



**Aviation  
Ground  
Equipment Corp.**

**HOBART**<sup>®</sup>  
GROUND POWER

Illustrated Parts List  
for

**POWERMASTER<sup>®</sup> ADV**

Series 500048B



120 kVA with 12-Pulse  
and 400/480V Input Voltage  
Solid State Frequency Converters

# **Chapter 1 Illustrated Parts List**

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## **Section 1 Introduction**

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### **1) General**

The illustrated parts list identifies, describes, and illustrates main assemblies, subassemblies, and detail parts of the 400 Hz Solid State Converter manufactured by Hobart Ground Power Division, Troy, Ohio, USA..

### **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  
Section 3 - Numerical index

### **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:

- (1) Standard hardware items (attaching parts) such as nuts, screws, washers, etc., which are available commercially.
- (2) Bulk items such as wire, cable, sleeving, tubing, etc., which are commercially available.
- (3) 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 numbers 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) HOBART PART NUMBER Column

All part numbers appearing in this column are Hobart part 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 Hobart, will be identified as such in the "NOMENCLATURE" column. In case Hobart does not have an identifying part number for a purchased part, the "HOBART PART NUMBER" column will reflect "No Number" and the vendor's number will be shown in the "NOMENCLATURE" column. Parts manufactured by Hobart will reflect no vendor or part number in the "NOMENCLATURE" column.

(3) NOMENCLATURE Column

The item identifying name appears in this column. The indented 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.

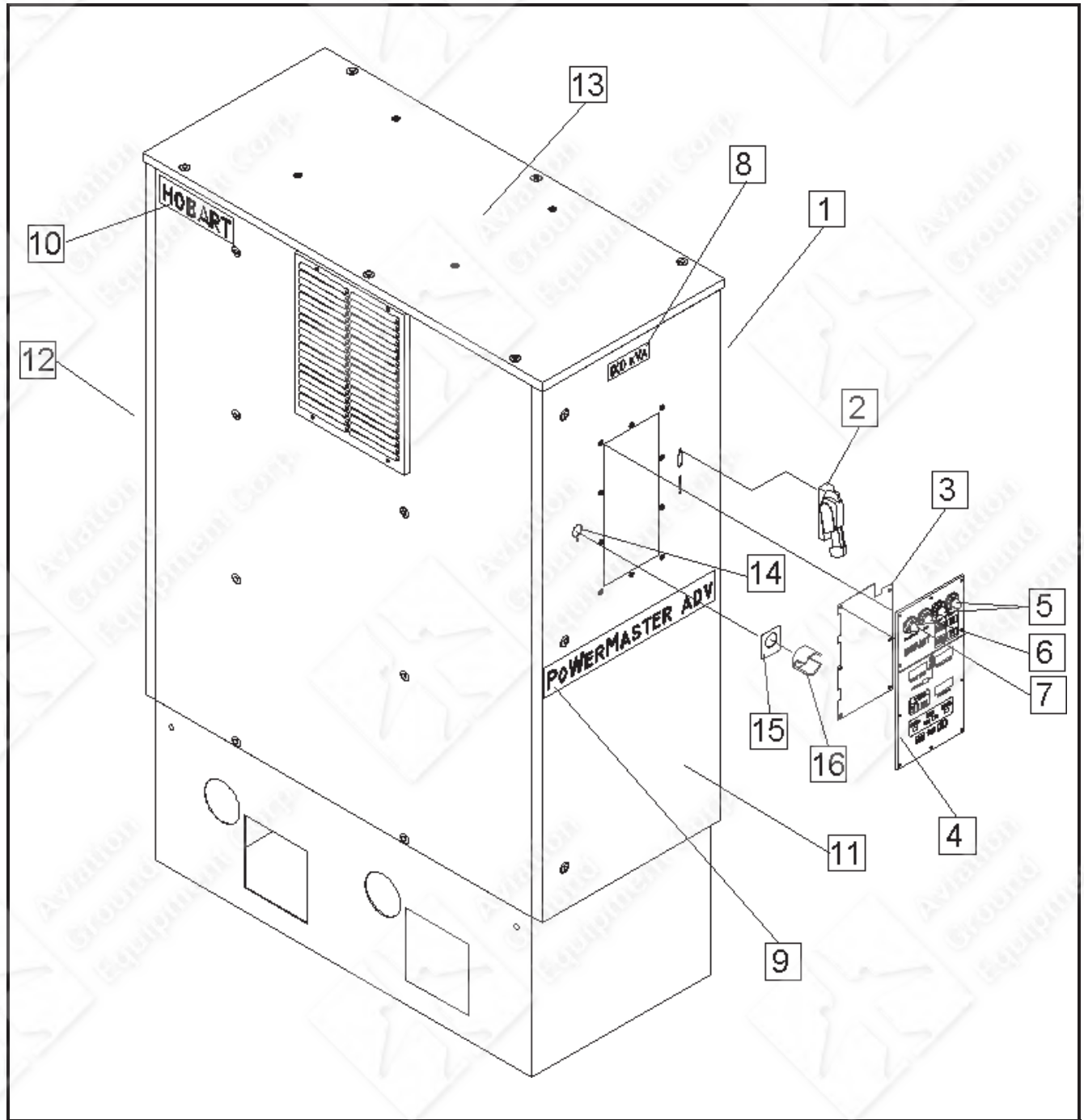
(4) EFF (Effective) Column

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.

This manual covers only one model, so the EFF column is not used. All parts are usable on this model, Part Number 500048B-52220.

