

**PHOENIX 20  
CYLINDRICAL TRACTION DRIVE  
FLOOR SCRUBBER**

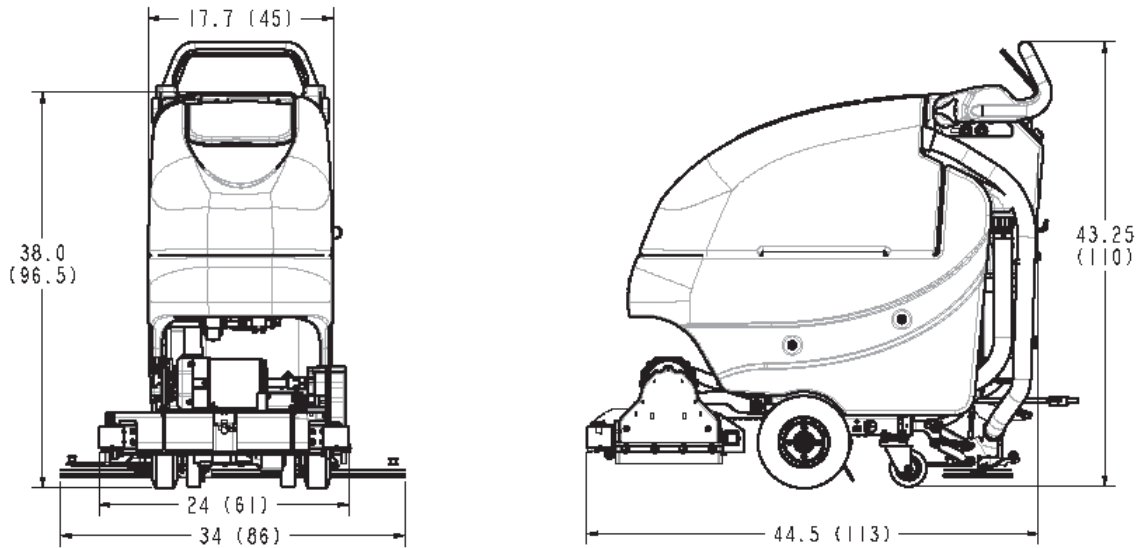


## Technical Specifications

Model *Phoenix 20 Traction Drive Cylindrical*  
 Model No. 3336074QP / PHX20C / PHX20CQP / PHX20CQPG

**PowerBoss®**  
 The Power of Clean

Current (Max)	40 amps
Battery Capacity (Lead Acid)	140Ah @20 hr
Battery Capacity (Gel)	95Ah @20 hr
Sound Level	69 dBA
Cleaning path width	20 in (51 cm)
Squeegee width	34 in (86 cm)
Productivity (Traction Drive)	27,280 ft <sup>2</sup> /hr ( 2,534 m <sup>2</sup> )
Working speed (Traction Drive)	3.1 mph (5 km per hr)
Rated voltage	24 volts
Vacuum flow	65 cfm (110 m <sup>3</sup> /hr)
Vacuum waterlift	45 inches ( 112mbar)
Vacuum power	.60 HP (450 W)
Brush type	Cylindrical
Brush motor(s) power	3/4 HP (560W)
Number of brushes	2
Brush RPM	600 RPM
Solution capacity	12 Gal (45 liters)
Recovery capacity	13 Gal (49 liters)
Working Grade	2%
Weight with batteries	370 lbs (168 kg)
Weight without batteries	235 lbs (107 kg)
Dimensions (LxWxH)	44.5 x 24.0 x 38.0 (113.0 x 61.0 x 96.5 cm)
Drive Motor Power	1/5 HP (150W)

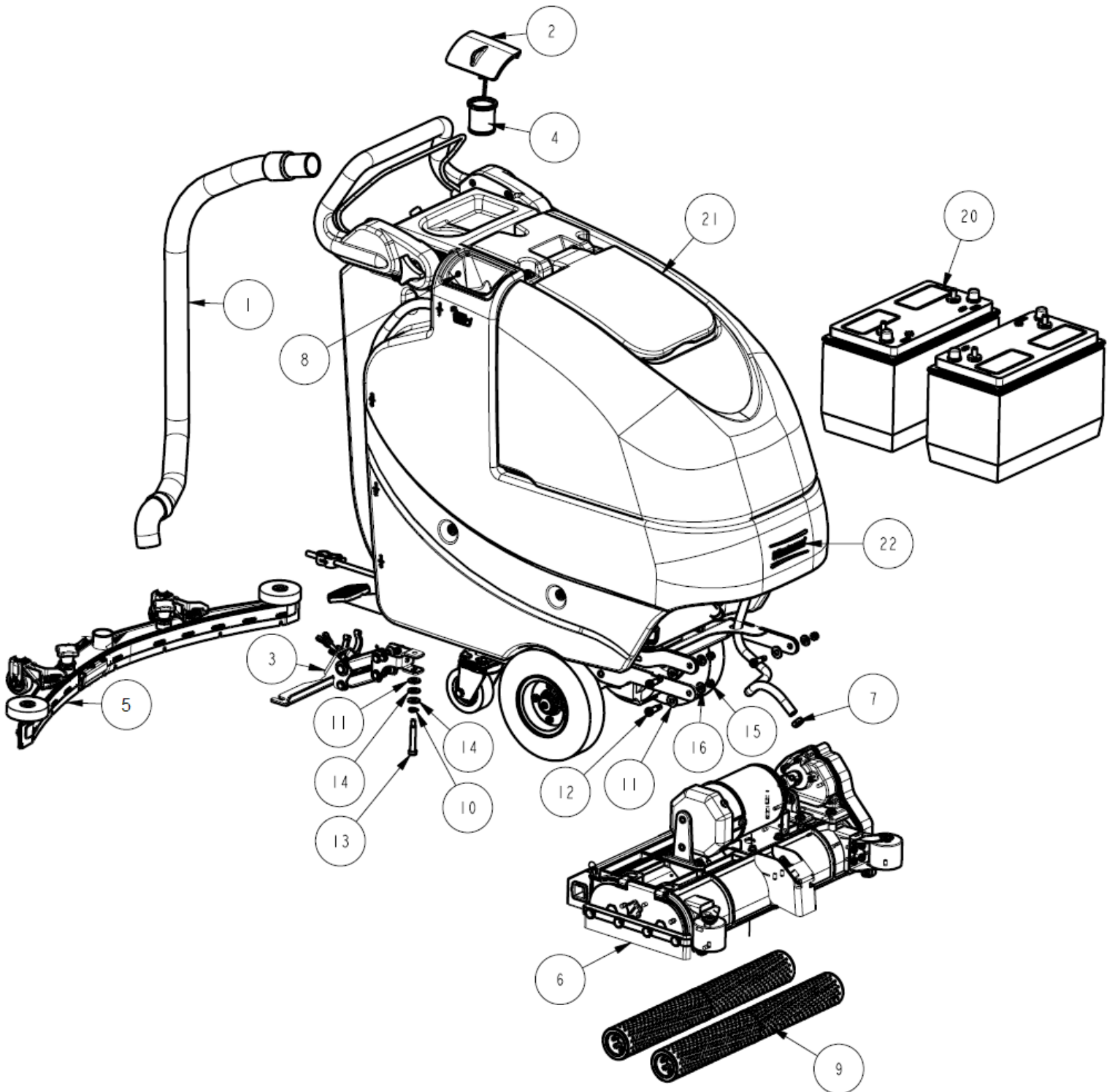


### For Safety When Servicing or Maintaining Machine

- Stop on level surface.
- Disconnect the power to the machine by pulling the red Battery Connector located under the recovery tank near the batteries.
- Avoid moving parts. Do not wear loose jackets, shirts, or sleeves when working on machine.
- Avoid contact with battery acid. Battery acid can cause burns. When working on or around batteries, wear protective clothing and safety glasses. Remove metal jewelry. Do not lay tools or metal objects on top of batteries.
- Do not clean machine with a pressure washer.
- Authorized personnel must perform repairs and maintenance. Use Minuteman supplied replacement parts.

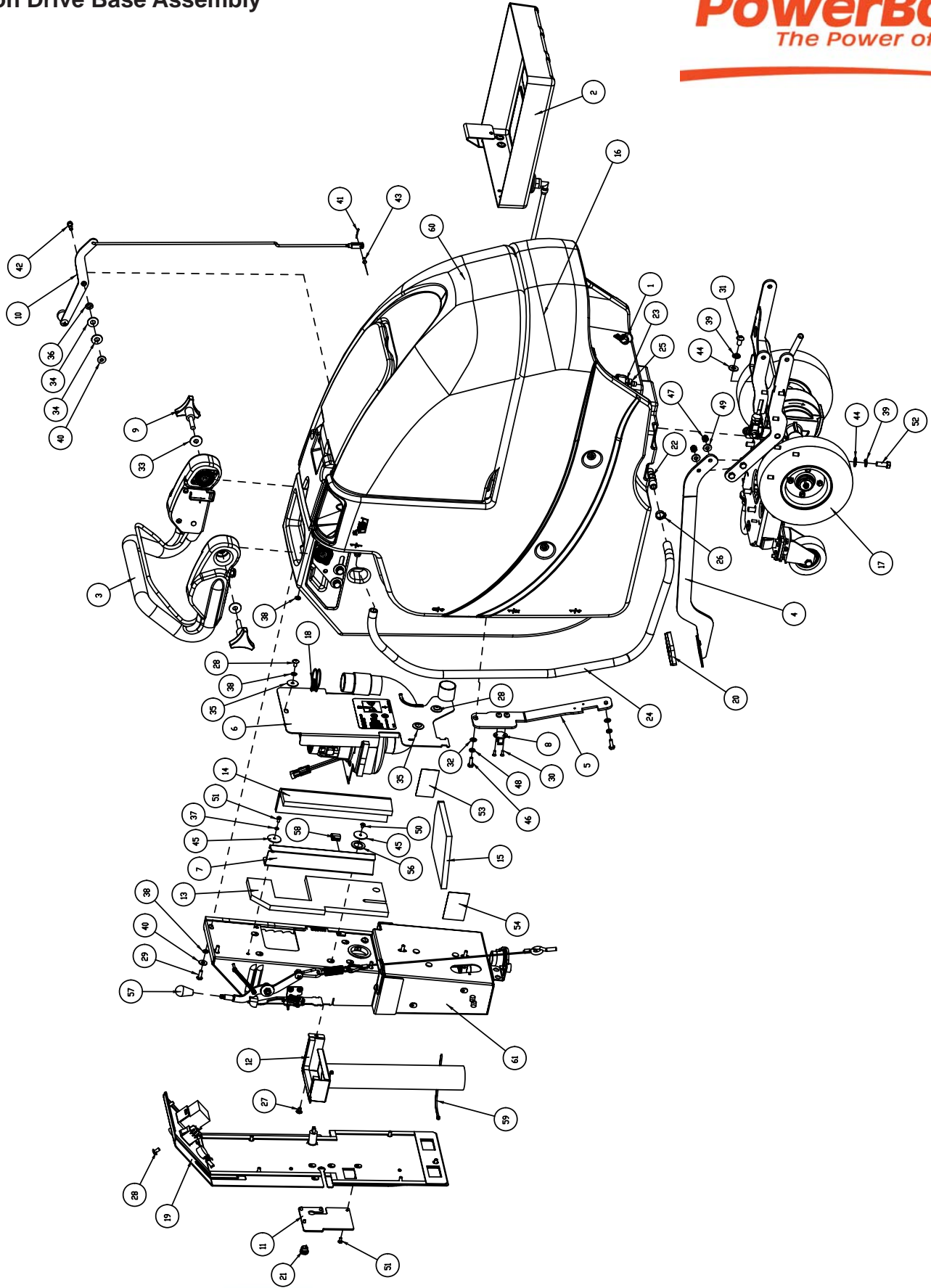
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BILL OF MATERIAL			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172010	1	HOSE, CLEAR VAC W/ 45 CUFF
2	172018	1	SOLUTION TANK LID ASSY
3	172150	1	SQUEEGEE LIFT MECH ASSY
4	172159	1	FILTER, FILL PORT
5	172230PB	1	SQUEEGEE, 34" (860)
6	172325	1	CYL DECK ASSY
7	450076	1	CLAMP-CRIMP 185R SS
8	711118	1	SCR-ST-A 10 X .75 SS
9	172320-1	1	20" CYL BRUSH, NYLON, BLUE, (SET OF 2)
10	711523	1	WSR-WAVE .37X .68 X .08
11	711569	4	WSR-FLT .390 X .880 X .062 NYL
12	712081	3	SHOULDER BLT 5/16-18 X 3/8 X .75
13	712143	1	BLT-SHLD 3/8 X 2.0, 5/16-18
14	712301	2	WSR-FLAT .37 X .87 X .06
15	712683	3	NUT, HEX 5/16-18 NYLOC SS
16	712772	3	WSR-FLAT .344 x .75 x .06 SS
17	715688	2	DECAL PHOENIX (NOT SHOWN)
18	740164-1	1	JUMPER CABLE ASSY, RED 4G 12"
19	747649	1	CABLE ASSY, BATTERY
20	956140	2	BATTERY, 12V 140AH
21	REF ONLY	1	CYL BASE ASSY-120V CHARGER
22	3334902	1	DECAL-SMALL MACHINE POWERBOSS
23	172008	1	SOLUTION TANK LID
24	172123	1	CHAIN, BEADEDSS W / EYELETS
25	712145	1	SCR-PAN HD HI/LO 6-19 X .37 SS
26	828062	1	CABLE TIE LARGE

