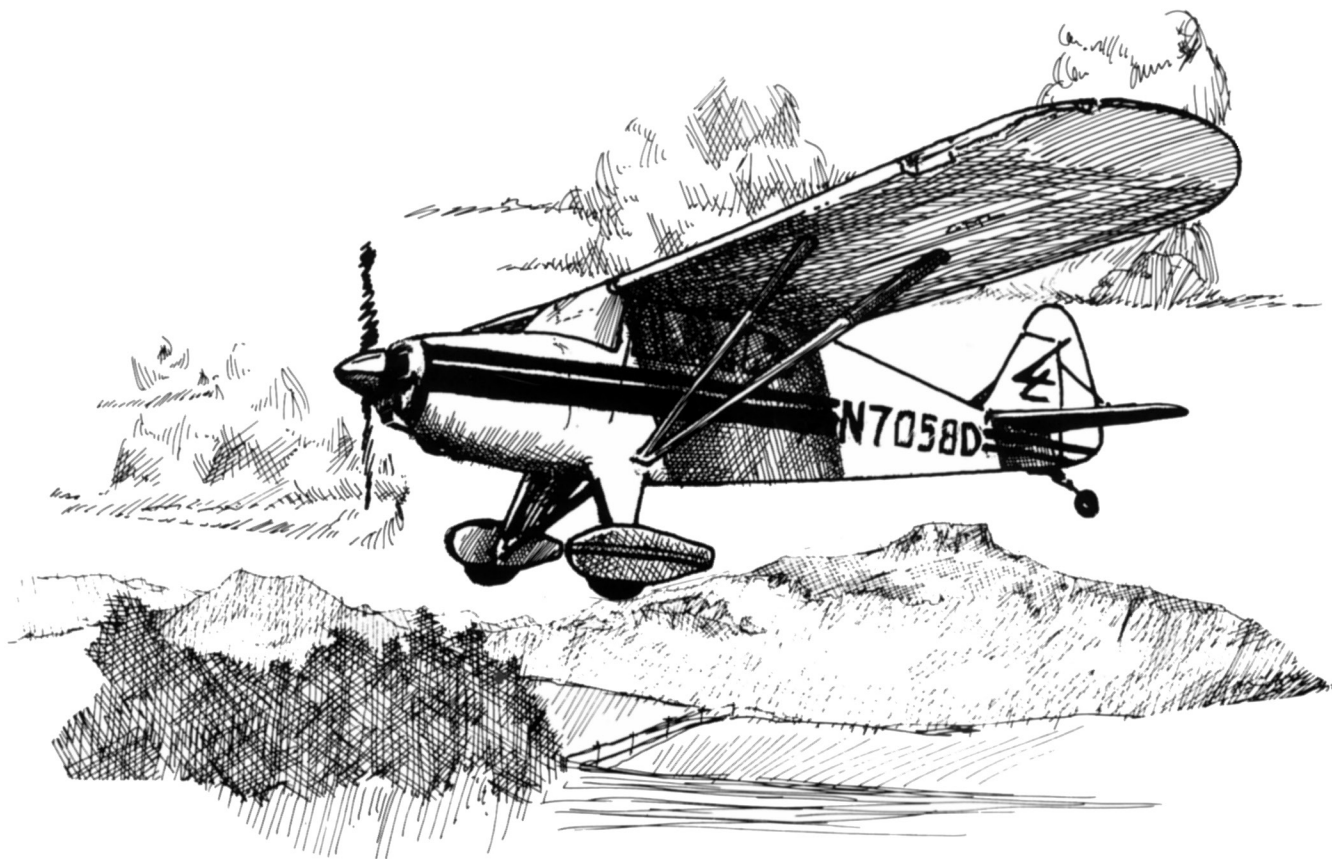


# PIPER PA-20 PACER

## Parts Catalog



### Univair Aircraft Corporation

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## **IMPORTANT NOTICE**

This catalog is a reprint from the original Piper manual. It has been reprinted FOR USE WITH THE PA-20 PACER ONLY. At the time Piper originally printed this manual, both the PA-20 Pacer and PA-22 Tri-Pacer aircraft were being built. However, after the PA-20 Pacer series was discontinued Piper printed another parts manual for the PA-22 Tri-Pacer. This later manual was printed exclusively for the Tri-Pacer series and must be used regardless of the year of manufacture. The next several pages of this manual are revisions as originally issued by Piper. The use of these revisions will be of great importance in proper parts selection.

THIS MANUAL IS A REPRINT OF THE ORIGINAL PIPER PA-20 PACER MANUAL. UNIVAIR AIRCRAFT CORPORATION ASSUMES NO RESPONSIBILITY FOR ITS CONTENTS.

## **SPECIAL NOTE**

THIS PARTS CATALOG IS TO BE USED ONLY FOR THE MODEL PA-20 PACER AIRPLANE.



# REVISIONS

REVISION NO. 1

OCTOBER 1954

## REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG SUPPLEMENT – 1954 MODEL AIRPLANES

**Special Note:** This Revision is divided into three (3) separate parts or changes and each change is clearly identified by its number. When this Revision is made to the Parts Catalog it is absolutely essential (for accuracy) to accomplish the changes in numerical order by their number. In other words Change Order Number 1 must be accomplished first and in its entirety. After Change Number 1 is completed, Change Number 2 must be accomplished and then Change Number 3.

### CHANGE NO. 1

The parts listed in this Catalog which are used on the 1953 Model Airplanes, as indicated in the Model Column, are also used on the 1954 Model Airplanes, with the exception of the parts listed in paragraph (a) below. An (X) should be inserted in the 1954 Model Column for the parts applicable to the 1954 Model Airplanes (PA-20-PA-22).

(a) The following parts are not used on the 1954 Model Airplanes (PA-20 and PA-22):

FIGURE AND INDEX NUMBER	PART NUMBER	FIGURE AND INDEX NUMBER	PART NUMBER
9-25	24032-14	12-7	473-130
10-5	13947-04	13-1	13922-00
10-6	13947-03	13-1	13922-03
10-13	14201-02	13-12	473-130
10-13	14201-00	13-12	14034-03
10-14	14199-02	13-26	13937-18
10-14	14199-00	13-26	13937-02
10-17	12887-00	15-1	13923-00
11-3	13947-04	15-22	13937-19
11-4	13947-03	15-22	13937-03
11-16	12991-00	15-27	13835-00
11-16	12991-05	16-11	13889-00
11-17	12990-08	17-43	10373-03
11-21	12894-06	17-44	750-888
11-24	14166-00	17-45	487-782
11-25	14198-10	19-21	10373-03
11-25	14198-00	19-22	750-888
11-26	14198-11	19-23	487-782
11-26	14198-01	20-19	13640-02
11-28	14200-04	23	14169
11-28	14200-02	23-1	454-903
11-29	14200-03	23-2	82371-06
11-29	14200-00	23-3	451-857



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REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
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CHANGE NO. 1 (continued)

FIGURE AND INDEX NUMBER	PART NUMBER
23-4	458-903
23-5	476-652
23-6	82371-32
23-7	82371-33
23-8	460-661
23-9	476-659
23-10	492-029
23-11	451-859
23-12	14168-00
23-13	454-904
23-14	82371-25
23-15	458-925
23-16	82371-23
23-17	14047-00
23-18	82371-24
23-19	14046-00
23-20	486-381
23-21	14205-00
23-22	492-028
23-23	14026-00
23-24	14025-00
23-25	484-646
23-26	455-158
23-27	476-664
23-28	481-662
25-3	13473-06
25-4	12729-10
25-5	12729-08
25-6	12759-04
25-18	14050-02
25-18	14050-03
25-24	13456-00
26-10	451-955
26-10	12799-03
26-15	13939-02

FIGURE AND INDEX NUMBER	PART NUMBER
26-21	13952-02
26-21	13952-00
26-32	10262-05
26-37	13937-20
26-37	13937-04
28-1	12593-00
28-2	13058-00
28-17	12759-04
28-29	12593-02
28-30	13058-02
49-43	750-888
49-45	487-782
50-6	11122-02
50-8	14086-00
50-13	80032-43
50-17	13459-00
50-18	13458-00
50-19	90150-02
50-20	13457-00
50-21	13447-00
51-1	11227-02
51-24	11134-06
51-24	11134-09
53-7	13094-00
59-10	13784-00
59-13	13783-00
59-14	13781-00
59-15	13784-02
59-16	13777-00
64-3	13765-02
64-3	13765-04
64-4	11950-07
64-7	480-650
64-7	487-571





REVISION NO. 1

OCTOBER 1954

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 2

The following revisions are to be made to this Catalog:

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
i			Change Paragraph 4 (5) to read: Serial numbers of the 1953 PA-20 Models "135" are 20-934 to 20-1083 inclusive.
i			Change Paragraph 4 (9) to read: Serial numbers of the 1953 PA-22 Models "135" are 22-807 to 22-1759 inclusive.
i			Add to Paragraph 4: (10): Serial numbers of the 1954 PA-20 Models "135" are 20-1084 and up.
i			Add to Paragraph 4: (11): Serial numbers of the 1954 PA-22 Models "135" are 22-1760 and up.
22	9-3	13056-00	Add letter "C" in Code column.
22	9-3	14080-00	Add letter "C" in Code column.
22	9-5	454-887	Change nomenclature to read: CLAMP – Cabin vent control (Tinnerman No. A4886A-3-A-1).
22			Add Code "C" explanation: C – Two per airplane used on 1954 Models.
23	9-19	13140-03	Change this part number to "13140-04".
23	9-20	12621-00	Change nomenclature to read: FAIRING – rear of fuselage cowl.
24	9-31	80541-02	Change nomenclature to read; GROMMET – Inspection cover, rectangle (3 per ship 1953 and 1954 Model).
24	9-34	80122-51	Change nomenclature to read: GROMMET – Reinforcement, round, pyralin, 1½ in. OD x ¾ inch ID x .050 (6 per ship 1953 and 1954 Models).
24	9-40	80122-49	Change nomenclature to read: GROMMET – Inspection cover, round (1 per ship 1953 and 1954 Model).
27			Change Code "G" to read: Used on PA-20 airplanes with serial numbers 20-264, 20-267, 20-273, 20-284 to 20-287 inclusive, 20-289 and 20-291 to 20-1083 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-1759 inclusive.
29	11-4	13947-03	Change nomenclature to read: BELT ASSEMBLY – Safety, front buckle end (M5100M4-B22).
29			Change Code "D" explanation to read: Used on PA-20 airplanes with serial numbers 20-253 to 20-1083 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-1759 inclusive.
30			Change Code "A" explanation to read: Used on PA-20 airplanes with serial numbers 20-253 to 20-1083 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-1759 inclusive.
36	13-6	80122-30	This part to be deleted.
36			Change Code "B" to read: Used on PA-20 airplanes with serial numbers 20-946 and 20-948 to 20-1083 inclusive, and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909 and 22-911 to 22-1759 inclusive.
37	13-34	13898-03	Change this part number to "14240-02", change number "2" to "1" in No. Req. column.
37	13-35	13898-02	Change this part number to "14240-02".
37	13-36	13899-00	Change this part number to "14246-00".



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REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 2 (continued)

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
37	13-39	13907-00	Change this part number to "14244-00".
41	15-12	80122-30	This part to be deleted.
42	16-4	13945-20	Add letter "A" in Code column.
42			Add Code "A" explanation: A – 5½' used on 1954 Model.
45	17-42	10911-00	Change this part number to "471-056", add the word "red" to nomenclature column.
45	17-46	41481-15	Change this part number to "41481-16".
45	17-46	41481-15	Change this part number to "41481-16".
45	17-46	41481-15	Change this part number to "41481-16".
53	19-11	10911-00	Change this part number to "41481-16", add the word "red" in nomenclature column.
53	19-18	471-052	Add the word "ivory" to the nomenclature column.
53	19-19	41481-15	Change this part number to "41481-16".
53	19-19	41481-15	Change this part number to "41481-16".
53	19-19	41481-15	Change this part number to "41481-16".
53	19-19	41481-15	Change this part number to "41481-16".
53			Change Code "B" explanation to read: Used on PA-20 airplanes with serial numbers 20-946, 20-948 to 20-1100 inclusive, on PA-22 airplanes with serial numbers 22-907, 22-908, 22-911 to 22-2265 inclusive.
59	22-5	455-158	Add letter "C" in Code column.
59	22-7	458-925	Change number "3" to "1" in No. Req. column.
59	22-14	82371-28	Add letter "C" in Code column.
59	22-15	14025-00	Add letter "B" in Code column.
59	22-17	14026-00	Add letter "B" in Code column.
59	22-19	14046-00	Add letter "B" in Code column.
59	22-21	476-664	Add letter "B" in Code column.
59			Add Code "B" explanation: B – Used on PA-20 airplanes serial numbers 20-877 to 20-1100 inclusive, and on PA-22 airplanes with serial numbers 22-354 to 22-2213 inclusive and on 22-2216 to 22-2219 inclusive, and 22-2221, 22-2222, 22-2225, 22-2227, 22-2230, 22-2231, 22-2232, 22-2238, 22-2245, 22-2246, 22-2249 and 22-2254.
59			Add Code "C" explanation: One (1) each per airplane on PA-20 airplanes serial numbers 20-1101 and up and on PA-22 airplanes with serial numbers 22-2214, 22-2215, 22-2220, 22-2223, 22-2224, 22-2226, 22-2228, 22-2229, 22-2233 to 22-2237 inclusive, 22-2239 to 22-2244 inclusive, 22-2247, 22-2248, 22-2250 to 22-2253 inclusive and 22-2255 and up.
66	25-13	13957-05	Change this part number to "14259-03".
66	25-13	13957-00	Change this part number to "14259-02".
66	25-14	465-147	Change this part number to "465-149", change nomenclature to read: COAT HOOK – (No. 98443).



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REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
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CHANGE NO. 2 (continued)

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
68	26-23	471-051	Add the word "ivory" in nomenclature column.
73	27-46	13899-00	Change this part number to "14246-00".
73	27-47	13898-02	Change this part number to "14240-02".
73	27-48	13898-03	Change this part number to "14240-03", add the word "outside" in the nomenclature column, and change the number "2" to "1" in the No. Req. column.
73	27-50	12011-02	Change this part number to "14250-00".
73	27-50	13888-00	Change this part number to "14248-00".
80	31-23	41001-00	Add the words "and 1954 Model" to nomenclature column.
81	31-35	81342-11	Add the words "and 1954 Model" to nomenclature column.
84	33-5	80421-00	Add the words "and 1954 Model" to nomenclature column.
84	33-6	80012-04	Add the words "and 1954 Model" to nomenclature column.
88	35-22	752-692	Add letter "D" in Code column.
88	35-24	752-885	Change this part number to "14330-00".
88			Add Code "D" explanation: Used with Fuel Valves which have a brass plug.
89	35-31	750-268	Change this part number to "494-644", add the words "nut and seat" in the nomenclature column.
90	36-2	187-550	Change this part number to "180-506", change the nomenclature to read: FELT – AN-F-14.
93	37-7	451-352	Change this part number to "31322-06", change the part number (31322-02) to (451-358) in the nomenclature column.
97	40	13805	Add letter "A" in Code column.
97	40	14077	Add letter "A" in Code column.
97	40-7	11339-07	Add letter "A" in Code column.
97	40-8	11030-03	Add letter "B" in Code column, add the words "and '135'" in nomenclature column.
97	40-9		Add letter "A" in Code column.
97			Add Code "A" explanation: Used with Model 88-1650 floats.
97			Add Code "B" explanation: Used on PA-20 airplanes Model "135" when Model 89-2000 floats are installed and on PA-20 airplanes Model "115" when Model 88-1650 floats are installed.
99	40-26	11032-02	Add letter "B" in Code column.
99	40-27	11032-03	Add letter "B" in Code column.
99	40-32	13158-11	Add letter "B" in Code column.
99	40-33	12504-00	Add letter "B" in Code column.
99	40-34	12503-00	Add letter "B" in Code column.
99			Add Code "B" explanation: Used on PA-20 airplanes Model "135" when Model 89-2000 floats are installed.
101	41-44	11601-00	Change this part number to "11601-02".

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
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## CHANGE NO. 2 (continued)

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
104	43-21	750-363	Add letter "B" in Code column.
104	43-27	451-610	Add letter "C" in Code column.
104			Add Code "B" explanation: Not used with Maule 6" tail wheel (SFS-1-4).
104			Add Code "C" explanation: When ordering component parts for this tail wheel, be sure and check the identifying name or number which appears on the tailwheel for positive parts identification. (The Scott tail wheel is identified by the number 3-24B stamped on a name plate. The Maule tail wheel is identified by the word MAULE stamped on the tire.)
106	44-2	11789-00	Add letter "A" in Code column.
106	44-11	750-384	Change this part number to read "751-655".
106	44-17	471-056	Add letter "B" in Code column. Add the word "red" in nomenclature column.
106			Add Code "A" explanation: Used with Ivory or Black knob.
106			Add Code "B" explanation: Bushing not required with this knob.
108	45-5	12385-00	Change nomenclature to read: CYLINDER Master brake (Note: This brake cylinder also is used for dual brake installation on 1950, 1951, 1952, 1953 and 1954 Model PA-20 airplanes, 2 per ship.)
112	49-6	12177-54	Add letter "A" in Code column.
112			Add Code "A" explanation: Shielding – Index 40 included with this wire.
114	49-22	12177-59	Add letter "A" in Code column.
114			Add Code "A" explanation: Shielding – Index 40 – included with this wire.
115	49-46	752-302	Change letter "B" to "E" in Code column.
115	49-48	487-786	Change this part number to "487-796".
115	49-52	454-887	Change the number "A2980A-3-199A" to (A4886A-3-A-I) in the nomenclature column.
115	49-53	80032-46	Change this part number to "454-920".
115	49-63	12177-55	Add letter "D" in Code column.
115	49-64	12177-56	Add letter "D" in Code column.
115			Change Code "B" to read: Used on PA-20 airplanes with serial numbers 20-946, 20-948 to 20-1100 inclusive, and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, 22-911 to 22-2265 inclusive.
115			Add Code "D" explanation: Shielding – Index 40 – included with this wire.
115			Add Code "E" explanation: Used on PA-20 airplanes with serial numbers 20-946, 20-948 and up, and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, and 22-911 and up.
116	50-8	14086-00	Change letter "A" to "D" in Code column.
117	50-23	434-134	Change this part number to "434-138", and change number "AN931-6-10" to "AN931-10-14" in nomenclature column.

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## CHANGE NO. 2 (continued)

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
117			Add Code "D" explanation: Used on PA-20 airplanes with serial numbers 20-967 to 20-1083 inclusive and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 to 22-1759 inclusive.
119			Change Code "B" explanation to read: Used on PA-20 airplanes with serial numbers 20-967 to 20-1083 inclusive, and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 to 22-1759 inclusive.
121	53-3	90794-04	Add the words "and 1954 Model" in the nomenclature column.
121	53-9	467-050	Add letter "B" in Code column.
121			Add Code "B" explanation: Standard installation on 1954 Models.
123	53-16	467-050	Add letter "C" in Code column.
123	53-34	13736-00	Add letter "D" in Code column.
123			Add Code "C" explanation: Standard installation on 1954 Models.
123			Add Code "D" explanation: Used on PA-20 airplanes up to 20-1095 and on PA-22 airplanes up to 22-2068.
129	57-3	454-051	Add letter "A" in Code column.
129			Add Code "A" explanation: Used on PA-20 airplanes with serial numbers 20-554 to 20-1095 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-2068 inclusive.
134	57-28	460-637	Add letter "A" in Code column, and change number "1" to "2" in No. Req. column.
134			Add Code "A" explanation: Used on PA-20 airplanes with serial numbers 20-554 to 20-1102 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-2265 inclusive.
140	61	13724	Add letter "B" in Code column.
140	61-1	458-931	Add letter "B" in Code column.
140	61-7	13723-00	Add letter "B" in Code column.
140	61-8	13722-00	Add letter "B" in Code column.
140	61-9	14025-00	Add letter "B" in Code column.
140	61-10	14026-00	Add letter "B" in Code column.
140			Add Code "B" explanation: Used on PA-20 airplanes 20-877 to 20-1100 inclusive and on PA-22 airplanes with serial numbers 22-354 to 22-2213 inclusive and on 22-2216 to 22-2219 inclusive and 22-2221, 22-2222, 22-2225, 22-2227, 22-2230, 22-2231, 22-2232, 22-2238, 22-2245, 22-2246, 22-2249 and 22-54.
141	61-15	455-158	Add letter "B" in Code column.
141			Add Code "B" explanation: Used on PA-20 airplanes with serial numbers 20-877 to 20-1100 inclusive and on PA-22 airplanes with serial numbers 22-354 to 22-2213 inclusive and on 22-2216 to 22-2219 inclusive and 22-2221, 22-2222, 22-2225, 22-2227, 22-2230, 22-2231, 22-2232, 22-2238, 22-2245, 22-2246, 22-2249 and 22-2254.
143	62-9	10525-13	Add letter "A" in Code column.
143	62-12	70591-02	Add letter "C" in Code column.



REVISION NO. 1

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REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
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CHANGE NO. 2 (continued)

<b>PAGE NO.</b>	<b>FIGURE AND INDEX NUMBER</b>	<b>PART NUMBER</b>	<b>REVISION</b>
143	62-12	75091-02	Add letter "C" in Code column.
143			Add Code "A" explanation: Used on PA-20 airplanes with serial numbers 20-1 to 20-1088 inclusive and on PA-22 airplanes with serial number 22-1 to 22-1926 inclusive.
143			Add Code "C" explanation: Used on PA-20 airplanes with serial numbers 20-1 to 20-1095 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-1948 inclusive.
148	64-39	454-887	Change number "A2980A-3-199A" in nomenclature column to "A4886A-3-A-I".
149	64-52	10525-13	Add letter "B" in Code column.
149			Add Code "B" explanation: Used on PA-20 airplanes with serial numbers 20-1 to 20-1088 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-1926 inclusive.
151		752-267	Add letter "B" in Code column.
151			Add Code "B" explanation: Used on PA-20 airplanes with serial numbers 20-812 to 20-1100 inclusive and on PA-22 airplanes with serial numbers 22-354 to 22-2213 inclusive.



REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3

The following is a list of new parts and information to be inserted in this Catalog:

NOTE: A single asterisk (\*) following the Figure Number indicates NO INDEX NUMBER.

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
9-25	24032-20		FIREWALL LEATHER (Brown)	1		X		X
9-25	24032-21		FIREWALL LEATHER (Black)	1		X		X
10-5	13947-07		BELT ASSEMBLY – Safety, rear tip end (M5100M4-T32)	2		X		X
10-6	13947-06		BELT ASSEMBLY – Safety, rear buckle end (M5100M4-B22)	2		X		X
10-13	14270-20		CUSHION ASSEMBLY – Rear seat back – red	1		X		X
10-13	14270-00		CUSHION ASSEMBLY – Rear seat back – green	1		X		X
10-13	14270-02	G	CUSHION ASSEMBLY – Rear seat back – brown	1		X		X
10-14	14272-14		CUSHION ASSEMBLY – Rear seat bottom – red	1		X		X
10-14	14272-02		CUSHION ASSEMBLY – Rear seat bottom – green	1		X		X
10-14	14272-03	H	CUSHION ASSEMBLY – Rear seat bottom – brown	1		X		X
<p>G – When ordering this cushion assembly be sure and specify exact color combination desired (Brown and Gray) or (Brown and Brown Check).</p> <p>H – When ordering this cushion assembly be sure and specify exact color combination desired (Brown and Gray) or (Brown and Brown Check).</p>								
11-3	13947-07		BELT ASSEMBLY – Safety, front tip end (M5100M4-T32)	2		X		X
11-4	13947-06		BELT ASSEMBLY – Safety, front buckle end (M5100M4-B22)	2		X		X
11-16	14269-02		PLATE ASSEMBLY – Trim, upholstered, front seat, bottom – green	1		X		X
11-16	14269-04		PLATE ASSEMBLY – Trim, upholstered, front seat, bottom – brown	1		X		X
11-16	14269-07		PLATE ASSEMBLY – Trim, upholstered, front seat, bottom – gray	1		X		X
11-25	14273-28		CUSHION ASSEMBLY – Front seat, bottom – red	1		X		X
11-25	14273-02		CUSHION ASSEMBLY – Front seat, bottom – green	1		X		X
11-25	14273-03	H	CUSHION ASSEMBLY – Front seat, bottom – brown	1		X		X
11-*	487-271	I	SPRING – No sag	10	X	X	X	X
11-*	11420-00	I	LINK – Spring, connecting	24	X	X	X	X
11-*	11420-02	I	LINK – Spring, connecting	8	X	X	X	X
11-28	14274-27		CUSHION ASSEMBLY – Front seat, back, left – red	1		X		X
11-28	14274-02		CUSHION ASSEMBLY – Front seat, back, left – green	1		X		X





REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
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CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
11-28	14274-04	G	CUSHION ASSEMBLY – Front seat, back, left – brown	1		X		X
11-29	14274-26		CUSHION ASSEMBLY – Front seat, back, right – red	1		X		X
11-29	14274-00		CUSHION ASSEMBLY – Front seat, back, right – green	1		X		X
11-29	14274-03	G	CUSHION ASSEMBLY – Front seat, back, right – brown	1		X		X
11-*	487-274	I	SPRING – No sag	4	X	X	X	X
11-*	11420-02	I	LINK – Spring, connecting	6	X	X	X	X
<p>G – When ordering this cushion assembly be sure and specify exact color combination desired (Brown and Gray) or Brown and Brown Check).</p> <p>H – When ordering this cushion assembly be sure and specify exact color combination desired (Brown and Gray) or (Brown and Brown Check).</p> <p>I – Also used on PA-20 and PA-22 Models for 1950, 1951 and 1952.</p>								

13-1	13922-04		DOOR ASSEMBLY – Front Note: Specify green, brown or black trim when ordering	1		X		X
13-26	14263-02		PANEL – Trim, upholstered, inside – green	1		X		X
13-26	14263-03		PANEL – Trim, upholstered, inside – brown	1		X		X
13-26	14263-07		PANEL – Trim, upholstered, inside – black	1		X		X
13-34	14246-02		PLATE – Inside trim (vellumoid)	1	X	X	X	X

15-1	13923-02		DOOR ASSEMBLY – Rear Note: Specify green, brown or black trim when ordering	1		X		X
15-22	14262-02		PANEL – Trim, upholstered, inside – green	1		X		X
15-22	14262-03		PANEL – Trim, upholstered, inside – brown	1		X		X
15-22	14262-07		PANEL – Trim, upholstered, inside – black	1		X		X
15-27	14254-00		WINDOW – Door	1		X		X
15-*	13900-00		BLOCK – adjusting – ventilator	1		X		X
15-*	13914-00		GASKET – Cork – ventilator	1		X		X
15-*	471-051		KNOB – Ventilator (#3001SD ivory)	1		X		X
15-*	13904-00		VENTILATOR	1		X		X
15-*	14240-02		PLATE – Outside trim, ventilator	1		X		X
15-*	14240-03		PLATE – Seal, vellumoid, outside	1		X		X
15-*	14246-00		PLATE – Inside trim, ventilator	1		X		X
15-*	14247-00		WINDOW	1		X		X
15-*	14246-02		PLATE – Seal, vellumoid, inside	1		X		X



REVISION NO. 1

OCTOBER 1954

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
16-4	13945-19		MOULDING – Rubber baggage door seal, front	2		X		X
16-11	13889-04		PANEL – Hat shelf, rear	1		X		X
16-*	14295-00		CHANNEL – Moulding, attachment	2		X		X
17-42	471-049		KNOB ASSEMBLY – black	1		X		X
17-*	11789-00		BUSHING – Insert throttle knob, (used with black knob)	1		X		X
19-11	471-049		KNOB ASSEMBLY – Black	1		X		X
19-21	752-697	C	PLACARD – Ignition switch	1		X		X
19-24	14314-02	D	SWITCH ASSEMBLY – Ignition (with 2 keys – wires and terminals)	1		X		X
19-*	11789-00		BUSHING – Insert throttle – (used with black knob)	1		X		X
C – Used on PA-20 airplanes with serial numbers 20-946, 20-948 and up and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, 22-911 and up. D – Used on PA-20 airplanes with serial numbers 20-1101 and up and PA-22 airplanes with serial number 22-2266 and up.								
22-5	458-931	A	ELBOW – 900-8B	1		X		X
22-5	451-855	A	ADAPTER – 3200 x 6	1		X		X
22-7	14345-00	D	ELBOW – Regulating valve to check valve and pump to regulating valve	2	X	X	X	X
22-14	82371-54	A	HOSE – rubber – separator to engine	1		X		X
22-15	14366-00	A	LINE ASSEMBLY – oil cooler – right – inlet	1		X		X
22-17	14367-00	A	LINE ASSEMBLY – oil cooler – left – outlet	1		X		X
22-19	14404-00	A	ADAPTER		1		X	
22-21	458-918	A	ELBOW (AN914-3D)	1		X		X
A – Used on PA-20 Airplanes with serial numbers 20-1101 and up and on PA-22 airplanes with serial numbers 22-2214, 22-2215, 22-2220, 22-2223, 22-2224, 22-2226, 22-2228, 22-2229, 22-2233 to 22-2237 inclusive, 22-2239 to 22-2244 inclusive, 22-2247, 22-2248, 22-2250 to 22-2253 inclusive and 22-2255 and up. D – Also used on 1952 Model PA-20 and PA-22 Airplanes								
25-3	14306-00		CARPET ASSEMBLY – rear	1		X		X
25-4	12729-18		BOOT ASSEMBLY – rear half – shock cord and hydrasorb unit – brown	1		X		X



REVISION NO. 1

OCTOBER 1954

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
25-4	12729-24		BOOT ASSEMBLY – rear half – shock cord and hydrasorb unit – black	1		X		X
25-5	12729-22		BOOT ASSEMBLY – front half – shock cord and hydrasorb unit – brown	1		X		X
25-5	12729-26		BOOT ASSEMBLY – front half – shock cord and hydrasorb unit – black	1		X		X
25-6	12759-10		BOOT ASSEMBLY – control column – brown	1		X		X
25-6	12759-12		BOOT ASSEMBLY – control column – black	1		X		X
25-18	14050-12		COVER ASSEMBLY – rudder pedal tube – L.H. – brown	1		X		X
25-18	14050-13		COVER ASSEMBLY – rudder pedal tube – R.H. – brown	1		X		X
25-18	14050-16		COVER ASSEMBLY – rudder pedal tube – L.H. – black	1		X		X
25-18	14050-17		COVER ASSEMBLY – rudder pedal tube – R.H. – black	1		X		X
26-10	14260-00		ARM REST – green	1		X		X
26-10	14260-02		ARM REST – brown	1		X		X
26-10	14260-05		ARM REST – black	1		X		X
26-13	14259-04		BLANKET ASSEMBLY – fuselage cowl – top of instrument panel – black	1		X		X
26-15	13939-04		HEADLINING ASSEMBLY	1		X		X
26-21	14266-04		PANEL ASSEMBLY – trim – upholstered – right side – black	1		X		X
26-21	14266-02		PANEL ASSEMBLY – trim – upholstered – right side – green	1		X		X
26-21	14266-03		PANEL ASSEMBLY – trim – upholstered – right side – brown	1		X		X
26-32	10262-07		PLATE ASSEMBLY – eyebrows and headlining	2		X		X
26-37	14264-02		PANEL ASSEMBLY – trim – upholstered – left side – green	1		X		X
26-37	14264-03		PANEL ASSEMBLY – trim – upholstered – left side – brown	1		X		X
26-37	14264-07		PANEL ASSEMBLY – trim – upholstered – left side – black	1		X		X
27-48	14246-02		VENTILATOR PLATE – inside trim (vellumoid)	1		X		X
28-1	14267-00		WHEEL ASSEMBLY – control	2		X		X
28-2	14227-00		PLATE – name (#474-320)	1		X		X
28-17	12759-10		BOOT ASSEMBLY – control column – brown	1		X		X
28-17	12759-12		BOOT ASSEMBLY – control column – black	1		X		X
28-*	85012-04		WASHER – Spacer – rudder – pedal torque tube	As Req.		X		X



REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
28-*	85012-05		WASHER – Spacer – rudder – pedal torque tube	As Req.		X		X
28-*	85012-06		WASHER – Spacer – rudder – pedal torque tube	As Req.		X		X
35-22	752-882	E	“O” Ring	1		X		X
35-*	80122-67		WASHER – fuel line installation inside firewall	1		X		X
		E	– Used with fuel valves which have a nickel silver plug	1		X		X
40-	14375	CD	DRAWING – float installation – EDO – “135”				X	X
40-	14237	CD	DRAWING – float installation – EDO – “135”		X	X		
40-7	13339-09	CDE	INSTRUMENT – indicator airspeed – “135”	1	X	X	X	X
40-9		CDE	FLOAT INSTALLATION – EDO aircraft drawing “135” #16270 (Secure from EDO)		X	X	X	X
40-13	13108-03	D	CABLE – aileron – stainless steel	1			X	X
40-20	13109-05	D	CABLE – Rudder R.H. – stainless steel	1			X	X
40-20	13109-04	D	CABLE – Rudder L.H. – stainless steel	1			X	X
40-*	14276-00	CE	VANE – carburetor air box “135”	2	X	X		
40-*	40123-81	D	CABLE – Bungee – lower – stainless steel	1			X	X
40-*	40123-73	D	CABLE – bungee – upper – stainless steel	1			X	X
40-*	12761-02	D	COVER – Inspection nose wheel strut hole “135”	1			X	X
40-*	14369-00	D	CLAMP – step attachment – “135”	1			X	X
40-*	14370-00	D	BLOCK – step bumper	1			X	X
40-*	14373-00	D	STEP ASSEMBLY – “135”	1			X	X
40-*	14374-00	D	FAIRING – bottom left	1			X	X
40-*	14376-00	D	FAIRING – bottom right – “135”	1			X	X
40-*	14377-00	D	ANGLE – baffle – support – “135”	2			X	X
40-*	14381-00	D	BUSHING ASSEMBLY SPACER – where nose wheel mount attached – “135”	2			X	X
40-*	81342-76	D	WASHER – cover nose wheel control rod hole – “135”	4			X	X
40-*	485-615	D	RUDDER ARM (#2719) – “135”	1			X	X
40-*	42891-00	D	SITTING – rudder pedal return – “135”	2			X	X
40-*	81262-39	D	LINK – rudder pedal return spring attachment – “135”	2			X	X
C – Used with Model 89-2000 Floats D – Also used on 1952 Model PA-22 airplanes E – Also used on 1952 Model PA-20 airplanes								



REVISION NO. 1

OCTOBER 1954

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
43-27	451-631	C	TAILWHEEL ASSEMBLY – (Maule 6" SFS-1-4)	1		X		
43-*	753-133	C	WHEEL AND TIRE – complete with bearings, felt retainers and hub cap	1		X		
43-*	751-227	C	AXLE	1		X		
43-	751-757	C	FORK	1		X		
43-*	751-388	C	BRACKET ASSEMBLY	1		X		
43-*	751-389	C	BEARING (Oilite)	1		X		
43-*	752-900	C	STEERING ARM ASSEMBLY	1		X		
<p>C – When ordering component parts for this tailwheel, be sure and check the identifying name or number which appears on the tailwheel for positive parts identification. (The Scott tailwheel is identified by the Number 3-24B stamped on a name plate. The Maule tailwheel is identified by the word MAULE stamped on the tire.)</p>								
44-2	11709-00	C	BUSHING – insert brake lever knob	1				X
44-17	471-049		KNOB – #95 – brake lever – black	1				X
44-*	80032-51		CLAMP – brake line attachment to fire wall	1				X
<p>C – Used on PA-22 airplanes with serial numbers 22-1762 to 22-1784 inclusive, 22-1786 to 22-1793 inclusive, 22-1795, 22-1796, 22-1798, 22-1802 and 22-1804.</p>								
49-43	14314-02		SWITCH ASSEMBLY – (ignition) with 2 keys – wires and terminals	1		X		X
49-*	81342-74	C	WASHER – terminal installation – magneto filter box	2		X		X
49-*	14310-00	F	PLATE – mounting – magneto filter box (fibre) (inside firewall)	1		X		X
49-*	14311-07	F	BOX ASSEMBLY – magneto filter – less terminals	1		X		X
49-*	14309-00	F	BOX – filter	1		X		X
49-*	14327-00	F	BLOCK – terminal – magneto filter box – (Phenolic)	1		X		X
<p>C – Used on PA-20 airplanes with serial numbers 20-1101 and up and on PA-22 airplanes with serial number 22-2266 and up. F – Used on PA-20 airplanes with serial numbers 20-1103 and up and on PA-22 airplanes with serial numbers 22-2266 and up.</p>								
50-8	14086-02		HOSE – terminal shield	1		X		X
50-13	454-920		CLAMP – attachment (starter cable and battery to switch box cable) plastic	3		X		X



REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
51-1	14226-05		CABLE ASSEMBLY – starter to switch box	1		X		X
51-24	14226-04		CABLE ASSEMBLY – battery to starter switch	1		X		X
53-*	14313-00	E	GROMMET – VHF receiving antenna installation – fin	2		X		X
53-*	14296-00	E	PLATE – trim VHF receiving antenna mounting on fin	2		X		X
E – Used on PA-20 airplanes with serial numbers 20-1096 and up and on PA-22 airplanes with serial numbers 22-2069 and up.								
57-28	460-634	B	FILTER – magneto (Narco radio) (#NF1F247)	2		X		X
57-*	81262-62		LINK – “MIKE” clip mounting	1		X		X
B – Used on PA-20 airplanes with serial numbers 20-1103 and up and on PA-22 airplanes with serial numbers 22-2266 and up.								
59-10	14258-00		COWL ASSEMBLY – bottom “135”	1				X
59-13	14303-00		LOUVER – left	1				X
59-14	14301-00		LOUVER – right	1				X
59-15	14258-02		SCOOP ASSEMBLY	1				X
59-16	14256-00		PLATE – bottom	1				X
61-	14368	C	DRAWING – oil radiator installation			X		X
61-1	458-931	C	ELBOW – oil radiator line attachment (at left side radiator and at engine)	2		X		X
61-7	14367-00	C	LINE ASSEMBLY – oil cooler left (outlet)	1		X		X
61-8	14366-00	C	LINE ASSEMBLY – oil cooler right (inlet)	1		X		X
61-15	455-158	C	CONNECTOR – oil radiator attachment at engine (#500 X 8)	1		X		X
61-*	90150-11	D	STRIP – fibre – chafing	1		X		X
C – Used on PA-20 airplanes with serial numbers 20-1101 and up and on PA-22 airplanes with serial numbers 22-2214, 22-2215, 22-2220, 22-2223, 22-2224, 22-2226, 22-2228, 22-2229, 22-2233 to 22-2237 inclusive, 22-2239 to 22-2244 inclusive, 22-2247, 22-2248, 22-2250 to 22-2253 inclusive and 22-2255 and up.								
D – Also used on 1952 Models PA-20 and PA-22 Airplanes								
62-9	10525-25	B	HOSE – Muffler shroud to rear seat heater box	1		X		X
62-12	14235-00	D	CLAMP ASSEMBLY – Exhaust stacks to muffler and tail pipe attachment	3		X		X



REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – 1954 MODEL AIRPLANES

CHANGE NO. 3 (Continued)

FIGURE AND INDEX NUMBER	PART NUMBER	CODE	NOMENCLATURE	NO. REQ.	MODEL			
					PA-20		PA-22	
					'53	'54	'53	'54
			B – Used on PA-20 airplanes with serial numbers 20-1089 and up and on PA-22 airplanes with serial numbers 22-1927 and up. D – Used on PA-20 airplanes with serial numbers 20-1096 and up, and on PA-22 airplanes with serial numbers 22-1949 and up.					
64-3	14255-00		BOX ASSEMBLY – carburetor air “135”	1				X
64-3	14249-00		BOX ASSEMBLY – carburetor air “135”	1		X		
64-4	14253-03		BOX ASSEMBLY – less filter “135”	1				X
64-4	14253-02		BOX ASSEMBLY – less filter “135”	1		X		
64-7	487-542		STUD – ball (#P116-421-12-24A)	2		X		X
64-7	406-355		NUT – Tinnerman	2		X		X
64-7	85012-60		WASHER – ball stud attachment	4		X		
64-*	454-895	A	CLAW – hose 2 <sup>1</sup> / <sub>8</sub> x 3/4 double tite (shroud to rear seat heater box)	2		X		X
			A – Used on PA-20 airplanes with serial numbers 20-1089 and up and on PA-22 airplanes with serial numbers 22-1927 and up.					
	754-035		Float Installation with 89-2000 floats for PA-22 airplanes with serial numbers 22-807 and up.				X	X
	754-036	A	Float Installation with 89-2000 floats for PA-22 airplanes with serial numbers 22-534 to 22-806 inclusive					
	754-034	C	Vacuum pump installation (new type accessory case)					
			A – Used on 1951 and 1952 Models PA-22 airplanes C – To be used on PA-20 airplanes with serial numbers 20-1101 and up and on PA-22 airplanes with serial numbers 22-2214, 22-2215, 22-2220, 22-2223, 22-2224, 22-2226, 22-2228, 22-2229 9 22-2233 to 22-2237 inclusive, and 22-2239 to 22-2244 inclusive, 22-2247, 22-2248, 22-2250 to 22-2253 inclusive and 22-2255 to 22-2377 inclusive and 22-2379 to 22-2424 inclusive.					





REVISION NO. 2

MARCH 1958

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – MODEL AIRPLANES (PA-20)

CHANGE NO. 1

The following revision are to be made to this catalog:

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
i			Change Paragraph 4 (10) to read: Serial numbers of the 1954 PA-20 Models "135" are 20-1084 to 20-1121 Inclusive.
10	6-26	13541-12	Add to nomenclature: (1952 to 1954 inclusive).
10	6-27	83161-02	Add to nomenclature: (1952 to 1954 inclusive).
11	6-		Change index number 35 to index number 70.
17	7-16	12822-00	Change 2 to 1 in number required column.
17	7-16	12822-01	Change 2 to l in number required column.
33	12-1	13027-08	Delete word "with" from nomenclature and insert the word "without".
33	12-1	13027-07	Delete word "without" from nomenclature and insert the word "with".
37	13-21	13945-19	Change 7' to 9' in number required column.
41	15-13	13884-00	Change this part number to "13884-01".
44	17-8	450-643	Add to nomenclature: "125" and "135".
45	17-36	450-660	Change this part number to "450-698".
46	17-52	487-786	Change this part number to "487-796".
47	18-1	450-643	Add to nomenclature: "125" and "135".
49	18-15	80032-53	Change this part number to "454-929".
49	18-31	450-660	Change this part number to "450-698".
51	19-2	487-786	Change this part number to "487-796".
53	19-14	471-051	Add the word "ivory" to nomenclature.
53	19-16	471-051	Add the word "ivory" to nomenclature.
53	19-18	471-051	Add the word "ivory" to nomenclature.
53	19-25	752-892	Add letter "D" in Code column.
53	19-26	752-302	Add letter "D" in Code column.
59	22-4	454-904	Add letter "A" in Code column.
59	22-5	455-158	Add letter "F" in Code column.
59	22-7	458-925	Add letter "F" in Code column.
59	22-10	82371-23	Add letter "F" in Code column.
59	22-11	82371-25	Add letter "A" in Code column.
59	22-15	15366-00	Add letter "E" in Code column.
59	22-17	14367-00	Add letter "E" in Code column.
59	22-20	14047-00	Add letter "A" in Code column.
59	22-23	486-381	Add letter "A" in Code column.
59	22-23	486-281	Add letter "G" in Code column.
59	22-		Add Code "E" explanation: Used on PA-20 airplanes with serial numbers 20-1101 and up.



REVISION NO. 2

MARCH 1958

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – MODEL AIRPLANES (PA-20)

CHANGE NO. 1 (Continued)

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
59	22-5		Add Code "F" explanation: One (1) each per airplane on PA-20 airplanes with serial numbers 20-1101 and up.
59	22-		Add Code "G" explanation: Used on PA-20 airplanes when vacuum pump installed to serial number 20-1121 inclusive
64	25-3	14306-00	Add to nomenclature (Used when auxiliary fuel tank not installed.)
66	25-30	12036-03	Add to nomenclature 1954 and 1955 Model.
71	27-18	471-051	Add the word "ivory" to nomenclature.
88	35-6	750-271	Change this part number to "14428-00".
88	35-21	11383-02	Change this part number to "11383-04".
88	35-24	14330-00	Change this part number to "14330-02".
88	35-26	750-271	Change this part number to "14428-00".
88	35-28	72302-03	Delete this part. No longer available separately. Included with item number 31.
88	35-30	750-273	Delete this part. No longer available separately. Included with item number 31.
90	35-56	451-100	Change this part number to "451-101" and remove (number R-2406) from nomenclature.
93	37-4	86092-31	Change this part number to "480-691".
106	44-11	751-655	Change this part number to "750-384".
115	49-45	752-892	Add letter "C" in Code column.
115	49-*	81342-74	Change (2) to (4) in number required column.
121	53-3	90794-04	Add to nomenclature: "and 1954-1955 Models".
129	57-1		Change part number "487-640" to part number "454-046".
133	58-		Add to Code "D" explanation: For Model "135" Airplanes.
140	61-5	13711-00	Delete this part number.
140	61-6	14054-00	Change this part number to "14549-00".
147	64-13	73451-03	Add to nomenclature: "135".
148	64-31	91499-00	Add to nomenclature: "135".
148	64-35	487-567	Add to nomenclature: "135".
148	64-36	11957-00	Add to nomenclature: "135".



REVISION NO. 3

JUNE 1963

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – MODEL AIRPLANES (PA-20)

CHANGE NO. 1

The following revisions are to be made to this catalog:

PAGE NO.	FIGURE AND INDEX NUMBER	PART NUMBER	REVISION
2	2-7	454-009	Change this Part No. to 454-039
5	3-15	12562-00	Delete word "Left" from nomenclature and insert the word "Right"
5	3-15	12562-01	Delete word "Right" from nomenclature and insert the word "Left"
6	4-7	80122-16	Change this Part No. to 80122-86
20	8-57	13915-05	Change this Part No. to 13915-07
20	8-65	20301-00	Delete word "Upper" from nomenclature and insert the word "Lower"
20	8-66	20291-00	Delete word "Lower" from nomenclature and insert the word "Upper"
42	16-4	13945-20	Change 2' to 7' in No. required column
42	16-4	13945-20	Change this Part No. to 19063-00
44	17-2	456-057	Change this Part No. to 450-694
49	18-10	456-057	Change this Part No. to 450-694
51	18-51A	751-171	Add unillustrated part and indent once BULB – 1 required
54	20-3	496-156	Change this Part No. to 450-635
54	20-4	450-684	Change this Part No. to 450-634
59	22-24	481-662	Change this Part No. to 481-667
59	22-26	492-028	Change this Part No. to 492-045
77	30-11	85012-12	Change this Part No. to 407-587
84	34-12	401-273	Insert this Part No. and change AN3-15A to AN3-14A
86	34-32	80122-16	Change this Part No. to 80122-86
95	39-1A	750-894	Add part and indent once BRAKE DRUM – 1 required
95	39-19	406-684	Insert this Part No. and change AN310-6 to 52E064
95	39-20		Delete this part
112	49-1	12177-81	Change this Part No. to 14230-31
120	52-6	487-239	Change this Part No. to 18478-00
125	55-7	12560-00	Insert the words "Left Hand". Change 2 to 1 in No. required column
126	55-7	12560-00	Add this part – BRACKET ASSEMBLY – Navigation light, wing, right hand – 1 required
127	56-26	12298-10	Change this Part No. to 12298-18
129	57-1	454-046	Change Part No. 454-046 to 454-083
129	57-2	454-052	Change this Part No. to 454-044
131	57-28	460-637	Add letter "A" in Code Column. Change 1 to 2 in No. required column
131	57-		Add Code "A" explanation – Used on PA-20 airplanes with serial numbers 20-554 to 20-1102



REVISION NO. 3

JUNE 1963

REVISION TO PA-20-PA-22 ILLUSTRATED PARTS CATALOG  
SUPPLEMENT – MODEL AIRPLANES (PA-20)

CHANGE NO. 1

<b>PAGE NO.</b>	<b>FIGURE AND INDEX NUMBER</b>	<b>PART NUMBER</b>	<b>REVISION</b>
139	60-1	74912-00	Add to nomenclature "135"
143	62-14	14076-00	Change this Part No. to 18116-05
147	64-10	455-162	Change this Part No. to 455-166
149	64-54	406-684	Insert this Part No. and change 42E064 to 52E064
149	64-55	406-684	Insert this Pan No. and change 42E064 to 52E064



## PARTS CATALOG

# PIPER TRI-PACER

**PA-20**

**PA-22**



## Univair Aircraft Corporation

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# INTRODUCTION

This illustrated Parts Catalog is designed to provide simple but positive identification of replacement parts for the Piper Pacer PA-20 Models "115", "125" and "135" and the Piper Tri-Pacer PA-22 Models "125", and "135" manufactured by the Piper Aircraft Corporation of Lock Haven, Pennsylvania.

It is suggested that this catalog be thoroughly studied to determine its arrangement prior to its utilization.

1. The catalog is divided into twelve (12) major sections described as follows:
  - a. Section I to X inclusive contains all replacement parts for the complete airplane. Each section is subdivided and each division includes an illustration and a parts listing.
  - b. Section XI is the Miscellaneous Section or available kits.
  - c. Section XII is the Numerical Index. This is a listing by part number in numerical sequence of all parts listed in the catalog and indicates in which figure (or figures) the parts are located. (See page iii Table of Contents.)
2. The following is a brief explanation of the columns in the parts listing:
  - a. The "FIGURE AND INDEX" column indicates the illustration figure number and its part index number. Example: (2-1), the 2 is the figure number and the 1 is the index number. The figure number appears only at the top of each parts listing page or at the beginning of each new parts listing.
  - b. The "PART NUMBER" column contains the identifying number of the replacement part and this number must be shown on all Parts Orders.
  - c. The "CODE" column is for the purpose of indicating applicable aircraft serial numbers and special uses of the part. An explanation of the letter code used is shown below each listing:
  - d. The "NOMENCLATURE" column indicates the part name. This name must be shown on all Parts Orders.
  - e. The "NO. REQ." (Number Required) column represents the total quantity of parts used per aircraft per figure when the part is not indented and the quantity of parts used per assembly when the part is indented. (See indentation explanation note, page U.) The symbol "AR" listed in this column means "As Required".
  - f. The "MODEL" column indicates the part application by airplane model and year.
3. The "ATTACHING PARTS" such as nuts, bolts, screws, etc., that are available as commercial hardware items are not generally supplied by the Piper Aircraft Corporation. The catalog lists, for your convenience, those attaching parts required for main assemblies and installations. The identifying number for these parts appears after the part name.
4. The following information should be kept in mind when ordering from this catalog:

- a. The serial numbers of the aircraft covered by this parts catalog are as follows:
  - (1) Serial numbers of the 1950 PA-20 Models "115" and "125" are 20-1 to 20-553 inclusive.
  - (2) Serial numbers of the 1951 PA-20 Models "125" are 20-554 to 20-811 inclusive.
  - (3) Serial numbers of the 1952 PA-20 Models "125" are 20-812 to 20-876 inclusive.
  - (4) Serial numbers of the 1952 PA-20 Models "135" are 20-877 to 20-933 inclusive.
  - (5) Serial numbers of the 1953 PA-20 Models "135" are 20-934 and up.
  - (6) Serial numbers of the 1951 PA-22 Models "125" are 22-1 to 22-353 inclusive.
  - (7) Serial numbers of the 1952 PA-22 Models "125" are 22-354 to 22-533 inclusive.
  - (8) Serial numbers of the 1952 PA-22 Models "135" are 22-534 to 22-806 inclusive.
  - (9) Serial numbers of the 1953 PA-22 Models "135" are 22-807 and up.
- b. All items of Optional Equipment are contained in the parts list in their proper sequence and sections. These items were not marked optional, since they are fully identified by their descriptions.
- c. The model designation "135" pertains to the PA-20 Pacer and PA-22 Tri-Pacer aircraft equipped with the Lycoming O-290-D2 engine.
- d. The rear seat heater was installed on all Model PA-20 "135" aircraft with the exception of airplanes serial numbers 20-877, 20-881, 20-885 and 20-888 and on all Model PA-22 "135" aircraft with the exception of airplanes serial numbers 22-535, 22-536, 22-537, 22-538, 22-539 and 22-543.

## HOW TO ORDER PARTS

In ordering parts for your Piper Airplane, observe the following instructions which will aid in your getting the right parts required without delay:

- a. Place your order with the distributor for your territory. If he does not have the required parts, he will promptly order from the factory. In the majority of cases, parts are available only through your distributor, and it is necessary that we forward your order to your distributor to be filled. Considerable time will be saved by following this procedure.
- b. Always specify the model and serial number of your airplane.
- c. Always specify Part Number, Name, type and quantity required.
- d. Specify the method of shipment – freight, express, air express, air mail, or parcel post. Most parts are shipped by parcel post or express, but where the nature of the shipment requires it or when no instructions are given, we reserve the right to ship the most suitable way.



## GENERAL INFORMATION

### a. Shortages

All orders are checked and rechecked before leaving our Shipping Department. A packing slip is enclosed with the shipment and claims for errors or shortages must be made within three days after receipt of orders.

### b. Returned Goods

No material should be returned to us without first securing our written permission, because a "Parts Disposal Identification Tag" must be filled out for all material to be returned. Material sent in without notice will be held at the owner's risk for thirty (30) days and will then be disposed of as we see fit.

Transportation charges must be PREPAID on returned goods or the shipment will be refused.

### c. Transportation Liabilities

The Piper Aircraft Corporation cannot be held liable for damages to parts in transit from the factory. If a shipment is received in a damaged condition, have the delivery man or Transportation Company make a notation of the damage and file your claim with the Carrier. In case of concealed damage, do not attempt to remove the part from the shipping container, or endeavor to repair the damage, but call the Carrier and have his Claim Agent inspect the damage before filing your claim with the Carrier.

## HOW TO IDENTIFY A PART IF YOU KNOW WHAT IT LOOKS LIKE AND KNOW WHERE IT IS LOCATED:

- (1) Refer to Figure 1 on page v to determine the group number in which the part is used.
- (2) Refer to the Table of Contents on page iii and note the figure numbers that illustrate the various subgroups of the main group.
  - (a) Select the figure title you think might contain the part you wish to identify and turn to the page specified.
- (3) Find the part on the illustration and note the index number.

### NOTE

If you don't find the part on this illustration try another figure in this group.

- (4) Refer to the column captioned "Figure and Index Number". That line gives all the information you need to order the part, including its correct name (NOMENCLATURE) the number required (NO. REQ.) for the model you want the part for.

A letter in the column headed "CODE" gives any special information pertinent to that part.

## HOW TO DETERMINE WHERE A PART IS USED ON AN AIRPLANE WHEN YOU KNOW THE PART NUMBER:

- (1) Section XII – Lists all parts in numerical order. Opposite the part numbers are given the figures and index numbers where the part is illustrated. (Repeated listing of a part indicates its interchangeability on a plane.)
- (2) Find the part on the illustration indicated to be sure that is the part you want.
- (3) Refer to the column captioned "Figure and Index Number". That line gives all the information concerning the part.

### NOTE

Indentations of listings in the "Nomenclature" column indicate "assemblies" and "components" or "parts", in order of their indentations.

Code	NOMENCLATURE	No. Req.
	DOOR ASSEMBLY - Baggage . . . . .	1
	FRAME ASSEMBLY - Door . . . . .	1
	MOULDING - Rubber, door seal . . . . .	7
	ANGLE - Rubber strip support top, . . . . .	1
	front, 9-3/4 in.	

This listing is interpreted as follows:

If the DOOR ASSEMBLY (not indented) is ordered, it will include the three items listed under that item.

If the FRAME ASSEMBLY (indented one space) is ordered, it will include the two items listed under that assembly.

If you want only a MOULDING or ANGLE, you order only that item.





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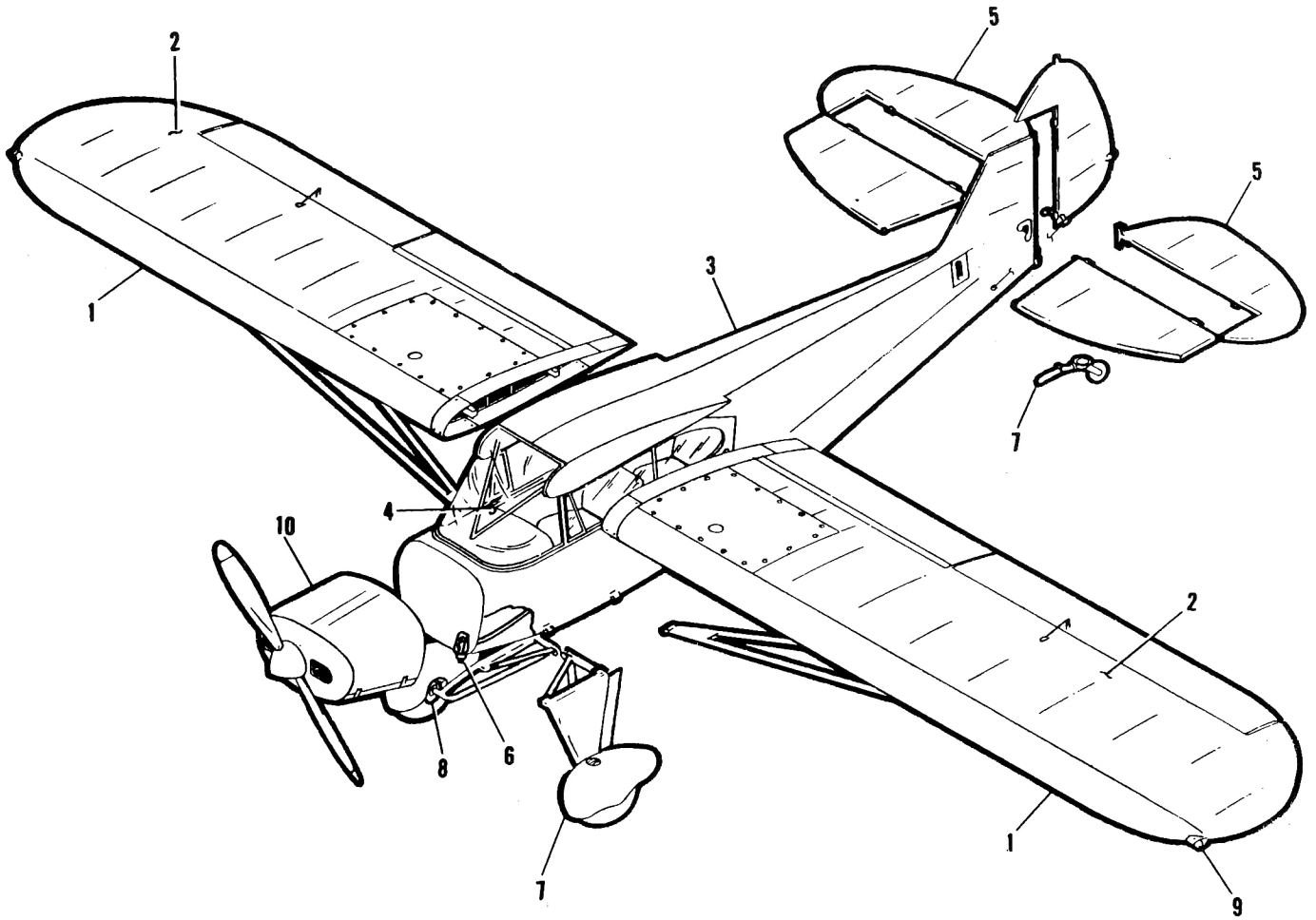
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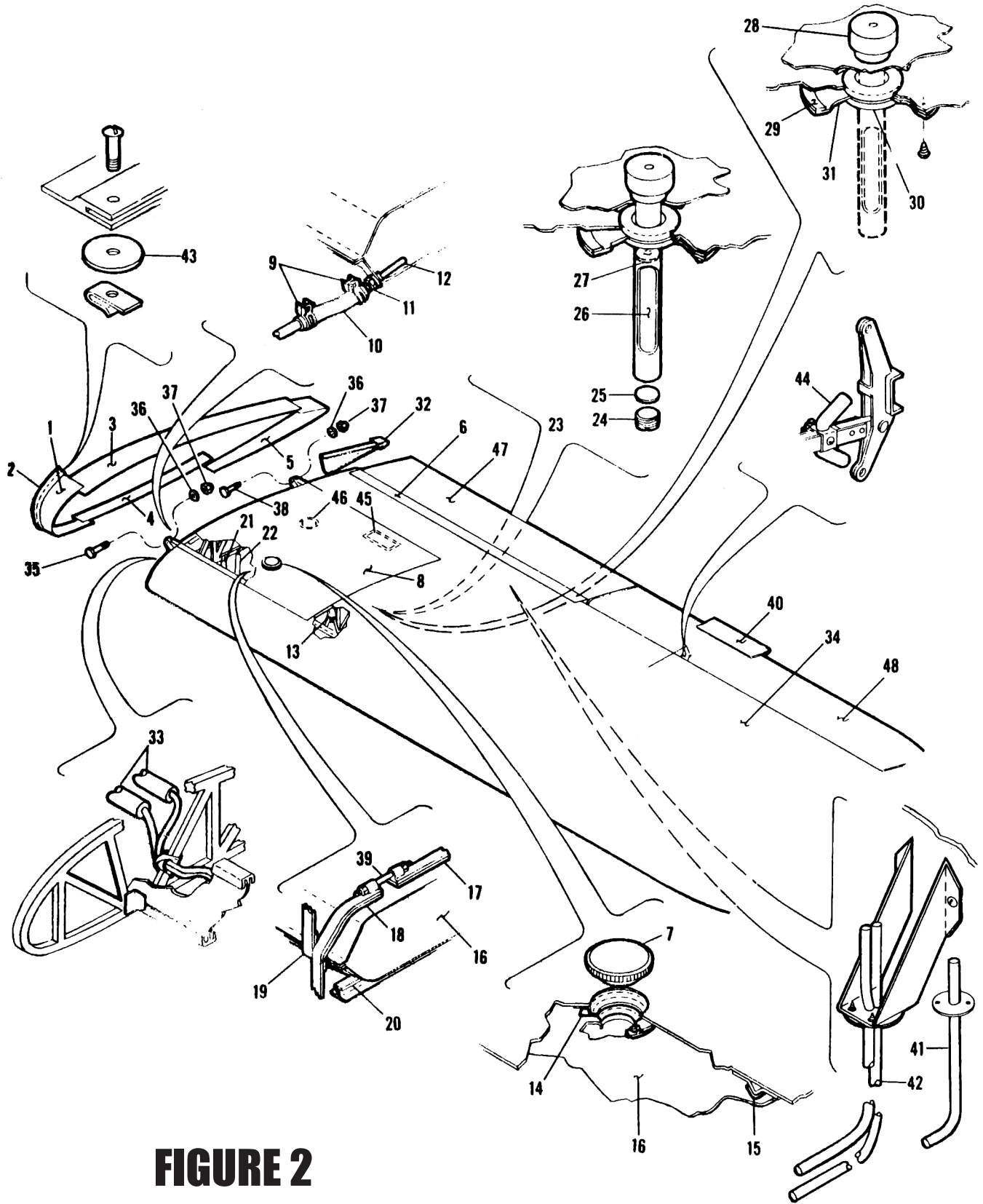
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# FIGURE 1

Exploded View of Complete Airplane

Figure and Index Number	Subject	Section
1-1	WING AND FUEL TANK INSTALLATION GROUP .....	I
-2	WING ASSEMBLY GROUP .....	II
-3	FUSELAGE GROUP .....	III
-4	COCKPIT GROUP .....	IV
-5	CONTROL GROUP .....	V
-6	FUEL SYSTEM GROUP .....	VI
-7	CHASSIS GROUP .....	VII
-8	BRAKE INSTALLATION GROUP .....	VIII
-9	ELECTRICAL SYSTEM GROUP .....	IX
-10	POWER PLANT GROUP .....	X



# FIGURE 2

Wing and Fuel Tank Installation



# GROUP ASSEMBLY PARTS LIST

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
2-	12660		DRAWING – Rigging procedure		X	X	X							
	13942		DRAWING – Rigging procedure						X					
	13088		DRAWING – Rigging procedure							X	X			
	13943		DRAWING – Rigging procedure										X	
	12538		DRAWING – Wing and fuel tank installation		X	X	X	X		X	X	X		
-1	11526-00		FAIRING – Wing root, leading edge, LH	1	X	X	X	X		X	X	X		
	11526-01		FAIRING – Wing root, leading edge, RH	1	X	X	X	X		X	X	X		
-2	<a href="#">415-31130-10</a>		MOULDING – Rubber, No. 1-796A	2'	X	X	X	X		X	X	X		
-3	<a href="#">U11523-000</a>		FAIRING – Wing root, top	2	X	X	X	X		X	X	X		
-4	<a href="#">U11525-000</a>		FAIRING – Wing root, bottom front, LH	1	X	X	X			X	X			
	<a href="#">U11525-002</a>		FAIRING – Wing root, bottom front, LH	1				X					X	
	11659-00		FAIRING – Wing root, bottom front, RH	1	X	X	X	X		X	X	X		
-5	<a href="#">U11524-004</a>		FAIRING – Wing root, bottom rear, LH	1	X	X	X	X		X	X	X		
	<a href="#">U11524-003</a>		FAIRING – Wing root, bottom rear, RH	1	X	X	X	X		X	X	X		
-6	12465-00	A	FAIRING – Flap, “125”	2	X	X								
	<a href="#">U13172-000</a>	B	FAIRING – Flap, “125” and “135”, LH	1		X	X	X		X	X	X		
	<a href="#">U13172-001</a>	B	FAIRING – Flap, “125” and “135”, RH	1		X	X	X		X	X	X		
-7	<a href="#">U60750-002</a>		CAP ASSEMBLY – Fuel tank	2	X	X	X	X		X	X	X		
-8	<a href="#">U12570-009</a>		COVER ASSEMBLY – Fuel tank	2	X	X	X	X		X	X	X		
-9	<a href="#">AN746-6</a>		CLAMP – Ideal hose, ¾ inch	6	X	X	X	X		X	X	X		
	<a href="#">AN746-6</a>	C	CLAMP – Hose, fuel line to right tank attachment	2	X	X	X	X		X	X	X		
-10	<a href="#">U82371-010</a>		HOSE – Flexible, tank strainer to fuel line connector	3	X	X	X	X		X	X	X		
	<a href="#">U82371-010</a>	C	HOSE – Flexible, fuel line to right rear wing tank attachment	1	X	X	X	X		X	X	X		
-11	<a href="#">AN840-6D</a>		NIPPLE – Tank strainer to fuel line	3	X	X	X	X		X	X	X		
	<a href="#">AN840-6D</a>	C	NIPPLE – Tank strainer to fuel line, right rear fuel tank	1	X	X	X	X		X	X	X		
-12	<a href="#">U72091-000</a>		STRAINER ASSEMBLY – Fuel tank outlet (In tank)	3	X	X	X	X		X	X	X		
	<a href="#">U72091-000</a>	C	STRAINER ASSEMBLY – Fuel tank outlet (In tank)	1	X	X	X	X		X	X	X		
-13	<a href="#">U11034-000</a>		COVER ASSEMBLY – Fuel tank brace	4	X	X	X	X		X	X	X		
-14	<a href="#">U80122-048</a>		WASHER – Fuel seal	2	X	X	X	X		X	X	X		
-15	<a href="#">-180-497</a>		FELT – Wing tank cover, SAE F-50	10'	X	X	X	X		X	X	X		
-16	<a href="#">U10849-016</a>		TANK ASSEMBLY – Fuel, LH	1	X									
	<a href="#">U10849-034</a>		TANK ASSEMBLY – Fuel, LH	1		X	X	X		X	X	X		



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model															
					PA-20					PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54							
	<a href="#">U10849-029</a>		TANK ASSEMBLY – Fuel, RH	1	x															
	<a href="#">U10849-033</a>		TANK ASSEMBLY – Fuel, RH	1		x	x	x			x	x	x							
2-17	<a href="#">-10016-020</a>		FELT – Fuel tank strap, top, rear	4	x	x	x	x			x	x	x							
-18	<a href="#">-10016-017</a>		FELT – Fuel tank strap, top, front	4	x	x	x	x			x	x	x							
-19	<a href="#">-10016-021</a>		FELT – Fuel tank strap, bottom	4	x	x	x	x			x	x	x							
-20	<a href="#">-10016-022</a>		FELT STRIP – Fuel tank rib	4	x	x	x	x			x	x	x							
-21	<a href="#">-10016-023</a>		FELT STRIP – Wing channel brace, short, (at fuel tank)	2	x	x	x	x			x	x	x							
-22	<a href="#">-10016-024</a>		FELT STRIP – Wing channel brace, long, (at fuel tank)	2	x	x	x	x			x	x	x							
-23	<a href="#">U10676-000</a>		GAUGE – Fuel	2	x															
-24	<a href="#">U10676-004</a>		PLUG – Fuel gauge	1	x															
-25	<a href="#">U10676-008</a>		GASKET – Lower (Blank)	1	x															
-26	<a href="#">U10852-000</a>		GLASS – Fuel gauge	1	x															
-27	<a href="#">U85012-053</a>		GASKET	1	x															
-28	10686-00		FLOAT ASSEMBLY – Fuel gauge	2	x															
-29	85012-55		GROMMET – Reinforcement at fuel gauge opening	2	x															
-30	<a href="#">MS35489-22</a>		GROMMET – Rubber, fuel gauge access	2	x															
-31	<a href="#">U10878-000</a>		PLATE – Fuel gauge access	2	x															
-32	<a href="#">-12537-000</a>		PLATE ASSEMBLY – Fairing attachment (At rear of wing butt rib) “125” and “135”	2	x	x	x	x			x	x	x							
-33	<a href="#">-83161-002</a>		HOSE – Rubber, airspeed tube connector at wing butt (2 per ship “135”)	1	x	x	x	x			x	x	x							
-34	12487-00		PANEL ASSEMBLY – Wing, covered, “125”, LH	1	x	x	x				x	x								
	12487-04		PANEL ASSEMBLY – Wing, covered, “135”, LH	1			x	x				x	x							
	12487-01		PANEL ASSEMBLY – Wing, covered, “125” and “135”, RH	1	x	x	x	x			x	x	x							
	12830-00		PANEL ASSEMBLY – Wing, covered, “115”, LH	1	x															
	12830-01		PANEL ASSEMBLY – Wing, covered, “115”, RH	1	x															
			<b>ATTACHING PARTS</b>																	
-35	<a href="#">AN5-17</a>		BOLT – (Front spar)	2	x	x	x	x			x	x	x							
-36	<a href="#">NAS1149F0563P</a>		WASHER – (AN960-516)	4	x	x	x	x			x	x	x							
-37	<a href="#">MS21044N5</a>		STOP NUT – Elastic, No. 42E054	4	x	x	x	x			x	x	x							
-38	<a href="#">AN5-16</a>		BOLT – (Rear spar)	2	x	x	x	x			x	x	x							
-39	<a href="#">U80111-000</a>		STUD – Fuel tank strap connection	4	x	x	x	x			x	x	x							
-40	11253-00		TAB – Aileron trim	1	x	x	x	x			x	x	x							
-41	11582-00		TUBE ASSEMBLY – Pitot, “115” and “125”	1	x	x	x				x	x								



SECTION I

WING AND FUEL TANK INSTALLATION

Wing and Fuel Tank Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
2-42	<a href="#">U13764-000</a>		TUBE ASSEMBLY – Pilot and static, “135”	1			X	X			X	X	
-43	<a href="#">U85012-014</a>		WASHER – Windshield attachment, felt	2	X	X	X	X		X	X	X	
-44	<a href="#">U14581-005</a>		STOP ASSEMBLY – Aileron horn	2	X	X	X	X		X	X	X	
-45	<a href="#">U82461-000</a>		COVER – Inspection rectangular	AR	X	X	X	X		X	X	X	
-46	<a href="#">U12761-002</a>		COVER – Inspection round	AR	X	X	X	X		X	X	X	
	<a href="#">483-10</a>		COVER – Inspection round, generic	AR	X	X	X	X		X	X	X	
-47	12484-00		FLAP ASSEMBLY – Covered, “125” and “135”, LH	1	X	X	X	X		X	X	X	
	12484-01		FLAP ASSEMBLY – Covered, “125” and “135”, RH	1	X	X	X	X		X	X	X	
-48	12475-00		AILERON ASSEMBLY – Covered, LH	1	X	X	X	X		X	X	X	
	12475-01		AILERON ASSEMBLY – Covered, RH	1	X	X	X	X		X	X	X	

A – Used on airplanes with serial numbers 20-1 to 20-599 inclusive and 20-601.

B – Used on airplanes with serial numbers 20-600, 20-602 and up, and on PA-22 airplanes 22-1 and up.

C – Used on PA-20 airplanes with serial numbers 20-208 to 20-212 inclusive and 20-214 and up; and on PA-22 airplane with serial number 22-1 and up.

