

OPERATION AND PARTS MANUAL



***ESSICK* SERIES**

MODEL

EM12M

EM12ME51

EM12ME53

Mechanical Drive

PLASTER/MORTAR MIXER

(HONDA GX390U1QA2 GASOLINE ENGINE)

Revision #6 (03/04/22)

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

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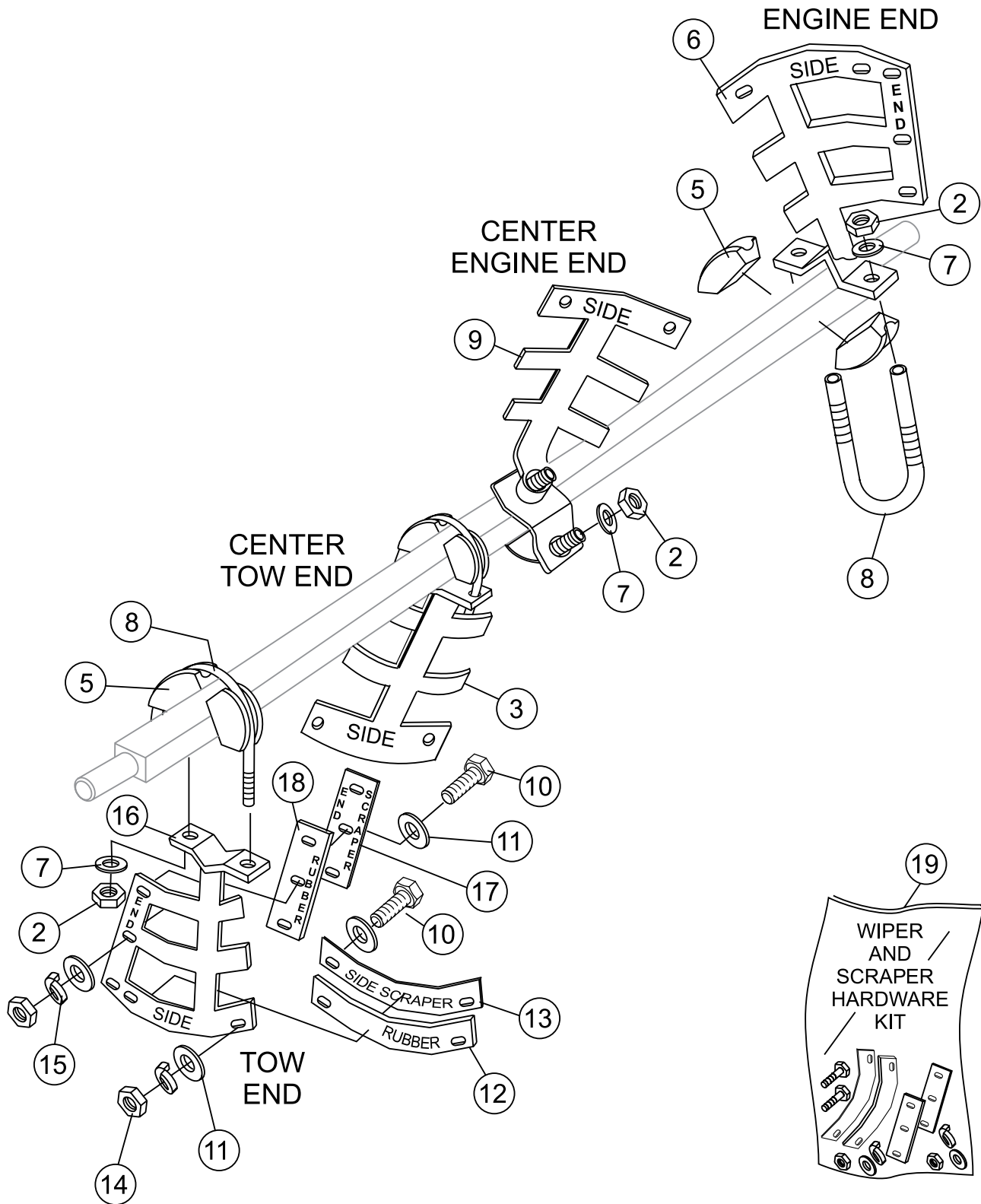
NOTICE

Specifications and part numbers are subject to change without notice.

NAMEPLATE AND DECALS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	948630	DECAL; PUSH TO STOP	1	
2	510891	DECAL; MQ ESSICK (SMALL)	3	
3	510883	DECAL; MQ ESSICK (LARGE)	2	
4	521229	DECAL; WARNING, BODILY INJURY	2	
5	521232	DECAL; CAUTION INSPECT BEFORE TOW	2	
6	520935	DECAL; SAFETY INSTRUCTIONS	1	
7	521228	DECAL; DANGER, NO SMOKING	2	
8	521230	DECAL; WARNING, PREVENT ACCIDENTS	1	
9	518524	DECAL; ISO 9001:2000 EXPORT	1	
10	948121	DECAL; IMPORTANT, SELF-ADJUSTING SEAL	1	
11	13118	DECAL; POWDER COATED	1	
12	521231	DECAL; DRUM LOCK POSITION	1	
13		NAMEPLATE.....	1CONTACT MQ PARTS DEPT.
14	503723	RIVET; ID PLATE	2	
15	948013	DECAL; TRANSMISSION OIL FILLER	1	
16	948012	DECAL; CLUTCH OIL FILLER	1	
17	948005	DECAL; ENGINE OIL FILLER	1	

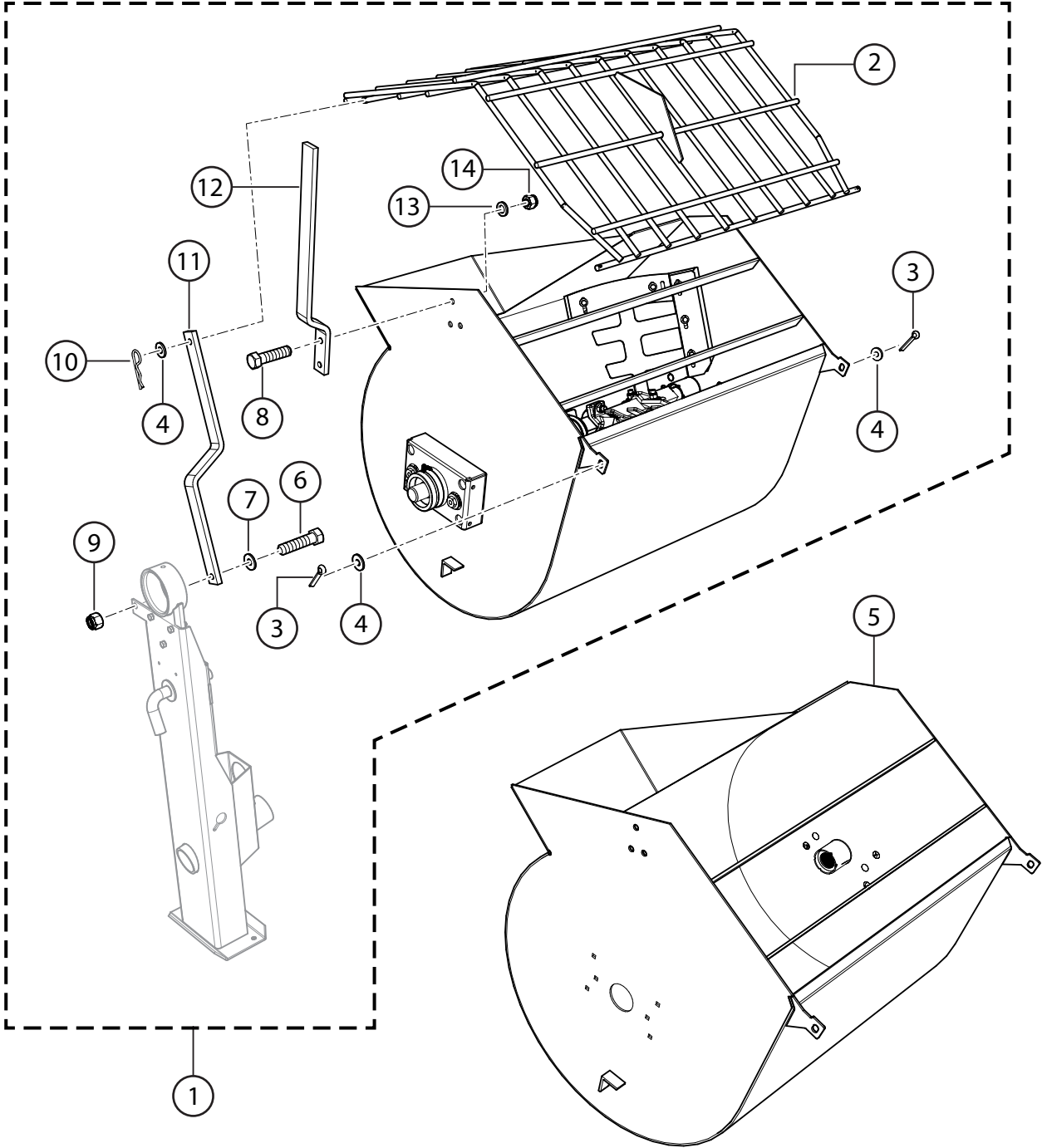
PADDLE BLADES ASSY.



