

OPERATION AND PARTS MANUAL



WHITEMAN **JA-SERIES** **WALK-BEHIND TROWEL**

Revision #9 (07/02/10)

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

P/N 20887

JA-SERIES TROWEL — SUGGESTED SPARE PARTS

JA-SERIES TROWEL 1 TO 3 UNITS WITH HONDA GX-160K1QA2 ENGINE.

1 to 3 Units

Qty	P/N	Description
2	20856	SAFETY SWITCH
1	20285	CABLE STANDARD HANDLE
1	20297	CABLE QUICK PITCH™
1	20435	LEVER W/CABLE
4	1157 A	BUSHING
1	2828	ARM (11-3/4")
4	1162 A	LUBE CAP
4	1167 A	SCREW
4	1456	NUT
4	1875	WASHER
4	1322	SCREW
1	21046	GASKET KIT
1	21047	BEARING KIT
4	1247	RUBBER GROMMET
4	1245	SPACER
1	2827	ARM (16-1/2")
2	0152 3	BELT (A-28) HONDA W/HND CLUTCH
1	10968	THRUST COLLAR KIT
2	9807955846	SPARK PLUG HONDA
2	17620ZH7023	TANK CAP (HONDA)
2	17210ZE2505	AIR CLEANER ELEMENT (HONDA)
2	17218ZE2505	FILTER OUTER (HONDA)

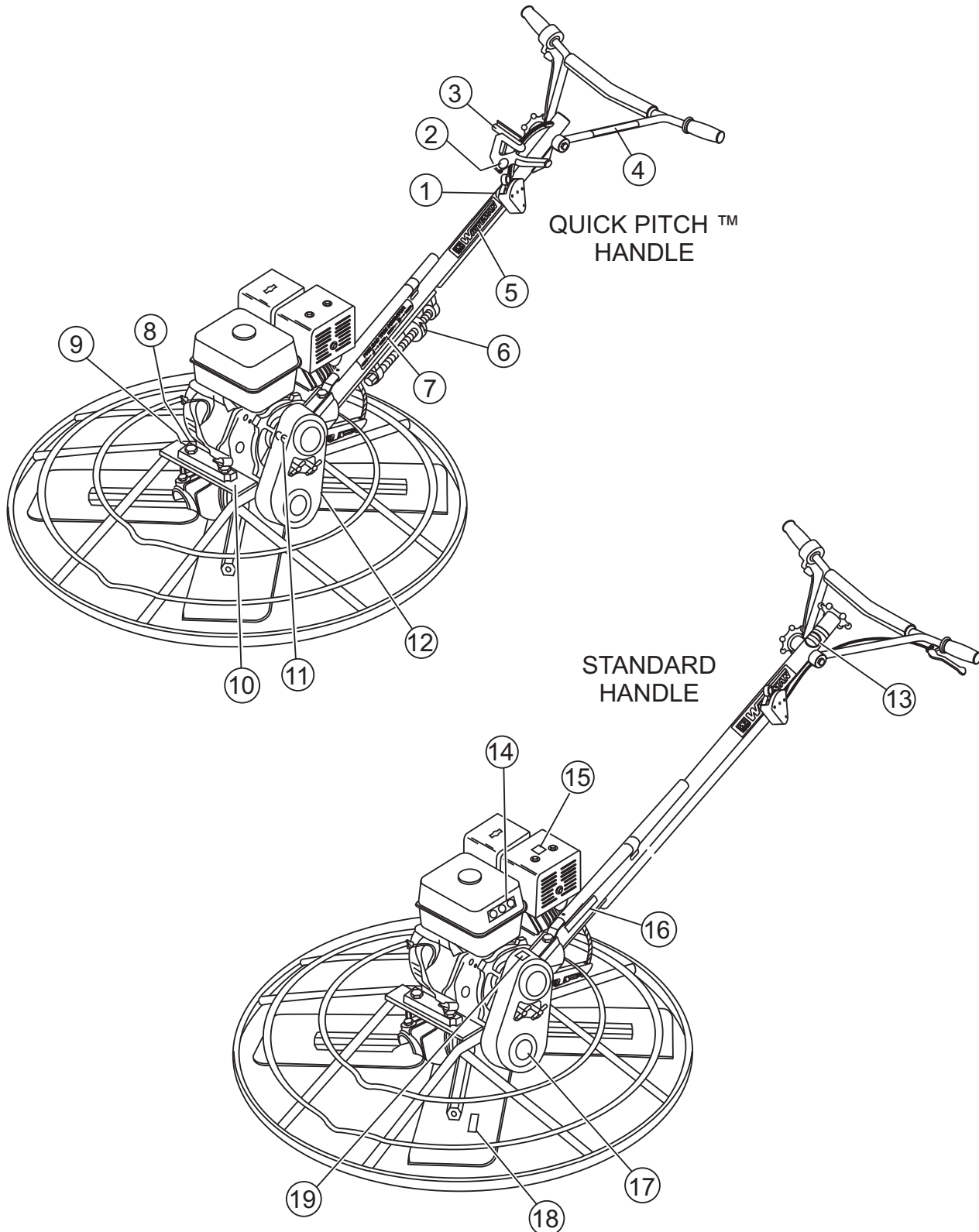
JA-SERIES TROWEL 1 TO 3 UNITS WITH ROBIN EH17-2 ENGINE.

1 to 3 Units

Qty	P/N	Description
3	20478	GRIP
2	20856	SAFETY SWITCH
1	20285	CABLE STANDARD HANDLE
1	20297	CABLE QUICK PITCH™
1	20435	LEVER W/CABLE
4	1157 A	BUSHING
1	2828	ARM (11-3/4")
4	1162 A	LUBE CAP
4	1167 A	SCREW
4	1456	NUT
4	1875	WASHER
4	1322	SCREW
1	21046	GASKET KIT
1	21047	BEARING KIT
4	1247	RUBBER GROMMET
4	1245	SPACER
1	2827	ARM (16-1/2")
2	0152 3	BELT (A-28) ROBIN W/HND CLUTCH
1	10968	THRUST COLLAR KIT
2	0650140031	SPARK PLUG (ROBIN)
2	0430430015	TANK CAP (ROBIN)
2	2703261008	AIR CLEANER ELEMENT (ROBIN)

JA-SERIES TROWEL — NAMEPLATE AND DECALS

NAMEPLATES AND DECALS



JA-SERIES TROWEL — NAMEPLATE AND DECALS

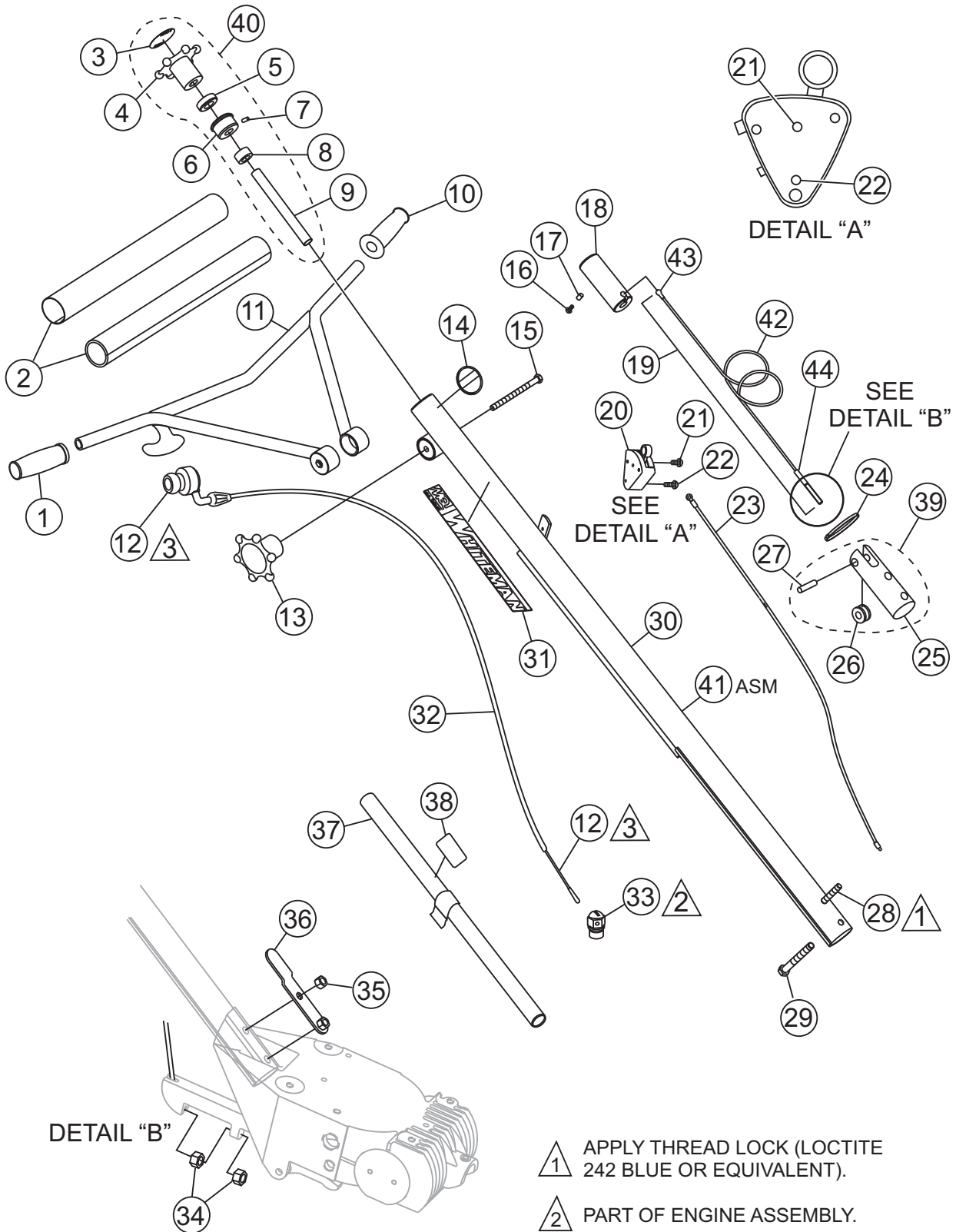
NAMEPLATE AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1758	DECAL: QUICK PITCH™ HANDLE	1	
2	12405	DECAL: QUICK PITCH™ HANDLE INSERT	2	
3	20527	DECAL: QUICK PITCH™ WARNING	1	
4	20526	DECAL: QUICK PITCH™ LATCH WARNING	1	
5	2942	DECAL: MQ WHITEMAN 13"	1	
6	1736	DECAL: ARROWS	1	
7	1735	DECAL: PRE-LOAD INDICATOR	1	
8 *	11246	DECAL: OIL CHECK	1	
9		NAMEPLATE	1 CONTACT MULTIQUIP PARTS DEPT.
10	1940	DECAL: MQ WHITEMAN (SMALL)	1	
11	11092	DECAL: CE	1	
12 *	11246	DECAL: GEAR DRIVE	1	
13	1492	DECAL: STANDARD HANDLE (FINISHER)	1	
14 *	11247	DECAL: HELMET, FOOT AND GLOVE	1	
15 *	11246	DECAL: HOT	1	
16	1261	DECAL: DO NOT LIFT	1	
17	1848	DECAL: POWER TROWEL	1	
18	2938	DECAL: METRIC	1	
19 *	11246	DECAL: BELT DRIVE	1	
	12620	DECAL, KIT	1 INCLUDES ITEMS W/*

SEE DECAL ILLUSTRATIONS ON PAGE 12

JA-SERIES TROWEL — STANDARD HANDLE ASSY.

STANDARD HANDLE ASSY.



- ▲ 1 APPLY THREAD LOCK (LOCTITE 242 BLUE OR EQUIVALENT).
- ▲ 2 PART OF ENGINE ASSEMBLY.
- ▲ 3 CABLE IS ATTACHED TO THROTTLE AND SEALED AT THE FACTORY. ORDERABLE AS A UNIT ONLY.

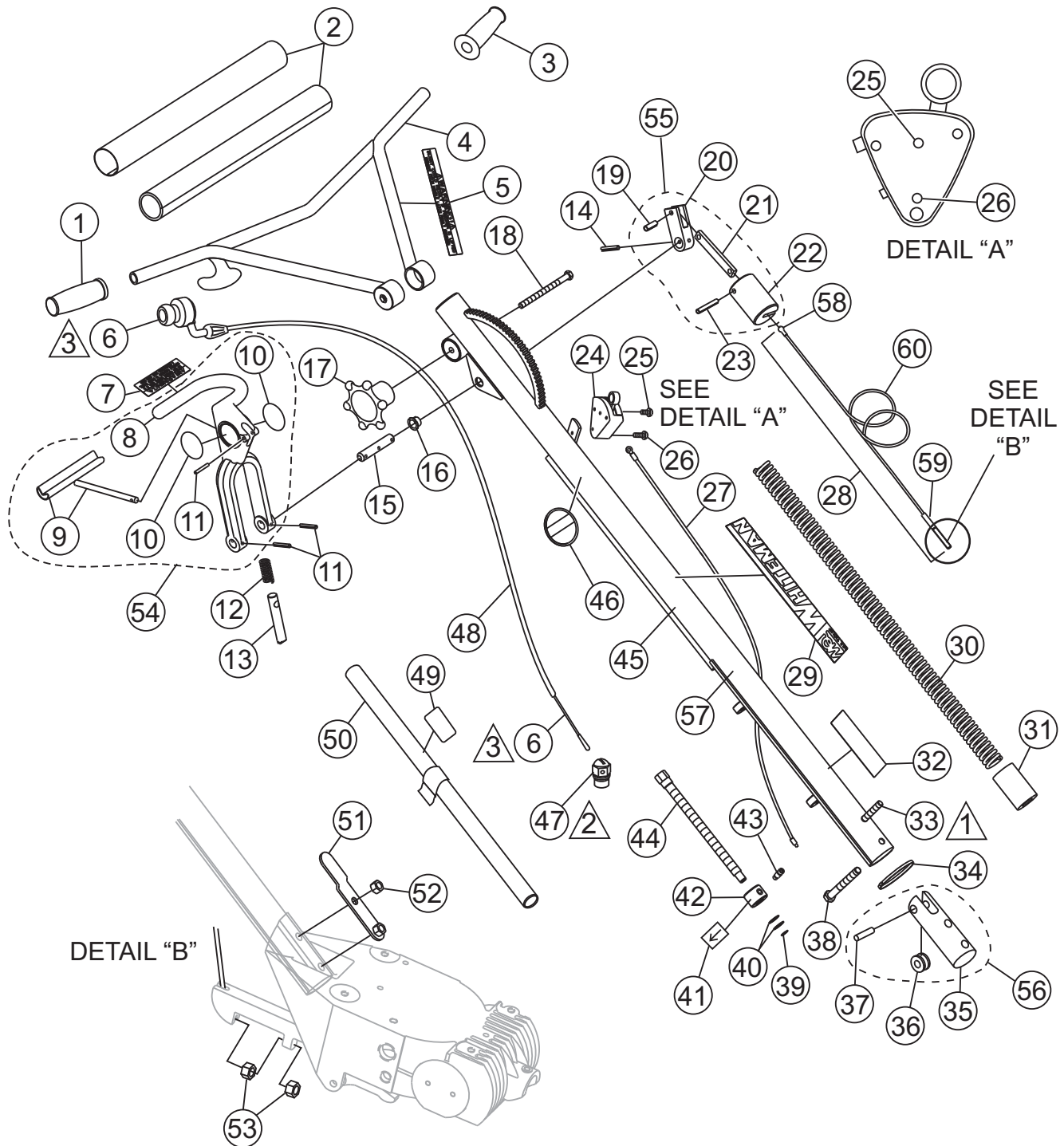
JA-SERIES TROWEL — STANDARD HANDLE ASSY.

STANDARD HANDLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	20463	GRIP, HANDLE RIGHT	1	
2	20774	COVER, PAD HANDLE	1	
3*	20818	DECAL, STD PITCH	1	
4*	20817	WHEEL, HAND J-B HANDLE	1	
5*	0281	BEARING, THRUST, NICE 607	1	
6*	20282	BEARING, TROWEL CONTROL	1	
7*	0122C	SCREW, SHS 3/8-16 X 1/2	1	
8*	3615	COLLAR, SET 3/4 ID	1	
9*	1478	SHAFT, TROWEL CONTROL	1	
10	20478	GRIP, HANDLE LEFT	1	
11	12556	HANDLE, ADJUSTABLE	1	
12	20435	THROTTLE LEVER W/CABLE	1	
13	20439	WHEEL ASSY., HAND	1	
14	1492	DECAL, CUSTOM 2 1/2 CHROME	1	
15	20438	SCREW, HHC 3/8-16 X 5.00	1	
16	0786	SCREW, BHC 1/4- 20 X 3/8 NYL PATCH, NP	1	
17	0786A	SPACER, .360 X 17/64 X 1/8L	1	
18	20287	SLIDE BLOCK TROWEL CONTROL	1	
19	20285	CABLE ASSY., LENGTH 48.29" STD FINISHER ...	1	INCLUDES ITEMS W/■
20	20856	SWITCH ASSY., KILL	1	INCLUDES ITEMS W/\$
21\$	1602	SCREW, RHM 10-24 X 3/8	1	
22\$	20988	SCREW, FHSC PHILLIPS 8-32 X 1 1/4	1	
23	20514	WIRE ASSY., KILL SWITCH	1	
24	1662	TIE, CABLE TY-RAP, BLACK	1	
25#	20275	BLOCK, SUPPORT	1	
26#	1118	PULLEY, SUPPORT BLOCK	1	
27#	20279	PIN, SUPPORT BLOCK 3/8 X 1.59	1	
28	21017	SCREW, HHC 3/8-16 X 3 1/2 FULL THREAD	1	
29	1493	SCREW, HHC 3/8-16 X 3 1/4	1	
30	12567	HANDLE, J/B STD	1	
31	2942	DECAL, MQ WHITEMAN, 13"	1	
32	20434	HOUSING, CABLE 74"	1	
33	20845	SWIVEL, THROTTLE CABLE	1	
34	1116	NUT, BRASS JAM 5/16-18	2	
35	10133	NUT, NYLOC 3/8-16	1	
36	20392	BRACKET, LIFT TUBE	1	
37		HANDLE, LIFT ASSY.	1	NO LONGER AVAILABLE
38		DECAL, CAUTION, LIFT HANDLE	1	NO LONGER AVAILABLE
39	20280	BLOCK, CABLE ASSY.	1	INCLUDES ITEMS W/#
40	20819	HAND WHEEL ASSY., PITCH CONTROL	1	INCLUDES ITEMS W/*
41		HANDLE ASSY., STD FINISHERS	1	CONTACT SALES DEPT.
42	20301■	CABLE, CNTL 5/32 GALV AIRCRAFT 46.03"	1	
43	20421■	CLEVIS, BALL END CONTROL CABLE	1	
44	A8638■	END-BOLT, CNTL CABLE	1	

JA-SERIES TROWEL — QUICK PITCH™ HANDLE ASSY.

QUICK PITCH™ T-HANDLE ASSY.



▲ 1 APPLY THREAD LOCK (LOCTITE 242 BLUE OR EQUIVALENT).

▲ 2 PART OF ENGINE ASSEMBLY.

▲ 3 CABLE IS ATTACHED TO THROTTLE AND SEALED AT THE FACTORY. ORDERABLE AS A UNIT ONLY.

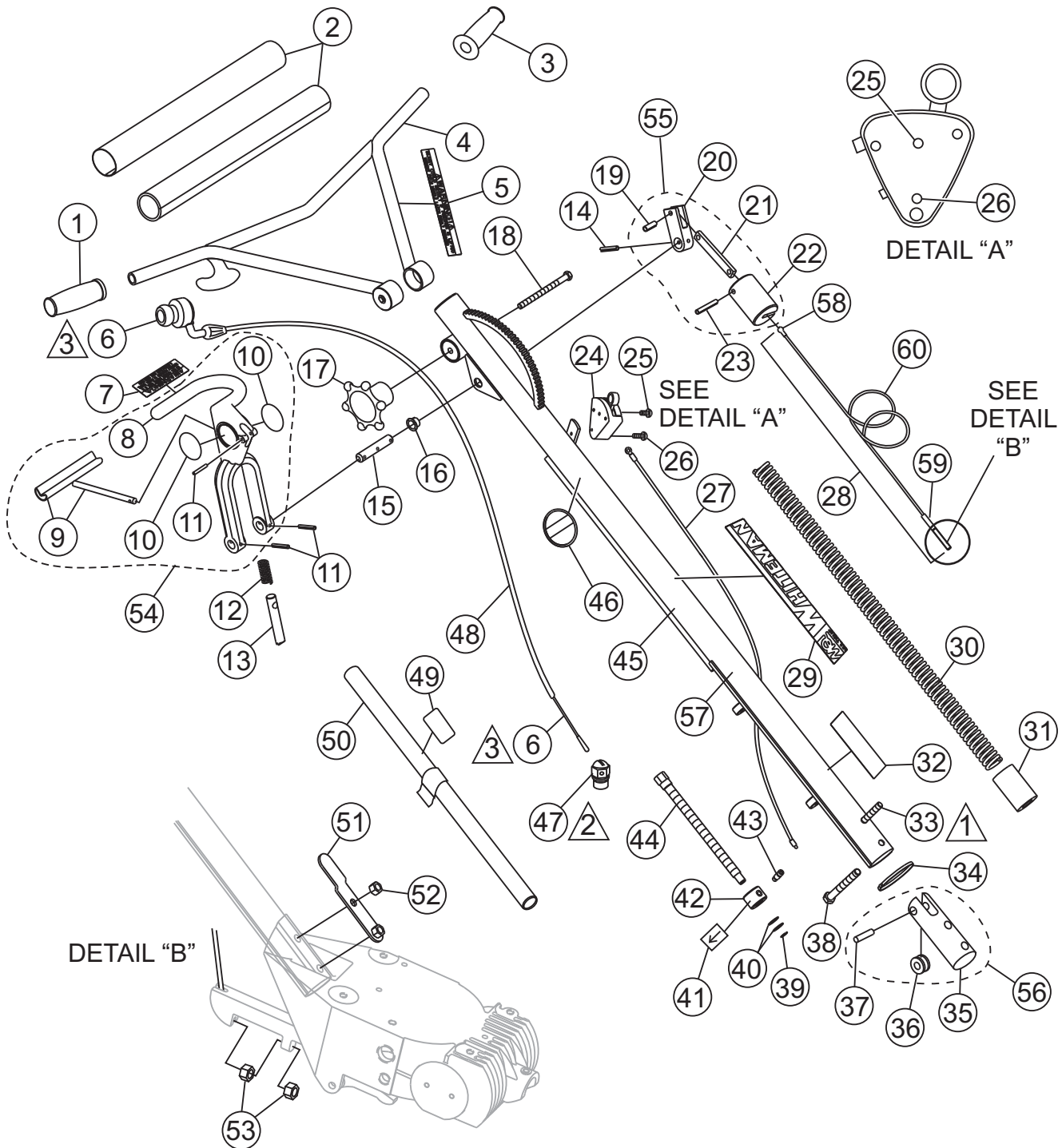
JA-SERIES TROWEL — QUICK PITCH™ HANDLE ASSY.

