



**Aviation
Ground
Equipment Corp.**



Illustrated Parts List for 60CU20 60 kVA, 3 Phase, 115/200 Volt, 400 Hz. Generator Set



Series 500071

Chapter 1 Illustrated Parts List

Section 1. Introduction/Numerical Index.

1) General.

The Illustrated Parts List identifies, describes, and illustrates main assemblies, subassemblies, and detail parts of an Engine-Generator Set manufactured by ITW GSE Group, ITW GSE.

2) Purpose.

The purpose of this list is to provide parts identification and descriptive information to maintenance and provisioning personnel for use in provisioning, requisitioning, purchasing, storing, and issuing of spare parts.

3) Arrangement.

Chapter 1 is arranged as follows:

Section 1 – Introduction/ Numerical Index

Section 2 - Parts List

4) Explanation of Parts List.

a) Contents.

The parts list contains a breakdown of the equipment into assemblies, subassemblies, and detail parts. All parts of the equipment are listed except:

- Standard hardware items (attaching parts) such as nuts, screws, washers, etc., which are available commercially.
- Bulk items such as wire, cable, sleeving, tubing, etc., which are also commercially available.
- Permanently attached parts, which lose their identity by being welded, soldered, riveted, etc., to other parts, weldments, or assemblies.

b) Parts List Form.

This form is divided into six columns. Beginning at the left side of the form and proceeding to the right, columns are identified as follows:

(1) FIGURE-ITEM NO. Column

This column lists the figure number of the illustration applicable to a particular parts list and also identifies each part in the list by an item number. These item numbers also appear on the illustration. Each item number on an illustration is connected to the part to which it pertains by a leader line. Thus, the figure and item numbering system ties the parts lists to the illustrations and vice-versa. The figure and index numbers are also used in the numerical index to assist the user in finding the illustration of a part when the part number is known.

(2) FACTORY PART NUMBER Column

All part numbers appearing in this column are ITW GSE numbers. In all instances where the part is a purchased item, the vendor's identifying five-digit code and his part number will appear in the "NOMENCLATURE" column. Vendor parts, which are modified by ITW GSE, will be identified as such in the "NOMENCLATURE" column. In case ITW GSE does not have an identifying part number for a purchased part, the "FACTORY PART NUMBER" column will reflect "No Number" and the vendor's number will be shown in the "NOMENCLATURE" column. Parts manufactured by ITW GSE will reflect no vendor or part number in the "NOMENCLATURE" column.

(3) NOMENCLATURE Column

The item-identifying name appears in this column. The indenture method is used to indicate item relationship. Thus, components of an assembly are listed directly below the assembly and indented one space. Vendor codes and part numbers for purchased parts are also listed in this column when applicable. ITW GSE modification to vendor items is also noted in this column.

(4) EFF (Effective) Column

This column is used to indicate the applicability of parts to different models of equipment. When more than one model of equipment is covered by a parts list, there are some parts that are used on only one model. This column is used for insertion of a code letter A, B, etc., to indicate these parts and to identify the particular model they are used on. Since this manual covers more than one generator set specification, this column is used as follows:

Part & Dash Number	Fuel Tank	Exhaust	Mounting	AC Outputs	28.5 DC Output
ACE60CUTT3	Composite	Horizontal	Trailer	Single	---
ACE60CUST3	Composite	Horizontal	Stationary	Single	---
ACE60CUTT328	Composite	Horizontal	Trailer	Single	Yes
ACE60CUST328	Composite	Horizontal	Stationary	Single	Yes

(5) UNITS PER ASSEMBLY Column.

This column indicates the quantity of parts required for an assembly or subassembly in which the part appears. This column does not necessarily reflect the total used in the complete end item.

Numerical Index.

6) Explanation of Numerical Index.

The purpose of this index is to assist the user in finding the illustration and description of a part when the part number is known. Part numbers are arranged in alphanumerical sequence.

FIGURE – ITEM NO.

ITW GSE PART NO.

8-	040201
6-	040213
13-	IN5016
4-	050984
16-10	056525
10-	056535
18-3	180696-003
6-8	181358
19-4	280022
14-1	281881-001
19-	281971-002
9-12	282089-011
9-1	282130-001
19-11	282130-001
12-10	282562
6-25	282658
15-7	282918
16-8	282918
15-	282919
16-	282919
17-4	283154-001
6-12	283167
4-10	283597
1-8	283714-004
4-9	283824
10-	283873
7-8	283978-001

FIGURE – ITEM NO.

ITW GSE PART NO.

7-9	283978-002
7-	284316-004
5-	24656
8-7	284475-001
6-11	284486-001
8-3	285029-001
8-25	285030-001
8-13	285030-002
8-19	285030-003
8-16	285030-004
8-22	285030-005
8-4	285031-001
8-5	285032-001
8-6	285033
8-9	285034-001
9-2	285102-001
6-	285125
6-	285172
6-18	285172
2-11	285418
9-9	286266
19-16	286266
7-15	286388-001
7-	286477-002
4-13	286485-001
7-14	286485-001
19-12	286603

FIGURE – ITEM NO.	ITW GSE PART NO.
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19-14	286604
7-17	286611
6-9	286699-001
20-1	286810-001
20-2	286849
16-1	286850
12-1	286897-031
12-7	286897-036
16-	286903
17-3	287144-002
17-2	287145-001
6-28	287459
6-26	287460
1-12	287461
1-18	287462
1-6	287463
1-19	287464
1-3	287465
6-31	287466
1-23	287467
4-	287526-002
4-	287542-001
1-15	287571
6-27	287696
9-16	287698-001
4-	287785
14-4	287795
14-	287796
6-6	287908
10-11	287909
16-5	287909
2-3	292016
3-5	287986
2-5	287998
3-	287998

FIGURE – ITEM NO.	ITW GSE PART NO.
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6-2	288020
6-24	288023
13-	288052-002
19-15	288085
19-3	288092
19-5	288095-001
20-4	288099
5-	24656
19-2	288117
9-7	288120
19-17	288147
1-10	288164-001
10-	288187
15-8	288197-001
6-32	288300
17-5	288331
19-	288380-001
19-13	288404
18-4	288440
18-7	288447-003
18-13	288458
5-4	288460-003
18-8	288461
18-9	288481
18-1	288486
18-15	288491
18-2	288494
7-	288605
7-1	288745
6-19	288806
6-15	288814-003
7-6	288818-001
6-	288820
6-3	288836-001
6-	288836-002

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FIGURE – ITEM NO.	ITW GSE PART NO.
-------------------	------------------

6-15	288858-001
6-12	288858-002
6-14	288858-003
6-13	288858-004
1-20	288862
6-29	288866
1-22	288872
9-13	288892-009
5-11	288895
19-1	288895
7-5	288914B
6-21	288917-002
7-18	288918-002
7-2	288937
7-3	288940B
2-12	288961-002
2-13	288966
16-	288973-001
9-14	288974
2-	288987-006
2-14	288989-002
6-20	288995
6-4	288999-001
8-1	289004
19-9	289006
8-	289014
8-2	289015
6-	289017
7-4	289026
12-5	289037
7-	289060
7-11	289072
7-10	289073
6-	289078
19-21	289096

FIGURE – ITEM NO.	ITW GSE PART NO.
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7-16	289104-001
7-7	289122
5-	289127
19-20	289156
10-7	289200-001
10-9	289200-002
6-34	289208
16-	289249-005
16-	289250-001
16-9	289261-001
9-11	289318
10-14	289827
10-13	289828
1-24	289842-001
8-10	290080
10-	290145
1-13	290216
12-3	290388
19-	290533-001
19-	290533-002
19-10	290534-001
10-18	290597-001
15-	290597-001
15-	290597-006
15-	290597-007
9-17	290640
5-	290678
11-5	290678
16-6	290678
9-8	290683
12-6	290686
19-	290827
11-	290831
11-	290847
5-	290869

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FIGURE – ITEM NO.**ITW GSE PART NO.**

5- 290870
18-12 290870
14-2 290902
10-15 290936
15-10 290936
15-5 290938
15-1 290939
15-6 290940
15- 290941
16-7 290944
17-6 290944
15-2 290951
15-3 290952
15-4 290953
2-2 292012
2-1 292042
5- 292011
5- 291055
3-4 291056
4-14 291057
9-4 291058
3-3 291066
5-13 291066
19-18 291066
14-6 291067
3-1 291069
10-3 291070
10-4 291071
10-6 291072
10-8 291073
10-17 291074
10-16 291075
12-8 291076
13-2 291077
15-11 291078

FIGURE – ITEM NO.**ITW GSE PART NO.**

11-1 291079
4-1 291080
4-3 291081
18-5 291082
4-5 291084
4-17 291085
4-16 291087
2-6 291088
2-7 291089
2-8 291092
14-8 291092
2-9 291093
14-7 291093
10- 291097
18-14 291103
12-2 291114
9- 291115-003
9- 291115-004
3-2 291152
5-12 291152
14-5 291160
13-1 291168
13-8 291169
9-18 291180
10-1 291223
10-2 291224
10-5 291225
17-1 291248
1-17 291253-001
1- 291253-002
5-3 291255
19- 291255
4-6 291297
7-13 291298
4-15 291302

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FIGURE – ITEM NO.**ITW GSE PART NO.**

6-5 291307
7-12 291307
6- 291311
7- 291311-007
7- 291311-008
7- 291311-009
6-22 291329
6-23 291330
11- 291334
4- 291335
5-6 292052
13-4 291379
13-5 291380
13-7 291382
13-6 291383
4- 291386
6- 291393
13-3 291394
13- 291395
12- 291407
12- 291408
12- 291409
12-9 291420
15-9 291453
14-3 291481
11- 291482
15- 291516
12-9 291550
19-8 291558
1-25 400435
20-7 400435
8-8 400613-004
6-17 400641-015
6-16 400642-008
9- 401911-010

FIGURE – ITEM NO.**ITW GSE PART NO.**

9-10 402025-xxx
9-6 402034-xxx
9- 402119-002
1-9 402987
10-10 403782-002
16-4 403782-002
16-2 403809-002
19-6 404044-004
13- 404154-013
11- 405548
1-21 407366
1- 408665-001
1-4 408665-001
1- 408665-002
18- 480290
5- 482496-002
12- 486719-005
9-15 488640
17-7 489658-007
6-7 494134-001
14- 494295
16- 76A1131
1-11 76B1148
19- 77A1107
19- 77A1108
19- 77A1109
6- 77A1157
6-10 78A1117-002
16-3 78B1118-002
9-5 7J422-000
18-10 85B1039
18-11 85C1004-001
9- A25
20-3 A25
9- AW626

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FIGURE – ITEM NO.**ITW GSE PART NO.**

12-4 Call Factory
11- HF2962
18-6 W10072-068
16- W10750-001
5- W10869-003
5- W10869-005
13- W10869-006
5- W10869-014
10- W10869-014
16- W10910-000
19-7 W10931-003

FIGURE – ITEM NO.**ITW GSE PART NO.**

9- W11097-028
9- W11242-010
9- W11242-018
9- W11254-006
9- W11278-005
16- W7814-000
10- W7814-004
6-14 W8105A-009
11- W9360-289
11-3 W9360-381
11-2 W9407-446

Section 2 Illustrated Parts List.

1) Explanation of Parts List Arrangement

The parts list is arranged so that the illustration will appear on a left-hand page and the applicable parts list will appear on the opposite right-hand page. Unless the list is unusually long, the user will be able to look at the illustration and read the parts list without turning a page.

2) Symbols and Abbreviations

The following is a list of symbols and abbreviations used in the parts list:

*	-	Item not illustrated
A, or AMP	-	Ampere
AC	-	Alternating current
AR	-	As required
DC	-	Direct current
Fig.	-	Figure
hd.	-	Head
hex	-	Hexagon
Hz	-	Hertz (cycles-per-second)
I.D.	-	Inside diameter
IN or "	-	Inch
KVA	-	Kilovolt-ampere
uF	-	Microfarad
No.	-	Number
NHA	-	Next higher assembly
PRV	-	Peak reverse voltage
PSI	-	Pounds per square inch
Ref	-	Reference (the item has been listed previously)
RH	-	Right Hand
LH	-	Left Hand
TM	-	Technical Manual
T-R	-	Transformer-rectifier
V	-	Volt or used as a prefix indicating vendor code

NOTE: An item which does not reflect an index number is an assembly which is not illustrated in it's assembled state, or it is similar (right-hand, left-hand, top, etc.) to an item which is illustrated.

