

OPERATION AND PARTS MANUAL

STOW

A DIVISION OF MULTIQUIP INC.

MODEL STR46SPVG RIDE-ON POWER TROWEL (B&S VANGUARD GASOLINE ENGINE)

Revision #2 (07/09/07)

THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

P/N 22072

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STOW — STR46SPVG RIDE-ON

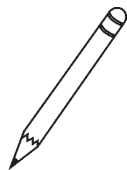
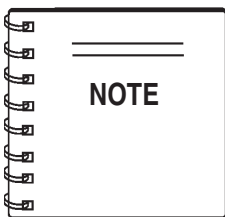
POWER TROWEL

(VANGUARD ENGINE)

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Specifications and part numbers are subject to change without notice.

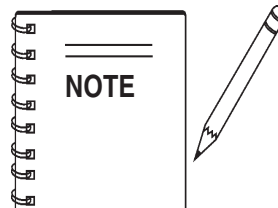
STR46SPVG — SUGGESTED SPARE PARTS

31 VANGUARD ENGINE

1 to 3 Units

Qty.	P/N	Description
5	2829	ARMS
4	10937	BELT (B-37)
2	11693	BOLT BATTERY
2	8381	BOOT, TOGGLE SWITCH
2	11692-1	BRACKET BATTERY
1	11771	BRACKET ENGINE THROTTLE CABLE
11	12771	BRONZE GEAR (L.S. FOR 1-1/4 SHAFT)
1	12772	BRONZE GEAR (R.S. FOR 1-1/4 SHAFT)
5	11039	BUSHING
2	12460	CABLE, PITCH
20	1162A	CAP GREASE FITTING
1	2580	CHOKE CABLE
1	2673	CIRCUIT BREAKER 30 AMP, 12V
1	10434	CLAMP
2	820263	ELEMENT, AIR CLEANER
2	821075	FAN BELT
2	29509	FUEL CAP STEEL TANK
1	820026	FUEL FILTER
2	2618	GASKET KIT
1	12908	GEAR WORM
4	0189	HANDLE GRIP
1	12849	HEADER PIPE
2	825557	HOSE
2	825133	HOSE
2	29640	HOUR METER
20	1876	JAM NUT
1	2323	KEY 1/4 X 1/4 13/16
4	11078	KEYS, IGNITION (SWITCH)
2	12833	KIT, BEARING (1-1/4 SHAFT)
2	2737	KNOB ASSY.
1	10922	LEFT-SIDE FAN
1	1617	LEVER ASSY. TROWEL ADJUSTMENT
2	9005	LEVER TROWEL ARM (L.S.)
2	1986	LEVER TROWEL ARM (R.S.)
1	12764	MAIN SHAFT, 1-1/4 DIAMETER
1	20908	MUFFLER
20	1456	NUT (3/8 -16)
2	491056	OIL FILTER
1	9028	PIN YOKE
1	10921	RIGHT-SIDE FAN
2	21870	SAFETY KILL SWITCH
20	0164B	SCREW
20	4514	SCREW (HHC 1/4-20 X 5/8)
20	16602	SCREW (HHC 3/8 -16 X 3/8)
20	12097	SCREW (SQH 3/8-16 X 1 3/4 CONE)
20	1322	SCREW ASSY., ARM RETAINING

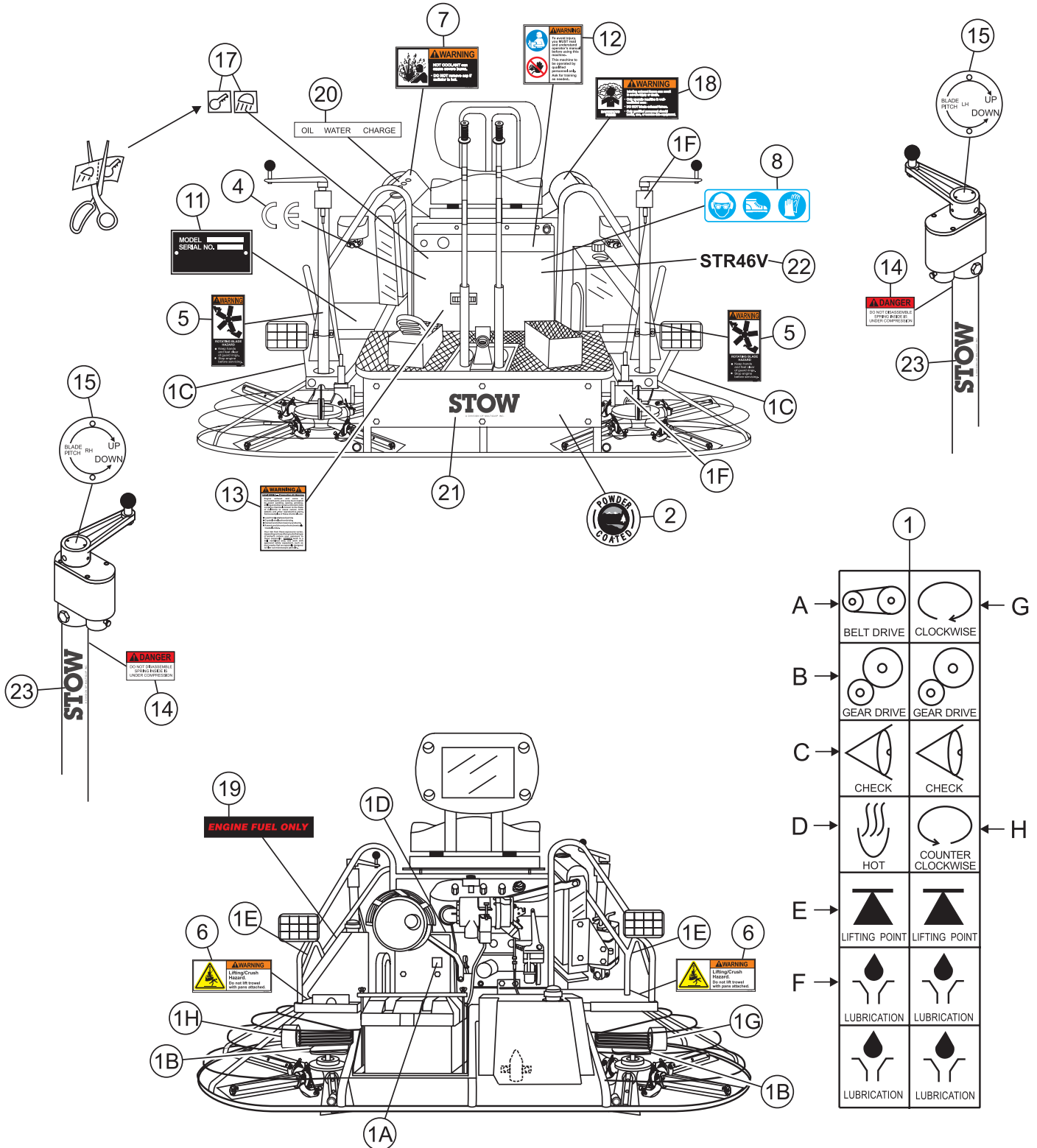
1	21861	SEAT
1	12906	SHAFT GEARBOX INPUT W/FAN
3	496018S	SPARK PLUG
2	12787	SPIDER, 1-1/4 DIA. MAINSHAFT
2	12548	SPRAY PUMP
2	9111	SPRING (L.S.)
2	2143	SPRING (R.S.)
1	11430	SWITCH
2	10958	SWITCH, IGNITION
1	19301	TERMINAL STRIP (10-POLE)
2	2124	THROTTLE CABLE
2	20938	THRUST COLLAR KIT
2	4682	TOGGLE SWITCH
20	0166A	WASHER
20	1875	WASHER
20	0181B	WASHER 1/4 IN
10	10031	WASHER 1/4 IN.
6	2509	WING NUT
1	1139	WOODRUFF KEY
1	12100	YOKE



Part numbers on this Suggested Spare Parts List may supercede/replace the P/N shown in the text pages of this book.

STR46SPVG — NAMEPLATE AND DECALS ASSY.

NAMEPLATE AND DECALS ASSY.



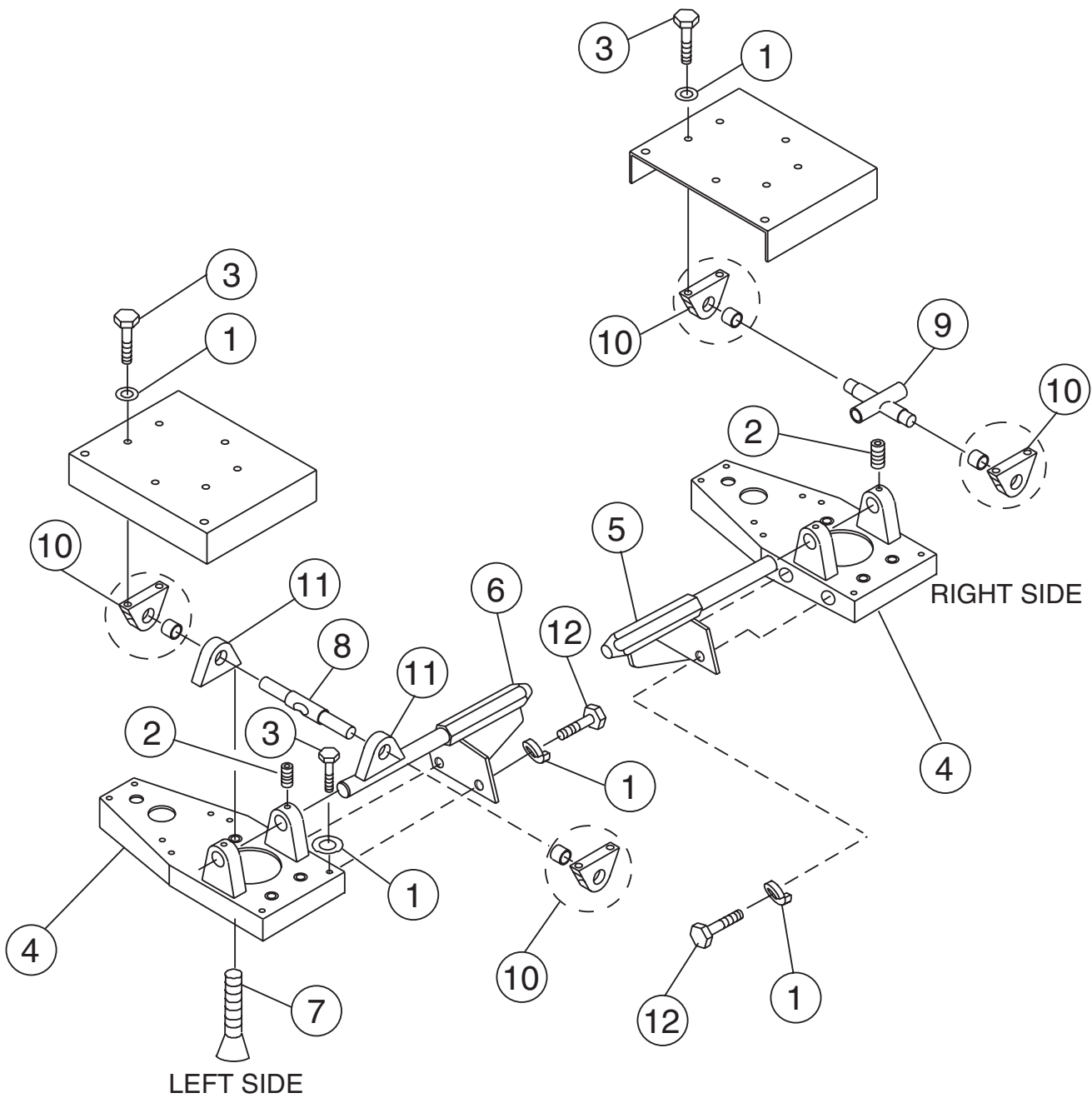
STR46SPVG — NAMEPLATE AND DECALS ASSY.

NAMEPLATE AND DECALS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	11246	DECAL SET, INTERNATIONAL STDS	1	INCLUDES ITEMS W/#
1A#		DECAL, BELT DRIVE	1	
1B#		DECAL, GEAR DRIVE	2	
1C#		DECAL, CHECK OIL	2	
1D#		DECAL, HOT SURFACE	1	
1E#		DECAL, LIFT POINT	2	
1F#		DECAL, LUBRICATION	4	
1G#		DECAL, CLOCKWISE ROTATION	1	
1H#		DECAL, COUNTER-CLOCKWISE ROTATION	1	
2	13118	DECAL, POWDER COATED	1	
4	11092	DECAL, "CE"	1	
5	35168	DECAL, ROTATING BLADE HAZARD, 2.0 x 4.3	2	
6	21455	DECAL, LIFTING/CRUSH HAZARD	2	
7	36091	DECAL, HOT COOLANT 3.5 X 1.75 WRSDPU	1	
8	36099	DECAL, PROTECTIVE CLOTHING	1	
11		DECAL, SERIAL PLATE-RIDER, 3.13 x 2.25	1	CONTACT MQ PARTS DEPT
12	35137	DECAL, READ MANUAL, ASK FR TRAINING 2.75"	1	
13	20525	DECAL, WARNING "PROP 65", 3.25 x 4.25	1	
14	2634	DECAL, SPRING SAFETY	2	
15	2300	DECAL, AL. PITCH	1	
17	2814	DECAL, CONTR PNL	1	
18	36090	DECAL, VENTILATION	1	
19	22088	DECAL, "ENGINE FUEL ONLY" 1.50" x 8.00"	1	
20	12571	DECAL, INSTRUMENT LITES (31V)	1	
21	22087	DECAL, STOW, 3.75" X 13.75"	1	
22	22086	DECAL, STR46V, 3-7/8" X 4"	1	
23	30053-001	DECAL, STOW LABEL, TROWEL HANDLE	2	

STR46SPVG — PIVOT ASSY.

PIVOT ASSY.