QUICK PITCH HANDLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	20463	GRIP, HANDLE RIGHT	1	
2	20774	COVER, PAD HANDLE	1	
3	20478	GRIP, HANDLE LEFT	1	
4	12556	HANDLE, ADJUSTABLE	1	
5	20526	DECAL, LATCH WARNING	1	
6	20435	THROTTLE LEVER W/CABLE	1	
7	20527	DECAL, Q.P. WARNING	1	
8*	20389	HANDLE, QUICK-PITCH™	1	
9*	1746	TRIGGER, QP CHROMED	1	
10*	12405	DECAL, WHITEMAN QUICK-PITCH™	2	
11*	1729	PIN, ROLL 3/16 X 1 1/4	3	
12*	1706	SPRING, ENCLOSED QP CLAMP	1	
13*	20437	PIN, QP LATCH	1	
14	4568	PIN, ROLL 3/16 X 1	1	
15	1711	SHAFT, CONTROL QP	1	
16	1719	BUSHING, PIVOT PLATE	1	
17	20439	WHEEL ASSY., HAND	1	
18	20438	SCREW, HHC 3/8-16 X 5.00	1	
19+	1731	PIN, ROLL 1/4 X 3/4	1	
20+	20443	ARM, SLIDE CONTROL	1	
21+	1709	CONNECTOR, QP CONTROL ARM	1	
22+	20269	LINKAGE, QP CONTROL	1	
23+	20276	PIN, ROLL 1/4 X 1 3/4	1	
24	20856	SWITCH ASSY., KILL	1	INCLUDES ITEMS W/\$
25\$	1602	SCREW, RHM 10-24 X 3/8	1	
26\$	20988	SCREW, FHSC PHILLIPS 8-32 X 1 1/4	1	
27	20514	WIRE ASSY., KILL SWITCH	1	
28	20297	CABLE ASSY., QP CONTROL, 45"	1	INCLUDES ITEMS W/■
29	2942	DECAL, MQ WHITEMAN, 13"	1	
30	1715	SPRING, COUNTER BALANCE	1	
31	20270	BLOCK, QP ADJUSTMENT	1	
32	1735	DECAL, PRELOAD TRIM INDICATOR	1	
33	21017	SCREW, HHC 3/8-16 X 3 1/2 FULL THREAD	1	
34	1662	TIE, CABLE, TY-RAP BLACK	1	
35#	20275	BLOCK, SUPPORT	1	
36#	1118	PULLEY, SUPPORT BLOCK	1	
37#	20279	PIN, SUPPORT BLOCK 3/8 X 1.59	1	
38	1493	SCREW, HHC 3/8-16 X 3 1/4	1	
39	1737	SNAP RING, TRUARC #5100-50	1	
40	1733	WASHER, 1/2 X 1/32, HARDENED	2	

JA-SERIES TROWEL — QUICK PITCH™ HANDLE ASSY.

QUICK PITCH HANDLE ASSY.



▲ 1 APPLY THREAD LOCK (LOCTITE 242 BLUE OR EQUIVALENT).

▲ 2 PART OF ENGINE ASSEMBLY.

▲ 3 CABLE IS ATTACHED TO THROTTLE AND SEALED AT THE FACTORY. ORDERABLE AS A UNIT ONLY.

JA-SERIES TROWEL — QUICK PITCH™ HANDLE ASSY.

QUICK PITCH HANDLE ASSY.

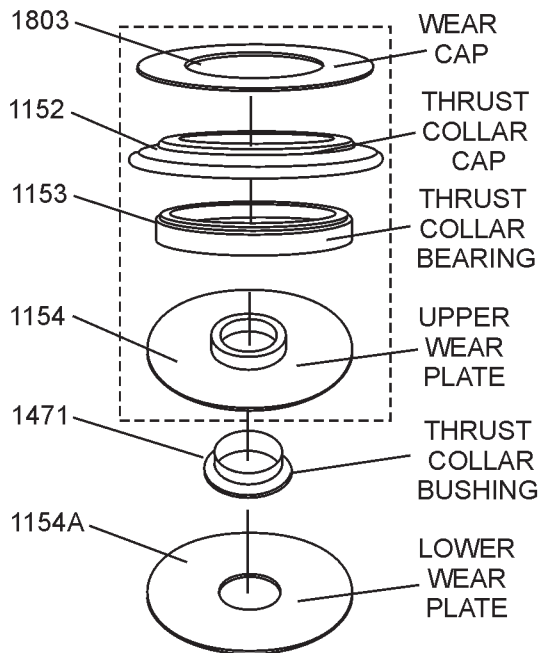
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
41	1736	DECAL, ARROW	1	
42	1718	NUT, QP TRIM CTRL ADJ	1	
43	1732	BOLT, STRIPPER 3/8 X 1/2	1	
44	1717	SCREW, QP TRIM ADJUSTMENT	1	
45	12642	TUBE, MAIN HANDLE	1	
46	1758	DECAL, PATENT QP	1	
47	20845	SWIVEL, ENGINE THROTTLE CABLE	1	
48	20434	HOUSING, THROTTLE CABLE 74"	1	
49		DECAL, CAUTION, LIFT HANDLE	1	NO LONGER AVAILABLE
50		HANDLE, LIFT ASSY.	1	NO LONGER AVAILABLE
51	20392	BRACKET, LIFT TUBE	1	
52	10133	NUT, NYLOC 3/8-16	1	
53	1116	NUT, BRASS JAM 5/16-18	2	
54	20390	TRIGGER, QP ASSY.	1	INCLUDES ITEMS W/*
55	20293	LINKAGE, QP CONTROL ASSY.	1	INCLUDES ITEMS W/+
56	20280	BLOCK, CABLE ASSY.	1	INCLUDES ITEMS W/#
57		HANDLE ASSY., MAIN	1	CONTACT SALES DEPT.
58■	20421	CLEVIS, BALL END CONTROL CABLE	1	
59■	A8638	END-BOLT, CNTRL CABLE	1	
60■	20271	CABLE, CNTL 5/32 GALV AIRCRAFT 43.19"	1	

JA-SERIES TROWEL — THRUST BEARING KIT ASSY.

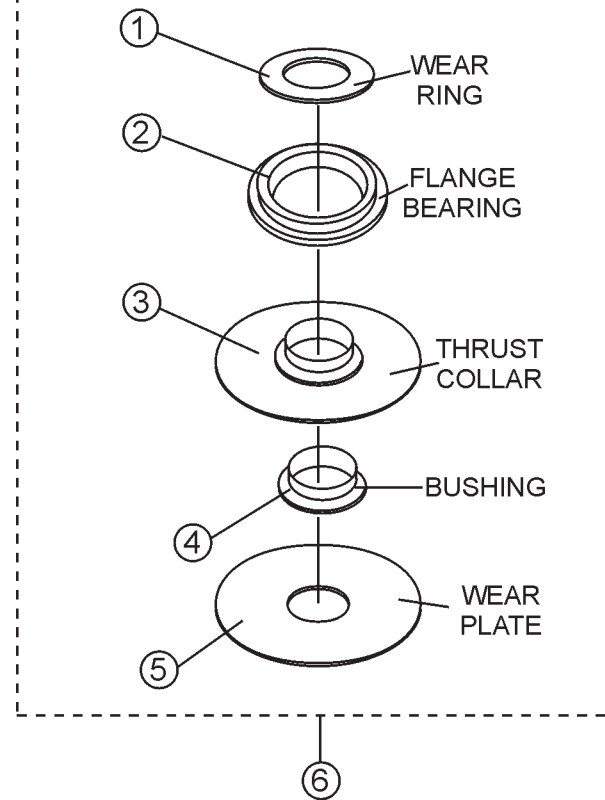
THRUST BEARING KIT ASSEMBLY.

THRUST BEARING KIT No. 10968

OLD STYLE THRUST BEARING NO LONGER USED



NEW STYLE THRUST BEARING



WHEN RE-ORDERING ***MUST*** USE
THRUST BEARING KIT P/N 10968.
OLD STYLE IS NOT AVAILABLE.

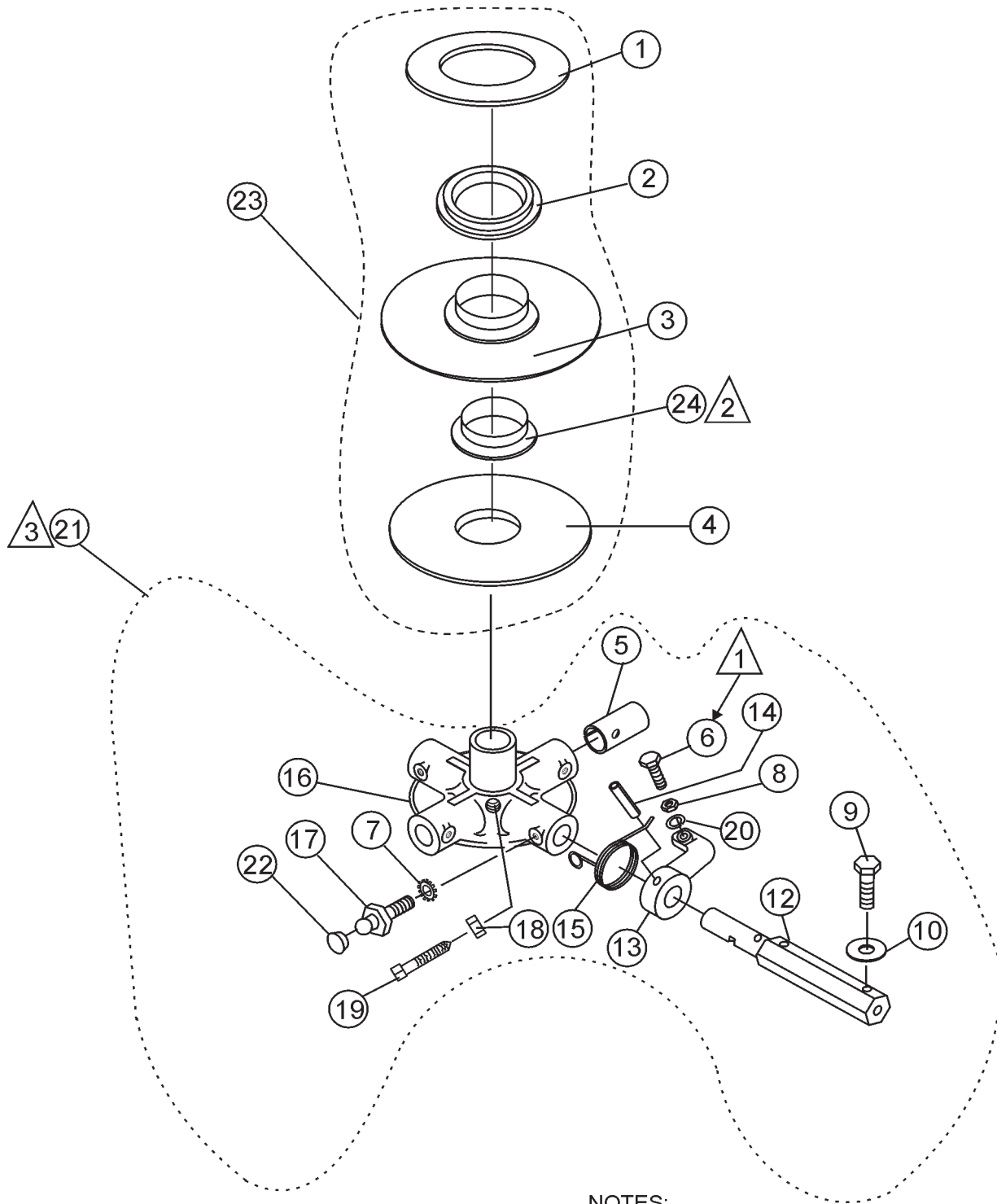
JA-SERIES TROWEL — THRUST BEARING KIT ASSY.

THRUST BEARING KIT ASSEMBLY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	12208	WEAR RING	1	
2*	12778	FLANGE BEARING	1	
3*	10793	THRUST COLLAR W/BUSHING	1	
4*	1471	BUSHING	1	
5*	1154A	LOWER WEAR PLATE	1	
6	10968	THRUST BEARING KIT	1	INCLUDES ITEMS W/*

JA-SERIE TROWEL — 4-BLADE SPIDER ASSY.

3 AND 4 BLADE SPIDER ASSY.



NOTES:

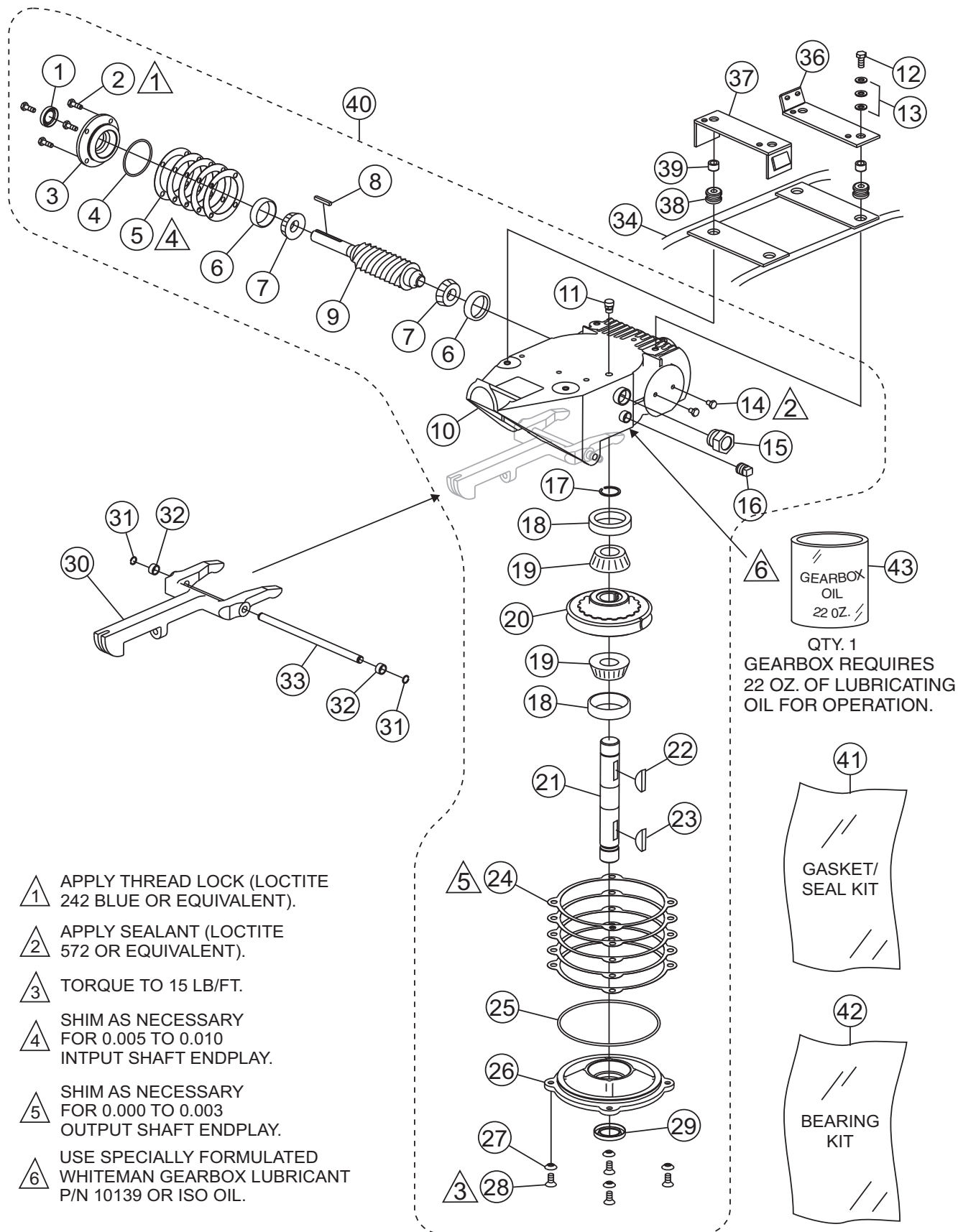
- △ 1 APPLY LOCTITE P/N 1477
- △ 2 INCLUDED WITH ITEM 3 OR CAN BE ORDERED SEPARATELY (P/N 1471).
- △ 3 SPIDER ASSEMBLIES P/N 1489 AND 1490 INCLUDES ALL ITEMS WITHIN OUTLINE.

JA-SERIES TROWEL — 4-BLADE SPIDER ASSY.

4 BLADE SPIDER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	12208	WEAR RING	1	
2*	12778	FLANGE BEARING	1	
3*	10793	THRUST COLLAR	1	INCLUDES ITEMS W/#
4*	1154A	WEAR PLATE	1	
5\$	1157A	BEARING INSERT	4	
6\$	0164B	RADIUS HEAD 3/8- 16 x 1-1/4"	4	
7\$	1875	INT. SHKP. WASHER 3/8"	4	
8\$	1876	JAM NUT 3/8- 16	4	
9\$	0105	HHCS 5/16- 18 x 1-1/2"	8	
10\$	0161C	LOCK WASHER 5/16"	8	
12\$	2826	TROWEL ARM 9-3/4	4	
13\$	1163	TROWEL ARM LEVER	4	
14\$	4164	ROLL PIN 5/16 x 1-3/4"	4	
15\$	1316	SPRING (RIGHT HAND)	4	
16\$	1161	SPIDER PLATE ONLY	1	
17\$	1322	RETAINING SCREW ASSY.	4	
18\$	1456	HEX NUT 3/8-16	1	
19\$	1167A	SHSS 3/8-16 x 1-1/2" CONE POINT	1	
20\$	0166A	LOCK WASHER 3/8"	4	
21	1215	SPIDER PLATE ASSY. (4 BLADE)	1	INCLUDES ITEMS W/\$
22	1162A	LUBRA- CAP	4	
23	10968	THRUST BEARING KIT	1	INCLUDES ITEMS W/*
24*#	1471	THRUST COLLAR BUSHING	1	

JA-SERIES TROWEL — GEARBOX AND ENGINE MOUNTS ASSY.

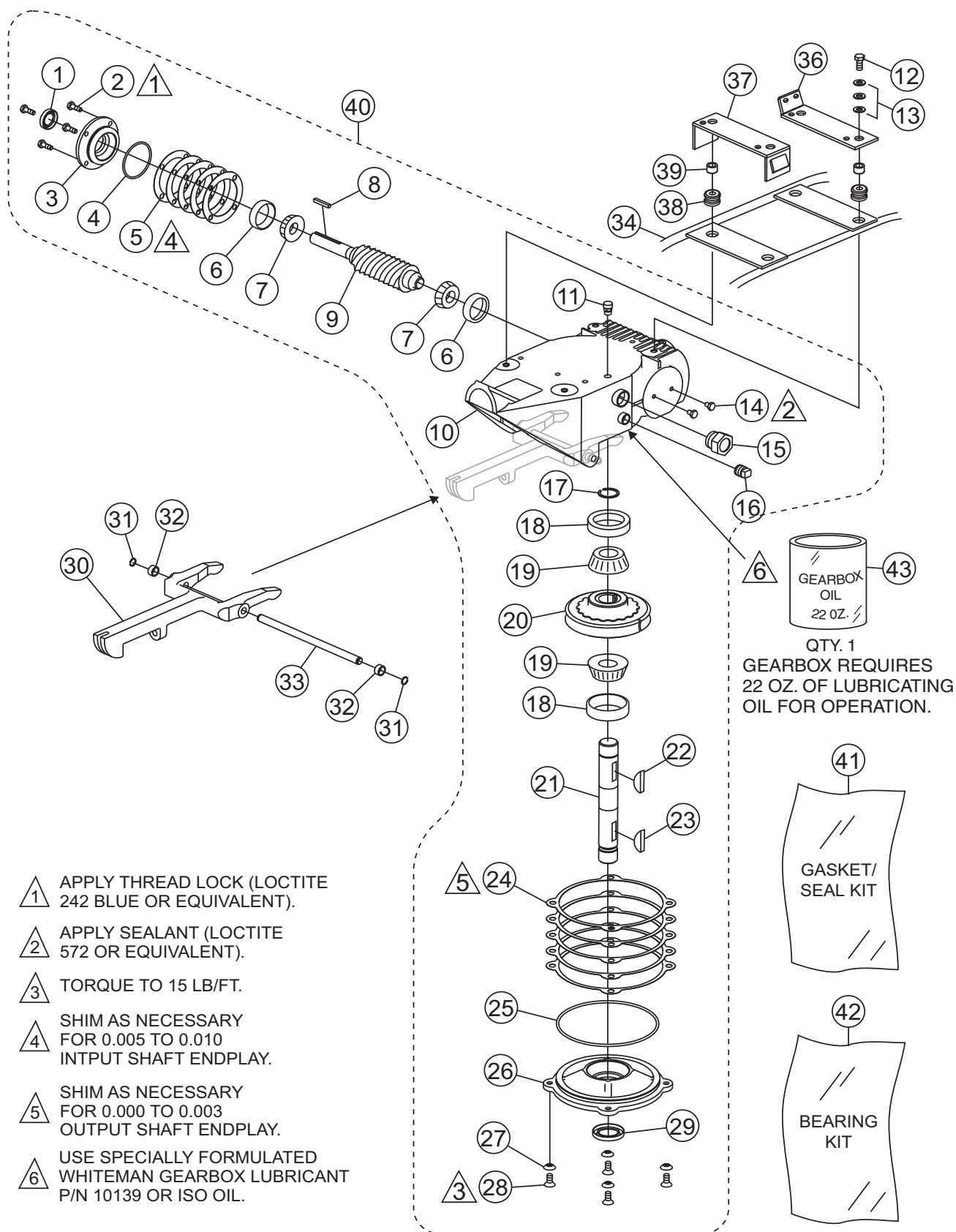



- ▲ 1 APPLY THREAD LOCK (LOCTITE 242 BLUE OR EQUIVALENT).
- ▲ 2 APPLY SEALANT (LOCTITE 572 OR EQUIVALENT).
- ▲ 3 TORQUE TO 15 LB/FT.
- ▲ 4 SHIM AS NECESSARY FOR 0.005 TO 0.010 INPUT SHAFT ENDPLAY.
- ▲ 5 SHIM AS NECESSARY FOR 0.000 TO 0.003 OUTPUT SHAFT ENDPLAY.
- ▲ 6 USE SPECIALLY FORMULATED WHITEMAN GEARBOX LUBRICANT P/N 10139 OR ISO OIL.