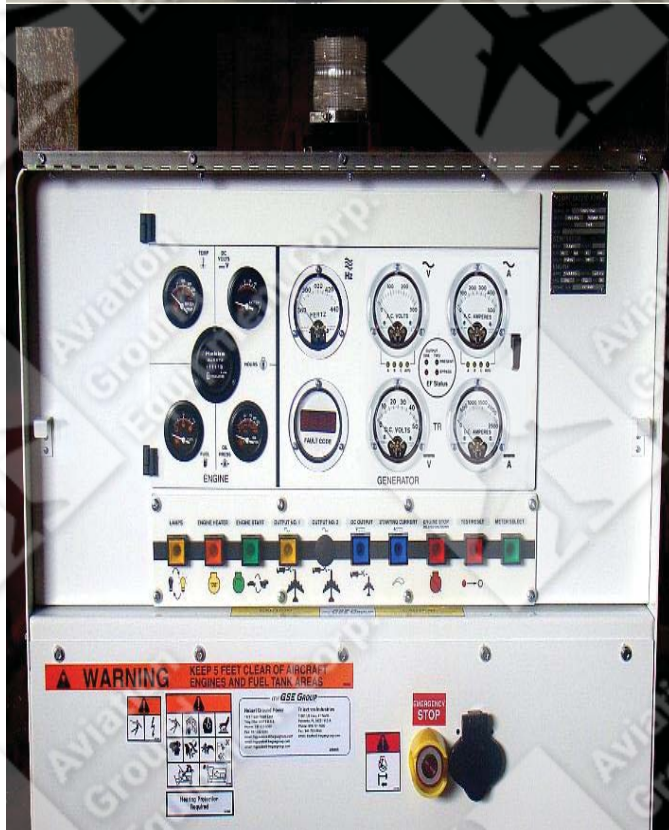
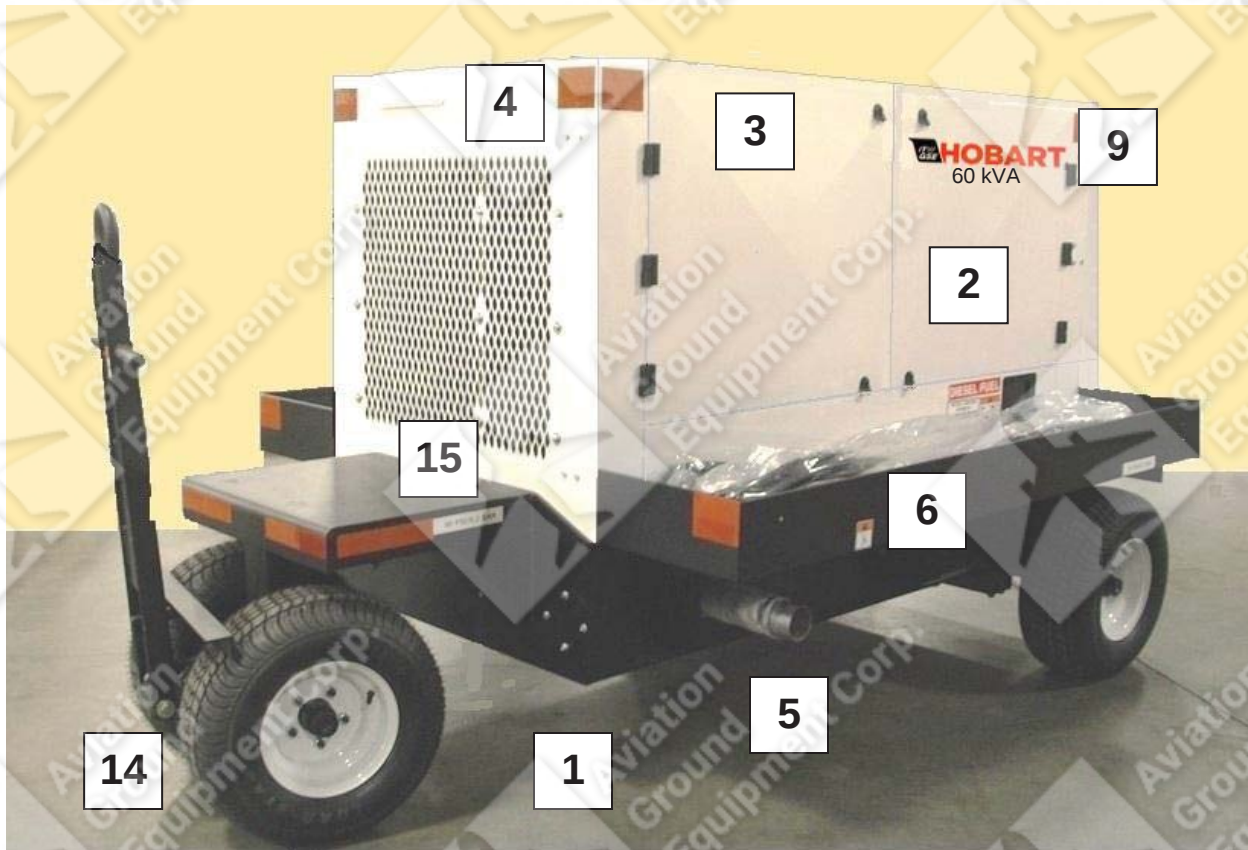


FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
1-	1	Frame Assembly (See Figure 2)	Ref.
	2	Canopy Assembly (See Figure 3 and 4)	Ref.
	3	287465 Label, Warning Drawbar (Not Shown)	2
	4	408665-001 Reflector, Red (V12662 #B491)	8
		408665-001 Reflector, Red (V12662 #B491)	4
		408665-002 Reflector, Amber (V12662 #B491A)	24
		408665-002 Reflector, Amber (V12662 #B491A)	12
	5	Engine Exhaust System (See Figure 13)	Ref.
	6	287463 Label, Hot Muffler	2
	7	Engine Air Intake System (See Figure 15)	Ref.
	8	283714-004 Label, kVA Rating (Not Shown)	2
	9	402987 Label, ITW GSE	2
	10	288164-001 Label, TR Unit	2
	11	76B1148 Label, Diesel Fuel	1
	12	287461 Label, Fuel (under Diesel Fuel label)	1
	13	290216 Low Emissions Label (near diesel fuel label)	1
	14	Wheel Assembly (See Figure 2)	Ref.
	15	287571 Label, Tire Pressure	4
	16	Cable Tray (See Figure 2)	Ref.
	17	291253-001 Bracket, Fixed Mount, LH (fixed mount units)	2
		291253-002 Bracket, Fixed Mount, RH (fixed mount units)	2
*	18	287462 Label, Radiator (on radiator access door)	1
*	19	287464 Label, Moving Parts (inside on the fan shrouds)	2
*	20	288862 Label, Caution, Engine Speed (near control panel)	1
*	21	407366 Label, Caution	1
*	22	288872-001 Label, Command and Fault	1
*	23	287467 Label, Glow Plug	2
*	24	289842-001 Label, www.itwgse.com	1
*	25	400435 Nameplate, 28 Volts	1

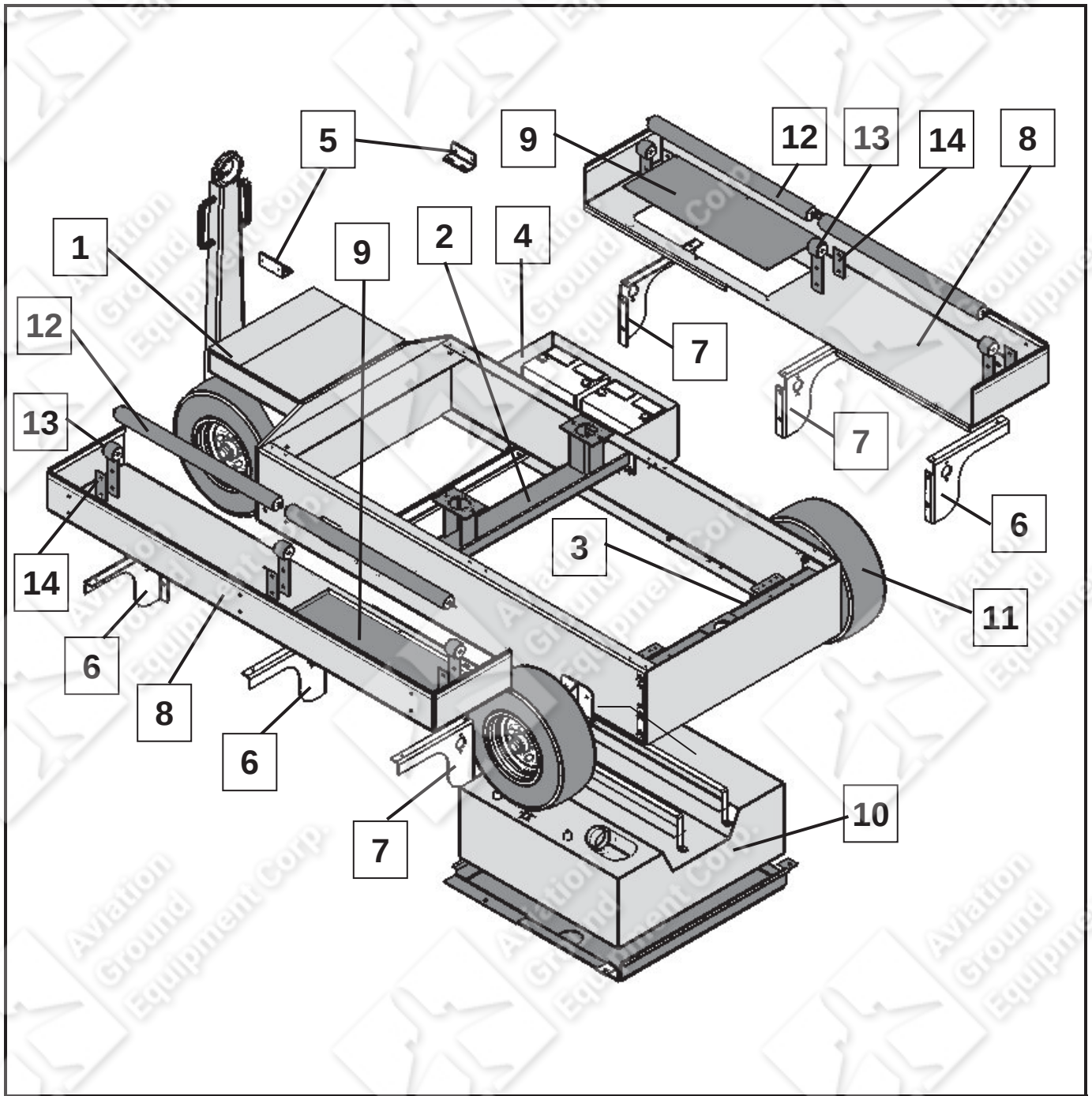


Figure 2 Trailer / Frame Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
2 -	1	292042	Trailer Assembly	1
	2	292012	...Engine Support (part of trailer)	1
	3	292016	...Generator Support (part of trailer)	1
	4		Battery Tray Assembly (See Fig.14)	Ref.
	5	287998	Front Panel Bracket	2
	6	291088	Bracket, Cable Tray Fender	3
	7	291089	Bracket, Cable Tray Fender	3
	8	291092	Cable Tray	2
	9	291093	Panel, Battery Tray Cover	2
	10		Fuel Tank (see Figure 12)	Ref.
	11	285418	Trailer Wheel Assembly	4
*		288987-006	Kit, Cable Tray Rollers, 1 output	Ref.
*	12	288961-002	...Roller, Cable Tray	2
*	13	288966	...Support, Roller	3
*	14	288989-002	...Spacer, Roller Support	3

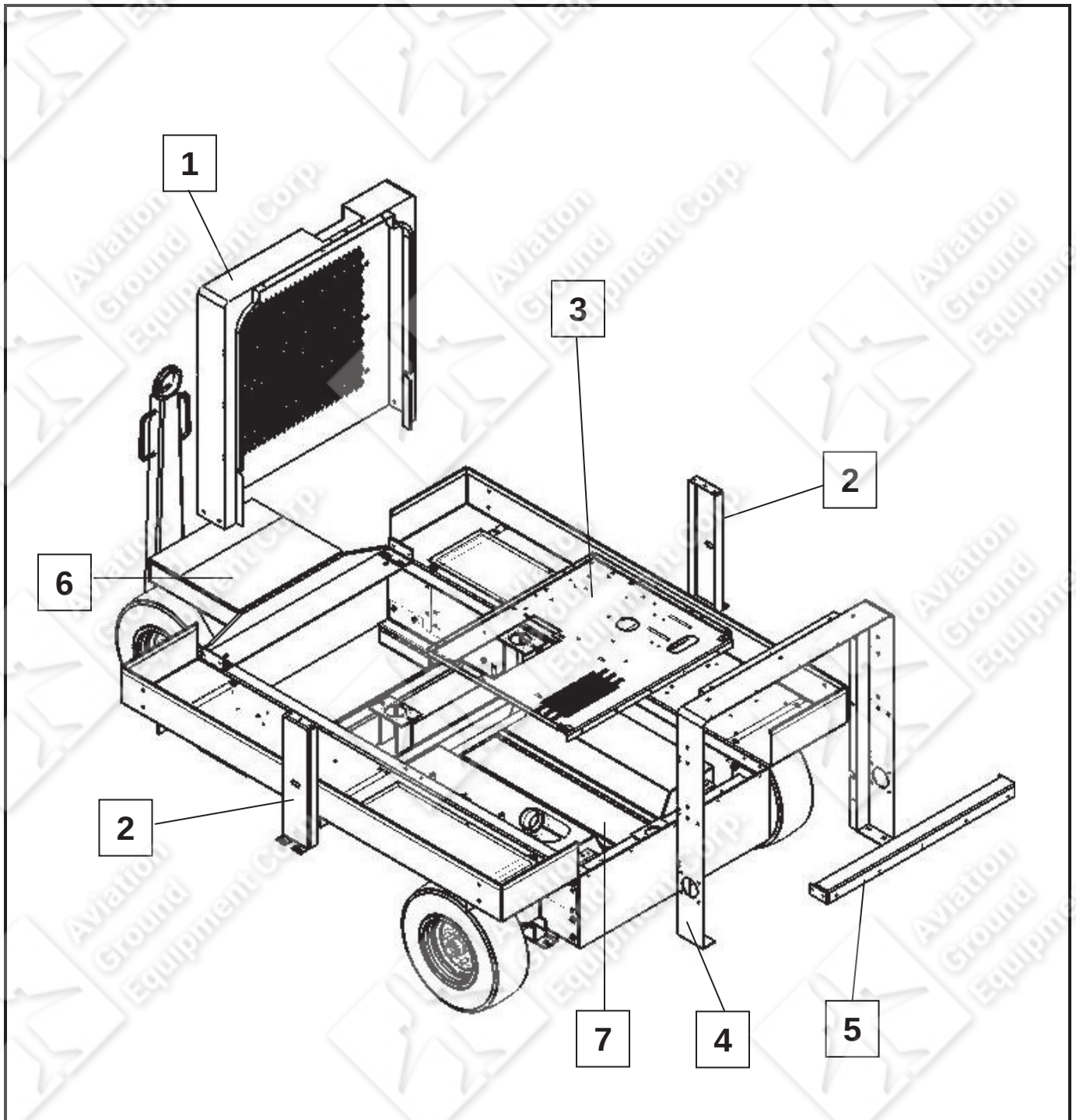


Figure 3 Canopy Frame Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
3 -	1 291069	Front Panel	1
*	287998	...Front Panel Bracket (See Figure 2)	2
	2 291152	TR Panel Support Leg	2
	3 291066	TR Support Panel	1
	4 291056	Control Panel Support	1
	5 287986	Control Panel Support Bar	1
	6	Trailer/Frame Assembly (See Figure 2)	Ref.
	7	Fuel Tank Assembly (See Figure 12)	Ref.