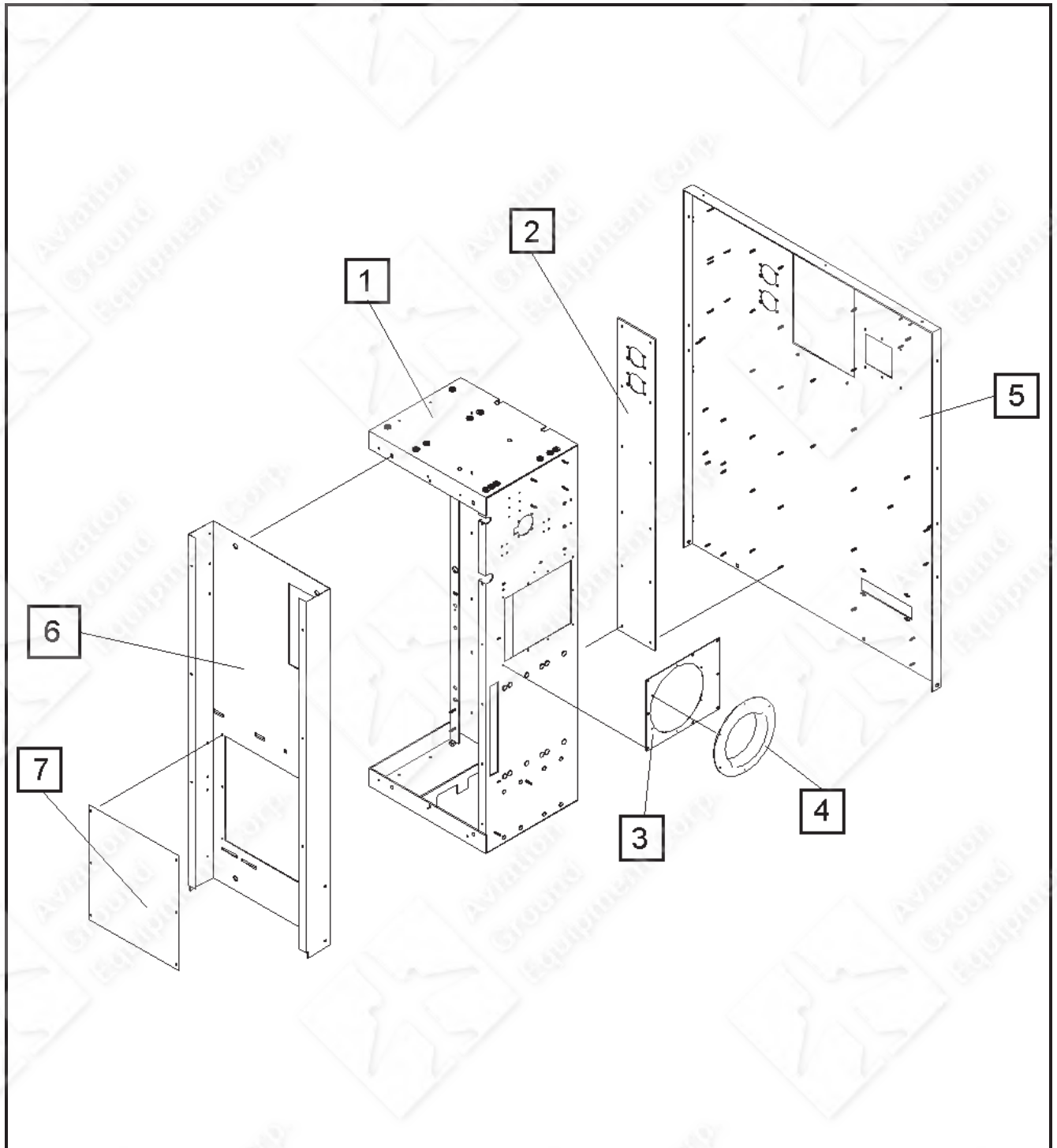
(5) UNITS PER ASSEMBLY Column

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.



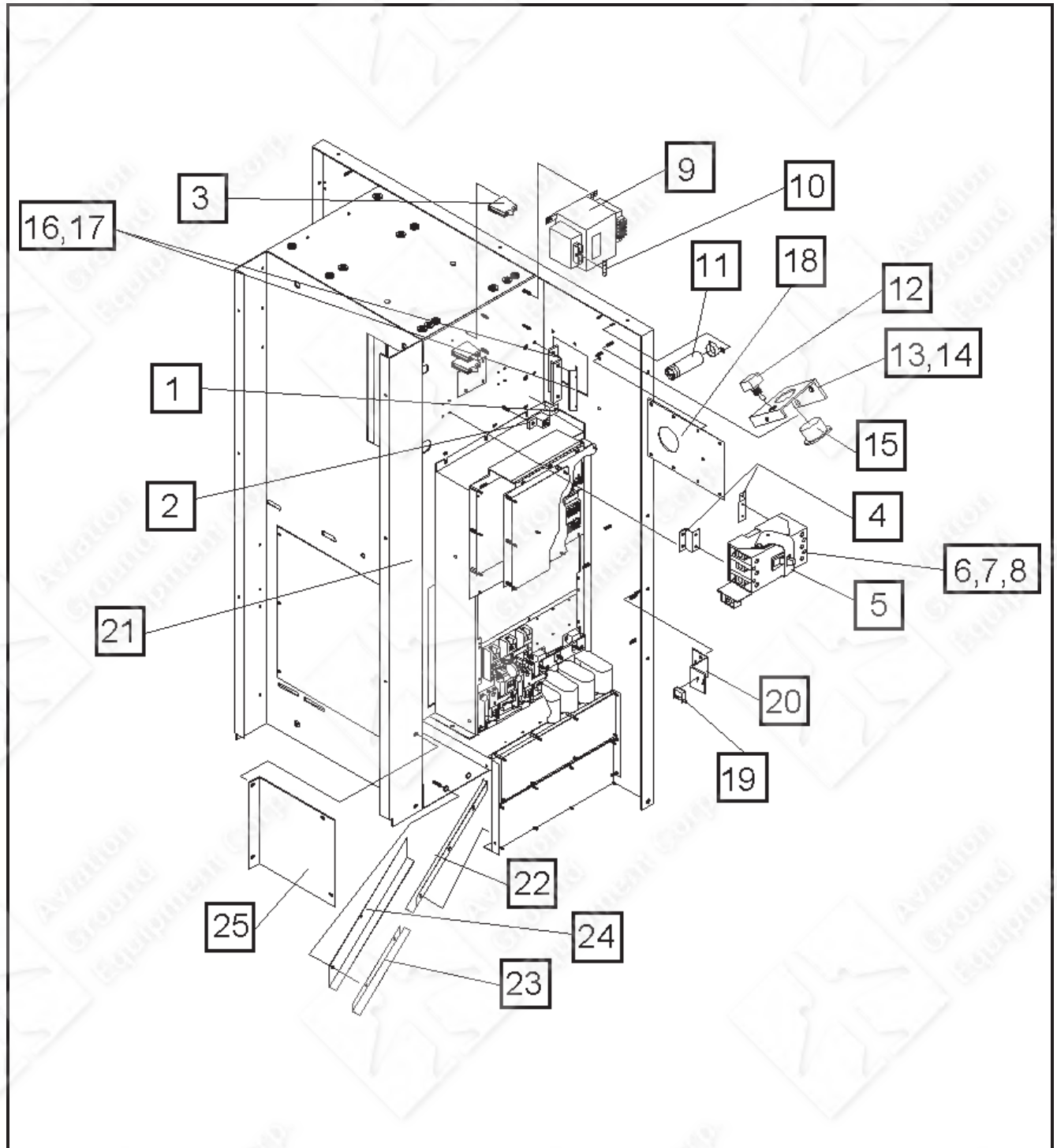
**PoWerMaster ADV Converter**  
Figure 1