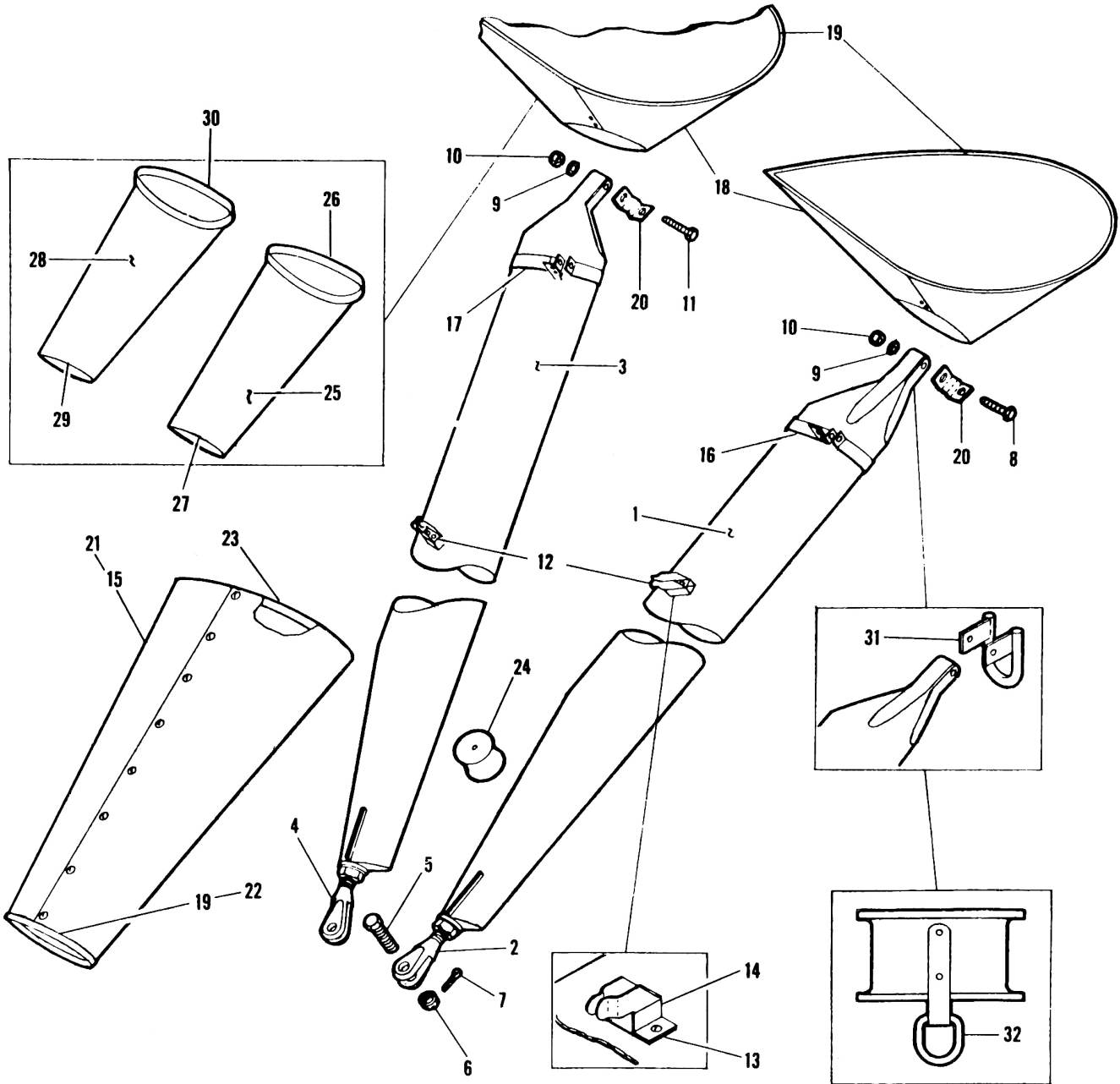
SECTION I

LIFT STRUT INSTALLATION

Wing and Fuel Tank Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
3-1	<a href="#">U85560-002</a>		STRUT ASSEMBLY – Lift, front	2	X	X	X	X		X	X	X	
-2	<a href="#">U89201-003</a>		FORK ASSEMBLY	1	X	X	X	X		X	X	X	
-3	<a href="#">U85559-002</a>		STRUT ASSEMBLY – Lift, rear	2	X	X	X	X		X	X	X	
-4	<a href="#">U89201-003</a>		FORK ASSEMBLY	1	X	X	X	X		X	X	X	
			<b>ATTACHING PARTS</b>										
-5	<a href="#">U13241-000</a>		BOLT – Lift strut attachment at fuselage	4	X	X	X	X		X	X	X	
-6	<a href="#">AN320-6</a>		NUT	4	X	X	X	X		X	X	X	
-7	<a href="#">MS24665-283</a>		PIN – Cotter	4	X	X	X	X		X	X	X	
-8	<a href="#">AN5-16A</a>		BOLT	2	X	X	X	X		X	X	X	
-9	<a href="#">NAS1149F0563P</a>		WASHER	4	X	X	X	X		X	X	X	
-10	<a href="#">MS21044N5</a>		STOP NUT – Elastic, No. 42E054	4	X	X	X	X		X	X	X	
-11	<a href="#">AN5-14A</a>		BOLT	2	X	X	X	X		X	X	X	
-12	<a href="#">U52745-000</a>		CATCH – Door	2	X	X	X	X		X	X	X	
-13	85662-28		STRIP – Leather, strut door catch installation	1						X	X	X	
-14	13347-00		SPACER – Strut door catch installation	1						X	X	X	





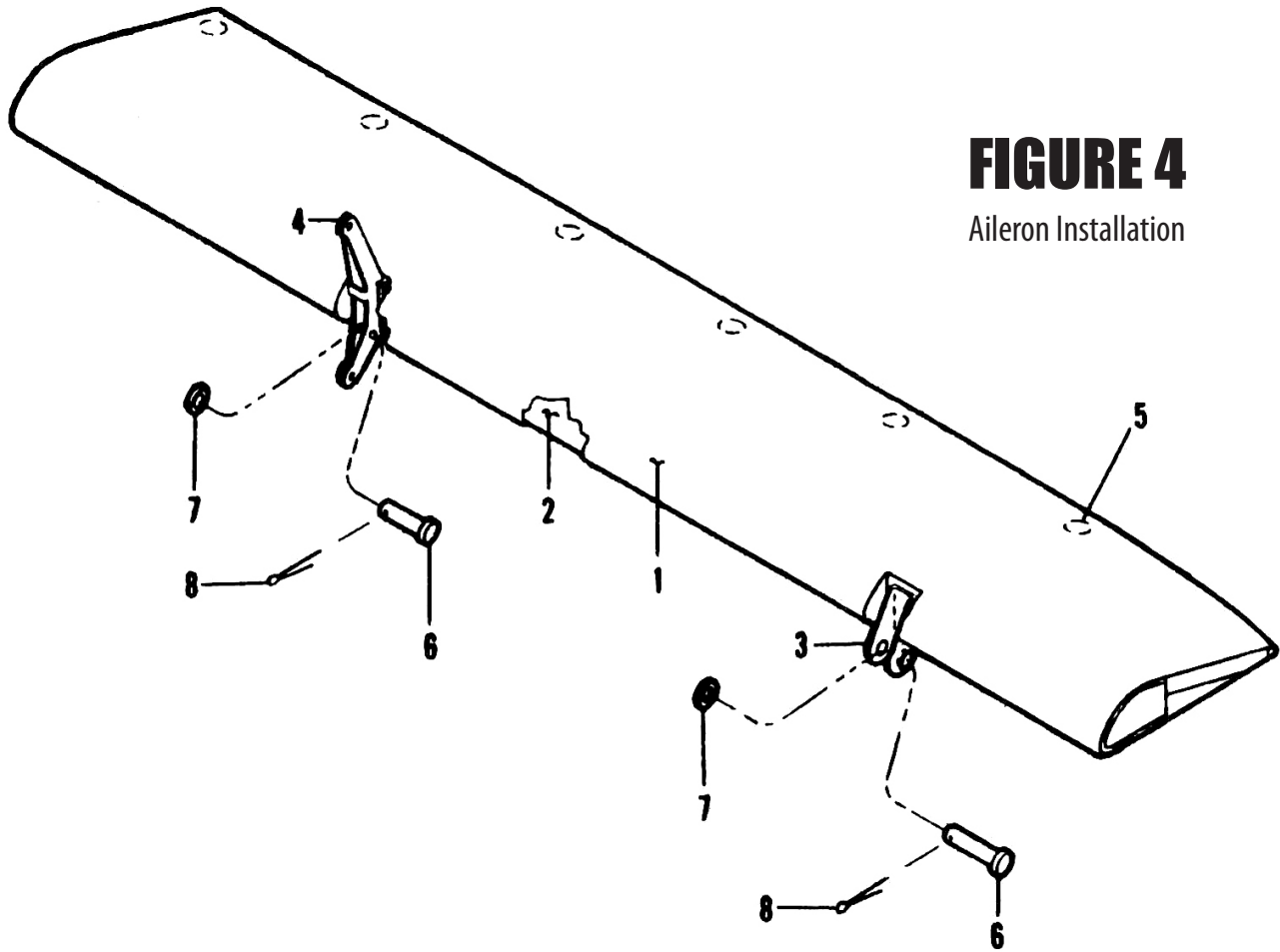
**FIGURE 3**  
Lift Strut Installation



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
3-15	12562-00		FAIRING – Strut, lower, left	1	x														
	12562-01		FAIRING – Strut, lower, right	1	x														
-16	<a href="#">-10223-000</a>		CLAMP – Front strut cuff attachment, LH	1	x														
	<a href="#">-10223-001</a>		CLAMP – Front strut cuff attachment, RH	1	x														
-17	12792-00		CLAMP – Rear strut cuff attachment, LH	1	x														
	12792-01		CLAMP – Rear strut cuff attachment, RH	1	x														
-18	<a href="#">U10225-000</a>		CUFF – Strut, upper, LH	2	x														
	<a href="#">U10225-001</a>		CUFF – Strut, upper, RH	2	x														
-19	<a href="#">U19795-000</a>		EXTRUSION – Rubber, die No. 827	26'	x	x	x	x			x	x	x						
-20	10230-00		FITTING – Strut cuff attachment, upper (2 at front strut, 4 at rear strut)	6	x														
-21	<a href="#">U12969-000</a>		FAIRING – Strut, lower, LH	1		x	x	x			x	x	x						
	<a href="#">U12969-001</a>		FAIRING – Strut, lower, RH	1		x	x	x			x	x	x						
-22	<a href="#">U19795-000</a>		MOULDING – Rubber, die No. 827	1'		x	x	x			x	x	x						
-23	<a href="#">-189-125</a>		CORK AND NEOPRENE RIBBON – No. DK153	2'		x	x	x			x	x	x						
-24	<a href="#">U30831-002</a>		BLOCK – Rubber, lower fairing installation	2		x	x	x			x	x	x						
-25	<a href="#">U12973-004</a>	A	CUFF – Strut, upper front, LH	1			x	x				x	x						
	<a href="#">U12973-003</a>	A	CUFF – Strut, upper front, RH	1			x	x				x	x						
	<a href="#">U12973-000</a>	B	CUFF – Strut, upper front, LH	1		x	x	x			x	x	x						
	<a href="#">-12973-001</a>	B	CUFF – Strut, upper front, RH	1		x	x	x			x	x	x						
-26	<a href="#">U19795-000</a>		MOULDING – Rubber, die No. 827	1.5'		x	x	x			x	x	x						
-27	<a href="#">-189-125</a>		CORK AND NEOPRENE RIBBON – No. DK153	1'		x	x	x			x	x	x						
-28	<a href="#">U12974-000</a>		CUFF – Strut, upper rear, LH	1		x	x	x			x	x	x						
	<a href="#">U12974-001</a>		CUFF – Strut, upper rear, RH	1		x	x	x			x	x	x						
-29	<a href="#">U19795-000</a>		MOULDING – Rubber, die No. 827	1.5'		x	x	x			x	x	x						
-30	<a href="#">-189-125</a>		CORK AND NEOPRENE RIBBON – No.	1'		x	x	x			x	x	x						
-31	<a href="#">U12345-004</a>		RING ASSEMBLY – Tie down (at upper end of lift strut)	2			x	x				x	x						
-32	<a href="#">-12596-000</a>		RING ASSEMBLY – Tie down (at wing spar)	2	x	x	x				x	x							

A – Used when tie down rings installed at upper end of lift strut.

B – Used when tie down rings installed on wing spar and also when no tie down rings are installed.



**FIGURE 4**  
Aileron Installation

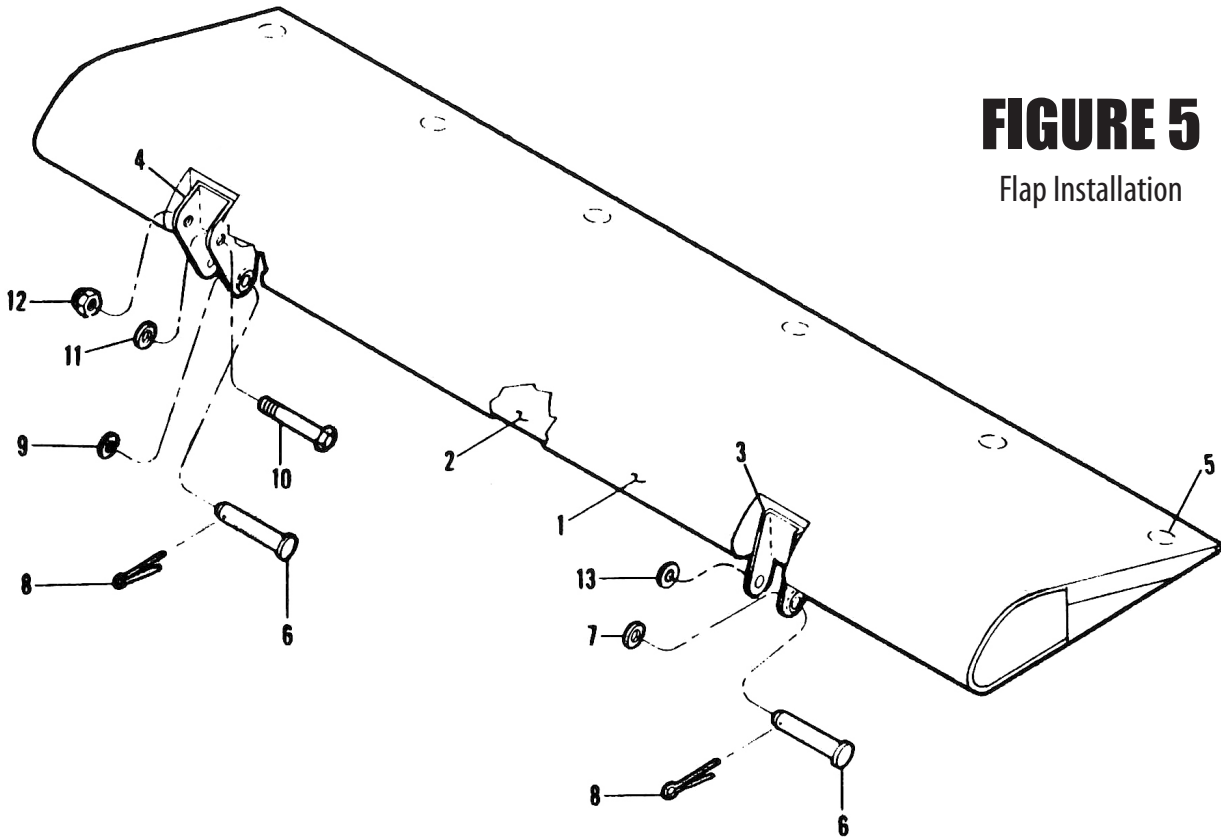
AILERON INSTALLATION

SECTION I  
Wing and Fuel Tank Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
4-1	12475-00		AILERON ASSEMBLY – Covered, LH	1	X	X	X	X		X	X	X
	12475-01		AILERON ASSEMBLY – Covered, RH	1	X	X	X	X		X	X	X
-2	<a href="#">U12468-000</a>		AILERON ASSEMBLY – Uncovered, LH	1	X	X	X	X		X	X	X
	<a href="#">U12468-001</a>		AILERON ASSEMBLY – Uncovered, RH	1	X	X	X	X		X	X	X
-3	<a href="#">U41881-000</a>		HINGE – Outboard	1	X	X	X	X		X	X	X
-4	<a href="#">U12454-000</a>		HORN ASSEMBLY	1	X	X	X	X		X	X	X
-5	<a href="#">U80122-053</a>		GROMMET – Drain	6	X	X	X	X		X	X	X
<b>ATTACHING PARTS</b>												
-6	<a href="#">MS20392-3C41</a>		PIN (AN394-41)	4	X	X	X	X		X	X	X
-7	<a href="#">U80122-086</a>		WASHER	8	X	X	X	X		X	X	X
-8	<a href="#">AN380-2-2</a>		PIN – Cotter	4	X	X	X	X		X	X	X



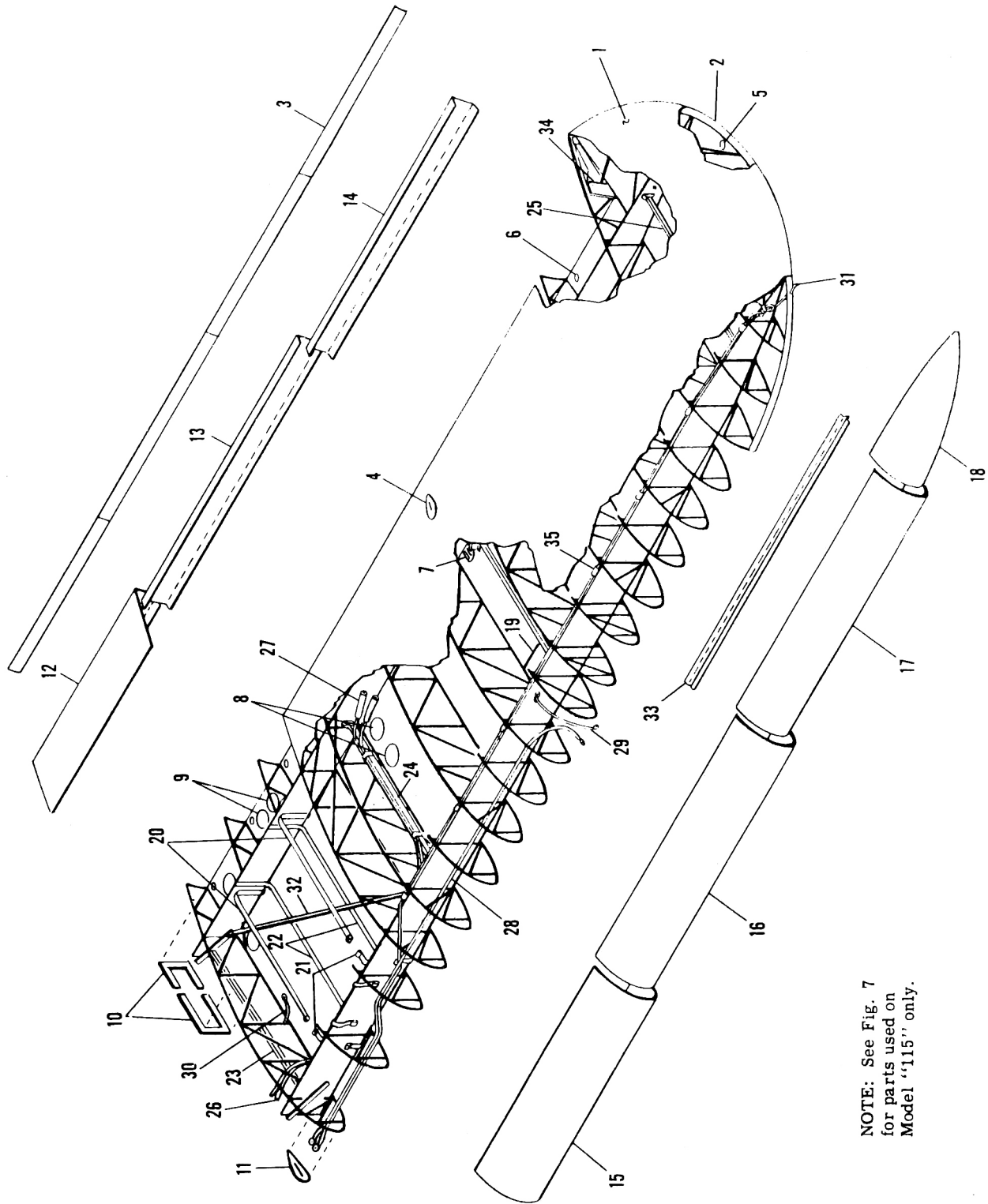
**FIGURE 5**  
Flap Installation



FLAP INSTALLATION

SECTION I  
Wing and Fuel Tank Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
5-1	12484-00		FLAP ASSEMBLY – Covered, "125" and "135", LH	1	X	X	X	X		X	X	X
	12484-01		FLAP ASSEMBLY – Covered, "125" and "135", RH	1	X	X	X	X		X	X	X
-2	<a href="#">U12469-000</a>		FLAP ASSEMBLY – Uncovered, "125" and "135", LH	1	X	X	X	X		X	X	X
	<a href="#">U12469-001</a>		FLAP ASSEMBLY – Uncovered, "125" and "135", RH	1	X	X	X	X		X	X	X
-3	<a href="#">U41881-002</a>		HINGE – Outboard	1	X	X	X	X		X	X	X
-4	<a href="#">U11682-000</a>		HINGE – Inboard	1	X	X	X	X		X	X	X
-5	<a href="#">U80122-053</a>		GROMMET – Drain	6	X	X	X	X		X	X	X
			<b>ATTACHING PARTS</b>									
-6	<a href="#">MS20392-3C41</a>		PIN (AN394-41)	4	X	X	X	X		X	X	X
-7	<a href="#">U85012-010</a>		WASHER – "125" and "135"	4	X	X	X	X		X	X	X
-8	<a href="#">AN380-2-2</a>		PIN – Cotter	4	X	X	X	X		X	X	X
-9	<a href="#">NAS1149F0463P</a>		WASHER (AN960-416)	4	X	X	X	X		X	X	X
-10	<a href="#">AN3-12A</a>		BOLT	2	X	X	X	X		X	X	X
-11	<a href="#">NAS1149F0363P</a>		WASHER (AN960-10)	2	X	X	X	X		X	X	X
-12	<a href="#">MS21044N3</a>		STOP NUT – Elastic, No. 22M02	2	X	X	X	X		X	X	X
-13	<a href="#">U80122-086</a>		WASHER	4	X	X	X	X		X	X	X



NOTE: See Fig. 7  
for parts used on  
Model "115" only.

# FIGURE 6

Sheet 1 of 3 sheets. Wing Panel Assembly



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
<b>FIGURE 6 – SHEET 1 OF 3</b>												
6-	12487		DRAWING – Wing panel assembly, covered, less flap, aileron and fuel tank, “125” and “135”		X	X	X	X	X	X	X	X
	<a href="#">-12483DWG</a>		DRAWING – Wing panel assembly, uncovered, “125” and “135”		X	X	X	X	X	X	X	X
-1	12487-00		PANEL ASSEMBLY – Wing, covered, less aileron, flap and tank, “125”, LH	1	X	X	X			X	X	
	12487-04		PANEL ASSEMBLY – Wing, covered, less aileron, flap and tank, “135”, LH	1			X	X		X	X	
	12487-01		PANEL ASSEMBLY – Wing, covered, less aileron, flap and tank, “125” and “135”, RH	1	X	X	X	X		X	X	X
-2	<a href="#">-12483-000UR</a>		PANEL ASSEMBLY – Wing, uncovered, “125”, LH	1	X	X	X			X	X	
	<a href="#">-12483-002UR</a>		PANEL ASSEMBLY – Wing, uncovered, “135”, LH	1			X	X		X	X	
	<a href="#">-12483-001UR</a>		PANEL ASSEMBLY – Wing, uncovered, “125” and “135”, RH	1	X	X	X	X		X	X	X
-3	<a href="#">-11473-047</a>		PLATE – Reinforcement, aluminum, aileron false spar	8				X				X
-4	<a href="#">U60863-003</a>		GROMMET – Reinforcing, leather (aileron cable)	4	X	X	X	X		X	X	X
-5	<a href="#">-81232-015</a>		DISC – Pyralin (at wing tip)	8	X	X	X	X		X	X	X
-6	<a href="#">U80122-053</a>		GROMMET – Drain	24	X	X	X	X		X	X	X
-7	<a href="#">U15761-000</a>		GROMMET – Reinforcing, pyralin (at lift strut)	4	X	X	X	X		X	X	X
-8	<a href="#">U80122-049</a>		GROMMET – Round, inspection cover	AR	X	X	X	X		X	X	X
-9	<a href="#">U85012-078</a>		GROMMET – Round, inspection cover	4	X	X	X	X		X	X	X
-10	<a href="#">U80541-002</a>		GROMMET – Rectangular, inspection cover	AR	X	X	X	X		X	X	X
-11	<a href="#">U60863-005</a>		GROMMET – Reinforcing, leather (at wing butt leading edge)	2	X	X	X	X		X	X	X
-12	<a href="#">U12463-000</a>		SPAR – False, No. 1 (Inboard) “125” and “135”, LH	1	X	X	X	X		X	X	X
	<a href="#">U12463-001</a>		SPAR – False, No. 1 (Inboard) “125” and “135”, RH	1	X	X	X	X		X	X	X
-13	<a href="#">U12473-000</a>		SPAR – False, No. 2 (Center) “125” and “135”, LH	1	X	X	X	X		X	X	X
	<a href="#">U12473-001</a>		SPAR – False, No. 2 (Center) “125” and “135”, RH	1	X	X	X	X		X	X	X
-14	<a href="#">U15572-000</a>		SPAR – False, No. 3 (Outboard) LH	1	X	X	X	X		X	X	X
	<a href="#">U15572-001</a>		SPAR – False, No. 3 (Outboard) RH	1	X	X	X	X		X	X	X
-15	<a href="#">U10630-008</a>		COVER – Leading edge (Inboard) LH	1	X	X	X	X		X	X	X

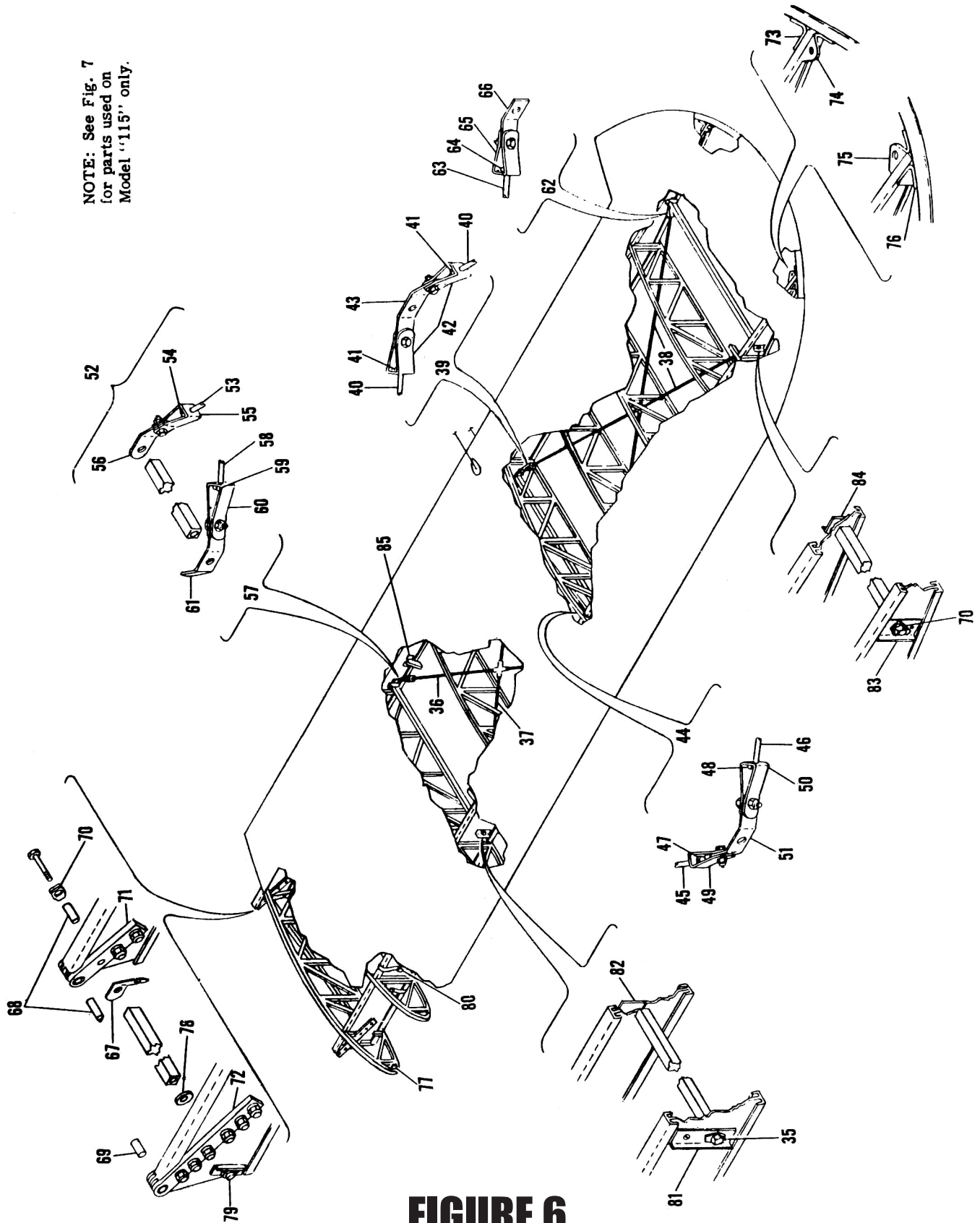


Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
6-16	<a href="#">U10630-005</a>		COVER – Leading edge (Inboard) RH	1	X	X	X	X		X	X	X
	<a href="#">U15482-005</a>		COVER – Leading edge (Center) LH	1	X	X	X	X		X	X	X
-17	<a href="#">U15482-004</a>		COVER – Leading edge (Center) RH	1	X	X	X	X		X	X	X
	<a href="#">U13072-005</a>		COVER – Leading edge (Outboard)	2	X	X	X	X		X	X	X
-18	<a href="#">U15723-000</a>		COVER – Wing tip, leading edge, LH	1	X	X	X	X		X	X	X
	<a href="#">U15723-001</a>		COVER – Wing tip, leading edge, RH	1	X	X	X	X		X	X	X
-19	<a href="#">U10531-002</a>		PLATE – Fabric, former, at “N” brace, LH	1	X	X	X	X		X	X	X
	<a href="#">U10531-003</a>		PLATE – Fabric, former, at “N” brace, RH	1	X	X	X	X		X	X	X
-20	<a href="#">U10649-003</a>		STRAP – Fuel tank, rear, top, long	4	X	X	X	X		X	X	X
-21	<a href="#">U10648-003</a>		STRAP – Fuel tank, front, top, short	4	X	X	X	X		X	X	X
-22	<a href="#">U10650-002</a>		STRAP – Fuel tank (Inboard and outboard) bottom	4	X	X	X	X		X	X	X
-23	<a href="#">U14232-002</a>		STRUT – Drag, No. 1	2	X	X	X	X		X	X	X
-24	<a href="#">U14222-002</a>		STRUT – Drag, No. 2	2	X	X	X	X		X	X	X
-25	<a href="#">U14222-000</a>		STRUT – Drag, No. 4	2	X	X	X	X		X	X	X
-26	<a href="#">-13541-012</a>		TUBE – Airspeed (2 per ship Model “135”) LH	1	X	X	X	X		X	X	X
-27	<a href="#">-83161-002</a>		HOSE – Airspeed, rubber (2 per ship Model “135”) LH	1	X	X	X	X		X	X	X
-28	12177-38		WIRE ASSEMBLY – Safe flight indicator, RH	1	X	X	X	X		X	X	X
-29	10128-71		WIRE ASSEMBLY – Safe flight indicator, ground, RH	1	X	X	X	X		X	X	X
-30	12177-84		WIRE ASSEMBLY – Fuel gauge, ground, LH	1		X	X	X		X	X	X
	10128-86		WIRE ASSEMBLY – Fuel gauge, ground, RH	1		X	X	X		X	X	X
-31	12177-13		WIRE ASSEMBLY – Navigation light, LH	1	X	X	X	X		X	X	X
	12177-12		WIRE ASSEMBLY – Navigation light, RH	1	X	X	X	X		X	X	X
-32	<a href="#">U10641-002</a>		TUBE – Drag brace, at fuel tank	2	X	X	X	X		X	X	X
-33	<a href="#">U15742-002</a>		REINFORCEMENT – Wing leading edge (Outboard)	2	X	X	X	X		X	X	X
-34	<a href="#">U13171-000</a>		GUSSET – False spar attachment at outboard aileron rib, “125” and “135”	2	X	X	X	X		X	X	X
-35	<a href="#">U11061-000</a>		CLIP – Navigation light wire	16	X	X	X	X		X	X	X
<b>FIGURE 6 – SHEET 2 OF 3</b>												
-36	<a href="#">U14941-011</a>		WIRE ASSEMBLY – Drag, No. 2 bay, 44 <sup>7</sup> / <sub>8</sub> in., rear spar to “N” brace	2	X	X	X	X		X	X	X
-37	<a href="#">U14941-006</a>		WIRE ASSEMBLY – Drag, No. 2 bay, 44 <sup>7</sup> / <sub>8</sub> in., front spar to “N” brace	2	X	X	X	X		X	X	X
-38	<a href="#">U14941-007</a>		WIRE ASSEMBLY – Drag, No. 3 bay, 56 <sup>1</sup> / <sub>4</sub> in.	4	X	X	X	X		X	X	X





NOTE: See Fig. 7  
for parts used on  
Model "115" only.



**FIGURE 6**

Sheet 2 of 3 sheets. Wing Panel Assembly

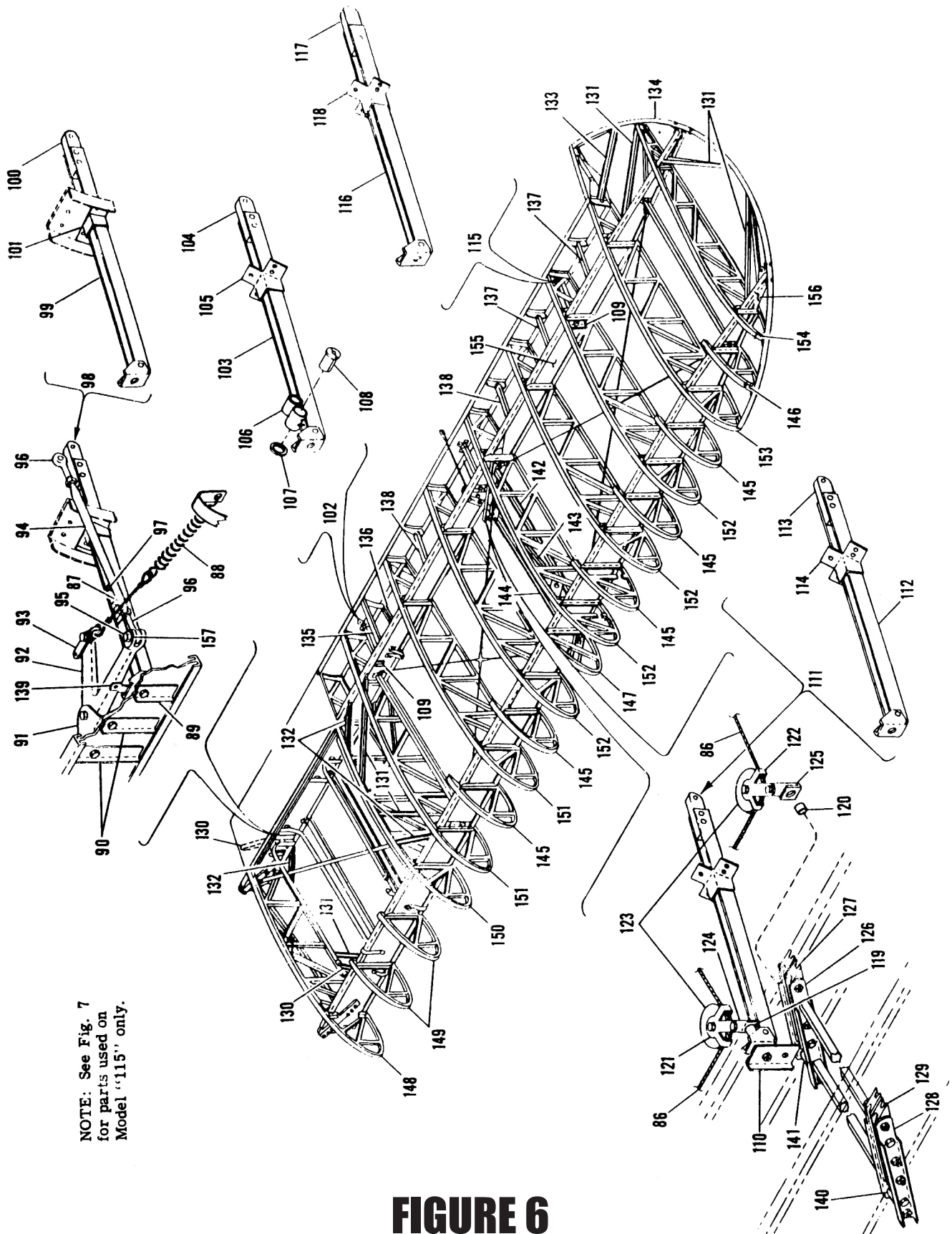




Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
6-39	10707-00		FITTING ASSEMBLY – Drag wire pull, “N” drag brace, No. 3 (At rear spar)	2	X	X	X	X		X	X	X
-40	<a href="#">U10201-000</a>		NIPPLE	2	X	X	X	X		X	X	X
-41	<a href="#">U81102-003</a>		WASHER	2	X	X	X	X		X	X	X
-42	<a href="#">U10221-000</a>		CLEVIS	2	X	X	X	X		X	X	X
-43	<a href="#">U10161-005</a>		FITTING – Wire pull	1	X	X	X	X		X	X	X
-44	<a href="#">-11936-000</a>		FITTING ASSEMBLY – Drag wire pull, “N” drag brace No. 3 (At front spar)	2	X	X	X	X		X	X	X
-45	<a href="#">U10211-000</a>		NIPPLE – No. 10-32 tie rod	1	X	X	X	X		X	X	X
-46	<a href="#">U10201-000</a>		NIPPLE – No. 6-40 tie rod	1	X	X	X	X		X	X	X
-47	<a href="#">-11933-000</a>		WASHER – No. 10-32 tie rod	1	X	X	X	X		X	X	X
-48	<a href="#">U81102-003</a>		WASHER – No. 6-40 tie rod	1	X	X	X	X		X	X	X
-49	<a href="#">U10231-000</a>		CLEVIS – No. 10-32 tie rod	1	X	X	X	X		X	X	X
-50	<a href="#">U10221-000</a>		CLEVIS – No. 6-40 tie rod	1	X	X	X	X		X	X	X
-51	<a href="#">U10161-005</a>		FITTING – Wire pull	1	X	X	X	X		X	X	X
-52	11935-00		FITTING ASSEMBLY – Drag wire pull, No. 2 drag strut (At rear spar)	2	X	X	X	X		X	X	X
-53	<a href="#">U10211-000</a>		NIPPLE	1	X	X	X	X		X	X	X
-54	<a href="#">-11933-000</a>		WASHER	1	X	X	X	X		X	X	X
-55	<a href="#">U10231-000</a>		CLEVIS	1	X	X	X	X		X	X	X
-56	<a href="#">U10171-004</a>		FITTING – Wire pull	1	X	X	X	X		X	X	X
-57	10711-00		FITTING ASSEMBLY – Drag wire pull, No. 2 drag strut (At front spar)	2	X	X	X	X		X	X	X
-58	<a href="#">U10201-000</a>		NIPPLE	1	X	X	X	X		X	X	X
-59	<a href="#">U81102-003</a>		WASHER – Square	1	X	X	X	X		X	X	X
-60	<a href="#">U10221-000</a>		CLEVIS	1	X	X	X	X		X	X	X
-61	<a href="#">U10161-004</a>		FITTING – Wire pull	1	X	X	X	X		X	X	X
-62	10709-00		FITTING ASSEMBLY – Drag wire pull, No. 4 drag strut, front and rear spar	4	X	X	X	X		X	X	X
-63	<a href="#">U10201-000</a>		NIPPLE	1	X	X	X	X		X	X	X
-64	81102-03		WASHER – Square	1	X	X	X	X		X	X	X
-65	<a href="#">U10221-000</a>		CLEVIS	1	X	X	X	X		X	X	X
-66	<a href="#">U10171-003</a>		FITTING – Wire pull	1	X	X	X	X		X	X	X
-67	<a href="#">U10171-004</a>		FITTING – Drag brace tube attachment, at No. 1 drag strut	2	X	X	X	X		X	X	X
-68	<a href="#">-80022-031</a>		BUSHING – Rear spar butt hinge and No. 1 drag strut at rear spar	4	X	X	X	X		X	X	X
-69	<a href="#">-80022-031</a>		BUSHING – Front spar butt hinge	2	X	X	X	X		X	X	X



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
6-70	<a href="#">U10151-000</a>		PLATE – Lock No. 4 drag strut ( 4 per ship) No. 2 drag strut (4 per ship) No. 3 drag strut (8 per ship) No. 1 drag strut (4 per ship)		X	X	X	X		X	X	X
-71	<a href="#">U14161-000</a>		FITTING – Hinge, rear spar butt	4	X	X	X	X		X	X	X
-72	<a href="#">U10401-000</a>		FITTING – Hinge, front spar butt	4	X	X	X	X		X	X	X
-73	<a href="#">U16611-000</a>		FITTING – Wing tip bow, rear spar, rear	2	X	X	X	X		X	X	X
-74	<a href="#">U16601-000</a>		FITTING – Wing tip bow, rear spar, front	2	X	X	X	X		X	X	X
-75	<a href="#">U16551-000</a>		FITTING – Wing tip bow, front spar, rear	2	X	X	X	X		X	X	X
-76	<a href="#">U16561-000</a>		FITTING – Wing tip bow, front spar, front	2	X	X	X	X		X	X	X
-77	<a href="#">U12331-002</a>		PLATE – Butt rib, No. 1 rib, leading edge attachment	2	X	X	X	X		X	X	X
-78	<a href="#">-80122-025</a>		WASHER – No. 1 drag strut installation, front spar	2	X	X	X	X		X	X	X
-79	<a href="#">U14401-006</a>		ANGLE – Front spar, No. 1 drag strut	2	X	X	X	X		X	X	X
-80	<a href="#">U80122-011</a>		WASHER – Fuel tank strap installation	16	X	X	X	X		X	X	X
-81	<a href="#">U14401-003</a>		ANGLE – Front spar, No. 2 drag strut	2	X	X	X	X		X	X	X
-82	<a href="#">U14411-002</a>		ANGLE – Rear spar, No. 2 drag strut	2	X	X	X	X		X	X	X
-83	<a href="#">U14401-005</a>		ANGLE – Front spar, No. 4 drag strut	2	X	X	X	X		X	X	X
-84	<a href="#">U14411-004</a>		ANGLE – Rear spar, No. 4 drag strut	2	X	X	X	X		X	X	X
-85	<a href="#">U11580-000</a>		BRACKET – Airspeed, LH	1	X	X	X	X		X	X	X
<b>FIGURE 6 – SHEET 3 OF 3</b>												
-86	<a href="#">U11527-002</a>		CABLE ASSEMBLY – Aileron	4	X	X	X	X		X	X	X
-87	<a href="#">U14384-000</a>		CABLE ASSEMBLY – Flap return, “125” and “135”	2	X	X	X	X		X	X	X
-88	<a href="#">U10940-000</a>		SPRING – “125” and “135”	2	X	X	X	X		X	X	X
-89	<a href="#">U11675-003</a>		ANGLE – Rear spar, No. 1 flap hinge bracket, “125” and “135”	2	X	X	X	X		X	X	X
-90	<a href="#">U11675-002</a>		ANGLE – Rear spar, flap bellcrank bracket, “125” and “135”	4	X	X	X	X		X	X	X
-91	<a href="#">U11672-000</a>		BRACKET – Flap bellcrank attachment, “125” and “135”	2	X	X	X	X		X	X	X
-92	<a href="#">U40092-010</a>		BELLCRANK – Flap, “125” and “135”, LH	1	X	X	X	X		X	X	X
	<a href="#">U40092-009</a>		BELLCRANK – Flap, “125” and “135”, RH	1	X	X	X	X		X	X	X
-93	<a href="#">U81262-014</a>		LINK – Flap cable attachment, at bellcrank, “125” and “135”	4	X	X	X	X		X	X	X
-94	<a href="#">U11677-000</a>		ROD – Flap, control push pull, “125” and “135”	2	X	X	X	X		X	X	X



**FIGURE 6**

Sheet 3 of 3 sheets. Wing Panel Assembly



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
6-95	<a href="#">-12713-004</a>		SCREW – Flap, push pull rod to bellcrank, “125” and “135”	2	X	X	X				X	X		
-96	<a href="#">U452-335</a>		BEARING – Flap push pull rod end, “125” and “135”	4	X	X	X	X			X	X	X	
-97	90150-02		STRIP – Rub, flap cable	2	X	X	X	X			X	X	X	
-98	<a href="#">U12474-002</a>		BRACKET – Flap hinge, No. 1, inboard, “125” and “135”	2	X	X	X	X			X	X	X	
-99	<a href="#">U10912-006</a>		BRACKET – Hinge	1	X	X	X	X			X	X	X	
-100	<a href="#">U10921-000</a>		BLOCK – Bearing	1	X	X	X	X			X	X	X	
-101	<a href="#">U12476-000</a>		CLAMP – Attachment, at false spar	1	X	X	X	X			X	X	X	
-102	<a href="#">U12474-000</a>		BRACKET – Flap hinge, No. 2, outboard, “125” and “135”	2	X	X	X	X			X	X	X	
-103	<a href="#">U10912-006</a>		BRACKET – Hinge	1	X	X	X	X			X	X	X	
-104	<a href="#">U10921-000</a>		BLOCK – Bearing	1	X	X	X	X			X	X	X	
-105	<a href="#">U12056-002</a>		CLAMP – Attachment, at false spar	1	X	X	X	X			X	X	X	
-106	<a href="#">U12467-000</a>		GUIDE – Aileron cable	1	X	X	X	X			X	X	X	
-107	<a href="#">U40081-000</a>		RING – Fairlead snap	4	X	X	X	X			X	X	X	
-108	<a href="#">U40701-000</a>		FAIRLEAD – Aileron cable, split and safety, less ring	8	X	X	X	X			X	X	X	
-109	<a href="#">U10291-000</a>		ANGLE – Rear spar at No. 2 flap and aileron hinge bracket, “125 and “135”	4	X	X	X	X			X	X	X	
-110	<a href="#">U14401-007</a>		ANGLE – Rear spar, at aileron pulley bracket	2	X	X	X	X			X	X	X	
-111	<a href="#">U10703-002</a>		BRACKET ASSEMBLY – Aileron hinge, No. 1 inboard	2	X	X	X	X			X	X	X	
-112	<a href="#">U10912-008</a>		BRACKET – Hinge	1	X	X	X	X			X	X	X	
-113	<a href="#">U10921-000</a>		BLOCK – Bearing	1	X	X	X	X			X	X	X	
-114	<a href="#">U12056-002</a>		CLAMP – Attachment, at false spar	1	X	X	X	X			X	X	X	
-115	<a href="#">U10703-000</a>		BRACKET ASSEMBLY – Aileron hinge, No. 2 outboard	2	X	X	X	X			X	X	X	
-116	<a href="#">U10912-006</a>		BRACKET – Hinge	1	X	X	X	X			X	X	X	
-117	<a href="#">U10921-000</a>		BLOCK – Bearing	1	X	X	X	X			X	X	X	
-118	<a href="#">U12056-002</a>		CLAMP – Attachment, at false spar	1	X	X	X	X			X	X	X	
-119	<a href="#">-86102-054</a>		BUSHING – Upper aileron pulley housing	2	X	X	X	X			X	X	X	
-120	<a href="#">U86102-062</a>		BUSHING – Spacer, lower aileron pulley housing attachment fitting	2	X	X	X	X			X	X	X	
-121	<a href="#">U41291-000</a>		HOUSING ASSEMBLY – Aileron pulley, upper	2	X	X	X	X			X	X	X	
-122	<a href="#">-12462-000</a>		HOUSING ASSEMBLY – Aileron pulley, lower	2	X	X	X	X			X	X	X	
-123	<a href="#">U40991-000</a>		PULLEY – Aileron cable	4	X	X	X	X			X	X	X	

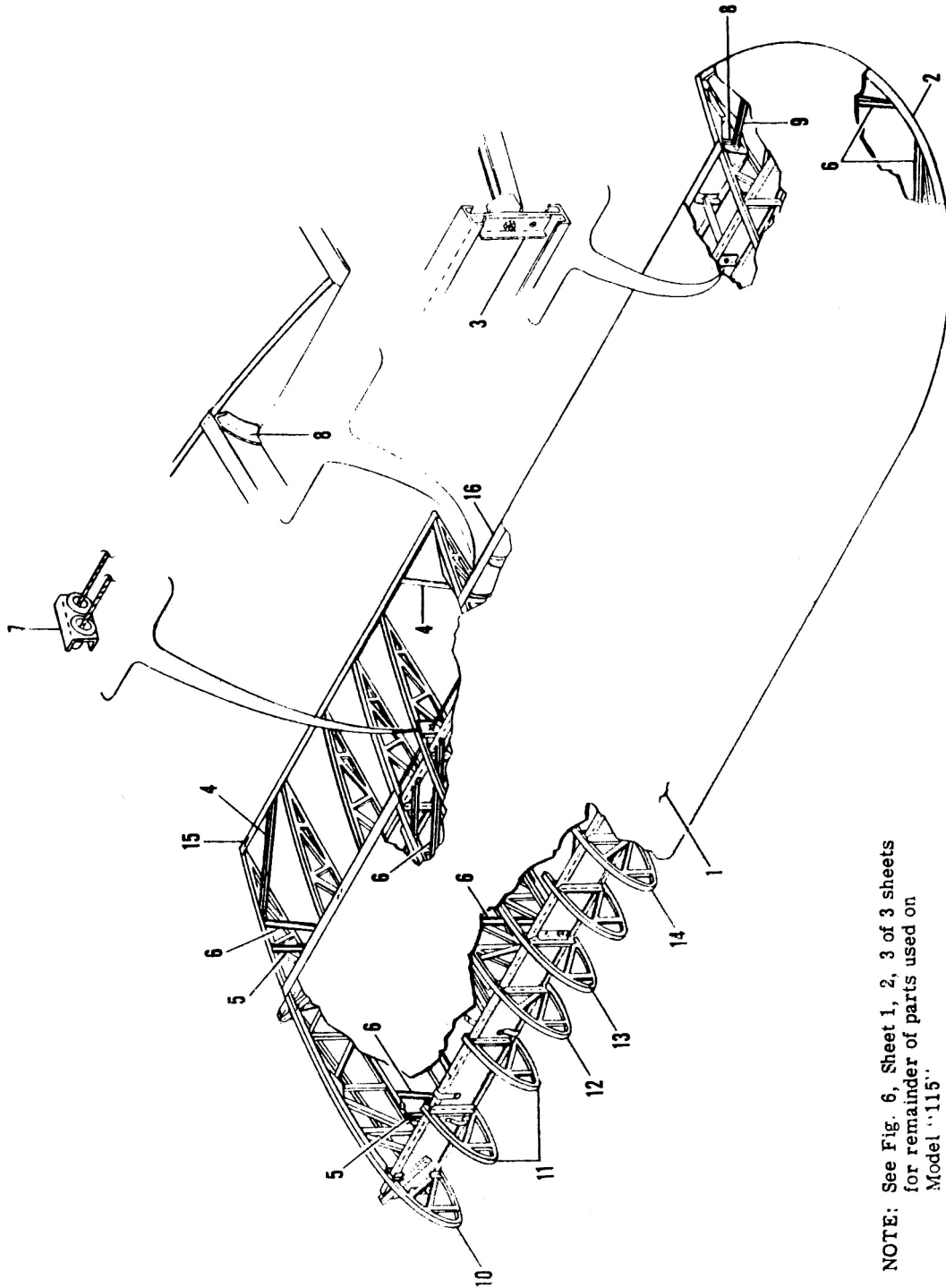


Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
6-124	<a href="#">U14261-002</a>		FITTING – Upper aileron pulley housing attachment	2	X	X	X	X		X	X	X
-125	<a href="#">U12466-000</a>		FITTING – Lower aileron pulley housing attachment, LH	1	X	X	X	X		X	X	X
	<a href="#">U12466-001</a>		FITTING – Lower aileron pulley housing attachment, RH	1	X	X	X	X		X	X	X
-126	<a href="#">U11755-003</a>		FITTING – Lift strut, rear spar	4	X	X	X	X		X	X	X
-127	<a href="#">U11757-002</a>		BLOCK – Filler, lift strut fitting, rear spar	4	X	X	X	X		X	X	X
-128	<a href="#">U11755-000</a>		FITTING – Lift strut, front spar	4	X	X	X	X		X	X	X
-129	<a href="#">U11757-000</a>		BLOCK – Filler, lift strut fitting, front spar	4	X	X	X	X		X	X	X
-130	<a href="#">U12252-002</a>		BRACE – Channel, at No. 1 rib, 8½ in., “125” and “135”	4	X	X	X	X		X	X	X
-131	<a href="#">U12252-003</a>		BRACE – Channel, 16”, No. 1, No. 4, No. 12 rib and bow to spar, tip end, “125” and “135”	16	X	X	X	X		X	X	X
-132	<a href="#">U12252-006</a>		BRACE – Channel, 6¼”, No. 4 and No. 1 rib to spar	6	X	X	X	X		X	X	X
-133	<a href="#">U12252-005</a>		BRACE – Channel, 11”, No. 11 rib to bow	2	X	X	X	X		X	X	X
-134	<a href="#">U453-126</a>		BOW – Wing tip	2	X	X	X	X		X	X	X
-135	12252-12		BRACE – Channel, top, false spar, “125” and “135”	2	X	X	X	X		X	X	X
-136	12252-11		BRACE – Channel, false spar, bottom, “125” and “135”	2	X	X	X	X		X	X	X
-137	<a href="#">U14541-000</a>		BRACE ASSEMBLY – Aileron false spar, No. 3 and No. 4	4	X	X	X	X		X	X	X
-138	<a href="#">U14541-002</a>		BRACE ASSEMBLY – Aileron false spar, No. 1 and No. 2	4	X	X	X	X		X	X	X
-139	<a href="#">U11678-000</a>		PLATE – Flap bellcrank stop, “125” and “135”	2	X	X	X	X		X	X	X
-140	<a href="#">U15631-003</a>		SPACER – Lift strut fitting, rear spar	2	X	X	X	X		X	X	X
-141	<a href="#">U15631-002</a>		SPACER – Lift strut fitting, front spar	2	X	X	X	X		X	X	X
-142	<a href="#">U16472-000</a>		TUBE – Brace, lower “N” (At strut point)	2	X	X	X	X		X	X	X
-143	<a href="#">U11771-000</a>		TUBE – Brace, diagonal “N” (At strut point)	2	X	X	X	X		X	X	X
-144	<a href="#">U16462-000</a>		TUBE – Brace, upper “N” (At strut point)	2	X	X	X	X		X	X	X
-145	<a href="#">U1200-02</a>		RIB ASSEMBLY – Nose	10	X	X	X	X		X	X	X
-146	<a href="#">U1216-00</a>		RIB ASSEMBLY – Wing tip, nose, LH	1	X	X	X	X		X	X	X
	<a href="#">U1216-01</a>		RIB ASSEMBLY – Wing tip, nose, RH	1	X	X	X	X		X	X	X
-147	<a href="#">U1200-05</a>		RIB ASSEMBLY – Nose, special, at strut fitting	2	X	X	X	X		X	X	X
-148	<a href="#">U1225-00</a>		RIB ASSEMBLY – No. 1, butt, “125” and “135”, LH	1	X	X	X	X		X	X	X
	<a href="#">U1225-01</a>		RIB ASSEMBLY – No. 1, butt, “125” and “135”, RH	1	X	X	X	X		X	X	X



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
6-149	<a href="#">U1226-00</a>		RIB ASSEMBLY – No. 2 and No. 3, “125” and “135”, LH and RH	4	X	X	X	X		X	X	X	
-150	<a href="#">U1225-00</a>		RIB ASSEMBLY – No. 4, “125” and “135”, LH	1	X	X	X	X		X	X	X	
	<a href="#">U1225-01</a>		RIB ASSEMBLY – No. 4, “125” and “135”, RH	1	X	X	X	X		X	X	X	
-151	<a href="#">U1207-00</a>		RIB ASSEMBLY – No. 5 and No. 6, “125” and “135”, LH and RH	4	X	X	X	X		X	X	X	
-152	<a href="#">U1207-00</a>		RIB ASSEMBLY – No. 7, No. 8, No. 9 and No. 10, LH and RH	8	X	X	X	X		X	X	X	
-153	<a href="#">U1206-00</a>		RIB ASSEMBLY – No. 11, aileron outboard, LH	1	X	X	X	X		X	X	X	
	<a href="#">U1206-01</a>		RIB ASSEMBLY – No. 11, aileron outboard, RH	1	X	X	X	X		X	X	X	
-154	<a href="#">U1202-00</a>		RIB ASSEMBLY – No. 12, tip, LH	1	X	X	X	X		X	X	X	
	<a href="#">U1202-01</a>		RIB ASSEMBLY – No. 12, tip, RH	1	X	X	X	X		X	X	X	
-155	<a href="#">U11754-007</a>		SPAR ASSEMBLY – Wing, rear, LH	1	X	X	X	X		X	X	X	
	<a href="#">U11754-008</a>		SPAR ASSEMBLY – Wing, rear, RH	1	X	X	X	X		X	X	X	
-156	<a href="#">U11753-002</a>		SPAR ASSEMBLY – Wing, front, LH	1	X	X	X	X		X	X	X	
	<a href="#">U11753-007</a>		SPAR ASSEMBLY – Wing, front, RH	1	X	X	X	X		X	X	X	
-157	<a href="#">-80122-007</a>		WASHER – Flap push pull rod attachment, at bellcrank, “125” and “135”	4	X	X	X	X		X	X	X	

NOTE: See Figure 7 for parts used on Model “115” only.



NOTE: See Fig. 6, Sheet 1, 2, 3 of 3 sheets  
for remainder of parts used on  
Model "115".

## FIGURE 7

Wing Panel Assembly, "115"





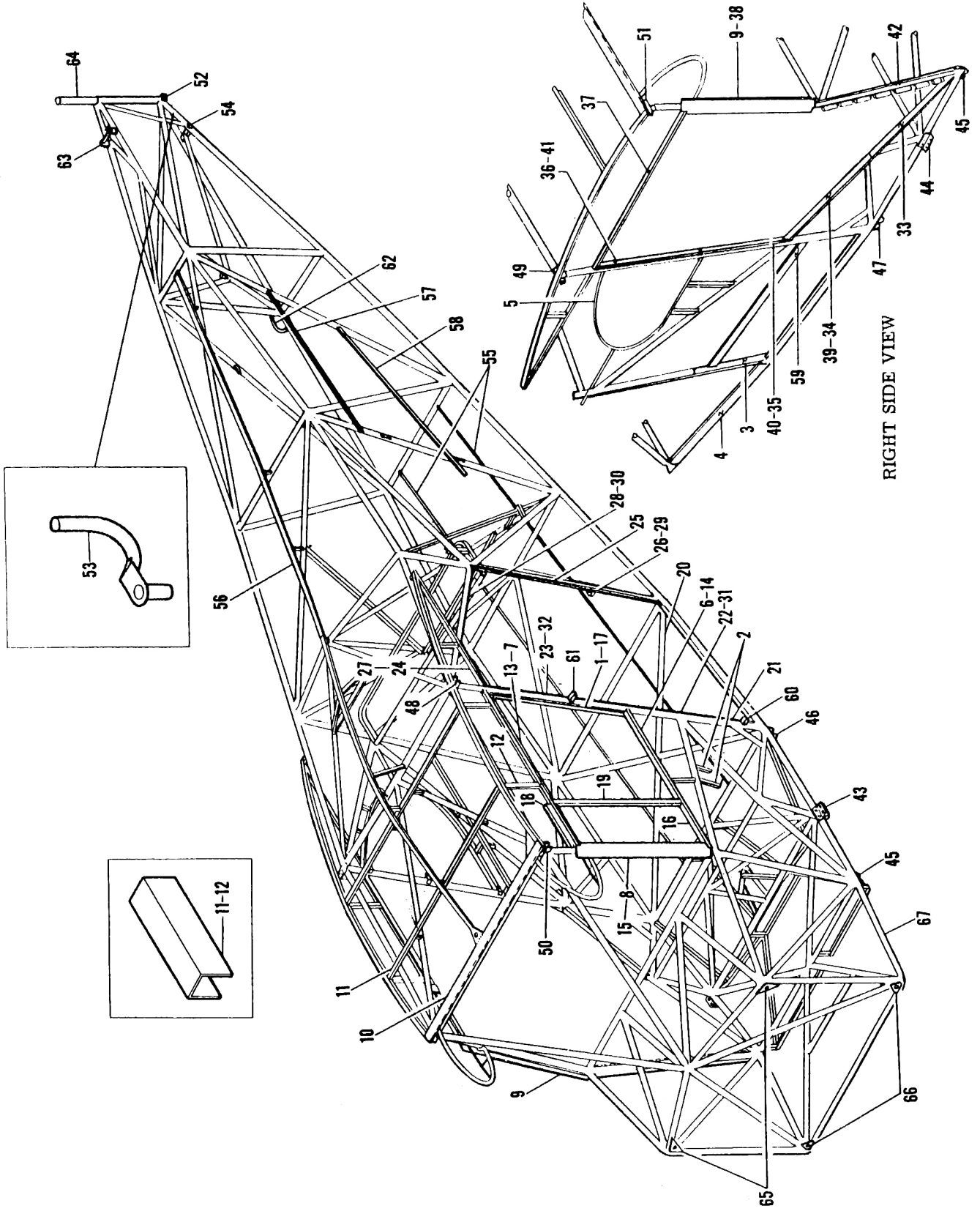
WING PANEL ASSEMBLY, "115"

SECTION II  
Wing Assembly Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
7-	12829		DRAWING – Wing panel assembly, uncovered, "115"		x														
	12830		DRAWING – Wing panel assembly, covered, less aileron and fuel tank, "115"		x														
-1	12830-00		PANEL ASSEMBLY – Wing, covered, less aileron and fuel tank, "115", LH	1	x														
	12830-01		PANEL ASSEMBLY – Wing, covered, less aileron and fuel tank, "115", RH	1	x														
-2	12829-00		PANEL ASSEMBLY – Wing, uncovered, "115", LH	1	x														
	12829-01		PANEL ASSEMBLY – Wing, uncovered, "115", RH	1	x														
-3	<a href="#">U10291-000</a>		ANGLE – Rear spar at No. 2 aileron hinge bracket, "115"	2	x														
-4	<a href="#">U12252-008</a>		BRACE – Channel, at trailing edge, 13¾", "115"	4	x														
-5	<a href="#">U12252-002</a>		BRACE – Channel, at No. 1 rib, 8½", "115"	6	x														
-6	<a href="#">U12252-003</a>		BRACE – Channel, 16", No. 1, No. 4, No. 12 rib and bow to spar tip end, "115"	20	x														
-7	12824-00		BRACKET – Fairlead mounting, "115"	2	x														
-8	<a href="#">U13171-000</a>		GUSSET – False spar attachment, at inboard and outboard aileron rib "115"	4	x														
-9	<a href="#">-10633-005</a>		PLATE ASSEMBLY – Fuel tank cover support, rear, "115"	2	x														
-10	<a href="#">U1229-00</a>		RIB ASSEMBLY – No. 1, butt, "115", LH	1	x														
	<a href="#">U1229-01</a>		RIB ASSEMBLY – No. 1, butt, "115", RH	1	x														
-11	<a href="#">U1224-00</a>		RIB ASSEMBLY – No. 2 and No. 3, left and right, "115"	4	x														
-12	<a href="#">U1229-02</a>		RIB ASSEMBLY – No. 4, "115", LH	1	x														
	<a href="#">U1229-03</a>		RIB ASSEMBLY – No. 4, "115", RH	1	x														
-13	<a href="#">U1218-00</a>		RIB ASSEMBLY – No. 5, "115", LH and RH	2	x														
-14	<a href="#">U1228-02</a>		RIB ASSEMBLY – No. 6, aileron inboard, "115", LH	1	x														
	<a href="#">U1228-03</a>		RIB ASSEMBLY – No. 6, aileron inboard, "115", RH	1	x														
-15	12820-00		TRAILING EDGE – Wing, "115"	2	x														
-16	12822-00		SPAR – False, inboard, "115", LH	2	x														
	12822-01		SPAR – False, inboard, "115", RH	2	x														

Note: See Figure 6, sheet 1, 2, 3 of 3 sheets for remainder of parts used on Model "115"





**FIGURE 8**  
Fuselage Frame Assembly



FUSELAGE FRAME ASSEMBLY

SECTION III  
Fuselage Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
8-	<a href="#">-12510DWG</a>		DRAWING – Fuselage frame, complete		X	X								
	13462		DRAWING – Fuselage frame, complete					X						
	13928		DRAWING – Fuselage frame, complete						X					
	<a href="#">-13049DWG</a>		DRAWING – Fuselage frame, complete							X	X			
	<a href="#">-13808DWG</a>		DRAWING – Fuselage frame, complete										X	
	12509		DRAWING – Frame, fuselage fitting installation		X	X	X							
	13938		DRAWING – Frame, fuselage fitting installation					X						
	13050		DRAWING – Frame, fuselage fitting Installation							X	X			
	<a href="#">-13869DWG</a>		DRAWING – Frame, fuselage fitting installation										X	
-1	12027-00		ANGLE – Sliding window, rear, LH	1	X	X	X			X	X			
-2	12766-00		BRACKET ASSEMBLY – Arm rest	2	X	X	X	X		X	X	X		
-3	13829-00		CHANNEL – Baggage compartment, door, frame, front	1				X					X	
-4	13831-00		CHANNEL – Baggage compartment, door, bottom	1				X					X	
-5	<a href="#">U11856-000</a>		CHANNEL – Rear window, RH	1	X	X	X	X		X	X	X		
-6	<a href="#">U11546-000</a>		CHANNEL – Sliding window, bottom, LH	1	X	X	X			X	X			
-7	12329-00		CHANNEL – Sliding window, top, LH	1	X	X	X			X	X			
-8	11548-03		CHANNEL – Windshield, LH	1	X	X	X			X	X			
-9	11543-02		CHANNEL – Windshield, RH	1	X	X	X	X		X	X	X		
-10	<a href="#">U11536-000</a>		CHANNEL – Windshield, top	1	X	X	X	X		X	X	X		
-11	<a href="#">U750-285</a>		CHANNEL – “U”, steel (3/8 x .020) 6’ pcs.	1	X	X	X	X		X	X	X		
-12	<a href="#">X141472</a>		CHANNEL – “U”, steel (1/4 x .016) 6’ pcs.	1	X	X	X	X		X	X	X		
-13	13807-00		CHANNEL – Fuselage window, top, rear, LH	1				X					X	
-14	13809-00		CHANNEL – Fuselage window, bottom, LH	1				X					X	
-15	13859-00		CHANNEL – Fuselage window (also left windshield channel), LH	1				X					X	
-16	<a href="#">-13858-000</a>		CHANNEL – Fuselage window, bottom front, LH	1				X					X	
-17	13930-00		CHANNEL – Fuselage window, rear, LH	1				X					X	
-18	13861-00		CHANNEL – Fuselage window, top, front, LH	1				X					X	
-19	<a href="#">-13863-000</a>		CHANNEL – Fuselage window, front, LH	1				X					X	
-20	11871-00		ANGLE – Bottom	1	X	X	X	X		X	X	X		
-21	11868-00		CHANNEL – Side, front, lower	1	X	X	X	X		X	X	X		
-22	11869-00		CHANNEL – Side, front, center	1	X	X	X			X	X			
-23	11870-00		CHANNEL – Side, front, upper	1	X	X	X			X	X			
-24	13096-00		CHANNEL – Top, front	1		X	X	X		X	X	X		
-25	11867-02		ANGLE – Side, rear, upper	1	X	X	X			X	X			



FUSELAGE FRAME ASSEMBLY

SECTION III  
Fuselage Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
8-26	11867-00		ANGLE – Side, rear, lower	1	X	X	X				X	X		
-27	11872-00		CHANNEL – Top, front	1	X									
-28	12205-07		CHANNEL – Top, rear	1	X	X	X				X	X		
-29	13857-00		CHANNEL – Side, rear	1				X					X	
-30	13856-00		CHANNEL – Rear, top	1				X					X	
-31	13816-00		CHANNEL – Side, front, center	1				X					X	
-32	13817-00		CHANNEL – Side, front, upper	1				X					X	
-33	11538-00		CHANNEL – Bottom, front	1	X	X	X				X	X		
-34	11575-00		CHANNEL – Bottom, rear	1	X	X	X				X	X		
-35	12026-00		CHANNEL – Side, rear, lower	1	X	X	X				X	X		
-36	12025-00		CHANNEL – Side, rear, upper	1	X	X	X				X	X		
-37	<a href="#">-11537-000</a>		CHANNEL – Top	1	X	X	X	X			X	X	X	
-38	11543-02		CHANNEL – Side, front, upper (also windshield channel)	1	X	X	X	X			X	X	X	
-39	13818-00		CHANNEL – Bottom	1				X					X	
-40	13820-00		CHANNEL – Side, rear, lower	1				X					X	
-41	13819-00		CHANNEL – Side, rear, upper	1				X					X	
-42	11542-00		HINGE – Door, RH	1	X	X	X	X			X	X	X	
-43	<a href="#">U21262-004</a>		FITTING ASSEMBLY – Fuselage, landing gear and lift strut, LH	1	X	X	X	X			X	X	X	
-44	<a href="#">U21262-005</a>		FITTING ASSEMBLY – Fuselage, landing gear and lift strut, RH	1	X	X	X	X			X	X	X	
-45	<a href="#">U21242-002</a>		FITTING ASSEMBLY – Fuselage, landing gear, front	2	X	X	X	X						
-46	13047-00		FITTING ASSEMBLY – Fuselage, landing gear, rear, LH	1	X	X	X	X			X	X	X	
-47	13047-01		FITTING ASSEMBLY – Fuselage, landing gear, rear, RH	1	X	X	X	X			X	X	X	
-48	<a href="#">U11821-000</a>		FITTING – Fuselage, rear wing hinge, LH	1	X	X	X	X			X	X	X	
-49	<a href="#">U11821-001</a>		FITTING – Fuselage, rear wing hinge, RH	1	X	X	X	X			X	X	X	
-50	11823-00		FITTING – Fuselage, front wing hinge, LH	1	X	X	X	X			X	X	X	
-51	11823-01		FITTING – Fuselage, front wing hinge, RH	1	X	X	X	X			X	X	X	
-52	20611-00	A	FITTING – Fuselage, tail spring rear	1	X	X								
	20611-02	B	FITTING – Tail wheel spring attachment	1		X	X	X						
-53	13147-00		FITTING – Fuselage, tail skid assembly	1							X	X	X	
-54	<a href="#">U20631-000</a>		FITTING – Fuselage, tail skid, front “U”	1	X	X	X	X			X	X	X	
-55	21621-26		STRINGER – Fuselage, bottom, 91¾ in.	2	X	X	X				X	X		
	13915-02		STRINGER – Fuselage, bottom	2				X					X	

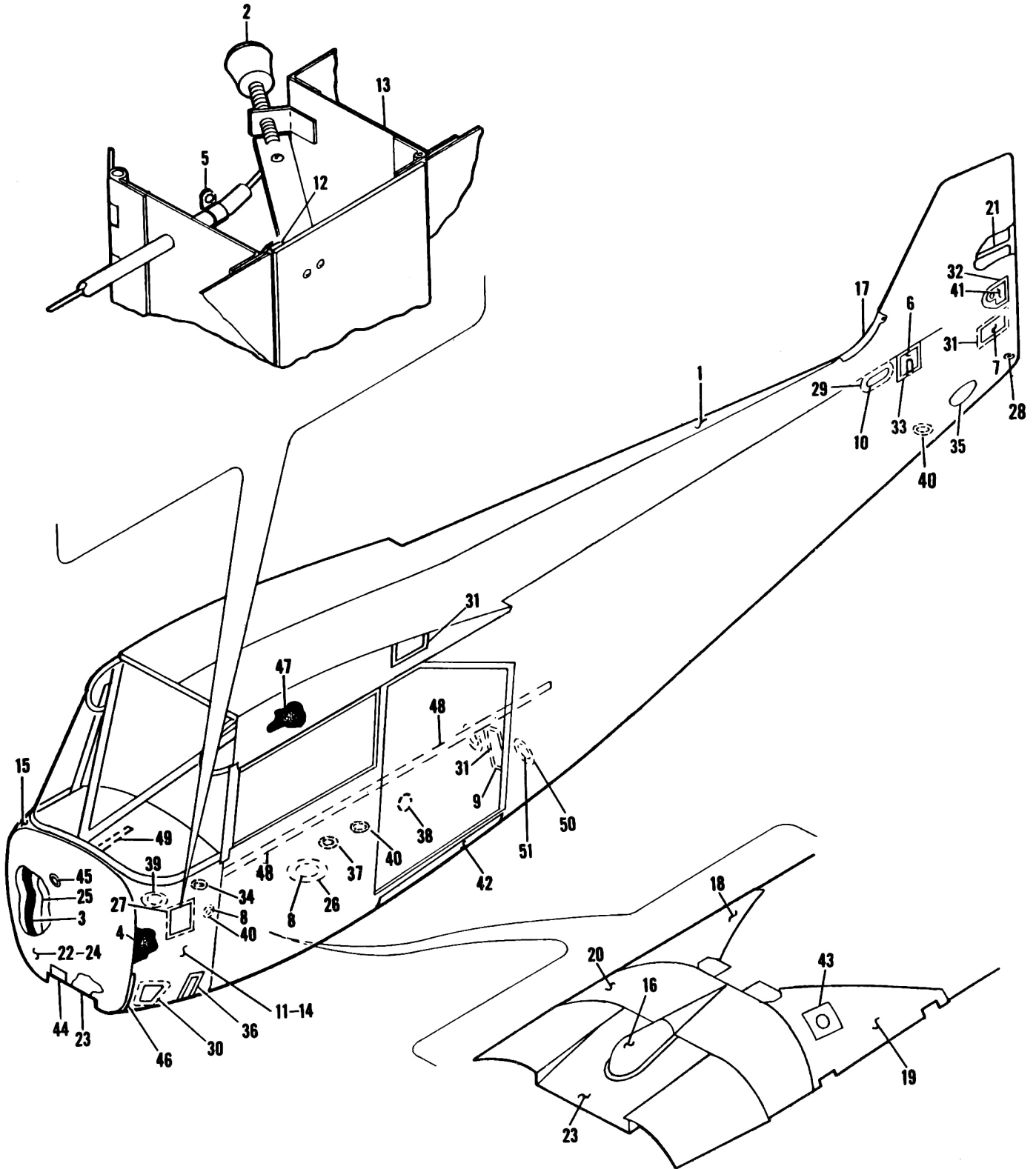


FUSELAGE FRAME ASSEMBLY

SECTION III  
Fuselage Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
8-56	21621-17		STRINGER – Fuselage, top center, 66½ in.	1	x	x	x				x	x		
	<a href="#">-13934-000</a>		STRINGER – Fuselage, top center (Metal)	1				x						x
-57	21621-19		STRINGER – Fuselage, side, 64 in.	2	x	x	x				x	x		
	13915-05		STRINGER – Fuselage, side, upper	2				x						x
-58	21621-20		STRINGER – Fuselage, side, lower 58 in., LH	1	x	x	x				x	x		
	21621-21		STRINGER – Fuselage, side, lower 83 in., RH	1	x	x	x				x	x		
	13915-06		STRINGER – Fuselage, side, lower, LH	1				x						x
	13915-03		STRINGER – Fuselage, side, lower, RH	1				x						x
-59	13915-04		STRINGER – Fuselage, side, front, lower, RH	1				x						x
-60	81302-22		HINGE – Rear door, lower, LH	1	x	x	x	x			x	x	x	
-61	81302-23		HINGE – Rear door, upper, LH	1	x	x	x				x	x		
	81302-26		HINGE – Rear door, upper, LH	1				x						x
-62	<a href="#">J20652-000</a>		HANDLE – Lifting, at tail	1	x	x	x	x			x	x	x	
-63	21211-00		SUPPORT ASSEMBLY – Stabilizer, rear	1	x	x	x	x			x	x	x	
-64	<a href="#">U22412-000</a>		TAIL POST ASSEMBLY	1	x	x	x	x			x	x	x	
-65	<a href="#">-20291-000</a>		FITTING ASSEMBLY – Fuselage, upper, engine mount	2	x	x	x	x			x	x	x	
-66	<a href="#">-20301-000</a>		FITTING ASSEMBLY – Fuselage, lower, engine mount	2	x	x	x	x			x	x	x	
-67	12510-00	C	FRAME – Fuselage, complete		x									
	12510-02	C	FRAME – Fuselage, complete			x								
	13462-00	C	FRAME – Fuselage, complete				x							
	13928-00	C	FRAME – Fuselage, complete					x						
	13049-00	C	FRAME – Fuselage, complete								x			
	13049-02	C	FRAME – Fuselage, complete									x		
	13808-00	C	FRAME – Fuselage, complete											x

- A – Used on PA-20 airplanes with serial numbers 20-1 to 20-762 inclusive.
- B – Used on PA-20 airplanes with serial numbers 20-763 and up.
- C – The stringers and tail skid – part number 13147-00 are not included with this part.