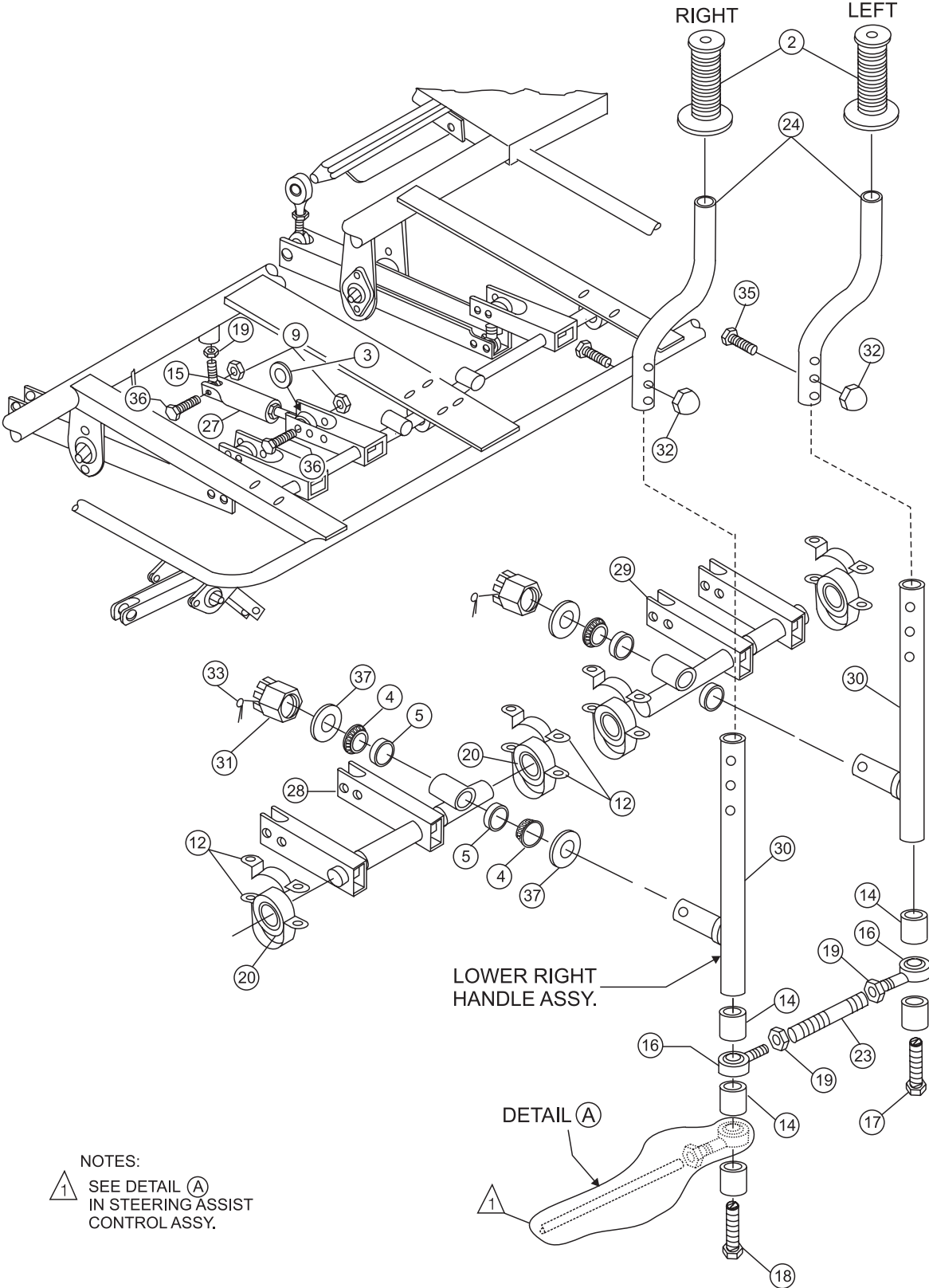


PIVOT ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0166 A	WASHER, LOCK, 3/8 MED.	20	
2	10138	SCREW, SHS 1/4-20 X 1/2, N.P.	4	
3	1023	SCREW, HHC 3/8-16 X 1 1/4	16	
4	11248	PLATE, GEARBOX ADAPTOR	2	
5	12412-1	ARM, PIVOT RIGHT	1	
6	12413-1	ARM, PIVOT LEFT	1	
7	1394	SCREW, FHSC 3/8-16 X 1	4	
8	2145	PIVOT JOINT, SINGLE ROCKER	1	
9	2146	PIVOT, DOUBLE ROCKER	1	
10	2304	ROCKER BLOCK	4	
11	2312	ROCKER BLOCK	2	
12	4196	SCREW, HHC 3/8-16 X 3/4	4	

STR46SPVG — STEERING HANDLES ASSY.

STEERING HANDLES ASSY.



NOTES:
 1 SEE DETAIL (A)
 IN STEERING ASSIST
 CONTROL ASSY.

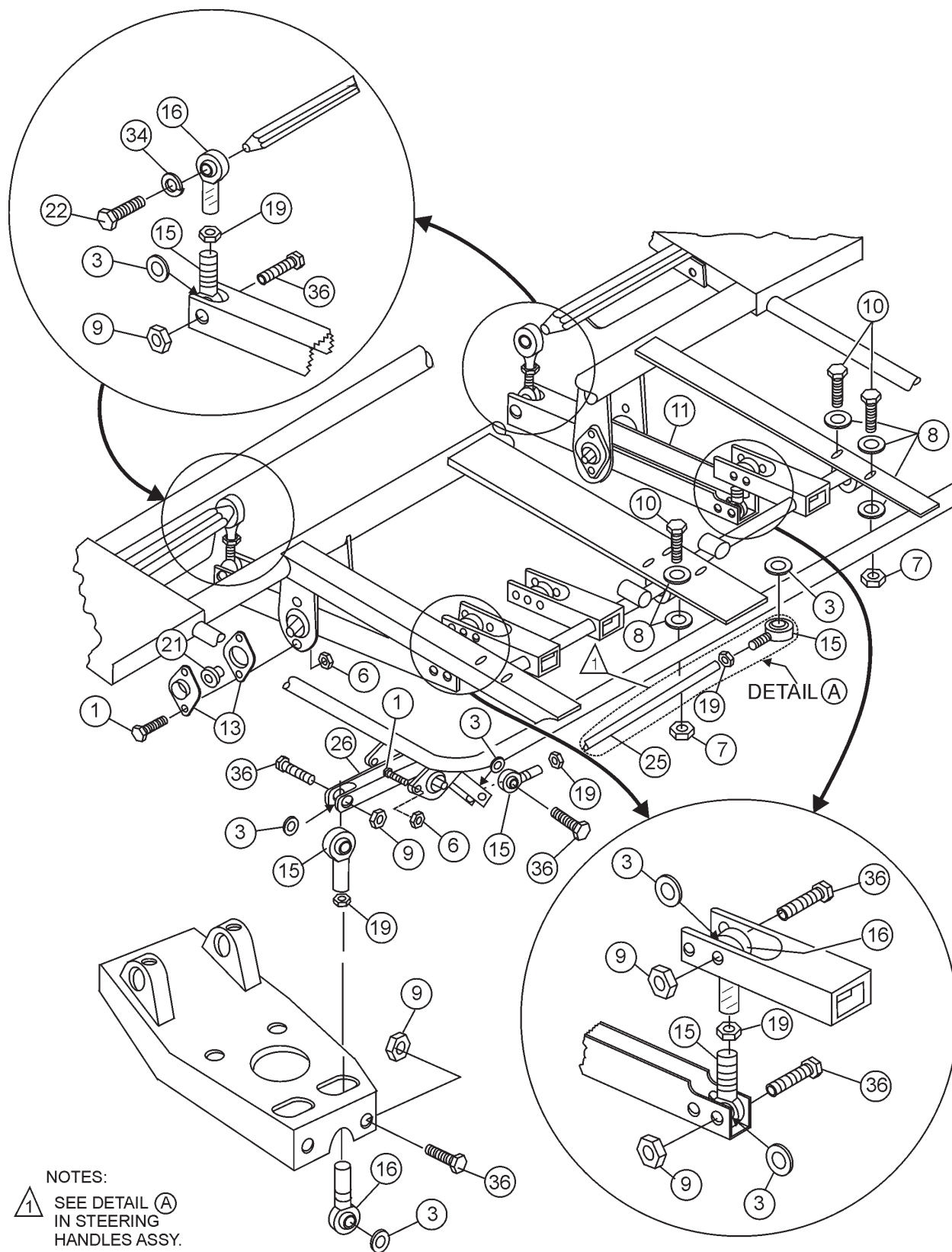
STR46SPVG — STEERING HANDLES ASSY.

CONTROL STEERING (ASSIST)

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	0189	GRIP, HANDLE	2	
3	0447	WASHER, FLAT, 1/2 SAE	2	
4	0735	BEARING, CONE, TIMKEN #A6075	4	
5	0735 A	BEARING, CUP, TIMKEN #A6157	4	
9	10176	NUT, NYLOC 1/2-13	4	
12	11138	BEARING, P-BLOCK HOUSING 47MPB	4	
14	11141	SPACER, ROD END	5	
15	11142	ROD END, 1/2-20 MALE RH	2	
16	11143	ROD END, 1/2-20 FEMALE RH	2	
17	11144	SCREW, SHC 1/2-20 X 2 PLTD	1	
18	11145	SCREW, SHC 1/2-20 X 3 PLTD	1	
19	11146	NUT, HEX JAM 1/2-20	4	
20	11149	BEARING, SB-204-12	4	
23	11173	THREADPIECE, 1/2-20 X 2 PLTD	1	
24	11177-1	HANDLE TUBE, UPPER	2	
27	12200	ASSIST ASM, STEERING SPRING	2	
28	12374-1	STEERING CONTROL W/A RS ASSIST	1	
29	12375-1	STEERING CONTROL W/A LS ASSIST	1	
30	12425-1	HANDLE , LOWER W/A	2	
31	12426	NUT, SLOTTED 3/4-16 PLATED	2	
32	2197	NUT, ACORN 1/4-20	2	
33	2219	PIN, COTTER 1/8 X 1 1/2	2	
35	5277	SCREW, HHC 1/4-20 X 1 1/2	2	
36	EM963105	SCREW, HHC 1/2-13 X 2	4	
37	8151	WASHER, FLAT, 3/4 SAE	4	

STR46SPVG — STEERING ASSIST CONTROL ASSY.

STEERING ASSIST CONTROL ASSY.



NOTES:
1 SEE DETAIL (A)
IN STEERING
HANDLES ASSY.

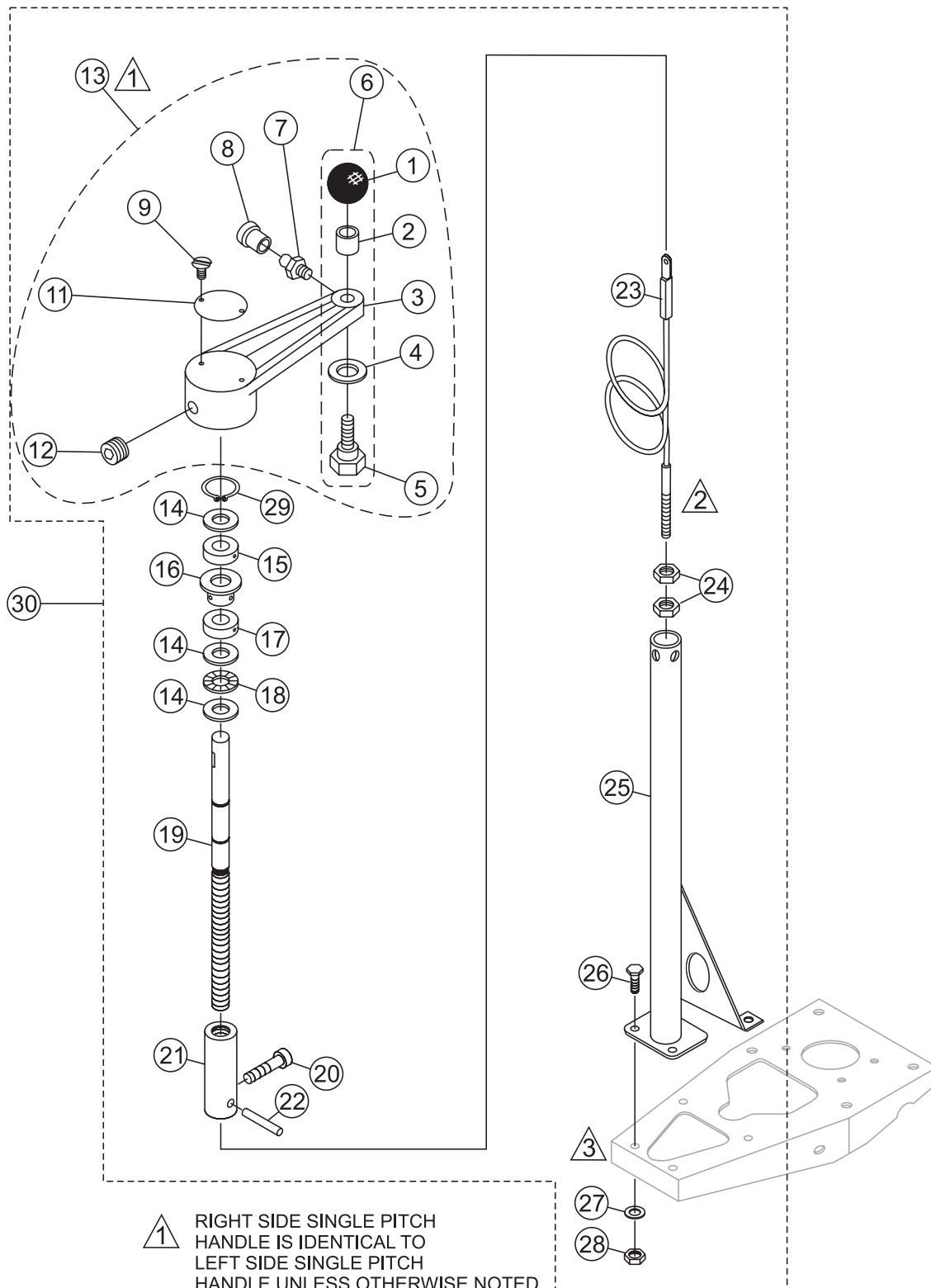
STR46SPVG — STEERING ASSIST CONTROL ASSY.

STEERING ASSIST CONTROL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0131 A	SCREW, HHC 1/4-20 X 3/4	12	
3	0447	WASHER, FLAT, 1/2 SAE	12	
6	10024	NUT, NYLOC 1/4-20	12	
7	10133	NUT, NYLOC 3/8-16	8	
8	10136	WASHER, FLAT, 3/8 SAE	16	
9	10176	NUT, NYLOC 1/2-13	9	
10	1023	SCREW, HHC 3/8-16 X 1 1/4	8	
11	11127-1	LEVER, STEERING CONTROL W/A	2	
13	11139	BEARING, FLANGE HOUSING 40M-2	6	
15	11142	ROD END, 1/2-20 MALE RH	7	
16	11143	ROD END, 1/2-20 FEMALE RH	5	
19	11146	NUT, HEX JAM 1/2-20	7	
21	11150	BEARING, SB-201-8	6	
22	8136	SCREW, HHC 1/2-20 X 1.1/2"	2	
25	11205	ROD, L/R MOTION	1	
26	12193	LEVER, L/R CONTROL W/A	1	
34	5054 A	WASHER, LOCK, 1/2 MED.	2	
36	6159 A	SCREW, HHC 1/2-13 X 2	9	

STR46SPVG — SINGLE PITCH HANDLE ASSY. (RIGHT AND LEFT)

SINGLE PITCH HANDLE ASSY. (RIGHT AND LEFT)



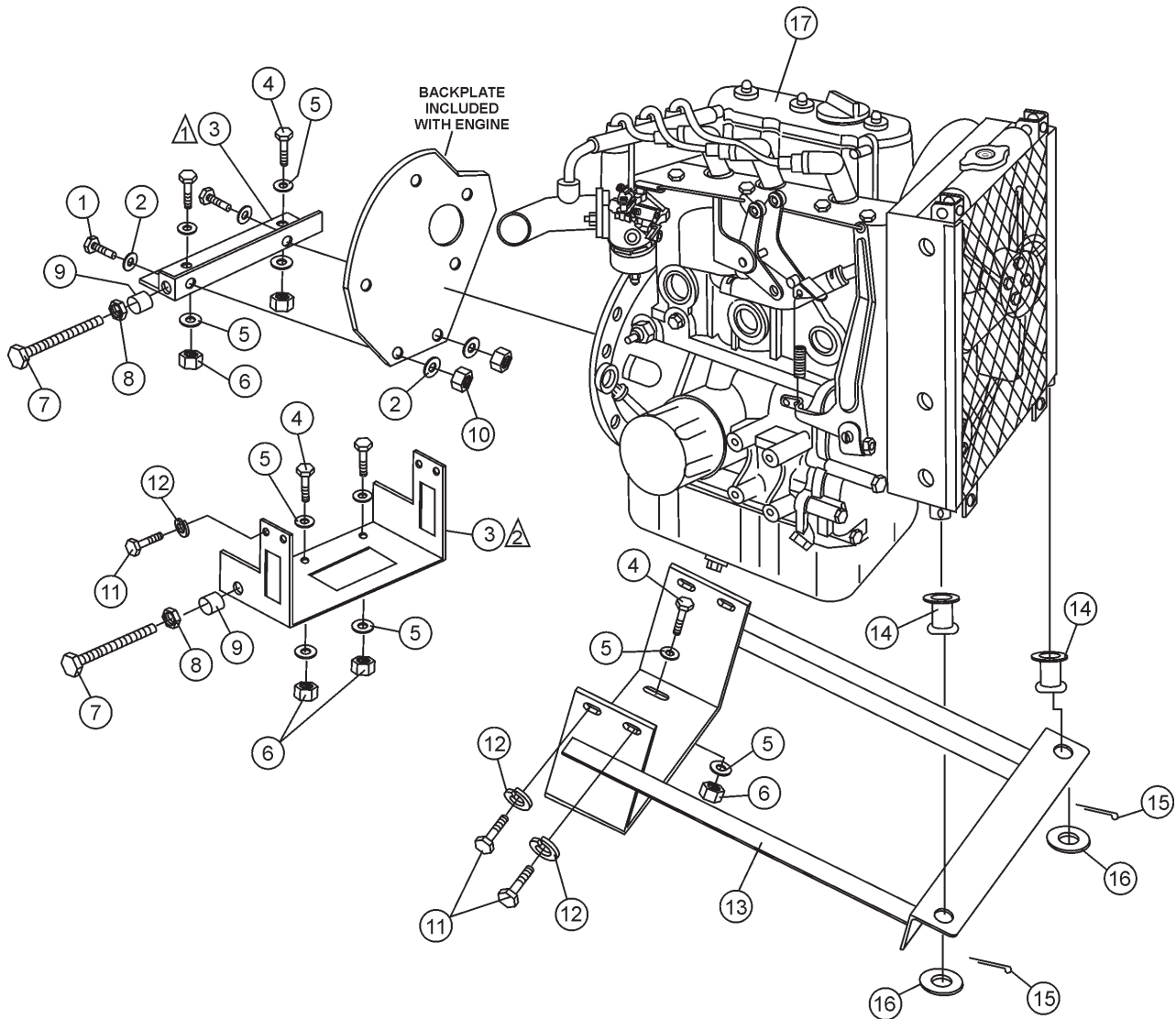
STR46SPVG — SINGLE PITCH HANDLE ASSY. (RIGHT AND LEFT)

