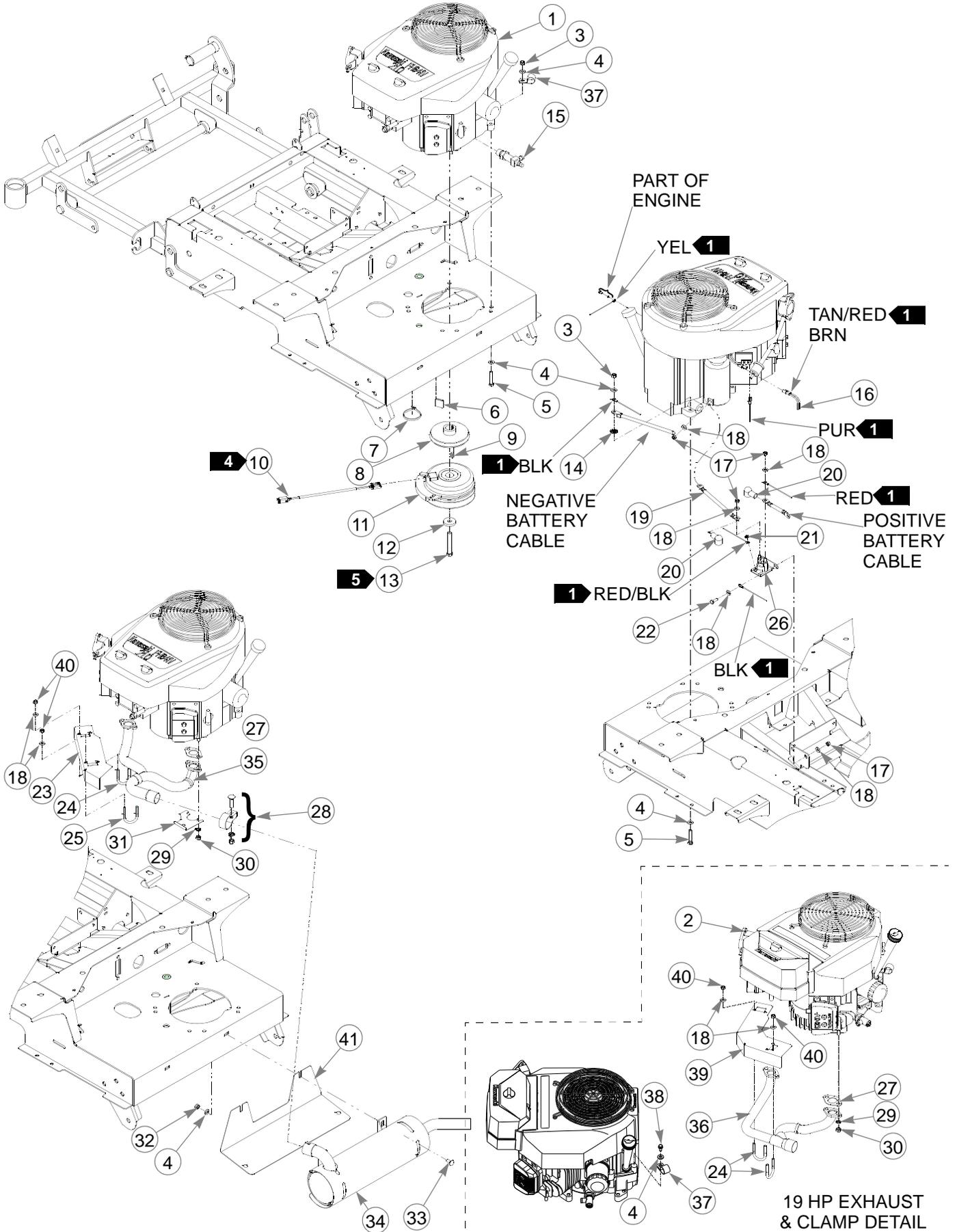
Honda 18 & 20 HP Engine Installation

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	784611	784611	1	HONDA 18HP ENGINE
	784629	784629	1	HONDA 20HP ENGINE
2	601002	601002	1	HORIZONTAL MUFFLER FST
3	601003	601003	1	FASTRAK MUFFLER MANIFOLD
4	785378	785378	1	MUFFLER CLAMP
5	785543	N/A	2	HONDA (20) MUFFLER GASKET
6	017004	N/A	4	LW .312 MED SPRING ZNYC
7	782664	N/A	4	NT M8-1.25 HX STAINLESS
8	016253	016253	2	CB .312-18X .750 FUL ZN
9	768523	768523	10	FW .343X.687X.051/.080H
10	034272	034272	2	NT .312-18 HX G5 ZNYC
11	787689	787689	1	OIL DRAIN VALVE M14X
12	050161	050161	6	CS .312-18X1.750 HX G5
13	043570	043570	2	CLIP HOSE SINGLE(FS)
14	785477	N/A	1	HONDA 20 AMP RECTIFIER
15	768515	768515	6	FW .281X.625X.051/.080H
16	056077	056077	2	CS .250-20X1.000 HX G5
17	601118	601118	2	CN .250-20 X .19 MAX THK
18	712372	712372	1	KEY 1/4 SQ X 0.66 LG
19	799429	799429	1	PULLEY A SEC 4.5 OD
20	784835	784835	1	FASTRAK CLUTCH
21	763417	763417	1	FW .454X1.50X.250
22	785048	785048	1	CS .437-20X3.00 HX G5 Z
23	784918	784918	1	RUBBER BUMPER
24	791251	N/A	1	CLUTCH PIGTAIL HARNESS
25	000331	000331	1	SMALL/SHORT WIRE TIE
26	070664	070664	4	FW .344X .750X.06 ZNYC
27	058776	058776	6	NT .312-18 HXZY NL
28	600998	600998	1	WIRE HARNESS FASTRAK
29	601063	N/A	1	BATTERY CABLE NEGATIVE
30	029876	029876	1	LW .312 INT-EXT TOOTH Z
31	601062	N/A	1	BATTERY CABLE POSITIVE
32	109340	109340	1	HEATSHIELD, FST HON614CC
33	601429	601429	2	UBOLT .250-20X 1.125 DIA
7 34	024927	N/A	4	NT .250-20 HX GR.5 ZNYC
35	108969	108969	1	MUFFLER HEAT SHIELD
	104786	104786	1	OIL DRAIN HOSE (NOT SHOWN)

NOTES:

1. Part of Item 28 (600998 FasTrak wire harness).
2. Two wires.
3. Connected to Item 28 (600998 FasTrak wire harness).
4. Torque to 45-48 ft-lb.
5. Engine oil capacity: See engine manual.
6. Engine speed; High speed - 3450 ±50 RPM .
7. Nuts supplied with item 33 (U-Bolts).

Kawasaki 19 & 21 HP Engine Installation



Kawasaki 19 & 21 HP Engine Installation

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION	
	1	601082	601082	1	21HP KAWASAKI ENGINE (USED ON 928291)
	2	601081	601081	1	19HP KAWASAKI ENGINE (USED ON 928275)
	3	058776	058776	4	NT .312-18 HX ZNYC NL
	4	768523	768523	11	FW .343 X .687 X .051/.080 HD
	5	050161	050161	4	CS .312-18 X 1.75 HX G5
	6	784918	784918	1	RUBBER BUMPER
	7	000331	000331	1	WIRE TIE SMALL/SHORT
	8	799429	799429	1	4.5 OD A SEC PULLEY
	9	712372	712372	1	KEY 1/4 SQ X 0.66 LG
	10	791251	N/A	1	CLUTCH PIGTAIL HARNESS
	11	784835	784835	1	CLUTCH
	12	763417	763417	1	FW .454 X 1.50 X .250
	13	785048	785048	1	CS .437-20 X 3.00 HX G5 ZNYC
	14	029876	029876	1	LW .312 INT-EXT TOOTH ZNYC
	15	796524	796524	1	OIL DRAIN VALVE M20 X 2.5
	16	601341	601341	1	FASTRAK KAWASAKI WIRE HARNESS
7	16	600999	N/A	1	FASTRAK KAWASAKI WIRE HARNESS
	17	024927	024927	5	NT .250-20 HX GR.5 ZNYC
8	17	044818	N/A	2	CN ZN TIN-C7343-1420
7	17	601118	N/A	2	CN .250-20 X .19 MAX THICK
	18	768515	768515	11	FW .281 X .625 X .051/.080 HD
	19	601062	601062	1	RED BATTERY CABLE (17")
7	19	792762	N/A	1	RED BATTERY CABLE (9")
	20	601319	771428	2	RED BATTERY CABLE BOOT
7	20	771428	N/A	1	RED BATTERY CABLE BOOT
	21	044255	044255	1	NT #10-32 HX ZN
	22	055939	055939	2	CS .250-20X .750 HX G5
8	22	064329	N/A	2	CS .250-20 X .625 HX G5
	23	109338	109338	1	HEATSHIELD, FST KAW675CC (21HP ONLY)
	24	601429	601429	1	UBOLT .250-20X 1.125 DIA (21 HP ONLY)
		601429	601429	2	UBOLT .250-20X 1.125 DIA (19 HP ONLY)
	25	601452	601452	1	UBOLT .250-20 X 1.250 ID (21HP ONLY)
	26	030817	030817	1	STARTER SOLENOID
	27	780841	N/A	2	MUFFLER GASKET
	28	785378	785378	1	1.50" MUFFLER CLAMP
	29	017004	N/A	4	LW .312 MED SPRING ZNYC
	30	782664	N/A	4	NT M8-1.25 HX STAINLESS
	31	108288	108288	1	21 KAW FASTRAK HEAT SHIELD
	32	034272	034272	2	NT .312-18 HX G5 ZNYC
	33	016253	016253	2	CB .312-18 X .75 FUL ZNYC
	34	601002	601002	1	FASTRAK HORIZONTAL MUFFLER
	35	601004	601004	1	EXHAUST MANIFOLD FASTRAK 21 HP
	36	601021	601021	1	EXHAUST MANIFOLD FASTRAK 19 HP
	37	043570	043570	1	CLIP - HOSE - SINGLE(FS)
	38	792796	792796	1	SC M 6-1.0X15 HX FL STP (19 HP ONLY)
	39	109339	109339	1	HEATSHIELD, FST KAW585CC (19 HP ONLY)
6	40	024927	N/A	4	NT .250-20 HX GR.5 ZNYC
		104786	104786	1	OIL DRAIN HOSE (NOT SHOWN)
	41	108969	108969	1	HEAT SHIELD

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
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NOTES:

1. Part of Item 16 (600999/601341 FasTrak Kawasaki Wire Harness).
2. Engine oil capacity:See engine manual.
3. Engine speed; High idle—3450 ±50 rpm.
4. Connected to item 16 (600999/601341 FasTrak Kawasaki Wire Harness).
5. Torque to 45-48 ft-lb
6. Supplied with items 24 and 25 (U-Bolts).
7. Used on mowers with serial numbers prior to 07062321.
8. Used on mowers with serial numbers prior to 07102604.
9. On mowers with serial numbers prior to 07062321, item 24 (starter solenoid) is located in engine compartment.

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Kohler 19 HP Engine Installation

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION	
	1	601067	601067	1	19 HP KOHLER COURAGE ENGINE
	2	601342	601342	1	KOHLER WIRE HARNESS
8	2	601000	601000	1	KOHLER WIRE HARNESS
	3	058776	058776	1	NT .312-18 HX NL ZNYC
	4	768523	768523	4	FW .343 X .687 X .051/.080 HD ZNYC
	5	029876	029876	1	LW .312 INT-EXT TOOTH ZNYC
	6	024927	024927	4	NT .250-20 HX GR.5 ZNYC
	7	768515	768515	10	FW .281 X .625 X .051/.080 HD ZNYC
	8	044255	044255	1	NT #10-32 HX ZN
	9	601319	601319	2	RED BATTERY CABLE BOOT
8	9	771428	N/A	1	RED BATTERY CABLE BOOT
9	10	030817	030817	1	STARTER SOLENOID
	11	601312	601312	1	4" RED BATTERY CABLE
8	11	792762	N/A	1	9" RED BATTERY CABLE
	12	055939	055939	2	CS .250-20X .750 HX G5
	13	038828	038828	1	CS .312-18 X 2.25 HX G5 ZNYC
	14	780841	N/A	1	EXHAUST GASKET
	15	601005	601005	1	KOHLER EXHAUST MANIFOLD
	16	601002	601002	1	FASTRAK HORIZONTAL MUFFLER
	17	016253	016253	2	CB .312-18 X .750 FUL ZN
	18	785378	785378	1	1.50" MUFFLER CLAMP
	19	034272	034272	2	NT .312-18 HX G5 ZNYC
	20	796516	796516	1	3/8-18 OIL DRAIN VALVE
3	21	036244	N/A	3	CS .375-16X1.000 HX G5
	22	784918	784918	1	RUBBER BUMPER
	23	799429	799429	1	A SEC, 4.5 OD PULLEY
	24	712372	712372	1	1/4 SQ X 0.66 LG KEY
	25	784835	784835	1	FASTRAK CLUTCH
6	26	791251	N/A	1	CLUTCH PIGTAIL HARNESS
	27	763417	763417	1	FW .454X1.50X.250
	28	785048	785048	1	CS .437-20 X 3.00 HX G5 Z
	29	000331	000331	1	WIRE TIE SMALL/SHORT
	30	108969	108969	1	MUFFLER HEAT SHIELD
	31	109252	109252	1	HEATSHIELD, FST KOH COURAGE
	32	601429	601429	2	UBOLT .250-20X 1.125 DIA
11	33	024927	N/A	4	NT .250-20 HX GR.5 ZNYC
	34	104786	104786	1	OIL DRAIN HOSE (NOT SHOWN)

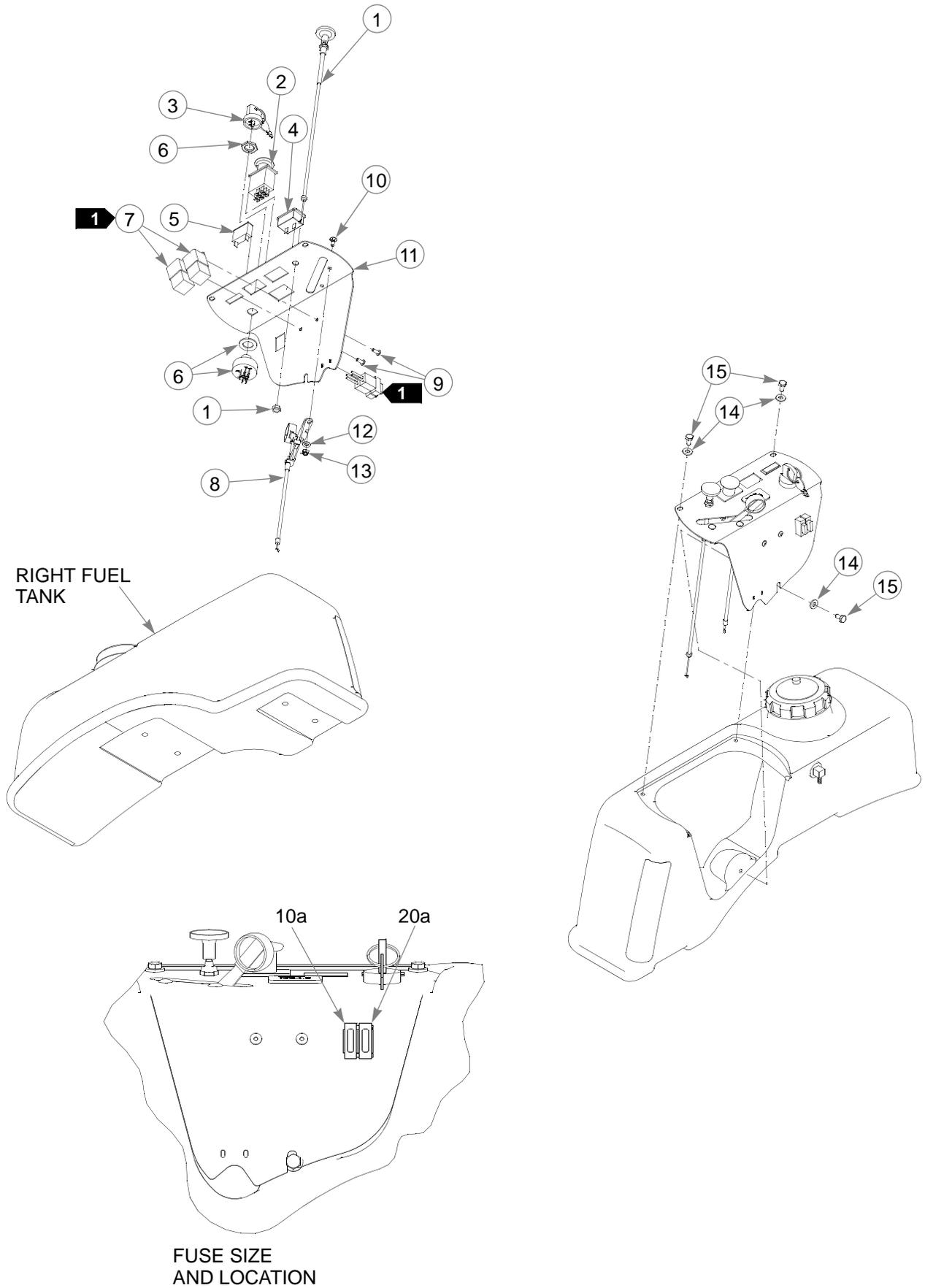
NOTES:

1. Part of Item 2 (601000/601342 Kohler Wire Harness).
2. Torque to 45-48 ft-lb
3. Torque to 30-35 ft-lbs. Do not reuse factory installed screw when performing service to mower requiring removal of engine, replace with 3/8-16 x 1.0 long grade 5 cap screw.
4. Engine oil capacity: See engine owner's manual.
5. Engine speed; High Idle—3450±50 rpm, Low idle—1900±100 rpm.

-
6. Connected to item 2 (601000/601342 FasTrak Kohler Wire Harness).
 7. Bolt and washer supplied with engine. For replacement part, order 029710 (Cap Screw .312-18X .750 HXFLK).
 8. Used on mowers with serial numbers prior to 07080126.
 9. On mowers with serial numbers prior to 07062321, item 10 (starter solenoid) is located in engine compartment.
 10. For mowers with clip nuts: when replacing clip nuts with items 6 and 7, item 12 is required.
 11. Nuts supplied with U-Bolts.

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Instrument Panel Installation



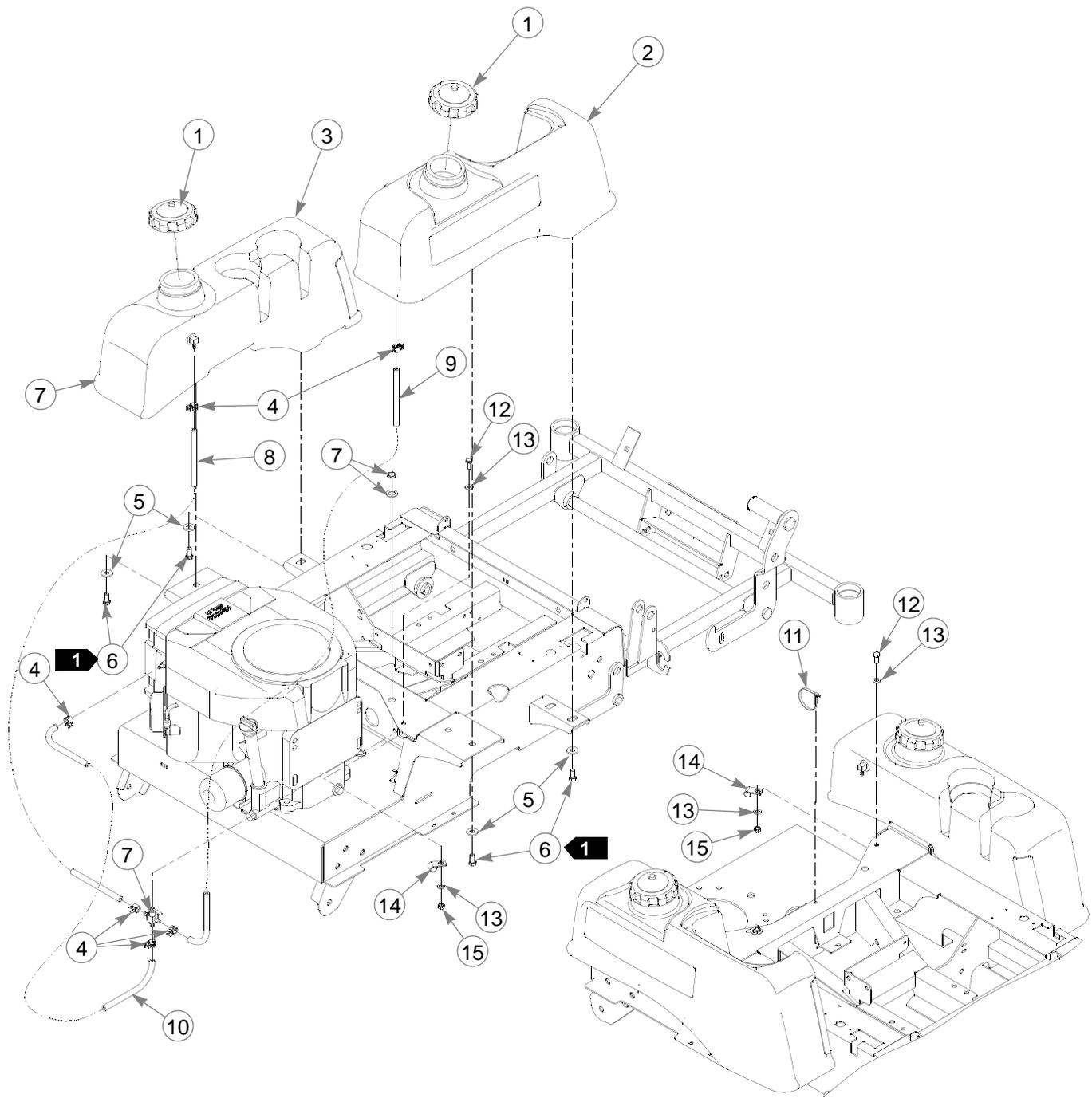
Instrument Panel Installation

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	601095	601095	1	CHOKE CABLE (KAWASAKI ONLY)
	601097	601097	1	CHOKE CABLE (KOHLER & HONDA ONLY)
2	776476	776476	1	PTO SWITCH
3	785808	785808	1	KEY SET
4	769166	769166	1	HOUR METER
5	712257	712257	1	RED INDICATOR LIGHT
6	045898	045898	1	KEY SWITCH
7	026237	N/A	2	RELAY
8	778365	778365	1	THROTTLE CABLE (HONDA ONLY)
	601094	601094	1	THROTTLE CABLE (KAWASAKI ONLY)
	601096	601096	1	THROTTLE CABLE (KOHLER ONLY)
9	601089	601089	2	RIVET .188 DIA BLK HD
10	601098	601098	2	CB 10-24 X .500 ZYNC
11	107902	107902	1	INSTRUMENT PANEL
12	704932	704932	2	FW .219 X .500 X .048 ZNYC
13	059832	059832	2	NT #10-24 HX NL ZN
14	768515	768515	3	FW .281 X .625 X .051/.080 HD
15	055947	055947	3	CS .250-20 X .500 HX G5

NOTES:

1. Part of 600998, 600999, 601000, 601341 or 601342 wire harness.

Fuel System Installation (with S/N higher than 07102604)



Fuel System Installation (with S/N higher than 07102604)

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	779306	779306	2	3.5" FUEL CAP
2	601320	601320	1	RIGHT SIDE FUEL TANK
3	601321	601321	1	LEFT SIDE FUEL TANK
4	000323	000323	6	CLIP
5	712919	712919	8	FW .406 X 1.00 X .12 HRD ZNYC
1	055822	055822	8	CS .375-16X .750 HX G5
7	745059	745059	1	3-WAY FUEL VALVE
8	015818	015818	1	FUEL LINE (24.00" LONG)
9	015818	015818	1	FUEL LINE 11.00" LONG)
10	015818	015818	1	FUEL LINE (36.0" LONG) (HONDA ONLY)
10	015818	015818	1	FUEL LINE (13.0" LONG) (KAWASAKI)
10	015818	015818	1	FUEL LINE (11.0" LONG) (KOHLER)
11	000331	000331	1	WIRE TIE SMALL/SHORT
12	034280	034280	2	CS .312-18X .750 HX G5
13	768523	768523	4	FW .343X.687X.051/.080H
14	000398	000398	2	CLAMP
15	034272	034272	2	NT .312-18 HX G5 ZNYC

NOTES:

1. Torque to 20 ft-lbs.

Fuel System Installation (with S/N prior to 07102604)

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	779306	779306	2	3.5" FUEL CAP
2	600963	600963	1	RIGHT SIDE FUEL TANK
3	600964	600964	1	LEFT SIDE FUEL TANK
4	000323	000323	6	CLIP
5	712919	712919	8	FW .406 X 1.00 X .12 HRD ZNYC
1	055822	055822	8	CS .375-16X .750 HX G5
7	706531	706531	2	GM 1.12 X 1.75 X 1.37 X .12
5	047456	047456	2	GM .687 X 1.312 X 1.00 X .12
8	745059	745059	1	3-WAY FUEL VALVE
4	015818	015818	1	FUEL LINE (25.3" LONG)
4	015818	015818	1	FUEL LINE 8.3" LONG)
11	015818	015818	1	FUEL LINE (36.0" LONG) (HONDA ONLY)
11	015818	015818	1	FUEL LINE (13.0" LONG) (KAWASAKI & KOHLER)
12	000331	000331	3	WIRE TIE SMALL/SHORT