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
1 -	1	Frame Assembly (See Figure 2)		Ref.
	2	286416-001		1
	3	286411		1
	4	286398-002		1
		286580-001		1
	5	82B1066-012		2
*		400613-004		2
	6	82B1066-001		1
*		400613-004		1
	7	82B1066-010		1
*		400613-004		1
	8	283714-007		1
	9	286457		1
	10	402987		1
	11	Front Interior Components (See Figure 3)		Ref.
	12	Rear Interior Components (See Figure 5)		Ref.
	13	Canopy Components (See Figure 10)		Ref.
	14	286544		1
*	15	288300		1
*		77A1157		1
*		287850		1
	16	285125		1
		...Guard, Mushroom Button (V2B664 #K56YM)		1
		...Relay components (see Figure 5)		Ref.
		<b>Labels</b>		Ref.
*	17	283716		1
		Label, Nameplate, Identification		
*	18	287460		2
*	19	286441		2
*	20	286377		1
*	21	286442		1
*	22	288258		1
		Label, Instructions (Base Plate Cover)		
*	23	288730		1
		Label, Fuse Chart		
		<b>Wires and Cables</b>		Ref.
*	24	287341		1
		Wiring Harness Assembly		
*	25	287858		1
		Harness, Wire, 160SX200		
*	26	286475-006		1
		Cable Chart, ADV, 120-160 KVA		
*	27	286475-007		1
		Cable Chart, ADV, 120-160 KVA 12-pulse option		



**Frame Assembly**  
**Figure 2**

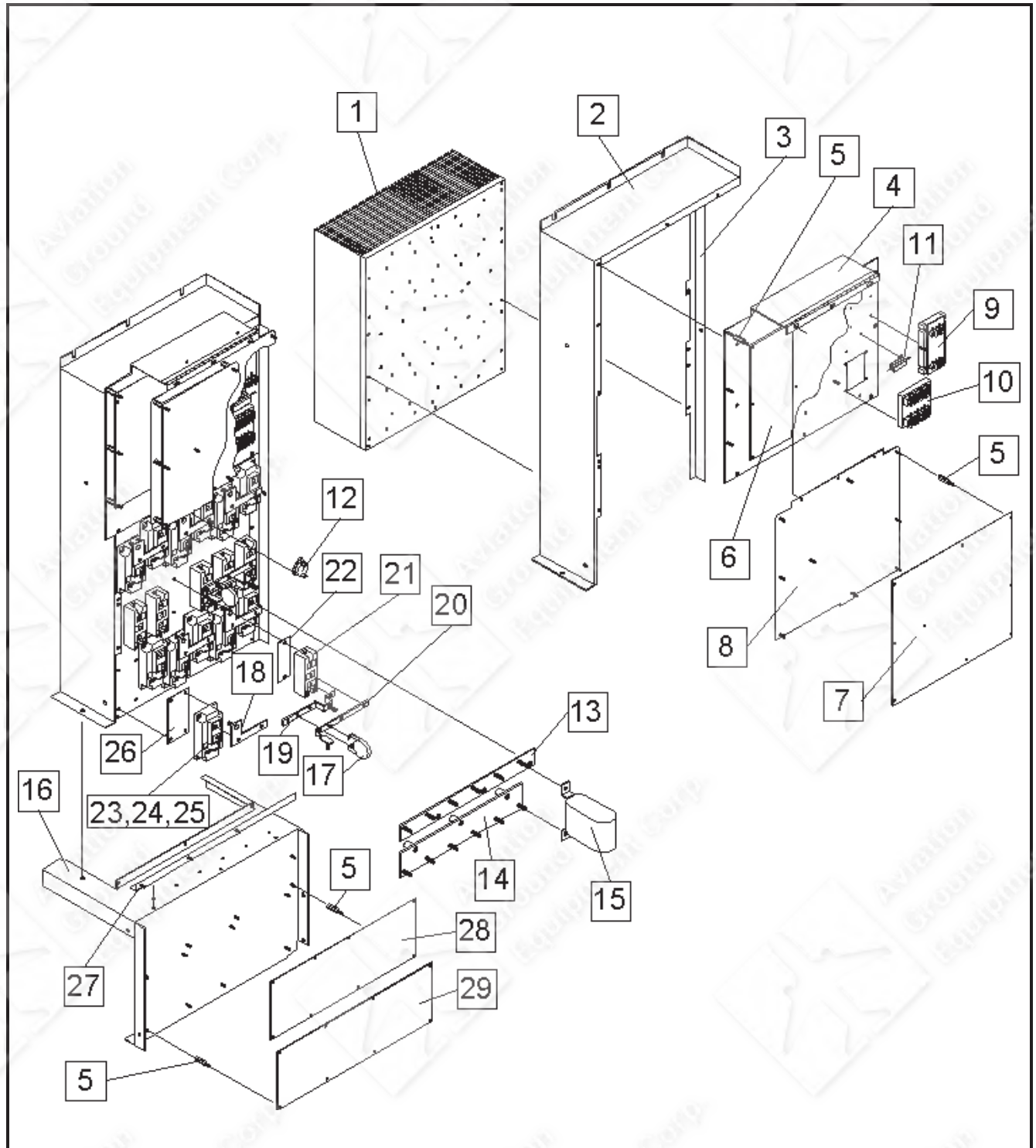
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
2 -	1	286535		1
	2	286354		1
	3	286376		1
	4	283157-003	Impeller Inlet Ring (V62292 #9621-2-4013)	1
	5	286563	Right Side Panel	1
	6	286577		1
	7	286555		1
*		283171-002		4
*		280936		8