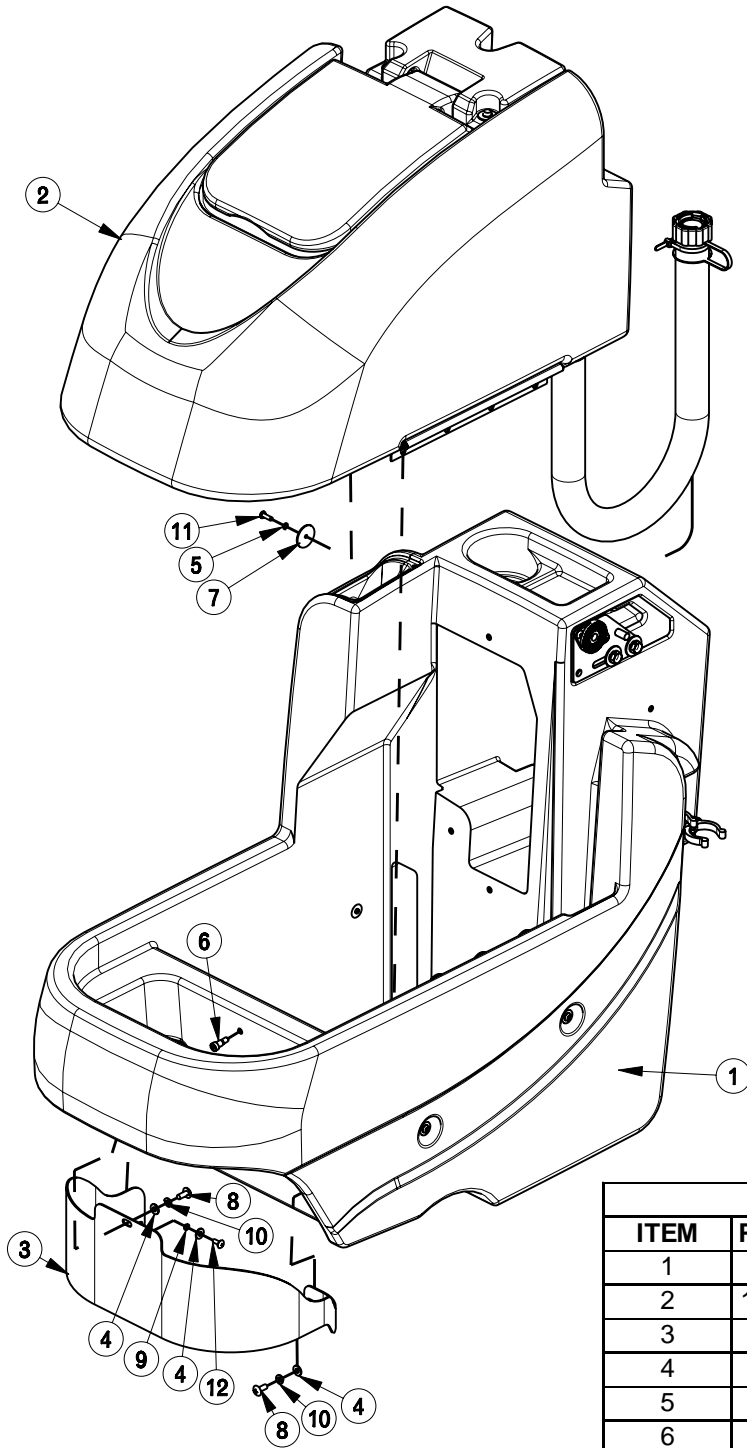
OPTIONAL BRUSHES		
ITEM	PART NO.	DESCRIPTION
9.1	172320-1	BRUSH, 20" NYLON
9.2	172320-2	BRUSH, 20" POLY
9.3	172320-3	BRUSH, 20" GRIT



# Traction Drive Base Assembly BOM



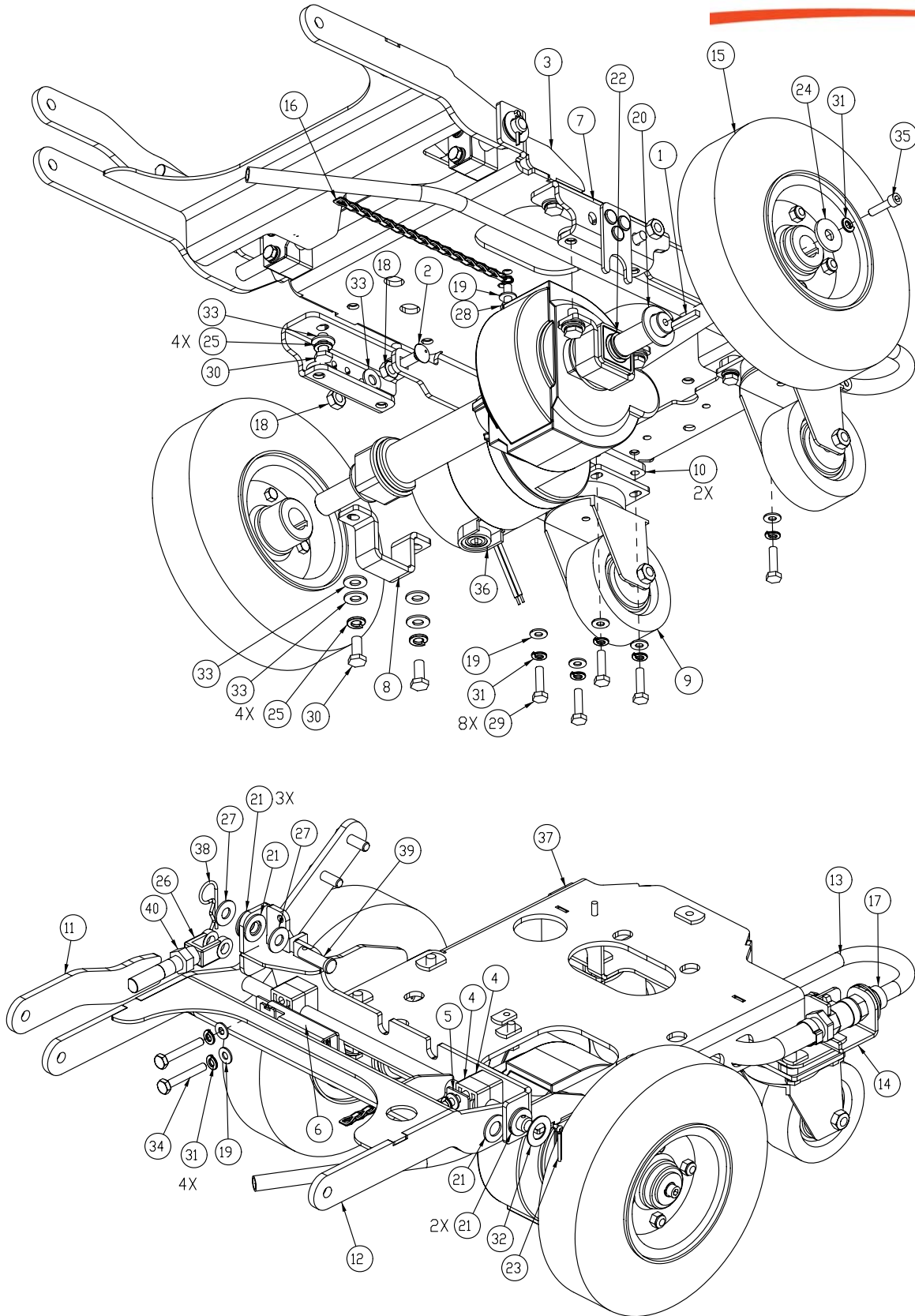
BILL OF MATERIAL				BILL OF MATERIAL CONT'D			
ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	82-54-A	1	CLAMP, MS21333-114	32	711504	2	WSR-FLAT 1/4 ID SS
2	172012	1	BATTERY TRAY ASSY	33	711507	2	WSR-FLAT .37 X 1.12 X .06
3	REF ONLY	1	TD HANDLE ASSY	34	711508	2	WSR-FLAT .44X 1.0X.08
4	172032	1	LIFT PEDAL WMT	35	711519	3	WSR- FLAT .25 X 1.01 X .06
5	172036	1	BKT, PEDAL STOP	36	711523	1	WSR-WAVE .37X .68 X .08
6	172050	1	VAC MOTOR ASSY	37	711543	1	WSR-HELICAL #10
7	172055	1	BKT, VAC AREA INSIDE COVER	38	711544	9	WSR-HELICAL 1/4
8	172065	1	CLIP, FOR 1/2" ID HOSE	39	711546	6	WSR-HELICAL 3/8
9	172085	2	KNOB, 3/8-16 STUD, 3 LOBE	40	711575	6	WSR-FLT .31x.75x.06ST
10	172112	1	SOL CONTROL ASSY	41	711803	1	COTTER PIN
11	172129	1	BKT, PWR CORD MOUNT	42	712041	1	BLT- SHLDR .31 X .375 X 1/4-20
12	172179	1	CHARGER INLET ASSEMBLY	43	712117	1	CLEVIS PIN 3/16
13	172184	1	FOAM COVER, REAR 1	44	712301	6	WSR-FLAT .37 X .87 X .06
14	172185	1	FOAM COVER, REAR 2	45	712312	2	WSR-FLAT .187 X 1.25
15	172187	1	FOAM COVER, FRONT 2	46	712562	2	BOLT-HH 1/4-20X3/4 SS
16	172305	1	PUMP ASM CYL	47	712683	2	NUT, HEX 5/16-18 NYLOC SS
17	REF ONLY	1	CHASSIS ASM CYL	48	712758	2	WSR-HELICAL 1/4 SS
18	172329	1	CLAMP-HOSE 1.56" 102122 MURRAY	49	712772	2	WSR-FLAT .344 x .75 x .06 SS
19	172330	1	CYL ELEC BOX COVER ASSY	50	712800	1	SCR-MC 10-24 X .25 ST PL
20	210142	1	PEDAL PAD	51	712810	5	SCR-MC 10-24 X .37 ST PL
21	293080	1	STRAIN RELIEF-HEYCO 1207	52	713042	4	BLT-HH 3/8-16 X 1 #5
22	342440	1	FITTING, TEE 3/4MPT 1/2BARB	53	715029	1	DECAL-NAME PLATE SERIAL
23	342441	1	FITTING, MGHT X 3/8HB PP	54	715047	1	DECAL-CLEAR LAMINATE 2X3
24	430156	1	HOSE, 1/2 X 42 CLEAR	55	715950	1	LABEL, PATENT NUMBERS
25	450076	1	CLAMP-CRIMP 185R SS	56	717025	1	WSR-FLAT 13/16ID X 1.25 X .08
26	450093	1	CRIMP CLAMP 3/4" STEPLESS	57	760592	1	KNOB, OVAL TAPERED
27	710177	1	SCR-MC 1/4-20 X .37 ST PL	58	809443	1	CLIP-WIRE & CORD
28	710178	10	SCR-MC 1/4-20 X .50 TRUSS STPL	59	828062	1	CABLE TIE LARGE
29	710380	5	SCR-MC RD HD 1/4-20 X .75 STL PL	60	REF ONLY	1	BASE ASSY
30	710530	2	SCR-MC FL HD 8-32 X .50 BRS	61	172075C	1	CYL ELEC BOX ASSY
31	710985	2	SCR-SC 3/8-16 X .62 ST PL				