JA-SERIES TROWEL — GEARBOX AND ENGINE MOUNTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1%*	0753	SEAL, OIL NATIONAL #470954	1	
2%	0131A	SCREW, HHC 1/4-20 X 3/4	4	
3%	12876	FLANGE, INPUT SHAFT	1	
4%*	20395	RING, O -139 BUNA N	1	
5%*	20397	SHIM, INPUT 0.002 THICK	1	
	20398	SHIM, INPUT 0.003 THICK	1	
	20399	SHIM, INPUT 0.005 THICK	1	
	20400	SHIM, INPUT 0.010 THICK	1	
	20401	SHIM, INPUT 0.020 THICK	1	
6%#	20466	BEARING, CUP, TIMKEN #LM11910	2	
7%#	20465	BEARING, CONE, TIMKEN #LM11949	2	
8%	0627	KEY, SQUARE 3/16 X 1 1/4	1	
9%	1828	GEAR, WORM & SHAFT ASSY.	1	
10%	12874	CASE, GEAR, JA FINISHER	1	
11%	1132	VENT, AIR	1	
12	0655	SCREW, HHC 5/16-18 X 3/4	1	
13	0300B	WASHER, FLAT 5/16 SAE	3	
14%	20476	SCREW, HHC 1/4-28 X 3/8	2	
15%	21033	SIGHT GLASS, 3/4 M PIPE STEEL	1	
16%	0121A	FITTING, PLUG 3/8 MP SQ HEAD	1	
17%	1138	RING, SNAP, TRUARC 5100-112	1	
18%#	20475	BEARING, CUP TIMKEN #M86610	2	
19%#	20474	BEARING, CONE TIMKEN #M86647	2	
20%	1202	GEAR, WORM, BRONZE	1	
21%	20470	SHAFT, OUTPUT JA FIN	1	
22%	1139	KEY, WOODRUFF #21 HARDENED	1	
23	1238	KEY, WOODRUFF #25	1	
24%*	20402	SHIM, OUTPUT 0.002 THICK	1	
	20403	SHIM, OUTPUT 0.003 THICK	1	
	20404	SHIM, OUTPUT 0.005 THICK	1	
	20405	SHIM, OUTPUT 0.010 THICK	1	
	20406	SHIM, OUTPUT 0.020 THICK	1	
25%*	20396	RING, O -257 BUNA N	1	
26%	12875	COVER, GEARBOX	1	
27%	10235	WASHER, C/S EXT. SHKP	4	
28%	1146	SCREW, FHSC 5/16-18 X 1, NYLOC NP	4	
29%*	0254	SEAL, OIL, NATIONAL #470712	1	

JA-SERIES TROWEL — GEARBOX AND ENGINE MOUNTS ASSY.



 QTY. 1
 GEARBOX REQUIRES
 22 OZ. OF LUBRICATING
 OIL FOR OPERATION.

-  APPLY THREAD LOCK (LOCTITE 242 BLUE OR EQUIVALENT).
-  APPLY SEALANT (LOCTITE 572 OR EQUIVALENT).
-  TORQUE TO 15 LB/FT.
-  SHIM AS NECESSARY FOR 0.005 TO 0.010 INPUT SHAFT ENDPLAY.
-  SHIM AS NECESSARY FOR 0.000 TO 0.003 OUTPUT SHAFT ENDPLAY.
-  USE SPECIALLY FORMULATED WHITEMAN GEARBOX LUBRICANT P/N 10139 OR ISO OIL.

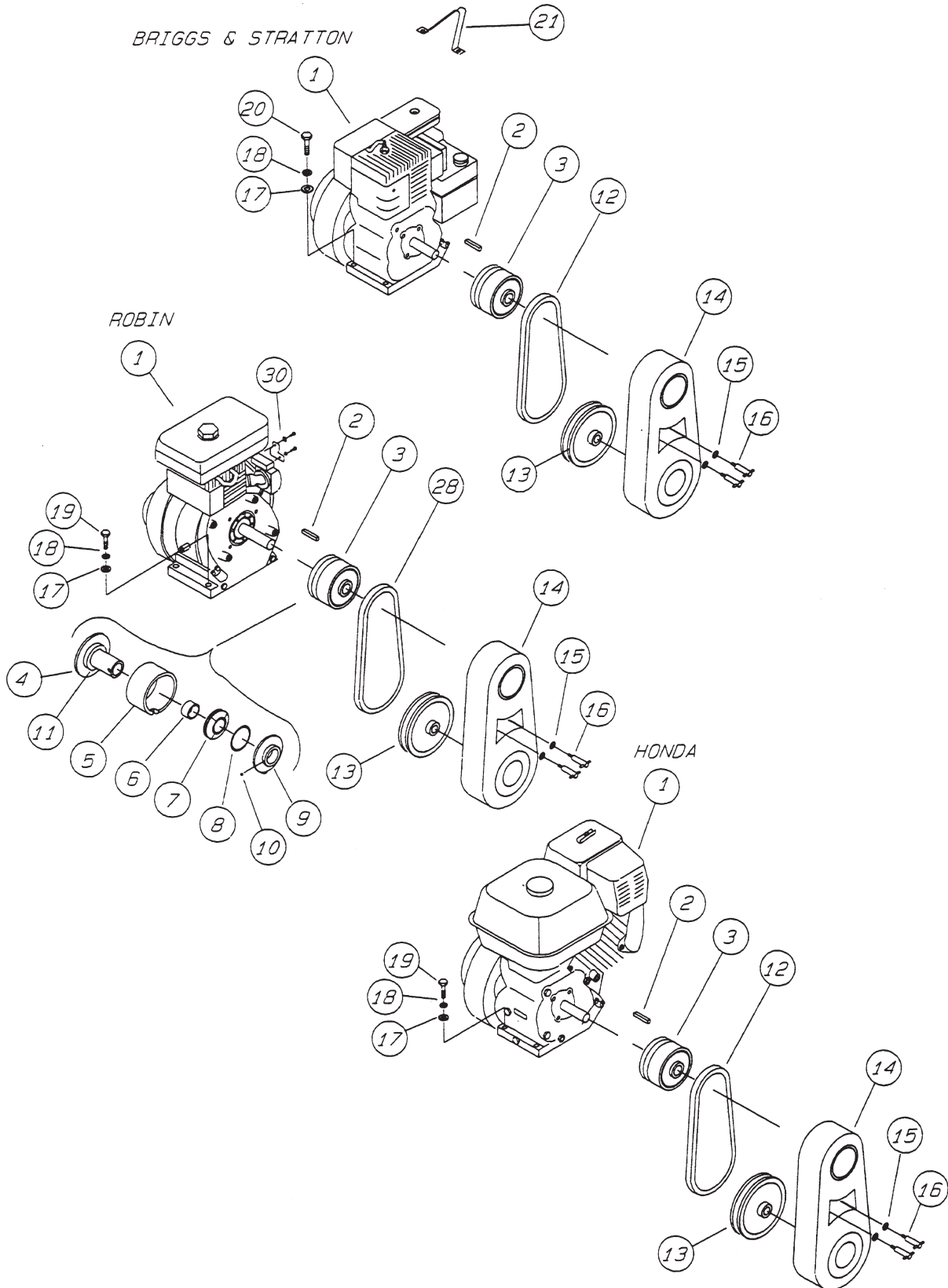


JA-SERIES TROWEL — GEARBOX AND ENGINE MOUNTS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
30	1150	ARM, YOKE	1	
31	20802	RING, SNAP, TRUARC 5100-37 OR EQUIV.	2	
32	20803	SPACER, .50 OD X .40 ID X 0.25L	2	
33	20801	PIN, YOKE	1	
34	20796	GUARD RING ASSY., JA	1	
36	1954	FRONT ENGINE MOUNT	1	
37	1942	REAR ENGINE MOUNT	1	
38	1247	GROMMET 1/4 X .875 ID X 1-5/8 OD	4	
39	1245	SPACER, GUARD RING	4	
40	20394	GEARBOX ASSY., JA	1	INCLUDES ITEMS W/%
41	21046	GASKET/SEAL KIT.	1	INCLUDES ITEMS W/*
42	21047	BEARING KIT KIT.	1	INCLUDES ITEMS W/#
43	10139	GEARBOX OIL, 22 OZ.	1	

JA-SERIES TROWEL — ENGINES, HONDA, ROBIN, BRIGGS & STRATTON

ENGINES, 5.5 HP HONDA, 6 HP ROBIN, & 5.5 HP BRIGGS AND STRATTON ASSY.



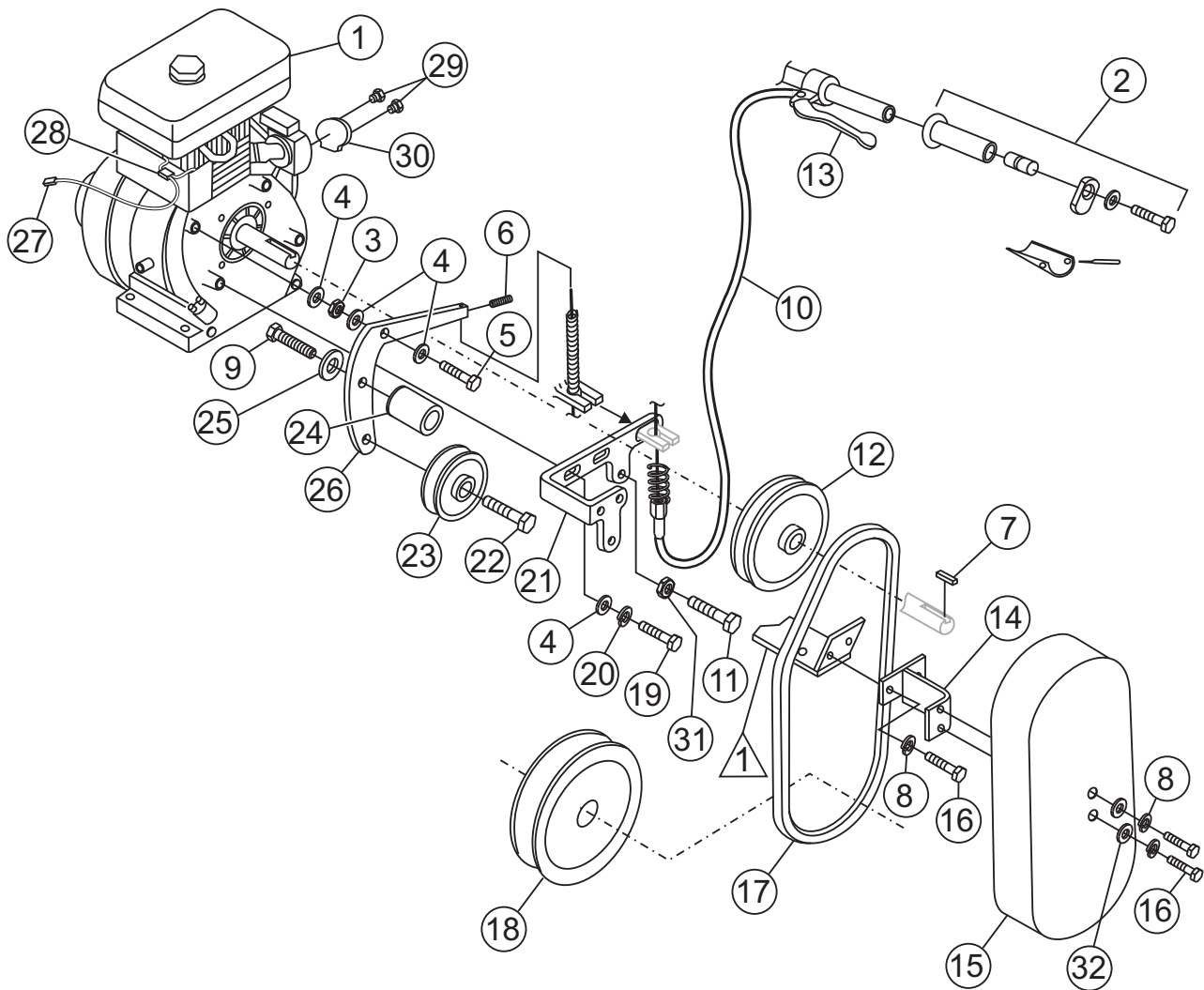
JA-SERIES TROWEL — ENGINES, HONDA, ROBIN, BRIGGS & STRATTON

ENGINES, 5.5 HP HONDA, 6 HP ROBIN, & 5.5 HP BRIGGS AND STRATTON ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1255	ENGINE 6 HP ROBIN	1	
1	1386	ENGINE 5.5 HP HONDA	1	
1	20468	ENGINE 5.5 HP BRIGGS & STRATTON	1	
2	0310	SQUARE KEY 1/4X1/4X1.1/2"	1	
3	0255	AUTOMATIC CLUTCH ASSY. 3/4" BORE	1	INCLUDES ITEMS W/@
4	21307	SPINDLE 3/4" BORE	1	REPLACES P/N 0256
5@	0251	CLUTCH HOUSING DRUM	1	
6@	0458	CLUTCH HOUSING DRUM BUSHING	1	
7@	B1766	WEIGHT, CLUTCH	1	REPLACES P/N 0454
8@	0855	SPRING	1	
9@	0253	CLUTCH EXPANSION PLATE	1	
10@	1868	SCREW, SHS 3/8-24 X 3/4 NOPLT	1	REPLACES P/N 0457
11@	0456	BEARING, SHIELDED, 6007 ZZ E	1	
12	1390	BELT, (HONDA)	1	
12	1243	BELT, (A27) (BRIGGS & STRATTON)	1	
13	0740	PULLEY	1	
14	D6005	BELT GUARD	1	
15	0181B	LOCK WASHER 1/4"	2	
16	2577	T-BOLT 1/4-20	2	
17	0300B	FLAT WASHER 5/16"	4	
18	0161C	LOCK WASHER 5/16"	4	
19	10181	HHCS 5/16-24 x 1-1/4"	4	
20	1391	HHCS 5/16-24 x 1-1/2"	4	
21		LIFT STRAP	1	CONTACT UNIT SALES DEPT. ACCESSORY ITEM
28	1390	BELT, (ROBIN)	1	
30	2743	THROTTLE BRACKET(ROBIN)	1	

JA-SERIES TROWEL — HAND CLUTCH ASSY.

HAND CLUTCH ASSY.



⚠ SEE GEARBOX AND ENGINE MOUNTS ITEM 36 PAGE 52.

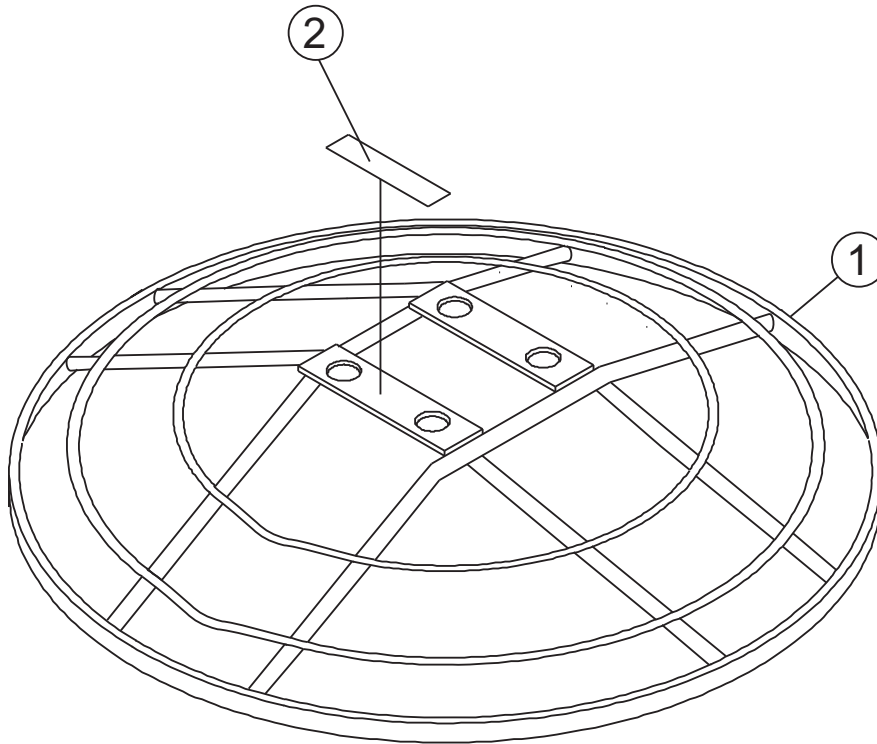
JA-SERIES TROWEL — HAND CLUTCH ASSY.

HAND CLUTCH ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1386	ENGINE 5.5 HP HONDA	1	
1	1255	ENGINE 6 HP ROBIN	1	
2	10036	CLUTCH ASSIST HANDLE ASSY.	1	
3	6014C	HEX FINISH NUT 5/16-24	1	
4	0300B	FLAT WASHER 5/16"	5	
5	10181	HHC 5/16-24 X1.1/4"	1	
6	10450	SHSS 10-32 X1/4"	1	
7	0627	KEY, SQUARE 3/16 X 1.1/4"	1	
8	0181B	LOCK WASHER 1/4"	4	
9	1672	SCREW, HHC 3/8-24 x 1"	1	
10	10936	HAND CLUTCH CABLE ASSY.	1	
11	4538	SCREW, HHC 1/4-20 X 2.1/2" GR5	1	
12	11043	PULLEY, AK41 X 3/4	1	
13	1512	HAND CLUTCH CONTROL LEVER	1	
14	10831	BELT GUARD MOUNT	1	
15	11046	BELT GUARD	1	
16	0730	HHCS 1/4-20 X1"	4	
17	0152-3	BELT, A28 GATES HPII	1	
18	11049	PULLEY, DRIVEN (HONDA)	1	
18	0740	PULLEY, DRIVEN (ROBIN)	1	
19	10229	HHCS 5/16-24 X1"	2	
20	0161C	LOCK WASHER 5/16"	2	
21	10897	CLUTCH BRACKET	1	
22	1284	SCREW, HHC 3/8-16 X1.1/2"	1	
23	10935	PULLEY, IDLER	1	
24	20981	SHOE, BELT HAND CLUTCH	1	
25	13351	WASHER, FLAT 3/8 USS EX THK HI-STR	1	
26	20977	LEVER, CLUTCH JA-M	1	
27	1488	WIRE, SAFETY SWITCH	1	
28	1475	CNCTR, SPLICE TAP	1	
29	1273	SCREW, HHST 8-32 X 3/8	2	
30	1834	DEFLECTOR, HONDA EXHAUST	1	
31	0949	NUT, HEX FIN 1/4-20 PLTD	1	
32	0948	WASHER, FLAT 1/4 SAE	2	

JA-SERIES TROWEL — GUARD RING ASSY.

GUARD RING ASSY.