**Front Interior Components**  
**Figure 3**

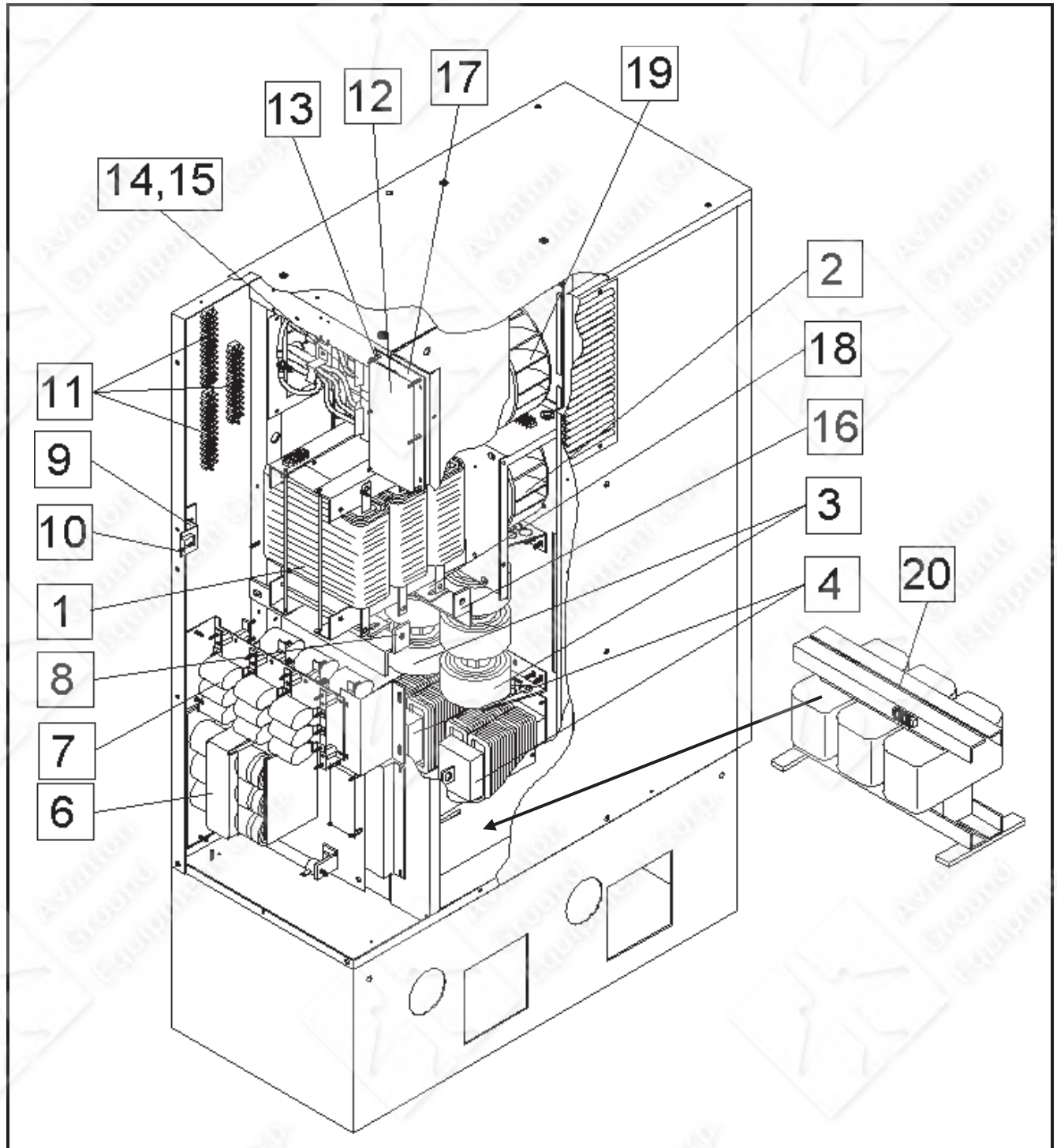


FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
3 -	1	280807		1
	2	285104-001		1
	3	285315-001	M.O.V. Suppressor (V27410 #V661DA40)	3
	4	291139	Circuit Breaker Support	2
	5	291269-003	Circuit Breaker (V14799 #JL36250M75SA)	1
*	291268-002	...Actuator, Circuit Breaker (V14799 # 9422 CSF30)		1
	6	83A1114		1
	7	83A1113		1
	8	83A1112		1
	9	404960-034	Control Transformer, 115 V (V6Y440 #B750-1213-1)	1
	10	W10502-031	Fuse, SB, 15A, 500V (V2B664 #FNQ-15A)	1
	11	281848-002	Capacitor, 1800 UF, 250 VDC	1
	12	402682	Toggle Switch (V5U553 #HLA-271-78)	1
	13	286447	Voltage Selection Label	1
	14	286448	Meter Support Bracket	1
	15	181358	Hour Meter (V6H359 #80001)	1
	16	287856	Cable Clamp Support	1
	17	285568	Cable Clamp Bracket	1
	18	286423	Input Cable Plate	1
*	286585	...Cable Inlet Gasket		1
	19	280673	Door Interlock Switch (V1W134 #SSI2ET10-20Y3)	1
	20	286602	Front Door Switch Support	1
	21		Heatsink Panel Assembly, (See Figure 4)	Ref.
	22	286420	Right Hand Input Filter Guide	1
	23	287841	Left Hand Input Filter Guide	1
	24	286566	Filter Guide	1
	25	286568	Inlet Duct Cover	1
*	26	286557	SCD PCB Latch	1
*	27	286569	Bracket, Driver Board	2
*	28	287835	Plate, Driver Board	1



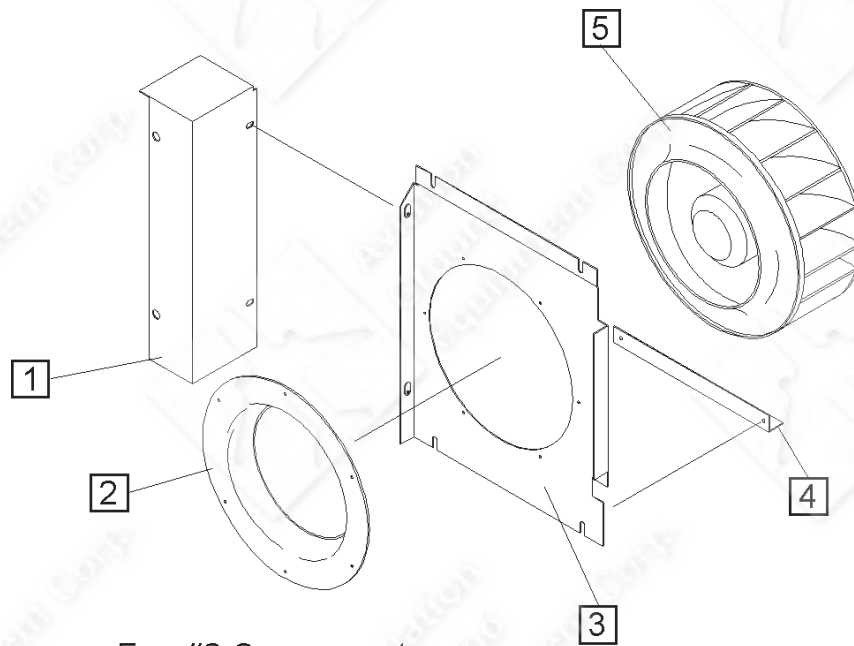
**Heat Sink Panel Assembly**  
**Figure 4**