**FIGURE 9**

Fuselage Covered Assembly



SECTION III  
Fuselage Group

FUSELAGE COVERED ASSEMBLY

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
9-	12627		DRAWING – Fabric installation, fuselage		x	x	x							
	13924		DRAWING – Fabric installation, fuselage					x						
	13145		DRAWING – Fabric installation, fuselage							x	x			
	<a href="#">-13925DWG</a>		DRAWING – Fabric installation, fuselage									x		
-1	751-732		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment) "115"	1	x									
	751-729		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment) "125"	1	x									
	751-734		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment) "125"	1		x								
	751-735		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment)	1						x				
	751-751		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment)	1				x						
	751-746		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment) "125" and "135"	1			x							
	751-747		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment) "125" and "135"	1							x			
	751-752		FUSELAGE ASSEMBLY – Covered, with seat and floor (Standard, does not include optional equipment)	1									x	
-2	<a href="#">-13483-000</a>		ARM ASSEMBLY – Air box valve control	1			x	x					x	
-3	13056-00		BLANKET – Insulator, firewall	1	x	x	x	x						
	14080-00		BLANKET – Insulator, firewall	1						x	x	x		
-4	12336-00		BLANKET – Insulator, fuselage cowl, side, LH	1	x									
	12336-01		BLANKET – Insulator, fuselage cowl, side, RH	1	x									
-5	<a href="#">AN742-3</a>		CLAMP – Cabin vent control (Tinnerman No. A2980A-3-199A)	1			x	x			x	x		
-6	<a href="#">U11990-000</a>		COVER – Stabilizer yoke inspection, LH	1	x	x	x	x		x	x	x		
	<a href="#">U11990-001</a>		COVER – Stabilizer yoke inspection, RH	1	x	x	x	x		x	x	x		
-7	<a href="#">U82461-000</a>		COVER – Inspection, rectangular	1	x	x	x	x		x	x	x		
-8	<a href="#">U12761-002</a>	A	COVER – Inspection, round (Inside cockpit)	1			x	x			x	x		
	<a href="#">U12761-002</a>	B	COVER – Inspection, round, battery drain access	1				x					x	



SECTION III  
Fuselage Group

FUSELAGE COVERED ASSEMBLY

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
	<a href="#">483-10</a>		COVER – Inspection, round, generic	1			X	X			X	X
9-9	13469-00		COVER – Inspection, rectangular (Baggage compartment back)	1		X	X					
-10	10202-00		COVER – Inspection, oblong, idler adjustment	1	X							
-11	13647-00		COWL ASSEMBLY – Fuselage, LH	1							X	
	13647-02		COWL ASSEMBLY – Fuselage, LH	1								X
	13727-00		COWL ASSEMBLY – Fuselage, LH	1			X					
	13727-02		COWL ASSEMBLY – Fuselage, LH	1					X			
-12	<a href="#">-189-125</a>		SEAL – Cork and neoprene (For air box)	1'			X	X			X	X
-13	13746-00		BOX ASSEMBLY – Cabin air vent	1			X	X			X	X
-14	13144-05		COWL ASSEMBLY – Fuselage, LH	1						X		
	12632-06		COWL ASSEMBLY – Fuselage, LH	1	X	X						
-15	13648-00		COWL ASSEMBLY – Fuselage, RH	1						X	X	
	13648-02		COWL ASSEMBLY – Fuselage, RH	1								X
	12632-03		COWL ASSEMBLY – Fuselage, RH	1	X							
	13728-00		COWL ASSEMBLY – Fuselage, RH	1		X	X					
	13728-02		COWL ASSEMBLY – Fuselage, RH	1					X			
-16	<a href="#">U12622-000</a>		FAIRING – Cup, bottom, fuselage cowl	1	X	X	X	X		X	X	X
-17	11665-02		FAIRING – Fin, fuselage	1	X	X	X	X		X	X	X
-18	13194-00		FAIRING – Triangular, bottom (at landing gear) (Inside) LH	1			X	X				
	13140-00		FAIRING – Triangular, bottom (at landing gear) (Inside) LH	1						X		
	<a href="#">-13140-002</a>		FAIRING – Triangular, bottom (at landing gear) (Inside) LH	1							X	X
-19	13194-01		FAIRING – Triangular, bottom (at landing gear) (Inside) RH	1			X	X				
	13140-01		FAIRING – Triangular, bottom (at landing gear) (Inside) RH	1						X		
	13140-03		FAIRING – Triangular, bottom (at landing gear) (Inside) RH	1							X	X
-20	12621-00		FAIRING – Triangular, rear of fuselage cowl	1	X	X	X	X				
	<a href="#">-13143-000</a>		FAIRING – Rear of fuselage cowl	1						X	X	X
-21	<a href="#">U11783-000</a>		FIN ASSEMBLY	1	X	X	X	X		X	X	X
-22	13482-05		FIREWALL ASSEMBLY	1							X	X
	13139-00		FIREWALL ASSEMBLY	1						X		
-23	13149-00		PANEL – Bottom	1						X	X	X
-24	12663-00		FIREWALL ASSEMBLY	1	X	X						





FUSELAGE COVERED ASSEMBLY

SECTION III  
Fuselage Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
	12663-05		FIREWALL ASSEMBLY (When rear seat heater installed)	1		X													
	13484-03		FIREWALL ASSEMBLY	1				X	X										
9-25	24032-11		FIREWALL LEATHER – Tan, cement to blanket	1	X														
	24032-14		FIREWALL LEATHER – Brown, cement to blanket	1			X	X	X		X	X	X						
	24032-17		FIREWALL LEATHER – Green, cement to blanket	1					X										X
-26	<a href="#">U80122-049</a>	B	GROMMET – Battery drain access	1					X										X
-27	13535-00		GROMMET – Cabin vent box	2				X	X					X	X				
-28	<a href="#">U80122-053</a>		GROMMET – Drain	1	X	X	X	X			X	X	X						
-29	<a href="#">U10984-000</a>		GROMMET – Idler adjustment, oblong, pyralin	1	X														
-30	<a href="#">U10293-002</a>		GROMMET – Inspection cover	2	X	X	X	X			X	X	X						
-31	<a href="#">U80541-002</a>		GROMMET – Inspection cover, rectangle (3 per ship 1953 Model)	4	X	X	X	X			X	X	X						
-32	<a href="#">U10293-000</a>		GROMMET – Tail inspection panel	2	X	X	X	X			X	X	X						
-33	<a href="#">U10292-000</a>		GROMMET – Stabilizer yoke inspection plate	2	X	X	X	X			X	X	X						
-34	<a href="#">-80122-051</a>		GROMMET – Reinforcement, round, pyralin, 1½ in. OD x ¾ in. ID x .050 (6 per ship 1953 model)	4	X	X	X	X			X	X	X						
-35	<a href="#">U60863-003</a>		GROMMET – Reinforcement leather, at rudder cable, rear	2	X	X	X	X			X	X	X						
-36	<a href="#">-11855-002</a>		GROMMET – Reinforcement, at aileron pulley bracket	2	X	X	X	X			X	X	X						
-37	<a href="#">-80122-051</a>	B	GROMMET – Reinforcement, battery vent and drain (3 per ship PA-20)	2				X											X
-38	<a href="#">-80122-056</a>		GROMMET – Reinforcement, rear seat clip	1	X	X	X	X			X	X	X						
-39	<a href="#">U85012-049</a>		GROMMET – Reinforcement, rear fuel strainer shut-off	1	X	X	X	X											
-40	<a href="#">U80122-049</a>	A	GROMMET – Inspection cover, round	2			X	X				X	X						
	<a href="#">U80122-049</a>		GROMMET – Inspection cover, round (1 per ship 1953 Model)	1	X	X	X	X			X	X	X						
-41	<a href="#">U60742-000</a>		PANEL – Tail inspection, LH	1	X	X	X	X			X	X	X						
	<a href="#">U60742-001</a>		PANEL – Tail inspection, RH	1	X	X	X	X			X	X	X						
-42	13157-00		PLATE – Fabric former, rear of rear landing gear fitting, LH	1							X	X	X						
	13157-01		PLATE – Fabric former, rear of rear landing gear fitting, RH	1							X	X	X						
-43	13141-00		PLATE – Cover, rear fuel strainer, bottom fuselage fairing, RH	1							X	X	X						





FUSELAGE COVERED ASSEMBLY

SECTION III  
Fuselage Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
9-44	13059-00		PLATE – Cover, firewall opening (When rear seat heater is not installed)	1		X	X				X	X		
-45	<a href="#">-80122-007</a>		WASHER – Firewall attachment	5	X	X	X	X			X	X	X	
-46	<a href="#">WEBBING-1/2</a>		WEBBING – Fuselage cowl	8'	X	X	X	X			X	X	X	
-47	181-231		INSULATION – Fiberglass, 30 ply, "125" and "135", 11 sq. yd.		X	X	X	X			X	X	X	
-48	11473-28		STRIP – Pyralin, upholstered trim panel anchor strip attachment, "125" and "135"	2	X	X	X	X			X	X	X	
-49	12911-00		CHANNEL – Fuselage cowl reinforcement	1	X	X	X	X			X	X	X	
-50	<a href="#">U12761-002</a>		COVER – Inspection, round	3		X	X				X	X		
	<a href="#">483-10</a>		COVER – Inspection, round, generic	3		X	X				X	X		
-51	<a href="#">U80122-049</a>		GROMMET – Round	3		X	X				X	X		

A – Used on PA-20 airplanes with serial numbers 20-924 and up; and on PA-22 airplanes with serial numbers 22-776 and up.

B – Used on PA-20 airplanes with serial numbers 20-967 and up; and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 and up.

REAR SEAT INSTALLATION

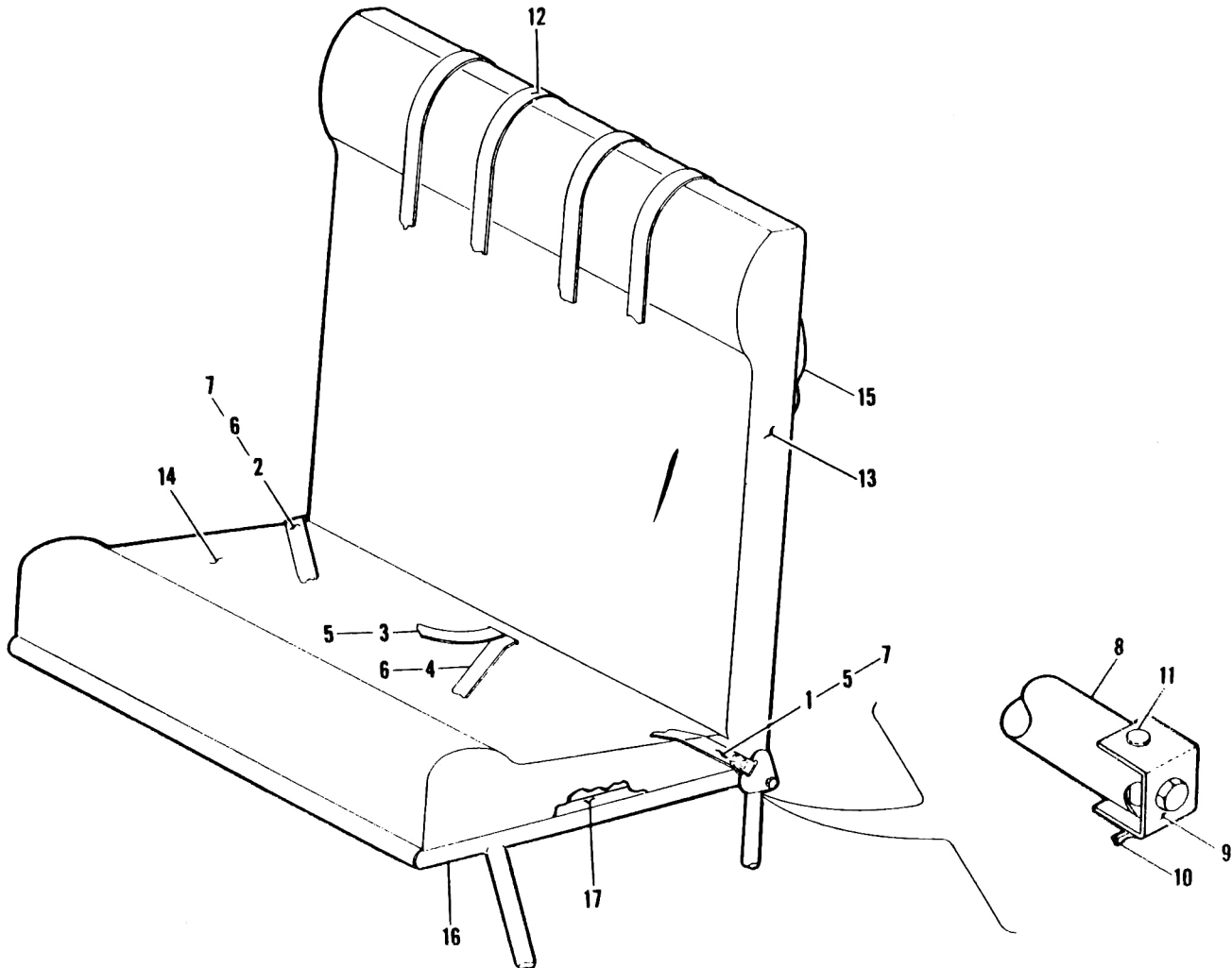
SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
10-	12628		DRAWING – Seat installation		X									
	13038		DRAWING – Seat installation			X	X				X	X		
	13039		DRAWING – Seat installation					X					X	
-1	451-339	A	BELT ASSEMBLY – Left side rear seat, tip end	1		X	X				X	X		
-2	451-338	A	BELT ASSEMBLY – Right side rear seat, buckle end	1		X	X				X	X		
-3	451-341	A	BELT ASSEMBLY – Rear seat, center, tip end	1		X	X				X	X		
-4	451-340	A	BELT ASSEMBLY – Rear seat, center, buckle end	1		X	X				X	X		
-5	13947-04		BELT ASSEMBLY – Safety, rear tip end (M5100M4-T32)	2				X					X	
-6	13947-03		BELT ASSEMBLY – Safety, rear buckle end (M5100M4-B22)	2				X					X	
-7	451-337	B	BELT – Safety (No. SB1361) complete buckle and tip end	1	X	X					X			
-8	13420-00	A	TUBE – Rear center safety belt attachment	1		X	X					X	X	
-9	13421-00	A	BRACKET – Attachment, rear safety belt tube	2		X	X					X	X	



REAR SEAT INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
10-10	<a href="#">AA55487-2</a>	A	CLIP – Rear safety belt tube attachment pin (No. 62) (AN415-2)	2		X	X					X	X
-11	<a href="#">MS20392-3C55</a>	A	PIN – Rear safety belt tube attachment	2		X	X					X	X
-12	13129-03		STRAP ASSEMBLY – Shoulder harness, rear seat	4		X	X	X			X	X	X
-13	12584-00	C	CUSHION ASSEMBLY – Rear seat, back, “125”	1	X								
	12584-23	D	CUSHION ASSEMBLY – Rear seat, back, “125”	1	X								
	12584-25	E	CUSHION ASSEMBLY – Rear seat, back, “125”	1	X	X							
	12584-30	F	CUSHION ASSEMBLY – Rear seat, back, “125” and “135”	1	X	X	X				X	X	



**FIGURE 10**  
Rear Seat Installation

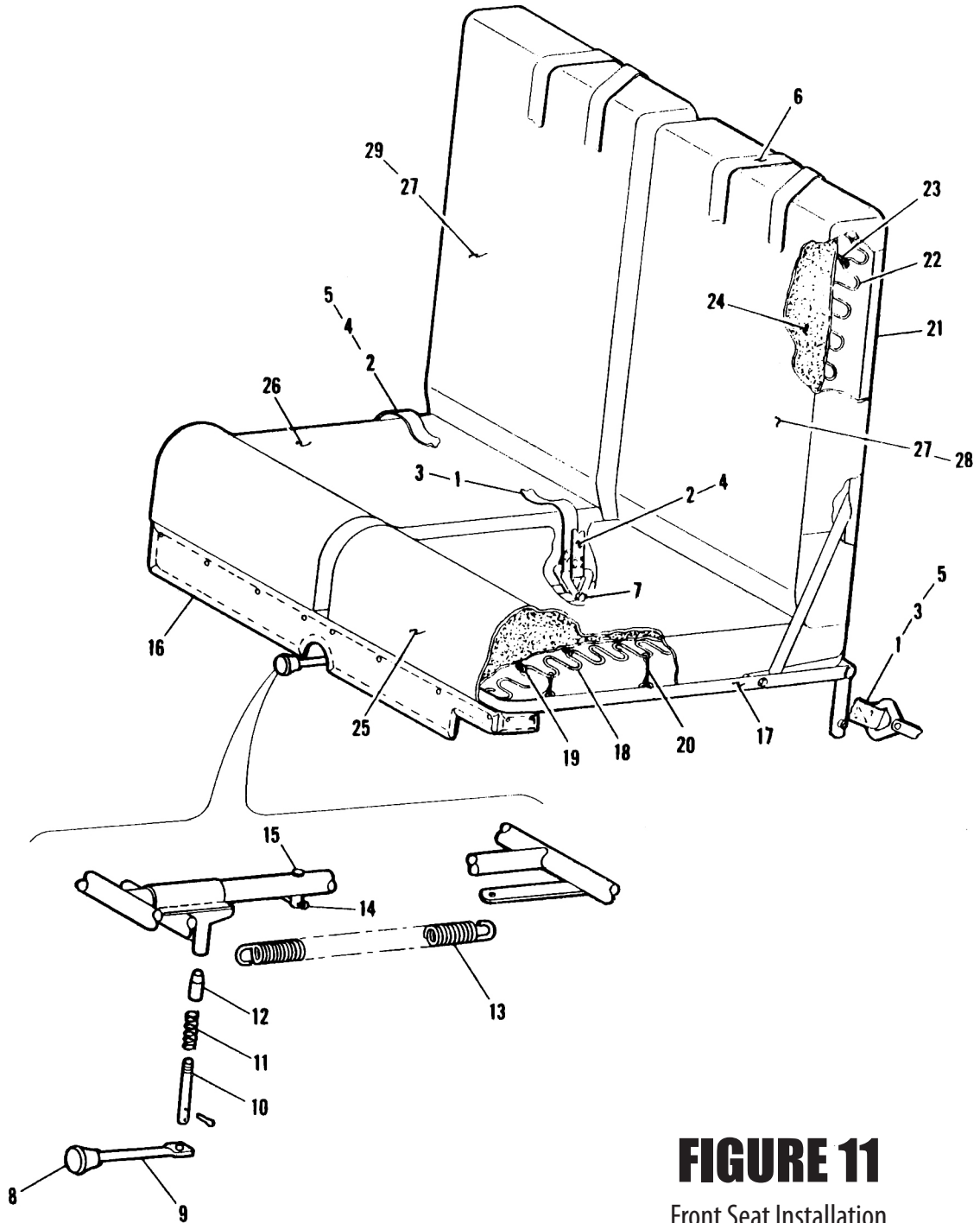


REAR SEAT INSTALLATION

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
14	14201-02		CUSHION ASSEMBLY – Rear seat, back (brown)	1				X					X
	14201-00		CUSHION ASSEMBLY – Rear seat, back (green)	1				X					X
	12584-13		CUSHION ASSEMBLY – Rear seat, back, "115"	1	X								
	12889-00	G	CUSHION ASSEMBLY – Rear seat, bottom, "125"	1	X								
	12889-34	D	CUSHION ASSEMBLY – Rear seat, bottom, "125"	1	X								
	12889-36	E	CUSHION ASSEMBLY – Rear seat, bottom, "125"	1	X	X							
	12889-37	F	CUSHION ASSEMBLY – Rear seat, bottom, "125" and "135"	1	X	X	X			X	X		
	14199-02		CUSHION ASSEMBLY – Rear seat, bottom (brown)	1				X					X
	14199-00		CUSHION ASSEMBLY – Rear seat, bottom (green)	1				X					X
		12585-00	H	CUSHION ASSEMBLY – Rear seat, bottom, "125"	1	X							
	12585-15	H	CUSHION ASSEMBLY – Rear seat, bottom, "115"	1	X								
	12889-02	I	CUSHION ASSEMBLY – Rear seat, bottom, "115"	1	X								
-15	180-610		CORD (Mason Line No. 4) (used for lacing cushions to frame)	46'	X	X	X	X		X	X	X	
-16	11860-00		FRAME ASSEMBLY – Rear seat, bottom	1	X	X	X			X	X		
	11860-04		FRAME ASSEMBLY – Rear seat, bottom	1				X					
-17	12887-00	J	FRAME ASSEMBLY – Rear seat, bottom cushion	1	X	X	X	X		X	X	X	

- A – Used on PA-20 airplanes with serial numbers 20-789 to 20-933 inclusive; and on PA-22 airplanes with serial numbers 22-333, 22-340, 22-341 and 22-343 to 22-806 inclusive.
- B – Used on PA-20 airplanes with serial numbers 20-1 to 20-788 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-333 inclusive, 22-334 to 20-339 inclusive and 22-342.
- C – Used on PA-20 airplanes with serial numbers 20-1 to 20-492 inclusive.
- D – Used on PA-20 airplanes with serial numbers 20-493, and 20-495 to 20-552 inclusive.
- E – Used on PA-20 airplanes with serial numbers 20-494, 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 and 20-610.
- F – Used on PA-20 airplanes with serial numbers 20-553, 20-559, 20-560, 20-562, 20-564, 20-566 to 20-571 inclusive, 20-573, 20-574, 20-577 to 20-580 inclusive, 20-582 to 20-587 inclusive, 20-589 to 20-599 inclusive, 20-604, 20-609, 20-611 to 20-933 inclusive; and on PA-22 airplanes with serial numbers 22-1 to 22-806 inclusive.
- G – Used on PA-20 airplanes with serial numbers 20-264, 20-267, 20-273, 20-284 to 20-287 inclusive, 20-289 and 20-291 to 20-492 inclusive.
- H – Used on airplanes with serial numbers 20-1 to 20-263 inclusive, 20-265, 20-266, 20-268 to 20-272 inclusive, 20-274 to 20-283 inclusive, 20-288 and 20-290.
- I – Used on PA-20 airplanes with serial numbers 20-264, 20-267, 20-273, 20-284 to 20-287 inclusive, 20-289 and 20-291 and up.
- J – Used on PA-20 airplanes with serial numbers 20-264, 20-267, 20-273, 20-284 to 20-287 inclusive, 20-289 and 20-291 and up; and on PA-22 airplanes with serial numbers 22-1 and up.



**FIGURE 11**  
Front Seat Installation



FRONT SEAT INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
11-	12628		DRAWING – Seat installation		X									
	13038		DRAWING – Seat installation			X	X			X	X			
	13909		DRAWING – Seat installation					X				X		
-1	451-339	A	BELT ASSEMBLY – Front seat, tip end	2		X	X			X	X			
-2	451-338	A	BELT ASSEMBLY – Front seat, buckle end	2		X	X			X	X			
-3	13947-04		BELT ASSEMBLY – Safety, front, tip end (M5100M4-T32)	2				X				X		
-4	13947-03		BELT ASSEMBLY – Safety, front, buckle end (M5100M4-T32)	2				X				X		
-5	451-337	E	BELT – Safety (SB1361) Complete, buckle end and tip end	1		X	X			X				
-6	13129-02		STRAP ASSEMBLY – Shoulder harness, front seat	4		X	X	X		X	X	X		
-7	<a href="#">U13241-000</a>		BOLT – Safety belt attachment, front seat, center	1			X	X			X	X		
-8	<a href="#">-471-052</a>		KNOB – Front seat stop control (No. 3004-SM)	1	X	X	X	X		X	X	X		
-9	12654-00		ROD – Front seat stop	1	X									
	12654-02		ROD – Front seat stop	1		X	X	X		X	X	X		
-10	12653-00		ROD – Front seat stop control	1	X									
	12653-02		ROD – Front seat stop control	1		X	X	X		X	X	X		
-11	487-304		SPRING – Front seat stop plunger	1	X	X	X	X		X	X	X		
-12	12032-00		PLUNGER – Front seat stop assembly	1	X	X	X	X		X	X	X		
-13	487-293		SPRING – Tension front seat installation	1		X	X	X		X	X	X		
-14	<a href="#">AA55487-2</a>		CLIP – Seat safety stop pin (AN415-2)	1	X	X	X	X		X	X	X		
-15	<a href="#">MS20392-3C41</a>		PIN – Seat safety stop (AN394-41)	1	X	X	X	X		X	X	X		
-16	12991-00		PLATE ASSEMBLY – Trim, upholstered, front seat, bottom (brown leather)	1		X	X	X		X	X	X		
	12991-05		PLATE ASSEMBLY – Trim, upholstered, front seat, bottom (green leather)	1				X				X		
-17	11863-10	B	FRAME ASSEMBLY – Front seat, bottom	1	X									
	12990-08		FRAME ASSEMBLY – Front seat, bottom	1		X	X	X		X	X	X		
	12893-00	C	FRAME ASSEMBLY – Front seat, bottom	1	X									
-18	487-271		SPRING – No-sag, front seat, bottom	10	X	X	X	X		X	X	X		
-19	11420-00		LINK – Spring, connecting	24	X	X	X	X		X	X	X		
-20	11420-02		LINK – Spring, connecting	8	X	X	X	X		X	X	X		
-21	11866-00	B	FRAME ASSEMBLY – Front seat, back	2	X									
	12894-06	D	FRAME ASSEMBLY – Front seat, back	2	X	X	X	X		X	X	X		



FRONT SEAT INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
11-22	<a href="#">-487-274</a>		SPRING – No-sag, front seat, right and left, back	4	x	x	x	x			x	x	x
-23	11420-02		LINK – Spring connecting	6	x	x	x	x			x	x	x
-24	14166-00	D	FILLER – Front seat back assembly	2	x	x	x	x			x	x	x
	11928-00	B	FILLER – Front seat back assembly	2	x								
-25	12636-00	B	CUSHION ASSEMBLY – Front seat, bottom, left, "125"	1	x								
	12895-00	F	CUSHION ASSEMBLY – Front seat, bottom, left, "125"	1	x								
	12895-31	G	CUSHION ASSEMBLY – Front seat, bottom, left, "125"	1	x								
	12895-34	H	CUSHION ASSEMBLY – Front seat, bottom, left, "125"	1	x	x							
	12895-18	I	CUSHION ASSEMBLY – Front seat, bottom, left, "125" and "135"	1	x	x	x			x	x		
	14198-10		CUSHION ASSEMBLY – Front seat, bottom, left (brown)	1				x					x
	14198-00		CUSHION ASSEMBLY – Front seat, bottom, left (green)	1				x					x
	12895-02	J	CUSHION ASSEMBLY – Front seat, bottom, left, "115"	1	x								
	12636-02	B	CUSHION ASSEMBLY – Front seat, bottom, left, "115"	1	x								
-26	12636-01	B	CUSHION ASSEMBLY – Front seat, bottom, right, "125"	1	x								
	12895-01	C	CUSHION ASSEMBLY – Front seat, bottom, right, "125"	1	x								
	12895-33	G	CUSHION ASSEMBLY – Front seat, bottom, right, "125"	1	x								
	12895-35	H	CUSHION ASSEMBLY – Front seat, bottom, right, "125"	1	x	x							
	12895-19	I	CUSHION ASSEMBLY – Front seat, bottom, right, "125" and "135"	1	x	x	x			x	x		
	14198-11		CUSHION ASSEMBLY – Front seat, bottom, right (brown)	1				x					x
	14198-01		CUSHION ASSEMBLY – Front seat, bottom, right (green)	1				x					x
	12895-03	J	CUSHION ASSEMBLY – Front seat, bottom, right, "115"	1	x								

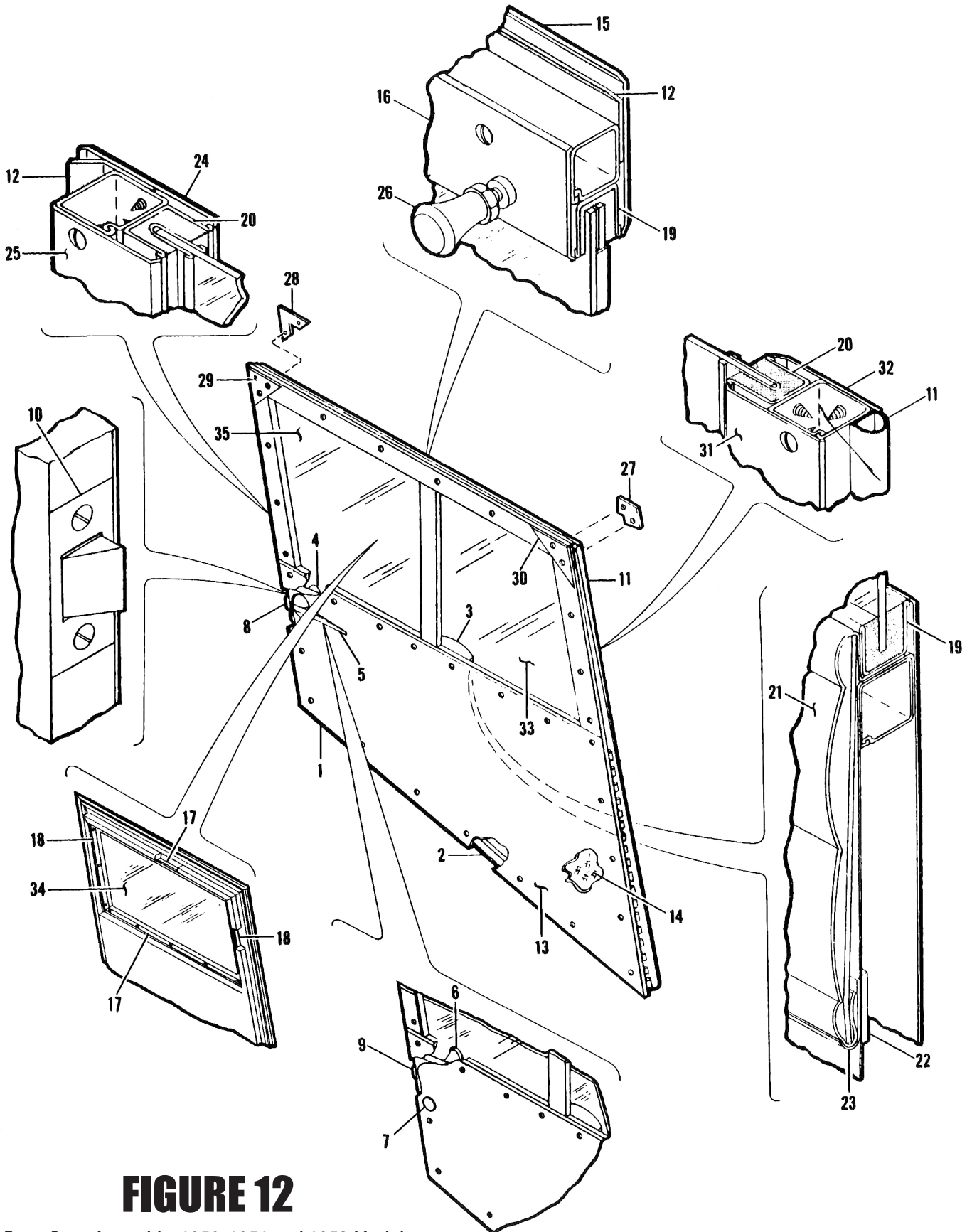


FRONT SEAT INSTALLATION

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
11-27	12636-03	B	CUSHION ASSEMBLY – Front seat, bottom, right, "115"	1	x									
	12642-00	B	CUSHION ASSEMBLY – Front seat, back, "125"	2	x									
	12896-00	F	CUSHION ASSEMBLY – Front seat, back, "125"	2	x									
	12896-18	G	CUSHION ASSEMBLY – Front seat, back, "125"	2	x									
	12896-20	H	CUSHION ASSEMBLY – Front seat, back, "125"	2	x	x								
	12896-24	I	CUSHION ASSEMBLY – "Front seat, back, "125" and "135"	2		x	x			x	x			
-28	12642-02	B	CUSHION ASSEMBLY – Front seat, back, "115"	2	x									
	12896-02	J	CUSHION ASSEMBLY – Front seat, back, "115"	2	x									
	14200-04		CUSHION ASSEMBLY – Front seat, back, left (brown)	1				x					x	
-29	14200-02		CUSHION ASSEMBLY – Front seat, back, left (green)	1				x					x	
	14200-03		CUSHION ASSEMBLY – Front seat, back, right (brown)	1				x					x	
	14200-00		CUSHION ASSEMBLY – Front seat, back, right (green)	1				x					x	

- A – Used on PA-20 airplanes with serial numbers 20-789 to 20-933 inclusive; and on PA-22 airplanes with serial numbers 22-333, 22-340, 22-341 and 22-343 to 22-806 inclusive.
- B – Used on PA-20 airplanes with serial numbers 20-1 to 20-252 inclusive.
- C – Used on PA-20 airplanes with serial numbers 20-253 to 20-553 inclusive.
- D – Used on PA-20 airplanes with serial numbers 20-253 and up, and on PA-22 airplanes with serial numbers 22-1 and up.
- E – Used on PA-20 airplanes with serial numbers 20-1 to 20-788 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-332 inclusive, 22-334 to 22-339 inclusive and 22-342.
- F – Used on PA-20 airplanes with serial numbers 20-253 to 20-492 inclusive.
- G – Used on PA-20 airplanes with serial numbers 20-493 and 20-495 to 20-552 inclusive.
- H – Used on PA-20 airplanes with serial numbers 20-494, 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.
- I – Used on PA-20 airplanes with serial numbers 20-553, 20-559, 20-560, 20-562, 20-564, 20-566 to 20-571 inclusive, 20-573, 20-574, 20-575, 20-577 to 20-580 inclusive, 20-582 to 20-587 inclusive, 20-589 to 20-599 inclusive, 20-604, 20-609, 20-611 to 20-933 inclusive; and on PA-22 airplanes with serial numbers 22-1 to 22-806 inclusive.
- J – Used on PA-20 airplanes with serial numbers 20-253 and up.



## FIGURE 12

Front Door Assembly, 1950-1951 and 1952 Models





FRONT DOOR ASSEMBLY  
1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
12-1	12665-00		DOOR ASSEMBLY – Front, with locking door handles and window lock, "125"	1	x									
	12665-02		DOOR ASSEMBLY – Front, right, less locks "125"	1	x									
	11637-00		DOOR ASSEMBLY – Front, "115"	1	x									
	13027-08	C	DOOR ASSEMBLY – Front, with door and window locks	1		x								
	13027-00	A	DOOR ASSEMBLY – Front, with door and window locks	1		x	x			x	x			
	13027-07	C	DOOR ASSEMBLY – Front, without door and window locks	1		x								
	13027-02	A	DOOR ASSEMBLY – Front, without door and window locks	1		x	x			x	x			
-2	11653-00		DOOR FRAME	1	x									
	11653-14		DOOR FRAME	1		x	x			x	x			
-3	481-630		HANDLE – Inside, door pull (No. 6730E)	1	x	x	x			x	x			
-4	11898-04		HANDLE – Door actuating, inside	1	x									
-5	11898-03		HANDLE – Door actuating, outside	1	x									
	464-015		HANDLE – Locking door actuating, with keys, "125"	1	x									
-6	<a href="#">-471-052</a>		KNOB – Door latch assembly, inside	1		x	x			x	x			
-7	473-130	B	LOCK ASSEMBLY – Door, with keys (PAC No. 13014-00)	1		x	x	x		x	x	x		
-8	750-994		LATCH – Door (1013A) (472-013)	1	x									
-9	13186-00		LATCH ASSEMBLY – Door	1		x	x			x	x			
-10	13012-00		PLATE – Door latch	1		x	x	x		x	x	x		
-11	187-608		MOULDING – Rubber seal, at front of door (Continental Die No. 2179)	3'	x	x	x			x	x			
-12	187-535		MOULDING – Rubber seal, at top, bottom and rear of door (Continental Die No. 2591)	8'	x	x	x			x	x			
-13	11654-00		PANEL – Outside	1	x									
	11654-02		PANEL – Outside cover (used when door lock is installed)	1		x	x			x	x			
	11654-03		PANEL – Outside cover (used when door lock is not installed)	1		x	x			x	x			
-14	181-231		INSULATION – Fiberglass, 1.2 sq. yd.	1	x	x	x	x		x	x	x		
-15	11656-03		TRIM STRIP – Outside, at top of window	1	x	x	x	x		x	x	x		
-16	12680-04		TRIM STRIP – Inside at top of window "125" and "135" (when window lock not installed)	1	x	x	x			x	x			



FRONT DOOR ASSEMBLY  
1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
	12680-03		TRIM STRIP – Inside, at top of window, (when lock is installed) “125” and “135”	1	x	x	x			x	x		
12-17	11650-03		TRIM STRIP – Inside, at top and bottom of window, “115”	2	x								
-18	11650-02		TRIM STRIP – Inside, at front and rear of window, “115”	2	x								
-19	12634-03		CHANNEL – Window sliding upper with stop nut, for locking window, “125” and “135”	1	x	x	x			x	x		
	<a href="#">U11432-013</a>		CHANNEL – Window sliding upper and lower, “125” and “135” (Upper not used when window locks installed)	2	x	x	x			x	x		
-20	11432-12		CHANNEL – Window sliding front and rear, sides, “125” and “135”	2	x	x	x			x	x		
-21	12670-02	D	PANEL – Trim, upholstered, “125”	1	x	x							
	12670-18	A	PANEL – Trim, upholstered, inside	1		x	x			x	x		
-22	11473-27		STRIP – Pyralin, upholstered trim panel anchor strip attachment “125” and “135”	1	x	x	x			x	x		
-23	12664-02		STRIP – Anchor, upholstered trim panel, “125” and “135”	1	x	x	x			x	x		
-24	11656-02		TRIM STRIP – Outside, at rear of window	1	x	x	x	x		x	x	x	
-25	12680-02		TRIM STRIP – Inside, at rear of window, “125” and “135”	1	x	x	x			x	x		
-26	12856-00		KNOB – Window locking device, “125” and “135”	1	x	x	x			x	x		
-27	12683-00		PLATE – Trim corner, at top front window, “125” and “135”	1	x	x	x			x	x		
-28	12681-00		PLATE – Trim, corner, at top rear window, “125” and “135”	1	x	x	x			x	x		
-29	12997-03		PLATE – Trim, triangular, rear top corner of door	1		x	x	x		x	x	x	
-30	12997-02		PLATE – Trim, triangular, front top corner of door	1		x	x	x		x	x	x	
-31	12680-05		TRIM STRIP – Inside, at front of window, “125” and “135”	1	x	x	x			x	x		
-32	11656-04		TRIM STRIP – Outside, at front of window	1	x	x	x			x	x		
-33	12684-00		WINDOW – Sliding, front, “125” and “135”	1	x	x	x			x	x		
-34	<a href="#">-11651-000</a>		WINDOW – “115”	1	x								
-35	12685-00		WINDOW – Sliding, rear, “125” and “135”	1	x	x	x			x	x		

A – Used on PA-20 airplanes with serial numbers 20-559, 20-560, 20-562, 20-564, 20-566 to 20-571 inclusive, 20-573, 20-574, 20-575, 20-577 to 20-580 inclusive, 20-582 to 20-587 inclusive, 20-589 to 20-599 inclusive, 20-604, 20-609, 20-611 to 20-933 inclusive; and on PA-22 airplanes



FRONT DOOR ASSEMBLY  
1950, 1951 AND 1952 MODELS

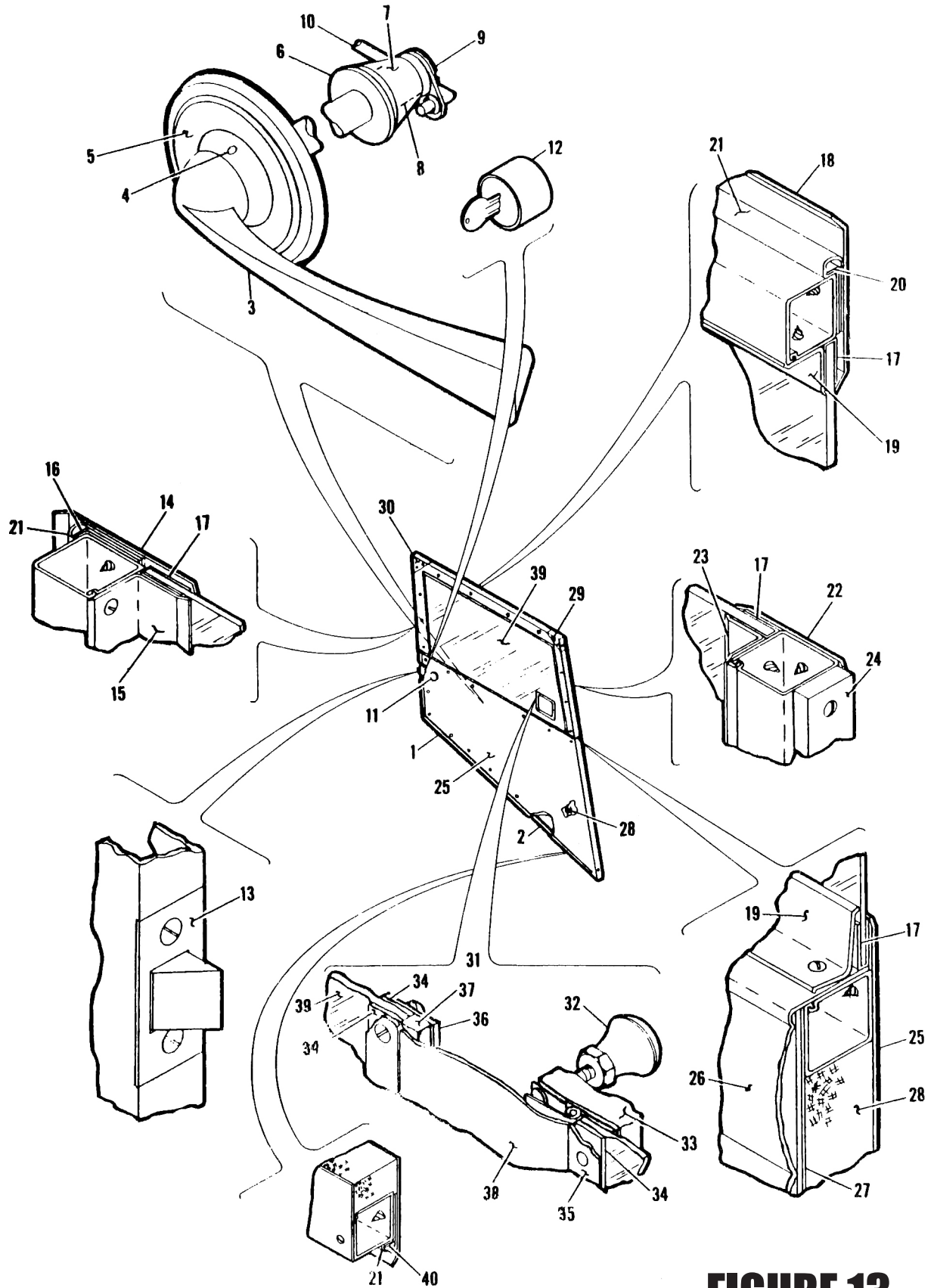
SECTION IV  
Cockpit Group

- with serial numbers 22-1 to 22-806 inclusive
- B – Used on PA-20 airplanes with serial numbers 20-554 to 20-945 inclusive, 20-947, and on PA-22 airplanes with serial numbers 22-1 to 22-906 inclusive and 22-910
- C – Used on PA-20 airplanes with serial numbers 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.
- D – Used on PA-20 airplanes with serial numbers 20-1 to 20-552 inclusive, 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.

FRONT DOOR ASSEMBLY  
1953 MODEL

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
13-1	13922-00	A	DOOR ASSEMBLY – Front	1				X					X
	13922-03	B	DOOR ASSEMBLY – Front	1				X					X
			Note: Specify green or brown leather when ordering										
-2	13874-00		DOOR FRAME	1				X					X
-3	464-017		HANDLE – Door, inside (No. 1H-104)	1				X					X
-4	<a href="#">-81761-011</a>		PIN – Door handle attachment	1				X					X
-5	480-895		PLATE – Door handle escutcheon (ESC-7)	1				X					X
-6	<a href="#">-80122-030</a>		WASHER – Escutcheon plate	1				X					X
-7	13884-01		LINK – Door latch	1				X					X
-8	13882-00		BUSHING – Door handle installation	1				X					X
-9	80122-05		WASHER – Latch rod installation	2				X					X
-10	13881-00		ROD – Door latch control	1				X					X
-11	13878-00		LATCH ASSEMBLY – Door	1				X					X
-12	473-130	C	LOCK ASSEMBLY – Door with keys (PAC No. 13014-00)	1		X	X	X		X	X	X	
	14034-03	D	LOCK ASSEMBLY – Door with keys	1				X					X
	752-301	E	LOCK ASSEMBLY – Door with keys	1				X					X
-13	<a href="#">-13012-000</a>		PLATE – Door latch	1		X	X	X		X	X	X	
-14	11656-02		TRIM STRIP – Outside, at rear of window	1	X	X	X	X		X	X	X	
-15	13870-02		TRIM STRIP – Window, inside door, rear	1				X					X
-16	13935-08		ANGLE – Rubber strip support, rear, 25 in	1				X					X
-17	180-400		TAPE – Elastic compound No. 163, window seal	8'				X					X
-18	11656-03		TRIM STRIP – Outside, at top of window	1	X	X	X	X		X	X	X	
-19	13870-03		TRIM STRIP – Window, inside door, top and bottom	2				X					X
-20	13935-09		ANGLE – Rubber strip support, top, 29½ in.	1				X					X



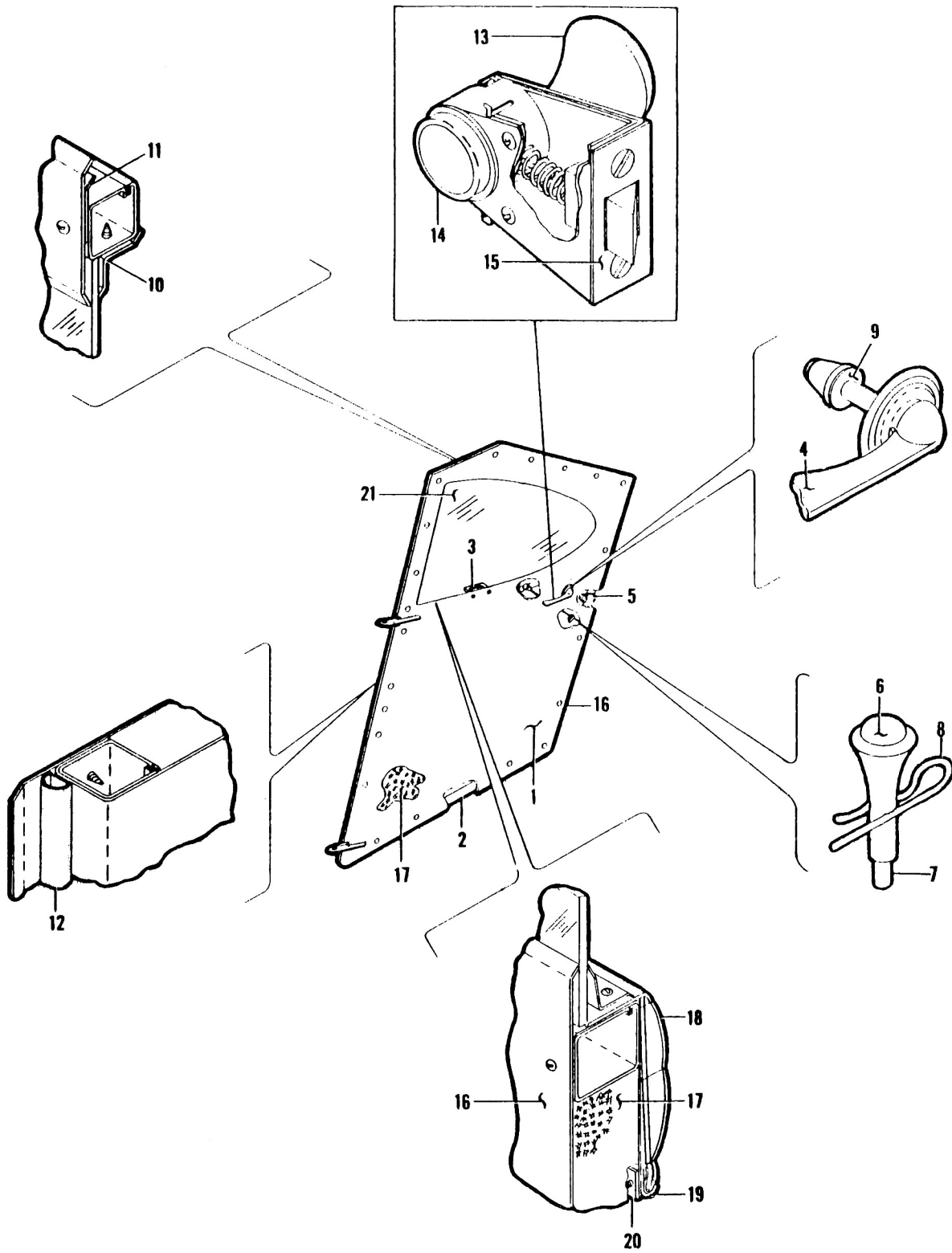
**FIGURE 13**

Front Door Assembly, 1953 Model



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
13-21	<a href="#">-13945-019</a>		MOULDING – Rubber, door seal (2½ in. wide x ¼ in.)	7'				x					x
-22	11656-05		TRIM STRIP – Outside, at front of window	1					x				
-23	13870-04		TRIM STRIP – Window, inside door, front	1					x				
-24	13945-02		MOULDING – Rubber, door seal (½ in. wide x ¾ in.)	1					x				
-25	14015-00		PANEL – Outside cover	1						x			
-26	13937-18		PANEL – Trim, upholstered inside (brown)	1						x			
	13937-02		PANEL – Trim, upholstered inside (green)	1						x			
-27	13887-00		PANEL – Inside cover	1						x			
-28	181-231		INSULATION – Fiberglass, 1.2 square yards	1	x	x	x	x		x	x	x	
-29	12997-02		PLATE – Trim, triangular front top corner of door	1		x	x	x		x	x	x	
-30	12997-03		PLATE – Trim, triangular, rear top corner of door	1		x	x	x		x	x	x	
-31	13975-00		WINDOW ASSEMBLY – Door, front	1				x					x
-32	471-051		KNOB – Ventilator (No. 3001SD ivory)	1				x					x
-33	13900-00		BLOCK – Adjustment, ventilator	1				x					x
-34	13898-03		PLATE (Vellumoid)	2				x					x
-35	13898-02		PLATE – Outside trim	1				x					x
-36	13899-00		PLATE – Inside trim	1				x					x
-37	13914-00		GASKET	1				x					x
-38	13904-00		VENTILATOR	1				x					x
-39	13907-00		WINDOW	1				x					x
-40	13935-07		ANGLE – Rubber strip support, bottom, 32½ in.	1				x					x

- A – Used on PA-20 airplanes with serial numbers 20-934 to 20-945 inclusive and 20-947, and on PA-22 airplanes with serial numbers 22-807 to 22-906 inclusive and 22-910.
- B – Used on PA-20 airplanes with serial numbers 20-946 and 20-948 and up; and on PA-22 airplanes with serial numbers 22-907 | 22-908, 22-909 and 22-911 and up.
- C – Used on PA-20 airplanes with serial numbers 20-554 to 20-945 inclusive and 20-947 and on PA-22 airplanes with serial numbers 22-1 to 22-906 inclusive and 22-910.
- D – Used on PA-20 airplanes with serial numbers 20-946 and 20-948 to 20-1031 inclusive, and 20-1033, 20-1036 and 20-1038, and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, and 22-911 to 22-1482 inclusive, and 22-1484 to 22-1498 inclusive and 22-1517.
- E – Used on PA-20 airplanes with serial numbers 20-1032, 20-1034, 20-1035, 20-1037 and 20-1039 and up, and on PA-22 airplanes 22-1483, 22-1499 to 22-1516 inclusive and 22-1518 and up.



# FIGURE 14

Rear Door Assembly, 1950, 1951 and 1952 Models



REAR DOOR ASSEMBLY  
1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
14-1	12000-03		DOOR ASSEMBLY – Rear, "115"	1	x									
	12666-00		DOOR ASSEMBLY – Rear, with lock, "125"	1	x									
	12666-02		DOOR ASSEMBLY – Rear, less lock, "125"	1	x									
	13028-08	A	DOOR ASSEMBLY – Rear, with lock	1		x								
	13028-00	B	DOOR ASSEMBLY – Rear, with lock	1		x	x			x	x			
	13028-07	A	DOOR ASSEMBLY – Rear, without lock	1		x								
	13028-02	B	DOOR ASSEMBLY – Rear, without lock	1		x	x			x	x			
-2	12003-14		DOOR FRAME	1	x									
	12003-16		DOOR FRAME	1		x	x			x	x			
-3	481-630		HANDLE – Door pull, inside	1	x	x	x			x	x			
-4	11898-03		HANDLE – Door actuating, outside	1	x									
	11898-04		HANDLE – Door actuating, inside, "125"	1	x									
	11898-02		HANDLE – Door actuating, inside, "115"	1	x									
	464-015		HANDLE – Locking door, outside actuating, with keys, "125"	1	x									
-5	750-994		LATCH – Door ( 472 013)	1	x									
-6	<a href="#">-471-051</a>		KNOB – Locking rod, "125" and "135"	1	x	x	x	x		x	x			
-7	12668-00		ROD – Locking, less knob	1	x									
	12668-02		ROD – Locking, less knob	1		x	x	x		x	x	x		
-8	<a href="#">AA55487-2</a>		CLIP – Locking rod (No. 62) "125" and "135"	1	x	x	x	x		x	x	x		
-9	<a href="#">U81342-020</a>		WASHER – Spacer, door handle	2	x									
-10	12245-00		PANEL – Trim, window, inside	1	x									
	12245-02		PANEL – Trim, window, inside	1		x	x			x	x			
-11	187-535		MOULDING – Rubber seal, at top, bottom and rear of door (Continental Die No. 2591)	8'	x	x	x			x	x			
-12	187-608		MOULDING – Rubber seal, front of door (Continental Die No. 2179)	3½'	x	x	x			x	x			
-13	<a href="#">-471-052</a>		KNOB – Door latch assembly, inside	1		x	x			x	x			
-14	13186-00		LATCH ASSEMBLY – Door	1		x	x			x	x			
-15	<a href="#">-13012-000</a>		PLATE – Door latch	1		x	x	x		x	x	x		
-16	12246-00		PANEL – Outside	1	x	x	x	x		x	x	x		
-17	181-231		INSULATION – Fiberglass, 1.2 sq. yd.		x	x	x	x		x	x	x		
-18	12670-03	C	PANEL – Trim, upholstered inside, "125"	1	x	x								
	12670-20	B	PANEL – Trim, upholstered inside, "125" and "135"	1		x	x			x	x			
-19	12664-03		STRIP – Anchor upholstered trim panel, "125" and "135"	1	x	x	x			x	x			



REAR DOOR ASSEMBLY  
1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
14-20	11473-26		STRIP – Pyralin, upholstered trim panel anchor strip attachment “125”	1	x	x	x				x	x		
-21	<a href="#">-12009-000</a>		WINDOW	1	x	x	x				x	x		

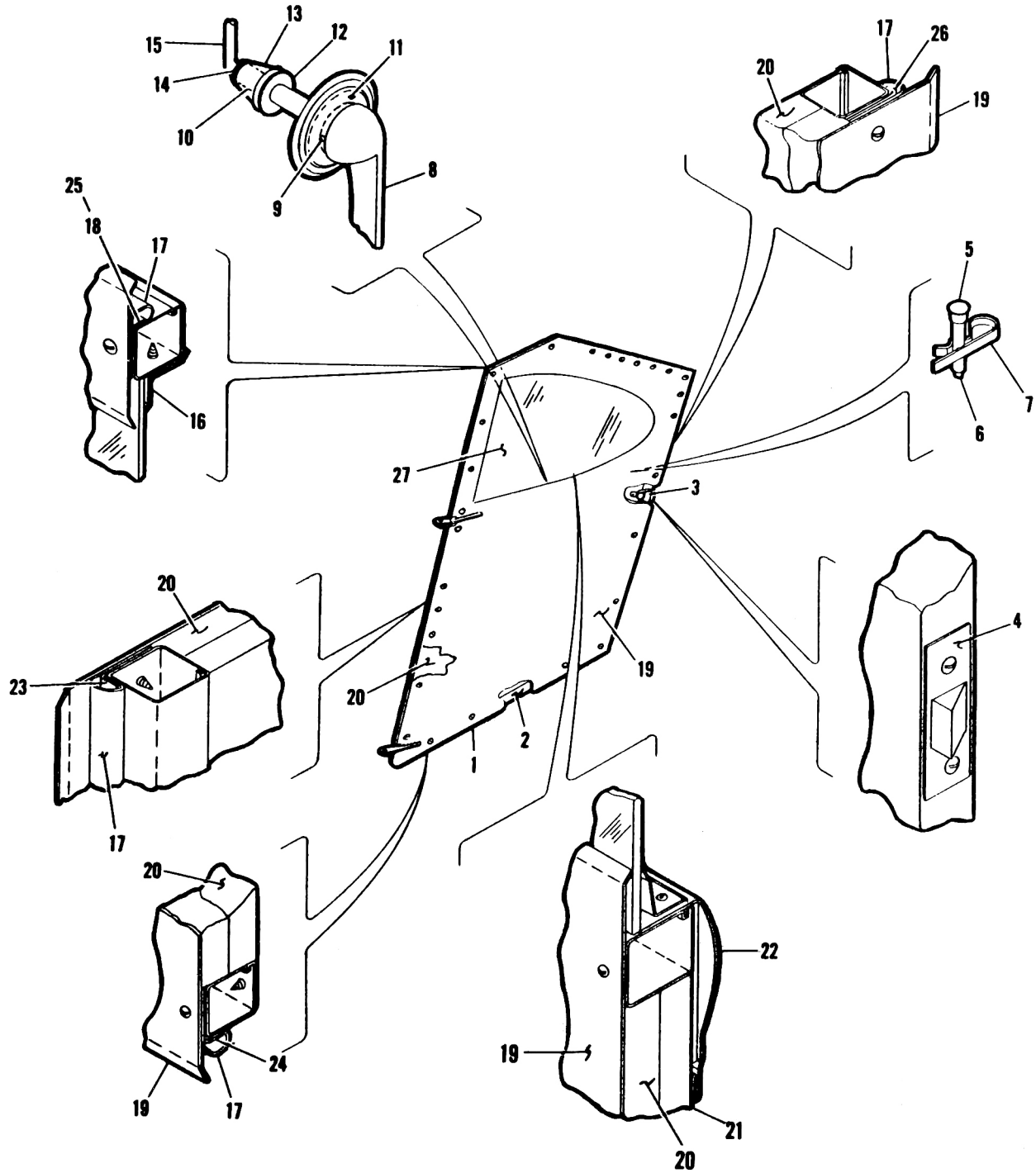
- A – Used on PA-20 airplanes with serial numbers 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.
- B – Used on PA-20 airplanes with serial numbers 20-559, 20-560, 20-562, 20-564, 20-566 to 20-571 inclusive, 20-573, 20-574, 20-575, 20-577 to 20-580 inclusive, 20-582 to 20-587 inclusive, 20-589 to 20-599 inclusive, 20-604, 20-609, 20-611 to 20-933 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-806 inclusive.
- C – Used on PA-20 airplanes with serial numbers 20-1 to 20-552 inclusive, 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.

REAR DOOR ASSEMBLY  
1953 MODEL

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
15-1	13923-00		DOOR ASSEMBLY – Rear Note: Specify green or brown leather when ordering.	1					x					x
-2	13879-00		DOOR FRAME	1					x					x
-3	13878-00		LATCH ASSEMBLY – Door	1					x					x
-4	<a href="#">-13012-000</a>		PLATE – Door latch	1			x	x	x		x	x		x
-5	<a href="#">-471-051</a>		KNOB – Locking rod	1	x	x	x	x		x	x			x
-6	12668-02		ROD – Locking, less knob	1		x	x	x		x	x			x
-7	<a href="#">AA55487-2</a>		CLIP – Locking rod (No. 62)	1	x	x	x	x		x	x			x
-8	464-017		HANDLE – Door, inside (No. 1H-104)	1					x					x
-9	<a href="#">-81761-011</a>		PIN – Door handle attachment	1					x					x
-10	13882-00		BUSHING – Door handle installation	1					x					x
-11	480-895		PLATE – Door handle, escutcheon (ESC-7)	1					x					x
-12	<a href="#">-80122-030</a>		WASHER	1					x					x
-13	13884-00		LINK – Door latch	1					x					x
-14	80122-05		WASHER – Latch rod installation	1					x					x
-15	13881-00		ROD – Door latch control	1					x					x
-16	13982-00		PANEL – Trim, window inside	1					x					x
-17	<a href="#">-13945-019</a>		MOULDING – Rubber, door seal (2½ in. wide x ¼ in.)	11½'					x					x





## FIGURE 15

Rear Door Assembly, 1953 Model



REAR DOOR ASSEMBLY  
1953 MODEL

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
15-18	13935-02		ANGLE – Rubber strip support top, front, 9¾ in.	1					X				X
-19	12246-00		PANEL – Outside	1	X	X	X	X		X	X	X	
-20	181-231		INSULATION – Fiberglass, 1.2 sq. yd.	1	X	X	X	X		X	X	X	
-21	13880-00		PANEL – Inside cover	1				X				X	
-22	13937-19		PANEL – Trim, upholstered, inside (brown)	1				X				X	
	13937-03		PANEL – Trim, upholstered, inside (green)	1				X				X	
-23	13935-06		ANGLE – Rubber strip support, front, 42½ in.	1				X				X	
-24	13935-05		ANGLE – Rubber strip support, bottom, 28½ in.	1				X				X	
-25	13935-03		ANGLE – Rubber strip support, top, rear, 14½ in.	1				X				X	
-26	13935-04		ANGLE – Rubber strip support, rear, 24½ in.	1				X				X	
-27	13835-00		WINDOW – Door	1				X				X	

BAGGAGE COMPARTMENT INSTALLATION

SECTION IV  
Cockpit Group

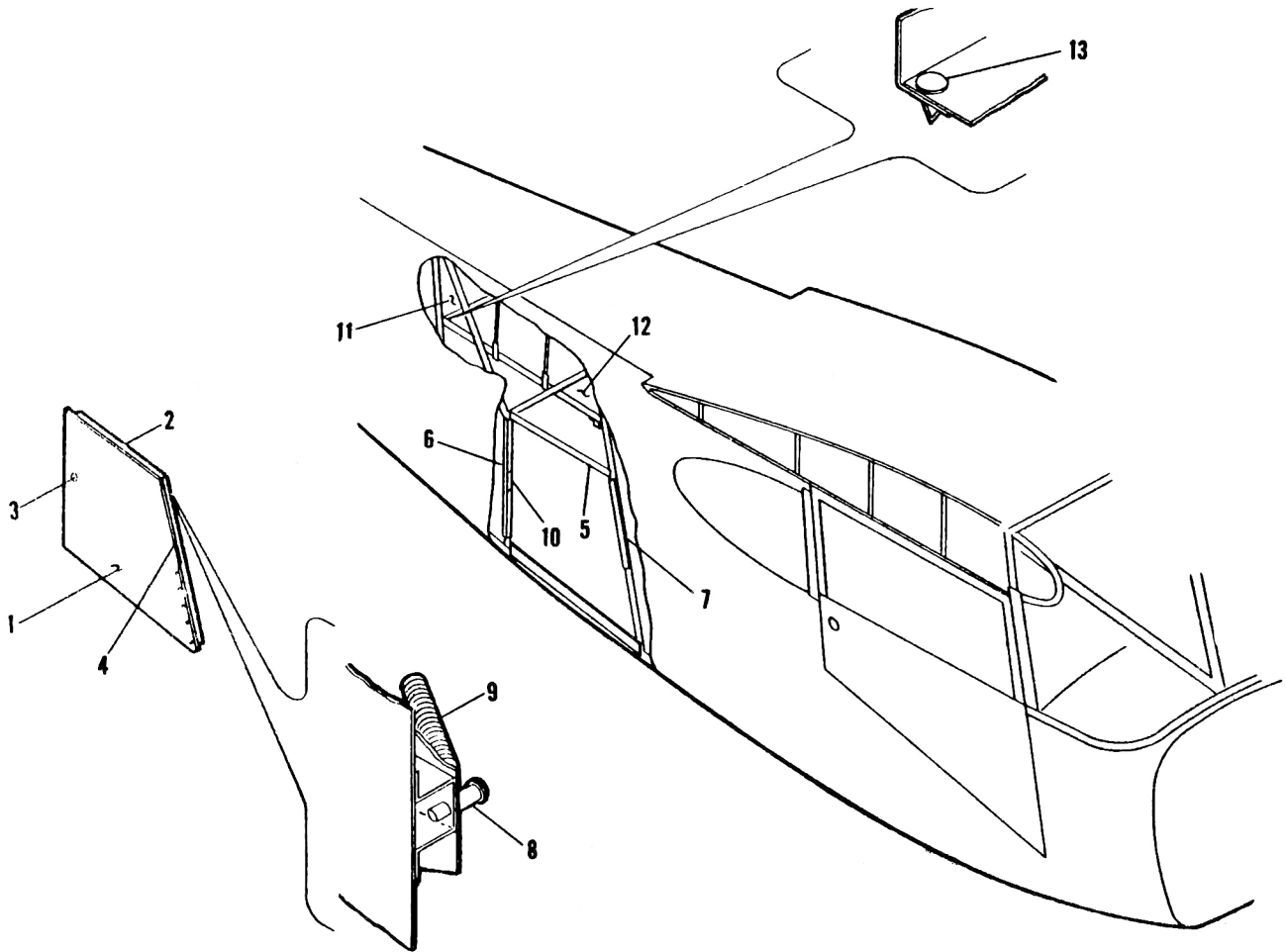
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
16-	13927		DRAWING – Baggage compartment installation					X				X	
-1	13839-00	A	DOOR ASSEMBLY – Baggage	1				X				X	
	13839-03	B	DOOR ASSEMBLY – Baggage	1				X				X	
-2	13838-08		FRAME ASSEMBLY – Door	1				X				X	
-3	473-130	A	LOCK ASSEMBLY (13014-00)	1				X				X	
	752-301	B	LOCK ASSEMBLY – With keys	1				X				X	
-4	<a href="#">S2249-2</a>		MOULDING – Rubber, door seal	7'				X				X	
-5	13866-00		CHANNEL – Trim, baggage compartment door, top	1				X				X	
-6	13867-00		CHANNEL – Trim, baggage compartment door, rear	1				X				X	
-7	13865-00		CHANNEL – Trim, baggage compartment door, front	1				X				X	
-8	<a href="#">U80012-004</a>		BUSHING – Baggage compartment door spring installation	1				X				X	
-9	<a href="#">108-3002268</a>		SPRING – Baggage compartment door installation	1				X				X	
-10	14171-00		PLATE – Latch, baggage compartment door striker	1				X				X	



BAGGAGE COMPARTMENT INSTALLATION

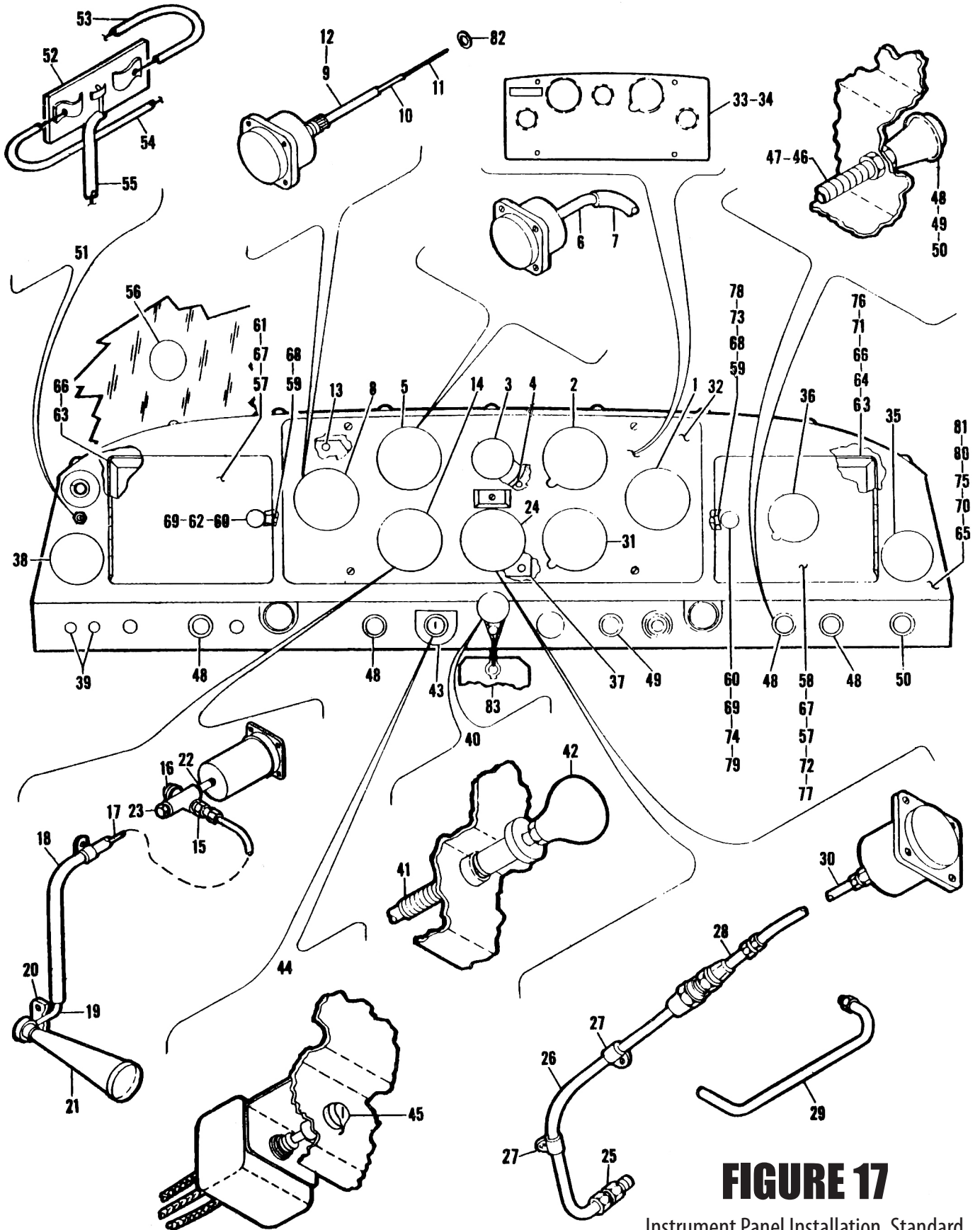
SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
16-11	13889-00		PANEL – Hat shelf, rear	1				X					X
-12	13886-00		SHELF ASSEMBLY – Hat baggage compartment	1				X					X
-13	454 917		CLIP – Wire, hat shelf installation (No. 1-LC)	10				X					X



**FIGURE 16**

Baggage Compartment Installation



**FIGURE 17**

Instrument Panel Installation, Standard and Primary, 1950 and 1951 Models



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1950 AND 1951 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20				PA-22						
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
17-	12817		DRAWING – Instrument panel installation, "115"		X										
	12658		DRAWING – Instrument panel installation, "125"		X										
	12994		DRAWING – Instrument panel installation, "125"			X									
-1	450 680		INSTRUMENT – Oil temperature and pressure (PAC No. 12416-02) "125" and "135"	1	X	X	X	X			X	X	X		
	450-600		INSTRUMENT – Oil temperature and pressure (PAC No. 10484-00) "115"	1	X										
-2	450-611		INSTRUMENT – Altimeter, standard (PAC No. 11343-00) "125" and "135"	1	X	X	X	X			X	X	X		
	450-657		INSTRUMENT – Altimeter, sensitive "125" and "135"	1	X	X	X	X			X	X	X		
	450-610		INSTRUMENT – Altimeter, standard, "115"	1	X										
-3	<a href="#">C-2300</a>		INSTRUMENT – Compass	1	X	X	X	X			X	X	X		
-4	11199-03		PLATE – Mounting, compass (Used with No. C-2300 compass)	1	X	X	X	X			X	X	X		
-5	450-613		INSTRUMENT – Airspeed (When flaps are installed) (PAC No. 10483-06) "115"	1	X										
	450-606		INSTRUMENT – Airspeed (When flaps are not installed) (PAC No. 10483-04) "115"	1	X										
	450-607		INSTRUMENT – Airspeed (PAC No. 11339-00) "125"	1	X	X	X				X	X			
-6	<a href="#">-13541-004</a>		TUBE – Airspeed at instrument	1	X	X	X	X			X	X	X		
-7	<a href="#">-83161-002</a>		HOSE – Airspeed at instrument	1	X	X	X	X			X	X	X		
-8	450-642		INSTRUMENT – Tachometer, non-recording (PAC No. 11342-00) "125"	1	X	X					X				
	450-641		INSTRUMENT – Tachometer, non-recording "115"	1	X										
	<a href="#">-450-643</a>		INSTRUMENT – Tachometer, recording (PAC No. 13621-00) (751 146)	1	X	X	X	X			X	X	X		
-9	<a href="#">U1713-N340</a>		SHAFT – Tachometer, with core, 34" (Used with non-recording tachometer)	1	X	X					X				
-10	750-907		CASING ASSEMBLY	1	X	X					X				
-11	750-909		CORE ASSEMBLY	1	X	X					X				
-12	<a href="#">U1713-R325</a>		SHAFT – Tachometer, recording 32½" (Used when recording tachometer is installed)	1	X	X	X	X			X	X	X		
-13	<a href="#">-12828-000</a>		PLATE – Attachment, recording tachometer (Not required with gyro installation)	1	X	X					X				



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1950 AND 1951 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
17-14	450-658		INSTRUMENT – Indicator, turn and back	1	X	X	X	X		X	X	X
-15	460-685		CONNECTOR (W/H 200 x 4)	1	X	X	X	X		X	X	X
-16	<a href="#">-492-024</a>		VALVE – Suction regulating	1	X	X	X	X		X	X	X
-17	11987-21		TUBE ASSEMBLY (To instrument)	1	X	X	X	X		X	X	X
-18	<a href="#">U82371-007</a>		HOSE – Connecting, at venturi	1	X	X	X	X		X	X	X
-19	<a href="#">AN842-4</a>		ELBOW – At venturi (AN842-4)	1	X	X	X	X		X	X	X
-20	<a href="#">-12876-000</a>		PLATE – Venturi mounting	1	X	X	X	X		X	X	X
-21	<a href="#">2INCH-VENTURI</a>		VENTURI – 2"	1	X	X	X	X		X	X	X
-22	<a href="#">3327X2</a>		NIPPLE (W/H 3327 x 2)	1	X	X	X	X		X	X	X
-23	<a href="#">3152X2</a>		PLUG (W/H 3152 x 2)	1	X	X	X	X		X	X	X
-24	751-118		INSTRUMENT – Gauge, manifold pressure	1	X	X	X	X		X	X	X
-25	460-685		CONNECTOR – At manifold (W/H 200 x 4)	1	X	X	X	X		X	X	X
-26	<a href="#">-82332-026</a>		TUBE ASSEMBLY – To manifold	1	X	X	X	X		X	X	X
-27	<a href="#">-80032-053</a>		CLAMP – Tube assembly, on engine	2	X	X	X	X		X	X	X
-28	13425-00		HOSE ASSEMBLY – Flexible connecting	1	X	X	X	X		X	X	X
-29	11987-19		LINE ASSEMBLY – Primer, tee (Rear of engine to left front cylinder, with four cylinder priming and when manifold pressure gauge is installed)	1	X	X	X	X		X	X	X
-30	82332-32		TUBE ASSEMBLY – To gauge (Used when gauge is equipped with male attachment fitting)	1	X	X	X	X		X	X	X
	82332-24		TUBE ASSEMBLY – To gauge (Used when gauge is equipped with female attachment fitting)	1	X	X	X			X	X	
-31	450-659		INSTRUMENT – Indicator, rate of climb.	1	X	X	X	X		X	X	X
-32	12659-04		PANEL – Cover, instrument, primary, "125"	1	X	X	X			X	X	
-33	12659-05		PANEL – Cover, instrument (for standard instrument group) "125"	1	X	X	X			X	X	
-34	12659-06		PANEL – Cover, instrument (for standard instrument group) "115"	1	X							
-35	450-655		INSTRUMENT – Ammeter	1	X	X	X	X		X	X	X
-36	450-660		INSTRUMENT – Clock	1	X	X	X	X		X	X	X
-37	11199-00		PLATE – Cover, instrument panel (Used when manifold pressure gauge is not installed with primary group)	1	X	X	X	X		X	X	X
-38	<a href="#">3090-033</a>		GAUGE ASSEMBLY – Fuel, panel unit (PAC No. 13032-00)	1		X	X	X		X	X	X
-39	454-917		CLIP – Radio phone and mike jack hole cover (When radio not installed) (No. 1-LC)	3	X	X	X	X		X	X	X
-40	<a href="#">U455-139-004</a>		CONTROL – Throttle assembly	1	X	X	X	X		X	X	X



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1950 AND 1951 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
17-41	<a href="#">U455-139-000</a>		CONTROL ASSEMBLY – Less knob	1	X	X	X	X		X	X	X
-42	<a href="#">U10911-000</a>		KNOB ASSEMBLY	1	X	X	X	X		X	X	X
-43	10373-03	A	PLACARD – Ignition switch	1	X	X	X	X		X	X	X
-44	750-888	A	SWITCH ASSEMBLY – Ignition, with keys and wires, less terminals	1	X	X	X	X		X	X	X
-45	487-782	A	SWITCH – Ignition, with keys, less wires and terminals	1	X	X	X	X		X	X	X
-46	<a href="#">U16775-000</a>		CABLE ASSEMBLY – (without knob) (1) carburetor heat (1) mixture control (1) cabin heat	3	X	X	X	X		X	X	X
	<a href="#">U16775-000</a>		CABLE ASSEMBLY – Cold air inlet control (without knob)	1		X	X	X		X	X	X
	<a href="#">U16775-000</a>		CABLE ASSEMBLY – Parking brake control (without knob)	1						X	X	X
-47	12800-00		CABLE ASSEMBLY – Parking brake control	1	X	X	X	X				
-48	<a href="#">-471-052</a>		KNOB (No. 3004-SM) (1) Carburetor heat (2) Cabin heat (1) Parking brake	4	X	X	X	X		X	X	X
-49	<a href="#">-471-053</a>		KNOB – Mixture control, pastel red, (No. 3004-SM)	1	X	X	X	X		X	X	X
-50	<a href="#">-471-052</a>		KNOB – Cold air inlet control	1		X	X	X		X	X	X
-51	13025-00		SWITCH ASSEMBLY – Fuel gauge, with wires	1		X	X	X		X	X	X
-52	487-86		SWITCH – Fuel gauge, less wires	1		X	X	X		X	X	X
-53	12177-30		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-54	10128-84		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-55	12177-79		WIRE ASSEMBLY – To gauge	1		X	X	X		X	X	X
-56	450-662		INSTRUMENT – Air temperature (No. 751-145)	1	X	X	X	X		X	X	X
-57	13155-00		DOOR – Glove Compartment, left (Used when two-unit Bendix radio, PAR-70A and PAT-50A is installed)	1		X				X		
	12979-00		DOOR – Glove compartment (Left and right when radio is not installed and right side only when Lear, Narco or Bendix PATR-10A Radio is installed)	2		X	X			X	X	
			Note: See instrument panel assemblies for 1950 Model.									



