



933301

36 HYDRO MID-15HP KAW KAI

933302

36 HYDRO MID-17HP ES KAW KAI

934301

48 HYDRO MID-17HP KAW KAI

934302

48 HYDRO MID-17HP ES KAW KAI

935301

54 HYDRO MID-17HP KAW KAI

935302

54 HYDRO MID-17HP ES KAW KAI

PARTS MANUAL

MAN 4158348
Rev. B 08-2007

OPERATOR'S MANUAL 4158461

CGC
Commercial Grounds Care, Inc.

PARTS SECTION

UPPER ENGINE DECK ASSY

Hydro
Midsized

FIGURE 1

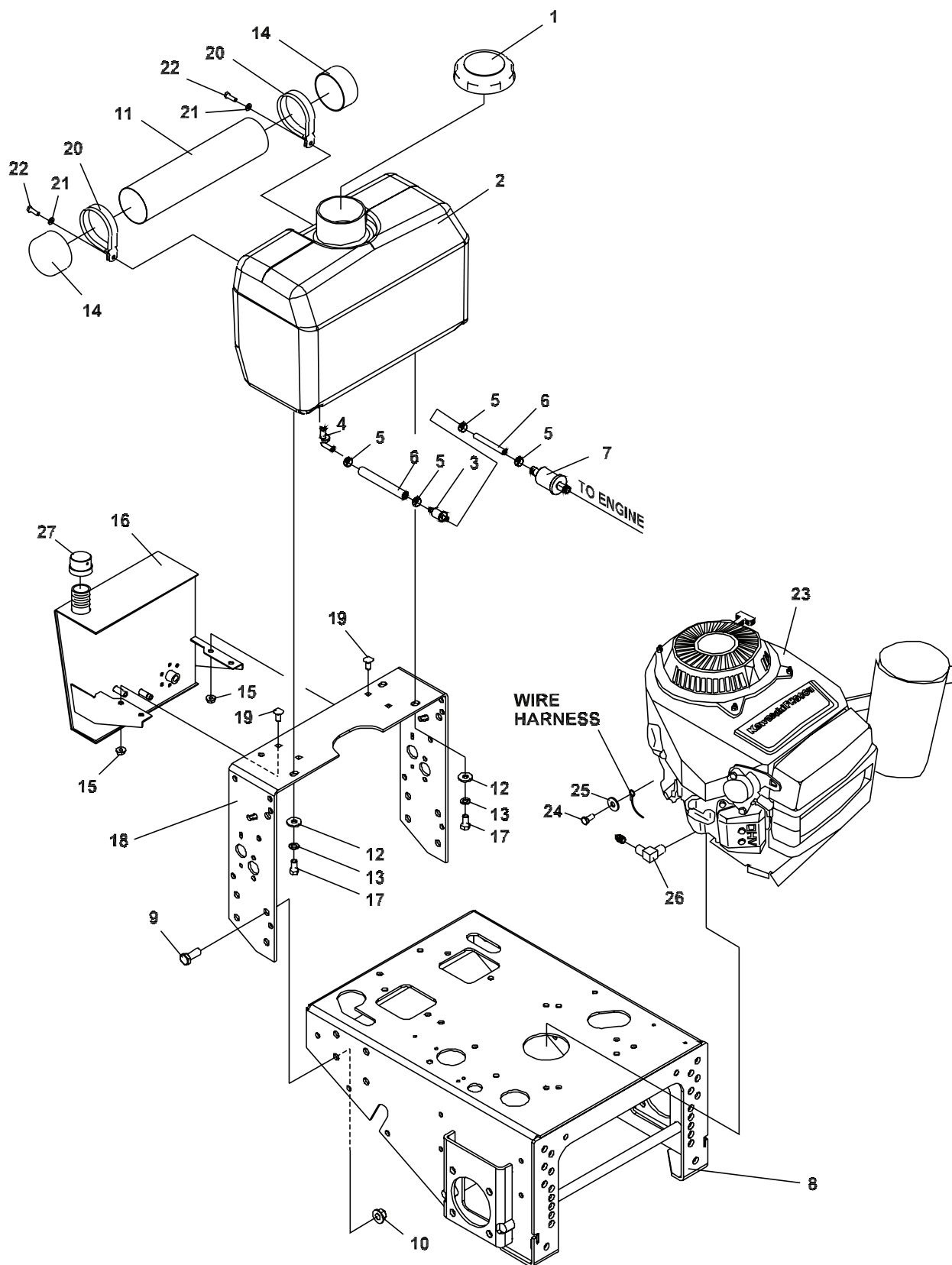


FIGURE 1

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
1-1	4130320	CAP-FUEL GASOLINE 3.5	1				
1-2	4163068	TANK-FUEL (INCLUDES ITEMS 3 & 4)	1				
1-3	4163016	GROMMET-FUEL TANK	1				
1-4	4163012	S FUEL SHUT-OFF VALV	1				
1-5	88042N	HOSE CLAMP	4				
1-6	4162977-007	HOSE,FUEL LINE 18"	1				
1-7	38666	FILTER, FUEL	1				
1-8	4131068.2	DECK-ENGINE HYDRO	1				
1-9	64123-39	BOLT-HEX 1/2-13X1-1/4	8				
1-10	64229-05	LOCKNUT, 1/2-13 NYLON	8				
1-11	2306144	S DOCU TUBE W/LAB	1				
1-12	64163-31	WASHER	4				
1-13	64006-03	LOCKWSHR-HELICAL 3/8	4				
1-14	38061A	COVER	2				
1-15	64229-02	LOCKNUT-NYLON 5/16-18	4				
1-16	2306127	S-HYD RESEVOIR W/LABS	1				
1-17	64123-15	BLT-HEX 3/8-16X3/4	4				
1-18	2722269.7	HANDLE-LOWER HYD	1				
1-19	64018-9	BLT-CRG 5/16-18 X 3/4	4				
1-20	38542	CLAMP-DOCU TUBE	2				
1-21	64006-01	LOCKWSHR-HELICAL 1/4	2				
1-22	64123-89	BLT-HEX 1/4-20 X 3/4	2				
1-23	4156980	ENG-15HP KAW KAI W/CHG	1				
	4156981	ENG-17HP KAW KAI W/CHG	1				
	4156982	ENG-17HP KAW KAI ES	1				
	2722214	FILTER-OIL					
	4153902	FILTER-AIR					
	4153903	FILTER-PRE					
* (SERVICE MANUAL 15 HP #99924-2056-01)							
* (SERVICE MANUAL 17 HP #99924-2045-08)							
1-24	64205-018	BLT MET M8-1.25X15	1				
1-25	64002-04	LOCKWASHER, EXT. 5/16	1				
1-26	48255-01	STREET ELBOW 90DEG 3/8	1				
1-27	69216.7	CAP-RESERVOIR	1				

* AVAILABLE THROUGH KAWASAKI DEALER

FIGURE 2

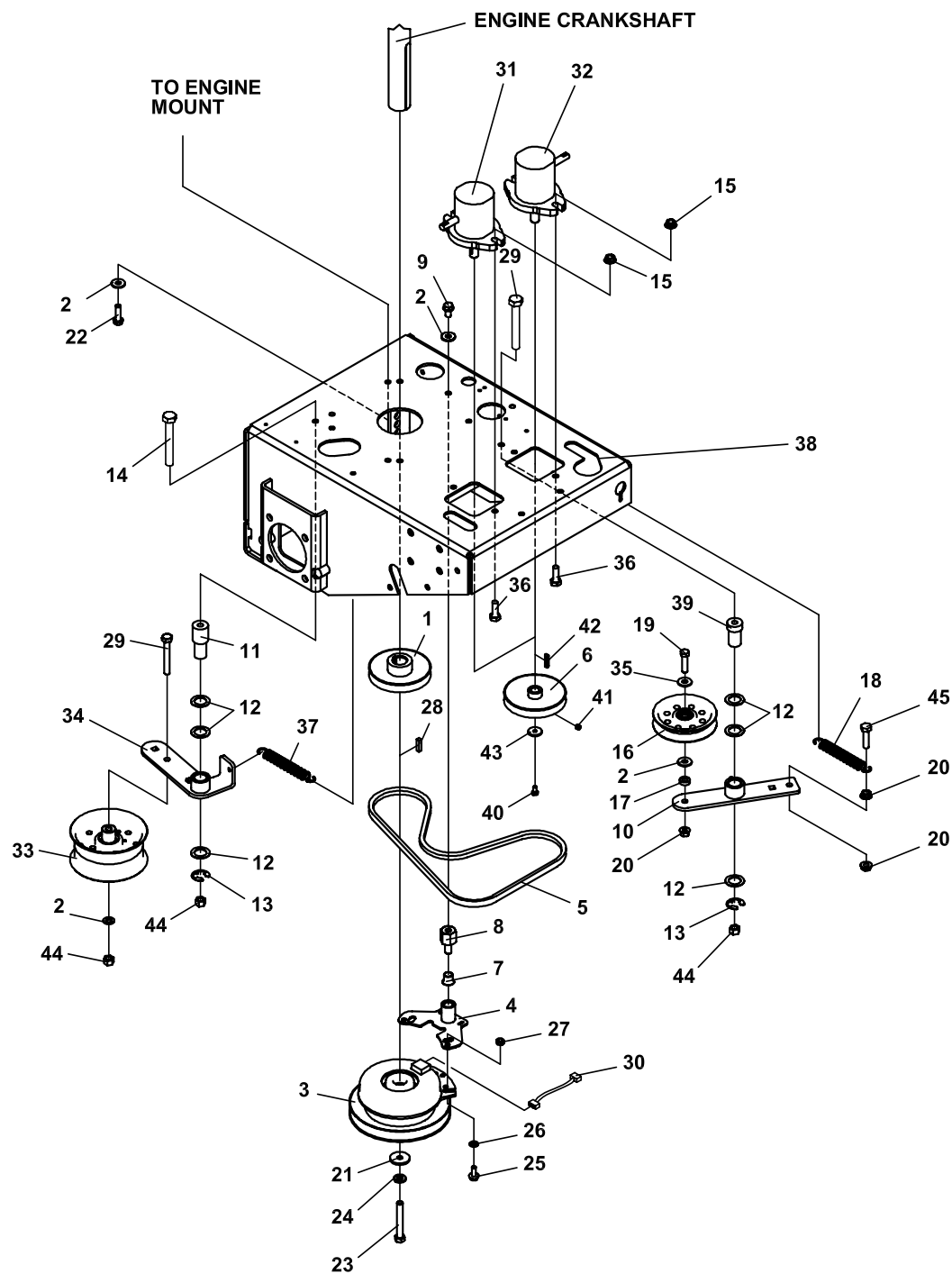


FIGURE 2

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
2-1	2721647	PULLEY-4.50E.O.D.	1				
2-2	64163-31	WASHER, 25/64 X 1 X 12	9				
2-3	2721110	CLUTCH-ELECTRIC (INCLUDES ITEM 30)	1				
2-4	2721331.7	WLDMT-CLUTCH STOP MID	1				
2-5	2721642	BELT-HA 49.0	1				
2-6	2722244	PULLEY- A SECTION 4.50	2				
2-7	38304-03	BRG-FLANGED PLASTIC	1				
2-8	4121540	PIN-CLUTCH	1				
2-9	64123-15	BOLT-3/8-16X3/4 HEX	1				
2-10	2721641.7	WLDMT-IDLER ARM	1				
2-11	4116712	PIN-PIVOT	1				
2-12	64163-65	WASHER 0.890 X 1.375	6				
2-13	64221-04	E-RING.875	2				
2-14	64123-138	BLT-HEX 3/8-16X3-3/4	1				
2-15	64268-03	NUT-FL NYL LOCK 3/8-16	4				
2-16	2308000	PULLEY-IDLER 4.00 EOD	1				
2-17	33148-01	SPACER	1				
2-18	38219	SPRING-TENSION	1				
2-19	64123-87	BLT-HEX 3/8-16 X 1-3/4	1				
2-20	64141-4	NUT-WLF 3/8-16	3				
2-21	64163-51	WSHR.453 X 1.38 X 7GA	1				
2-22	64197-005	BLT-TDFM 3/8-16X1-1/4	4				
2-23	64123-155	BLT-HEX 7/16-20 X 3	1				
2-24	64006-06	LOCKWSHR-HELICAL 7/1	1				
2-25	64123-54	BOLT, 5/16-18X3/4 HEX	2				
2-26	64163-55	WASHER .328X.75X14 GA	4				
2-27	64229-02	LOCKNUT-NYLON 5/16-18	2				
2-28	64164-12	1/4X1/4X1 SQ END KEY	1				
2-29	64123-75	BOLT, 3/8-16X3 HEX	2				
2-30	2720949	ASSY-CLUTCH WIRE	1				
2-31	4163316	PUMP-HYDRO LH	1				
2-32	4163317	PUMP-HYDRO RH	1				
2-33	2721541	PULLEY-IDLER 5 IN	1				
2-34	2721401.7	WLDMT-IDLER ARM	1				
2-35	64163-61	WSHR .81X.406X16GA	1				
2-36	64123-16	BLT-HEX 3/8-16X1-1/4	4				
2-37	2188131	SPRING-EXTENSION	1				
2-38	4131068.2	DECK-ENGINE HYDRO	1				
2-39	4116691	PIN-PIVOT	1				
2-40	64205-013	BLT-MET M6-1 X 12	2				
2-41	64044-6	SCREW-SET 5/16-18X1/4	4				
2-42	64238-03	KEY-MET 5MM SQ X 28	2				
2-43	64209-09	WASHER-CONICAL SPRING	2				
2-44	64229-03	LOCKNUT-NYLON 3/8-16	3				
2-45	64123-70	BOLT-HEX 3/8-16X1-1/2	1				

FIGURE 3

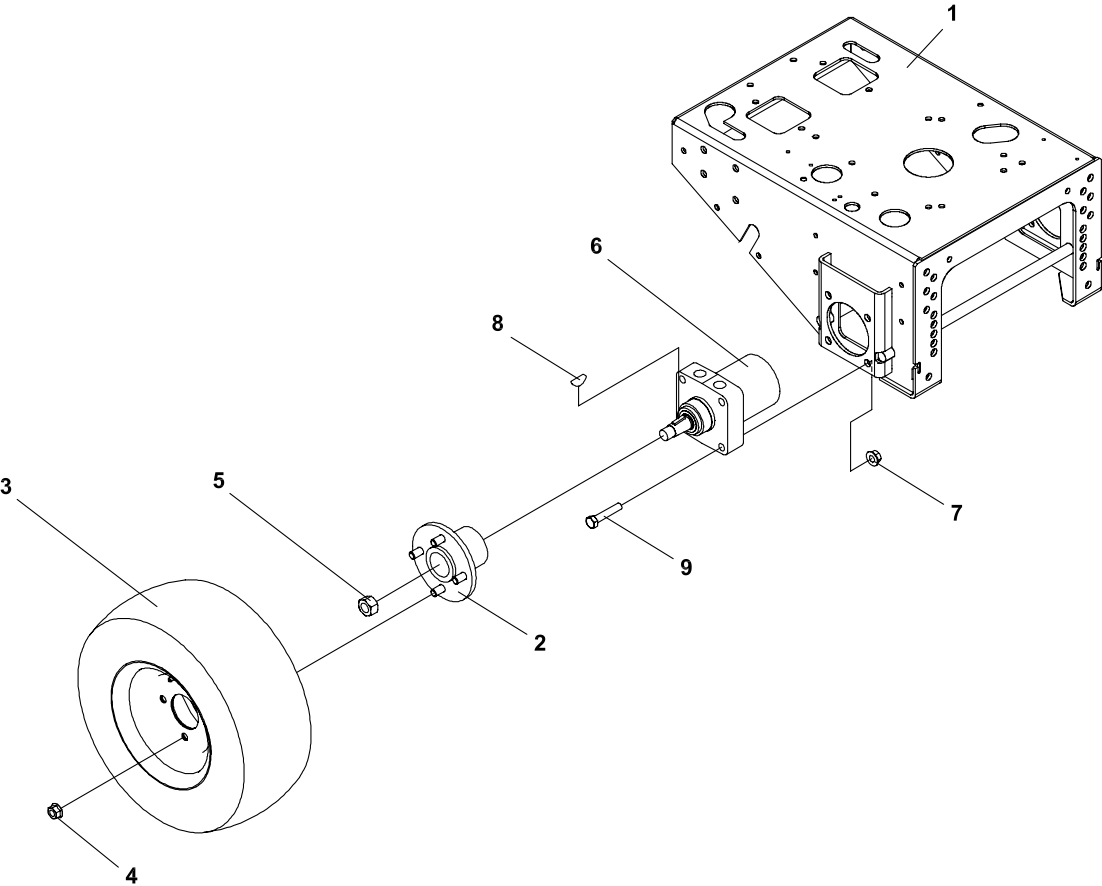


FIGURE 3

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
3-1	4131068.2	DECK-ENGINE HYDRO	1				
3-2	2721620.7	WLDMT-HUB	2				
3-3	2721956	ASSY-WHEEL 16 X 7.50 X 8	2				
	2721956-01	TIRE-16X7.50 X 8 MLTI TRC	1				
	2721956-02	WHEEL W/ DUAL VALVES	1				
3-4	64267-01	NUT-HEX FLANGED 1/2-20	8				
3-5	64025-06	NUT-HEX 3/4-16 2A	2				
3-6	2308051	MOTOR-WHEEL ROSS MF	2				
3-7	64141-13	NUT WLF 1/2-13	8				
3-8	64164-28	#808 WOODRUFF KEY	2				
3-9	64123-72	BLT-HEX 1/2-13X2-1/2	8				