PADDLE BLADES ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	492584	NUT, LOCK 1/2" DIA. NC	8	
3	EM200294B	PADDLE ARM, CENTER (TOW END)	1	
5	EM200292	INSERT, PADDLE ARM	8.....	REPLACES P/N 200292
6	EM200296B	PADDLE ARM, ENGINE END	1	
7	6109170	WASHER, FLAT 1/2"	8.....	REPLACES P/N 504322
8	EM200297	U-BOLT	4.....	REPLACES P/N 200297
9	EM200295B	PADDLE ARM, CENTER (ENGINE END)	1	
10\$	2105162	SCREW HHC.....	14.....	REPLACES P/N 492367
11\$	EM923023	WASHER, FLAT 3/8"	28.....	REPLACES P/N 492597
12\$	EM200212	SIDE WIPER, RUBBER	4	
13\$	EM203432	SIDE SCRAPER BLADE	4	
14\$	2105164	NUT HEX 5/16" DIA. NC.....	14.....	REPLACES P/N 492553
15\$	EM923343	WASHER, LOCK 5/16"	14.....	REPLACES P/N 492623
16	EM200293B	PADDLE ARM, TOW END	1	
17	EM203433	END SCRAPER BLADE	2	
18	EM200213	END WIPER, RUBBER	2	
19	EM200863	KIT, RUB. BLADES, SCRAPERS AND HDW.....	1.....	INCLUDES ITEMS W/\$

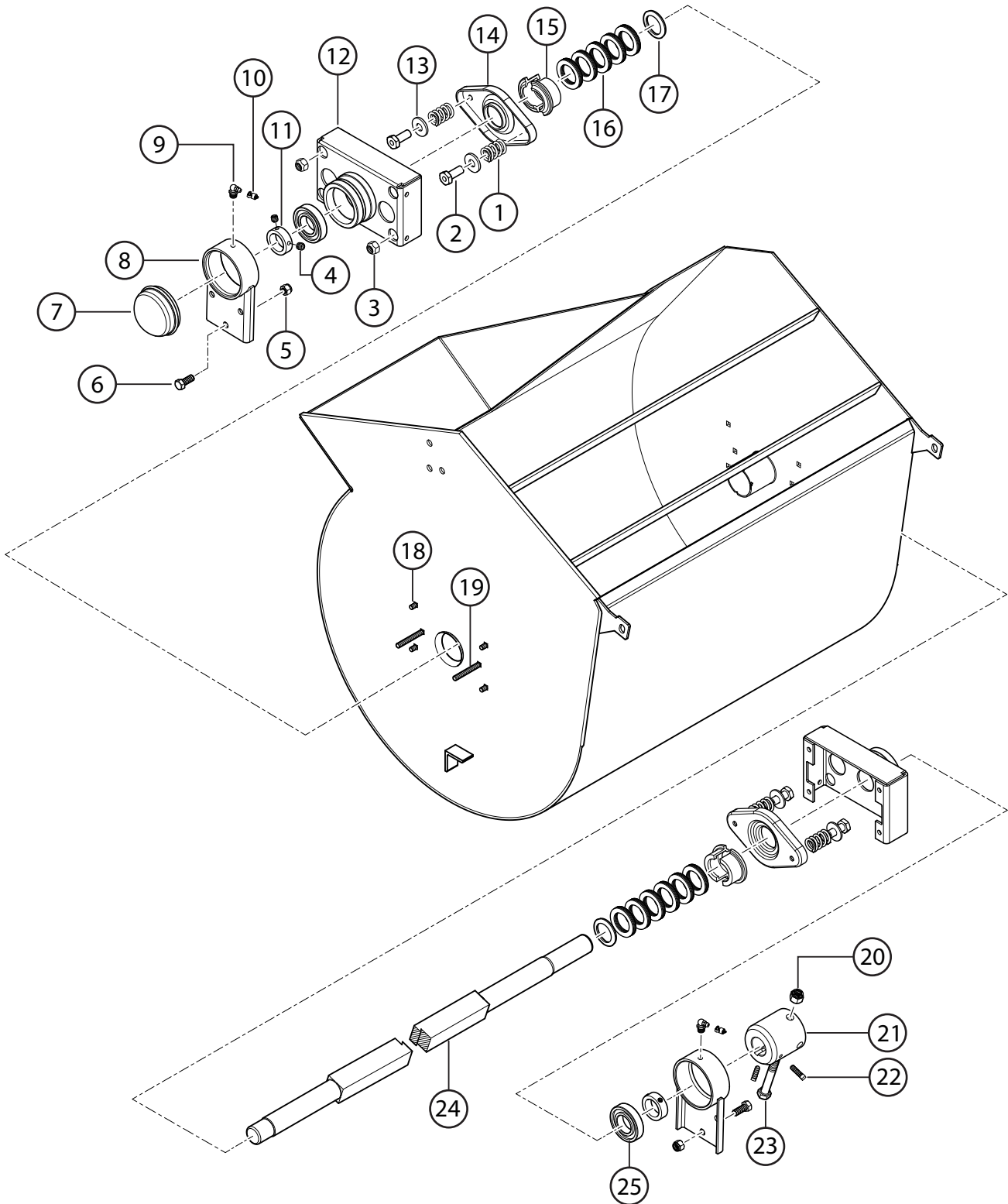
DRUM AND SHAFT ASSY.



DRUM AND SHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	805919	DRUM AND SHAFT ASSY.....	1.....	INCLUDES ITEMS W/#
2#	EM203449	DRUM GRILL	1	
3#	EM924015	PIN, COTTER	2.....	REPLACES P/N 505070
4#	6109170	WASHER, FLAT 1/2" DIA.....	3.....	REPLACES P/N 492600
5	804915	DRUM 12 CU. FT.....	1.....	DRUM ONLY
6#	EM963692	BOLT, 1/2" UNC X 1-1/2"	1.....	REPLACES P/N 492394
7#	6109170	WASHER, FLAT 1/2" DIA.....	1.....	REPLACES P/N 492600
8#	EM963692	BOLT, 1/2" UNC X 1-1/2"	2.....	REPLACES P/N 492394
9#	492584	NUT, NYLOC 1/2" DIA.	1	
10#	EM925191	PIN, HAIR 3/16" WIRE SIZE	1	
11#	EM203344	BAR, GRILL OPENING	1	
12#	EM201537	DUMP LEVER.....	1.....	REPLACES P/N 201537
13#	6109180	WASHER, LOCK 1/2" DIA	2.....	REPLACES P/N 492626
14#	6109160	NUT HEX 1/2" DIA-NC	2.....	REPLACES P/N 492556