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1950 AND 1951 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
17-58	13156-00		DOOR – Glove compartment, right (Used when two-unit Bendix radio, PAR-70A and PAT-50A is installed)	1		x					x			
-59	12985-00		CATCH – Door	1		x	x				x	x		
-60	<a href="#">-471-051</a>		KNOB – Door (No. 3001-SD)	1	x	x	x				x	x		
-61	13485-00		DOOR – False, LH (When glove compartment not installed)	1		x					x			
-62	<a href="#">-471-051</a>		KNOB – Door (No. 3001SD)	1	x	x	x				x	x		
-63	12980-00		BOX ASSEMBLY – Glove compartment (Left and right when Radio not installed and right side only when Lear, Narco or Bendix PATR-10A radio is installed)	2		x	x				x	x		
			Note: See instrument panel assemblies for 1950 Model.											
	12980-04		BOX ASSEMBLY – Radio mounting, left (Used only with two-unit Bendix radio, PAR-70A and PAT-50A)	1		x					x			
-64	13154-00		BOX ASSEMBLY – Radio mounting, right (Used only with two-unit Bendix radio, PAR-70A and PAT-50A)	1		x					x			
-65	12658-02		PANEL ASSEMBLY – Instrument (When radio is not installed)	1	x									
-66	12655-00		BOX – Glove compartment, 6 in. width	2	x									
			OR											
	12980-00		BOX – Glove compartment, 7 in. width	2	x	x	x				x	x		
-67	12640-00		DOOR – Glove compartment, 5½ in. x 6¾ in.	2	x									
			OR											
	12979-00		DOOR – Glove compartment, 5½ x 7 in.	2	x	x	x				x	x		
-68	12661-00		CATCH – Door	1	x									
-69	<a href="#">-471-051</a>		KNOB – Door (No. 3001SD)	1	x	x	x				x	x		
-70	12658-03		PANEL ASSEMBLY – Instrument (When GE radio is installed)	1	x									
-71	12655-00		BOX – Glove compartment	1	x									
-72	12640-00		DOOR – Glove compartment	1	x									
-73	12661-00		CATCH – Door	1	x									
-74	<a href="#">-471-051</a>		KNOB – Door (No. 3001SD)	1	x	x	x				x	x		
-75	12658-04		PANEL ASSEMBLY – Instrument (When Bendix radio PATR-10A, is installed)	1	x									
-76	12655-00		BOX – Glove Compartment, 6 in. width	1	x									





INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1950 AND 1951 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
17-77	12980-00		OR BOX – Glove Compartment, 7 in. width	1	x	x	x				x	x	
	12640-00		DOOR – Glove compartment, 5½" x 6¾"	1	x								
-78	12979-00		OR DOOR – Glove compartment, 5½" x 7"	1	x	x	x				x	x	
	12661-00		CATCH – Door	1	x						x		
-79	<a href="#">-471-051</a>		KNOB – Door (No. 30015D)	1	x	x	x				x	x	
-80	12978-03		PANEL ASSEMBLY – Instrument (Used when radio is not installed and with two glove compartment boxes, also when Bendix PATR-10A single unit and Bendix two-unit, PAR-70A and PAT-50A is installed)	1		x					x		
-81	13335-03		PANEL ASSEMBLY – Instrument (Used when radio is not installed and with one glove compartment box, also when Lear or Narco radio is installed)	1		x	x				x	x	
-82	85012-14		WASHER – Felt tachometer shaft (494005)	1	x	x	x	x			x	x	x
-83	13286-00	B	TAG – Throttle cruise stop	1		x	x	x			x	x	x

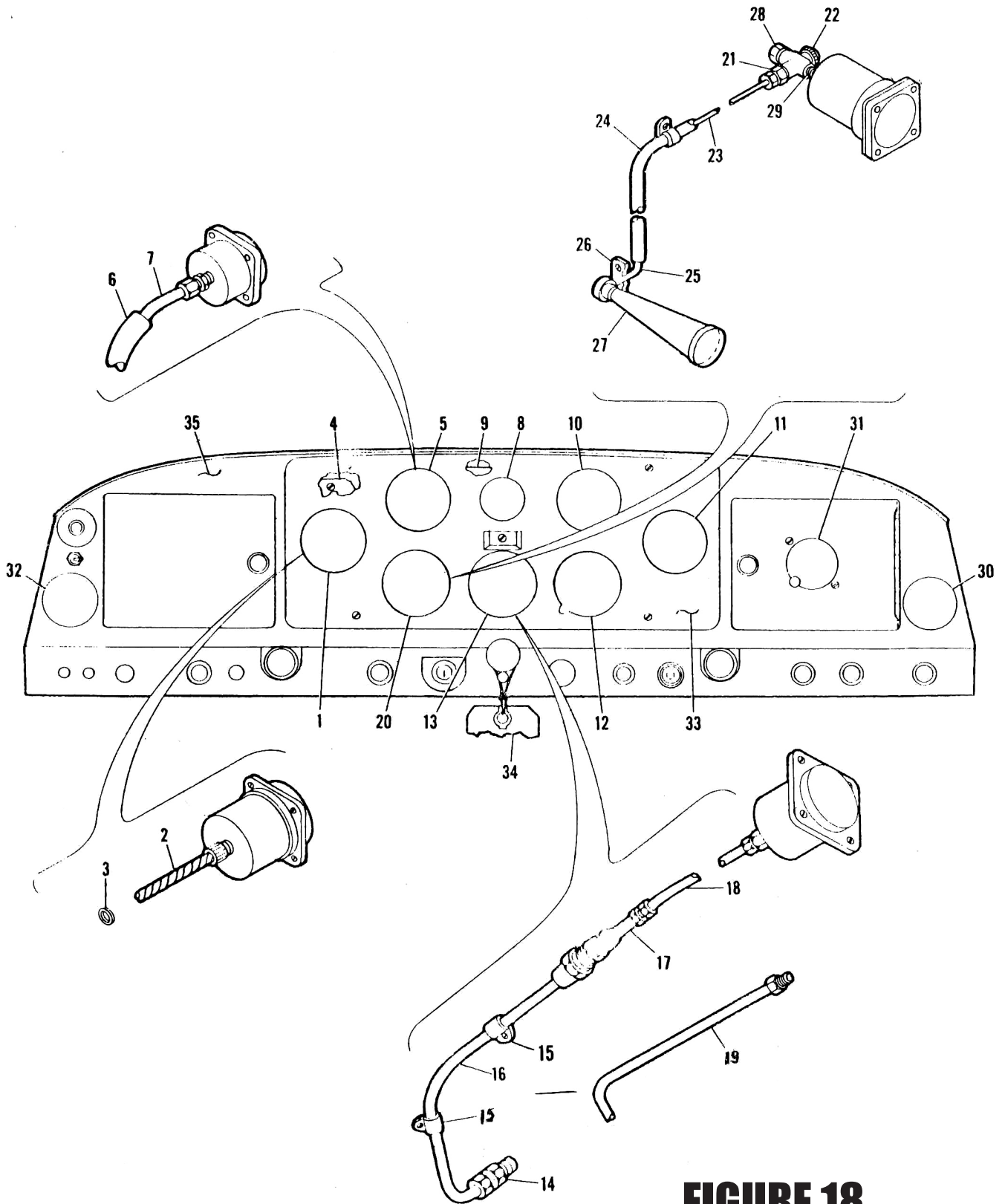
A – Used on PA-20 airplanes with serial numbers 20-1 to 20-945 inclusive, and 20-947; and on PA-22 airplanes with serial numbers 22-1 to 22-906 inclusive and 22-910

B – Used on PA-20 airplanes with serial numbers 20-632, 20-634 and up and on PA-22 airplanes with serial numbers 22-42 and up.

INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
<b>FIGURE 18 – SHEET 1 OF 2</b>													
18-	13797	A	DRAWING – Instrument panel installation, standard (For use with panel 13785-03)				x	x			x	x	
	13798	A	DRAWING – Instrument panel installation, primary (For use with panel 13785-03)				x	x			x	x	
	13626		DRAWING – Instrument panel installation, standard (For use with panel 13602-03)				x				x		
	13642		DRAWING – Instrument panel installation, primary (For use with panel 13602-03)				x				x		



**FIGURE 18**

Sheet 1 of 2 sheets  
Instrument Panel Installation, Standard and Primary,  
1952 and 1953 Models



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

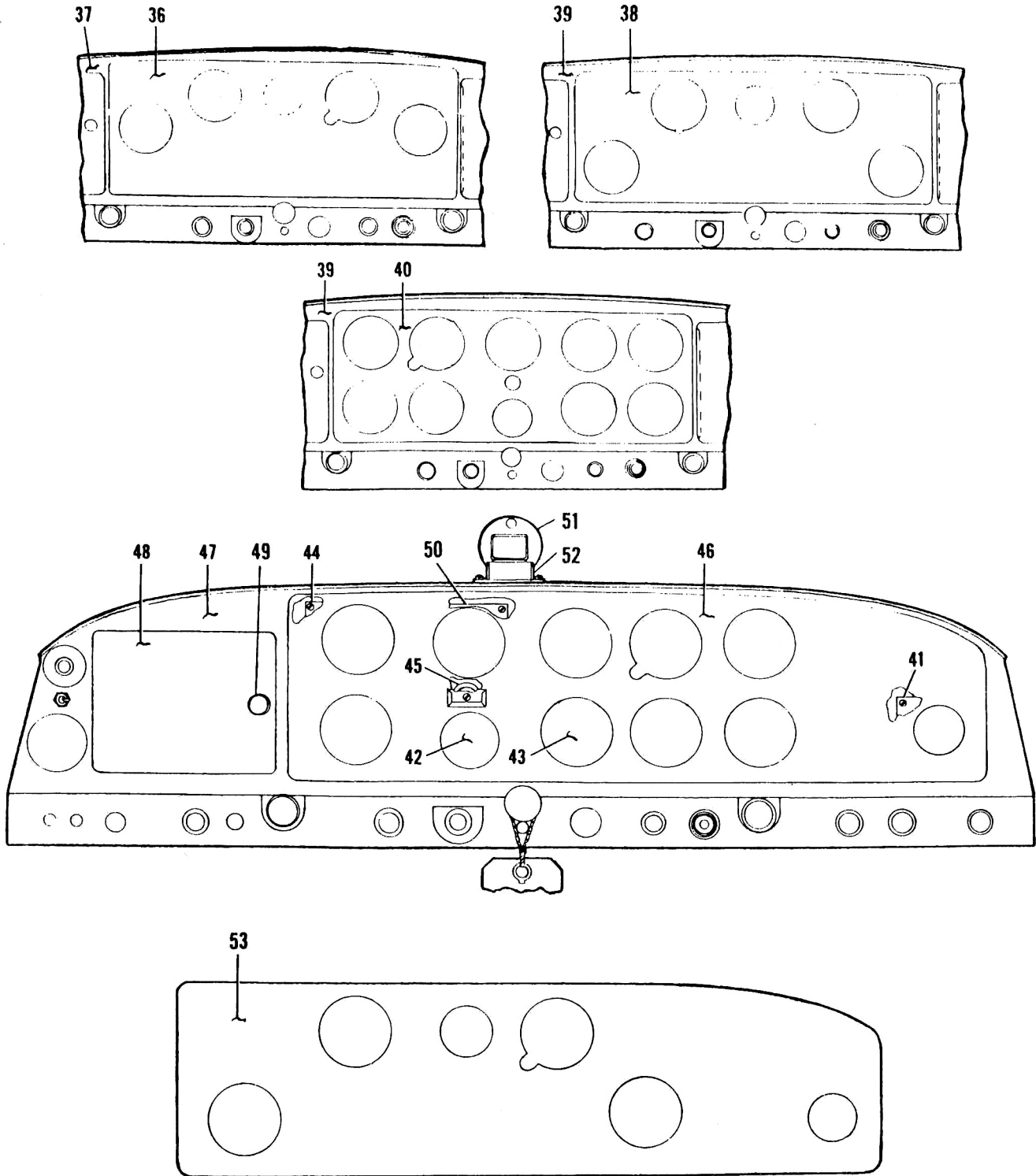
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
	13489		DRAWING – Instrument panel installation, standard and primary (For use with panel 13335-03)				X					X		
18-1	450-643		INSTRUMENT – Tachometer, recording (PAC No. 13621-00) (751 146)	1	X	X	X	X			X	X	X	
-2	<a href="#">U1713-R325</a>		SHAFT – Tachometer, recording, 32½ in.	1	X	X	X	X			X	X	X	
-3	<a href="#">U85012-014</a>		WASHER – Felt tachometer shaft (494 005)	1	X	X	X	X			X	X	X	
-4	<a href="#">-12828-000</a>		PLATE – Adapter (For use with instrument panel 13335-03 when installing recording tachometer or AN size combination oil temperature and pressure gauge)	AR	X	X	X				X	X		
-5	450-607		INSTRUMENT – Airspeed (PAC No. 11339-00) “125”	1	X	X	X				X	X		
	450-686		INSTRUMENT – Airspeed (PAC No. 11339-05) “135”	1			X	X				X	X	
-6	<a href="#">-83161-002</a>		HOSE – Airspeed, at instrument, “115” and “125” (2 per ship model “135”)	1	X	X	X	X			X	X	X	
-7	<a href="#">-13541-004</a>		TUBE – Airspeed, at instrument (2 per ship model “135”)	1	X	X	X	X			X	X	X	
-8	<a href="#">C-2300</a>		INSTRUMENT – Compass (No. C-2300)	1	X	X	X	X			X	X	X	
-9	11199-03		PLATE – Compass mounting (Used when installing 450 628, No. C-2300, compass in panels 13335-03 and 13785-03)	1	X	X	X	X			X	X	X	
-10	450-657		INSTRUMENT – Altimeter, sensitive, “125” and “135”	1	X	X	X	X			X	X	X	
	450-611		INSTRUMENT – Altimeter, standard (PAC No. 11343-00) “125” and “135”	1	X	X	X	X			X	X	X	
-11	450-680		INSTRUMENT – Gauge, oil temperature and pressure (PAC No. 13416-02) “125” and “135”	1	X	X	X	X			X	X	X	
-12	450-659		INSTRUMENT – Indicator, rate of climb	1	X	X	X	X			X	X	X	
-13	751-118		INSTRUMENT – Gauge, manifold pressure	1	X	X	X	X			X	X	X	
-14	460-685		CONNECTOR – At manifold (W/H 200 x 4)	1	X	X	X	X			X	X	X	
-15	<a href="#">-80032-053</a>		CLAMP – Tube assembly, on engine	2	X	X	X	X			X	X	X	
-16	<a href="#">-82332-026</a>		TUBE ASSEMBLY – To manifold	1	X	X	X	X			X	X	X	
-17	13425-00		HOSE ASSEMBLY – Flexible connecting	1	X	X	X	X			X	X	X	
-18	82332-32		TUBE ASSEMBLY – To gauge (Used when gauge is equipped with male attachment fitting)	1	X	X	X	X			X	X	X	
	82332-24		TUBE ASSEMBLY – To gauge (Used when gauge is equipped with female attachment fitting)	1	X	X	X				X	X		



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

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Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
18-19	11987-19		LINE ASSEMBLY – Primer, tee (Rear of engine) to left front cylinder, with four cylinder priming and when manifold pressure gauge is installed	1	X	X	X	X		X	X	X	
-20	450-658		INSTRUMENT – Indicator, turn and bank	1	X	X	X	X		X	X	X	
-21	460-685		CONNECTOR – (W/H 200 x 4)	1	X	X	X	X		X	X	X	
-22	<a href="#">-492-024</a>		VALVE – Suction regulating	1	X	X	X	X		X	X	X	
-23	11987-21		TUBE ASSEMBLY – To instrument	1	X	X	X	X		X	X	X	
-24	<a href="#">U82371-007</a>		HOSE – Connecting, at venturi	1	X	X	X	X		X	X	X	
-25	<a href="#">AN842-4</a>		ELBOW – At venturi	1	X	X	X	X		X	X	X	
-26	<a href="#">-12876-000</a>		PLATE – Venturi mounting	1	X	X	X	X		X	X	X	
-27	<a href="#">2INCH-VENTURI</a>		VENTURI – 2 in.	1	X	X	X	X		X	X	X	
-28	<a href="#">3152X2</a>		PLUG – (W/H 3152 x 2)	1	X	X	X	X		X	X	X	
-29	<a href="#">3327X2</a>		NIPPLE – (W/H 3327 x 2)	1	X	X	X	X		X	X	X	
-30	450-655		INSTRUMENT – Ammeter	1	X	X	X	X		X	X	X	
-31	450-660		INSTRUMENT – Clock	1	X	X	X	X		X	X	X	
-32	<a href="#">3090-033</a>		GAUGE – Fuel (panel unit)	1		X	X	X		X	X		
-33	12659-04		PANEL – Cover, primary (8 holes) (for use with instrument panel 13335-03)	1	X	X	X			X	X		
-34	13286-00	B	TAG – Throttle cruise stop	1		X	X	X		X	X	X	
-35	13335-03		PANEL ASSEMBLY – Instrument  Note: This panel will accommodate the large oil temperature and pressure gauge and tachometer, sizes of these holes are 3.547 diameter, and this panel has eight instrument holes.	1		X	X			X	X		
<b>FIGURE 18 – SHEET 2 OF 2</b>													
-36	12659-05		PANEL – Cover, standard (5 holes) (For use with instrument panel 13335-03)	1	X	X	X			X	X		
-37	13335-03		PANEL ASSEMBLY – Instrument  Note: This panel will accommodate the large oil temperature and pressure gauge and tachometer. Sizes of these holes are 3.547 diameter, and this panel has eight instrument holes.	1		X	X			X	X		
-38	13604-00		PANEL – Cover, standard (5 holes) (For use with instrument panel 13602-03)	1			X				X		
-39	13602-03		PANEL ASSEMBLY – Instrument	1			X				X		



# FIGURE 18

Sheet 2 of 2 sheets  
Instrument Panel Installation, Standard and Primary,  
1952 and 1953 Models



INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
			Note: This panel will accommodate only the AN size oil temperature and pressure gauge and the recording tachometer and this panel has ten instrument holes.											
18-40	13605-00		PANEL – Cover, primary (10 holes) (For use with instrument panel (13602-03))	1			X					X		
-41	11199-04	A	PLATE – Mounting, ammeter	1			X	X				X	X	
-42	11203-00		PLATE – Cover, instrument hole (2 <sup>3</sup> / <sub>8</sub> in. x 2 <sup>3</sup> / <sub>8</sub> in.)	AR	X	X	X	X			X	X	X	
-43	<a href="#">-11199-000</a>		PLATE – Cover, instrument hole (3 <sup>3</sup> / <sub>16</sub> in. x 3 <sup>3</sup> / <sub>16</sub> in.)	AR	X	X	X	X			X	X	X	
-44	13795-00	A	PLATE – Mounting, instrument Note: This plate is used for mounting two AN size instruments at left side of panel.	1			X	X				X	X	
-45	85012-82	A	WASHER – Mounting, compass deviation card holder (primary group)	1			X	X				X	X	
-46	13793-00	A	PANEL – Cover, instrument, primary	1			X	X				X	X	
-47	13785-03	A	PANEL ASSEMBLY – Instrument, standard and primary	1			X	X				X	X	
-48	13485-04		DOOR – False, left (when radio not installed)	1			X	X				X	X	
-49	<a href="#">-471-051</a>		KNOB – Door (No. 3001SD)	1	X	X	X	X			X	X	X	
-50	11199-05	A	PLATE – Trim (Used when installing 450-628, No. C-2300, compass in primary group)	1			X	X				X	X	
-51	450-630		INSTRUMENT – Compass, pedestal type	1			X	X				X	X	
-52	14040-00		PLATE – Mounting compass (When mounting No. C-2300 compass on top of panel)	1				X					X	
-53	13792-00	A	PANEL – Cover, instrument, standard	1			X	X				X	X	

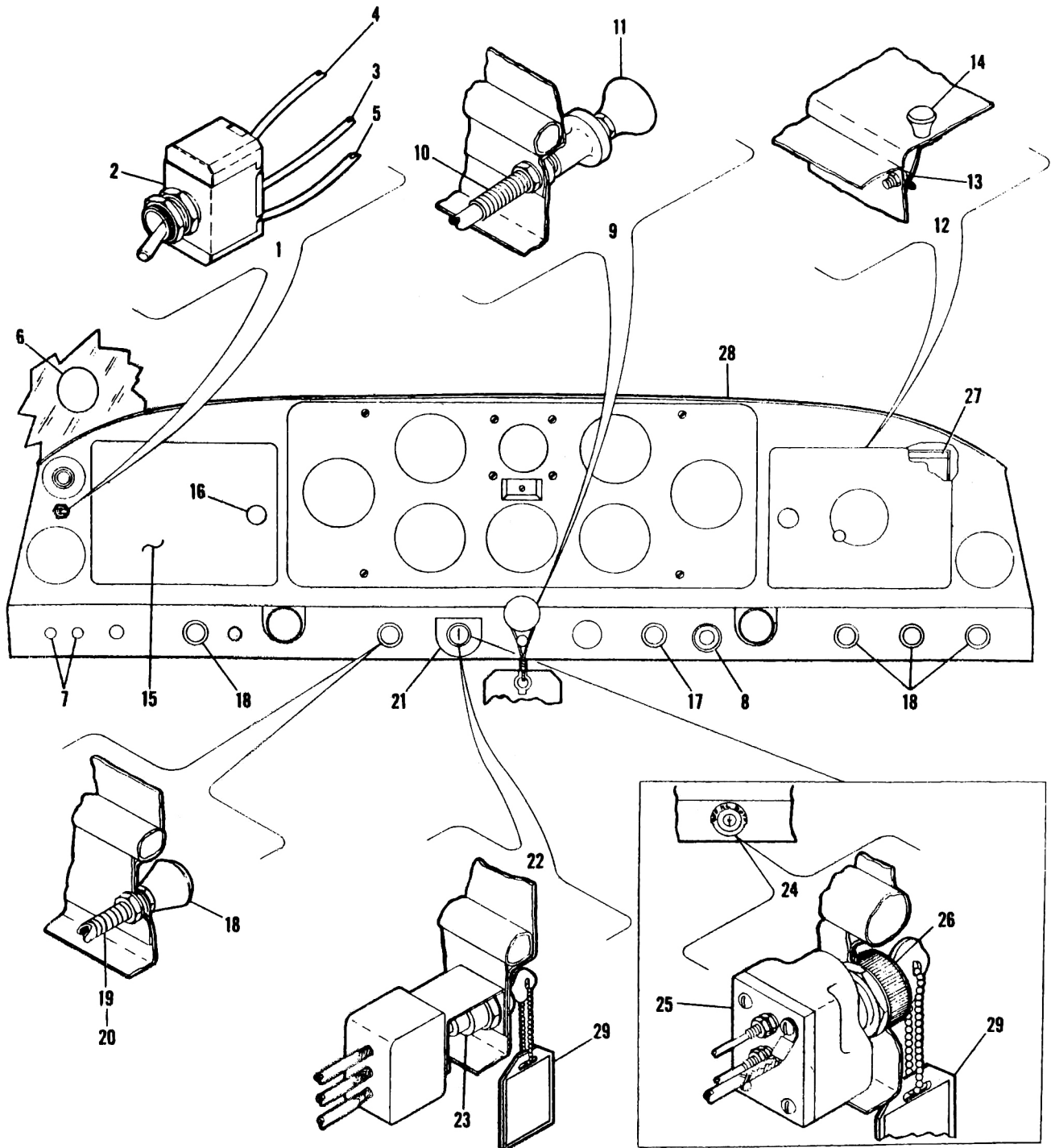
A – Used on PA-20 airplanes with serial numbers 20-903, 20-906, 20-909 and up and on PA-22 airplanes with serial numbers 22-635, 22-637, 22-640, 22-642, 22-644, 22-647, 22-648, 22-654, 22-657, 22-659 and up.

B – Used on PA-20 airplanes with numbers 20-632, 20-634 and up, and on PA-22 airplanes with serial number 22-42 and up.

INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
19-1	13025-00		SWITCH ASSEMBLY – Fuel gauge, with wires	1		X	X	X			X	X	X	
-2	487-786		SWITCH – Fuel gauge, Jess wires	1		X	X	X			X	X	X	
-3	12177-79		WIRE ASSEMBLY – To gauge	1		X	X	X			X	X	X	



## FIGURE 19

Instrument Panel Installation, Standard and Primary,  
1952 and 1953 Models





INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
19-4	12177-30		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-5	10128-84		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-6	450-662		INSTRUMENT – Gauge, air temperature (751-145)	1	X	X	X	X		X	X	X
-7	454-917		CLIP – Radio phone and mike jack hole cover (No. 1-LC) (when radio is not installed)	2	X	X	X	X		X	X	X
-8	472-668		LIGHTER – Cigarette (No. L-37)	1	X	X	X	X		X	X	X
-9	<a href="#">U455-139-004</a>		CONTROL – Throttle assembly	1	X	X	X	X		X	X	X
-10	<a href="#">U455-139-000</a>		CONTROL ASSEMBLY – Less knob	1	X	X	X	X		X	X	X
-11	<a href="#">U10911-000</a>		KNOB ASSEMBLY	1	X	X	X	X		X	X	X
-12	12979-00		DOOR ASSEMBLY – Glove compartment, right	1		X	X			X	X	
-13	12985-00		CATCH – Door	1		X	X			X	X	
-14	<a href="#">-471-051</a>		KNOB – Door (No. 3001-SD)	1	X	X	X	X		X	X	X
-15	13485-04		DOOR – False, left (When radio is not installed)	1			X	X			X	X
-16	<a href="#">-471-051</a>		KNOB – Door (No. 3001-SD)	1		X	X	X		X	X	X
-17	<a href="#">-471-053</a>		KNOB – Mixture control, pastel red (No. 3004-SM)	1	X	X	X	X		X	X	X
-18	<a href="#">-471-052</a>		KNOB – (No. 3004-SM)	5	X	X	X	X		X	X	X
			Carburetor heat control		X	X	X	X		X	X	X
			Cabin heat control, front seat		X	X	X	X		X	X	X
			Cabin heat control, rear seat				X	X			X	X
			Parking brake control		X	X	X	X		X	X	X
			Cold air inlet control			X	X	X		X	X	X
-19	<a href="#">U16775-000</a>		CABLE ASSEMBLY – Cold air inlet (without knob)	1		X	X	X		X	X	X
	<a href="#">U16775-000</a>		CABLE ASSEMBLY (without knob)	3	X	X	X	X		X	X	X
			(1) Carburetor heat									
			(1) Mixture control									
			(1) Cabin heat									
	<a href="#">U16775-000</a>		CABLE ASSEMBLY – Parking brake control (without knob)	1						X	X	X
	<a href="#">U16775-000</a>		CABLE ASSEMBLY – Cabin heat (when rear seat heater is installed) (without knob)	1			X	X			X	X
-20	12800-00		CABLE ASSEMBLY – Parking brake control	1	X	X	X	X				
-21	10373-03	A	PLACARD – Ignition switch	1	X	X	X	X		X	X	X
-22	750-888	A	SWITCH ASSEMBLY – Ignition, with keys and wires, less terminals	1	X	X	X	X		X	X	X
-23	487-782	A	SWITCH – Ignition, with keys, less wires and terminals	1	X	X	X	X		X	X	X
-24	14049-02	B	SWITCH ASSEMBLY – Ignition (with two keys and wires, less terminals)	1				X				X
-25	752-892	B	SWITCH – Ignition (with two keys less wires)	1				X				X





INSTRUMENT PANEL INSTALLATION,  
STANDARD AND PRIMARY, 1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

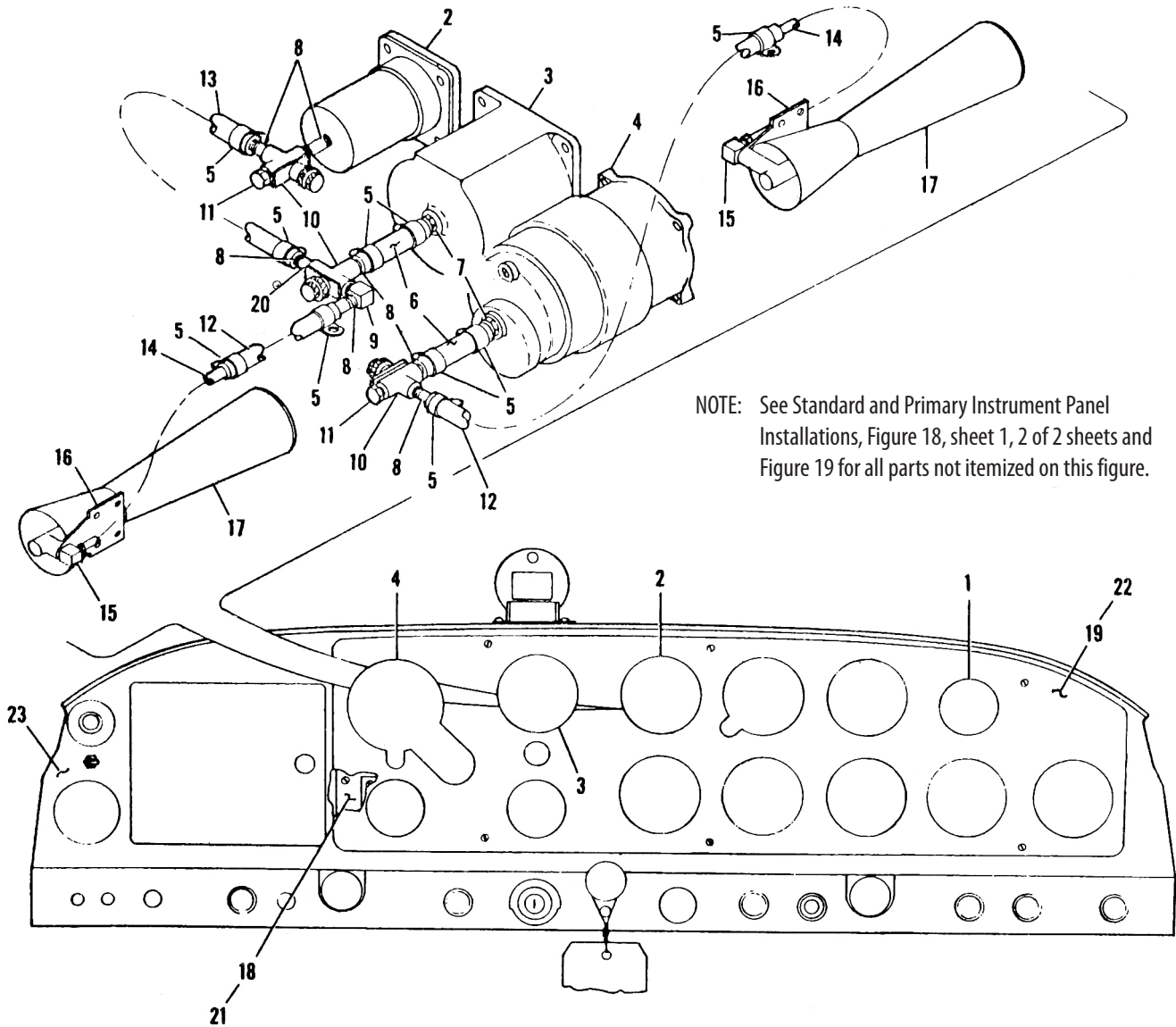
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
19-26	752-302	B	LOCK – Ignition (with two keys) (No. 10-81307)	1				X					X
-27	12980-00		BOX ASSEMBLY – Glove compartment	1	X	X	X			X	X		
-28	13436-00		BEADING – Top of instrument panel (brown)	1		X	X	X		X	X	X	
	13436-02		BEADING – Top of instrument panel (green)	1				X				X	
-29	230-043		KEY CHAIN – With card and holder	1				X				X	

- A – Used on PA-20 airplanes with serial numbers 20-1 to 20-945 inclusive and 20-947; and on PA-22 airplanes with serial numbers 22-1 to 22-906 inclusive and 22-910.
- B – Used on PA-20 airplanes with serial numbers 20-946, 20-948 and up; and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, 22-911 and up.

INSTRUMENT PANEL INSTALLATION,  
DIRECTIONAL GYRO AND GYRO HORIZON,  
1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
20-	13682	A	DRAWING – Directional gyro and gyro horizon instrument panel installation				X				X		
	13799	B	DRAWING – Directional gyro and gyro horizon instrument panel installation				X	X			X	X	
-1	450-655		INSTRUMENT – Ammeter	1	X	X	X	X		X	X	X	
-2	450-658		INSTRUMENT – Indicator, turn and bank	1	X	X	X	X		X	X	X	
-3	496-156		INSTRUMENT – Directional gyro	1	X	X	X	X		X	X	X	
-4	450-684		INSTRUMENT – Gyro, horizon	1			X	X			X	X	
-5	<a href="#">-454-903</a>	C	CLAMP – Hose, 5/8"	10	X	X	X	X		X	X	X	
-6	82371-15	C	HOSE – Valve to gyro	2	X	X	X	X		X	X	X	
-7	<a href="#">AN840-6D</a>	C	ADAPTER – Gyro to hose	2	X	X	X	X		X	X	X	
-8	<a href="#">3327X2</a>	C	NIPPLE	7	X	X	X	X		X	X	X	
-9	<a href="#">3400X2</a>	C	ELBOW	1	X	X	X	X		X	X	X	
-10	<a href="#">-492-024</a>	C	VALVE – Suction regulating	3	X	X	X	X		X	X	X	
-11	<a href="#">3152X2</a>	C	PLUG – Suction valve (W/H 3152 x 2)	2	X	X	X	X		X	X	X	
-12	<a href="#">U82371-010</a>	C	ROSE – Connecting, valve to venturi	2	X	X	X	X		X	X	X	
-13	<a href="#">-82371-022</a>	C	ROSE – Connecting, turn and bank valve to directional gyro valve	1	X	X	X	X		X	X	X	



## FIGURE 20

Instrument Panel Installation, Directional Gyro and Gyro Horizon,  
1952 and 1953 Models

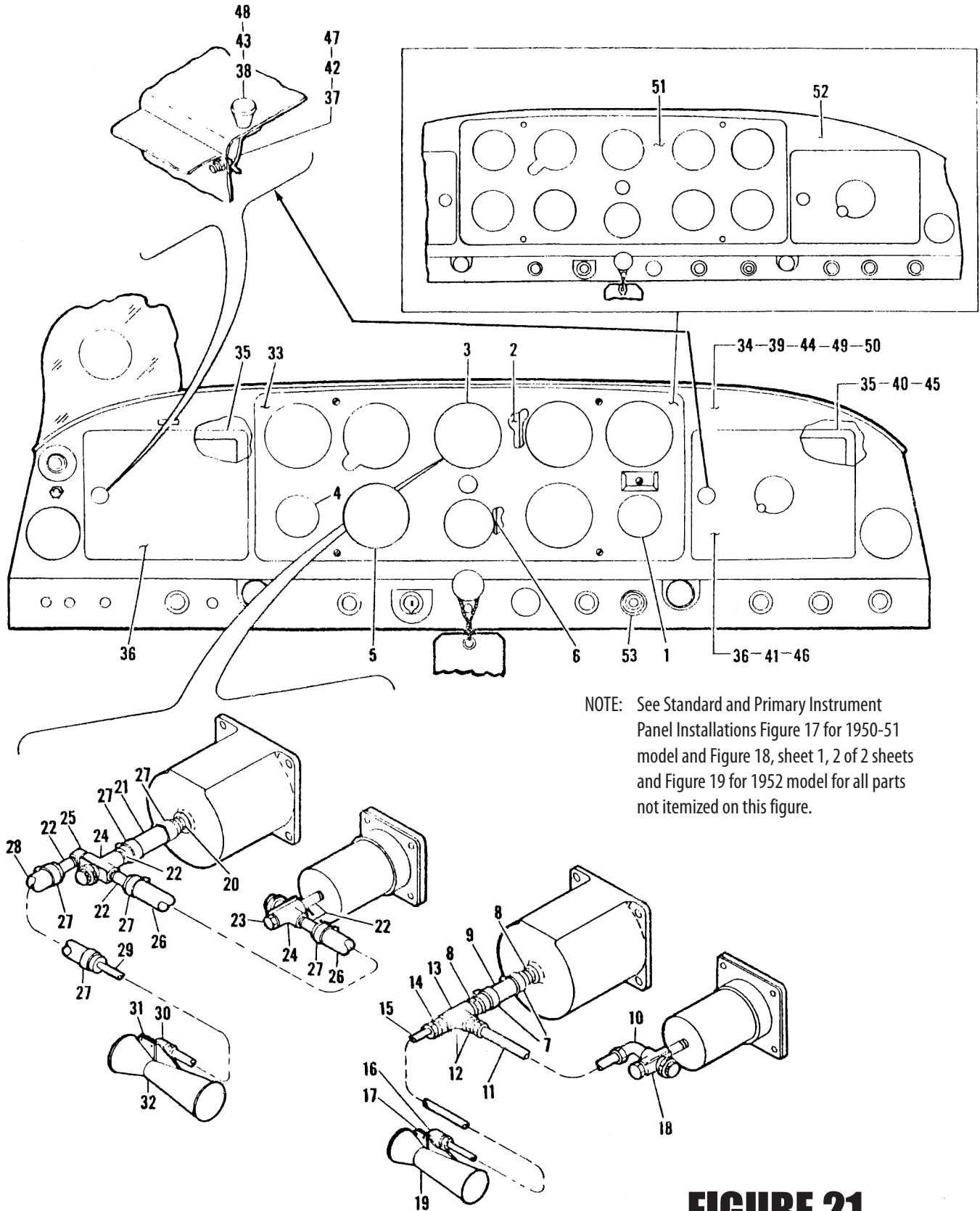


INSTRUMENT PANEL INSTALLATION,  
DIRECTIONAL GYRO AND GYRO HORIZON,  
1952 AND 1953 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
20-14	11987-51	C	LINE ASSEMBLY – Venturi to suction regulating valve	2	x	x	x	x		x	x	x	
-15	<a href="#">402X6</a>	C	ELBOW – Venturi to line (W/H 400 x 6)	2	x	x	x	x		x	x	x	
-16	13160-00	C	PLATE – Venturi mounting	2	x	x	x	x		x	x	x	
-17	<a href="#">4INCH-VENTURI</a>	C	VENTURI ASSEMBLY – 4" (751 134)	2	x	x	x	x		x	x	x	
-18	13794-00	B	PLATE – Mounting, gyro horizon	1			x	x			x	x	
-19	13640-02	B	PANEL – Cover, instrument (Used when gyro horizon is equipped with caging knob)	1			x	x			x	x	
	13640-00	A	PANEL – Cover, instrument, gyro horizon	1			x				x		
	13640-03		PANEL – Cover, instrument (Used when gyro horizon is not equipped with caging knob)	1				x				x	
-20	<a href="#">3152X2</a>		PLUG – Suction valve (Used when directional gyro only installed)	1	x	x	x	x		x	x	x	
-21	13795-00	B	PLATE – Mounting (Will accommodate (2) two "AN" size instruments (Used when gyro-horizon not installed)	1			x	x			x	x	
-22	13793-00	B	PANEL – Cover (When gyro-horizon not installed)	1			x	x			x	x	
-23	13785-03	B	PANEL ASSEMBLY – Instrument	1			x	x			x	x	
	13639-03	A	PANEL ASSEMBLY – Instrument	1			x				x		

- A – Used on PA-20 airplanes with serial numbers 20-812 to 20-902 inclusive, 20-904, 20-905, 20-907, and 20-908; and on PA-22 airplanes with serial numbers 22-354 to 22-634 inclusive, 22-636, 22-638, 22-639, 22-641, 22-643, 22-645, 22-646, 22-649, 22-650, 22-651, 22-652, 22-653, 22-655, 22-656 and 22-658.
- B – Used on PA-20 airplanes with serial numbers 20-903, 20-906, 20-909 and up; and on PA-22 airplanes with serial numbers 22-635, 22-637, 22-640, 22-642, 22-644, 22-647, 22-648, 22-654, 22-657, 22-659 and up.
- C – Not used when vacuum pump is installed.



## FIGURE 21

Instrument Panel Installation, Directional Gyro,  
1950, 1951 and 1952 Models



INSTRUMENT PANEL INSTALLATION,  
DIRECTIONAL GYRO, 1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
21-	13642		DRAWING – Directional gyro instrument panel installation (Used with panel 13602-03)				X					X		
	13490		DRAWING – Directional gyro instrument panel installation (Used with panel 13360-03)				X					X		
	12849		DRAWING – Gyro instrument panel installation		X									
	13170		DRAWING – Gyro instrument panel installation			X						X		
-1	751-828		INSTRUMENT – Gauge, oil temperature	1	X	X	X				X	X		
-2	13175-00		PLATE – Mounting, directional gyro	1		X	X				X	X		
	12853-00		PLATE – Mounting, directional gyro	1	X									
-3	496-156		INSTRUMENT – Indicator, directional gyro	1	X	X	X	X			X	X	X	
-4	751-827		INSTRUMENT – Oil pressure gauge	1	X	X	X				X	X		
-5	450-658		INSTRUMENT – Indicator, turn and bank	1	X	X	X	X			X	X	X	
-6	11203-00		PLATE – Cover, instrument hole (2 <sup>3</sup> / <sub>8</sub> " x 2 <sup>3</sup> / <sub>8</sub> ")	1	X	X	X	X			X	X	X	
-7	454-904	A	CLAMP – Hose at gyro and hose connection, 3/4"	2	X	X					X			
-8	<a href="#">AN840-6D</a>	A	ADAPTER – Gyro and hose connection	2	X	X	X	X			X	X	X	
-9	82371-14	A	HOSE ASSEMBLY – Directional gyro to tee	1	X	X					X			
-10	<a href="#">402X4</a>	A	ELBOW – At turn and bank indicator and tube connection (W/H 400 x 4)	1	X	X					X			
-11	11987-35	A	TUBE ASSEMBLY – Turn and bank indicator to tee	1	X	X					X			
-12	<a href="#">234X4</a>	A	CONNECTOR – Inverted male, turn and bank connection at tee	1	X	X					X			
-13	<a href="#">3700X4</a>	A	TEE – Directional gyro and turn and bank indicator connection (W/H 3700 x 4)	1	X	X					X			
-14	<a href="#">200X6</a>	A	CONNECTOR – Inverted male, venturi connection at tee (W/H 200 x 6)	1	X	X					X			
-15	11987-33	A	TUBE ASSEMBLY – Gyro to venturi	1	X	X					X			
-16	<a href="#">402X6</a>	A	ELBOW – At venturi and tube connection (W/H 400 x 6)	1	X	X	X	X			X	X	X	
-17	13160-00	A	PLATE – Mounting, venturi	1	X	X	X	X			X	X	X	
-18	<a href="#">-492-024</a>	A	VALVE – Suction regulating	1	X	X	X	X			X	X	X	
-19	<a href="#">4INCH-VENTURI</a>	A	VENTURI – 4" (751 134)	1	X	X	X	X			X	X	X	
-20	<a href="#">AN840-6D</a>	B	ADAPTER – Hose to gyro	1	X	X	X	X			X	X	X	
-21	82371-15	B	HOSE – Valve to gyro	1	X	X	X	X			X	X	X	
-22	<a href="#">3327X2</a>	B	NIPPLE	5	X	X	X	X			X	X	X	
-23	<a href="#">3152X2</a>	B	PLUG – Suction valve	1	X	X	X	X			X	X	X	
-24	<a href="#">-492-024</a>	B	VALVE – Suction regulating	2	X	X	X	X			X	X	X	
-25	<a href="#">3400X2</a>	B	ELBOW	1	X	X	X	X			X	X	X	



INSTRUMENT PANEL INSTALLATION,  
DIRECTIONAL GYRO, 1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
21-26	<a href="#">-82371-022</a>	B	HOSE – Connecting, between valves to turn and bank indicator	1	x	x	x	x			x	x	x
-27	<a href="#">-454-903</a>	B	CLAMP – Hose, 5/8"	6	x	x	x	x			x	x	x
-28	<a href="#">U82371-010</a>	B	HOSE – Connecting, valve to venturi line	1	x	x	x	x			x	x	x
-29	11987-51	B	LINE – Venturi to valve	1	x	x	x	x			x	x	x
-30	<a href="#">402X6</a>	B	ELBOW – Venturi to line (W/H 400 x 6)	1	x	x	x	x			x	x	x
-31	13160-00	B	PLATE – Mounting, venturi	1	x	x	x	x			x	x	x
-32	<a href="#">4INCH-VENTURI</a>	B	VENTURI – 4" (751-134)	1	x	x	x	x			x	x	x
-33	13176-00		PANEL – Cover, gyro instrument	1		x	x				x	x	
	12852-00		PANEL – Cover, gyro instrument	1	x								
-34	12849-02		PANEL ASSEMBLY – Instrument (When radio is not installed)	1	x								
-35	12655-00		BOX – Glove compartment, 6" width OR	2	x								
	12980-00		BOX – Glove compartment, 7" width	2	x	x	x				x	x	
-36	12640-00		DOOR – Glove compartment, 5 1/2" x 6 3/4" OR	2	x								
	12979-00		DOOR – Glove compartment, 5 1/2" X 7"	2	x	x	x				x	x	
-37	12661-00		CATCH – Door	1	x								
-38	<a href="#">-471-051</a>		KNOB – Door (#3001 SD)	1	x	x	x				x	x	
-39	12849-03		PANEL ASSEMBLY – Instrument (When G. E. radio is installed)	1	x								
-40	12655-00		BOX – Glove compartment	1	x								
-41	12640-00		DOOR – Glove compartment	1	x								
-42	12661-00		CATCH – Door	1	x								
-43	<a href="#">-471-051</a>		KNOB – Door (#3001 SD)	1	x	x	x				x	x	
-44	12849-04		PANEL ASSEMBLY – Instrument (When Bendix PATR-10A Radio is installed)	1	x								
-45	12655-00		BOX – Glove compartment, 6" width OR	1	x								
	12980-00		BOX – Glove compartment, 7" width	1	x	x	x				x	x	
-46	12640-00		DOOR – Glove compartment, 5 1/2" x 6 3/4" OR	1	x								
	12979-00		DOOR – Glove compartment, 5 1/2" X 7"	1	x	x	x				x	x	
-47	12661-00		CATCH – Door	1	x								
-48	<a href="#">-471-051</a>		KNOB – Door (#3001 SD)	1	x	x	x				x	x	

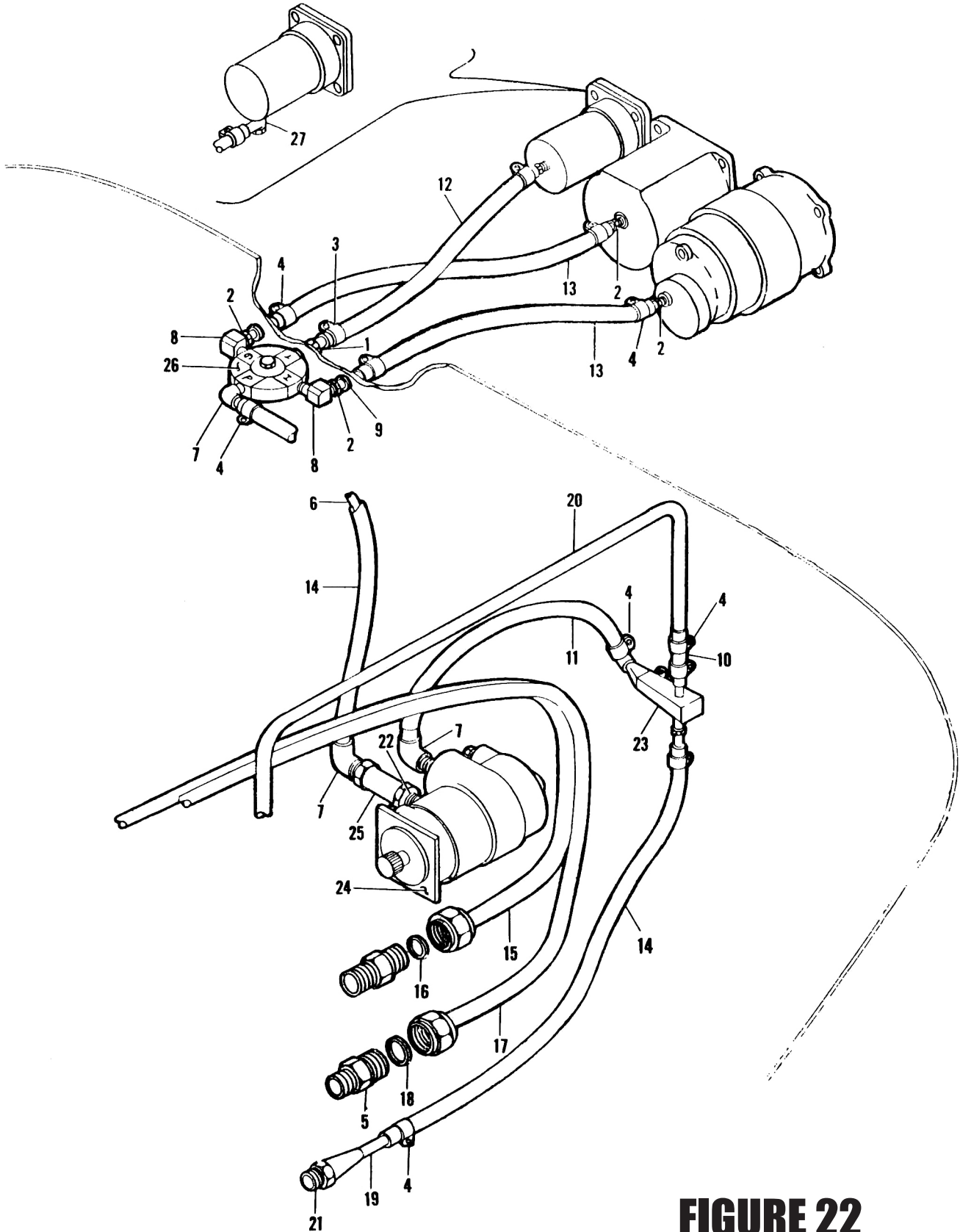


INSTRUMENT PANEL INSTALLATION,  
DIRECTIONAL GYRO, 1950, 1951 AND 1952 MODELS

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
21-49	13169-03		PANEL ASSEMBLY – Instrument (Used when radio is not installed and with two glove compartment boxes, or when Bendix PATR-10A single unit radio is installed or when Bendix two unit PAR-10A and PAT-50A radio is installed)	1		x					x			
-50	13360-03		PANEL ASSEMBLY – Instrument (Used when radio is not installed and with one glove compartment box, or when Lear or Narco Radio is installed)	1		x	x				x	x		
-51	13605-00		PANEL – Cover	1				x				x		
-52	13602-03		PANEL ASSEMBLY – Instrument (This panel is used when AN sized combination oil temperature and pressure gauge is installed)	1				x				x		
-53	472-668		LIGHTER – Cigarette (#L-37)	1	x	x	x	x			x	x	x	

- A – Directional gyro and turn and bank indicator installation when suction regulating valve is used for turn and bank indicator only (Venturi System)
- B – Directional gyro and turn and bank indicator installation when one suction regulating valve is used for both turn and bank indicator and directional gyro and also when two suction regulating valves are used (Venturi System)



**FIGURE 22**

Vacuum Pump Installation, When Regulating Valve Installed On Engine Side Of Firewall

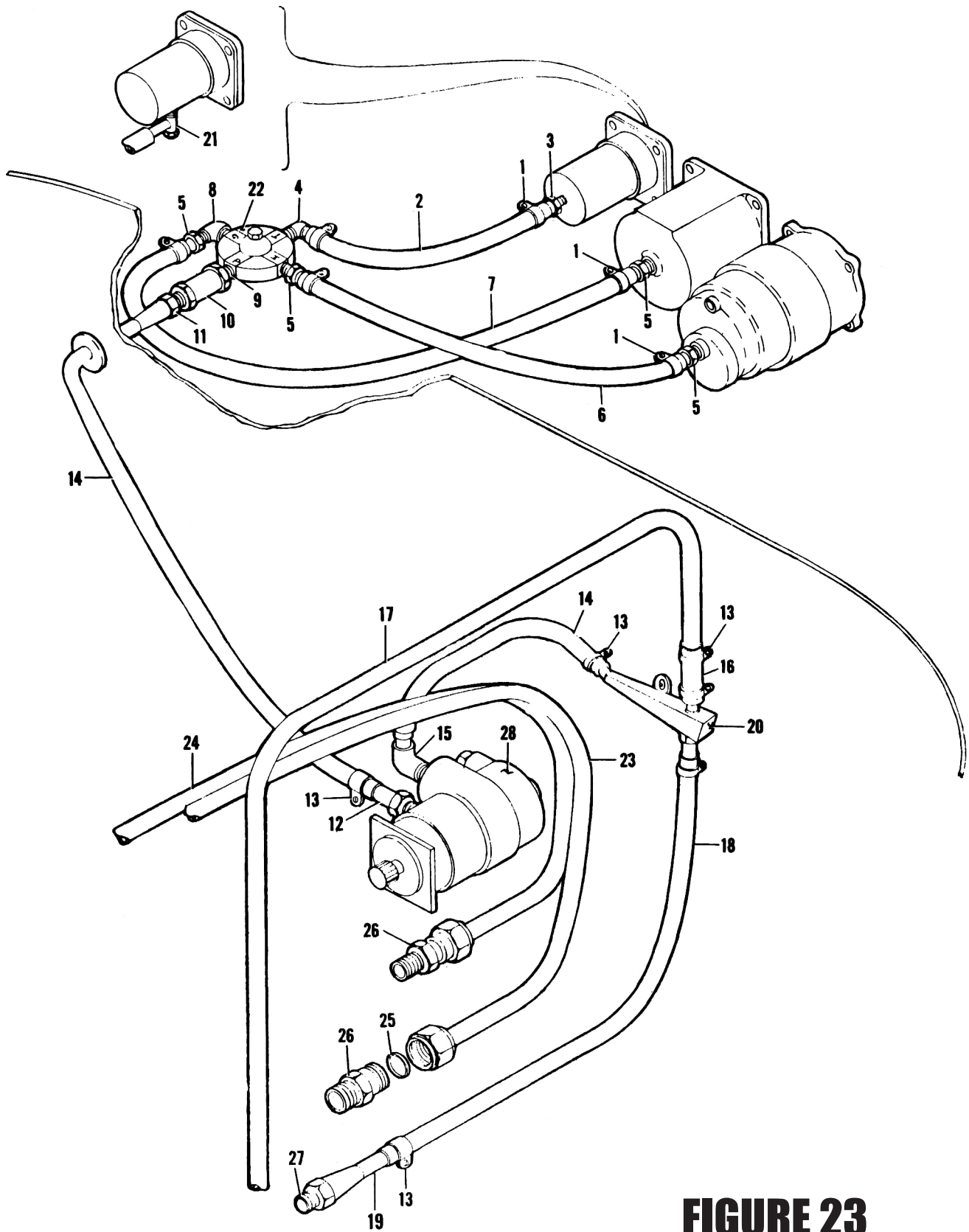




VACUUM PUMP INSTALLATION, WHEN REGULATING  
VALVE INSTALLED ON ENGINE SIDE OF FIREWALL

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
22-	14058		DRAWING – Vacuum pump installation				X	X			X	X
-1	<a href="#">AN840-4D</a>		ADAPTER	1			X	X			X	X
-2	<a href="#">AN840-6D</a>		ADAPTER	4			X	X			X	X
-3	<a href="#">-454-903</a>		CLAMP – Hose, 5/8 in.	2			X	X			X	X
-4	454-904		CLAMP – Hose, 3/4 in.	12			X	X			X	X
-5	455-158		CONNECTOR – (No. 500-8)	2			X	X			X	X
-6	14048-00		ELBOW – Hose reinforcement	1			X	X			X	X
-7	<a href="#">AN842-8D</a>		ELBOW	3			X	X			X	X
-8	<a href="#">3400X4</a>		ELBOW – (W/H 3400 x 4)	2			X	X			X	X
-9	<a href="#">MS35489-11</a>		GROMMET – (AN931-6-10)	3			X	X			X	X
-10	<a href="#">-82371-023</a>		HOSE – (3"x 27/32"x 1/2 in.)	1			X	X			X	X
-11	<a href="#">-82371-025</a>		HOSE – (11"x 27/32"x 1/2 in.)	1			X	X			X	X
-12	82371-26		HOSE – (18"x 5/8"x 1/4 in.)	1			X	X			X	X
-13	82371-27		HOSE – (20"x 3/4"x 3/8 in.)	2			X	X			X	X
-14	<a href="#">U82371-028</a>		HOSE – (5"x 27/32"x 1/2 in.)	2			X	X			X	X
-15	14025-00		LINE ASSEMBLY – inlet, oil radiator, right	1			X	X			X	X
-16	484-646		RING – Seal	2			X	X			X	X
-17	14026-00		LINE ASSEMBLY – Outlet, oil radiator, left	1			X	X			X	X
-18	484-646		RING – Seal	2			X	X			X	X
-19	14046-00		LINE ASSEMBLY – Return oil separator	1			X	X			X	X
-20	<a href="#">-14047-000</a>		LINE ASSEMBLY – Discharge oil separator	1			X	X			X	X
-21	<a href="#">AN816-8D</a>		NIPPLE	1			X	X			X	X
-22	<a href="#">3326X6</a>		NIPPLE	1			X	X			X	X
-23	486-381		OIL SEPARATOR	1			X	X			X	X
-24	481-662		PUMP – Vacuum	1			X	X			X	X
-25	<a href="#">-492-029</a>		VALVE – Check	1			X	X			X	X
-26	492-028		VALVE – Regulating	1			X	X			X	X
-27	<a href="#">-14205-000</a>		VALVE – Air regulating, at Turn & Bank	1			X	X			X	X



**FIGURE 23**

Vacuum Pump Installation, When Regulating Valve Installed Inside of Cockpit



VACUUM PUMP INSTALLATION, WHEN REGULATING  
VALVE INSTALLED INSIDE OF COCKPIT

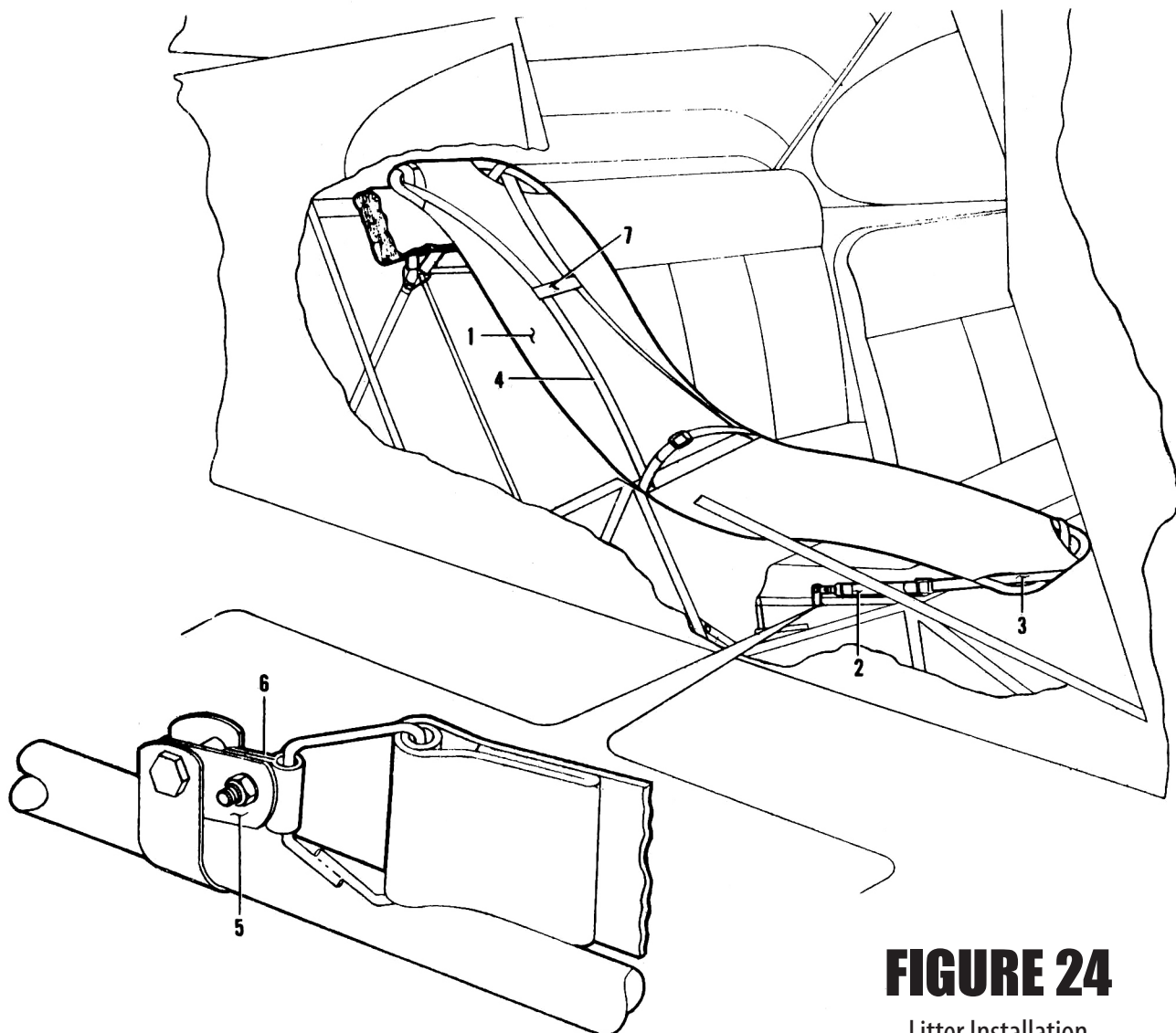
SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
23-	14169		DRAWING – Vacuum pump installation				X	X			X	X
-1	<a href="#">-454-903</a>		CLAMP – Hose 5/8"	6			X	X			X	X
-2	<a href="#">U82371-006</a>		HOSE (6" x 5/8 x 1/4")	1			X	X			X	X
-3	<a href="#">AN840-4D</a>		ADAPTER	1			X	X			X	X
-4	<a href="#">AN842-4</a>		ELBOW	1			X	X			X	X
-5	<a href="#">AN840-6D</a>		ADAPTER	1			X	X			X	X
-6	82371-32		HOSE (15" x 3/4 x 3/8")	1			X	X			X	X
-7	<a href="#">U82371-033</a>		HOSE (18" x 3/4 x 3/8")	1			X	X			X	X
-8	<a href="#">3400X4</a>		ELBOW	1			X	X			X	X
-9	<a href="#">3326X6</a>		NIPPLE	1			X	X			X	X
-10	<a href="#">-492-029</a>		VALVE – Check	1			X	X			X	X
-11	<a href="#">AN840-8D</a>		ADAPTER	1			X	X			X	X
-12	14168-00		LINE ASSEMBLY – Check valve to pump	1			X	X			X	X
-13	<a href="#">AN746-6</a>		CLAMP – Hose 3/4"	8			X	X			X	X
-14	<a href="#">-82371-025</a>		HOSE (11" x 27/32 x 1/2")	2			X	X			X	X
-15	<a href="#">AN842-8D</a>		ELBOW	1			X	X			X	X
-16	<a href="#">-82371-023</a>		HOSE (3" x 27/32 x 1/2")	1			X	X			X	X
-17	<a href="#">-14047-000</a>		LINE ASSEMBLY – Discharge, oil separator	1			X	X			X	X
-18	82371-24		HOSE (6" x 27/32 x 1/2")	1			X	X			X	X
-19	14046-00		LINE ASSEMBLY – Return, oil separator	1			X	X			X	X
-20	486-381		OIL SEPARATOR	1			X	X			X	X
-21	<a href="#">-14205-000</a>		VALVE – Air regulating, at turn and bank	1			X	X			X	X
-22	492-028		VALVE – Regulating	1			X	X			X	X
-23	14025-00		LINE ASSEMBLY – Outlet, oil radiator, LH	1			X	X			X	X
-24	14025-00		LINE ASSEMBLY – inlet, oil radiator, RH	1			X	X			X	X
-25	484-646		RING – Seal	4			X	X			X	X
-26	455-158		CONNECTOR – (No. 500-8)	2			X	X			X	X
-27	<a href="#">AN816-8D</a>		NIPPLE	1			X	X			X	X
-28	481-662		PUMP – Vacuum	1			X	X			X	X

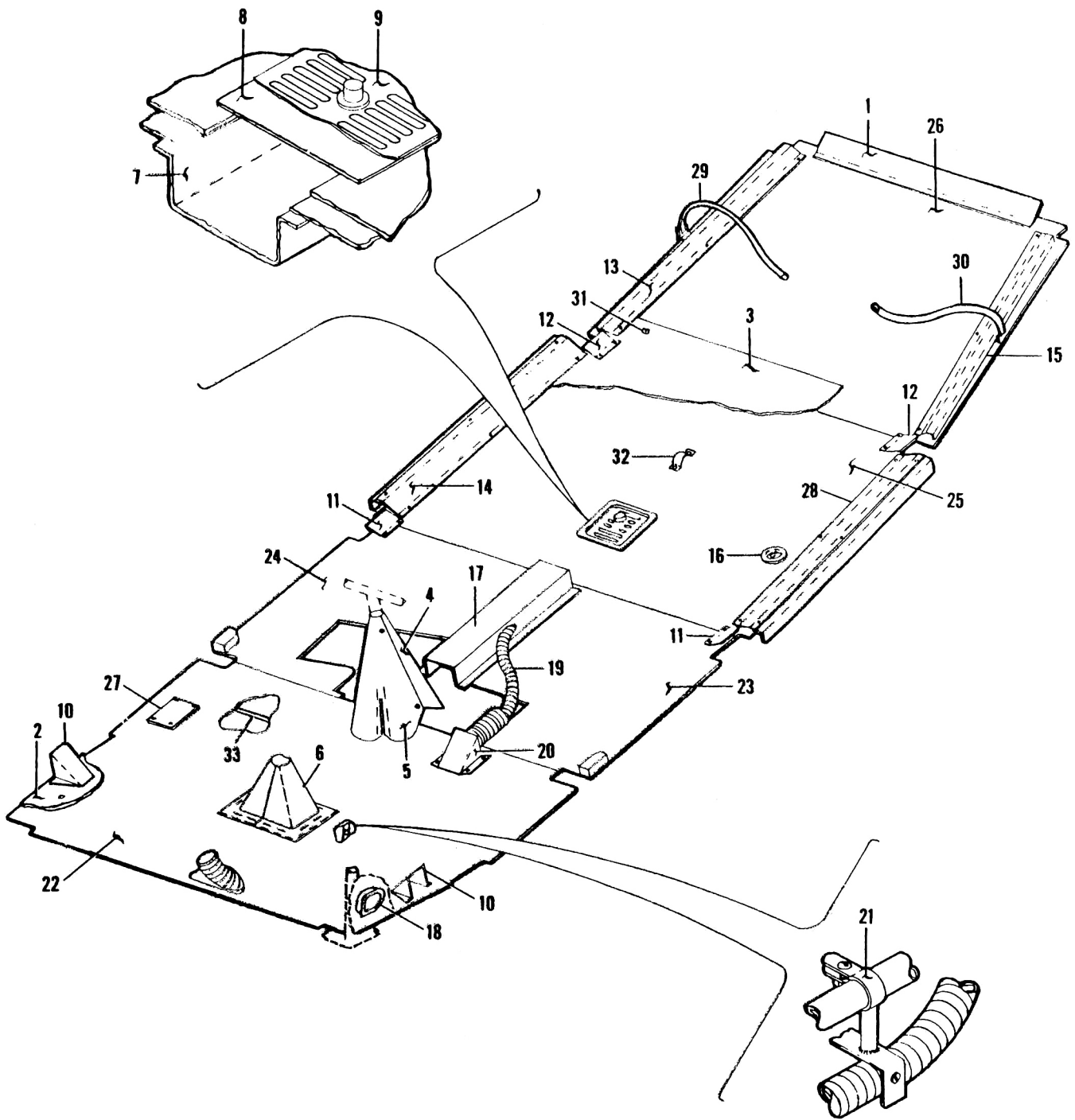


LITTER INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
24-	12733		DRAWING		X	X	X				X	X		
	14187		DRAWING					X					X	
-1	751-161		GRAN LITTER	1	X	X	X	X			X	X	X	
-2	12732-04		LITTER STRAP ASSEMBLY	1	X	X	X	X			X	X	X	
-3	12732-03		LITTER STRAP ASSEMBLY	1	X	X	X	X			X	X	X	
-4	12732-02		LITTER STRAP ASSEMBLY – Double	1	X	X	X				X	X		
	<a href="#">-14186-000</a>		LITTER STRAP ASSEMBLY	1				X					X	
-5	12730-02		LITTER FITTING – Strap assembly	2	X	X	X	X					X	
-6	<a href="#">U80002-041</a>		LITTER CLAMP	2	X	X	X	X					X	
-7	12732-05		LITTER STRAP ASSEMBLY	1				X					X	



