

TW GSE HOBART

Illustrated Parts List for 140CU20
140 kVA, 3-Phase, 115/200 Volt,

400 Hz. Generator Set



Series 500072

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
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 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

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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:

Model Code	Part & Dash Number	Mounting	AC Outputs	28.5 VDC Output	Fuel Tank
A	ACE140CUTT3	Trailer	2	--	Stainless
B	ACE140CUST3	Fixed/Truck	2	--	Stainless
A	ACE140CU28TT3	Trailer	2	Yes	Stainless
B	ACE140CU28ST3	Fixed/Truck	2	Yes	Stainless

Parts with no model code in the EFF column are used on all models.

(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

5) 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 alpha-numerical sequence.

FIGURE ITEM NO.	ITW GSE PART NO.	FIGURE ITEM NO.	ITW GSE PART NO.
9-	040201	7-11	283167
10-8	050988	5-6	283597
11-	056534	4-7	283647
11-	056535	2-6	283714-008
17-	056535	5-5	283824
1-19	100GH121	11-12	283873
13-3	12CW2077-003	8-11	283978-001
19-3	180696-003	8-10	283978-002
7-7	181358	16-9	284461
21-	201673-004	9-7	284475-001
20-15	280022	16-2	284923
16-7	280732-006	16-6	284925
16-8	280732-007	9-3	285029-001
1-	280763	9-25	285030-001
15-1	281881-001	9-13	285030-002
20-	281971-002	9-19	285030-003
10-11	282089-011	9-16	285030-004
10-4	282130-001	9-22	285030-005
20-9	282130-001	9-4	285031-001
3-7	282562	9-5	285032-001
13-10	282562	9-6	285033
2-10	282658	9-9	285034-001
1-2	282667	10-13	285102-001
1-	282727	1-5	285125
17-8	282852	7-15	285172
16-3	282918	16-1	286061
10-2	283154-001	10-5	286266
18-4	283154-001	20-8	286266

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

20-12	286266
8-8	286367-001
20-4	286603
20-2	286604
8-15	286611
7-8	286699-001
21-1	286810-001
21-3	286849
17-2	286850
17-	286897-029
13-1	286897-030
13-8	286897-031
1-1	286956
9-26	287038-001
18-3	287144-002
18-2	287145-002
16-5	287371
1-12	287376
1-13	287377
14-1	287405
14-8	287406
17-	287419
14-	287431
14-2	287431
14-3	287432
2-8	287459
2-17	287460
2-18	287461
2-19	287462
2-20	287463
2-21	287464
2-7	287465
2-3	287466
2-25	287467
1-17	287491
3-15	287506
5-4	287526-002

FIGURE ITEM NO.	ITW GSE PART NO.
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5-3	287542-001
16-	287548
14-	287643
14-	287644
14-9	287645
14-	287647
11-9	287659
14-4	287691
2-9	287696
4-1	287701
5-1	287701
4-10	287703
5-	287738-001
3-	287738-003
4-	287738-004
4-	287738-012
4-	287738-013
4-	287738-014
3-	287738-015
4-	287738-020
15-	287738-020
4-	287738-022
3-	287738-025
4-	287738-027
5-	287738-028
3-	287738-029
3-	287738-030
3-	287738-031
3-	287738-032
4-	287785
4-	287793
4-	287794
15-8	287796
15-2	287797
4-9	287800
13-2	287804
4-	287805

FIGURE ITEM NO.**ITW GSE PART NO.**

4-	287806
1-18	287892
7-6	287908
17-6	287909
16-4	288054-003
10-7	288078-001
20-14	288092
20-10	288095-001
21-5	288099
20-13	288117
11-	288123-001
20-7	288147
2-28	288164
11-1	288240
2-4	288300
11-10	288309
14-5	288311
11-8	288328
18-5	288331
18-1	288333
20-3	288404
19-4	288440
19-7	288447-001
19-13	288458
6-9	288460-001
19-8	288461
19-5	288471
19-14	288478
19-9	288481
19-1	288486
19-15	288491
19-2	288494
4-3	288544
8-	288605
3-2	288691A
6-15	288691A
3-16	288692

FIGURE ITEM NO.**ITW GSE PART NO.**

6-13	288692
3-17	288693
6-14	288693
1-	288694
1-	288695
1-11	288696
1-15	288697
1-	288698
12-1	288723
8-4	288745
9-29	288771
9-28	288772
9-27	288773
8-	288791
7-13	288806
8-	288813
7-14	288814-001
7-	288820
10-9	288829
10-10	288832
3-3	288835A
6-16	288835A
7-4	288836-001
7-3	288836-002
7-16	288858-004
2-11	288862
2-12	288866
2-22	288872
8-	288875
8-	288876
4-11	288878
3-1	288879
4-2	288880
5-2	288880
5-7	288881
3-18	288882
6-	288882

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FIGURE ITEM NO.	ITW GSE PART NO.
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10-12	288892-001
10-15	288892-006
6-17	288895
8-	288896
8-14	288914B
2-14	288917-002
2-15	288918-002
4-6	288919
8-5	288937
8-6	288940B
17-	288973-001
8-3	288992
8-2	288993
8-1	288994
7-1	288995
7-5	288999-001
9-1	289004
21-2	289005
20-11	289006
20-1	289007
20-	289008-001
20-16	289010
1-4	289012-002
9-	289012-002
9-	289012-004
9-	289014
9-2	289015
7-2	289017
7-	289018-002
7-	289018-004
8-	289019-001
8-	289019-002
8-7	289026
8-9	289059
8-	289060
8-	289061
8-13	289072

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

8-12	289073
2-24	289127
3-5	289223-001
15-5	289223-001
3-6	289223-002
15-6	289223-002
3-4	289224
15-4	289224
3-	289239
15-7	289239
9-30	289266-001
4-4	289286
4-5	289287
4-14	289290
19-12	289305
3-14	289465
13-11	289477
3-13	289479
4-13	289480
11-14	289542
3-9	289557
17-10	289557
11-5	289559
11-6	289560
11-7	289561
4-	289563
4-15	289568
6-	289593-001
9-11	289601-001
9-23	289601-003
9-24	289601-003
9-12	289601-004
9-14	289601-005
9-15	289601-005
9-17	289601-006
9-18	289601-006
9-20	289601-007

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FIGURE ITEM NO.	ITW GSE PART NO.	FIGURE ITEM NO.	ITW GSE PART NO.
9-21	289601-007	13-	290748
1-9	289606	13-	290800
1-14	289607	13-	290861
16-11	289661	13-11	290862
16-13	289662	13-7	291258
1-8	289663	14-10	291260
4-	289669	2-27	291609
4-8	289672	15-	291611
2-13	289678	10-1	291625
16-10	289688	6-3	291626-002
3-12	289690	10-	291626-002
3-11	289693	5-8	291679
16-12	289694	5-	291681
11-2	289814	5-	291682
17-	289815	5-	291683
17-9	289816	5-	291684
11-15	289827	12-4	291686
11-16	289828	18-8	291686
11-13	289830	6-11	291700
2-1	289842-001	17-1	291700
17-	289843	4-16	291704
11-4	289844	15-10	291704
11-	289890	18-6	291717
9-10	290080	15-	291718
3-10	290081	15-3	291728
4-12	290082	20-17	400435
11-3	290145	9-8	400613-004
2-26	290216	7-18	400641-015
10-14	290227	7-17	400642-008
13-	290267	13-4	400819-003
13-8a	290388	10-6	401911-010
13-8b	290389	2-5	402987
11-	290597-001	4-	403091-008
11-	290597-002	4-	403127
13-	290640	17-5	403782-002
13-	290746	17-3	403809-001
13-	290747	20-6	404044-004

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FIGURE ITEM NO.**ITW GSE PART NO.**

14-7	404154-013
14-6	404154-016
12-5	405548
2-2	408665-002
2-23	408666-001
1-	408781-001
19-	480290
3-	480603-001
17-7	480603-001
19-16	480603-001
13-	486718-010
13-	486719-014
18-7	489658-007
7-9	494134-001
15-9	494295
10-3	76A1131
13-	76A1132
15-	76A1132
2-16	76B1148
20-	77A1107
20-	77A1108
20-	77A1109
1-6	77A1157
7-10	78A1117-002

FIGURE ITEM NO.**ITW GSE PART NO.**

17-4	78B1118-002
1-16	7J422-000
19-10	85B1039
19-11	85C1004-001
21-4	A25
11-	W10051-007
19-6	W10072-068
17-	W10750-001
13-5	W10760-003
11-	W10869-003
11-	W10869-005
17-	W10869-009
17-	W10910-000
20-5	W10931-003
21-	W11097-002
21-	W11097-008
8-	W11166-002
8-	W11166-009
21-	W11242-010
21-	W11254-006
17-	W7814-004
7-12	W8105A-009
12-3	W9360-289
12-2	W9407-446

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Section 2 Illustrated Parts List

1) Explanation of Parts List Arrangement

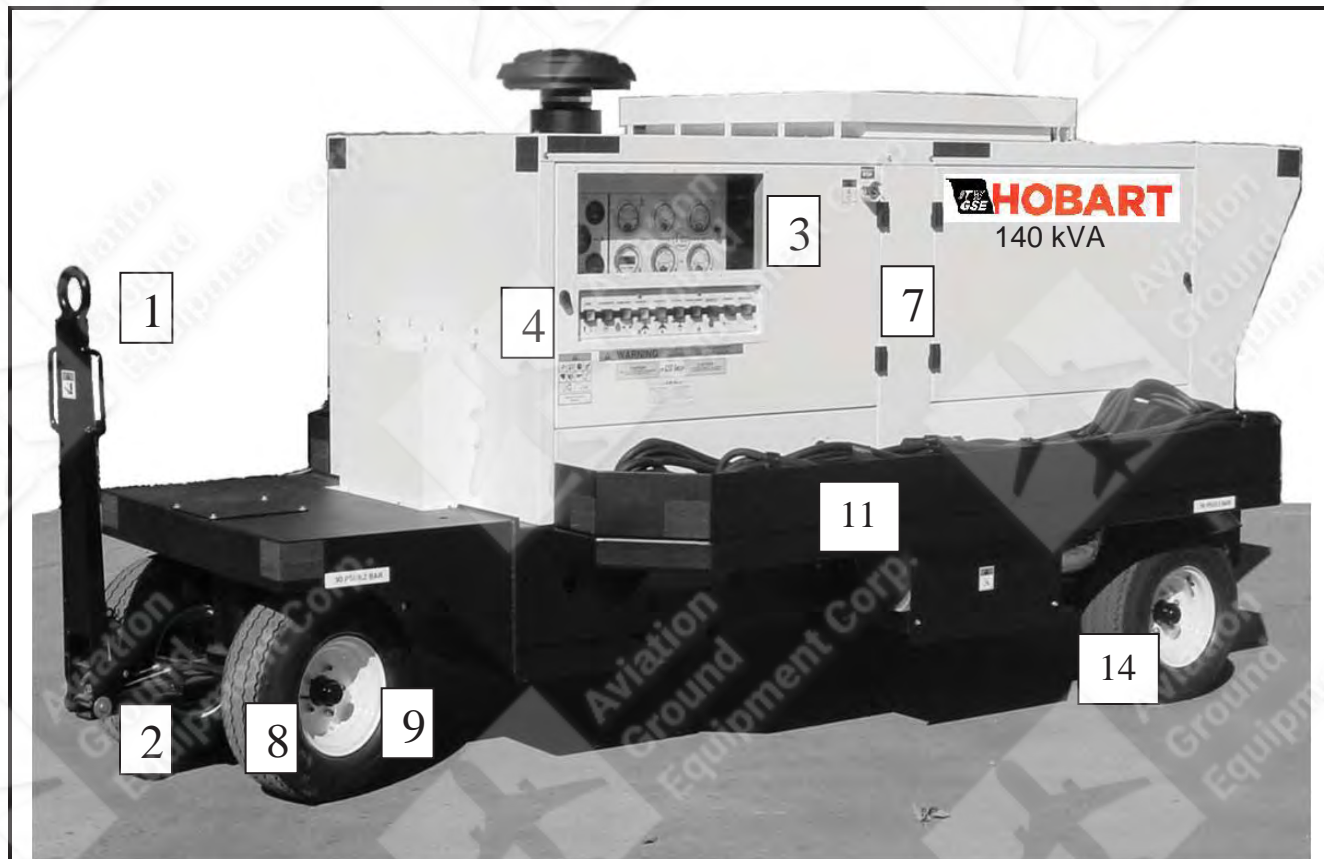
The parts list is arranged so that the illustration will appear on a left-hand page and the applicable parts list will appear on the opposite right-hand page. Unless the list is unusually long, the user will be able to look at the illustration and read the parts list without turning a page.

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	-	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 its assembled state, or it is similar (right-hand, left-hand, top, etc.) to an item which is illustrated.



Fixed Mount Bracket

Figure 1 General Assembly

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
1-	1	286956	Draw Bar	A,	1
	2	282667	Bracket, 5 th Wheel Assembly	A,	1
		282727	...Plate, Cover, Pivot Arm	A,	1
*		280763	...Plate, Bearing	A,	1
*		408781-001	...Pin, Spring	A,	2
	3		Control Box Door (See Figure 7)		Ref.
	4	289012-002	Pushbutton Switches (See Figure 9)		Ref.
	5	285125	Guard, Mushroom Button (V14799 # K564M)		1
	6	77A1157	Switch, Maintained, Push-Pull (V14799 #KR-9R-H6)		1
	7		Canopy Assembly (See Figure 3)		Ref.
	8	289663	Axle with Brakes, Front	A,	1
	9	289606	Tire, 20.5 x 8.00 – 10	A,	4
	10		Frame Assembly (See Figure 2)		Ref.
	11	288696	Tray, Cable, Left	A,	1
*		288695	...Cover, AC Cable	A,	1
*		288695	...Cover, AC Cable		2
	12	287376	Bumper, Side	A,	2
	13	287377	Support, Fender	A,	4
	14	289607	Axle, Rear	A,	1
*	15	288697	Tray, Cable, Right	A,	1
*		288698	...Cover, DC Cable	A,	1
*		288694	...Panel, Cable Guide	A,	1
*		288694	...Panel, Cable Guide		2
*	16	7J422-000	Clamp, Cable	A,B	4
			Clamp, Cable (when DC is supplied)	A,B	5
*	17	287491	Shield, Heat, Tray, Cable	A,	1
	18	287892	Mount, Stationary	A,B	4
*	19	100GH121	Bracket, Mounting, Cable Clamp	A,B	2
			Bracket, Mounting, Cable Clamp	A,B	3

Models A , are trailer-mount.
Models B , are fixed/truck mount.