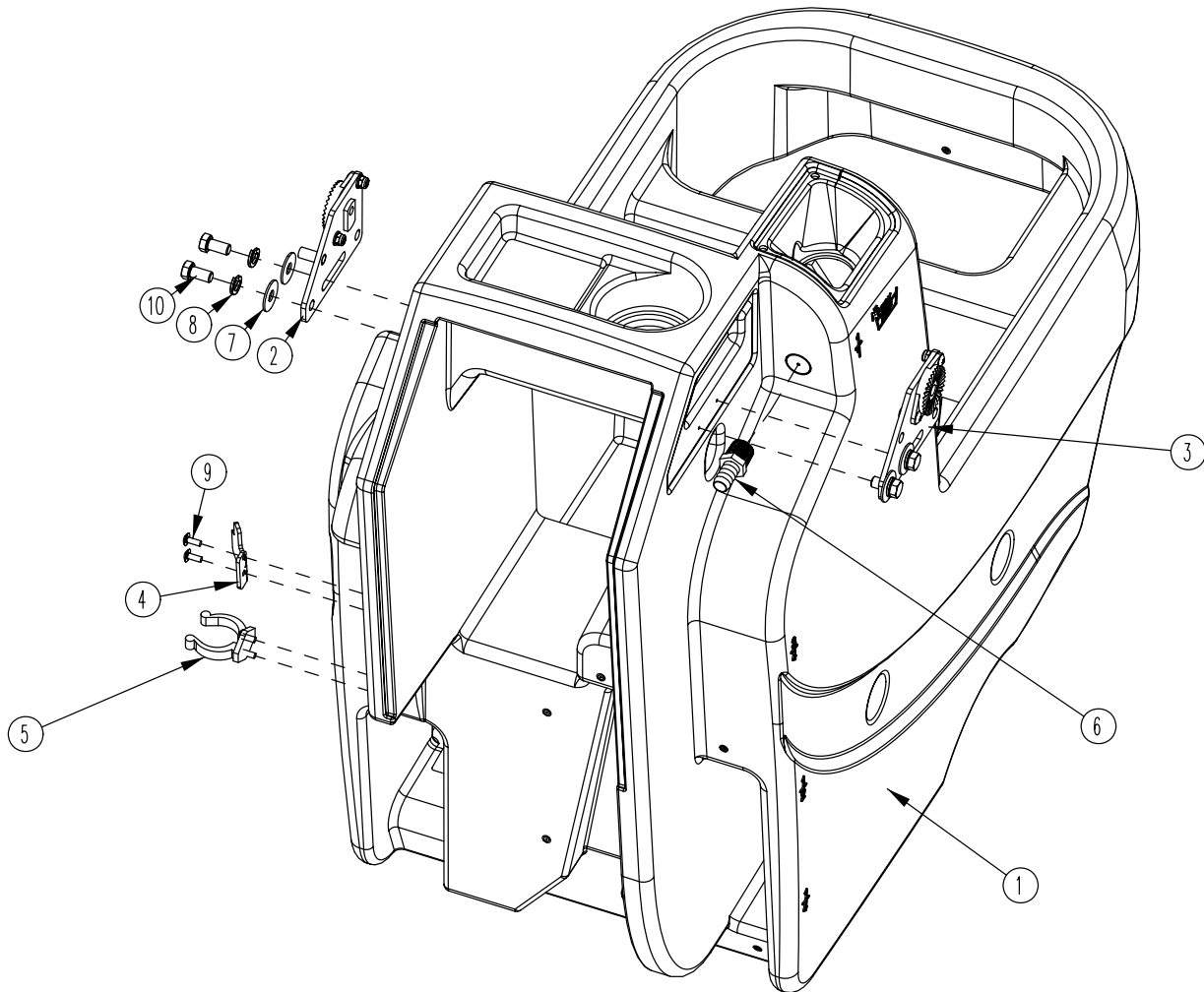
**BILL OF MATERIAL - 172001BASEPB**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	172013	1	SOL TANK ASSY
2	172014PB	1	REC TANK ASSY
3	172144	1	PANEL, FRONT
4	711504	3	WSR-FLAT 1/4 ID SS
5	711543	4	WSR-HELICAL #10
6	712041	1	BLT- SHLDR 1/4-20 X .44 X .37
7	712312	4	WSR-FLAT .187 X 1.25
8	712565	2	SCR-MC 1/4-20X.63 SS TR HD
9	712757	1	WSR - HELICAL #10 SS
10	712758	2	WSR-HELICAL 1/4 SS
11	712812	4	SCR-MC 10-24 X .62 PPH ST PL
12	712822	1	SCR-MC TR HD 10-24 X .50 SS

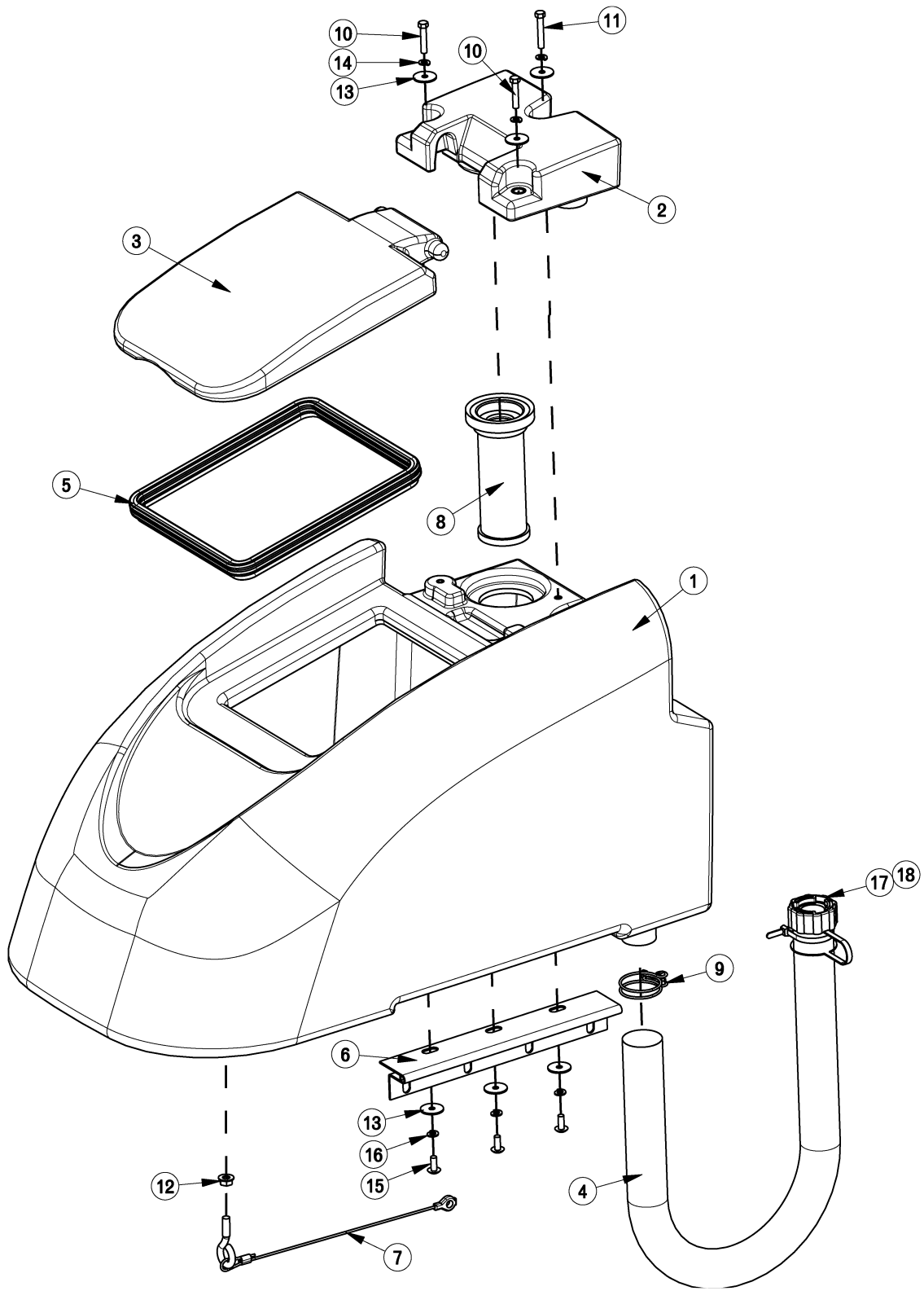




BILL OF MATERIAL - 172315			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	61-65-A	2	KEY, 3/16 X 1-3/4"
2	70-516-16	2	BLT-CAR 5/16-18 X 1.00 ZP
3	172020	1	MAIN FRAME WMT
4	172038	4	BEARING BLOCK
5	172039	1	BEARING BLOCK PLATE
6	172110	1	DECK SWITCH ASSY
7	172113	2	BKT, TRANSAXLE MOUNT BASE
8	172114	2	BKT, TRANSAXLE MOUNT
9	172167	2	CASTER, 3-1/2 POLYURETHANE
10	172192	2	PLATE, 1/4" SPACER
11	172204	1	UPPER LIFT ARM WMT
12	172205	1	DECK LIFT WMT
13	241097	1	HOSE-WIRE REINF 3/8 X 31"
14	172264	1	SOLUTION VALVE ASSY
15	200172-2	2	WHEEL, 8.5" FOAM FILL
16	281200	1	DRAG CHAIN ASSY, FRAME
17	450076	1	CLAMP-CRIMP 185R SS
18	711383	4	NUT-HEX CLR LOC 5/16-18
19	711504	13	WSR-FLAT 1/4 ID SS
20	711512	2	WSR-FLAT .75X1.37X.08
21	711592	7	WSR-FLAT .506 X .9 X .064 NYL
22	711715	2	RETAINING RING EXT .75
23	711809	1	COTTER PIN, 1/8 X 1.0
24	711855	2	WSR-FLT .37X1.12X.10 STL Z HARD
25	712140	8	WSR-HELICAL 5/16 SS
26	712265	1	CLEVIS-YOKE, 1/2-20 W/ .375 PIN
27	712301	2	WSR-FLAT .37 X .87 X .06
28	712562	1	BOLT-HH 1/4-20X3/4 SS
29	712564	8	BOLT-HH 1/4-20X1.00 SS
30	712575	8	BLT-HH 5/16-18 X .75 SS
31	712758	14	WSR-HELICAL 1/4 SS
32	712760	1	WSR-FLAT .56X1.06X.04 SS
33	712772	14	WSR-FLAT .344 x .75 x .06 SS
34	713006	4	BLT-HH 1/4-20 X 1 3/4 #5
35	717026	2	SCR-SC SHCS M6X1.0 X 25 STL Z
36	747606	1	TRANSAXLE, ES1720 24V
37	809444	1	CLIP-CORD
38	833374	1	PIN, HAIRPIN COTTER 3/8
39	833833	1	PIN-CLEVIS 3/8 X 1.25
40	3400449	1	NUT-HEX JAM 1/2-20 ZP

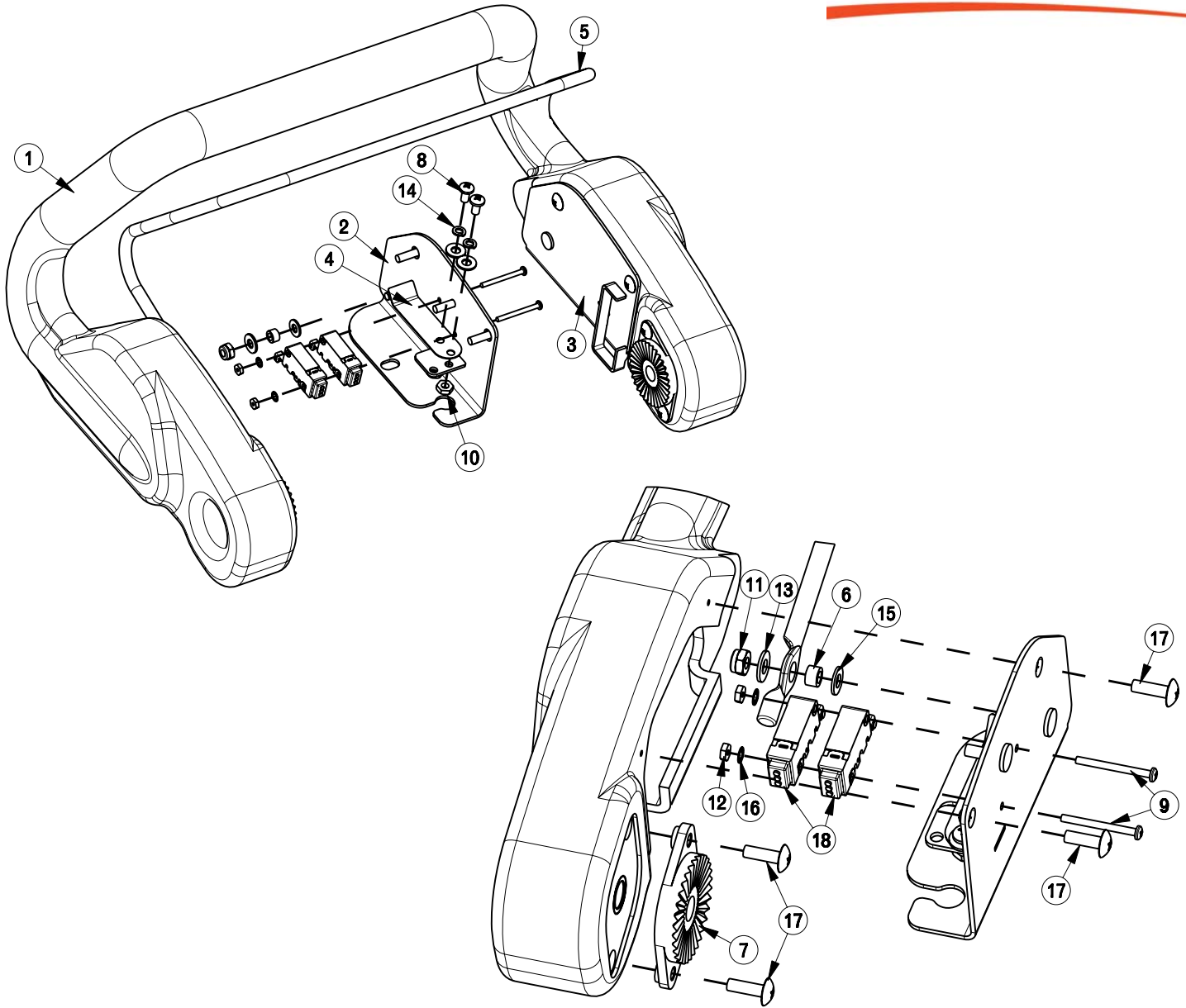


BILL OF MATERIAL - 172013			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172003	1	SOLUTION TANK
2	172080	1	HANDLE MOUNT ASSY, LEFT
3	172082	1	HANDLE MOUNT ASSY, RIGHT
4	172341	1	HOOK, DRAIN HOSE WITH TWIST VALVE
5	260579	1	TOOL CLIP, 1.5" HOSE
6	342438	1	FITTING, 1/2 MPT 1/2 HB BRASS
7	711507	4	WSR-FLAT .37 X 1.12 X .06
8	711546	4	WSR-HELICAL 3/8
9	712822	4	SCR-MC TR HD 10-24 X .50 SS
10	713041	4	BLT-HH 3/8-16 X 3/4 #5