**FIGURE 24**  
Litter Installation



# FIGURE 25

Floorboard and Carpet Installation



FLOORBOARD AND CARPET INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
25-	12546		DRAWING – Floorboard and carpet installation		X									
	13057		DRAWING – Floorboard and carpet installation			X	X							
	13933		DRAWING – Floorboard and carpet installation					X						
	13101		DRAWING – Floorboard and carpet installation							X	X			
	13932		DRAWING – Floorboard and carpet installation									X		
-1	11914-00		ANGLE – Baggage compartment, rear	1	X	X	X			X	X			
-2	12613-00		CARPET ASSEMBLY – Front	1	X									
	<a href="#">-12613-003</a>		CARPET ASSEMBLY – Front	1		X	X	X		X	X	X		
-3	12614-00		CARPET ASSEMBLY – Rear	1	X									
	13060-02		CARPET ASSEMBLY – Rear (When rear seat heater is not installed)	1		X				X				
	13473-03		CARPET ASSEMBLY – Rear (When rear seat heater is not installed)	1			X				X			
	13060-03		CARPET ASSEMBLY – Rear (When rear seat heater is installed)	1		X				X				
	13473-02		CARPET ASSEMBLY – Rear (When rear seat heater is installed)	1			X				X			
	13473-06		CARPET ASSEMBLY – Rear	1				X					X	
-4	12729-02		BOOT ASSEMBLY – Rear half, shock cord and hydrasorb unit	1	X									
	12729-06		BOOT ASSEMBLY – Rear half, shock cord and hydrasorb unit	1		X				X				
	12729-10		BOOT ASSEMBLY – Rear half, shock cord and hydrasorb unit (Brown)	1			X	X			X	X		
	12729-12		BOOT ASSEMBLY – Rear half, shock cord and hydrasorb unit (Green)	1				X					X	
-5	12729-08		BOOT ASSEMBLY – Front half, shock cord and hydrasorb unit (Brown)	1		X	X	X		X	X	X		
	12729-14		BOOT ASSEMBLY – Front half, shock cord and hydrasorb unit (Green)	1				X					X	
	12729-03		BOOT ASSEMBLY – Front half, shock cord and hydrasorb unit	1	X									
-6	12759-04		BOOT ASSEMBLY – Control column (Brown)	1		X	X	X		X	X	X		
	12759-06		BOOT ASSEMBLY – Control column (Green)	1				X					X	
	12759-00		BOOT ASSEMBLY – Control column	1	X									
-7	12679-00		BOX ASSEMBLY – Heat, rear seat	1	X									
-8	12752-00		PLATE – Spacer, rear seat heater	1	X	X	X	X		X	X	X		
-9	12675-00		GRILL ASSEMBLY – Rear seat heater	1	X	X				X				
	12678-00		GRILL ASSEMBLY – Rear seat heater	1			X	X			X	X		



SECTION IV  
Cockpit Group

FLOORBOARD AND CARPET INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
25-10	12565-00		GUARD ASSEMBLY – Aileron cable pulley, front cockpit	2	x	x	x	x			x	x	x
-11	12170-00		GUARD – Rudder cable pulley, front	2	x	x	x	x			x	x	x
-12	12113-00		GUARD – Rudder cable pulley, rear	2	x	x	x				x	x	
	12113-00		GUARD – Rudder cable pulley, rear, LH	1				x					x
	13846-00		GUARD – Rudder cable pulley, rear, RH	1				x					x
-13	<a href="#">-12021-000</a>		GUARD – Rudder cables, in rear cockpit	1	x	x	x	x			x	x	x
-14	<a href="#">-13868-000</a>		GUARD – Rudder cable, baggage compartment, RH	1				x					x
	<a href="#">-12021-000</a>		GUARD – Rudder cable, baggage compartment, RH	1	x	x	x				x	x	
-15	<a href="#">-13847-000</a>		GUARD – Rudder cable, baggage compartment, LH	1				x					x
	<a href="#">-12021-000</a>		GUARD – Rudder cable, baggage compartment, LH	1	x	x	x				x	x	
-16	12281-00		PLATE – Floor mat, reinforcement, at rear seat	1	x	x	x	x			x	x	x
-17	12612-00		COVER – Elevator bell crank and flap control mechanism (When rear seat heater not installed)	1	x	x					x		
	12612-02		COVER – Elevator bell crank and flap control mechanism (When rear seat heater not installed)	1			x					x	
	13007-00		COVER – Elevator bellcrank and flap control mechanism (When rear seat heater is installed)	1		x					x		
	13007-04		COVER – Elevator bell crank and flap control mechanism (When rear seat heater is installed)	1			x	x			x	x	
-18	14050-02		COVER ASSEMBLY – Rudder pedal tube, (Brown), LH	1				x					x
	14050-03		COVER ASSEMBLY – Rudder pedal tube, (Brown), RH	1				x					x
	14050-00		COVER ASSEMBLY – Rudder pedal tube, (Green), LH	1				x					x
	14050-01		COVER ASSEMBLY – Rudder pedal tube, (Green), RH	1				x					x
-19	13008-00		TUBE – Flexible, rear seat heater	1		x	x	x			x	x	x
	85052-14		TUBE – Flexible, rear seat heater, 57 in. long	1	x								
-20	13006-00		COVER – Rear seat heater tube	1		x	x	x			x	x	x
-21	13005-00		CLAMP – Rear seat heater tube attachment	1		x	x	x			x	x	x



FLOORBOARD AND CARPET INSTALLATION

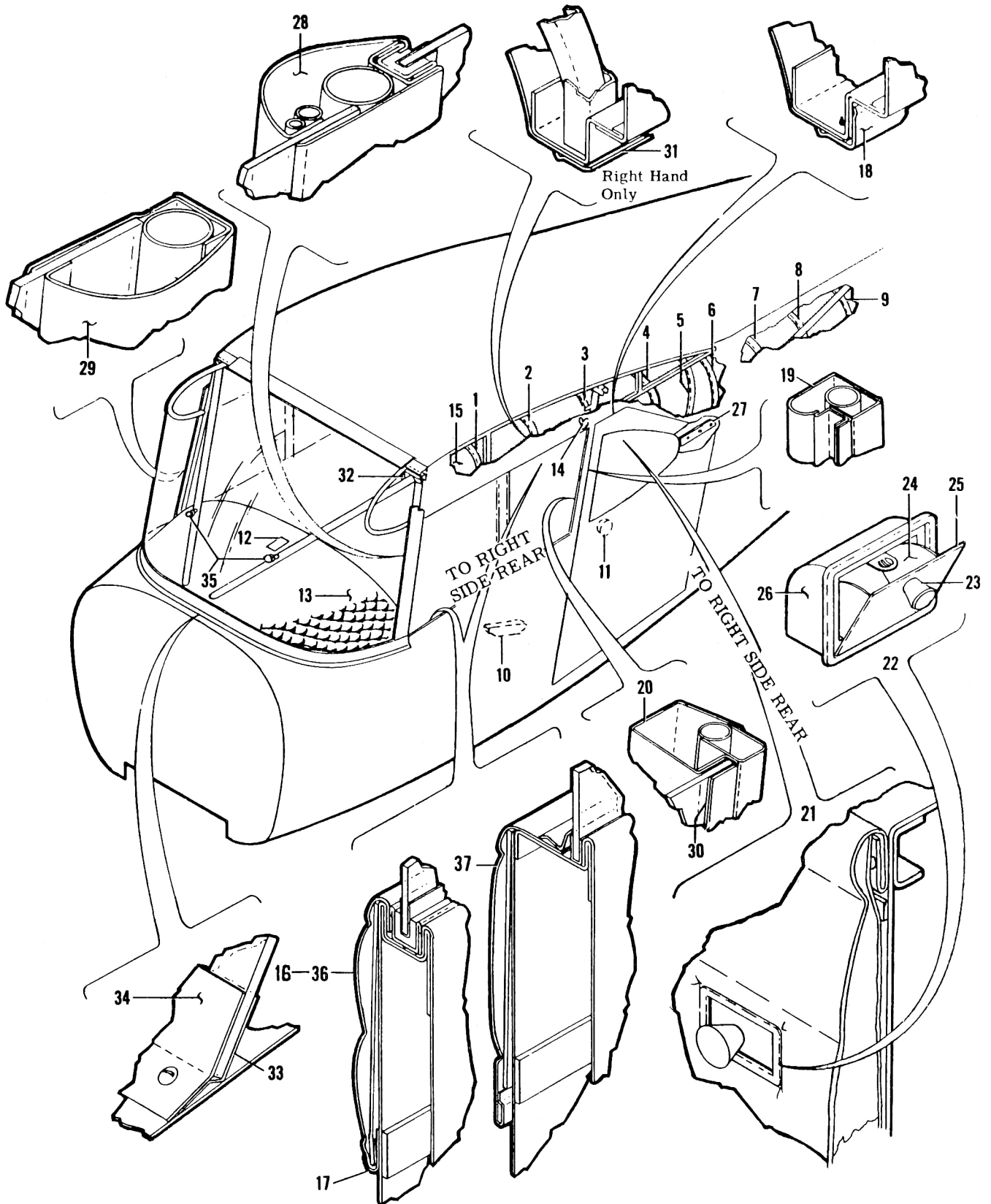
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
25-22	12608-00		FLOORBOARD ASSEMBLY – Front	1	x									
	12608-03		FLOORBOARD ASSEMBLY – Front (Used when rear seat heater is not installed)	1		x	x							
	12608-04		FLOORBOARD ASSEMBLY – Front (Used when rear seat heater is installed)	1		x	x	x						
	13063-02		FLOORBOARD ASSEMBLY – Front (Used when rear seat heater is not installed)	1							x	x		
	13063-03		FLOORBOARD ASSEMBLY – Front (Used when rear seat heater is installed)	1							x	x	x	
-23	12610-00		FLOORBOARD – Center, front, LH	1	x									
	12610-02		FLOORBOARD – Center, front, LH	1		x	x	x			x	x	x	
-24	12609-00		FLOORBOARD – Center, front, RH	1	x	x					x			
	13456-00	A	FLOORBOARD – Center, front, RH	1			x	x				x	x	
	<a href="#">U13456-002</a>	B	FLOORBOARD – Center, front, RH	1				x					x	
-25	11909-00		FLOORBOARD – Center, rear	1	x	x	x				x	x		
	11909-02		FLOORBOARD – Center, rear (Used when cabin heater is installed)	1	x									
	<a href="#">U11909-003</a>		FLOORBOARD – Center, rear	1				x					x	
-26	12555-00		FLOORBOARD – Rear	1	x	x	x				x	x		
	<a href="#">-12555-002</a>		FLOORBOARD – Rear	1				x					x	
-27	13468-00	C	PLATE – Name, on floor	1			x	x				x	x	
-28	<a href="#">-12019-000</a>		PLATE – Floor trim, rear door	1	x	x	x	x			x	x	x	
-29	<a href="#">-12036-002</a>		STRAP ASSEMBLY – Baggage tie down, buckle end	1	x	x	x				x	x		
-30	<a href="#">-12036-003</a>		STRAP ASSEMBLY – Baggage tie down, tip end (2 per ship 1953 Model)	1	x	x	x	x			x	x	x	
-31	487-560		STUD – Durable dot, No. 459, floor carpet attachment	13	x	x	x	x			x	x	x	
-32	13289-00		STRAP ASSEMBLY – Tow bar tie down	1							x	x	x	
-33	<a href="#">-180-497</a>		FELT – Chafing (SAE F-50 .065 x 1/2")	54	x	x	x				x	x		

A – Used on PA-20 airplanes with serial numbers 20-812 to 20-966 inclusive; and on PA-22 airplanes with serial numbers 22-3 53 to 22-1020 inclusive.

B – Used on PA-20 airplanes with serial numbers 20-967 and up; and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 and up.

C – Used on PA-20 airplanes with serial numbers 20-836 and up; and on PA-22 airplanes with serial numbers 22-374, 22-375, 22-378 and up.





# FIGURE 26

Cockpit Finishing Installation



COCKPIT FINISHING INSTALLATION

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
26-	12550		DRAWING – Fuselage assembly complete		X	X								
	13465		DRAWING – Fuselage assembly complete					X						
	13920		DRAWING – Fuselage assembly complete						X					
	13111		DRAWING – Fuselage assembly complete							X	X			
	13906		DRAWING – Fuselage assembly complete										X	
	12626		DRAWING – Cockpit finishing installation		X	X	X			X	X			
	13926		DRAWING – Cockpit finishing installation					X					X	
-1	12193-02		ARCH – Headlining, No. 1	1	X	X	X	X		X	X	X		
-2	12193-03		ARCH – Headlining, No. 2	1	X	X	X			X	X			
	14083-00		ARCH – Headlining, No. 2	1				X					X	
-3	12193-04		ARCH – Headlining, No. 3	1	X	X	X	X		X	X	X		
-4	12193-05		ARCH – Headlining, No. 4	1	X	X	X			X	X			
	12193-11		ARCH – Headlining, No. 4	1				X					X	
-5	12193-06		ARCH – Headlining, No. 5	1	X	X	X			X	X			
	12193-12		ARCH – Headlining, No. 5	1				X					X	
-6	12193-07		ARCH – Headlining, No. 6	1	X	X	X			X	X			
-7	13854-00		ARCH – Headlining, No. 6	1				X					X	
-8	13890-00		ARCH – Headlining, No. 7	1				X					X	
-9	12193-13		ARCH – Headlining, No. 8	1				X					X	
-10	451-950		ARM REST – Tan leather (PAC No. 12799-00)	1	X									
	451-955		ARM REST – Brown leather (PAC No. 12799-02)	1		X	X	X		X	X	X		
	12799-03		ARM REST – Green leather	1				X					X	
-11	489-310		ASH TRAY – Rear seat, RH	1		X	X			X	X			
-12	489-371		ASH TRAY – With retainer, front	1		X	X	X		X	X	X		
-13	13957-05		BLANKET ASSEMBLY – Fuselage cowl, top of instrument panel (Brown)	1				X					X	
	13957-00		BLANKET ASSEMBLY – Fuselage cowl, top of instrument panel (Green)	1				X					X	
-14	465-148		COAT HOOK – (No. 9941)	2	X	X	X	X		X	X	X		
-15	12194-03		HEADLINING ASSEMBLY	1	X	X	X			X	X			
	13939-02		HEADLINING ASSEMBLY	1				X					X	
-16	12670-22	A	PANEL ASSEMBLY – Trim, upholstery, “125” and “135”, LH	1	X	X	X			X	X			
-17	12664-02		STRIP – Anchor, upholstered trim panel, “125” and “135”	2	X	X	X			X	X			
-18	12187-00		TRIM STRIP – Headlining and top of door frame channel, LH	1	X	X	X	X		X	X	X		
-19	12218-00		TRIM STRIP – Cockpit, rear left post	1	X	X	X			X	X			



COCKPIT FINISHING INSTALLATION

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
26-19	12218-02		TRIM STRIP – Cockpit, rear left post, with coat hook installation parts (Less coat hook)	1	X	X	X				X	X		
	12221-00		TRIM STRIP – Cockpit, rear right post	1	X	X	X				X	X		
	12221-02		TRIM STRIP – Cockpit, rear right post, with coat hook installation parts (Less coat hook)	1	X	X	X				X	X		
-20	13893-02		TRIM STRIP – Cockpit, rear left post	1				X						X
	13893-03		TRIM STRIP – Cockpit, rear left post, with coat hook installation parts (Less coat hook)	1				X						X
	13902-02		TRIM STRIP – Cockpit, rear right post	1				X						X
	13902-03		TRIM STRIP – Cockpit, rear right post, with coat hook installation parts (Less coat hook)	1				X						X
-21	13952-02		PANEL ASSEMBLY – Trim, upholstered (Brown), RH	1				X						X
	13952-00		PANEL ASSEMBLY – Trim, upholstered (Green), RH	1				X						X
-22	13953-00		BOX ASSEMBLY – Ash	1				X						X
-23	471-051		KNOB – (No. 3001-SD)	1				X						X
-24	453-141		ASH TRAY – (No. 947478)	1				X						X
-25	13950-00		PANEL – Ash tray	1				X						X
-26	484-385		RETAINER – Ash tray (No. 947483)	1				X						X
-27	12199-00		TRIM STRIP – Headlining, rear, lower, RH	1	X	X	X	X			X	X	X	
-28	126'13-00		TRIM STRIP – Cockpit, front post, LH	1	X	X	X				X	X		
	13944-00		TRIM STRIP – Cockpit, front post, LH	1				X						X
-29	12674-00		TRIM STRIP – Cockpit, front post, RH	1	X	X	X	X			X	X	X	
-30	180-400		TAPE – Elastic, window seal (Compound No. 163)	7'				X						X
-31	12189-00		TRIM STRIP – Headlining and top of door frame channel, RH	1	X	X	X	X			X	X	X	
-32	10262-03		PLATE ASSEMBLY – Eyebrows and headlining	2	X	X	X				X	X		
	10262-05		PLATE ASSEMBLY – Eyebrows and headlining	2				X						X
-33	12787-00		COLLAR – Windshield, rear	1	X	X	X	X			X	X	X	
-34	12786-00		COLLAR – Windshield, front	1	X	X	X	X			X	X	X	
-35	<a href="#">U453-640</a>		BUMPER – Rubber, windshield support (No. 285)	2	X	X					X			
-36	12670-04	B	PANEL ASSEMBLY – Trim, upper left upholstery, "125"	1	X	X								
	12670-14	B	PANEL ASSEMBLY – Trim, upper right upholstery, "125"	1	X	X								



COCKPIT FINISHING INSTALLATION

SECTION IV  
Cockpit Group

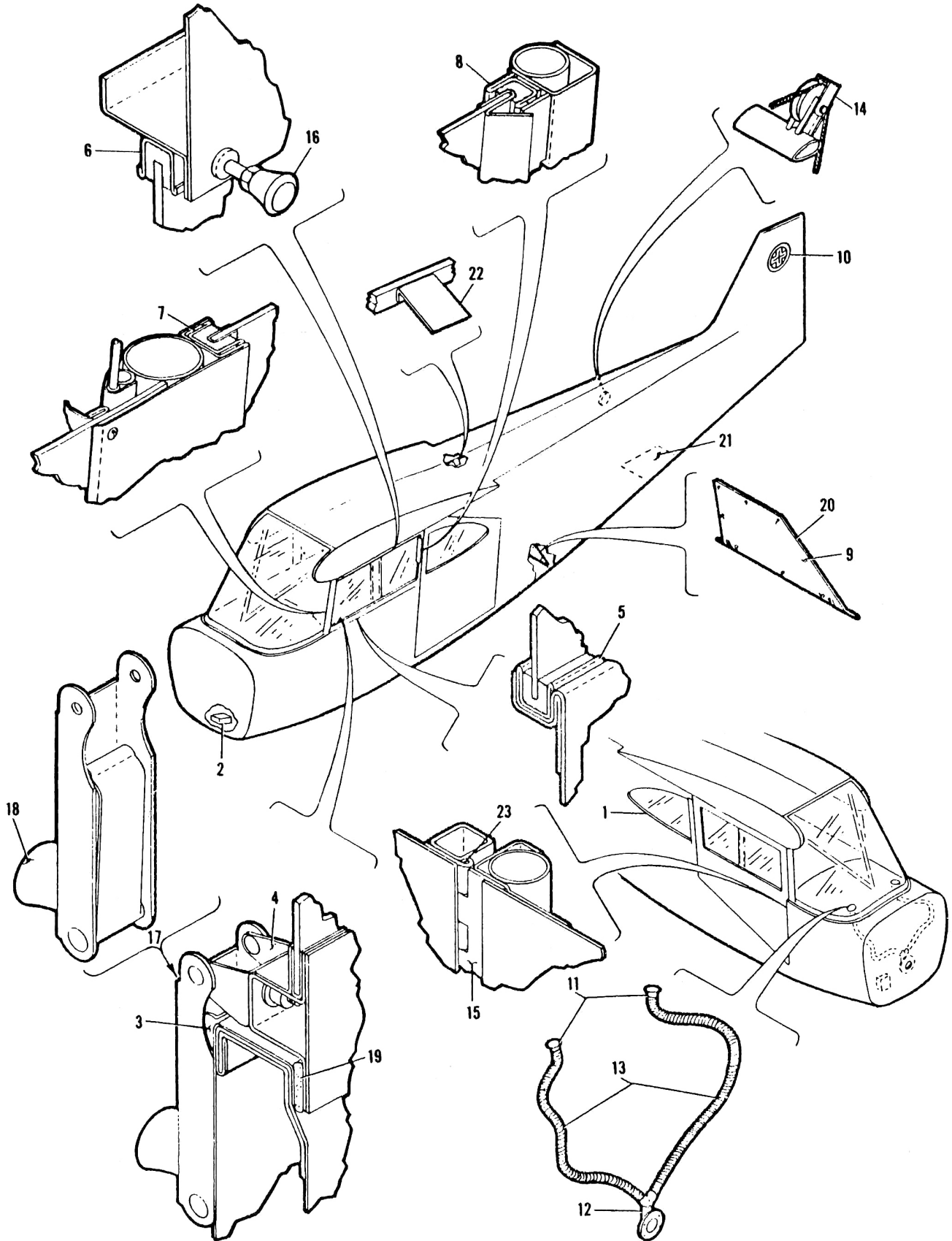
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
26-37	12670-24	A	PANEL ASSEMBLY – Trim, upper right upholstery, "125" and "135"	1	x	x	x				x	x		
	13937-20		PANEL ASSEMBLY – Trim, upholstered (Brown), LH	1				x						x
	13937-04		PANEL ASSEMBLY – Trim, upholstered (Green), LH	1				x						x

- A – Used on PA-20 airplanes with serial numbers 20-553, 20-559, 20-560, 20-562, 20-564, 20-566 to 20-571 inclusive, 20-573, 20-574, 20-575, 20-577 to 20-580 inclusive, 20-582 to 20-587 inclusive, 20-589 to 20-599 inclusive, 20-604, 20-609, 20-611 and up; and on PA-22 airplanes with serial numbers 22-1 and up.
- B – Used on PA-20 airplanes with serial numbers 20-1 to 20-552 inclusive, 20-554 to 20-558 inclusive, 20-561, 20-563, 20-565, 20-572, 20-576, 20-581, 20-588, 20-600 to 20-603 inclusive, 20-605 to 20-608 inclusive and 20-610.

SHEET 1 OF 2 SHEETS,  
COCKPIT FINISHING INSTALLATION

SECTION IV  
Cockpit Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20					PA-22									
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
<b>FIGURE 27 – SHEET 1 OF 2</b>																			
27-	14150		DRAWING – Defroster installation					x						x					
-1	913-320		BEADING – Permagem window seal Note: This material sold only by the roll, 125 ft. per roll.	11'					x					x					
-2	12717-00		BOX ASSEMBLY – Heat, firewall, inside cabin	1	x														
-3	13844-00		BRACKET – Hinged, window latch attachment	1				x						x					
-4	13845-00		BRACKET – Hinged, window latch attachment	1				x						x					
-5	<a href="#">U11432-006</a>		CHANNEL – Weatherstrip, bottom, sliding window	1	x	x	x				x	x							
-6	<a href="#">U11432-005</a>		CHANNEL – Weatherstrip (No window lock)	1	x	x	x				x	x							
	12634-02		CHANNEL – Weatherstrip, top sliding window (With window lock)	1	x	x	x				x	x							
-7	<a href="#">U11432-007</a>		CHANNEL – Weatherstrip, front sliding window, side	1	x	x	x				x	x							
-8	11432-08		CHANNEL – Weatherstrip, rear, sliding window, side	1	x	x	x				x	x							
-9	454-898		CLIP – Panel, baggage compartment	10	x	x	x				x	x							
-10	12763-00	A	DECALCOMANIA – "Piper", on fin	2	x														
-11	U14149-000		TUBE ASSEMBLY – Air outlet (Defroster), top	2						x				x					



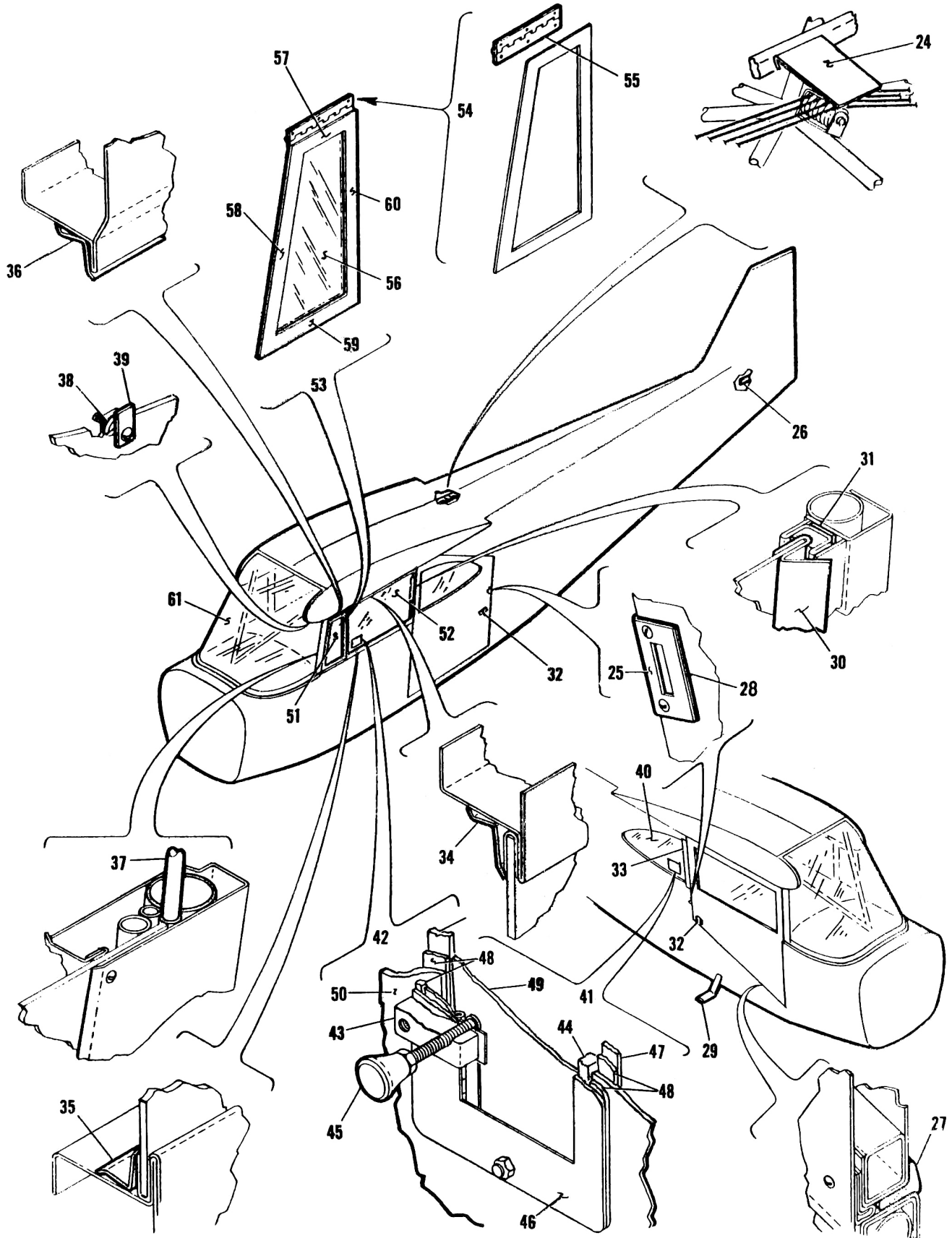
**FIGURE 27**

Sheet 1 of 2 sheets, Cockpit Finishing Installation



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
27-12	<a href="#">-14148-000</a>		TUBE ASSEMBLY – Defroster air inlet, bottom	1				X					X
-13	<a href="#">-85052-016</a>		TUBE – Flexible, aluminum, 7/8 in. OD, defroster	2				X					X
-14	13973-00		GUARD – Flap cable, station No. 6, top center	1				X					X
-15	13936-00		HINGE – Door, front	1				X					X
-16	12856-00		KNOB ASSEMBLY – Sliding window lock, LH	1	X	X	X			X	X		
-17	13840-00		LATCH ASSEMBLY – Hinged window	1				X					X
-18	<a href="#">-471-051</a>		KNOB – (No. 3001-SD)	1				X					X
-19	13945-18		MOULDING – Rubber, window seal (1/4 x 3/16 in.)	4'				X					X
-20	12014-00		PANEL ASSEMBLY – Baggage compartment, back	1	X	X	X			X	X		
-21	13796-00		PANEL ASSEMBLY – Fuselage access, bottom	1				X					X
-22	12788-00		PLATE – Pulley guard, stabilizer indicator wire and adjustment cable in top deck, "125" and "135"	1	X	X	X			X	X		
-23	86092-23		PIN – Door hinge, RH	1	X	X	X	X		X	X	X	
<b>FIGURE 27 – SHEET 2 OF 2</b>													
-24	13919-00		PLATE – Pulley guard, stabilizer adjustments cable, top center (Fuselage station No. 4)	1				X					X
-25	10980-02		PLATE – Striker, door latch (2 per ship 1953 Model, left and right) RH	1	X	X	X	X		X	X	X	
	10980-03		PLATE – Striker, door latch, LH	1	X	X	X			X	X		
	14171-00	B	PLATE – Striker, door lock, RH	1				X					X
-26	85411-00	C	PLACARD – Airplane serial, at tail	1	X	X	X			X	X		
-27	85512-08		SEAL – Front door, lower corner	1	X	X	X	X		X	X	X	
-28	13974-03		SHIM – Striker plate door latch, RH	1	X	X	X			X	X		
	13974-02		SHIM – Striker plate door latch, LH (2 per ship 1953 Model left and right)	1	X	X	X	X		X	X	X	
-29	12803-00	D	STEP ASSEMBLY – Entrance	1	X	X	X	X					
	12815-00	E	STEP ASSEMBLY – Entrance	1	X								
-30	13322-00		STRIP – Air deflector	1	X	X	X			X	X		
-31	86082-33		STRIP – Felt (At rear side of rear sliding window) 15½ in. long	1	X	X	X			X	X		
-32	<a href="#">U52745-000</a>		STUD – Door catch, on door to engage catch on lift struts	2	X	X	X	X		X	X	X	
-33	12012-00		TRIMSTRIP – Right rear window attachment, front, outside	1	X	X	X	X		X	X	X	
-34	13891-00		TRIMSTRIP – Window, inside, top, LH	1				X					X
-35	13802-00		TRIMSTRIP – Window, inside, bottom, LH	1				X					X





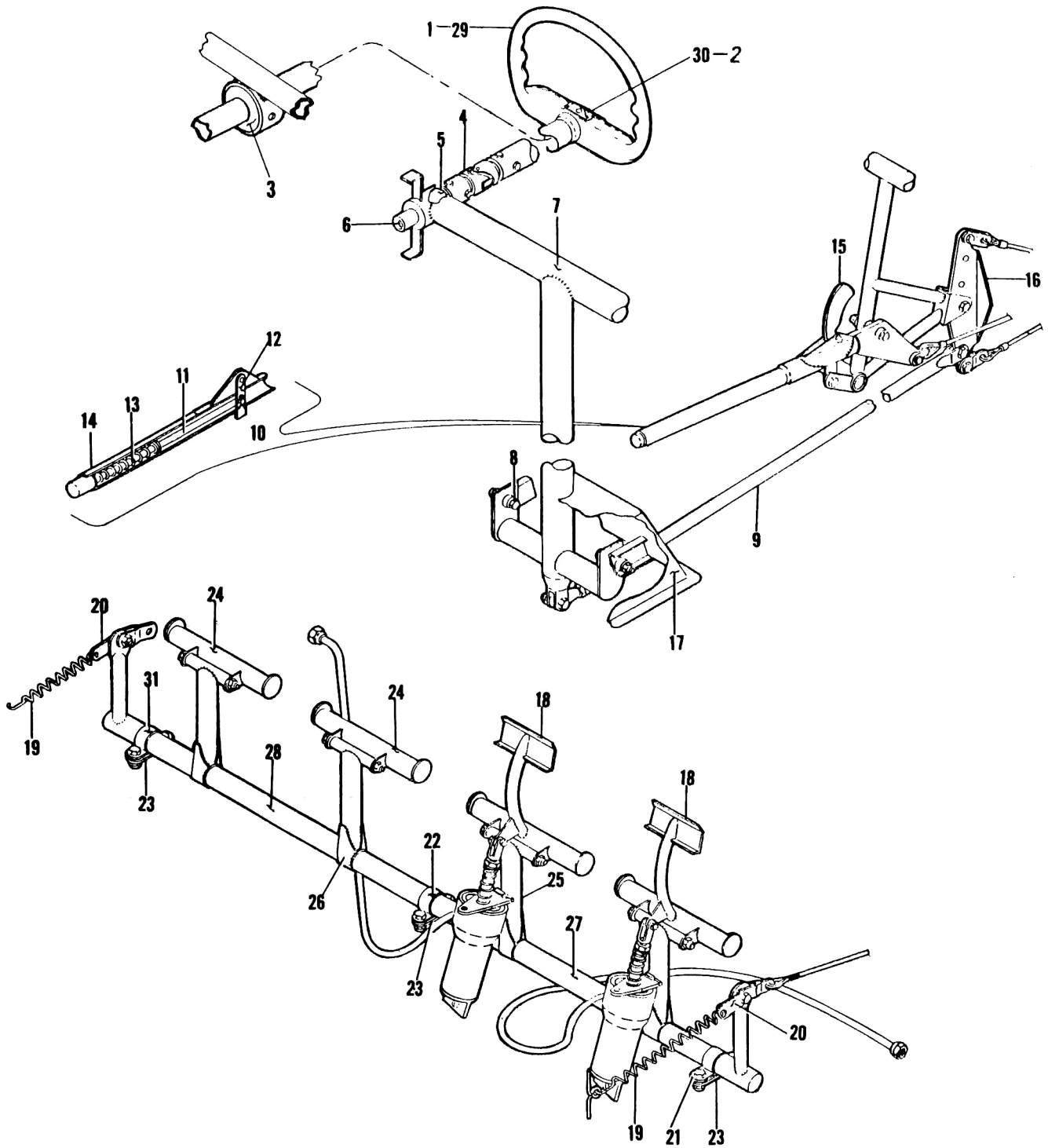
**FIGURE 27** Sheet 2 of 2 sheets, Cockpit Finishing Installation



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
27-36	14162-00		TRIMSTRIP – Inside, top of hinged window	1				X					X	
-37	13541-03		TUBE – Airspeed, left front post (2 per ship Model "135")	1	X	X	X	X			X	X	X	
-38	<a href="#">U85012-014</a>		WASHER – Windshield attachment, felt	2	X	X	X	X			X	X	X	
-39	<a href="#">U81342-045</a>		WASHER – Windshield attachment, outside	2	X	X	X	X			X	X	X	
-40	<a href="#">-12011-000</a>		WINDOW – Enclosure, rear, RH	1	X	X	X				X	X		
-41	13916-00		WINDOW ASSEMBLY – Enclosure, rear, RH	1				X					X	
-42	13976-00		WINDOW ASSEMBLY – LH	1				X					X	
-43	13900-00		VENTILATOR BLOCK – Adjustment	1				X					X	
-44	<a href="#">U13914-000</a>		VENTILATOR GASKET – Cork	1				X					X	
-45	<a href="#">-471-051</a>		VENTILATOR KNOB – (No. 3001-SD Ivory)	1				X					X	
-46	13899-00		VENTILATOR PLATE – Inside trim	1				X					X	
-47	13898-02		VENTILATOR PLATE – Outside trim	1				X					X	
-48	13898-03		VENTILATOR PLATE – (Vellumoid)	2				X					X	
-49	13904-00		VENTILATOR PLATE	1				X					X	
-50	12011-02		WINDOW – RH	1				X					X	
	13888-00		WINDOW – LH	1				X					X	
-51	<a href="#">-11635-000</a>		WINDOW ASSEMBLY – Sliding, front, LH	1	X	X	X				X	X		
-52	<a href="#">-11636-000</a>		WINDOW ASSEMBLY – Sliding, rear, LH	1	X	X	X				X	X		
-53	13853-00		WINDOW ASSEMBLY – Hinged	1				X					X	
-54	13851-00		FRAME ASSEMBLY – Hinged window	1				X					X	
-55	<a href="#">-13848-000</a>		HINGE	1				X					X	
-56	<a href="#">-13849-000</a>		WINDOW	1				X					X	
-57	13850-02		TRIM STRIP – Hinged window, top	1				X					X	
-58	13850-03		TRIM STRIP – Hinged window, front	1				X					X	
-59	13850-04		TRIM STRIP – Hinged window, bottom	1				X					X	
-60	13850-05		TRIM STRIP – Hinged window, rear	1				X					X	
-61	<a href="#">-13432-000</a>		WINDSHIELD	1	X	X	X	X			X	X	X	

- A – "Piper" insignia on 1951-52 and 53 models PA-20 and PA-22 put on by silk screen. 12763-00 decal may be used for replacement.
- B – Used on PA-20 airplanes with serial numbers 20-1032, 20-1034, 20-1035, 20-1037, 20-1039 and up; and on PA-22 airplanes with serial numbers 22-1483, 22-1499 and up except 22-1517.
- C – Used on PA-20 airplanes with serial numbers 20-1 to 20-835 inclusive; and on PA-22 airplanes with serial numbers 22-1 to 22-373 inclusive and 22-376 and 22-377.
- D – Used on PA-20 airplanes with serial numbers 20-75 and up.
- E – Used on PA-20 airplanes with serial numbers 20-1 to 20-74 inclusive.





# FIGURE 28

Control Column and Rudder Pedal Installation



STABILIZER ADJUSTMENT CRANK INSTALLATION

SECTION V  
Control Group

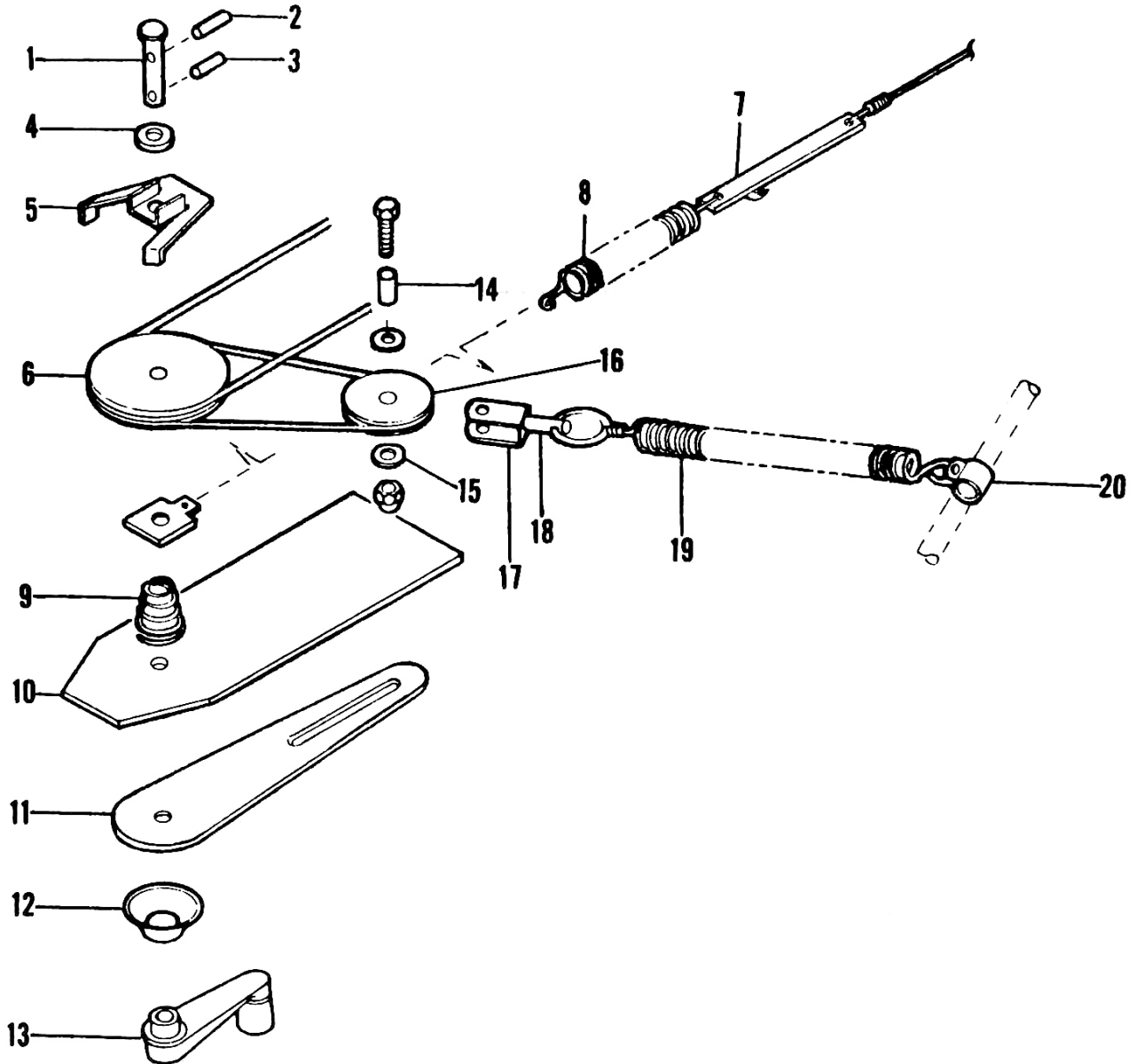
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
28-	12546		DRAWING – Control column and rudder pedal installation		x									
	13057		DRAWING – Control column and rudder pedal installation			x	x							
	13101		DRAWING – Control column and rudder pedal installation							x				
	13449		DRAWING – Control column and rudder pedal installation								x			
	13933		DRAWING – Control column and rudder pedal installation						x					
	13932		DRAWING – Control column and rudder pedal installation										x	
-1	12593-00		WHEEL ASSEMBLY – Control (Brown)	2	x	x	x	x		x	x	x		
-2	13058-00		PLATE – Name	1	x	x	x	x		x	x	x		
-3	86102-64		BUSHING – Insert, control wheel shaft	2	x	x	x	x		x	x	x		
-4	12734-00		JOINT – Universal, pulley shaft assembly and control wheel shaft attachment, (No. UJ367), (469-130)	2	x	x	x	x		x	x	x		
-5	<a href="#">-85012-058</a>		SHIM – Control column shaft attachment	AR	x	x	x	x		x	x	x		
	85012-59		SHIM – Control column shaft attachment	AR	x	x	x	x		x	x	x		
-6	<a href="#">-452-340</a>		BEARING – Pulley shaft assembly installation on control column (No. 4050)	4	x	x	x	x		x	x	x		
-7	12500-00		CONTROL COLUMN ASSEMBLY	1	x	x	x	x		x				
	13438-00		CONTROL COLUMN ASSEMBLY	1							x	x		
-8	<a href="#">-452-342</a>		BEARING – Control column to fuselage attachment (No. CS1255)	2	x	x	x	x		x	x	x		
-9	<a href="#">U12508-000</a>		ROD ASSEMBLY – Control column to elevator bellcrank	1	x	x	x	x		x	x	x		
-10	12494-00		LEVER ASSEMBLY – Flap control, “125”	1	x									
	12494-02	A	LEVER ASSEMBLY – Flap control, “125”	1		x				x				
	<a href="#">U13185-000</a>	B	LEVER ASSEMBLY – Flap control, “125” and “135”	1		x	x	x		x	x	x		
-11	11699-05	C	PLUNGER ASSEMBLY – Flap control, “125”	1	x	x				x				
	<a href="#">U13203-000</a>	B	PLUNGER ASSEMBLY – Flap control, “125” and “135”	1		x	x	x		x	x	x		
-12	<a href="#">U11700-000</a>		PAWL	1	x	x	x	x		x	x	x		
-13	<a href="#">U50111-000</a>		SPRING	1	x	x	x	x		x	x	x		
-14	<a href="#">U13184-000</a>	B	LEVER – “125” and “135” (Less plunger mechanism)	1		x	x	x		x	x	x		



STABILIZER ADJUSTMENT CRANK INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
	12493-00		LEVER – “125” (Less plunger mechanism)	1	x														
28-14	12493-02	A	LEVER – “125” (Less plunger mechanism)	1		x					x								
-15	12495-00	C	RATCHET ASSEMBLY – Flap control, “125”	1	x	x					x								
	<a href="#">-13183-000</a>	B	RATCHET ASSEMBLY – Flap control, “125” and “135”	1		x	x	x			x	x	x						
-16	11818-00		BELLCRANK ASSEMBLY – Elevator	1	x	x	x	x			x	x	x						
-17	12759-00		BOOT ASSEMBLY – Control column	1	x														
	12759-04		BOOT ASSEMBLY – Control column (Brown)	1		x	x	x			x	x	x						
	12759-06		BOOT ASSEMBLY – Control column (Green)	1				x										x	
-18	11726-05		PEDAL ASSEMBLY – Rudder and brake, LH	2	x	x	x	x											
-19	<a href="#">U42891-000</a>		SPRING – Rudder pedal return	2	x	x	x	x											
-20	81262-39		LINK	2	x	x	x	x											
-21	<a href="#">U80222-024</a>		CLAMP	1	x	x	x	x											
	<a href="#">-80222-023</a>		CLAMP	1								x	x	x					
-22	<a href="#">-80222-023</a>		CLAMP	1	x	x	x	x			x	x	x						
-23	<a href="#">U81262-046</a>		LINK	7	x	x	x	x			x	x	x						
-24	12587-00		PEDAL ASSEMBLY	2	x	x	x	x											
-25	13065-00		PEDAL ASSEMBLY	1							x	x	x						
-26	12548-00		TUBE ASSEMBLY – Rudder pedal	1	x	x	x	x											
-27	11808-03		TUBE ASSEMBLY – Torque	1	x	x	x	x											
	13066-00		TUBE ASSEMBLY – Torque	1							x	x	x						
-28	12549-00		TUBE ASSEMBLY – Torque	1	x	x	x	x											
	13064-00		TUBE ASSEMBLY – Torque	1							x	x	x						
-29	12593-02		WHEEL ASSEMBLY – Control (Green)	2				x										x	
-30	13058-02		PLATE – Name	1				x										x	
-31	<a href="#">U80222-024</a>		CLAMP	1							x	x	x						
	<a href="#">-80222-023</a>		CLAMP	1	x	x	x	x											

- A – Used on PA-20 airplanes with serial numbers 20-554 to 20-689 inclusive, 20-691, 20-692, 20-696 to 20-704 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-4 inclusive.
- B – Used on PA-20 airplanes with serial numbers 20-690, 20-693, 20-694, 20-695, 20-705 and up; and on PA-22 airplanes with serial numbers 22-5 and up.
- C – Used on PA-20 airplanes with serial numbers 20-1 to 20-689 inclusive, 20-691, 20-692, and 20-696 to 20-704 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-4 inclusive.



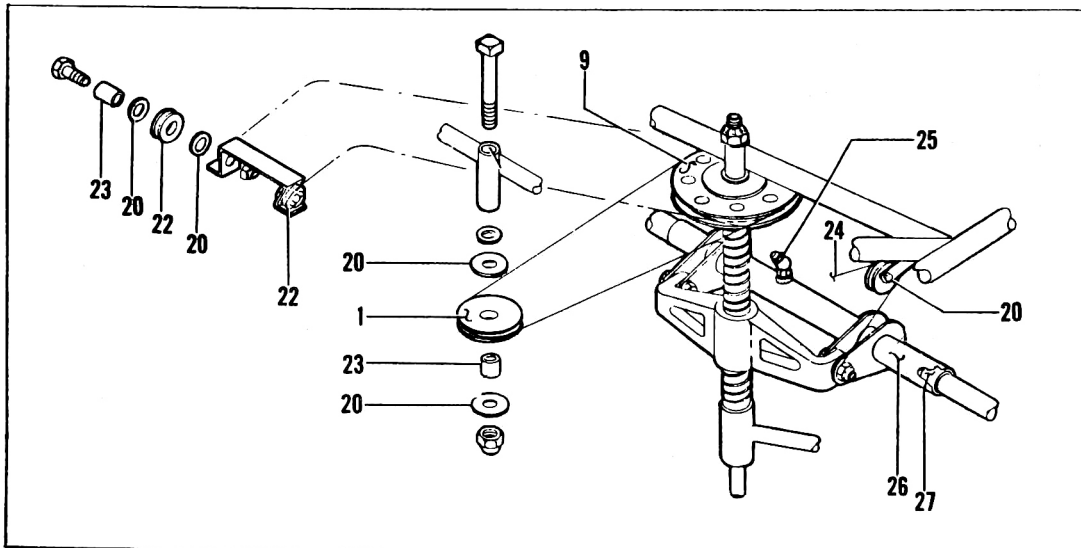
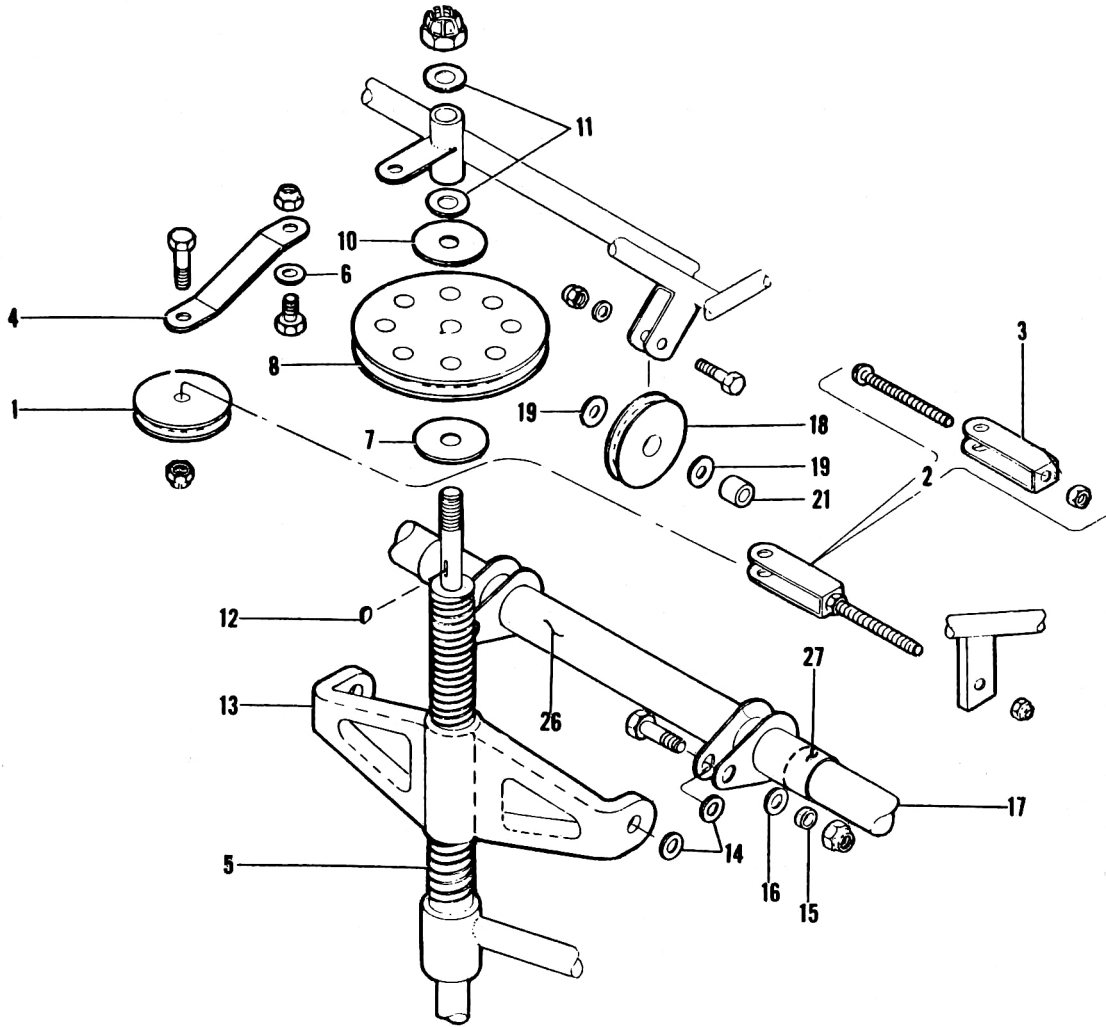
## FIGURE 29

Stabilizer Adjustment Crank Installation



STABILIZER ADJUSTMENT CRANK INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
29-	12550		DRAWING – Stabilizer adjustment crank installation		X									
	12988		DRAWING – Stabilizer adjustment crank installation			X	X	X		X	X	X		
-1	<a href="#">U12105-000</a>		PIN – Stabilizer adjustment crank	1	X	X	X	X		X	X	X		
-2	<a href="#">-81761-004</a>		PIN – Stabilizer adjustment crank pulley locking	1	X	X	X	X		X	X	X		
-3	<a href="#">-81761-011</a>		PIN – Stabilizer adjustment crank locking	1	X	X	X	X		X	X	X		
-4	<a href="#">-85012-018</a>		WASHER – Stabilizer crank control pulley bracket attachment	1		X	X	X		X	X	X		
-5	12987-00		GUARD – Stabilizer adjustment crank pulley	1		X	X	X		X	X	X		
-6	<a href="#">U12983-000</a>		PULLEY – Stabilizer adjustment crank	1		X	X	X		X	X	X		
	<a href="#">U10080-000</a>		PULLEY – Stabilizer adjustment crank	1	X									
-7	<a href="#">U41121-003</a>		INDICATOR ASSEMBLY – Stabilizer	1	X	X	X	X		X	X	X		
-8	<a href="#">U42891-000</a>		SPRING – Stabilizer indicator wire	1	X	X	X	X		X	X	X		
-9	<a href="#">U41151-000</a>		SPRING – Stabilizer crank escutcheon plate	1	X	X	X	X		X	X	X		
-10	12103-00		PLATE – Support, stabilizer indicator	1	X	X	X	X		X	X	X		
-11	<a href="#">U12102-000</a>		PLATE – Cover, stabilizer indicator	1	X	X	X	X		X	X	X		
-12	<a href="#">U41101-000</a>		PLATE – Stabilizer crank escutcheon	1	X	X	X	X		X	X	X		
-13	13448-00		CRANK ASSEMBLY – Stabilizer adjustment	1			X	X			X	X		
	<a href="#">U41111-000</a>		CRANK ASSEMBLY – Stabilizer adjustment	1	X	X				X				
-14	<a href="#">U80012-004</a>		BUSHING	1		X	X	X		X	X	X		
-15	<a href="#">U80122-018</a>		WASHER	2		X	X	X		X	X	X		
-16	<a href="#">U80421-000</a>		PULLEY – 1¾ in.	1		X	X	X		X	X	X		
-17	<a href="#">U11692-005</a>		BRACKET – Stabilizer adjustment cable tension pulley and spring attachment	1		X	X	X		X	X	X		
-18	<a href="#">MS20392-1C23</a>		PIN – (AN392-23)	1		X	X	X		X	X	X		
-19	<a href="#">U81411-002</a>		SPRING – Tension, stabilizer adjustment	1		X	X	X		X	X	X		
-20	<a href="#">U80002-025</a>		CLAMP – Tension spring attachment	1		X	X	X		X	X	X		



# FIGURE 30

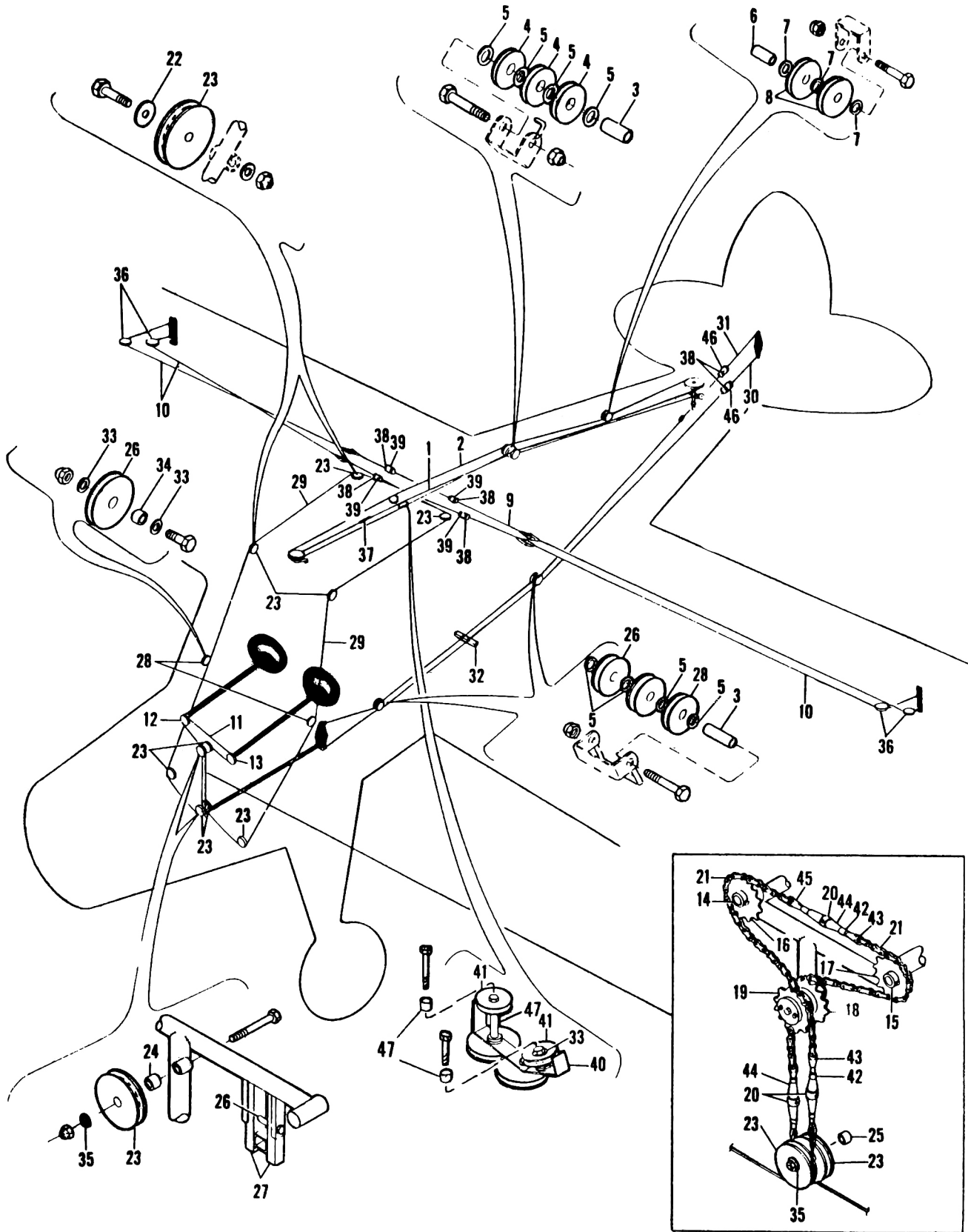
Stabilizer Adjustment Mechanism Installation



SECTION V  
Control Group

STABILIZER ADJUSTMENT MECHANISM INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
30-	12004		DRAWING – Stabilizer adjustment mechanism installation		X									
	12989		DRAWING – Stabilizer adjustment mechanism installation			X	X	X		X	X	X		
-1	<a href="#">U80421-000</a>		PULLEY – 1¾ in.	1	X	X	X	X		X	X	X		
-2	<a href="#">U40651-000</a>		YOKE ASSEMBLY – Idler, stabilizer	1	X									
-3	40651-02		STRAP – “U” fitting	1	X									
-4	<a href="#">-81322-003</a>		LINK – Stabilizer idler yoke attachment	1	X									
-5	<a href="#">U42961-102</a>		SCREW – Stabilizer adjustment	1	X	X	X	X		X	X	X		
-6	<a href="#">-80122-007</a>		WASHER – Stabilizer idler link attachment	1	X									
-7	<a href="#">U80122-041</a>		WASHER – Stabilizer screw pulley	1	X	X	X	X		X	X	X		
-8	<a href="#">U11008-000</a>		PULLEY – 4 in. stabilizer screw, aluminum	1	X									
-9	<a href="#">U12982-000</a>		PULLEY – 4 in. stabilizer screw, aluminum	1		X	X	X		X	X	X		
-10	<a href="#">U81342-005</a>		WASHER – Stabilizer screw pulley	1	X	X	X	X		X	X	X		
-11	<a href="#">NAS1149F0632P</a>		WASHER – Spacer, stabilizer screw bearing	2	X	X	X	X		X	X	X		
-12	<a href="#">U41631-000</a>		KEY – Stabilizer screw pulley	1	X	X	X	X		X	X	X		
-13	<a href="#">U42692-000</a>		YOKE ASSEMBLY – Stabilizer adjustment (Cast aluminum)	1	X	X	X	X		X	X	X		
-14	<a href="#">-81342-008</a>		WASHER – Stabilizer link attachment	4	X	X	X	X		X	X	X		
-15	80012-32		BUSHING – Indicator wire attachment	1	X	X	X	X		X	X	X		
-16	<a href="#">U80122-024</a>		WASHER – Link tube attachment	2	X	X	X	X		X	X	X		
-17	<a href="#">U86062-080</a>		TUBE – Liner, stabilizer adjustment	1	X	X	X	X		X	X	X		
	<a href="#">U86062-080</a>		TUBE – Liner, stabilizer adjustment (Seaplane)	1	X	X	X	X						
-18	<a href="#">U481-609</a>		PULLEY – 1½ in., stabilizer indicator wire	1	X	X	X	X		X	X	X		
-19	<a href="#">U80122-018</a>		WASHER – Stabilizer indicator wire pulley installation	2	X	X	X	X		X	X	X		
-20	<a href="#">U80122-018</a>		WASHER – Stabilizer adjustment control cable pulley installation	6		X	X	X		X	X	X		
-21	<a href="#">U80012-004</a>		BUSHING – Indicator wire pulley	1	X	X	X	X		X	X	X		
-22	<a href="#">U43001-000</a>		PULLEY – 1 in., stabilizer adjustment control	2		X	X	X		X	X	X		
-23	<a href="#">U80012-004</a>		BUSHING – Stabilizer adjustment control cable pulley	3		X	X	X		X	X	X		
-24	<a href="#">U42664-003</a>		WIRE – Stabilizer, indicator (18-8S type 304)	124"	X	X	X	X		X	X	X		
-25	1688		FITTING – Grease, stabilizer adjustment	1	X	X	X	X		X	X	X		
-26	<a href="#">U14179-000</a>		LINK ASSEMBLY – Stabilizer adjustment	1	X	X	X	X		X	X	X		
-27	<a href="#">U14177-000</a>		BUSHING – Brass	2	X	X	X	X		X	X	X		



# FIGURE 31

Aileron, Elevator and Stabilizer Adjustment Control





AILERON, ELEVATOR AND  
STABILIZER ADJUSTMENT CONTROL

SECTION V  
Control Group

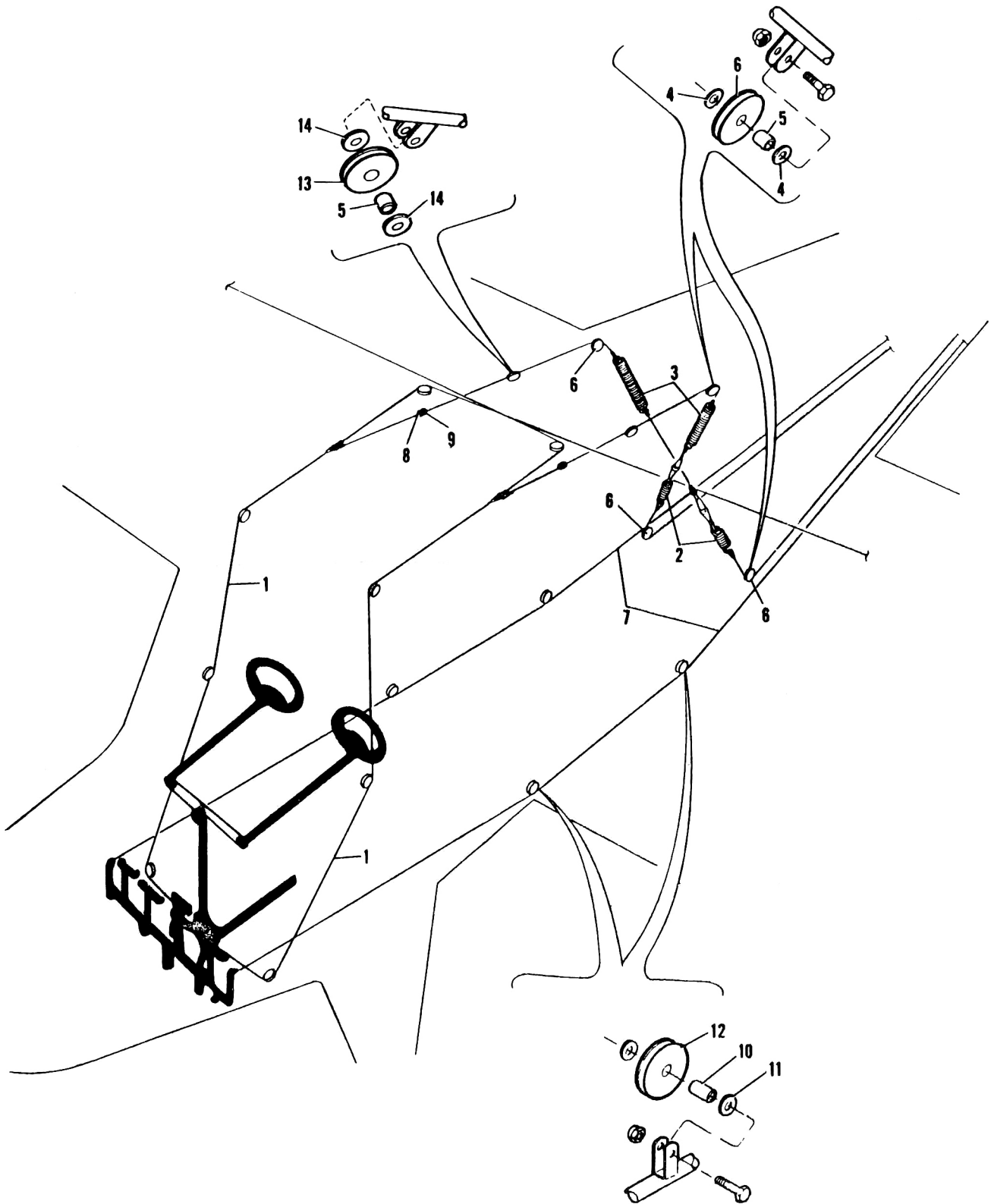
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
31-	13920		DRAWING – Control cables installation						X					
	13906		DRAWING – Control cables installation											X
	12550		DRAWING – Control cables installation		X	X								
	13465		DRAWING – Control cables installation				X							
	13111		DRAWING – Control cables installation							X	X			
-1	<a href="#">U42664-003</a>		WIRE – Stabilizer, indicator (18-8S type 304)	124"	X	X	X	X		X	X	X		
-2	<a href="#">U41671-011</a>		CABLE ASSEMBLY – Stabilizer adjustment	1	X									
	<a href="#">U41671-016</a>		CABLE ASSEMBLY – Stabilizer adjustment	1		X	X	X		X	X	X		
-3	<a href="#">-80022-067</a>		BUSHING – Insert	3	X	X	X	X		X	X	X		
-4	<a href="#">U43001-000</a>		PULLEY – Stabilizer adjustment control	3	X	X	X	X		X	X	X		
-5	<a href="#">U81342-042</a>		WASHER – Spacer	12	X	X	X	X		X	X	X		
-6	<a href="#">U86102-043</a>		BUSHING – Insert	1	X									
-7	<a href="#">U81342-042</a>		WASHER – Spacer	3	X									
-8	<a href="#">U43001-000</a>		PULLEY – Stabilizer adjustment control	2	X									
-9	<a href="#">U40123-069</a>		CABLE – Aileron balance, in top deck	1	X	X	X	X		X	X	X		
-10	<a href="#">U11527-002</a>		CABLE ASSEMBLY – Aileron control, in wing	4	X	X	X	X		X	X	X		
-11	<a href="#">-12526-000</a>		CABLE ASSEMBLY – Aileron control column, top	1	X	X	X	X		X				
-12	12522-02		SHAFT AND PULLEY ASSEMBLY – Wheel control, top of control column, RH	1	X	X	X	X		X				
-13	12522-03		SHAFT AND PULLEY ASSEMBLY – Wheel control, top of control column, LH	1	X	X	X	X		X				
-14	12520-04		SHAFT – Sprocket, wheel control, RH	1							X	X		
-15	<a href="#">-12520-005</a>		SHAFT – Sprocket, wheel control, LH	1							X	X		
-16	13460-00		SPROCKET ASSEMBLY – Upper (12 teeth) RH	1							X	X		
-17	<a href="#">-13440-000</a>		SPROCKET ASSEMBLY – Upper (12 teeth) LH	1							X	X		
-18	<a href="#">-13439-003</a>		SPROCKET ASSEMBLY – Lower (15 teeth) rear	1							X	X		
-19	13439-02		SPROCKET ASSEMBLY – Lower (15 teeth) front	1							X	X		
-20	<a href="#">MS21251-B3S</a>		BARREL – Turnbuckle, control column, chain installation	3							X	X		
-21	13445-00		CHAIN ASSEMBLY – Roller, control column	2							X	X		
-22	<a href="#">U81342-011</a>		WASHER – Aileron cable pulley attachments	4	X	X	X	X		X	X	X		
-23	<a href="#">U41001-008</a>		PULLEY – Aileron control cable, 2¾ in. dia. (8 per ship 1952-1953 Model PA-22)	10	X	X	X	X		X	X	X		
-24	86102-75		BUSHING – Pulley installation control column	2	X	X	X	X		X				
-25	86102-75		BUSHING – Pulley installation control column, bottom	1							X	X		
-26	86102-76		BUSHING – Spacer, control guide block attachment	1	X	X	X	X		X	X	X		



AILERON, ELEVATOR AND  
STABILIZER ADJUSTMENT CONTROL

SECTION V  
Control Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
31-27	12505-00		BLOCK – Control column guide, fibre	2	X	X	X	X		X	X	X	
-28	<a href="#">U80421-000</a>		PULLEY – 1¾ in. dia.	6	X	X	X	X		X	X	X	
-29	<a href="#">U12514-000</a>		CABLE ASSEMBLY – Aileron control, control column to wing	1	X	X	X	X					
-30	<a href="#">U40123-068</a>		CABLE ASSEMBLY – Elevator, to lower horn	1	X	X	X	X		X	X	X	
-31	<a href="#">U40123-067</a>		CABLE ASSEMBLY – Elevator, upper horn	1	X	X	X	X		X	X	X	
-32	<a href="#">U40721-002</a>		BLOCK – Rubbing, elevator control	1	X	X	X	X		X	X	X	
-33	<a href="#">U80122-018</a>		WASHER	10	X	X	X	X		X	X	X	
-34	<a href="#">U80012-004</a>		BUSHING – Insert	2	X	X	X	X		X	X	X	
-35	<a href="#">U81342-011</a>		WASHER – Aileron cable pulley attachment on control column (2 per ship on all PA-20 models and 1951 PA-22 model and 1 per ship on 1952 and 1953 model PA-22)	AR	X	X	X	X		X	X	X	
-36	<a href="#">U40991-000</a>		PULLEY – Aileron cable (In wing)	4	X	X	X	X		X	X	X	
-37	<a href="#">U42911-000</a>		FAIRLEAD – Stabilizer indicator wire in top deck	1	X	X	X	X		X	X	X	
-38	<a href="#">U40081-000</a>		RING – Snap, fairlead	6	X	X	X	X		X	X	X	
-39	<a href="#">U40701-000</a>		FAIRLEAD – Cable (segment), aileron 1¼ in. long	8	X	X	X	X		X	X	X	
-40	<a href="#">U12772-000</a>		BRACKET – Stabilizer adjustment cable pulley attachment at top fuselage station No. 4	1	X	X	X	X		X	X	X	
-41	<a href="#">U43001-000</a>		PULLEY – Stabilizer adjustment control, 1 in. fibre	2	X	X	X	X		X	X	X	
-42	<a href="#">U82732-076</a>		BUSHING – Chain to turnbuckle attachment	4							X	X	
-43	<a href="#">-472-684</a>		LINK – Coupler, roller chain to turnbuckle	4							X	X	
-44	<a href="#">NAS647-16RS</a>		EYE – Turnbuckle, control column chain installation, left and lower	3							X	X	
-45	MS21255C3LS		EYE – Turnbuckle, control column chain installation, upper right	1							X	X	
-46	<a href="#">U40071-000</a>		FAIRLEAD – Cable, segment, elevator	4	X	X	X	X		X	X	X	
-47	<a href="#">U80012-004</a>		BUSHING – Insert	3	X	X	X	X		X	X	X	