SINGLE PITCH HANDLE ASSY. (RIGHT AND LEFT)

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1#%+	4403	CRANK KNOB	2	
2#%+	3231	SPACER	2	
3#%+	2575	CRANK LEVER	2	
4#%+	1733	HARDENED WASHER	2	
5#%+	1616	SHOULDER BOLT	2	
6#%	2737	KNOB KIT	2	INCLUDES ITEMS W/+
7#%	2621	FITTING GREASE	2	
8#%	1162A	CAP, GREASE ZERK #2	2	
9#%	4014	SCREW, 2-3/16 P-K TYPE U DRIVE	4	
11#%	2300	DECAL, AL PITCH, RH	1	
12#%	0185	SCREW, SHSS 3/8-16 X 3/8"	2	
13#	1617	LEVER ASSY, TROWEL ADJUSTMENT	2	INCLUDES ITEMS W/%
14#	2170	BEARING, RACE, TORR. #TRA1220	6	
15#	1604	BEARING, BALL THRUST E5 AETNA	2	
16#	1111	BEARING, ALUM.	2	
17#	2367	COLLAR, SET .75 X 1.25 X .56, 2 SET SCRW	2	
18#	2169	BEARING, THRUST, TORR. #NTA1220	2	
19#	10646	SHAFT, SPC CONTROL	2	
20#	10382	BOLT, SHOULDER, 3/8 X 3/8 LONG	2	
21#	10721	SLIDE BLOCK	2	
22#	10723	ROLL PIN	2	
23#	12460	CABLE ASSEMBLY 25.63	2	
24#	1116	BRASS JAM NUT	4	
25#	10548-1	PITCH CONTROL TUBE	2	
26#	0202	SCREW, HHC 5/16-18	8	
27#	0300B	FLAT WASHER 5/16"	8	
28#	5283	LOCK NUT 5/16-18	8	
29#	10512	SNAP RING	2	
30	12902-1	PITCH ASSY.	2	INCLUDES ITEMS W/#

STR46SPVG — ENGINE MOUNTING BRACKETS ASSY.

ENGINE MOUNTING BRACKETS ASSY.



NOTES:

▲ MOUNT REAR LEFT P/N 12458
S/N CC0202199 AND BELOW

▲ BRACKET ENGINE MOUNT P/N 21628
S/N CC0202200 AND ABOVE

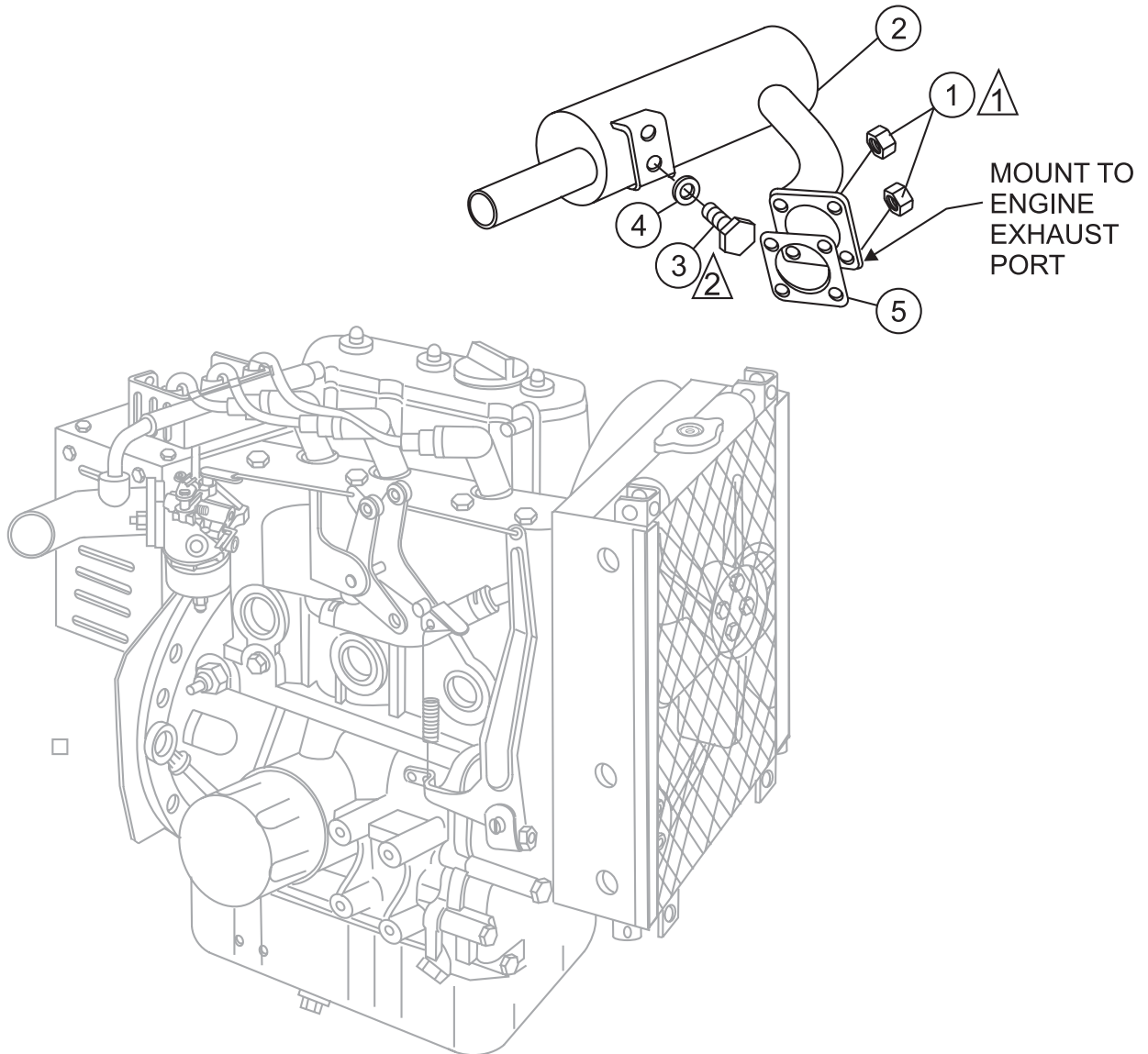
STR46SPVG — ENGINE MOUNTING BRACKETS ASSY.

ENGINE MOUNTING BRACKETS ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0202	SCREW, HHC 5/16-18 X 1	2	
2	0300 B	WASHER, FLAT, 5/16 SAE	4	
3	21628-1	BRACKET, ENGINE MOUNT LEFT	1	
4	1023	SCREW, HHC 3/8-16 X 1 1/4	4	
5	10136	WASHER, FLAT, 3/8 SAE	8	
6	10133	NUT, NYLOC 3/8-16	4	
7	11155	SCREW, HHC, FT, 5/16-24 X 4"	1	
8	6014 C	NUT, HEX FINISH 5/16-24	1	
9	11153	CAP, ENGINE ADJUST BOLT	1	
10	5283	NUT, NYLOC 5/16-18	2	
11	2866	SCREW, HHC M8 1.25 X 20 MM GR 8.8	8	
12	0161 C	WASHER, LOCK, 5/16 MED.	8	
13	11753-1	MOUNT, ENGINE FRONT W/A (RIGHT)	1	
14	19468	GROMMET, MINOR PN Z-4004	2	
15	0183	PIN, COTTER 1/8D X 1-1/4	2	
16	0447	WASHER, FLAT SAE1/2	2	
17	11292	ENGINE, BRIGGS 31 HP,DM950G	1	

STR46SPVG — MUFFLER ASSY.

MUFFLER ASSY.



NOTES:

① TORQUE TO 15 LB-FT.

② TORQUE TO 15 LB-FT. APPLY BLUE LOCTITE 246 P/N 60097.

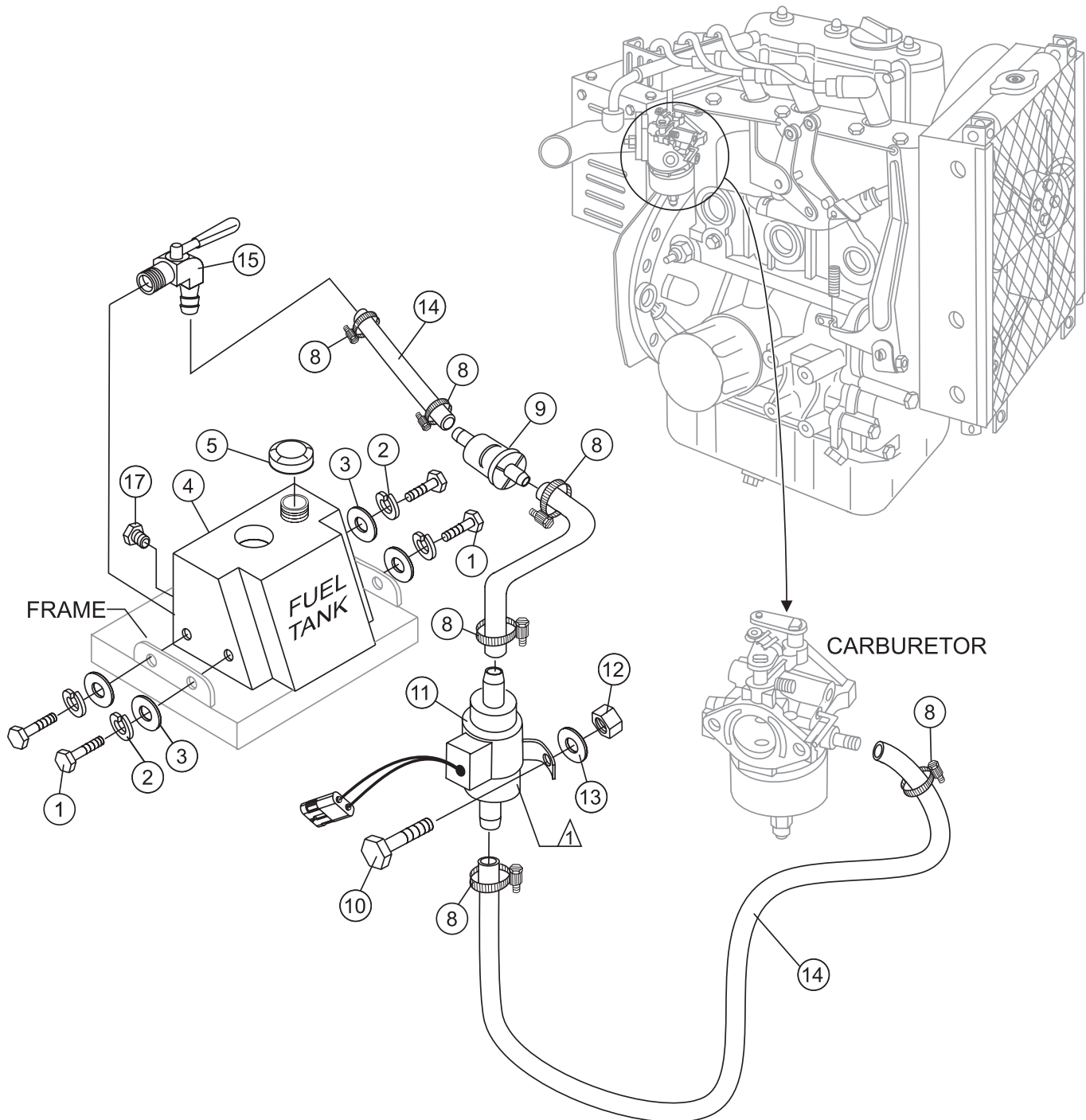
STR46SPVG — MUFFLER ASSY.

MUFFLER ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12848	EXHAUST FLANGE NUT	4	
2	20908	MUFFLER	1	
3	0655	SCREW, HHC 5/16-18 X 3/4	2	
4	0300 B	WASHER, FLAT 5/16 SAE	2	
5	12847	EXHAUST GASKET	1	

STR46SPVG — FUEL TANK ASSY.

FUEL TANK ASSY.



NOTES:

▲ SECURE TO BATTERY BOX.

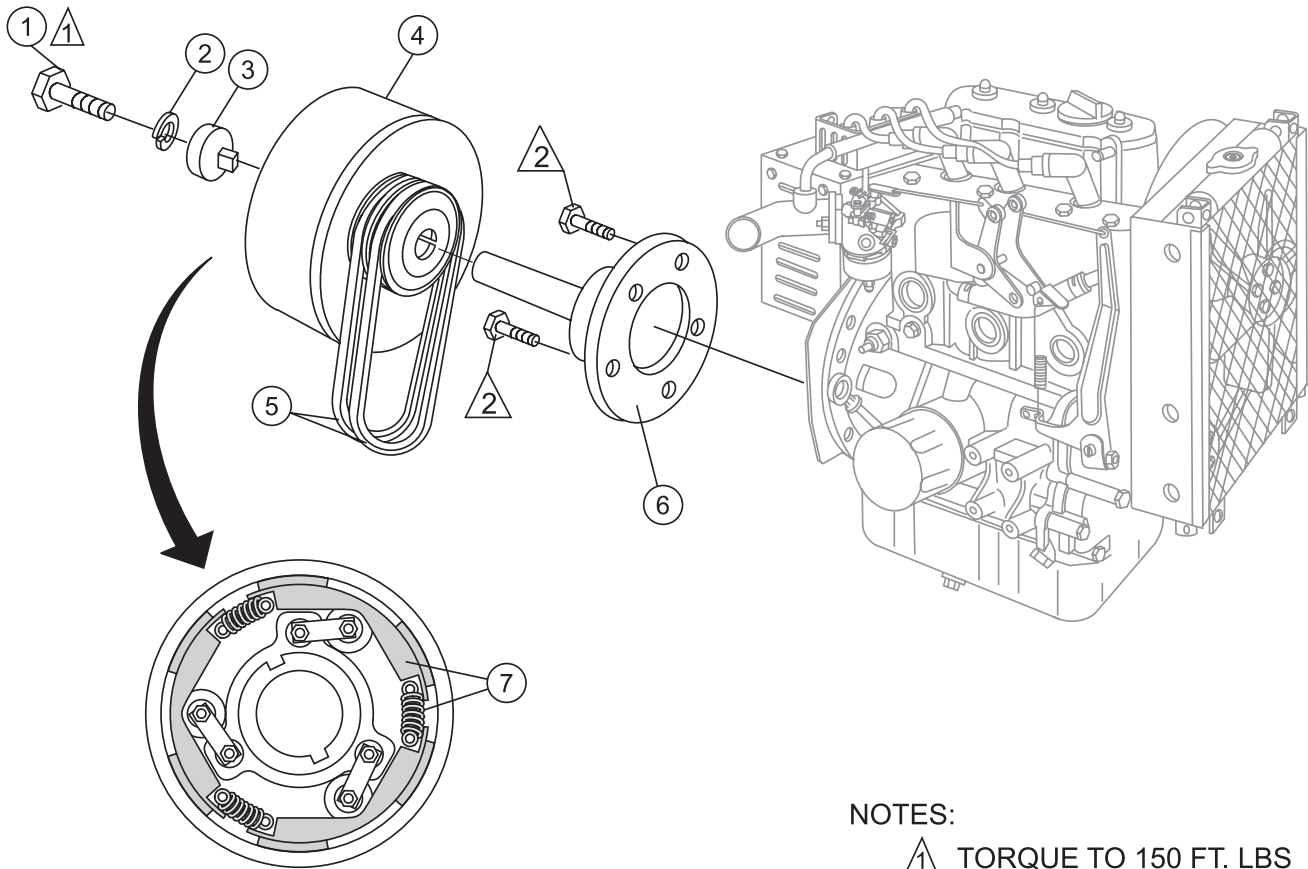
STR46SPVG — FUEL TANK ASSY.