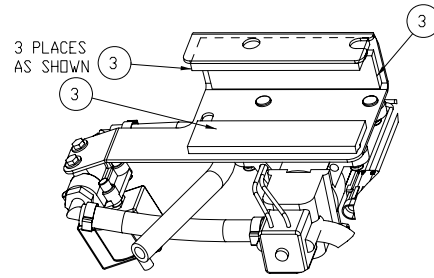
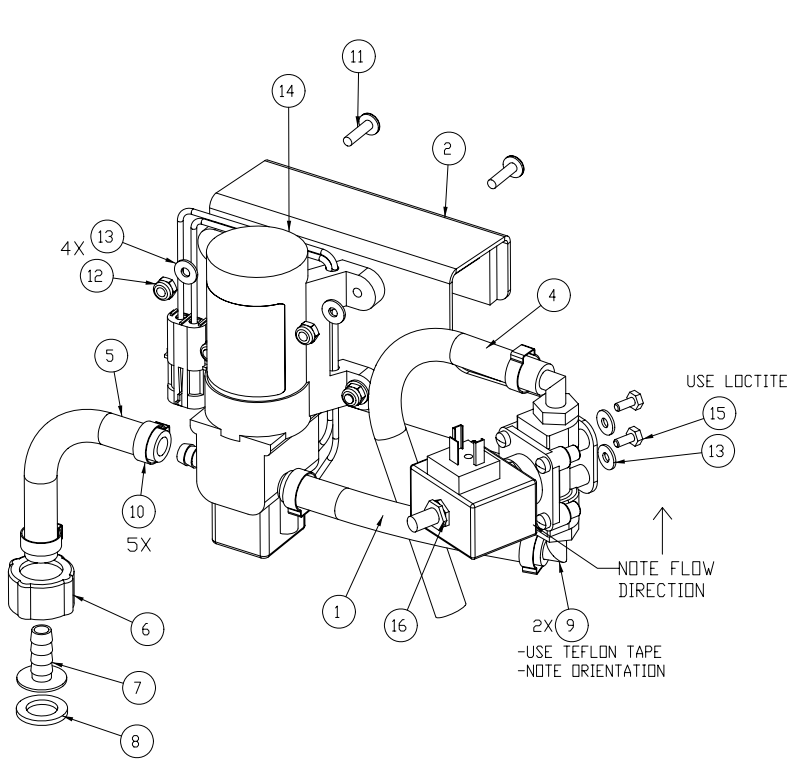
BILL OF MATERIAL - 172014HR			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172004HR	1	RECOVERY TANK
2	172005HR	1	VACUUM MANIFOLD
3	172007	1	LID
4	97090096	1	DRAIN HOSE ASSY, RECOVERY TANK
5	172017	1	GASKET, LID
6	172049	1	HINGE, RECOVERY TANK
7	172394	1	REC TANK CABLE ASSY 11.625
8	172132	1	SCREENED FLOAT
9	172329	1	CLAMP-HOSE 1.56" 102122 MURRAY
10	711210	2	BLT-HH 1/4-20 X 1.25 STPL
11	711212	1	BLT-HH 1/4-20 X 1.50 STPL
12	711379	1	NUT, FLANGED WIZZ 5/16-18
13	711519	6	WSR- FLAT .25 X 1.01 X .06
14	711544	3	WSR-HELICAL 1/4
15	712565	3	SCR-MC 1/4-20X.63 SS TR HD
16	712758	3	WSR-HELICAL 1/4 SS
17	15282072	1	REPLACEMENT O-RING (NOT SHOWN)
18	90304528	1	REPLACEMENT CAP



BILL OF MATERIAL - 172015

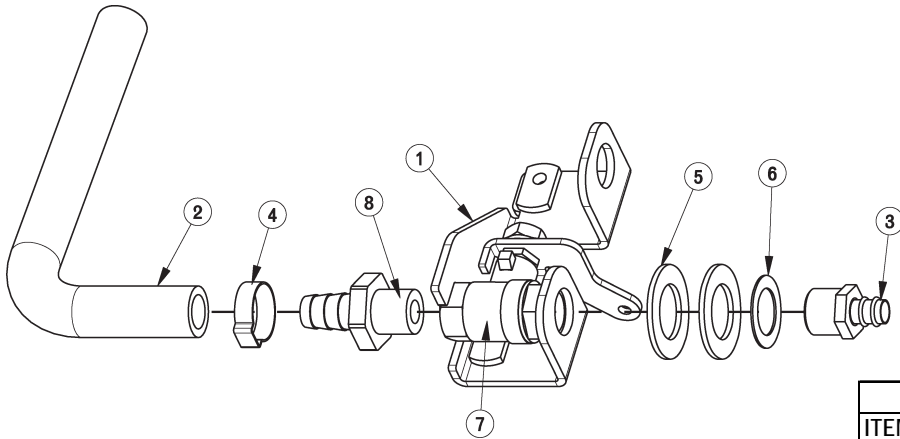
ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172006	1	HANDLE	11	711350	2	NUT-NYLOC 10-32
2	172053	1	BAIL PLATE WMT RH	12	711428	2	NUT-HEX 4-40
3	172054	1	BAIL PLATE WMT LH	13	711503	6	WSR, FLAT #10
4	172057	2	LEAF SPRING	14	711543	4	WSR-HELICAL #10
5	172059	1	BAIL, HANDLE	15	712320	2	WSR-NYLON .22 X .45 X .04
6	172074	2	SPACER, 5/16OD X 17GA, ALUM	16	712326	2	WSR-INT LOCK #4
7	270143	2	HANDLE PIVOT JAW	17	712830	10	SCR-MC 10-24 X .62 STLZ TR HD
8	710353	4	SCR-MC RD HD 10-32 X .37 STL	18	747603-3	2	SWITCH ASY, MICRO ROLLER W/PACK/CONDUIT
9	710495	2	SCR-MC 4-40 X 1.25 STL Z	19	747715-1	1	CABLE ASY, 5 COND 18G TD
10	711310	4	NUT, HEX 10-32 ST PL				

## Pump Assembly

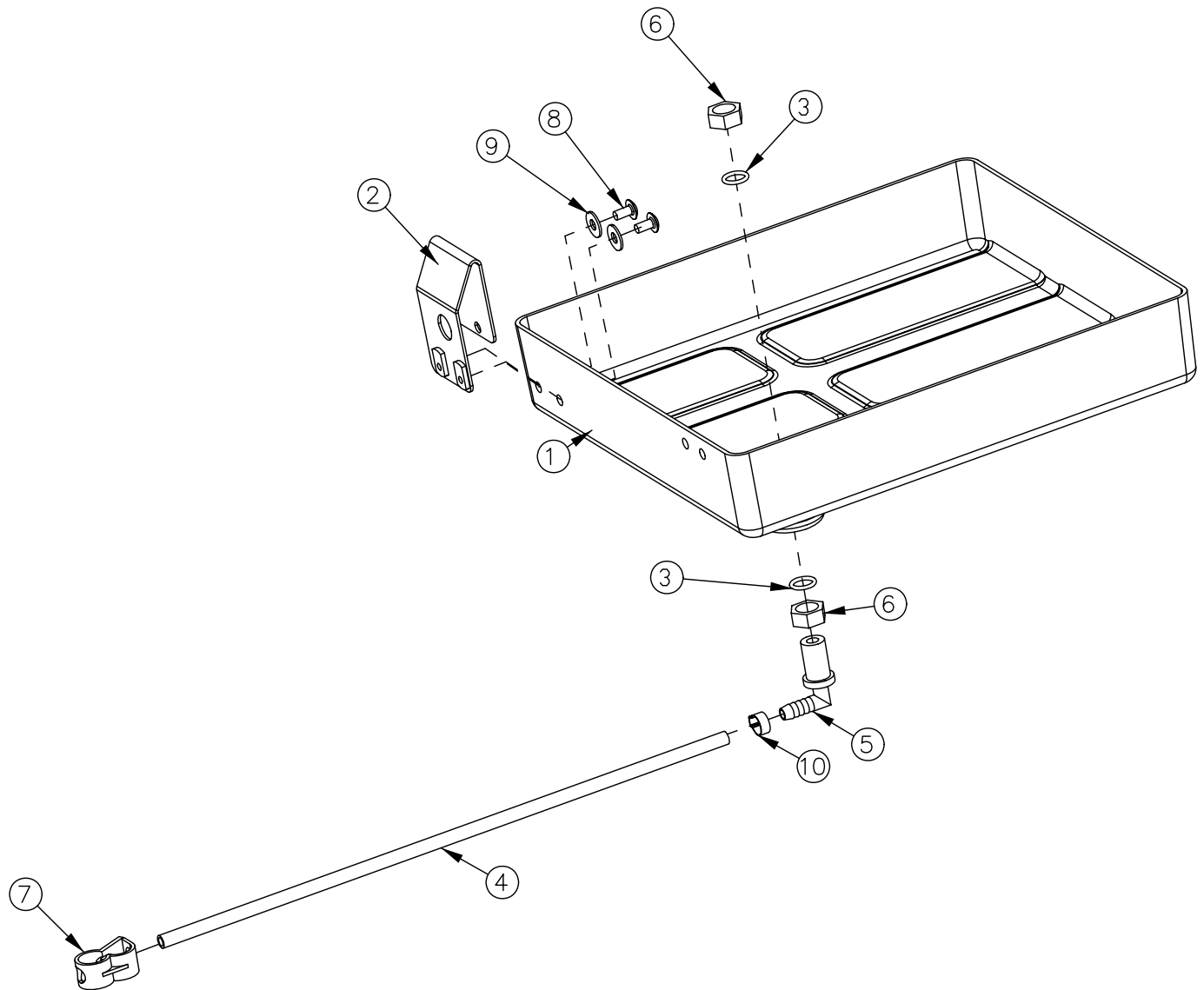


BILL OF MATERIAL - 172305			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172302	1	BKT, PUMP MOUNT
2	172304	3	FOAM .25 X 1.25 X 5 W/ ADH
3	172322	1	HOSE-WIRE REINF 3/8 X 2"
4	173156	1	FITTING, 3/8 MNPT X 3/8 BARB
5	241097	1	HOSE-WIRE REINF 3/8 X 31"
6	320254	1	HOSE-WIRE REINF 3/8 x 9"
7	342442	1	FITTING, FGHT NUT PP
8	342443	1	FITTING 3/8HB INSERT PP
9	342444	1	WSR-FILTER, GARDEN HOSE SIZE
10	450040	1	FITTING-90 3/8MPT X 3/8BARB NYLON
11	450076	5	CLAMP-CRIMP 185R SS
12	712638	4	NUT, HEX 10-24 SS NYLOC
13	712764	6	WSR #10 SS
14	747691	1	PUMP, 24VDC 35PSI 3/8HOSE w/CONNECTOR
15	11038965	2	BOLT-HH M4X0.7 X 10 Z DICH
16	90435595	1	WATER SOLENOID, 24VDC 2.5BAR