# FIGURE 32

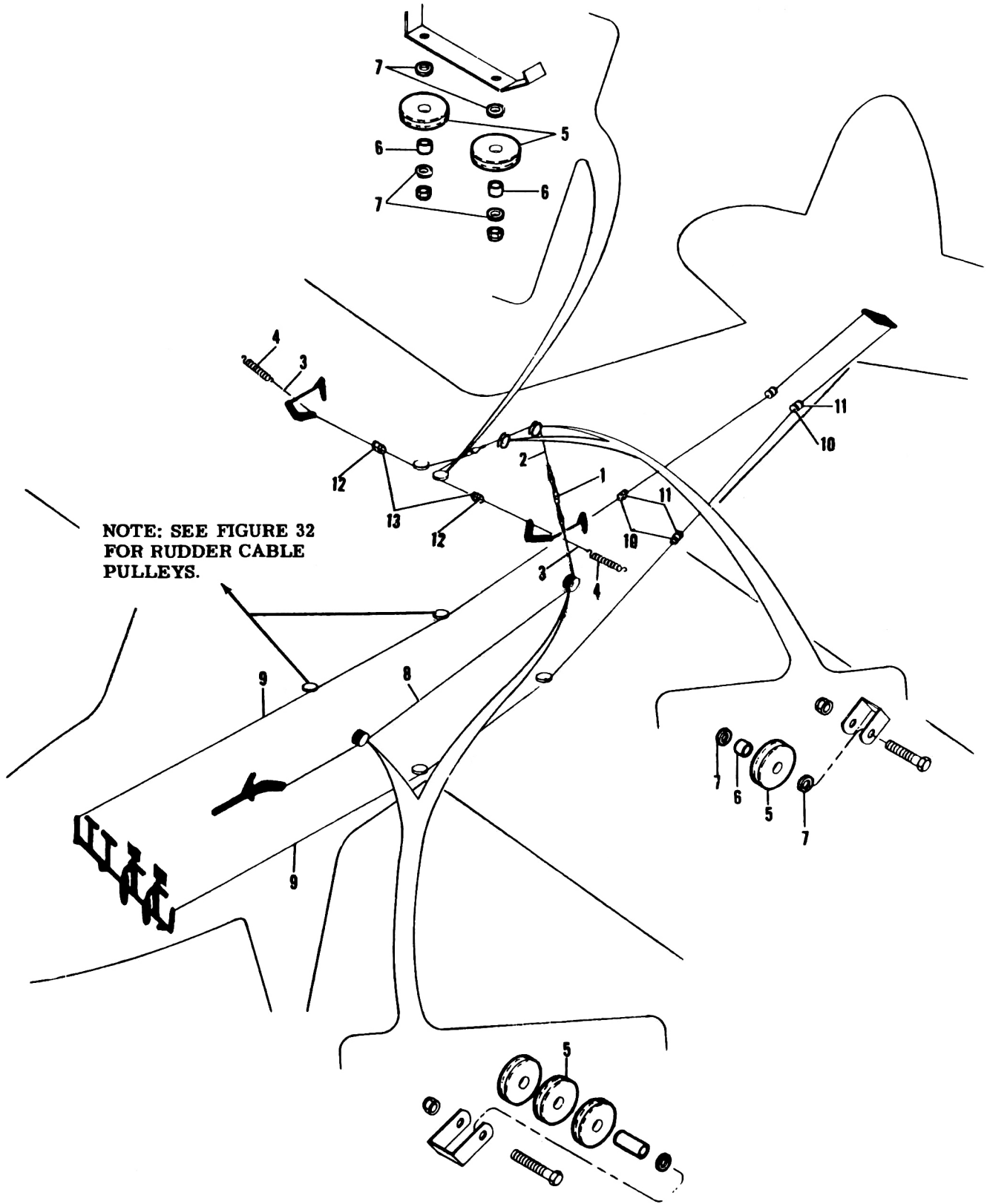
Aileron and Rudder Inter-Connecting System



AILERON AND RUDDER  
INTER-CONNECTING SYSTEM

SECTION V  
Control Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model												
					PA-20				PA-22								
					'50	'51	'52	'53	'54	'51	'52	'53	'54				
32-1	<a href="#">U13108-000</a>		CABLE ASSEMBLY – Interconnecting, aileron and rudder control	1							X	X					
	<a href="#">U13108-002</a>		CABLE ASSEMBLY – Interconnecting, aileron and rudder control	1													X
-2	<a href="#">-13098-000</a>		SPRING – Tension, connecting, interconnecting control cable (Rudder and aileron) lower (PAC 13098-00)	2							X	X	X				
-3	<a href="#">-487-291</a>		SPRING – Tension, interconnecting cable, upper (Rudder and aileron)	2							X	X	X				
-4	<a href="#">U80122-018</a>		WASHER – Station No. 6, interconnecting cable pulley installation	8							X	X	X				
-5	<a href="#">U80012-004</a>		BUSHING – Insert, interconnecting cable pulley (6 per ship 1953 model)	4							X	X	X				
-6	<a href="#">U80421-000</a>		PULLEY – 1¾ in. dia.	4							X	X	X				
-7	<a href="#">U13109-000</a>		CABLE ASSEMBLY – Rudder	2							X	X					
	<a href="#">U13109-002</a>		CABLE ASSEMBLY – Rudder, RH	1													X
	<a href="#">U13109-003</a>		CABLE ASSEMBLY – Rudder, LH	1													X
-8	<a href="#">U40071-000</a>		FAIRLEAD – Segment ( At interconnecting cable in top deck, right and left) 1¾ in. long	4							X	X	X				
-9	<a href="#">U40081-000</a>		RING – Snap, fairlead (At interconnecting cable, top deck, right and left)	2							X	X	X				
-10	<a href="#">U80012-004</a>		BUSHING – Insert, rudder cable pulley	4	X	X	X	X			X	X	X				
-11	<a href="#">U81342-042</a>		WASHER – Spacer, rudder cable pulley	8	X	X	X	X			X	X	X				
-12	<a href="#">U11200-000</a>		PULLEY – Rudder cable, 1½ in. fibre	4	X	X	X	X			X	X	X				
-13	<a href="#">U11200-000</a>		PULLEY – 1½ in. fibre interconnecting control cable (Between fuselage station No. 4 and No. 5)	2													X
-14	<a href="#">U80122-018</a>		WASHER – Interconnecting cable pulley installation (Between fuselage station No. 4 and No. 5 top)	4													X



**NOTE: SEE FIGURE 32  
FOR RUDDER CABLE  
PULLEYS.**

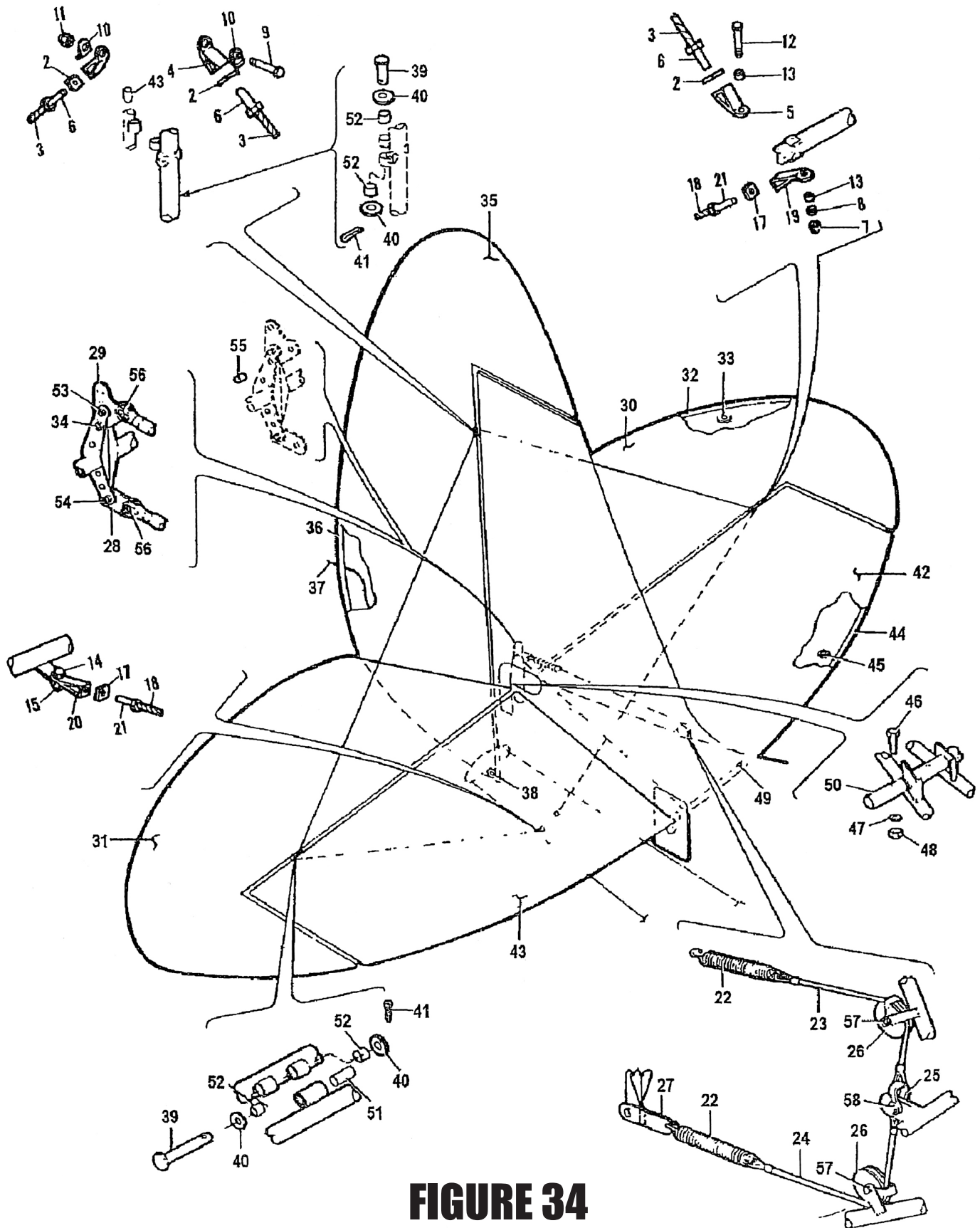
# FIGURE 33

Rudder and Flap Control System



RUDDER AND FLAP CONTROL SYSTEM

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
33-1	<a href="#">MS21251-B3S</a>		BARREL – Turnbuckle, flap control, connecting	1					X					X
-2	<a href="#">U12515-000</a>		CABLE ASSEMBLY – Flap control (Upper to wing panel) “125” and “135”	1	X	X	X				X	X		
	<a href="#">U12515-003</a>		CABLE ASSEMBLY – Flap control (Upper to wing panel)	1				X					X	
-3	<a href="#">U14384-000</a>		CABLE – Flap return, “125” and “135”	2	X	X	X	X			X	X	X	
-4	<a href="#">U10940-000</a>		SPRING – “125” and “135”	1	X	X	X	X			X	X	X	
-5	<a href="#">U80421-000</a>		PULLEY – 1¾ in. flap cable control (6 per ship 1953 models)	5	X	X	X	X			X	X	X	
-6	<a href="#">U80012-004</a>		BUSHING – Insert, flap cable control (4 per ship 1953 models)	3	X	X	X	X			X	X	X	
-7	<a href="#">U80122-018</a>		WASHER – Flap cable control	6	X	X	X	X			X	X	X	
	<a href="#">U80122-018</a>		WASHER – Flap cable control (Fuselage station No. 6 top)	2				X					X	
-8	<a href="#">U40123-080</a>		CABLE ASSEMBLY – Flap control, lower “125” and “135”	1	X	X	X				X	X		
	<a href="#">U40123-093</a>		CABLE ASSEMBLY – Flap control, lower	1				X					X	
-9	<a href="#">U11641-004</a>		CABLE ASSEMBLY – Rudder	2	X	X	X	X						
-10	<a href="#">U40071-000</a>		FAIRLEAD – Cable (Segment) rudder, 1¾ in. long	8	X	X	X	X			X	X	X	
-11	<a href="#">U40081-000</a>		RING – Snap, fairlead	4	X	X	X	X			X	X	X	
-12	<a href="#">U40701-000</a>		FAIRLEAD – Cable, segment	4	X	X	X	X			X	X	X	
-13	<a href="#">U40081-000</a>		RING – Snap, fairlead	2	X	X	X	X			X	X	X	



**FIGURE 34**

Tail Surfaces Installation



SECTION V  
Control Group

TAIL SURFACES INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
34-	11825		DRAWING – Tail surfaces installation		X	X	X	X		X	X	X
-1	<a href="#">U10555-002</a>		WIRE ASSEMBLY – Brace upper	2	X	X	X	X		X	X	X
-2	<a href="#">U81102-002</a>		WASHER – Square	2	X	X	X	X		X	X	X
-3	<a href="#">U41031-002</a>		WIRE	1	X	X	X	X		X	X	X
-4	<a href="#">U61341-003</a>		CLEVIS	1	X	X	X	X		X	X	X
-5	<a href="#">U61341-002</a>		CLEVIS	1	X	X	X	X		X	X	X
-6	<a href="#">U41051-000</a>		NIPPLE	2	X	X	X	X		X	X	X
-7	<a href="#">MS21044N3</a>		NUT – Elastic stop nut (406-681)	2	X	X	X	X		X	X	X
-8	<a href="#">NAS1149F0363P</a>		WASHER (407-564)	2	X	X	X	X		X	X	X
-9	<a href="#">AN4-15A</a>		BOLT (401-315)	1	X	X	X	X		X	X	X
-10	<a href="#">U40131-000</a>		WASHER – Tail brace	2	X	X	X	X		X	X	X
-11	<a href="#">MS21044N4</a>		NUT (406-682)	1	X	X	X	X		X	X	X
-12	<a href="#">AN3-15A</a>		BOLT (401-274)	2	X	X	X	X		X	X	X
-13	<a href="#">U82732-072</a>		BUSHING	4	X	X	X	X		X	X	X
-14	<a href="#">AN3-5A</a>		BOLT (401-266)	2	X	X	X	X		X	X	X
-15	<a href="#">MS21044N3</a>		NUT – Elastic stop nut (406-681)	2	X	X	X	X		X	X	X
-16	<a href="#">U10556-002</a>		WIRE ASSEMBLY – Brace lower	2	X	X	X	X		X	X	X
-17	<a href="#">U81102-002</a>		WASHER – Square	2	X	X	X	X		X	X	X
-18	<a href="#">U41031-003</a>		WIRE	1	X	X	X	X		X	X	X
-19	<a href="#">U61341-004</a>		CLEVIS	1	X	X	X	X		X	X	X
-20	<a href="#">U61340-000</a>		CLEVIS	1	X	X	X	X		X	X	X
-21	<a href="#">U41051-000</a>		NIPPLE	2	X	X	X	X		X	X	X
-22	<a href="#">U10940-002</a>		SPRING – Bungee cable	2	X	X	X	X		X	X	X
-23	<a href="#">U40123-061</a>		CABLE ASSEMBLY – Control bungee, upper	1	X	X	X	X		X	X	X
-24	<a href="#">U40123-070</a>		CABLE ASSEMBLY – Control bungee, lower	1	X	X	X	X		X	X	X
-25	<a href="#">AN115-16</a>		SHACKLE – Cable (486-563)	1	X	X	X	X		X	X	X
-26	<a href="#">U80421-000</a>		PULLEY – 1¼ inch	2	X	X	X	X		X	X	X
-27	<a href="#">U81322-015</a>		LINK – Offset, lower bungee spring	1	X	X	X	X		X	X	X
-28	<a href="#">U41271-004</a>		LINK – Elevator horn, lower	1	X	X	X	X		X	X	X
-29	<a href="#">U10449-000</a>		LINK – Elevator horn, upper	1	X	X	X	X		X	X	X
-30	12650-000		ELEVATOR ASSEMBLY – Covered, LH	1	X	X	X	X		X	X	X
-31	12650-001		ELEVATOR ASSEMBLY – Covered, RH	1	X	X	X	X		X	X	X
-32	<a href="#">U12649-000</a>		ELEVATOR ASSEMBLY – Uncovered	1	X	X	X	X		X	X	X
-33	<a href="#">U80122-053</a>		GROMMET – Drain	4	X	X	X	X		X	X	X
-34	<a href="#">AN4-6A</a>		BOLT (400-003)	1	X	X	X	X		X	X	X
	<a href="#">NAS1149F0463P</a>		WASHER (407-565)	2	X	X	X	X		X	X	X
	<a href="#">MS21044N4</a>		STOP NUT 406-682)	1	X	X	X	X		X	X	X





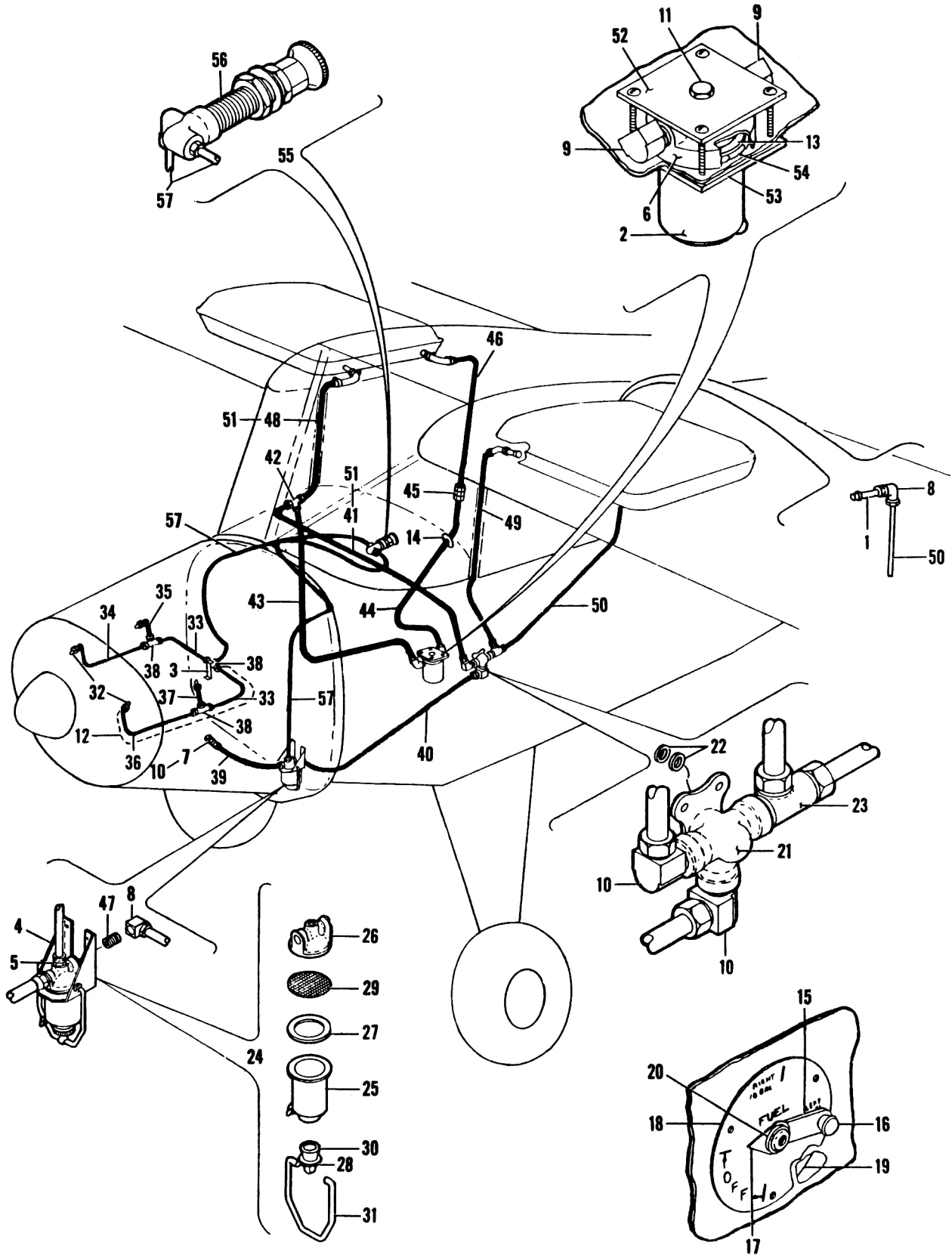
SECTION V  
Control Group

TAIL SURFACES INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
34-35	12753-000		RUDDER ASSEMBLY – Covered	1	X	X	X	X		X	X	X
-36	<a href="#">U40622-007</a>		RUDDER ASSEMBLY – Uncovered	1	X	X	X	X		X	X	X
-37	<a href="#">-12177-039</a>		WIRE ASSEMBLY – Tail light	1	X	X	X	X		X	X	X
-38	<a href="#">U80122-053</a>		GROMMET – Drain	2	X	X	X	X		X	X	X
-39	<a href="#">MS20392-3C55</a>		PIN – Tail surface hinge (424-224)	6	X	X	X	X		X	X	X
-40	<a href="#">U80122-086</a>		WASHER – Tail surface pin	12	X	X	X	X		X	X	X
-41	<a href="#">AN380-2-2</a>		COTTER PIN (424-051)	6	X	X	X	X		X	X	X
-42	12648-000		STABILIZER ASSEMBLY – Covered, LH	1	X	X	X	X		X	X	X
-43	12648-001		STABILIZER ASSEMBLY – Covered, RH	1	X	X	X	X		X	X	X
-44	<a href="#">U12647-000</a>		STABILIZER ASSEMBLY – Uncovered, LH or RH	1	X	X	X	X		X	X	X
-45	<a href="#">U80122-053</a>		GROMMET – Drain	3	X	X	X	X		X	X	X
-46	<a href="#">AN3-12A</a>		BOLT – Rear (400-443)	2	X	X	X	X		X	X	X
-47	<a href="#">NAS1149F0363P</a>		WASHER (407-564)	4	X	X	X	X		X	X	X
-48	<a href="#">MS21044N3</a>		STOP NUT – Elastic (406-681)	4	X	X	X	X		X	X	X
-49	<a href="#">AN3-13A</a>		BOLT (400-444)	2	X	X	X	X		X	X	X
-50	<a href="#">U86062-079</a>		TUBE – Stabilizer rear liner	1	X	X	X	X		X	X	X
-51	<a href="#">U80022-044</a>		BUSHING – Bronze, insert, long, tail surfaces	6	X	X	X	X		X	X	X
-52	<a href="#">U80022-045</a>		BUSHING – Bronze, insert, short, tail surfaces	12	X	X	X	X		X	X	X
-53	<a href="#">AN3-5A</a>		BOLT (401-266)	1	X	X	X	X		X	X	X
	<a href="#">MS21044N3</a>		STOP NUT – Elastic (406-681)	1	X	X	X	X		X	X	X
	<a href="#">NAS1149F0363P</a>		WASHER (407-681)	2	X	X	X	X		X	X	X
-54	<a href="#">AN23-10</a>		BOLT, CLEVIS (400-672)	1	X	X	X	X		X	X	X
	<a href="#">AN310-3</a>		NUT (404-100)	1	X	X	X	X		X	X	X
	<a href="#">AN380-2-2</a>		COTTER PIN (424-051)	1	X	X	X	X		X	X	X
-55	<a href="#">U80012-017</a>		BUSHING – Elevator horn, rear upper link attachment	1	X	X	X	X		X	X	X
-56	<a href="#">AN23-12</a>		BOLT (400-674)	2	X	X	X	X		X	X	X
	<a href="#">NAS1149F0363P</a>		WASHER (407-564)	2	X	X	X	X		X	X	X
	<a href="#">AN380-2-2</a>		COTTER PIN (424-051)	2	X	X	X	X		X	X	X
-57	<a href="#">AN4-7</a>		BOLT (400-104)	2	X	X	X	X		X	X	X
	<a href="#">AN380-2-2</a>		COTTER PIN (424-051)	2	X	X	X	X		X	X	X
	<a href="#">AN310-4</a>		NUT (400-104)	2	X	X	X	X		X	X	X
-58	<a href="#">AN3-6A</a>		BOLT (400-440)	1	X	X	X	X		X	X	X
	<a href="#">MS21044N3</a>		STOP NUT – Elastic (406-681)	1	X	X	X	X		X	X	X

Above parts are for aircraft with round tail brace wires.

Above parts are used for aircraft if Piper Service Letter 400 has been complied with.



**FIGURE 35**

Fuel System Installation



SECTION VI  
Fuel System Group

FUEL SYSTEM INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model											
					PA-20					PA-22						
					'50	'51	'52	'53	'54	'51	'52	'53	'54			
35-	12708		DRAWING – Fuel system installation	1	X	X	X	X			X	X	X			
-1	<a href="#">AN840-6D</a>		ADAPTER – Fuel line to left rear tank	1	X	X	X	X			X	X	X			
-2	<a href="#">U12764-000</a>	A	BOWL – Fuel strainer, E-Z drain type, bottom fuselage	1	X	X	X	X			X	X	X			
-3	<a href="#">-12870-000</a>	B	BRACKET – Primer line tee attachment, at rear engine	1	X	X	X	X			X	X	X			
-4	<a href="#">U71991-000</a>		BRACKET ASSEMBLY – Fuel strainer mounting	1	X	X	X	X			X	X	X			
-5	<a href="#">200X2</a>		CONNECTOR – Primer line to gascolator	1	X	X	X	X			X	X	X			
-6	<a href="#">U87477-002</a>	A	COVER – Rear fuel strainer	1	X	X	X	X			X	X	X			
-7	<a href="#">402X6</a>		ELBOW – Flexible fuel line to carburetor attachment (460-654)	1	X	X	X	X			X	X	X			
-8	<a href="#">450X6</a>		ELBOW – (1) Fuel line to gascolator (1) fuel line to left rear tank (460-689)	2	X	X	X	X			X	X	X			
-9	<a href="#">402X6</a>	A	ELBOW – Fuel line to rear fuel strainer attachment (460-654)	2	X	X	X	X			X	X	X			
-10	<a href="#">402X6</a>		ELBOW (460-654) (Shut off to right wing tank) 1 per ship (Shut off to gascolator) 1 per ship	2	X	X	X	X			X	X	X			
-11	<a href="#">3152X2</a>	A	FITTING – Pipe plug, rear fuel strainer (460-669)	1	X	X	X	X			X	X	X			
-12	11987-19		LINE ASSEMBLY – Primer tee (rear of engine) to left front cylinder, when manifold pressure gage is installed	1	X	X	X	X			X	X	X			
-13	<a href="#">U85012-032</a>	A	GASKET – Rear fuel strainer	1	X	X	X	X			X	X	X			
-14	<a href="#">MS35489-11</a>	A	GROMMET – Rubber right rear fuel line attachment to frame (AN931-6-10)	1	X	X	X	X			X	X	X			
-15	<a href="#">U13033-000</a>		HANDLE – Fuel valve shut off	1		X	X	X			X	X	X			
-16	<a href="#">-471-051</a>		KNOB – Fuel valve shut off handle	1		X	X	X			X	X	X			
-17	<a href="#">-12857-000</a>		POINTER – Fuel valve	1	X	X	X	X			X	X	X			
-18	<a href="#">U12709-003RD</a>	A	PLATE, RED – Indicator, fuel shut off valve	1	X	X	X	X			X	X	X			
	<a href="#">U12709-003BK</a>	A	PLATE, BLACK – Indicator, fuel shut off valve	1	X	X	X	X			X	X	X			
	12709-00	C	PLATE – Indicator, fuel shut off valve	1	X											
-19	<a href="#">U12709-002</a>		PLATE – Reinforcement fuel valve indicator	1	X	X	X	X			X	X	X			
-20	<a href="#">-85012-067</a>		WASHER – Fuel valve handle installation	1		X	X	X			X	X	X			
-21	<a href="#">U491-947K2</a>		VALVE ASSEMBLY – Fuel shut off	1	X	X	X	X			X	X	X			
-22	752-692		GASKET	2	X	X	X	X			X	X	X			
-23	488-375		TEE – Inverted, left wing tank, fuel lines to shut off valve (W/H 752 x 6)	1	X	X	X	X			X	X	X			
-24	<a href="#">U14330-002</a>		STRAINER ASSEMBLY – Fuel (complete)	1	X	X	X	X			X	X	X			
-25	<a href="#">U12764-000</a>		BOWL (E-Z drain type)	1	X	X	X	X			X	X	X			
-26	<a href="#">U87477-002</a>		COVER – Fuel strainer	1	X	X	X	X			X	X	X			
-27	<a href="#">U85012-032</a>		GASKET – Fuel strainer	1	X	X	X	X			X	X	X			



FUEL SYSTEM INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
35-28	<a href="#">U72302-003</a>		NUT – Fuel strainer bowl, seat	1	X	X	X	X			X	X	X	
-29	<a href="#">U750-272</a>		SCREEN – Fuel strainer	1	X	X	X	X			X	X	X	
-30	<a href="#">U750-273</a>		SEAT – Fuel strainer bowl	1	X	X	X	X			X	X	X	
-31	<a href="#">U750-268</a>		WIRE ASSEMBLY – Bail	1	X	X	X	X			X	X	X	
-32	<a href="#">U31197-000</a>		JET – Primer, straight (Includes ball sleeve and compression nut) (4 per ship with four cylinder priming)	2	X	X	X	X			X	X	X	
-33	<a href="#">-11987-009</a>		LINE ASSEMBLY – Primer tee (Rear of engine) to rear cylinder	2	X	X	X	X			X	X	X	
-34	<a href="#">-10143-020</a>		LINE – Primer, at right front cylinder	1	X	X	X	X			X	X	X	
-35	<a href="#">-10143-061</a>		LINE – Primer, at right rear cylinder	1	X	X	X	X			X	X	X	
-36	<a href="#">-10143-020</a>	B	LINE – Primer, at left front cylinder	1	X	X	X	X			X	X	X	
-37	<a href="#">-10143-061</a>	B	LINE – Primer, at left rear cylinder	1	X	X	X	X			X	X	X	
-38	<a href="#">702X2</a>		TEE – Primer lines at engine (3 per ship with four cylinder priming)	1	X	X	X	X			X	X	X	
-39	<a href="#">U17766-66</a>		LINE ASSEMBLY – Fuel, flexible, strainer to carburetor	1	X	X	X	X			X	X	X	
-40	<a href="#">U11973-003</a>		LINE ASSEMBLY – Fuel, shut off valve to gascolator	1	X	X	X	X			X	X	X	
-41	<a href="#">U12866-000</a>	A	LINE ASSEMBLY – Fuel, right front tank, tee to shut off	1	X	X	X	X			X	X	X	
-42	<a href="#">64X6</a>	A	TEE – Compression, right front fuel line	1	X	X	X	X			X	X	X	
-43	<a href="#">U12864-003</a>		LINE ASSEMBLY – Fuel, right front tank, tee to rear strainer	1			X	X				X	X	
	<a href="#">U12864-000</a>	D	LINE ASSEMBLY – Fuel, right front tank, tee to rear strainer	1	X	X					X			
-44	12862-00	A	LINE ASSEMBLY – Fuel, right rear tank, compression union to rear strainer	1	X	X	X	X			X	X	X	
-45	491-080	A	UNION – Compression right rear fuel line connection (W/H No. 62 x 6)	1	X	X	X	X			X	X	X	
-46	<a href="#">U12863-000</a>	A	LINE – Fuel, right rear tank, tank to compression union	1	X	X	X	X			X	X	X	
-47	<a href="#">3326X4</a>		NIPPLE – Fuel line to gascolator (W/H No. 3326 x 4)	1	X	X	X	X			X	X	X	
-48	<a href="#">U12865-000</a>	A	LINE ASSEMBLY – Fuel, tee to front of right tank	1	X	X	X	X			X	X	X	
-49	<a href="#">U12574-000</a>		LINE ASSEMBLY – Fuel, shut off to front of left tank	1	X	X	X	X			X	X	X	
-50	14173-000	E	LINE ASSEMBLY – Fuel, shut off to rear of left tank	1	X	X	X	X			X	X	X	
-51	12575-00	C	LINE ASSEMBLY – Fuel, shut off to front of right tank	1	X									



SECTION VI  
Fuel System Group

FUEL SYSTEM INSTALLATION

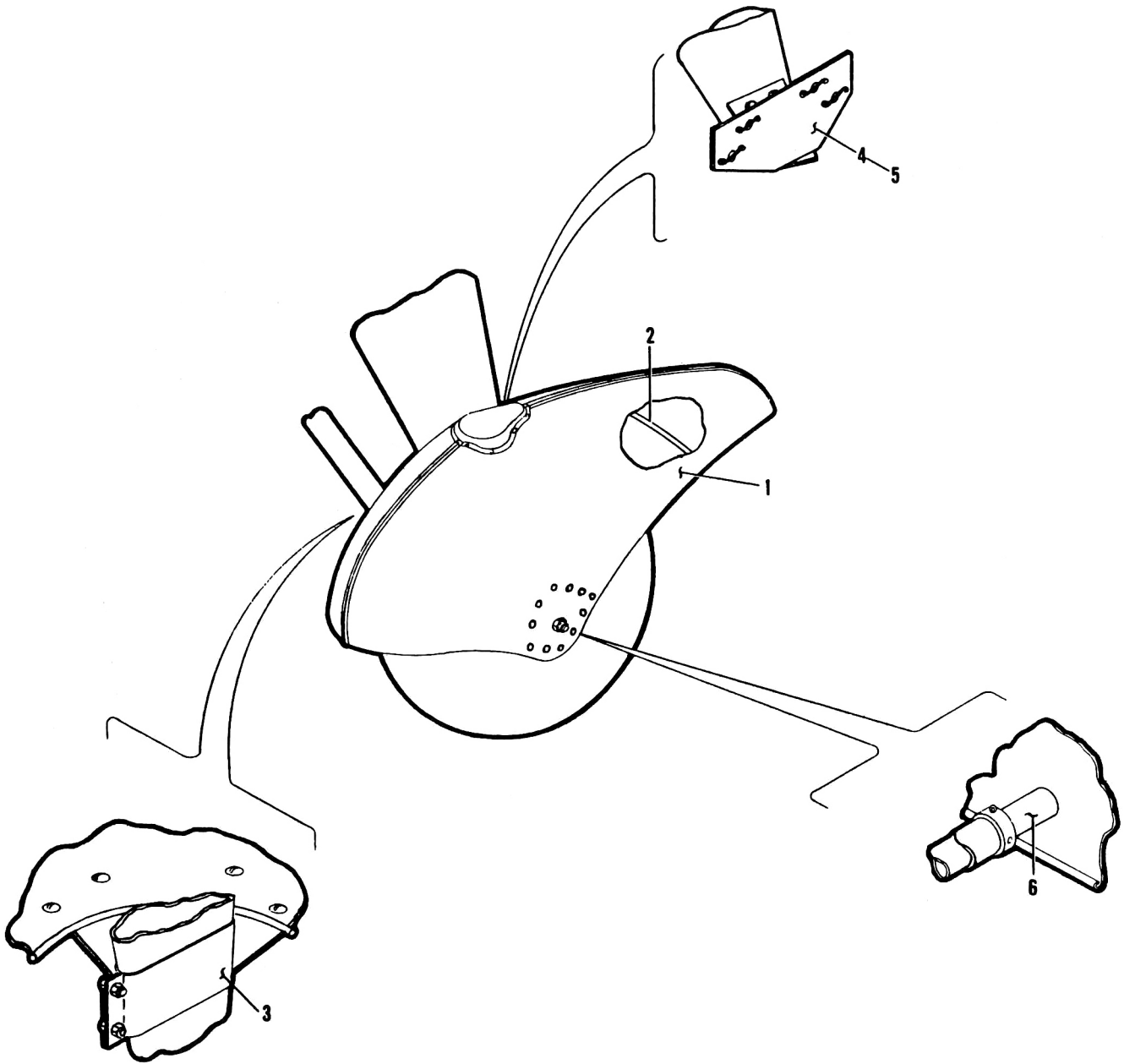
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
35-52	12868-02	A	PLATE – Top, rear fuel strainer mounting	1	X	X	X	X			X	X	X	
-53	12868-03	A	PLATE – Bottom, rear fuel strainer mounting	1	X	X	X	X			X	X	X	
-54	12867-00	A	RING – Spacer, rear fuel strainer mounting	1	X	X	X	X			X	X	X	
-55	11382-00		PRIMER ASSEMBLY	1	X	X	X	X			X	X	X	
-56	<a href="#">U451-100</a>		PUMP – Primer (No. R-2406)	1	X	X	X	X			X	X	X	
-57	<a href="#">-10143-065</a>		LINE ASSEMBLY – Primer (To gascolator) – 1 per ship (To tee at engine) – 1 per ship	2	X	X	X	X			X	X	X	

- A – Used on PA-20 airplanes with serial numbers 20-208 to 20-212 inclusive and 20-214 and up, and on all PA-22 airplanes.  
 B – Used on PA-20 airplanes with serial numbers 20-95 to 20-102 inclusive, 20-105, 20-110, 20-111, 20-113 and up, and on all PA-22 airplanes.  
 C – Used on PA-20 airplanes with serial numbers 20-1 to 20-207 inclusive and 20-213.  
 D – Used on PA-20 airplanes with serial numbers 20-208 to 20-212 inclusive, and 20-214 to 20-811 inclusive, and on all 1951 model PA-22 airplanes.  
 E – When ordering for aircraft not equipped with and elbow and an adaptor at tank end of line it will be necessary to order one (1) each elbow part number 460 689 and one (1) each adaptor part number 476 652 for proper installation

SECTION VII  
Chassis Group

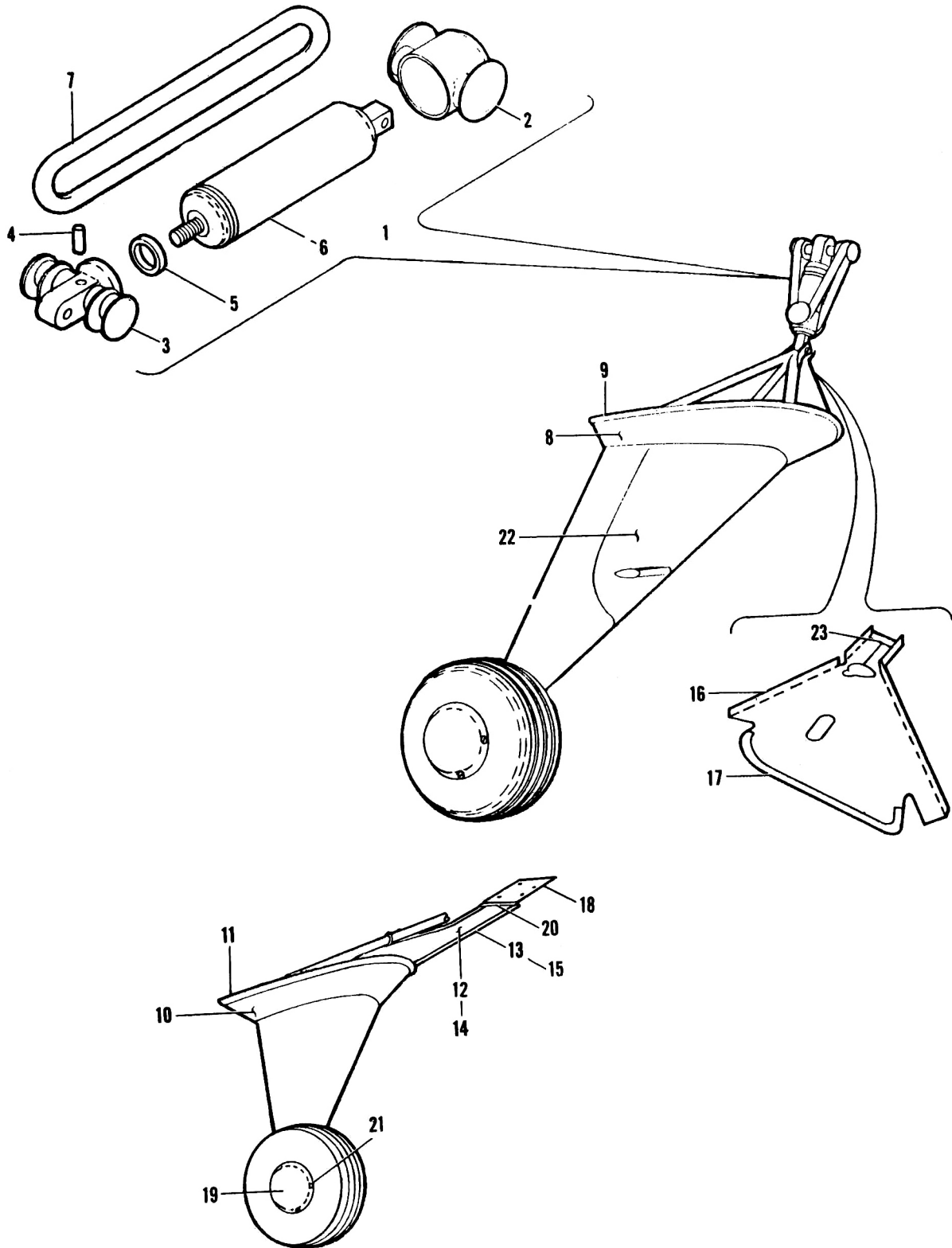
WHEEL FENDER INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
36-	12671		DRAWING – Wheel fender installation		X	X	X	X						
	750-954		WHEEL FENDER – Sets (1 left and 1 right fender)	1	X	X	X	X						
-1	12516-00		FENDER – LH	1	X	X	X	X						
	12516-01		FENDER – RH	1	X	X	X	X						
-2	<a href="#">U19795-000</a>		MOULDING – Rubber (Die No. 827)	2'	X	X	X	X						
	750-959		WHEEL FENDER BRACKETS – Sets (Includes 1 left bracket, 1 right bracket and 2 axle tubes)	1	X									
	751-377		WHEEL FENDER BRACKETS – Sets (Includes 1 left bracket, 1 right bracket and 2 axle tubes)	1		X								
	751-383		WHEEL FENDER BRACKETS – Sets (Includes 1 left bracket, 1 right bracket and 2 axle tubes)	1			X	X						
-3	12535-00		BRACKET – LH	1	X									
	12535-01		BRACKET – RH	1	X									
-4	13048-00		BRACKET – LH	1		X								
	13048-01		BRACKET – RH	1		X								
-5	13200-00		BRACKET – LH	1			X	X						
	13200-01		BRACKET – RH	1			X	X						
-6	<a href="#">U12572-000</a>		TUBE ASSEMBLY – Fender, axle	2	X	X	X	X						



## FIGURE 36

Wheel Fender Installation, Model PA-20



# FIGURE 37

Landing Gear Shock Unit and Fairings Installation

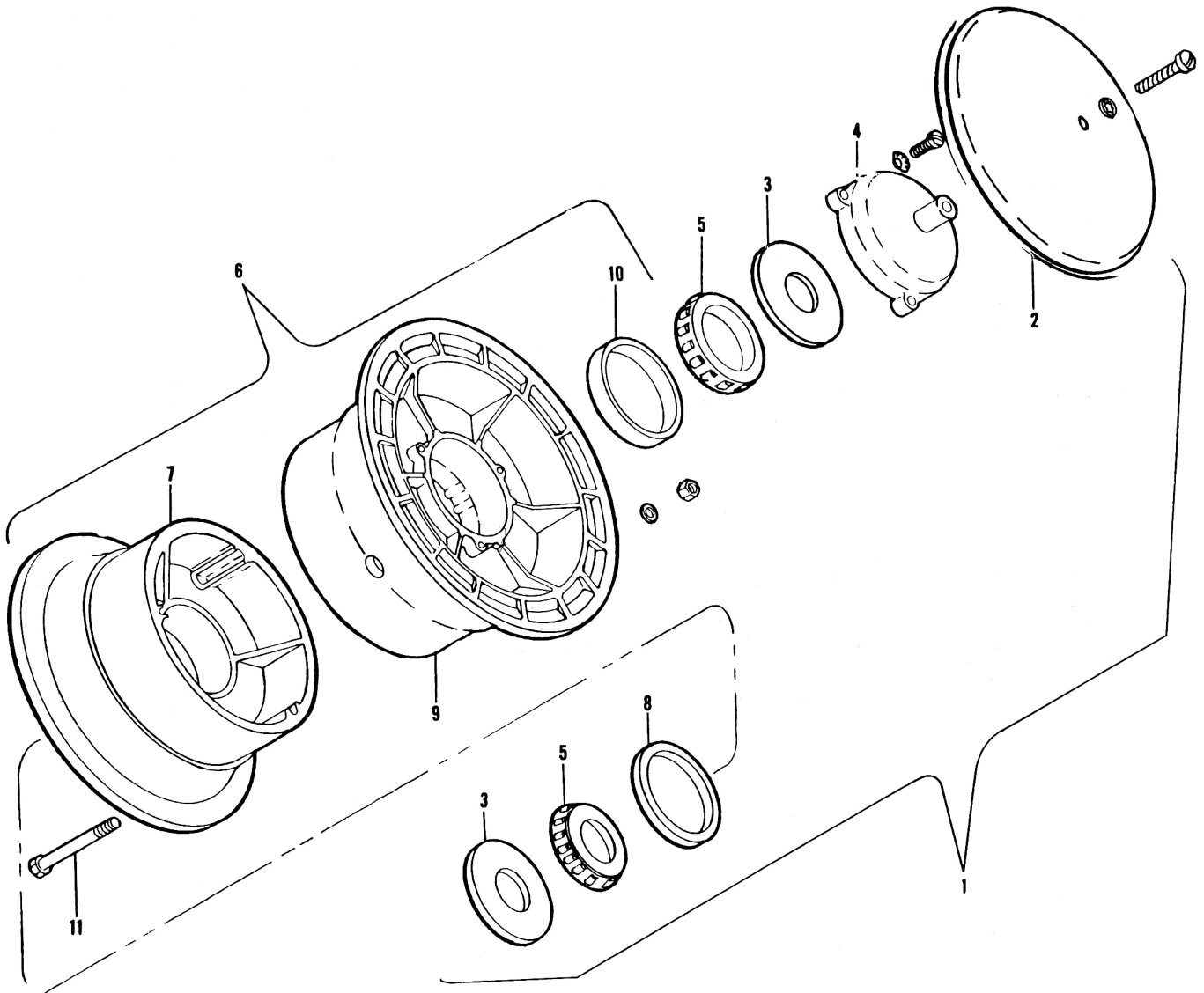


LANDING GEAR SHOCK UNIT  
AND FAIRINGS INSTALLATION

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model															
					PA-20					PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54							
37-	12637		DRAWING – Landing gear and tail wheel installation (Rev A to J incl.)		X	X														
	12637		DRAWING – Landing gear and tail wheel installation					X	X											
	<a href="#">-13113DWG</a>		DRAWING – Landing gear installation								X	X	X							
-1	<a href="#">U12638-000</a>		STRUT – Shock assembly (Hydrasorb)	2	X	X														
	<a href="#">U13148-000</a>		STRUT – Shock assembly (Hydrasorb)	2				X	X		X	X	X							
-2	<a href="#">U12875-000</a>		FITTING ASSEMBLY – Shock strut end, bottom	1	X	X	X	X			X	X	X							
-3	<a href="#">U12639-000</a>		FITTING ASSEMBLY – Shock strut end, top	1	X	X	X	X			X	X	X							
-4	<a href="#">MS16562-37</a>		PIN	1	X	X	X	X			X	X	X							
-5	<a href="#">U85012-057</a>		WASHER – Bumper	1	X	X	X	X			X	X	X							
37-6	<a href="#">U487-558-1</a>		SHOCK STRUT (No. 18233-00)	1	X	X	X	X			X	X	X							
-7	<a href="#">U31322-003</a>		RING – Shock cord (31322-03)	1	X	X														
	<a href="#">U31322-002</a>		RING – Shock cord (31322-02)	2				X	X		X	X	X							
-8	<a href="#">U13150-001</a>		FAIRING – Landing gear, outer, RH	1							X	X	X							
	<a href="#">U13150-000</a>		FAIRING – Landing gear, outer, LH	1							X	X	X							
-9	<a href="#">U13150-004</a>		MOULDING – Rubber	1							X	X	X							
-10	11847-01		FAIRING – Landing gear, outer, RH	1	X															
	11847-00		FAIRING – Landing gear, outer, LH	1	X															
	13105-01		FAIRING – Landing gear, outer, RH	1		X	X	X												
	13105-00		FAIRING – Landing gear, outer, LH	1		X	X	X												
-11	11847-03		RUBBER – Strip	1	X	X	X	X												
-12	12624-01		FAIRING – Landing gear, belly, RH	1	X	X														
	12624-00		FAIRING – Landing gear, belly, LH	1	X	X														
-13	<a href="#">U19795-000</a>		MOULDING – Rubber	54"	X	X														
-14	13195-01		FAIRING – Landing gear, belly, RH	1				X	X											
	13195-00		FAIRING – Landing gear, belly, LH	1				X	X											
-15	<a href="#">U19795-000</a>		MOULDING – Rubber	18"				X	X											
-16	<a href="#">U13152-001</a>		FAIRING – Landing gear, belly, RH	1							X									
	<a href="#">U13152-005</a>		FAIRING – Landing gear, belly, RH	1								X	X							
	<a href="#">U13152-000</a>		FAIRING – Landing gear, belly, LH	1							X	X	X							
-17	<a href="#">U19795-000</a>		MOULDING – Rubber	24"							X	X	X							
-18	12760-00		FAIRING – Belly, between left and right belly fairings	1	X	X														
-19	<a href="#">U31702-000</a>		CAP – Hub (Main wheel)	2	X	X	X	X												
-20	11848-02		CHANNEL – Belly fairing stiffener	2	X	X														
	11848-03		CHANNEL – Belly fairing stiffener	2				X	X											
-21	415-773		SCREW – Main wheel (Hub cap attachment) (10-24 x 3/8")	6	X	X	X	X												
-22	13749-00		PLATE – Scuff, landing gear, RH	1								X	X							
-23	11848-03		CHANNEL – Belly fairing stiffener	2							X	X	X							





## FIGURE 38

Main Wheel Assembly, Model PA-22



MAIN WHEEL ASSEMBLY  
MODEL PA-22

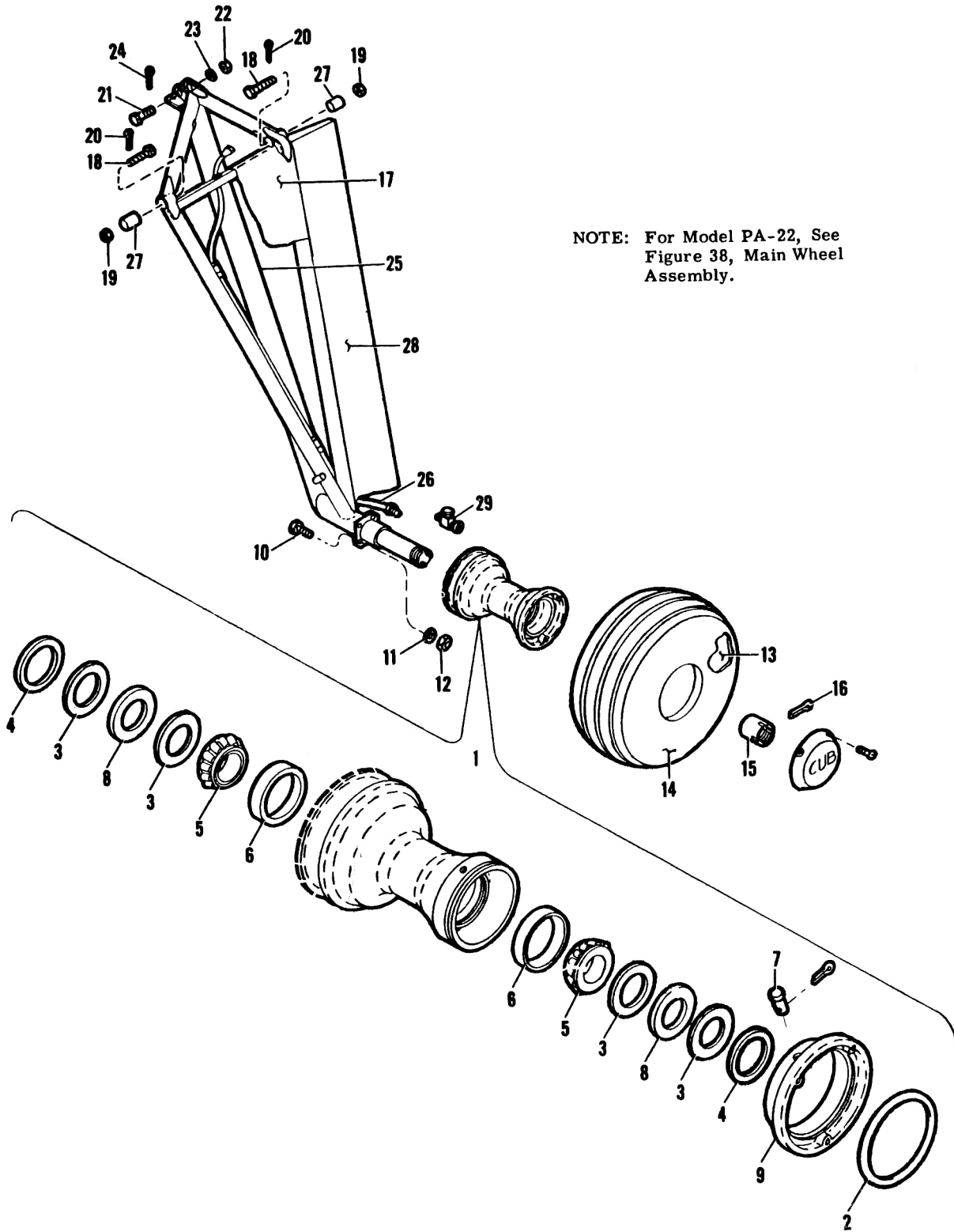
SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
38-1	<a href="#">3040</a>		WHEEL ASSEMBLY – Main, complete (C-38500-HA)	2							X	X	X
-2	<a href="#">157-00200</a>		DUST CAP – Spinning, with screw (No. A38550)	1							X	X	X
-3	<a href="#">154-00400</a>		GREASE SEAL ASSEMBLY (No. B-39001)	2							X	X	X
-4	<a href="#">158-00100</a>		HUB CAP WITH SCREWS (No. A38520)	1							X	X	X
-5	<a href="#">13889</a>		BEARING CONE – Timken (No. 13889)	2							X	X	X
-6	753-130		WHEEL ASSEMBLY – Outer wheel half, inner wheel assembly, 3 thru bolts, washers and stop nuts (C-38500-H)	1							X	X	X
-7	753-131		INNER WHEEL HALF WITH BEARING CUP AND DRUM (C-38100-H) (Brake drum not available separately)	1							X	X	X
-8	<a href="#">13836</a>		CUP – Bearing (No. 13836)	1							X	X	X
-9	<a href="#">162-00600</a>		OUTER WHEEL HALF WITH BEARING CUP (C-38510-H)	1							X	X	X
-10	<a href="#">13836</a>		CUP – Bearing (No. 13836)	1							X	X	X
-11	<a href="#">AN4-36A</a>		BOLT – Thru wheel (AN4-36A)	3							X	X	X

LANDING GEAR VEE,  
WHEEL AND DRUM BRAKE ASSEMBLY

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
39-1	<a href="#">UD3-13A-1</a>		WHEEL AND BRAKE DRUM ASSEMBLY	2	X	X	X	X					
-1A	199-00101		BRAKE DRUM	1	X	X	X	X					
-2	<a href="#">A85-118</a>		LOCK RING – Side ring	1	X	X	X	X					
-3	<a href="#">UA56-4</a>		FELT RETAINER	4	X	X	X	X					
-4	<a href="#">UA85-218</a>		LOCK RING – Felt retainer	2	X	X	X	X					
-5	<a href="#">08125</a>		CONE – Bearing	2	X	X	X	X					
-6	<a href="#">08231</a>		CUP – Bearing	2	X	X	X	X					
-7	<a href="#">A20-54</a>		PINS – Anchor	1	X	X	X	X					
-8	<a href="#">UB227-52</a>		FELT – Grease retainer	2	X	X	X	X					
-9	<a href="#">B11-5</a>		CASTING – Side ring	1	X	X	X	X					
-10	<a href="#">AN4-7A</a>		BOLT	12							X	X	X
	<a href="#">AN4-5A</a>		BOLT	8	X	X	X	X					
-11	<a href="#">NAS1149F149QP</a>		WASHER (AN960-416) (8 per ship PA-20)	12	X	X	X	X			X	X	X



## FIGURE 39

Landing Gear Vee, Wheel and Brake Drum Assembly



LANDING GEAR VEE,  
WHEEL AND DRUM BRAKE ASSEMBLY

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
39-12			NUT – Elastic stop (No. 42E048) (8 per ship PA-20)	12	x	x	x	x		x	x	x	
-13	<a href="#">800X4</a>		TUBE – Cub, 8:00 x 4	2	x	x	x	x					
	<a href="#">600X6U</a>		TUBE – 6:00 x 6	2						x	x	x	
-14	<a href="#">800X4X4</a>		TIRE – Cub, 8:00 x 4 (4 ply)	2	x	x	x	x					
	<a href="#">600X6T4AT</a>		TIRE – Rib thread, 6:00 x 6 (4 ply)	2						x	x	x	
-15	<a href="#">U30491-000</a>		NUT – Axle	2	x	x	x	x					
	<a href="#">U13020-000</a>		NUT – Axle	2						x	x	x	
-16	<a href="#">AN380-4-2</a>		PIN – Cotter	2	x	x	x	x		x	x	x	
-17	11779-04		VEE ASSEMBLY – Covered, landing gear, LH	1	x								
	11779-03		VEE ASSEMBLY – Covered, landing gear, RH	1	x								
	13054-00		VEE ASSEMBLY – Covered, landing gear, LH	1		x							
	13054-01		VEE ASSEMBLY – Covered, landing gear, RH	1		x							
	13191-00		VEE ASSEMBLY – Covered, landing gear, LH	1			x	x					
	13191-01		VEE ASSEMBLY – Covered, landing gear, RH	1			x	x					
	<a href="#">U13016-000</a>		VEE ASSEMBLY – Covered, landing gear, LH	1						x	x	x	
	<a href="#">U13124-001</a>		VEE ASSEMBLY – Covered, landing gear, RH	1						x	x	x	
			<b>ATTACHING PARTS</b>										
-18	<a href="#">AN6-27</a>		BOLT	4	x	x	x	x		x	x	x	
-19	<a href="#">AN310-6</a>		NUT	4	x	x	x	x		x	x	x	
-20	<a href="#">MS24665-283</a>		PIN – Cotter (AN380-3-3)	4	x	x	x	x		x	x	x	
-21	<a href="#">AN5-15</a>		BOLT	2	x	x	x	x		x	x	x	
-22	<a href="#">AN310-5</a>		NUT	2	x	x	x	x		x	x	x	
-23	<a href="#">NAS1149F0563P</a>		WASHER (AN960-516)	2	x	x	x	x		x	x	x	
-24	<a href="#">AN380-2-2</a>		PIN – Cotter	2	x	x	x	x		x	x	x	
-25	12582-00		VEE ASSEMBLY – Uncovered, LH	1	x								
	12582-01		VEE ASSEMBLY – Uncovered, RH	1	x								
	12582-14		VEE ASSEMBLY – Uncovered, LH	1		x							
	12582-15		VEE ASSEMBLY – Uncovered, RH	1		x							
	<a href="#">L13189-000</a>		VEE ASSEMBLY – Uncovered, LH	1			x	x					
	<a href="#">L13189-001</a>		VEE ASSEMBLY – Uncovered, RH	1			x	x					
	<a href="#">U13016-000</a>		VEE ASSEMBLY – Uncovered, LH	1						x	x	x	
	<a href="#">U13016-021</a>		VEE ASSEMBLY – Uncovered, RH	1						x	x	x	
-26	10034-03		LINE ASSEMBLY – Brake, LH and RH	1	x								
	13040-00		LINE ASSEMBLY – Brake, LH and RH	1		x							
	13190-00		LINE ASSEMBLY – Brake, LH	1			x	x					
	13190-01		LINE ASSEMBLY – Brake, RH	1			x	x					



LANDING GEAR VEE,  
WHEEL AND DRUM BRAKE ASSEMBLY

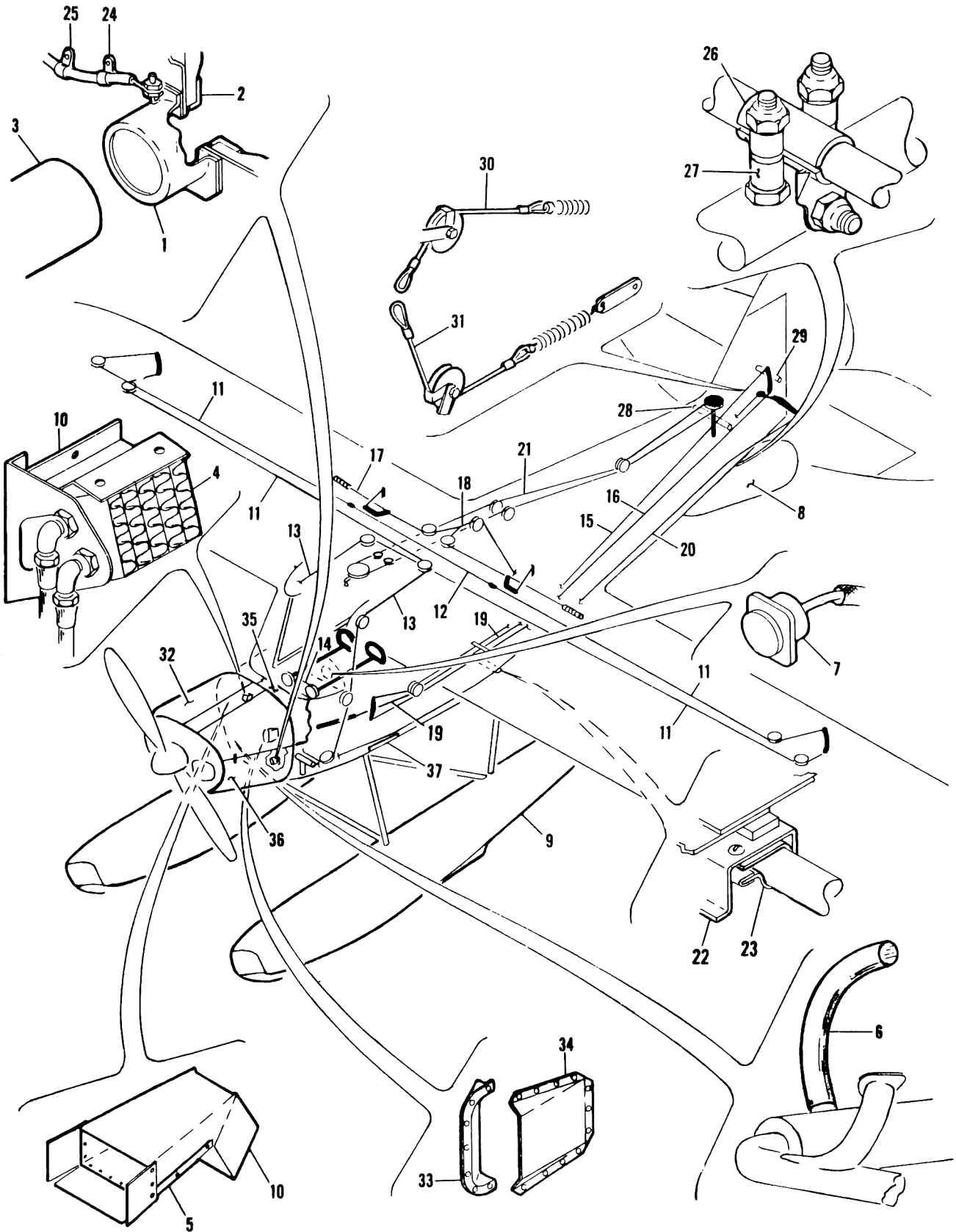
SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
39-27	<a href="#">U13104-000</a>		LINE ASSEMBLY – Brake, LH and RH	1							X	X	X
	<a href="#">U80022-063</a>		BUSHING – Insert	2	X	X	X	X			X	X	X
-28	<a href="#">U13053-000</a>		FAIRING – Vee assembly, rear leg, LH, RH	1		X							
	<a href="#">U13193-000</a>		FAIRING – Vee assembly, rear leg, LH, RH	1			X	X					
-29	<a href="#">U13123-000</a>		FAIRING – Vee assembly, rear leg, LH, RH	1							X	X	X
	<a href="#">B57-239</a>		FITTING – Brake bleeder	2	X	X	X	X					

EDO FLOAT INSTALLATION  
MODEL PA-20

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
40-	12479		DRAWING – Float installation, Edo, "115" and "125"		X	X							
	13693		DRAWING – Float installation, Edo, "125"				X						
	13805		DRAWING – Float installation, Edo, "135"				X						
	14077		DRAWING – Float installation, Edo, "135"					X					
-1	<a href="#">-12315-000</a>		BOX ASSEMBLY – Cold air, "125"	1			X						
-2	<a href="#">-12320-000</a>		PLATE – Trim, cold air intake, "125"	1			X						
-3	<a href="#">AD2</a>		TUBE – Cold air intake, flexible, 2½ in OD, aluminum, "125" (101-980)	21"			X						
-4	752-777		OIL COOLER – "125"	1	X	X	X						
-5	12900-00		SCOOP ASSEMBLY – Air, oil cooler, "125"	1	X	X	X						
-6	10525-12		HOSE – Right rear baffle to muffler shroud, multiflex, "125"	1			X						
-7	11339-02		INSTRUMENT – Indicator, airspeed, "125"	1	X	X	X						
	11339-07		INSTRUMENT – Indicator, airspeed, "135"	1			X	X					
-8	11030-03		FIN ASSEMBLY – Covered (Seaplane auxiliary) "115"	1	X								
-9			FLOAT INSTALLATION – Edo aircraft drawing No. 05525 (Secure from Edo)	1	X	X	X	X					
-10	12899-00		BRACKET ASSEMBLY – Oil cooler mounting, "125"	1	X	X	X						
-11	<a href="#">U11527-004</a>		CABLE – Aileron, stainless steel	1	X	X	X	X					
-12	40123-84		CABLE – Aileron, balance, stainless steel	1	X	X	X	X					
-13	12514-02		CABLE – Aileron, stainless steel	1	X	X	X	X					



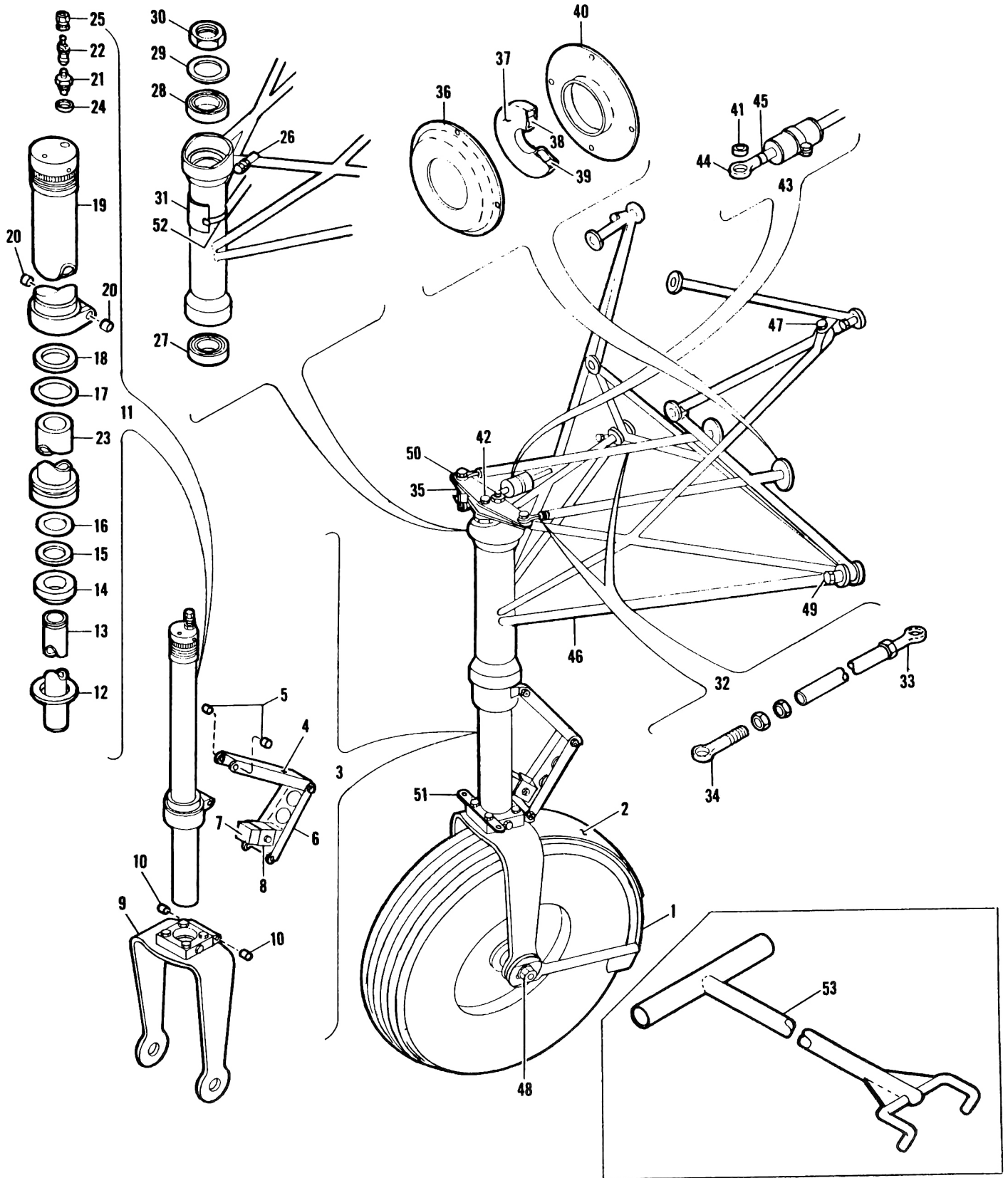
# FIGURE 40

EDO Float Installation, Model PA-20



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
40-14	12526-03		CABLE – Aileron, stainless steel	4	X	X	X	X					
-15	40123-82		CABLE – Elevator, stainless steel	1	X	X	X	X					
-16	40123-83		CABLE – Elevator, stainless steel	1	X	X	X	X					
-17	11694-04		CABLE – Flap return, stainless steel	2	X	X	X	X					
-18	12515-02		CABLE – Flap, stainless steel	1	X	X	X						
	<a href="#">U12515-004</a>		CABLE – Flap, stainless steel	1				X					
-19	40123-85		CABLE – Flap, stainless steel	1	X	X	X						
	40123-94		CABLE – Flap, stainless steel	1				X					
-20	<a href="#">U11641-005</a>		CABLE – Rudder, stainless steel	2	X	X	X	X					
-21	<a href="#">U41671-014</a>		CABLE – Stabilizer adjustment, stainless steel	1	X								
	<a href="#">U41671-018</a>		CABLE – Stabilizer adjustment, stainless steel	1		X	X	X					
-22	12480-00		CHANNEL – Reinforcement, at rear float gear attachment	1	X	X	X						
-23	80032-27		CLAMP – At rear float gear attachment	2	X	X	X						
-24	<a href="#">-13357-000</a>		CLAMP – Cold air intake control attachment (On firewall) “125”	1			X						
-25	<a href="#">AN742-3</a>		CLAMP – Cold air intake control attachment (Tinnerman A-2980A-3-199A) “125”	1			X						
-26	11032-02		CLAMP ASSEMBLY – Auxiliary fin, “115”	1	X								
-27	11032-03		CLAMP ASSEMBLY – Auxiliary fin, “115”	1	X								
-28	<a href="#">U86062-080</a>		TUBE – Liner, stabilizer adjustment	1	X	X	X	X					
-29	<a href="#">U86062-079</a>		TUBE – Liner, stabilizer, rear	1	X	X	X	X					
-30	<a href="#">U40123-073</a>		CABLE – Bungee, stainless steel	1	X	X	X	X					
-31	<a href="#">U40123-081</a>		CABLE – Bungee, lower, stainless steel	1	X	X	X	X					
-32	12720-09		COWL ASSEMBLY – Engine, top, “115” and “125”	1	X								
	13158-11		COWL ASSEMBLY – Engine, top, “125”	1		X	X						
-33	12504-00		FLANGE – Engine cowl, air vent “115” and “125”	2	X	X	X						
-34	12503-00		PLATE – Engine cowl, air vent “115” and “125”	2	X	X	X						
-35	12632-06		COWL ASSEMBLY – Fuselage, left side, “125”	1			X						
-36	<a href="#">U13159-000</a>		COWL ASSEMBLY – Bottom (Note: See Power Plant Section for component parts) “125”	1			X						
	13159-08		COWL ASSEMBLY – Bottom, “135” (Note: See Power Plant Section for component parts)	1		X	X						
-37	12481-02		FAIRING – Fuselage bottom	1	X	X	X	X					





**FIGURE 41**

Nose Wheel Installation, Model PA-22



NOSE WHEEL INSTALLATION  
MODEL PA-22

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
41-	<a href="#">-13113DWG</a>		DRAWING – Nose wheel installation							X	X	X	
-1	13216-00		BRACKET ASSEMBLY – Fender, nose wheel	1						X	X	X	
-2	<a href="#">-13217-000</a>		FENDER ASSEMBLY – Nose wheel	1						X	X	X	
-3	13117-00		STRUT ASSEMBLY – Nose wheel	1						X	X	X	
-4	<a href="#">-13074-802</a>		LINK ASSEMBLY – Torque, upper	1						X	X	X	
-5	<a href="#">-80022-047</a>		BUSHING – Insert, bronze	2						X	X	X	
-6	<a href="#">-13074-003</a>		LINK ASSEMBLY – Torque, lower	1						X	X	X	
-7	<a href="#">-13114-000</a>		BLOCK – Bumper, rubber	1						X	X	X	
-8	<a href="#">-13115-000</a>		BRACKET ASSEMBLY – Bumper block	1						X	X	X	
-9	13079-03		FORK ASSEMBLY – With block	1						X	X	X	
-10	<a href="#">-80022-047</a>		BUSHING – Insert, bronze	2						X	X	X	
-11	13079-02		OLEO ASSEMBLY	1						X	X	X	
-12	<a href="#">-484-705</a>		RING – Retaining, bearing tube (No. 5000-200)	1						X	X	X	
-13	13070-00		TUBE ASSEMBLY – Inner, lower	1						X	X	X	
-14	<a href="#">-187-625</a>		STRIP – Wiper, 5¼"							X	X	X	
-15	<a href="#">AN6246-27</a>		RING – Back up, inside bearing tube (AN6246-27)	1						X	X	X	
-16	<a href="#">MS28775-222</a>		RING – "O", inside bearing tube (AN6227-27)	1						X	X	X	
-17	<a href="#">MS28775-224</a>		RING – "O", outside bearing tube (AN6230-B2)	1						X	X	X	
-18	<a href="#">-484-720</a>		RING – Snap, top inner lower tube (No. 3478)	1						X	X	X	
-19	<a href="#">-13069-000</a>		TUBE ASSEMBLY – Outer upper	1						X	X	X	
-20	<a href="#">-80022-047</a>		BUSHING – Insert, bronze	2						X	X	X	
-21	<a href="#">-492-401</a>		VALVE BODY – Air (AN812-1)	1						X	X	X	
-22	<a href="#">302DN</a>		VALVE CORE – Air (AN809-1)	1						X	X	X	
-23	<a href="#">-452-532</a>		TUBE – Bearing (Lower inner tube assembly)	1						X	X	X	
-24	<a href="#">-462-024</a>		VALVE GASKET – Air	1						X	X	X	
-25	<a href="#">-553-891</a>		VALVE CAP – Air (AN813-1A)	1						X	X	X	
-26	<a href="#">U85061-000</a>		STOP – Steering horn	2						X	X	X	
-27	<a href="#">MS27642-33</a>		BEARING – Main, oleo, lower (KP-33B)	1						X	X	X	
-28	<a href="#">B545DD</a>		BEARING – Main, oleo, upper (B-545)	1						X	X	X	
-29	85012-72		WASHER – Seal, upper bearing	1						X	X	X	
-30	<a href="#">-13071-000</a>		COLLAR – Threaded, oleo retaining	1						X	X	X	
-31	<a href="#">-13291-000</a>		PLACARD – Oleo service instruction	1						X	X	X	

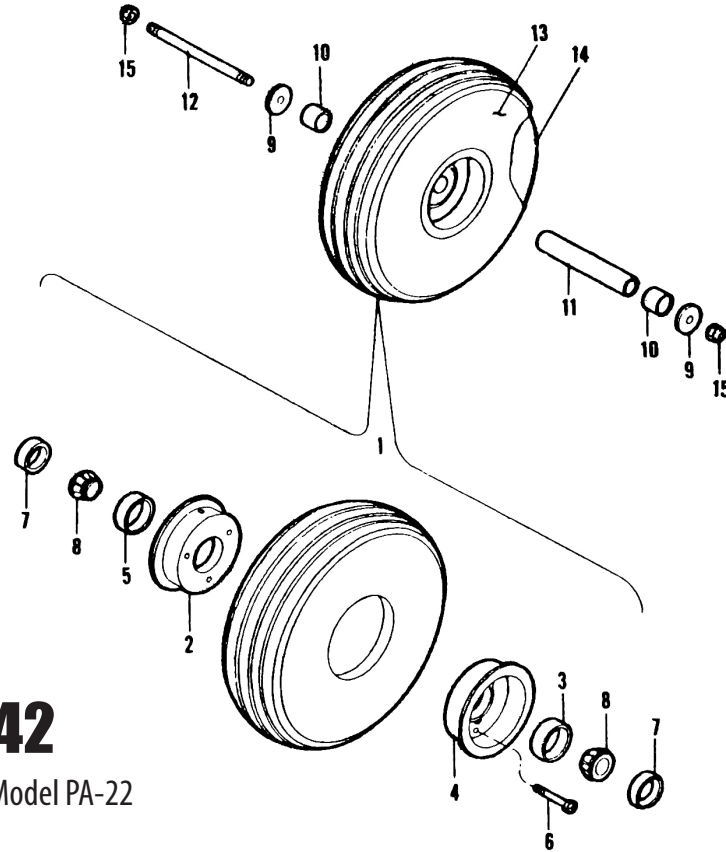


NOSE WHEEL INSTALLATION  
MODEL PA-22

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
41-32	<a href="#">U13107-000</a>		ROD ASSEMBLY – Nose wheel control	2						X	X	X
-33	<a href="#">U11601-000</a>		EYE BOLT – Rod end	1						X	X	X
-34	<a href="#">U452-335</a>		BEARING – Rod end	1						X	X	X
-35	13085-00		HORN ASSEMBLY – Steering, nose wheel	1						X	X	X
-36	<a href="#">-13135-000</a>		PLATE – Retainer, seal ring-housing, nose wheel control rod (At firewall)	2						X	X	X
-37	<a href="#">-13134-000</a>		HOUSING – Seal ring, nose wheel control rod (At firewall)	4						X	X	X
-38	<a href="#">U85012-071</a>		RING – Seal nose wheel control rod (At firewall)	2						X	X	X
-39	<a href="#">-189-410</a>		PACKING – Nose wheel control rod seal (At firewall)	10"						X	X	X
-40	<a href="#">-13133-000</a>		PLATE – Trim, nose wheel control rod (inside firewall)	2						X	X	X
-41	<a href="#">-86102-027</a>	B	BUSHING- Insert, shimmy dampener, eye bolt	1						X	X	X
-42	<a href="#">-10836-002</a>		CAP SCREW – Horn attachment	1						X	X	X
-43	13086-00		DAMPENER ASSEMBLY – Nose wheel shimmy	1						X	X	X
-44	<a href="#">U11601-000</a>		EYE BOLT	1						X	X	X
-45	13196-00	A	BUSHING – Threaded	1						X		
-46	<a href="#">U13034-000</a>		MOUNT ASSEMBLY – Nose wheel	1						X	X	X
			<b>ATTACHING PARTS FOR NOSE WHEEL AND MOUNT ASSEMBLY</b>							X	X	X
-47	<a href="#">AN4-14A</a>		BOLT	2						X	X	X
	<a href="#">MS21044N4</a>		STOP NUT – Elastic	2						X	X	X
-48	<a href="#">MS21044N5</a>		STOP NUT – Elastic	2						X	X	X
-49	<a href="#">AN6-36</a>		BOLT	2						X	X	X
	<a href="#">MS21044N6</a>		STOP NUT – Elastic	2						X	X	X
	<a href="#">NAS1149F0663P</a>		WASHER (AN960-616)	2						X	X	X
-50	81342-24		WASHER – Steering rod attachment	2						X	X	X
-51	13287-00		LINK – Tow bar	1						X	X	X
-52	11473-40		PLATE – Oleo placard installation	1						X	X	X
-53	<a href="#">-13288-000</a>		BAR ASSEMBLY – Tow	1						X	X	X
	752-177		KIT – Landing gear and tail wheel, nuts and bolts	1	X	X	X	X				
	<a href="#">-752-214</a>		KIT – Landing gear, nuts and bolts	1						X	X	X

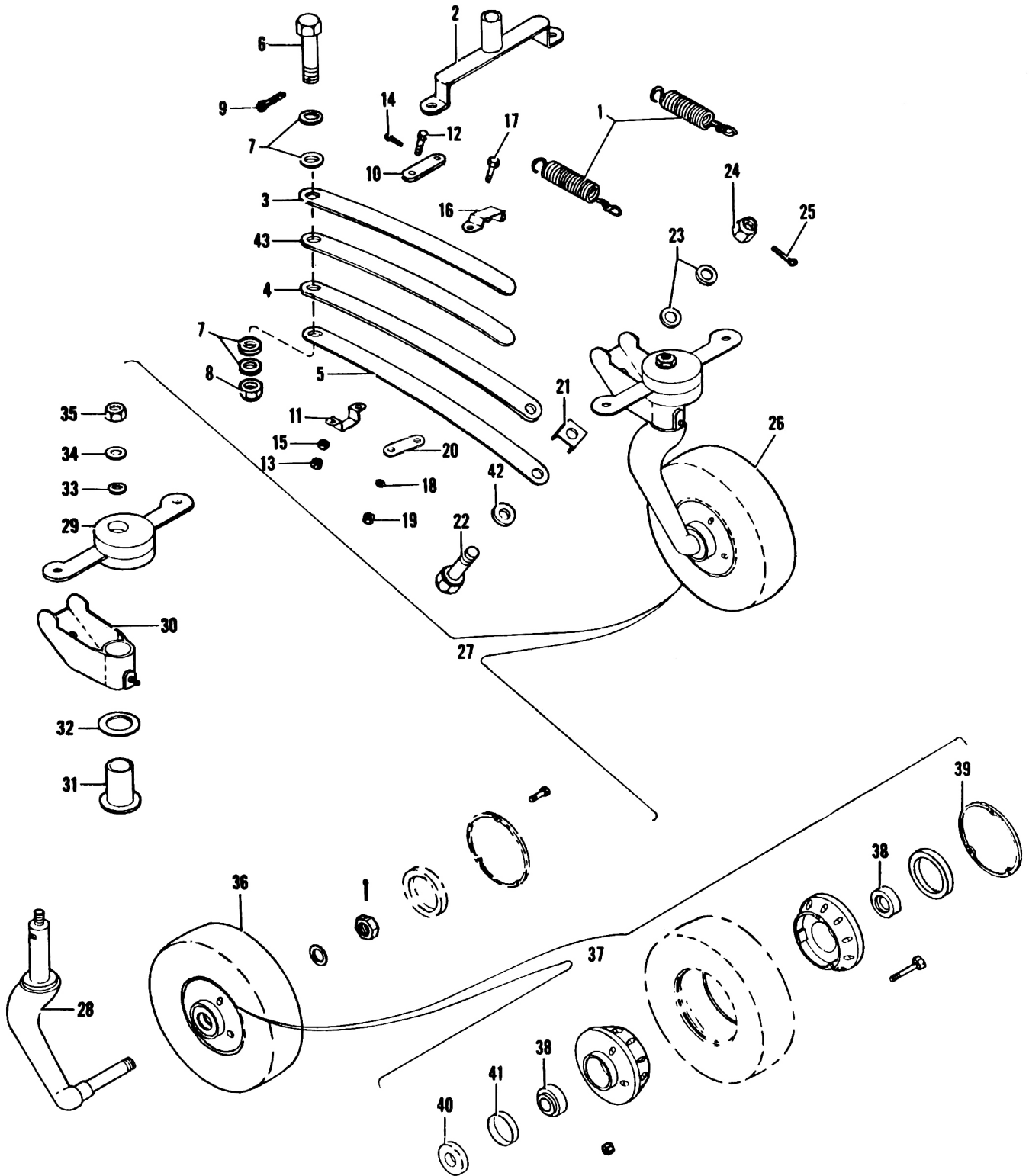
A – Used on PA-22 airplanes with serial numbers 22-3 to 22-21 inclusive.  
B – This part is not included with part number 13086-00, index No. 43.