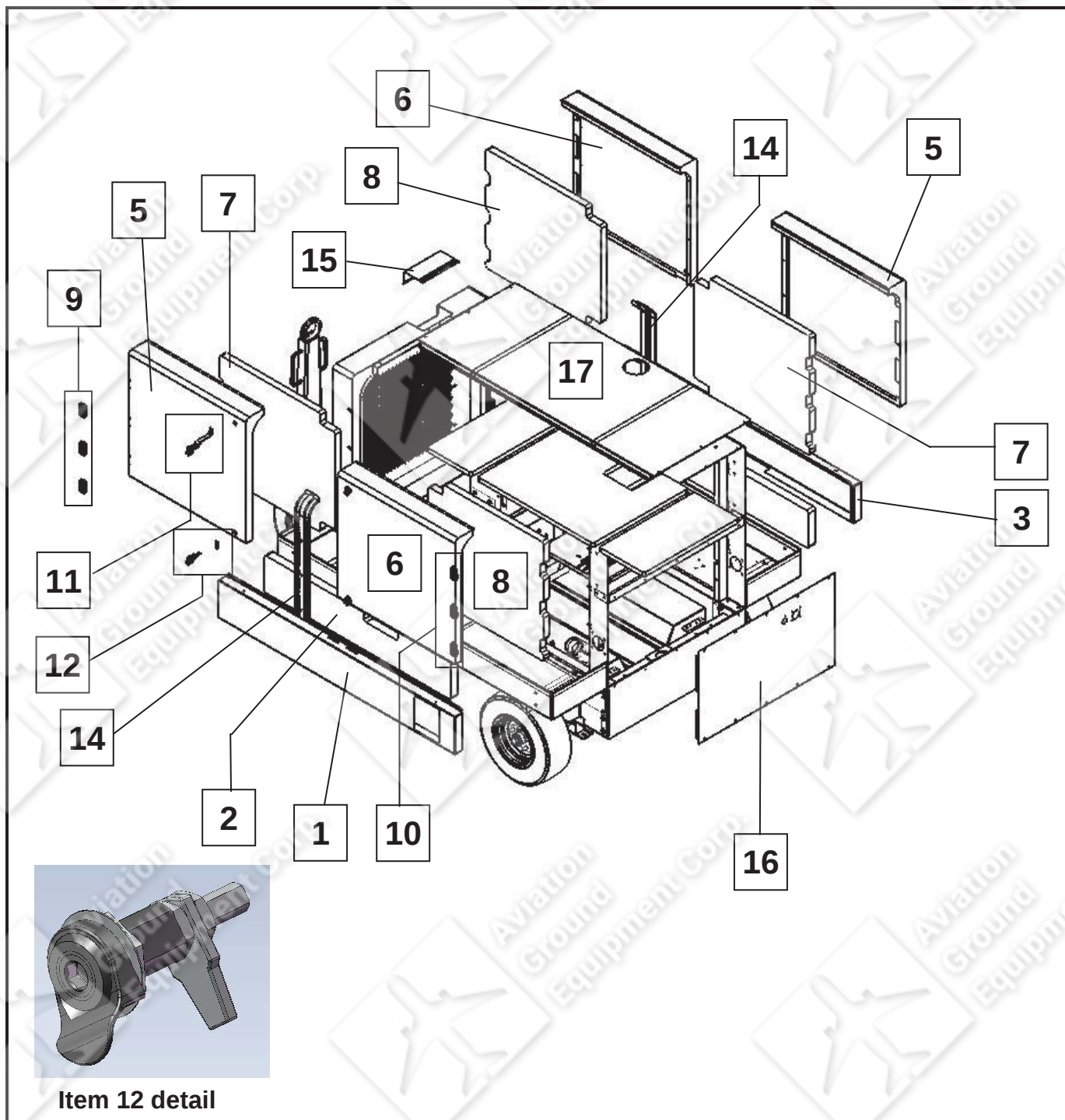


Figure 4 Canopy Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
4 -	1	291080 Fuel Side Lower Door Panel	1
	2	292118-002 Fuel Side Lower Door Panel Insulation	1
	3	291081 Lower Door Panel	1
*		287785 ...Access Panel Fastener	2
*		287785 ...Access Panel Fastener	2
	5	291084 Access Door	2
	6	291297 Access Door	2
	7	292118-004 ...Access Door Insulation	2
	8	292118-003 ...Access Door Insulation	2
	9	283824 ...Access Door Hinge Assembly (To Door PN 291084)	6
	10	283597 ...Access Door Hinge Assembly (To Door PN 291297)	6
	11	...Access Door Top Latch Assembly	Ref.
*		291335Access Door Latch Pawl	4
*		287542-001Access Door Latch, Hex Recess	4
*		287526-002Access Door Latch Pull Tab	4
	12	...Access Door Bottom Latch Assembly	Ref.
*		291386Access Door Latch Pawl	4
*		287542-001Access Door Latch, Hex Recess	4
*		287526-002Access Door Latch Pull Tab	4
*	13	286485-001 ...Access Door Gasket (cut into 31-inch strips)	124"
*		050984 ...Access Door Gasket (cut into 62-inch strips)	124"
	14	291057 Access Door Stop	2
	15	291302 Radiator Cap Access Door	1
	16	291087 Lower Rear Panel	1
	17	291085 Top Canopy Assembly	1

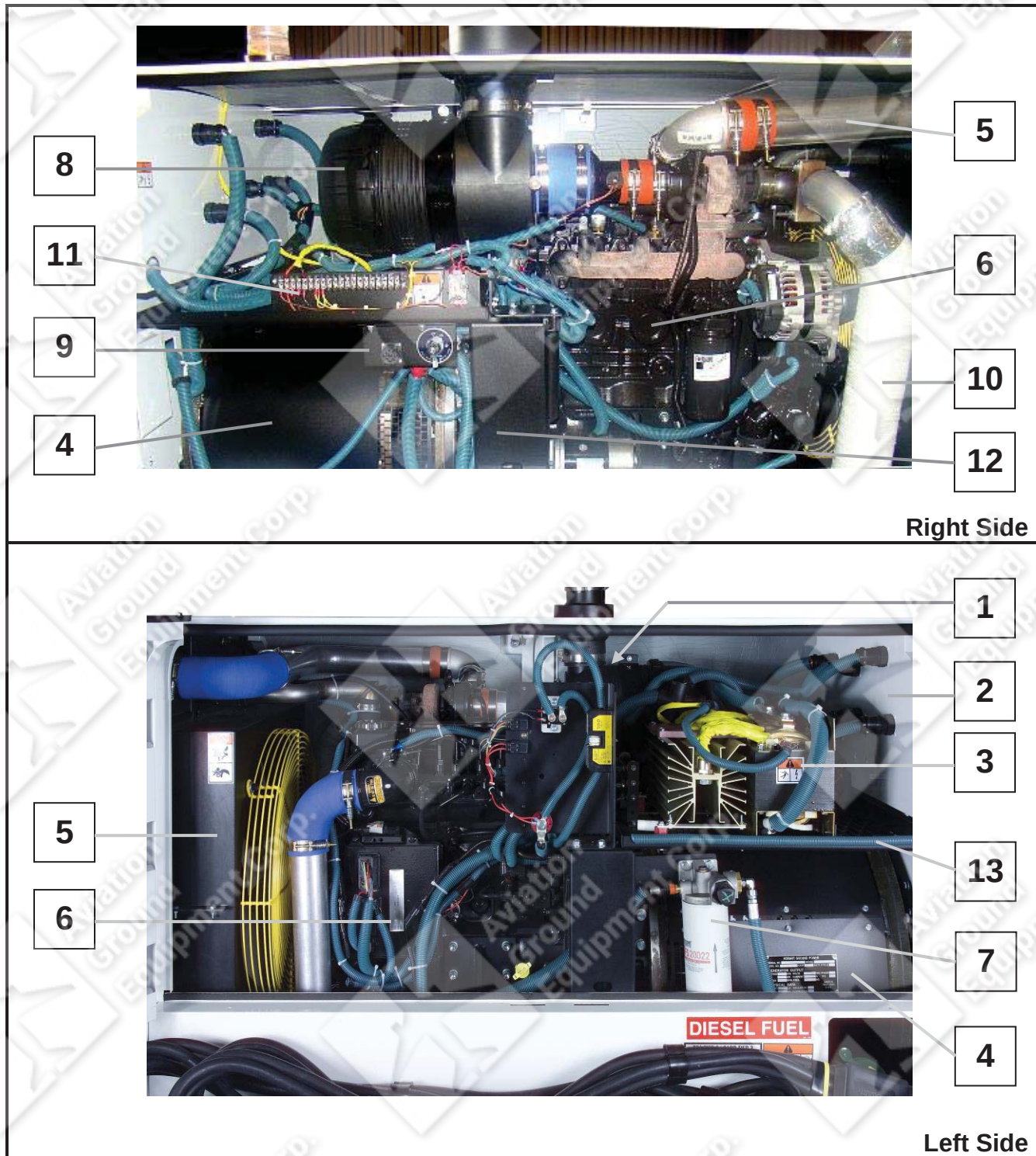
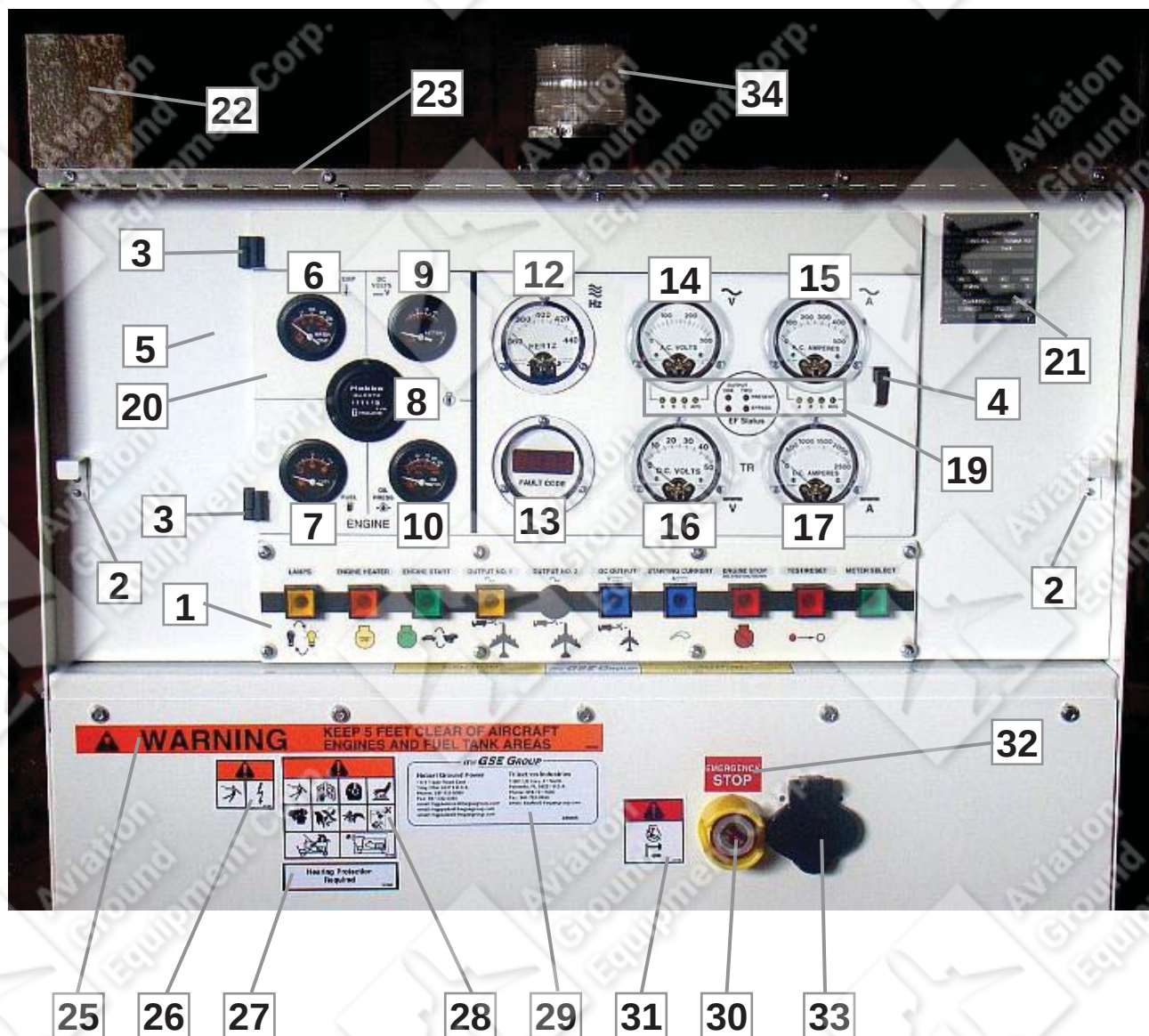


Figure 5 Internal Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
5 -		Left Side	
1		Engine Electronic Panel (See Figure 17)	1
2		Control Box Assembly (See Figures 6, 7, and 8)	1
3	291255	28.5 VDC Transformer-Rectifier Assembly (optional)	1
4	288460-003	ITW GSE Generator Assembly (See Figure 18)	1
*	290870	...Flywheel Spacer Ring (mounted to engine flywheel)	1
*	290869	...Flywheel Housing Adapter	1
*	291055	...Bracket, Generator Support (mounted on generator)	1
*	24656	...Mount, Shock	1
5		Engine Cooling System Assembly (See Figure 10)	1
6	292051	Engine, Cummins QSB4.5 (109 HP)	1
*	292011	...Bracket, Engine Support (mounted on generator)	2
*	24656	...Mount, Shock	2
*	290678	...Wire Harness, Engine	1
*	482496-002	...Clamp, Universal	2
*	W10869-003	...Clamp, Hose, Stainless Steel	4
*	W10869-005	...Clamp, Hose, Stainless Steel	4
*	W10869-014	...Clamp, Hose, Stainless Steel	3
7		Engine Fuel System (See Figure 12)	Ref.
		Right Side	
8		Engine Air Intake System (See Figure 15)	Ref.
9		Engine Dongle/Battery Disconnect Panel (See Fig 11)	Ref.
10		Engine Exhaust System (See Figure 13)	Ref.
11	288895	Support, Option Terminal Block	1
*	289127	...Label, Terminal Block	1
		Miscellaneous	
12	291152	TR Panel Support Leg	2
13	291066	TR Support Panel	1



Note: Operator controls are shown with the analog generator meters and the DC output option.