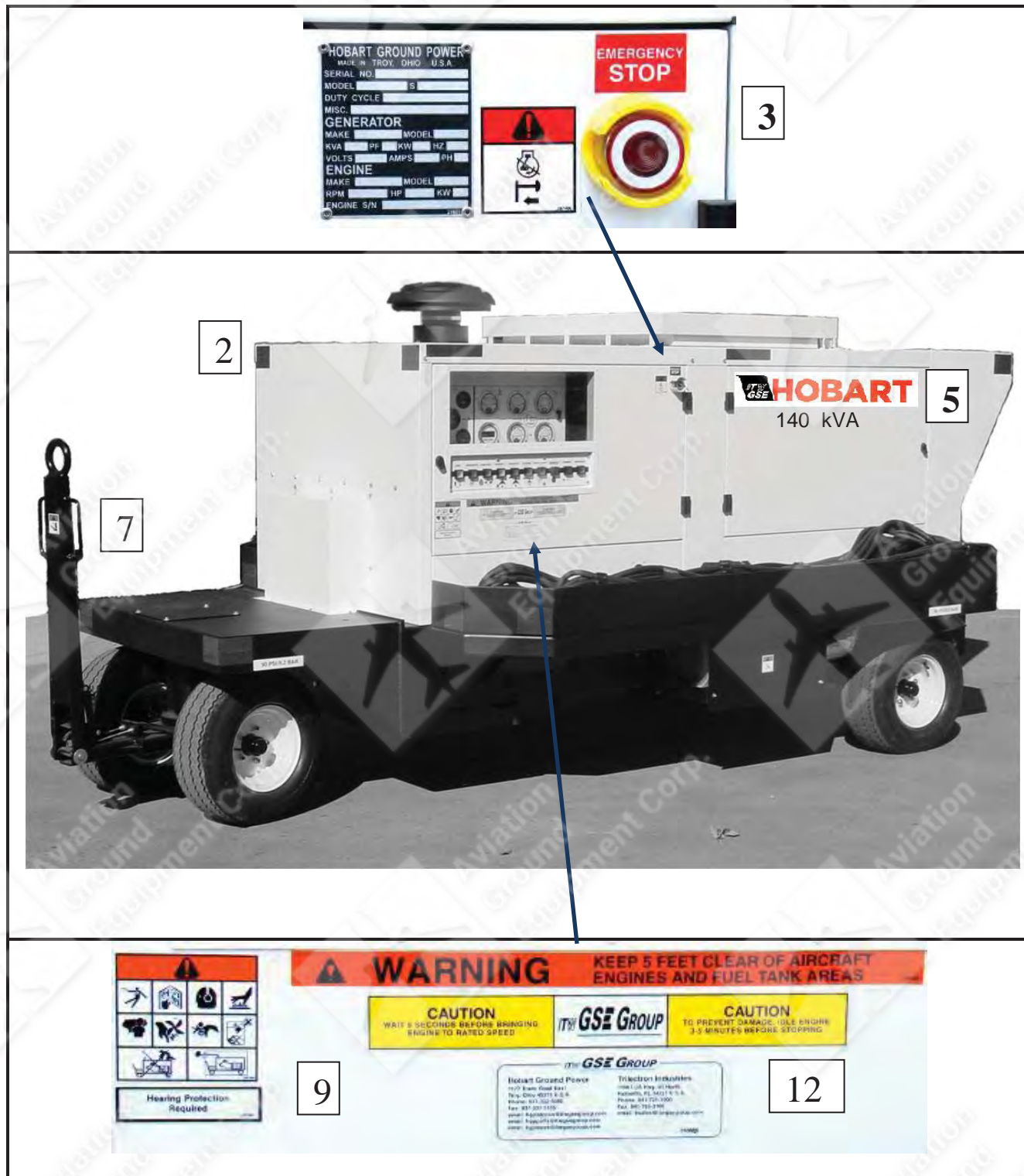


Figure 2 Labels and Reflectors

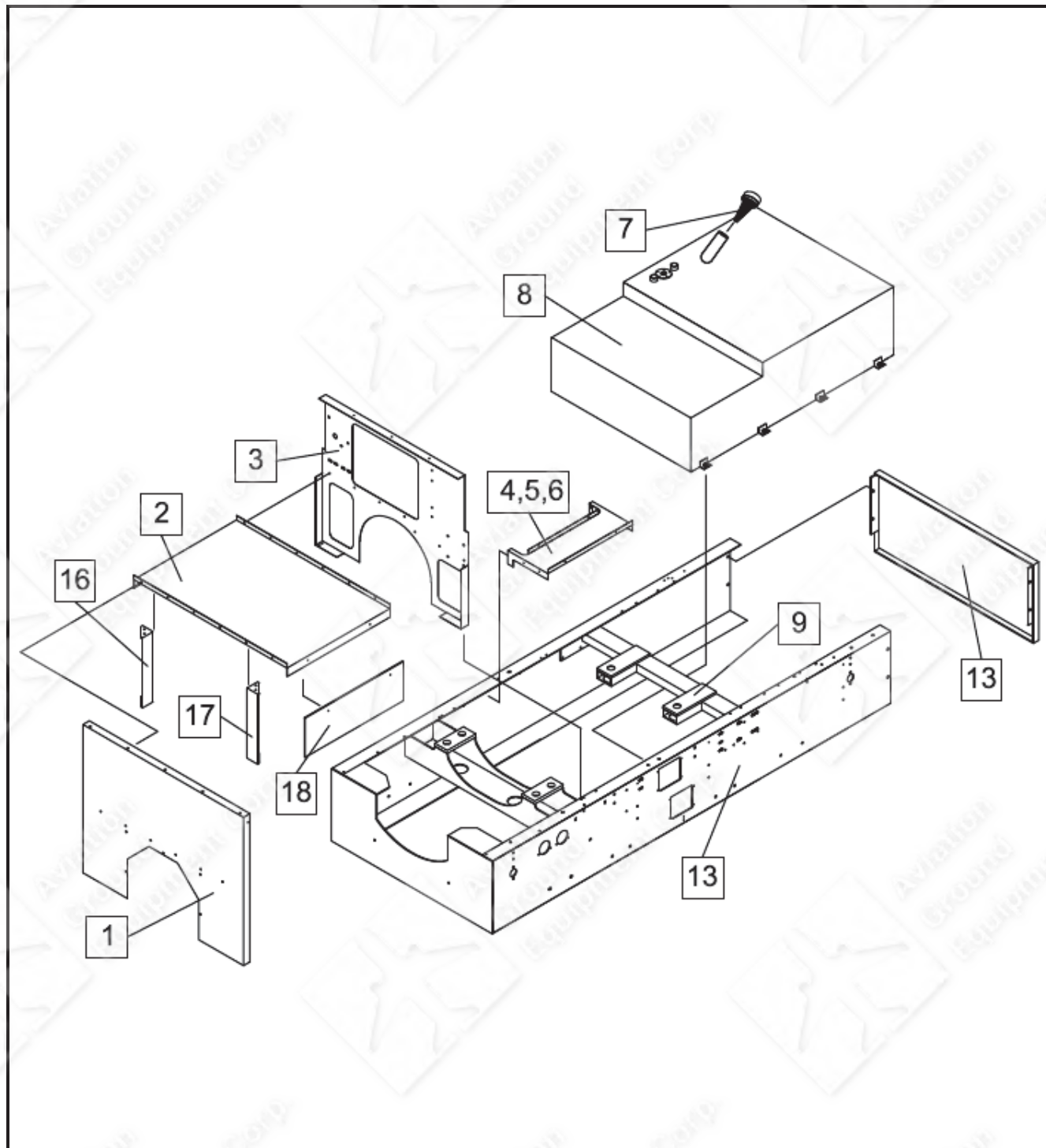
FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
2-	1	289842-001		Label, www.itwgse.com (Ref)	1
	2	408665-002		Reflector, Amber (V12662 #B491A)	32
	3	287466		Label, Emergency Stop	1
	4	288300		Plate, Legend, Emergency Stop	1
	5	402987		Label, ITW GSE	3
*	6	283714-008		Label, kVA Rating (140)	2
	7	287465	A,	Label, Warning Drawbar	2
	8	287459		Label, General Warnings	1
	9	287696		Label, Hearing Protection	1
	10	282658		Label, Warning Clearance	1
	11	288862		Label, Caution, Engine Speed	1
	12	288866		Label, Support Center	1
	13	289678	A,	Label, Tire Pressure	4
*	14	288917-002		Label, I.D. (Inside Control Box)	1
*	15	288918-002		Label, Options (Inside Control Box)	1
*	16	76B1148		Label, Diesel Fuel	1
*	17	287460	A,B	Label, High Voltage	1
*			A,B	Label, High Voltage	2
*	18	287461		Label, Fuel	1
*	19	287462		Label, Radiator	1
*	20	287463		Label, Hot Muffler	2
*	21	287464		Label, Moving Parts	2
*	22	288872-002		Label, Command & Fault	1
*	23	408666-001		Reflector, Red (V12662 #B491) (on back)	20
*	24	289127		Label, Option, Terminal Block	1
*	25	287467		Label, Glow Plug	2
*	26	290216		Label, Low Emissions	1
*	27	291609		Label, Emission Control	1
*	28	288164	A,B	Label, AC/DC	2

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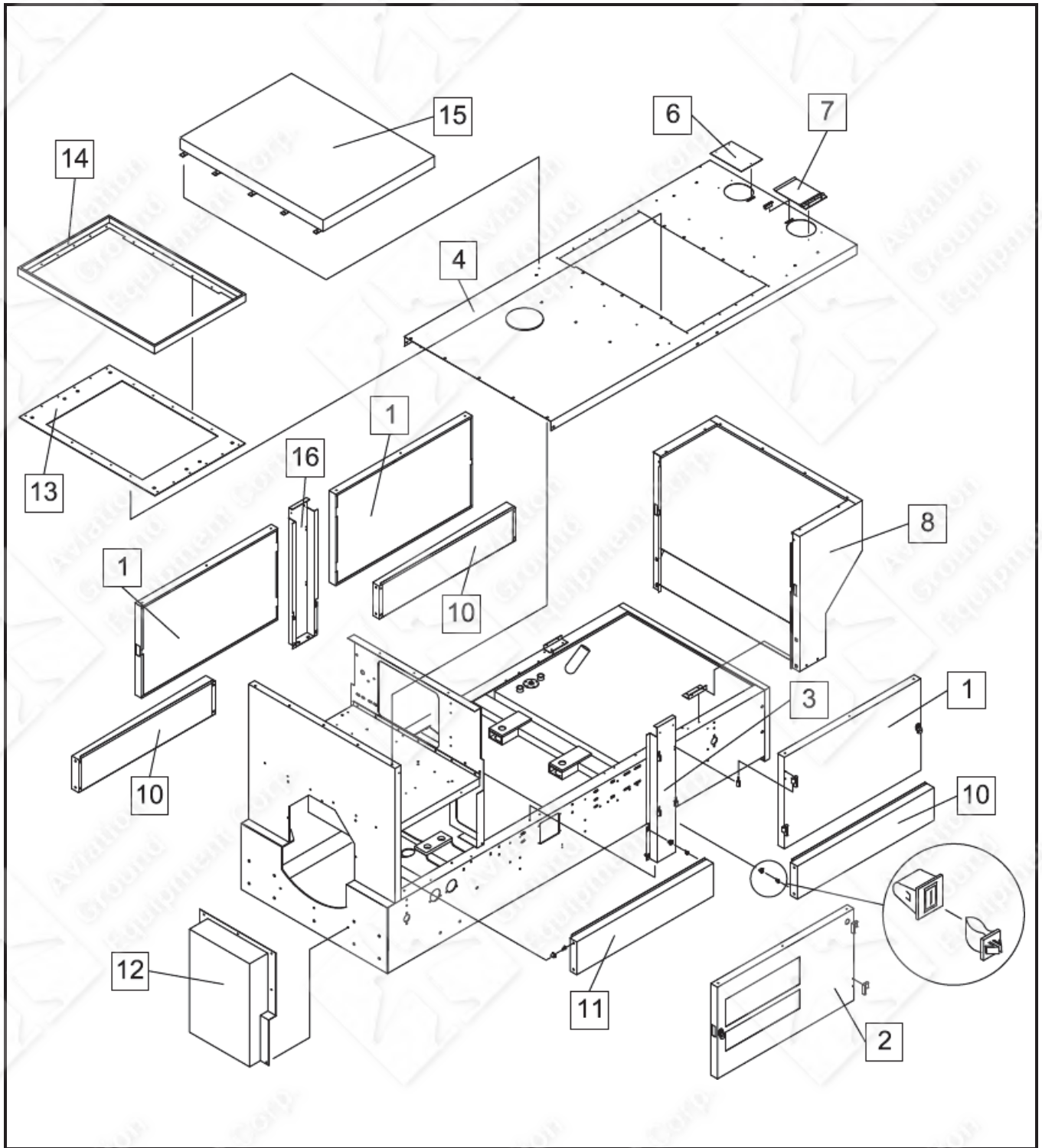
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Frame Assembly
Figure 3

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
3 -	1	288879		1
*		287738-025		1
*		287738-029		1
*		287738-030		1
*		287738-031		1
*		287738-032		1
	2	288691A		1
	3	288835A		1
	4	289224		1
	5	289223-001		1
	6	289223-002		1
*		289239		1
	7	282562		1
	8			Ref.
	9	289557		1
*		480603-001		1
*	10	290081		1
*		287738-003		1
*		287738-015		2
*	11	289693		1
*	12	289690		1
	13	289479		1
*	14	289465		1
*	15	287506		2
	16	288692		1
	17	288693		1
	18	288882		1



Canopy Assembly
Figure 4

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
4 -	1	287701		3
	2	288880		1
	3	288544		2
*		287738-020		2
	4	289286		1
*		287738-022		1
*	5	289287		1
	6	288919		
	7	283647		1
*		403127		1
	8	289672		Ref.
		289669		1
*		287738-012		1
*		287738-013		1
*		287738-014		1
*		287805		1
*		287806		1
*		287793		2
*		287794		1
*		403127		1
*	9	287800		1
	10	287703		3
*		287738-004		3
		287785		12
		(VA5733 #7800-00 & #263-000006-00-0017)		
	11	288878		1
*		287738-027		1
		403091-008		1
		287785		4
		(VA5733 #7800-00 & #263-000006-00-0017)		
*	12	290082	B,D	1
		289563	A,C	1
	13	289480		1
	14	289290		1
	15	289568		1
	16	291704		1

Models A are trailer-mount.
Models B are fixed/truck mount.