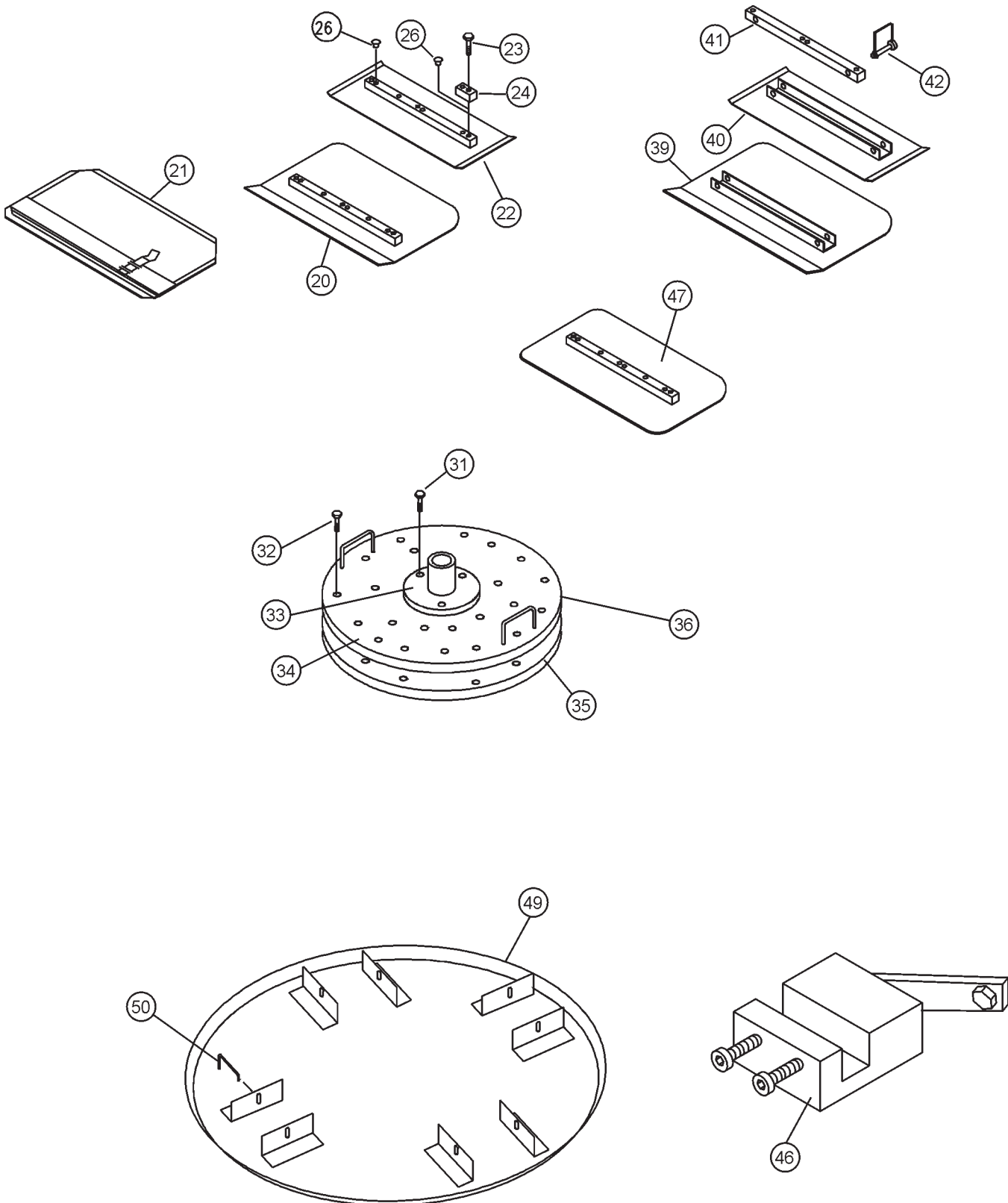
JA-SERIES TROWEL — GUARD RING ASSY.

GUARD RING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	20796	STATIONARY GUARD RING	1	
2	1489	SPIDER PLATE ASSY 16-1/2" ARM (EXT)	1 3-BLADE MODEL
2	1490	SPIDER PLATE ASSY 16-1/2" ARM (EXT)	1 4-BLADE MODEL

JA-SERIES TROWEL — BLADES & ADJUSTMENT FIXTURE ASSY.

BLADES & ADJUSTMENT FIXTURE ASSY.



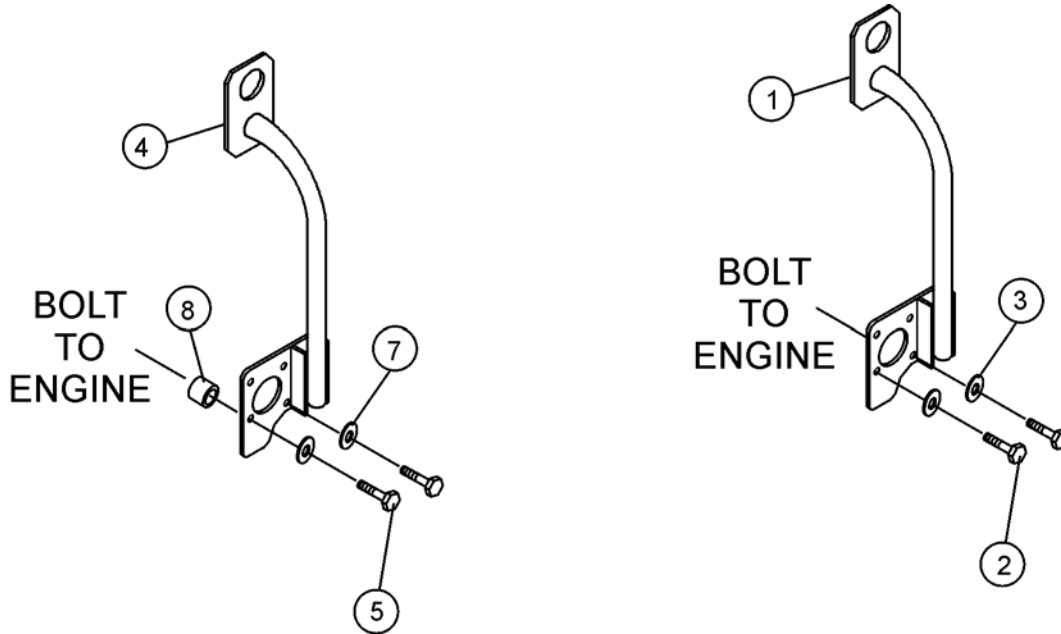
JA-SERIES TROWEL — BLADES & ADJUSTMENT FIXTURE ASSY.

BLADES & ADJUSTMENT FIXTURE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
20		COMBO FLOAT & FINISH BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
20		ENDURO COMBO FLOAT & FINISH BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
21		FLOAT BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
22		FINISH BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
22		ENDURO FINISH BLADE W/ROTATING	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
23	0202	HHCS 5/16-18X1" RING	3,4	
24	0201	GUARD RING LUG RING	3,4	
26	1434	TROWEL LUG (FINISH BLADE ONLY)	3,4	
30	1237	HHCS 5/16-18X7/8" NY-LOC	3,4	
31	0490	SHCS 7/16-14X1"	3	
32	0487	SHCS 3/8-16X1/2"	20	
33	0489	GRINDING DISC HUB	1	
34	0488	STONE MOUNT PLATE	1	
35		GRINDING DISC STONE ONLY	1	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
36		GRINDING DISC ASSY.	1	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
39		UNIVERSAL COMBO BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
39		ENDURO UNIVERSAL COMBO BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
40		UNIVERSAL FINISH BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
40		ENDURO UNIVERSAL FINISH BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
41		UNIVERSAL MOUNTING JAR	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
42		SNAP PIN 1/4"X1.3/4"	6,8	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
46		TROWEL ARM ADJ. FIXTURE ASSY.	1	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
47		REVERSIBLE COMBO BLADE	3,4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
49		FLOAT DISC	1	CONTACT UNIT SALES DEPT./ACCESSORY ITEM
50		FLOAT DISC LATCH PIN	4	CONTACT UNIT SALES DEPT./ACCESSORY ITEM

JA-SERIES TROWEL — LIFTING BALE ASSY. (OPTION)

LIFTING BALE ASSY. (OPTION)



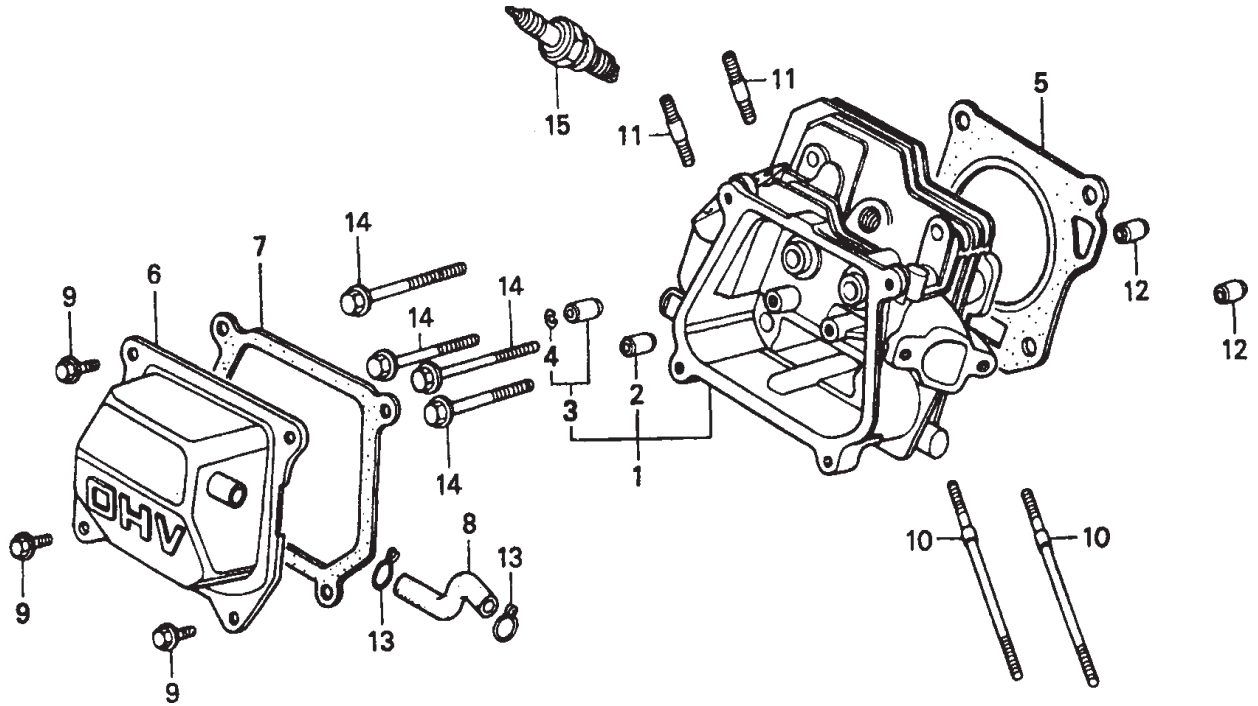
JA-SERIES TROWEL — LIFTING BALE ASSY. (OPTION)

LIFTING BALE ASSY. (OPTION)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1		LIFTING BALE ASSY.	1	CONTACT UNIT SALES DEPT./ACC. ITEM
2	10229	HHCS 5/16-24X1"	4	
3	0161C	LOCK WASHER 5/16"	4	
4		LIFTING BALE ASSY.	1	CONTACT UNIT SALES DEPT. /ACC. ITEM
5	0205	HHCS 3/8-16X1"	3	
7	0166A	LOCK WASHER 3/8"	3	
8	1897	SPACER (ROBIN ENGINE)	4	

HONDA GX160K1QA2 ENGINE — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.



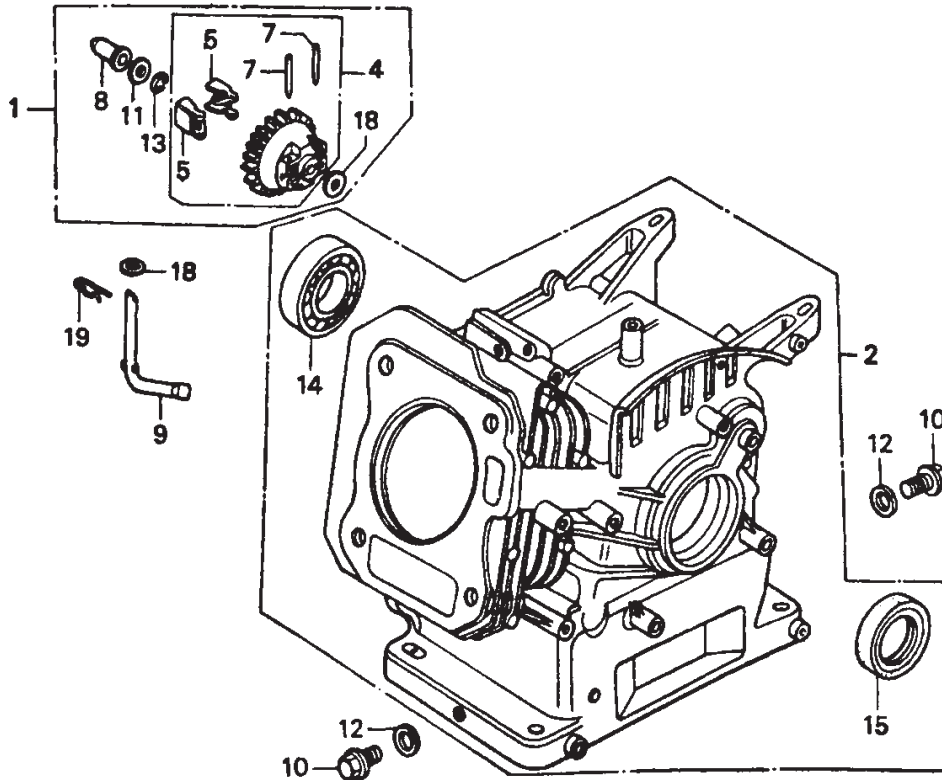
HONDA GX160K1QA2 ENGINE — CYLINDER HEAD ASSY.

CYLINDER HEAD ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12210ZH8000	CYLINDER HEAD, COMP	1	INCLUDES ITEMS W/*
2*	12204ZE1306	GUIDE, IN. VALVE (OVER SIZE)	1	
3*	12205ZE1315	GUIDE, EX. VALVE (OS)	1	
4	12216ZE5300	CLIP, VALVE GUIDE	1	
5	12251ZF1800	GASKET, CYLINDER HEAD	1	
6	12310ZE1010	COVER COMP, HEAD	1	
7	12391ZE1000	GASKET, CYLINDER HEAD COVER	1	
8	15721ZH8000	TUBE, BREATHER	1	
9	90016ZE1000	BOLT, FLANGE 6X13	4	
10	90043ZE1020	BOLT, STUD 6X109	2	
11	90047ZE1000	BOLT, STUD 8X32	2	
12	9430110160	PIN A, DOWEL 10X16	2	
14	957230806000	BOLT, FLANGE 8X60	4	
15	9807956846	PLUG, SPARK (BPR6ES NGK)	1	
	9807956855	PLUG, SPARK (W20EPR-U ND)	1	

HONDA GX160K1QA2 ENGINE — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.



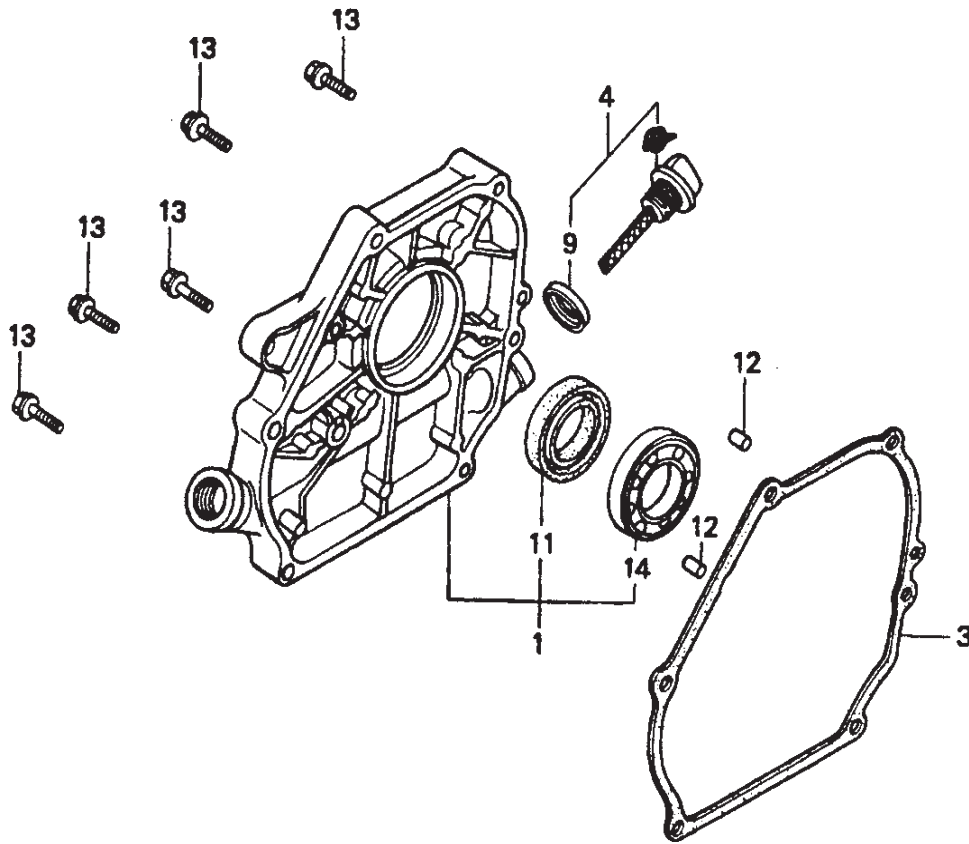
HONDA GX160K1QA2 ENGINE — CYLINDER BARREL ASSY.

CYLINDER BARREL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	06165ZE1000	GOVERNOR KIT	1	INCLUDES ITEMS W/*
2	12000ZH8010	CYLINDER BARREL ASSY.	1	INCLUDES ITEMS W%
4*	16510ZE1000	GOVERNOR ASSY.	1	INCLUDES ITEMS/W#
5*#	16511ZE1000	WEIGHT, GOVERNOR	2	
7*#	16513ZE1000	PIN, GOVERNOR WEIGHT	2	
8*	16531ZE1000	SLIDER, GOVERNOR	1	
9	16541ZE1000	SHAFT, GOVERNOR ARM	1	
10	90131ZE1000	BOLT, DRAIN PLUG	2	
11*	90451ZE1000	WASHER, THRUST 6MM	1	
12	90601ZE1000	WASHER, DRAIN PLUG 10.2MM	2	
13*	90602ZE1000	CLIP, GOVERNOR HOLDER	1	
14%	91001ZF1003	BEARING, RADIAL BALL (6205)	1	
15%	91202883005	OIL SEAL 25X41X6	1	
18*	9410106800	WASHER, PLAIN, 6MM	2	
19	9425108000	PIN, LOCK, 8MM	1	

HONDA GX160K1QA2 ENGINE — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.



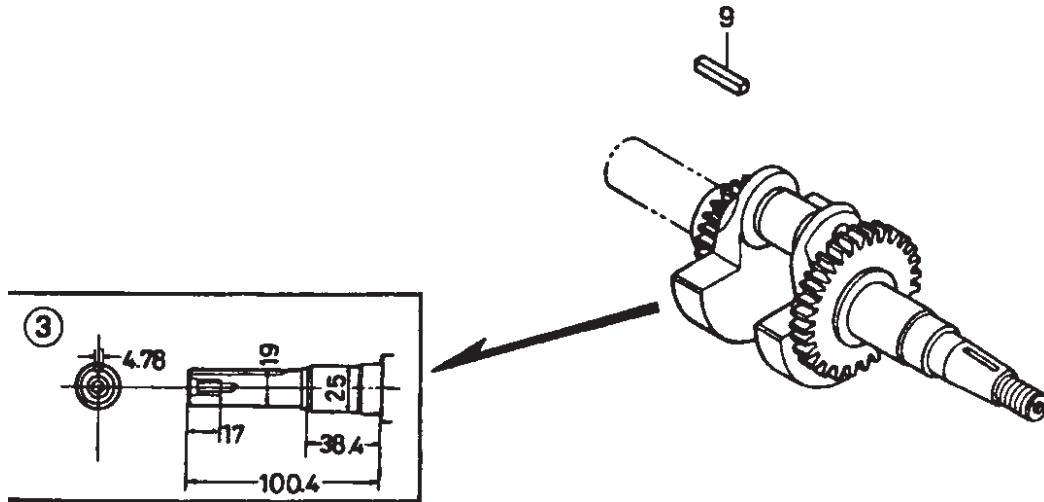
HONDA GX160K1QA2 ENGINE — CRANKCASE COVER ASSY.

CRANKCASE COVER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	11300ZE1641	COVER ASSY, CRANKCASE (U TYPE)	1	INCLUDES ITEMS W/*
3	11381ZH8801	GASKET CASE COVER	1	
4	15600ZE1003	CAP ASSY, OIL FILLER	1	INCLUDES ITEMS W/#
5	15600ZG4003	CAP ASSY, OIL FILLER	1	INCLUDES ITEMS W/%
7	15620ZG4910	CAP, OIL FILLER	1	
8	15621896010	GASKET, OIL FILLER CAP	1	
9#	15625ZE1000	GASKET, OIL FILLER CAP	1	
10%	15625ZE1003	GASKET, OIL FILLER CAP	1	
11*	91202883005	OIL SEAL, 25X41X6	1	
12	9430108140	PIN A, DOWEL 8X14	2	
13	957010803200	BOLT, FLANGE 8X32	6	
14*	961006205010	BEARING, RADIAL BALL, 6205	1	

HONDA GX160K1QA2 ENGINE — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.



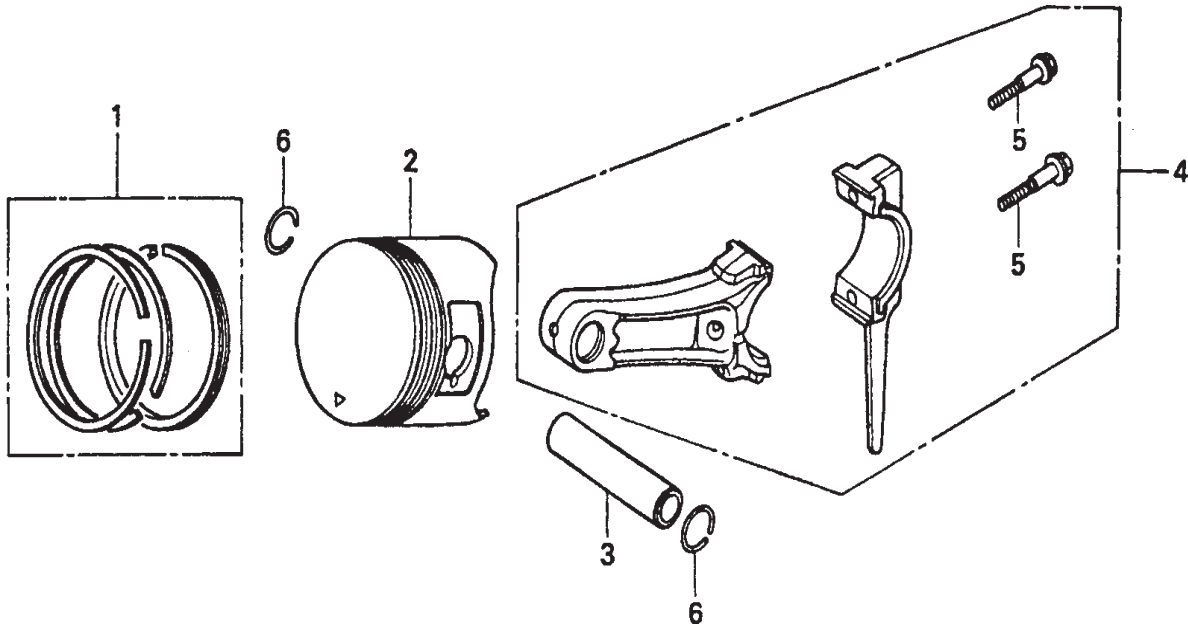
HONDA GX160K1QA2 ENGINE — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3	13310ZE1601	CRANKSHAFT COMP.,(Q TYPE)	1	
9	90745ZE1600	KEY (4.78X4.78X38)	1	

HONDA GX160K1QA2 ENGINE — PISTON RINGS ASSY.