Figure 6 Control Box and Door Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
6 -	1	Switch Panel (See Figure 8)	
*	291311	Control Box Interior Components (See Figure 7)	Ref.
	2	Bracket, Cover Support	2
	3	288836-001 Top Door Hinge (V94222 #96-141 Type A)	1
		288836-002 Bottom Door Hinge (V94222 #96-142 Type B)	1
	289078	Spacer, Hinge	1
	4	288999-001 Control Box Door Latch	1
	5	291307 Control Box Enclosure	1
	6	287908 Water Temperature Gauge (V16476 #06347-01)	1
	7	494134-001 Fuel Level Gauge (V16476 #06339-01)	1
	8	181358 Hour Meter (V74400 #85101)	1
	9	286699-001 Battery Voltmeter (V16476 #06351-01)	1
	10	78A1117-002 Oil Pressure Gauge (V16476 #06395-01)	1
*	11	284486-001 Light, Gauge, Engine(Not Shown)	4
	12	283167 Analog Frequency Meter	1
	12	288858-002 Digital Frequency Meter	Ref.
	13	288858-004 Fault Code Meter	1
	14	W8105A-009 Analog AC Voltmeter	1
	14	288858-003 Digital AC Voltmeter	Ref.
	15	288814-003 Analog AC Ammeter	1
	15	288858-001 Digital AC Ammeter	Ref.
	16	400642-008 Analog DC Voltmeter	1
	17	400641-015 Analog DC Ammeter	1
*	18	285172 Light, Strip (Not Shown)	3
*		285172 Light, Strip (Not Shown)	5
	19	288806 LED PC Board (shown opposite side)	1
		288820 ...LED PC Board Gasket	1
	20	288995 Control Panel Door	1
		289017 ...Control Panel Door Label	1
*		040213 ...Gasket, Door, Neoprene	50 in.
	21	288917-002 Label, I.D.	1
	22	291329 Control Panel Cover (shown open)	1
	23	291330 Control Cover Hinge	1
*	24	288023 Wing Knob Latch	2
	25	282658 Label, Warning Clearance	1
	26	287460 Label, High Voltage	5
	27	287696 Label, Hearing Protection	1
	28	287459 Label, General	1
	29	288866 Label, Support Center	1
	30	Emergency Stop Button Assembly	Ref.
		285125 ...Guard, Mushroom Button (V14799 # K564M)	1
	31	287466 ...Label, Emergency Stop (symbols)	1
	32	288300 ...Label, Emergency Stop (English)	1
		77A1157 ...Switch, Maintained, Push-Pull (V14799 #KR-9R-H6)	1
*		291393 ...Emergency Stop Harness Extension	1
	33	Block Heater Connection (Optional – See Figure 16)	Ref.
	34	289208 Low Fuel Beacon Light (Optional – See Figure 4)	Ref.

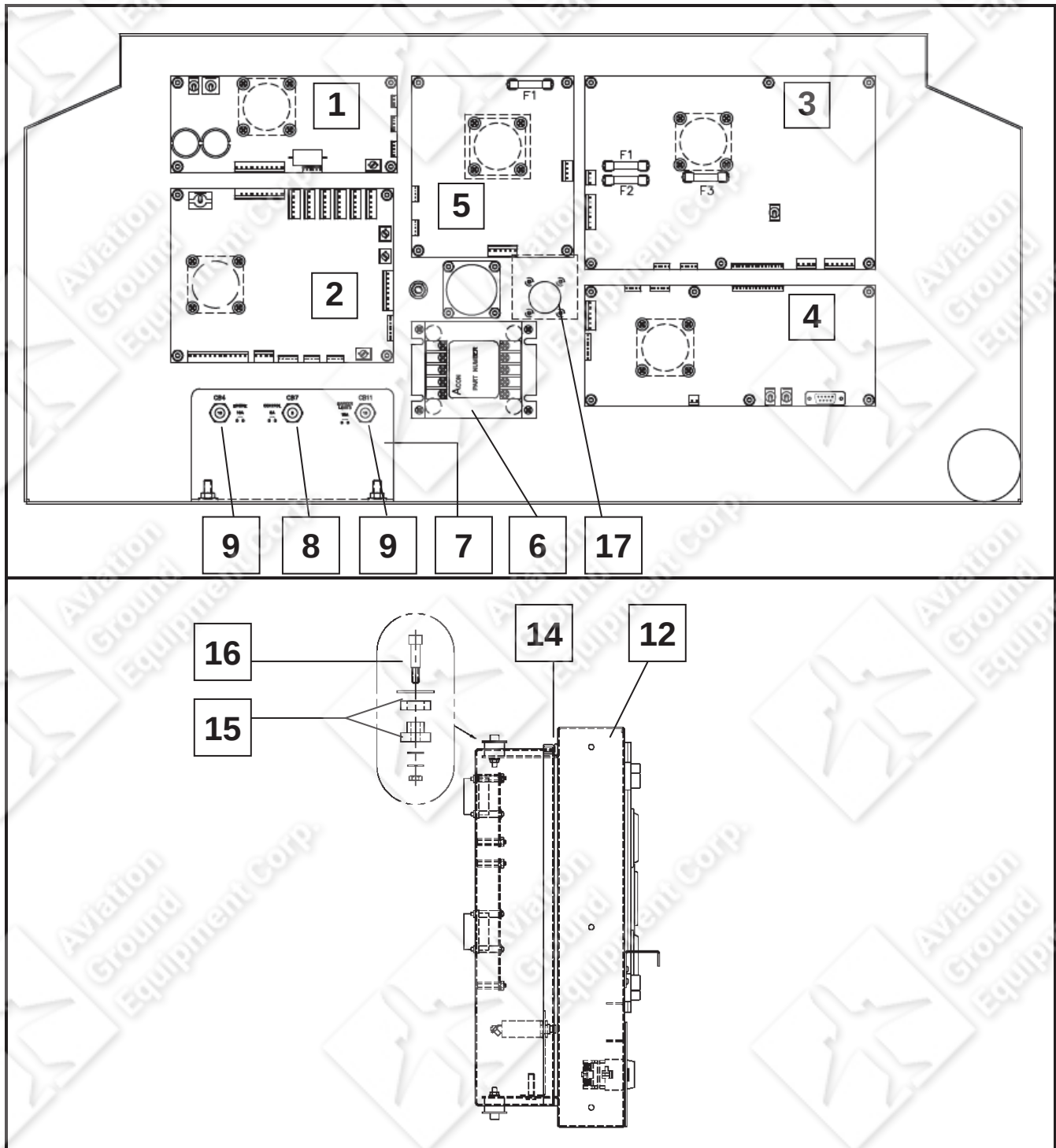


Figure 7 Control Box Interior Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
7 -	291311-007	Control Box, Analog AC meters, 1 Output	Ref.	
	291311-008	Control Box, Analog AC meters with DC	Ref.	
1	288745	Engine Specific PC Board	1	
*	284316-004	...PC Board Spacer	4	
2	288937	Engine Interface PC Board	1	
*	284316-004	...PC Board Spacer	4	
3	288940B	Voltage Regulator PC Board	1	
*	284316-004	...PC Board Spacer	6	
4	289026	Control PC Board	1	
*	284316-004	...PC Board Spacer	6	
5	288914B	T-R PC Board	1	
*	284316-004	...PC Board Spacer	4	
6	288818-001	Power Supply	1	
*	288605	...Power Supply Support	1	
7	289122	Circuit Breaker Support	1	
	289060	...Circuit Breaker Support Label	1	
8	283978-001	5 A Circuit Breaker (V77342 #W23-X1A1G-5)	1	
9	283978-002	10 A Circuit Breaker (V77342 #W23-X1A1G-10)	2	
*	10	289073	Harness, Wire, Control Box Assembly	1
*	11	289072	DC Wire Harness	1
	12	291307	Control Box Enclosure	1
*	13	291298	Panel, Control Box Mounting	1
	14	286485-001	...Gasket	72 in.
	15	286388-001	Ring and Bushing Mount	4
	16	289104-001	Shoulder Bolt, #10-24	4
		286477-002	...Snubber Washer	4
	17	286611	Blank Label	2
*	18	288918-002	Label, Option List (inside control box door)	1