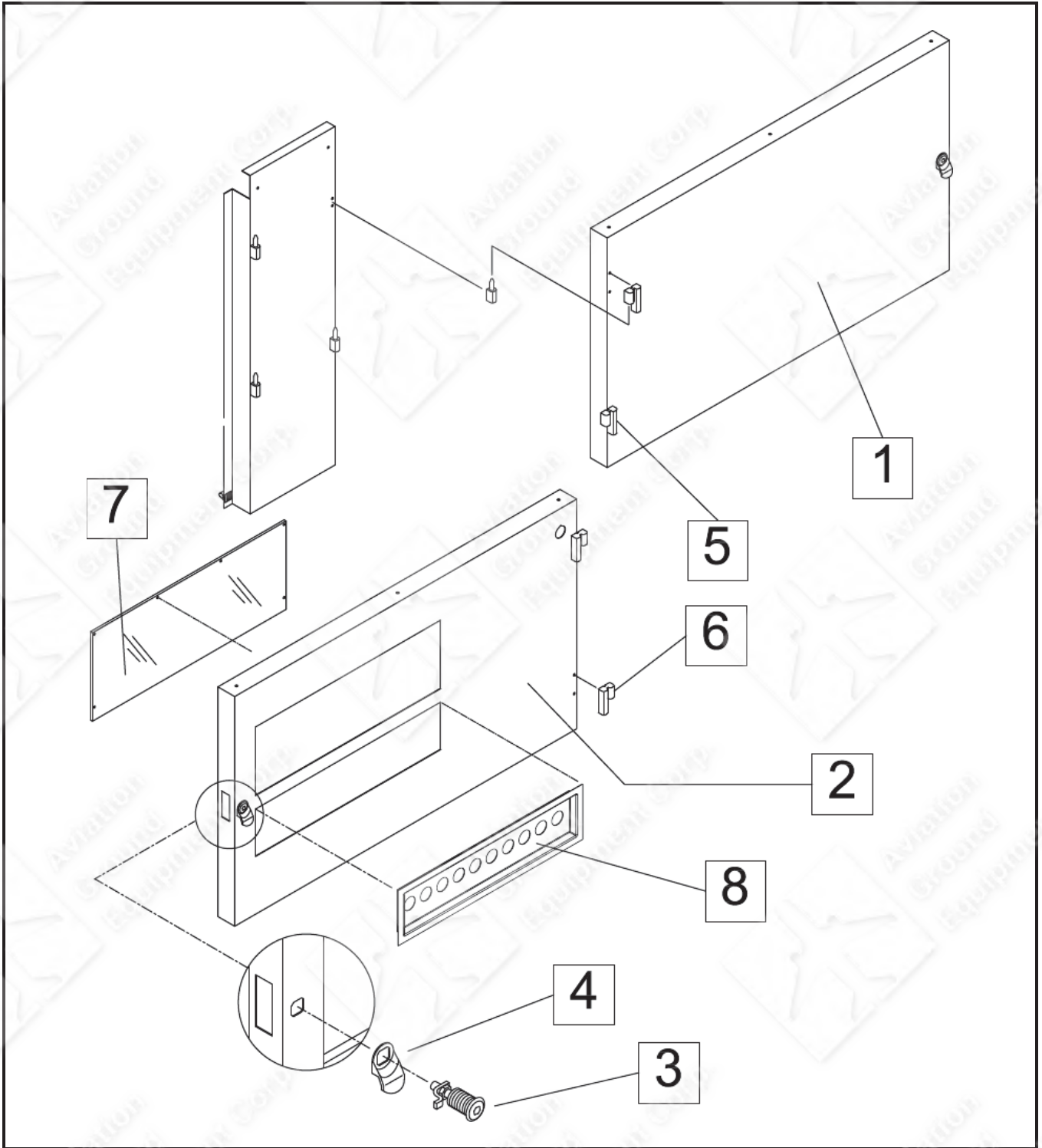


Figure 5 Canopy Doors

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
5 -	1	287701		3
*		287738-001		3
	2	288880		1
*		287738-028		1
	3	287542-001		4
	4	287526-002		4
	5	283824		4
	6	283597		4
	7	288881		1
	8	291679		1
*		291681		1
*		291682		1
*		291683		1
*		291684		1

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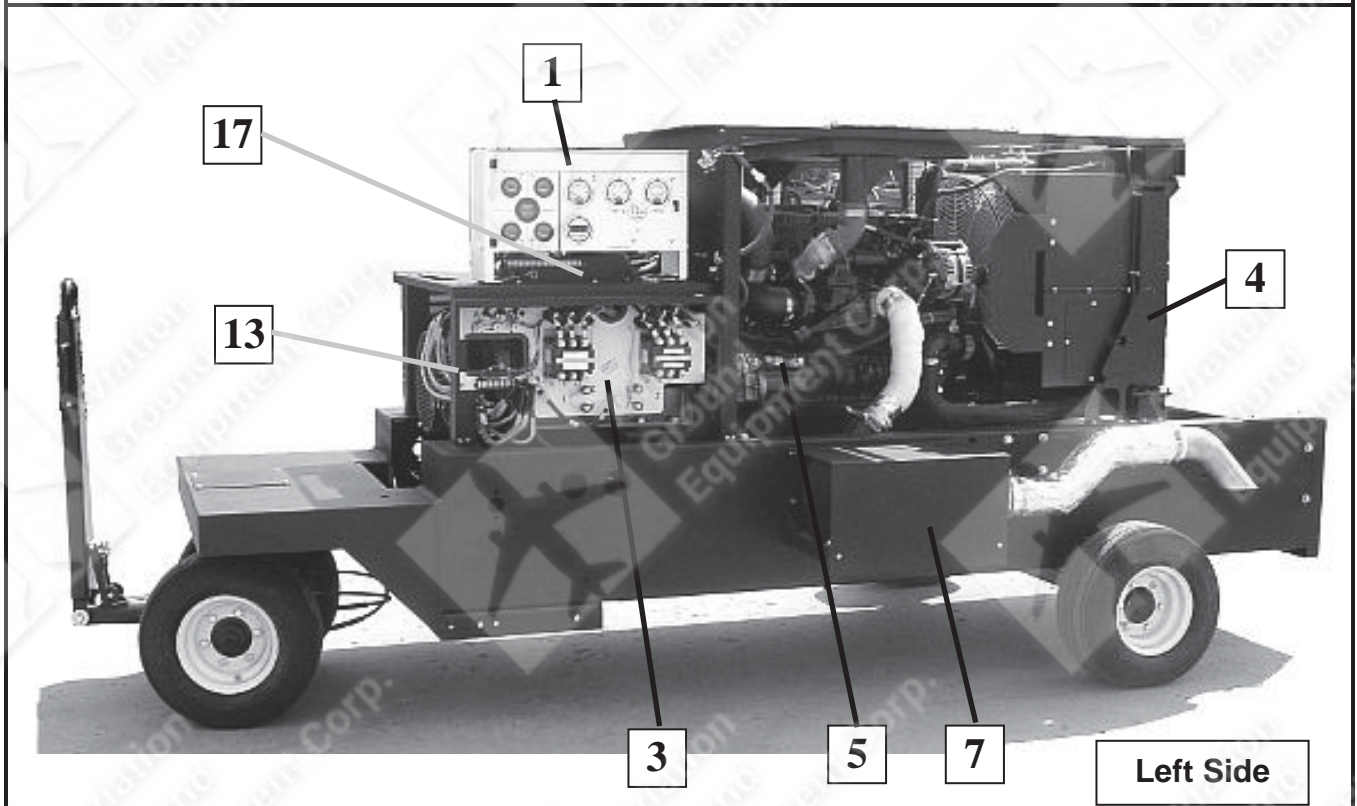
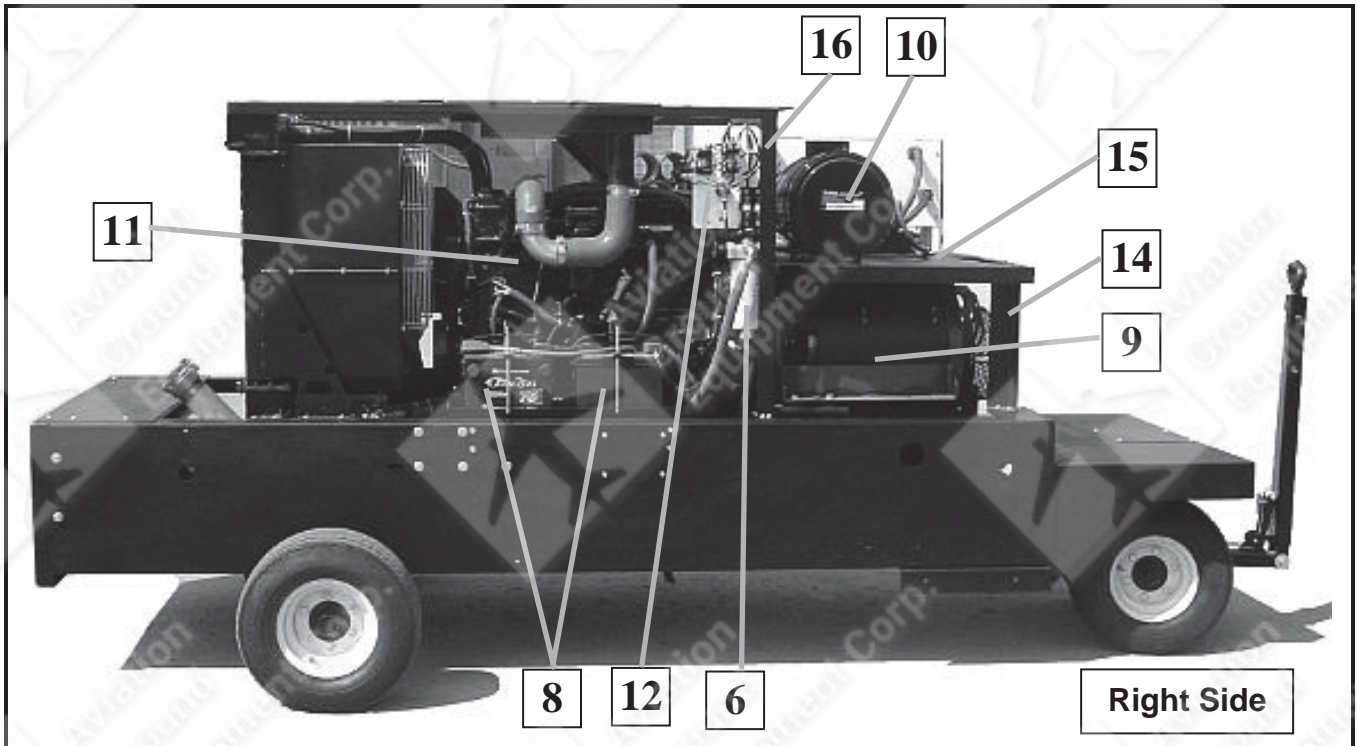


Figure 6 Internal Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
6 -		Left Side		
1		Control Box Assembly (See Figures 7 & 8)		Ref.
*	289593-001	...Mount, Rubber (V5P059 #51225)		4
*	2	Control Switch Panel Assembly (See Figure 9)		Ref.
3	291626-002	400 Hz. Power Module Components (See Figure 10)		Ref.
*	288882	...Cover, Power Module		1
4		Cooling System Components (See Figure 11)		Ref.
5		Engine Ground Plate and Cables (See Figure 12)		Ref.
6		Fuel System Components (See Figure 13)		Ref.
7		Engine Exhaust Components (See Figure 14)		Ref.
		Right Side		
8		12 VDC Battery Components (See Figure 15)		Ref.
9	288460-001	Generator Assembly (See Figure 19)		Ref.
10		Air Cleaner Components (See Figure 16)		Ref.
11	291700	Engine, Cummins, QSB6.7, 240 HP (See Figure 17)		1
12		Engine Electronic Panel Components (See Figure 18)		Ref.
		Miscellaneous		
13	288692	Leg, Control Box Support, Left		1
14	288693	Leg, Control Box Support, Right		1
15	288691A	Support, Control, Box		1
16	288835A	Panel, Bulkhead, Center		1
17	288895	Support, Option Terminal Block		1