FUEL TANK ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	4514	SCREW, HHC 1/4-20 X 5/8	4	
2	0181 B	WASHER, LOCK, 1/4 MED.	6	
3	0948	WASHER, FLAT, 1/4 SAE	8	
4	12404	TANK, FUEL, STEEL	1	
5	29509	FUEL CAP/GAUGE, STEEL TANK	1	
8	22067	CLAMP, STEPLESS EAR 1/4"	6	
9	11984	IN-LINE FUEL FILTER 5/16	1	
10	0131 A	SCREW, HHC 1/4-20 X 3/4	2	
11	825232	FUEL PUMP	1	
12	10024	NUT, NYLOC 1/4-20	2	
13	0948	WASHER, FLAT, 1/4 SAE	8	
14	60013	HOSE, .25 ID RUBBER FUEL LINE	3 FT	SOLD BY THE FOOT. 3 FT. REQD.
15	22081	VALVE SHUTOFF 1/4 NPT, 1/4 HOSE	1	
17	16185	FITTING, PLUG 1/4" SQ. HD.	1	

STR46SPVG — CLUTCH ASSY.

CLUTCH ASSY.



NOTES:

▲ TORQUE TO 150 FT. LBS

▲ TORQUE TO 15 FT. LBS.
▲ BOLT IS INCLUDED WITH ENGINE.

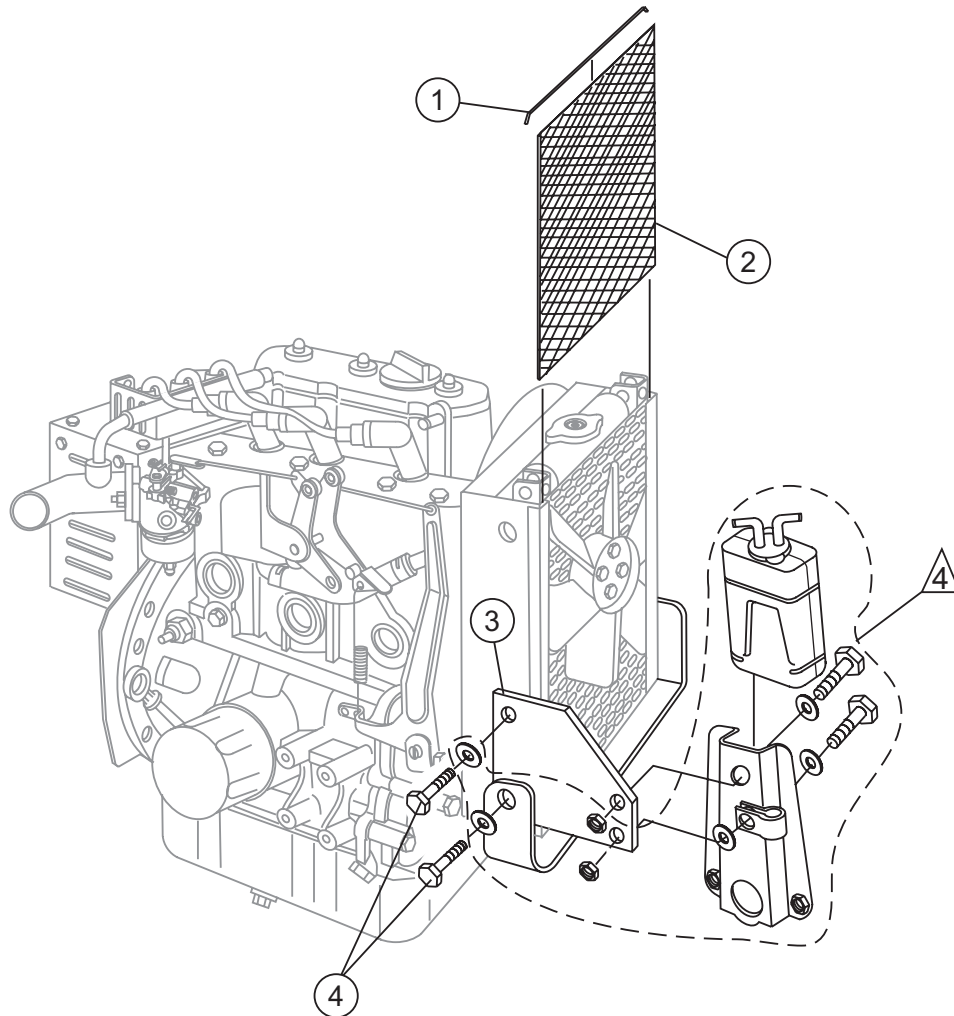
STR46SPVG — CLUTCH ASSY.

CLUTCH ASSY.


<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12417	SCREW, HHC 5/8-18 X 2	1	
2	4703	WASHER, LOCK, 5/8 MED.	1	
3	12188	RETAINER, 1-7/16 BLM CLUTCH	1	
4	11994	CLUTCH, F74H-3080 X 1-7/16"	1	
5	10937	BELT, B37 GATES HP 11	2	
6	11758	ADAPTOR, CLUTCH, 31HP.VANGUARD	1	
7	12463	SHOES/SPRINGS KIT	1	

STR46SPVG — RADIATOR GUARD/OVERFLOW BRACKET ASSY.

RADIATOR GUARD/OVERFLOW BRACKET ASSY.



NOTES:

-  ITEMS WITHIN DASHED LINE
ARE INCLUDED WITH ENGINE.
REFER TO ENGINE PARTS MANUAL.

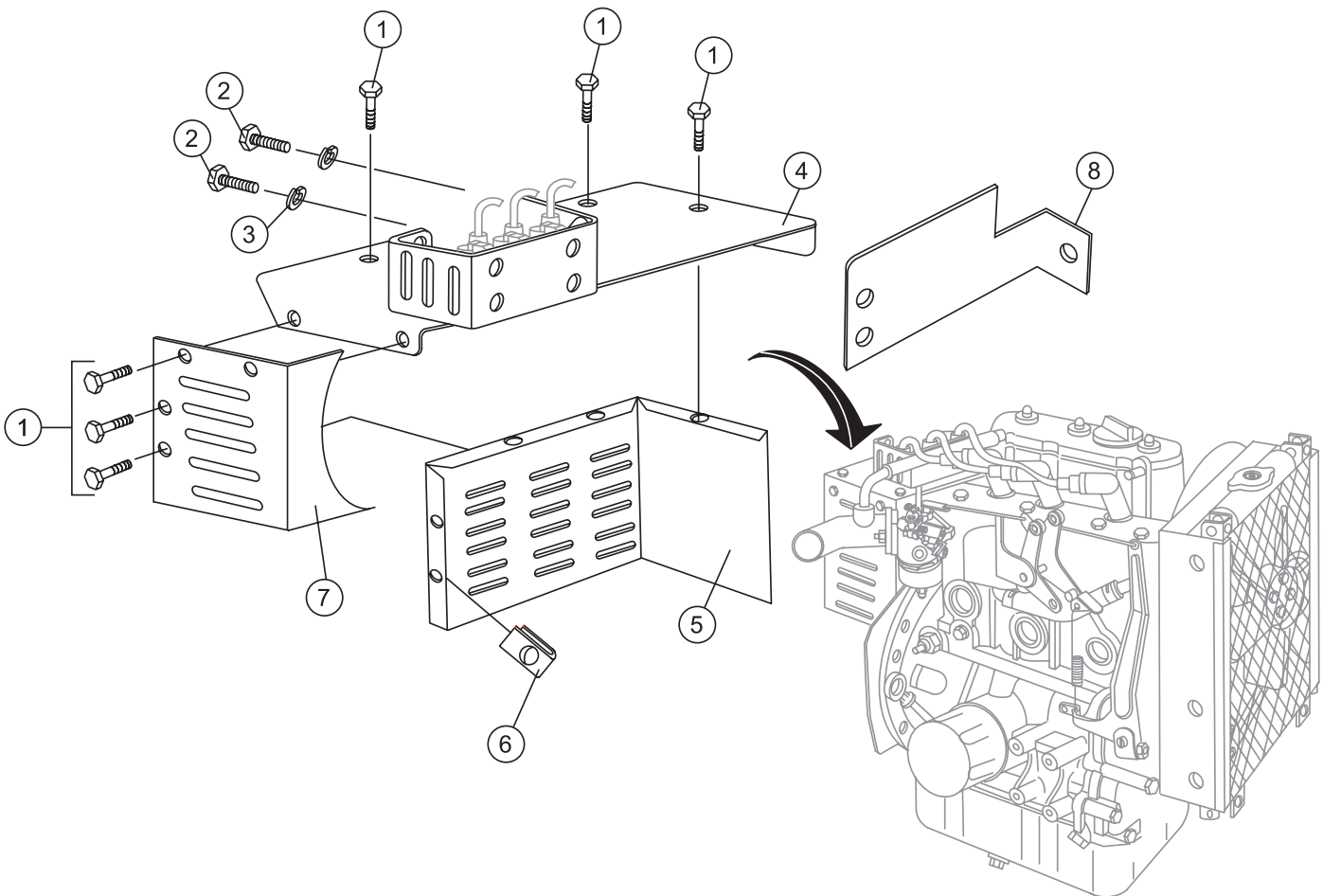
STR46SPVG — RADIATOR GUARD/OVERFLOW BRACKET ASSY.

RADIATOR GUARD/OVERFLOW BRACKET ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	60049	TRIM EDGE, 1/32 (62B3-1/32)	1.5 FT	
2	12450	GUARD, RADIATOR (31 VAN)	1	
3	11900	MOUNT, RADIATOR OVERFLOW	1	
4	12464	SCREW, HHC M6-1.0 X 16mm	3	

STR46SPVG — V-BELT GUARD ASSY.

V-BELT GUARD ASSY.



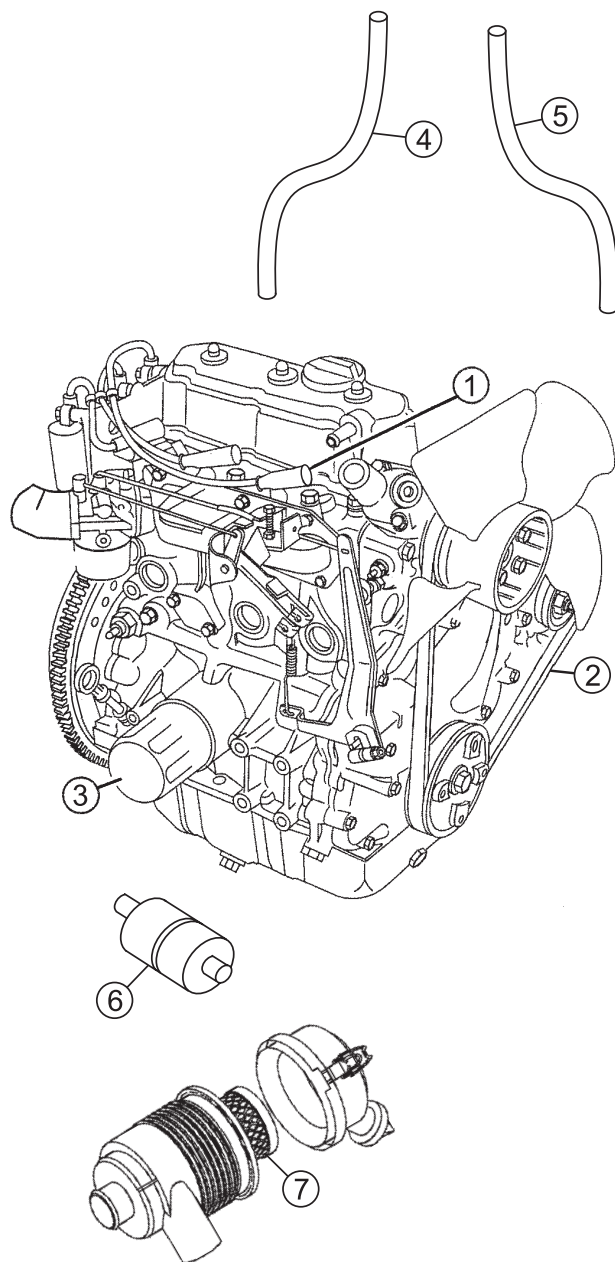
STR46SPVG — V-BELT GUARD ASSY.

V-BELT GUARD ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	11819	SCREW, HHC 1/4-20 X 3/4 W/WASH	7	
2	1605	SCREW, HHC M8-1.25 X 25mm	4	
3	0161 C	WASHER, LOCK, 5/16 MED.	4	
4	21036	BELT GUARD/MUFFLER SPPT W/A	1	
5	21190	PLATE, BELT GUARD SIDE	1	
6	11534	NUT, "U" TYPE, 1/4-20	7	
7	21197	PANEL, BELT GUARD REAR	1	
8	20178	MUFFLER HEAT SHIELD	1	

STR46SPVG — ENGINE SERVICE PARTS

ENGINE SERVICE PARTS



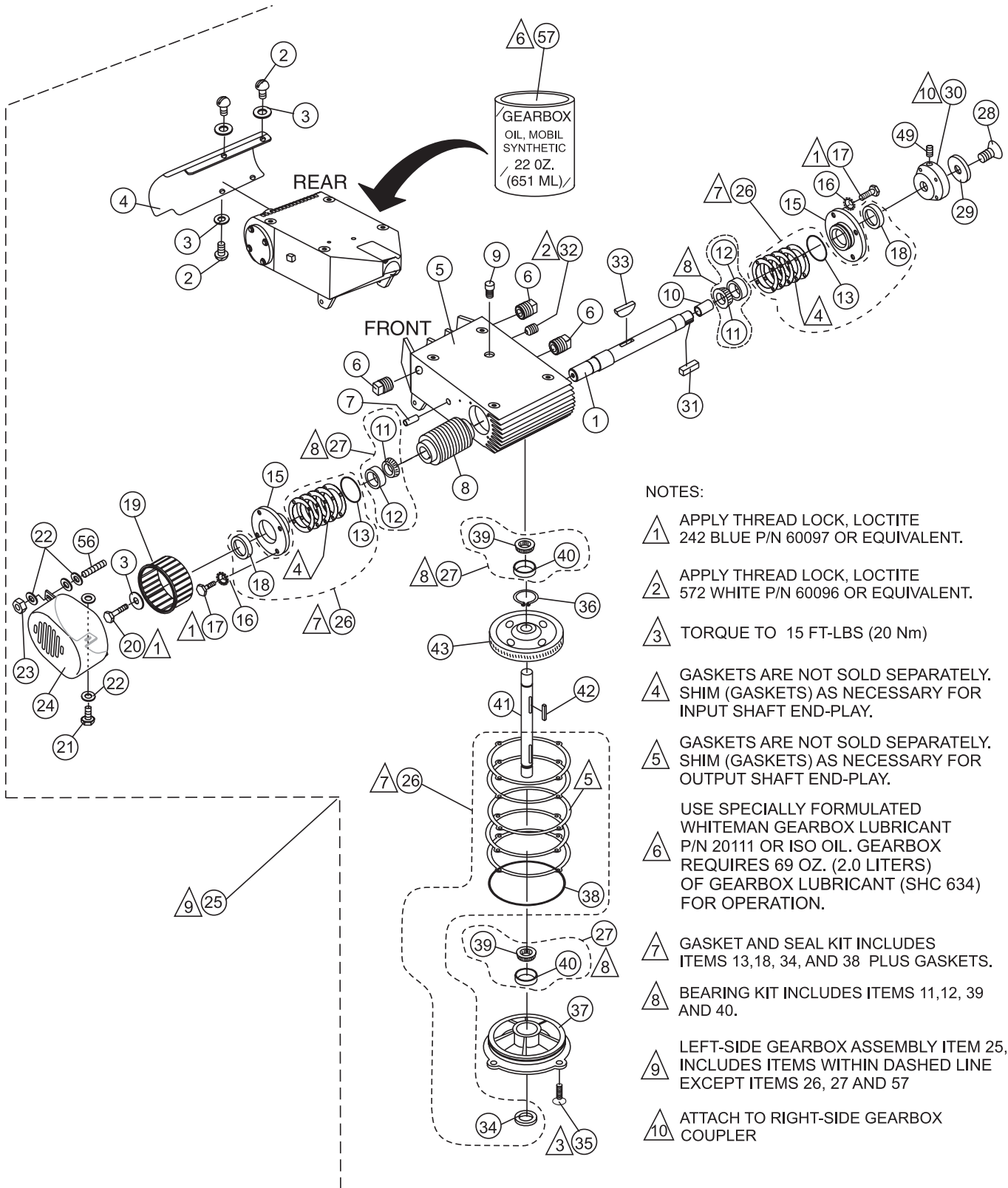
STR46SPVG — ENGINE SERVICE PARTS

ENGINE SERVICE PARTS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	496018S	SPARK PLUG	1	
2	821075	FAN BELT	1	
3	491056	OIL FILTER	1	
4	825557	HOSE	1	
5	825133	HOSE	1	
6	820026	FUEL FILTER	1	
7	820263	ELEMENT, AIR CLEANER	1	