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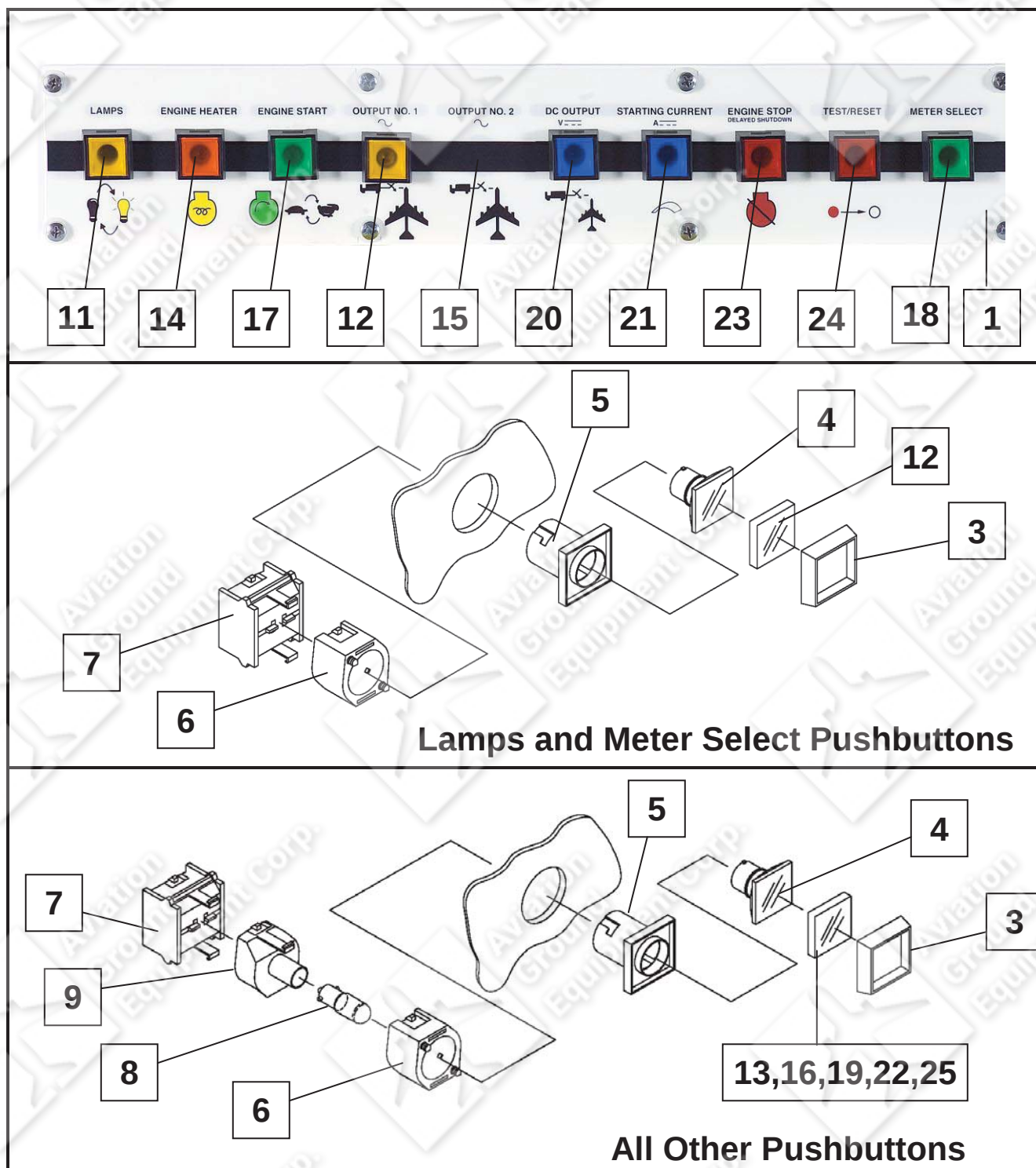
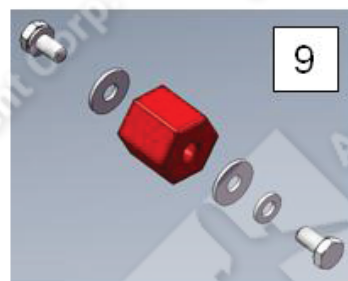
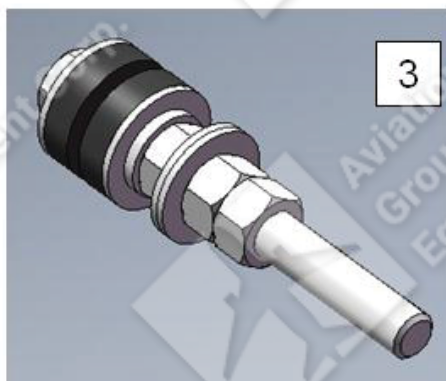
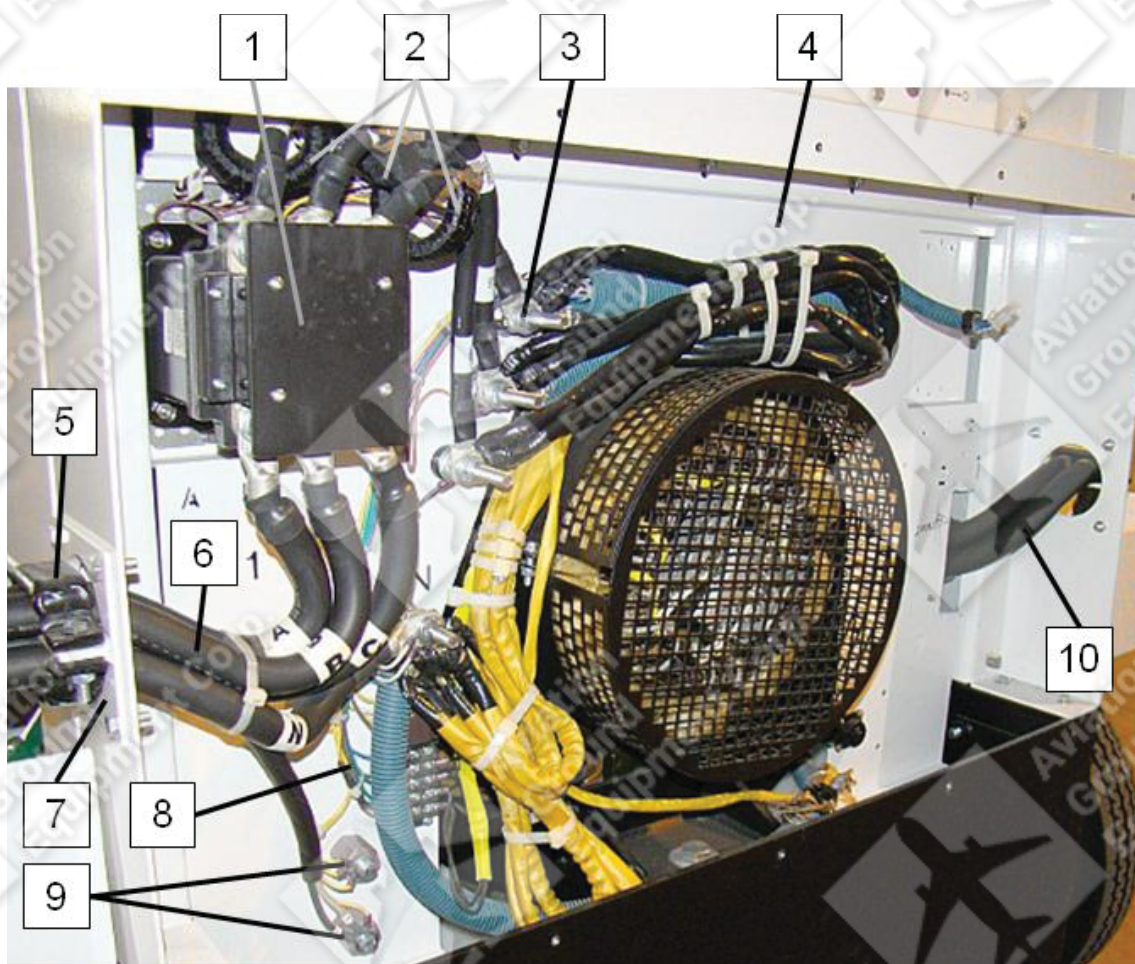


Figure 8 Control Switch Panel Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
8 -	1	289004	Switch Panel	1
		289014	...Switch Panel Label	1
*		040201	...Strip, Gasket, Neoprene	66 in.
*	2	289015	Switch Panel Wire Harness	1
Common Pushbutton Parts				
	3	285029-001	Bezel Frame(V61706 #704-701.0)	1
	4	285031-001	Lens Holder(V61706 #704-709.7)	1
	5	285032-001	Sleeve Actuator (V61706 #704-731.0)	1
	6	285033	Mounting Flange(V61706 #704-950.5)	1
	7	284475-001	N.O. Contact Block (V61706 #704-900.3)	1
	8	400613-004	Lamp, 12 – 16 V, #1815 (V02929)	1
	9	285034-001	Lamp Holder (V61706 #704-950.0)	1
*	10	290080	Contact Block Cover	1
	11		Lamps Pushbutton	1
	12		Output # 1 Pushbutton	1
	13	285030-002	Yellow Lens (V61706 #704-702.4)	1
	14		Pre-heater Pushbutton	1
	15		Output # 2 Pushbutton	1
	16	285030-004	Orange Lens (V61706 #704-702.3)	1
	17		Engine Start Pushbutton	1
	18		Meter Select Pushbutton	1
	19	285030-003	Green Lens (V61706 #704-702.5)	1
	20		DC Output Pushbutton	1
	21		Current Pushbutton	1
	22	285030-005	Blue Lens (V61706 #704-702.6)	1
	23		Engine Stop Pushbutton	1
	24		Test/Reset Pushbutton	1
	25	285030-001	Red Lens (V61706 #704-702.2)	1



Note: Shown with one AC and one DC output

Figure 9 400 Hz. Power Module Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.			
			1 AC out	2 AC out	1 AC, 1 DC	
9 -	291115-003	Power Module Assembly - single	1	-	1	
	291115-004	Power Module Assembly - dual	-	1	-	
1	282130-001	Contactor, Line, 3-Pole	1	2	1	
2	285102-001	Current, Transformer (V05HB5 # 20130)	3	6	3	
3		Generator Lead Connection Assembly	Ref.	Ref.	Ref.	
*	AW626	...Bushing, Insulating [A-B-C-N]	4	5	4	
	A25	...Washer, Insulating	8	10	8	
	W11097-028	...Screw, 3/8-16 X 3.5 LG, HHC, ST.	4	5	4	
	W11242-018	...Washer, Large Flat, 3/8"	8	10	8	
	W11242-010	...Washer, Flat, 3/8"	8	10	8	
	W11254-006	...Washer, Lock, 3/8"	8	10	8	
	W11278-005	...Nut, 3/8-16, Hex	12	15	12	
4	291058	...Power Module Panel	1	1	1	
5	7J422-000	Output Cable Clamp (one AC output)	2	4	3	
*	6	402034-xxx	Cable, AC Output 30 ft. (optional)	1	2	1
7	288120	Output Cable Bracket (one AC or ACDC)	1	2	1	
8	290683	Harness, Wire	1	1	1	
	401911-010	...Block, Terminal	1	1	1	
9	286266	Standoff, Short [E-F]	2	4	2	
	402119-002	...Screw, 1/4-20 X .5 LG, HHC, ST.	4	8	4	
10	402025-xxx	Cable, DC Output 30 ft. (optional)	-	-	1	
*	11	289318	Harness, Wire, 2nd Output (2 AC outputs)	1	-	-
*	12	282089-011	Diode, Fly back	1	1	1
*	13	288892-009	Resistor, ID, Power Module	1	1	1
*	14	288974	Noise Suppression Capacitors	1	1	1
*	15	488640	Bracket, Output Cable (for DC)	-	-	1
*	16	287698-001	Cover, Output Cables (for single output)	1	-	-
*	17	290640	Bracket, Shield, Heat	"H" only		
*	18	291180	Generator Lead Cover	"H" only		

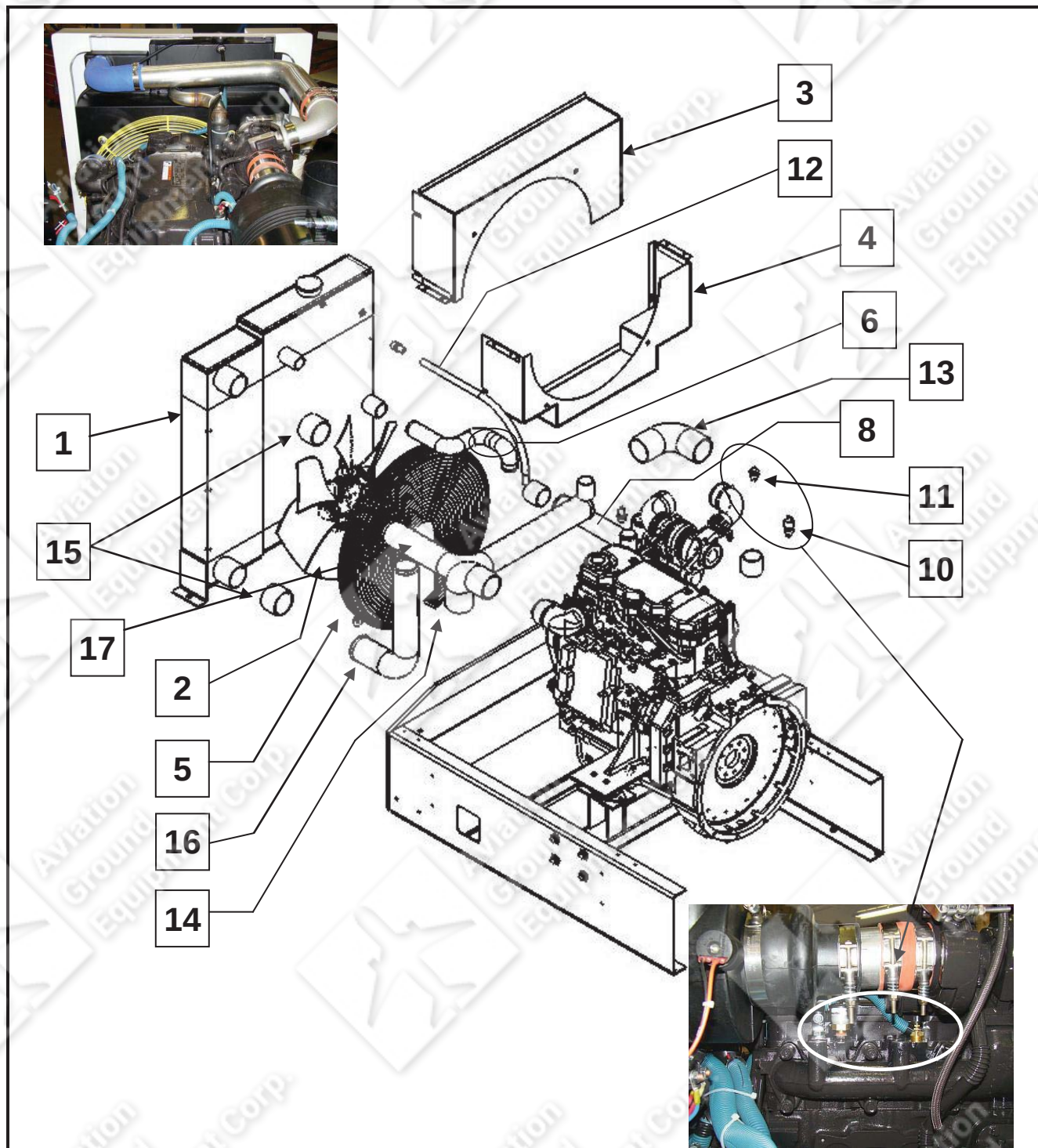


Figure 10 Engine Cooling System Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
10 -	1	291223 Radiator/CAC Assembly	1
*		290145 ...Coolant Level Sensor	1
*		283873 ...Radiator Drain Valve	1
*		056535 ...Hose, Low Pressure, 3/8" ID	1'
	2	291224 Radiator Fan, 22" Diameter	1
	3	291070 Top Fan Shroud	1
*		291097 ...Panel, Access, Shroud	1
	4	291071 Bottom Fan Shroud	1
	5	291225 Fan Guard	1
	6	291072 Top Radiator Hose (pipe)	1
	7	289200-001 ...1.75" ID Hose (two 3" pieces)	6"
	8	291073 Bottom Radiator Hose (pipe)	1
	9	289200-002 ...2.25" ID Hose (two 3" pieces)	6"
	10	403782-002 Water Temp Sw, 210° F (V75418 #1002-04880-36)	1
	11	287909 Water Temperature Sender (V16476 #02019)	1
*		W7814-004 ...Bushing, Reducer	1
	12	De-aeration Line	Ref.
		288187 Fitting, Straight	1
		056535 Hose, Low Pressure, 3/8" ID	32"
		W10869-014 Clamp, Hose, SS	2
	13	289828 90° Elbow, 3.00" ID	1
	14	289827 90° Elbow, 3.00" ID	1
	15	290936 Hose, CAC, Straight, 3.0" ID	2
	16	291075 CAC Intake Manifold Hose	1
	17	291074 CAC Turbo Outlet Hose	1
*	18	290597-001 CAC Cooler Hose Clamps	8