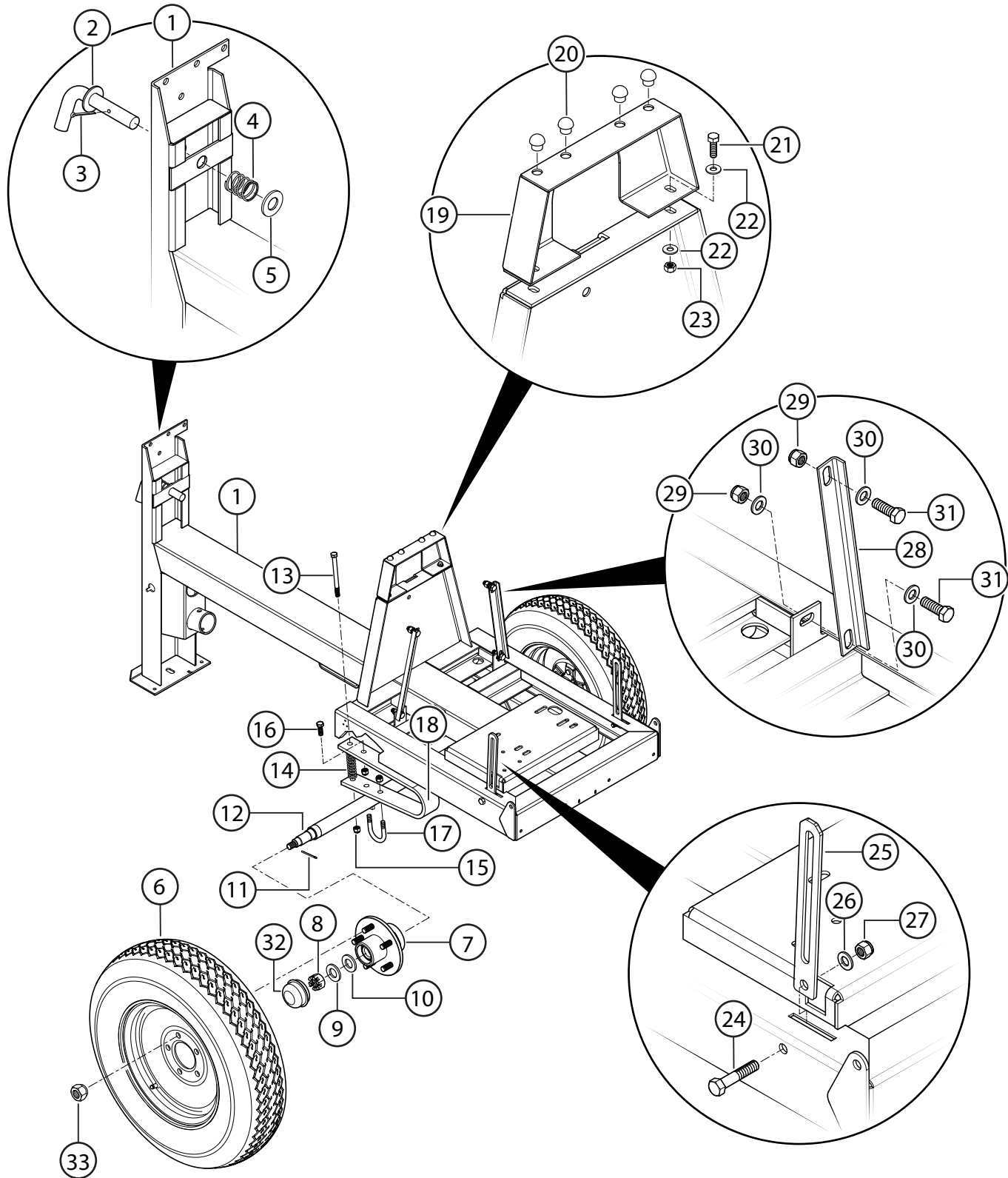
PADDLE SHAFT ASSY.



PADDLE SHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	507844	SPRING	4	
2	EM200287	ADJUSTING NUT	4	
3	EM969012	NUT, NYLOC 3/8"	8.....	REPLACES P/N 505066
4	EM703	SCREW, ALLEN 3/8"	4.....	REPLACES P/N 492470
5	492584	NUT LOCK 1/2" DIA NC	6	
6	EM963102	BOLT, G5.....	6.....	REPLACES P/N 492393
7	3249	CAP, DUST	1	
8	804887	BEARING BRACKET	2	
9	EM916006	GREASE ZERK	2.....	REPLACES P/N 491703
10	491008	GREASE CAP FITTING	2	
11	EM200018	COLLAR, PADDLE SHAFT	2	
12	EM201648	DRUM HEAD WELDMENT	2	
13	0401450160	WASHER, FLAT 5/8".....	4.....	REPLACES P/N 492602
14	EM200288	PLATE, PACKING GLAND PRESSURE	2	
15	EM200285	GLAND, PACKING HALF	4	
16	EM200301	RING, SHAFT PACKING	12	
17	EM200303	FOLLOWER, PACKING RING	2	
18	17985-008	BOLT, CARRIAGE.....	8.....	REPLACES P/N 505064
19	EM200286	BOLT, CARRIAGE.....	4.....	REPLACES P/N 505065
20	EM969023	NUT LOCK 5/8"	1.....	REPLACES P/N 492586
21	EM200255	COUPLER, PADDLE SHAFT	1	
22	EM961019	SCREW SET.....	2.....	REPLACES P/N 492484
23	EM963157	BOLT HD 5/8 NC X 4-1/2" G5	1	
24	EM200333	PADDLE SHAFT	1	
25	EM902153	BEARING BALL	2	

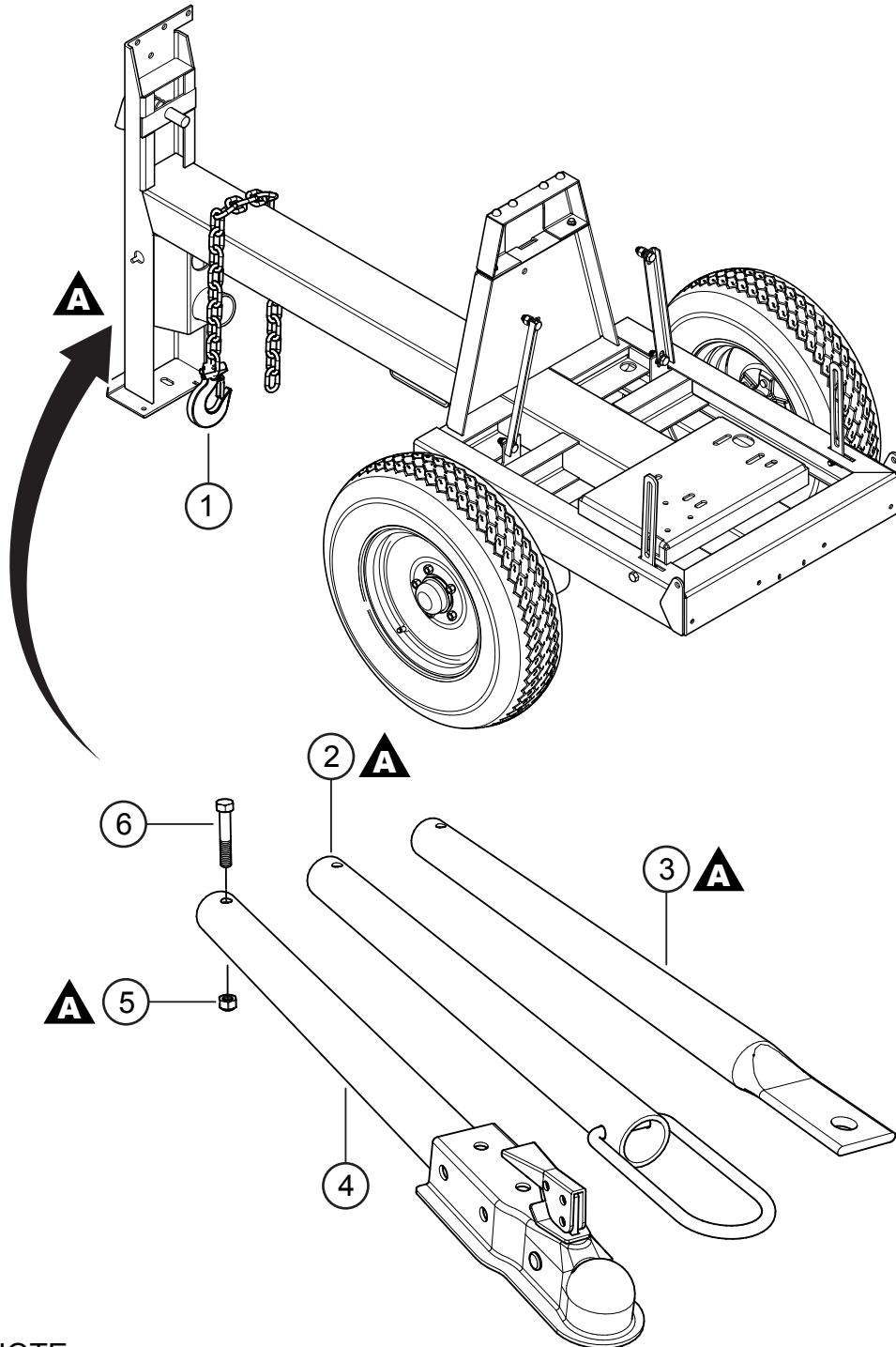
FRAME ASSY.