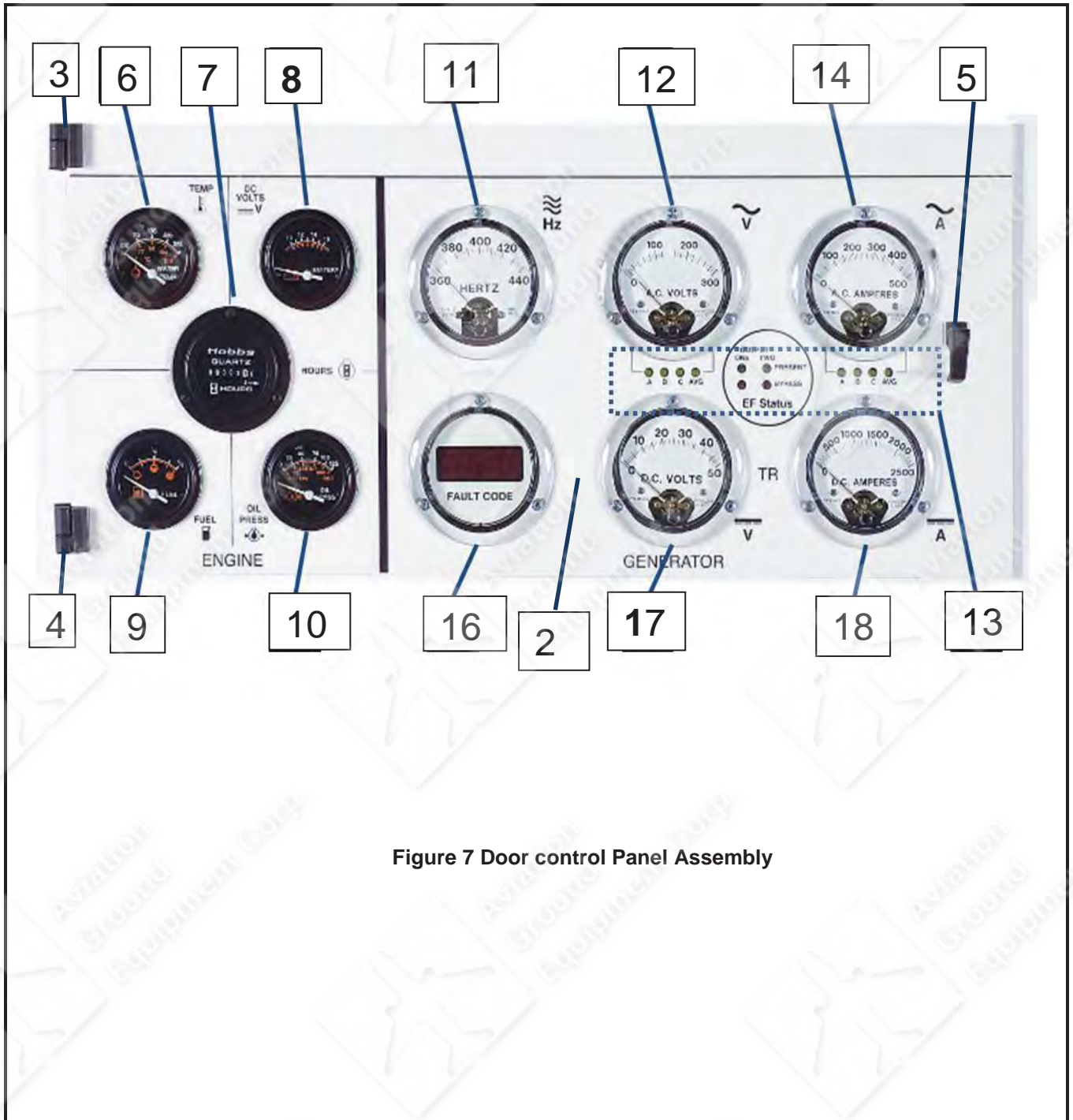
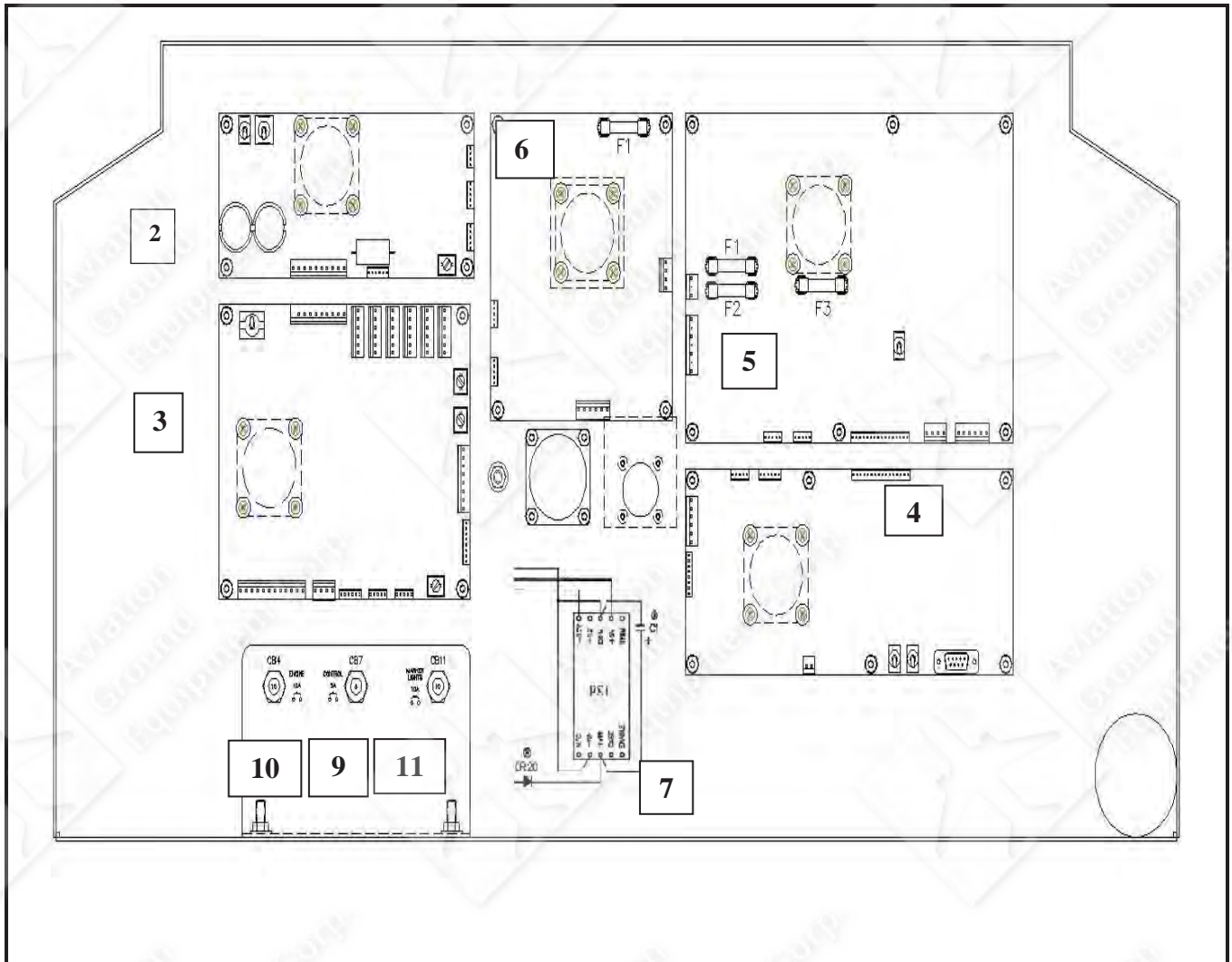


Figure 7 Door control Panel Assembly

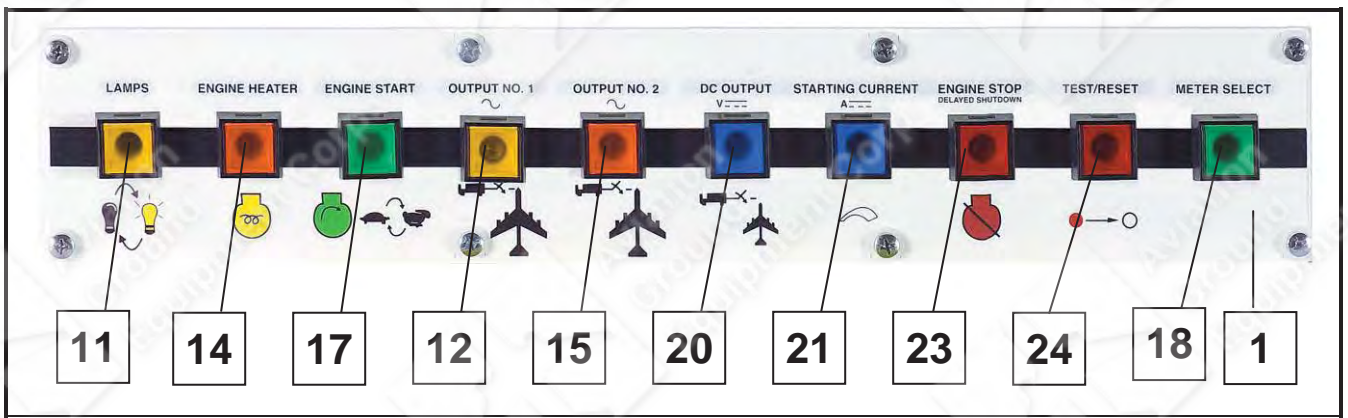
FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
7 -	289018-002	Door, Control Panel, Assembly [No T-R]		1
	289018-004	Door, Control Panel, Assembly [With T-R]		1
1	288995	Panel, Door, Control Box		1
2	289017	Label, Control Box		1
3	288836-002	Hinge, Offset, Bottom (V94222 # 96-142 Type B)		1
4	288836-001	Hinge, Offset Top (V94222 # 96-141 Type A)		1
5	288999-001	Latch, Control Box (V94222 #62-20-25)		1
6	287908	Gauge, Water Temperature (V16476 #06347-01)		1
7	181358	Meter, Running Time (6H359 #85101)		1
8	286699-001	Voltmeter, Battery (V16476 #06351-01)		1
9	494134-001	Gauge, Fuel Level (V16476 #06339-01)		1
10	78A1117-002	Gauge, Oil Pressure (V16476 # 06395-01)		1
11	283167	Meter, Frequency (V74542 #D-1255119311)		1
12	W8105A-009	Voltmeter, AC (V74542 #D-1497222103)		1
13	288806	Board, P.C., Front Panel, Led		1
	288820	...Gasket, LED PC Board		1
14	288814-001	Ammeter, AC (V74542#D-1497322103)		1
* 15	285172	Light, Strip (not shown)		3
		Light, Strip (not shown)		5
16	288858-004	Meter, Fault, Digital		1
17	400642-008	Voltmeter, DC [See TR Manual]		1
18	400641-015	Ammeter, DC [See TR Manual]		1



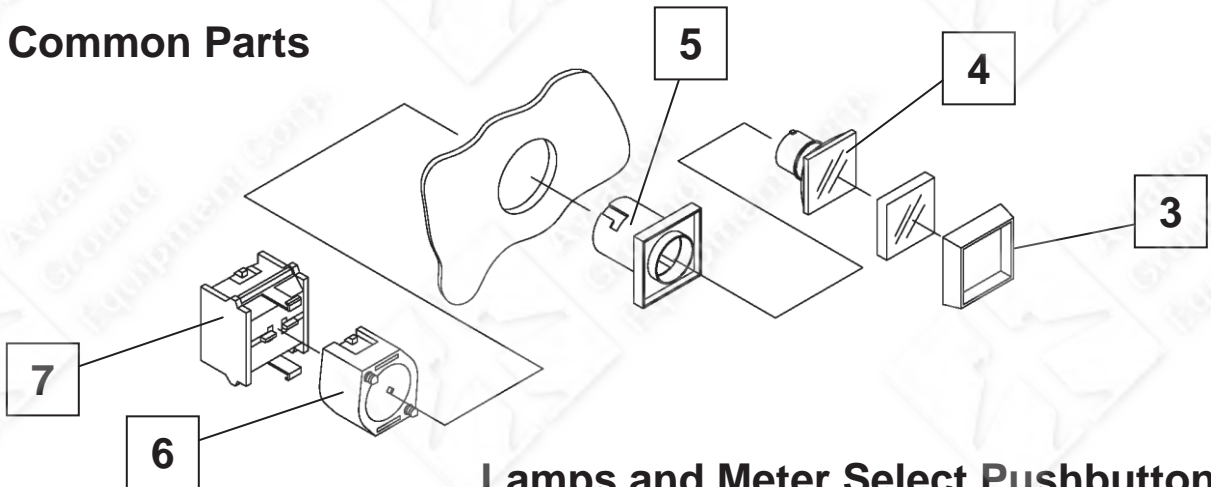
- | | |
|---|--|
| 1. Control Box Wrapper | 7. +5, -12 VDC Power Supply (PS1) |
| 2. Engine Specific PC Board [ESB] (A1) | 8. Circuit Breaker Support Bracket |
| 3. Engine Interface PC Board [EIB] (A2) | 9. Marker Lights Circuit Breaker, 10 A (CB1) |
| 4. Digital Control PC Board [CTL] (A3) | 10. Engine Circuit Breaker, 10 A (CB4) |
| 5. Voltage Regulator PC Board [REG] (A4) | 11. Controls Circuit Breaker, 5 A (CB7) |
| 6. Transformer-Rectifier PC Board [TRB] (A404) {Optional} | |

Figure 8: Control Box Interior Components

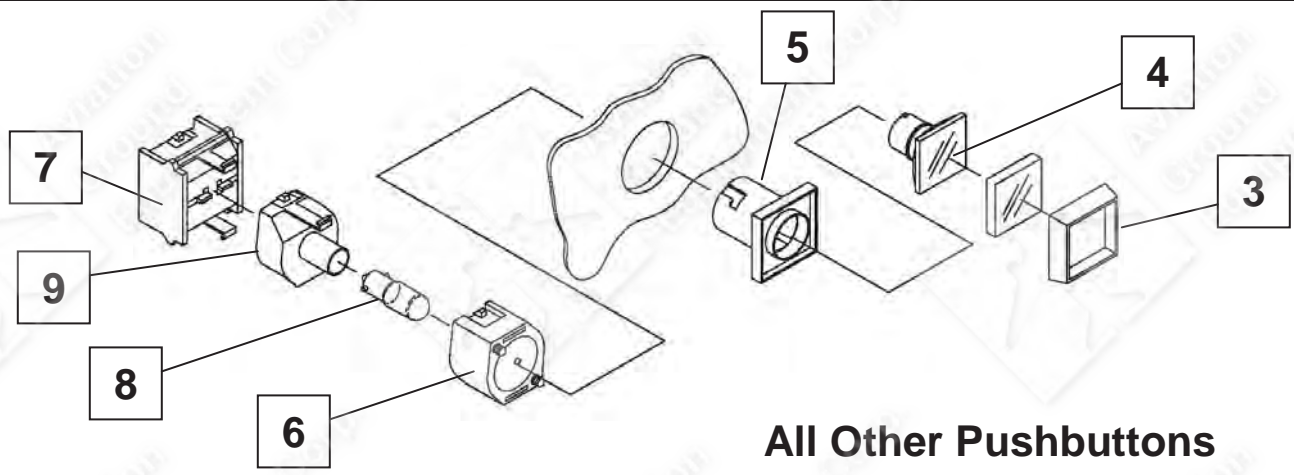
FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
8 -	289019-001	Control Box Assembly – no DC	A,B	1
	289019-002	Control Box Assembly – with DC	C,D	1
1	288994	Side, Left, Control Box		1
2	288993	Side, Right, Control Box		1
3	288992	Wrapper, Control Box		1
4	288745	Board, PC, ESB		1
*	288813	...Label, ESB [Engine Control]		1
5	288937	Board, PC, EIB		1
*	288791	...Label, EIB [Starter Control]		1
6	288940B	Board, PC, Regulator		1
*	288876	...Label, Regulator [Generator Control]		1
	288896	...Label, Regulator [LDC & Voltage Control]		1
	W11166-009	...Fuse, 1 A, 250 V (V2B664)		2
	W11166-002	...Fuse, 5 A, 250 V (V2B664)		1
7	289026	Board, PC, Digital Controls		1
*	288875	...Label, Control [EF Bypass Control]		1
8	286367-001	Power Supply (V05YB3 # M30D1205-12TS)		1
	288605	...Support, Power Supply		1
9	289059	Support, Circuit Breakers		1
	289060	...Label, Circuit Breaker		1
	289061	...Insulator, Circuit Breaker		1
10	283978-002	Circuit Breaker, 10A (V77342 #W23-X1A16-10)		2
11	283978-001	Circuit Breaker, 5A (V77342 #W23-X1A16-5)		1
*	12	289073	Harness, Wire, Control Box Assembly	1
*	13	289072	Harness, Wire, DC [See TR Manual]	1
14	288914B	Board, PC, T-R [See TR Manual]		1
	W11166-009	...Fuse, 1 A, 250 V (V2B664)		1
*	15	286611	Label, Blank	1