PISTON ASSY.



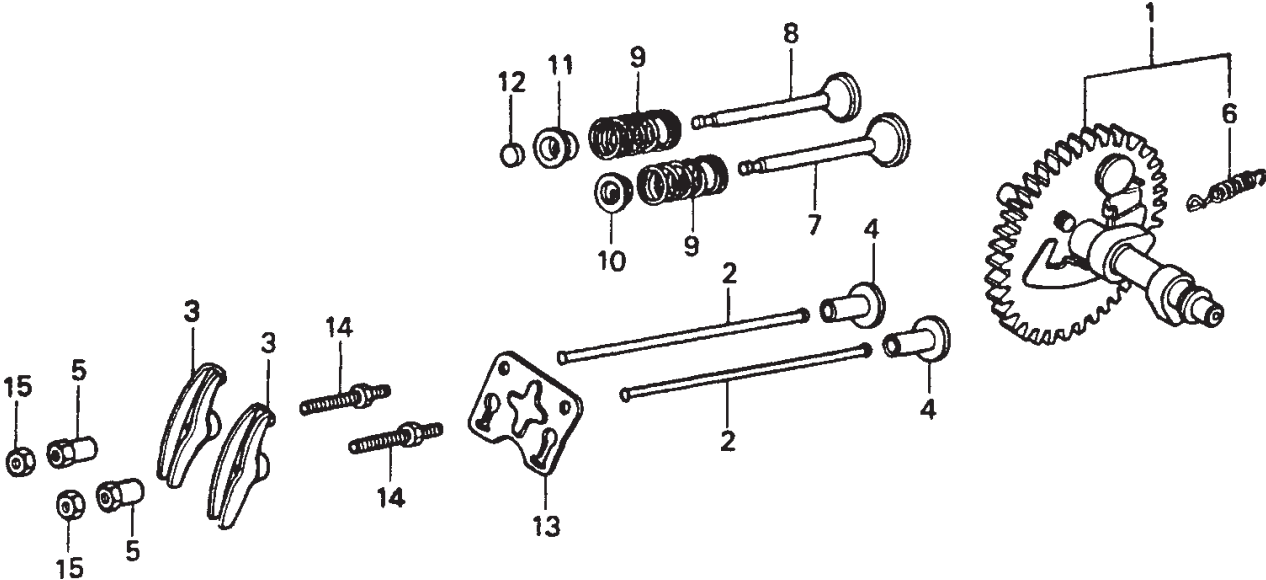
HONDA GX160K1QA2 ENGINE — PISTON RINGS ASSY.

PISTON RINGS ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	13010ZF1023	RING SET, PISTON (STD)	1	
	13011ZF1023	RING SET, PISTON (0.25)	1	
	13012ZF1023	RING SET, PISTON (0.50)	1	
	13013ZF1023	RING SET, PISTON (0.75)	1	
2	13101ZH8000	PISTON (STD)	1	
	13102ZH8000	PISTON (0.25)	1	
	13103ZH8000	PISTON (0.50)	1	
	13104ZH8000	PISTON (0.75)	1	
3	13111ZE1000	PIN, PISTON	1	
4	132A0ZE1000	ROD ASSY, CONNECTING	1	INCLUDES ITEMS W/*
5*	90001ZE1000	BOLT, CONNECTING ROD	2	
6	90551ZE1000	CLIP, PISTON PIN, 18MM	2	

HONDA GX160K1QA2 ENGINE — CAMSHAFT ASSY.

CAMSHAFT ASSY.



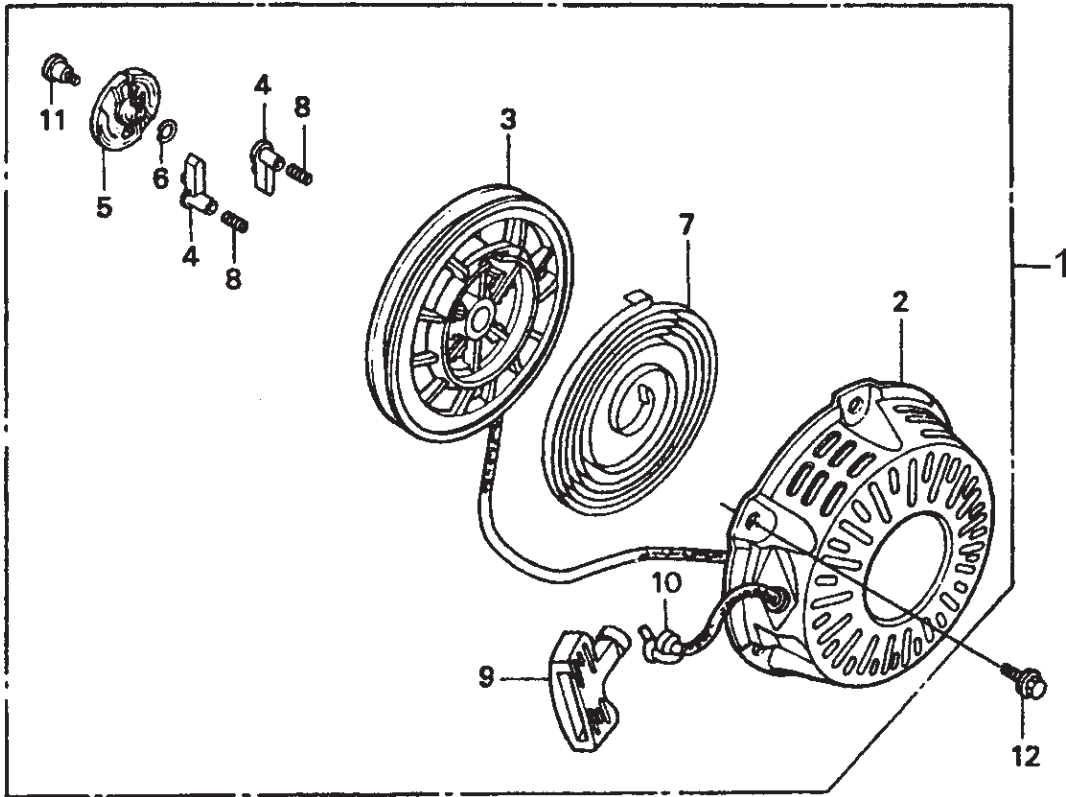
HONDA GX160K1QA2 ENGINE — CAMSHAFT ASSY.

CAMSHAFT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	14100ZE1812	CAMPSHAFT ASSY.....	1	INCLUDES ITEMS W/*
2	14410ZE1010	ROD, PUSH	2	
3	14431ZE1000	ARM, VALVE ROCKER	2	
4	14441ZE1010	LIFTER, VALVE	2	
5	14451ZE1013	PIVOT, ROCKER ARM	2	
6*	14568ZE1000	SPRING, WEIGHT RETURN	1	
7	14711ZF1000	VALVE, IN.	1	
8	14721ZF1000	VALVE, EX.	1	
9	14751ZF1000	SPRING, VALVE	2	
10	14771ZE1000	RETAINER, IN. VALVE SPRING	1	
11	14773ZE1000	RETAINER, EX. VALVE SPRING	1	
12	14781ZE1000	ROTATOR, VALVE	1	
13	14791ZE1010	PLATE, PUSH ROD GUIDE	1	
14	90012ZE0010	BOLT, PIVOT	2	
15	90206ZE1000	NUT, PIVOT ADJUSTING	2	

HONDA GX160K1QA2 ENGINE — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.



HONDA GX160K1QA2 ENGINE — RECOIL STARTER ASSY.

RECOIL STARTER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	28400ZH8013ZB	STARTER ASSY, RECOIL NH1(BLACK)	1	INCLUDES ITEMS W/*
2*	28410ZH8003ZB	CASE COMP., RECOIL STARTER	1	
3*	28420ZH8013	REEL, RECOIL STARTER	1	
4*	28422ZH8013	RATCHET, STARTER	2	
5*	28433ZH8003	GUIDE, RATCHET	1	
6*	28441ZH8003	SPRING, FRICTION	1	
7*	28442ZH8003	SPRING, RECOIL STARTER	1	
8*	28443ZH8003	SPRING, RETURN	2	
9*	28461ZH8003	KNOB, RECOIL STARTER	1	
10*	28462ZH8003	ROPE, RECOIL STARTER	1	
11*	90003ZH8003	SCREW, SETTING	1	
12	957010600800	BOLT, FLANGE 6X8	3	

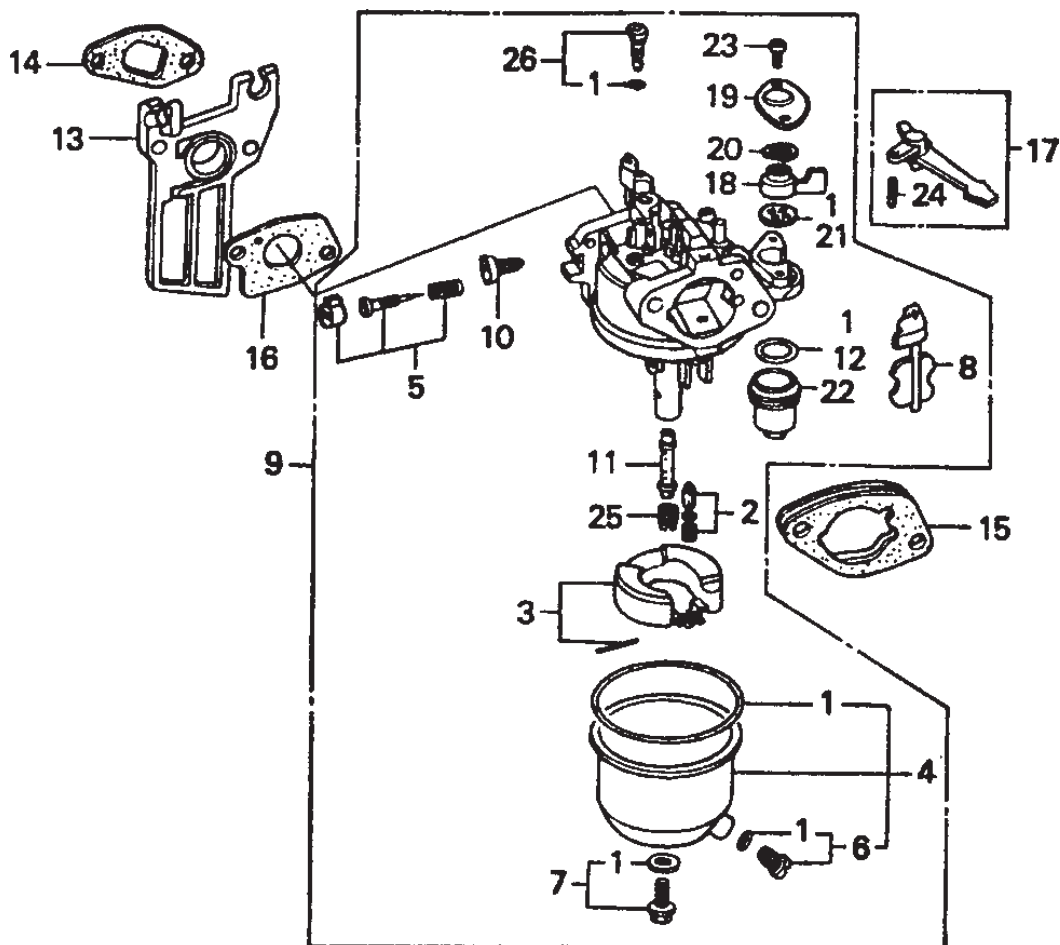
HONDA GX160K1QA2 ENGINE — FAN COVER ASSY.

FAN COVER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	19610ZE1000ZC	COVER COMP., FAN NH1(BLACK)	1	
4	19612ZH8000	PLATE, SIDE(STD)	1	
8	19630ZH8000	SHROUD COMP.	1	
11	36100ZE1015	SWITCH ASSY., ENGINE	1	
13	90013883000	BOLT, FLANGE 6X12	6	
14	90022888010	BOLT, FLANGE 6X20	1	

HONDA GX160K1QA2 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.



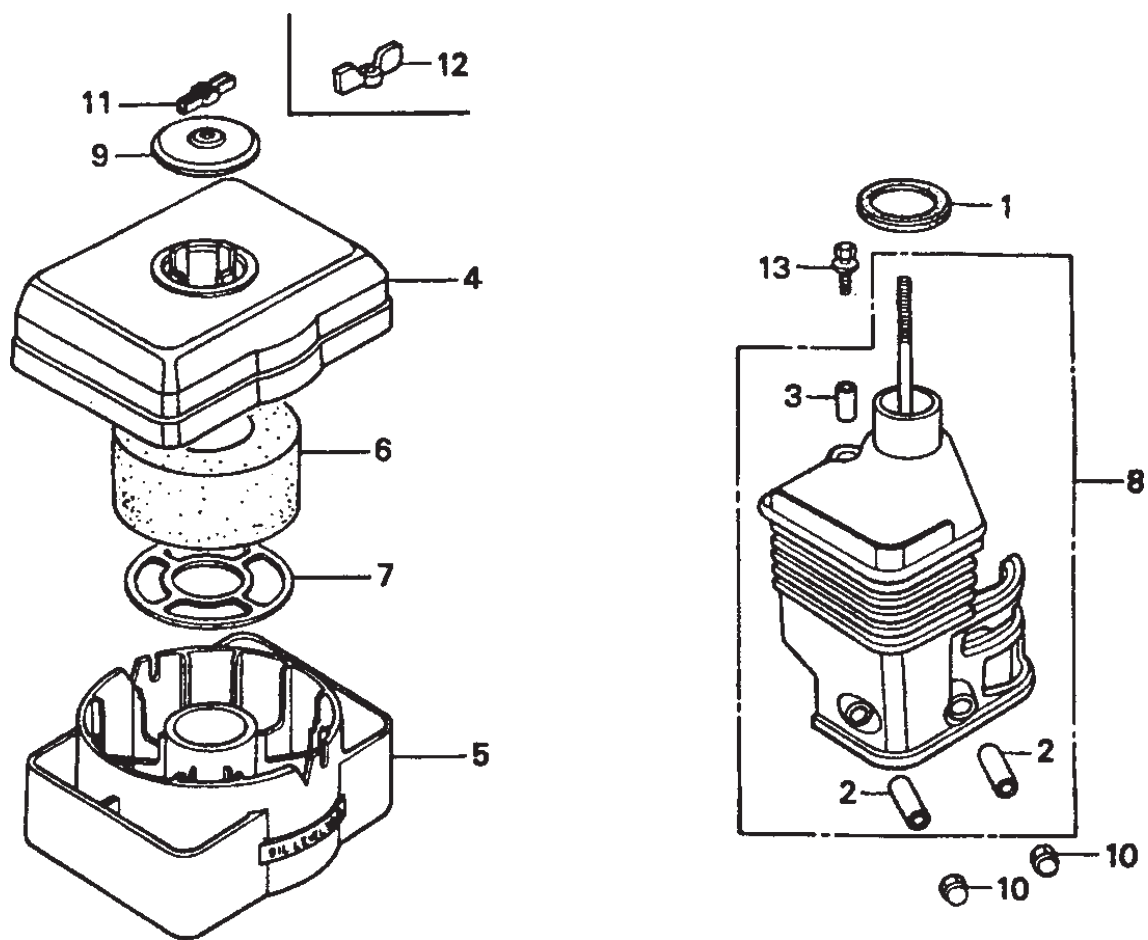
HONDA GX160K1QA2 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1*	16010ZE1812	GASKET SET	1	
2*	16011ZE0005	VALVE SET, FLOAT	1	
3*	16013ZE0005	FLOAT SET	1	
4*	16015ZE0831	CHAMBER SET, FLOAT	1	INCLUDES ITEMS W/%
5*	16016ZH7W01	SCREW SET	1	
6*%	16024ZE1811	SCREW SET DRAIN	1	
7*	16028ZE0005	SCREW SET B	1	
8*	16044ZE0005	CHOKE SET	1	
9	16100ZH8W61	CARBURETOR ASSY(BE65C B)	1	INCLUDES ITEMS W/*
10*	16124ZE0005	SCREW, THROTTLE STOP	1	
11*	16166ZH8W60	NOZZLE, MAIN	1	
12*	16955283000	GASKET, FULL STRAINER CUP	1	
13	162111ZE1000	INSULATOR CARBURETOR	1	
14	16212ZH8800	GASKET, INSULATOR	1	
15	16220ZE1020	SPACER COMP. CARBURETOR	1	
16	16221ZH8801	GASKET CARBURETOR	1	
17	16610ZE1000	LEVER COMP., CHOKE (STD)	1	INCLUDES ITEMS W/#
18*	16953ZE1406	LEVER VALVE	1	
19*	16954ZE1812	PLATE LEVER SETTING	1	
20*	16956ZE1811	SPRING, PETCOCK LEVER	1	
21*	16957ZE1812	GASKET, PETCOCK	1	
22*	16967ZE0811	CUP, FUEL STRAINER	1	
23*	93500030060H	SCREW, PAN 3X6	2	
24#	9430520122	PIN, SPRING 2X12	1	
25*	99101ZH70650	JET, MAIN #65	1	
	99101ZH70680	JET, MAIN #68	1	
	99101ZH70700	JET, MAIN #70	1	
26*	99204ZE00350	JET SET, PILOT #35	1	

HONDA GX160K1QA2 ENGINE — AIR CLEANER (OIL BATH) ASSY.

AIR CLEANER (OIL BATH) ASSY.



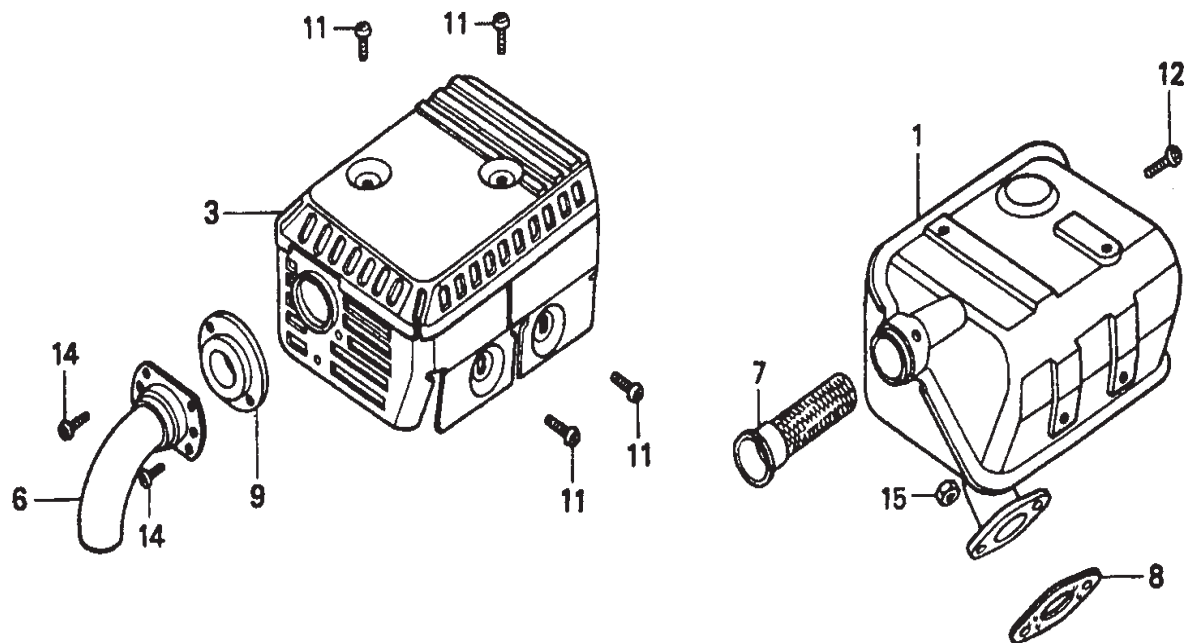
HONDA GX160K1QA2 ENGINE — AIR CLEANER (OIL BATH) ASSY.

AIR CLEANER (OIL BATH) ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	16271ZE1000	GASKET ELBOW	1	
2*	17238ZE7010	COLLAR AIR CLEANER	2	
3*	17239ZE1000	COLLAR B AIR CLEANER	1	
4	17401ZE1810	BODY CLEANER OIL BATH	1	
5	17402ZE1810	PAN CLEANER OIL OIL BATH	1	
6	17403ZE1810	AIR CLEANER ELEMENT OIL BATH	1	
7	17404841000	GRID AIR CLEANER	1	
8	17410ZE1020	ELBOW COMP. AIR CLEANER	1 INCLUDES ITEMS W/*
9	17421ZE1000	CAP CLEANER	1	
10	90201415000	NUT CAP 6MM	2	
12	90325044000	NUT WING TOOL BOX SETTING	1	
13	957010602000	BOLT FLANGE 6 x 20	1	

HONDA GX160K1 ENGINE — MUFFLER ASSY.