## Solution Valve Assembly

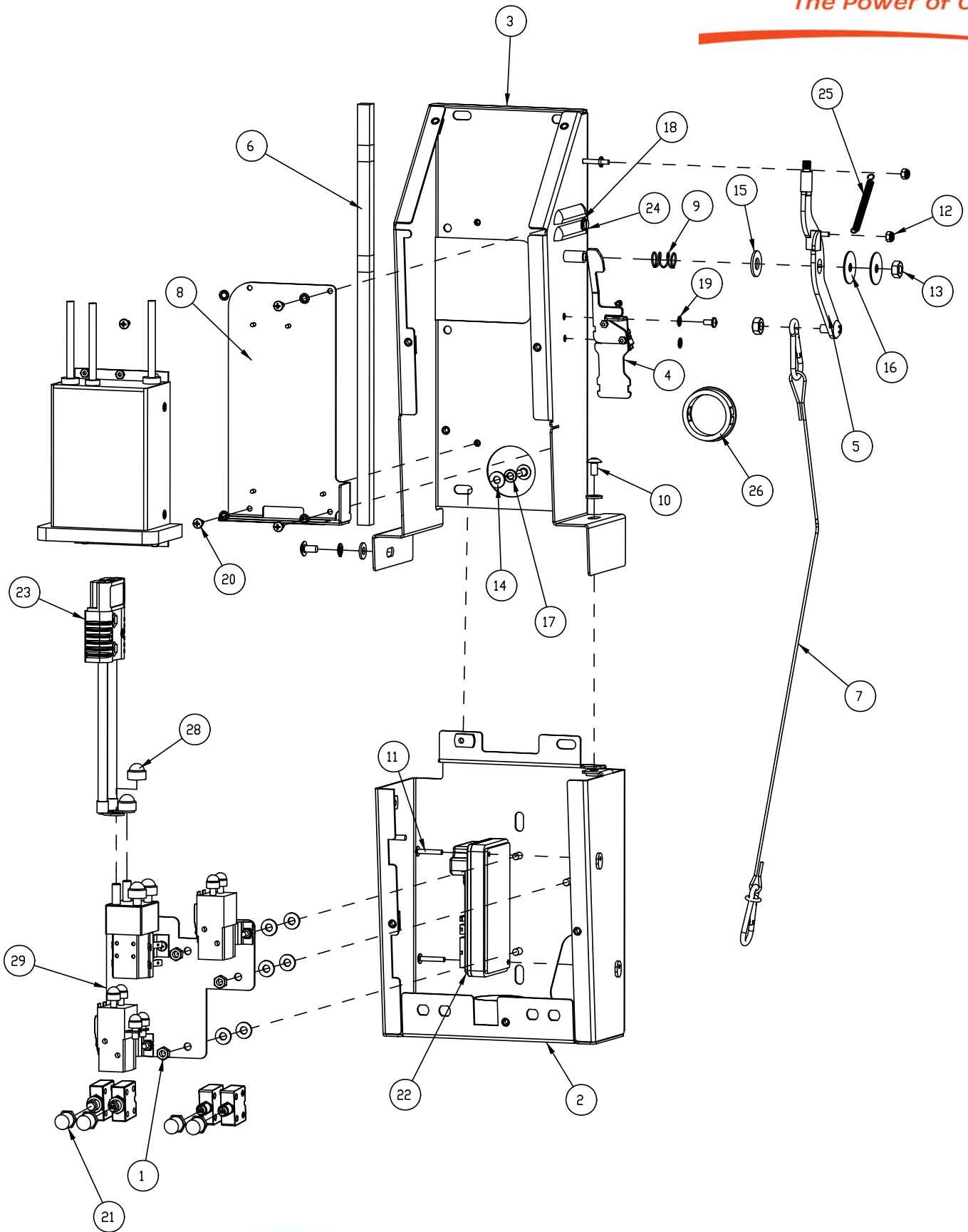


BILL OF MATERIAL - 172064			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172063	1	BKT, SOL VALVE MOUNT
2	172158	1	HOSE, 1/2"ID X 7.5" NYLOBRAID
3	320265	1	FITTING DUBL 3/8HBx3/8MPT
4	383347	1	CRIMP CLAMP 1/2 HOSE SS 185R
5	711512	2	WSR-FLAT .75X1.37X.08
6	711513	1	WSR-FLAT .69 X 1.06 X .03 SS
7	809415	1	VALVE, 3/8 FPT, 45 OPEN/CLOSE
8	827008	1	FITTING, 3/8 MPT 1/2 HOSE

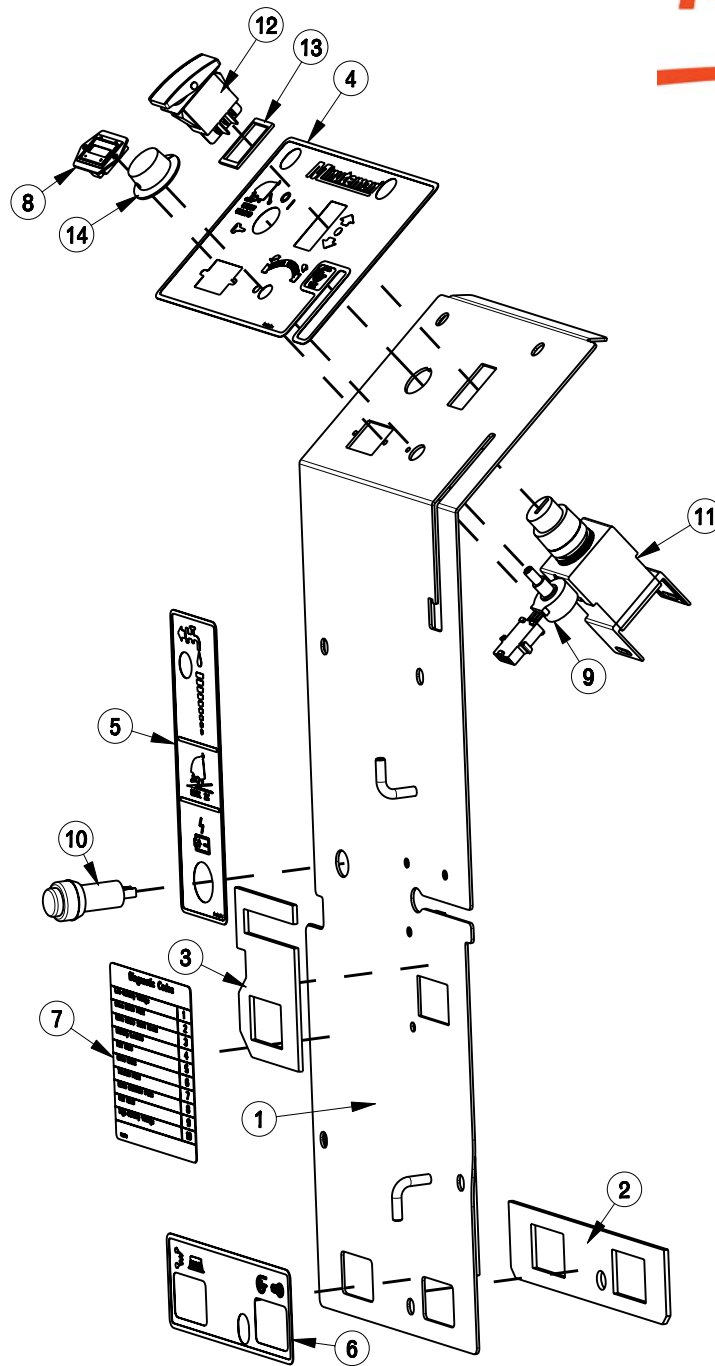


<b>BILL OF MATERIAL - 172012</b>			
<b>ITEM</b>	<b>PART NO.</b>	<b>REQ'D</b>	<b>DESCRIPTION</b>
1	172116	1	BATTERY BOX
2	172213	1	BKT, SPACER FOR BATTERIES
3	210414	2	O RING 2-113
4	260224	1	18" HOSE
5	320271	1	NOZZLE BODY-ELBOW
6	320272	2	NOZZLE BODY LOCKNUT
7	320273	1	HOSE SHUT-OFF CLAMP
8	710178	2	SCR-MC 1/4-20 X .50 TRUSS STPL
9	711575	2	WSR-FLT .31x.75x.06ST
10	828490	1	CRIMP CLAMP 140R



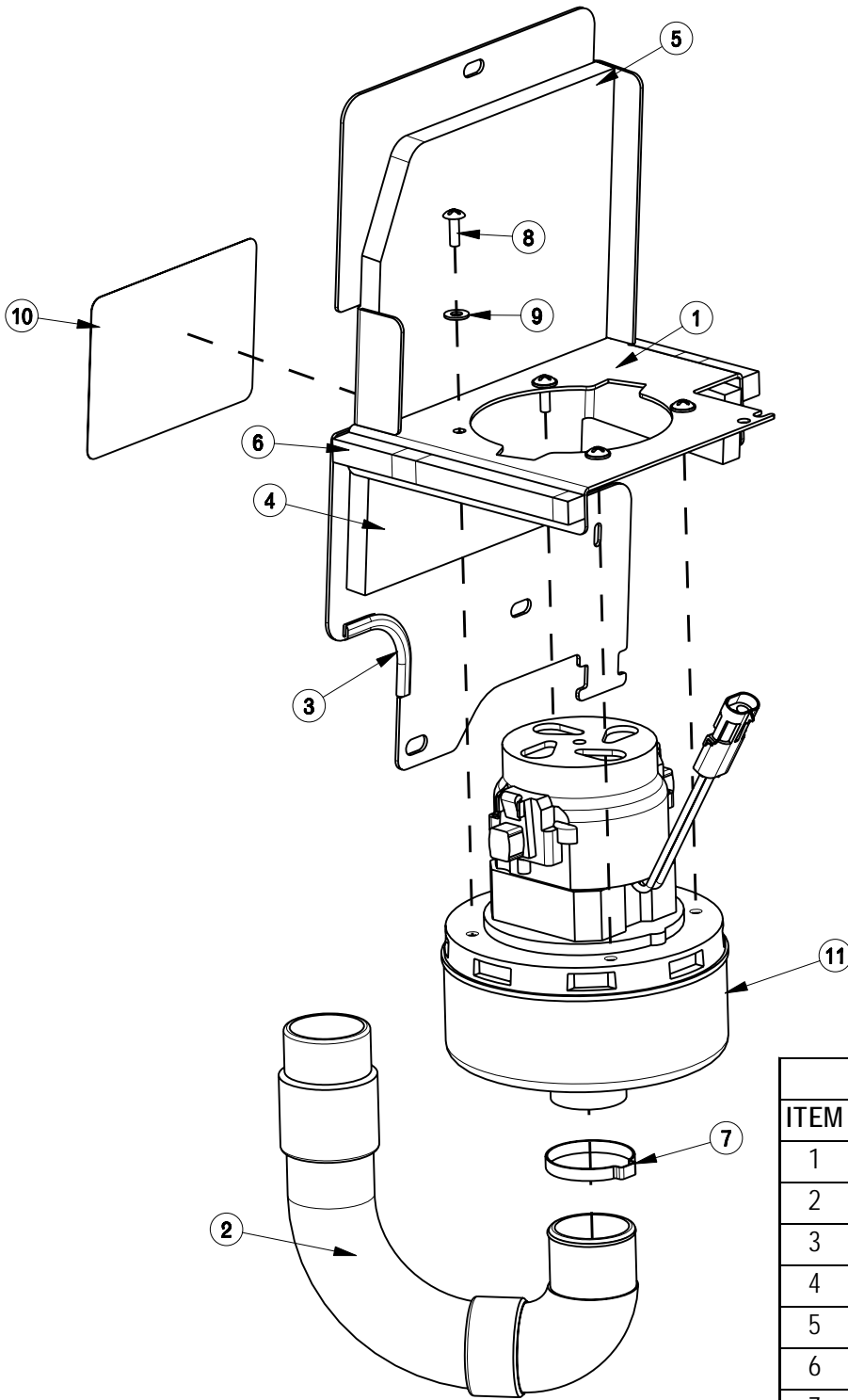


BILL OF MATERIAL - 172075C-120			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	369-416	3	NUT-HEX 1/4-20 NYLOC SERATED
2	172077	1	ELEC BOX-BOT HALF WMT
3	172088	1	ELEC BOX-TOP HALF WMT
4	172141	1	VAC SWIT CH ASSY
5	172152	1	VAC LEVER WMT
6	172188_	1	FOAM TAPE, 1/2" SQ X 16.5"
7	172381	1	CABLE ASSY, SQUEEGEE LIFT
8	172385	1	E1720 120V CHARGER ASSEMBLY
9	670093	1	SPRING, COMPRESSION
10	710178	3	SCR-MC 1/4-20 X .50 TRUSS STPL
11	710534	2	SCR-MC TR HD 8-32 X 1.00 SS
12	711372	2	NUT -NYLOC 8-32 STL ZINC
13	711383	2	NUT-HEX CLR LOC 5/16-18
14	711505	9	1/4 FLAT WASHER, STEEL
15	711508	1	WSR-FLAT .44X 1.0X.08
16	711516	2	WSR- FLAT .31 X 1.25 X .05
17	711544	2	WSR-HELICAL 1/4
18	712320	2	WSR-NYLON .22 X .45 X .04
19	712770	6	WSR INT LOCK #10A SS
20	712810	6	SCR-MC 10-24 X .37 ST PL
21	742748	4	CIRCUIT BREAKER BOOT
22	747608	1	I-DRIVE,24V 70A PM MOTOR CONTROL
23	747637	1	WIRE ASY, MACHINE-BATTERY E1720
24	760134	2	MOUNT RING
25	762084	1	SPRING-EXT .25OD X 2" F.L. MUSIC
26	762400	1	HEYCO BUSHING 2.00"
27	828062	1	CABLE TIE LARGE (NOT SHOWN)
28	15592033	2	CAP, SAFETY NUT COVER M8
29	747670C	1	ELEC PANEL ASSY, E20C