Common Parts



Lamps and Meter Select Pushbuttons



All Other Pushbuttons

Figure 9 Push-button Switches

FIGURE ITEM NO.	PART NO.	DESCRIPTION	EFF	UNITS PER ASSY.
9 -	289012-002	Push-button Switch Box		1
	289012-004	Push-button Switch Box		1
1	289004	Panel, Switch Box		1
	289014	...Switch Panel Label		1
*	040201	...Strip, Gasket, Neoprene		66 in.
*	2	289015		1
		Switch Panel Wire Harness		
		Common Push-button Parts		
	3	285029-001		1
		Bezel Frame(V61706 #704-701.0)		
	4	285031-001		1
		Lens Holder(V61706 #704-709.7)		
	5	285032-001		1
		Sleeve Actuator (V61706 #704-731.0)		
	6	285033		1
		Mounting Flange(V61706 #704-950.5)		
	7	284475-001		1
		Switch, Contact Block (V61706 #704-900.3)		
	8	400613-004		1
		Type 1815 Bulb (V02929)		
	9	285034-001		1
		Lamp Holder (V61706 #704-950.0)		
*	10	290080		1
		Contact Block Cover		
	11	289601-001		1
		Lamps Push-button		
	12	289601-004		1
		Output # 1 Push-button		
	13	285030-002		1
		Yellow Lens (V61706 #704-702.4)		
	14	289601-005		1
		Pre-heater Push-button		
	15	289601-005		1
		Output # 2 Push-button		
	16	285030-004		1
		Orange Lens (V61706 #704-702.3)		
	17	289601-006		1
		Engine Start Push-button		
	18	289601-006		1
		Meter Select Push-button		
	19	285030-003		1
		Green Lens (V61706 #704-702.5)		
	20	289601-007		1
		DC Output Push-button		
	21	289601-007		1
		Current Push-button		
	22	285030-005		1
		Blue Lens (V61706 #704-702.6)		
	23	289601-003		1
		Engine Stop Push-button		
	24	289601-003		1
		Test/Reset Push-button		
	25	285030-001		1
		Red Lens (V61706 #704-702.2)		
		Other Parts		
	26	287038-001		1
		Plug, Hole (when switch is not installed)		
	27	288773		1
		Panel, Switch Box		
*	28	288772		1
		Wrapper, Switch Box		
*	29	288771		2
		Top, Switch Box		
*	30	289266-001		1
		Connector, 90 Degrees, Conduit		

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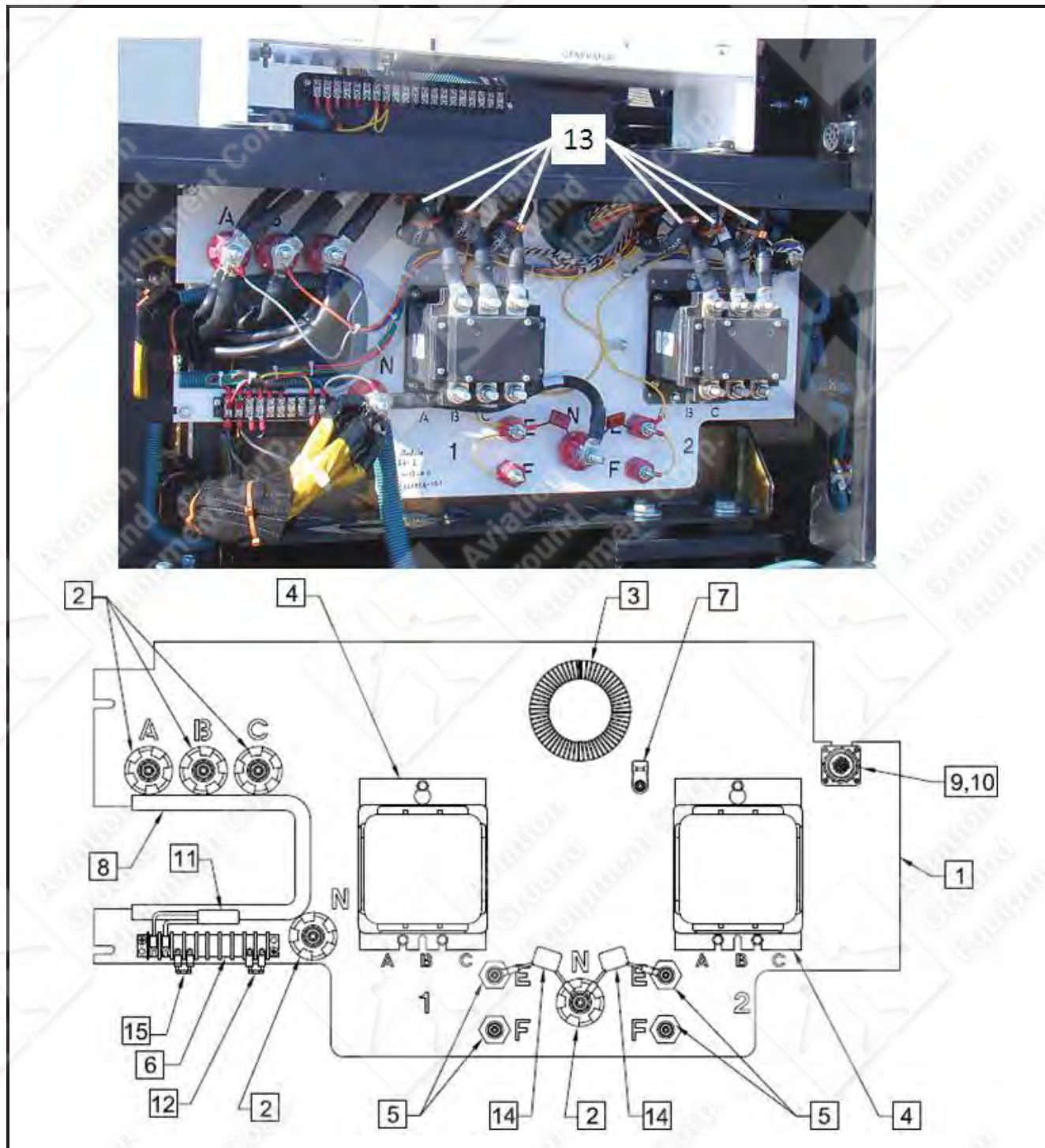


Figure 10 400 Hz. Power Module Assembly

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
10 -	291626-002	Power Panel Module Assembly		Ref.
1	291625	Panel, Power Module		1
2	283154-001	Standoff, 3/8-16		5
3	76A1131	Tubing, Z-flex, 1/2		0.79 ft
4	282130-001	Contactor, Line, 3-Pole		2
5	286266	Standoff, Short [E-F]		4
6	401911-010	Block, Terminal		1
7	288078-001	Tie, Screw Mount		1
8	050988	Trim, .12, Black, Alum, Vinyl (PVC)		18 in.
9	288829	Harness, Wire, Power Module		1
		...(No. 101) "A" Stator Terminal to "K1", # 1 Output		1
		...(No. 102) "B" Stator Terminal to "K1", # 1 Output		1
		...(No. 103) "C" Stator Terminal to "K1", # 1 Output		1
		...(No. 110) "N" Stator Terminal to "N", Neutral		1
10	288832	Harness, Wire, 2nd Output		1
		...(No. 104) "A" Stator Terminal to "K201", # 2 Output		1
		...(No. 105) "B" Stator Terminal to "K201", # 2 Output		1
		...(No. 106) "C" Stator Terminal to "K201", # 2 Output		1
11	282089-011	Diode, Fly back, Assembly		1
12	288892-001	Resistor Assembly, ID, Power Module		1
13	285102-001	Current, Instrument Transformer (V05HB5 # 20130)		6
14	290227	Capacitor, Noise Suppression		2
15	288892-006	Resistor, ID, 140 KVA		1

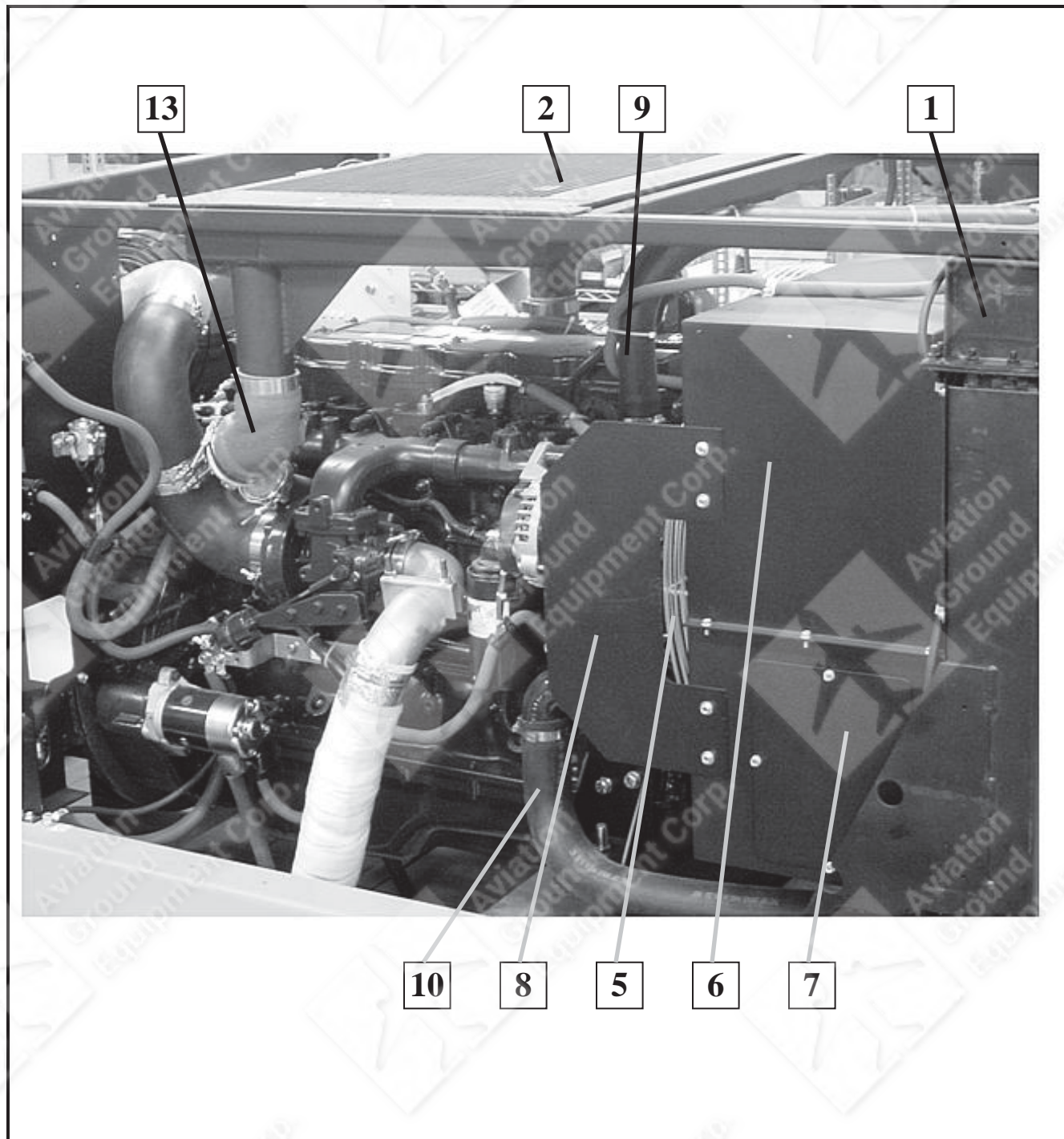


Figure 11 Cooling System Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
11 -	289890	Radiator/Charge-Air-Cooler Assembly		Ref.
1	288240	...Radiator Assembly (V0HZP9)		1
2	289814	...Charge-Air-Cooler Assembly		1
*	3	290145	Sensor, Coolant Level	1
*	4	289844	Fan, Cooling, 26"	1
5	289559	Guard, Spiral, Fan		1
6	289560	Shroud, Fan, Top		1
7	289561	Shroud, Fan, Bottom		1
8	288328	Guard, Fan Belt & Pulley		1
9	287659	Hose, Radiator, Upper (V24161)		1
	W10869-003	...Clamp, Hose (1 ⁹ / ₁₆ " - 2 1/2")		2
10	288309	Hose, Radiator, Lower (V24161)		1
	W10869-005	...Clamp, Hose (2 ⁵ / ₁₆ " - 3 1/4")		2
*	11	Line, De-Aeration		Ref.
	288123-001	...Connector, Male, 1/4 NPT, 1/4 Tube		2
	056534	...Hose, 1/4", ID		40"
	W10051-007	...Clamp, Hose (⁷ / ₃₂ " - ⁵ / ₈ ")		2
*	12	283873	Valve, Drain, Radiator	2
	056535	...Hose, 3/8" ID, Low Pressure		60"
	W10051-007	...Clamp, Hose (⁷ / ₃₂ " - ⁵ / ₈ ")		2
13	289830	Hose, Reducer, 3.50" to 3.00", 55° Elbow		1
*	290597-001	...Clamp, T-Bolt, Floating Bridge		1
*	290597-002	...Clamp, T-Bolt, Floating Bridge		1
*	14	289542	Pipe, Elbow, CAC Intake	1
*	15	289827	Hose, 3.00" 4 Ply Silicone, 90 ° Elbow	1
*	290597-001	...Clamp, T-Bolt, Floating Bridge		2
*	16	289828	Hose, 3.00" 4 Ply Silicone, 90 ° Elbow	1
*	290597-001	...Clamp, T-Bolt, Floating Bridge		2