MUFFLER ASSY.

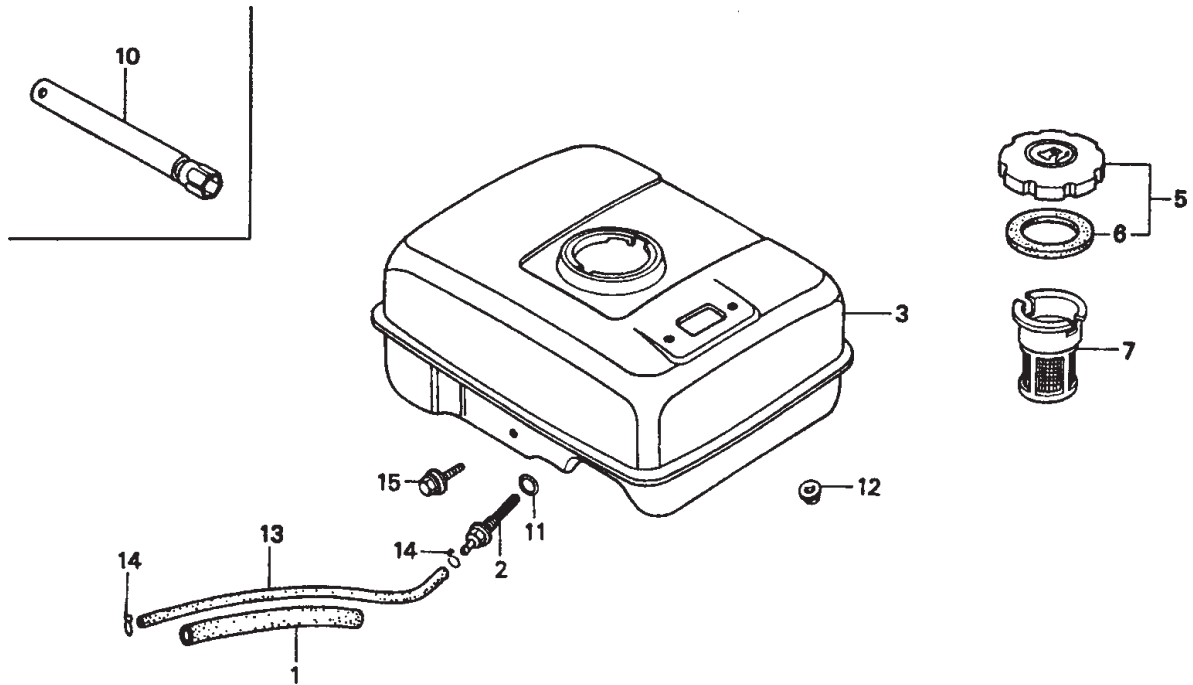


HONDA GX160K1 ENGINE — MUFFLER ASSY.

MUFFLER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	18310ZH8810	MUFFLER COMP.	1	
3	18320ZF1H01	PROTECTOR, MUFFLER	1	
6	18340ZE1010	DEFLECTOR COMP.	1	
7	18355ZE1000	ARRESTER, SPARK	1	
8	18381ZH8800	GASKET, MUFFLER	1	
9	18522ZE1000	GUIDE, MUFFLER	1	
11	90050ZE1000	SCREW, TAPPING 5X8	4	
12	90055ZE1000	SCREW, TAPPING 4X6	1	
14	90183671003	SCREW, TAPPING 4X8	2	
15	94001080000S	NUT, HEX (8MM)	2	

HONDA GX160K1QA2 ENGINE — FUEL TANK ASSY.



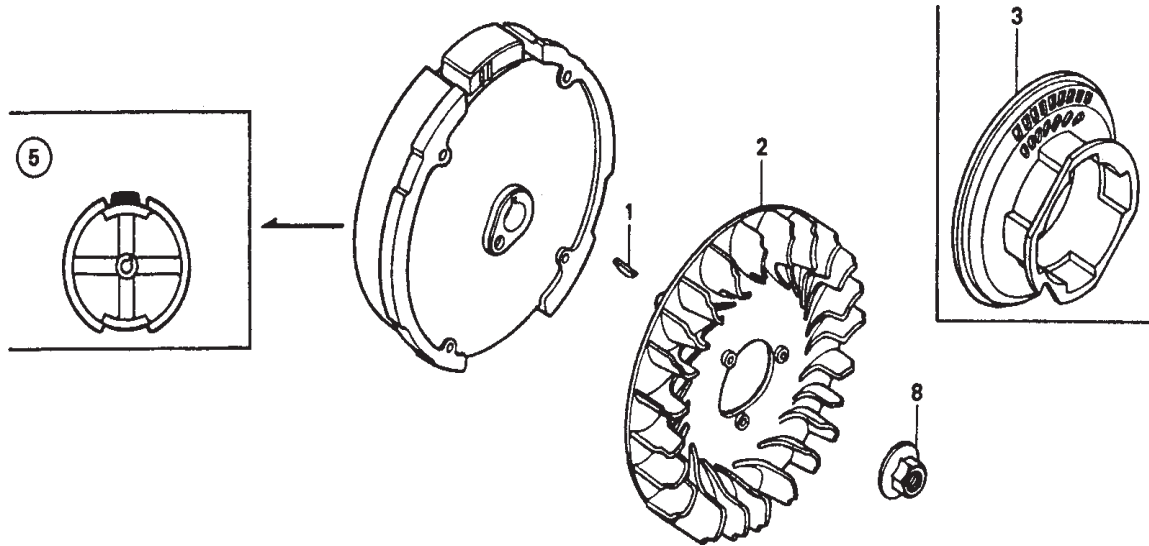
HONDA GX160K1QA2 ENGINE — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	16854ZH8000	RUBBER, SUPPORTER	1	
2	16955ZE1000	JOINT, FUEL TANK	1	
3	17510ZE1020ZF	TANK COMP., FUEL NH1 (BLACK)	1	
5	17620ZH7013	CAP COMP., FUEL FILLER	1	INCLUDES ITEMS W/#
6#	17631ZH7003	GASKET, FUEL FILLER CAP	1	
7	17672ZE2W01	FILTER, FUEL	1	
10	89218ZE1000	WRENCH COMP., SPARK PLUG	1	
11	91353671003	O-RING (14MM) ARAI	1	
12	9405006000	NUT, FLANGE (6MM)	2	
13	950014500840M	BULK HOSE, FUEL (4.5X8000) (4.5X140)	1	
14	9500202080	CLIP, TUBE (B8)	2	
15	957010602500	BOLT, FLANGE (6X25)	1	

HONDA GX160K1QA2 ENGINE — FLYWHEEL ASSY.

FLYWHEEL ASSY.



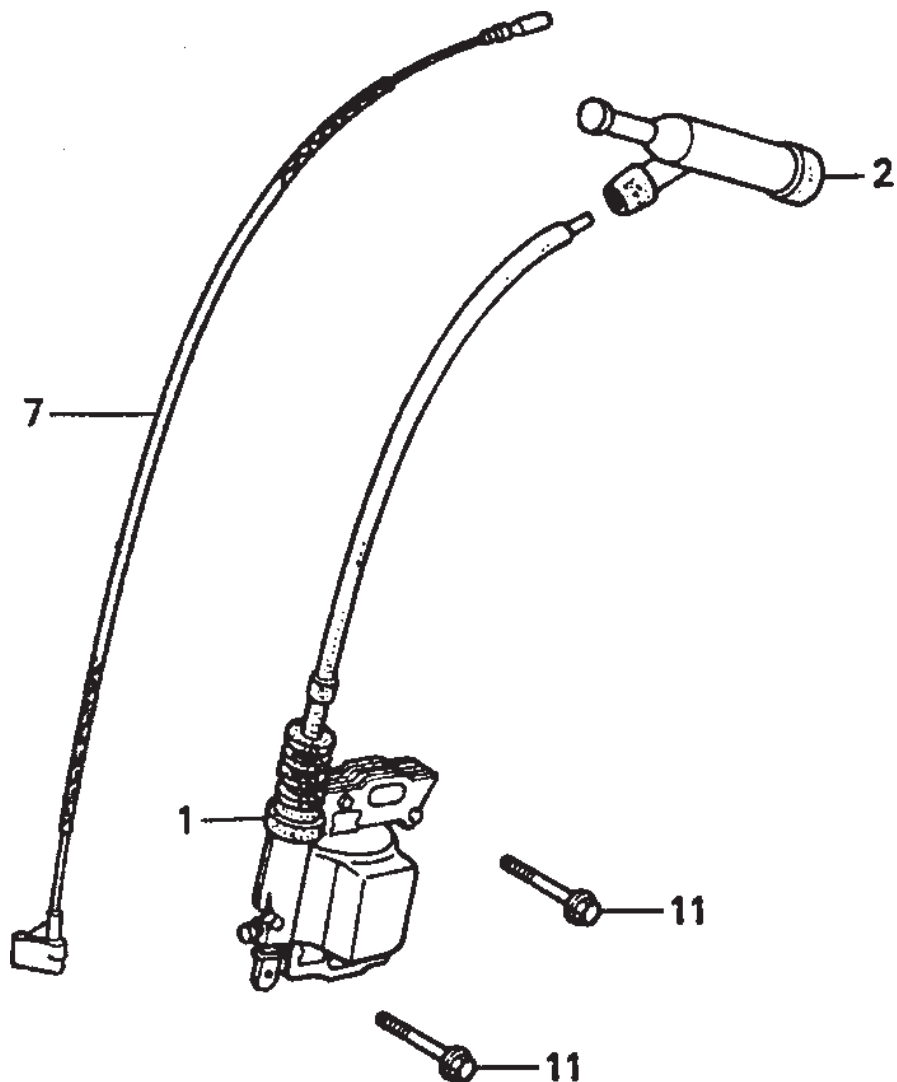
HONDA GX160K1QA2 ENGINE — FLYWHEEL ASSY.

FLYWHEEL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	13331357000	KEY, SPECIAL WOOD RUFF, 25X18	1	
2	19511ZE1000	FAN, COOLING	1	
3	28450ZH8811	PULLEY COMP., STARTER	1	
5	31100ZE1000	FLYWHEEL COMP.	1	
	31100ZE1810	FLYWHEEL COMP., LAMP	1	
8	90201878003	NUT, SPECIAL, 14MM	1	

HONDA GX160K1QA2 ENGINE — IGNITION COIL ASSY.

IGNITION COIL ASSY.



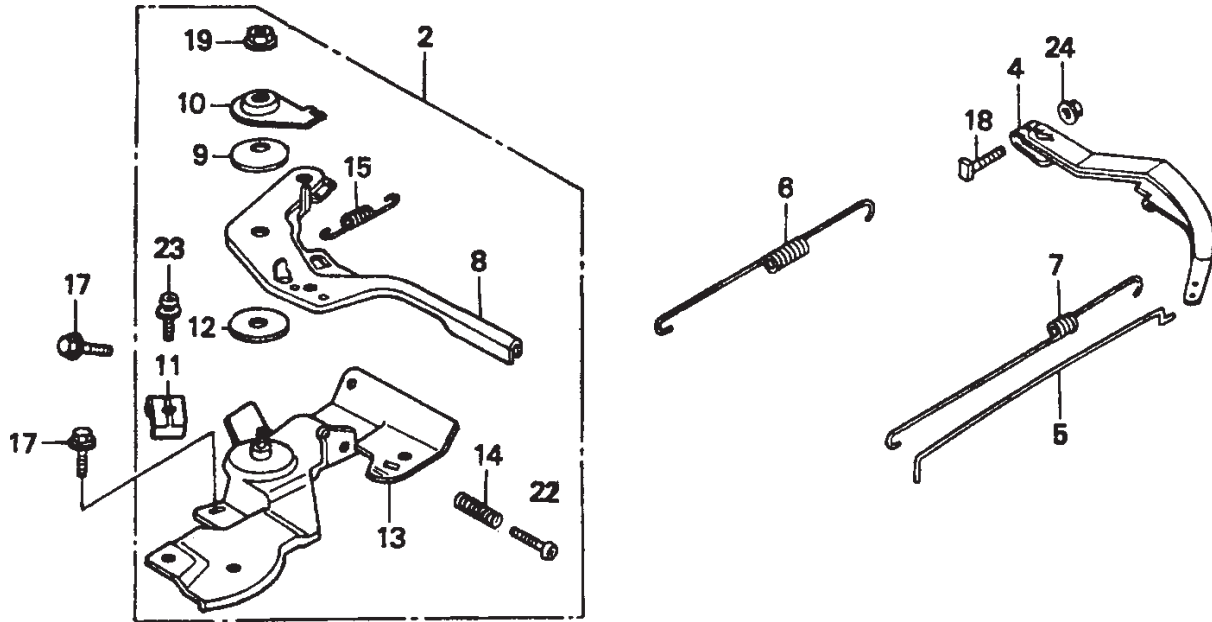
HONDA GX160K1QA2 ENGINE — IGNITION COIL ASSY.

IGNITION COIL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	30500ZE1033	COIL ASSY., IGNITION	1	
2	30700ZE1013	CAP ASSY., NOISE SUPPRESSOR	1	
7	36101ZE1010	WIRE, STOP SWITCH (370MM)	1	
11	90121952000	BOLT, FLANGE, 6X25	2	

HONDA GX160K1QA2 ENGINE — CONTROL ASSY.

CONTROL ASSY.



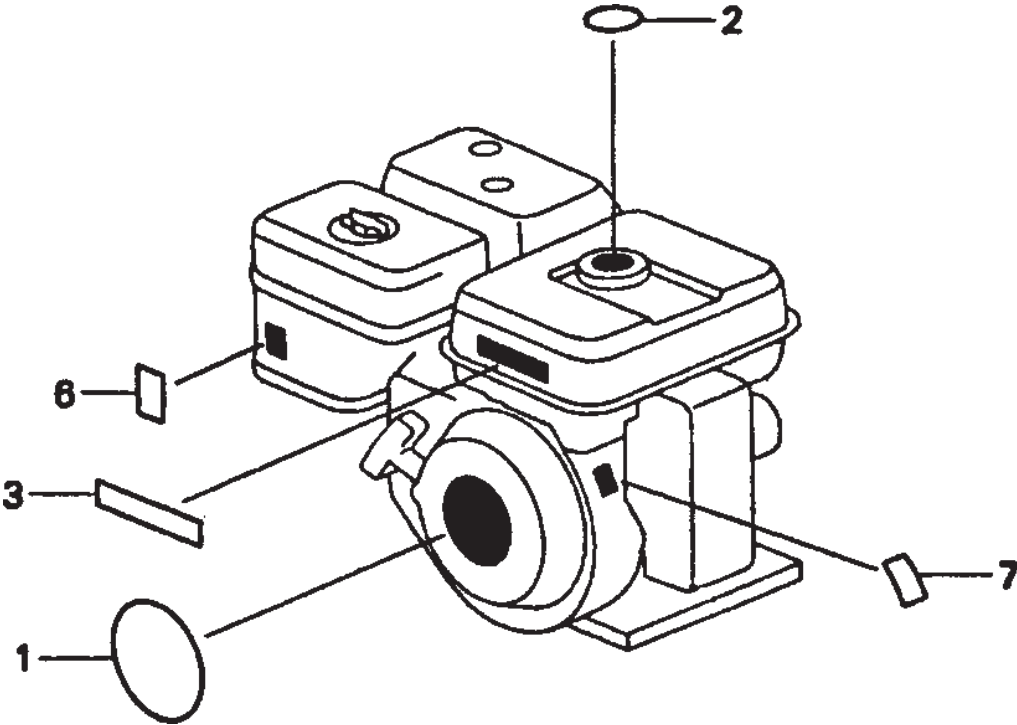
HONDA GX160K1QA2 ENGINE — CONTROL ASSY.

CONTROL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	16500ZH8821	CONTROL ASSY., REMOTE	1	INCLUDES ITEMS W/*
4	16551ZE0010	ARM, GOVERNOR	1	
5	16555ZE1000	ROD, GOVERNOR	1	
6	16561ZE1020	SPRING, GOVERNOR	1	
7	16562ZE1020	SPRING, THROTTLE RETURN	1	
8*	16571ZH8000	LEVER, CONTROL	1	
9*	16574ZE1000	SPRING, LEVER	1	
10*	16575ZH8000	WASHER, CONTROL LEVER	1	
11*	16576891000	HOLDER, CABLE	1	
12*	16578ZE1000	SPACER, CONTROL LEVER	1	
13*	16580ZH8811	BASE COMP., CONTROL	1	
14*	16584883300	SPRING, CONTROL ADJUSTING	1	
15*	16592ZE1810	SPRING, CABLE RETURN	1	
17	90013883000	BOLT, FLANGE (6X12)	2	
18	90015ZE5010	BOLT, GOVERNOR ARM	1	
19*	90114SA0000	NUT,SELF- LOCK (6MM)	1	
22*	93500050250H	SCREW, PAN (5X25)	1	
23*	938930501600	SCREW WASHER (5X16)	1	
24	9405006000	NUT, FLANGE, 6MM	1	

HONDA GX160K1QA2 ENGINE — LABEL ASSY.

LABEL ASSY.



HONDA GX160K1QA2 ENGINE — LABEL ASSY.

LABEL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	87521ZH8010	EMBLEM, INTERNAL	1	
2	87522ZE1810	MARK, CAUTION EXTERNAL	1	
3	87522ZH9000	LABEL, CAUTION	1	
6	87258ZE1810	MARK, CHOKE	1	
7	87530ZH8810	LABEL, SPECIFICATION EXTERNAL	1	

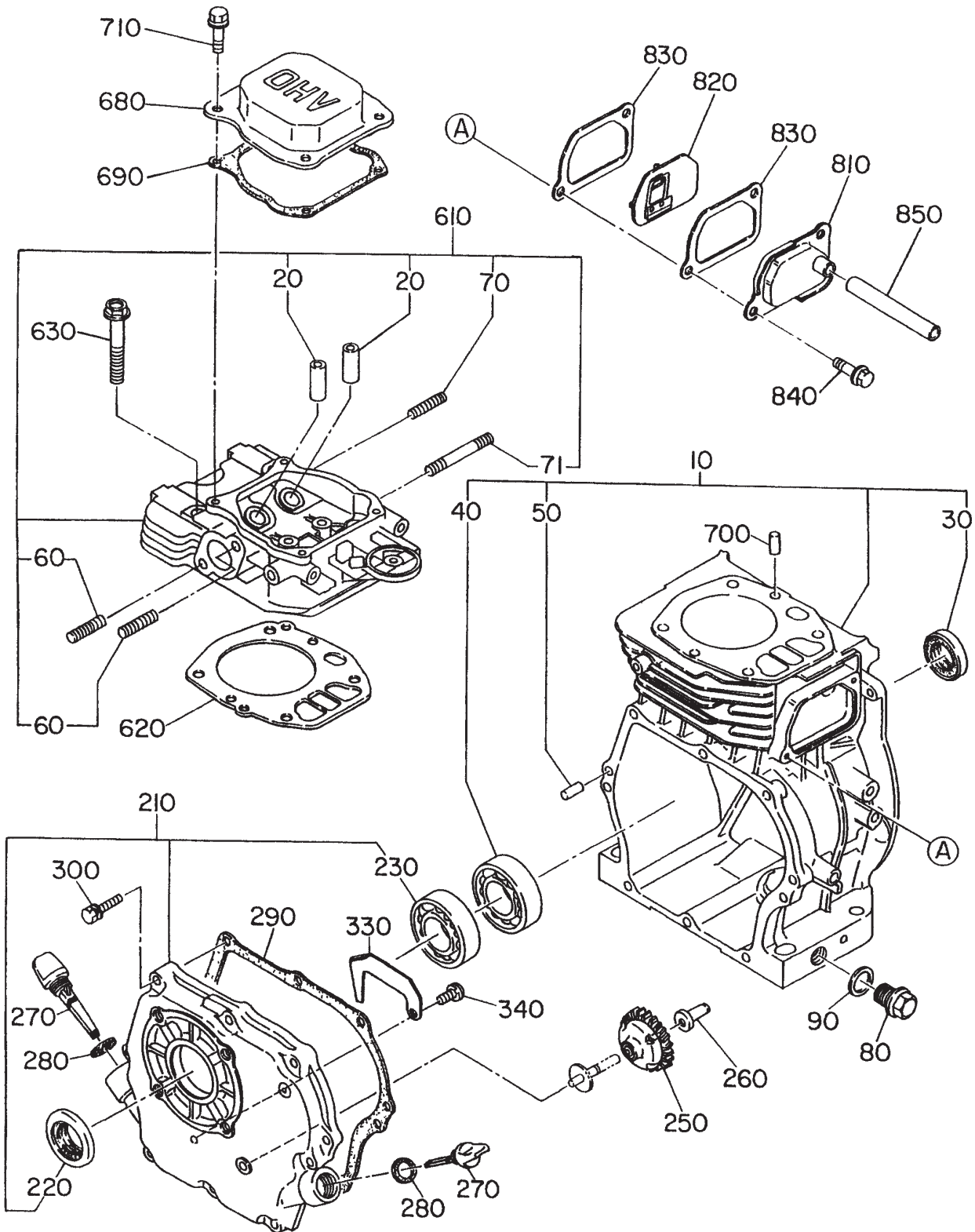
HONDA GX160K1QA2 ENGINE — GASKET KIT ASSY.

GASKET KIT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
	06111ZH8405	GASKET KIT	1	INCLUDES ITEMS W/*
1*	11381ZH8801	GASKET, CASE COVER NON ASBEST	1	
2*	12251ZF1800	GASKET, CYLINDER HEAD	1	
3*	12391ZE1000	GASKET, CYLINDER HEAD COVER	1	
4*	16212ZH8800	GASKET, INSULATOR	1	
5*	16221ZH8801	GASKET, CARBURATOR	1	
6*	18381ZH8800	GASKET, MUFFLER	1	

ROBIN EH-17 ENGINE — CRANKCASE ASSY.