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
4 -	1	287832		1
	2	287844		1
	3	287843		1
	4	287833		1
	5	284316-002		34
	6	286246B		1
	7	286400A		1
		192266-001		1
	8	286443		1
	9	286528A		1
	10	286367-001		1
	11	286482-001		1
	12	404044-004		1
*	13	287825		2
		402674-002		2
	14	287826		2
		402674-001		2
	15	286389-001		12
	16	286533		1
*	17	403955-021		2
	18	287824		6
	19	287830		2
*	20	287831		2
	21	286285-001		6
*	22	286394		2
	23	283196-003		6
	24	407970		12
	25	285170		12
	26	283867-005		12
	27	283196-002		12
	28	286274		1
	29	286144		2
	30	287353A		1
*	31	77A1109		1
*	32	77A1108		1
*	33	77A1107		1

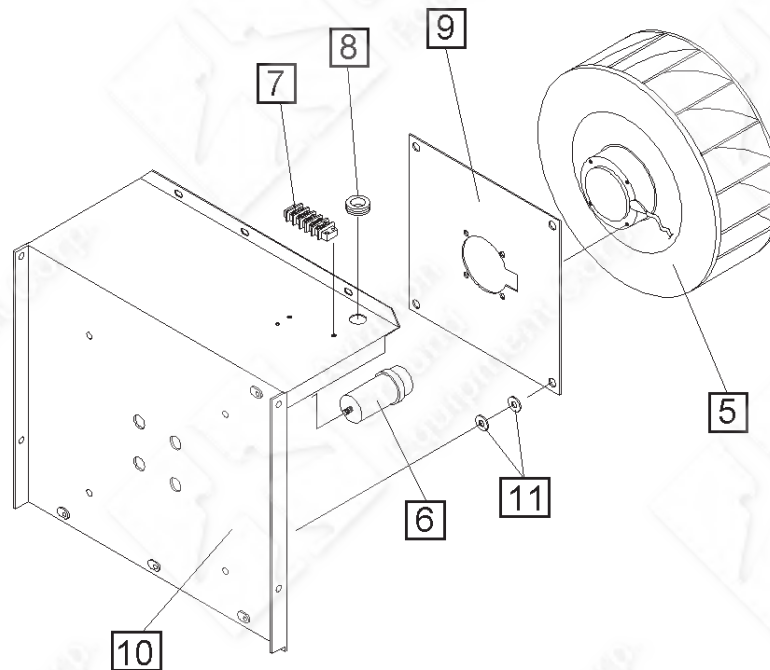


Rear Interior Components  
Figure 5

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
5 -	1	286480-003		1
*		281971-010		1
*		286449		1
*		286438		4
*		286316-001		4
		286571		4
	2	Fan #1 (See Figure 6)		Ref.
	3	286492-001		2
	4	493712		2
*	5	289751		2
	6	DC Electrolytic Capacitor Assembly (See Figure 7)		Ref.
	7	AC Capacitor Assembly (See Figure 8)		Ref.
	8	286570-001		1
	9	286602		1
	10	280673		1
*	11	283066-002		3
*		286380		1
*		286382		1
*		286531-001		2
*		288974		2
	12	286392-001		1
		16DA4252-037		1
	13	284316-002		6
*	14	AC Contactors (See Figure 9)		Ref.
*	15	285102-001		7
	16	286570-002		1
	17	286547		1
*	18	286556		2
	19	Fan #2 (See Figure 6)		Ref.
	20	286481-003		1
*	21	286488-002		1
		<b>Emergency Stop Components</b> (see also Figure 1)		
*	22	408350		1
*	23	408352		1
*	24	408585		1
*	25	287871-001		1