STR46SPVG — GEARBOX ASSY. (LEFT-SIDE)

GEARBOX ASSY (LEFT-SIDE)



NOTES:

- ▲ 1 APPLY THREAD LOCK, LOCTITE 242 BLUE P/N 60097 OR EQUIVALENT.
- ▲ 2 APPLY THREAD LOCK, LOCTITE 572 WHITE P/N 60096 OR EQUIVALENT.
- ▲ 3 TORQUE TO 15 FT-LBS (20 Nm)
- ▲ 4 GASKETS ARE NOT SOLD SEPARATELY. SHIM (GASKETS) AS NECESSARY FOR INPUT SHAFT END-PLAY.
- ▲ 5 GASKETS ARE NOT SOLD SEPARATELY. SHIM (GASKETS) AS NECESSARY FOR OUTPUT SHAFT END-PLAY.
- ▲ 6 USE SPECIALLY FORMULATED WHITEMAN GEARBOX LUBRICANT P/N 20111 OR ISO OIL. GEARBOX REQUIRES 69 OZ. (2.0 LITERS) OF GEARBOX LUBRICANT (SHC 634) FOR OPERATION.
- ▲ 7 GASKET AND SEAL KIT INCLUDES ITEMS 13, 18, 34, AND 38 PLUS GASKETS.
- ▲ 8 BEARING KIT INCLUDES ITEMS 11, 12, 39 AND 40.
- ▲ 9 LEFT-SIDE GEARBOX ASSEMBLY ITEM 25, INCLUDES ITEMS WITHIN DASHED LINE EXCEPT ITEMS 26, 27 AND 57
- ▲ 10 ATTACH TO RIGHT-SIDE GEARBOX COUPLER

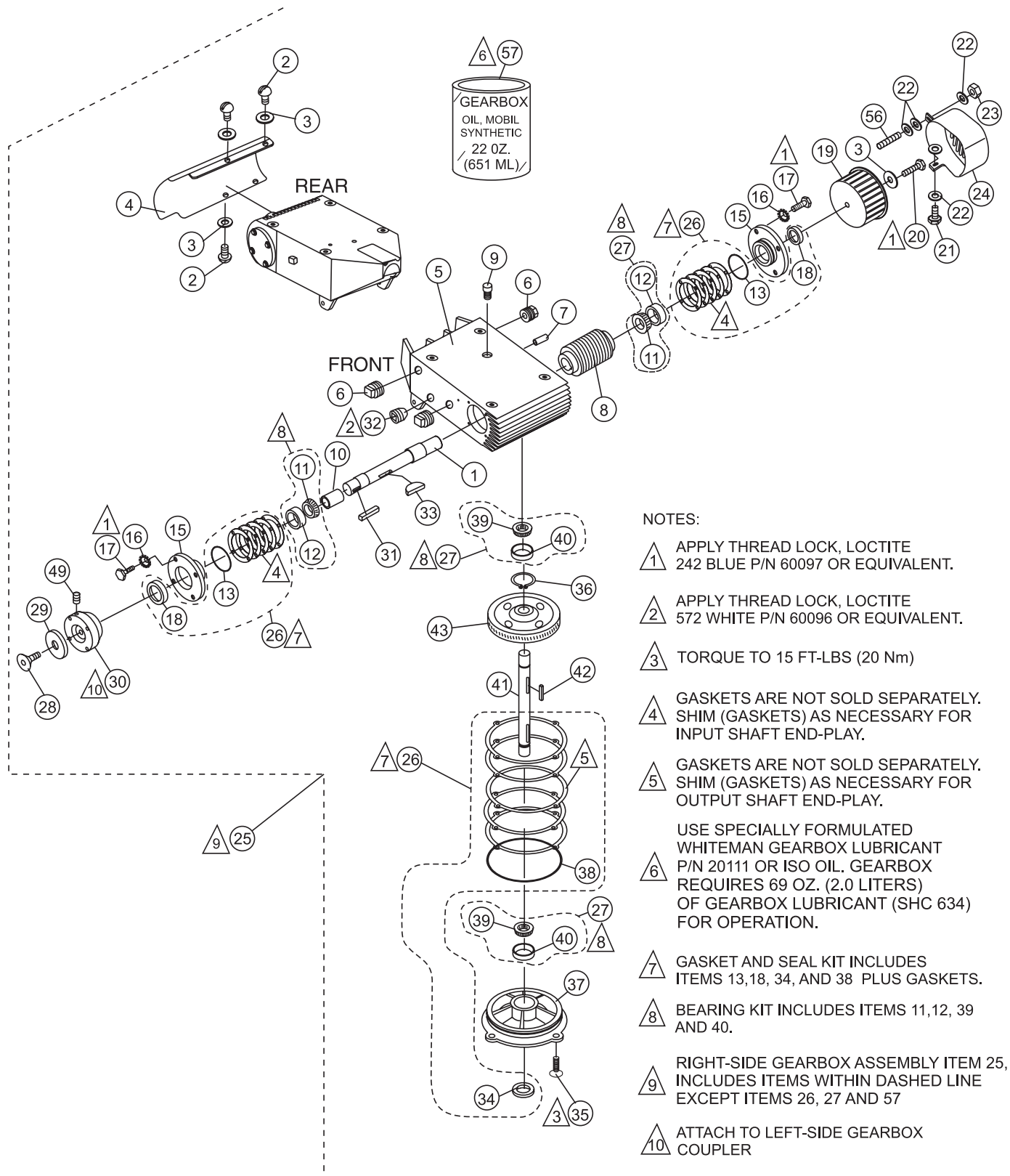
STR46SPVG— GEARBOX ASSY. (LEFT-SIDE)

GEARBOX ASSY (LEFT-SIDE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1%	12906	SHAFT, GEARBOX INPUT W/FAN	1	
2%	5031 A	SCREW, RHM 1/4-20 X1/2	4	
3%	0948	WASHER, FLAT, 1/4 SAE	5	
4%	12982	SHROUD, GB FIN COVER, LEFT	1	
5%	12765	GEAR BOX HD RIDER 1-1/4 SHAFT	1	HOUSING ONLY
6%	0121 A	FITTING, PLUG 3/8MP SQUARE HEAD	3	
7%	10989	STUD, N10 - 32 X 3/4	1	
8%	12907	LEFT HAND WORM	1	
9%	1132	VENT, AIR	1	
10%	12583	SPACER, 1.380D X 1.015 X 1.168L	1	
11*%	9045	BEARING, CONE TIMKEN #1986	2	
12*%	0232 A	BEARING, CUP, TIMKEN #1932	2	
13+%	2309	O-RING, 2 -13/16" VINTON	2	
15%	2307	FLANGE, COUNTERSHAFT	2	
16%	10031	WASHER, EXT SHKP 1/4	8	
17%	2295	SCREW, HHC 1/4-20 X 7/8	8	
18%+	12909	SEAL, OIL, NATIONAL #471689V	2	
19%	10922	FAN, LEFT (CCW)	1	
20%	0730	SCREW, HHC 1/4-20 X 1	1	
21%	19477	SCREW, HHC, WASHER 10-32 X 1/2	1	
22%	2203	WASHER, FLAT #10 SAE	4	
23%	10019	NUT, NYLOC 10-32	1	
24%	10893	LEFT-SIDE FAN COVER	1	
25	12789	GEAR BOX ASSY., COMPLETE LEFT-SIDE	1	INCLUDES ITEMS W/%
26	2618	GASKET KIT	1	INCLUDES ITEMS W/+
27%	12833	BEARING KIT	1	INCLUDES ITEMS W/*
28%	1313	SCREW, FHSC 3/8 - 24 X 3/4 PLAIN	1	
29%	9120	RETAINER, DRIVEN PULLEY	1	
30%	2048	COUPLER - 7/8" ID	1	
31%	2323	KEY, 1/4 X1/4 X13/16	1	
32%	10450	SCREW, SHS 10-32 X1/4	1	
33%	1139	KEY, WOODRUFF #21 HARDENED	1	
34+%	12769	SEAL, 1-1/4 DIA NAT # 471766V	1	
35%	20875	SCREW, FHS 5/16 -18 X 3/4	4	
36%	12770	RING, SNAP TRUARC #5100 - 125	1	
37%	12766	COVER, HD GEARBOX 1-1/4 SHAFT	1	
38+%	9038	O-RING, A - 264 VITON	1	
39*%	12768	BEARING, CONE TIMKEN #15126	2	
40*%	12767	BEARING, CUP, TIMKEN #15245	2	
41%	12764	SHAFT, MAIN HD RIDER 1-1/4 SHAFT	1	
42%	9180	KEY, 5/16 X 2 -1/4 HRDND	1	
43%	12771	GEAR, WORM LH. HT 1-1/4	1	
49%	10138	SCREW, SHS 1/4-20 X 1/2, N.P.	1	
56%	10989	STUD, 10-32 X 3/4	1	
57	20111	OIL, MOBIL SYNTHETIC 22 OZ (651 ML)	1	REQUIRES 69 OZ (2.0 LITERS)

STR46SPVG — GEARBOX ASSY. (RIGHT-SIDE)

GEARBOX ASSY (RIGHT-SIDE)



NOTES:

- ▲ 1 APPLY THREAD LOCK, LOCTITE 242 BLUE P/N 60097 OR EQUIVALENT.
- ▲ 2 APPLY THREAD LOCK, LOCTITE 572 WHITE P/N 60096 OR EQUIVALENT.
- ▲ 3 TORQUE TO 15 FT-LBS (20 Nm)
- ▲ 4 GASKETS ARE NOT SOLD SEPARATELY. SHIM (GASKETS) AS NECESSARY FOR INPUT SHAFT END-PLAY.
- ▲ 5 GASKETS ARE NOT SOLD SEPARATELY. SHIM (GASKETS) AS NECESSARY FOR OUTPUT SHAFT END-PLAY.
- USE SPECIALLY FORMULATED WHITEMAN GEARBOX LUBRICANT P/N 20111 OR ISO OIL. GEARBOX REQUIRES 69 OZ. (2.0 LITERS) OF GEARBOX LUBRICANT (SHC 634) FOR OPERATION.
- ▲ 6
- ▲ 7 GASKET AND SEAL KIT INCLUDES ITEMS 13, 18, 34, AND 38 PLUS GASKETS.
- ▲ 8 BEARING KIT INCLUDES ITEMS 11, 12, 39 AND 40.
- ▲ 9 RIGHT-SIDE GEARBOX ASSEMBLY ITEM 25, INCLUDES ITEMS WITHIN DASHED LINE EXCEPT ITEMS 26, 27 AND 57
- ▲ 10 ATTACH TO LEFT-SIDE GEARBOX COUPLER

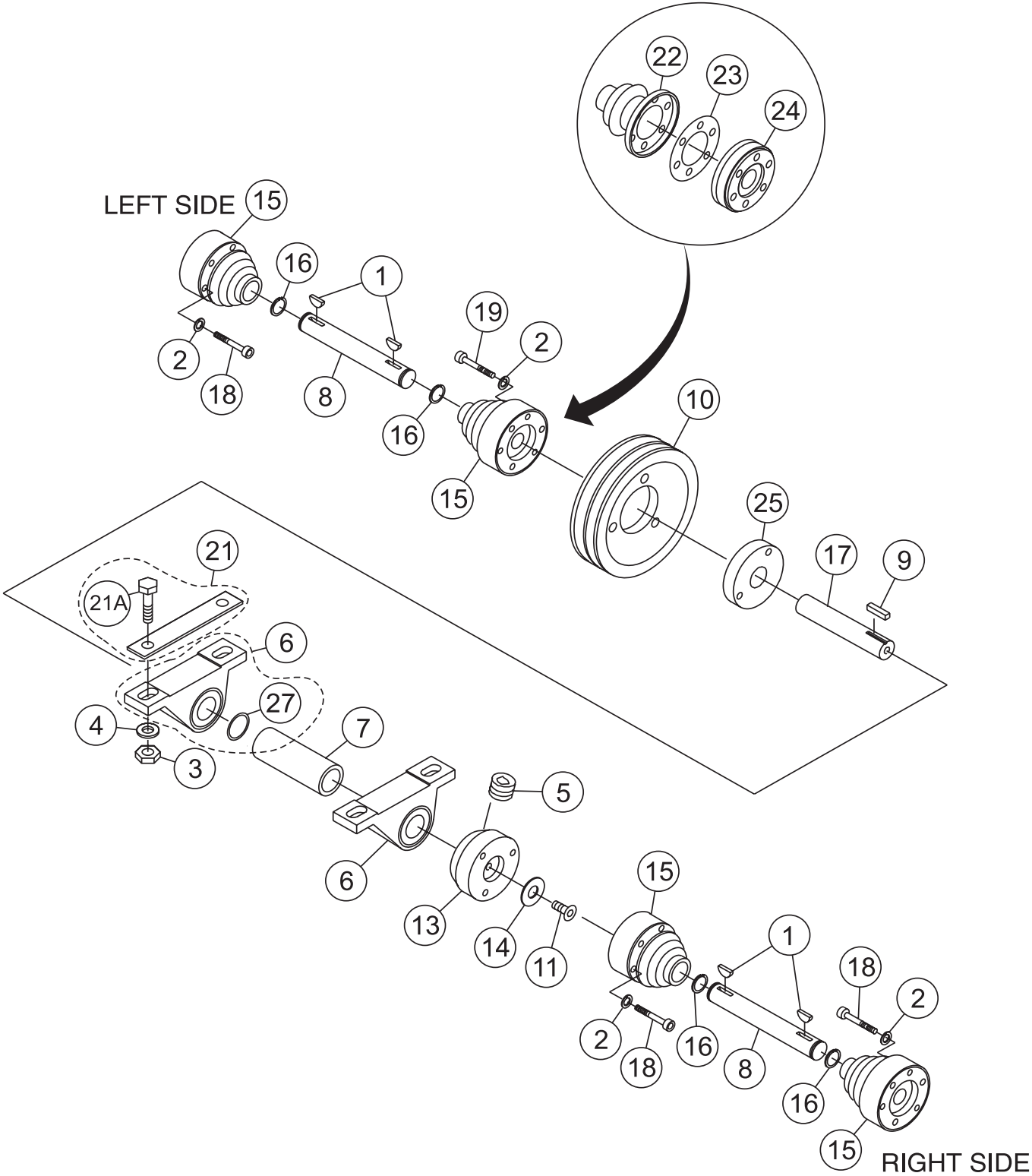
STR46SPVG — GEARBOX ASSY. (RIGHT-SIDE)