CRANKCASE GROUP ASSY.



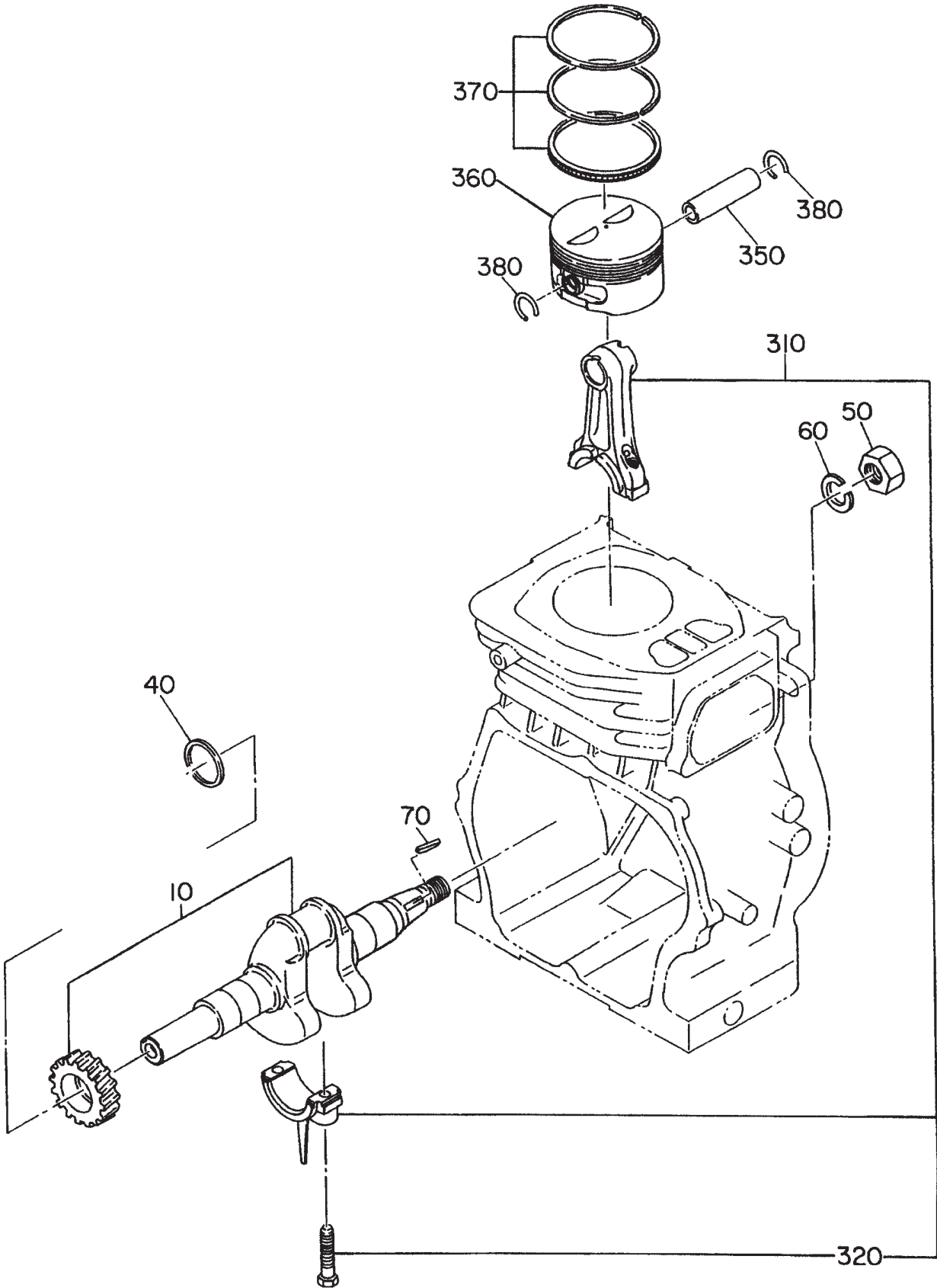
ROBIN EH-17 ENGINE — CRANKCASE ASSY.

CRANKCASE GROUP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2691010101	CRANKCASE CP (RECOIL START TYPE)	1	INCLUDES ITEMS W/*
20%	2371420203	VALVE GUIDE OVERSIZE	2	
30*	0440250070	OIL SEAL	1	
40*	0600250010	BALL BEARING 6205C3	1	
50*	0310060020	DOWEL PIN	2	
60%	0105080290	STUD	2	
70%	0105060131	STUD	1	
71%	0013906600	STUD	1	
80	0401140030	PLUG	2	
90	0211140020	GASKET	2	
210	2531101401	MAIN BEARING COVER CP	1	INCLUDES ITEMS W/+
220+	0440250160	OIL SEAL	1	
230+	0600250010	BALL BEARING, 6205C3	1	
250	2274500301	GOVERNOR GEAR CP	1	
260	2054190103	GOVERNOR SLEEVE	1	
270	2696360103	OIL GAUGE	2	
	2696360103	OIL GAUGE	1	W/OIL SENSOR
280	0213160020	GASKET	2	
	0213160020	GASKET	1	W/OIL SENSOR
290	2531600203	GASKET, BEARING COVER	1	
300	0130060040	BOLT AND WASHER AY	8	
330	2531750203	SHELTER PLATE	1	W/OIL SENSOR
340	0043505100	SCREW AND WASHER AY	1	W/OIL SENSOR
610	2691300101	CYLINDER HEAD CP	1	INCLUDES ITEMS W/%
620	2531500123	GASKET, HEAD	1	
630	0110080100	FLANGE BOLT	4	
680	2691550303	ROCKER COVER	1	
690	2691600403	GASKET, ROCKER COVER	1	
700	0310060020	DOWEL PIN	2	
710	0110060020	FLANGE BOLT	4	
810	2531430111	BREATHER COVER CP	1	
820	2531440111	BREATHER PLATE CP	1	
830	2531600633	GASKET, BREATHER COVER	2	
840	0110060030	FLANGE BOLT	2	
850	0851080000	RUBBER PIPE	1	
960	2539900107	GASKET SET	1	

ROBIN EH-17 ENGINE — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.



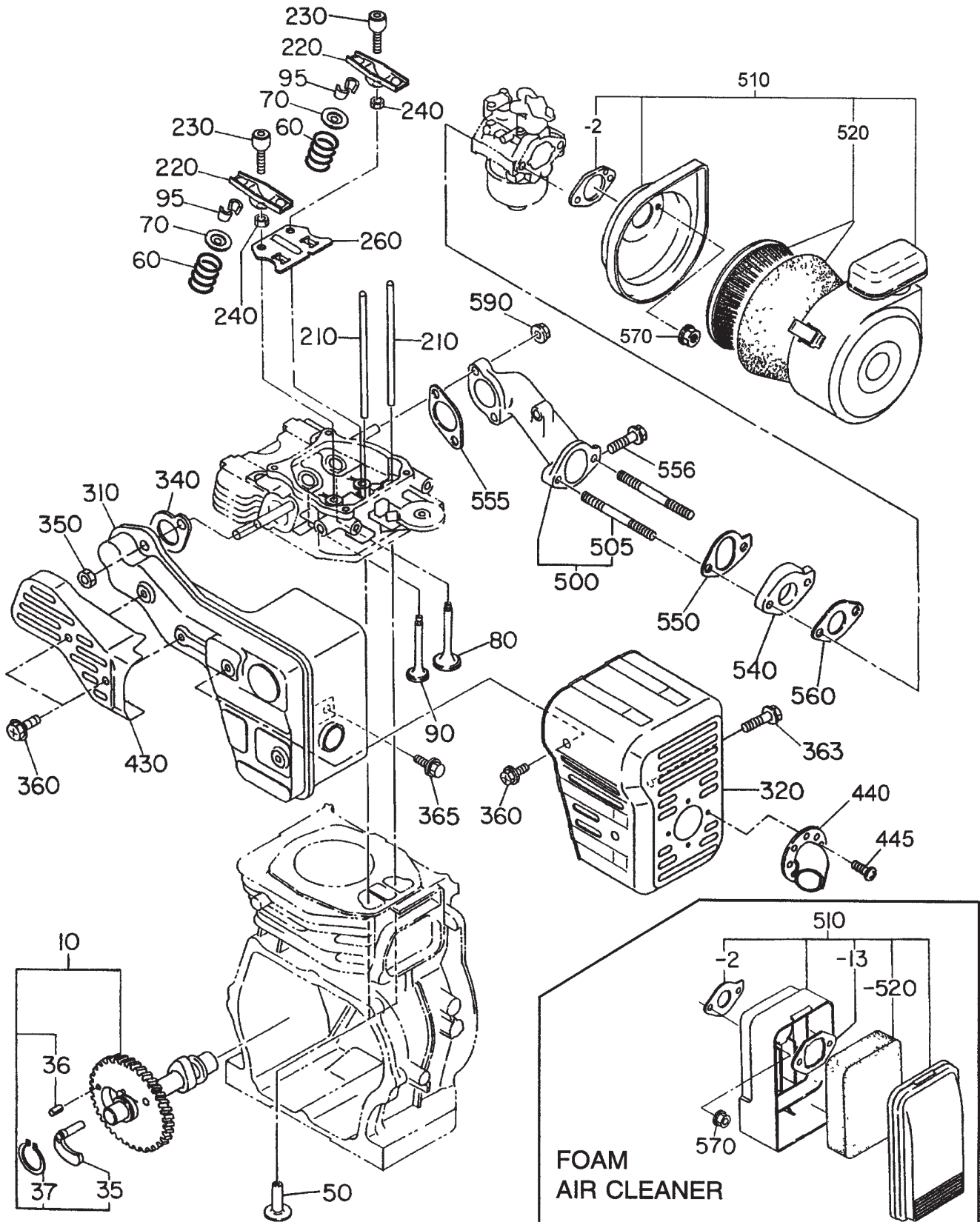
ROBIN EH-17 ENGINE — CRANKSHAFT ASSY.

CRANKSHAFT ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2532090101	CRANKSHAFT CP	1	SAE 3/4"KEYED SHAFT TYPE
40	0230250110	SPACER T=0.6	1	SELECT ONE SPACER ONLY
	0230250120	SPACER T=0.8	1	SELECT ONE SPACER ONLY
	0230250130	SPACER T=1.0	1	SELECT ONE SPACER ONLY
50	0221814000	NUT	1	
60	0032014000	SPRING WASHER	1	
70	0323030010	WOODRUFF KEY	1	
310	2532250120	CONNECTING ROD ASSY.....	1	INCLUDES ITEMS W/*
320*	2512300103	CONNECTING ROD BOLT	2	
350	2692330103	PISTON PIN	1	ELECTRIC START TYPE
360	2692340103	PISTON	1	STANDARD
	2692340203	PISTON	1	OVERSIZE 0.25 MM
	2692340303	PISTON	1	OVERSIZE 0.50 MM
370	2532350117	PISTON RING SET	1	STANDARD
	2532350217	PISTON RING SET	1	OVERSIZE 0.25 MM
	2532350317	PISTON RING SET	1	OVERSIZE 0.50 MM
380	0565160010	CLIP	2	

ROBIN EH-17 ENGINE — INTAKE AND EXHAUST ASSY.

INTAKE AND EXHAUST ASSY.



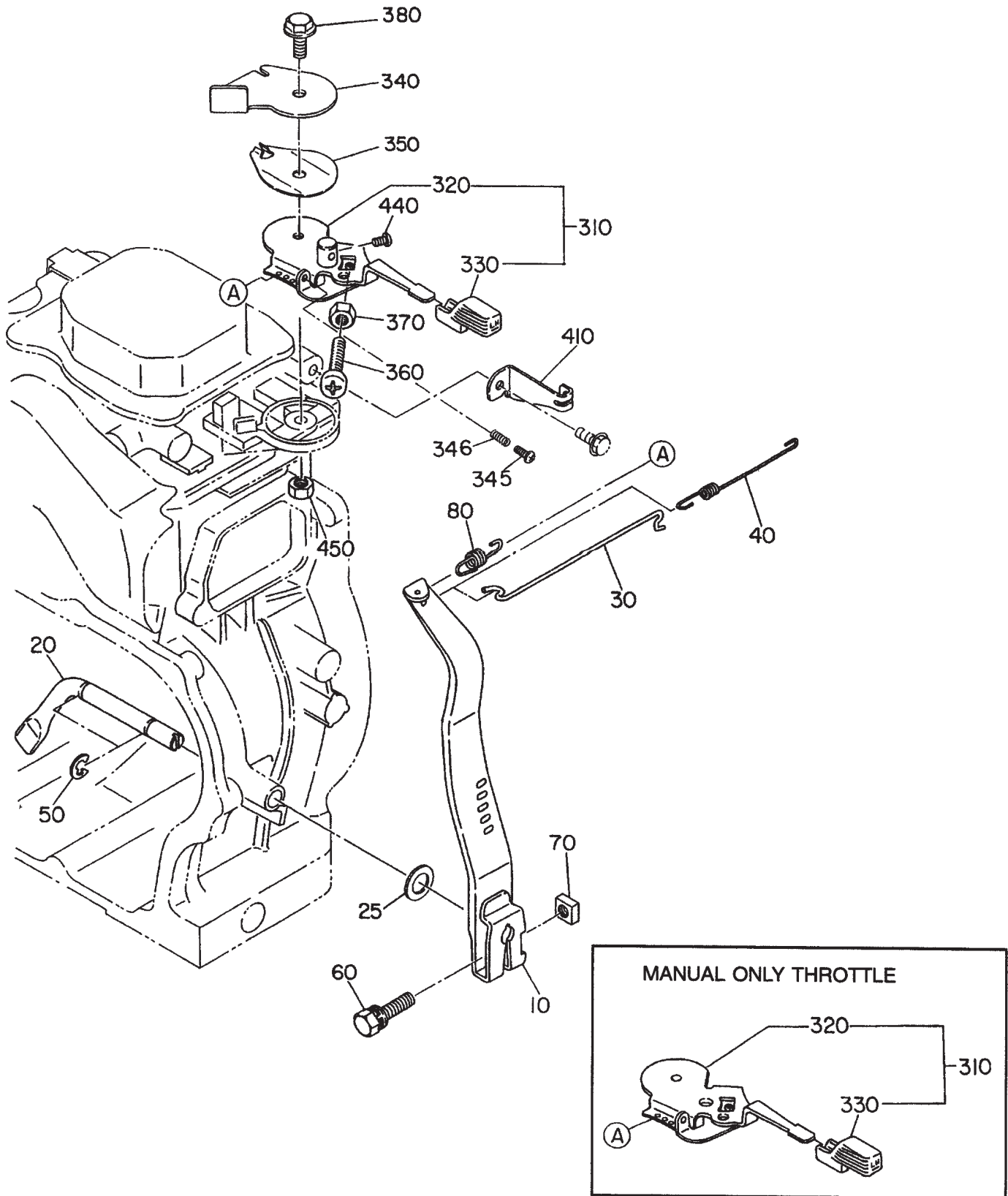
ROBIN EH-17 ENGINE — INTAKE AND EXHAUST ASSY.

INTAKE AND EXHAUST ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2533170111	CAMSHAFT CP	1	INCLUDES ITEMS W/*
35*	2273646113	RELEASE LEVER	1	
36*	0051904100	SPRING PIN	1	
37*	0031522000	SNAP RING	1	
50	2393330113	TAPPET	2	
60	2533360103	VALVE SPRING	2	
70	13209KA040	SPRING RETAINER	2	
80	2693340103	INTAKE VALVE	1	
90	2693350103	EXHAUST VALVE	1	
95	13210KA031	COLLET VALVE	4	
210	2693530103	PUSH ROD	2	
220	26136001A3	ROCKER ARM	2	
230	2693580103	BOLT, PIVOT	2	
240	0170060090	NUT	2	
260	2693650103	GUIDE PLATE	1	
310	2693010101	MUFFLER CP	1	
320	2533420111	MUFFLER COVER	1	
340	2533520103	GASKET, MUFFLER	1	
350	0170080030	NUT	2	
360	0152060090	TAPPING BOLT	4	
363	0152060100	TAPPING BOLT	1	
365	0110060020	FLANGE BOLT	1	
430	2693480103	EXHAUST PIPE COVER	1	
440	2363700101	DEFLECTOR, EXHAUST	1	
445	0150040010	TAPPING SCREW	2	
505	0105060230	STUD	2	
510	2533261310	AIR CLEANER ASSY.	1	CYCLONE, TOP INLET TYPE
-2	2363263008	PACKING	1	CYCLONE, TOP INLET TYPE
510	2693260100	AIR CLEANER ASSY.	1	FOAM AIR CLEANER TYPE
-2	2273600413	PACKING	1	FOAM AIR CLEANER TYPE
-13	2693265108	PLATE	1	FOAM AIR CLEANER TYPE
-520	2693261008	AIR CLEANER ELEMENT	1	FOAM AIR CLEANER TYPE
520	2273261007	ELEMENT SET	1	CYCLONE, TOP INLET TYPE
540	2533290103	INSULATOR	1	
550	2533590103	GASKET 3, INSULATOR	1	
555	2273590103	GASKET INSULATOR	1	
556	0110060130	FLANGE BOLT	1	
560	2363590303	GASKET 2, INSULATOR	1	
570	2263921200	NUT AND WASHER ASSY.	2	CYCLONE, TOP INLET TYPE
570	0023806000	FLANGE NUT	2	FOAM AIR CLEANER TYPE
590	0023806000	FLANGE NUT	2	

ROBIN EH-17 ENGINE — GOVERNOR ASSY.

GOVERNOR ASSY.



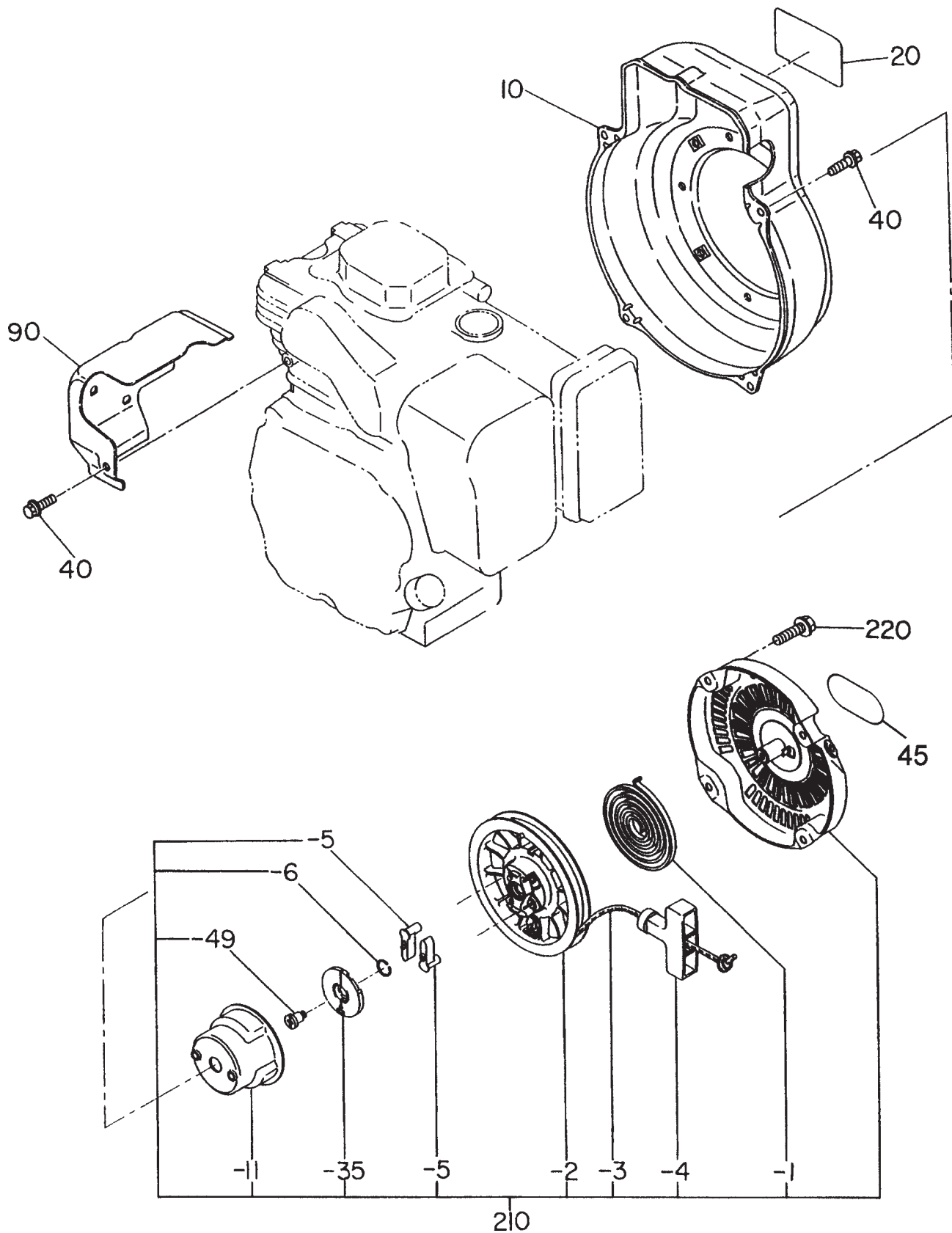
ROBIN EH-17 ENGINE — GOVERNOR ASSY.

GOVERNOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2534230123	GOVERNOR LEVER	1	
20	2274220103	GOVERNOR SHAFT	1	
25	0031108000	WASHER	1	
30	2534270101	GOVERNOR ROD CP.	1	
40	2534280103	ROD SPRING	1	
50	0031306000	CLIP	2	
60	0011406300	BOLT AND WASHER ASSY.	1	
70	0186060020	NUT	1	
80	2534250123	GOVERNOR SPRING	1	
310	2694330200	SPEED CONTROL ASSY.	1	MANUAL W/REMOTE CABLE OPT.
310	2694330100	SPEED CTRL. ASSY. MAN. CTRL.	1	INCLUDES ITEMS W/*
320*	2694330201	SPEED CONTROL CP	1	MANUAL W/REMOTE CABLE OPT.
320	2694330101	SPEED CONTROL CP	1	MANUAL CONTROL ONLY
330*	2274360103	KNOB	1	
340	2694350103	STOP PLATE	1	
345	0043104300	SCREW, PANHEAD	1	
346	2694550303	IDLE SET SPRING	1	
350	2274500203	SPRING WASHER	1	
360	0043106300	SCREW	1	
370	0022706000	NUT	1	
380	0110060050	FLANGE BOLT	1	MANUAL W/REMOTE CABLE OPT.
380	0110060030	FLANGE BOLT	1	MANUAL CONTROL ONLY
410	2534420013	WIRE BRACKET	1	MANUAL W/REMOTE CABLE OPT.
440	0043104080	SCREW	1	MANUAL W/REMOTE CABLE OPT.
450	0022706000	NUT	1	MANUAL W/REMOTE CABLE OPT.

ROBIN EH-17 ENGINE — COOLING AND STARTING ASSY.

COOLING AND STARTING ASSY.



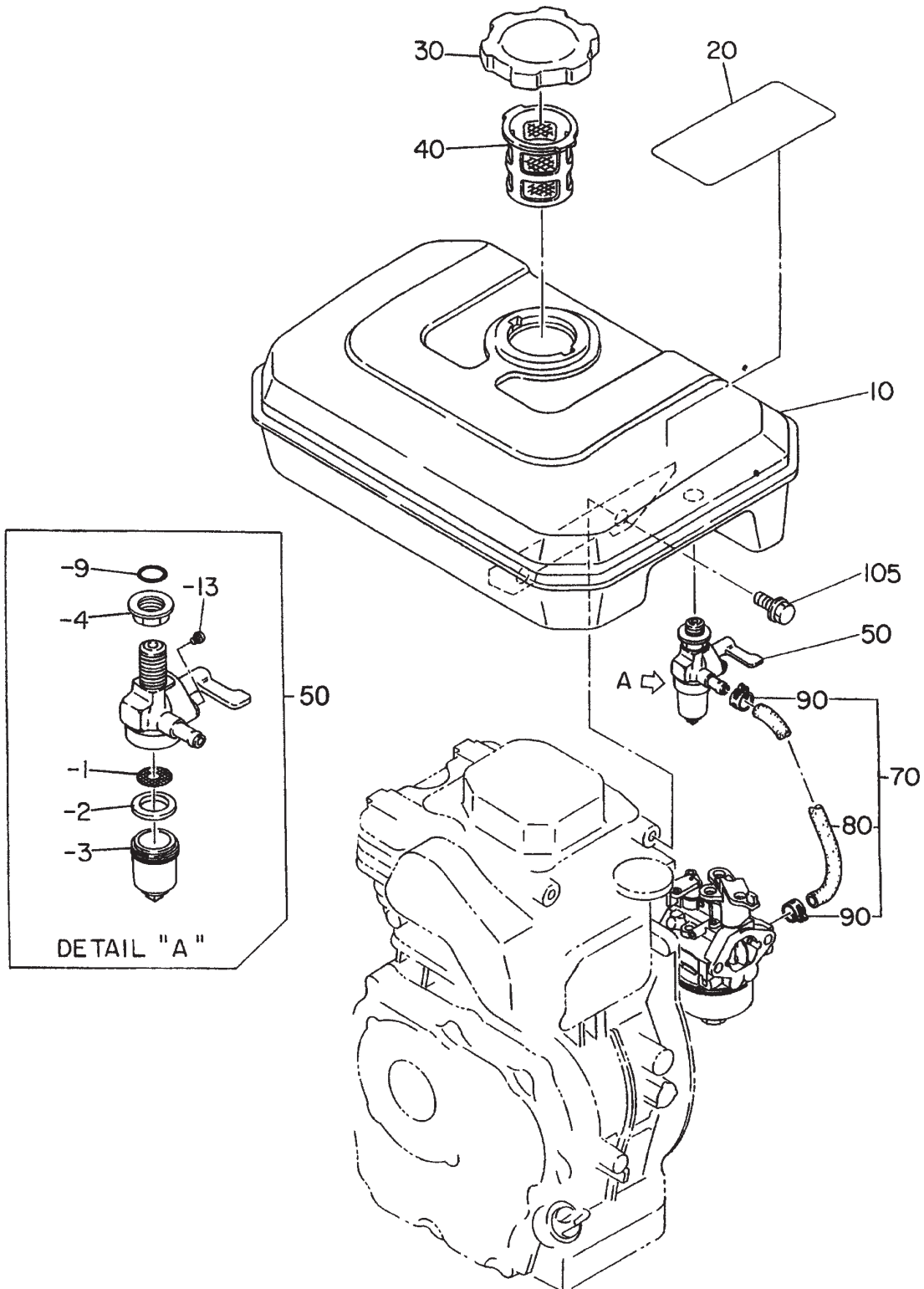
ROBIN EH-17 ENGINE — COOLING AND STARTING ASSY.

COOLING AND STARTING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2535161201	BLOWER HOUSING CP.	1	BLACK
20	2699170303	LABEL, TRADE MARK	1	
40	0110060020	FLANGE BOLT	5	
45	0732004950	LABEL, RECOIL OHV	1	
90	2535270103	HEAD COVER	1	
210	2695020100	RECOIL STARTER ASSY.	1	INCLUDES ITEMS W/*
-1*	2705011508	SPIRAL SPRING	1	
-2*	2695012008	REEL	1	
-3*	2695011008	STARTER ROPE	1	
-4*	2615010008	STARTER KNOB	1	
-5*	2705012508	RATCHET	2	
-6*	2275013108	FRICTION SPRING	1	
-11*	2695014508	STARTER PULLEY	1	
-35*	2705026108	RATCHET GUIDE	1	
-49*	2275015208	SET SCREW	1	
220	0110060010	FLANGE BOLT	4	

ROBIN EH-17 ENGINE — FUEL TANK ASSY.

FUEL TANK ASSY.



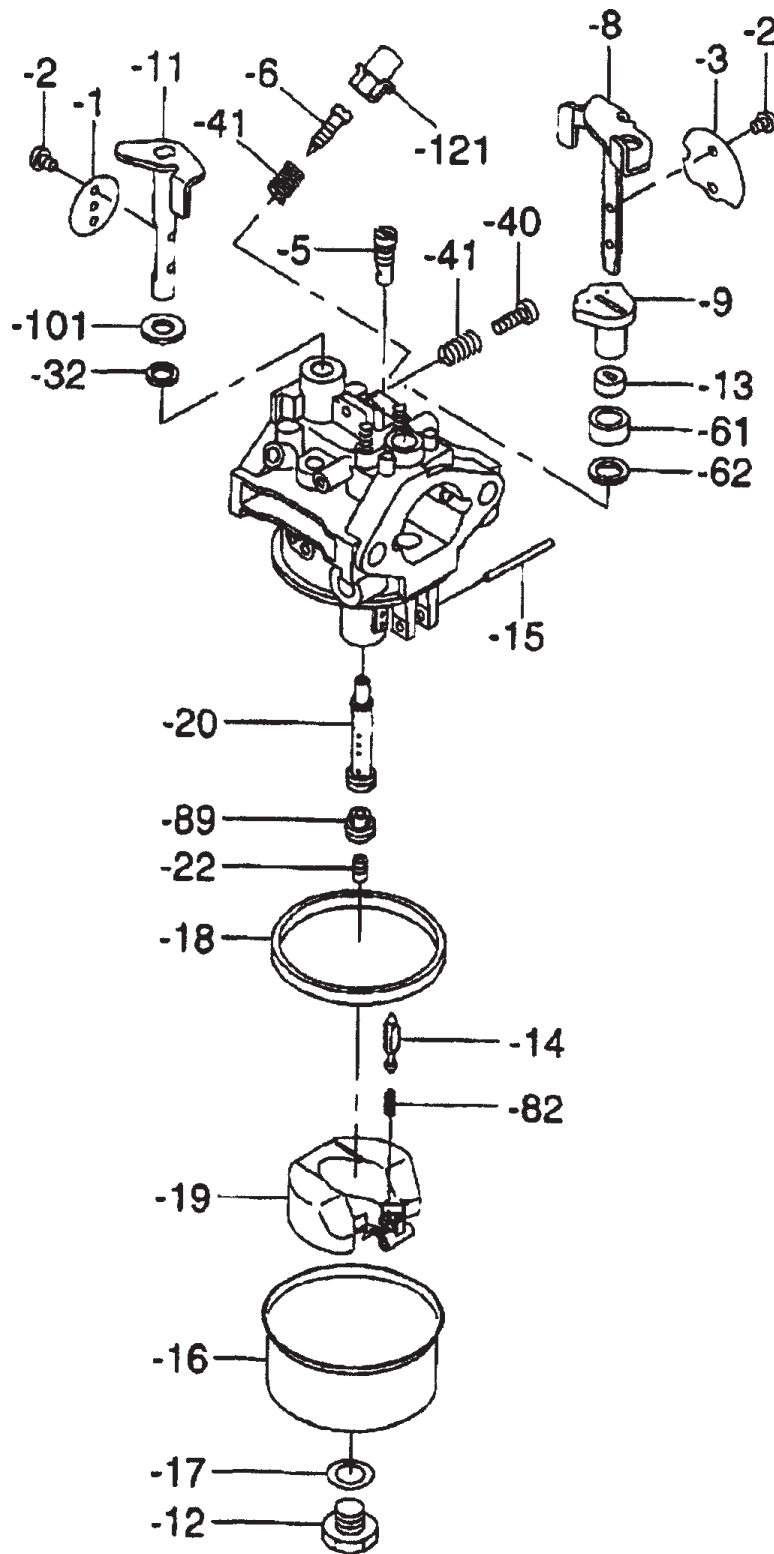
ROBIN EH-17 ENGINE — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2536010801	FUEL TANK CP. BLACK	1	
20	0732003900	LABEL, CAUTION	1	
30	0430430015	FUEL TANK CAP CP	1	
40	0641360010	FUEL, FILTER	1	
50	0642008400	FUEL, STRAINER ASSY.	1	INCLUDES ITEMS W/*
-1*	0642004220	FILTER	1	
-2*	0642006410	PACKING	1	
-3*	0642007810	CUP	1	
-4*	0642008410	NUT	1	
-9*	0642008420	O-RING	1	
-13*	0642004790	SCREW, PANHEAD	2	
70	2696260101	FUEL PIPE CP	1	INCLUDES ITEMS W/%
80%	2696800103	RUBBER PIPE	1	
90%	0561110020	HOSE CLAMP	2	
105	0110060030	FLANGE BOLT	4	

ROBIN EH-17 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.



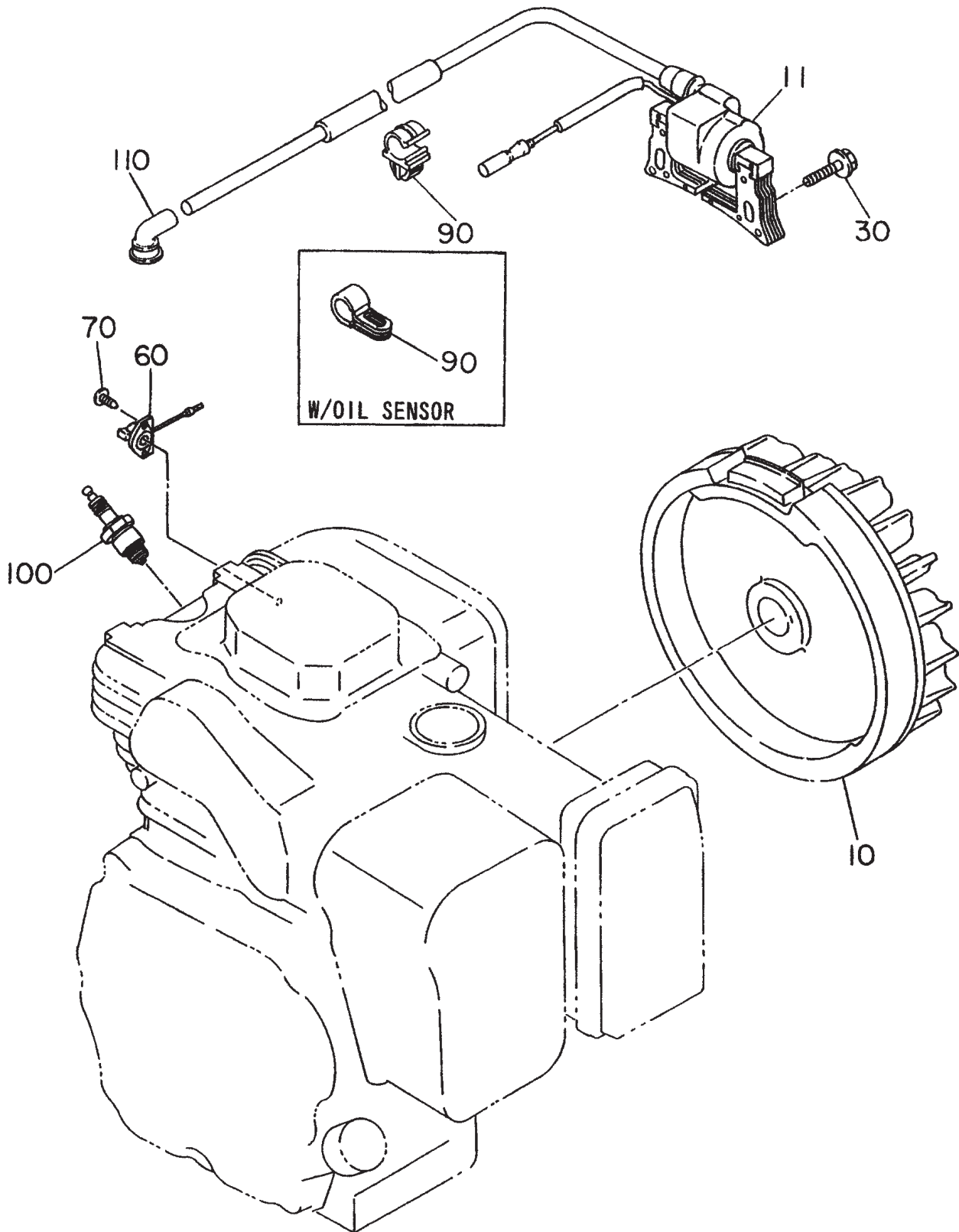
ROBIN EH-17 ENGINE — CARBURETOR ASSY.

CARBURETOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
210	2536245610	CARB. ASSY. CYCLONE, TOP INLET	1	INCLUDES ITEMS W/*
210	2536245010	CARBURETOR ASSY.	1	FOAM AIR CLEANER TYPE
-1*	2206253608	THROTTLE VALVE	1	
-2*	2376245108	SCREW	4	
-3*	2366252808	CHOKE VALVE	1	
-5*	2536242008	PILOT JET	1	
-6*	2466243608	ADJUSTER	1	
-8*	2366252008	CHOKE LEVER	1	
-9*	2396256008	RING	1	CYCLONE, TOP INLET TYPE
	2346255008	RING	1	FOAM AIR CLEANER TYPE
-11*	2366260008	THROTTLE SHAFT	1	CYCLONE, TOP INLET TYPE
	2366253008	THROTTLE SHAFT	1	FOAM AIR CLEANER TYPE
-12*	2366245108	BOLT	1	
-13*	2266255008	RING	1	
-14*	1616235208	NEEDLE	1	
-15*	2366251008	PIN	1	
-16*	2366255108	FLOAT CHAMBER BODY ASSY.	1	
-17*	2366245008	PACKING	1	
-18*	2366254008	PACKING,CHAMBER	1	
-19*	2366250508	FLOAT	1	
-20*	2386244008	MAIN NOZZLE	1	
-22*	2536240208	MAIN JET	1	
-32*	1066239208	SEAL	1	CYCLONE, TOP INLET TYPE
-40*	2466243508	ADJUST SCREW	1	
-41*	2096244508	SPRING	2	
-61*	2476255008	CAP, CHOKE	1	CYCLONE, TOP INLET TYPE
-62*	2366268008	SEAL	1	CYCLONE, TOP INLET TYPE
-82*	2366244508	SPRING	1	
-89*	2356242508	GUIDE HOLDER	1	
-101*	2366263108	RING	1	CYCLONE, TOP INLET TYPE
-121*	2466255108	CAP	1	

ROBIN EH-17 ENGINE — FLYWHEEL AND IGNITION ASSY.

FLYWHEEL AND IGNITION ASSY.



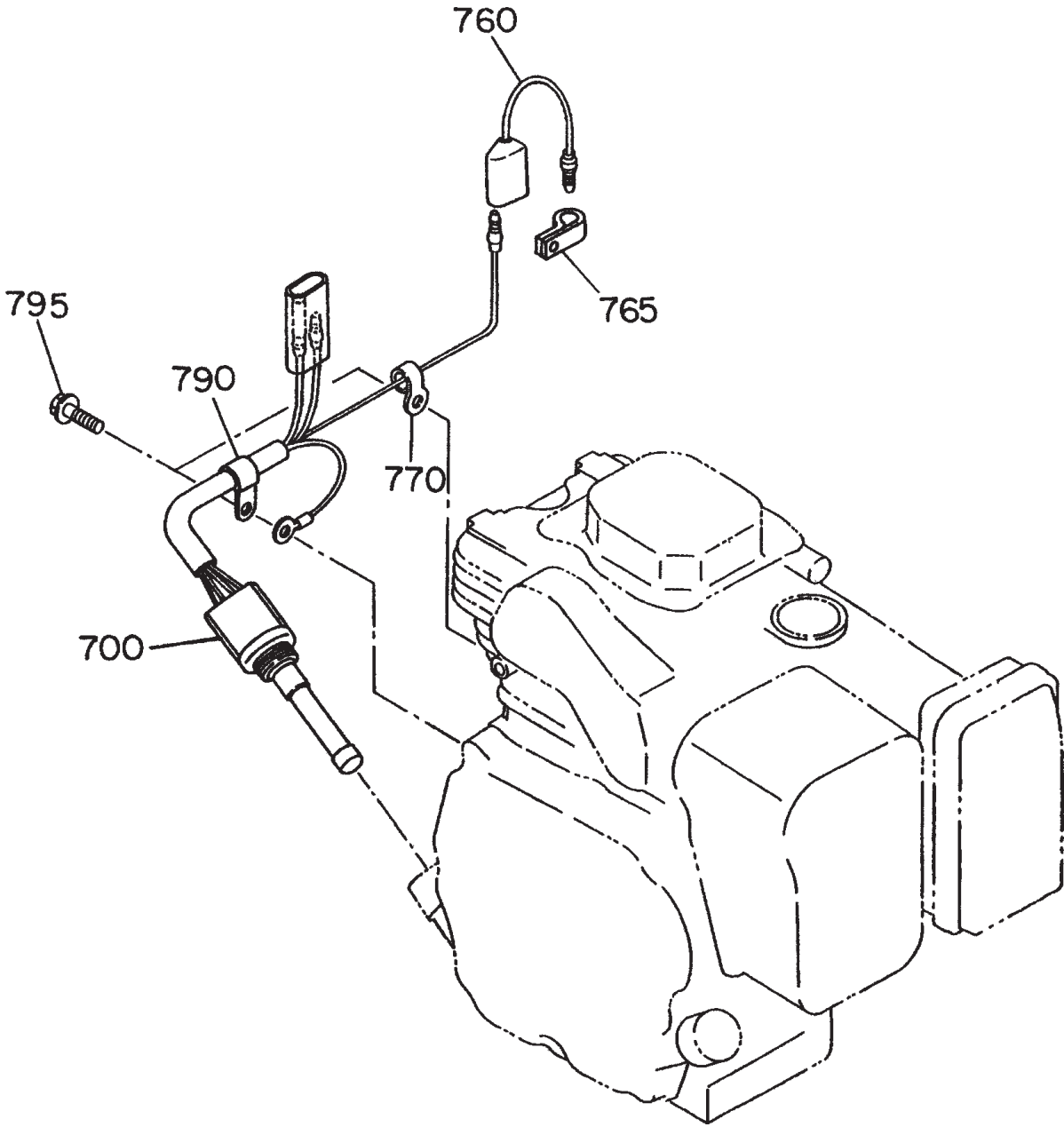
ROBIN EH-17 ENGINE — FLYWHEEL AND IGNITION ASSY.

FLYWHEEL AND IGNITION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
10	2697933001	FLYWHEEL CP	1	
11	2697943001	IGNITION COIL CP	1	
30	0011406250	BOLT AND WASHER ASSY.	2	
60	0660000361	SWITCH ASSY.	1	
70	0150040090	TAPPING SCREW	2	
90	0566000190	CLAMP	1	
	0566120050	CLAMP	1	W/OIL SENSOR
100	0650140031	SPARK PLUG	1	NGK B6HS
	0650140150	SPARK PLUG	1	NGK BR6HS
	0650141030	SPARK PLUG	1	CHAMPION L86C
110	0655000051	SPARK PLUG CAP		

ROBIN EH-17 ENGINE — OIL SENSOR ASSY.

OIL SENSOR ASSY.



ROBIN EH-17 ENGINE — OIL SENSOR ASSY.

OIL SENSOR ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
700	KS31102211	OIL SENSOR CP 13	1	W/OIL SENSOR
760	2147312201	WIRE 22 CP	1	W/OIL SENSOR
765	2067550101	CLAMP CP	1	W/OIL SENSOR
770	2077500101	CLAMP CP	1	W/OIL SENSOR 056-60002-60
790	2147900301	CLAMP CP	1	W/OIL SENSOR
795	0011008160	BOLT AND WASHER ASSY.....	3	W/OIL SENSOR