FIGURE 4

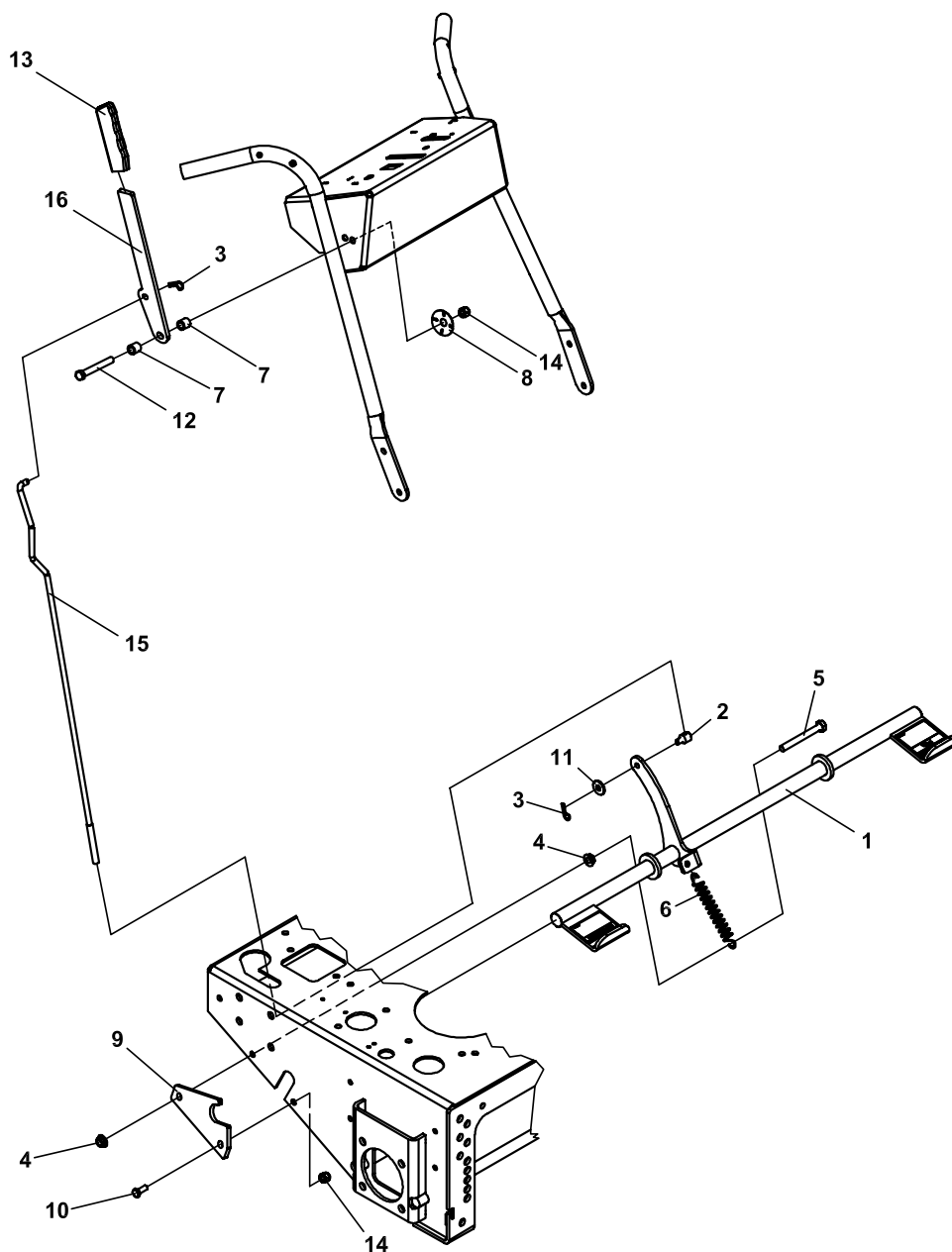


FIGURE 4

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
4-1	4131746	BRAKE SHAFT W/LABS	1				
4-2	33103	SWIVEL	1				
4-3	64168-2	COTTER-HAIRPIN.08X1.19	2				
4-4	64001-6	NUT-HEX JAM,3/8-16	2				
4-5	64123-138	BLT-HEX 3/8-16X3-3/4	1				
4-6	2188131	SPRING-EXTENSION	1				
4-7	2183071-01	SPACER-15.88X10.32X16	2				
4-8	64171-2	WAVE WASHER	1				
4-9	4131072.7	PLATE-BRK SHFT RETNR	2				
4-10	64123-50	BOLT-HEX 3/8-16X1	3				
4-11	64163-02	WSHR-.325 X .596 X 11GA	1				
4-12	64123-82	BOLT-HEX 3/8-16X2-1/2	1				
4-13	38404-01	GRIP-CONTROL LEVER	1				
4-14	64229-03	LOCKNUT-NYLON 3/8-16	5				
4-15	4132134	ROD-PARK BRAKE	1				
4-16	2721632.7	LEVER-BRAKE	1				

RECOIL START UPPER HANDLE

Hydro
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FIGURE 5

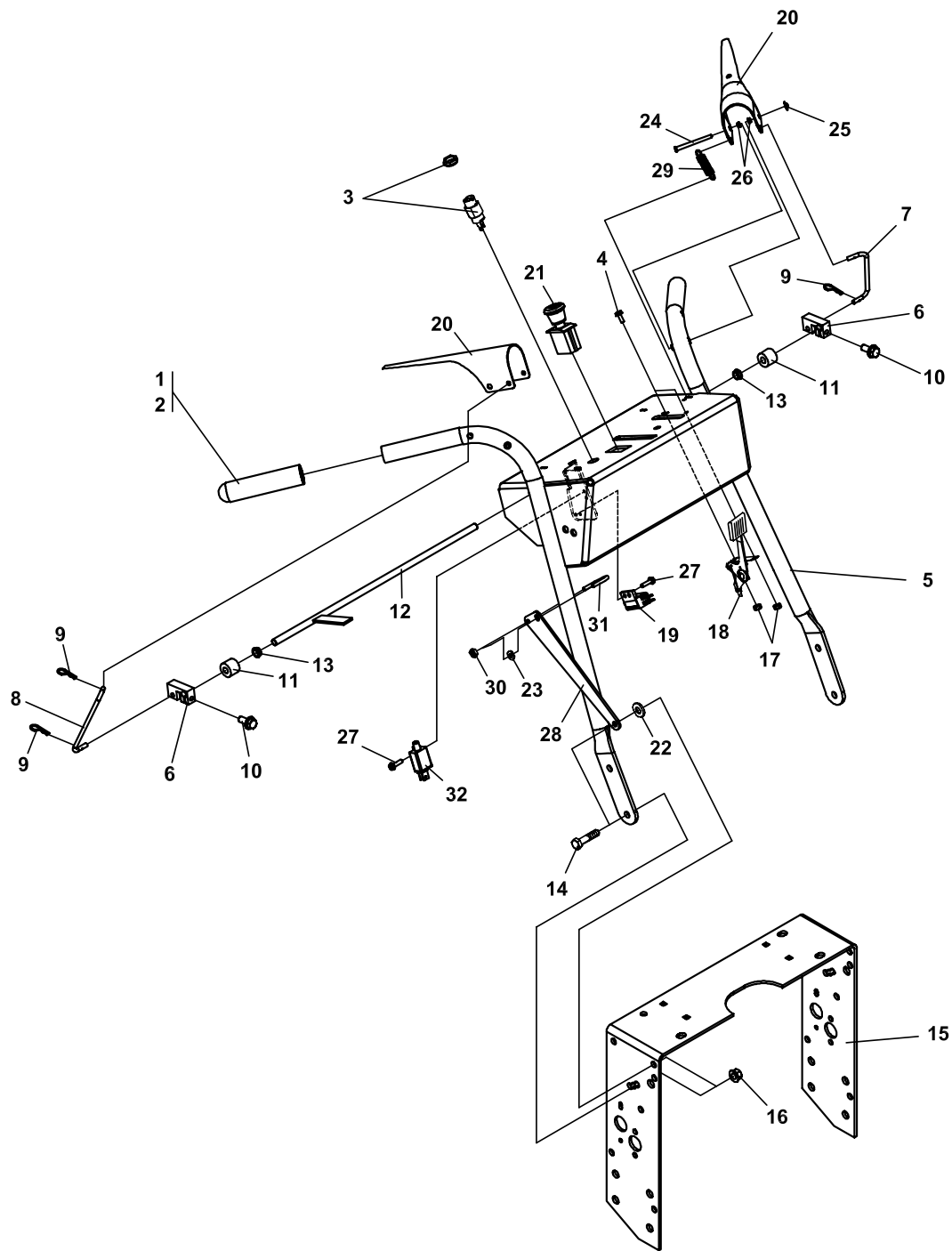


FIGURE 5

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
5-1	PL5029	GRIP-HANDLE	2				
5-2	* 2308121	ADHESIVE-3 GRAM TUBE (USE WITH PL5029 GRIP)	1				
5-3	38148	SWITCH-ENGINE STOP	1				
5-4	64152-46	SCR-SLT HH 10-24X1/2	2				
5-5	4122150	S UPR HNDL W/LABS, HYD	1				
5-6	2303023	CONNECTOR-OP	2				
5-7	4122104	ROD-HANDLE LINK, LH	1				
5-8	4122107	ROD-HANDLE LINK, RH	1				
5-9	64168-2	COTTER-HAIRPIN.08X1.19	4				
5-10	64197-002	BLT-TDFM 1/4-20X3/4	2				
5-11	33030-09	IDLER-BUSHING	2				
5-12	4122056	WLDMT-OP PRESENCE	1				
5-13	38371-01	BRG-NYLINER 3/8	2				
5-14	64123-50	BOLT-HEX 3/8-16X1	4				
5-15	2722269.2	HANDLE-LOWER	1				
5-16	64141-4	NUT-WLF 3/8-16	4				
5-17	64025-15	NUT-HEX #10-24 KEPS	2				
5-18	38357-09	CONTROL-THROTTLE	1				
5-19	38383	SWITCH-N.C.	2				
5-20	2302152.7	HNDL-OP PRESENT	2				
5-21	2721505	SWITCH-PTO	1				
5-22	64163-83	WASHER-.406 X 1.00 X.25	2				
5-23	64163-03	WSHR-.256IDX.62ODX18GA	2				
5-24	64188-44	PIN-CLEVIS 3/16 X 2.25	2				
5-25	64175-01	PUSHNUT-3/16 ROD	2				
5-26	38371-03	BRG-NYLINER 3/16	4				
5-27	64197-015	BLT-TDFM 10-32X1/2	4				
5-28	2722062.7	BRACE-HANDLE	2				
5-29	2308065	SPRING-TENSION	2				
5-30	64229-01	LOCKNUT-NYLON 1/4-20	4				
5-31	64225-03	U-BOLT	2				
5-32	108208	SWITCH DBL POLE NC/NO	1				