FRAME ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	804917	CHASSIS ASSY.	1	
2	804903	HANDLE, DRUM LOCK	1	
3	509000	PIN, COTTER	1	
4	EM14810	SPRING JOLTER	1	
5	501269	SPACER	1	
6	516477	WHEEL/TIRE ASSY., 5 LUGS	2	S/N D1820048 AND BELOW
6	516476	WHEEL/TIRE ASSY., 4 LUGS	2	S/N D1820049 AND ABOVE
7	EM941277	HUB COMPLETE, 5 LUGS	2	S/N D1820048 AND BELOW
7	EM941306	HUB COMPLETE, 4 LUGS	2	S/N D1820049 AND ABOVE
8	492534	NUT, CASTLE 3/4"	2	S/N D1820048 AND BELOW
8	502246J	NUT, CASTLE 1-20	2	S/N D1820049 AND ABOVE
9	507444	WASHER, FLAT 3/4"	2	S/N D1820048 AND BELOW
9	511159J	WASHER, FLAT 1"	2	S/N D1820049 AND ABOVE
10	504708	WASHER, FLAT 3/4"	2	S/N D1820048 AND BELOW
10	501299J	WASHER, FLAT 1"	2	S/N D1820049 AND ABOVE
11	EM924008	PIN, COTTER 1/8" X 1-1/2"	2	REPLACES P/N 491688
12	804907	AXLE, 5 LUGS	1	S/N D1820048 AND BELOW
12	521766	AXLE, 4 LUGS	1	S/N D1820049 AND ABOVE
13	3043	BOLT 1/2" X 6" G5	2	REPLACES P/N 510721
14	3076	SPRING, AXLE	2	
15	492584	NUT LOCK 1/2" DIA.	10	
16	EM963692	BOLT 1/2" UNC X 1-1/2"	4	REPLACES P/N 492394
17	3028	U-BOLT, AXLE	2	
18	3018	SPRING, LEAF	2	
19	804905	COVER, ENGINE SUPPORT	1	
20	TK6597572	BUMPER	4	
21	0202	SCREW HHC 5/16X18X1	2	REPLACES P/N 492364
22	EM923057	WASHER 1/4"	4	REPLACES P/N 492596
23	492541	NUT 5/16 HEX G2	2	
24	492397	SCREW HEX 1/2" NC X 2-1/2" G5	2	
25	805001	SLIDE, ENGINE COVER	2	
26	EM923023	WASHER 5/16"	2	REPLACES P/N 505679
27	EM969013	NUT NYLOC 3/8" G8	2	REPLACES P/N 492583
28	805773	TRANSMISSION SUPPORT	1	
29	492584	NUT LOCK 1/2" DIA.	4	
30	6109170	WASHER FLAT 1/2"	6	REPLACES P/N 504322
31	EM963692	BOLT 1/2" UNC X 1-1/2"	4	REPLACES P/N 492394
32	EM941278	CAP, HUB	2	
33	EM941280	WHEEL NUT	10	

TOW BAR ASSY.

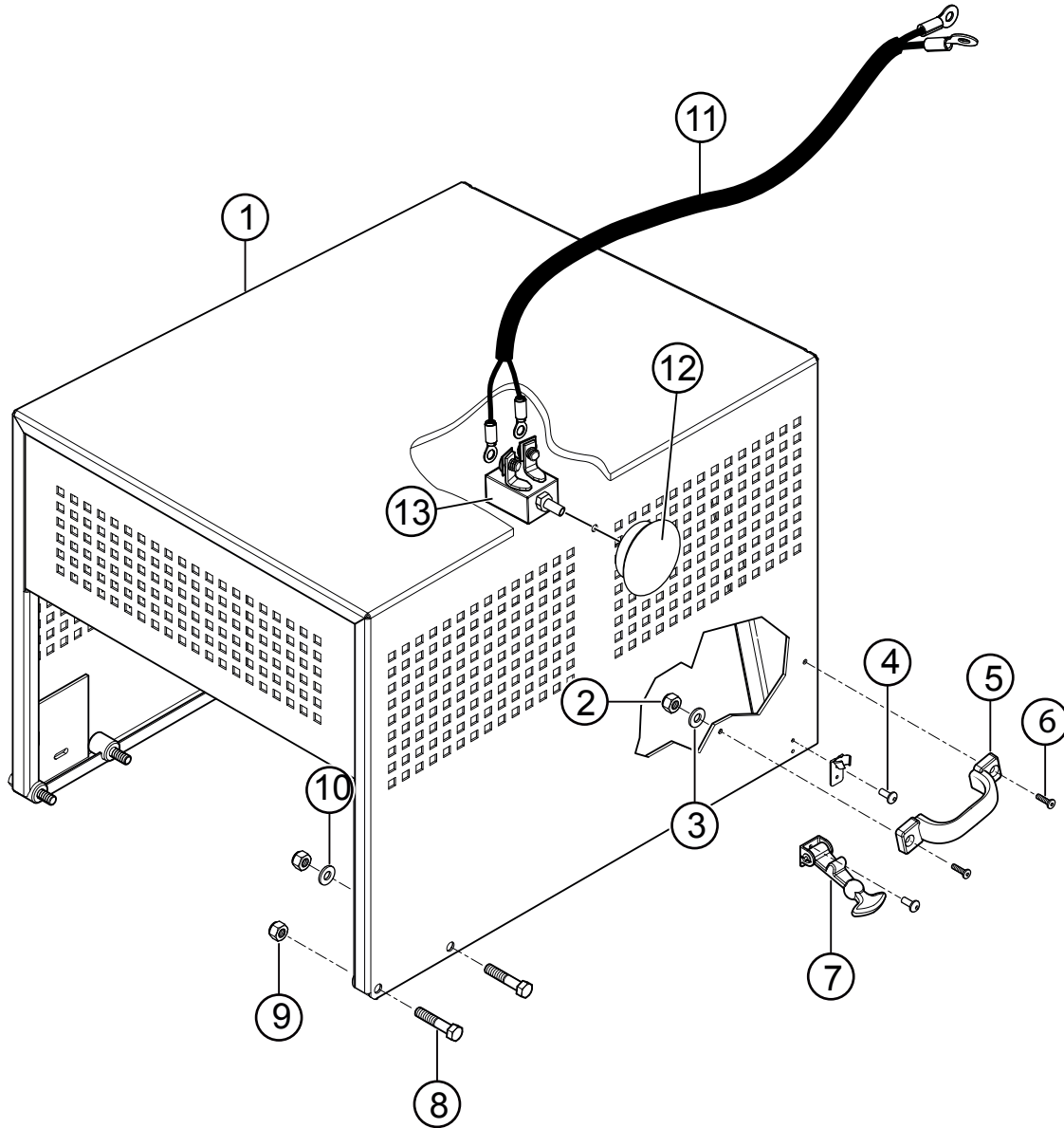


A NOTE:
OPTIONAL TOW BARS

TOW BAR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	516580	CLEVIS SAFETY HOOK, 1/4"	1	
2	HLC-1	TOW BAR (LOOP)	1.....	CONTACT SALES
3	HPC-1	TOW BAR (1" PIN).....	1.....	CONTACT SALES
4	HBC-1	TOW BAR (BALL HITCH 2-IN)	1.....	CONTACT SALES
5	10176	NUT	1	
6	EM124	BOLT	1	

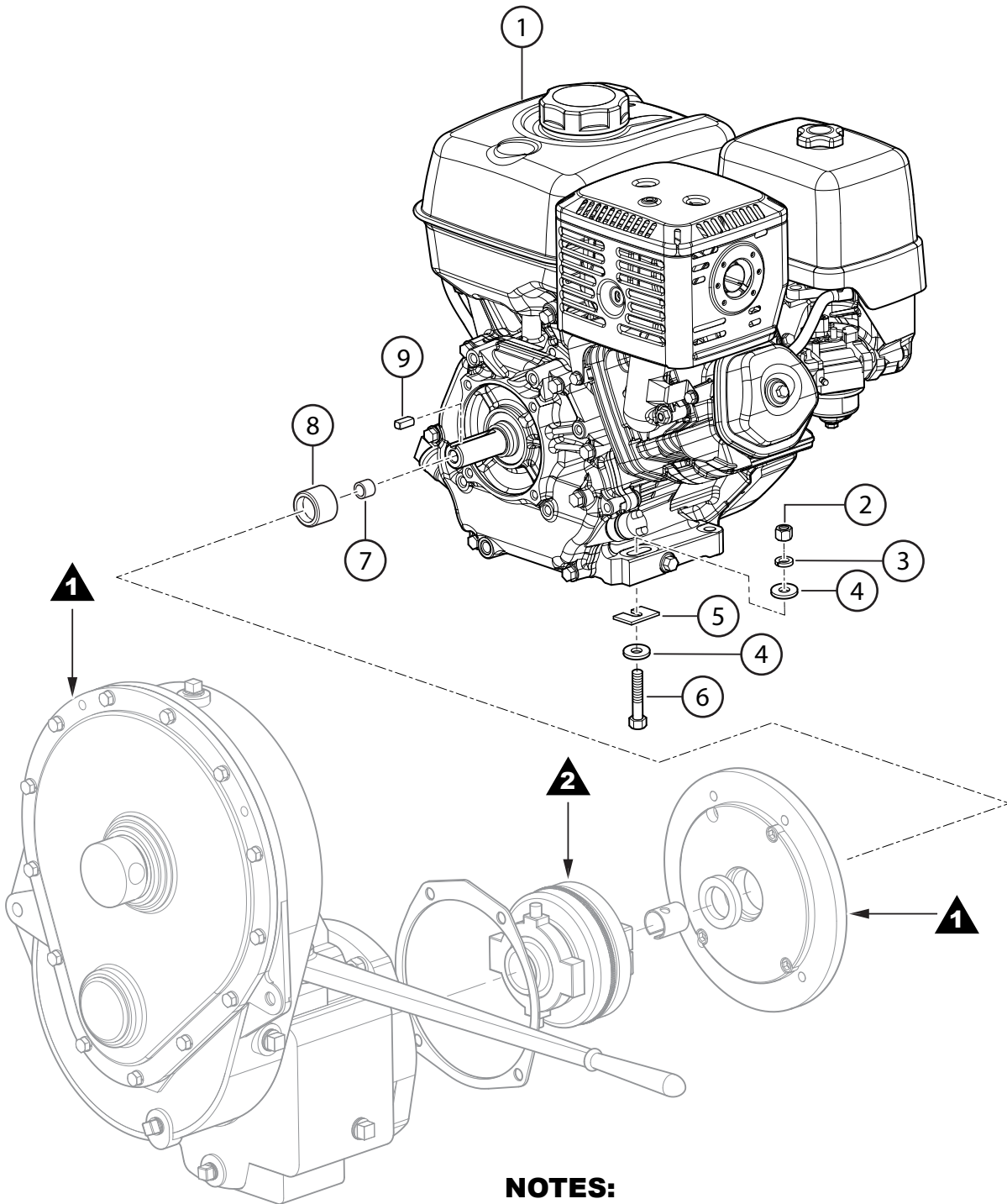
CABINET ASSY.