# FIGURE 42

## Nose Wheel Assembly, Model PA-22

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
42-1	451-755		WHEEL ASSEMBLY – Nose complete (No. C-38501-HA)	1							X	X	X	
-2	<a href="#">162-00600</a>		OUTER WHEEL HALF WITH BEARING CUP – (No. C-38510-H) (With opening for tube valve)	1							X	X	X	
-3	<a href="#">13836</a>		CUP – Bearing	1							X	X	X	
-4	<a href="#">161-00800</a>		INNER WHEEL HALF WITH BEARING CUP – (No. C38101-H)	1							X	X	X	
-5	<a href="#">13836</a>		CUP – Bearing	1							X	X	X	
-6	<a href="#">AN4-36A</a>		BOLT – Thru wheel	3							X	X	X	
-7	<a href="#">199-00200</a>		GREASE SEAL ASSEMBLY (No. B-39001)	2							X	X	X	
-8	<a href="#">13889</a>		TIMKEN BEARING CONE (No. 13889)	2							X	X	X	
-9	13090-00		CAP ASSEMBLY – Axle	2							X	X	X	
-10	<a href="#">U86062-057</a>		TUBE – Spacer, nose wheel (On axle tube)	2							X	X	X	
-11	<a href="#">U86062-056</a>		AXLE TUBE – Nose wheel	1							X	X	X	
-12	<a href="#">-13089-000</a>		AXLE ROD – Nose wheel	1							X	X	X	
-13	<a href="#">600X6T4AH</a>		TIRE – Rib thread, 6:00 x 6-4 ply	1							X	X	X	
-14	<a href="#">600X6U</a>		TUBE – 6:00 x 6	1							X	X	X	
-15			STOP NUT – Elastic (No. 42E054)	2							X	X	X	



# FIGURE 43

Tail Wheel Assembly, Model PA-20



TAIL WHEEL ASSEMBLY  
MODEL PA-20

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
43-1	<a href="#">U2151A-000</a>		CONNECTOR AND SPRING ASSEMBLY – Tail wheel	1	x	x	x	x						
-2	<a href="#">U1140A-000</a>		ARM ASSEMBLY – Rudder (No. 2719)	1	x	x	x	x						
	<a href="#">PA18TWS4L</a>		TAILWHEEL LEAF SPRING ASSEMBLY	1										
-3	<a href="#">U12567-004</a>		SPRING – Tail wheel, “115” and “125”	1	x	x	x							
	<a href="#">U12567-005</a>		SPRING – Tail wheel, “135”	1			x	x						
-4	<a href="#">U12567-003</a>		SPRING – Tail wheel, middle	1	x	x	x	x						
-5	<a href="#">U12567-002</a>		SPRING – Tail wheel, bottom	1	x	x	x	x						
-6	<a href="#">AN6-26</a>		BOLT	1	x	x	x	x						
-7	<a href="#">NAS1149F0663P</a>		WASHER – (AN960-616)	4	x	x	x	x						
-8	<a href="#">AN310-6</a>		NUT	1	x	x	x	x						
-9	<a href="#">MS24665-283</a>		PIN – Cotter (AN380-3-3)	1	x	x	x	x						
-10	<a href="#">U30541-002</a>	A	PAD – Tail wheel, top	1	x	x								
-11	<a href="#">U30531-002</a>		CLAMP – Tail wheel spring attachment	1	x	x	x	x						
-12	<a href="#">AN4-5</a>		BOLT	2	x	x	x	x						
-13	<a href="#">AN310-4</a>		NUT	2	x	x	x	x						
-14	<a href="#">AN380-2-2</a>		PIN – Cotter	2	x	x	x	x						
-15	<a href="#">NAS1149F0463P</a>		WASHER – (AN960-416)	2	x	x	x	x						
-16	<a href="#">L1044-04</a>		CLAMP ASSEMBLY- Tail wheel, spring, rear, “135”	1			x	x						
-17	<a href="#">AN4-6A</a>		BOLT	2			x	x						
-18	<a href="#">NAS1149F0463P</a>		WASHER – (AN960-416)	2			x	x						
-19	<a href="#">MS21044N4</a>		NUT – Elastic stop	2			x	x						
-20	<a href="#">L1044-05</a>		PLATE – Rear tail wheel spring clamp installation	1			x	x						
-21	<a href="#">U1478A-000</a>		SPACER ASSEMBLY – Tail wheel attachment	1	x	x	x	x						
-22	<a href="#">AN7-14</a>		BOLT – Tail wheel attachment	1	x	x	x	x						
-23	<a href="#">NAS1149F0763P</a>		WASHER – (AN960-716)	2	x	x	x	x						
-24	<a href="#">AN310-7</a>		NUT – Tail wheel attachment		x	x	x	x						
-25	<a href="#">MS24665-283</a>		PIN – Cotter, tail wheel attachment	1	x	x	x	x						
-26	<a href="#">ABI-3200</a>		TAIL WHEEL ASSEMBLY – Scott 8 in.	1	x	x	x	x						
-27	451-610		TAIL WHEEL ASSEMBLY – Full swivel steerable, scott No. 3-24B	1	x	x	x	x						
-28	750-748		FORK ASSEMBLY – Tail wheel	1	x	x	x	x						
-29	<a href="#">U1709A-000</a>		ARM ASSEMBLY – Tail wheel	1	x	x	x	x						
-30	<a href="#">2077</a>		BRACKET ASSEMBLY – Tail wheel spring	1	x	x	x	x						
-31	<a href="#">U1800A</a>		BUSHING – Bronze	1	x	x	x	x						



TAIL WHEEL ASSEMBLY  
MODEL PA-20

SECTION VII  
Chassis Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
43-32	<a href="#">-1781</a>		CAP – Bushing	1	X	X	X	X					
-33	<a href="#">U2085A</a>		SHIM – Tail wheel arm attachment	1	X	X	X	X					
-34	<a href="#">2346</a>		WASHER – Tail wheel arm attachment	1	X	X	X	X					
-35	<a href="#">AN364-720</a>		NUT – Self locking	1	X	X	X	X					
-36	<a href="#">1879</a>		TIRE – 6:00 x 2	1	X	X	X	X					
-37	<a href="#">U1967A-000</a>		WHEEL ASSEMBLY – Less tire	1	X	X	X	X					
-38	<a href="#">1883</a>		BEARING	2	X	X	X	X					
-39	<a href="#">1882</a>		CAP – Hub	1	X	X	X	X					
-40	<a href="#">U1863A-000</a>		RETAINER – Inside, grease	1	X	X	X	X					
-41	<a href="#">U1862A-000</a>		SPACER – Grease retainer	1	X	X	X	X					
-42	<a href="#">U85012-048</a>		WASHER – Spacer, tail wheel bolt attach	1	X	X	X	X					
-43	<a href="#">U12567-004</a>		SPRING – Tail wheel	1	X	X	X	X					

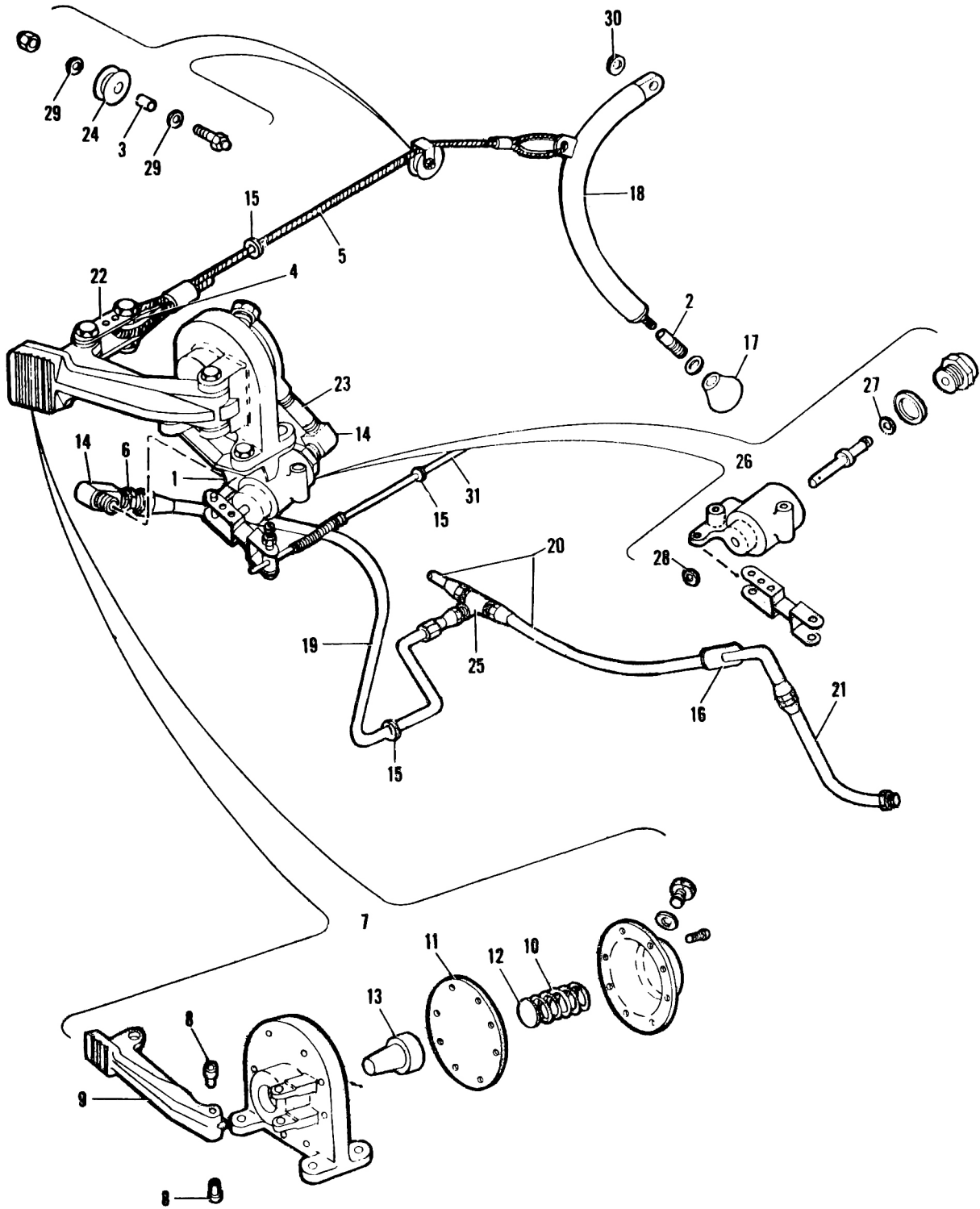
A – Used on PA-20 airplanes with serial numbers 20-1 to 20-762 inclusive.

BRAKE INSTALLATION  
MODEL PA-22

SECTION VIII  
Brake Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
44-	13084		DRAWING – Brake installation							X	X	X	
-1	13161-00		BRACKET – Parking brake control valve support	1						X	X	X	
-2	<a href="#">U11789-000</a>		BUSHING – Insert, brake lever knob	1						X	X	X	
-3	<a href="#">U80012-004</a>		BUSHING – Spacer, brake control cable pulley installation	1						X	X	X	
-4	82732-68		BUSHING – Spacer, brake cable connector links	1						X	X	X	
-5	<a href="#">U40123-091</a>		CABLE ASSEMBLY – Brake control	1						X	X	X	
-6	<a href="#">48X4</a>		CONNECTOR – Male, brake line to parking brake valve	1						X	X	X	
-7	<a href="#">U1248A</a>		CYLINDER – Brake master (B-1248-H)	1						X	X	X	
-8	<a href="#">1494</a>		BUSHING – Pedal attachment (B-1494)	2						X	X	X	
-9	<a href="#">U1715A</a>		PEDAL – With bushing (B-1714)	1						X	X	X	
-10	<a href="#">U1256A-000</a>		SPRING – (B-1256)	1						X	X	X	
-11	<a href="#">U750-384</a>		DIAPHRAGM (B-1751)	1						X	X	X	
-12	<a href="#">U2003-001</a>		PAD – Diaphragm (No. 2003)	1						X	X	X	
-13	<a href="#">U1383A-000</a>		PISTON (B-1383)	1						X	X	X	



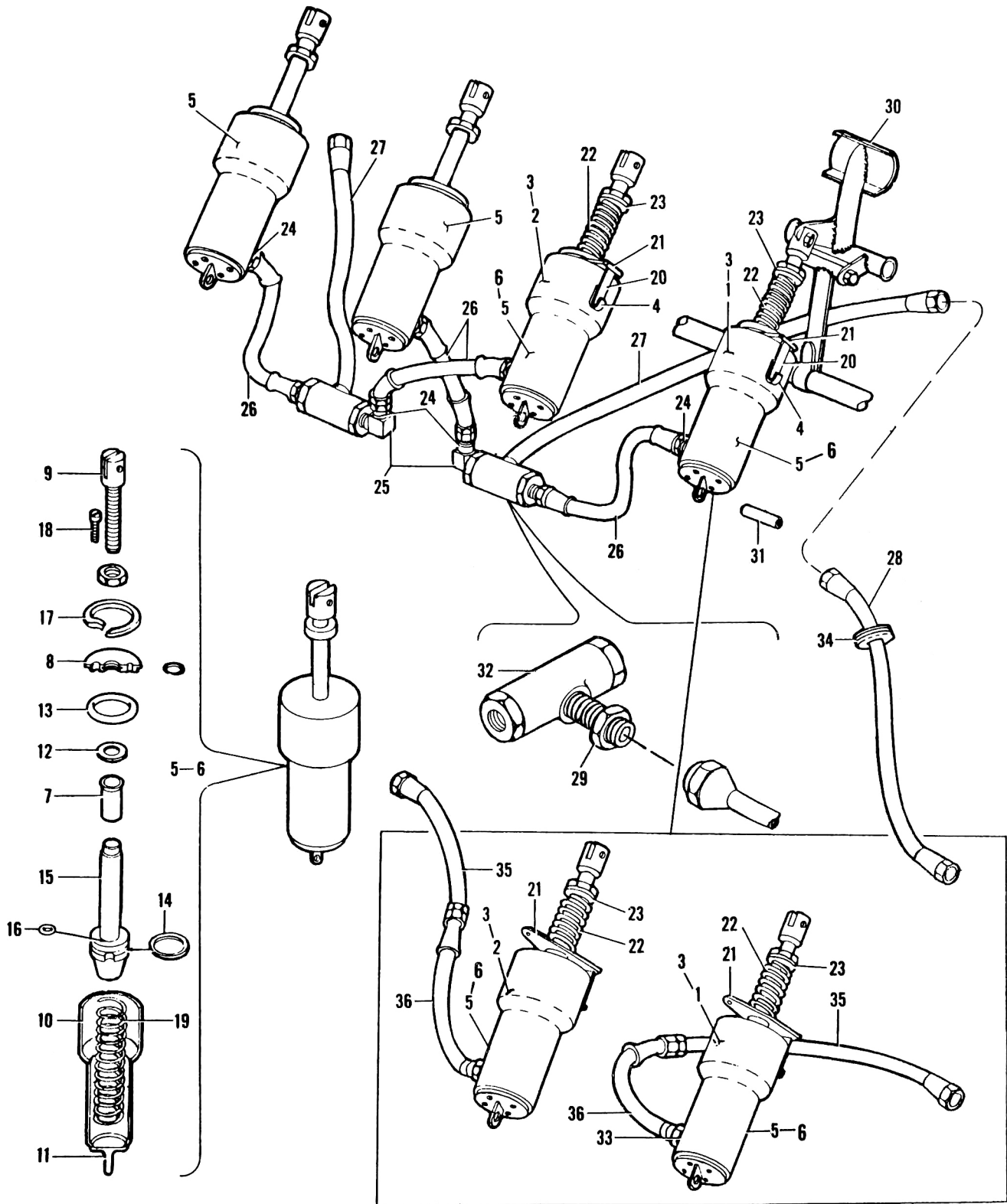


# FIGURE 44

Brake Installation, Model PA-22



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
44-14	<a href="#">3400X2</a>		ELBOW – At parking brake valve (W/H 3400 x 2)	2							X	X	X
-15	<a href="#">MS35489-11</a>		GROMMET – Rubber, at firewall, brake line and control cable	3							X	X	X
-16	<a href="#">AN931-10-14</a>		GROMMET – Rubber, brake line opening, bottom fuselage	2							X	X	X
-17	<a href="#">-471-056</a>		KNOB – Brake lever	1							X	X	X
-18	13067-00		LEVER ASSEMBLY – Brake control, less knob	1							X	X	X
-19	11987-29		LINE ASSEMBLY – Non-flexible, parking brake valve to tee	1							X	X	X
-20	<a href="#">-11987-041</a>		LINE ASSEMBLY – Non-flexible, tee to flexible line at gear	2							X	X	X
-21	13425-00		LINE ASSEMBLY – Flexible, fuselage to landing gear vee	2	X	X	X	X			X	X	X
-22	13080-00		LINK – Connector, brake cable to brake cylinder arm	2							X	X	X
-23	460-675		NIPPLE – Connector, brake cylinder to parking brake valve (W/H 3328 x 2)	1							X	X	X
-24	<a href="#">U11200-000</a>		PULLEY – Brake control cable	1							X	X	X
-25	488-369		TEE – Brake line connection in fuselage	1							X	X	X
-26	<a href="#">U4500A-1</a>		VALVE – Parking braking control	1							X	X	X
-27	<a href="#">MS28775-006</a>		“O” RING – ¼ in. OD x ⅛ in. ID (on stem)	1							X	X	X
-28	<a href="#">MS28775-010</a>		“O” RING – ⅜ in. OD x ¼ in. ID	1							X	X	X
-29	<a href="#">U81342-042</a>		WASHER – Spacer, brake control cable pulley installation	2							X	X	X
-30	13215-00		WASHER – Friction, brake lever attachment	1							X	X	X
-31	<a href="#">U16775-000</a>		CABLE – Parking brake control (less knob)	1							X	X	X



## FIGURE 45

Brake Installation, Master, Model PA-20



BRAKE INSTALLATION, MASTER  
MODEL PA-20

SECTION VIII  
Brake Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
45-	12546		DRAWING – Brake installation, standard		X														
	13057		DRAWING – Brake installation, standard			X	X												
	13933		DRAWING – Brake installation, standard						X										
	12557		DRAWING – Brake installation, dual		X	X	X	X											
-1	11732-04	A	CYLINDER – Master brake, LH	1		X	X	X											
-2	11732-03	A	CYLINDER – Master brake, RH	1		X	X	X											
-3	11732-02	B	CYLINDER – Master brake	2	X	X													
-4	11820-00		CLIP – Spring, keeper (Side of cylinder)	1	X	X	X	X											
-5	12385-00	B	CYLINDER – Master brake  (Note: This brake cylinder also is used for dual brake installation on 1950, 1951, 1952, and 1953 Model PA-20 airplanes, 2 per ship)	1	X	X													
-6	12385-03	A	CYLINDER – Master, brake, LH	1		X	X	X											
	12385-02	A	CYLINDER – Master, brake, RH	1		X	X	X											
-7	12607-00		BUSHING – Plunger	1	X	X	X	X											
-8	<a href="#">-12604-000</a>		CAP – Top of cylinder	1	X	X	X	X											
-9	12605-00		CLEVIS – Top of plunger	1	X	X	X	X											
-10	12603-00	B	HOUSING	1	X	X													
	12603-03	A	HOUSING – Brake cylinder, LH	1		X	X	X											
	12603-02	A	HOUSING – Brake cylinder, RH	1		X	X	X											
-11	12346-00		LUG – Bottom of cylinder	1	X	X	X	X											
-12	<a href="#">MS28775-012</a>		“O” RING – Small (AN6227-7)	1	X	X	X	X											
-13	<a href="#">MS28775-216</a>		“O” RING – Large (AN6227-21)	1	X	X	X	X											
-14	<a href="#">MS28775-211</a>		“O” RING – In cylinder (AN6227-16)	1	X	X	X	X											
-15	12598-00		PLUNGER ASSEMBLY	1	X	X	X	X											
-16	<a href="#">MS28775-010</a>		“O” RING – (AN6227-5)	1	X	X	X	X											
-17	<a href="#">-484-705</a>		RING – Retainer, top of cylinder	1	X	X	X	X											
-18	<a href="#">-12606-000</a>		SCREW – Top of cylinder	1	X	X	X	X											
-19	83302-14		SPRING – Bottom of plunger	1	X	X	X	X											
-20	11734-00		KEEPER – Piston lock plate (side of cylinder)	1	X	X	X	X											
-21	11819-00		PLATE ASSEMBLY – Piston lock	1	X	X	X	X											
-22	51991-00		SPRING – Coil (top of cylinder)	1	X	X	X	X											
-23	<a href="#">U85012-010</a>		WASHER – Spring stop (top of cylinder)	1	X	X	X	X											
-24	751-147		ELBOW – To join the 4 master cylinders (For dual installation) (AN823-4D)	4	X	X	X	X											



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
45-25	<a href="#">3400X2</a>		ELBOW – Street, at shuttle valve (For dual installation) (W/H 3400 x 2)	2		X	X	X						
-26	751-150		HOSE ASSEMBLY – Resistaflex, to join 4 master cylinders (For dual installation) (No. R1214-4-6)	4	X	X	X	X						
-27	11987-53		LINE ASSEMBLY – Brake, from master cylinder to flexible line (For dual installation)	2	X	X	X	X						
-28	13425-00		LINE ASSEMBLY – Flexible, from fuselage to landing gear vee	2	X	X	X	X		X	X	X		
-29	<a href="#">AN924-4D</a>		NUT – Shuttle valve installation (For dual installation)	2	X	X	X	X						
-30	11726-05		PEDAL ASSEMBLY – Brake ( 4 per ship if dual brakes are installed)	2	X	X	X	X						
-31	<a href="#">MS20392-2C11</a>		PIN – Brake cylinder attachment (4 per ship when dual brakes installed)	2	X	X	X	X						
-32	751-149		VALVE – Shuttle (For dual installation) (No. A22)	2	X	X	X	X						
-33	<a href="#">3350X2</a>		ELBOW – Street, master cylinder and flexible nose attachment (Standard installation)	1	X	X	X	X						
-34	<a href="#">AN931-10-14</a>		GROMMET – Brake line, bottom fairings	2				X						
-35	10143-83		LINE ASSEMBLY – Non-flexible, fuselage clamp to flexible line	2	X	X	X	X						
-36	<a href="#">U71061-004</a>		LINE ASSEMBLY – Flexible, from master cylinder to fuselage clamp	2	X	X	X	X						

A – Used on PA-20 airplanes with serial numbers 20-632, 20-637 and up.

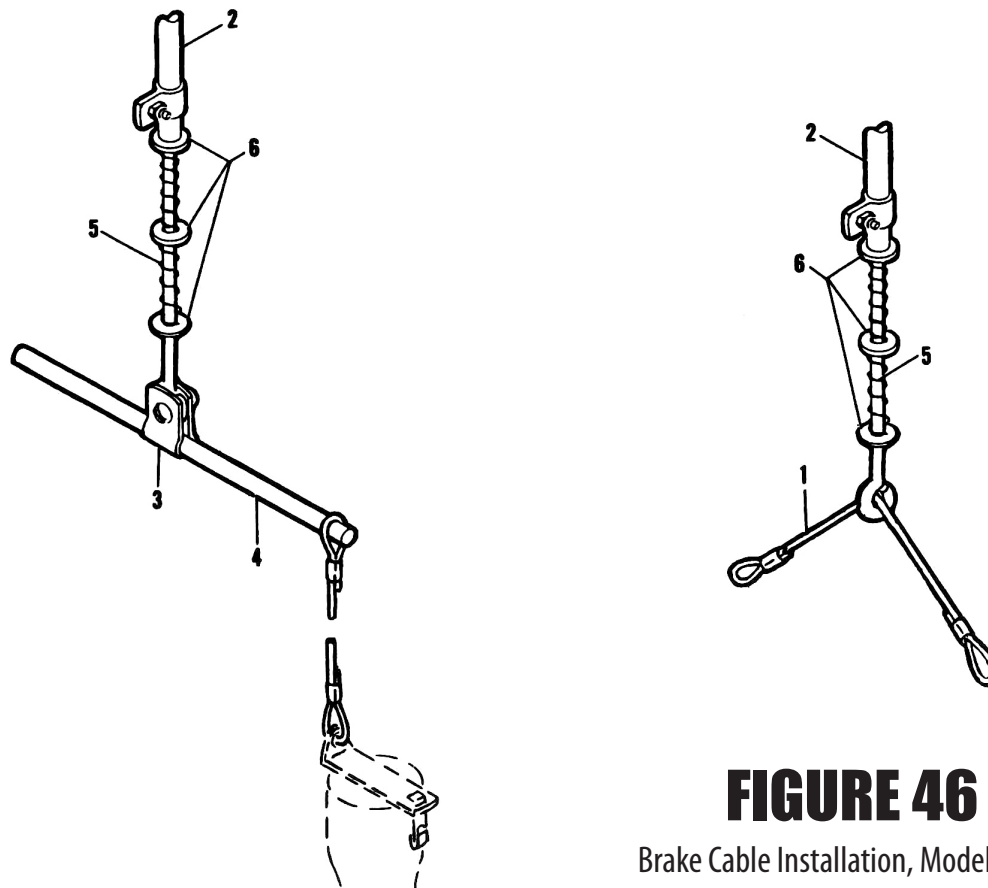
B – Used on PA-20 airplanes with serial numbers 20-1 to 20-553 inclusive, 20-554, to 20-631 inclusive, 20-633, 20-634, 20-635 and 20-636.



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
46-1	11136-00	A	CABLE ASSEMBLY – Parking brake at master cylinder	1	x	x	x	x						
-2	12800-00		CABLE ASSEMBLY – Parking brake control (less spring)	1	x	x	x	x						
-3	<a href="#">U10466-008</a>	B	CLAMP – Parking brake, control cable attachment at cylinder	1	x	x								
-4	12844-00	B	LINK ASSEMBLY – Parking brake control cable attachment to cylinder	1	x	x								
-5	487-276		SPRING – Control cable, parking brake, at cylinder end	1	x	x	x	x						
-6	<a href="#">NAS1149FN432P</a>		WASHER – Spring stop, parking brake control cable (AN960-4)	3	x	x	x	x						
	751-129		KIT – Seal, master cylinder	2	x	x	x	x						

A – Used on PA-20 airplanes with serial numbers 20-1 to 20-384 inclusive, 20-376, 20-377, 20-382, 20-632, 20-637 and up.

B – Used on PA-20 airplanes with serial numbers 20-375, 20-378 to 20-381 inclusive, 20-383 to 20-553 inclusive, 20-554 to 20-631 inclusive, 20-633, 20-634, 20-635 and 20-636.



**FIGURE 46**

Brake Cable Installation, Model PA-20

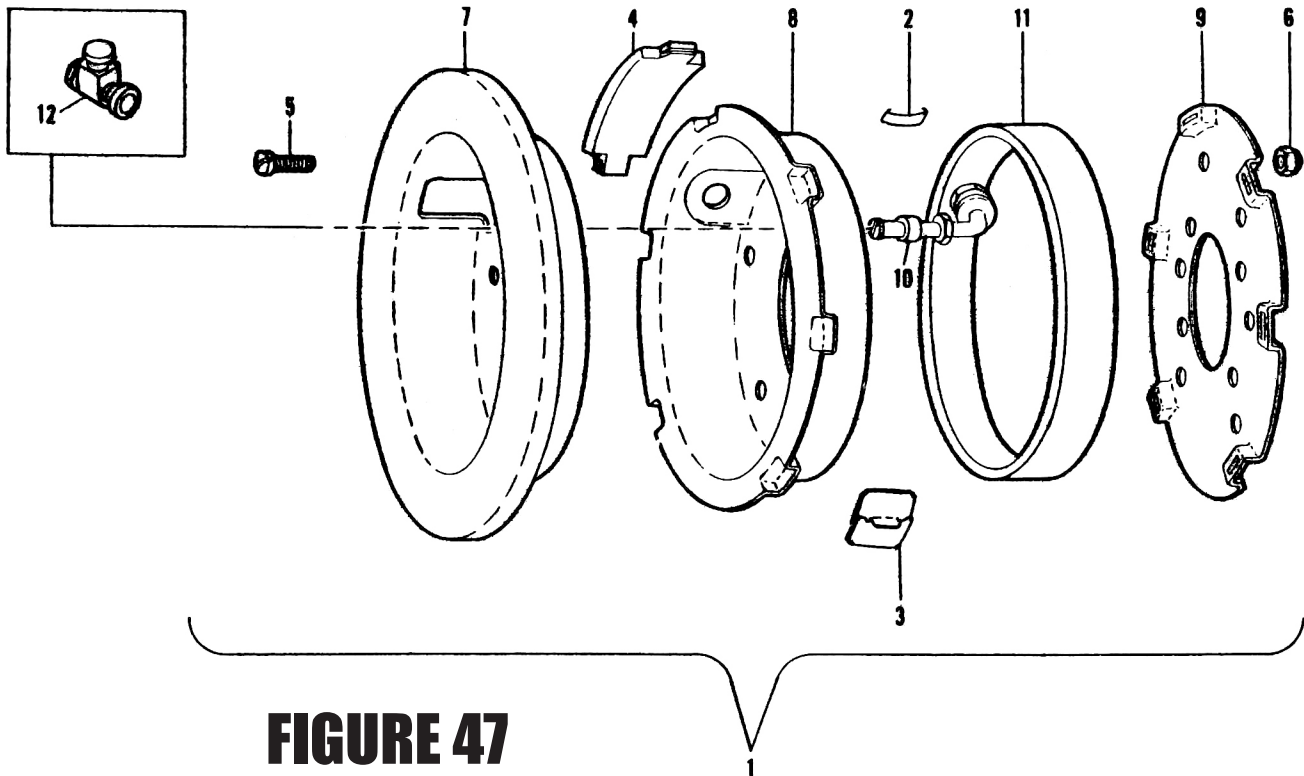


BRAKE SHOE ASSEMBLY  
MODEL PA-20

SECTION VIII  
Brake Installation Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
47-	12637		DRAWING – Brake shoe installation, PA-20		X	X	X	X						
-1	451-702		BRAKE SHOE ASSEMBLY – Expander tube 5 x 1 (Hayes No. D-2-113)	2	X	X	X	X						
-2	<a href="#">B21-35</a>		SPRING – Retracting	6	X	X	X	X						
-3	<a href="#">A72-30</a>		SHIELD – Expander tube protector	6	X	X	X	X						
-4	<a href="#">B27-59-1</a>		BLOCK – Brake	6	X	X	X	X						
-5	<a href="#">MS35266-61</a>		SCREW – Fillister head (No. 10-32 x 3/8 in.)	6	X	X	X	X						
-6	<a href="#">MS21044N3</a>		NUT – Elastic stop (No. 10-32)	6	X	X	X	X						
-7	<a href="#">B51-72</a>		FAIRING – Inner	1	X	X	X	X						
-8	<a href="#">D12-101</a>		FRAME – Brake	1	X	X	X	X						
-9	<a href="#">D15-25</a>		FLANGE – Brake frame	1	X	X	X	X						
-10	<a href="#">A64-3</a>		SPACER – Nozzle	1	X	X	X	X						
-11	750-031		TUBE ASSEMBLY – Rubber, expander	1	X	X	X	X						
-12	<a href="#">B57-239</a>	A	FITTING – Brake bleeder	2	X	X	X	X						

A – Note: Not a component part of item No. 1

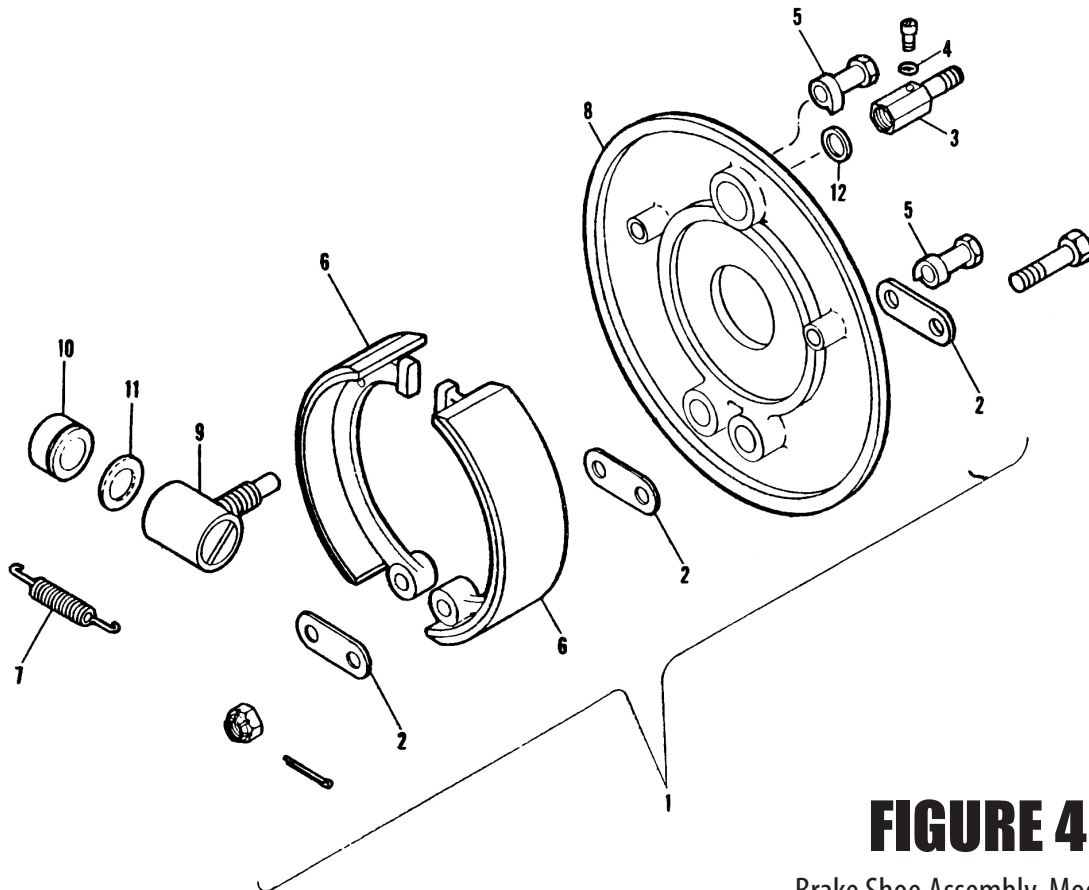


**FIGURE 47**  
Brake Shoe Assembly, Model PA-20



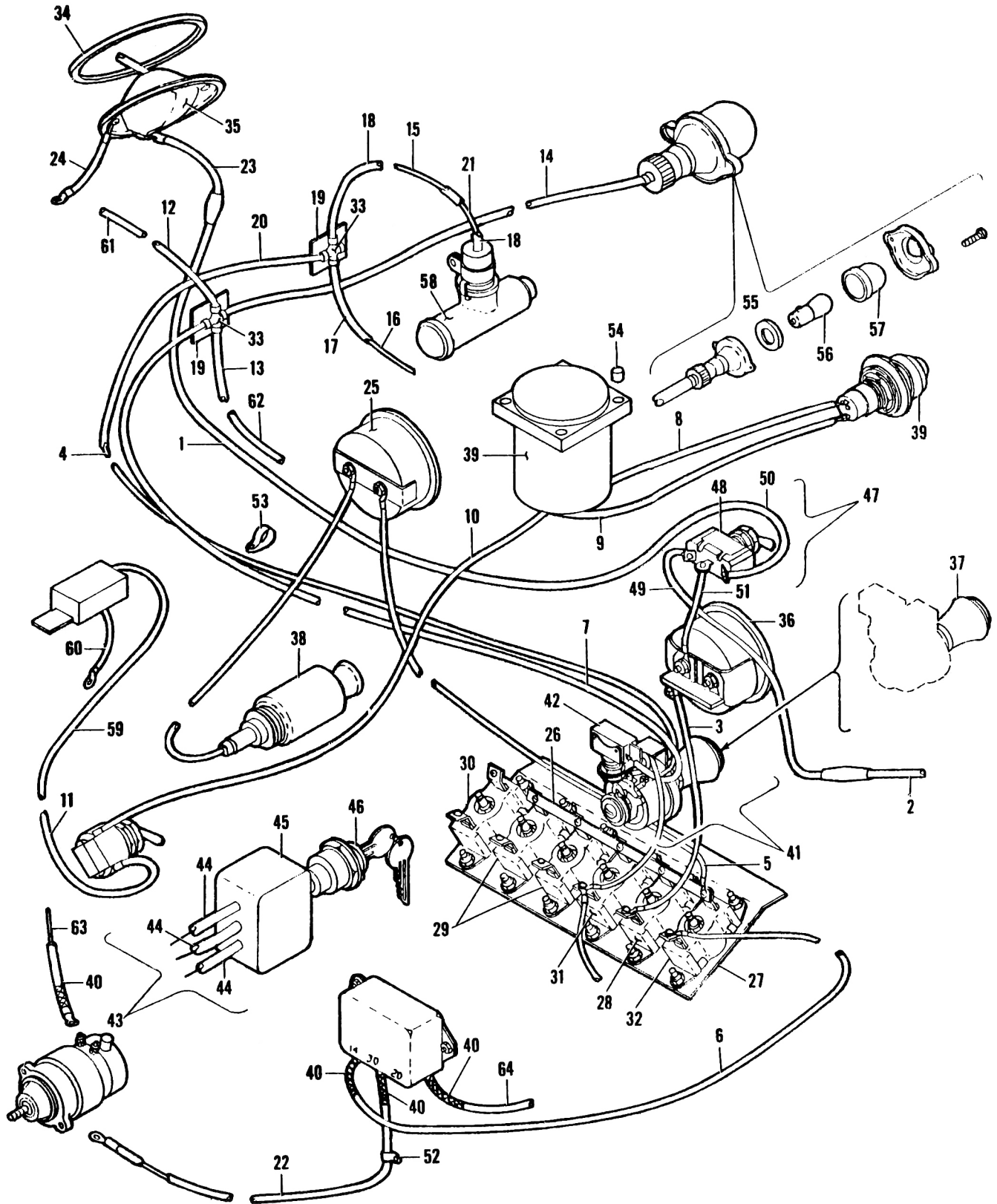


Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
48-	<a href="#">-13113DWG</a>		DRAWING – Brake shoe installation								X	X	X
-1	<a href="#">030-00200</a>		BRAKE ASSEMBLY – Complete	2							X	X	X
-2	<a href="#">093-00100</a>		BOLT PLATE – Anchor	3							X	X	X
-3	<a href="#">087-00100</a>		VALVE BODY – Bleeder	1							X	X	X
-4	<a href="#">MS28775-008</a>		“O” RING – For bleeder screw	1							X	X	X
-5	<a href="#">097-00102</a>		ADJUSTING ECCENTRIC – Brake, RH	1							X	X	X
	<a href="#">097-00101</a>		ADJUSTING ECCENTRIC – Brake, LH	1							X	X	X
-6	<a href="#">172-00101</a>		SHOE ASSEMBLY – Brake, RH	1							X	X	X
	<a href="#">172-00102</a>		SHOE ASSEMBLY – Brake, LH	1							X	X	X
	<a href="#">066-00504</a>		BRAKE LINING – (2 linings plus rivets)	1							X	X	X
-7	<a href="#">082-00300</a>		RETURN SPRING – Shoe	1							X	X	X
-8	<a href="#">065-00600</a>		TORQUE PLATE (B-2010)	1							X	X	X
-9	<a href="#">091-00300</a>		CYLINDER ASSEMBLY (A-2200-H)	1							X	X	X
-10	<a href="#">092-00100</a>		PISTON ASSEMBLY	2							X	X	X
-11	<a href="#">MS28775-211</a>		“O” RING – Piston (AN6227-B16)	2							X	X	X
-12	<a href="#">MS28775-010</a>		“O” RING – Cylinder nipple (AN6227-B5)	1							X	X	X



**FIGURE 48**

Brake Shoe Assembly, Model PA-22



# FIGURE 49

Electrical System Installation



ELECTRICAL INSTALLATION GROUP

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
49-	12802		DRAWING – Safe flight indicator assembly		X	X	X	X			X	X	X
	12629		DRAWING – Electrical system installation and wiring diagram		X	X					X		
	13466		DRAWING – Electrical system installation and wiring diagram					X	X			X	X
-1	12177-81		WIRE ASSEMBLY – Disconnect at right fuel tank gauge unit to disconnect at fuel gauge switch			X	X	X			X	X	X
-2	12177-82		WIRE ASSEMBLY – Disconnect at left fuel tank gauge unit to disconnect at fuel gauge switch			X	X	X			X	X	X
-3	12177-80		WIRE ASSEMBLY – Fuel gauge to circuit breaker			X	X	X			X	X	X
-4	12177-50		WIRE ASSEMBLY – Light switch to connectors cockpit lights		X	X	X	X			X	X	X
-5	12177-83		WIRE ASSEMBLY – Circuit protector to ammeter			X	X	X			X	X	X
	<a href="#">-12177-048</a>		WIRE ASSEMBLY – Circuit protector to ammeter		X								
-6	12177-54		WIRE ASSEMBLY – Circuit breaker to voltage regulator		X	X	X	X			X	X	X
-7	12177-58		WIRE ASSEMBLY – Light switch to connector, navigation lights		X	X	X	X			X	X	X
-8	12177-61		WIRE ASSEMBLY – Safe flight indicator light to panel unit		X	X	X	X			X	X	X
-9	10128-83		WIRE ASSEMBLY – Safe flight indicator to panel unit		X	X	X	X			X	X	X
-10	12177-45		WIRE ASSEMBLY – Momentary disconnect switch to safe flight indicator		X	X	X	X			X	X	X
-11	12177-46		WIRE ASSEMBLY – Momentary disconnect switch to safe flight indicator wing unit		X	X	X	X			X	X	X
-12	12177-10		WIRE ASSEMBLY – Navigation light, connector to right wing panel		X	X	X	X			X	X	X
-13	12177-11		WIRE ASSEMBLY – Navigation light, connector to left wing panel		X	X	X	X			X	X	X
-14	12177-57		WIRE ASSEMBLY – Tail navigation light connector to disconnect at rudder		X	X	X	X			X	X	X
-15	10128-88		WIRE ASSEMBLY – Connector to right cockpit light disconnect		X	X	X	X			X	X	X
-16	12177-51		WIRE ASSEMBLY – Connector to left cockpit light disconnect		X	X	X	X			X	X	X
-17	90797-15		SLEEVE – Insulating, left cockpit light wire, at connector		X	X	X	X			X	X	X



ELECTRICAL INSTALLATION GROUP

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
49-18	<a href="#">-90797-013</a>		SLEEVE – Insulating, right cockpit light wire, at connector and light		X	X	X	X		X	X	X
-19	11473-36		PLATE – Insulator, fibre, under cross connectors in top deck			X	X	X		X	X	X
-20	90797-16		SLEEVE – Insulating, cockpit light switch wire, at connector		X	X	X	X		X	X	X
-21	10128-87		WIRE ASSEMBLY – Disconnect to cockpit lights, RH		X	X	X	X		X	X	X
	12177-52		WIRE ASSEMBLY – Disconnect to cockpit lights, LH		X	X	X	X		X	X	X
-22	12177-59		WIRE ASSEMBLY – Voltage regulator to “A” terminal of generator		X	X	X	X		X	X	X
-23	10128-85		WIRE ASSEMBLY – Tank, fuel gauge unit to disconnect, RH			X	X	X		X	X	X
	10123-72		WIRE ASSEMBLY – Tank, fuel gauge unit to disconnect, LH			X	X	X		X	X	X
-24	10128-86		WIRE ASSEMBLY – Ground, fuel gauge, RH			X	X	X		X	X	X
	12177-84		WIRE ASSEMBLY – Ground, fuel gauge, LH			X	X	X		X	X	X
-25	450-655		AMMETER ASSEMBLY		X	X	X	X		X	X	X
-26	12691-00		JUMPER – To circuit breaker		X	X	X	X		X	X	X
-27	12687-02		PLATE – Circuit breaker mounting			X	X	X		X	X	X
	12687-00		PLATE – Circuit breaker mounting	X								
	13333-00		PLATE – Circuit breaker mounting (Used with Lear radio only when fuse and switch mounted in plate)			X	X			X	X	
	13480-00		PLATE – Circuit breaker mounting (Used with Narco and Lear radio when fuse and switch not mounted in plate)			X	X	X		X	X	X
-28	<a href="#">W23X1A1G-5</a>		CIRCUIT BREAKER – Fuel gauge, electric (PSM-5)			X	X	X		X	X	X
-29	<a href="#">W23X1A1G-10</a>		CIRCUIT BREAKER – Landing light (PSM-10)		X	X	X	X		X	X	X
-30	<a href="#">W23X1A1G-10</a>		CIRCUIT BREAKER – Radio (PSM-10) (Used with Narco radio only)			X	X	X		X	X	X
	<a href="#">W23X1A1G-15</a>		CIRCUIT BREAKER – Radio (PSM-15) (Used with G. E. radio only)		X							
-31	<a href="#">W23X1A1G-5</a>		CIRCUIT BREAKER – Navigation light (PSM-5)		X	X	X	X		X	X	X
-32	<a href="#">W23X1A1G-25</a>		CIRCUIT BREAKER – Generator (PSM-25) “135”				X	X		X	X	
	<a href="#">W23X1A1G-15</a>		CIRCUIT BREAKER – Generator (PSM-15) “115” and “125”		X	X	X			X	X	



ELECTRICAL INSTALLATION GROUP

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
49-33	-455-161		CONNECTORS – Cross, light wires in fuselage top deck (No. 31714)		X	X	X	X		X	X	X
-34	13002-00		GASKET – Tank unit fuel gauge (462-019)			X	X	X		X	X	X
-35	<a href="#">U450-663</a>		GAUGE ASSEMBLY – Fuel, tank unit (PAC No. 13009-00)			X	X	X		X	X	X
-36	<a href="#">3090-033</a>		GAUGE ASSEMBLY – Fuel, panel unit (with 12 volt adapter)			X	X	X		X	X	X
-37	<a href="#">-12643-000</a>		KNOB ASSEMBLY – Navigation light switch		X	X	X	X		X	X	X
-38	472-668		LIGHTER – Cigarette (Casco No. 1-37)	1	X	X	X	X		X	X	X
-39	450-675		INDICATOR – Safe flight	1	X	X	X	X		X	X	X
-40	153-320		SHIELDING – Wire (Packard No. 690-D)	2½'	X	X	X	X		X	X	X
-41	12325-03		SWITCH ASSEMBLY – Navigation light, less knob, with wires (Used only when lighted compass is installed)	1	X	X	X	X		X	X	X
	12325-02		SWITCH ASSEMBLY – Navigation light, less knob, with wires	1	X	X	X	X		X	X	X
-42	484-575		SWITCH – Navigation light (No. 36232)	1	X	X	X	X		X	X	X
-43	750-888	A	SWITCH – Ignition, with keys, wires, less terminals	1	X	X	X	X		X	X	X
	14049-02	B	SWITCH ASSEMBLY – Ignition (With 2 keys and wires less terminals)	1				X				X
-44	153-320		SHIELDING – Wire (Packard No. 690-D)	12'	X	X	X	X		X	X	X
-45	487-782	A	SWITCH – Ignition, with keys less wires and terminals	1	X	X	X	X		X	X	X
	752-892	B	SWITCH – Ignition, with 2 keys less wires	1				X				X
-46	752-302	B	LOCK – Ignition, with 2 keys	1				X				X
-47	13025-00		SWITCH ASSEMBLY – Fuel gauge, with wires	1		X	X	X		X	X	X
-48	487-786		SWITCH – Fuel gauge, less wires	1		X	X	X		X	X	X
-49	12177-30		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-50	10128-84		WIRE ASSEMBLY – To fuel tank unit	1		X	X	X		X	X	X
-51	12177-79		WIRE ASSEMBLY – To gauge	1		X	X	X		X	X	X
-52	<a href="#">AN742-3</a>		CLAMP – Generator wires at firewall (Tinnerman A2980A-3-199A)	2	X	X	X	X		X	X	X
-53	80032-50		CLAMP – Offset, light wires attachment at instrument panel	3	X							
	80032-46		CLAMP – Offset, light wires attachment at instrument panel	3		X	X	X		X	X	X
-54	<a href="#">U80012-004</a>		BUSHING – Spacer, at safe flight indicator panel unit	4	X	X	X	X		X	X	X

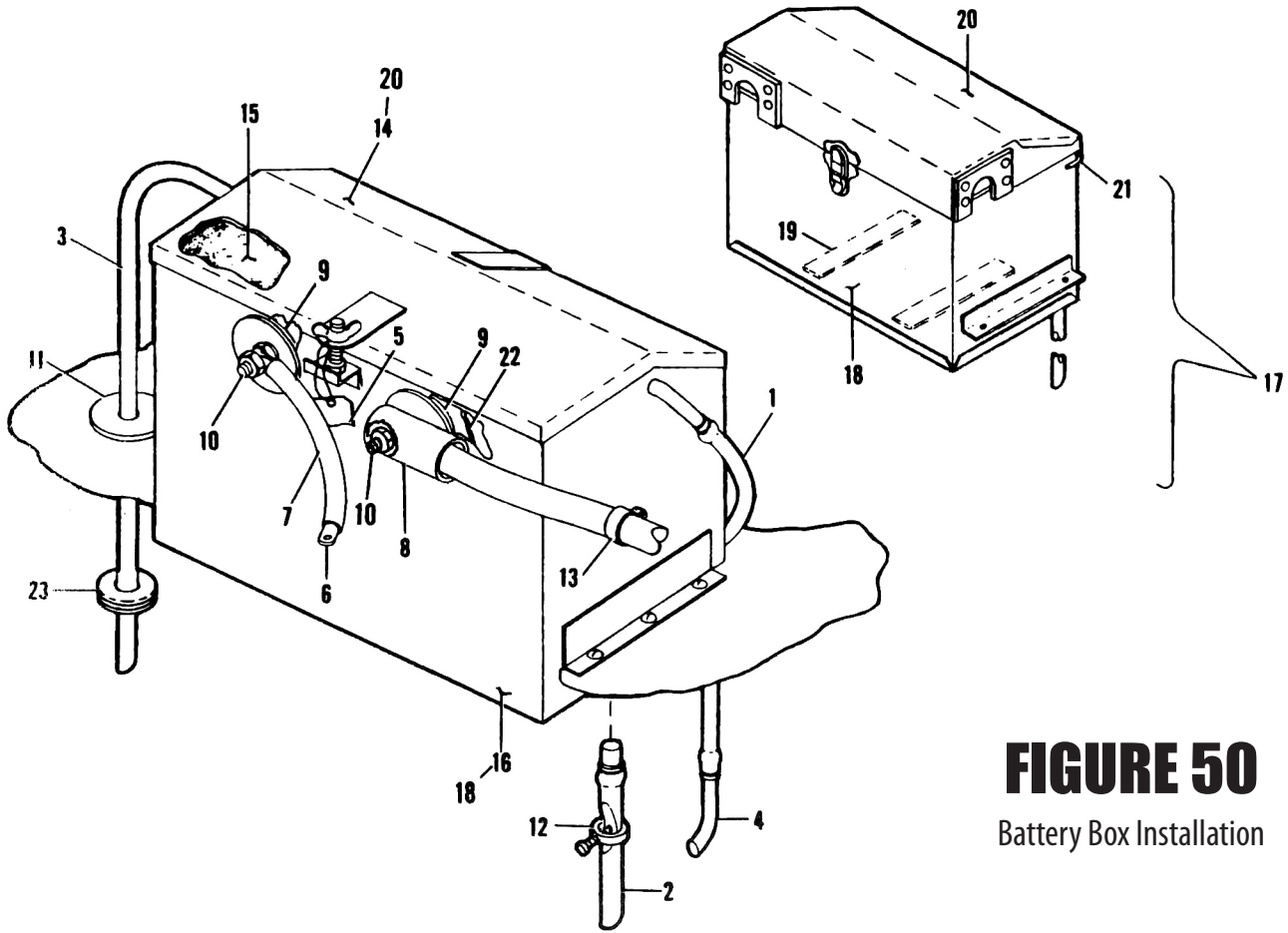


ELECTRICAL INSTALLATION GROUP

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
49-55	<a href="#">A555A-H-14</a>		LIGHT – Tail, navigation, white (Grimes No. A2064)	1	X	X	X	X		X	X	X
-56	<a href="#">GE93</a>		BULB	1	X	X	X	X		X	X	X
-57	<a href="#">A457A</a>		LENS – White	1	X	X	X	X		X	X	X
-58	472-660		LIGHT – Spot, red lens, cockpit (Grimes No. JA1425)	2	X	X	X	X		X	X	X
-59	12177-38		WIRE ASSEMBLY – Safe flight indicator, right wing	1	X	X	X	X		X	X	X
-60	10128-71		WIRE ASSEMBLY – Safe flight indicator, ground	1	X	X	X	X		X	X	X
-61	12177-12		WIRE ASSEMBLY- Navigation light, RH	1	X	X	X	X		X	X	X
-62	12177-13		WIRE ASSEMBLY – Navigation light, LH	1	X	X	X	X		X	X	X
-63	12177-55		WIRE ASSEMBLY – Switch to “F” terminal of generator	1	X	X	X	X		X	X	X
-64	12177-56		WIRE ASSEMBLY – Voltage regulator to master switch	1	X	X	X	X		X	X	X

- A – Used on PA-20 airplanes with serial numbers 20-1 to 20-945 inclusive and 20-947 and on PA-22 airplanes with serial numbers 22-1 to 22-906 inclusive and on 22-910.
- B – Used on PA-20 airplanes with serial numbers 20-946, 20-948 and up and on PA-22 airplanes with serial numbers 22-907, 22-908, 22-909, 22-911 and up.



**FIGURE 50**  
Battery Box Installation

BATTERY BOX INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
50-	140-91	A	DRAWING – Battery box installation						X					X
-1	13586-07	A	TUBE – Plastic, battery vent inlet	1					X					X
-2	13586-08	A	TUBE – Plastic, battery drain	1					X					X
-3	13586-06	A	TUBE – Plastic, battery vent outlet	1					X					X
-4	<a href="#">-14066-000</a>	A	TUBE ASSEMBLY – Battery air intake	1					X					X
-5	<a href="#">-14072-000</a>	A	TAG – Battery box service instructions	1					X					X
-6	<a href="#">U11122-004</a>	A	CABLE ASSEMBLY – Battery ground	1					X					X
	<a href="#">-11122-002</a>	B	CABLE ASSEMBLY – Battery ground	1	X	X	X	X		X	X			X
-7	189-080	A	DUCT – Battery ground cable	3"					X					X
-8	14086-00	A	HOSE – Terminal shield	1					X					X
-9	<a href="#">U81342-056</a>	A	WASHER – Terminal bolt attachment	2					X					X



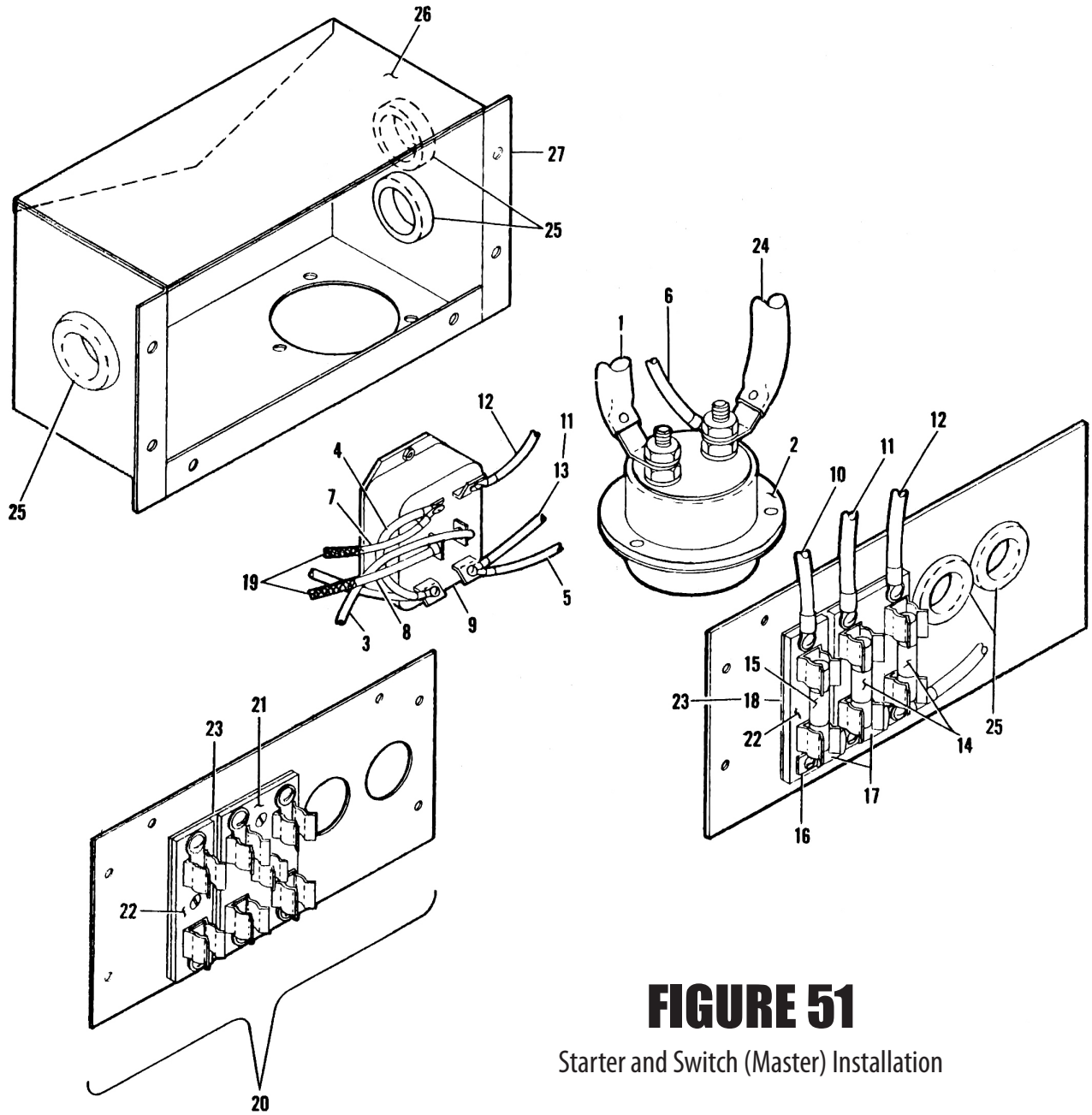
BATTERY BOX INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
50-10	<a href="#">-14069-000</a>	A	BOLT ASSEMBLY – Battery terminal	2				X					X
-11	<a href="#">MS35489-18</a>	A	GROMMET (AN931-10-20) battery vent tubes installation	2				X					X
-12	<a href="#">-454-925</a>	A	CLAMP – Battery drain tube (No. 18-882)	1				X					X
-13	80032-43		CLAMP – Cable attachment	1		X	X	X		X	X	X	
-14	<a href="#">-14065-000</a>	A	LID ASSEMBLY – Battery box	1				X					X
	12045-05		LID ASSEMBLY – Battery box	1		X				X			
	<a href="#">-12045-000</a>		LID ASSEMBLY – Battery box	1	X								
-15	450-025		BATTERY – 12 volt (reading S-24)	1	X	X				X			
	450-035		BATTERY – 12 volt (reading R-33)	1			X	X			X	X	
-16	14064-07	A	BOX ASSEMBLY – Battery, bottom	1				X					X
	12044-13		BOX ASSEMBLY – Battery, bottom	1						X			
	12044-09		BOX ASSEMBLY – Battery, bottom	1	X								
	12044-12		BOX ASSEMBLY – Battery, bottom	1		X							
-17	13459-00	C	BOX ASSEMBLY – Battery	1			X	X			X	X	
-18	13458-00	C	BOTTOM ASSEMBLY	1			X	X			X	X	
-19	90150-02	C	FIBRE STRIP	2			X	X			X	X	
-20	13457-00	C	LID ASSEMBLY	1			X	X			X	X	
-21	13447-00	C	PIN – Hinge	2			X	X			X	X	
-22	<a href="#">U14070-000</a>	A	STRIP – Insulation, positive terminal	1				X					X
-23	<a href="#">MS35489-11</a>	A	GROMMET (AN931-6-10) 3/8 in., air vent outlet, inner fairing	1									X

- A – Used on PA-20 airplanes with serial numbers 20-967 and up, and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 and up.
- B – Used on PA-20 airplanes with serial numbers 20-1 to 20-866 inclusive, and on PA-22 airplanes with serial numbers 22-1 to 22-1020 inclusive and 22-1023.
- C – Used on PA-20 airplanes with serial numbers 20-812 to 20-966 inclusive, and on PA-22 airplanes with serial numbers 22-354 to 22-1020 inclusive and 22-1023.





**FIGURE 51**

Starter and Switch (Master) Installation

STARTER AND SWITCH  
(MASTER) INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
51-1	11227-00		CABLE ASSEMBLY – Starter to switch box		X									
	11227-02		CABLE ASSEMBLY – Starter to switch box			X	X	X			X	X	X	
-2	487-785		SWITCH – Starter (No. 185-0)		X	X	X	X			X	X	X	



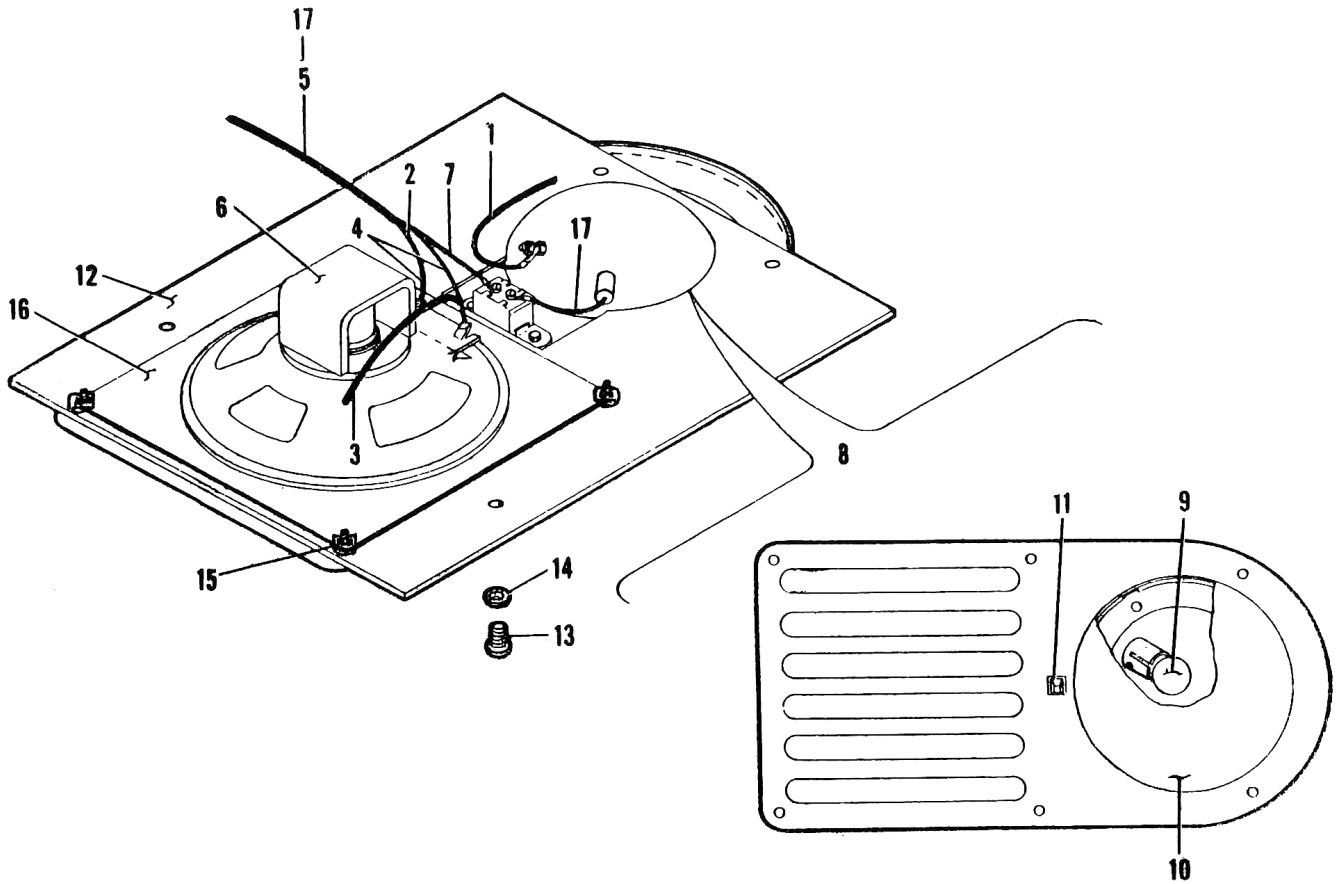
STARTER AND SWITCH  
(MASTER) INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
51-3	12177-85		WIRE ASSEMBLY – Master switch to ammeter			X	X	X			X	X	X
	12177-47		WIRE ASSEMBLY – Master switch to ammeter		X								
-4	12177-77		WIRE ASSEMBLY – Jumper, master switch installation	1		X	X	X			X	X	X
-5	12177-62		WIRE ASSEMBLY – Master switch to starter switch	1	X								
-6	<a href="#">-12177-017</a>		WIRE ASSEMBLY – Starter switch to fuse block	1		X	X	X			X	X	X
-7	12177-55		WIRE ASSEMBLY – Switch to "F" terminal of generator	1	X	X	X	X			X	X	X
-8	12177-56		WIRE ASSEMBLY – Master switch to voltage regulator	1	X	X	X	X			X	X	X
-9	<a href="#">AN3023-1</a>		SWITCH – Master	1	X	X	X	X			X	X	X
-10	<a href="#">-12177-040</a>		WIRE ASSEMBLY – Fuse block to safe flight indicator	1	X	X	X	X			X	X	X
-11	10128-91		WIRE ASSEMBLY – Master switch to fuse block	1		X	X	X			X	X	X
-12	12177-76		WIRE ASSEMBLY – Master switch to fuse block	1		X	X	X			X	X	X
-13	12177-42		WIRE ASSEMBLY – Master switch to fuse block	1	X								
-14	<a href="#">AGC-30</a>		FUSE – Starter switch (No. 3AG-30 amp)	2		X	X	X			X	X	X
-15	<a href="#">AGC-5</a>		FUSE – Safe flight indicator (5 amp)	1	X	X	X	X			X	X	X
-16	12919-00		BUS BAR – Fuse block	1		X	X	X			X	X	X
-17	<a href="#">-90797-010</a>		SLEEVE – Bus bar	2		X	X	X			X	X	X
-18	<a href="#">-10443-000</a>		INSULA TOR – Under fuse block assembly and switch box	1	X								
-19	<a href="#">-153-320</a>		SHIELDING – Wire (Packard No. 690-D)	15½'	X	X	X	X			X	X	X
-20	12918-00		BACK ASSEMBLY – Starter and master switch box	1		X	X	X			X	X	X
-21	<a href="#">-13051-000</a>		FUSE BLOCK – Double master switch	1		X	X	X			X	X	X
-22	12156-02		FUSE BLOCK – Single safe flight indicator	1	X	X	X	X			X	X	X
-23	12928-00		INSULATOR – Under fuse block	1		X	X	X			X	X	X
-24	11134-03		CABLE ASSEMBLY – Battery to starter switch	1	X								
	11134-06	A	CABLE ASSEMBLY – Battery to starter switch	1		X	X	X			X	X	X
	11134-09	B	CABLE ASSEMBLY – Battery to starter switch	1				X					X
-25	<a href="#">AN931-10-14</a>		GROMMET – Rubber, starter switch box (AN931-10-14)	3	X	X	X	X			X	X	X
-26	12029-02		PLATE – Switch box cover	1	X								
	12917-00		PLATE – Switch box cover	1		X	X	X			X	X	X
-27	12689-00		BOX – Starter and master switch	1	X								
	12984-00		BOX – Starter and master switch	1		X	X	X			X	X	X

A – Used on PA-20 airplanes with serial numbers 20-554 to 20-966 inclusive and on PA-22 airplanes 22-1 to 22-1020 inclusive and 22-1023.