* NOT ILLUSTRATED

FIGURE 6

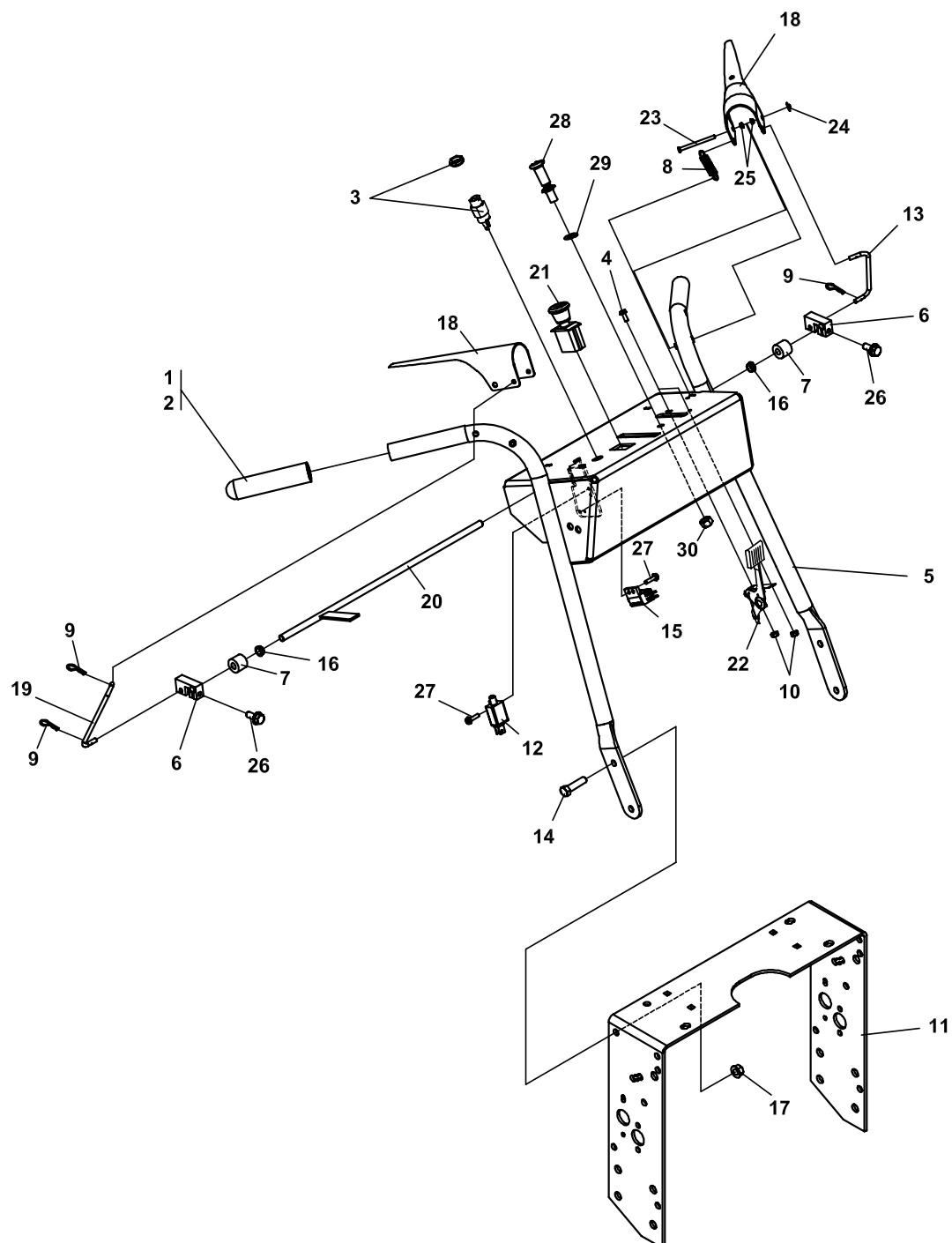


FIGURE 6

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
6-1	PL5029	GRIP-HANDLE	2				
6-2 *	2308121	ADHESIVE-3 GRAM TUBE (USE WITH PL5029 GRIP)	1				
6-3	128010	SWITCH	1				
6-4	64152-46	SCR-SLT HH 10-24X1/2	2				
6-5	4122148	S UPRHNDL W/LABS W/CHK (USED ON 930324A ONLY)	1				
	4122150	S UPR HNDL W/LABS, HYD (USED ON 930328A ONLY)	1				
6-6	2303023	CONNECTOR-OP	2				
6-7	33030-09	IDLER-BUSHING	2				
6-8	2308065	SPRING-TENSION	1				
6-9	64168-2	COTTER-HAIRPIN.08X1.19	4				
6-10	64025-15	NUT-HEX #10-24 KEPS	2				
6-11	2722269.2	HANDLE-LOWER	1				
6-12	2308094	SWITCH-NCNC DBL POLE	1				
6-13	4122104	ROD-HANDLE LINK, LH	1				
6-14	64123-50	BOLT, 3/8-16X1 HEX	4				
6-15	108208	SWITCH DBL POLE	1				
6-16	38371-01	BRG-NYLINER 3/8	2				
6-17	64141-4	NUT-WLF 3/8-16	4				
6-18	2302152.7	HANDLE-OP	2				
6-19	4122107	ROD-HANDLE LINK, RH	1				
6-20	4122056	WLDMT-OP PRESENCE	1				
6-21	2721505	SWITCH-PTO	1				
6-22	118020-16	CABLE-THROTTLE 48.00	1				
6-23	64188-44	PIN-CLEVIS 3/16 X 2.25	2				
6-24	64175-01	PUSHNUT-3/16 ROD	2				
6-25	38371-03	BRG-NYLINER 3/16	4				
6-26	64197-002	BLT-TDFM 1/4-20X3/4	2				
6-27	64197-015	BLT-TDFM 10-32X1/2	4				
	(ITEMS 28-30 USED ON 930324A ONLY)						
6-28	108009-03	CONTROL-CHOKE 51	1				
6-29	64163-31	WASHER, 25/64X1X12	1				
6-30	64025-04	NUT-3/8-24 HEX	1				

* NOT ILLUSTRATED

FIGURE 7

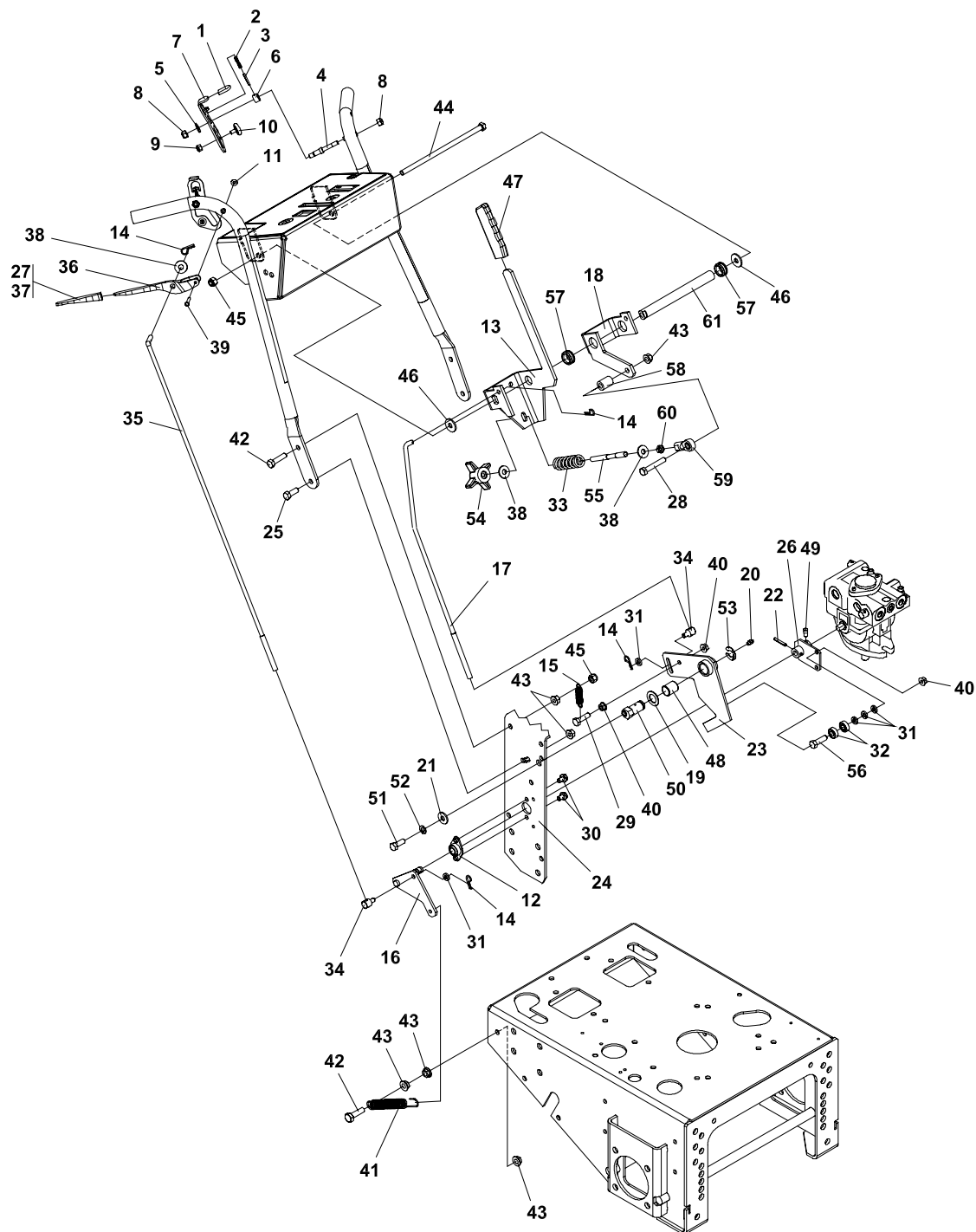


FIGURE 7

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
7-1	2722426	GRIP-TRACTION LOCK	2	7-41	4117212	SPRING EXTENSION	2
7-2	38189	SPRING-COMPRESSION	2	7-42	64123-70	BOLT-HEX 3/8-16X1-1/2	4
7-3	64061-37	ROLL PIN-1/8 X 1.00 SS	2	7-43	64141-4	NUT-WLF 3/8-16	11
7-4	2303076	STUD-DOUBLE ENDED	2	7-44	64123-202	BLT-HEX 3/8-16 X 9	1
7-5	62464-5A	WASHER, THRUST 5/16X3/4	2	7-45	64229-03	NUT-NYLOCK 3/8-16	3
7-6	33243	SPACER	2	7-46	2308066	FRICTION WASHER	2
7-7	2722242	LATCH-ROLLER LH HYDRO	1	7-47	38404-01	GRIP, CONTROL LEVER	1
*	2722243	LATCH-ROLLER RH HYDRO	1	7-48	2308076-02	BEARING-PLASTIC	2
7-8	64229-02	5/16-18 NYLON LOCKNUT	4	7-49	64192-04	SET SCREW 5/16-18X5/8	2
7-9	64229-01	LOCKNUT NYL 1/4-20	2	7-50	2303058	ECCENTRIC SHAFT W/ZRK	2
7-10	2308002	BRG-RADIAL W/THD STUD	2	7-51	64123-02	BLT HEX 3/8-24 X 1	2
7-11	64175-01	PUSH NUT	2	7-52	64006-03	WASHER, 3/8 HELICL LCK	2
7-12	2308080	BEARING SELF ALIGNED	2	7-53	64144-16	RING, CLIP-.75X.062	2
7-13	2721843.7	ARM-RH SPEED CONTROL	1	7-54	38524	KNOB-4 PRONG 3/8-16	1
7-14	64168-2	HAIRPIN COTTER	7	7-55	2721854	STUD-3/8-16X 3/8-24 4.5LG	1
7-15	2308065	SPRING EXTENSION	2	7-56	64123-69	BOLT-5/16-18X1-1/2 HEX	2
7-16	2721660.7	WLDMT-PUMP ARM RH	1	7-57	118047-09	BUSHING-FLIP LOK.75ID	2
*	2721622.7	WLDMT-PUMP ARM LH	1	7-58	33030-08	BUSHING-IDLER7/8X3/8X1	1
7-17	2722305	ROD-SPEED CONTROL	2	7-59	138011	BALL JOINT	1
7-18	2721842.7	ARM-LH SPEED CONTROL	1	7-60	64001-2	NUT 3/8-16	1
7-19	64163-06	WSHR.768/.756X1.25X14GA	2	7-61	2721844	BUSHING-SPEED CONTROL	1
7-20	85010N	ZERK, 1/4-28 STR	2	TRACTION LOCK ASSY'S ARE ALSO AVAILABLE			
7-21	64163-61	WSHR .81X.406X16GA	2	4113565	S-TRCTN LOCK ASSY RH	1	
7-22	64061-28	ROLL PIN 3/16 X 1 1/4	2	(INCLUDES ITEMS 1-4, 6, 7, 9-12)			
7-23	2721617.7	WLDMT-SPEED CONTROL	2	4113564	S-TRCTN LOCK ASSY LH	1	
7-24	2722269.2	HANDLE-LOWER	1	(INCLUDES ITEMS 1-4, 6, 7, 9-12)			
7-25	64123-50	BOLT, 3/8-16X1 HEX	2				
7-26	2306081.7	WLDMT PUMP ARM	2				
7-27 *	2308121	ADHESIVE	1				
(USE WITH 38009N GRIP)							
7-28	64123-100	BOLT-3/8-16X2-1/4 HEX	1				
7-29	64123-68	BLT-HEX 5/16-18 X 1	2				
7-30	64139-13	BLT-WLF 5/16-18X1/2	4				
7-31	64163-02	WSHR 21/64X19/32X11 GA	11				
7-32	38372	BEARING BALL	4				
7-33	2720312	SPRING-COMP IDLER PLT	1				
7-34	33103	SWIVEL	4				
7-35	4122108	ROD-TRCTN CNTRL, HYDRO	2				
7-36	31032	LEVER TRACTION CNTRL	2				
7-37	38009N	GRIP TRACTION CNTRL	2				
7-38	64163-31	WASH 25/64X1X12 GA	4				
7-39	64188-44	PIN-CLEVIS 3/16 X 2.25	2				
7-40	64141-6	NUT-WLF 5/16-18	6				

* NOT ILLUSTRATED

FIGURE 8

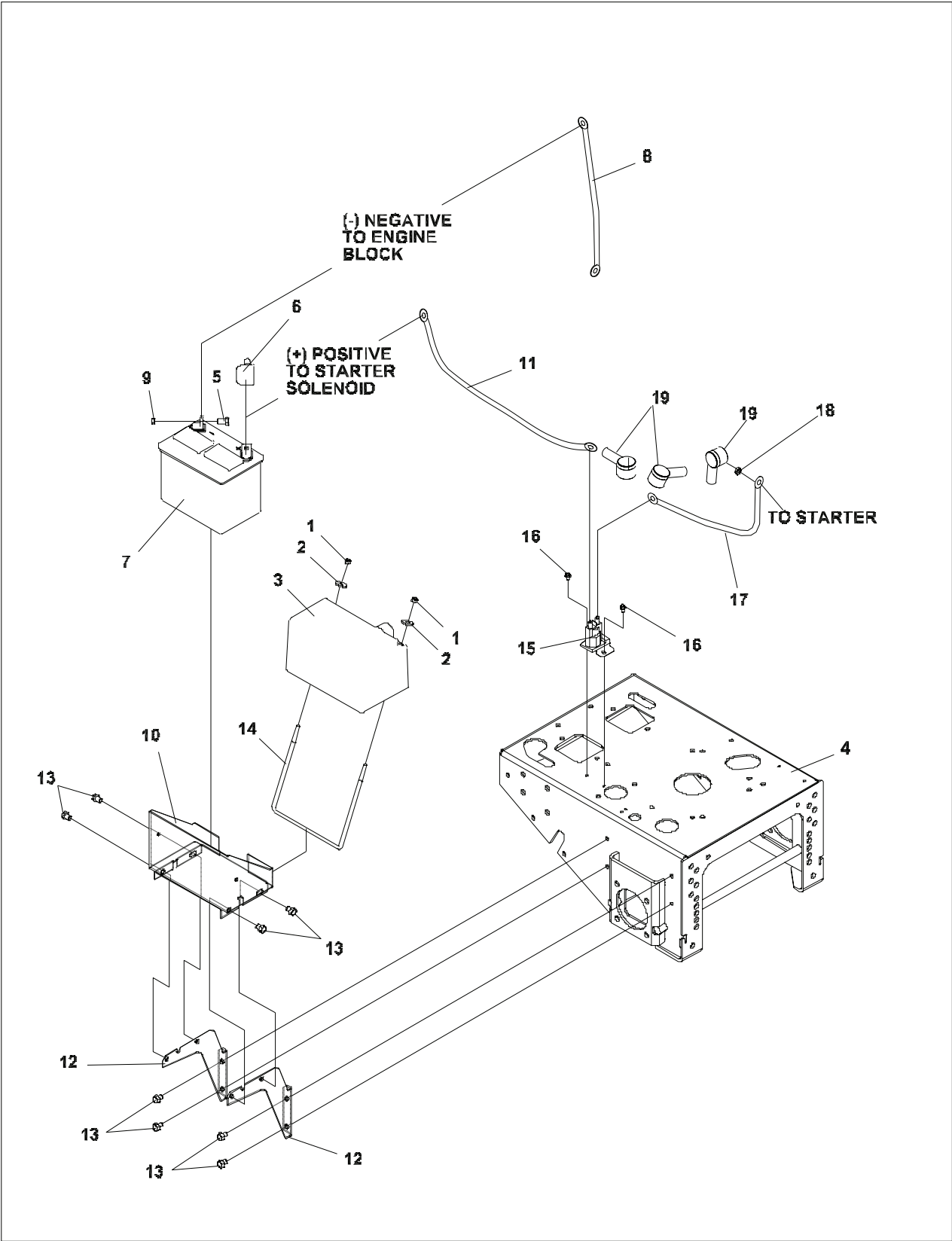


FIGURE 8

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
8-1	64229-02	LOCKNUT-NYLON 5/16-18	2				
8-2	64163-29	WASHER	2				
8-3	128035	COVER-BATTERY	1				
8-4	4131068.2	DECK-ENGINE HYDRO	1				
8-5	64123-54	BOLT, 5/16-18X3/4 HEX	2				
8-6	112386	BOOT-BATTERY TERM POS	1				
8-7	108055	BATTERY	1				
8-8	108061-16	CABLE-BTTRY 31.5 BLACK	1				
8-9	64025-02	NUT-HEX 5/16-18	2				
8-10	4113741	S-TRAY, BATTERY	1				
8-11	2722227-03	CABLE-BTTRY W/CONDUIT	1				
8-12	2722202.7	SUPPORT-BATT TRAY	2				
8-13	64197-016	BLT-TDFM 3/8-16X1/2	8				
8-14	123026	ROD,BATTERY HLD DWN	1				
8-15	38665	SOLENOID	1				
8-16	64152-23	1/4-20X3/8 LG SP SCREW	2				
8-17	108061-15	CABLE-BATTERY 6.5 RED	1				
8-18	64141-2	NUT-WLF 1/4-20	1				
8-19	2308095	COVER, TERMINAL	3				