GEARBOX ASSY (RIGHT-SIDE)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1%	12906	SHAFT, GEARBOX INPUT W/FAN	1	
2%	5031 A	SCREW, RHM 1/4-20 X1/2	4	
3%	0948	WASHER, FLAT, 1/4 SAE	5	
4%	12981	SHROUD, GB FIN COVER, RIGHT	1	
5%	12765	GEAR BOX HD RIDER 1-1/4 SHAFT	1	HOUSING ONLY
6%	0121 A	FITTING, PLUG 3/8MP SQUARE HEAD	3	
7%	10989	STUD, N10 - 32 X 3/4	1	
8%	12908	RIGHT HAND WORM	1	
9%	1132	VENT, AIR	1	
10%	12583	SPACER, X 11D X 1.168L	1	
11*%	9045	BEARING, CONE TIMKEN #1986	2	
12*%	0232 A	BEARING, CUP, TIMKEN #1932	2	
13+%	2309	O-RING, 2 -13/16" VINTON	2	
15%	2307	FLANGE, COUNTERSHAFT	2	
16%	10031	WASHER, EXT SHKP 1/4	8	
17%	2295	SCREW, HHC 1/4-20 X 7/8	8	
18+%	12909	SEAL, OIL, NATIONAL #471689V	2	
19%	10921	FAN, RIGHT (CW)	1	
20%	0730	SCREW, HHC 1/4-20 X 1	1	
21%	19477	SCREW, HHC, WASHER 10-32 X 1/2	1	
22%	2203	WASHER, FLAT #10 SAE	4	
23%	10019	NUT, NYLOC 10-32	1	
24%	10894	RIGHT-SIDE FAN COVER	1	
25	12788	GEAR BOX ASSY., COMPLETE RIGHT-SIDE	1	INCLUDES ITEMS W/%
26	2618	GASKET KIT	1	INCLUDES ITEMS W/+
27%	12833	BEARING KIT	1	INCLUDES ITEMS W/*
28%	1313	SCREW, FHSC 3/8 - 24 X 3/4 PLAIN	1	
29%	9120	RETAINER, DRIVEN PULLEY	1	
30%	2048	COUPLER - 7/8" ID	1	
31%	2323	KEY, 1/4 X1/4 X13/16	1	
32%	10450	SCREW, SHS 10-32 X1/4	1	
33%	1139	KEY, WOODRUFF #21 HARDENED	1	
34+%	12769	SEAL, 1-1/4 DIA NAT # 471766V	1	
35%	20875	SCREW, FHS 5/16 -18 X 3/4	4	
36%	12770	RING, SNAP TRUARC #5100 - 125	1	
37%	12766	COVER, HD GEARBOX 1-1/4 SHAFT	1	
38+%	9038	O-RING, A - 264 VITON	1	
39*%	12768	BEARING, CONE TIMKEN #15126	2	
40*%	12767	BEARING, CUP, TIMKEN #15245	2	
41%	12764	SHAFT, MAIN HD RIDER 1-1/4 SHAFT	1	
42%	9180	KEY, 5/16 X 2 -1/4 HRDND	1	
43%	12772	GEAR, WORM RH. HT 1-1/4	1	
49%	10138	SCREW, SHS 1/4-20 X 1/2, N.P.	1	
56%	10989	STUD, 10-32 X 3/4	1	
57	20111	OIL, MOBIL SYNTHETIC 22 OZ (651 ML)	1	REQUIRES 69 OZ (2.0 LITERS)

STR46SPVG — DRIVE ASSY.

DRIVE ASSY.



NOTE: PROVIDES 145 RPM BLADE SPEED

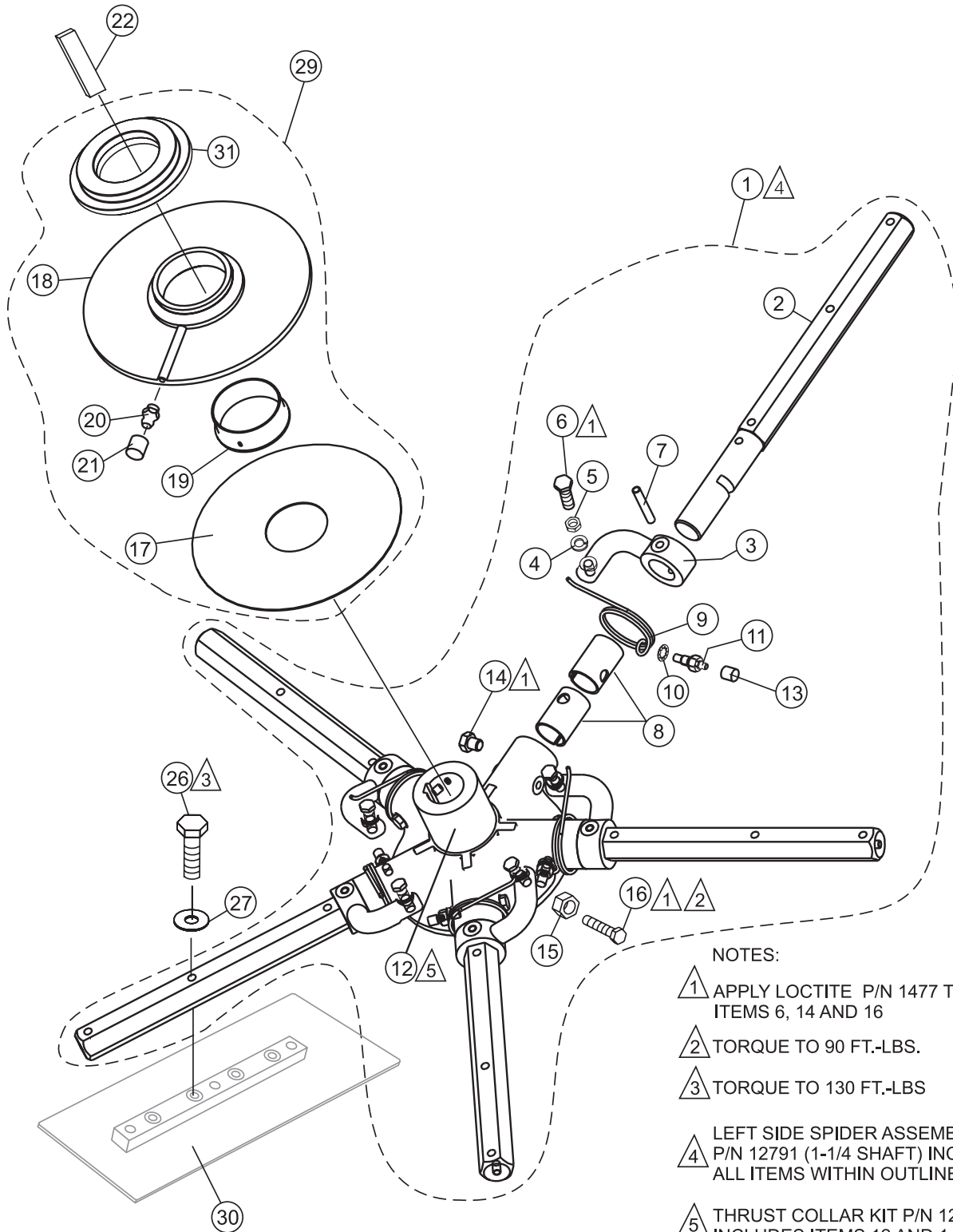
STR46SPVG — DRIVE ASSY.

DRIVE ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0126	KEY, WOODRUFF #9	4	
2	0161 C	WASHER, LOCK, 5/16 MED	12	
3	10133	NUT, NYLOC 3/8-16	4	
4	10136	WASHER, FLAT 3/8 SAE	4	
5	10138	SCREW, SHS 1/4-20 X 1/2, N.P.	1	
6	10337	BEARING, P-BLOCK, FAF YAK-1	2	INCLUDES ITEMS W/@
7	10514	SPACER, BEARING SHAFT	1	
8	10748	SHAFT, CV JOINT	1	
9	10909	KEY, 3/16" SQ X 11/16	1	
10	11171	PULLEY, "B" 6-1/2 OD (145 RPM)	1	
11	1146	SCREW, FHSC 5/16-18X1, NYLOC, NP	1	
13	2029	COUPLER - 1" ID- RIDER	1	
14	2037	WASHER, RETAINING	1	
15	2052	JOINT, CV (W/BOOT)	4	
16	2090	RING, SNAP, TRUARC #5100106	4	
17	2129	SHAFT, BEARING ASM	1	
18	2186	SCREW, SHC 5/16-18 X 2-1/4 PLTD	9	
19	2187	SCREW, SHC 5/16-18 X 2-1/2 PLTD	3	
21	20186	PLATE, BEARING MOUNT W/A	2	INCLUDES ITEM W/#
21A#	20187	SCREW, HHC 3/8-16 X 1-1/2 SS	4	
22	2259	BOOT, CV JOINT	4	
23	11108	GASKET, CV JOINT BOOT	4	
24	392052	JOINT, CV	4	
25	10904	COUPLER, BEARING SHAFT	1	
27@	11773	SHIM, TRUNNION, .031" THICK	2	

STR46SPVG — 5-BLADE SPIDER ASSY. (LEFT-SIDE)

LEFT SIDE SPIDER ASSEMBLY (5-BLADE).
VIEW FROM OPERATORS SEAT.



NOTES:

- ① APPLY LOCTITE P/N 1477 TO ITEMS 6, 14 AND 16
- ② TORQUE TO 90 FT.-LBS.
- ③ TORQUE TO 130 FT.-LBS
- ④ LEFT SIDE SPIDER ASSEMBLY P/N 12791 (1-1/4 SHAFT) INCLUDES ALL ITEMS WITHIN OUTLINE.
- ⑤ THRUST COLLAR KIT P/N 12787 INCLUDES ITEMS 12 AND 14.

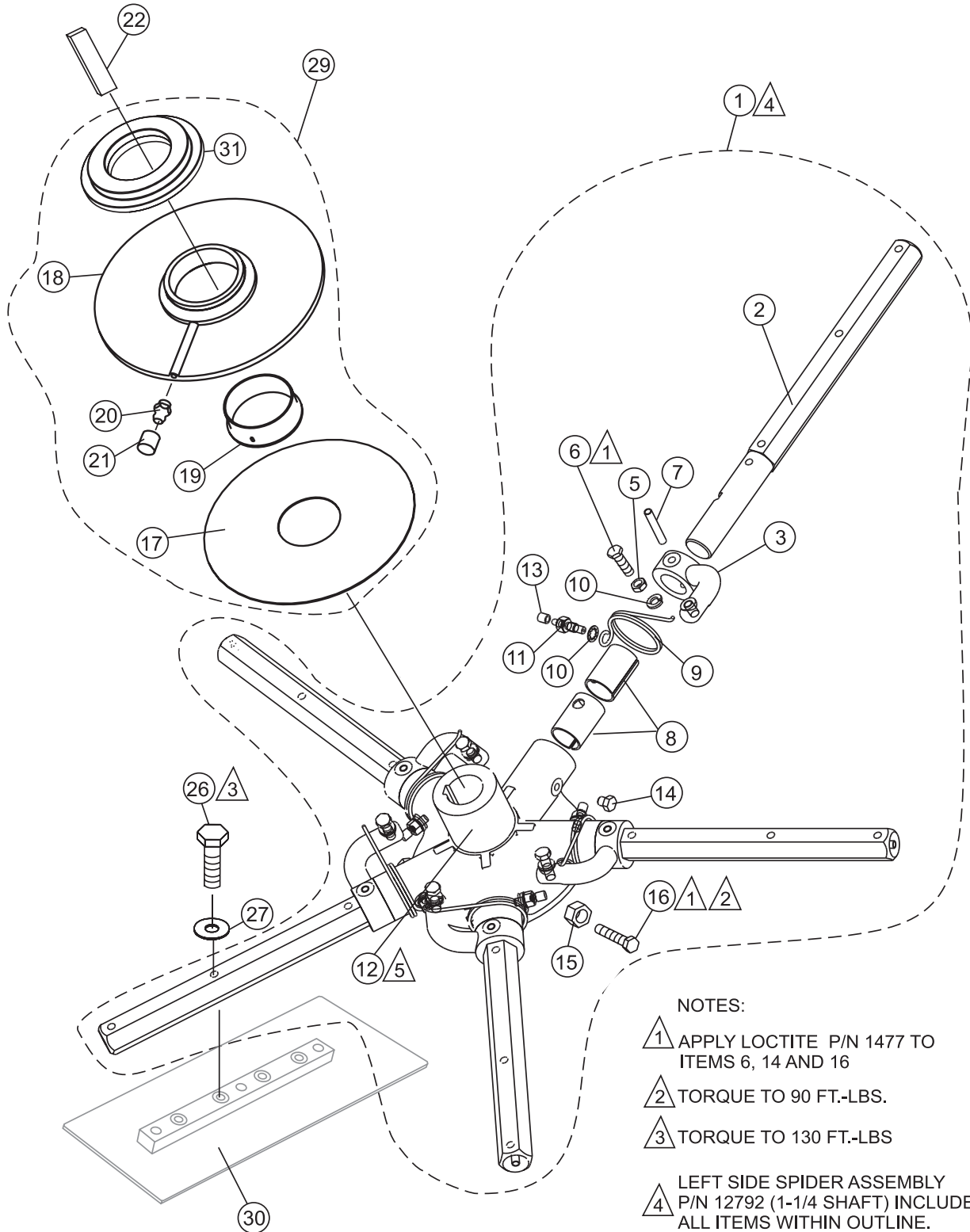
STR46SPVG — 5-BLADE SPIDER ASSY. (LEFT-SIDE)

5-BLADE SPIDER ASSY. (LEFT)

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12791	SPIDER ASM, LEFT SIDE (1-1/4)	1	INCLUDES ITEMS W/%
2%	2829	ARM, TROWEL EXTENDED	5	
3%	9005	LEVER, TROWEL ARM LEFT SIDE	5	
4%	0166 A	WASHER, LOCK, 3/8 MED	5	
5%	1876	NUT, HEX JAM 3/8	5	
6%	0164 B	SCREW, HHC	5	
7%	9006	PIN, ROLL 5/16 X 2	5	
8%	11039	BUSHING, ARM 2 PIECE	10	
9%	9111	SPRING, LEFT TROWEL	5	
10%	1875	WASHER, INT SHKP 3/8	5	
11%	1322	SCREW ASSY, ARM RETAINING	5	
12%	12787	SPIDER KIT, 5 BLADE (1-1/4)	1	INCLUDES ITEM W/ >
13%	1162 A	CAP, GREASE ZERK / 2	5	
14% >	11602	SCREW, HHC 3/8-16 X 3/8	5	
15	1456	NUT, HEX FINISH 3/8 -16	2	
16	12097	SCREW, SQHS 3/8-16 X 1-3/4 CONE 8	2	
17*	11419	PLATE, WEAR	1	
18*	11431-1	THRUST COLLAR	1	INCLUDES ITEM W/+
19+*	11464	BUSHING, THRUST COLLAR	1	
20*	2621	FITTING, GREASE	1	
21*	1162 A	CAP, GREASE ZERK	1	
22	12101	KEY, 5/16 X 2-5/8 HRDND	1	
26	0105	SCREW, HHCS 5/16-18 X 11/2"	15	
27	0161C	LOCK WASHER 5/16"	15	
29	20938	THRUST COLLAR KIT	1	INCLUDES ITEMS W/*
30		BLADE ASSEMBLY	5	CONTACT UNIT SALES
31	12779	BEARING	1	

STR46SPVG — 5-BLADE SPIDER ASSY. (RIGHT-SIDE)

RIGHT SIDE SPIDER ASSEMBLY (5-BLADE).
VIEW FROM OPERATORS SEAT.



NOTES:

▲ 1 APPLY LOCTITE P/N 1477 TO ITEMS 6, 14 AND 16

▲ 2 TORQUE TO 90 FT.-LBS.

▲ 3 TORQUE TO 130 FT.-LBS

▲ 4 LEFT SIDE SPIDER ASSEMBLY P/N 12792 (1-1/4 SHAFT) INCLUDES ALL ITEMS WITHIN OUTLINE.