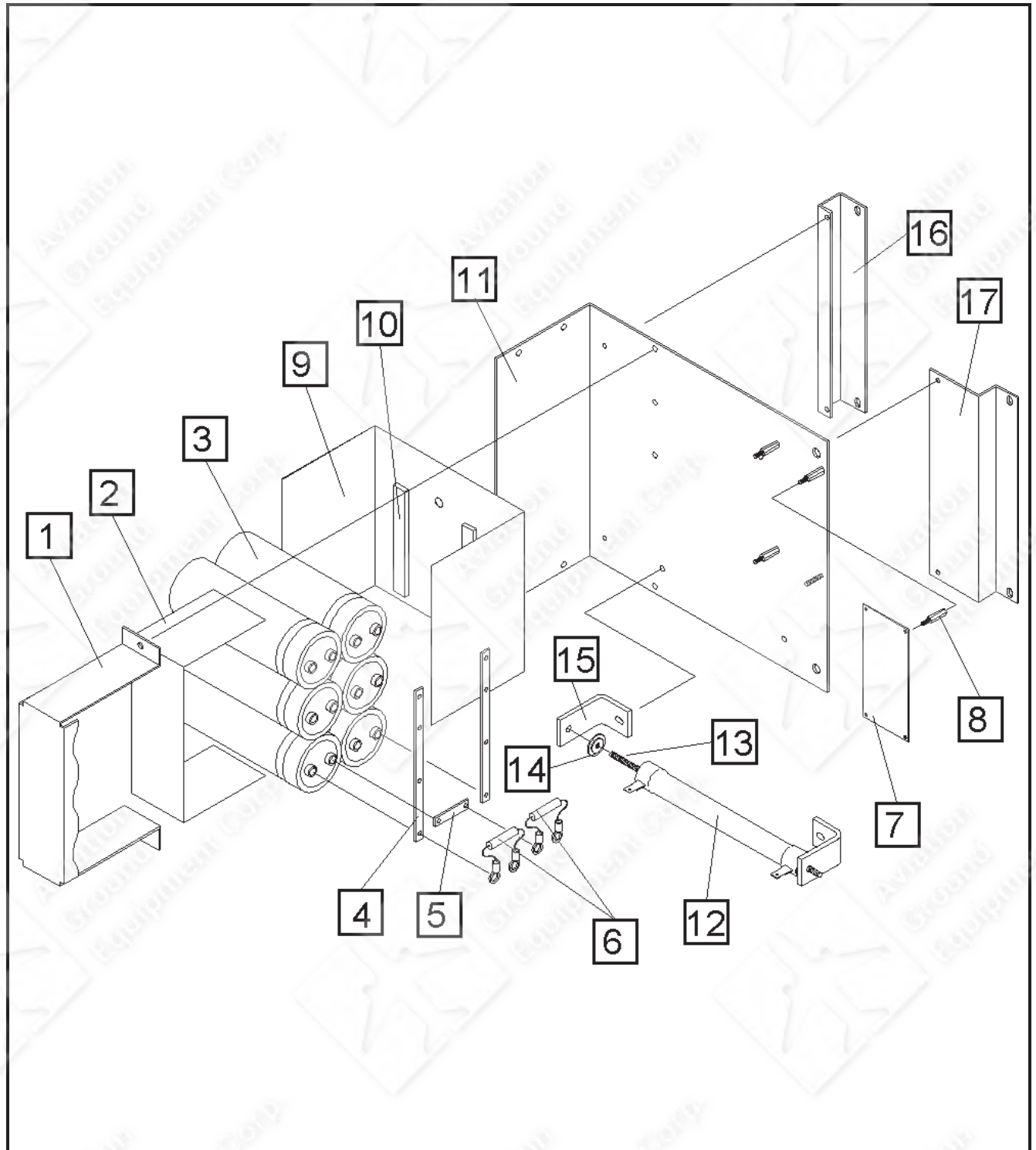
Fan #2 Components



Fan #1 Components

Fan Assembly Components  
Figure 6

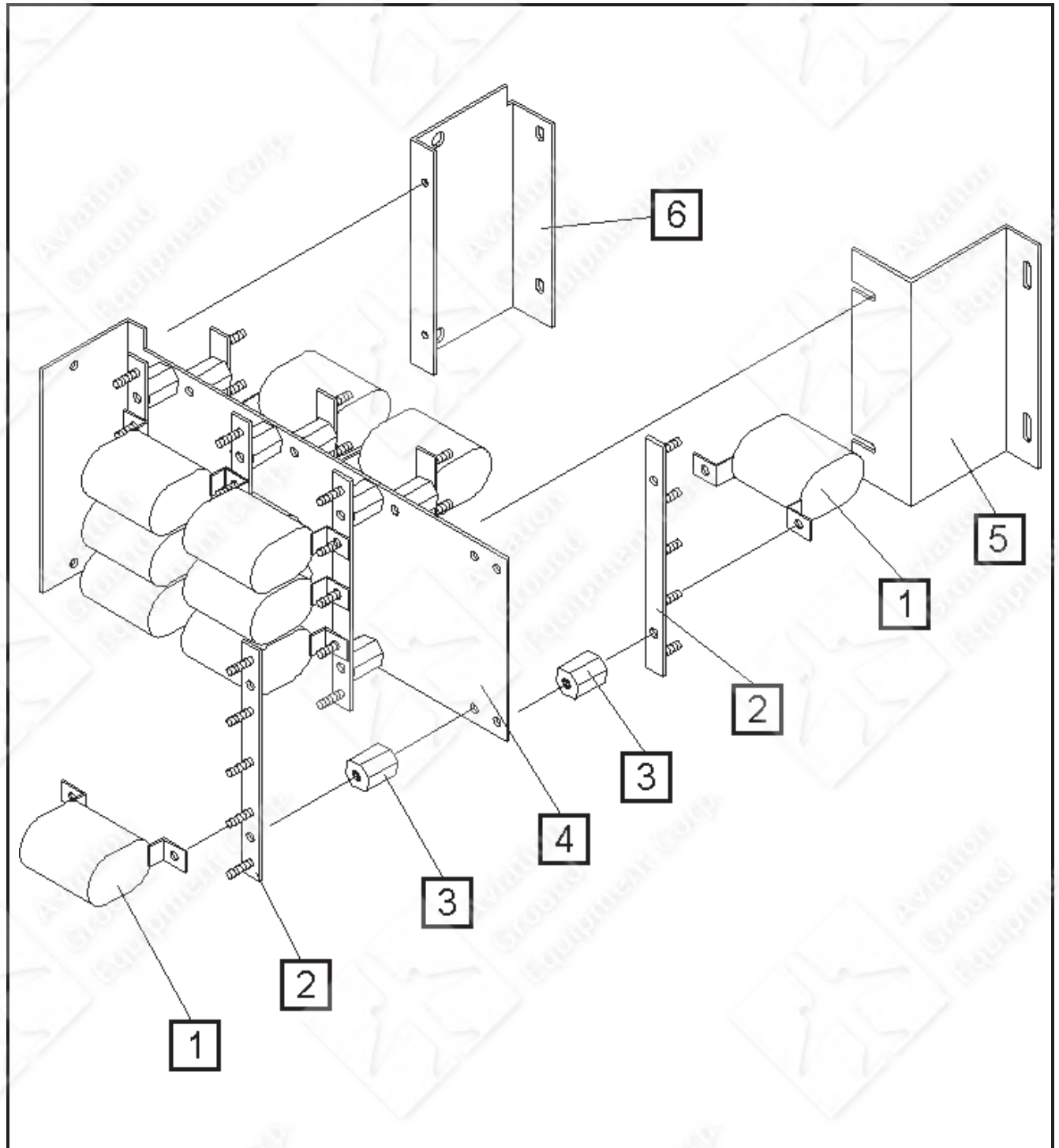
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
6 -	1	287848		1
	2	283157-003		1
	3	287840		1
	4	287839		1
	5	283155-003		2
	6	283156-003		2
	7	401911-005		2
*	400792-001	...Terminal, Ring, #6, Ins. (V00779 #2-36151-1)		12
*	286486-001	...Cable Tie Anchor		4
	8	402037-006		1
	9	287846		1
	10	287842		1
	11	281929-015		12