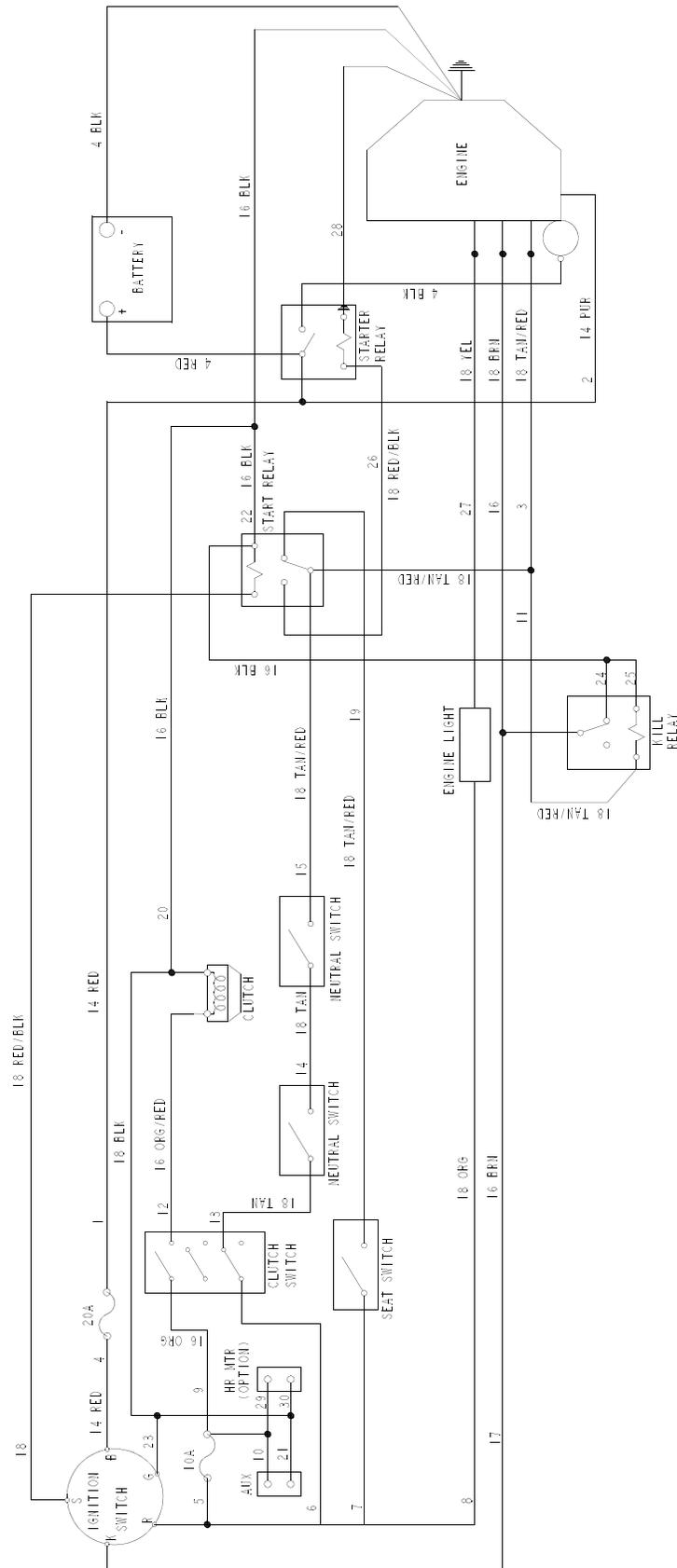
NOTES:

1. Torque to 20 ft-lbs.
2. See "FasTraks with Honda engines" on page 9-4 for Honda fuel line routing. See "FasTraks with Kawasaki engines" on page 9-6 for Kawasaki fuel line routing. See "FasTraks with Kohler Engines" on page 9-11 for Kohler fuel line routing.
3. Fuel line from left side fuel tank to be routed through grommet and tied to rear seat support with Item 12.
4. For mowers with serial numbers prior to 07062321, use the following fuel line lengths:

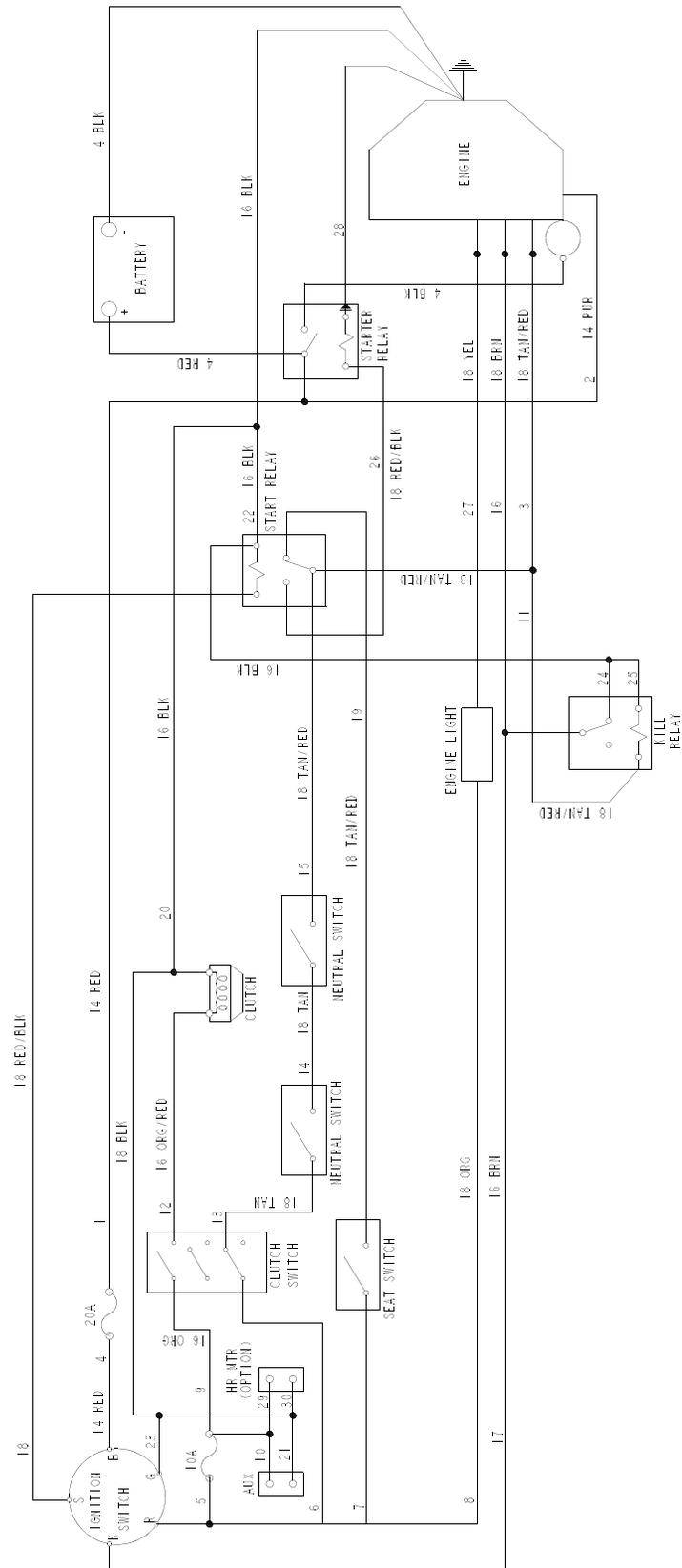
INDEX NO.	SERVICE PART NO.	DESCRIPTION
9	015818	FUEL LINE (27.3" LONG)
10	015818	FUEL LINE (27.3" LONG)

5. Used on mowers with serial numbers prior to 07062321.

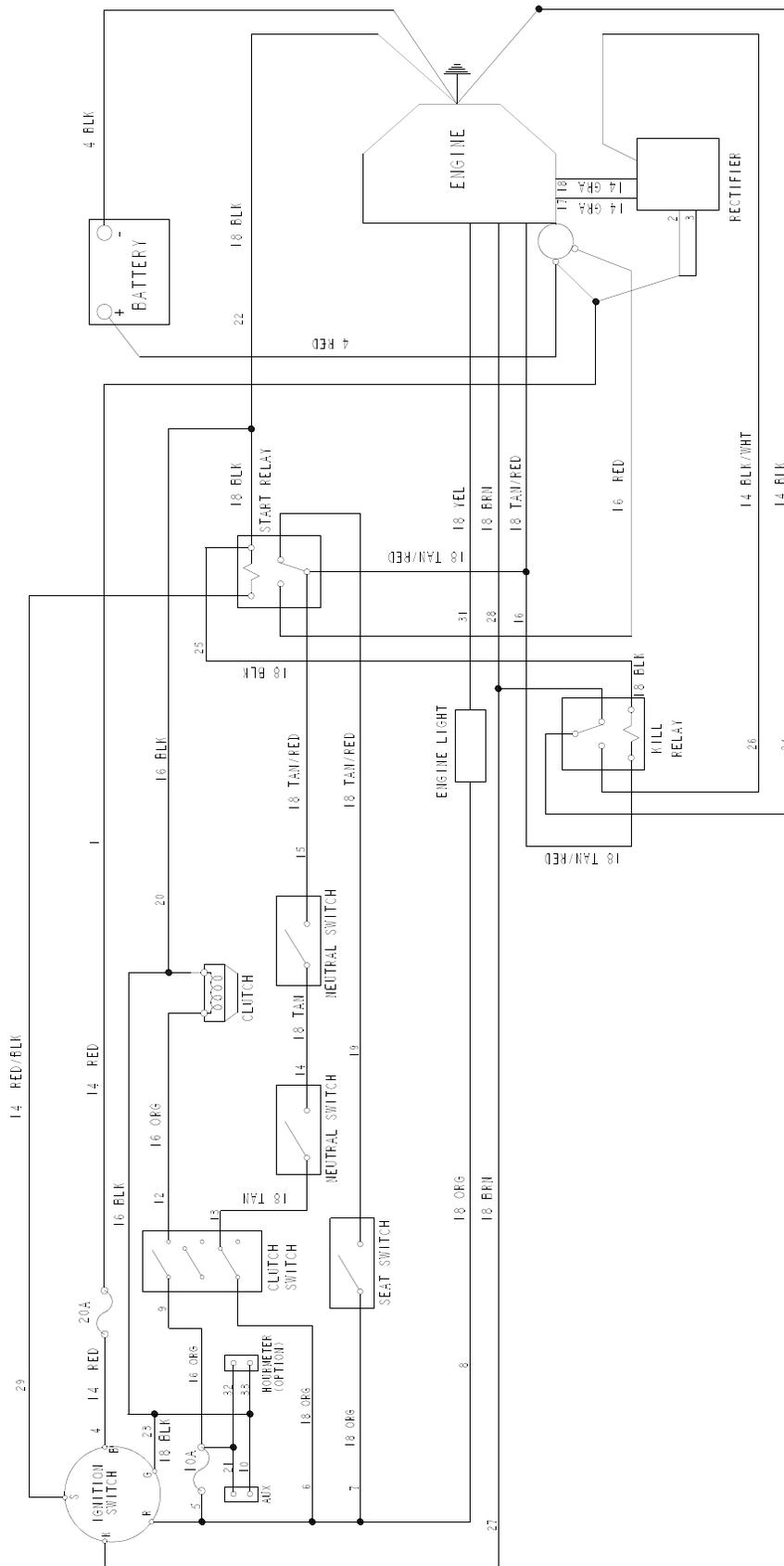
Kawasaki Electrical Schematic (600999/601341)



Kohler Electrical Schematic (601000/601342)



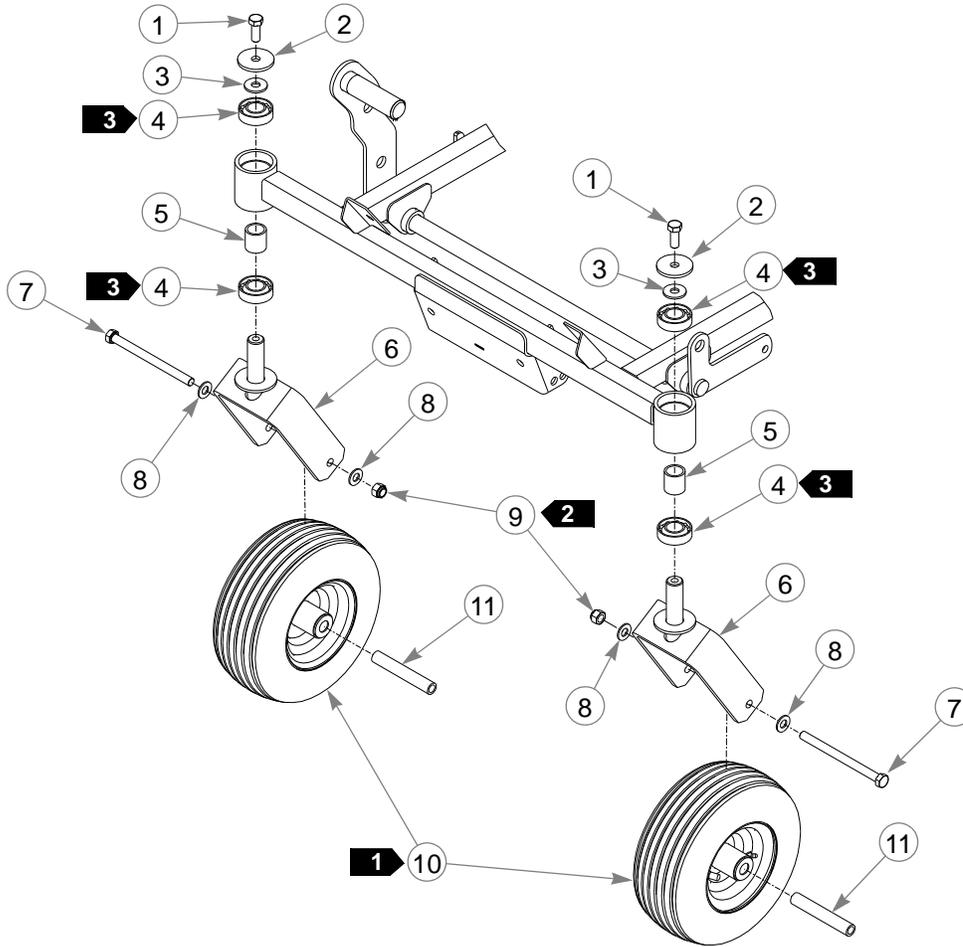
Honda Electrical Schematic (600998)



Chapter 5 Contents

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Front Wheel Assembly

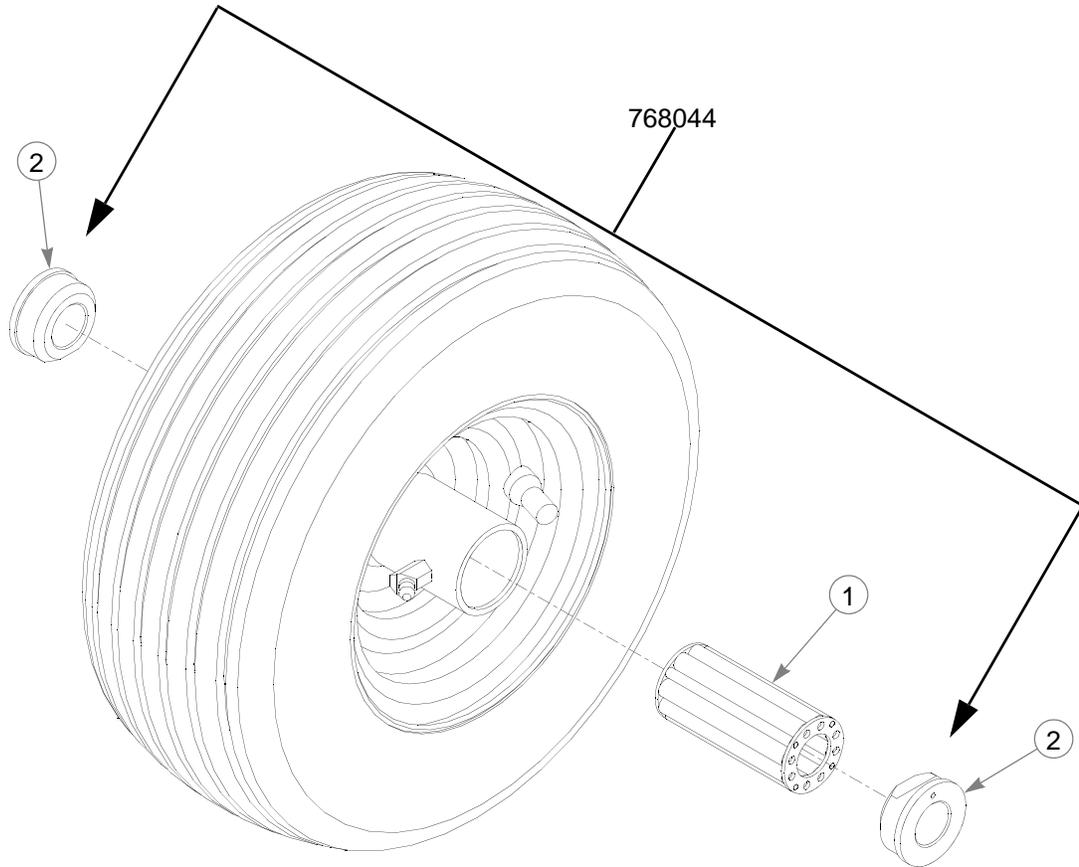


INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	705954	705954	2	CS .500-13 X 1.25 HX G5 ZNYC
2	344267	344267	2	FW .510 X 2.15 X .187 SPL ZNYC
3	712976	712976	2	FW .531 X 1.375 X .125 ZNYC
4	784223	784223	4	BEARING
5	784603	784603	2	FASTRAK SPACER
6	339689	339689	2	CASTER FORK
7	042630	042630	2	CS .500-13 X 6.50 HX G5 ZNYC
8	767962	767962	4	FW .531 X 1.063 X .090 SAE ZNYC
9	781567	781567	2	NT .500-13 HEX G8 ZNYC NL
10	768044	768044	2	TIRE/WHEEL ASSEMBLY 11 X 4-5 RIBBED
11	306969	306969	2	GAGE WHEEL SPACER

NOTES:

1. Apply grease to zerks, see owners manual.
2. Torque to 75 ft.-lbs.
3. Assemble with extended inner race down.

Front Wheel Breakdown

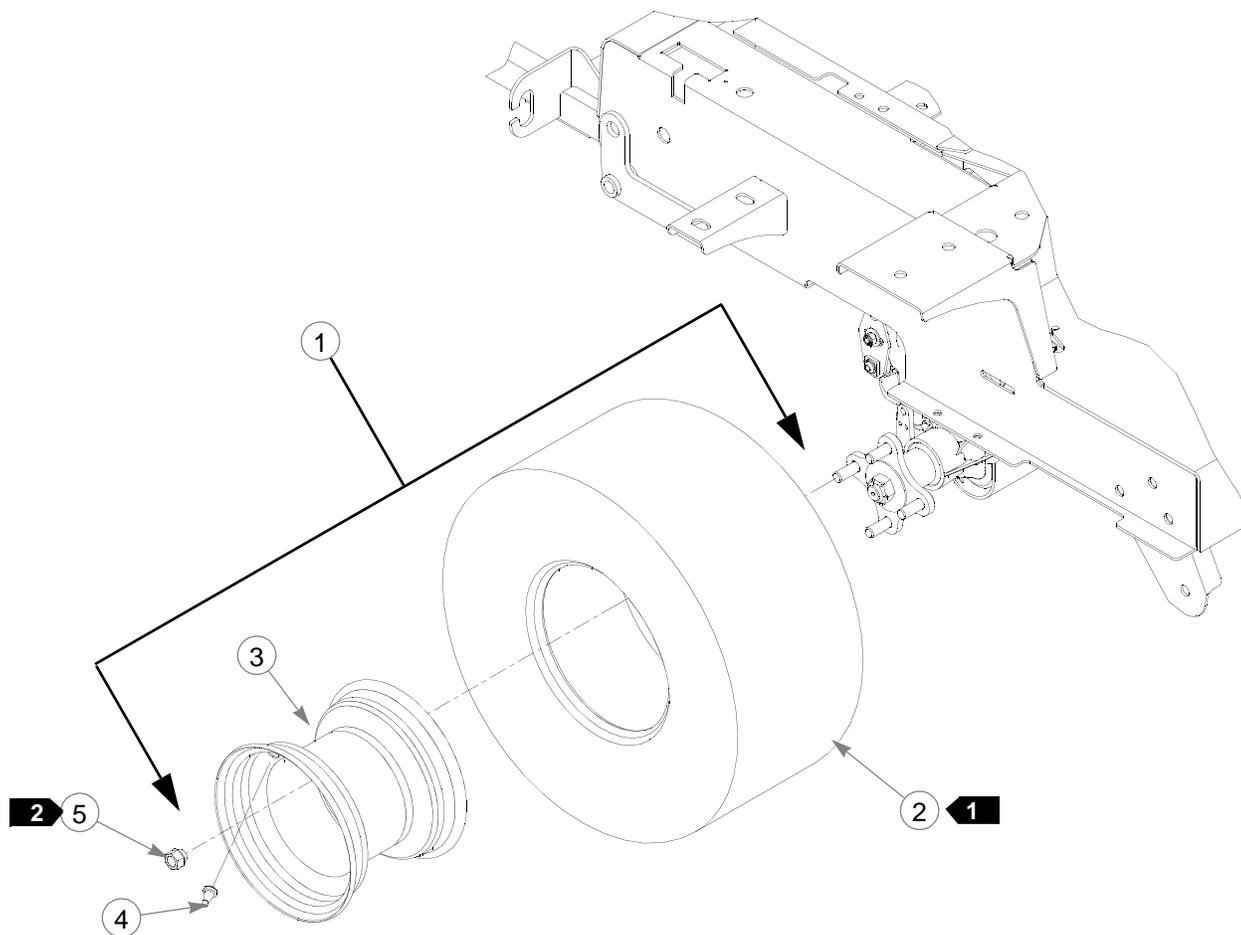


INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	772814	N/A	1	3/4" ROLLER BEARING
2	772806	N/A	2	BEARING CAP

NOTES:

1. Inflate to 8-12 psi.

Drive Wheel Assembly



INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	784264	784264	2	WHEEL/TIRE ASSY 18 X 9.50 (QTY PER 54" TRACTOR)
2	784272	N/A	1	TIRE 18 X 9.5
3	784280	N/A	1	WHEEL
4	019521	N/A	1	TIRE VALVE
5	061077	061077	4	WHEEL NUT (QTY PER WHEEL)
1	783134	783134	2	WHEEL/TIRE ASSY 18 X 8.50 (QTY PER 48" TRACTOR)
2	783142	N/A	1	TIRE 18 X 8.50
3	783159	N/A	1	WHEEL
4	019521	N/A	1	TIRE VALVE
5	061077	061077	4	WHEEL NUT (QTY PER WHEEL)

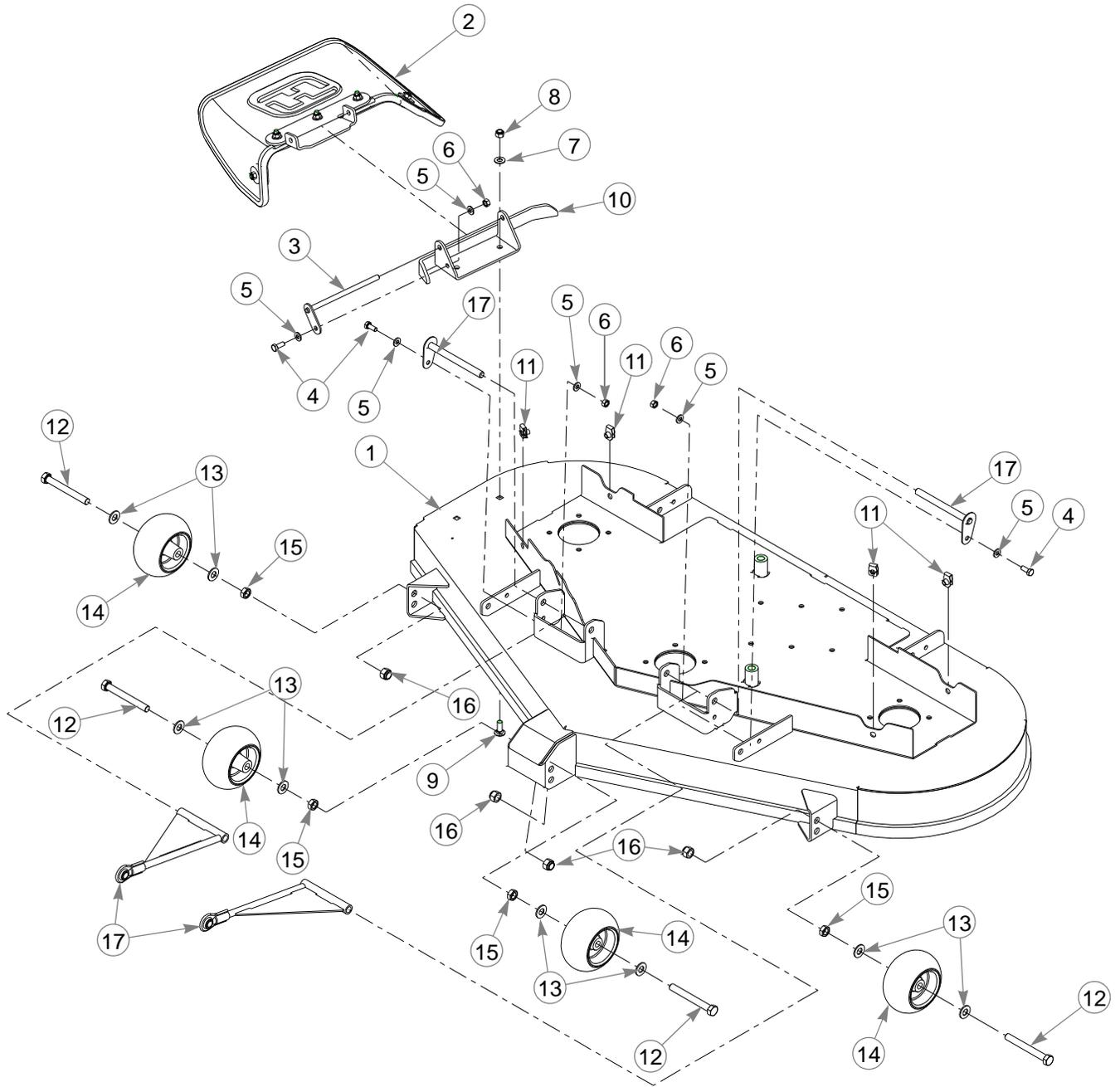
NOTES:

1. Inflate tire to 8-12 psi.
2. Torque to 65-75 ft-lbs.

Chapter 6 Contents

54" Deck Assembly	6-2
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54" Deck Assembly



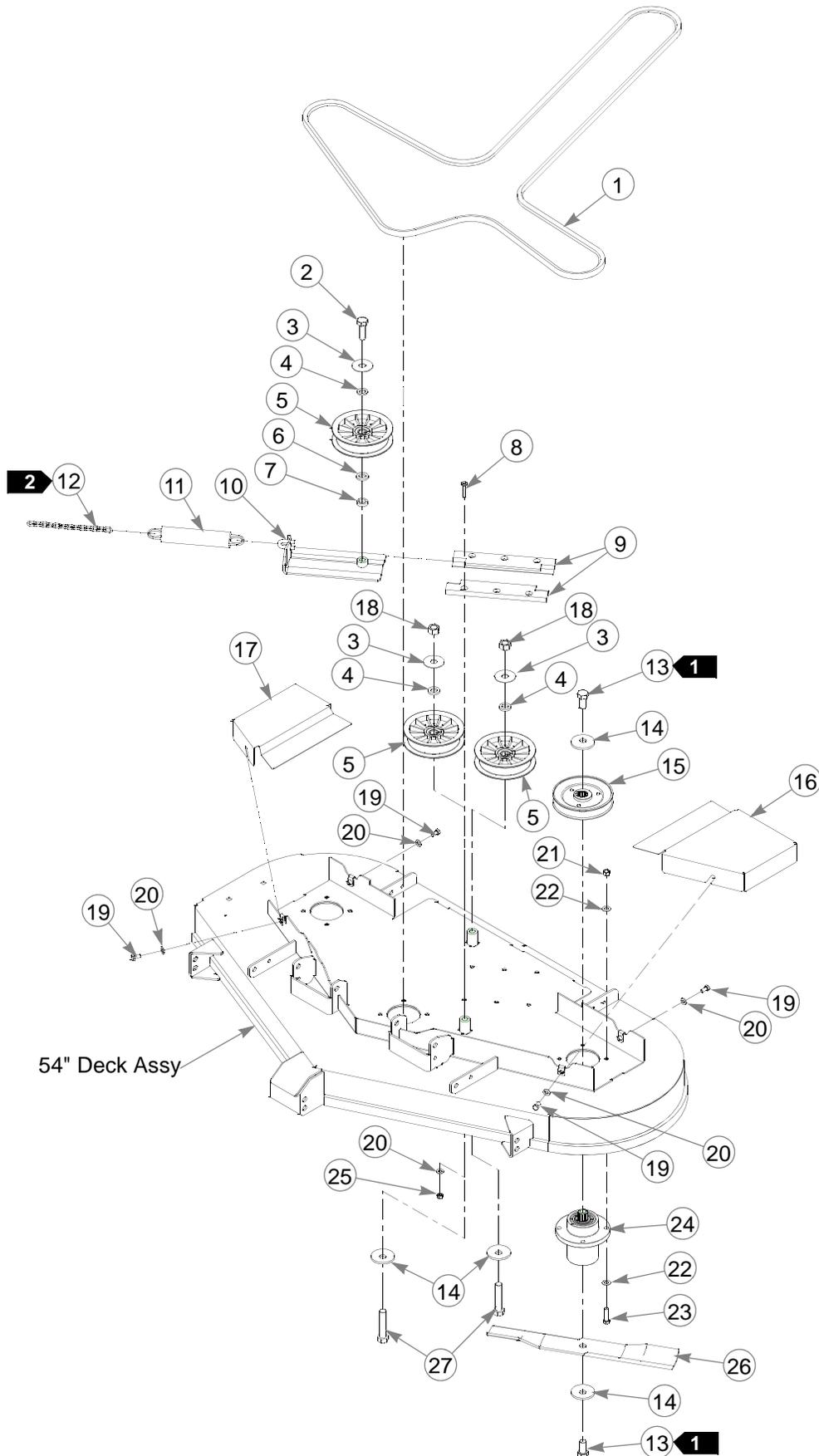
54" Deck Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	548305	108100	1	DECK W/A 54" FASTRAK
2	601117	601117	1	DISCHARGE CHUTE ASSY
3	108537	108537	1	CHUTE MOUNTING PIN
4	034280	034280	3	CS .312-18X .750 HX G5
5	768523	768523	6	FW .343X.687X.051/.080H
6	034272	034272	3	NT .312-18 HX G5 ZNYC
7	767954	767954	2	FW .406X .812 X.060 SAE
8	086660	086660	2	NT .375-16 HXZY NL
9	025395	025395	2	CB .375-16X 1.00 STD CD
10	108049	108049	1	DISCHARGE CHUTE MOUNTING BRACKET
11	601069	601069	4	CN .312-18X.200 MAX THK
12	781708	N/A	4	CS .500-13X4.250 HX G5
13	767962	N/A	8	FW .531X 1.063X.090 SAE
14	031997	N/A	4	ANTI-SCALP WHEEL
15	053199	N/A	4	NT .500-13 HX JAM ZNYC
16	781567	781567	4	NT .500-13 H8ZY NL
17	787994	787994	2	DECK PIN & ROD ASSY
1	788166	788166	4	ANTI-SCALP WHEEL ASSY

NOTES:

1. Includes items 12 through 15.
2. Service part deck includes decals (see "54" Deck Decals" on page 8-4 for listing of decals).

54" Deck Pulley Assembly



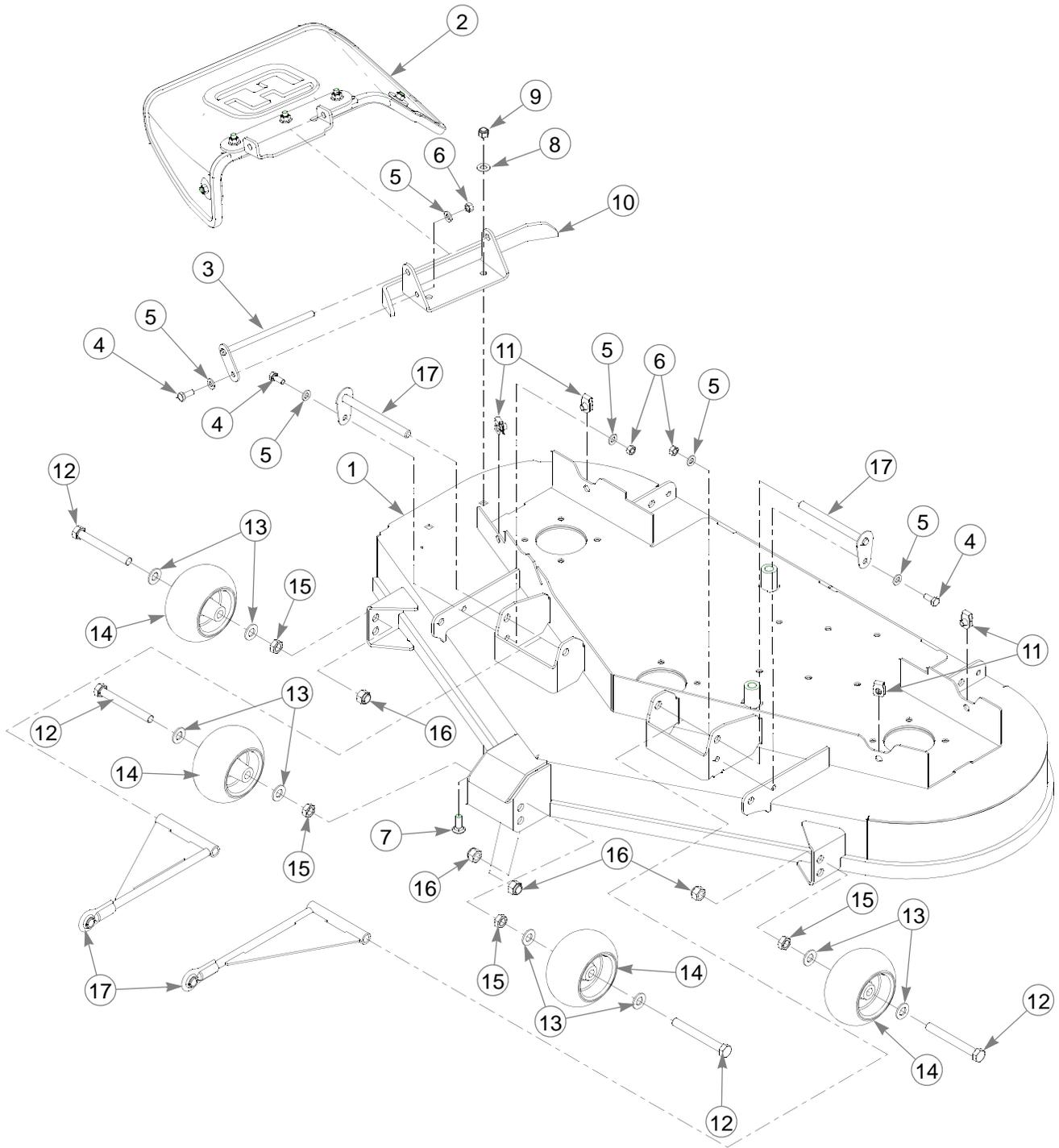
54" Deck Pulley Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	789388	789388	1	B-SECTION BELT
2	025007	025007	1	CS .625-11 X .75 HX G5
3	046821	046821	3	FW .656 X 2.00 X .078 ZNYC
4	797449	797449	3	FW .650X1.00X.180 ZNYC G5
5	784504	784504	3	5.00" OD, 5/8" IDLER PULLEY
6	028118	028118	1	FW .625 X 1.00 X .134 ZNYC
7	600296	600296	1	DECK IDLER SPACER
8	797910	797910	6	CS .312-18X1.50FLT SH ZY
9	601434	601434	2	IDLER SLIDE, UHMW
10	350884	350884	1	DECK IDLER
11	781302	781302	1	IDLER SPRING
12	259812	059931	1	SPRING CHAIN (13 LINKS)
13	781872	781872	6	CS .625-11X1.25 HX G5 Z
14	782474	782474	8	CW .631 2.250X .187 PNT
15	786889	786889	3	DECK DRIVE 5.0 PULLEY
16	108123	108123	1	PULLEY COVER LS
17	108124	108124	1	PULLEY COVER RH
18	016972	016972	2	NT .625-11 HX G5 ZNYC
19	064006	064006	4	CS .312-18X .625 HX G5
20	768523	768523	10	FW .343X.687X.051/.080H
21	054502	054502	12	NT .375-16 HX GRD 5 ZNYC
22	767954	767954	24	FW .406X .812 X.060 SAE
23	005116	005116	12	CS .375-16X1.375 HX G5
24	783506	783506	3	BLADE SPINDLE ASSEMBLY
25	058776	058776	6	NT .312-18 HXZY NL
26	601124	601124	3	18.50"-L-F-CW BLADE
27	783738	783738	2	CS .625-11X3.00 FULL HX

NOTES:

1. Torque to 118 ft.-lbs.
2. See "Deck Belt Routing and Tensioning" on page 7-5 for belt tensioning.

48" Deck Assembly



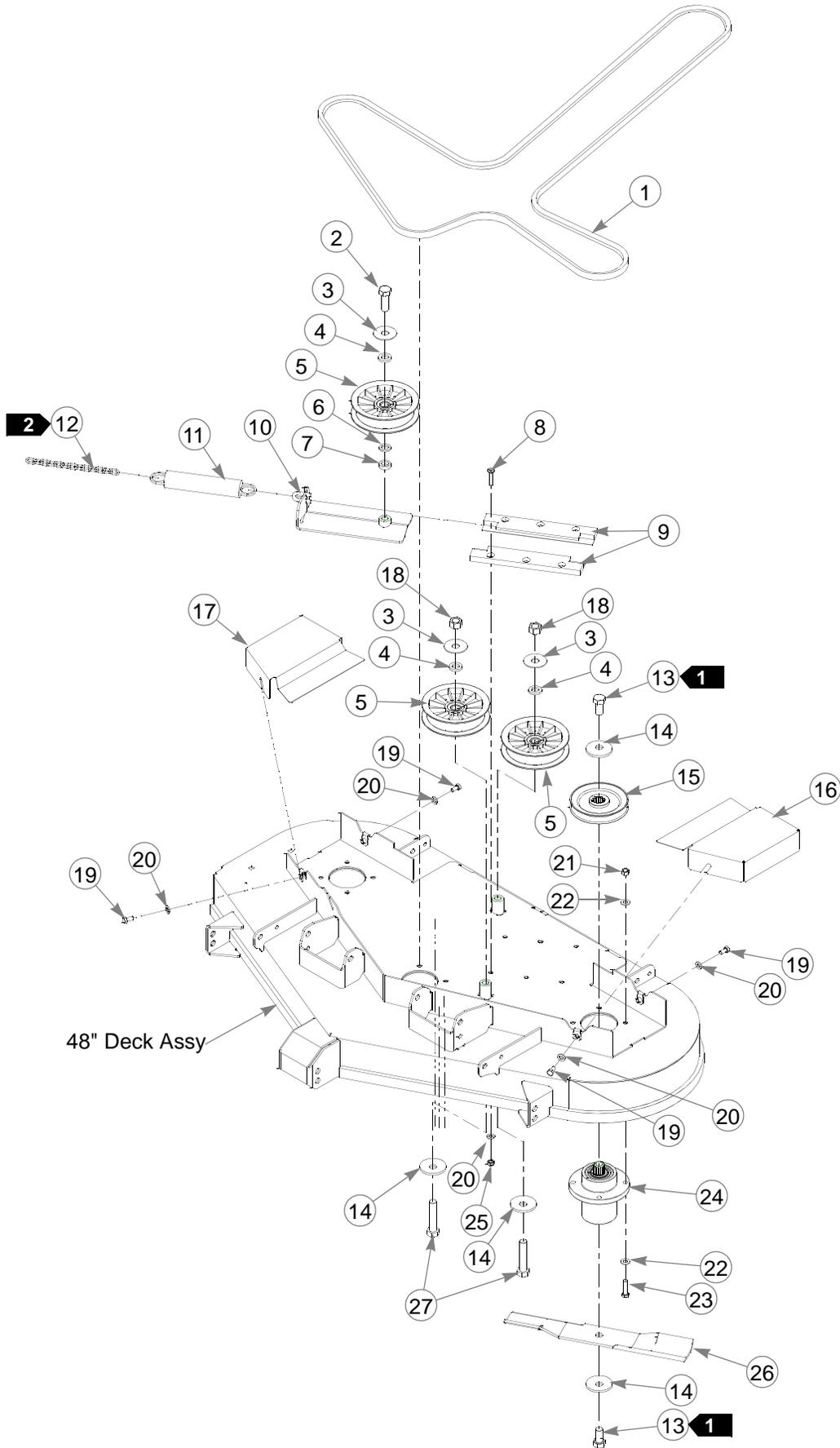
48" Deck Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION	
2 ▶	1	548313	108125	1	DECK W/A 48" FASTRAK
	2	601117	601117	1	DISCHARGE CHUTE ASSY
	3	108537	108537	1	CHUTE MOUNTING PIN
	4	034280	034280	3	CS .312-18X .750 HX G5
	5	768523	768523	6	FW .343X.687X.051/.080H
	6	034272	034272	3	NT .312-18 HX G5 ZNYC
	7	025395	025395	2	CB .375-16X 1.00 STD CD
	8	767954	767954	2	FW .406X .812 X.060 SAE
	9	086660	086660	2	NT .375-16 HXZY NL
	10	108049	108049	1	DISCHARGE CHUTE MOUNTING BRACKET
	11	601069	601069	4	CN .312-18X.200 MAX THK
	12	781708	N/A	4	CS .500-13X4.250 HX G5
	13	767962	N/A	8	FW .531X 1.063X.090 SAE
	14	031997	N/A	4	ANTI-SCALP WHEEL
	15	053199	N/A	4	NT .500-13 HX JAM ZNYC
	16	781567	781567	4	NT .500-13 H8ZY NL
	17	787994	787994	2	DECK PIN & ROD ASSY
1 ▶		N/A	788166	4	ANTI-SCALP WHEEL ASSY

NOTES:

1. Includes items 12 through 15.
2. Service part deck includes decals (see "48" Deck Decals" on page 8-5 for a listing of decals).

48" Deck Pulley Assembly



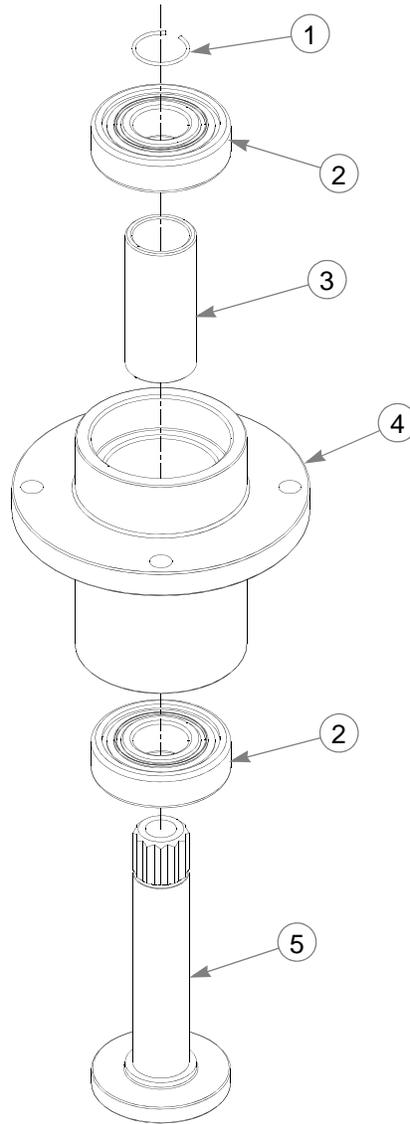
48" Deck Pulley Assembly

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	791335	791335	1	B-SECTION BELT
2	025007	025007	1	CS .625-11 X .75 HX G5
3	046821	046821	3	FW .656 X 2.00 X .078 ZNYC
4	797449	797449	3	FW .650X1.00X.180 ZNYC G5
5	784504	784504	3	5.00" OD, 5/8" IDLER PULLEY
6	028118	028118	1	FW .625 X 1.00 X .134 ZNYC
7	600296	600296	1	DECK IDLER SPACER
8	797910	797910	6	CS .312-18X1.50FLT SH ZY
9	601434	601434	2	IDLER SLIDE, UHMW
10	350884	350884	1	DECK IDLER
11	781302	781302	1	IDLER SPRING
12	259812	059931	1	SPRING CHAIN (13 LINKS)
13	781872	781872	6	CS .625-11X1.25 HX G5 Z
14	782474	782474	8	CW .631 2.250X .187 PNT
15	792689	792689	3	DECK DRIVE 5.0 PULLEY
16	108148	108148	1	PULLEY COVER LS
17	108149	108149	1	PULLEY COVER RH
18	016972	016972	2	NT .625-11 HX G5 ZNYC
19	064006	064006	4	CS .312-18X .625 HX G5
20	768523	768523	10	FW .343X.687X.051/.080H
21	054502	054502	12	NT .375-16 HX GRD 5 ZNYC
22	767954	767954	24	FW .406X .812 X.060 SAE
23	005116	005116	12	CS .375-16X1.375 HX G5
24	783506	783506	3	BLADE SPINDLE ASSEMBLY
25	058776	058776	6	NT .312-18 HXZY NL
26	601123	601123	3	16.50"-L-F-CW BLADE
27	783738	783738	2	CS .625-11X3.00 FULL HX

NOTES:

1. Torque to 118 ft.-lbs.
2. See "Deck Belt Routing and Tensioning" on page 7-5 for belt tensioning.

Blade Spindle Assembly Breakdown



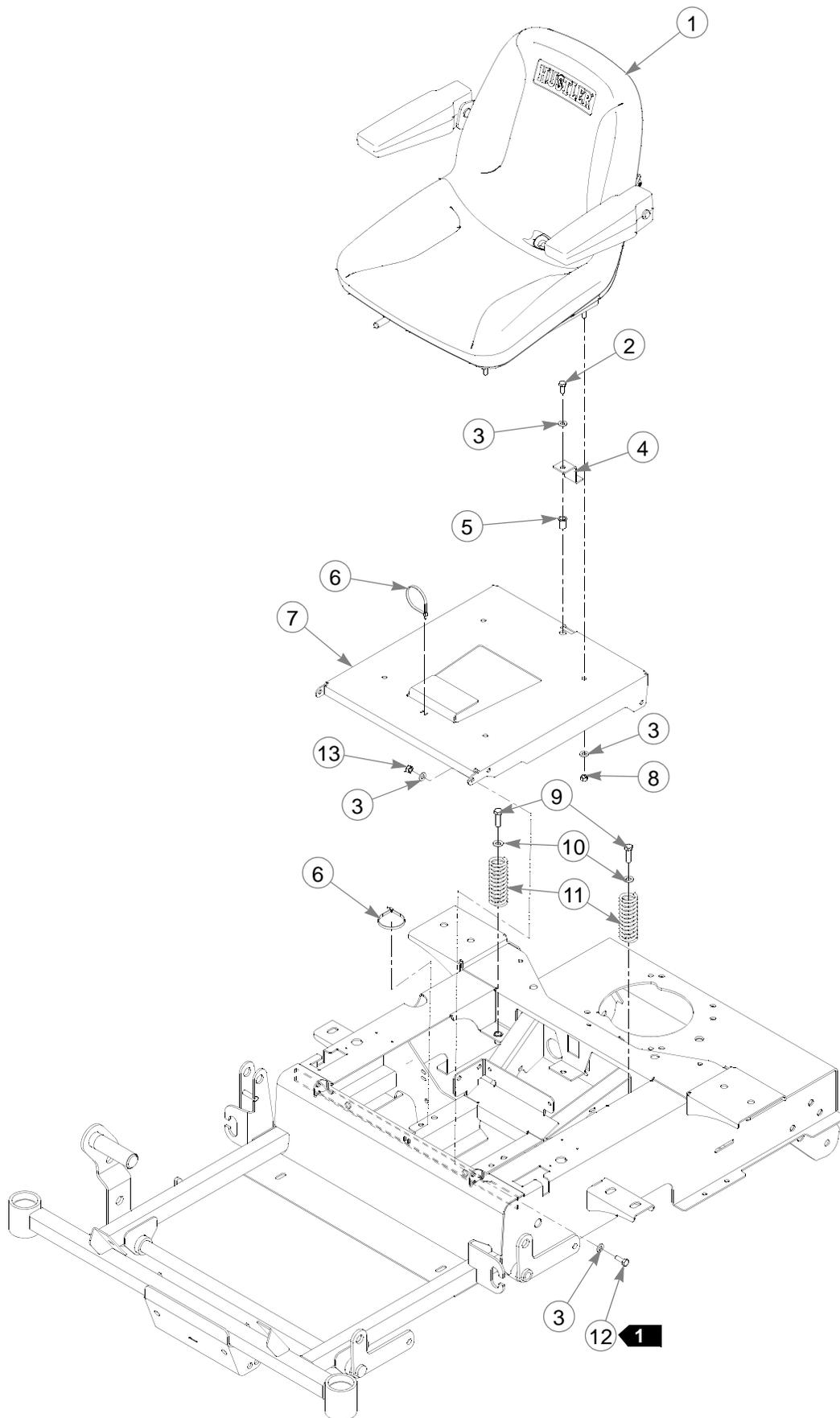
INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	783548	N/A	1	BLADE SPINDLE RETAINING
2	783555	N/A	2	BEARING, BLADE SPINDLE
3	783530	N/A	1	SPACER, BLADE SPINDLE
4	783514	N/A	1	HOUSING, BLADE SPINDLE
5	783522	N/A	1	SHAFT, BLADE SPINDLE

NOTES:

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Seat Installation



Seat Installation

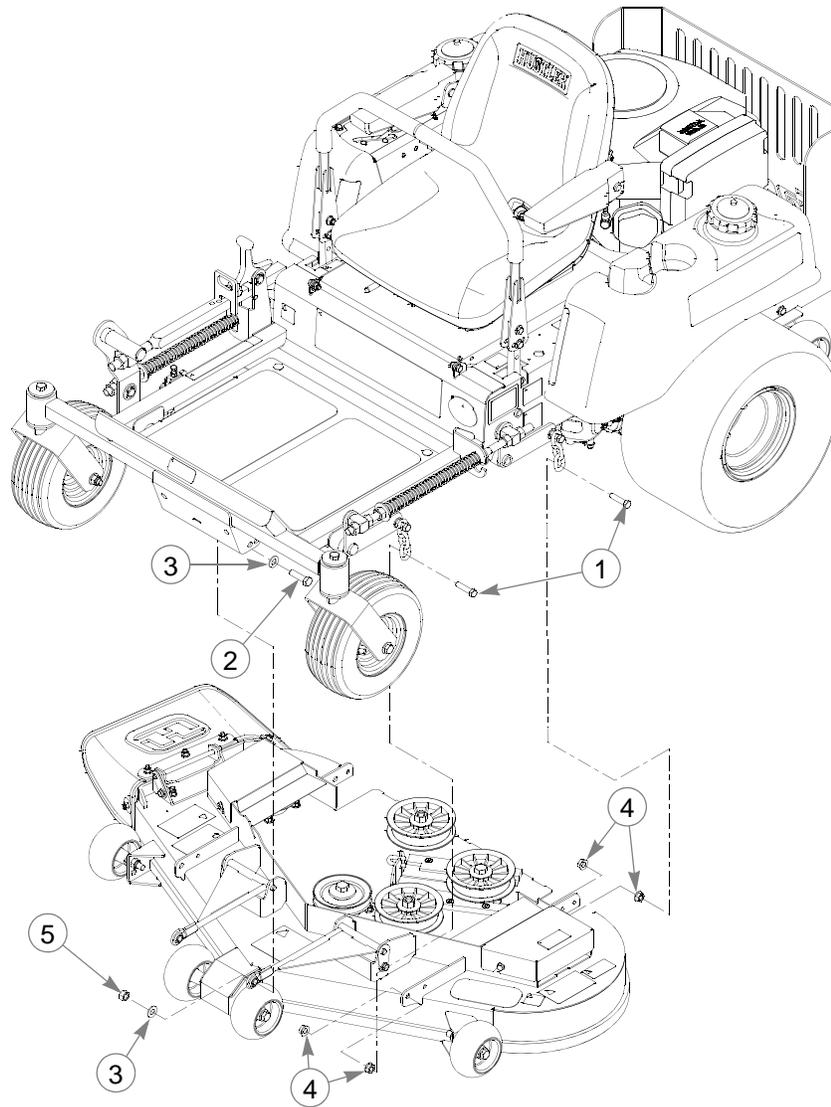
INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	793661	793661	1	MICHIGAN STANDARD SEAT
2	034280	034280	1	CS .312-18X .750 HX G5
3	768523	768523	9	FW .343 X .687 X .051/.080 HD
4	108321	108321	1	SEAT LATCH, 48/54 FST
5	808485	808485	1	5/16-18 RIVET NUT
6	000331	000331	2	SMALL/SHORT WIRE TIE
7	548776	107861	1	SEAT PAN
8	034272	034272	4	NT .312-18 HX G5 ZNYC
9	052860	052860	2	CS .375-16 X 1.25 HX G5
10	767954	767954	2	FW .406 X .812 X .060 SAE
11	601450	601450	2	SEAT SPRING 150 LB/IN
12	064014	064014	2	CS .312-18 X .875 HX G5
13	058776	058776	2	NT .312-18 HX ZNYC NL