Figure 11 Engine Ground Plate and Battery Disconnect Switch

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
11 -	1	291079	Plate, Ground	1
*		405548	...Label, Ground	2
	2	W9407-446	Cable, Engine to Ground	2
	3	W9360-381	Cable, #111, Power Mod. To Ground	1
	4	Engine Dongle and Battery Disconnect Panel		Ref.
*		291334	...Panel, Engine Dongle/Battery Disconnect	1
*		290831	...Switch, Battery Disconnect	1
*		290847	...Plate, Disconnect Switch	1
*		291482	...Cable, Disconnect Switch to Starter	1
*		W9360-289	...Cable, Disconnect Switch to Electronics Panel	1
*	5	290678	Wire Harness, Engine	1
*		HF2962	...Clamp, Shield, Ignition, Large	1

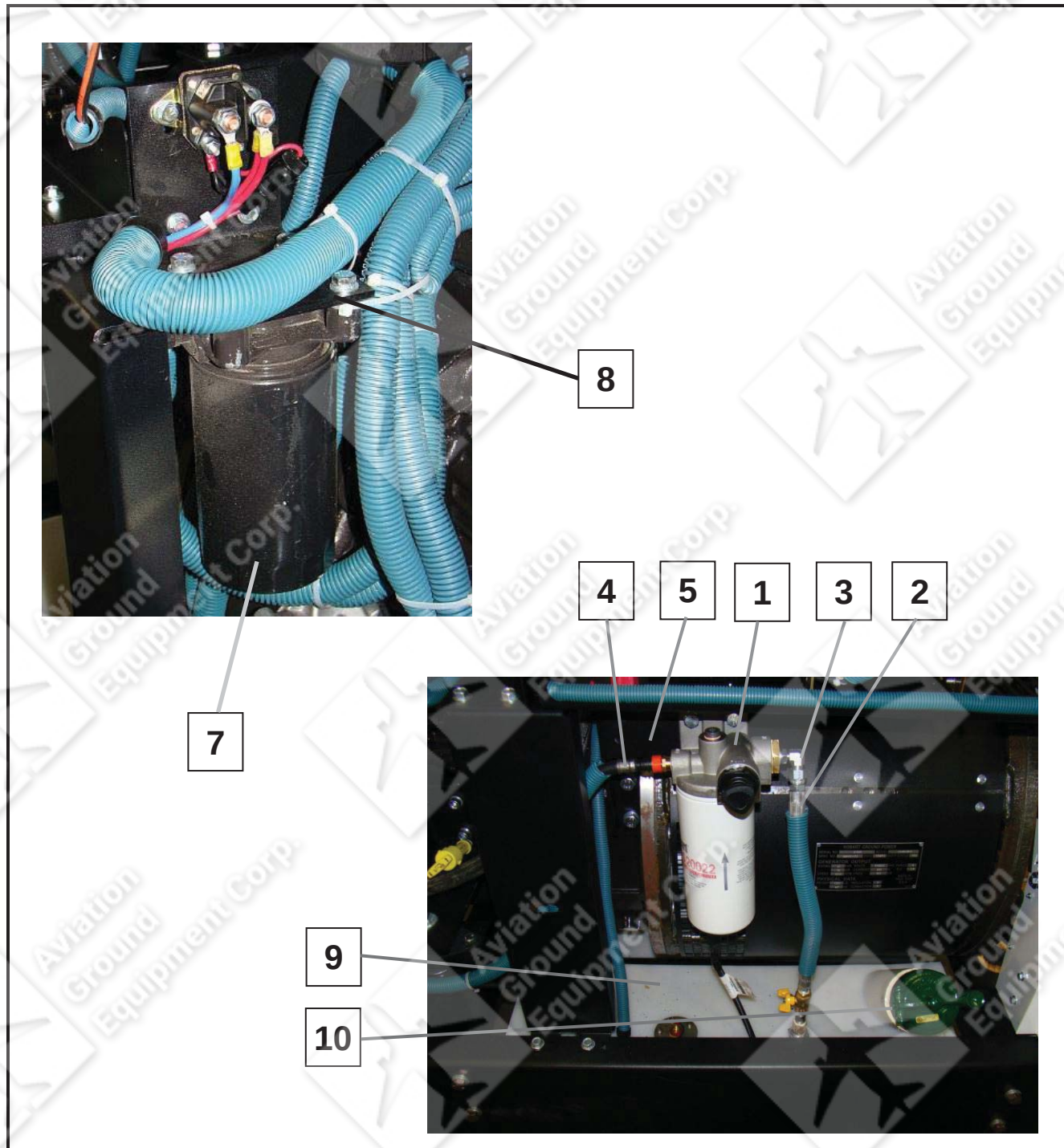


Figure 12 Engine Fuel Filters and Fuel Lines

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
12 -	1 286897-031	Filter, Lubricity Fuel	1
	2 291114	Line, Fuel, Tank to Filter	1
	3 290388	Adapter, 12 mm x 3/8 MJIC	1
	4 Call Factory	Line, Fuel, Filter to Pump	1
	5 289037	Bracket, Lubricity Fuel Filter	1
*	6 290686	Line, Fuel, Return	1
	7 286897-036	Filter, Primary Fuel	1
	8 291076	Bracket, Primary Fuel Filter	1
	9 291420	Fuel Tank, Composite, 50 Gallon	1
	* 486719-005	...Sender, Gauge, Fuel, 12V	1
*	291407	...Bellypan, Fuel, Tank	1
	291408	...Strap, Fuel Tank	2
	291409	...Rubber, Strap, Fuel Tank	2
	9 291550	Fuel Tank, Stainless Steel	1
	* 486719-005	...Sender, Gauge, Fuel, 12V	1
10	282562	Cap, Fuel Neck (V49234 #1275G/12T)	1

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1



Figure 13 Engine Exhaust Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
13 -		Common Exhaust Components	
	1 291168	Muffler and Exhaust Ay.	1
*	IN5016	...Muffler Wrap Insulation	3.5 ft ²
*	288052-002	...Accuseal Clamp (3.0")	2
	2 291077	Exhaust Flex Pipe Assembly	1
*	EB5224	...Muffler Wrap Insulation	1.7 ft ²
*	404154-013	...Full Circle Clamp, 3.0"	1
*	W10869-006	...Stainless Steel Hose Clamp	7
*	3 291394	Exhaust Hole Cover	1
*	291395	Vertical Exhaust Components	REF
	4 291379	Exhaust Outlet Elbow	1
*	288052-002	...Accuseal Clamp (3.0")	1
*	EB5224	...Muffler Wrap Insulation	3.0 ft ²
*	W10869-006	...Stainless Steel Hose Clamp	2
*	5 291380	Exhaust Outlet Pipe (vertical)	1
*	288052-002	...Accuseal Clamp (3.0")	1
	6 291383	Stainless Steel Exhaust Clamp	2
	7 291382	Guard, ¾, Exhaust, Stainless Steel	1
		Horizontal Exhaust Components(Optional)	
	8 291169	Exhaust Outlet Pipe (horizontal)	1
*	288052-002	...Clamp, Accuseal, 3"	1
*	EB5224	...Muffler Wrap Insulation (Elbow)	3 ft ²
*	W10869-006	...Clamp, Hose, Stainless Steel	2

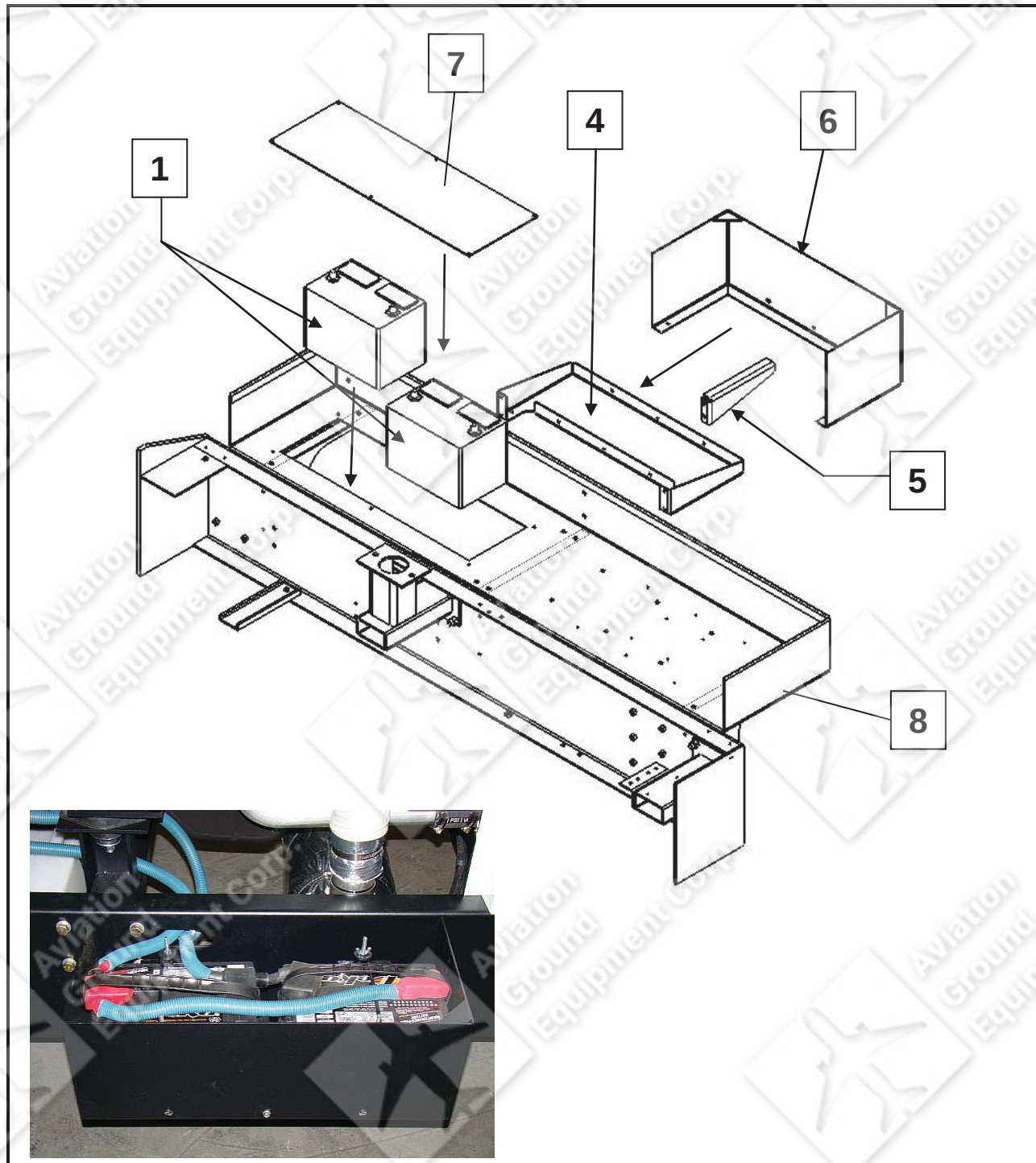


Figure 14 12 VDC Battery System

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
14 -	1	281881-001	Battery, 12 V (V25710 #1231-PMF)	2
*		287796	...Hold Down, Battery (V3Y208)	2
*		494295	...Bolt, Hold Down, Battery (V3Y208)	4
*	2	290902	Cable, Battery, Negative (V3Y208)	1
*	3	291481	Cable, Battery, Positive (V3Y208)	1
	4	287795	Battery Tray	1
	5	291160	Battery Tray Support Bracket	1
	6	291067	Battery Tray Housing	1
	7	291093	Panel, Battery Tray Cover	2
	8	291092	Cable Tray	2