FIGURE 9

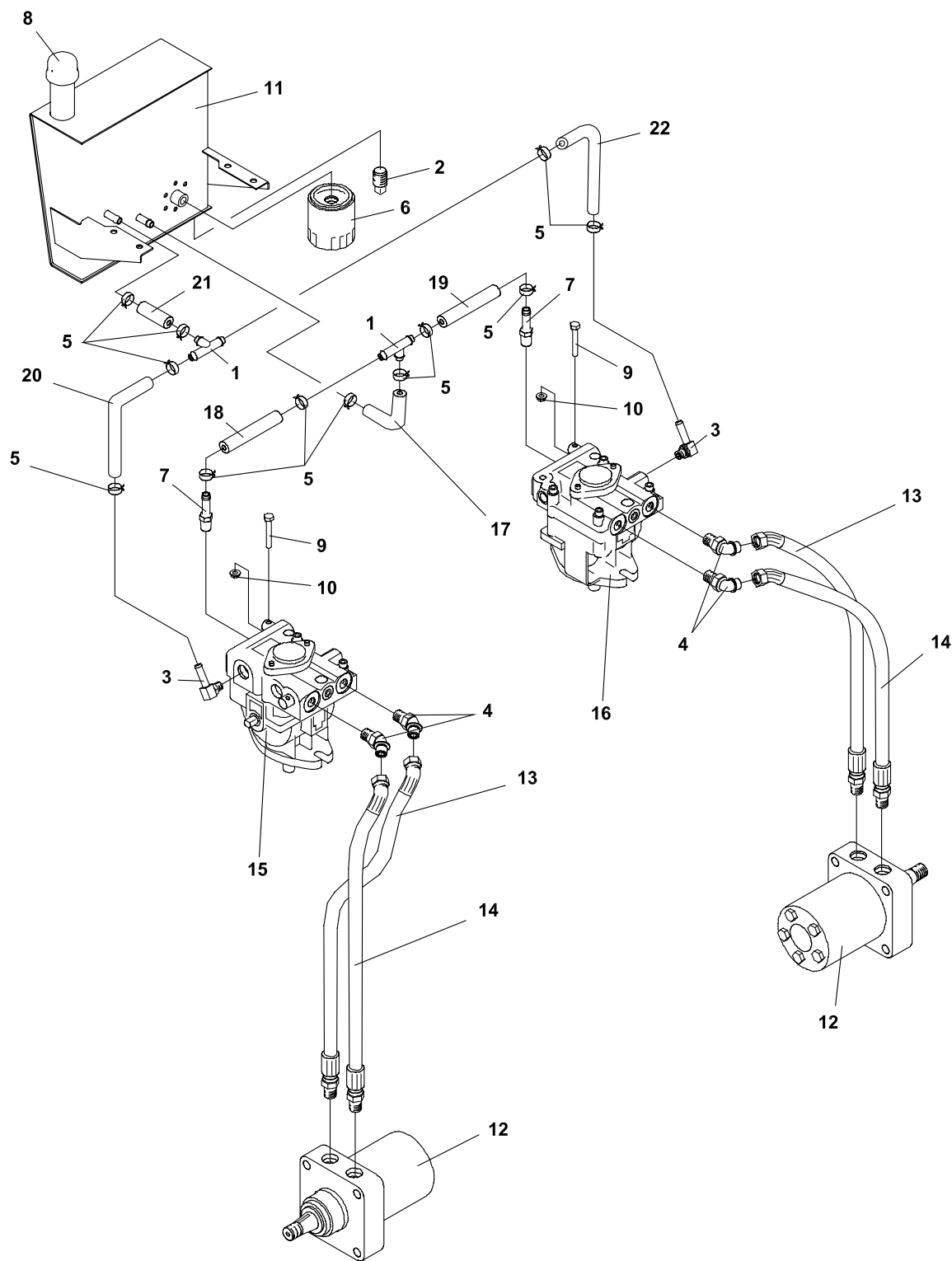


FIGURE 9

ITEM	PART NO.	DESCRIPTION	QTY
9-1	58026-01	3-WAY CONNECTOR	2
9-2	108029	PLUG, MAGNETIC	1
9-3	158058-04	FITTING-90 BARB, ADJ.	2
9-4	108205-02	ELBW-MALE 45 8X8 37-ORB	4
9-5	88042-04	CLAMP-HOSE 5/8"	12
9-6	2720396	FLTR, 25 MCRN SM CAM	1
9-7	69060-01	FTG-BARB 9/16 X 3/8 ST	2
9-8	69216.7	CAP-RESERVOIR	1
9-9	64123-60	BOLT, 1/4-20X2 HEX	2
9-10	64229-01	LOCKNUT-NYLON 1/4-20	2
9-11	2306127	S HYD RESER W/LABS	1
9-12	2308051	MOTOR WHEEL ROSS	2
9-13	2692300-01	HOSE-1/2 37/ORB X 18.5 LG	2
9-14	2692300-02	HOSE-1/2 37/ORB X 20.5 LG	2
9-15	4163317	PUMP-HYDRO RH (SEE FIG 16 FOR PARTS BREAKDOWN)	1
9-16	4163316	PUMP-HYDRO LH (SEE FIG 16 FOR PARTS BREAKDOWN)	1
(69053-05 IS A SERVICEABLE LENGTH OF 55")			
9-17	69053-05	3/8 HI TEMP HOSE 17.0"	1
9-18	69053-05	3/8 HI TEMP HOSE 5.0"	1
9-19	69053-05	3/8 HI TEMP HOSE 5.0"	1
9-20	69053-05	3/8 HI TEMP HOSE 7.5"	1
9-21	69053-05	3/8 HI TEMP HOSE 6.8"	1
9-22	69053-05	3/8 HI TEMP HOSE 12.0"	1

SERVICEABLE HYDRAULIC O-RINGS

SAE PORT 'O' RING		
PART NUMBER	THREAD SIZE	AS-568#
158061-10	9/16-18	-906
158061-11	3/4-16	-908
158061-12	7/8-14	-910
158061-13	1-1/16-12	-912
158061-14	1-5/16-12	-916
158061-16	1-5/8-12	-920
158061-03	1-7/8-12	-924

NOTE:
DO NOT use teflon tape on any hydraulic fittings.
 Use a liquid pipe sealant.

FIGURE 10

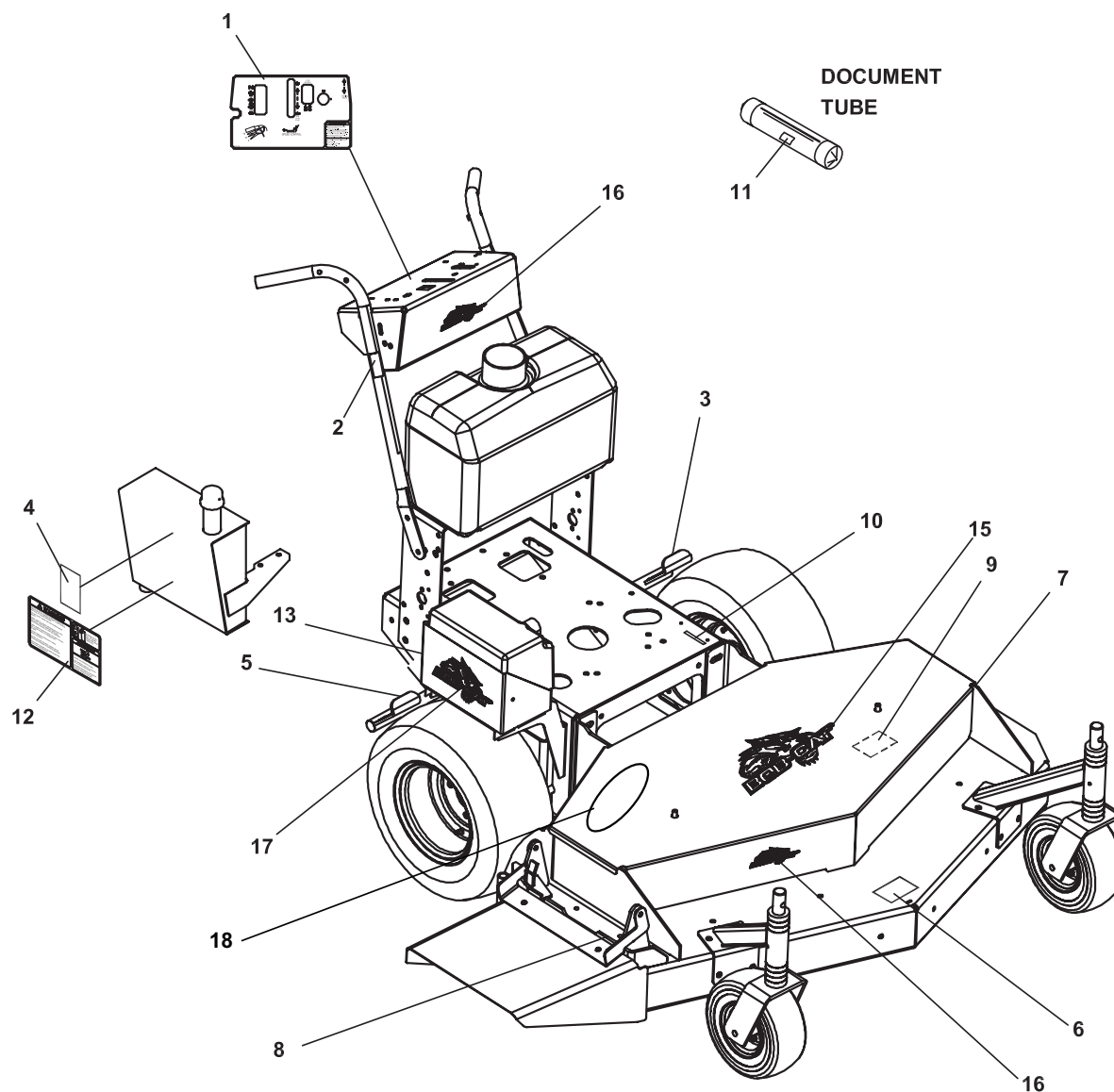


FIGURE 10

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
10-1	4122168	LABEL-CONTROL PNL HYD	1				
10-2	2000672	LABEL-PARKING BRAKE	1				
10-3	2000570	LABEL-WARN FUEL PICT	1				
10-4	340830	LABEL-CAUTION SPANISH	1				
10-5	2000571	LABEL-IMPORTANT	1				
10-6	4116761	LABEL-MADE IN USA	1				
10-7	2000572	LABEL-WARNING BLADES	1				
10-8	2000677	LABEL-DANGER/WARNING	1				
10-9	2000678	LABEL-ROT PRTS/B-WSHR	1				
		(LOCATED UNDER BELT COVER)					
10-10	2000704	LABEL-MIDSIZE PATENT	1				
10-11	2000673	LABEL - OP MAN/TIRES	1				
10-12	2000661	LABEL-HYD TANK WARN	1				
10-13	2000590	LABEL-WARNING BATTERY	1				
10-14*	4110260	LABEL-TRACKING CNTRL	1				
10-15	4158401	LABEL-BOBCAT, LARGE	1				
10-16	4158402	LABEL-BOBCAT, SMALL	2				
10-17	4158400	LABEL-BOBCAT, MEDIUM	1				
10-18	4163037	LABEL-DURADECK	1				

* NOT ILLUSTRATED

WIRE DIAGRAM-RECOIL START

Hydro
Midsize

FIGURE 11

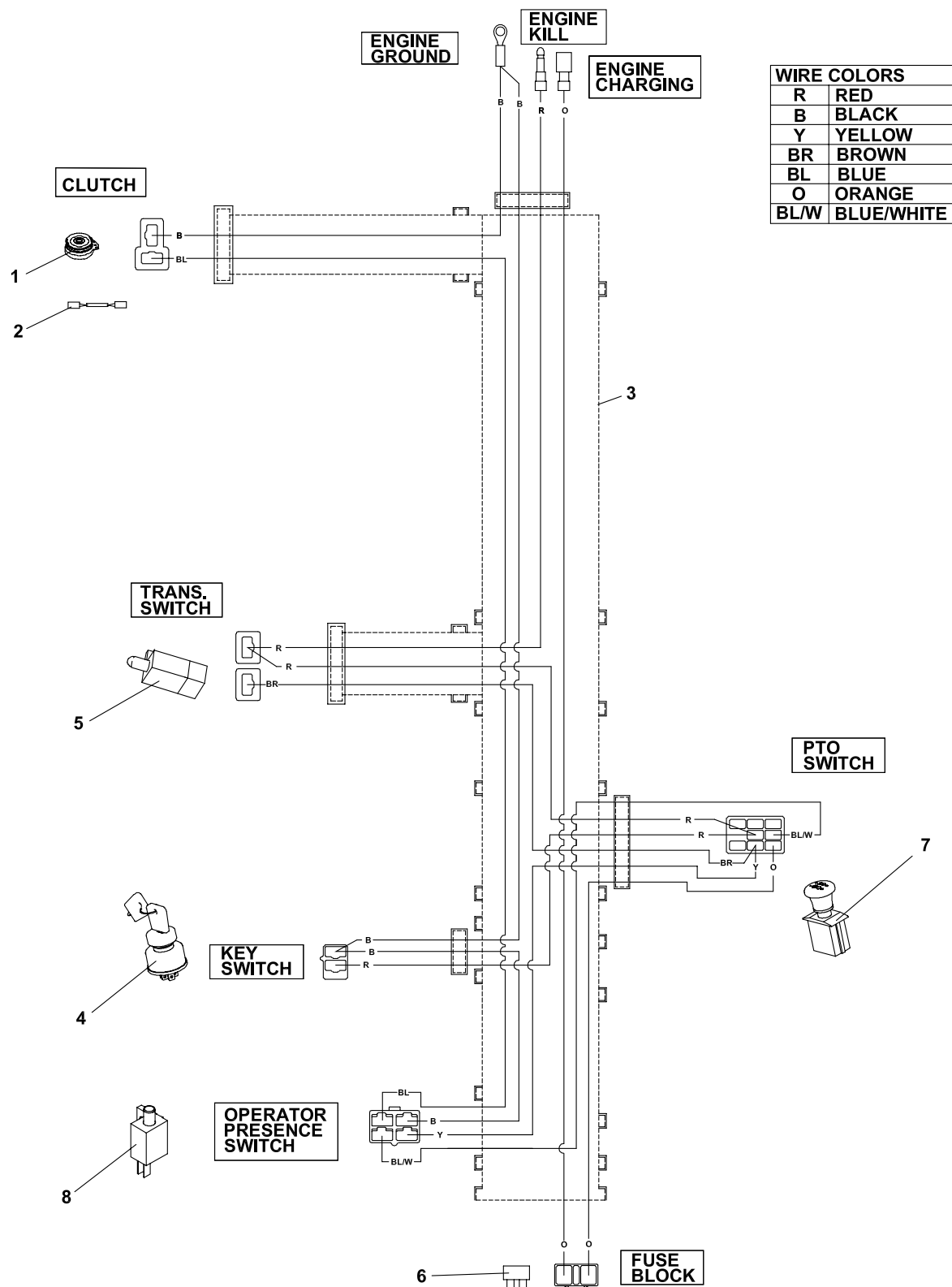


FIGURE 11

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
11-1	2721110	CLUTCH-ELECTRIC (INCLUDES ITEM 2)	1				
11-2	2720949	ASSY-CLUTCH WIRE	1				
11-3	4131438	HARNESS-MIDSIZE (INCLUDES ITEM 6)	1				
11-4	38148	SWITCH-ENGINE STOP	1				
11-5	38383	SWITCH-N.C.	1				
11-6	148082-10	FUSE 10 AMP	1				
11-7	2721505	SWITCH-PTO	1				
11-8	108208	SWITCH	1				