NOTES:

1. Do not torque, Item 7 (107861 Seat Pan) must pivot.
2. Service parts, (Michigan seat):

793307	SLIDE KIT
793315	SWITCH-SNAP KIT
797464	LH ROUND ARMREST ASSEMBLY
797472	RH ROUND ARMREST ASSEMBLY
797480	MOLDED ROUND ARMREST (2)
793273	ARMREST STOP ASSEMBLY

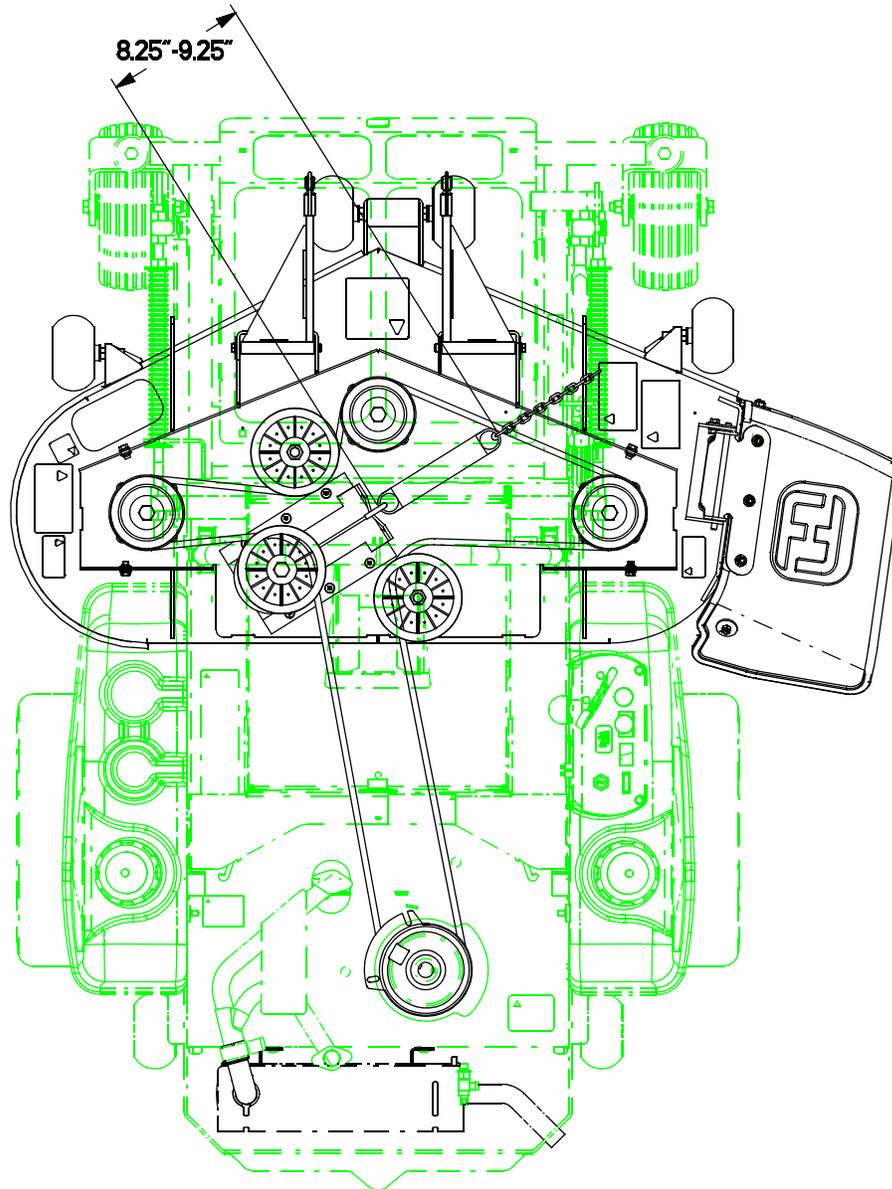
Deck Installation



INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	055749	055749	4	CS .437-14X1.750 HX G5
2	017616	017616	2	CS .500-13X1.750 HX G5
3	767962	767962	4	FW .531X 1.063X.090 SAE
4	704643	704643	8	NT .437-14 HX FLG ZN
5	008193	008193	2	NT .500-13 HX G5 ZNYC

NOTES:

Deck Belt Routing and Tensioning



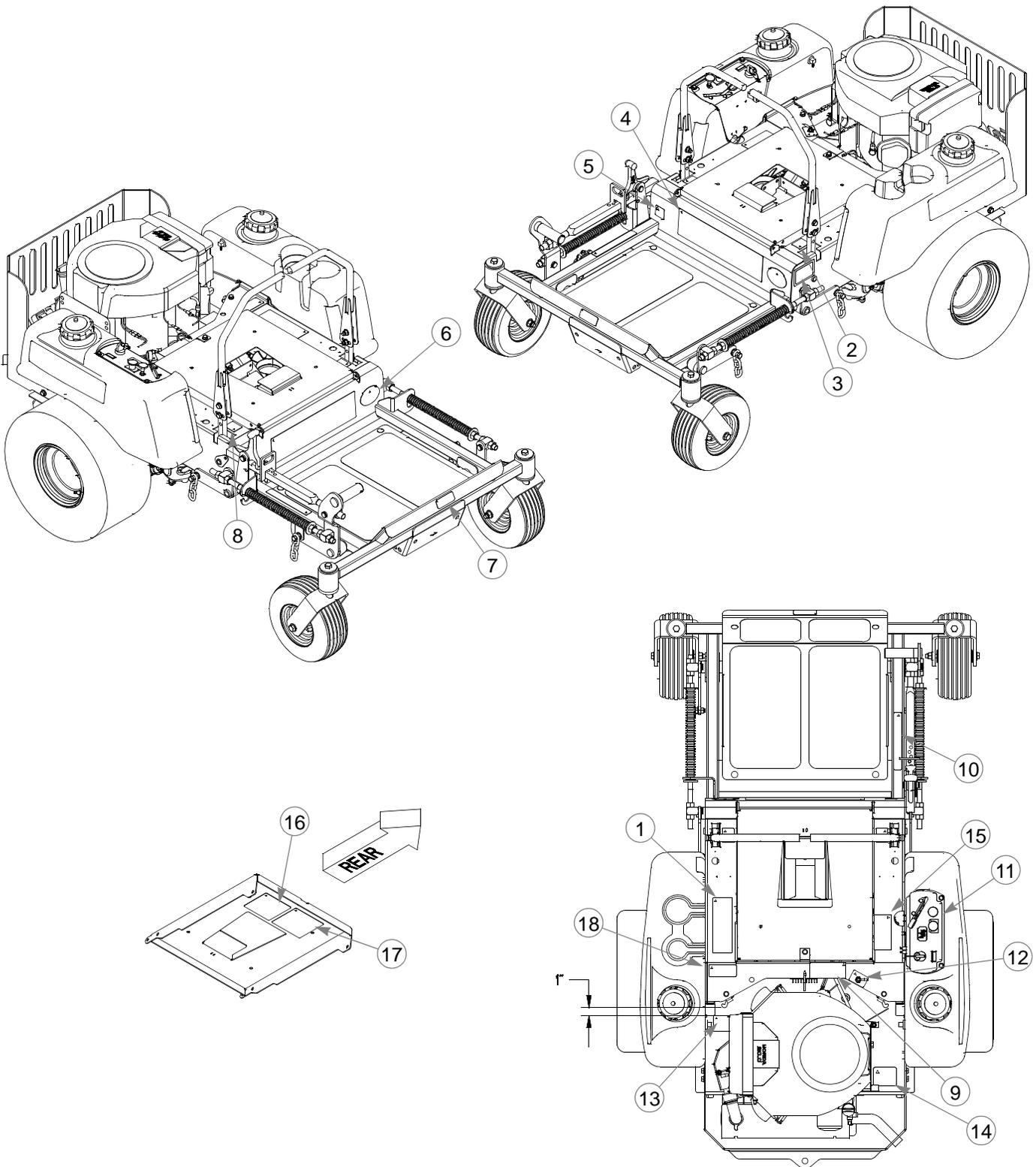
NOTES:

1. Spring length after tensioning new belt. Spring length measured from outside of hook to outside of hook. Tension spring with deck in leveling position.
2. Route belt as shown.

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48" Deck Decals	8-5

Tractor Decals

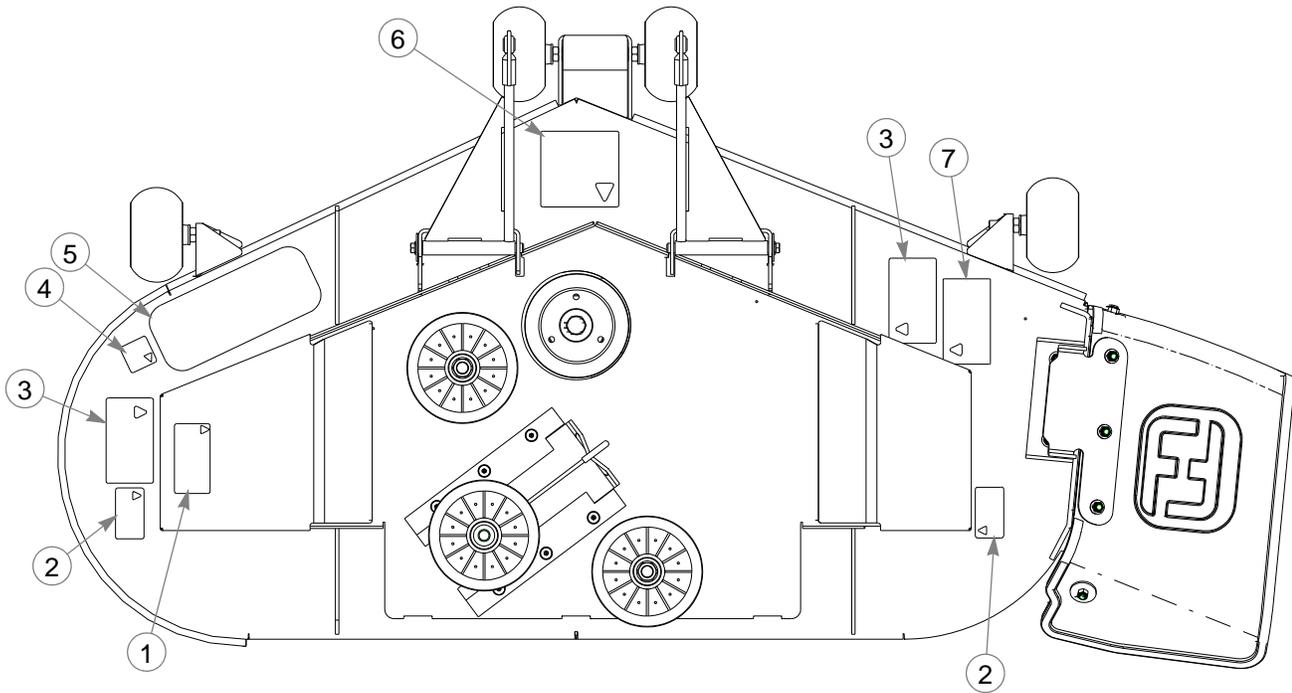


Tractor Decals

INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	785121	785121	1	OPERATION RIGHT DECAL
2	785139	785139	1	STEERING L.S. DECAL
3	N/A	083279	1	TURF PROD SERIAL NO PLATE
4	784710	784710	1	FASTRAK DECAL
5	727172	727172	1	'MADE IN U.S.A.' DECAL
6	782573	782573	1	FIRST ZERO TURN DECAL
7	793588	793588	1	HUSTLER NAME PLATE
8	785220	785220	1	STEERING R.S. DECAL
9	788968	788968	1	ENGINE COMPARTMENT DECAL
10	785154	785154	1	DECK HEIGHT DECAL
11	601100	601100	1	INSTRUMENT PANEL DECAL
12	791848	791848	1	FUEL INDICATOR DECAL
13	601099	601099	1	TOW VALVE DECAL
14	771436	771436	1	STABILIZER DECAL
15	600899	600899	1	PUMP BELT WARNING DECAL
16	727016	727016	1	BATTERY DECAL
17	785147	785147	1	SERVICE DECAL
18	600941	600941	1	PATENT DECAL

NOTES:

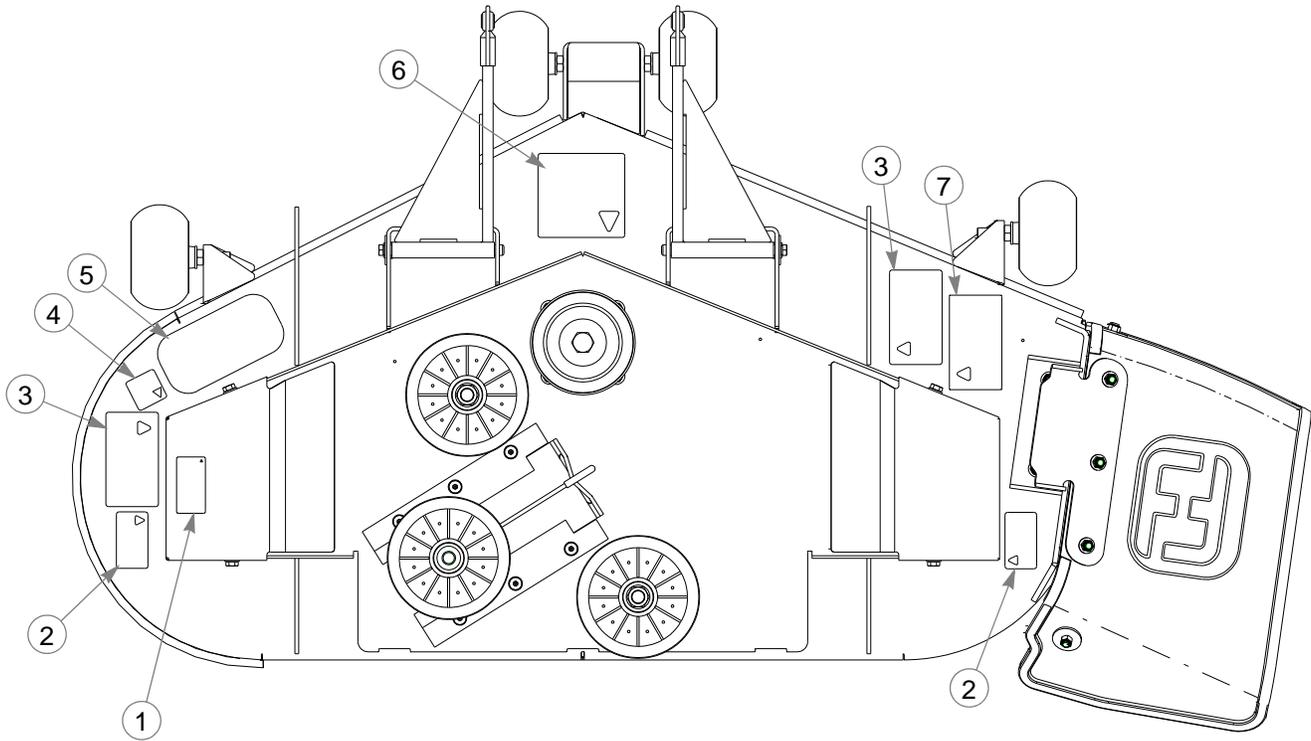
54" Deck Decals



INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	799171	799171	1	54" DECK ID DECAL
2	727453	727453	2	BELT & PULLEY DECAL
3	727438	727438	2	WHIRLING BLADES DECAL
4	727172	727172	1	'MADE IN U.S.A.' DECAL
5	785055	785055	1	STEP TREAD 3.70 X 9.00
6	781419	781419	1	BELT ROUTING DECAL
7	727420	727420	1	DEFLECTOR SHIELD DECAL

NOTES:

48" Deck Decals



INDEX NO.	SERVICE PART NO.	MFG. PART NO.	QTY.	DESCRIPTION
1	793976	793976	1	48" DECK ID DECAL
2	727453	727453	2	BELT & PULLEY DECAL
3	727438	727438	2	WHIRLING BLADES DECAL
4	727172	727172	1	'MADE IN U.S.A.' DECAL
5	794503	794503	1	STEP TREAD MINI FST DECAL
6	781419	781419	1	BELT ROUTING DECAL
7	727420	727420	1	DEFLECTOR SHIELD DECAL

NOTES:

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Assembly Pictures and Aids

General Information for all models

Instrument panel layout (FIG. 1).



FIG. 1

Wire harness routing (all models).

Front of wire harness (FIG. 2 & FIG. 3).

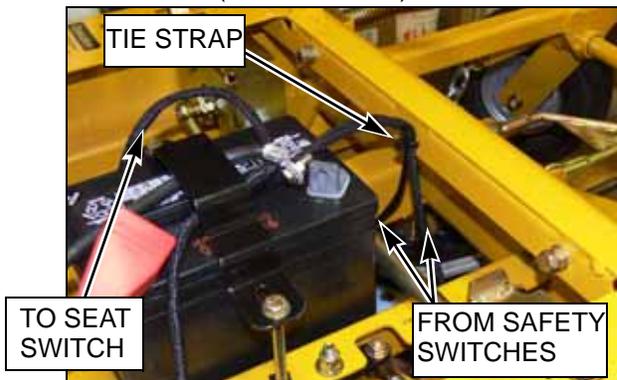


FIG. 2

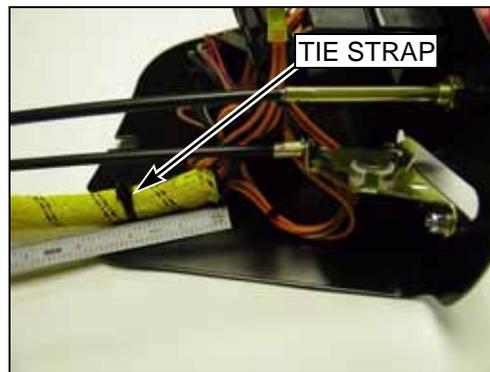


FIG. 3

FasTraks with Honda engines

Wire harness, battery cable, throttle cable, and choke cable routing and tie straps (FIG. 4 & FIG. 5).

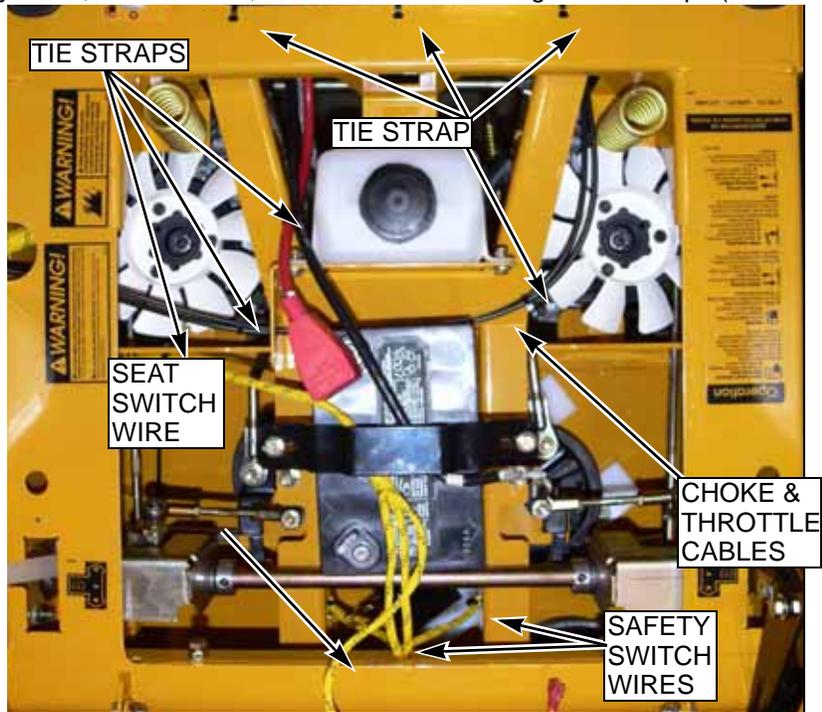


FIG. 4

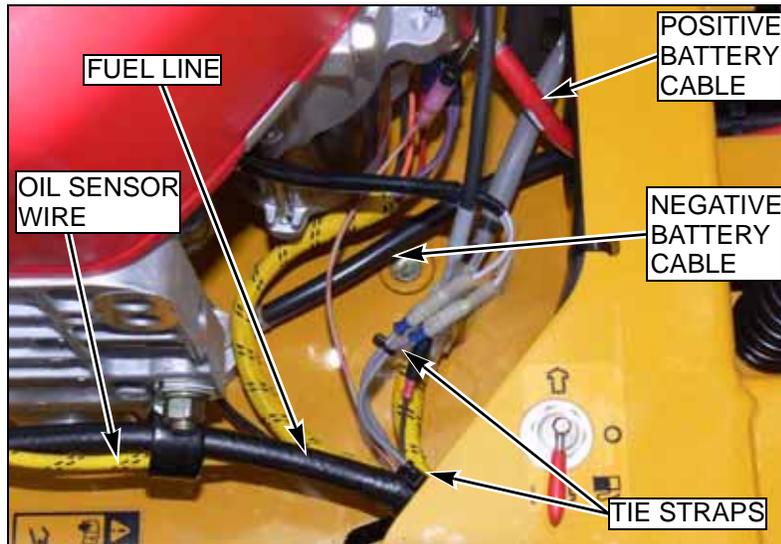


FIG. 5

NOTE: Tie straps on rear seat support tie fuel line from L.S. fuel tank.

Engine connections)FIG. 6, FIG. 7, FIG. 8, and FIG. 9).

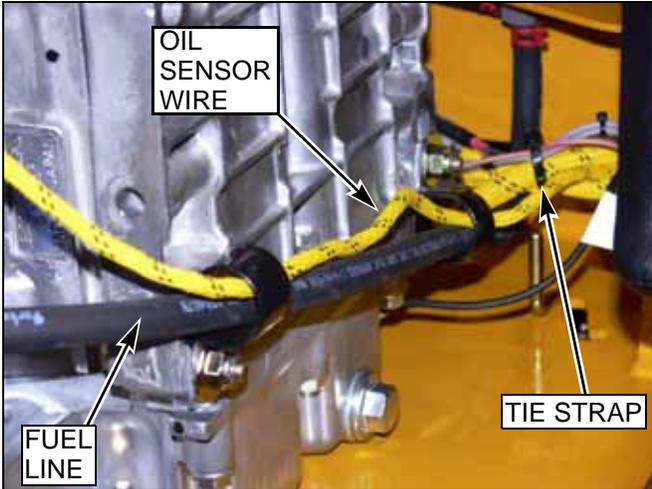


FIG. 6

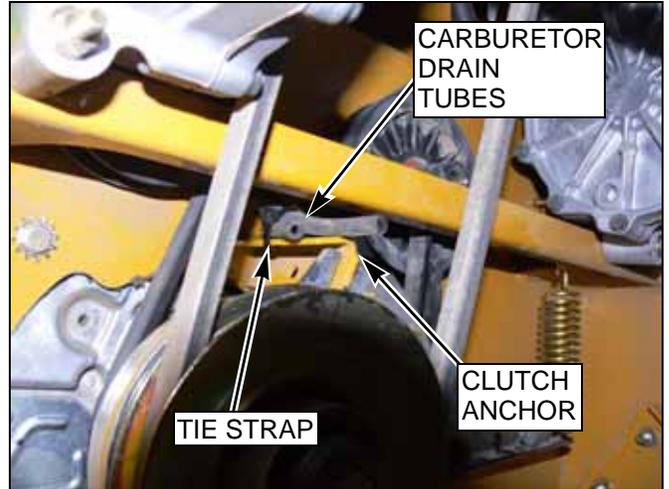


FIG. 7

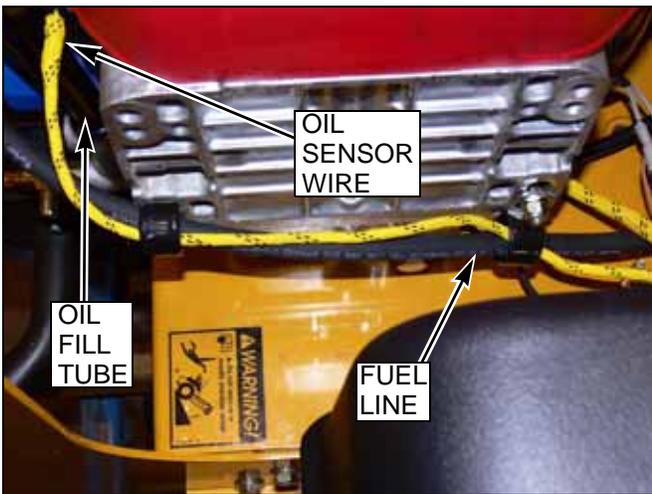


FIG. 8

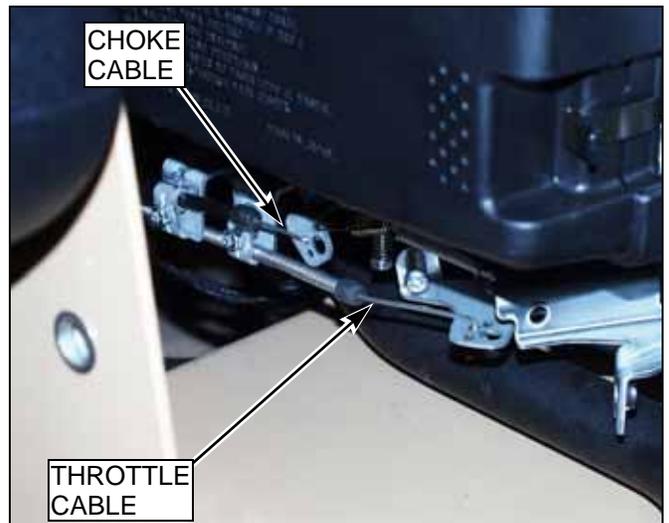


FIG. 9

- NOTE:** Route oil sensor wire between oil file tube and engine block. Index terminal on wire in horizontal direction to hold wire off oil filter.
- NOTE:** Tie carburetor drain tubes and clutch pigtail together to clutch anchor. Do not tighten tie strap enough to pinch drain hoses closed.