**DC Electrolytic Capacitors Assembly  
Figure 7**

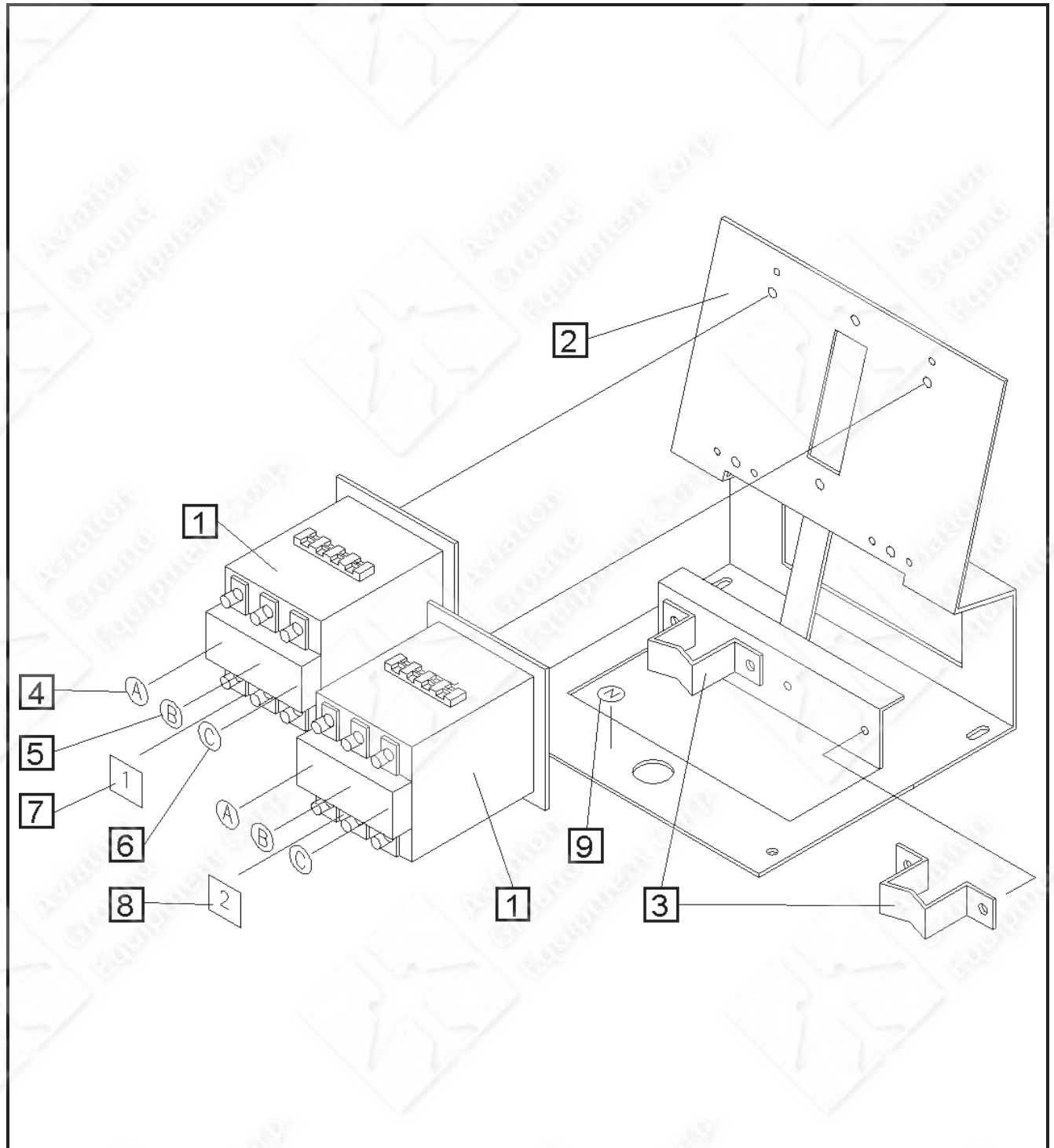


FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
7 -	1	286428		1
	2	286440-001		1
	3	281848-001		6
	4	286433		2
	5	286431		3
6	281971-001			6
7	286250A			1
8	284316-002			4
9	286434			1
10	056210			1.5 ft.
11	286536			1
12	404249-003			1
13	283387-002			1
14	286489-001			2
15	286468			2
16	286575			1
17	286576			1



**AC Capacitor Assembly**  
**Figure 8**

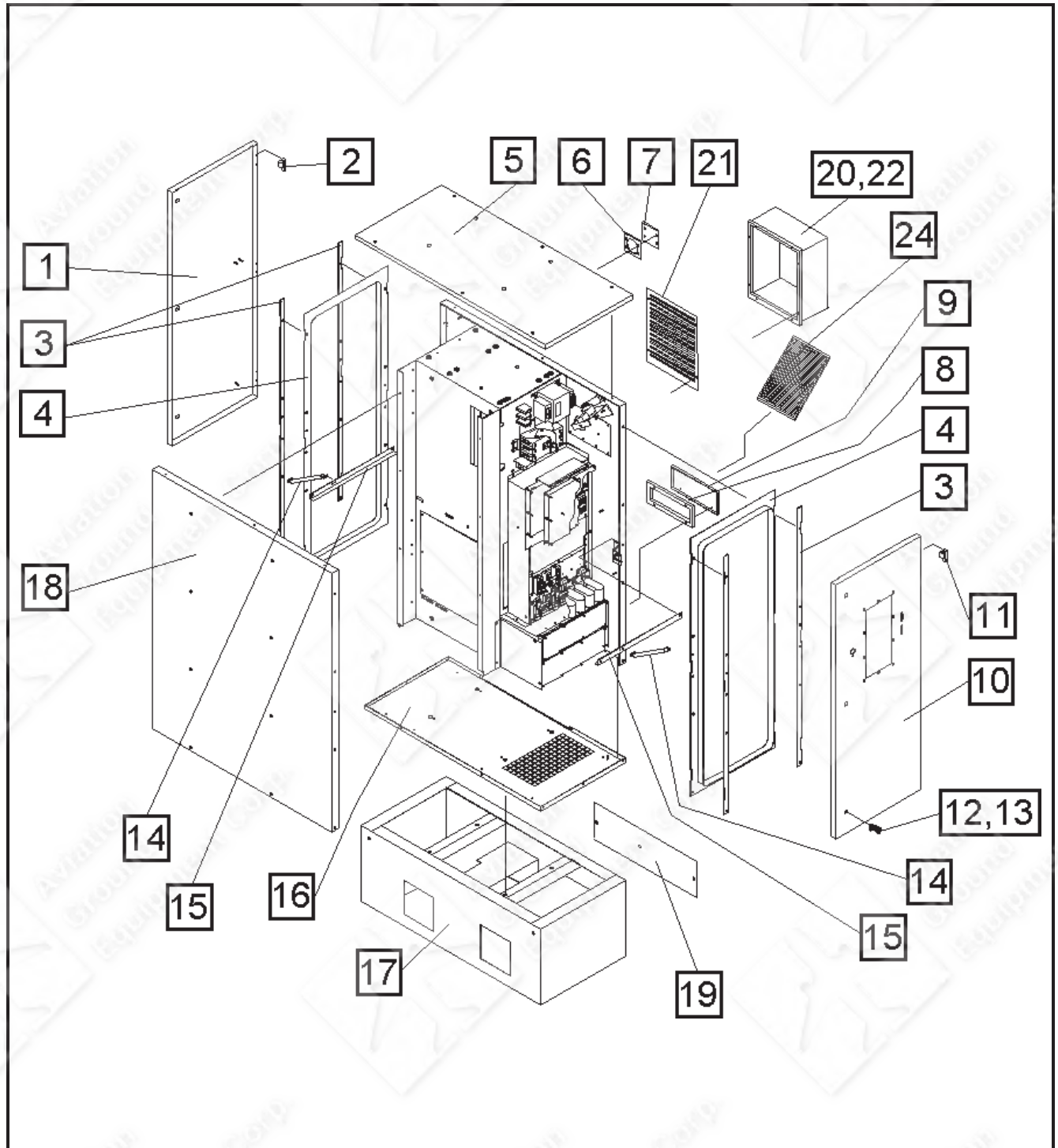
FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
8 -	1	286389-002		24
	2	286406		8
	3	286266		16
	4	286537		1
	5	286573		1
	6	286574		1
*	7	77A1107		1
*	8	77A1108		1
*	9	77A1109		1
*	10	287867-001		1
*	11	287867-002		1
*	12	287867-003		1
*	13	409077		4