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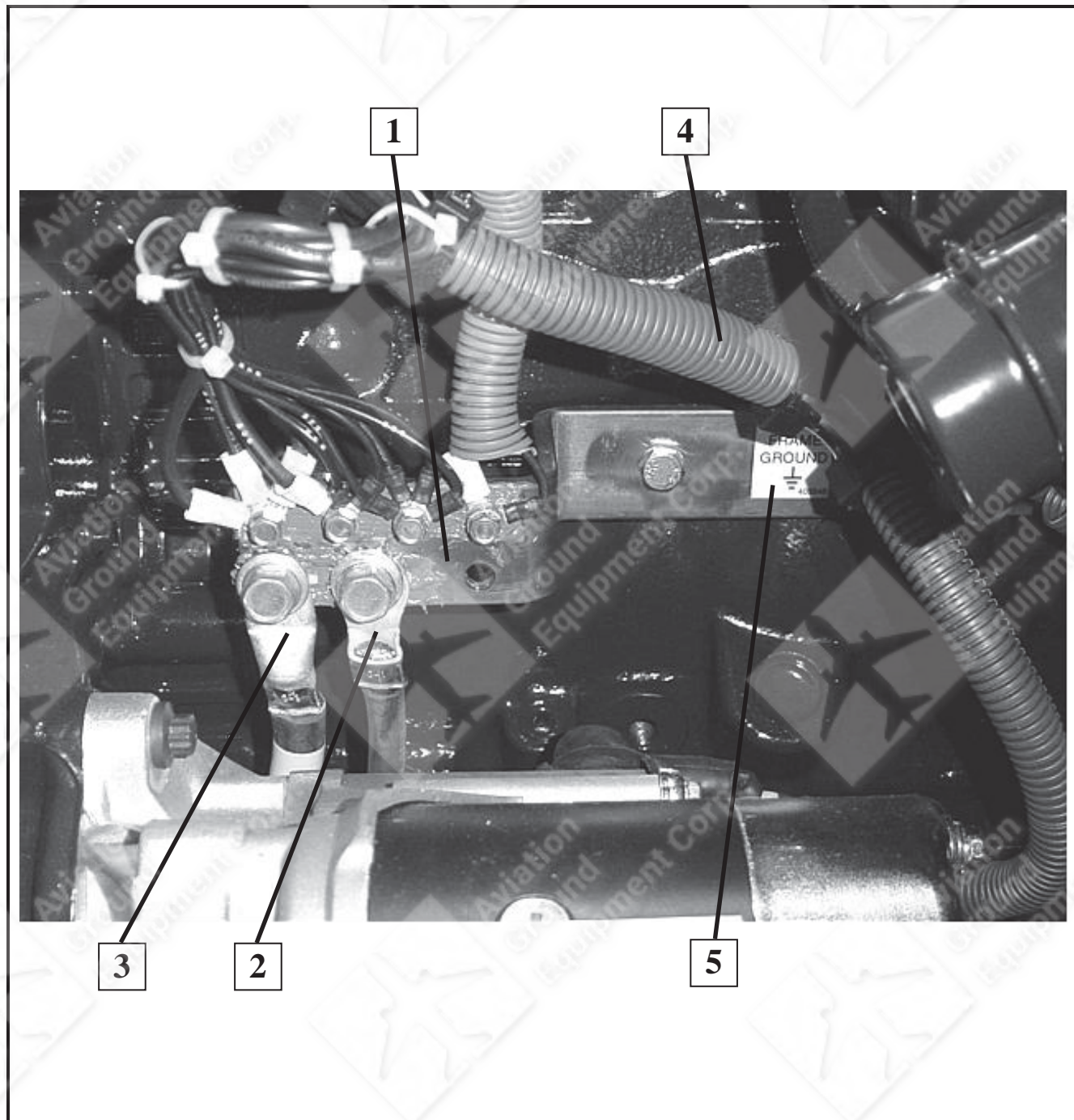


Figure 12 Engine Ground Plate and Cables

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
12 - 1	288723	Plate, Ground		1
2	W9407-446	Cable, Engine to Ground		1
3	W9360-289	Cable, #111, Power Mod. To Ground		1
4	291686	Wire Harness, Engine		1
5	405548	Label, Frame Ground		1

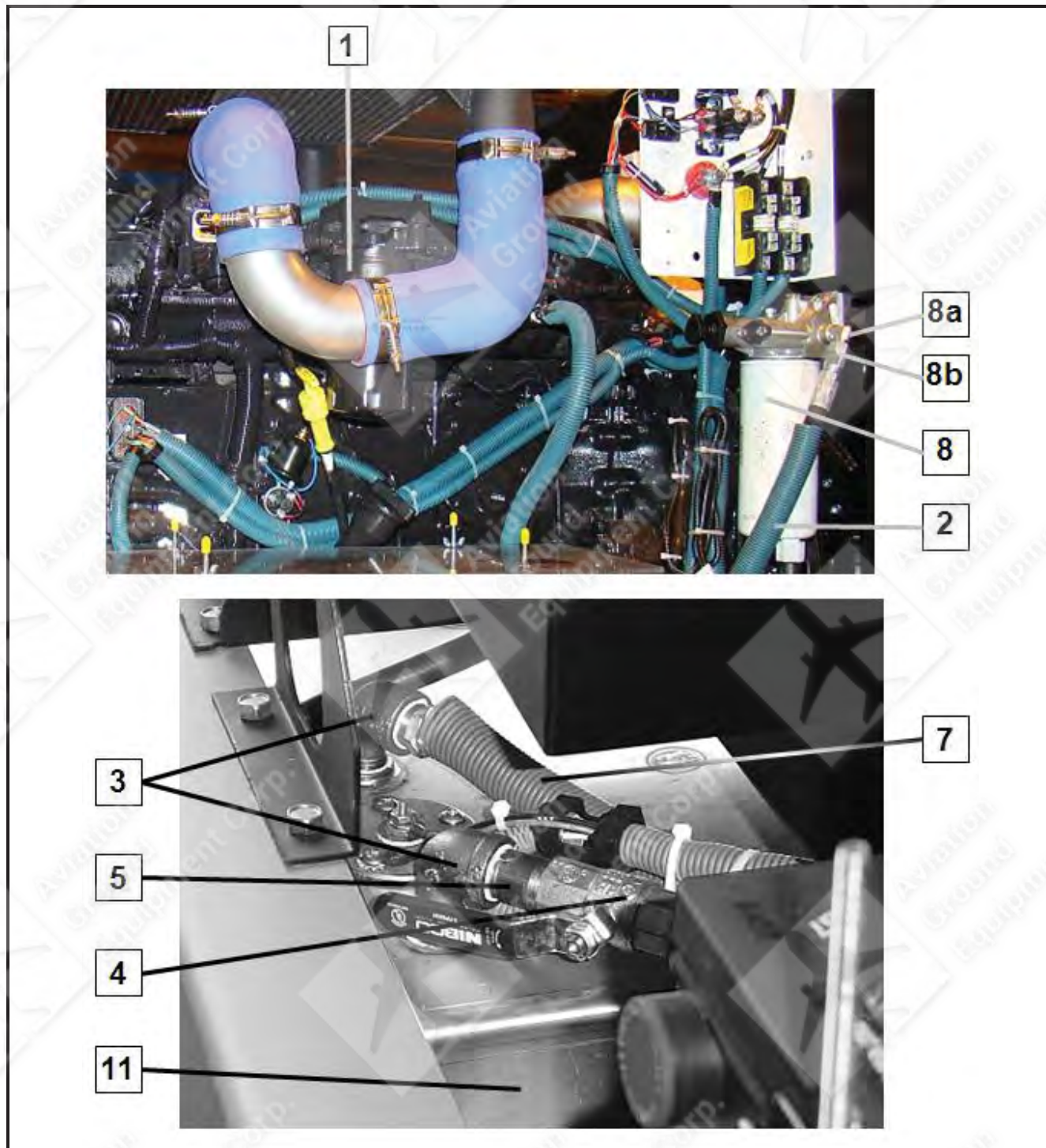


Figure 13 Fuel System Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
13 -	1	286897-030		Filter, Fuel [Supplied by Cummins]	1
	2	287804		Line, Fuel, Tank to Filter	1
		76A1132		...Tubing, Z-Flex, 3/4" ID	58"
	3	12CW2077-003		Elbow, 1/2" NPT, ST., 90°	2
	4	400819-003		Valve, Ball, 1/2" NPT	1
	5	W10760-003		Nipple, Pipe, 1/2"	1
*	6			Line, Fuel, Filter to Pump [Supplied by Cummins]	1
	7	291258		Line, Fuel, Return	1
		76A1132		...Tubing, Z-Flex, 3/4" ID	72"
	8	286897-031		Filter, Lubricity Fuel	1
	8a	290388		...Adapter, 12mm x 3/8 MJIC	1
	8b	290389		...Tube, Reducer JIC	1
*	9			Lubricity Filter Fuel Lines [Supplied by Cummins]	1
*	10	282562		Cap, Fuel Neck (V49234 #1275G/12T)	1
	11	289477		Tank, Fuel, 125 Gallon (Stainless Steel)	1
		486718-010		...Sender, Fuel Gauge	Ref.

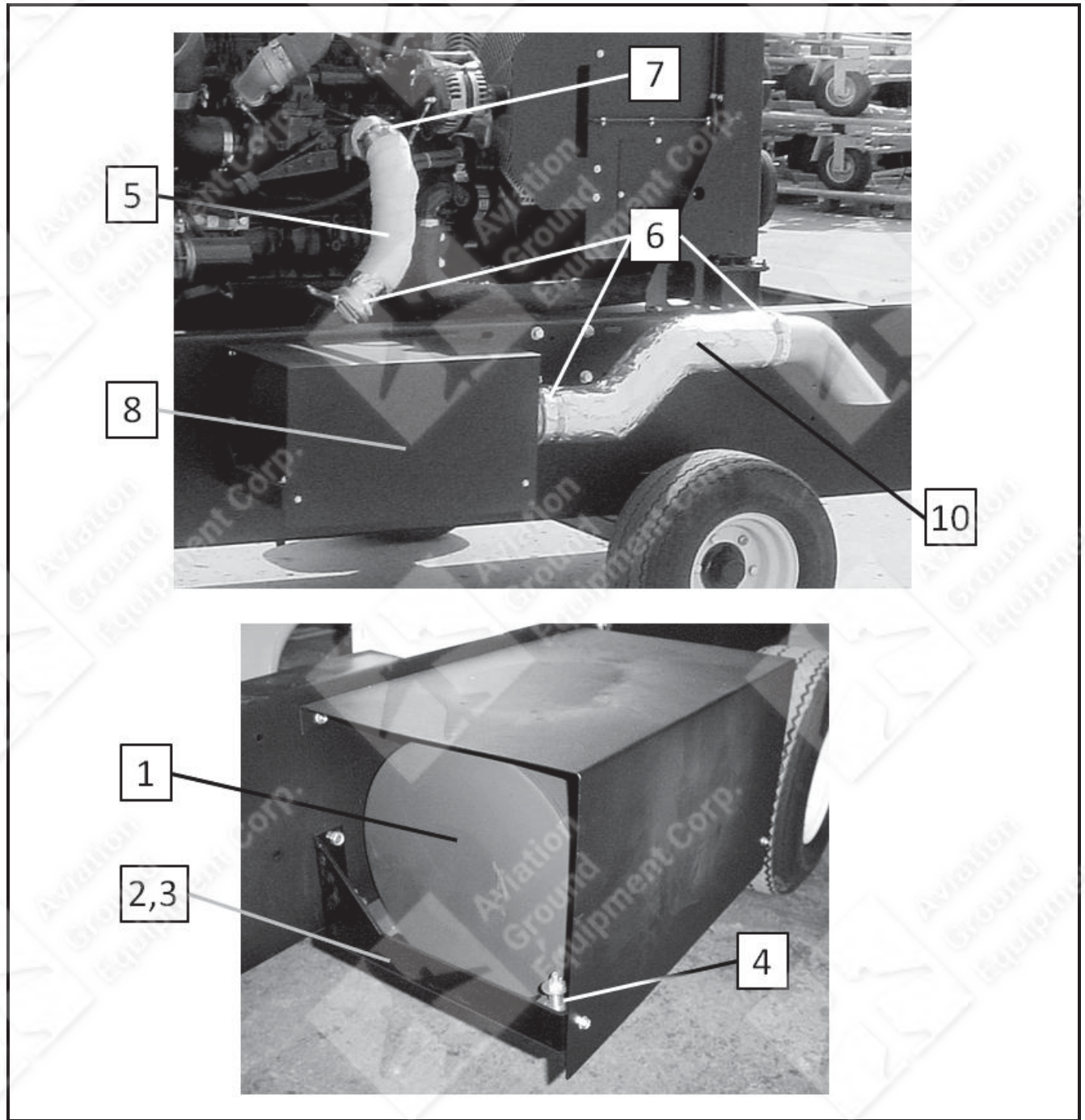


Figure 14 Engine Exhaust Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
14 -	1	287405		1
	2	287431		1
		287431		2
	3	287432		1
	4	287691		8
	5	288311		1
	6	404154-016		4
	7	404154-013		1
	8	287406		1
*		287644		1
*		287647		1
*	9	287645		1
	10	291260		1
*		287643		1

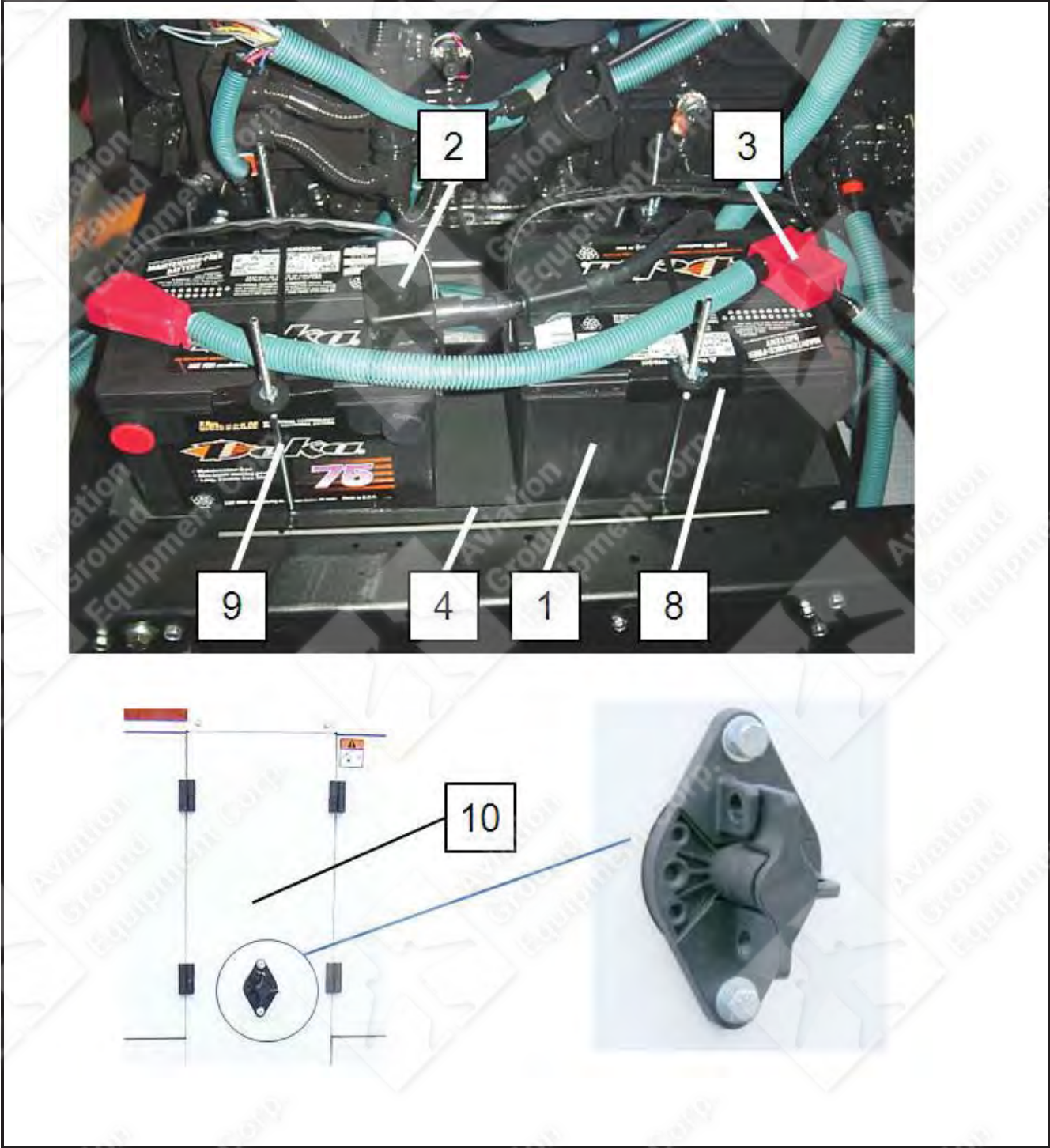


Figure 15, 12 VDC Battery System

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
15 -	1	281881-001		Battery, 12 V (V25710 #1231-PMF)	2
	2	287797		Cable, Battery, Negative (V3Y208)	1
	3	291728		Cable, Battery, Positive (V3Y208)	1
		76A1132		...Tubing, Z-Flex, 3/4" ID	46"
	4	289224		Tray, Battery	1
*	5	289223-001		Bracket, Battery Tray, RH	1
*	6	289223-002		Bracket, Battery Tray, LH	1
*	7	289239		Pad, Battery Tray	1
	8	287796		Hold Down, Battery (V3Y208)	2
	9	494295		Bolt, Hold Down, Battery (V3Y208)	2
	10	291704		Panel, Support, Door, MD (see Figure 4)	1
		287738-020		...Insulation, Noise, Support, Door (Option)	1
		291611		...Disconnect Switch, Master, Battery, 2000A	1
		291718		...Cable, Disconnect Switch, Starter	1