FasTraks with Kawasaki engines

FOR MOWERS WITH SERIAL NUMBER 07102604 AND HIGHER.

Front of wire harness (FIG. 10). Route the 4" positive battery cable and the purple and red wires through the cable boot prior to fastening hardware to solenoid (FIG. 11).

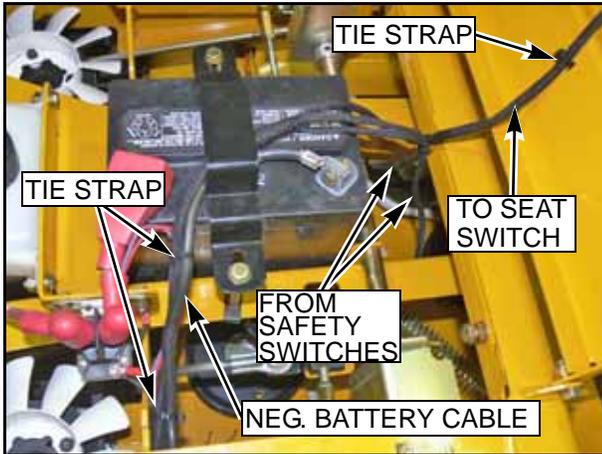


FIG. 10

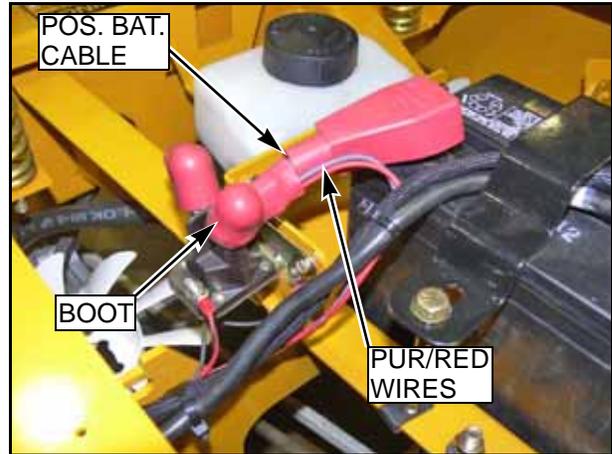


FIG. 11

Route negative battery cable and wireharness (from seat and safety switches) through hole in the right side of frame (FIG. 12).

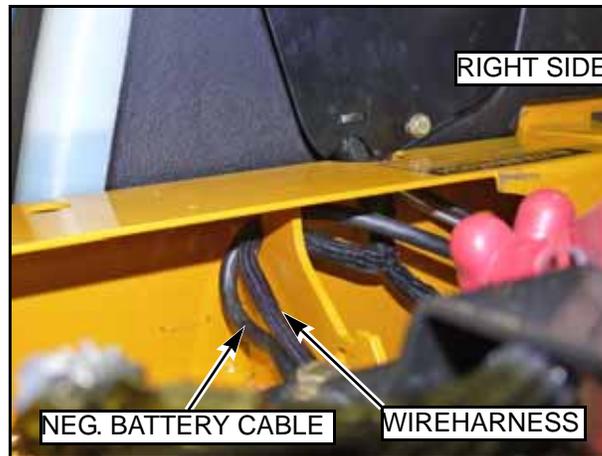


FIG. 12

Wire harness, battery cable, and throttle and choke cable, routing and tie straps (FIG. 13 & FIG. 14) .

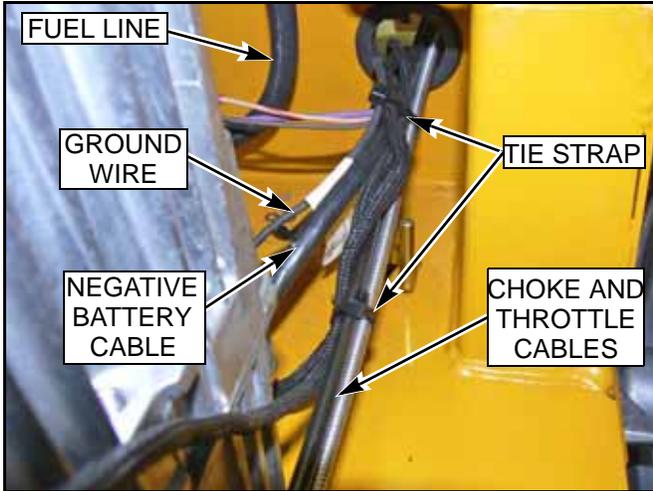


FIG. 13

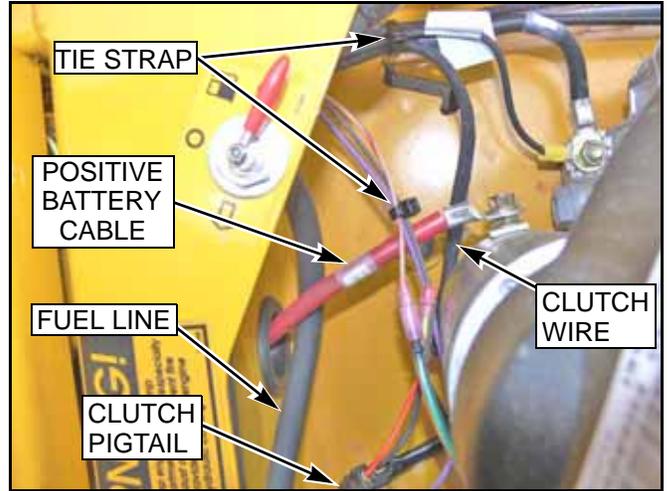


FIG. 14

Clutch pigtail to clutch anchor tie strap (FIG. 15).
Safety switches and tie straps (FIG. 16)

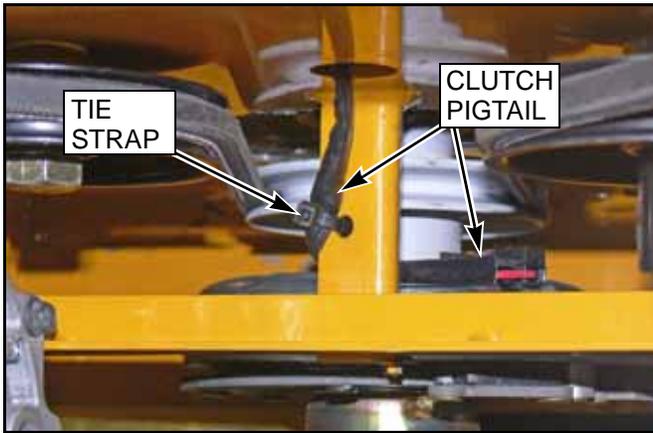


FIG. 15

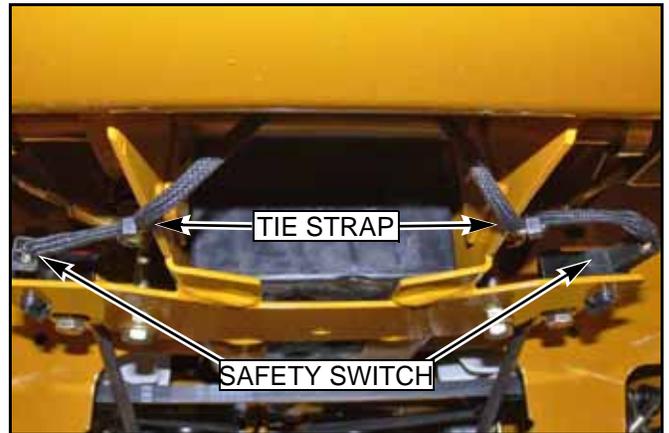


FIG. 16

Engine connections (FIG. 17 & FIG. 18).

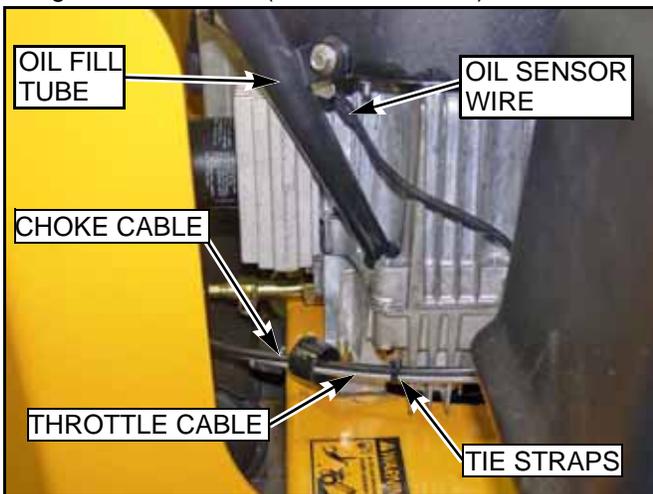


FIG. 17

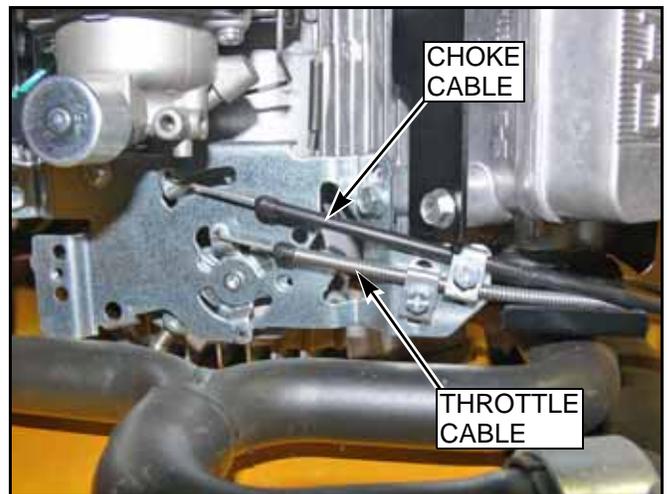


FIG. 18

Fuel line routing (FIG. 19, FIG. 20 & FIG. 21).
Be sure fuel filter does not come in contact with engine.



FIG. 19

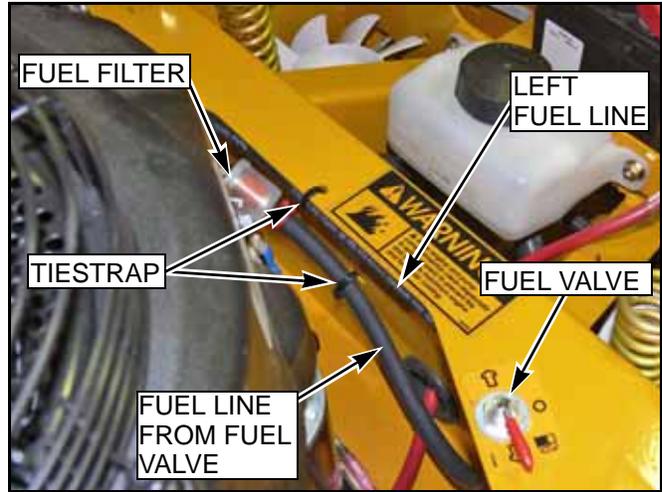


FIG. 20

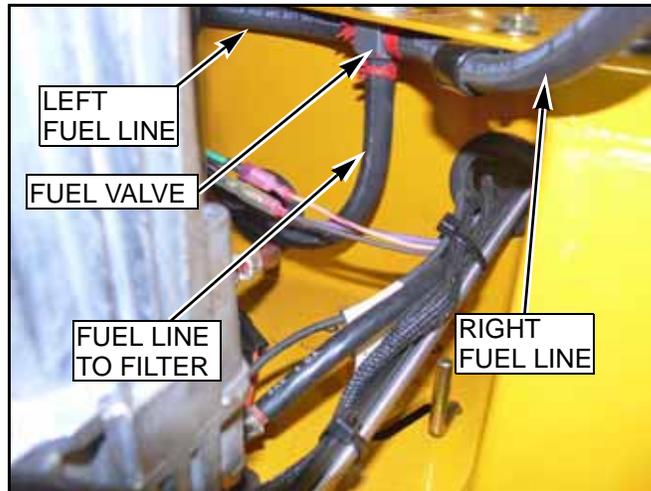


FIG. 21

FasTraks with Kawasaki engines

FOR MOWERS WITH SERIAL NUMBERS PRIOR TO 07102604:

Wire harness, battery cable, and throttle and choke cable, routing and tie straps (FIG. 22, FIG. 23, & FIG. 24) .

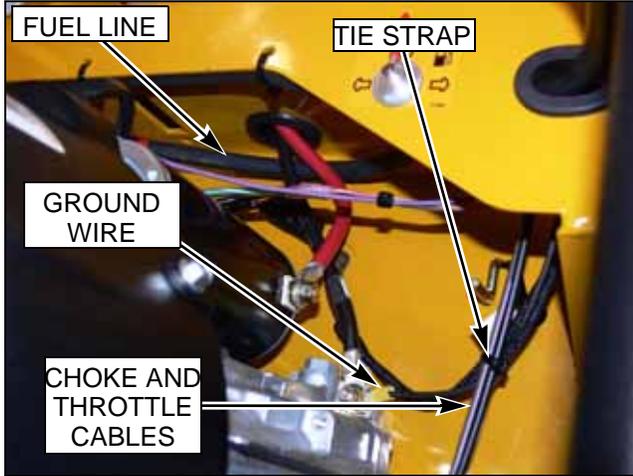


FIG. 22



FIG. 23

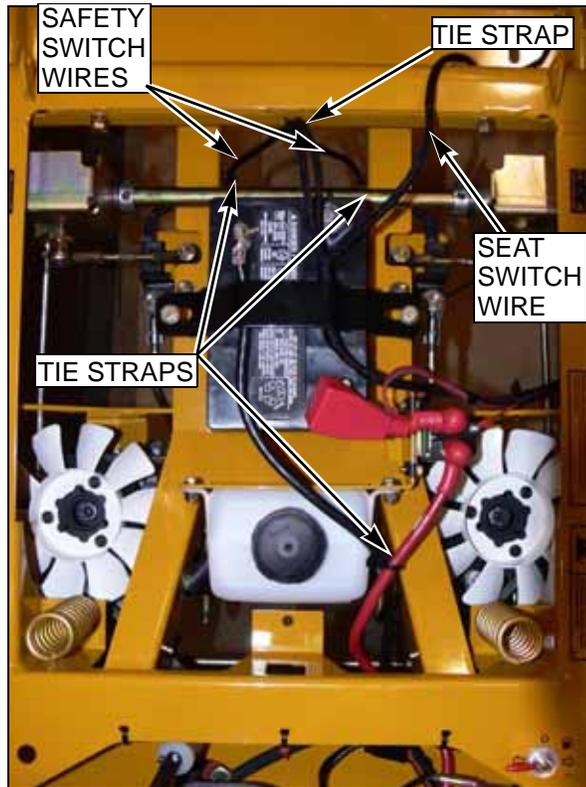


FIG. 24

NOTE: Route fuel line beneath both battery cables. Tie straps on rear seat support tie fuel line from L.S. fuel tank.

Engine connections for 19 HP (FIG. 25 & FIG. 26).

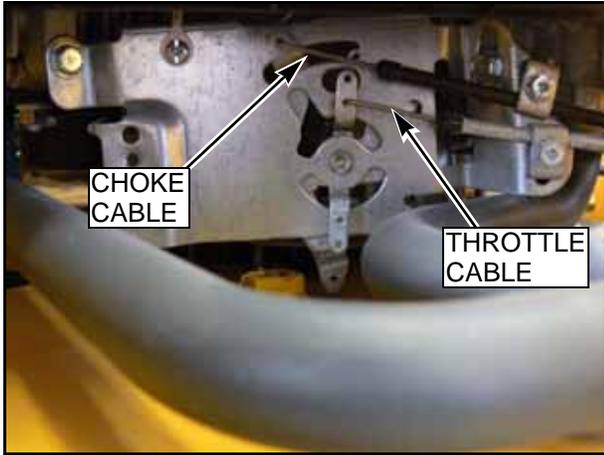


FIG. 25



FIG. 26

Engine connections for 21 HP (FIG. 27 & FIG. 28).

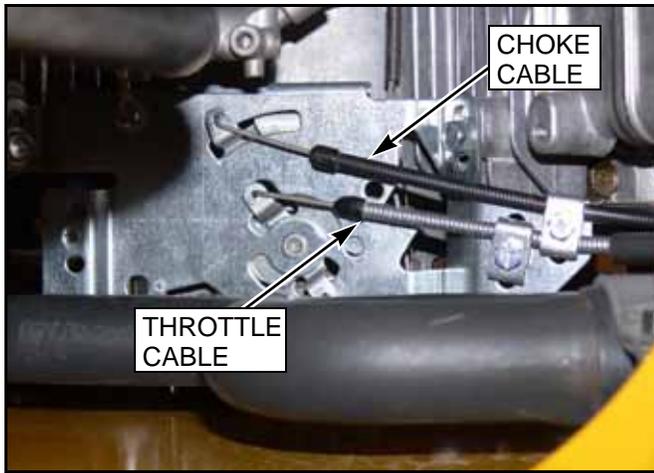


FIG. 27



FIG. 28

FasTraks with Kohler Engines

FOR ENGINES WITH SERIAL NUMBERS PRIOR TO 07102604 (FIG. 29):

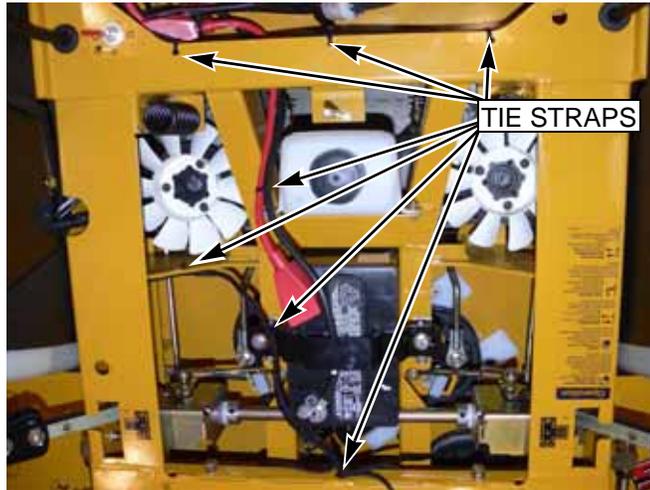


FIG. 29

FOR ENGINES WITH SERIAL NUMBERS 07102604 AND HIGHER:

Front of wire harness (FIG. 30). Route the 4" positive battery cable and the purple and red wires through the cable boot prior to fastening hardware to solenoid (FIG. 31).

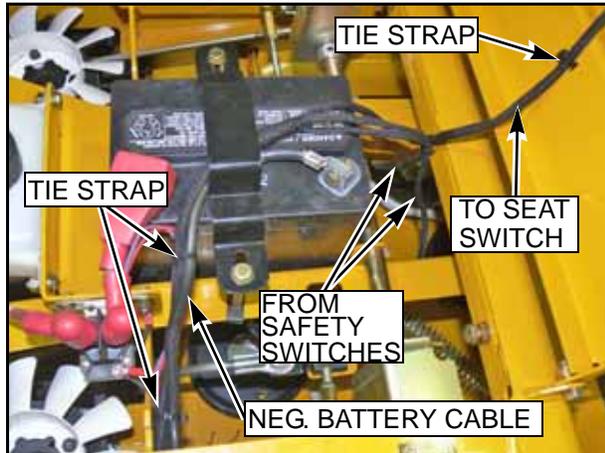


FIG. 30

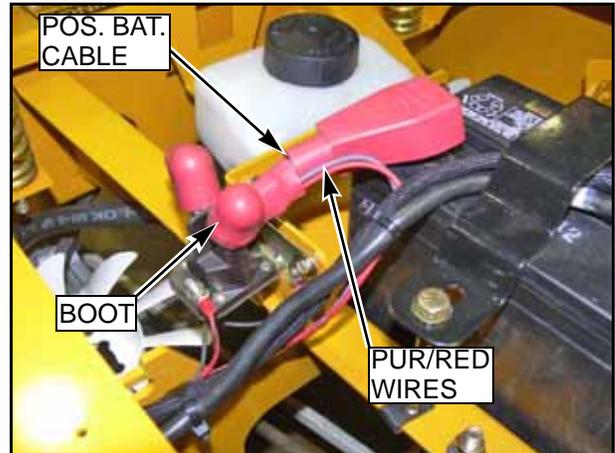


FIG. 31

Route negative battery cable and wireharness (from seat and safety switches) through hole in the right side of frame (FIG. 32).

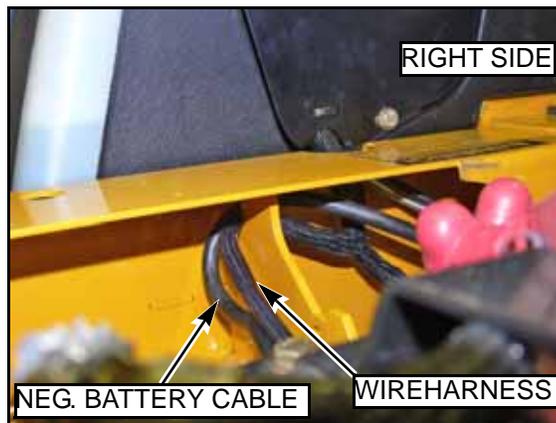


FIG. 32

Wire harness and battery cable, and throttle and choke cable, routing and tie straps (FIG. 33, & FIG. 34) .

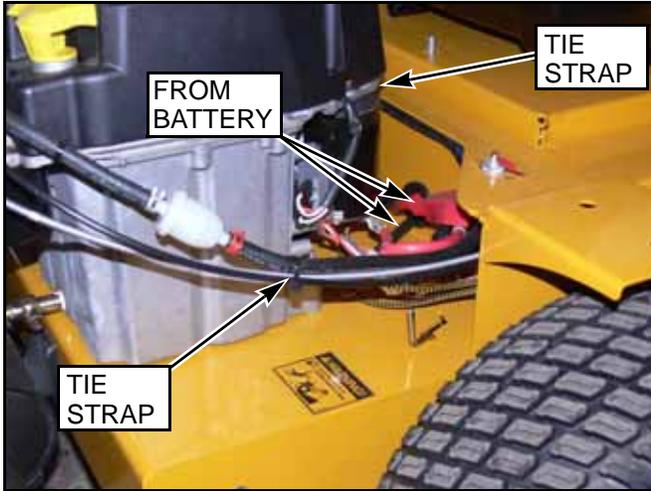


FIG. 33



FIG. 34

NOTE: Tie strap on rear seat support (FIG. 33) ties fuel line from L.S. fuel tank similar to Kawasaki engines. See Fuel line routing (FIG. 19, FIG. 20 & FIG. 21). on page 9-8.

Engine connection (FIG. 35).



FIG. 35

Clutch pigtail to clutch anchor tie strap (FIG. 36).

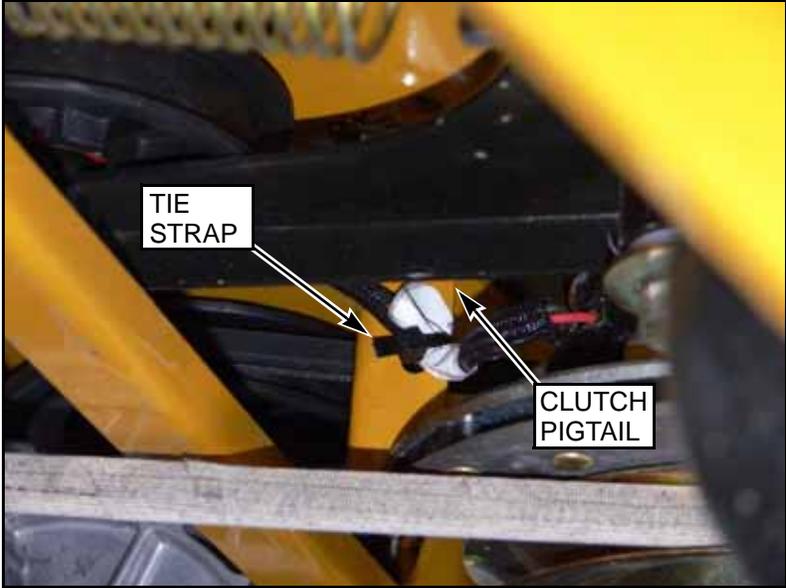


FIG. 36

Maintenance & Adjustment Safety



This safety alert symbol is used to call attention to a message intended to provide a reasonable degree of PERSONAL SAFETY for operators and other persons during the normal operation and servicing of this equipment.

DANGER—denotes immediate hazards which **WILL** result in severe personal injury or death.