WIRE DIAGRAM-ELECTRIC START

Hydro
Midsize

FIGURE 12

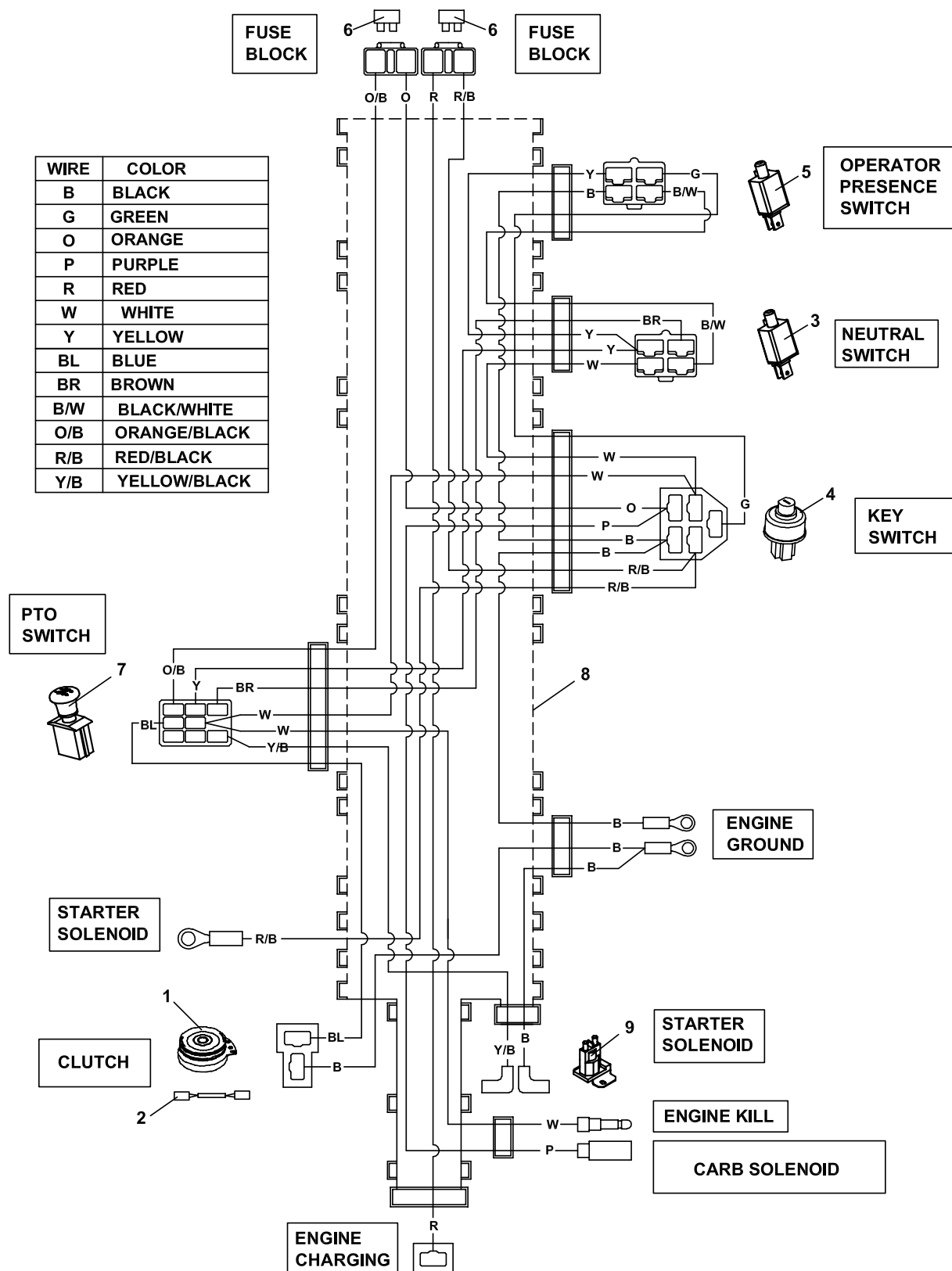


FIGURE 12

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
12-1	2721110	CLUTCH-ELECTRIC (INCLUDES ITEM 2)	1				
12-2	2720949	ASSY-CLUTCH WIRE	1				
12-3	108208	SWITCH DBL POLE	1				
12-4	128010	KEY SWITCH	1				
12-5	2308094	SWITCH-NCNC DBL POLE	1				
12-6	148082-20	FUSE 20 AMP	2				
12-7	2721505	SWITCH-PTO	1				
12-8	4128561	HARNESS-HYDRO MAIN (INCLUDES QTY OF 2 OF ITEM 6)	1				
12-9	38665	SOLENOID-STARTER	1				
12-10*	108061-15	CABLE-BATTERY 6.5 RED (FROM STARTER SOLENOID TO STARTER)	1				
12-11*	2722227-03	CABLE-BTTRY W/CONDUIT (FROM (+) POSITIVE BATTERY TERMINAL TO STARTER SOLENOID)	1				
12-12*	108061-16	CABLE-BTTRY 31.5 BLACK (FROM (-) NEGATIVE BATTERY TERMINAL TO ENGINE BLOCK)	1				

* NOT ILLUSTRATED

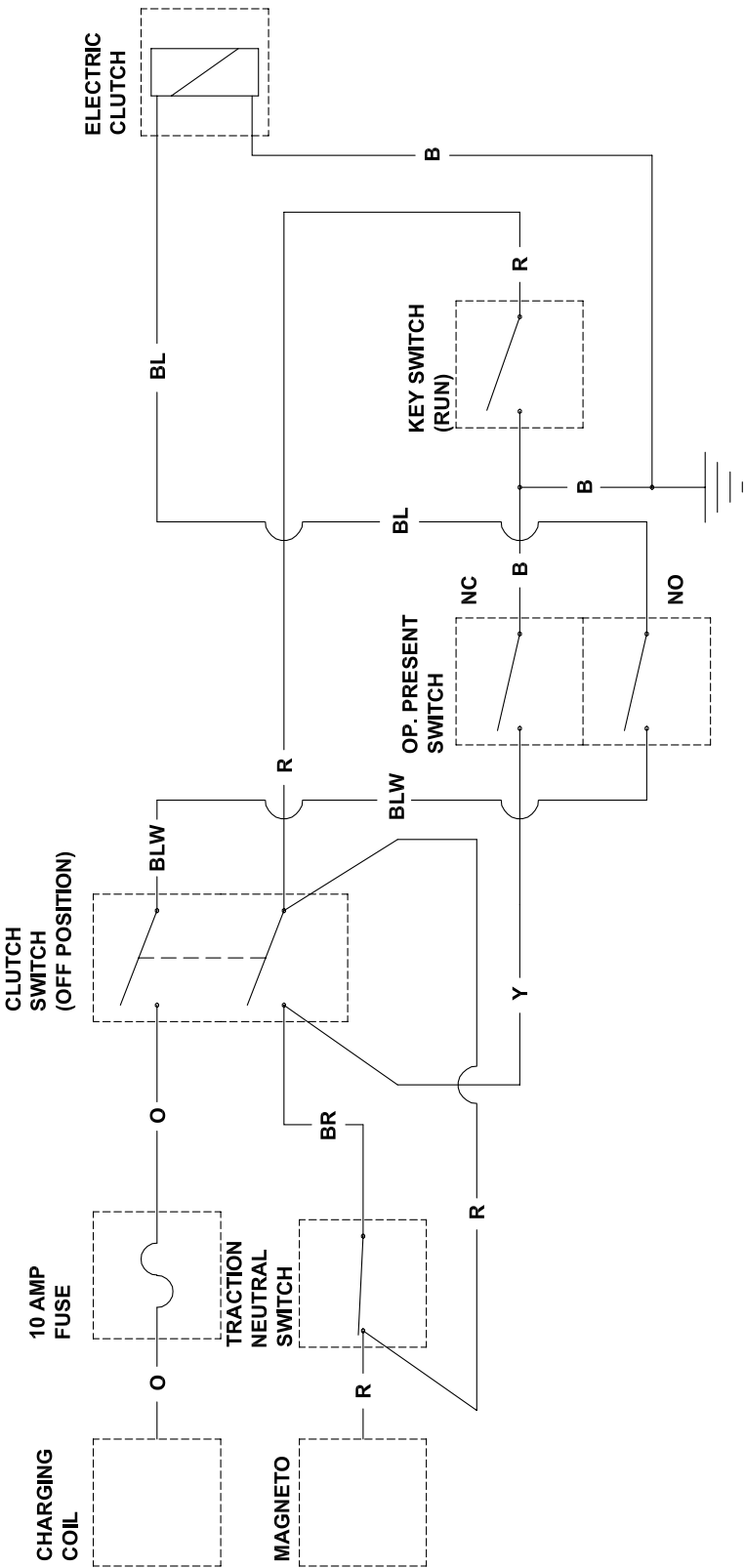
WIRING SCHEMATIC-RECOIL START

Hydro
Midsized

FIGURE 13

REF. 4115548

WIRE	COLOR
R	RED
B	BLACK
Y	YELLOW
BR	BROWN
BL	BLUE
O	ORANGE
BLW	BLUE W/WHITE STRIPE



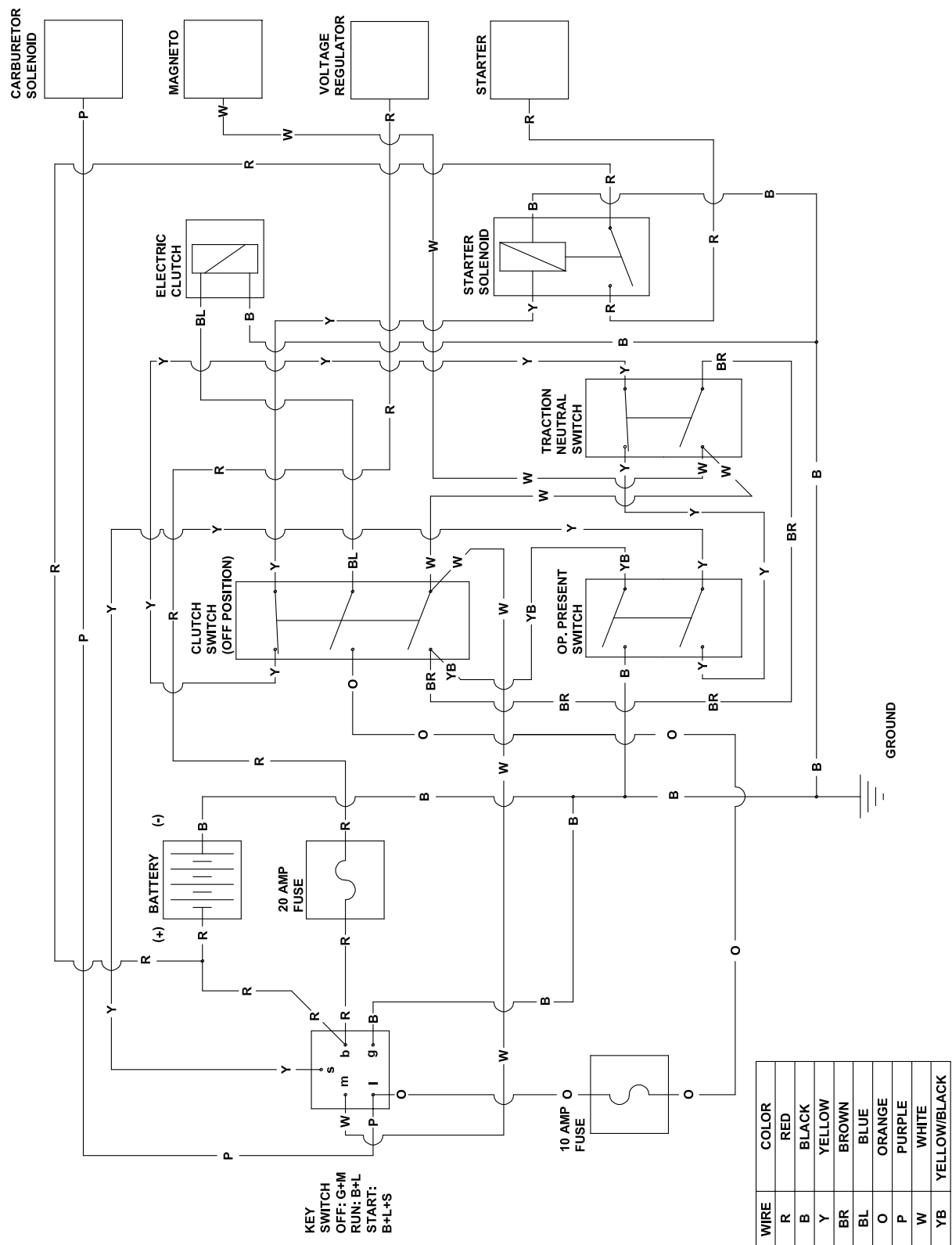


FIGURE 15

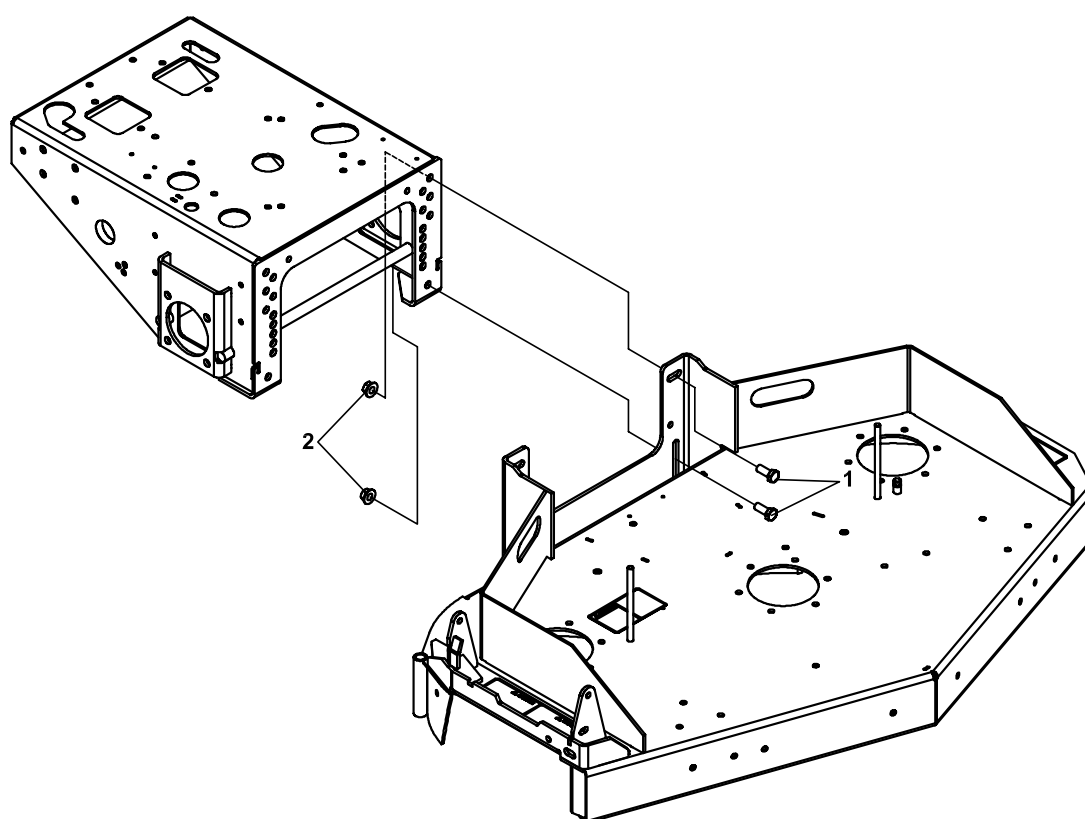


FIGURE 15

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
15-1	64263-018	BLT-FLG HD M12-1.75 X 30	4				
15-2	64246-04	NUT-WHIZ M12-1.75	4				



4112782 & 4163317 PUMP-HYDRO RH ILLUSTRATED AS SHOWN

2721615 & 4163316 PUMP-HYDRO LH ILLUSTRATED AS SHOWN EXCEPT GROUP A IS ROTATED 180° AROUND THE CENTERLINE OF THE PUMP.