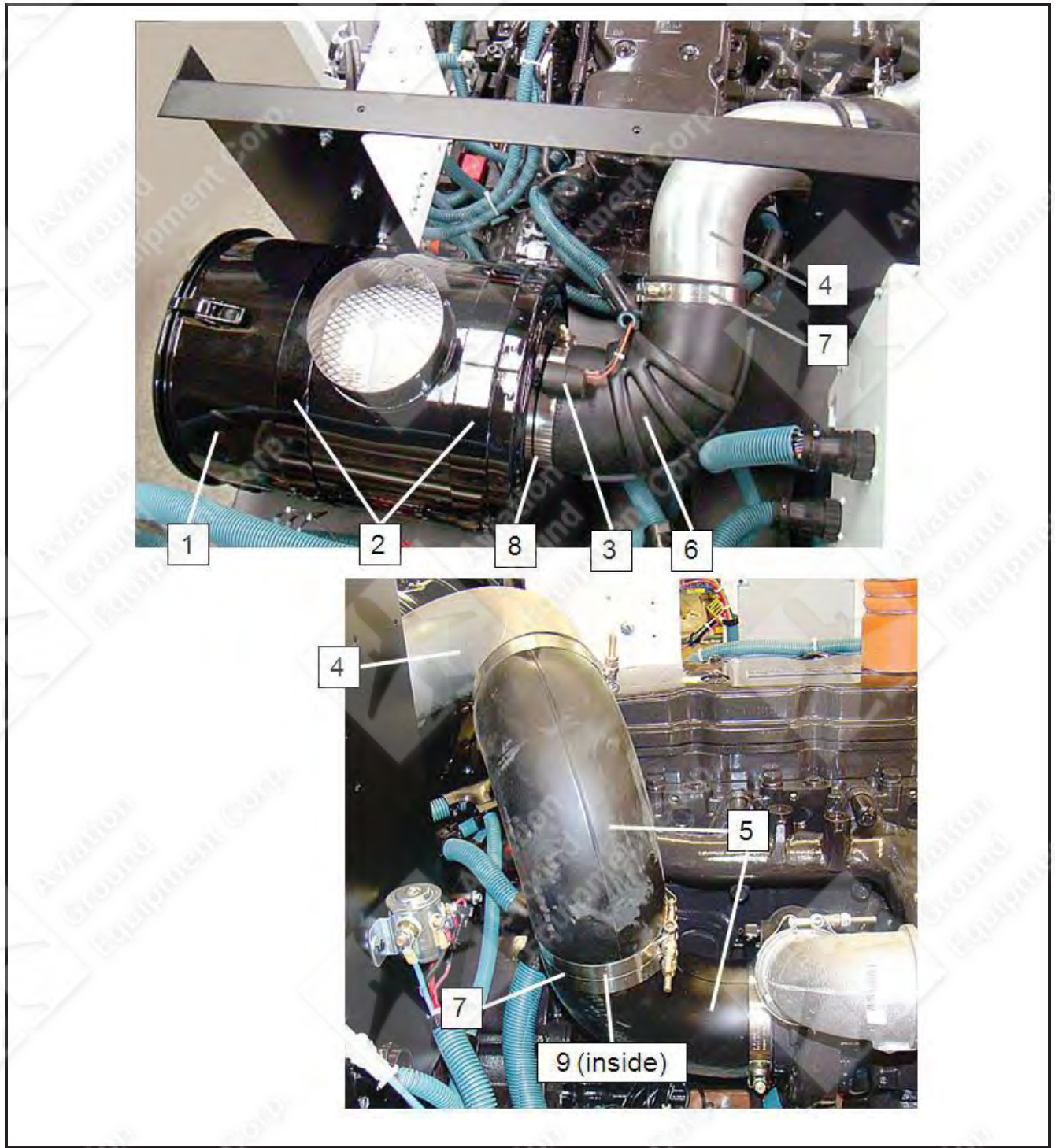


Figure 16 Air Cleaner Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
16 -	1	286061		1
		287548		Ref.
	2	284923		2
	3	282918		1
	4	288054-003		1
	5	287371		2
	6	284925		1
	7	280732-006		5
	8	280732-007		1
	*	9		1
	*	10		1
	*	11		1
	*	12		2
	*	13		1
	*	14		Ref.

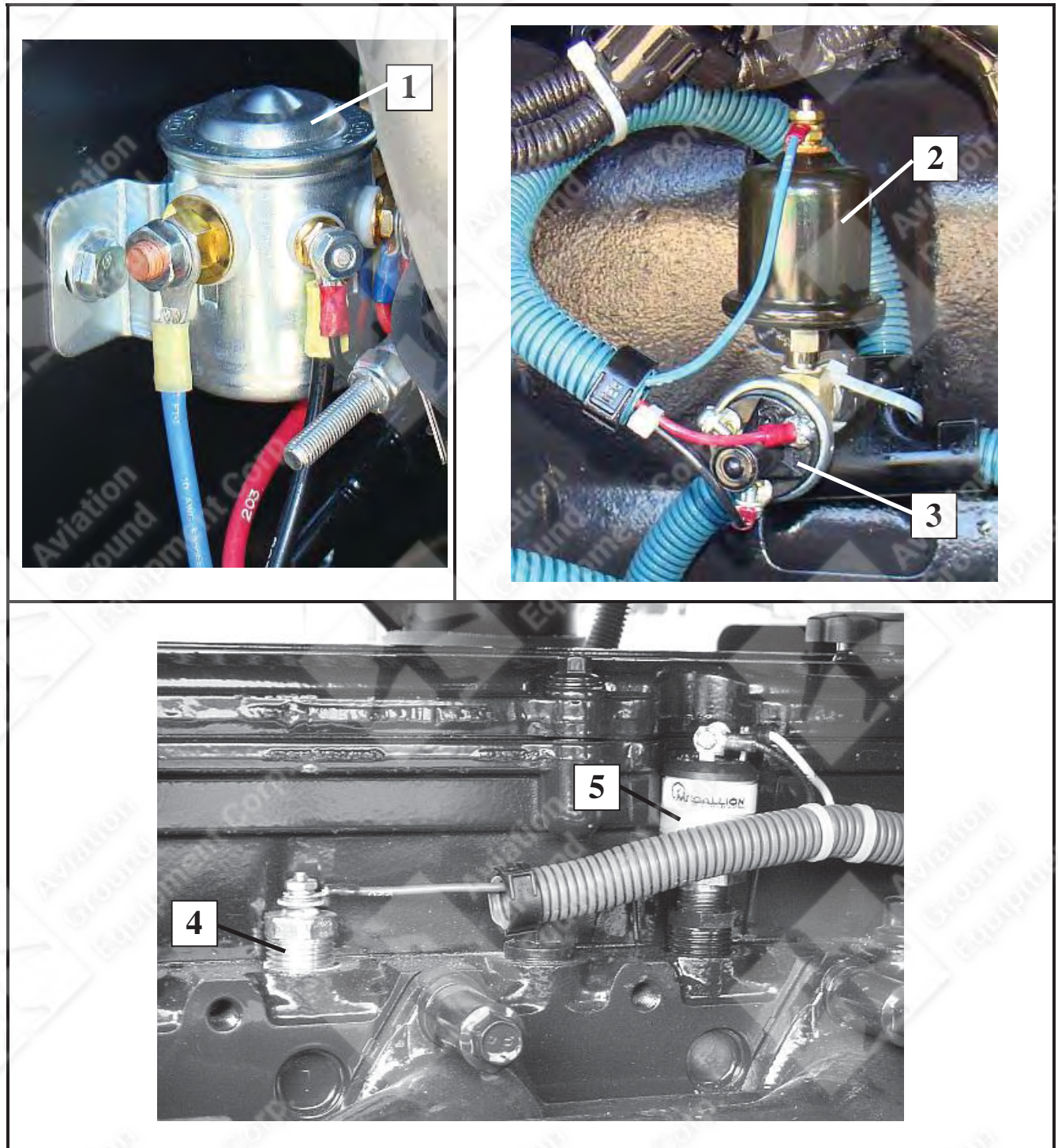


Figure 17 Engine Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.
17 -	1	291700		1
*		286897-029		Ref.
*		289815		1
*		289843		12"
*		W10869-009		1
Engine Electrical Components				
	2	286850		1
		288973-001		1
	3	403809-001		1
	4	78B1118-002		1
		287419		1
		W10910-000		1
		W10750-001		1
	5	403782-002		1
		W7814-004		1
	6	287909		1
		W7814-004		1
Engine Mounting Components				
*	7	480603-001		2
*	8	282852		1
*	9	289816		1
*	10	289557		1
*	11			Ref.
*		056535		36 in.
*				Ref.

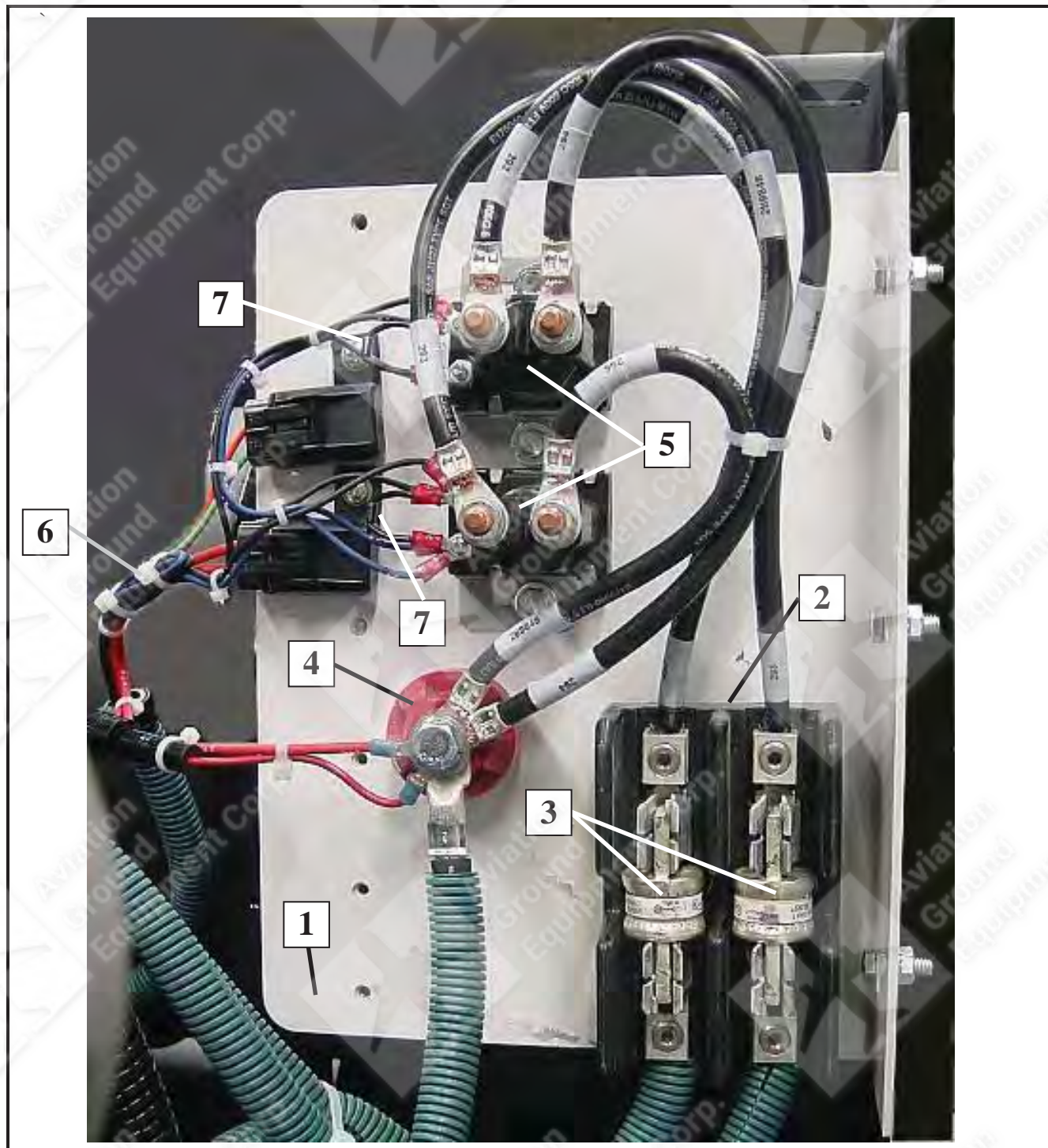


Figure 18 Engine Electronic Panel Components

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
18 -	1	288333		Panel, "E" Engine, Parts	1
	2	287145-002		Holder, Fuse (V17400 # T30100-1CR)	1
	3	287144-002		Fuse, Fast Acting (V17400 # JIN-125)	2
	4	283154-001		Insulator, Standoff	1
	5	288331		Relay, Grid Heater, Power (V1FQ83 50F3662)	2
	6	291717		Harness, Wire, Engine, Electronic	1
	7	489658-007		...Diode Assembly	2
	8	291686		Wire Harness, Engine	1