WARNING—denotes a hazard or unsafe practice which **COULD** result in severe personal injury or death.

This manual uses two other words to highlight information. **IMPORTANT** calls attention to special mechanical information and **NOTE**: emphasizes general information worthy of special attention.

All operators should read this manual, or be instructed about safe operating and maintenance procedures. This is the owner's responsibility.

Improper use or maintenance by the operator, mechanic, or owner can result in injury. To reduce the potential for injury, comply with these safety instructions and always pay attention to the safety alert symbol, which means DANGER or WARNING—"personal safety instructions." Failure to comply with the instructions may result in personal injury or death.

Incorrect usage of this machine may result in severe injury. Personnel operating and maintaining it should be trained in the proper use and should read the manuals completely and thoroughly before attempting to set-up, operate, adjust, or service this machine.

The Quick Reference Decals, located in front of and to the right of the seat, are designed to give the operator/mechanic brief information needed in the daily operation and service of the machine. These decals are not intended to be used in place of this manual but instead is to be used as an extension of this manual. These decals should not be removed or obliterated. Replace these decals if they become unreadable.

It is the **owner's responsibility** to make certain that the operator/mechanic reads and understands this manual and all decals before operating this machine. It is also the **owner's responsibility** to make certain that the operator/mechanic is a qualified and physically able individual, properly trained in the operation of this equipment. Local regulations may restrict the age of the operator/mechanic.

The owner should also ensure that the operator/mechanic knows that they are responsible for their own safety as well as the safety of other persons within the vicinity. **Remember**, the operator/mechanic is responsible for accidents or hazards occurring to other people or their property.

Safe Maintenance & Adjustment Practices

This product is capable of amputating hands and feet and throwing objects. Always follow all safety instructions to avoid serious injury or death.

- ? Unless specifically required, **DO NOT** have engine running when servicing or making adjustments to tractor. Place control levers in the park brake position, disengage deck clutch, remove ignition switch key and disconnect the negative battery cable. Repairs or maintenance requiring engine power should be performed by trained personnel only. To prevent carbon monoxide poisoning, be sure proper ventilation is available when engine must be operated in an enclosed area.
- ? Follow daily and weekly checklists, making sure hoses are tightly secured and bolts are tightened.
- ? Keep your machine clean and remove any deposits of trash and clippings, which can cause engine fires and hydraulic overheating as well as excessive belt wear. Clean up oil or fuel spillage. Allow machine to cool before storing.
- ? **Clean flammable material from machine. Prevent fires by keeping engine compartment, battery, hydraulic lines, fuel line, fuel tank and operator's station clean of accumulated trash, grass clippings, and other debris. Always clean up spilled fuel and oil.**
- ? Always wear adequate ear protection, such as earplugs, when operating this equipment as prolonged exposure to uncomfortable or loud noises can cause impairment or loss of hearing. Do not wear radios or music headphones while operating the machinery. Safe operation requires your full attention.
- ? Never put hands or feet under any part of the machine while it is running.

-
- ? Except when changing or checking belt, **always** keep belt covers on mower for safety as well as cleanliness.
 - ? Stop the engine before removing the grass catcher or unclogging the discharge chute. Never clear the discharge chute with the engine running. Turn off the engine and be sure the blades have stopped before cleaning. Use a stick to clear a plugged discharge area. **Never use your hand!**
 - ? Exercise caution when loading or unloading the machine onto a trailer or truck.
 - ? Always wear safety goggles or safety glasses with side shields when operating the mower.
 - ? Never leave machine unattended with ignition key in switch, especially with children present.
 - ? Be alert and turn the machine off if children enter the area.
 - ? Always wear adequate eye protection when servicing the battery, hydraulic system, cooling system or when grinding mower blades and removing accumulated debris.
 - ? Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive.
 - ? Never refuel tractor while engine is running; never refuel near an open flame or near devices which can create a spark. Refuel outdoors preferably, or in well ventilated areas.
 - ? Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.
 - ? Never run the engine in an enclosed area unless exhaust is vented to the outside. Exhaust gases contain carbon monoxide which is odorless and deadly poison.
 - ? Never attempt to make any adjustments or repairs to the tractor drive system, mower deck or any attachment while the tractor engine is running or deck clutch is engaged. Repairs or maintenance requiring engine power should be performed by trained personnel only.
 - ? Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the engine is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.
 - ? Before working on or under the deck, make certain engine cannot be accidentally started. Shut engine off and remove ignition switch key for maximum safety. Repairs or maintenance requiring engine power should be performed by trained personnel only.
 - ? Use a stick or similar instrument to clean under the mower making sure that no part of the body, especially arms and hands are under mower.
 - ? Exercise caution when working under the deck as the mower blades are extremely sharp. Wearing gloves or wrapping the blade(s) is advisable when working around or with the blades.
 - ? Do not touch hot parts of machine.
 - ? Keep nuts and bolts tight, especially the blade attachment bolts. Keep equipment in good condition.
 - ? Never tamper with safety devices. Check their proper operation regularly.
 - ? Grass collection system components are subject to wear, damage and deterioration, which could expose moving parts or allow objects to be thrown. Frequently check components and replace with manufacturer's recommended parts, when necessary.
 - ? Use only genuine Hustler replacement parts to ensure that original standards are maintained

Using a ramp

- ? Use extreme caution when loading and unloading a unit with a ramp.
- ? Use only a single, full width ramp; do not use individual ramps for each side of the unit. Having a full width ramp provides a surface for the tractor frame to contact if the unit starts to tip backwards. It also reduces the risk of a wheel going off and the machine tipping over.
- ? Do not exceed a 15 degree angle between the ramp and the ground or between the ramp and the trailer or truck.
- ? When on a ramp avoid sudden acceleration

Safety and Instruction Decals

- ? Specific safety warning decals are located on the equipment near the immediate areas of potential hazards. These decals should not be removed or obliterated. Replace them if they become non-readable.

The following illustrations show the various **decals** that are located on the machine. A brief explanation, for those requiring one, is shown to help the operator understand the meanings of these decals.

Read Owner's Manual and Quick Reference Decal before attempting to operate this machine.



Part Number
727016

Avoid skin contact with battery acid.

Always wear eye protection when checking the battery, acid can cause serious injury to skin and eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also damage clothing.

Do not allow open flame near the battery when charging.

Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to flame. Always remove the negative ground first and replace it last.

Do not overfill battery.

Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Use soda mixed in water to clean corrosion off the terminals.

Do not remove or modify stabilizer wheels or rear engine guard or injury can result.



Part Number
771436



Part Number
788968

Keep engine and pump compartment(s) clean (especially in exhaust area) to prevent fire and provide maximum engine and hydraulic cooling.



Do not smoke while refueling.

Do not fill tank with engine running, or while the engine is hot.

Allow engine to cool before storing machine inside a building.

Store away from open flame or spark if there is fuel in tank.

Clean up any gasoline spills.

Do not refuel while in enclosed trailer or other enclosed areas.



Part Number
727420

Never operate the mower deck with side deflector removed or in raised position, except when the grass catcher attachment is being used.



Part Number
727438

Whirling blades! Keep hands and feet away.

Beware of thrown objects.



Part Number
727453

Keep shields or covers in place while machine is in operation.
Keep hands away from rotating pulleys and belts.



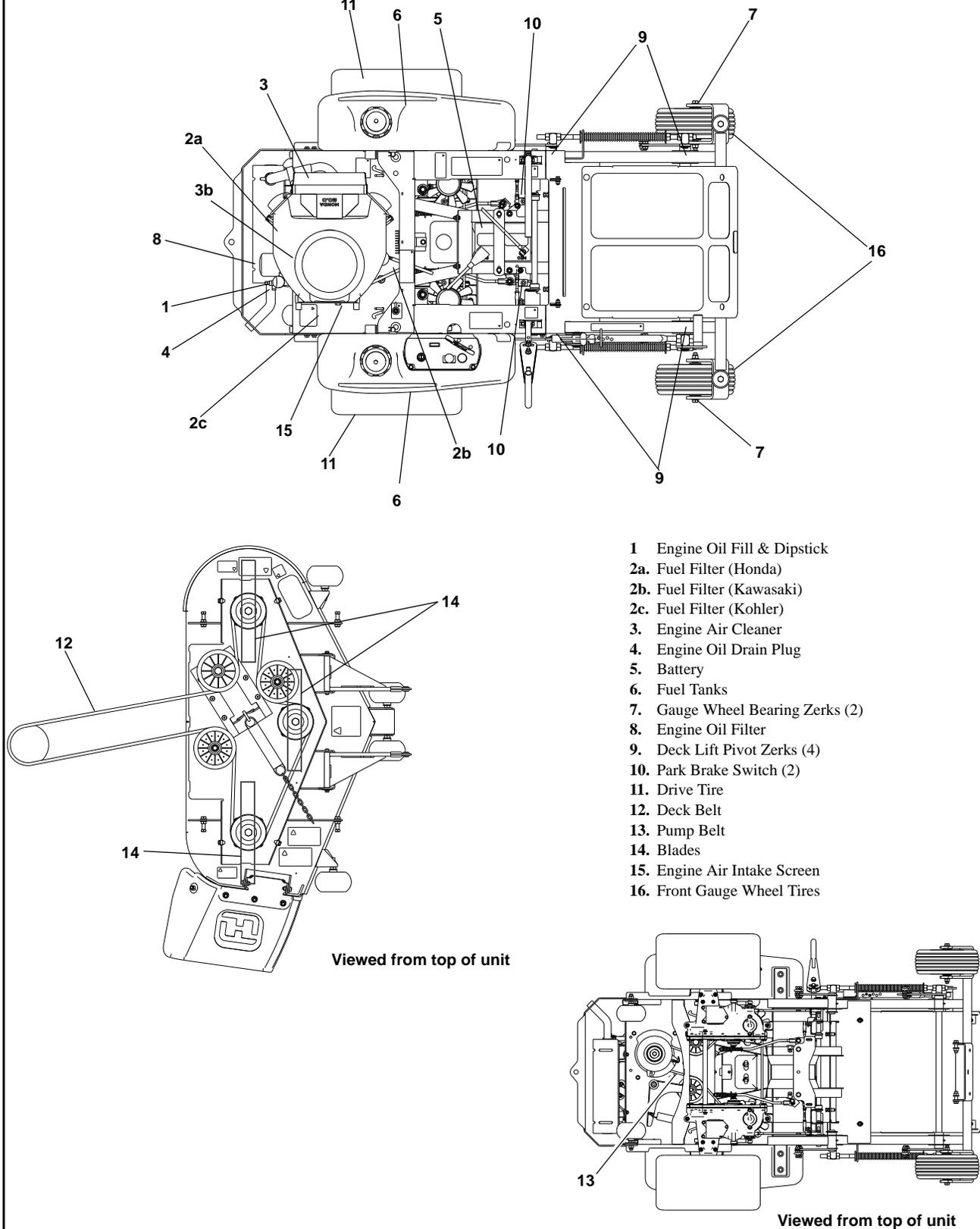
Part Number
600899

If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.

If pump belt fails, steering control will be lost. Refer to owner's manual for inspection and replacement intervals and refer to above paragraph for emergency procedures.

Maintenance

Maintenance Locator Chart



- 1 Engine Oil Fill & Dipstick
- 2a. Fuel Filter (Honda)
- 2b. Fuel Filter (Kawasaki)
- 2c. Fuel Filter (Kohler)
3. Engine Air Cleaner
4. Engine Oil Drain Plug
5. Battery
6. Fuel Tanks
7. Gauge Wheel Bearing Zerk (2)
8. Engine Oil Filter
9. Deck Lift Pivot Zerk (4)
10. Park Brake Switch (2)
11. Drive Tire
12. Deck Belt
13. Pump Belt
14. Blades
15. Engine Air Intake Screen
16. Front Gauge Wheel Tires

FIG. 37

SERVICE AT INTERVALS INDICATED	WEEKLY OR 50 HOURS	MONTHLY OR 100 HOURS	ANNUALLY OR 300 HOURS
Verify safety start interlock system	Prior to each use		
Visually inspect unit for loose hardware and/or damaged parts	Prior to each use		
Visually inspect tires	Prior to each use		
Check oil level, engine (1)	Prior to each use or every 4 hours		
Clean air intake screen (4)	Prior to each use or every 4 hours		
Clean foam element (4)	Prior to each use or every 4 hours		
Check fuel level	Prior to each use		
Blades - sharpen & securely fastened	Prior to each use		
Discharge chute - securely in place & in lowest position	Prior to each use		
Check hydraulic oil level	Daily		
Clean engine and transaxle compartment	Daily		
Change transaxle oil and filter (7)	Every 200 hours or 2 years		
Grease deck height pivots	X		
Grease gauge wheel bearings	X		
Change engine oil and filter (1) (3)	X		
Clean cylinder and head fins(a)	X		
Check battery connections	X		
Check tire pressure with a gauge	X		
Check hydraulic oil level	X		
Clean engine exterior (a)	X		
Clean & re gap spark plugs (a)		X	
Check pump and deck belt tension and condition (5)		X	
Check fuel and hydraulic lines (6)		X	
Check fuel valve and grommet (6)		X	
Tighten lug nuts on wheels (2)		X	
Change fuel filter			X
Replace spark plugs			X

NOTES:

1. Initial oil change is after 5 hours of operation. Thereafter, change oil after every 40 hours operation. Change more often under dusty or dirty conditions and during hot weather periods.
2. Torque initially and after first 2 hours of operation.
3. Change engine oil filter per the engine manufacturer's recommendations. Refer to Engine Owner's Manual for recommendations and other maintenance items.
4. Service more often under dusty or dirty conditions.
5. **Pump drive belt only - Inspect every 6 months or 100 hours** and replace if worn or cracking is noticed. Otherwise, **replace every 200 hours or 2 years** whichever comes first.
6. Check fuel line hoses, fuel valve and grommets for any cracks or leaks
7. Initial system oil and filter change **must** be after the first 75 hours of use or 1 year whichever comes first. Thereafter, replace filter and oil in each transaxle every 2 years or 200 hours, whichever comes first.

REFERENCES:

a --Refer to Engine Owner's Manual

NOTE: After completing maintenance cycle (300 hours), repeat cycle.

Introduction

Regular maintenance is the best prevention for costly downtime or expensive, premature repair. The following pages contain suggested maintenance information and schedules which the operator should follow on a routine basis. Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal

wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially in the engine and under the seat platform areas; minute dust particles are abrasive to close-tolerance engine and hydraulic assemblies.

Daily inspect mower for grass clippings and wire and string tangles. The underside of the mower deck will collect a build-up of grass clippings and dirt, especially when grass is wet or has high moisture content. This build-up will harden, restricting blade and air movement and will probably show a poorer quality of cutting. Therefore it should be removed routinely.

To do this it will be necessary to raise and block the deck, using jack stands or blocks, in the full up position and scrape the build-up from underneath.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Hustler service center when assistance is needed.

Torque values

Torque values are given below:

Wheel (lug) nuts	65-75 FT.-LBS.
Blade spindle bolt top	118 FT.-LBS.
Blade spindle bolt bottom	118FT.-LBS.

Lug nuts only - It is recommended that these be checked after the first 2 hours of operation, initially, every 50 hours and following removal for repair or replacement.

For all other torques refer to the various tractor parts manuals for standard torque chart. See page 21 for ordering information.

For engine torque values, see engine owner's manual.

Tires

It is important for level mowing that the tires have the same amount of air pressure. The recommended pressure are:

Drive Wheels	8-12 PSI
Front Wheels	8-12 PSI

Solid fill tires are not recommended for Hustler turf equipment. On any machine, with solid filled tires, the warranty claim will be denied.



WARNING: Explosive separation of a tire and rim can cause serious injury or death. Do not attempt to mount a tire without the proper equipment and experience to perform the task. Always maintain the correct tire pressure and never over inflate. Never weld or heat a wheel and tire assembly as an explosion may occur. Welding can weaken or deform a wheel. When inflating tires stand to one side and not in front of or over the tire assembly. Check tires for low pressure, blemishes, damaged rims or missing lug bolts and nuts.

Lubrication

1. Grease the front gauge wheel bearings per the Maintenance Schedule. Use SAE multi-purpose grease.
2. Grease the four deck lift pivots, located to the side of the operator's footrest per the Maintenance Schedule. Use SAE multi-purpose grease.

Electrical system

The electrical system is a 12-volt, negative ground. Recommended battery size is a garden tractor BCI group U1R with 225 or better cranking AMP rating. A maintenance-free battery is recommended. Otherwise, follow battery manufacturer's maintenance, safety, storing and charging specifications.

The battery is located under the seat platform. FIG. 38

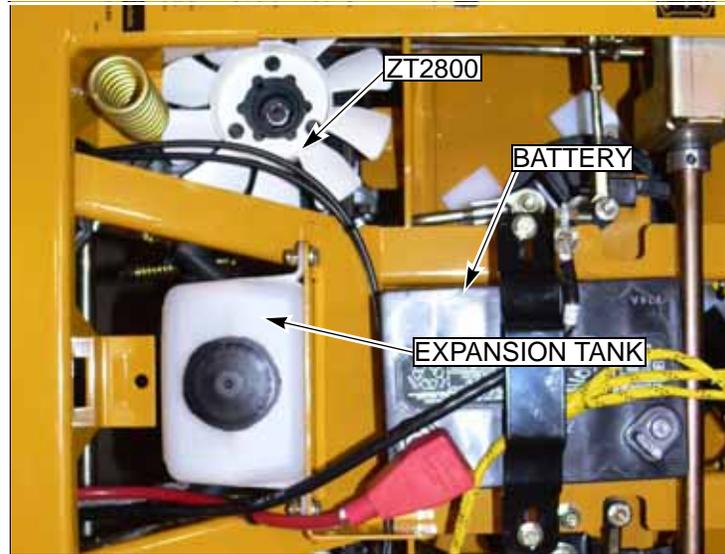


FIG. 38



WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.



WARNING: Avoid skin and clothing contact with battery acid. Always wear eye protection when checking the battery, acid can cause serious injury to skin and eyes. If contact occurs, flush area with clean water and call physician immediately. Acid will also damage clothing. Do not drink the battery electrolyte. Do not allow open flame near the battery when charging. Hydrogen gas forms inside the battery. This gas is both toxic and flammable and may cause an explosion if exposed to flame. Always remove the negative ground first and replace it last. Do not overfill battery. Electrolyte may overflow and damage paint, wiring or structure. When cleaning the battery, use soap and water. Be careful not to get soap and water into the battery. Clean the battery terminals with a solution of four parts water and one part baking soda when they become corroded.



WARNING: Shorts caused by battery terminals or metal tools touching metal tractor components can cause sparks. Sparks can cause a battery gas explosion which will result in personal injury. Prevent the battery terminals from touching any metal tractor parts when removing or installing the battery. Do not allow metal tools to short between the battery terminals and metal tractor parts.



WARNING: Incorrect battery cable routing could cause damage to the tractor and battery cables. This can cause sparks which can cause a battery gas explosion which will result in personal injury. Always **disconnect** the negative (black) battery cable before disconnecting the positive (red) cable. Always **connect** the positive (red) battery cable before connecting the negative (black) cable.

Common circuit failures are usually caused by shorting, corroded or dirty terminals; loose connections, defective wire insulation or broken wires. Switches, solenoids and ignition components may also fail, causing a shorted or open circuit.

The electrical system is protected by fuses located on the right fuel tank instrument panel. FIG. 39 The fuses are as follows:

Function	Size	Type
Main	20 amp,	blade-type
Clutch/Aux	10 amp,	blade-type

Before attempting any failure diagnosis of the electrical system, use a test light or voltmeter to check the battery



FIG. 39

voltage. If the battery voltage is satisfactory, check the cleanliness and tightness of the terminals and ground connections. A general understanding of electrical servicing and use of basic test equipment is necessary for troubleshooting and repair.

Major overhaul or repair of the starting motor or charging system should be performed by trained technicians only.

Access to ZT2800 transaxles

The integrated pump/motor units are accessed by lifting the seat platform. The seat platform is hinged at the front. To raise it, remove the lock nut and tilt seat platform up and forward.

If the seat is equipped with the optional arm rest kit, make certain to place the control arms in the park brake position and pivot the arm rests upward before placing the seat platform in the full forward position to prevent damage to the arm rests.

Hydraulic system

The FasTrak 48/54 is equipped with two Hydro-Gear ZT 2800 transaxles (FIG. 38).

IMPORTANT: Never use hydraulic or automatic transmission fluid in this system; use only motor oil as specified. Remember, dirt is the primary enemy of any hydraulic system.

The hydraulic expansion tank is located in front of the engine and under the operator's platform (FIG. 40).

Check oil level in hydraulic system prior to each use. Check more often if system appears to be leaking or otherwise malfunctioning.

Fluid level should be at the "Full Cold" line on the expansion tank. Use only SAE 20W50 SL service motor oil.

Change the system oil and filters after the first 75 hours of use or 1 year whichever comes first. Thereafter, replace filter and oil in each transaxle every 2 years or 200 hours, whichever comes first. **NOTE:** The filter guard must be removed to access filter.

Each transaxle's filter is located per FIG. 41. A standard oil filter wrench is used to change filter, threads are right handed. **Use a Hustler approved filter element only.**



FIG. 40

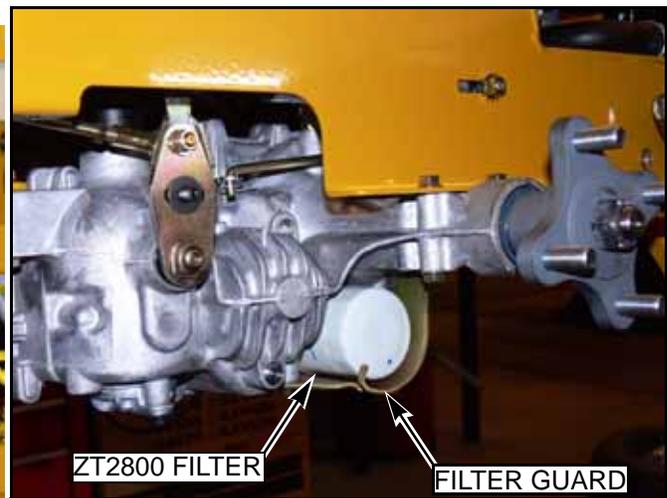


FIG. 41

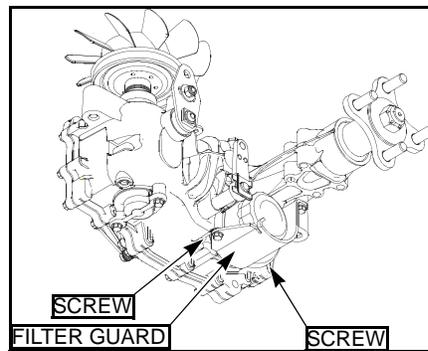


FIG. 42



WARNING: When washing the mower, direct the spray away (especially if using a power washer) from the Hydro-Gear ZT 2800 transaxle's seals to prevent water intrusion and to ensure component performance.



WARNING: Make sure the transaxles are cool before performing service procedures.

Fluid changing procedure

1. Park the unit on a level surface. Place control levers in the park brake position, disengage deck clutch, remove ignition switch key and disconnect negative battery cable.
2. Remove the three 1/4" filter guard screws and filter guard. Clean any loose debris from around the filter (FIG. 42).
3. Place an oil drain pan beneath the oil filter and remove the oil filter from the transaxle. By removing the filter, this also drains the system oil.
4. After the oil has been drained, wipe the filter base surface off and apply a film of new oil to the gasket of the new replacement filter.
5. Install the new filter by hand, turn 3/4 to one full turn after the filter gasket contacts the filter base surface.
6. Re-install the filter guard with three 1/4" screws. Torque the screws to 65 in.-lbs. each.
7. Repeat steps 2 - 6 for the opposite side transaxle.
8. Drain oil filters of all free flowing oil prior to disposal. Place used oil in appropriate containers.
9. Remove the top port plug from the left side and right side transaxles prior to filling with oil. This will allow the transaxles to vent during oil fill.
10. Remove the cap from the transaxle's expansion tank.
11. Fill oil reservoir with 20W-50 motor oil until oil just appears at the bottom of each transaxle's top port (approximately 2 qts. per transaxle, 4 qts. total). Install the top port plug into each transaxle as the oil level reaches this port.
12. Install and torque the top port plugs to 180 in. lbs.

13. Continue to fill the transaxles through the expansion tank until the "Full Cold" line is reached on the expansion tank.
14. Re-install the expansion tank cap by hand. Be careful not to overtighten.

Fuel system



DANGER: Observe usual fuel handling precautions:

Do not smoke while refueling.

Do not fill tank with engine running or while engine is hot. Clean up any gasoline spills.

Allow engine to cool before storing machine inside a building.

Keep fuel away from open flame or spark and store machine away from open flame or spark if there is fuel in the tank.

Use extra caution when handling gasoline and other fuels. They are flammable and vapors are explosive. A fire or explosion from gasoline can burn you and others and can damage property.

Refuel outdoors preferably, or in well ventilated areas.

Never attempt to start engine when there is a strong odor of gasoline fumes present. Locate and correct cause.

Store gasoline in an approved container and keep it out of the reach of children. Never buy more than a 30 day supply of gasoline.

Always place gasoline containers on the ground away from your vehicle before filling.

Do not fill gasoline containers inside a vehicle or on a truck or trailer as interior carpets or plastic truck bed liners may insulate the container and slow the loss of any static charge.

When practical, remove equipment from the truck or trailer and refuel the equipment with its wheels on the ground. If this is not possible, then refuel the equipment on the truck or trailer using a portable container and not a gasoline dispenser nozzle. If a gasoline dispenser nozzle must be used, keep the nozzle in contact with the rim of the fuel tank or container opening at all times until fueling is complete.



WARNING: Gasoline is harmful or fatal if swallowed.

Long-term exposure to vapors can cause serious injury and illness.

Avoid prolonged breathing of vapors.

Keep face away from nozzle and gas tank or conditioner opening.

Keep gas away from eyes and skin.

The fuel tanks are located in the tractor's fenders (FIG. 43). Total capacity for the fuel tanks is 10 U.S. gallons (38 liter).