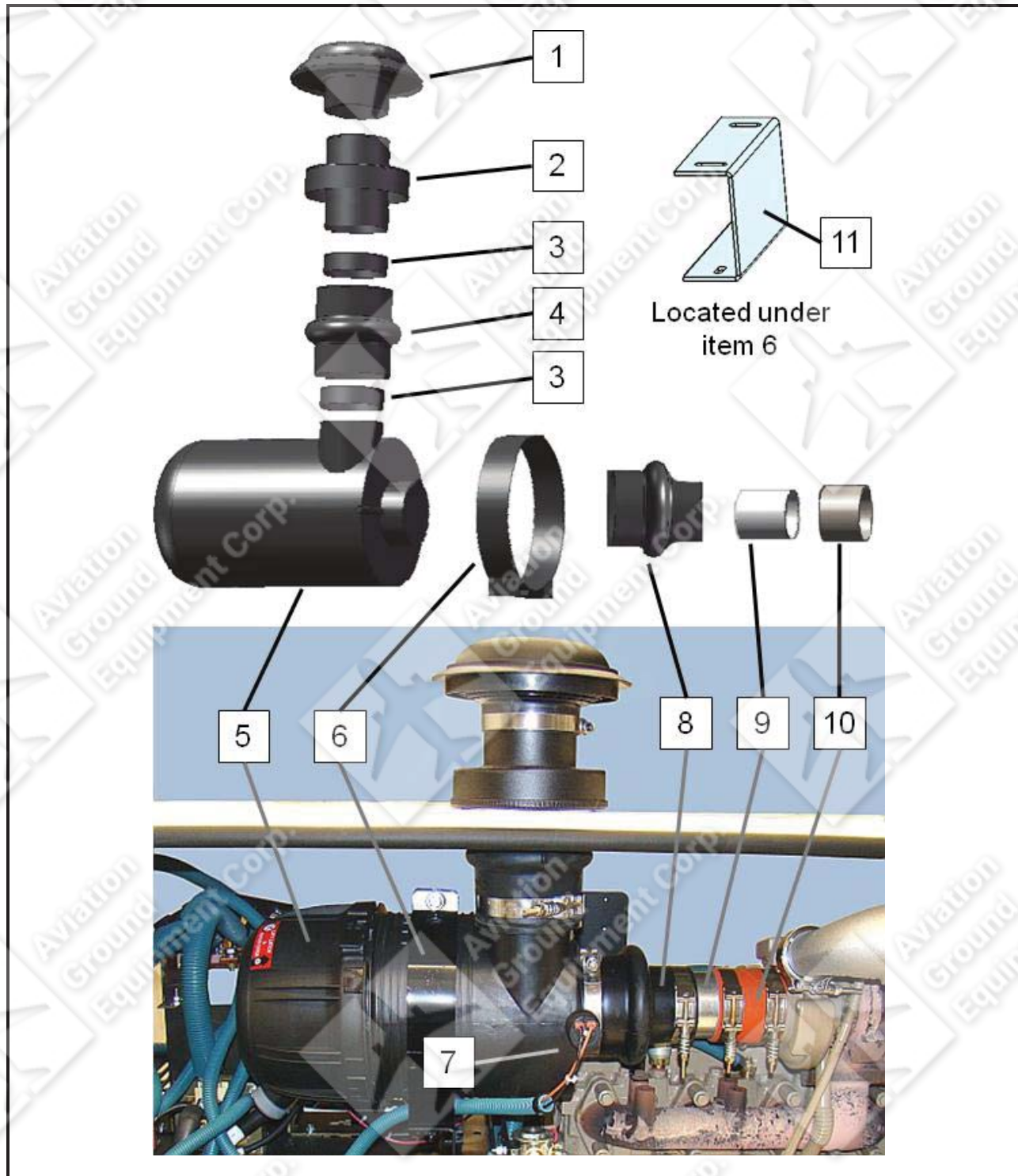


Figure 15 **Engine Air Intake Assembly**

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
15 -	1	290939 Weather Hood	1
*		...Clamp, Hose (included with hood)	Ref.
	2	290951 Intake, Air Extension	1
	3	290952 Hump Hose Sleeve (3-3/4" to 4")	2
	4	290953 Hose, Hump, 4" ID	1
*		291516 ...Clamp, SS, Gear	2
	5	290938 Air Cleaner	1
*		290941 ...Replacement Air Filter Element	1
	6	290940 Bracket, Air Filter, Mounting	1
	7	282918 Air Restriction Indicator (see also Figure 16)	1
*		282919 ...Adapter, Indicator	1
	8	288197-001 Fitting, Rubber, Reducer Hump (4" to 3")	1
*		290597-006 ...Clamp, Floating Bridge, 4.5"	1
*		290597-007 ...Clamp, Floating Bridge, 3.5"	1
	9	291453 Tube, Intake Air	1
	10	290936 Hose, CAC, Straight, 3" ID	1
*		290597-001 ...Clamp, Floating Bridge, 3.25"	2
	11	291078 Bracket, Air Filter Mounting	1

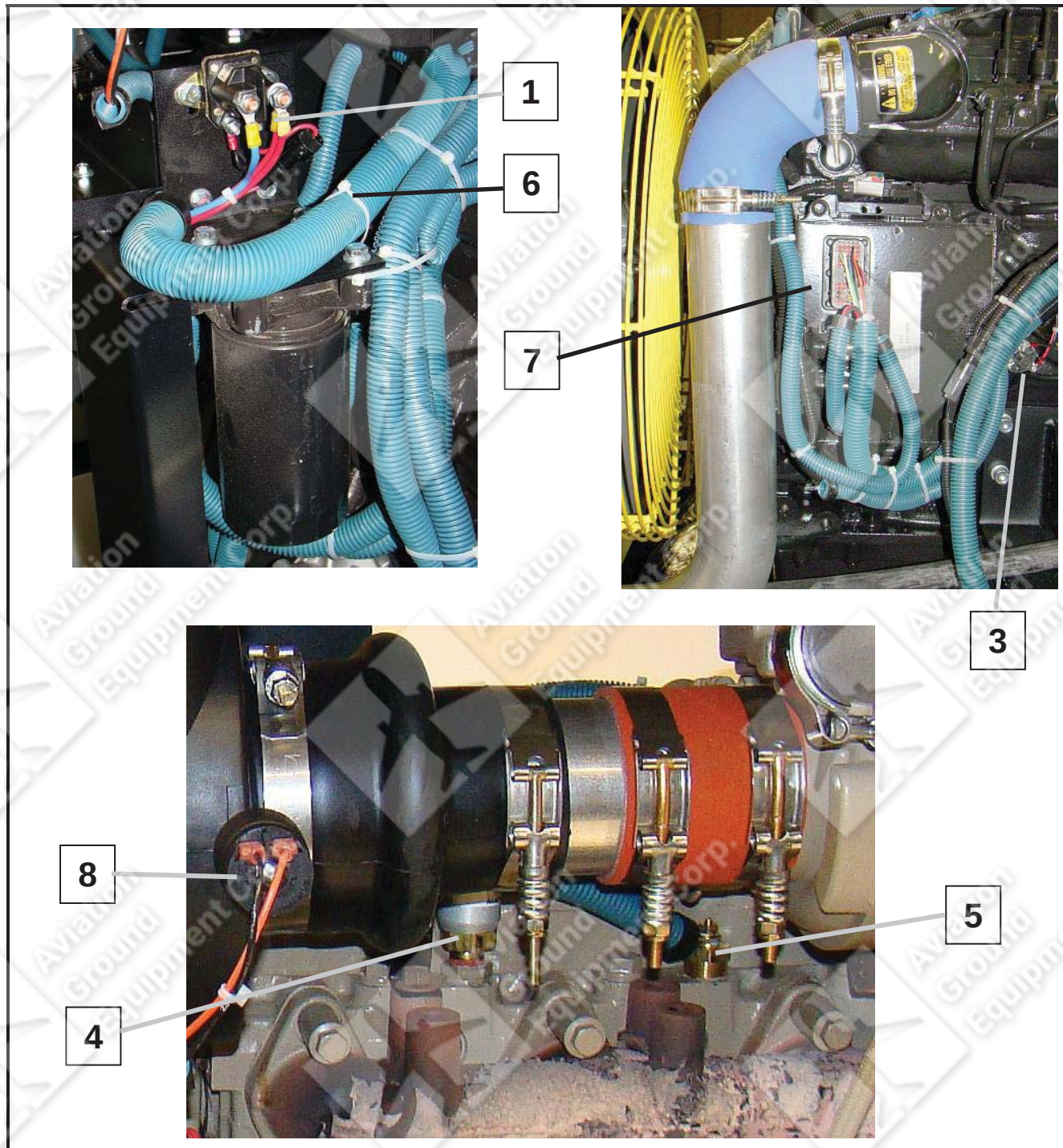


Figure 16 Engine Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
16 -	1	286850 Starter Solenoid (V13445 # 24059)	1
		288973-001 ...Diode, Starter Solenoid, Assembly	1
*	2	403809-002 Switch, Oil Pressure (V75419 #1042-08210-20)	1
	3	78B1118-002 Sender, Oil Pressure (V16476 #16476)	1
*		W7814-000 ...Bushing, Pipe, Steel, 1/4 X 1/8	1
*		286903 ...Adapter, M14-1.5 x 1/4 NPT	1
*		W10910-000 ...Fitting, Tee	1
*		W10750-001 ...Nipple, Pipe, 1/8"	1
	4	403782-002 Water Temp Sw, 210° F (V75418 #1002-04880-36)	1
	5	287909 Sender, Water Temperature (V16476 #02019)	1
	6	290678 Wire Harness, Engine	1
	7	290944 Electronic Engine Wire Harness	1
	8	282918 Air Restriction Indicator (V18265 #REX77-0062)	1
*		282919 ...Adapter, Indicator	1
*	9	289261-001 Block Heater Kit, 120V(Optional)	Ref
*		289249-005 ...Heater, Engine Block	1
*		289250-001 ...Cable, Engine Block Heater	1
*		76A1131 ..Z-Flex, 1/2" D	68"
	10	056525 Hose, Rubber, 3/4 ID x 1/8 Wall (crankcase)	66"

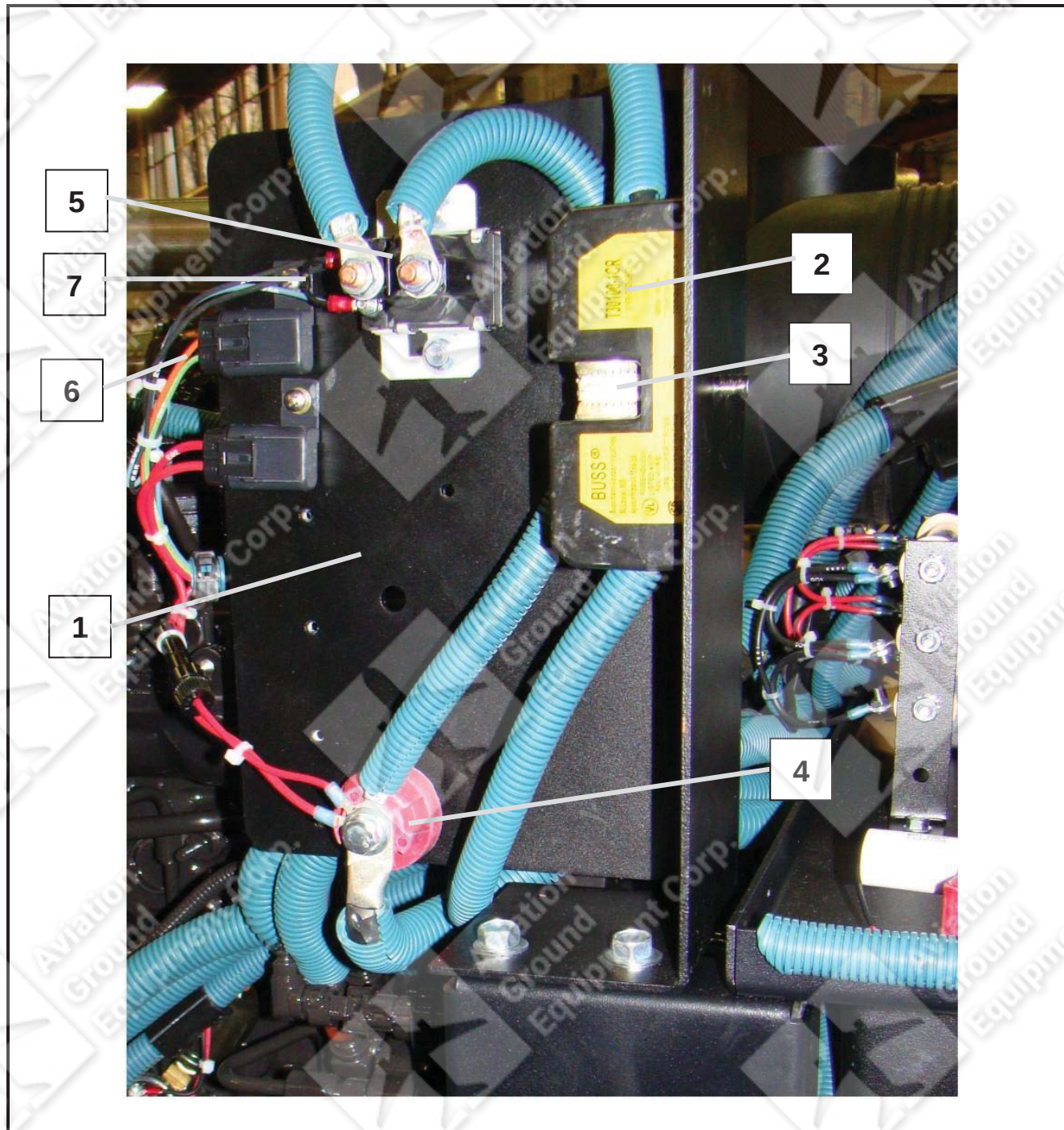


Figure 17 Engine Electronic Panel Components

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.	
17 -	1	291248	Panel, "E" Engine, Parts	1
	2	287145-001	Holder, Fuse	1
	3	287144-002	Fuse, Fast Acting	1
	4	283154-001	Insulator, Standoff	1
	5	288331	Relay, Grid Heater, Power (V02929 50F3662)	1
	6	290944	Harness, Wire, Engine, Electronic	1
*	7	489658-007	...Diode Assembly	1