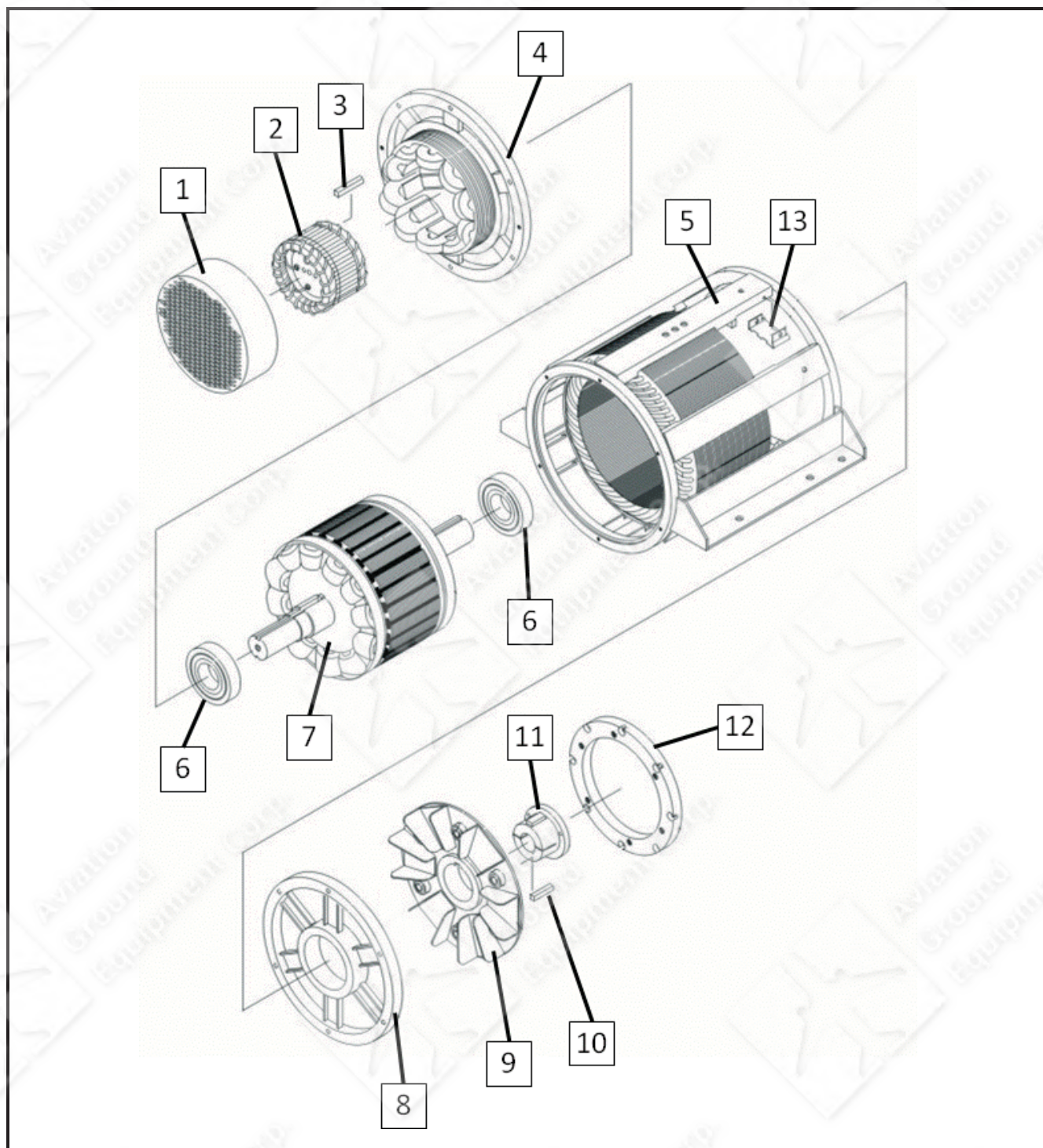


Figure 19 Generator Assembly

FIGURE ITEM NO.	ITW GSE PART NO.	NOMENCLATURE	EFF	UNITS PER ASSY.	
19 -	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	288471		Generator Housing and Coils Assembly	1
	6	W10072-068		Bearing	2
	7	288447-001		Generator Rotor	1
	8	288461		Front Bearing Support	1
	9	288481		Flexible Coupling Kit	1
		480290		...Coupling Bushing	8
	10	85B1039		Coupling Key	1
	11	85C1004-001		Split Taper Bushing	1
	12	289305		Ring, Spacer, Flex Coupling	1
	13	288458		Generator Air Deflector	6
*	14	288478		Generator Cover	1
*	15	288491		Tab, Fastener, Exciter Key	1
*	16	480603-001		Mount, Shock, Generator	4

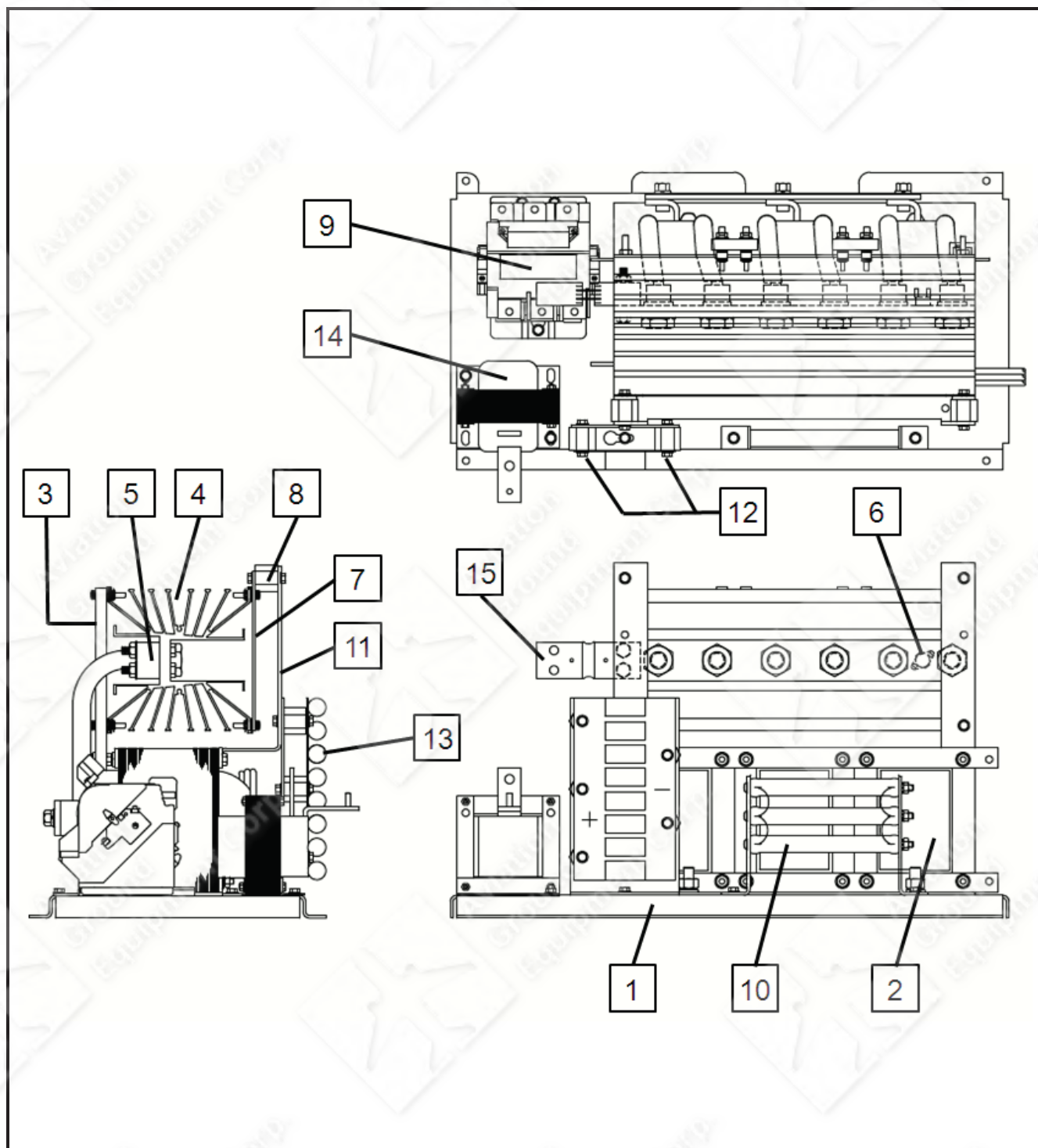


Figure 20 Transformer-Rectifier Assembly (DC Option)

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
20 -	289008-001	Transformer-Rectifier Assembly		Ref.
1	289007	Support, Internal, Transformer-Rectifier		1
2	286604	Transformer, 28.5 VDC		1
	281971-002	Resistor Assembly, 1 K ohm, 1 W		1
3	288404	Support, Heat Sink		1
4	286603	Heat Sink, Extruded		1
5	DR11171	Diode, Silicon, 400 A, Positive Base		1
6	404044-004	Thermostat		1
7	288147	Bracket, Heat Sink		2
8	286266	Standoff, Short		2
9	282130-001	Contactor, Input		1
*	77A1107	...Label "A"		1
*	77A1108	...Label "B"		1
*	77A1109	...Label "C"		1
10	288095-001	Resistor, Preload, Ay.		1
11	289006	Support, PC Board		1
12	286266	Standoff, Short		5
13	288117	Capacitor, TR, PC Board		1
14	288092	Choke, DC		1
15	280022	Shunt, 800 A, 50 mV		1
*	16 289010	Harness, Wire and Cable		1
*	17 400435	Nameplate, 28 Volts		1

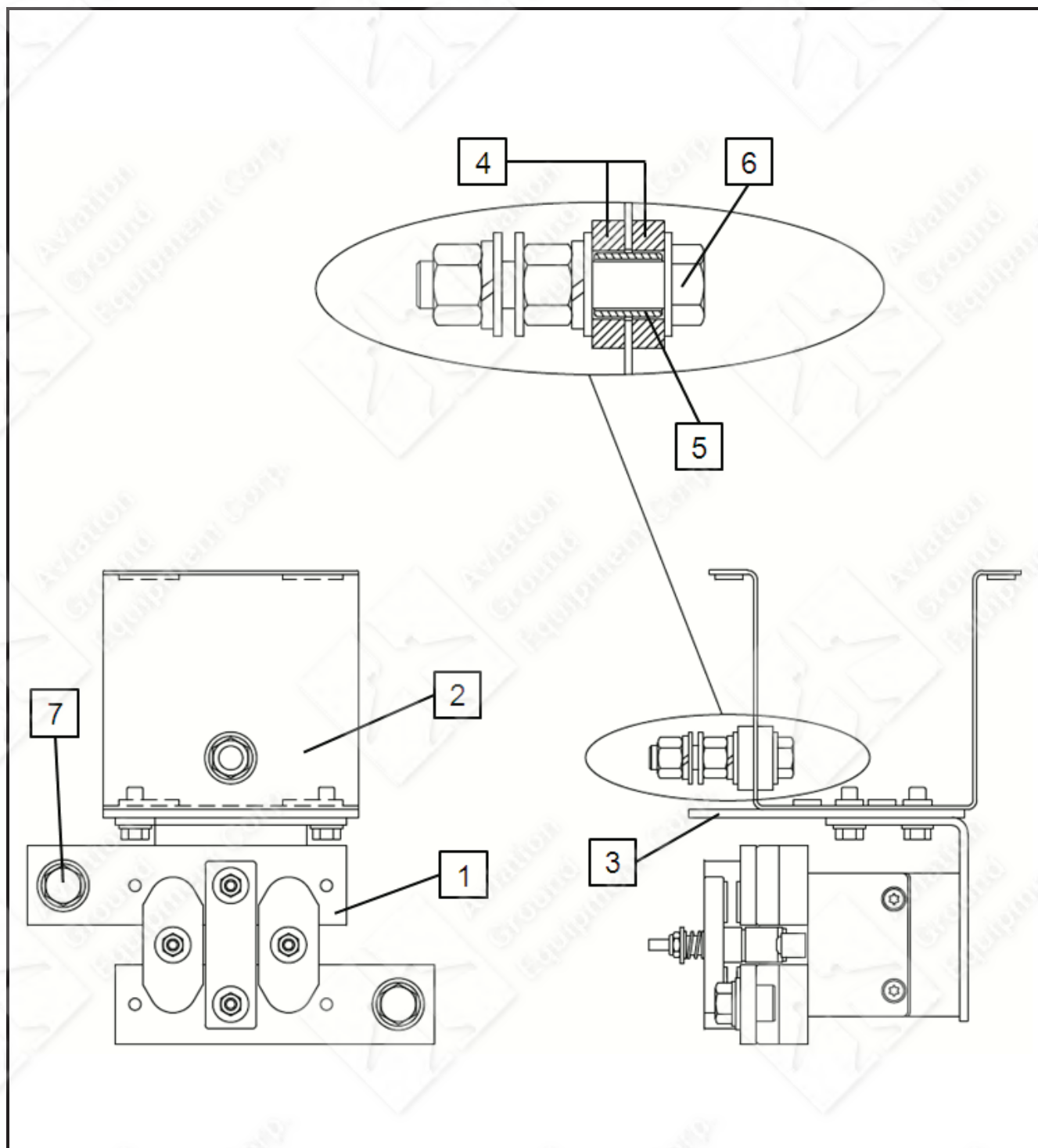


Figure 21 DC Output Contactor (DC Option)

FIGURE ITEM NO.	PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.	
21 -	1	286810-001		1	
		201673-004		1	
	2	289005		1	
	3	286849		1	
4	A25	Washer, Insulating		2	
	5	288099		1	
	6			Ref.	
		W11097-008	...Screw, 3/8-16 X 2, HHC		1
		W11242-010	...Washer, 3/8, Flat		6
		W11254-006	...Washer, 3/8, Lock		2
		W11254-006	...Nut, 3/8-16, Hex		2
7		Contactors Studs		Ref.	
		W11097-002	...Screw, 3/8-16 X 1.0, HHC, ST.		2
		W11242-010	...Washer, 3/8, Flat		2
		W11254-006	...Washer, 3/8, Lock		2