CABINET ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	804913	ENGINE, COVER	1	
2	492581	NUT, 1/4"-20 NYLON LOCKNUT	4	
3	492595	WASHER, FLAT 3/16	4	
4	512881	RIVET	12	REPLACES P/N 503723
5	802751	HANDLE, COVER	2	
6	513312	BOLT, 1/4" X 1"	4	
7	491010	RUBBER LATCH KIT ENGINE HOUSING	2	
8	492397	SCREW, HEX 1/2" NC X 2-1/2" G5	4	
9	492584	NUT, LOCK 1/2"	4	
10	6109170	WASHER, FLAT 1/2"	2	REPLACES P/N 504322
11	510573	ENGINE, CABLE HARNESS	1	
12	29174-001	BUTTON, STOP	1	
13	29173-001	SWITCH, STOP	1	

ENGINE ASSY.



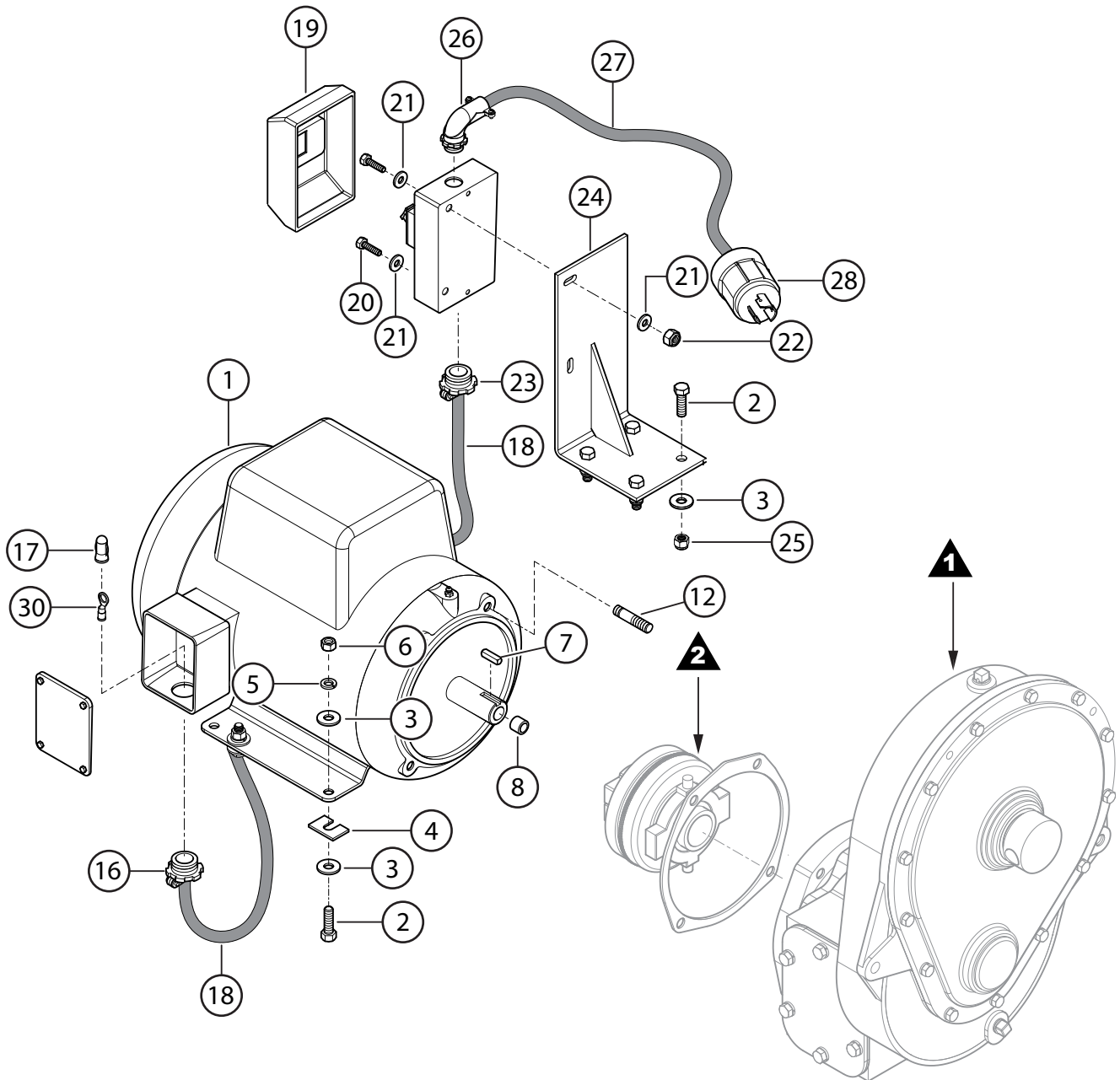
NOTES:

- ▲1 REFER TO "TRANS. ASSY." FOR PART NO.
- ▲2 REFER TO "CLUTCH ASSY." FOR PART NO.

ENGINE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	521691	ENGINE, HONDA GX390U1QA2 MODIFIED	1	
2	1456	NUT, HEX 3/8"	4	REPLACES P/N 492554
3	0166A	WASHER, LOCK 3/8" DIA.	4	REPLACES P/N 492624
4	3019092	WASHER, FLAT 3/8"	8	
5	511122	FITTING, ENGINE	2	
6	492379	SCREW CAP 3/8"	4	
7	801570	BRONZE PILOT BUSHING	1	
8	13376	SLEEVE	1	
9	EM927066	KEY, 1/4" X 5/16" X 1"	1	

1Ø 230 VAC, 60 HZ ELECTRIC MOTOR ASSY.



NOTES:

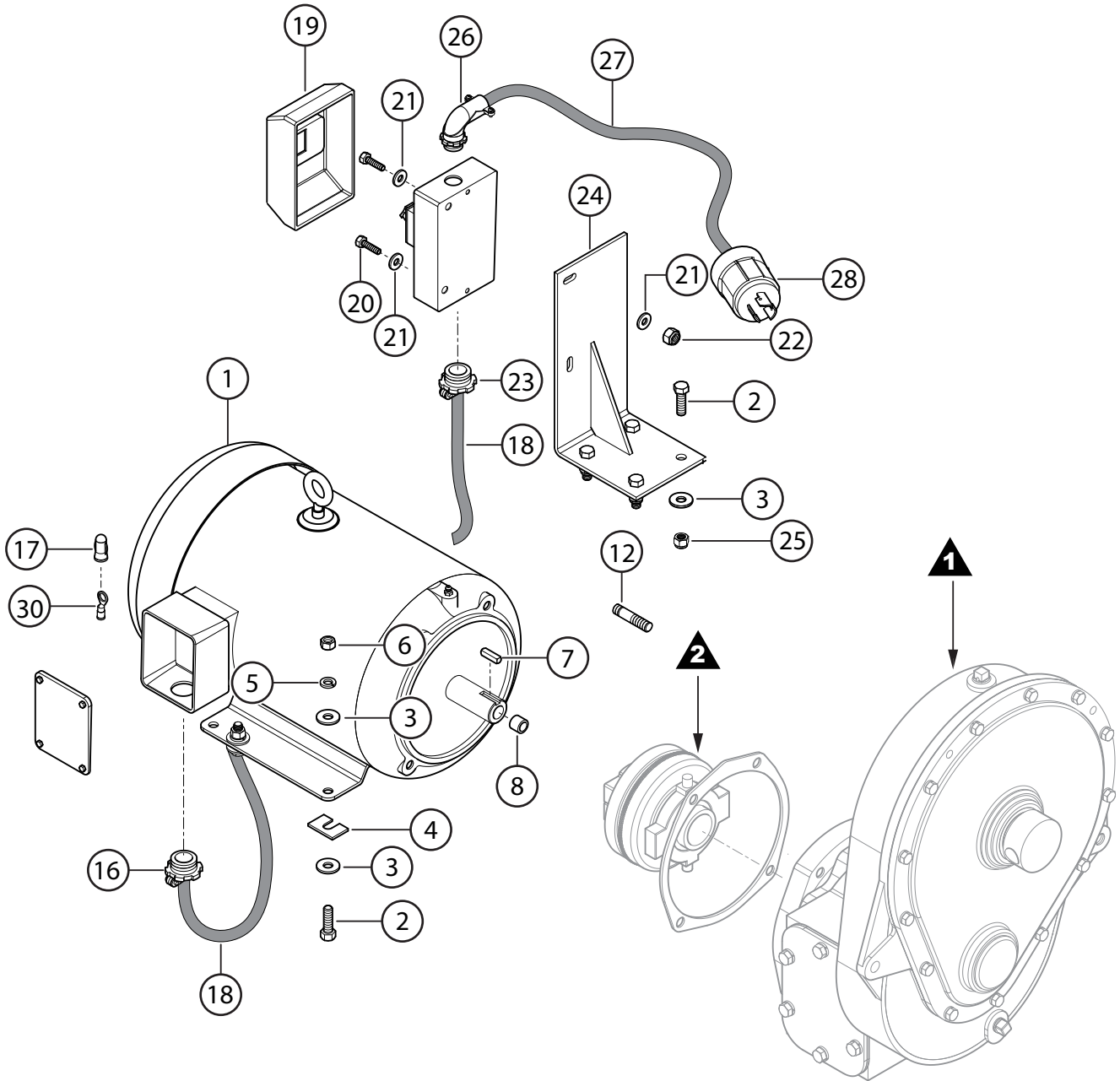
▲1 REFER TO "TRANSMISSION ASSY." FOR PART NO.

▲2 REFER TO "CLUTCH ASSY." FOR PART NO.

1Ø 230 VAC, 60 HZ ELECTRIC MOTOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM939228	MOTOR, ELECTRIC 5HP, 1PH	1	
2	EM963610	BOLT 3/8" NC X 1-1/4" G5.....	8.....	REPLACES P/N 492376
3	3019092	WASHER, FLAT 3/8".....	12.....	REPLACES P/N 492598
4	511122	FITTING, ENGINE	6	
5	0166A	WASHER, LOCK 3/8".....	4.....	REPLACES P/N 492624
6	1456	NUT HEX 3/8" G5.....	4.....	REPLACES P/N 492554
7	EM502625	KEY 1/4" X 25MM	1	
8	EM801570	BUSHING, PILOT	1	
12	512223	STUD 7/16" X 2	4	
16	508135	CONNECTOR	1	
17	505502	CONNECTOR COVER	3	
18	508683	CABLE, 3-WIRE	2	
19	EM98187	SWITCH ASSY. 5HP 1PH	1	
20	EM492357	BOLT 1/4" X 1"	3	
21	EM923057	WASHER 1/4".....	6.....	REPLACES P/N 492596
22	492581	NYLON LOCKNUT 1/4"-20	3	
23	517031	CONNECTOR	1	
24	805783	MOUNT BRACKET	1	
25	EM969013	NUT NYLOC.....	4.....	REPLACES P/N 492583
26	EM940162	CONDUIT CONNECTOR 90° ELBOW	1	
27	508683	CABLE 3-WIRE, HEAVY DUTY	1	
28	940547	PLUG, L6-30P, 3-PRONG	1	
30	505403	TERMINAL	1	

3Ø 230/460 VAC, 60 HZ ELECTRIC MOTOR ASSY.



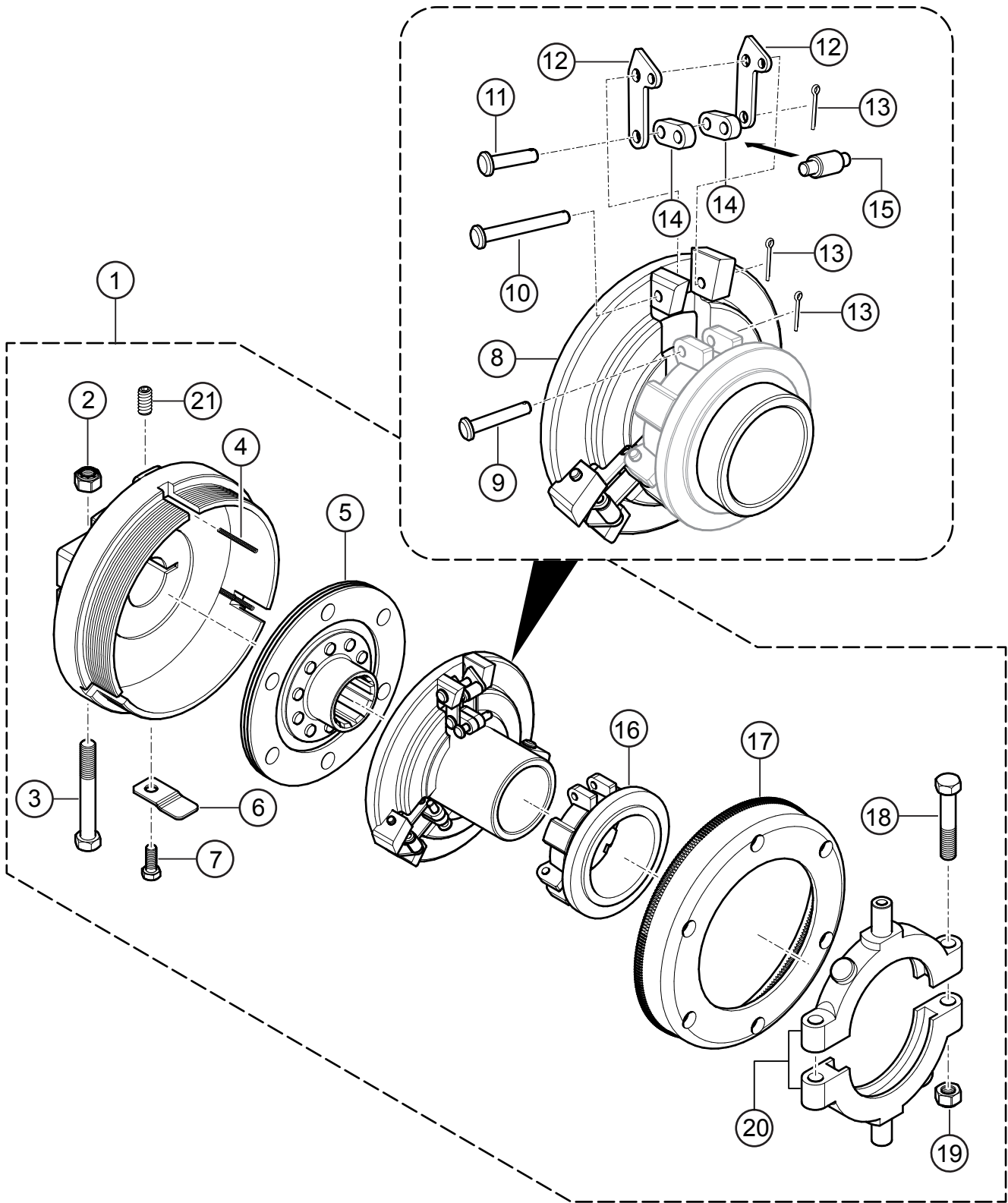
NOTES:

- ▲1** REFER TO "TRANSMISSION ASSY." FOR PART NO.
- ▲2** REFER TO "CLUTCH ASSY." FOR PART NO.