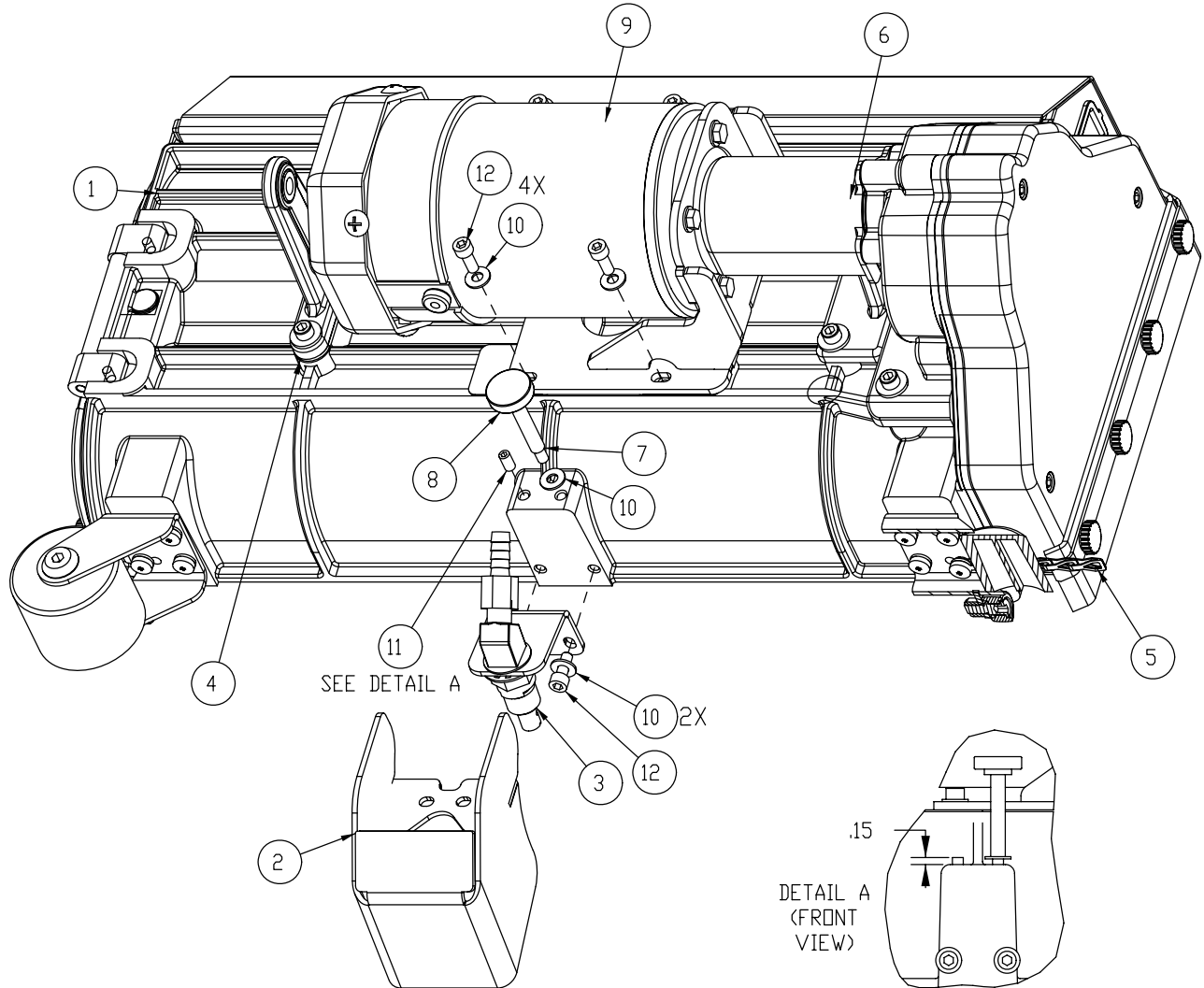


BILL OF MATERIAL - 172330PB

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172182	1	TD COVER WMT	8	747011	1	BATTERY GAUGE, TRUCHARGE
2	172193	1	GASKET, CB OUTLINE	9	747026	1	POTENTIOMETER ASSY SPEED CONTROL
3	172194	1	GASKET, CHARGER CORD PLATE	10	747614	1	CHARGE STATUS INDICATOR
4	715672	1	DECAL, CHARGE STATUS, SOLUTION CTRL	11	748201	1	SWITCH, DPDT ON/OFF/ON
5	715674	1	DECAL, TD CIRCUIT BREAKER	12	748209	1	GASKET-FOR 2 POLE ROCKER SWITCHES
6	715678	1	DECAL. DIAGNOSTIC CODES	13	809874	1	KNOB, SPEED CONTROL
7	715683	1	DECAL, CYL DASHBOARD	14	90323437-1	1	KEYSWITCH ASY, SWITCH PLUS WIRES

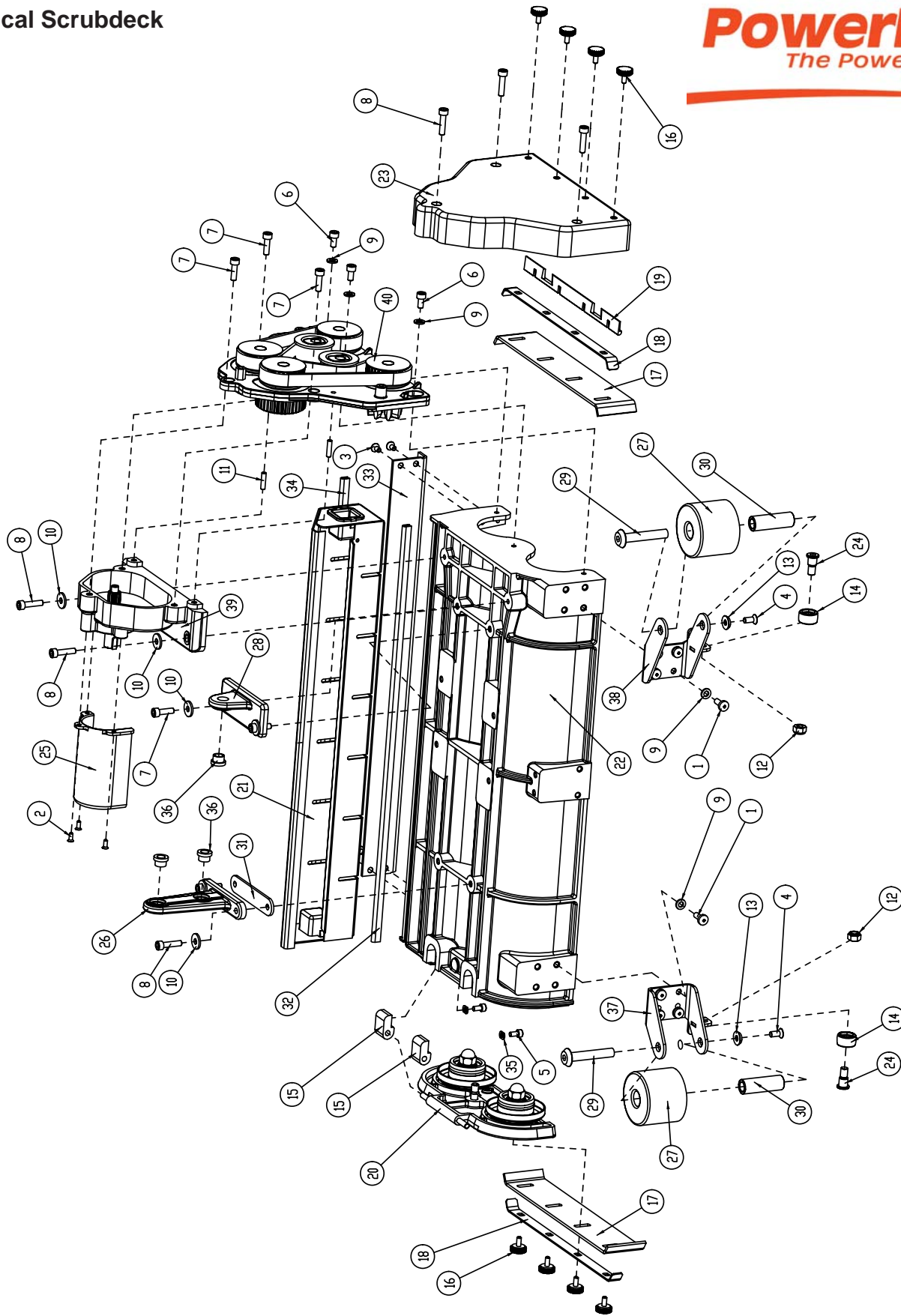


BILL OF MATERIAL - 172050			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172045	1	VAC MOUNT WMT
2	172048	1	HOSE, STRETCH 13"
3	172124	1	EDGE TRIM, .063 X 3.0, BLACK
4	172186	1	FOAM COVER, FRONT 1
5	172187	1	FOAM COVER, FRONT 2
6	172188	2	FOAM TAPE, 1/2" SQ X 16.5"
7	450095	1	CRIMP CLAMP, 1.75"
8	711160	4	#10 X 5/8 HI-LO
9	711503	4	WSR, FLAT #10
10	715676	1	DECAL, BATT CABLE ROUTE
11	747607-1	1	VAC MOTOR ASY



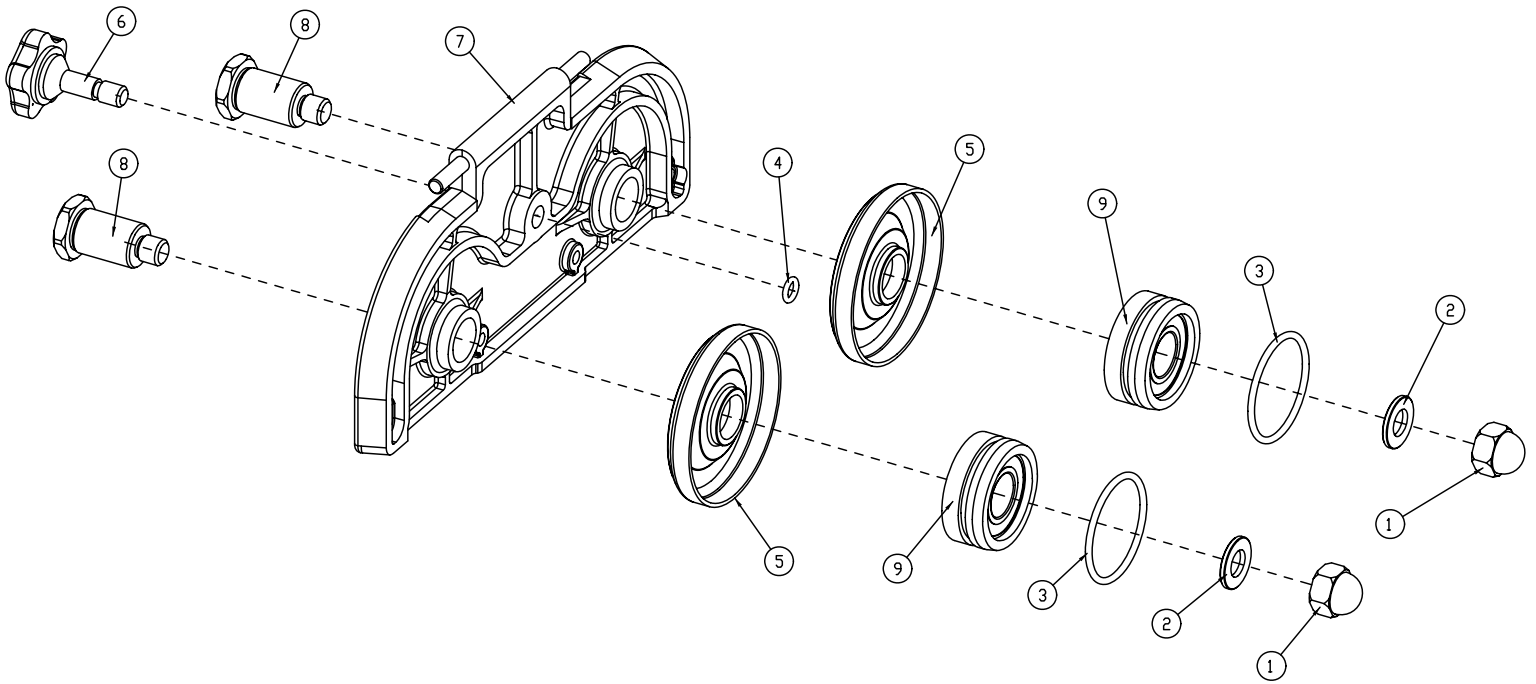
**BILL OF MATERIAL - 172325**

ITEM	PART NO.	REQ'D	DESCRIPTION
1	172300	1	CYLINDRICAL SCRUBDECK
2	172307	1	SPRAYJET COVER WELDMENT
3	172312	1	SPRAY NOZZLE ASSY
4	172333	1	SPACER, CYL DECK MOUNT
5	172334	1	DRAG CHAIN, CYL. SCRUBDECK
6	172345	1	L-070 LOVEJOY COUPLER
7	172349	1	BLT- SHLDR .31 X .375 X 1/4-20
8	172353	1	KNOB, KNURLED
9	172355	1	CYL MOTOR ASM
10	711504	7	WSR-FLAT 1/4 ID SS
11	712160	1	SCR-SK, M6 X 12 SS CUP PT
12	11132065	6	SCR-SC, M6X1.0 X 16 Z DICH