ITEM	HYDROGEAR PART NO.	CGC, INC. PART NO.	DESCRIPTION	QTY
1	70516	----	HOUSING KIT	1
2	70517 (S/N 100 & BELOW)	----	END CAP KIT	1
	71615 (S/N 101 & ABOVE)	----	END CAP KIT	1
3	50641	----	STRAIGHT HEADLESS PIN	2
4	50969	2721615-01	FLANGE BOLT M8-1.25 X 60	4
5	51232 (S/N 100 & BELOW)	2721615-02	HOUSING O-RING	1
	52629 (S/N 101 & ABOVE)	4163316-01	HOUSING O-RING	1
6	2513027	2721615-03	CHARGE PUMP KIT (STD)	1
7	50273	2721615-04	STD GEROTOR ASSEMBLY	1
8	9004101-1340	2721615-05	O-RING	1
10	50095 (S/N 100 & BELOW)	2721615-06	SOCKET HEAD M6-1.0 X 20	2
	50975 (S/N 101 & ABOVE)	4163316-02	SOCKET HEAD M6-1/0 X 20	2
15	2513030	----	BYPASS VALVE KIT (BLANK)	1
18	70521	2721615-07	PUMP SHAFT KIT	1
19	50315	----	BALL BEARING 17 X 40 X 12	1
20	51161	----	LIP SEAL 17 x 40 x 12	1
21	50951	----	SPACER	1
22	50329	----	RETAINING RING	1
25	70331 (S/N 100 & BELOW)	38345-12	CYLINDER BLOCK KIT	1
	70723 (S/N 101 & ABOVE)	4163316-03	CYLINDER BLOCK KIT	1
29	2003014	----	BLOCK SPRING	1
30	2003017	----	BLOCK THRUST WASHER	1
31	51246 (S/N 100 & BELOW)	2721615-09	VALVE PLATE	1
32	2003087	2721615-10	SWASHPLATE	1
34	50551	2721615-11	BALL THRUST BEARING	1
37	2003005	2721615-12	TRUNNION ARM	1
38	2000015	2721615-13	SLOT GUIDE	1
42A	2510027	2721615-14	CHECK VALVE KIT (.031")	1
42B	2510050	2721615-15	CHECK VALVE KIT (BLANK)	1
44	70403 (S/N 100 & BELOW)	2721615-16	CHARGE RELIEF VALVE KIT	1
	70402 (S/N 101 & ABOVE)	4163316-04	CHARGE RELIEF VALVE KIT	1
49	2513043	2721615-17	TRUNNION SEAL/RETAINER KIT	1
56	9005110-4400	----	STRAIGHT THREAD PLUG	1
66	9005110-3100	----	5/16 SAE PLUG	1
100	70525	2721615-18	OVERHAUL SEAL KIT	1

FIGURE 17

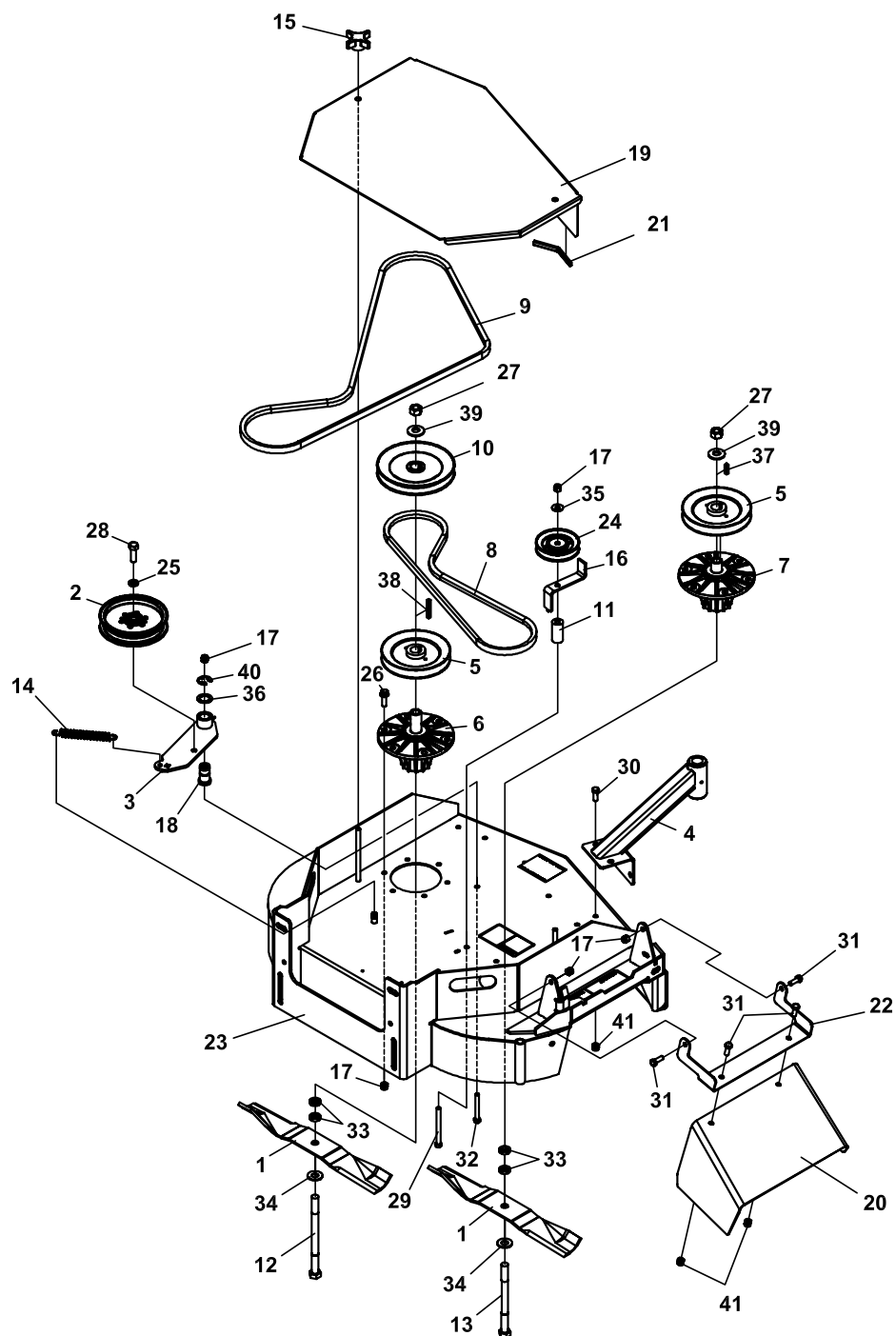


FIGURE 17

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
17-1	112111-02	BLADE 18.00 OFFST HLFT	2				
17-2	128169	PULLEY, IDLER 5.50	1				
17-3	2186138.7	WLDMT-DECK IDLER	1				
17-4	4124108	S CASTER SUPPORT	2				
17-5	2308140	PULLEY-ENGINE	2				
17-6	2721097	S-ASSY SPINDLE 6 LONG	1				
17-7	2721323	S-ASSY SPINDLE 6 SHORT	1				
17-8	2721477	BELT-HB 56.75	1				
17-9	2721478	BELT-HB 85.25	1				
17-10	2721479	PULLEY-6.75	1				
17-11	2721485	SPACER-IDLER	1				
17-12	33049-02	BOLT-BLADE	1				
17-13	33049-05	BOLT-BLADE	1				
17-14	38219	SPRING-TENSION	1				
17-15	38524	KNOB-4 PRONG 3/8-16	2				
17-16	4115420.7	GUIDE-BELT	1				
17-17	64229-03	LOCKNUT-NYLON 3/8-16	16				
17-18	4116661	PIN-PIVOT	1				
17-19	4119064.2	COVER-BELT, 36 FIXED	1				
17-20	4131477.2	CHUTE-DECK, 32-54 SD	1				
17-21	108074-13	FLEX TRIM 44.38	1				
17-22	4120257.2	BRKT-CHUTE SUPPORT	1				
17-23	4121969	S-36SDFIXED DK W/ LABS	1				
17-24	4135265	PULLEY-V IDLER	1				
17-25	64006-05	LOCKWSHR-HELICAL 1/2	1				
17-26	64262-012	BLT-FLG HD 3/8-16 X 1-1/4	12				
17-27	64025-16	NUT-HEX 5/8-18	2				
17-28	64123-05	BLT-HEX 1/2-20X1-1/2	1				
17-29	64123-139	BOLT-3/8-16X4 HEX	1				
17-30	64262-010	BLT-FLG HD 3/8-16 X 3/4	8				
17-31	64123-50	BOLT-HEX 3/8-16X1	4				
17-32	64123-88	BOLT, 3/8-16X2-3/4 HEX	1				
17-33	64163-12	.635/.640X1.0X.25 WASH	4				
17-34	64163-16	WSHR-41/64X1-3/8X12GA	2				
17-35	64163-31	WASHER, 25/64X1X12	1				
17-36	64163-65	WASHER-.890X1.375X18GA	1				
17-37	64164-12	KEY-1/4X1/4X1 SQ END	1				
17-38	64164-13	1/4X1/4X2 SQ KEY	1				
17-39	64209-03	SPRING WASHER.67 ID	2				
17-40	64221-04	E-RING.875	1				
17-41	64141-4	NUT-WLF 3/8-16	10				

FIGURE 18

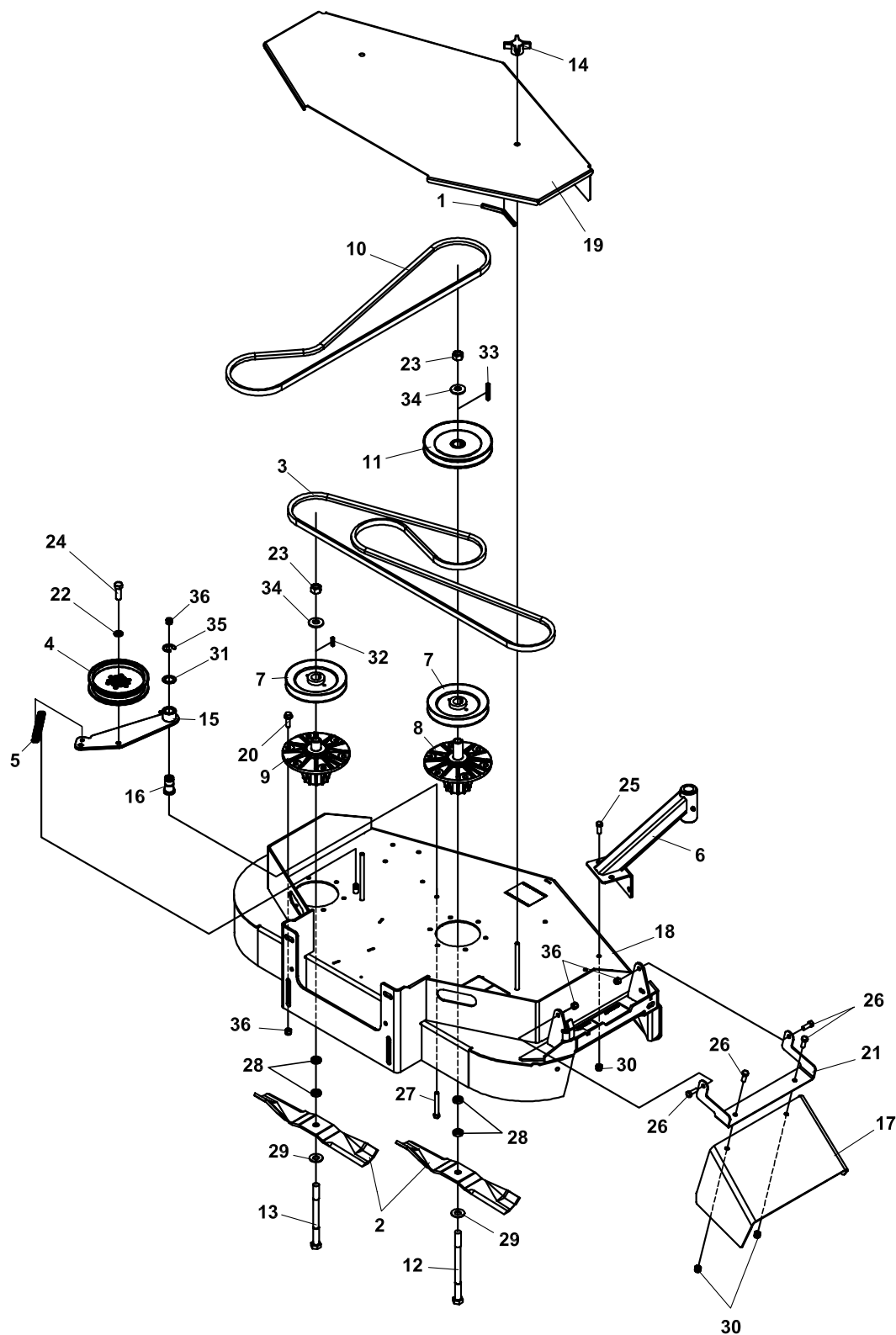


FIGURE 18

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
18-1	108074-09	S CHANNEL-FLEX TRIM 7.121					
18-2	112111-01	BLADE 16.25 OFFST HLFT	3				
18-3	128110	BELT-CUTTERDECK	1				
18-4	128169	PULLEY, IDLER 5.50	1				
18-5	2188131	SPRING-EXTENSION	1				
18-6	4124108	S CASTER SUPPORT	2				
18-7	2308140	PULLEY-ENGINE	3				
18-8	2721097	S-ASSY SPINDLE 6 LONG	1				
18-9	2721323	S-ASSY SPINDLE 6 SHORT	2				
18-10	2722160	BELT-HB 73.00	1				
18-11	2722161	PULLEY-6.75 EOD	1				
18-12	33049-02	BOLT-BLADE	1				
18-13	33049-05	BOLT-BLADE	2				
18-14	38524	KNOB-4 PRONG 3/8-16	2				
18-15	4110580.7	WLDMT-IDLER	1				
18-16	4116661	PIN-PIVOT	1				
18-17	4131477.2	CHUTE-DECK, 32-54 SD	1				
18-18	4119381	S 48 SD FIXED DK W/LABS	1				
18-19	4119515.2	COVER-BELT FIXED 48	1				
18-20	64262-012	BLT-FLG HD 3/8-16 X 1-1/4	18				
18-21	4120257.2	BRKT-CHUTE SUPPORT	1				
18-22	64006-05	LOCKWSHR-HELICAL 1/2	1				
18-23	64025-16	NUT-HEX 5/8-18	3				
18-24	64123-05	BLT-HEX 1/2-20X1-1/2	1				
18-25	64262-010	BLT-FLG HD 3/8-16 X 3/4	8				
18-26	64123-50	BOLT-HEX 3/8-16X1	4				
18-27	64123-88	BOLT, 3/8-16X2-3/4 HEX	1				
18-28	64163-12	.635/.640X1.0X.25 WASH	6				
18-29	64163-16	WASHR-41/64X1, 3/8X12GA	3				
18-30	64141-4	NUT-WLF 3/8-16	10				
18-31	64163-65	WASHER-.890X1.375X18GA	1				
18-32	64164-12	KEY-1/4X1/4X1 SQ END	2				
18-33	64164-13	1/4X1/4X2 SQ KEY	1				
18-34	64209-03	SPRING WASHER.67 ID	3				
18-35	64221-04	E-RING.875	1				
18-36	64229-03	LOCKNUT-NYLON 3/8-16	21				