3Ø 230/460 VAC, 60 HZ ELECTRIC MOTOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM939229	MOTOR, ELEC. 5HP, 3PH	1	
2	EM963610	BOLT 3/8"	8.....	REPLACES P/N 492376
3	3019092	WASHER, FLAT 3/8"	12.....	REPLACES P/N 492598
4	511122	FITTING, ENGINE	6	
5	0166A	WASHER LOCK 3/8" DIA.	4.....	REPLACES P/N 492624
6	1456	NUT, HEX 3/8"	4.....	REPLACES P/N 492554
7	EM502625	KEY 1/4" X 25MM	1	
8	EM801570	BUSHING, PILOT	1	
12	512223	STUD 7/16" X 2	4	
16	508135	CONNECTOR	1	
17	505502	CONNECTOR COVER	4	
18	521701	CABLE 4- WIRE, HEAVY DUTY	2	
19	EM98191	SWITCH ASSY. 5HP, 3PH (230 VOLT)	1	
19	EM98284	SWITCH ASSY. 5HP, 3PH (460 VOLT)	1	
20	EM492357	BOLT 1/4" X 1"	3	
21	EM923057	WASHER 1/4"	6.....	REPLACES P/N 492596
22	492581	NYLON LOCKNUT 1/4"-20	3	
23	517031	CONNECTOR	1	
24	805783	MOUNT BRACKET	1	
25	EM969013	NUT NYLOC	4.....	REPLACES P/N 492583
26	EM940162	CONDUIT CONNECTOR 90° ELBOW	1	
27	521701	CABLE 4-WIRE, HEAVY DUTY	1	
28	511647	PLUG, L14-30P, 4-PRONG	1	
30	505403	TERMINAL	1	

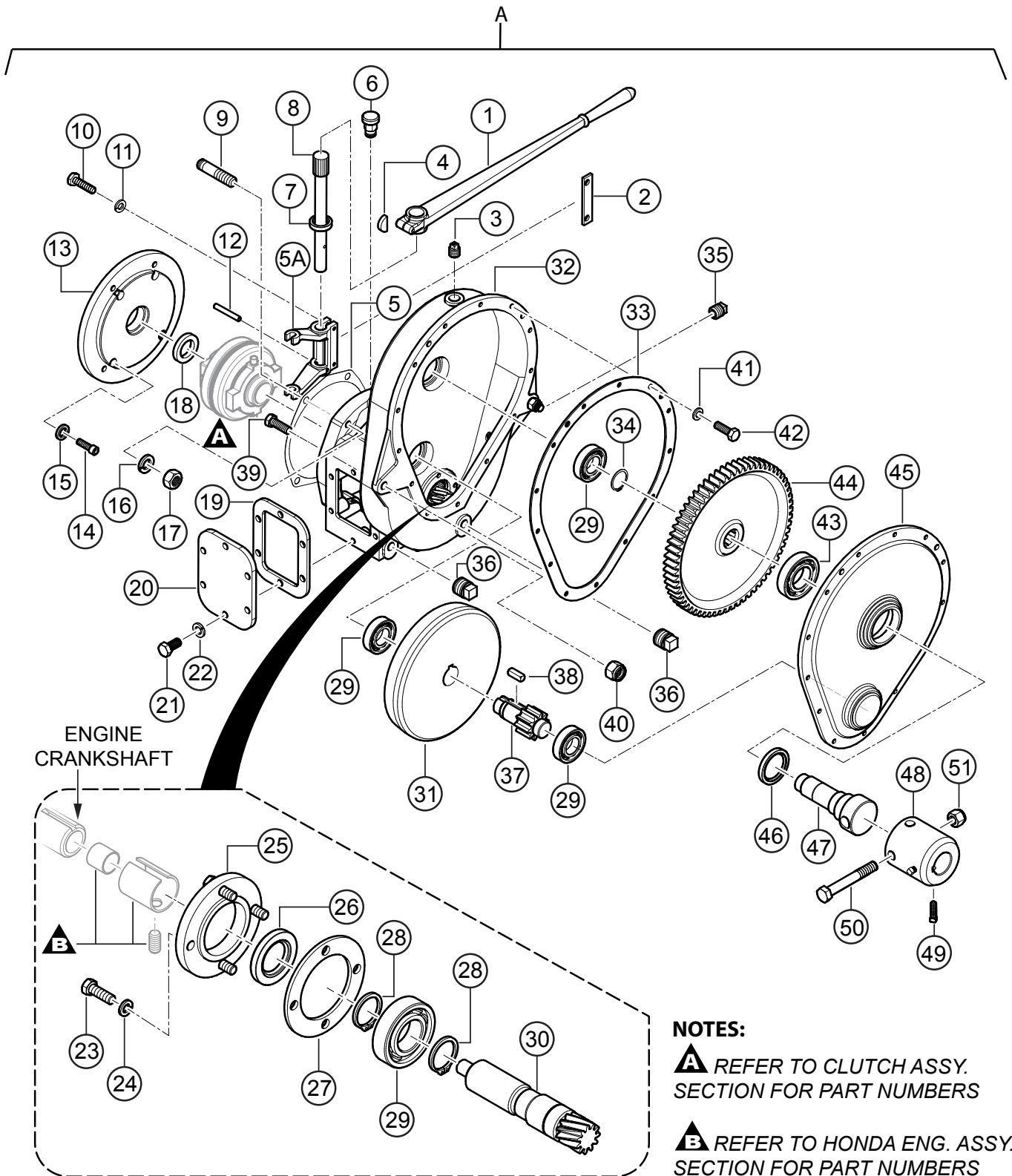
CLUTCH ASSY.



CLUTCH ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	EM934022	CLUTCH ASSEMBLY	1.....	INCLUDES ITEMS W/\$
2\$	2656	NUT, NYLOC 5/16-24	1	
3\$	EM963289	BOLT, 5/16-24 X 1-3/4" HEX	1	
4\$	EM918009	SPRING, RELEASE	3	
5\$	EM934041	DRIVEN MEMBER	1	
6\$	EM934040	LOCK, ADJUSTING	1	
7\$	N/A	BOLT HHCS 1/4-20 X 1/2"	1	
8\$	EM934042	PRESSURE PLATE	1	
9\$	EM925013	PIN 3/16 X 1-3/8	3	
10\$	EM925016	PIN 3/15 X1	3	
11\$	EM925018	PIN 3/16 X 3/4	3	
12\$	EM959012	LEVER	6	
13\$	5117	COTTER PIN 1/16D X 1/2	9	
14\$	EM934053	CONNECTING LINK	6	
15\$	EM934054	ROLLER	3	
16\$	EM934043	RELEASE SLEEVE	1	
17\$	EM934045	ADJUSTING RING	1	
18\$	EM963289	BOLT 5/16-24 X 1-3/4 HEX	2	
19\$	2656	NUT, NYLOC 5/16-24	2	
20\$	EM934044	RELEASE BEARING ASSEMBLY	1	
21\$	EM961045	SET SCREW 5/16-18 1/2	1	

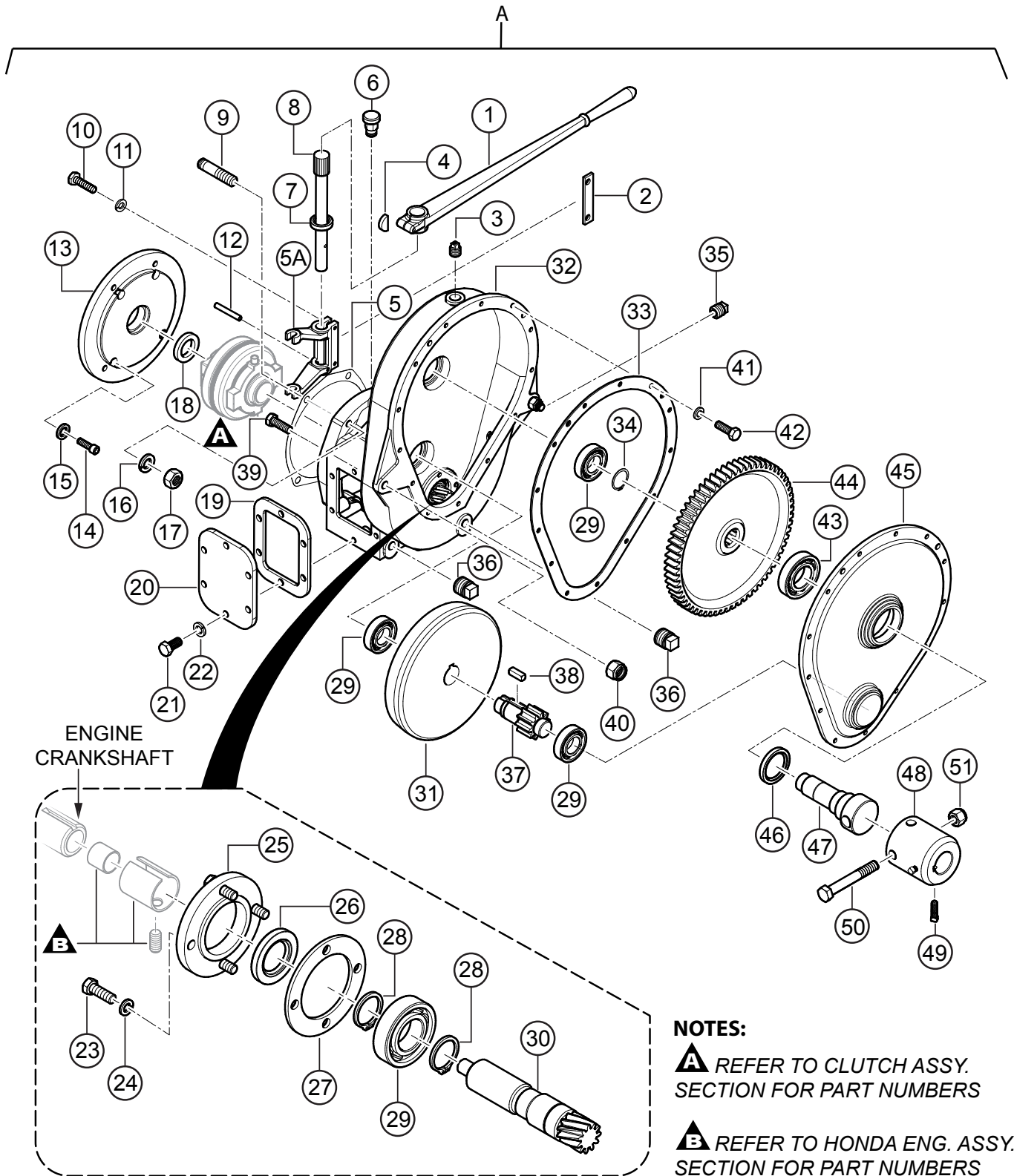
TRANSMISSION ASSY.