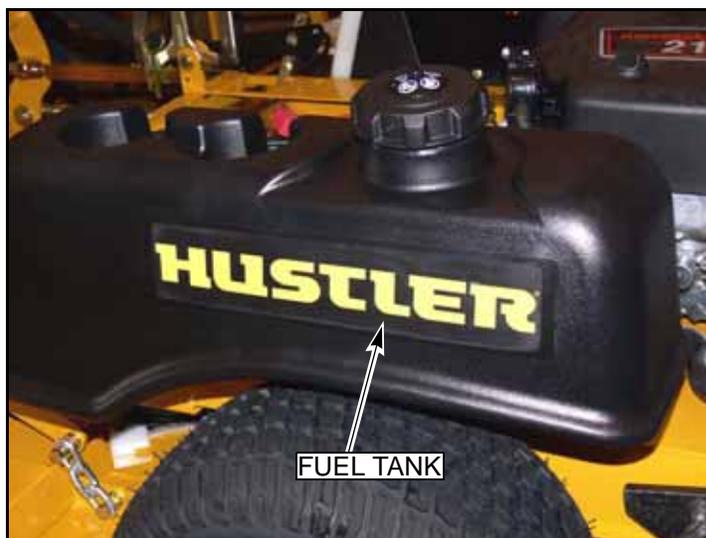


FIG. 43

When filling the fuel tanks disengage deck clutch, place control levers in park brake position, and stop tractor engine. Clean around the fuel tank cap and remove the cap and begin filling. When finished, screw the cap on securely and wipe up any spilled gasoline.

Use regular unleaded gasoline with an octane rating of 87 or higher. **IMPORTANT:** Never use methanol, gasoline containing methanol, or gasohol containing more than 10% ethanol because the fuel system could be damaged. Do not mix oil with gasoline.

Using a fuel stabilizer/conditioner in the tractor can provide benefits such as:

1. Keeps gasoline fresh during storage of 90 days or less. For longer storage, drain the fuel tanks.
2. Cleans the engine during operation.
3. Eliminates gum-like varnish buildup in the fuel system.

IMPORTANT: Never use methanol, gasoline containing methanol, or gasohol containing more than 10% ethanol because the fuel system could be damaged. Do not mix oil with gasoline.

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1. Keeps gasoline fresh during storage of 90 days or less. For longer storage, drain the fuel tanks.
2. Cleans the engine during operation.
3. Eliminates gum-like varnish buildup in the fuel system.

IMPORTANT: Do not use fuel additives containing methanol or ethanol.

Add the correct amount of gas stabilizer/conditioner to the gas. Follow the gas stabilizer/conditioner manufacturer's directions for best results.

The fuel filter (FIG. 44, FIG. 45 & FIG. 46) is installed in the fuel line between fuel tanks and engine fuel pump on the rear left side of the engine. Replace filter annually or after every 100 hours of operation, whichever occurs first. For fuel filter removal refer to the engine owner's manual

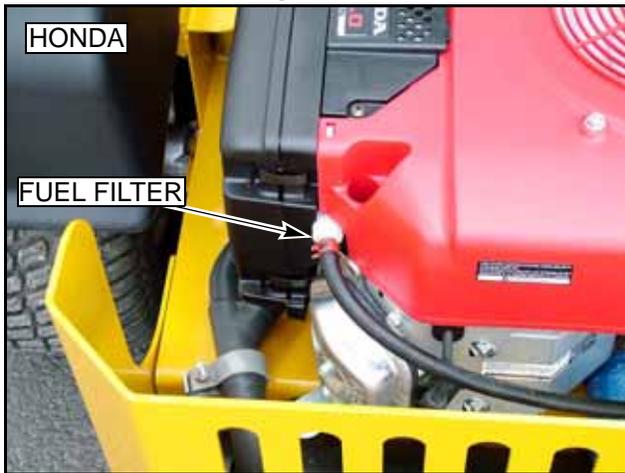


FIG. 44

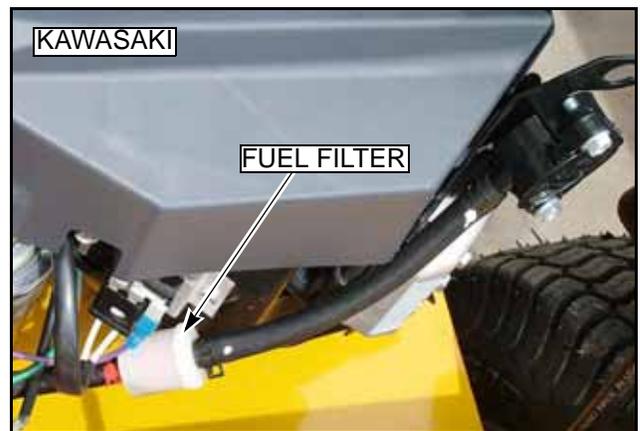


FIG. 45

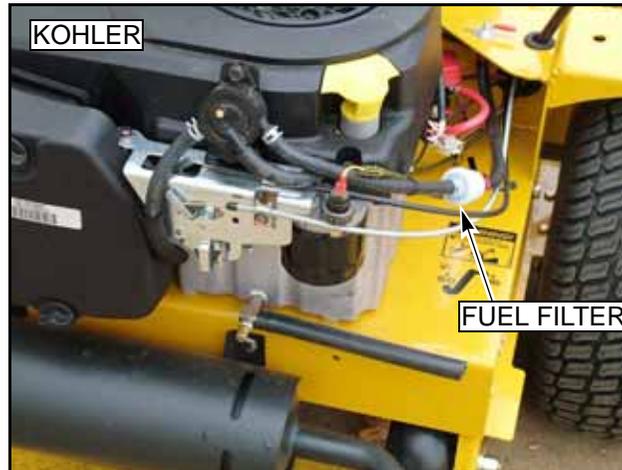


FIG. 46

When replacing the fuel filter, check the fuel line hoses for any cracks or leaks. Replace as needed.

Fuel Shut-off Valves

The fuel shut-off valve (Hustler p/n 745059) is located behind the seat to the right side of the operator (FIG. 47). Close this valve (center position) to prevent fuel flow to the engine. The valve's two other positions are front and rear.

To drain a fuel tank use the following method:

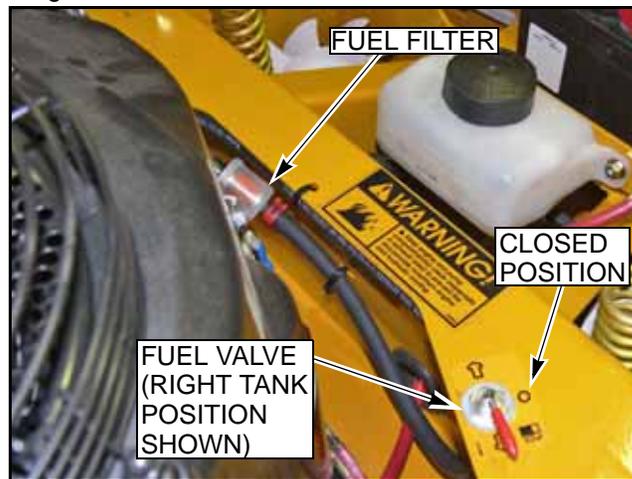


FIG. 47

1. Park the unit on a flat surface. Stop the engine and remove the ignition key. Make sure deck clutch switch is **in the down (OFF) position**. Place control levers in the park brake position. Disconnect negative battery cable.
2. Turn the fuel valve to the closed position (middle position) (FIG. 47).
3. Disconnect the tank to fuel valve line from the valve and clamp or cap the end of it.
4. Remove the fuel tank from the tractor.
5. Remove the fuel tank's fill cap and pour the fuel out of the fill spout into a clean certified fuel container.
6. When fuel tank is drained re-attach the fuel tank to the tractor, and re-route the fuel line to the shut-off valve and attach it to the tee. Clamp fuel line to shut-off valve.
7. Fill fuel tank with proper grade of gasoline and open shut-off valve.

Engine oil and filter

Check engine oil daily and after every 4 hours of operation. Crankcase dipstick and oil filler tube are located as shown in FIG. 48, FIG. 49 & FIG. 50. Tractor must be setting level when checking oil. Refer to engine manual and maintenance schedule for oil recommendation and capacities.

Change the engine oil and filter after the first 5 hours of operation, per the engine manufacturer's recommendations after that. If tractor is being operated in extremely dirty conditions, then it is recommended oil be changed more frequently. **IMPORTANT:** When removing the oil filter take precautions to minimize oil spillage on the exhaust system.

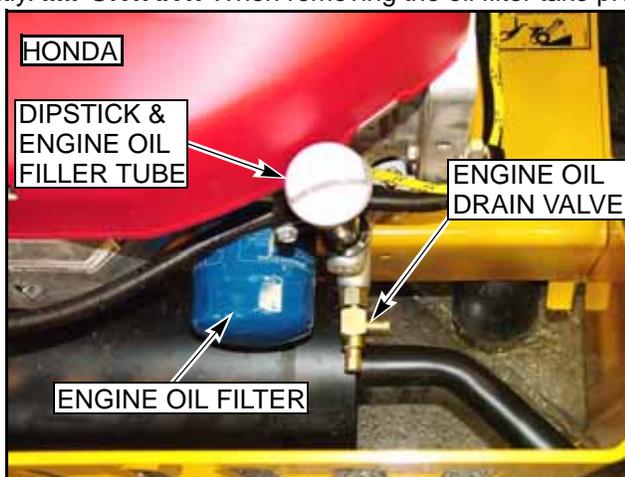


FIG. 48

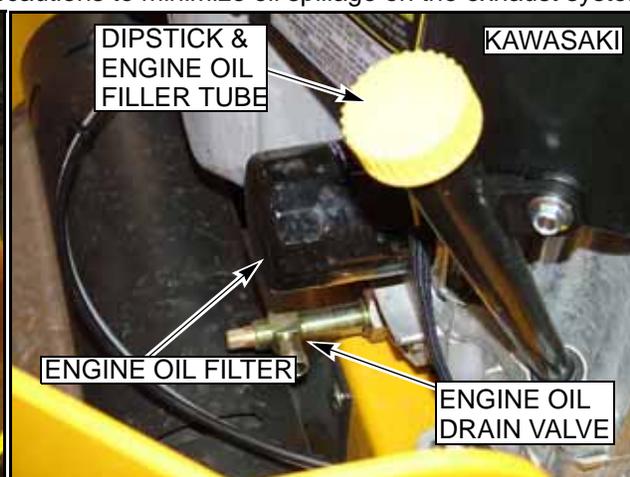


FIG. 49

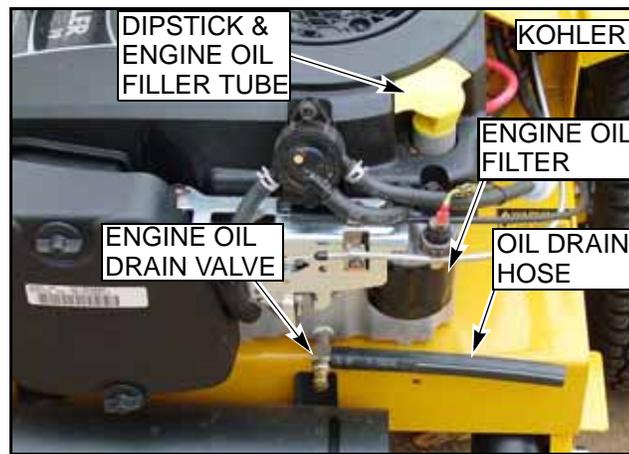


FIG. 50

Attach the oil drain hose, furnished with the unit, to the oil drain valve when draining the engine oil. Oil drain hose **must** be removed after oil is drained. **IMPORTANT:** All oil drips or spills **must** be cleaned off of the exhaust system before operating the machine. The oil drain and oil filter are located at the rear of the engine (FIG. 48, FIG. 49 & FIG. 50).

Belt replacement

FIG. 51 and FIG. 53 show diagrams and descriptions of the unit's belt drive systems.

Inspect these belts frequently for wear and serviceability. Replace a belt that shows signs of severe cuts, tears, separation, weather checking and cracking, or burns caused by slipping. Slight raveling of belt covering does not indicate failure, trim raveling with a sharp knife.



WARNING: If the pump belt fails, loss of control will occur especially when operating on a slope. **If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.**

Inspect the belt pulley grooves and flanges for wear. A new belt, or one in good condition, should never run against the bottom of the groove. Replace the pulley when this is the case, otherwise belt will lose power and slip excessively.

Never pry a belt to get it on a pulley as this will cut or damage the fibers of the belt covering.

Keep oil and grease away from belts, and never use belt dressings. Any of these will destroy the belt composition in a very short time.

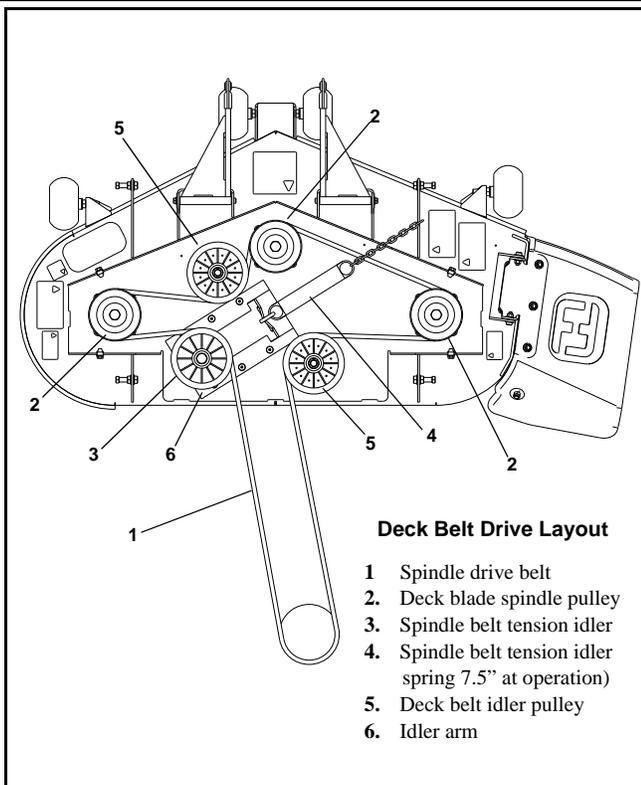


FIG. 51

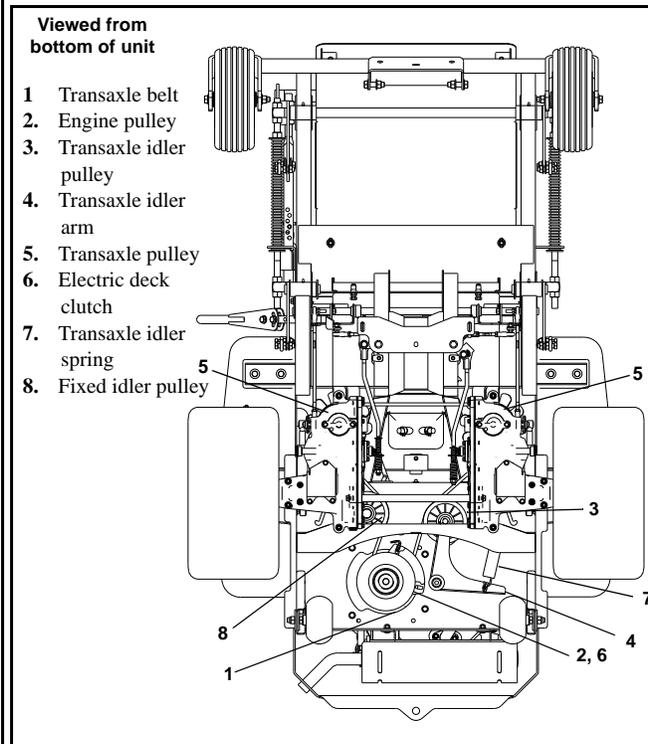


FIG. 52

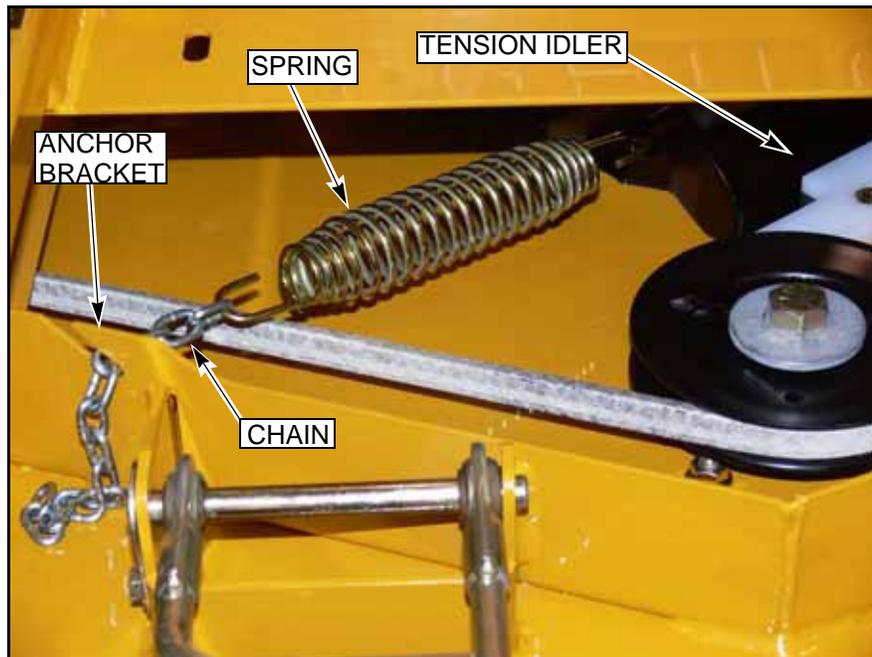


FIG. 53

Deck belt replacement

1. Park the unit on a flat surface. Stop the engine and remove the ignition key. Make sure deck clutch switch is **in the down (OFF) position**. Place control levers in the park brake position. Disconnect negative battery cable.
2. Place the deck in the lowest position.
3. Remove the deck belt covers.
4. Release the deck belt tension by pulling on the belt tension chain and sliding the chain out of the anchor bracket slot. This will relieve the tension on the deck belt idler spring. FIG. 53
5. Pull the idler to the left of the machine to provide maximum belt clearance.

6. Remove the existing belt and replace with a new belt.
7. Route the new belt per FIG. 51.
8. Re-tension the deck belt idler per the Deck drive belt adjustment section located elsewhere in this manual.
9. Re-install the deck belt covers.
10. Re-attach the negative battery cable.

Transaxle drive belt replacement

1. Park the unit on a flat surface. Stop the engine and remove the ignition key. Make sure deck clutch switch is **in the down (OFF) position**. Place control levers in the park brake position. Disconnect negative battery cable.
2. Place the deck in the lowest position.
3. The deck belt must be removed from the clutch pulley first by releasing the deck belt tension by pulling on the belt tension chain and sliding the chain out of the anchor bracket slot. This will relieve the tension on the deck belt idler spring (FIG. 53 & FIG. 54).

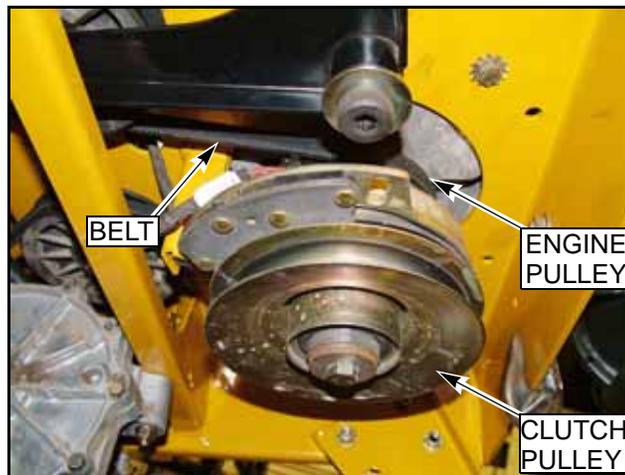


FIG. 54

4. Remove the deck drive belt from the electric clutch pulley. This belt does not need to be removed from any of the other pulleys.
5. Release the tension from the transaxle belt by pulling on the idler pulley (extending spring carefully) and sliding the belt over it. Use caution when releasing the idler pulley as there is still tension on it and it will snap back into position (FIG. 52).
6. Slide the belt off the engine pulley. The belt will have to be slid above the engine pulley to allow the belt to be removed from the other pulleys (FIG. 54).
7. Slide the belt over the transaxle pulleys.
8. Slide the belt off of the fixed idler pulley.
9. The belt can now be removed from above the engine pulley.
10. Install new belt by sliding it up and over the engine pulley. Make certain it is not in the pulley groove at this time but is above the pulley.
11. Slide the belt over the fixed idler pulley and then over the transaxle pulleys.
12. Slide the belt onto the engine pulley.
13. Pull the idler pulley over and slide the belt onto it. Make certain to keep fingers from getting between the belt and the pulley when the pulley is released and tension is re-established.
14. Re-install the deck drive belt on the electric clutch pulley and make sure it is routed properly on all of the deck pulleys.
15. Re-tension the deck belt idler per the Deck drive belt adjustment section located elsewhere in this manual.
16. Re-attach the negative battery cable.

Mower blade maintenance

Check the mower blades daily, they are the key to power efficiency and well groomed turf. Keep them sharp, a dull blade will tear rather than cut the grass, leaving a brown ragged top on the grass within a few hours. A dull blade also requires more power from the engine.

Replace any blade which is bent, cracked or broken.



WARNING: Never attempt to straighten a bent blade by heating, or weld a cracked or broken blade as the blade may break and cause serious injury. Replace worn or damaged blades.



WARNING: Never work with blades while engine is running or deck clutch switch is engaged (on). Always place deck clutch switch in the **disengaged** position, place control levers in the park brake position and turn engine off and disconnect negative battery cable. Block up mower when you **must** work under it. Wear gloves when handling blades. **Always check for blade damage** if mower strikes rock, branch or other foreign object during mowing!



WARNING: Always wear adequate eye protection when grinding mower blades.

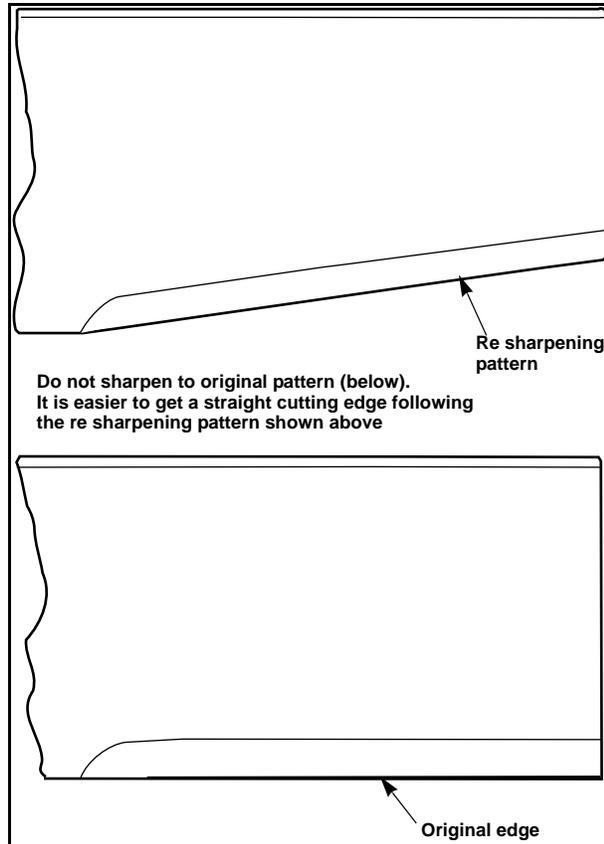


FIG. 55

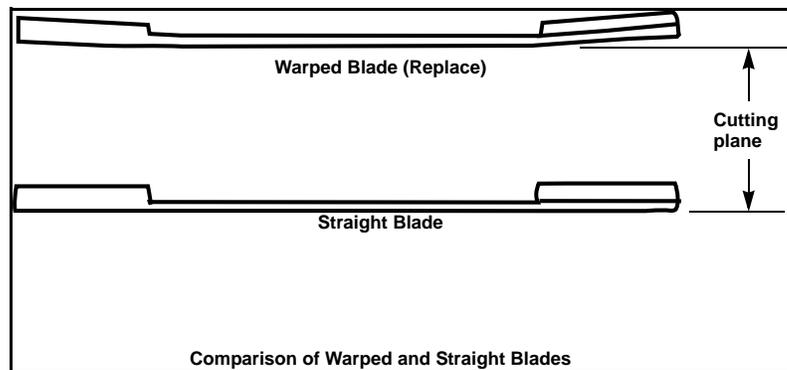


FIG. 56

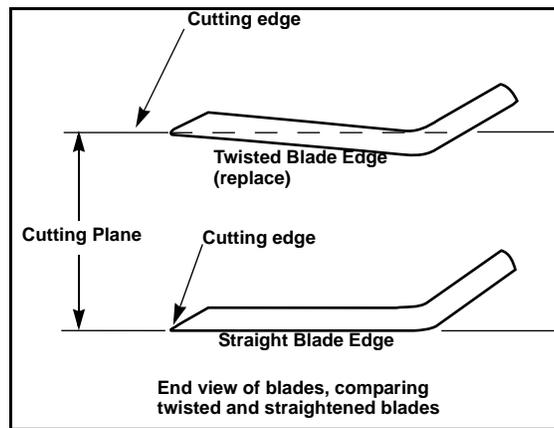


FIG. 57

Mower blade removal

Use a 15/16" wrench to remove the 5/8" cap screw holding the blade to the spindle shaft from underneath.

Blade Lock Tool, part number 381442, is available from your dealer to prevent the blades from turning while removing or and installing the blade bolts.

Sharpen the blades on a grinder following pattern as shown (FIG. 55). Touch-up sharpening can be done with a file.

Check the blades for balance following grinding. A commercial balancing tool is available through most hardware supply stores, or balancing can be done by placing the blade on an inverted line punch or 5/8" bolt. Blade should not lean or tilt. Spin the blade slowly, blade should not wobble. If blade is out of balance, true it up before reinstalling.