FIGURE 19

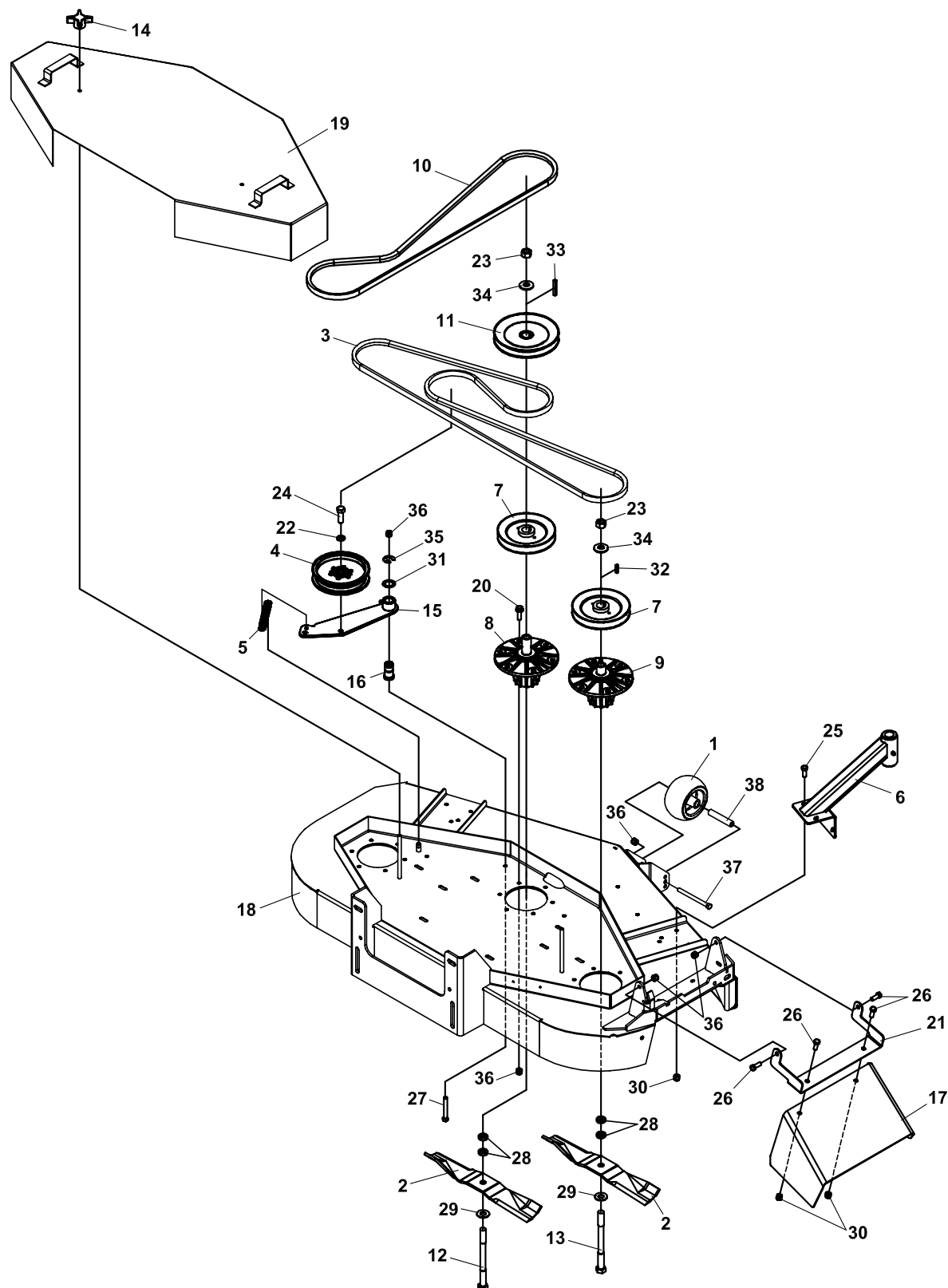
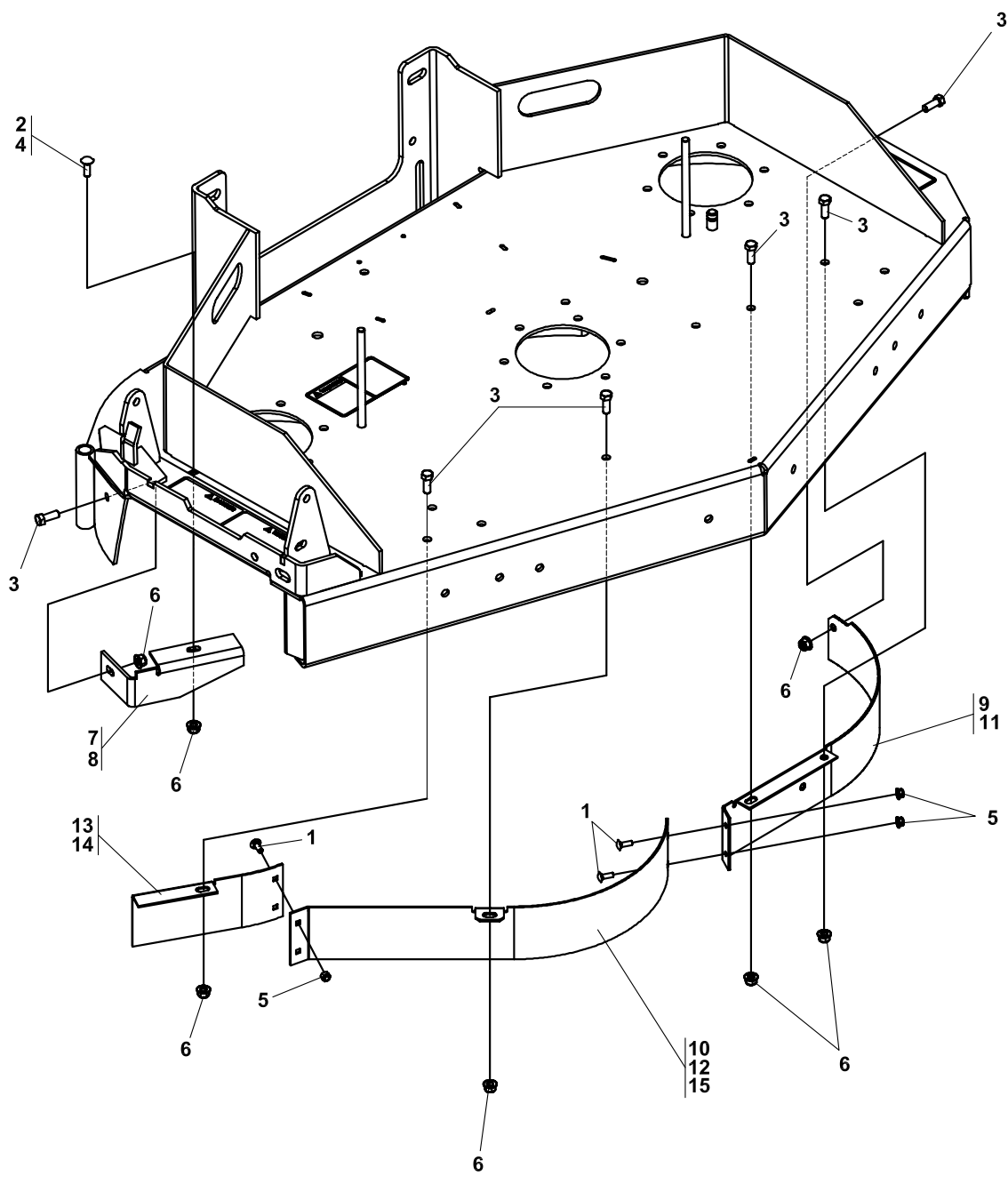


FIGURE 19

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
19-1	2721512	ROLLER-5X2.75 CENTERED	1				
19-2	112111-02	BLADE 18.00 OFFST HLFT	3				
19-3	2188176	BELT-CUTTERDECK 54	1				
19-4	128169	PULLEY, IDLER 5.50	1				
19-5	2188131	SPRING-EXTENSION	1				
19-6	4124108	S-CASTER SUPPORT 9 IN.	2				
19-7	2308140	PULLEY-ENGINE	3				
19-8	2721097	S-ASSY SPINDLE 6 LONG	1				
19-9	2721323	S-ASSY SPINDLE 6 SHORT	2				
19-10	2722570	BELT-HB 75.75	1				
19-11	2722161	PULLEY-6.75 EOD	1				
19-12	33049-02	BOLT-BLADE	1				
19-13	33049-05	BOLT-BLADE	2				
19-14	38524	KNOB-4 PRONG 3/8-16	2				
19-15	4110580.7	WLDMT-IDLER	1				
19-16	4116661	PIN-PIVOT	1				
19-17	4131477.2	CHUTE-DECK, 32-54 SD	1				
19-18	4128849	S 54 SD CUT DECK W/ LABS	1				
19-19	4129134.2	WLDMT-COVER BELT 54	1				
19-20	64262-012	BLT-FLG HD 3/8-16 X 1-1/4	18				
19-21	4120257.2	BRKT-CHUTE SUPPORT	1				
19-22	64006-05	LOCKWSHR-HELICAL 1/2	1				
19-23	64025-16	NUT-HEX 5/8-18	3				
19-24	64123-05	BLT-HEX 1/2-20X1-1/2	1				
19-25	64262-011	BLT-FLG HD 3/8-16 X 1	8				
19-26	64123-50	BOLT-HEX 3/8-16X1	4				
19-27	64123-88	BOLT, 3/8-16X2-3/4 HEX	1				
19-28	64163-12	.635/.640X1.0X.25 WASH	6				
19-29	64163-16	WASHR-41/64X1, 3/8X12GA	3				
19-30	64141-4	NUT-WLF 3/8-16	10				
19-31	64163-65	WASHER-.890X1.375X18GA	1				
19-32	64164-12	KEY-1/4X1/4X1 SQ END	2				
19-33	64164-13	1/4X1/4X2 SQ KEY	1				
19-34	64209-03	SPRING WASHER.67 ID	3				
19-35	64221-04	E-RING.875	1				
19-36	64229-03	LOCKNUT-NYLON 3/8-16	22				
19-37	64123-173	BLT-HEX 3/8-16X4-1/2	1				
19-38	2720685	SPACER-ROLLER	1				

FIGURE 20



Hydro Midsize

BAFFLES

FIGURE 20

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
20-1	64018-2	BLT-CRG 1/4-20X3/4 (NOT USED ON 36" DECKS)	4				
20-2	64018-3	BLT-CRG 3/8-16X1 (NOT USED ON 48" DECKS)	1				
20-3	64123-50	BOLT-HEX 3/8-16X1					
		QTY USED ON 36" DECK	5				
		QTY USED ON 48" DECK	7				
		QTY USED ON 54" DECK	8				
20-4	64262-012	BLT-FLG HD 3/8-16 X 1-1/4 QTY USED ON 48" DECK	1				
20-5	64229-01	LOCKNUT-1/4-20 NYLON (NOT USED ON 36" DECKS)	4				
20-6	64268-03	NUT-FL NYLON LOCK 3/8-16					
		QTY USED ON 36" DECK	6				
		QTY USED ON 48" DECK	7				
		QTY USED ON 54" DECK	8				
20-7	4115864.7	BAFFLE-DISCHARGE (USED ON 36", 54" DECK)	1				
20-8	4120208.7	BAFFLE-DISCHARGE 32-48 (USED ON 48" DECKS ONLY)	1				
20-9	4120175.7	BAFFLE-48 FRONT LH (USED ON 48" DECKS ONLY)	1				
20-10	4134336.7	BAFFLE-FRONT CTR (USED ON 48" DECKS ONLY)	1				
20-11	4118427.7	BAFFLE-FRONT LH (USED ON 54" DECKS ONLY)	1				
20-12	4134338.7	BAFFLE-FRONT CTR (USED ON 54" DECKS ONLY)	1				
20-13	4134343.7	BAFFLE-RIGHT FRONT (USED ON 54" DECKS ONLY)	1				
20-14	4134342.7	BAFFLE-RIGHT FRONT (USED ON 48" DECKS ONLY)	1				
20-15	4147035.7	BAFFLE-FRONT DECK (USED ON 36" DECKS ONLY)	1				