BILL OF MATERIAL - 172300			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	817306	8	SCR-PAN HD M6x16
2	829103	3	SCR-MC FL HD M4 X 10 SS
3	829203	4	CR-CSK-SCREW-M5X10-SS
4	829321	2	SC-FHCS M6 X 14 SS
5	831203	2	SCR-SHCS, M5X10 ZP
6	831304	3	SCR-SHCS, M6X12 ZP
7	831307	5	SCR-SHCS, M6X20 ZP
8	831308	7	SCR-SHCS, M6X25 ZP
9	844061	11	WASHER-6_4X12X1_6
10	844063	6	WASHER-6_4X18X2
11	853508	2	DOWEL PIN
12	859086	2	NUT-NYLOC M8
13	925012	2	WASHER-BRIDGE
14	931163	2	WHEEL - BRUSH
15	931171	2	HINGE-IDLER END
16	931172	8	KNOB-SQG
17	931235	2	LIP-FLASH GUARD
18	3130024	2	STRIP-FLASH GUARD
19	3130110	1	SEAL-BELT COVER
20	3180062	1	IDLER SUPPORT ASSLY BRUSH
21	3180217	1	DEBRIS TRAY
22	3530278	1	BRUSH DECK HOUSING
23	3530280	1	BELT COVER
24	3530283	2	PIN-BRUSH WHEEL
25	3530287	1	COUPLER COVER
26	3530288	1	BRACKET - DOUBLE ARM
27	3530290	2	DEFLECTOR ROLLER
28	3530291	1	BRACKET - SINGLE ARM
29	3530292	2	DEFLECTOR ROLLER STUD
30	3530296	2	SLEEVE DEFLECTOR ROLLER
31	3530346	1	SPACER, DOUBLE ARM
32	3530358	1	STRIP HOUSING U BEEDING
33	3530359	1	SUPPORT PLATE HOUSING
34	3530361	1	STRIP HOUSING U BEEDING
35	3530362	2	SPECIAL WASHER M5
36	3530408	3	BUSHING-FLG, .375X.50X.31 GFS-055
37	3580215	1	DEFLECTOR ROLLER ARM RH WELDMENT
38	3580216	1	DEFLECTOR ROLLER ARM LH WELDMENT
39	3580219	1	HOUSING - GEAR ASSY
40	3580257	1	HOUSING ASSY-GEAR SUPPORT

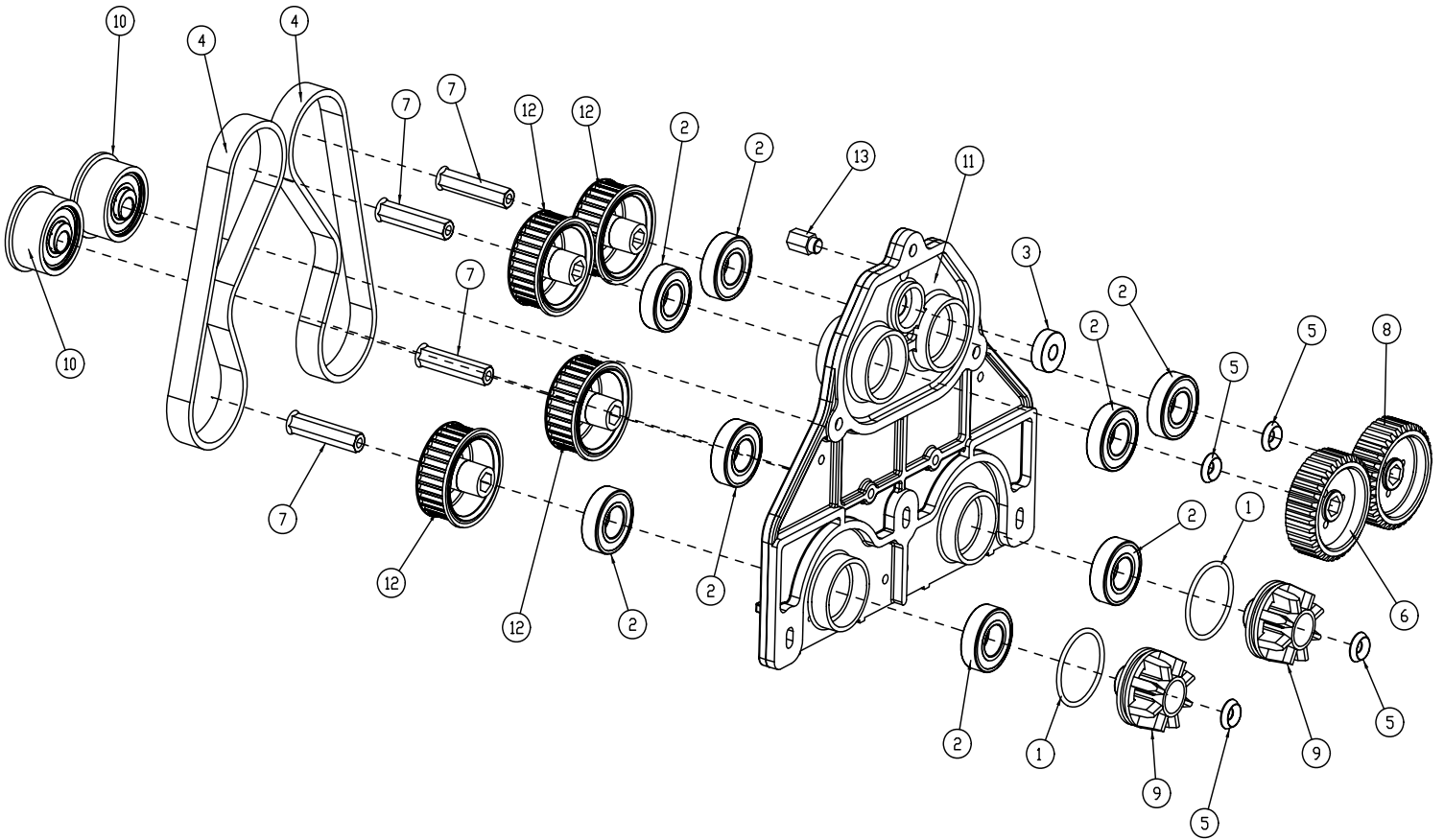
**Cylindrical Scrubdeck  
SubAssy I - Idler Support**



BILL OF MATERIAL - 3180062			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	838100	2	DOMED CAP NUT-M10-SS
2	845101	2	WASHER-SS-304-10.5X20X2
3	854007	2	O' RING - 36X2.5
4	854008	1	ORING 6X2.0
5	931157	2	SPACER, IDLER HUB COVER
6	931758	1	KNOB-IDLER COVER LOCK
7	3130005	1	COVER IDLER END -MACHINING
8	3130042	2	PIN-IDLER END
9	3180091	2	IDLER PULLEY - BRUSH

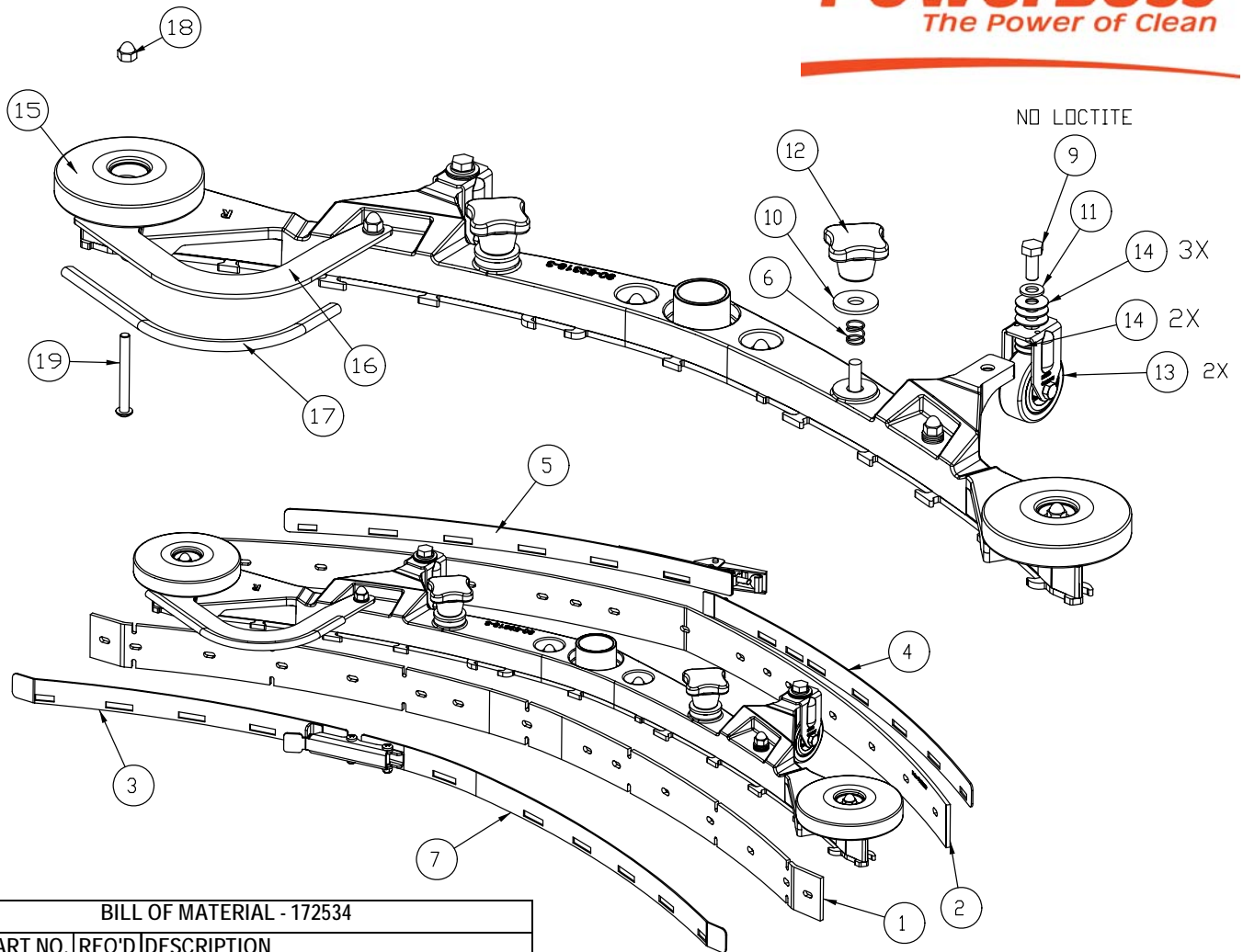


**Cylindrical Scrubdeck  
SubAssy II - Gear Support**

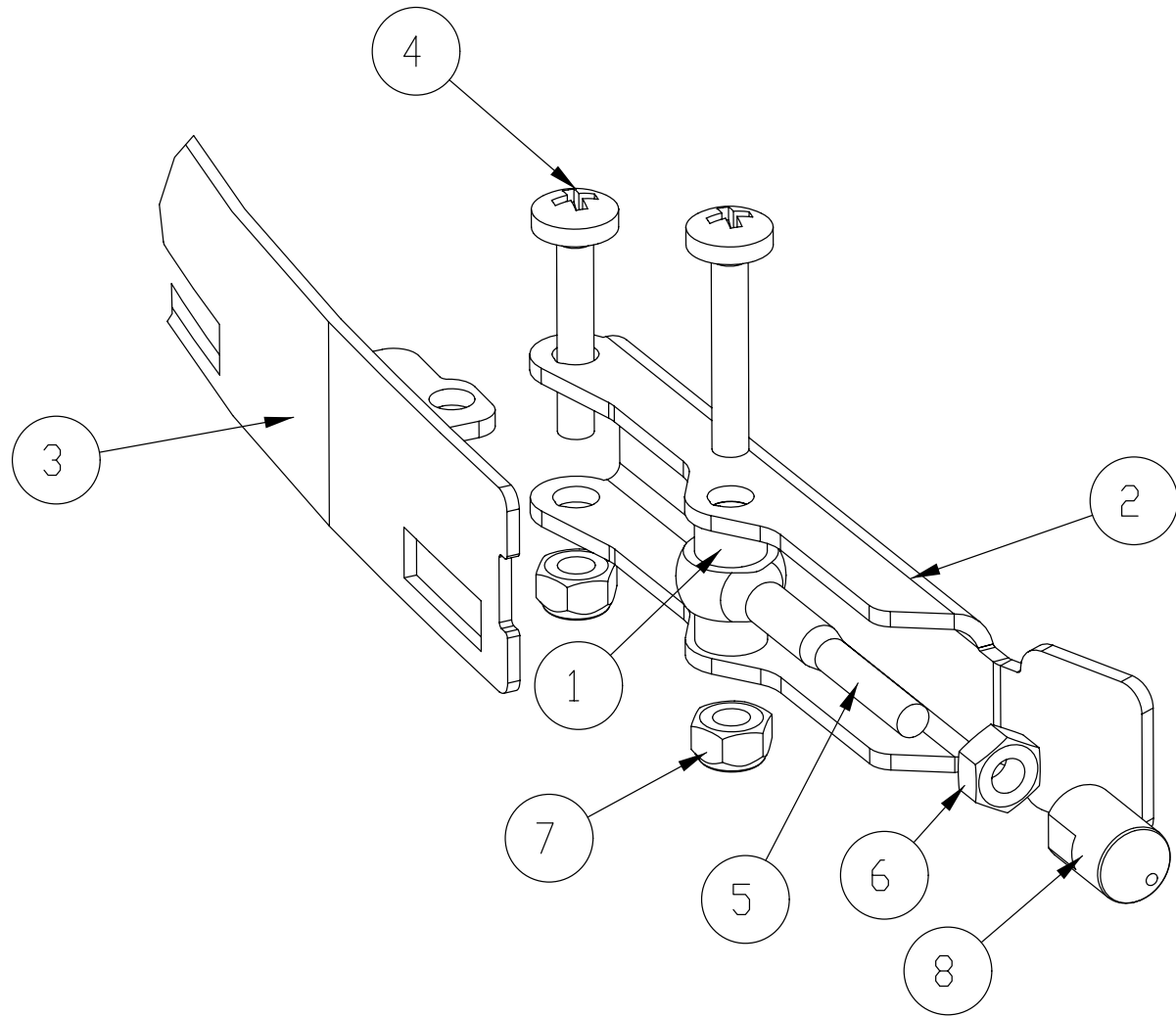


BILL OF MATERIAL - 3580257			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	854007	2	O' RING - 36X2.5
2	875010	8	BEARING-6003 NSE NACHI
3	875011	1	BEARING-608 2Z
4	925002	2	DRIVE BELT 425-5M-15-HTD
5	925012	4	WASHER-BRIDGE
6	925193	1	GEAR-LH
7	931027	4	DRIVE KEY
8	931035	1	GEAR-RH
9	3580328	2	PULLEY-DRIVE
10	931815	2	IDLER-PLAIN ASSY
11	3130006	1	HOUSING-GEAR SUPPORT
12	3180008	4	SPROCKET ASSEMBLY-GEAR
13	3530372	1	STUD-M/F, M8/M6 ZP