▲ 5 THRUST COLLAR KIT P/N 12787 INCLUDES ITEMS 12 AND 14.

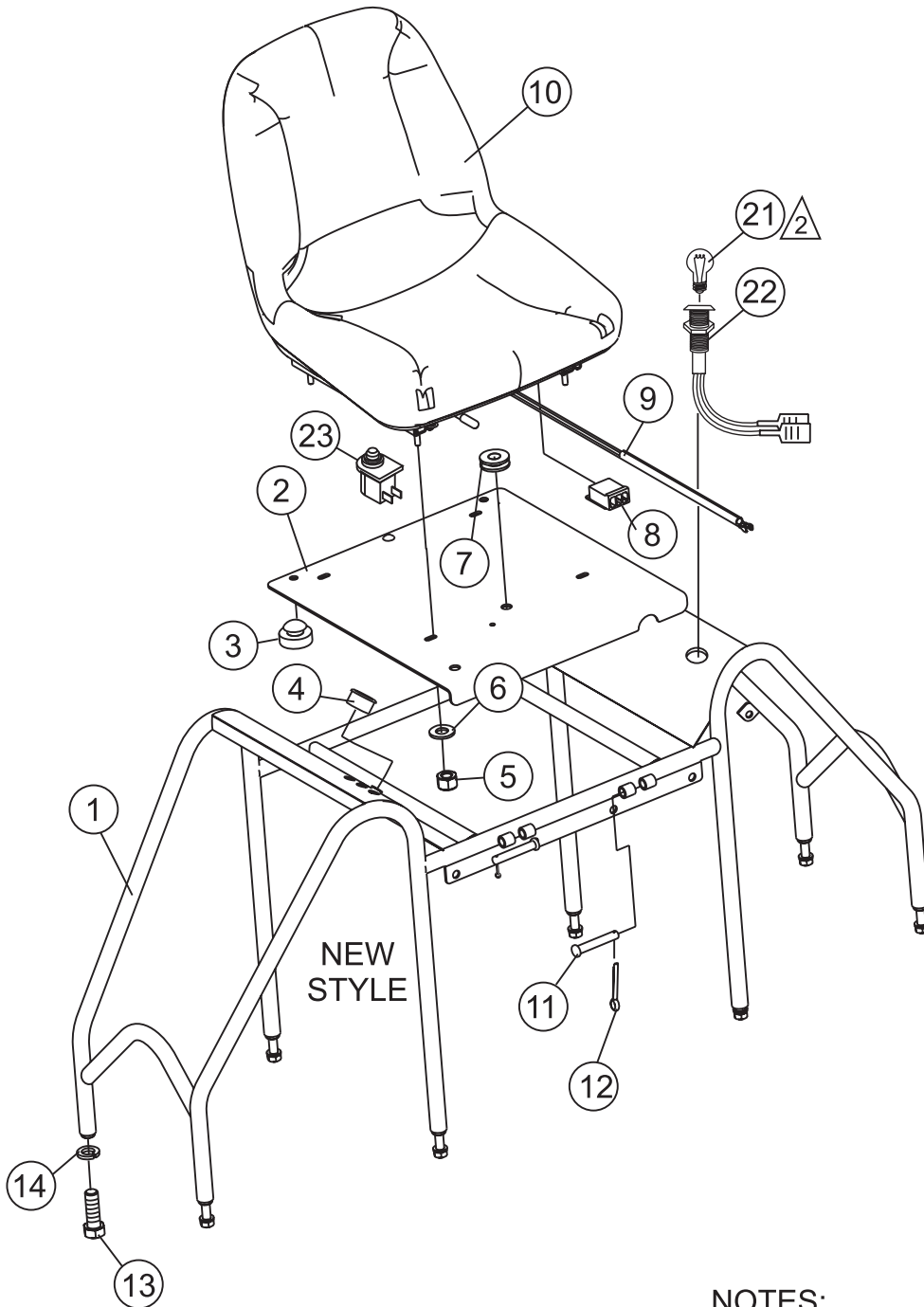
STR46SPVG — 5-BLADE SPIDER ASSY. (RIGHT-SIDE)

5-BLADE SPIDER ASSY. (LEFT)

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12792	SPIDER ASM, LEFT SIDE (1-1/4)	1	INCLUDES ITEMS W/%
2%	2829	ARM, TROWEL EXTENDED	5	
3%	1986	LEVER, TROWEL ARM LEFT SIDE	5	
4%	0166 A	WASHER, LOCK, 3/8 MED	5	
5%	1876	NUT, HEX JAM 3/8	5	
6%	0164 B	SCREW, HHC	5	
7%	9006	PIN, ROLL 5/16 X 2	5	
8%	11039	BUSHING, ARM 2 PIECE	10	
9%	2143	SPRING, LEFT TROWEL	5	
10%	1875	WASHER, INT SHKP 3/8	5	
11%	1322	SCREW ASSY, ARM RETAINING	5	
12%	12787	SPIDER KIT, 5 BLADE (1-1/4)	1	INCLUDES ITEM W/ >
13%	1162 A	CAP, GREASE ZERK / 2	5	
14% >	11602	SCREW, HHC 3/8-16 X 3/8	5	
15	1456	NUT, HEX FINISH 3/8 -16	2	
16	12097	SCREW, SQHS 3/8-16 X 1-3/4 CONE 8	2	
17*	11419	PLATE, WEAR	1	
18*	11431	THRUST COLLAR	1	INCLUDES ITEM W/+
19+*	11464	BUSHING, THRUST COLLAR	1	
20*	2621	FITTING, GREASE	1	
21*	1162 A	CAP, GREASE ZERK	1	
22	12101	KEY, 5/16 X 2-5/8 HRDND	1	
26	0105	SCREW, HHCS 5/16-18 X 11/2"	15	
27	0161C	LOCK WASHER 5/16"	15	
29	20938	THRUST COLLAR KIT	1	INCLUDES ITEMS W/*
30		BLADE ASSEMBLY	5	CONTACT UNIT SALES
31	12779	BEARING	1	

STR46SPVG — SEAT AND FRAME ASSY.

SEAT AND FRAME ASSY.
(VIEW FROM OPERATOR'S SEAT)



NOTES:

① INCLUDED WITH ITEM 20.

② BULB FOR OIL, WATER
AND CHARGE INDICATOR
LIGHTS

STR46SPVG — SEAT AND FRAME ASSY.

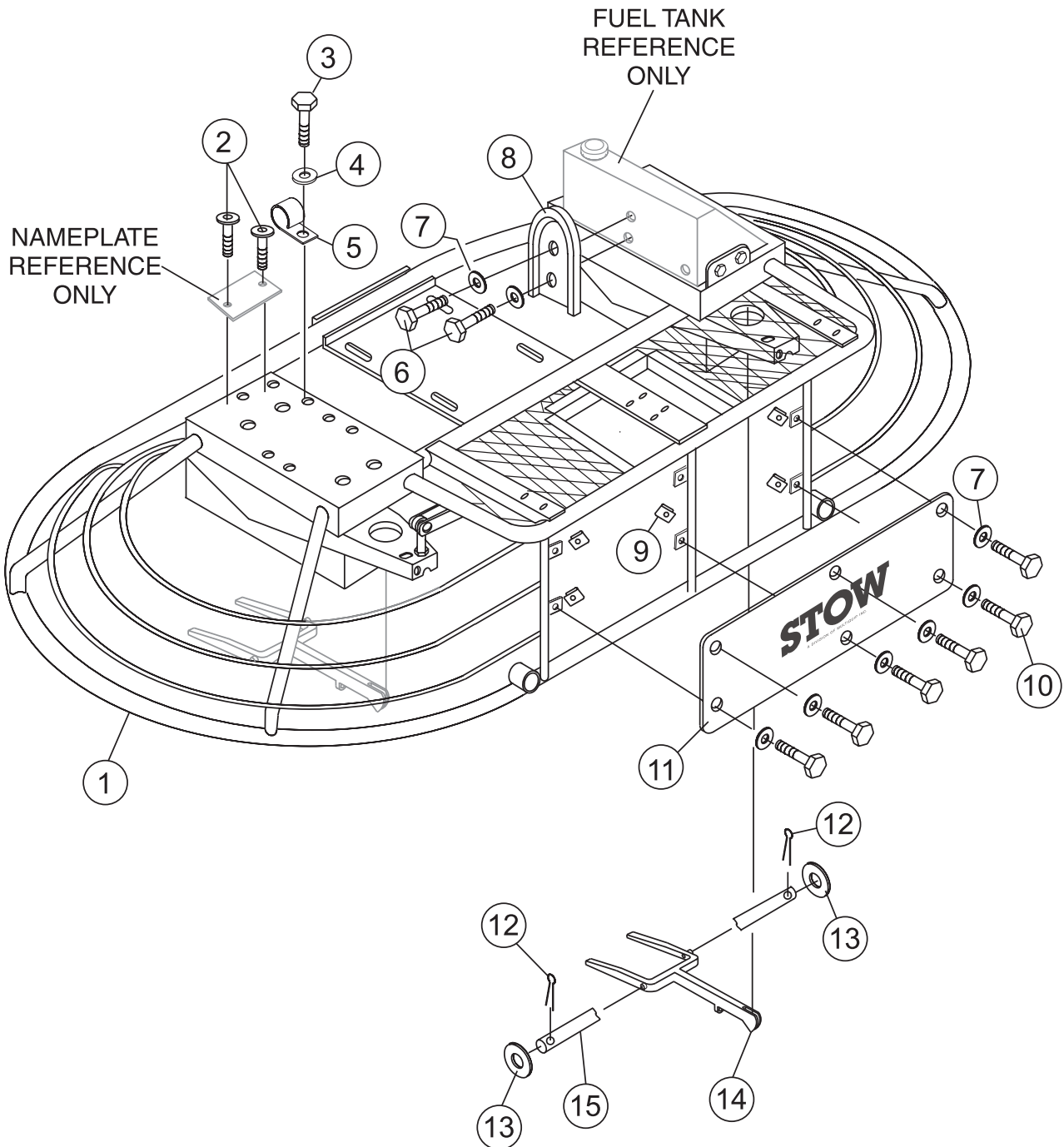
SEAT AND FRAME ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12109-1	FRAME, SEAT W/A VAN	1	
2	11660-1	PLATE, SEAT	1	
3	21597	BUMPER, STEM	3	
4	21507	PLUG, PANEL 11/16 DIA.	1	
5	5283	NUT, NYLOC 5/16-18	4	
6	0300 B	WASHER, FLAT, 5/16 SAE	4	
7	19468	GROMMET, MINOR Z-4004	2	
8	21936	CONNECTOR, BODY 2-PIN	1	
9	21938	WIRE ASSY., KILL SWITCH 37"	1	
10	21861	SEAT, ADJUSTABLE W/O ARMS	1	
11	8081	PIN, CLEVIS 1/2X2 3/4	2	
12	0183	PIN, COTTER 1/8X1 1/4	2	
13	5218	SCREW, HHC 1/2-13X1 1/2	8	
14	5054A	WASHER, LOCK, 1/2 MED.	8	
21	12307	BULB, INDICATOR LIGHT	3	
22	12305	PLUG INDICATOR LIGHT	3	
23	21870	SEAT KILL SWITCH	1	

STR46SPVG — FRAME AND COMPONENTS ASSY.

FRAME AND COMPONENTS

VIEW FROM OPERATOR'S SEAT



STR46SPVG — FRAME AND COMPONENTS ASSY.

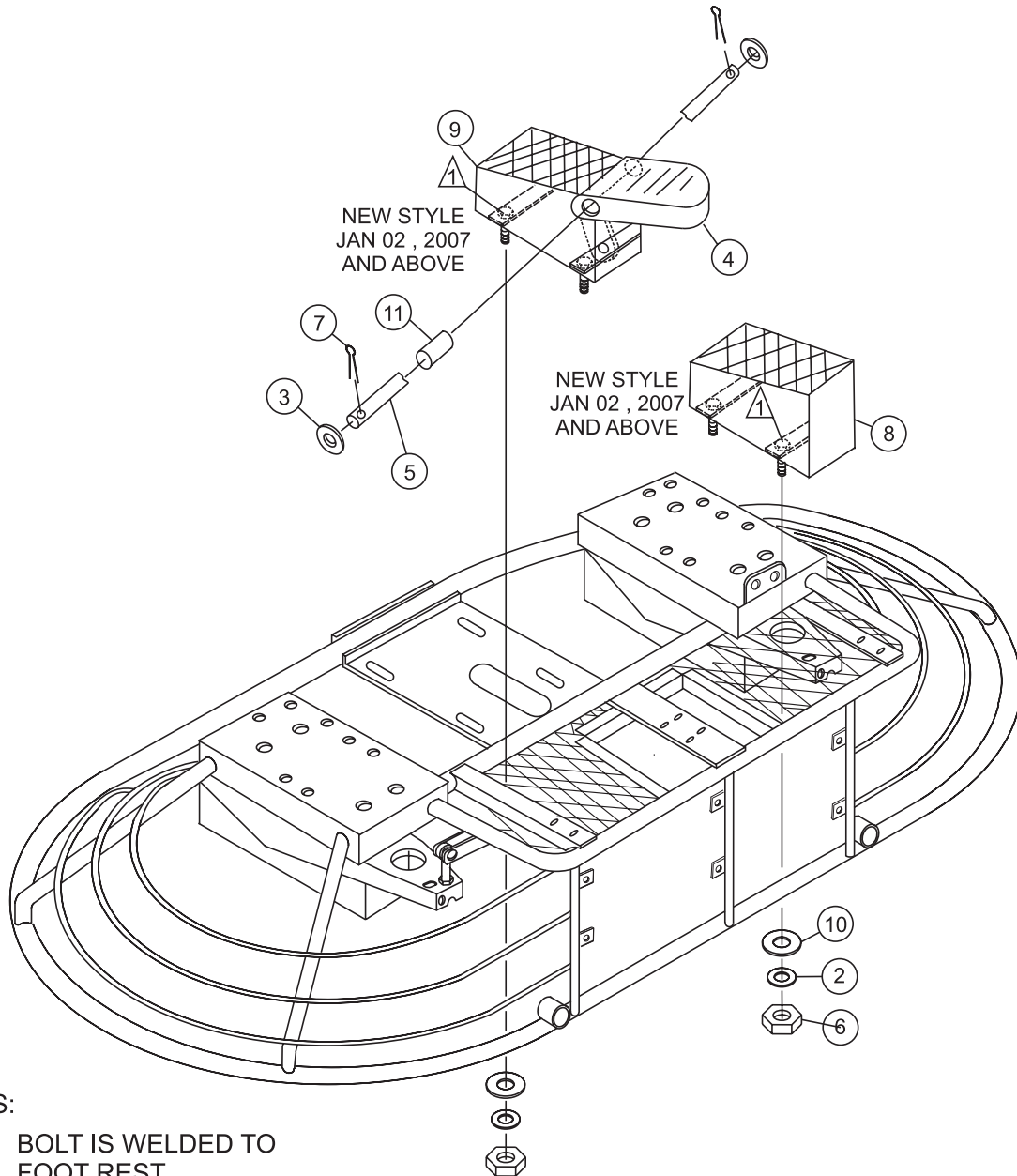
FRAME AND COMPONENTS

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	12345-1	FRAME	1	
2	4014	SCREW, 2-3/16 P-K TYPE U DRIVE	2	
3	5065B	SCREW, RHM 10-32X1/2	1	
4	2203	WASHER, FLAT, #10	1	
5	8126	CLAMP, HOSE SUPPORT 1/2" SMALL	1	
6	4514	SCREW, HHC 1/4-20X5/8	2	
7	0948	WASHER, FLAT, 1/4 SAE	9	
8	2429	HOLDER, SPARE BELT	1	
9	11534	NUT "U" TYPE, 1/4-20	6	
10	4514	SCREW, HHC 1/4-20X5/8	6	
11	20947-1	PANEL, FRONT	1	
12	0683	PIN COTTER 3/32X3/4	4	
13	10136	WASHER, FLAT, 3/8 SAE	4	
14	12100	YOKE	2	
15	9028	PIN, YOKE	2	

STR46SPVG — FOOT PEDALS ASSY.