**Contactor Panel Assembly**  
**Figure 9**

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
9 -	1	282130-001		2
	2	286450		1
	3	284359		2
	3	284397		2
	4	77A1107		2
	5	77A1108		2
	6	77A1109		2
	7	402422-001		1
	8	402422-002		1
	9	78A1035		1

**Note:** Two clamps of different sizes are included for item 3. Use the size appropriate for your AC cable.



**Canopy Components**  
**Figure 10**

FIGURE ITEM NO.	HOBART PART NO.	NOMENCLATURE	EFF	UNIT PER ASSY.
10 -	1	286561		1
		286485-001		12 ft.
		286474-016		1
	2	283824		3
	3	286582		4
	4	286564		2
		286485-003		20 ft.
	5	286559		1
	6	286584		2
	7	286479		0
	8	286583		1
	9	286567		1
		283168-003		4
		283172-001		4
	10	286560		1
		286474-015		1
		286485-001		12 ft.
	11	283597		3
	12	287542-001		6
	13	287546-001		6
		288225		6
	14	284606-001		2
	15	286601		2
	16	286565		1
	17	286578		1
	18	288243		1
	19	288239		1
	20	288218		1
	21	288216		1
	22	288220		5.3 ft.
*	23	W10088-008		1
	24	283159-003		1
*	25	286563		1

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## Section 4 Numerical Index

### 1) 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. Thus, any part number beginning with the letter "A" would be located at or near the top of the index list. Likewise, a part number "9" would be listed near the end of the list and far below a part number "1000". The figure number and item number location of the part is directly opposite the part. If the part is used in more than one place, each location is listed commencing with the first location the part is listed.

FIGURE ITEM NO.	HOBART PART NO.	FIGURE ITEM NO.	HOBART PART NO.
10-23	W10088-008	5-15	285102-001
3-10	W10502-031	3-2	285104-001
7-10	056210	1-16	285125
5-	16DA4252-037	4-25	285170
3-15	181358	3-3	285315-001
4-	192266-001	3-17	285568
3-19	280673	4-29	286144
5-10	280673	4-6	286246B
3-1	280807	7-7	286250A
2-	280936	8-3	286266
7-3	281848-001	4-28	286274
3-11	281848-002	4-21	286285-001
6-11	281929-015	5-	286316-001
7-6	281971-001	2-2	286354
5-	281971-010	4-10	286367-001
9-1	282130-001	2-3	286376
5-11	283066-002	1-20	286377
6-5	283155-003	5-	286380
6-6	283156-003	5-	286382
2-4	283157-003	4-15	286389-001
6-2	283157-003	8-1	286389-002
10-24	283159-003	5-12	286392-001
10-	283168-003	4-22	286394
2-	283171-002	1-4	286398-002
10-	283172-001	4-7	286400A
4-27	283196-002	8-2	286406
4-23	283196-003	1-3	286411
7-13	283387-002	1-2	286416-001
10-11	283597	3-22	286420
1-8	283714-007	3-18	286423
1-17	283716	7-1	286428
10-2	283824	7-5	286431
4-26	283867-005	7-4	286433
4-5	284316-002	7-9	286434
5-13	284316-002	5-	286438
7-8	284316-002	7-2	286440-001
9-3	284359	1-19	286441
9-3	284397	1-21	286442
10-14	284606-001	4-8	286443

FIGURE ITEM NO.	HOBART PART NO.	FIGURE ITEM NO.	HOBART PART NO.
3-13	286447	10-17	286578
3-14	286448	1-	286580-001
5-	286449	10-3	286582
9-2	286450	10-8	286583
1-9	286457	10-6	286584
7-15	286468	3-	286585
10-	286474-015	10-15	286601
10-	286474-016	3-20	286602
1-26	286475-006	5-9	286602
1-27	286475-007	1-24	287341
10-7	286479	4-30	287353A
5-1	286480-003	1-18	287460
5-20	286481-003	10-12	287542-001
4-11	286482-001	10-13	287546-001
10-	286485-001	4-18	287824
10-	286485-001	4-13	287825
10-	286485-003	4-14	287826
6-	286486-001	4-19	287830
5-21	286488-002	4-20	287831
7-14	286489-001	4-1	287832
5-3	286492-001	4-4	287833
4-9	286528A	3-28	287835
5-	286531-001	6-4	287839
4-16	286533	6-3	287840
2-1	286535	3-23	287841
7-11	286536	6-10	287842
8-4	286537	4-3	287843
1-14	286544	4-2	287844
5-17	286547	6-9	287846
2-7	286555	6-1	287848
5-18	286556	1-	287850
3-26	286557	3-16	287856
10-5	286559	1-25	287858
10-10	286560	8-10	287867-001
10-1	286561	8-11	287867-002
2-5	286563	8-12	287867-003
10-25	286563	5-25	287871-001
10-4	286564	10-21	288216
10-16	286565	10-20	288218
3-24	286566	10-22	288220
10-9	286567	10-	288225
3-25	286568	10-19	288239
3-27	286569	10-18	288243
5-8	286570-001	1-22	288258
5-16	286570-002	1-15	288300
5-	286571	1-23	288730
8-5	286573	5-	288974
8-6	286574	5-5	289751
7-16	286575	3-4	291139
7-17	286576	3-	291268-002
2-6	286577	3-5	291269-003

**FIGURE ITEM NO.      HOBART PART NO.**

1-	400613-004
1-	400613-004
1-	400613-004
6-	400792-001
6-7	401911-005
6-8	402037-006
9-7	402422-001
9-8	402422-002
4-	402674-001
4-	402674-002
3-12	402682
1-10	402987
4-17	403955-021
4-12	404044-004
7-12	404249-003
3-9	404960-034
4-24	407970
5-22	408350
5-23	408352
5-24	408585
8-13	409077
5-4	493712
4-33	77A1107
8-7	77A1107
9-4	77A1107
4-32	77A1108
8-8	77A1108
9-5	77A1108
4-31	77A1109
8-9	77A1109
9-6	77A1109
1-	77A1157
9-9	78A1035
1-6	82B1066-001
1-7	82B1066-010
1-5	82B1066-012
3-8	83A1112
3-7	83A1113
3-6	83A1114

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