TRANSMISSION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
A	EM600000	COMP. TRANSMISSION ASSY.....	1.....	INCLUDES ITEMS W/#
1#	EM600018	LEVER	1	
2#	EM600024	LOCK PLATE	1	
3#	EM922356	BREATHER	1	
4#	EM927048	KEY, WOODRUFF	1	
5#	EM801965	GASKET	1	
5A#	EM600028	CLUTCH YOKE	1	
6#	511233	BREATHER	1	
7#	EM914005	OIL SEAL	1	
8#	EM600029	SHIFTER SHAFT	1	
9#	EM300999	STUD	4	
10#	0730	HHCS 1/4-20X1	2	
11#	181B	LOCK, WASHER 1/4	2	
12#	1729	ROLL PIN	1	
13#	EM203038	ADAPTER PLATE KIT, HONDA	1	
14#	11090	SCREW, SHCS 3/8-16 X 1-1/4 PLTD	4	
15#	13379	WASHER, COPPER	4	
16#	2599	LOCK, WASHER 1/16-14	4	
17#	EM492555	HHCS 1/4-14	4	
18#	13377	OIL SEAL	1	
19#	EM600026	GASKET	1	
20#	EM931233	COVER PLATE	1	
21#	4196	HHCS 3/8-16 X 3/4	4	
22#	1875	LOCK, WASHER 3/8	4	
23#	0202	HHCS 5/16-18X1	4	
24#	0161C	LOCK, WASHER 5/16	4	
25#	EM600023	BEARING RETAINER	1	
26#	EM914209	OIL SEAL	1	
27#	EM600022	GASKET, RETAINER	1	
28#	EM926029	SNAP RING	2	
29#	EM902091	BALL BEARING	4	
30#	EM600016	INPUT SHAFT	1	

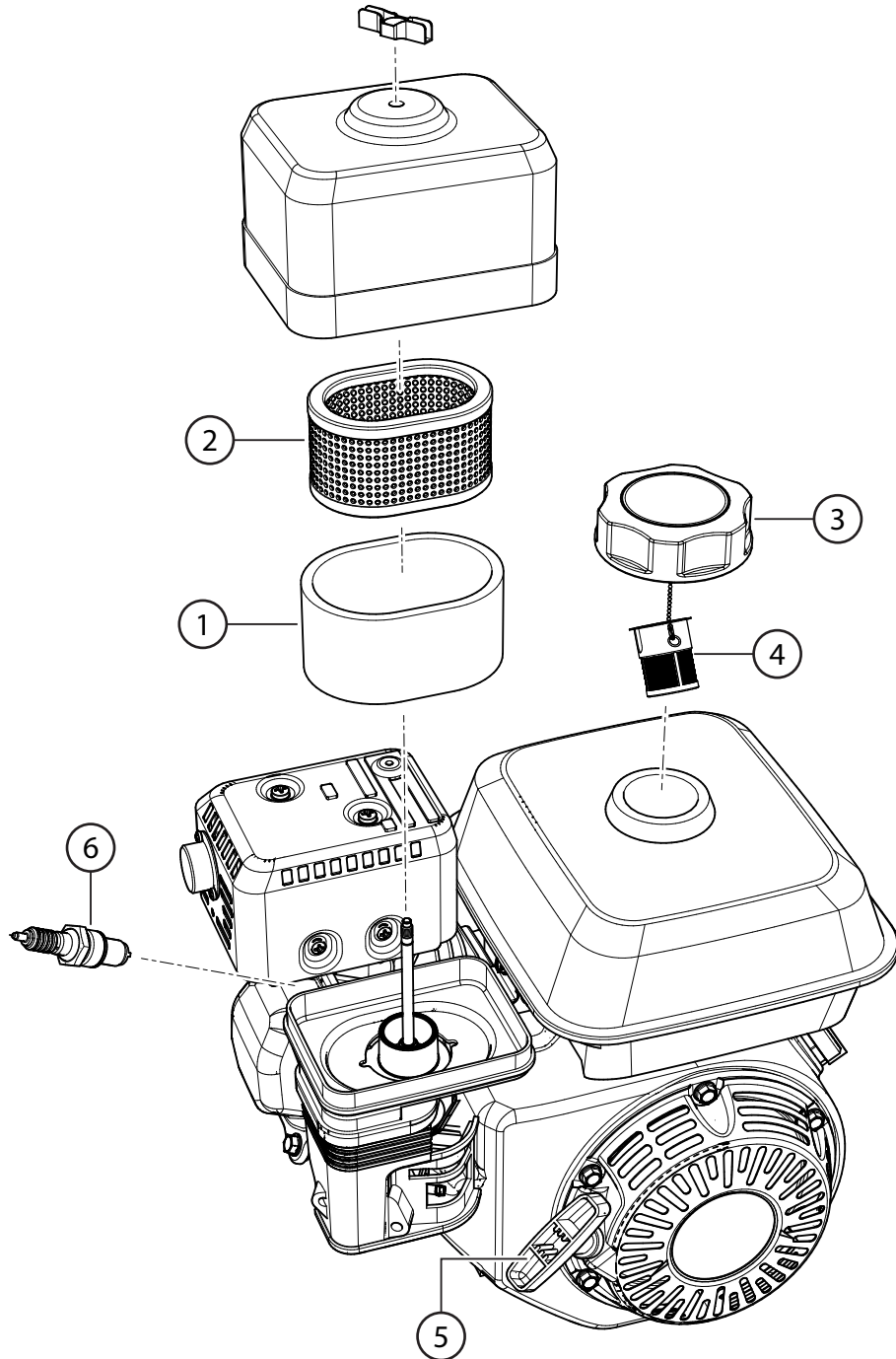
EM12M — TRANSMISSION ASSY. (CONT'D.)



EM12M — TRANSMISSION ASSY. (CONT'D.)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
31#	EM600020	INTERNAL GEAR	1	
32#	EM600012	TRANSMISSION HOUSING	1	
33#	EM600021	GASKET	1	
34#	EM926036	SNAP RING	1	
35#	EM511064	SQUARE HEAD PLUG 1/2"	1	
36#	EM911329	SQUARE PIPE PLUG 3/8"	2	
37#	EM600131	OUTPUT DRIVE PINION	1	
38#	EM010062	SQUARE KEY 3/8" X 3/8"	1	
39#	5218	HHCS 1/2-13 X 1-1/2	1	
40#	10176	1/2-13 NYLOC NUT	1	
41#	0161C	LOCK, WASHER 5/16	17	
42#	EM0202	HHCS 5/16-18 X 1	17	
43#	EM902161	BALL BEARING	1	
44#	EM600133	OUTPUT SHAFT GEAR	1	
45#	EM600014	TRANSMISSION COVER	1	
46#	EM914207	OIL SEAL	1	
47#	EM600015	OUTPUT SHAFT	1	
48#	EM200255	CONNECTOR	1	
49#	EM961019	SQUARE HHS 3/8 X 1-1/4	2	
50#	EM963157	BOLT, 5/8 G5 ONLY	1	
51#	EM969085	NUT, NYLOC 5/8	1	

ENGINE SERVICE PARTS



ENGINE SERVICE PARTS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	17218ZE3000	FILTER, OUTER	1	
2	17210ZE3010	AIR CLEANER ELEMENT	1	
3	17620Z0T305	TANK CAP, CHROME PLATED	1	
4	17672ZE2W01	FUEL FILTER	1	
5	28462ZE3W01	ROPE, RECOIL	1	
6	9807955846	SPARK PLUG, BPR5ES (NGK)	1	