FOOT PEDALS ASSY.

VIEW FROM OPERATOR'S SEAT



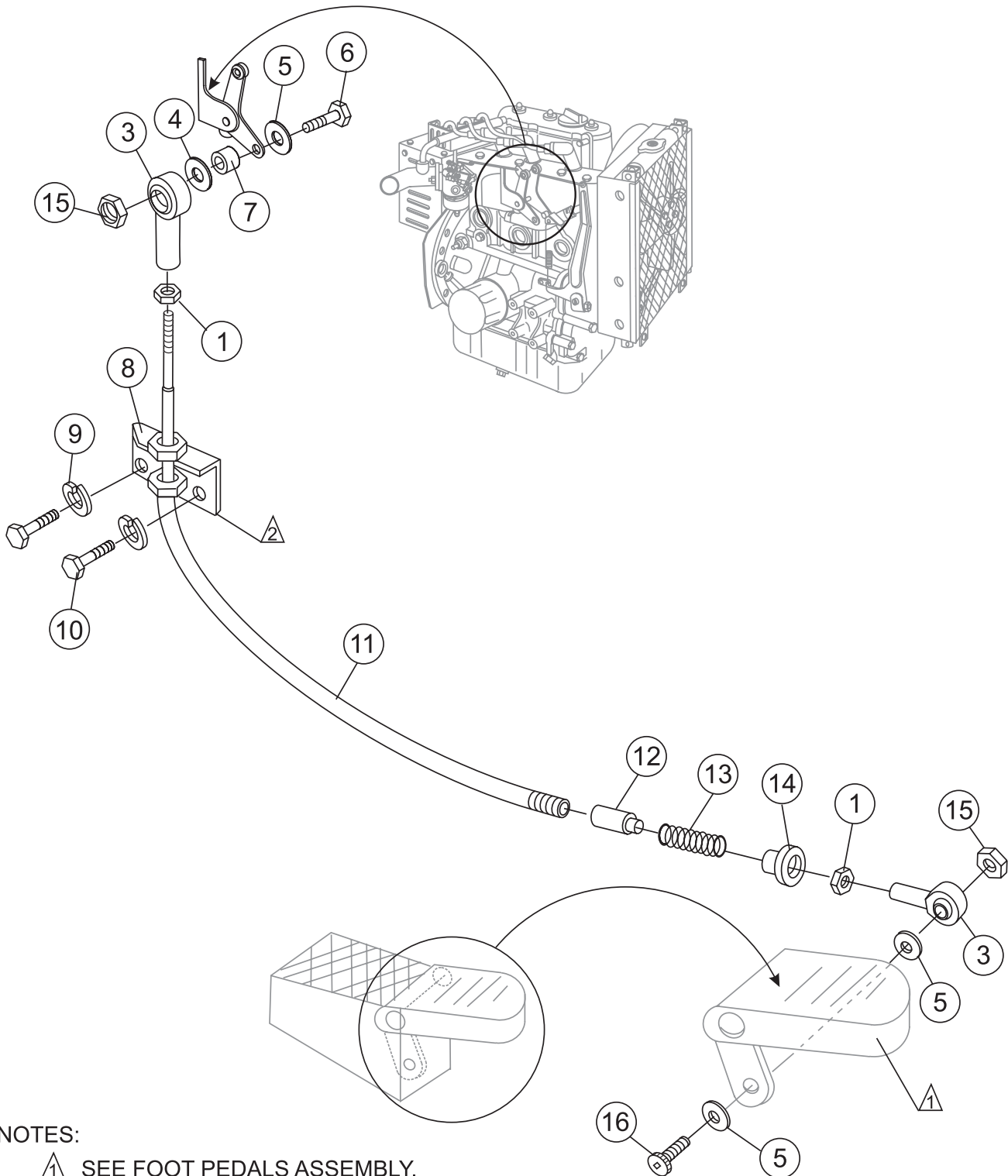
STR46SPVG — FOOT PEDALS ASSY.

FOOT PEDALS ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	0300B	WASHER, FLAT, 5/16 SAE	4	
3	10136	WASHER, FLAT, 3/8 SAE	2	
4	2086	PEDAL, ACCELERATOR	1	
5	2772	PIN, ACC MOUNT	1	
6	5283	NUT, NYLOC 5/16-18	4	
7	6014B	PIN, COTTER 3/32X1	2	
8	22035-1	FOOT RISER W/A RIDER LEFT SIDE	1	
9	22037-1	FOOT RISER W/A, RIDER ACCELERATOR SIDE	1	
10	3233	WASHER, FENDER, 1.5" OD X3/8" ID	4	
11	3083	SPACER	1	

STR46SPVG — THROTTLE ASSY.

THROTTLE FOOT PEDAL ASSY.



NOTES:

- ▲ SEE FOOT PEDALS ASSEMBLY.
- ▲ BRACKET, ENGINE THROTTLE CABLE. MOUNT TO ENGINE.

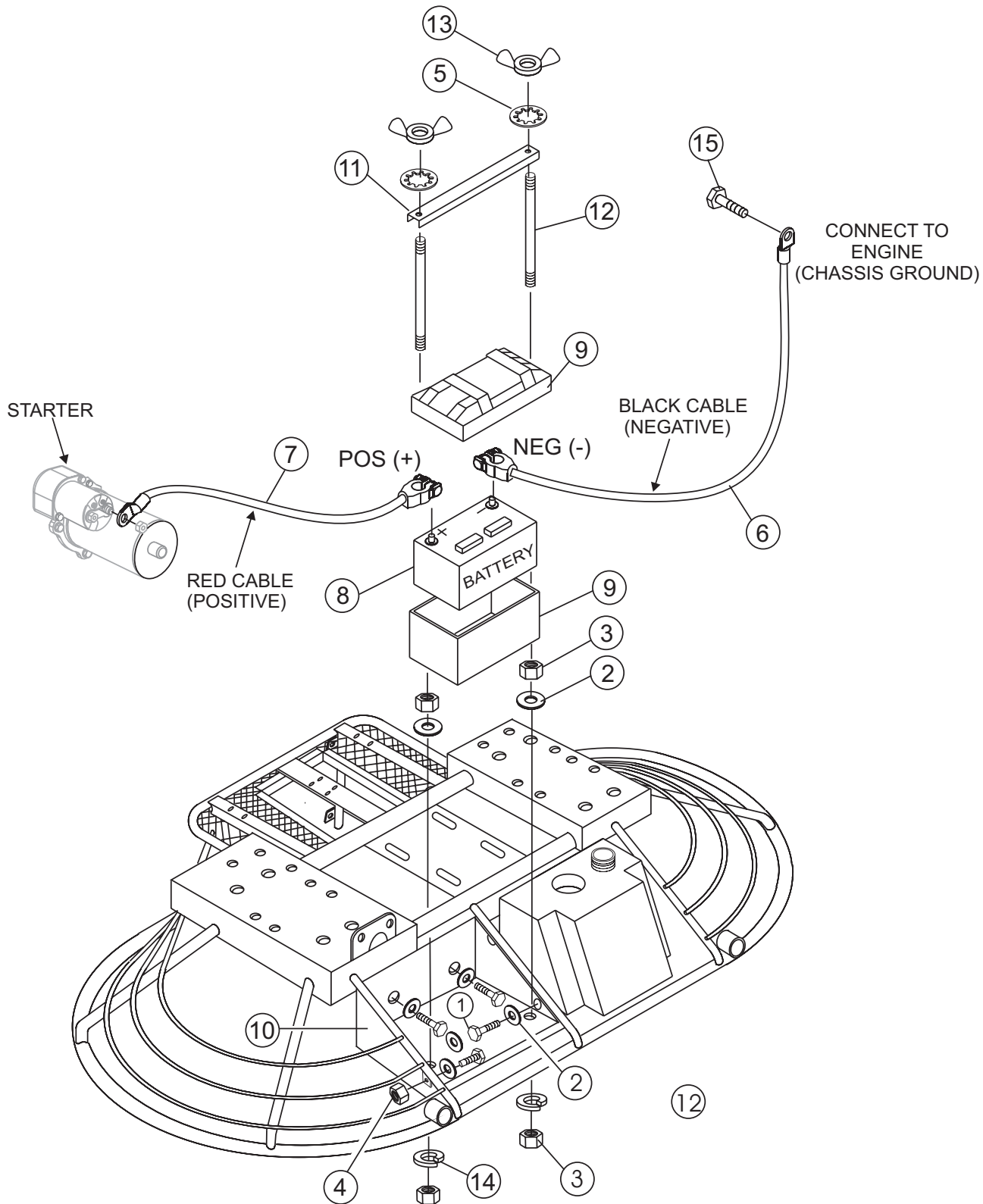
STR46SPVG — THROTTLE ASSY.

THROTTLE FOOT PEDAL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0937	NUT, HEX 10-32	2	
3	2153	ROD END, 10-32 FEMALE RH	2	
4	2203	WASHER, FLAT, #10	1	
5	2203	WASHER, FLAT, #10	4	
6	3513	SCREW, HHF 10-32 X 1	1	
7	11710	SPACER, ENGINE THROTTLE	1	
8	11771	BRACKET, ENGINE THROTTLE CABLE	1	
9	0161 C	WASHER, LOCK, 5/16 MED.	2	
10	0730	SCREW, HHC 1/4-20 X 1	2	
11	2124	CABLE, THROTTLE (RT)	1	
12	22042	SPACER, THROTTLE SPRING 1.0 X.5 X3.0	1	
13	2753	SPRING, THROTTLE RETURN, LOWER	1	
14	2755	ADAPTOR, THROTTLE RET. SPRING SHORT	1	
15	10019	NUT, NYLOC 10-32	2	
16	10018	SCREW, SHC 10-32X1 NO PLATE	1	

STR46SPVG — BATTERY ASSY.

BATTERY ASSY.



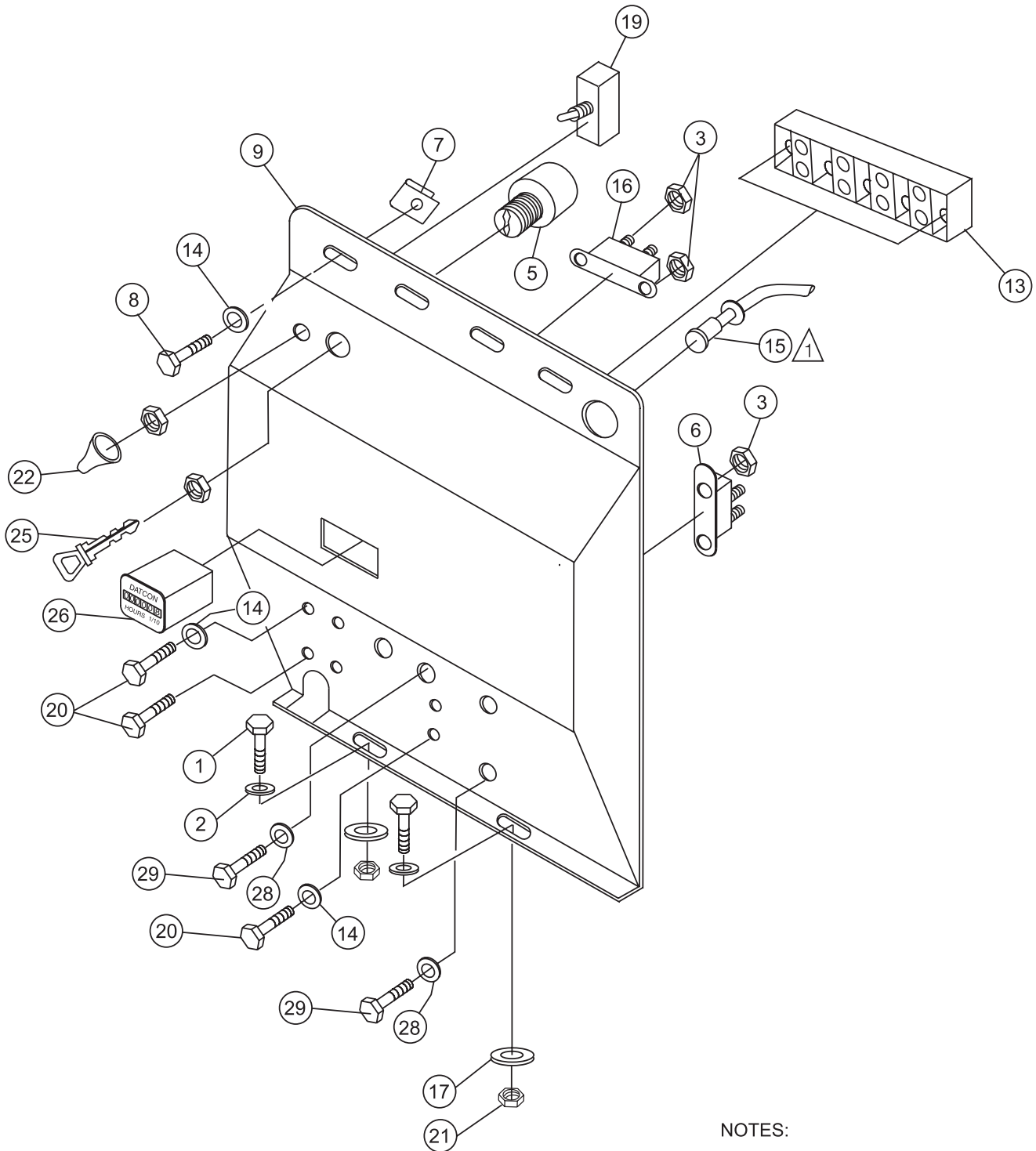
STR46SPVG — BATTERY ASSY.

BATTERY ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0730	SCREW, HHC 1/4-20X1	4	
2	0948	WASHER, FLAT, 1/4SAE	8	
3	0949	NUT, HEX FINISH 1/4-20	4	
4	10024	NUT, NYLOC 1/4-20	4	
5	10031	WASHER, EXT SHKP, 1/4	2	
6	10313	CABLE, NEG BATTERY BLACK 20"	1	
7	19303	CABLE, POS BATTERY RED 48"	1	
8	10315	BATTERY, 12V WET GROUP 22	1	
9	10318	BATTERY BOX, GROUP 24, W/LID	1	
10	11362-1	BATTERY FRAME BOX	1	
11	11692-1	BRACKET, BATTERY BOX HOLD DOWN	1	
12	11693	BOLT, BATTERY BRKT	2	
13	2509	NUT, WING 1/4-20 PLATED	2	
14	181B	WASHER, LOCK 1/4 MED	2	
15	2866	SCREW, HHC M8 1.25 X 20 MM GR 8.8	1	

STR46SPVG — CONTROL PANEL ASSY.

FRONT PANEL ASSY.



NOTES:

- △ 1 CHOKE CABLE ASSY. CONNECT TO CARBURETOR LINKAGE

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FRONT PANEL ASSY.

<u>NO</u>	<u>PART NO</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0202	SCREW, HHC 5/16-18 X 1	2	
2	0300B	WASHER, FLAT, 5/16 SAE	2	
3	10019	NUT, NYLOC 10-32	8	
5	10958	SWITCH, IGNITION VAN W/KEYS	1	
6	11098	CIRCUIT BREAKER, 40A, 12V	1	
7	11534	NUT, "U" TYPE, -20	4	
8	11819	SCREW, HHC -20 X 3/4 W/WASH	4	
9	21319-1	PANEL, VANGUARD CONTROL	1	
13	19301	TERMINAL STRIP	.5	
14	2203	WASHER, FLAT, #10	4	
15	2580	CABLE, CHOKE	1	
16	2673	CIRCUIT BREAKER, 30A, 12V	1	
17	3233	WASHER, FENDER, 1.5od X 3/8id	2	
19	4682	SWITCH, TOGGLE	1	
20	5065 B	SCREW, RHM 10-32 X 1/2	4	
21	5283	NUT, NYLOC 5/16-18	2	
22	8381	BOOT, TOGGLE SWITCH	1	
25	11078	KEY, IGNITION SWITCH	1	
26	29640	HOUR METER, FLUSH MOUNT	1	
28	0948	FLAT WASHER 1/4"	4	
29	12287	SCREW, THP 1/4-20 X 3/4-SS	4	