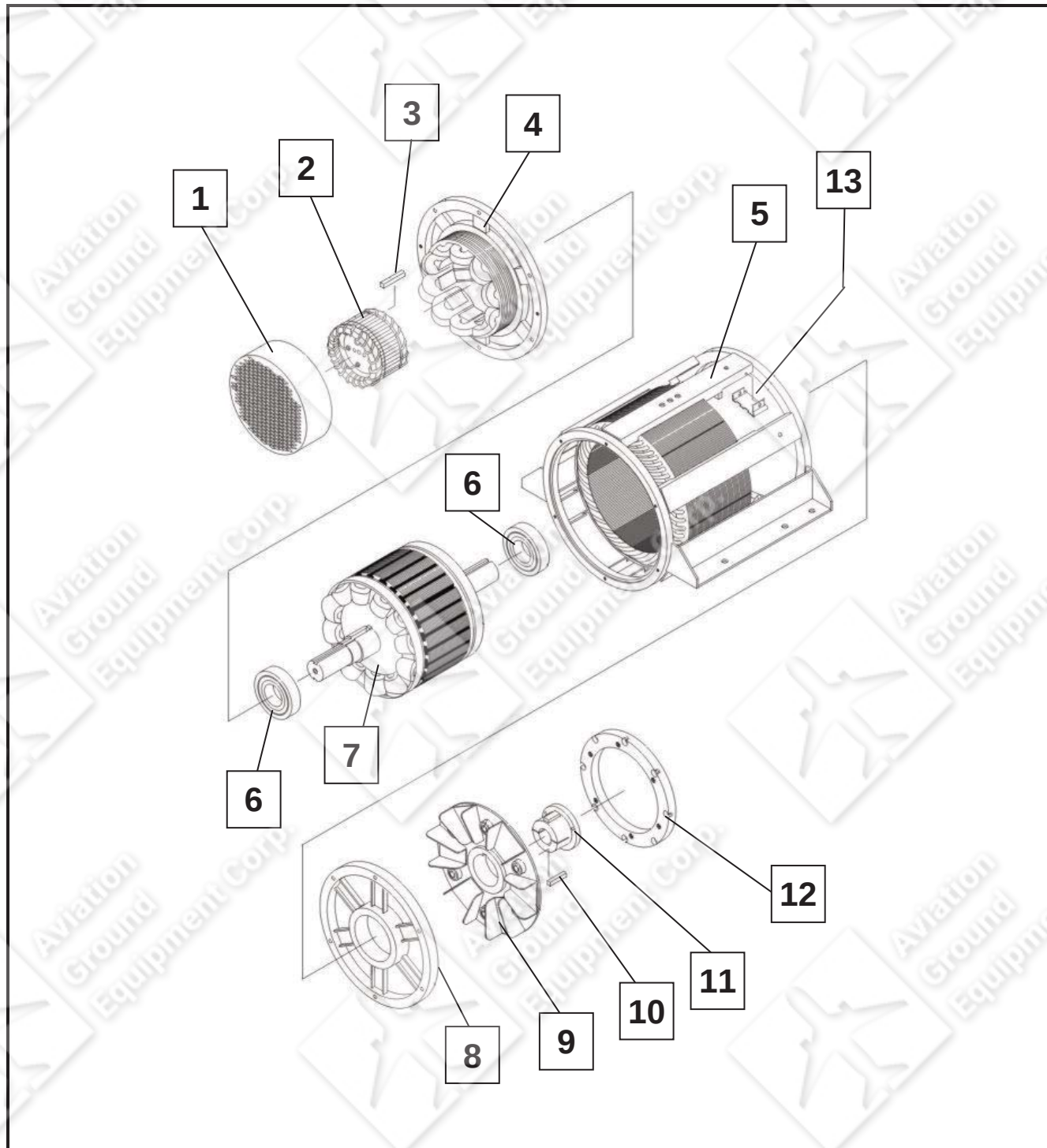


Figure 18 Generator Assembly

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
18 -	1 288486	Exciter Cover	1
	2 288494	Exciter Armature	1
	3 180696-003	Exciter Key	1
	4 288440	Exciter Housing and Coils Assembly	1
	5 291082	Generator Housing and Coils Assembly	1
	6 W10072-068	Bearing	2
	7 288447-003	Generator Rotor	1
	8 288461	Front Bearing Support	1
	9 288481	Flexible Coupling Kit	1
*	480290	...Rubber Coupling Bushing	8
	10 85B1039	Coupling Key	1
	11 85C1004-001	Split Taper Bushing	1
	12 290870	Flywheel Adapter Ring	1
	13 288458	Generator Air Deflector	6
*	14 291103	Generator Cover	1
*	15 288491	Tab, Fastener, Exciter Key	1

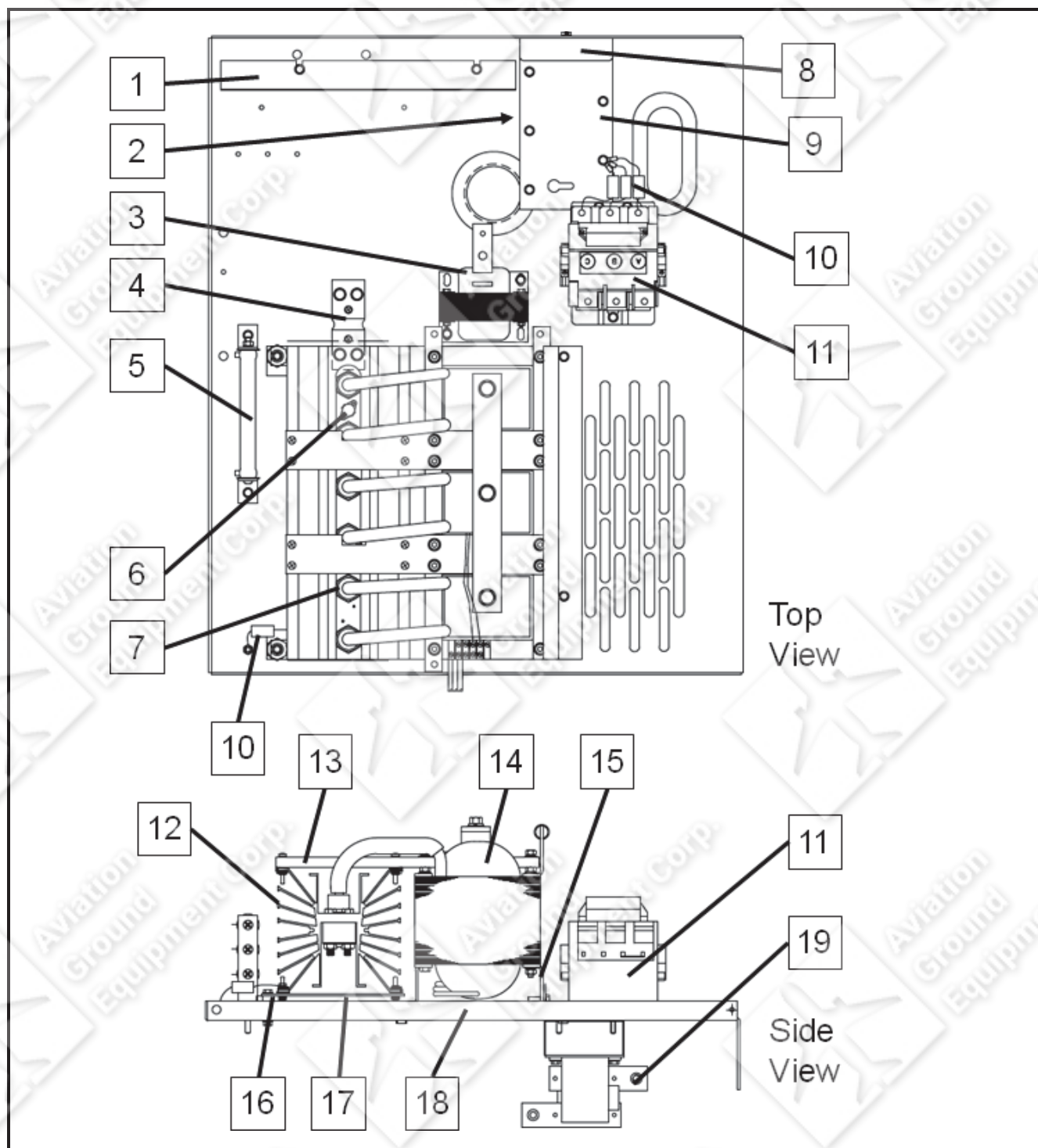


Figure 19 Transformer Rectifier Assembly – Part 1

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNITS PER ASSY.
19	291255	Transformer Rectifier Assembly	Ref.
1	288895	Support, Options Terminal Block (see Figure 5)	1
2	288117	Capacitor, TR, PC Board (under item 9)	1
3	288092	Choke, DC	1
4	280022	Shunt, 800 A, 50 mV	1
*	290827	...Bus Bar, Shunt Mounting	1
5	288095-001	Resistor, Preload, Assembly	1
*	288380-001	...Resistor, Fixed, 10 Ohm, 100W	Ref.
6	404044-004	Thermostat	1
7	W10931-003	Diode, Silicon, 275 A, Positive Base	6
8	291558	Bracket, Capacitor and PC Board	1
9	289006	Support, PC Board	1
10	290534-001	Kit, Noise Suppression Filter	1
	290533-001	Capacitor Assembly	3
	290533-002	Capacitor Assembly	1
11	282130-001	Contactor, Input	1
*	77A1107	...Label "A"	1
*	77A1108	...Label "B"	1
*	77A1109	...Label "C"	1
12	286603	Heat Sink, Extruded	1
13	288404	Support, Heat Sink	2
14	286604	Transformer, 28.5 VDC	1
*	281971-002	Resistor Assembly	1
15	288085	...Bracket, Transformer	1
16	286266	Standoff, Short	5
17	288147	Bracket, Heat Sink	2
18	291066	Panel, Support, TR	1
*	19	Contactor, Output (see Figure 20)	Ref.
*	20 289156	Harness, Wire, TR Assembly	1
*	21 289096	Chart, Cable	1

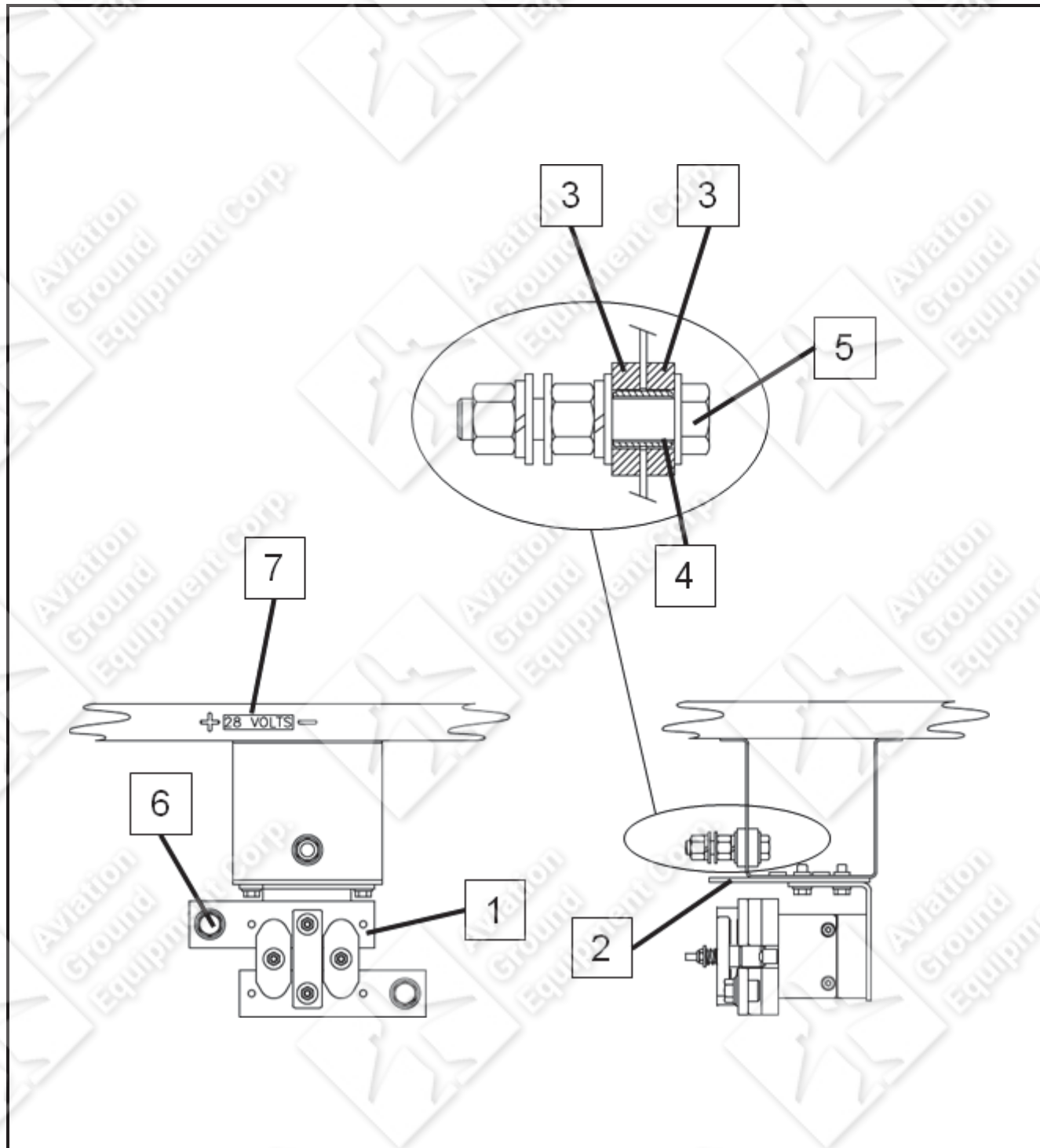


Figure 20 Transformer Rectifier Assembly – Part 2

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	UNIT PER ASSY.	
20	1	286810-001	Contactor, DC, 800 A, 24 VDC	1
	2	286849	Insulator, Contactor	1
	3	A25	Washer, Insulating	2
	4	288099	Bushing, Insulating	1
**	5	Output Stud	Ref.	
		...Screw, 3/8-16 X 2, HHC	1	
		...Washer, 3/8, Flat	6	
		...Washer, 3/8, Lock	2	
		...Nut, 3/8-16, Hex	2	
**	6	Contactor Studs	Ref.	
		...Screw, 3/8-16 X 1.0, HHC, ST.	2	
		...Washer, 3/8, Flat	2	
		...Washer, 3/8, Lock	2	
	7	400435	Label, 28 Volts	1
** Standard SAE hardware.				

** Standard SAE hardware.