Lay the blade on a flat surface and check for distortion (FIG. 56 and FIG. 57). Replace any distorted blade.

Do not re-use spindle bolts which have stripped, worn or undercut threads. Torque bolts on spindles to 118 foot-pounds when reinstalling blades.

IMPORTANT: The blade sail (curved part) must be pointing upward toward the inside of the deck to ensure proper cutting.



WARNING: When mounting blades, rotate them after installation to ensure blade tips do not touch each other or sides of the mower.



WARNING: Failure to correctly torque the bolt may result in the loss of the blade which can cause serious injury.



WARNING: Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing them.

Adjustment

Introduction

Your FasTrak 48/54 was adjusted before it left the factory and was checked during pre delivery setup. However, after start-up and continued use, a certain amount of break-in wear will cause some adjustments to change.

Remain alert for unusual noises, they could be signaling a problem. Visually inspect the machine for any abnormal wear or damage. A good time to detect potential problems is while performing scheduled maintenance service. Correcting the problem as quickly as possible is the best insurance.

Clear away heavy build-up of grease, oil and dirt, especially in the engine and under the seat platform areas; minute dust particle are abrasive to close-tolerance engine and hydraulic assemblies.

Some repairs require the assistance of a trained service mechanic and should not be attempted by unskilled personnel. Consult your Hustler service center when assistance is needed.

Seat adjustment

The seat can be adjusted forward and rearward by sliding the seat release handle and moving the seat until a comfortable operating position is attained (FIG. 58).

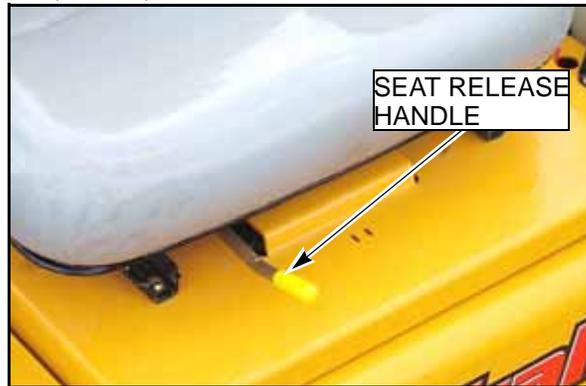


FIG. 58

Control lever adjustment

The control levers can be adjusted for operator comfort. By loosening the cap screws that attaches the upper control lever to the lower lever (FIG. 59), the upper control lever can be pivoted to fit the operator's personal preference.

The control levers can also be adjusted up and down. Remove the cap screws and slide the upper control lever up or down and align the holes in it with the holes in lower lever. Re-install the cap screws and tighten.

The control levers should be adjusted so that they align with each other when in the neutral position (FIG. 60).

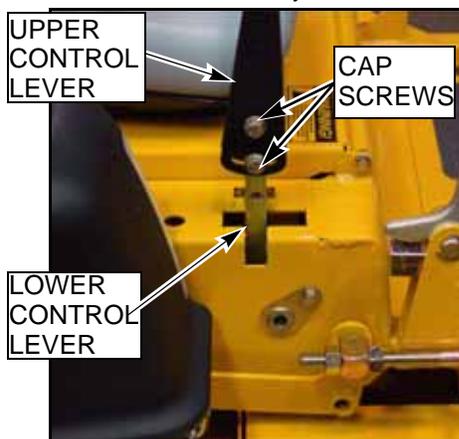


FIG. 59



FIG. 60

Steering linkage

The neutral adjustment for the control levers in the neutral position is discussed in this section.

The tractor steering has been factory adjusted to eliminate creeping when the control levers are in the neutral position (FIG. 61). However, should the tractor begin to creep, the control lever linkage can be adjusted as follows:



FIG. 61

CONTROL LEVER NEUTRAL ADJUSTMENT

Before considering any adjustment, check the tire air pressure. Unequal tire pressure will cause the tractor to drift to one side. Refer to tire pressure information in the Maintenance section of this manual.

NOTE: Proper park brake adjustment must be completed before the control lever neutral adjustment can be done.

Fine adjustment to the unit's steering is made with the transaxle control rod. (FIG. 62).

Neutral is properly adjusted when the control levers are in the park brake position and the ZT 2800 transaxles do not "whine".

If this occurs, the control linkage may be adjusted as follows:

1. Raise and block the tractor frame keeping the rear drive tires free and clear of any obstructions so they are free to rotate. The engine will be running and tires rotating during this operation. (FIG. 64).



WARNING: Never work under the machine or attachment unless it is safely supported with jack stands. Make certain machine is secure when it is raised and placed on the jack stands. The jack stands should not allow the machine to move when the engine is running and the drive wheels are rotating. **Use only certified jack stands.** Use only appropriate jack stands, with a minimum weight rating of 2000 pounds to block the unit up. Use in pairs only. Follow the instructions supplied with the vehicle stands.

2. Tilt the seat platform forward. Temporarily bypass the seat switch.
3. Loosen the rear dampener ball stud nut as shown in FIG. 65. The dampener will be adjusted and tightened after neutral is reset.
4. Staying clear of the rear drive tires, start the engine. If the ZT 2800 transaxles whine, then the neutral setting needs to be re-adjusted. In this operation you will need to adjust one side at a time. If either side whines significantly, then the control lever needs to be pushed into the operating position, disengaging the brake. Most likely when the brake is disengaged, the drive wheel will begin to rotate even though the control lever is in the neutral position.

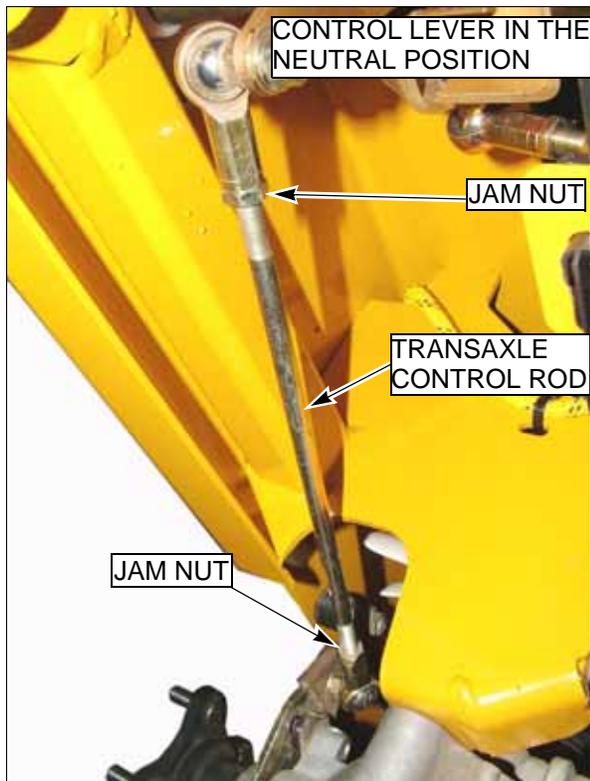


FIG. 62



FIG. 63

5. Shut off the machine. Loosen the jam nuts on each end of the transaxle control rod as shown in FIG. 62.
6. Start the engine. Move the control lever to just engage the brake (neutral) slot and hold it in that position (Do not engage the control lever far enough to engage the brakes in the brake slot).



WARNING: This operation is extremely dangerous. Pay close attention when adjusting the transaxle control rod so you do not get your fingers, tools, or anything else close to the ZT 2800 transaxle's cooling fans.

7. While holding the control lever position discussed in step 6, carefully adjust the transaxle control rod until the rear wheel starts turning forward. Now turn the transaxle control rod in the opposite direction until the moment when the wheel just stops turning forward. Turn the control rod another 1/2 turn in this direction. Hold the transaxle control rod in this position and actuate the parking brake with steering lever. The ZT 2800 transaxle should not whine (FIG. 64).

8. Hold the transaxle control rod still and turn off the engine.

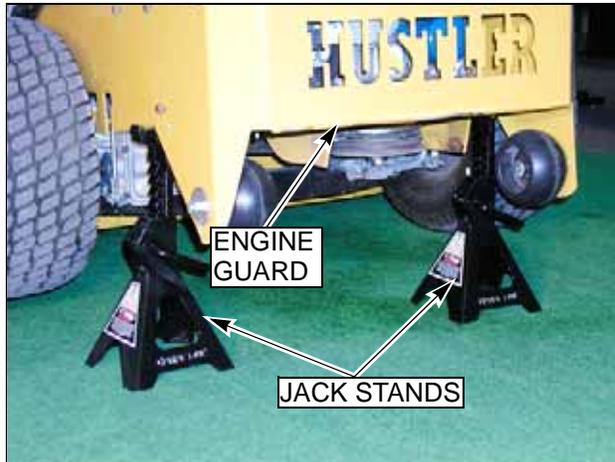


FIG. 64



FIG. 65

9. Tighten the jam nuts on each end of the transaxle control rod. **NOTE:** Do not let transaxle control rod turn while tightening the jam nuts (FIG. 62).
10. Neutral is now set. Start the engine and actuate the brakes a few times to confirm that the ZT 2800 transaxle does not whine when the park brake is set.
11. Repeat for the other side.
12. The steering dampener now needs to be adjusted and tightened (FIG. 65).
13. **IMPORTANT: Reconnect the seat switch and make sure the seat switch is operating properly.** Refer to the machine's owner's manual for operation check.



WARNING: Do not operate machine without a properly functioning seat safety switch.

Steering dampener

The steering dampener (FIG. 65) is spring loaded to return the control levers to the neutral position from the reverse position. This gives the operator a sense of neutral during operation.

If the tractor does not return to neutral from reverse then adjust as follows:

To set the steering dampeners in the correct operating position follow these steps:

1. Shut engine off, place control levers in the park brake position, disengage deck clutch, remove ignition switch key and disconnect negative battery cable before doing any adjustments.
2. Place the control lever in the neutral position (FIG. 61).
3. Loosen the steering dampener's rear ball stud (FIG. 65).
4. Pull the dampener spring housing, to the rear, past the point that the internal spring is engaged.
5. Release the dampener spring housing and allow the internal spring to bring the housing back to the neutral position.
6. Tighten the nut on the steering dampener's rear ball stud.
7. To check, move the control lever to the reverse position and release. The control lever should return to the neutral position. If not, repeat steps 1 through 6.

DRIVE STRAIGHT ADJUSTMENT:

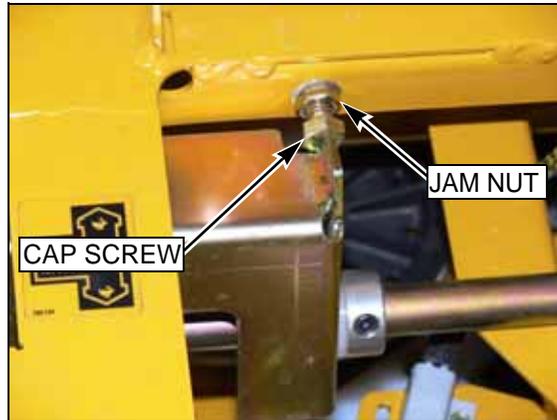


FIG. 66

1. Initially adjust cap screws all the way in so that the steering levers may go fully forward.
2. Drive tractor in an open area with both steering handles fully forward. The tractor will likely drift slightly to the left or right.
3. Whichever direction the tractor turns is the slow side. Leave the slow side cap screw and jam nut so that they are flush with the frame. Holding the cap screw in place, lock the jam nut.
4. On the fast side, through several iterations, back out the cap screw gradually until the fast side is slowed to the same speed as the other side and the tractor drives straight. After adjustment is finished, hold the cap screw still and tighten the jam nut.

Park brake spring adjustment

Occasionally check the park brake spring adjustment using the following method:

1. Shut engine off, place control levers in the park brake position, disengage deck clutch, remove ignition switch key and disconnect negative battery cable before doing any adjustments.
2. Position the control lever in the park brake position.
3. Measure the park brake spring. It should be compressed to 1-7/16". If it is not, adjust the nylock nut until the proper spring compression is achieved (FIG. 67).

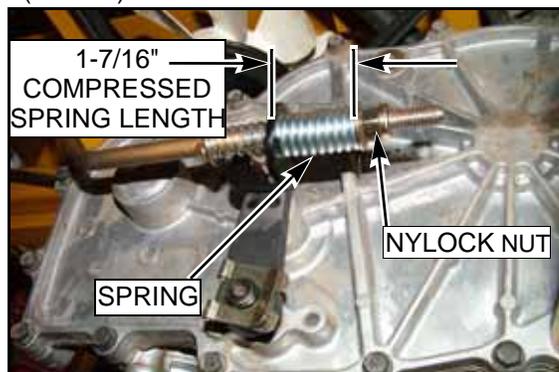


FIG. 67

4. Repeat for the other side.

Hydraulic pump belt adjustment

The transaxle drive belt tension remains constant by means of a tension idler and spring (FIG. 68). There is no tension adjustment of this belt.

NOTE: **NOTE: Inspect the belt every 100 hours and replace as needed. Replace the belt every 200 hours or every two (2) years whichever comes first.**



WARNING: If the transaxle belt fails, loss of control will occur especially when operating on a slope. If you lose steering control while operating the machine, place the steering control levers in the park brake position immediately. Inspect the machine and involve your Hustler dealer to resolve the problem before continuing to operate.

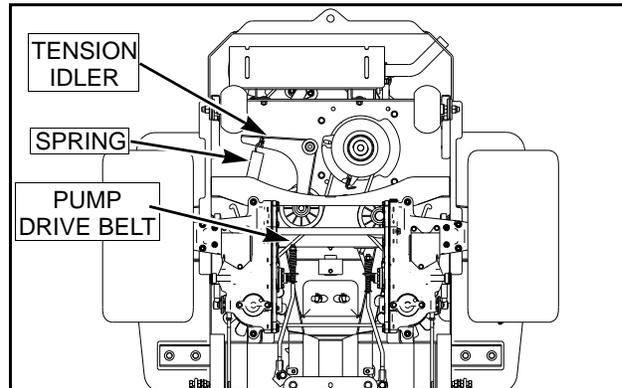


FIG. 68

Deck drive belt adjustment

The spindle belt tension remains constant by means of a tension idler and spring (FIG. 69). The spring tension should be such that the belt does not slip under normal operating load conditions, assuming the belt is not excessively

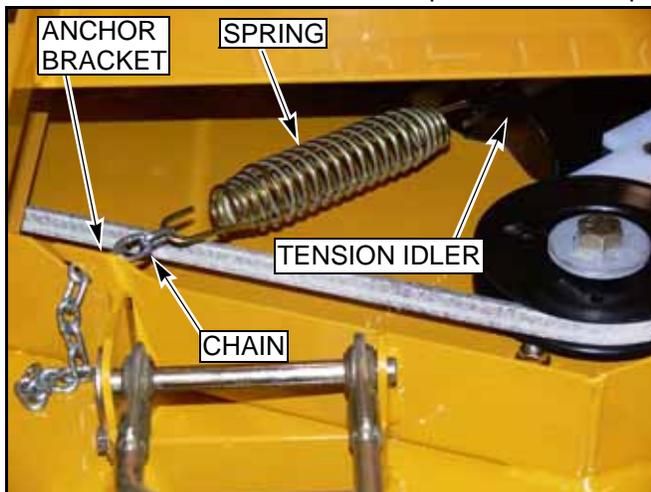


FIG. 69

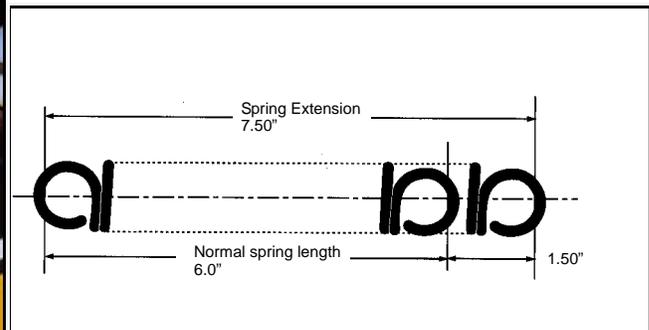


FIG. 70

worn or damaged. As belt stretches and wears in, adjustment may become necessary. To increase belt tension, move the spring chain one (or more) link(s) at the anchor bracket (FIG. 69). Installed spring length should be $7.50'' \pm .3''$ originally with adjustments of $.60''$ per chain link (FIG. 69).

IMPORTANT: Do not over tension the spring to compensate for a badly worn belt or pulley.

Engine RPM setting

The FasTrak 48/54 is designed so that the engine will run at 3450 rpm with transaxle load only. At this speed the transaxles are running at their maximum rated speed.

Deck leveling and height adjustment

The mower deck has three areas that may need to be checked and adjusted periodically. Before considering any mower deck leveling adjustments, check that the tire air pressure is within the specified range.

DECK LEVEL ADJUSTMENTS

Leveling the deck must be done in the following manner and order:

1. Check tire pressures to make certain they are properly inflated before starting to level

deck. The recommended pressures are as follows:

Drive Wheels	8-12 PSI
Front Wheels	8-12 PSI



WARNING: Stop engine. Make sure deck clutch switch is **in the down (OFF) position**. Remove ignition key. Place control levers in the brake position before leaving machine.

2. Park the unit on a flat surface.
3. Raise deck and place 3" of blocking under all 4 corners of the deck (FIG. 71). This will set the cutting height at 3 ¼". **NOTE:** Back of deck will automatically be set ¼" higher.
4. Set cutting height at 3 ¼" in the height indicator by placing the height adjusting stop in the 3" hole, and turning the height stop so that the flat side is against the stop handle. FIG. 72
5. Clamp the height adjusting stop against the stop handle. This will assure that the height will not move during the setting process. Otherwise, spring pressure from the deck lift springs will tend to pull the stop away from the handle.
6. Loosen all nuts on the deck lift threaded rods, and the hardware on the adjuster (on the right front), until all the deck lift chains are loose, and the deck is sitting tightly on all four blocks (FIG. 73, FIG. 74 & FIG. 75).
7. Loosen the two nuts on the front of height indicator so that the foot pedal is free (FIG. 76).
8. Start the leveling process on the **left front** of the tractor.

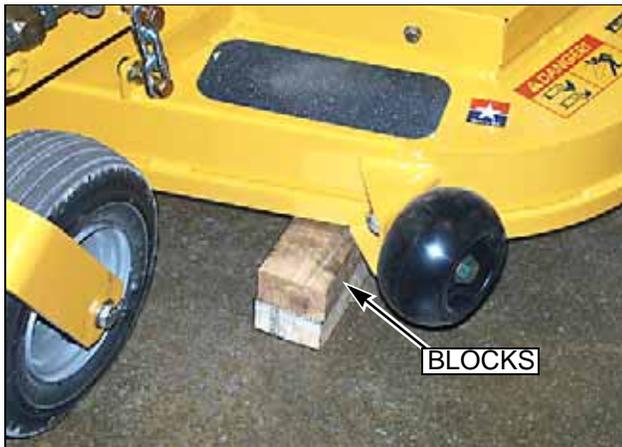


FIG. 71

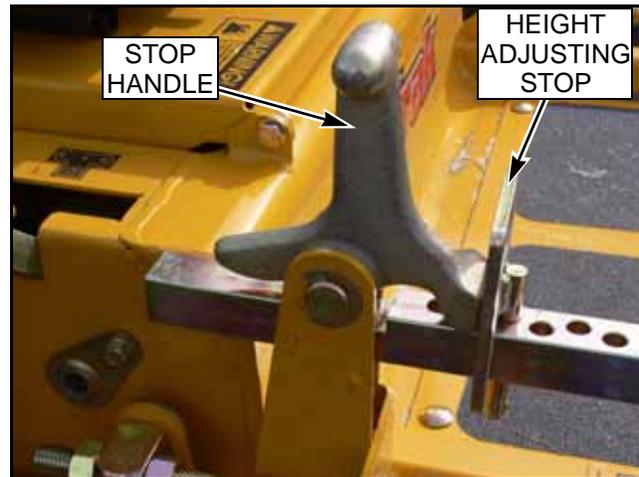


FIG. 72

9. Set the amount of threads protruding on the deck lift rod from the lift block at approximately 1" (FIG. 77).
10. Jam both nuts against the block.
11. Push or pull on the deck lift foot pedal until the **chain on the left front** just becomes tight, making sure that the deck stays tight against the 3" block.
12. While keeping the chain tight, tighten the nuts against the deck lift block on the height indicator rod (FIG. 76).
13. Go to the **right front** of the tractor.
14. Loosen the 5/16" jam nut on the adjuster lift chain (FIG. 75), and back the adjuster bolt out to allow the adjuster to move up and down freely.
15. Be sure that adjuster is free to move up and down.
16. Tighten the adjuster bolt until the chain just becomes tight, making sure that the deck stays tight against the 3" block.
17. Tighten the adjuster bolt jam nut to prevent the adjuster bolt from moving (FIG. 75).

18. Tighten the hardware holding the chain and adjuster onto the deck lift arm.

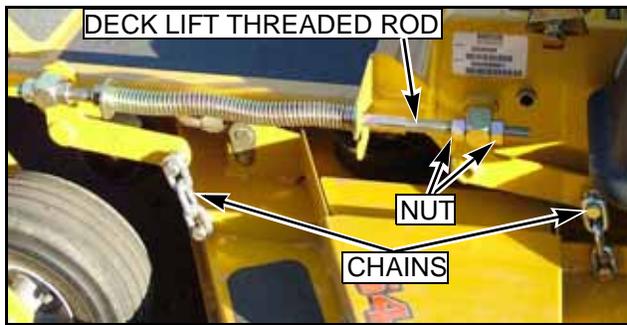


FIG. 73

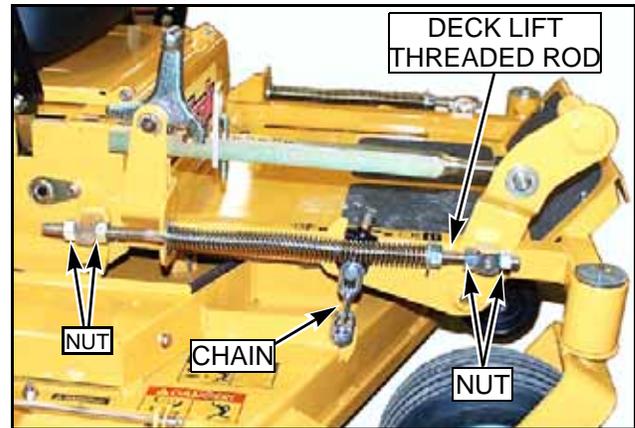


FIG. 74

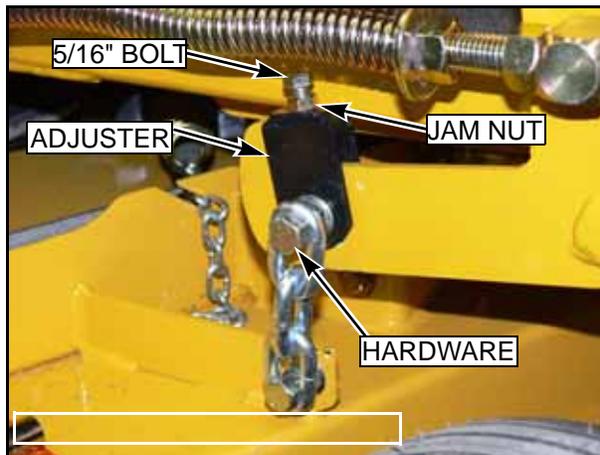


FIG. 75

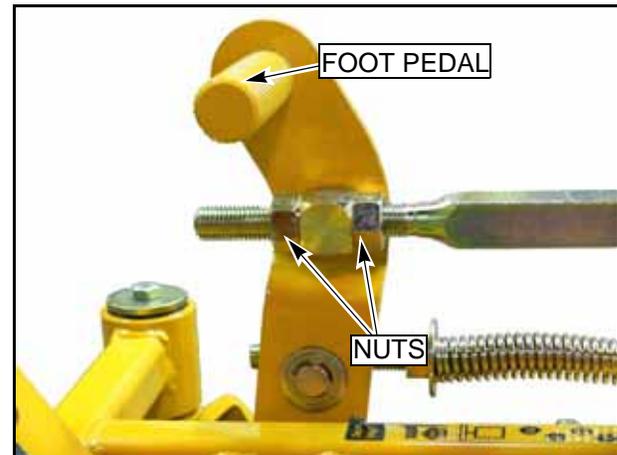


FIG. 76

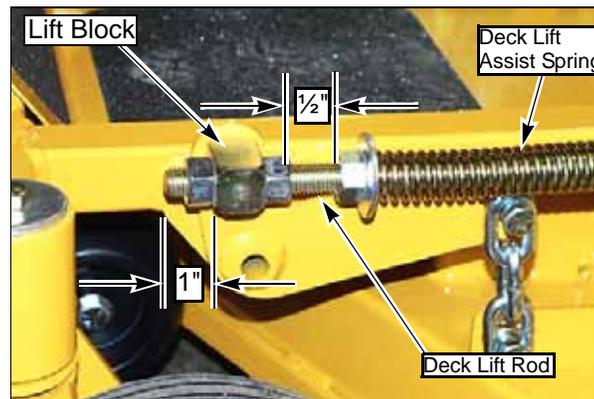


FIG. 77

19. Go to the **right rear** of the tractor.
20. Make sure that there is still slack in the chain. If not, loosen the two nuts on the block holding the threaded rod until there is slack in the deck lift chain (FIG. 75).
21. Tighten the appropriate nut until the chain just becomes tight, making sure that the deck stays tight against the 3" block.
22. Tighten the other nut on the opposite side of the block, and jam them tightly together against the block.
23. Go to the **left rear** of the tractor.
24. Make sure that there is still slack in the chain. If not, loosen the two nuts on the block holding the threaded rod until there is slack in the deck lift chain (FIG. 73).
25. Tighten the appropriate nut until the chain just becomes tight.
26. Tighten the other nut on the opposite side of the block, and jam them tightly together against the block.

-
27. Compress the deck lift assist springs so that there is $\frac{1}{2}$ " of space between the front nut on the spring and the rear nut on the deck lift block (FIG. 77). Typical both sides.
 28. When completed, all chains will be tight, and deck cutting height will be set to the deck height indicator.

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