FIGURE 21

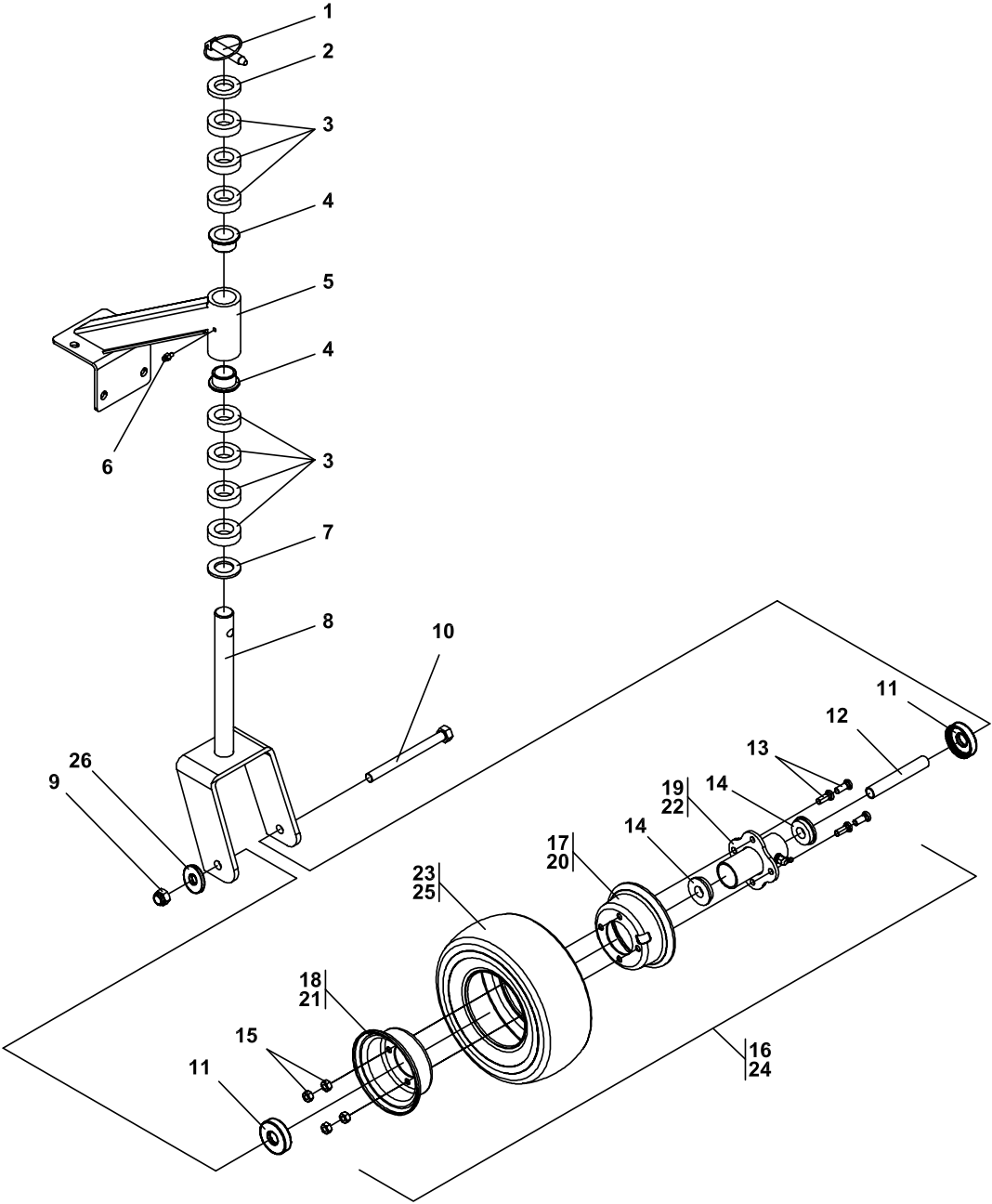


FIGURE 21

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
	4124110	ASSY-CASTER 9IN BOBCAT	2	21-23	38504	S TIRE-9x3.50-4 SMOOTH	1
	(INCLUDES ITEMS 1-3, 7-11 & 20 QTYs LISTED)			*	38505	S TUBE-9x3.50-4	1
	(NOTE 2 ASSYS REQUIRED PER MACHINE)				OPTIONAL FLAT PROOF WHEEL & TIRE		
21-1	64173-04	QUICK PIN	1	21-24	4114430	ASSY-WHEEL 9"CAREFREE	1
21-2	64163-07	1-1/32X1-3/4X1/4 WASH	1		(WITH 2.75 DIA. BOLT CIRCLE		
21-3	64163-22	1-1/32X1-3/4X1/2 WASHR	7		INCLUDES ITEMS 11-15, 17-19, 24 & 26)		
21-4	4129801	BUSHING-FLANGED	2		(WITH 2.81 DIA. BOLT CIRCLE		
21-5	4124108	S CASTER SUPPORT	1		INCLUDES ITEMS 11-15, 20-22, 24 & 26)		
	(INCLUDES ITEMS 4 & 6, QTYs LISTED)						
21-6	85010N	ZERK GREASE FITTING	1	21-25	4114430-01S-TIRE 9 CAREFREE		1
21-7	64163-84	WSHR-1.015 X 1.75 X .125	1	21-26	64251-005	WASHER	2
21-8	2721484.7	WLDMT-CASTER YOKE	1				
21-9	64229-05	LOCKNUT-NYLON 1/2-13	1				
21-10	64123-166	BLT-HEX 1/2-13X5-1/2	1				
21-11	2722591	SPACER-3/4 INCH BRG	2				
21-12	2722230-04	SPANNER	1				
21-13	64123-01	BLT-HEX 5/16-24X3/4	4				
21-14	2722682	BEARING-9" WHEEL	2				
21-15	64141-1	NUT-WLF 5/16-24	4				
21-16	2722681	ASSY-9" WHEEL	1				
	(INCLUDES ITEMS 11-15, 17-19 23 & 24)						
	(WITH 2.81 DIA. BOLT CIRCLE						
	INCLUDES ITEMS 11-15 & 20-24)						
21-17	2720644	S WHEEL HALF	1				
21-18	2720645	S WHL HALF, VALVE SD	1				
21-19	2722680	HUB-9"WHEEL W/BRGS	1				
	(INCLUDES ITEMS 13 & 14)						
21-20	4132614	S-WHEEL HALF VLV SIDE	1				
21-21	4132615	S-WHEEL HALF CLSD SIDE	1				
21-22	4132616	ASSY-HUB W/BEARINGS	1				
	(INCLUDES ITEMS 13 & 14)						

*** NOT ILLUSTRATED**

FIGURE 22

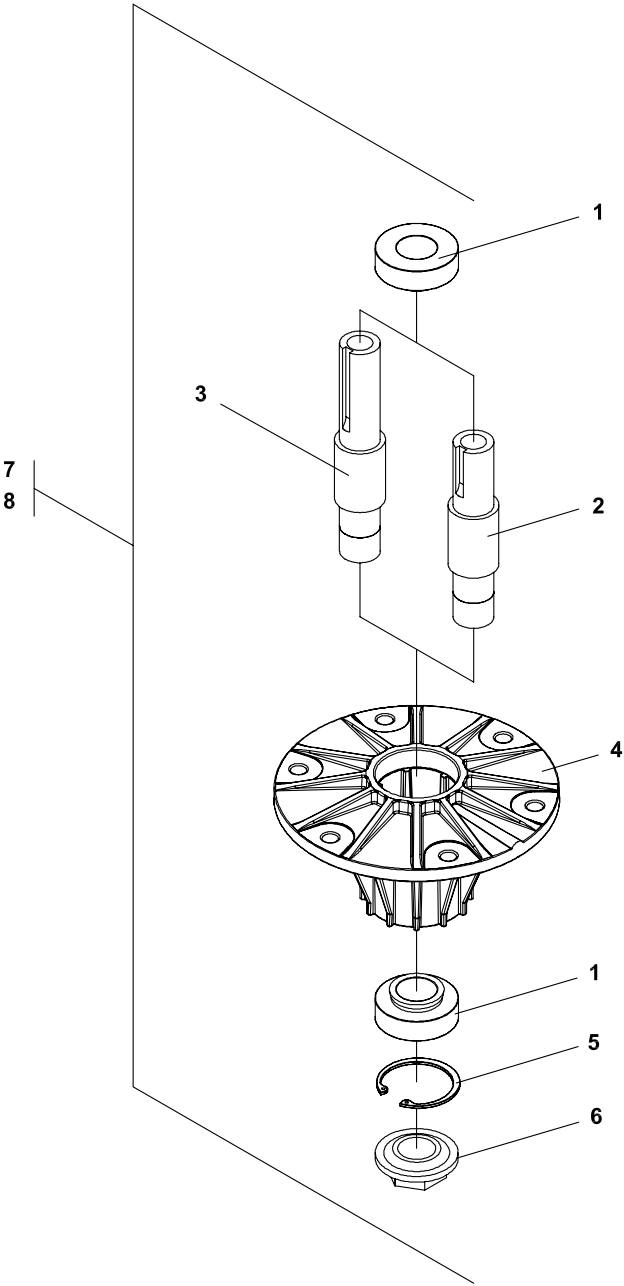


FIGURE 22

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
22-1	38348-01	BEARING-SPINDLE SEALED	2				
22-2	33179-02	SPINDLE-SHORT (USED IN ITEM 8)	1				
22-3	33179-01	SPINDLE-LONG (USED IN ITEM 7)	1				
22-4	2721096	HOUSING-SPINDLE 6 HOLE	1				
22-5	64144-38	SNAP-RING	1				
22-6	38315	NUT-SPINDLE	1				
22-7	2721097	ASSY-SPINDLE LONG (INCLUDES ITEMS 1, 3, 4-6)	1				
22-8	2721323	ASSY-SPINDLE SHORT (INCLUDES ITEMS 1, 2, 4-6)	1				

FIGURE 23

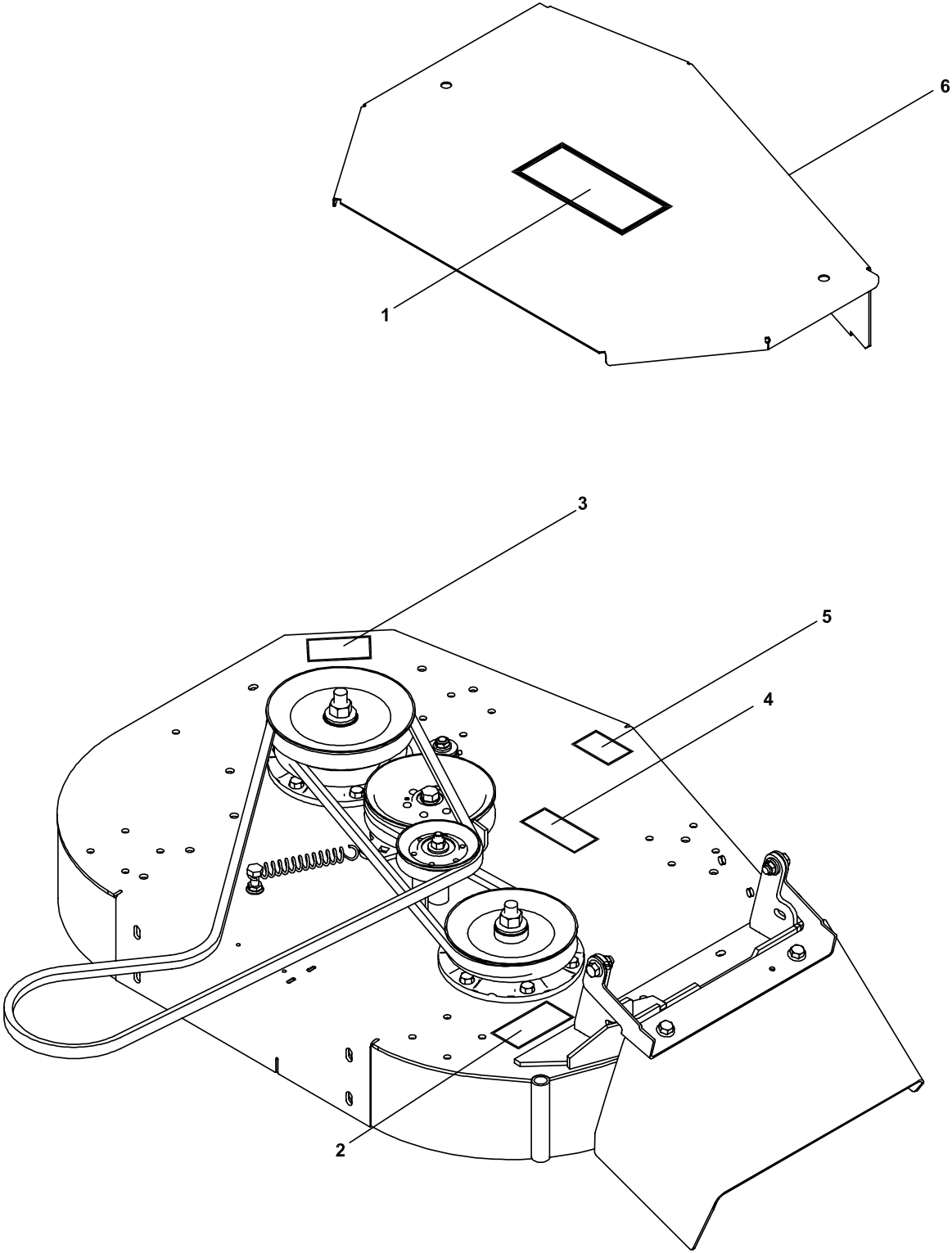


FIGURE 23

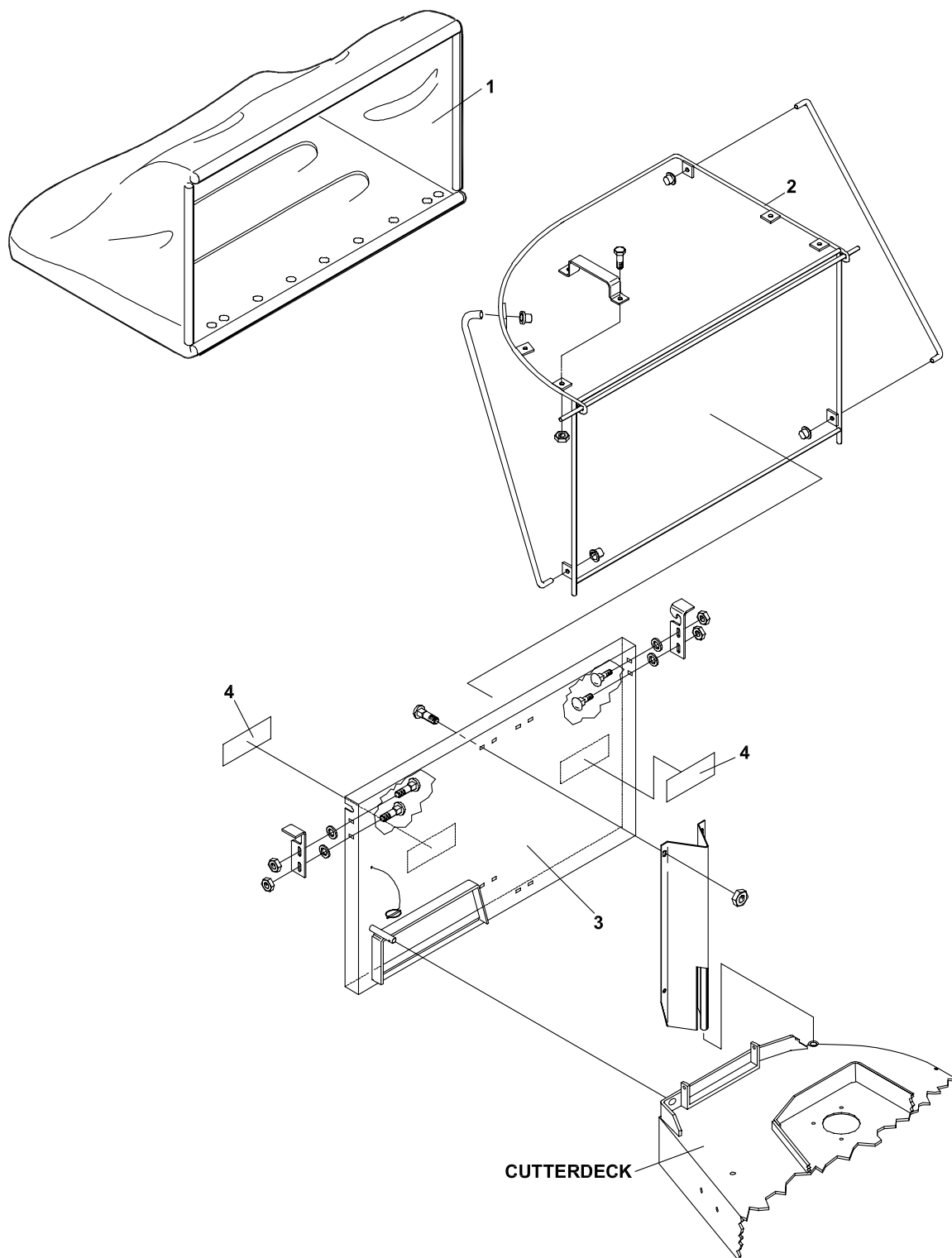
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
23-1	4158401	LABEL-BOBCAT, LARGE	1				
23-2	2000677	LABEL-DANGER/WARNING	1				
23-3	2000572	LABEL-WARNING BLADES	1				
23-4	2000678	LABEL-ROT PARTS/B-WSHR					
		QTY FOR 36" DECK	1				
		QTY FOR 48", 54" DECK	2				
23-5	4116761	LABEL-MADE IN USA	1				
23-6	4158402	LABEL-BOBCAT, SMALL	1				



FIGURE 24

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
24-1	4162891.7	WEIGHT (QTY 10 USED ON 36" DECKS) (QTY 14 USED ON 48" DECKS)					
24-2	64123-100	BOLT-3/8-16X2-1/4 HEX (USED ON 36" DECKS ONLY)	4				
24-3	64123-75	BOLT, 3/8-16X3 HEX (USED ON 48" DECKS ONLY)	4				
24-4	64141-4	NUT-WLF 3/8-16	8				
24-5	64163-31	WASHER, 25/64X1X12 (USED ON 36" DECKS ONLY)	4				

FIGURE 25



Hydro
Midsize

OPTIONAL GRASSCATCHER (970319)

FIGURE 25

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
14-1	4135876	BAG, 3.75 BU CATCHR	1				
14-2	4135875	FRM-ROD 3.75 BU CATCHR	1				
14-3	4135874	PLT-BACK 3.75 BU CATCHR	1				
14-4	2000677	LABEL-DANGER/WARNING	2				

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