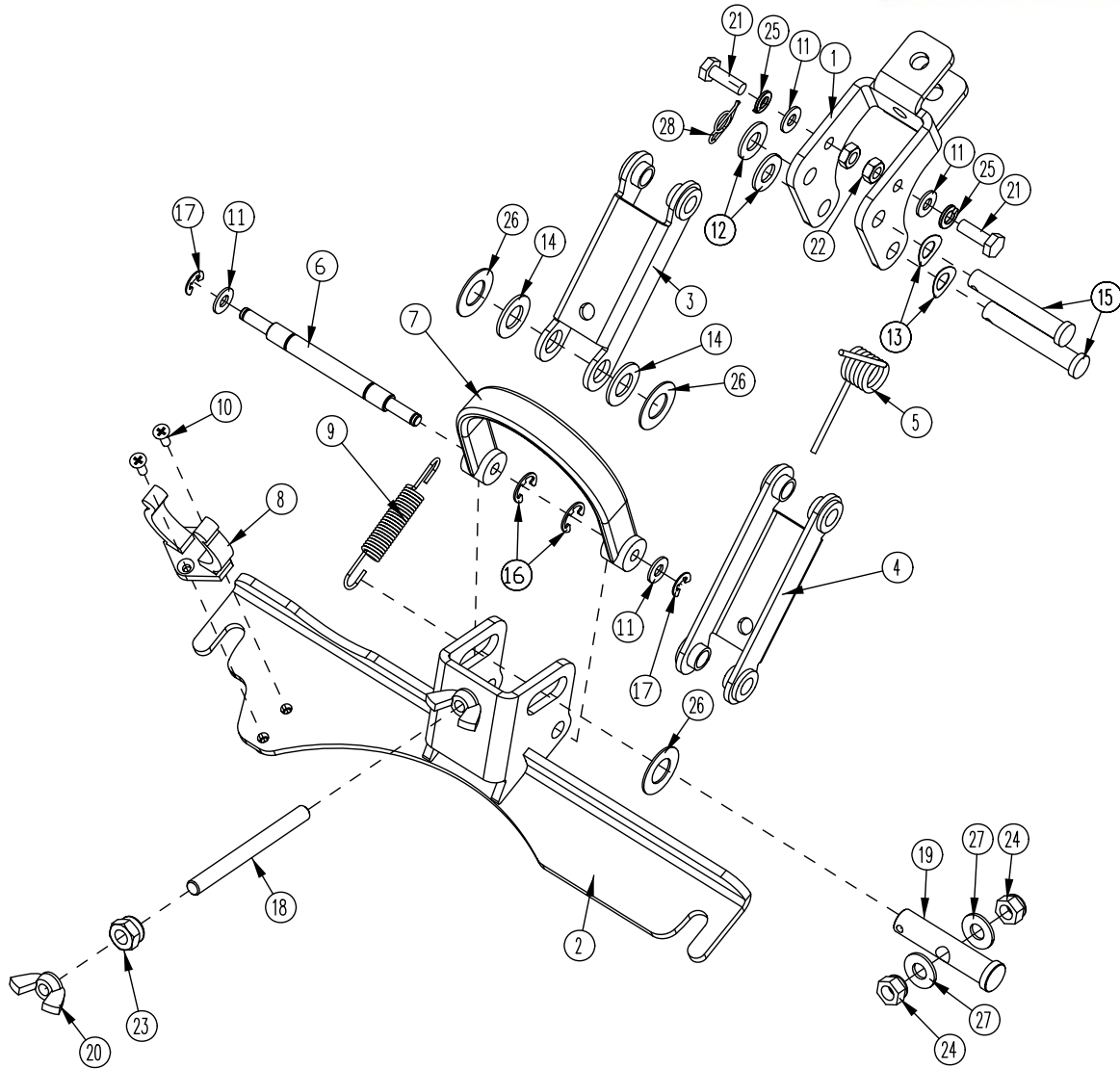
# Rear Squeegee Assembly



BILL OF MATERIAL - 172534			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172162	1	BLADE, FRONT 34" SQUEEGEE
2	172163	1	BLADE, REAR 34" SQUEEGEE
3	172241	1	STRAP WMT, FRONT
4	172245	1	STRAP WMT, REAR
5	172246	1	STRAP WMT, REAR
6	172429	2	SPRING, COMPRESSION
7	172440	1	TENSION BAND ASM, FRONT LEFT 34"
8	172535	1	SQG BASE ASSEMBLY 34"
9	717030	2	BOLT -HH M8X1.25 X 20 SS
10	717040	2	WSR-FLT 10.5 X 30 X 2.5 SS
11	12310264	2	WSR-FLT M8.4X16X1.6 SS
12	17133026	2	KNOB, M10 STAR HANDLE
13	90513094	2	FIXED CASTOR
14	90531112	10	WSR-FLT 8.3 X 22 X 1MM SS
15	90548397	2	ROLLER - PLASTIC, 100mm DIA. (4"), BLACK
16	172271	1	BUMPER, 34" SQG
17	172274	1	EDGE TRIM, 5/16 X 10" BLACK
18	712591	6	NUT, ACORN 1/4-20 SS
19	712592	2	SCR-MC BHCS, 1/4-20 X 2.25 SS



BILL OF MATERIAL - 172440			
ITEM	PART NO.	REQ'D	DESCRIPTION
1	172074	2	SPACER, 5/16OD X 17GA, ALUM
2	172234	1	LEVER, 90535758
3	172240	1	STRAP WMT, FRONT LEFT
4	11175494	2	SCR-MC M5 X 25 SS DIN7985
5	11518313	1	BLT-EYE M5 X 40 SS
6	12022430	1	NUT - HEX, M5, SS DIN934
7	12040283	2	NUT - HEX, M5 NYLON LOCK, SS DIN985
8	90513631	1	PIN, THD 90513631



BILL OF MATERIAL - 172150

ITEM	PART NO.	REQ'D	DESCRIPTION	ITEM	PART NO.	REQ'D	DESCRIPTION
1	172134	1	BKT, MAIN SQUEEGEE HINGE	15	711678	2	CLEVIS PIN 3/8 X 2-1/4
2	172155	1	SQUEEGEE MOUNT WMT	16	711717	2	RETAINING RING- E TYPE .37
3	172196	1	SQ TOP LINK W/ BUSHING	17	711720	2	.250 DIA RETAINING RING- E TYPE
4	172197	1	SQ BOT LINK W/ BUSH	18	712147	1	ROD-THD 5/16-18 X 3.5 SS
5	172261	1	TORSION SPRING	19	712148	1	CLEVIS PIN, 1/2 x 2.25 W/ HOLE
6	172352	1	PIN, 3/8 X 3.0, SQG STRAP	20	712157	2	NUT- WING 5/16-18 SS
7	172357	1	STRAP, 9" PU, BLACK	21	712562	2	BOLT-HH 1/4-20X3/4 SS
8	260579	1	TOOL CLIP, 1.5" HOSE	22	712665	2	NUT-HEX 1/4-20 SS
9	430051	1	RETURN SPRING-3.00"	23	712680	1	NUT-HEX 5/16-18 SS
10	710530	2	SCR-MC FL HD 8-32 X .50 BRS	24	712683	2	NUT, HEX 5/16-18 NYLOC SS
11	711504	4	WSR-FLAT 1/4 ID SS	25	712758	2	WSR-HELICAL 1/4 SS
12	711515	2	WSR-FLAT .406 X .812 X .0625	26	712760	3	WSR-FLAT .56X1.06X.04 SS
13	711523	2	WSR-WAVE .37X .68 X .08	27	712772	2	WSR-FLAT .344 x .75 x .06 SS
14	711592	2	WSR-FLAT .506 X .9 X .064 NYL	28	3400125	1	PIN-COTTER 3/8 RUE RING

**Revision F**  
**Effective November 1, 2008**  
**PowerBoss Made Simple Industrial Limited Warranty**

Minuteman International owner of PowerBoss warrants to the original purchaser/user that the product is free from defects in workmanship and materials under normal use. PowerBoss will, at its option, repair or replace without charge, parts that fail under normal use and service when operated and maintained in accordance with the applicable operation and instruction manuals. All warranty claims must be submitted through and approved by factory authorized repair stations.

This warranty does not apply to normal wear, or to items whose life is dependent on their use and care. Parts not manufactured by PowerBoss are covered by and subject to the warranties and/or guarantees of their manufacturers. Please contact Minuteman International for procedures in warranty claims against these manufacture.

**Special warning to purchaser** – Use of replacement parts not manufactured by PowerBoss or its designated licensees, will void all warranties expressed or implied. A potential health hazard exists without original equipment replacement.

All warranted items become the sole property of Minuteman International or PowerBoss or its original manufacturer, whichever the case may be.

PowerBoss disclaims any implied warranty, including the warranty of merchantability and the warranty of fitness for a particular purpose. PowerBoss assumes no responsibility for any special, incidental or consequential damages.

This limited warranty is applicable only in the U.S.A. and Canada, and is extended only to the original user/purchaser of this product. Customers outside the U.S.A. and Canada should contact their local distributor for export warranty policies. PowerBoss is not responsible for costs or repairs performed by persons other than those specifically authorized by PowerBoss. This warranty does not apply to damage from transportation, alterations by unauthorized persons, misuse or abuse of the equipment, use of non-compatible chemicals, or damage to property, or loss of income due to malfunctions of the product. If a difficulty develops with this machine, you should contact the dealer from whom it was purchased.

This warranty gives you specific legal rights, and you may have other rights, which vary from state to state. Some states do not allow the exclusion or limitation of special, incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

	Travel*	Labor	Parts	Engine	Extended Warranty	Costs
<b>Walk behinds</b>						
Battery sweepers	Ninety days	One year	One year	N/A	2 years Parts + Labor (or 2000 Hours)	2%
IC sweepers	Ninety days	One year	One year	Through manufacturer	2 years Parts + Labor (or 2000 Hours)	2%
Battery scrubbers	Ninety days	Two years	Three years	N/A	3 Years Parts + Labor (or 3000 Hours)	2%
<b>Riders</b>						
Battery scrubbers	Ninety days	Two years	Three years/2000 hrs	N/A	3 Years Parts + Labor (or 3000 Hours)	2%
IC sweeper/scrubbers	Ninety days	Six months	Two years/2000 hrs	Two years/3000 hrs**	2 years Parts + Labor (or 2000 Hours)	3%
IC sweepers	Ninety days	Six months	Four years/3000 hrs	Five years/3000 hrs**	4 Years Parts + 2 Years Labor (or 4000 Hours)	3%
<b>Exceptions</b>						
Apex series sweeper	Ninety days	One year	One year/1000 hrs	One year/1000 hrs**	2 years Parts + Labor (or 2000 Hours)	3%
6X sweeper	Ninety days	Six months	Two years/2000 hrs	Two years/2000 hours**	2 years Parts + Labor (or 2000 Hours)	3%

**Tank Bladders** Eight years/ no additional labor  
**Polypropylene plastic tanks** Ten years/ no additional labor  
**Batteries** 0-3 months full replacement, 4-12 prorated credit  
**Charges** One-year replacement  
**Replacement parts** Ninety days

\*Two-hour cap

\*\*Through engine manufacture. See section 3 of warranty manual for engine warranty exceptions

\*\*\*Base upon dealer's certification status

**Extended Warranty MUST be signed up within 30 days of delivery to End User (Dealer has 1 Year from Receiving Machine to Sign up extended Warranty)**

**Extended Warranty Cost is based on Invoice Price multiplied by the Percentage listed in the Extended Warranty Column**

All above labor and travel reimbursed at 65 or 75% of the published shop rate.