B – Used on PA-20 airplanes with serial numbers 20-967 and up, and on PA-22 airplanes with serial numbers 22-1021, 22-1022, 22-1024 and up.



## FIGURE 52

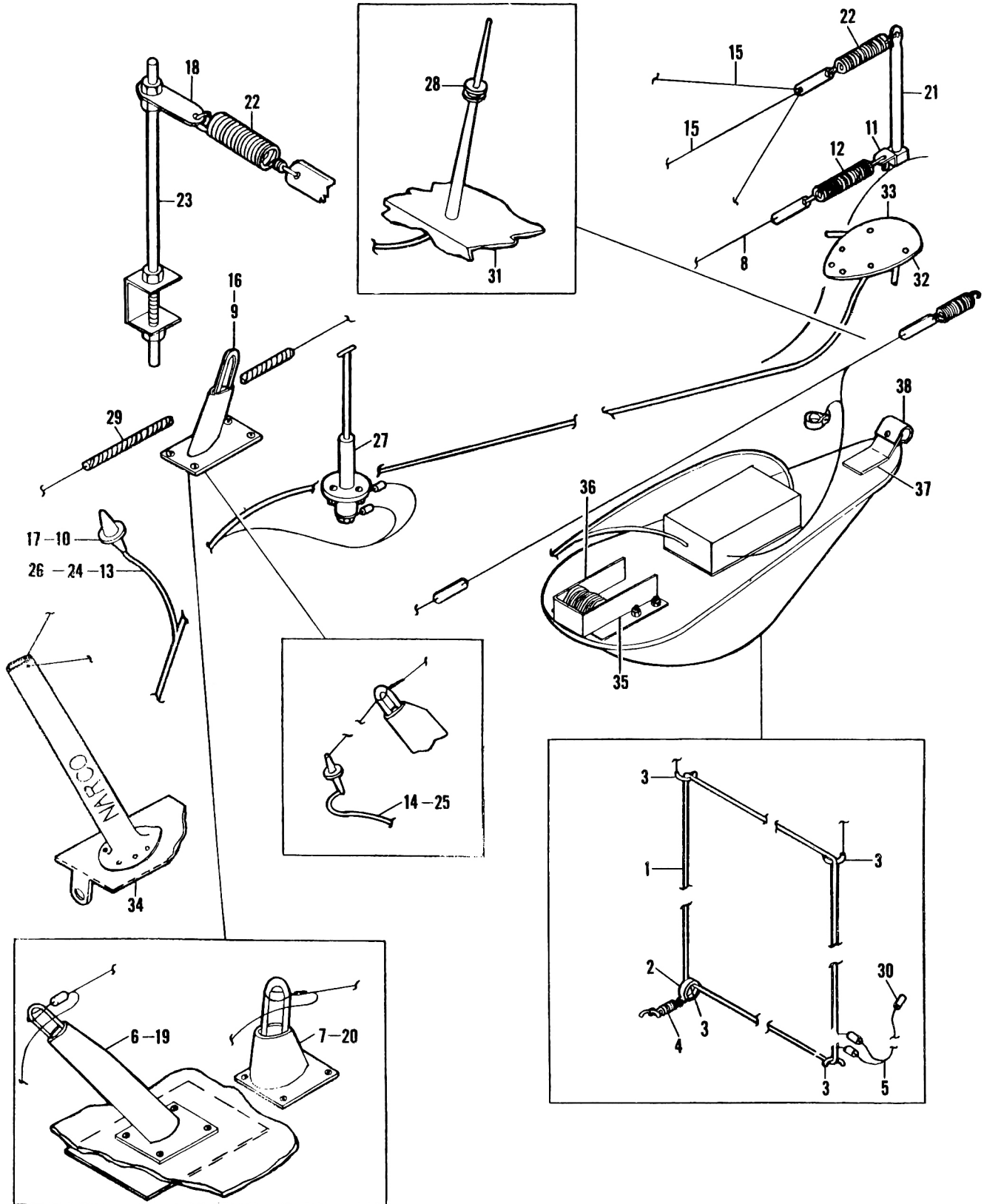
Speaker and Dome Light Installation



SPEAKER AND DOME LIGHT INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
52-1	12177-43		WIRE – Ground	1	x	x	x	x		x	x	x
-2	12177-30		WIRE ASSEMBLY – To phone jack (Used with Lear Radio only)	1		x	x	x		x	x	x
	10128-92		WIRE ASSEMBLY – To phone jack (Narco Radio's)	1		x	x	x		x	x	x
-3	12177-97		WIRE ASSEMBLY – Speaker, ground (Used with Lear and Narco Radio installation)	1		x	x	x		x	x	x
-4	12177-30		WIRE ASSEMBLY – At speaker (Bendix and General Electric Radios)	2	x	x				x		
-5	12177-78		WIRE ASSEMBLY – Speaker to phone jack (Used with Lear and Narco Radio only)	1		x	x	x		x	x	x
-6	487-211		SPEAKER (Used with Bendix Radio) (PMR-24)	1	x	x				x		
	487-240		SPEAKER (Used with General Electric Radio)	1	x	x				x		
	487-239		SPEAKER – Radio (Used with Narco Radio installation)	1		x	x	x		x	x	x
	752-884		SPEAKER – Radio (Used with Lear Radio)	1		x	x	x		x	x	x
-7	12177-53		WIRE ASSEMBLY – At dome light switch (Used with Lear and Narco Radio only)	1		x	x	x		x	x	x
-8	12702-03		DOMELIGHT AND SPEAKER GRILL ASSEMBLY	1	x	x	x	x		x	x	x
-9	<a href="#">GE89</a>		BULB	1	x	x	x	x		x	x	x
-10	<a href="#">-12715-000</a>		LENS – Dome light	1	x	x	x	x		x	x	x
-11	487-777		SWITCH – Dome light	1	x	x	x	x		x	x	x
-12	12700-00		PANEL – Speaker (Used with General Electric, Bendix PAR-70A and PAT-50A Radios)	1	x	x				x		
	12951-00		PANEL – Speaker (Used with Bendix PATR-10A radio)	1	x	x				x		
	13361-00		PANEL – Speaker (Used with Lear and Narco radio installation)	1		x	x	x		x	x	x
-13	<a href="#">4X1/2-ORA</a>		SCREW – Parker type "A", oval head, No. 4 x ½ in. long)	6	x	x	x	x		x	x	x
-14	494-001		WASHER – Finishing, No. 4	6	x	x	x	x		x	x	x
-15	13362-00		CLIP – Speaker mounting (Used with Lear and Narco Radio)	4		x	x			x	x	
-16	12923-00		PLATE – Adapter, radio speaker (Used with Bendix 2 unit Radio PAR-70A and PAT-50A)	1		x				x		
-17	12705-00		HARNESS ASSEMBLY – Speaker to Radio (Used with G. E. Radio)	1	x							
	12950-00		HARNESS ASSEMBLY – Speaker to radio (Used with Bendix Radio)	1	x	x				x		



# FIGURE 53

Antenna System Installation



ANTENNA SYSTEM INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20					PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
53-			ANTENNA ASSEMBLY – Fixed loop installation (Used on all radio installations except the Lear Radio)		X	X	X	X			X	X	X		
-1	14163-02		ANTENNA ASSEMBLY – Fixed loop	1				X					X		
	12698-00		ANTENNA ASSEMBLY – Fixed loop	1	X	X	X				X	X			
-2	80032-50		CLAMP	1	X	X	X				X	X			
-3	90794-04		SLEEVE – Plastic insulator (3 per ship, 1953 model)	4	X	X	X	X			X	X	X		
-4	<a href="#">U42891-000</a>		SPRING (No. 487 213)	1	X	X	X	X			X	X	X		
-5	12699-00		WIRE ASSEMBLY – Lead in (Used with G. E. Radio)	1	X										
	12699-02		WIRE ASSEMBLY – Lead in (Used with Bendix Radio)	1	X	X					X				
	13527-00		WIRE ASSEMBLY – Lead in (Used with Narco Radio)	1		X	X				X	X			
	13527-02		WIRE ASSEMBLY – Lead in (Used with Narco Radio)	1				X					X		
-6	12176-00		ANTENNA ASSEMBLY – Single wire installation		X	X	X	X			X	X	X		
-7	13094-00	A	ANTENNA MAST – (Used with G. E. radio)	1	X										
-7	13094-00	A	ANTENNA MAST – (Used with Bendix, Lear and Narco Radios)	1		X	X	X			X	X	X		
-8	153-026		ANTENNA WIRE (18 gauge copper weld)	21'	X	X	X	X			X	X	X		
-9	467-050	A	INSULATOR – At front mast	1	X	X	X	X			X	X	X		
-10	<a href="#">-467-062</a>		INSULATOR – At windshield	1	X	X	X	X			X	X	X		
-11	<a href="#">-10824-000</a>		LINK – Antenna attachment at rudder	1	X	X	X	X			X	X	X		
-12	751-124		SPRING AND INSULATOR – At rudder	1	X	X	X	X			X	X	X		
-13	12952-00		WIRE ASSEMBLY – Insulator to radio (Used with Bendix Radio)	1	X	X									
	13526-00		WIRE ASSEMBLY – Lead in, insulator to radio (Used with Narco Radio Installation)	1		X	X	X			X	X	X		
	12726-00		WIRE ASSEMBLY – Insulator to Radio (Used with AK-42 Radio only)	1	X										
-14	10128-72		WIRE ASSEMBLY – Insulator to loading coil (Used with AK-32 Radio only)	1	X										
			ANTENNA ASSEMBLY – Vee installation (Note: All parts necessary for both single and vee antenna installation)		X	X	X	X			X	X	X		
	12577		DRAWING		X	X	X	X			X	X	X		
-15	153-026		ANTENNA WIRE (18 gauge copper weld)	59'	X	X	X	X			X	X	X		
53-16	467-050	A	INSULATOR – Short, at front mast	1	X	X	X	X			X	X	X		
-17	<a href="#">-467-062</a>		INSULATOR – Wing root fairing	1	X	X	X	X			X	X	X		



ANTENNA SYSTEM INSTALLATION

SECTION IX  
Electrical System Group

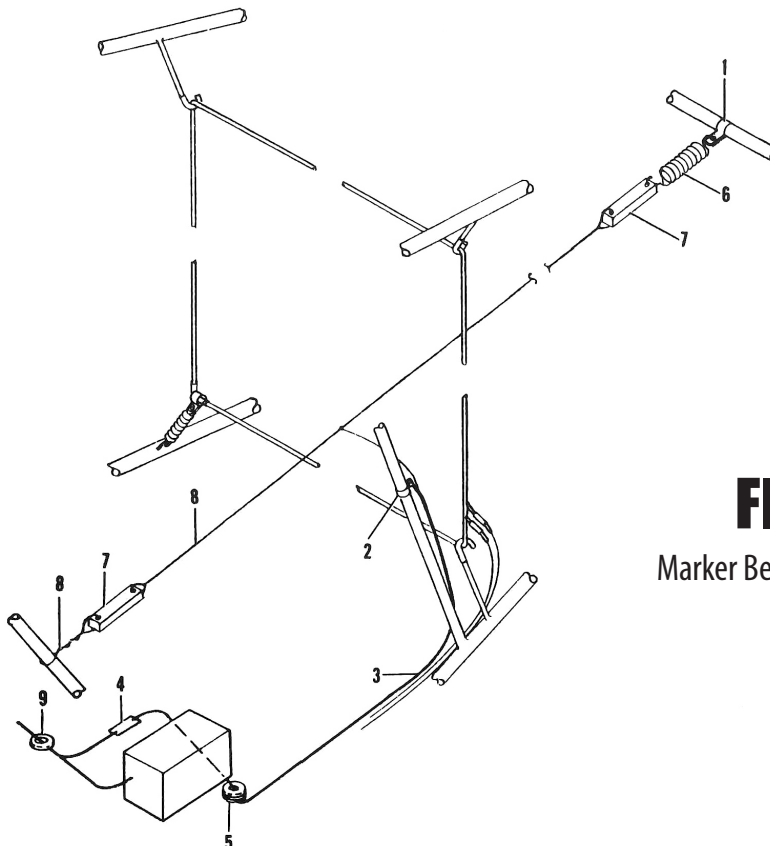
Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model											
					PA-20					PA-22						
					'50	'51	'52	'53	'54	'51	'52	'53	'54			
-18	81262-48		LINK – Wing tip post	2	X	X	X	X			X	X	X			
-19	<a href="#">-12176-000</a>		MAST ASSEMBLY (Used with G E Radio)	1	X											
-20	13094-00	A	MAST ASSEMBLY (Used with Bendix, Lear, and Narco Radios)	1		X	X	X			X	X	X			
-21	12703-00		RUDDER POST	1	X	X	X	X			X	X	X			
-22	751-124		SPRING AND INSULATOR ASSEMBLY	3	X	X	X	X			X	X	X			
-23	12578-00		WING TIP POST	2	X	X	X	X			X	X	X			
-24	13526-00		WIRE ASSEMBLY – Lead in, insulator to radio (Used with Narco Radio Installation)	1		X	X	X			X	X	X			
	12726-00		WIRE ASSEMBLY – Insulator to radio (Used with G E AK-42 radio only)	1	X											
-25	10128-72		WIRE ASSEMBLY – Insulator to loading coil (Used with G E AK-32 radio only)	1	X											
-26	12952-00		WIRE ASSEMBLY – Insulator to radio (Used with Bendix Radio)	1	X	X					X					
-27			ANTENNA – Whip, VHF (Not available through Piper Aircraft Corp, secure from General Electric, Bendix Aviation Corp, Lear Inc, or National Aeronautical Corp)	1	X	X	X	X			X	X	X			
-28	<a href="#">AN931-3-5</a>		GROMMET – VHF transmitter antenna installation at tail (Narco Radio Installation)	1			X	X				X	X			
-29	13590-02		HOUSING – Insulator, stabilizer indicator cable (Used with Lear and Narco Radio Installation)	1		X	X	X			X	X	X			
-30	455-160		CONNECTOR – Antenna (No. 221) (Used with Bendix Radio)	1	X	X					X					
-31	14032-00		PLATE – VHF transmitting antenna installation at tail (Narco Radio Installation)	1			X	X				X	X			
-32	13737-00		PLATE – Omnitenna mounting (bottom) (Lear Radio)	1		X	X				X	X				
-33	13738-00		PLATE – Omnitenna mounting (top) (Lear Radio)	1		X	X				X	X				
-34	13736-00		PLATE – Mounting, Narco VHF receiving antenna	1		X	X	X			X	X	X			
	13350-00	B	DRAWING – Rotable loop installation (Used with Lear ADF-12)				X	X				X	X			
-35	13755-00		BRACKET – Support, LH	1			X	X				X	X			
-36	13755-01		BRACKET – Support, RH	1			X	X				X	X			
-37	13756-00		BRACKET – Support, rear	1			X	X				X	X			
53-38	80032-46		CLAMP – Attachment, rear support bracket	1			X	X				X	X			

A – Optional installation on 1953 PA-20 and PA-22 airplanes.  
 B – All other parts for this installation furnished by Lear Inc.



MARKER BEACON ANTENNA INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20			PA-22											
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
54-			Note: Marker Beacon Antenna Installation (Used with Lear and Narco Radios)																
	13350		DRAWING – Marker beacon installation (Lear)			X	X	X			X	X	X						
	13523		DRAWING – Marker beacon installation (Narco)			X	X	X			X	X	X						
-1	80032-50		CLAMP	1		X	X	X			X	X	X						
-2	80032-46		CLAMP – Ground	1		X	X	X			X	X	X						
-3			CABLE – Coaxial antenna to radio (Not available through Piper Aircraft Corporation)	1		X	X	X			X	X	X						
-4	455-160		CONNECTOR – Antenna coaxial cable connection (No. 221) when LD-5 dynamotor installed on floor	1		X	X				X	X							
-5	<a href="#">MS35489-11</a>		GROMMET – Floorboard (When LD-5 dynamotor installed on floor)	1		X	X				X	X							
-6	<a href="#">U42891-000</a>		SPRING	1		X	X	X			X	X	X						
-7	467-051		INSULATOR	2		X	X	X			X	X	X						
-8	153-026		WIRE – Antenna	7		X	X	X			X	X	X						
-9	85012-77		WASHER – Coaxial cable installation, through fabric (Used with Lear Radio Installation when LD-5 dynamotor installed on floor)	1		X	X				X	X							



**FIGURE 54**  
Marker Beacon Antenna Installation

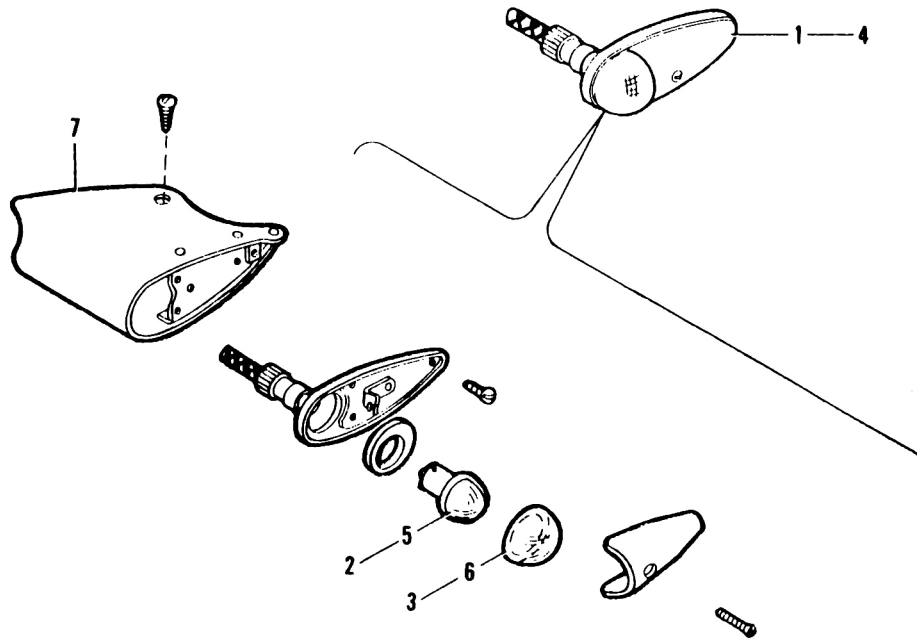




WING LIGHT INSTALLATION

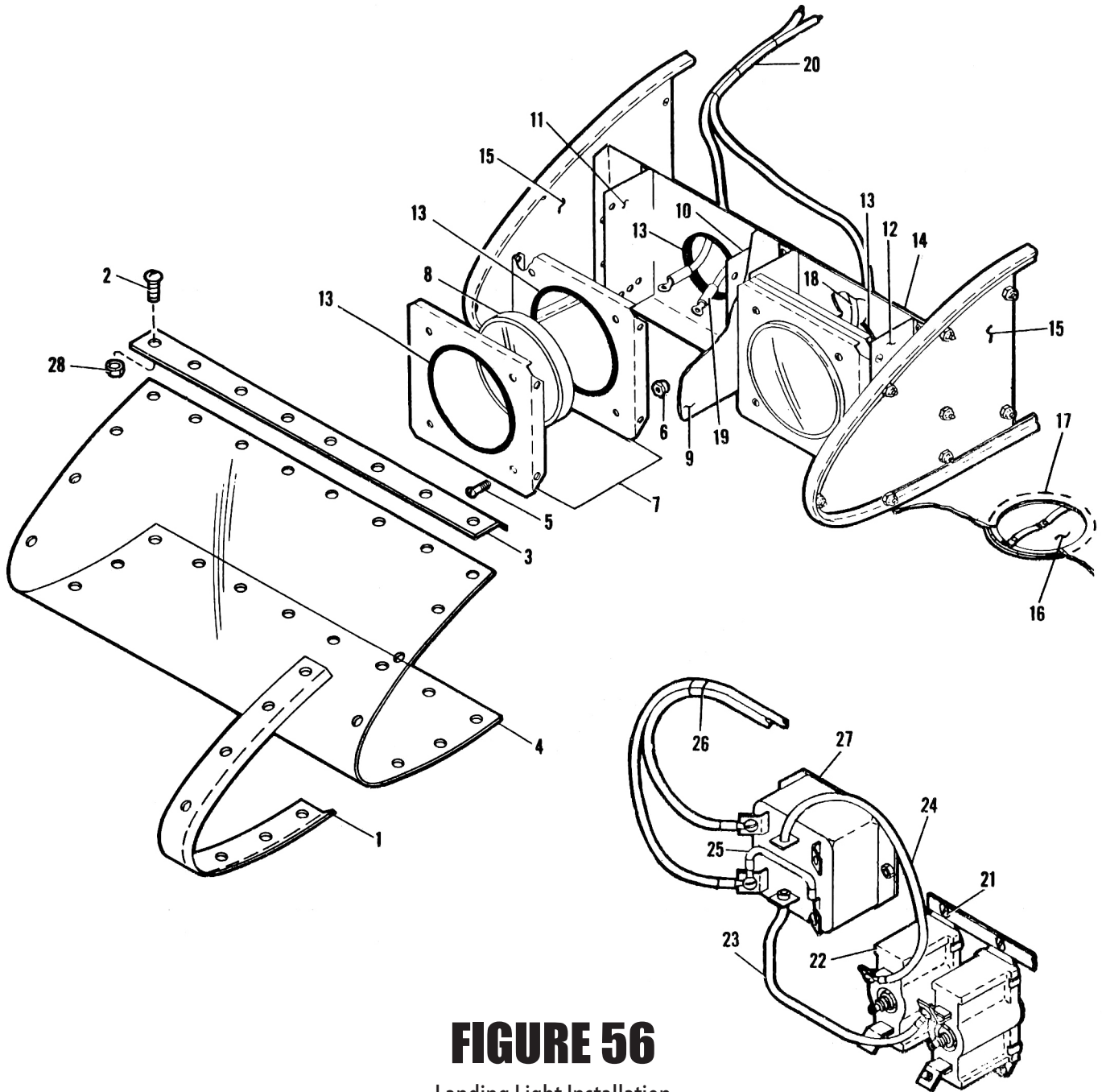
SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
55-1	<a href="#">W1285PG-14</a>		LIGHT – Wing, navigation, green	1	X	X	X	X			X	X	X
-2	<a href="#">W1290-14</a>		BULB	1	X	X	X	X			X	X	X
-3	<a href="#">W1284-G</a>		LENS – Green	1	X	X	X	X			X	X	X
-4	<a href="#">W1285PR-14</a>		LIGHT – Wing, navigation, red	1	X	X	X	X			X	X	X
-5	<a href="#">W1290-14</a>		BULB	1	X	X	X				X	X	X
-6	<a href="#">W1284-R</a>		LENS – Red	1	X	X	X				X	X	X
-7	<a href="#">U12560-000</a>		BRACKET ASSEMBLY – Navigation light	2	X	X	X	X			X	X	X



**FIGURE 55**

Wing Light Installation



# FIGURE 56

Landing Light Installation



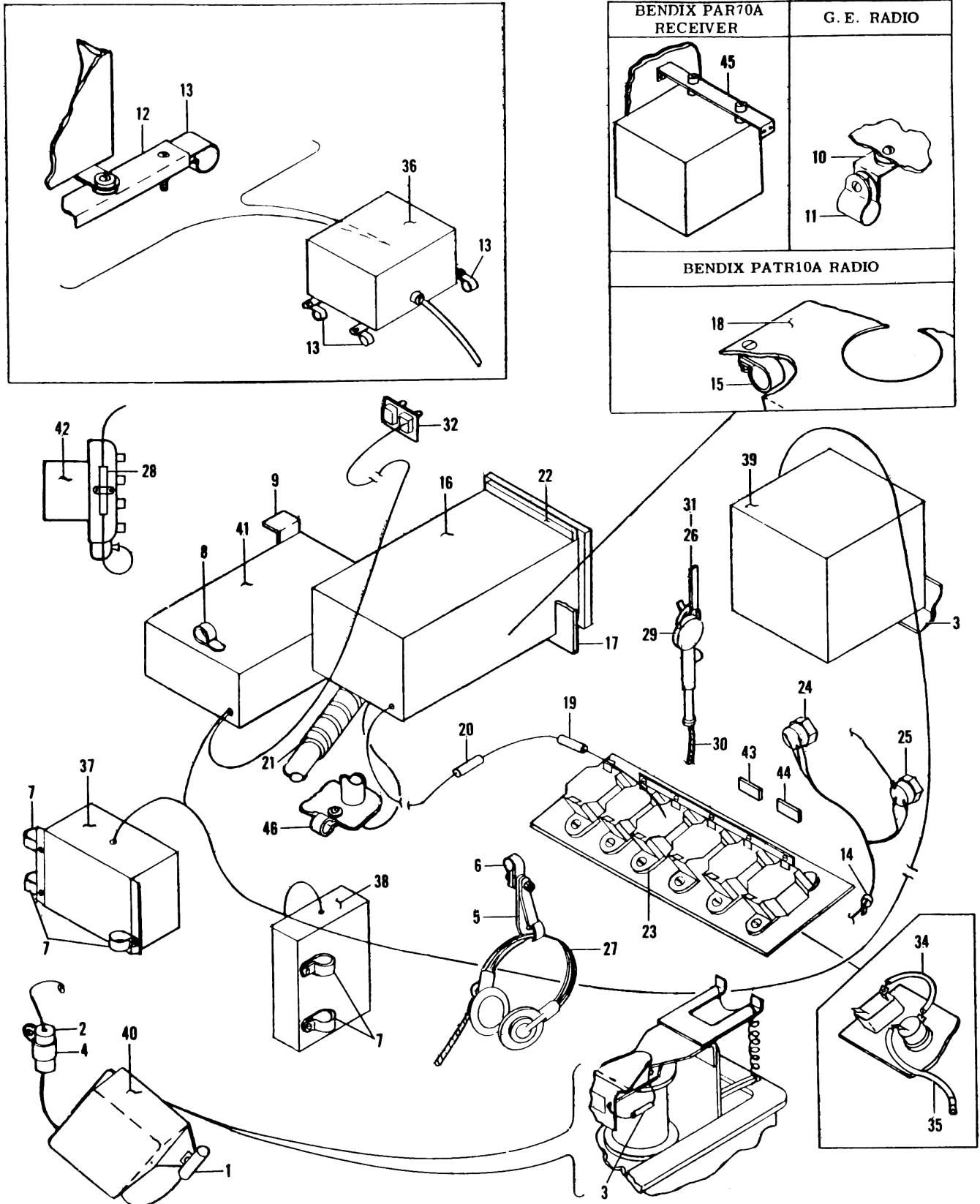
WING LIGHT INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
56-	12534		DRAWING – Landing light installation		X	X	X	X		X	X	X
-1	<a href="#">U12533-003</a>		STRIP – Landing light window attachment, side	2	X	X	X	X		X	X	X
-2	<a href="#">MS35206-230</a>		SCREW – Machine, round head (6-32 x 1/2" long)	73	X	X	X	X		X	X	X
-3	<a href="#">U12533-002</a>		STRIP – Landing light window attachment, top and bottom	2	X	X	X	X		X	X	X
-4	<a href="#">-12532-000</a>		WINDOW – Landing light	1	X	X	X	X		X	X	X
-5	415-742		SCREW – Machine, round head (6-32 x 7/8" long)	8	X	X	X	X		X	X	X
-6	406-678		STOP NUT – Elastic (No. 22M62)	43	X	X	X	X		X	X	X
-7	<a href="#">U12525-000</a>		PLATE – Landing light attachment	4	X	X	X	X		X	X	X
-8	<a href="#">4509</a>		LIGHT – Landing (100w – 12v)	2	X	X	X	X		X	X	X
-9	<a href="#">U12529-003</a>		PLATE – Rib reinforcement, center	1	X	X	X	X		X	X	X
-10	<a href="#">U12524-002</a>		BRACKET – Landing light attachment, center	1	X	X	X	X		X	X	X
-11	<a href="#">U12524-003</a>		BRACKET – Landing light attachment, outer right	1	X	X	X	X		X	X	X
-12	<a href="#">U12524-004</a>		BRACKET – Landing light attachment, outer left	1	X	X	X	X		X	X	X
-13	<a href="#">U19795-000</a>		MOULDING – Rubber, long	72"	X	X	X	X		X	X	X
-14	<a href="#">-12527-000</a>		PLATE – Landing light mounting	1	X	X	X	X		X	X	X
-15	<a href="#">U12529-002</a>		PLATE – Rib reinforcement, outer	2	X	X	X	X		X	X	X
-16	<a href="#">U12761-002</a>		COVER ASSEMBLY – Round inspection plate	6	X	X	X	X		X	X	X
-17	<a href="#">U80122-049</a>		GROMMET – Cover, inspection	6	X	X	X	X		X	X	X
-18	<a href="#">-12177-033</a>		WIRE ASSEMBLY – Light, ground, 8" outboard	1	X	X	X	X		X	X	X
-19	<a href="#">U10128-093</a>		WIRE ASSEMBLY – Ground, 8" inboard	1	X	X	X	X		X	X	X
-20	12298-09	A	HARNESS ASSEMBLY – Wire, light to wing root	1	X	X	X	X		X	X	X
	12298-03	B	HARNESS ASSEMBLY – Wire, light to wing root	1	X	X	X			X	X	
-21	<a href="#">AN515-6R10</a>		SCREW – Machine, round head (6-32 x 3/8" long)	4	X	X	X	X		X	X	X
-22	<a href="#">W23X1A1G-10</a>		CIRCUIT BREAKER	2	X	X	X	X		X	X	X
-23	10128-82		WIRE ASSEMBLY – Switch to circuit breaker	1	X	X	X	X		X	X	X
-24	12177-64		WIRE ASSEMBLY – Switch to circuit breaker	1	X	X	X	X		X	X	X
-25	12177-65		WIRE ASSEMBLY – Jumper	1	X	X	X	X		X	X	X
-26	<a href="#">-12298-018</a>	A	HARNESS ASSEMBLY – Wire, wing root to switch	1	X	X	X	X		X	X	X
	<a href="#">-12298-005</a>	B	HARNESS ASSEMBLY – Wire, wing root to switch	1	X	X	X			X	X	
-27	<a href="#">AN3023-1</a>		SWITCH	1	X	X	X	X		X	X	X
-28	406-434		NUT (Tinnerman No. 188-M-1)	28	X	X	X	X		X	X	X

A – Used on airplanes where wire assemblies have knife disconnects only.

B – Used on airplanes where wire assemblies have end terminals only.



**FIGURE 57**  
Radio Installation



RADIO INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
57-	12688		DRAWING – Radio installation, with G. E. radio		x														
	12954		DRAWING – Radio installation, with Bendix PATR-10A radio		x	x					x								
	13278		DRAWING – Radio installation, with Bendix 2 unit radio, PAT-50A VHF transmitter and PAR-70A receiver			x					x								
	13350		DRAWING – Radio installation, for use when installing the following Lear Radios (Note: This drawing with revision A & B is for 51 model aircraft and drawing with revision C and up is for 1952-53 model aircraft) LTA-5 Low frequency receiver and VHF transmitter. LTR-5 VHF receiver and VHF transmitter. LTRA-5 VHF receiver and VHF transmitter and low frequency receiver. Omnimatic VHF receiver and transmitter, low frequency receiver and automatic 75 MC marker beacon receiver. ADF-2 automatic direction finder. RT-10CH 2 watt VHF transmitter.			x	x	x			x	x	x						
	13523		DRAWING – Radio installation, with Narco VTLR-1, VTLR-2, super homer VHT-2, omnigator VTR-1 and LFR-1 low frequency receiver.			x	x	x			x	x	x						
	13279		DRAWING – Harness assembly (Used with installation of PAR-70A and PAT-50A radio)			x					x								
-1			487-640 SUPPRESSOR – On regulator (.5 MFD 120 working volts)	1	x	x	x	x			x	x	x						
-2			454-052 CAPACITOR – At voltage regulator (500 MFD) (Used with Narco and Lear Radio only)	1		x	x	x			x	x	x						
-3	454-051		CAPACITOR (100 MMF) on voltage regulator. (3) on bottom, ( 2) on top (Lear and Narco radio)	5			x	x				x	x						
-4	13669-00		CLAMP – Capacitor attachment (Used with Narco and Lear radio installation)	1		x	x	x			x	x	x						
-5	10946-00		HOOK ASSEMBLY – Headphone (Under instrument panel)	1	x	x	x	x			x	x	x						
-6	80032-20		CLAMP – Radio headphone hook	1	x	x	x	x			x	x	x						
-7	80032-52		CLAMP – Mounting (LD-5 dynamotor and junction box – Lear)	5		x	x					x	x						



RADIO INSTALLATION

SECTION IX  
Electrical System Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
57-8	13754-00		CLAMP – Radio mounting (Lear ADF-12 and Narco LFR-1 receiver when mounted below panel)	1			x	x			x	x
-9	13750-00		BRACKET – Mounting (ADF-12 Lear Radio)	2			x	x			x	x
-10	12696-00		BRACKET – Radio mounting support (Used with G. E. radio)	1	x							
-11	80002-09		CLAMP – Radio mounting installation	1	x							
-12	12697-00		CHANNEL – Power unit attachment (Used with G. E. radio)	1	x							
-13	<a href="#">-80032-052</a>		CLAMP – Power unit attachment (Used with G. E. radio)	3	x							
-14	80032-54		CLAMP – Radio harness attachment (Used with Lear radio only)	1		x	x				x	x
-15	<a href="#">-80032-052</a>		CLAMP – Radio mounting installation (Used with Bendix PATR-10A radio)	1	x	x					x	
-16			RADIO – General Electric AK-32 (Not available through Piper Aircraft Corp., secure from General Electric)	1	x							
			RADIO – General Electric AK-42 (Not available through Piper Aircraft Corp., secure from General Electric)	1	x							
			RADIO – Bendix PATR-10A (Not available through Piper Aircraft Corp., secure from Bendix Aviation Corp.)	1	x	x					x	
			RADIO – Bendix PAR-70A receiver and PAT-50A VHF transmitter (Not available through Piper Aircraft Corp., secure from Bendix Aviation Corp.)	1		x					x	
			RADIO – Lear LTR-5 VHF receiver and transmitter (Not available through Piper Aircraft Corp., secure from Lear, Inc.)	1		x	x				x	x
			RADIO – Lear LTRA-5 VHF receiver and VHF transmitter and low frequency receiver (Not available through Piper Aircraft Corp., secure from Lear Inc.)	1		x	x				x	x
			RADIO – Lear LTA-5 2-way radio, 2 band low frequency receiver and VHF transmitter (Not available through Piper Aircraft Corp., secure from Lear Inc.)	1		x	x				x	x



RADIO INSTALLATION

SECTION IX  
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Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
			RADIO – Lear Omnimatic, includes VHF receiver and transmitter, 2-band low frequency receiver and automatic 75 MC marker beacon receiver (Not available through Piper Aircraft Corp., secure from Lear Inc.)	1		X	X				X	X		
			RADIO – Lear RT-10CH 2-watt VHF transmitter (Used only with ADF-12) (Not available through Piper Aircraft Corp., secure from Lear Inc.)	1				X	X			X	X	
			RADIO – Lear ADF-12 automatic direction finder (Does not include transmitter) (Not available through Piper Aircraft Corp., secure from Lear Inc.)	1				X	X			X	X	
			RADIO – Narco LFR-1 (Not available through Piper Aircraft Corp., secure from National Aeronautical Corp.)	1				X	X			X	X	
			RADIO – Narco VHT-2 super homer (Not available through Piper Aircraft Corp., secure from National Aeronautical Corp.)	1				X	X			X	X	
57-16			RADIO – Narco VTR-1 omnigator (Not available through Piper Aircraft Corp., secure from National Aeronautical Corp.)	1				X	X			X	X	
			RADIO – Narco VTLR-1 or VTLR-2 (Not available through Piper Aircraft Corp., secure from National Aeronautical Corp.)	1		X	X	X			X	X	X	
-17	12704-00		PLATE – Radio finishing (Used with G. E. radio)	1	X									
-18	12924-00		PLATE ASSEMBLY – Radio mounting (For Bendix PATR-10A radio)	1	X	X					X			
-19	<a href="#">-90797-002</a>		SLEEVE – Plastic insulator, radio wire at circuit breaker (Used in Narco installation)	1		X	X	X			X	X	X	
-20	90797-05		SLEEVE – Plastic insulator, radio wire terminal (Used in Narco installation)	1		X	X	X			X	X	X	
-21	85512-06		STRIP – Sponge rubber, radio support (Used with Narco radio)	2		X	X	X			X	X	X	
-22	85512-03		STRIP – Rubber, radio installation at instrument panel (Used with General Electric radio)	2	X									
-23	<a href="#">W23X1A1G-10</a>		CIRCUIT BREAKER – Radio (PSM-10) (Used with Narco radio installation)	1		X	X	X			X	X	X	
	<a href="#">W23X1A1G-15</a>		CIRCUIT BREAKER – Radio (PSM-15) (Used with G. E. radio)	1	X									



RADIO INSTALLATION

SECTION IX  
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Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
57-24			JACK ASSEMBLY – Microphone (Not available through Piper Aircraft Corp., secure from General Electric, Bendix Aviation Corp., Lear Inc., or National Aeronautical Corp.)	1	X	X	X	X		X	X	X	
-25			JACK ASSEMBLY – Headphone (2 per ship with G. E. Radio) (1 per ship with Bendix, Lear and Narco Radio) (Not available through Piper Aircraft Corp., secure from General Electric, Bendix Aviation Corp., Lear Inc. or National Aeronautical Corp.)	1	X	X	X	X		X	X	X	
-26	12347-02		HOOK – Phone (At left front sliding window) (Used with Narco radio installation)	1		X	X			X	X		
-27	464 326		HEADPHONE – Radio	1	X	X	X	X		X	X	X	
-28	460 637		FILTER – Magneto (Narco-Radio)	1		X	X	X		X	X	X	
-29	474 646		MICROPHONE	1	X	X	X	X		X	X	X	
-30	459 864		EXTENSION – Phone	1	X	X	X	X		X	X	X	
-31	454 889		HOOK – Microphone, spring type	1			X	X			X	X	
-32	13761-02		PLACARD – Radio, “on”, “off”, ADF and VHF transmitter and receiver	1			X	X			X	X	
	13761-03		PLACARD – Radio “on”, “off”, ADF and VHF transmitter	1			X	X			X	X	
	13761-04		PLACARD – Radio, “on”, “off”, VHF, MKR BCN and LF Radio	1			X	X			X	X	
-33	13751-00		PLATE – Omnipack mounting (Lear Radio)	1		X	X			X	X		
	13753-00		PLATE – Mounting ADF power pack (Lear Radio)	1			X	X			X	X	
-34	12177-95		WIRE ASSEMBLY – Switch to fuse (Use with Lear Radio only when switch mounted on circuit breaker panel)	1		X	X			X	X		
-35	12177-96		WIRE ASSEMBLY – Fuse to bus bar (Used with Lear radio only when switch mounted on circuit breaker panel)	1		X	X			X	X		
-36			POWER SUPPLY – G. E. radio		X								
-37			DYNAMOTOR (LD-5) Lear			X	X	X		X	X	X	
-38			JUNCTION BOX – Lear			X	X	X		X	X	X	
-39			ADF POWER PACK OR (OMNIPACK) – Lear				X	X			X	X	
-40			VOLTAGE REGULATOR		X	X	X	X		X	X	X	
-41			RADIO – LFR-1 receiver				X	X			X	X	
			RADIO – Lear ADF-12				X	X			X	X	
-42			MAGNETO		X	X	X	X		X	X	X	





RADIO INSTALLATION

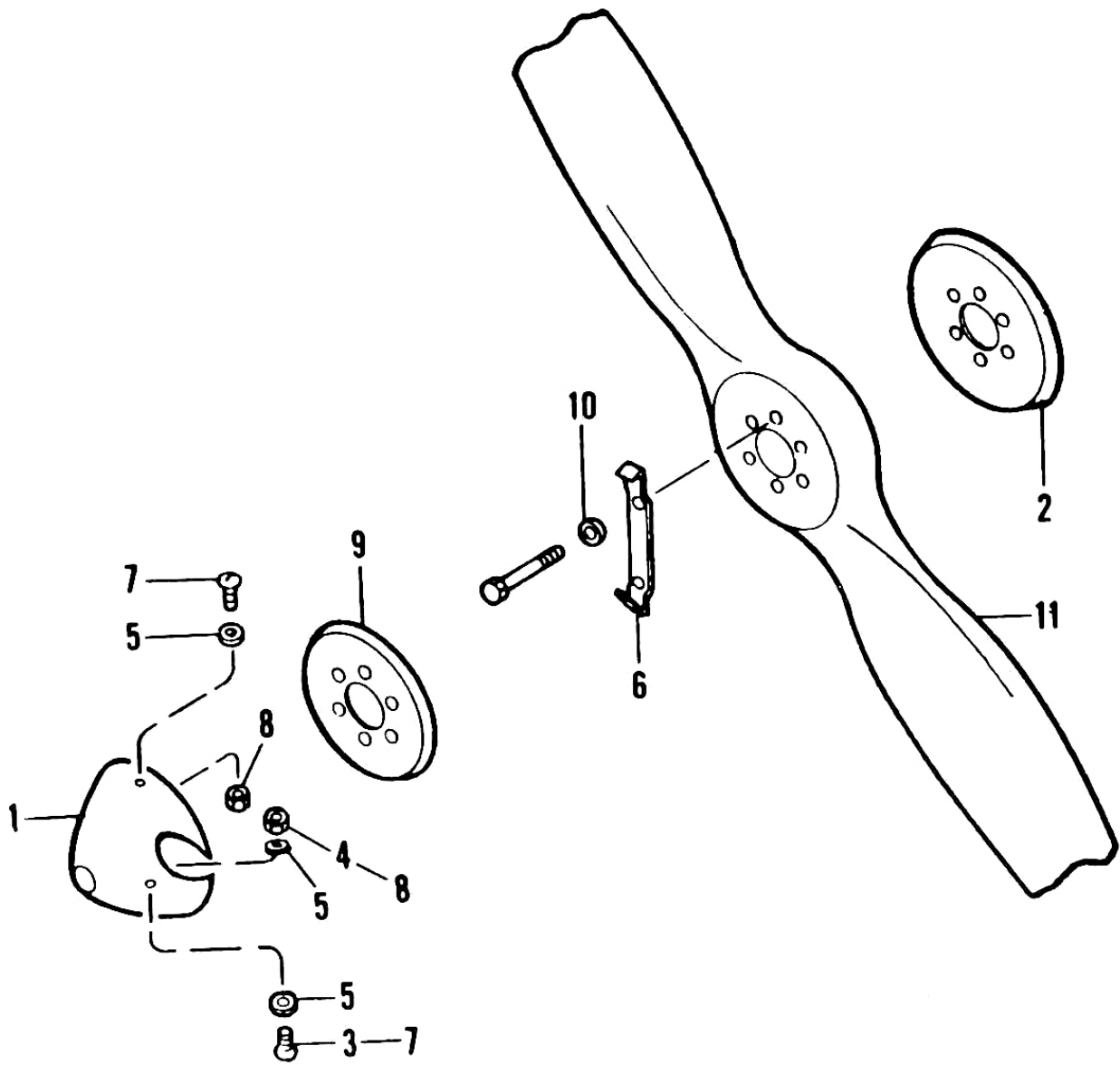
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Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
57-43	13487-00		PLACARD – Radio, on-off (Used with Lear radio installation) (When switches mounted in circuit breaker panel)	1		x	x				x	x		
-44	13486-00		PLACARD – Marker beacon (Used with Lear radio installation) (When switches mounted in circuit breaker panel)	1		x	x				x	x		
-45	13153-00		BRACKET – Radio mounting support (Used with Bendix PAR-70A and PAT-50A radio)	1		x					x			
-46	80002-09		CLAMP – Mounting loading coil (Used with G. E. radio AK-32)	1	x									

SPINNER AND PROPELLER INSTALLATION

SECTION X  
Power Plant Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
58-			NOTE: When securing a complete new spinner installation, all parts with like coding, in quantities indicated, should be ordered.											
-1	12416-00	B,F	SPINNER ASSEMBLY	1	x	x					x			
	12334-00	A	SPINNER ASSEMBLY	1	x									
	10246-00	B,E	SPINNER ASSEMBLY	1	x	x					x			
	13187-00	C,E	SPINNER ASSEMBLY	1		x	x				x	x		
	13668-00	D,E	SPINNER ASSEMBLY	1			x	x				x	x	
	<a href="#">-13163-000</a>	C,F	SPINNER ASSEMBLY	1		x	x				x	x		
	<a href="#">U13661-000</a>	D,F	SPINNER ASSEMBLY	1			x	x				x	x	
	<a href="#">U13661-A</a>		SPINNER ASSEMBLY – COMPLETE	1										
-2	10247-00	B,F	PLATE – Back	1	x	x					x			
	10247-00	A	PLATE – Back	1	x	x					x			
	10247-00	B,E	PLATE – Back	1	x	x					x			
	13188-00	C,E	PLATE – Back	1		x	x				x	x		
	13666-00	D,E	PLATE – Back	1			x	x				x	x	
	13164-00	C,F	PLATE – Back	1		x	x				x	x		
	<a href="#">U13663-000</a>	D,F	PLATE – Back	1			x	x				x	x	
-3	<a href="#">AN526-832R8</a>	B,F	SCREW – Machine, round head, spinner attachment to front bracket (No. 8-32 x 1/2")	2	x	x					x			
	<a href="#">AN526-832R8</a>	A	SCREW – Machine, round head, spinner attachment to front bracket (No. 8-32 x 1/2")	2	x	x					x			



## FIGURE 58

Spinner and Propeller Installation



SPINNER AND PROPELLER INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model											
					PA-20					PA-22						
					'50	'51	'52	'53	'54	'51	'52	'53	'54			
58-4	<a href="#">AN526-832R8</a>	B,E	SCREW – Machine, round head, spinner attachment to front bracket	2	x	x					x					
	<a href="#">A190-832-1</a>	B,F	NUT – Spinner attachment to front bracket	2	x	x					x					
	<a href="#">A190-832-1</a>	A	NUT – Spinner attachment to front bracket	2	x	x					x					
	<a href="#">A190-832-1</a>	B,E	NUT – Spinner attachment to front bracket	2	x	x					x					
	-5	<a href="#">U85012-047</a>	B,F	WASHER – Fibre at front spinner bracket	4	x	x	x	x			x	x	x		
		<a href="#">U85012-047</a>	A	WASHER – Fibre at front spinner bracket	4	x	x	x	x			x	x	x		
		<a href="#">U85012-047</a>	B,E	WASHER – Fibre at front spinner bracket	4	x	x	x	x			x	x	x		
		<a href="#">U85012-047</a>	C,E	WASHER – Fibre attachment, at front and rear spinner plate	10	x	x	x	x			x	x	x		
		<a href="#">U85012-047</a>	D,E	WASHER – Fibre attachment, at front and rear spinner plate	10	x	x	x	x			x	x	x		
	58-6	<a href="#">U85012-047</a>	C,F	WASHER – Fibre attachment, at front and rear spinner plate	10	x	x	x	x			x	x	x		
<a href="#">U85012-047</a>		D,F	WASHER – Fibre attachment, at front and rear spinner plate	10	x	x	x	x			x	x	x			
<a href="#">U12330-004</a>		B,F	BRACKET – Front	1	x	x	x				x	x				
12330-03		A	BRACKET – Front	1	x											
12330-02		B,E	BRACKET – Front	1	x	x	x				x	x				
12330-02		C,E	BRACKET – Front	1	x	x	x				x	x				
<a href="#">U12330-004</a>		C,F	BRACKET – Front	1		x	x				x	x				
-7		<a href="#">AN526-632R6</a>	B,F	SCREW – Machine, round head, spinner attachment to back plate (No. 6-32 x 3/8")	10	x	x					x				
		<a href="#">AN526-632R6</a>	A	SCREW – Machine, round head, spinner attachment to back plate (No. 6-32 x 3/8")	10	x	x					x				
		<a href="#">AN526-632R6</a>	B,E	SCREW – Machine, round head, spinner attachment to back plate (No. 6-32 x 3/8")	10	x	x					x				
	<a href="#">AN526-1032R8</a>	C,E	SCREW – Truss head machine, spinner attachment to front and rear plate (No. 10-32 x 1/2)	8		x	x	x			x	x	x			
	<a href="#">AN526-1032R8</a>	D,E	SCREW – Truss head machine, spinner attachment to front and rear plate (No. 10-32 x 1/2)	10		x	x	x			x	x	x			
	<a href="#">AN526-1032R8</a>	C,F	SCREW – Truss head machine, spinner attachment to front and rear plate (No. 10-32 x 1/2)	8		x	x	x			x	x	x			
	<a href="#">AN526-1032R8</a>	D,F	SCREW – Machine truss head, spinner attachment to front and rear plate (No. 10-32 x 1/2)	10		x	x	x			x	x	x			
	-8	406-351	B,F	NUT – Spinner attachment to back plate (Tinnerman No. A-880-632-1)	10	x	x					x				



SPINNER AND PROPELLER INSTALLATION

SECTION X  
Power Plant Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20					PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
	406-351	A	NUT – Spinner attachment to back plate (Tinnerman No. A-880-632-1)	10	x	x					x				
	406-351	B,E	NUT – Spinner attachment to back plate (Tinnerman No. A-880-632-1)	10	x	x					x				
	406-359	C,E	NUT – (Tinnerman No. A-1505-1032-1), spinner attachment to front and rear plate	8		x	x				x	x			
	406-359	C,F	NUT – (Tinnerman No. A-1505-1032-1), spinner attachment to front and rear plate	8		x	x				x	x			
-9	13667-00	D,E	PLATE – Front	1			x	x				x	x		
	<a href="#">U13664-000</a>	D,F	PLATE – Front	1			x	x				x	x		
-10	<a href="#">-80122-055</a>	D,E	WASHER – Propeller bolt attachment	6			x	x				x	x		
	<a href="#">-80122-055</a>	D,F	WASHER – Propeller bolt attachment	6			x	x				x	x		
58-11	450-940		PROPELLER – Sensenich, wood (74FM-52) “115”	1	x										
	450-945		PROPELLER – Sensenich, wood (74FM-57) “125”	1	x	x	x				x	x			
	450-946		PROPELLER – Sensenich, wood (74FM-58) “135”	1			x	x				x	x		
	450-988		PROPELLER – Sensenich, metal (76AM-2-57) “135”	1			x	x				x	x		
			PROPELLER – Sensenich, two-position controllable	1	x	x	x	x			x	x	x		

- A – Used with “115” McCauley MET-LPROP, spinner installation.
- B – Used on PA-20 airplanes with serial numbers 20-1 to 20-615 inclusive and on PA-22 airplanes with serial numbers 22-1 to 22-7 inclusive.
- C – Used on PA-20 airplanes with serial numbers 20-616 to 20-876 inclusive, and on PA-22 airplanes with serial numbers 22-8 to 22-553 inclusive.
- D – Used on PA-20 airplanes with serial numbers 20-877 and up, and on PA-22 airplanes with serial numbers 22-534 and up.
- E – Used with Sensenich Wood Propeller Installation.
- F – Used with Sensenich Metal Propeller Installation.

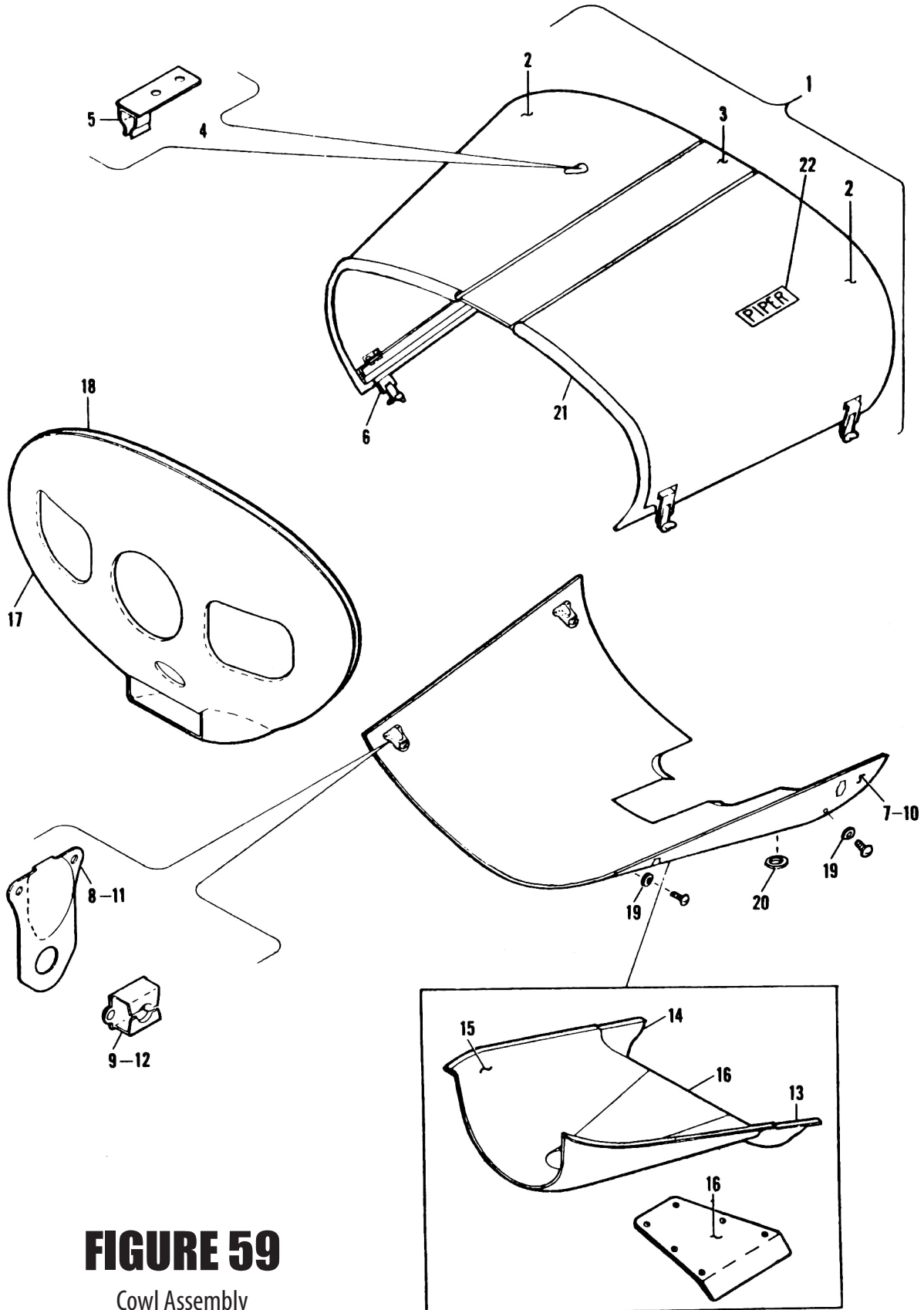
COWL ASSEMBLY

SECTION X  
Power Plant Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20					PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
59-1	<a href="#">U13158-000</a>		COWL ASSEMBLY – Top, complete	1		x	x	x			x	x	x		
	12720-00		COWL ASSEMBLY – Top, complete	1	x										
-2	13158-10		COWL ASSEMBLY – Top side, LH	1		x	x	x			x	x	x		
	12720-10		COWL ASSEMBLY – Top side, LH	1	x										

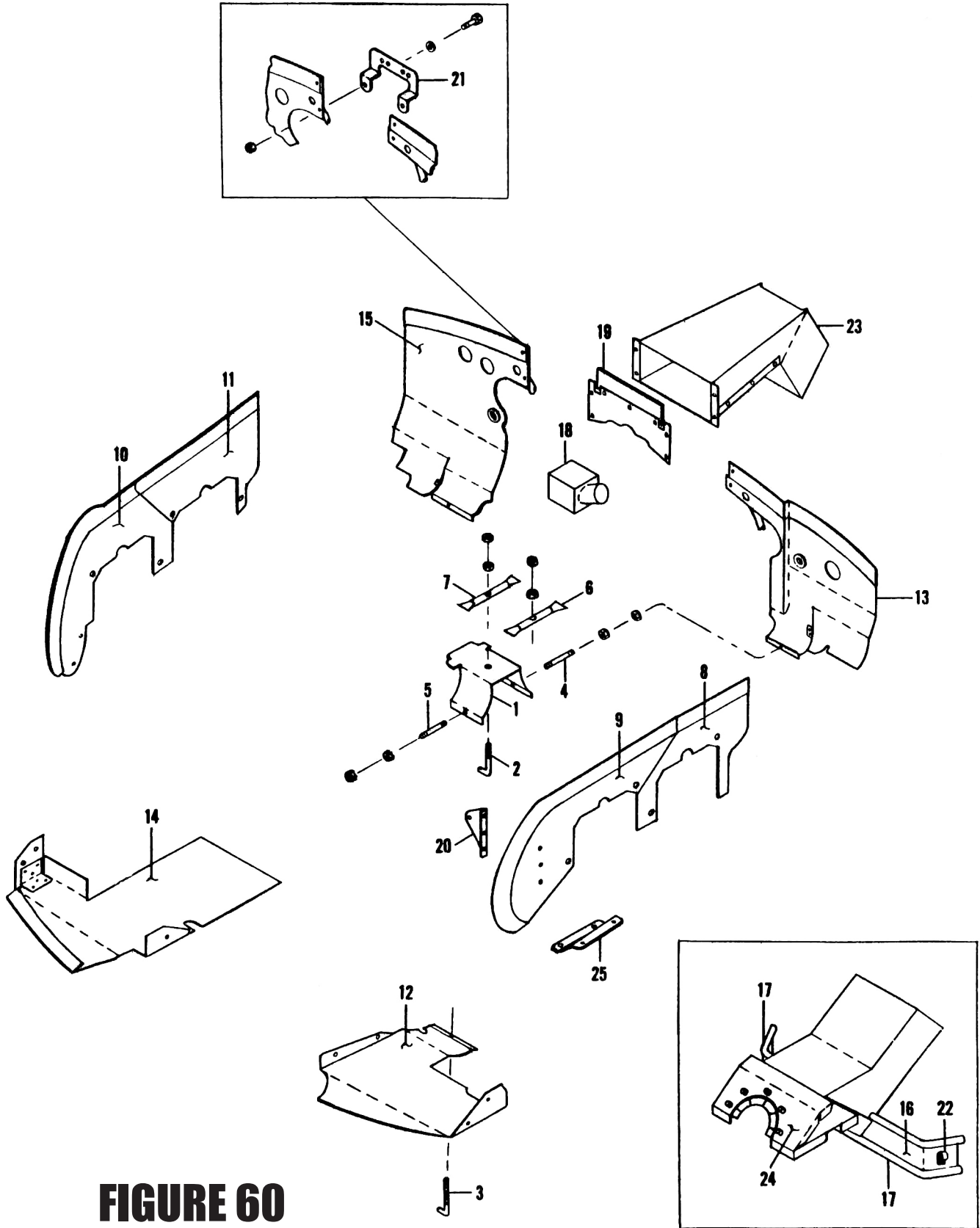


Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20					PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53	'54
	13158-09		COWL ASSEMBLY – Top side, RH	1		X	X	X			X	X	X
	12720-12		COWL ASSEMBLY – Top side, RH	1	X								
-3	13158-08		COWL ASSEMBLY – Top, center	1		X	X	X			X	X	X
	12720-11		COWL ASSEMBLY – Top, center	1	X								
-4	<a href="#">-12813-000</a>		CATCH ASSEMBLY – Rod, cowl support	2	X	X	X	X			X	X	X
-5	<a href="#">U52745-000</a>		FASTENER – (No. 487-205)	1	X	X	X	X			X	X	X
-6	<a href="#">108-6021401-22</a>		FASTENER	4	X	X	X	X			X	X	X
-7	12719-00		COWL ASSEMBLY – Bottom, “115” and “125”	1	X								
	<a href="#">U13159-000</a>		COWL ASSEMBLY – Bottom, “125”	1		X							
	<a href="#">-13159-005</a>		COWL ASSEMBLY – Bottom, “125”	1			X						
	<a href="#">-13159-007</a>		COWL ASSEMBLY – Bottom, “135”	1			X	X					
59-8	<a href="#">108-6021401-36</a>		CUP – Cowl fastener	4	X	X	X	X			X	X	X
-9	<a href="#">99947P130</a>		RECEPTACLE – Fastener	4	X	X	X	X			X	X	X
-10	<a href="#">U13119-003</a>		COWL ASSEMBLY – Bottom, “125”	1								X	
	<a href="#">U13119-000</a>		COWL ASSEMBLY – Bottom, “125”	1							X		
	<a href="#">U13784-000</a>		COWL ASSEMBLY – Bottom, “135”	1								X	X
-11	<a href="#">108-6021401-36</a>		CUP – Cowl fastener	4	X	X	X	X			X	X	X
-12	<a href="#">99947P130</a>		RECEPTACLE – Fastener	4	X	X	X	X			X	X	X
-13	<a href="#">U13132-000</a>		LOUVER – “125”, LH	1							X	X	
	13783-00		LOUVER – “135”, LH	1								X	X
-14	<a href="#">U13130-000</a>		LOUVER – “125”, RH	1							X	X	
	13781-00		LOUVER – “135”, RH	1								X	X
-15	13119-05		SCOOP ASSEMBLY – “125”	1							X	X	
	13784-02		SCOOP ASSEMBLY – “135”	1								X	X
-16	<a href="#">U13120-000</a>		PLATE – Bottom (Note: Used when attached by Lion fasteners) “125”	1							X	X	
	13656-00		PLATE – Bottom (Note: Used when attached by anchor nuts) “125”	1							X	X	
	<a href="#">U13777-000</a>		PLATE – Bottom, “135”	1								X	X
-17	<a href="#">U13778-000</a>		COWL ASSEMBLY – Nose, “135”	1			X	X				X	X
	<a href="#">U11958-004</a>		COWL ASSEMBLY – Nose, “115” and “125”	1	X	X	X				X	X	
-18	<a href="#">WEBBING-1/2</a>		WEBBING – Cowl	8'	X	X	X	X			X	X	X
-19	<a href="#">U85012-047</a>		WASHER – Fibre, bottom cowl attachment, rear	6		X	X	X					
	<a href="#">U85012-047</a>		WASHER – Fibre, bottom cowl attachment, front and rear	13	X						X	X	X
-20	<a href="#">MS35489-22</a>		GROMMET – Rubber, quick oil drain tube	1	X	X	X	X					
-21	<a href="#">U19795-000</a>		MOULDING – Rubber, cowl (Die No. 827)	148"	X								
-22	480-921		PLATE – Name, “Piper” (10079-00)	2	X	X							



**FIGURE 59**

Cowl Assembly



**FIGURE 60**

Engine Baffle Installation



ENGINE BAFFLE INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20					PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
60-1	<a href="#">-74912-000</a>		BAFFLE – Engine, intercyylinder, 135hp	2	X	X	X	X			X	X	X		
-2	<a href="#">-71451-003</a>		ROD – Hanger, intercyylinder baffle	2	X	X	X	X			X	X	X		
-3	<a href="#">-71451-008</a>		ROD – Hanger, right front baffle	1	X	X	X	X			X	X	X		
-4	<a href="#">U10487-004</a>		ROD – Tie, rear engine baffle to intercyylinder baffle, 3" (2 per ship Model "135" LH and RH)	2	X	X	X	X			X	X	X		
-5	<a href="#">U10487-003</a>		ROD – Tie, left front baffle to intercyylinder baffle, 2", "115" and "125"	1	X	X	X				X	X			
-6	<a href="#">-10415-002</a>		SUPPORT – Right front baffle hanger, 3" (2 per ship Model "135" LH & RH)	1	X	X	X	X			X	X	X		
-7	<a href="#">-10415-003</a>		SUPPORT – Intercylinder baffle hanger, 6"	2	X	X	X	X			X	X	X		
-8	11945-05		BAFFLE ASSEMBLY – Engine, rear, "115" and "125", LH side	1	X	X	X				X	X			
	<a href="#">-13774-000</a>		BAFFLE ASSEMBLY – Engine, rear, "135", LH side	1			X	X				X	X		
-9	11944-05		BAFFLE ASSEMBLY – Engine, front, LH side	1	X	X	X	X			X	X	X		
-10	11946-05		BAFFLE ASSEMBLY – Engine, front, "115" and "125", RH side	1	X	X	X				X	X			
	13773-00		BAFFLE ASSEMBLY – Engine, front, "135", RH side	1			X	X				X	X		
-11	11947-05		BAFFLE ASSEMBLY – Engine, rear, "115" and "125", RH side	1	X	X	X				X	X			
	13772-00		BAFFLE ASSEMBLY – Engine, rear, "135", RH side	1			X	X				X	X		
-12	12748-00		BAFFLE ASSEMBLY – Engine, front, "125", LH	1	X	X	X				X	X			
	11940-00		BAFFLE ASSEMBLY – Engine, front, "115", LH	1	X										
	<a href="#">-12428-004</a>		BAFFLE ASSEMBLY – Engine, front, "135", LH	1			X	X				X	X		
-13	12712-05		BAFFLE ASSEMBLY – Engine, rear, "115", LH	1	X										
	12712-06		BAFFLE ASSEMBLY – Engine, rear, "125" LH (Used on shielded engine)	1	X	X	X				X	X			
	12712-00		BAFFLE ASSEMBLY – Engine, rear, "125", LH (Used on non-shielded engine)	1	X	X	X				X	X			
	13779-00		BAFFLE ASSEMBLY – Engine, rear, "135", LH	1			X	X				X	X		
-14	<a href="#">-12749-000</a>		BAFFLE ASSEMBLY- Engine, front, "125", RH	1	X	X	X				X	X			
	<a href="#">-11948-000</a>		BAFFLE ASSEMBLY – Engine, front, "115", RH	1	X										
	<a href="#">-12749-005</a>		BAFFLE ASSEMBLY – Engine, front, "135", RH	1			X	X				X	X		
-15	12714-04		BAFFLE ASSEMBLY – Engine, rear, "115" and "125" (Used with shielded engine) RH	1	X	X	X				X	X			
	12714-00		BAFFLE ASSEMBLY – Engine, rear, "115" and "125" (Used on non-shielded engine) RH	1	X	X	X				X	X			

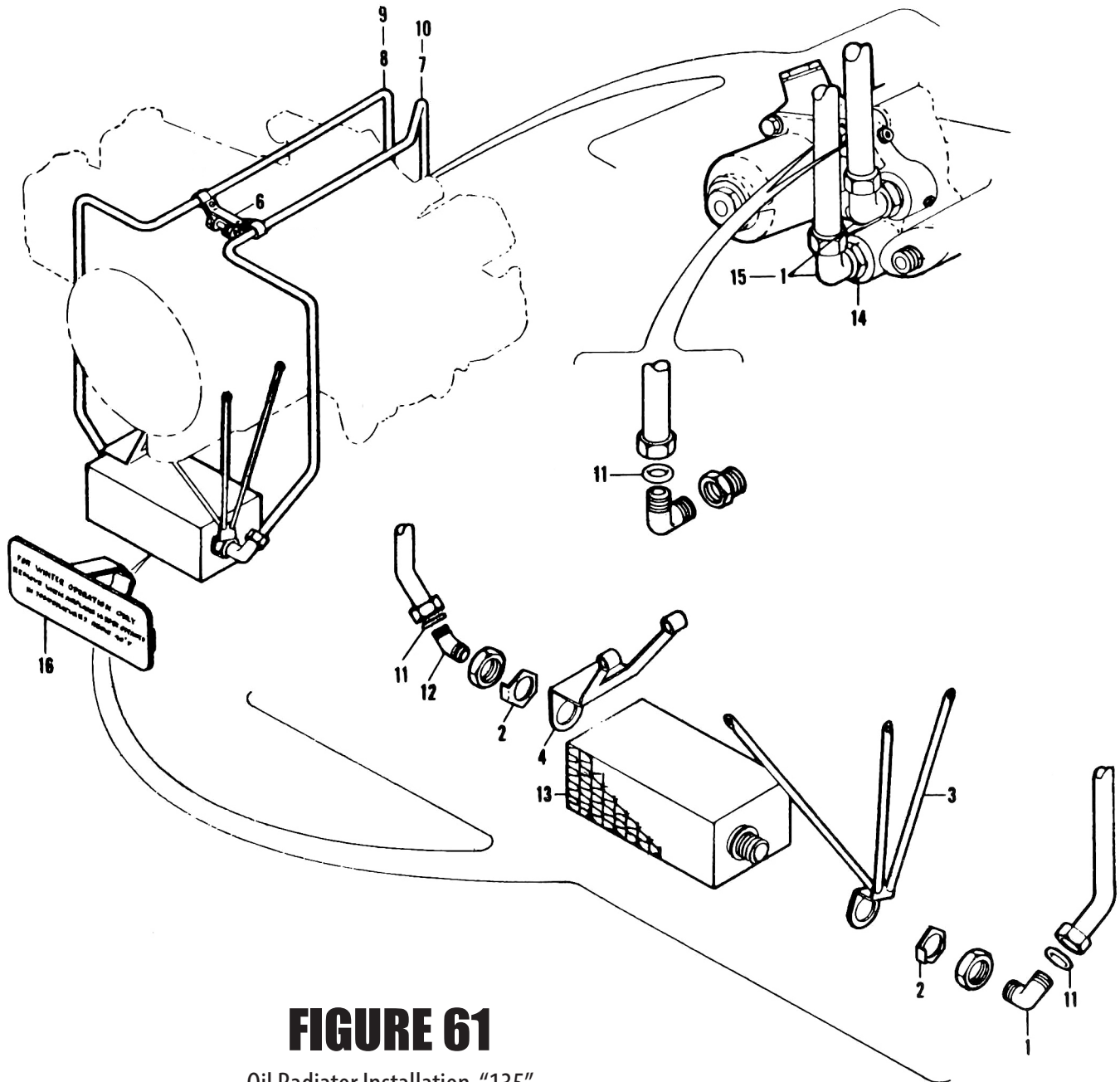




ENGINE BAFFLE INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
	12714-06		BAFFLE ASSEMBLY – Engine, rear (Used on shielded engine) (When rear seat heater is installed) "125", RH	1			X				X			
	12714-05		BAFFLE ASSEMBLY – Engine, rear (Used on non-shielded engine) (When rear seat heater is installed) "125", RH	1			X				X			
	13780-02		BAFFLE ASSEMBLY – Engine, rear (Used when rear seat heater is installed) "135", RH	1			X	X			X	X		
	13780-04		BAFFLE ASSEMBLY – Engine, rear (Used when rear seat heater is not installed) "135", RH	1			X				X			
60-16	<a href="#">U13136-000</a>		BAFFLE ASSEMBLY – Air bottom cowl	1							X	X	X	
-17	187-510		MOULDING – Rubber (No. NX502B-52)	3½'							X	X	X	
-18	11951-00		BAFFLE ASSEMBLY – Engine, oil well, "115"	1	X									
-19	12816-00		BAFFLE PLATE ASSEMBLY – Top center, rear, "115"	1	X									
-20	<a href="#">U13587-000</a>	A	BRACKET – Baffle support, side baffle, front, LH	1			X	X			X	X		
-21	<a href="#">-10175-000</a>		BRACKET ASSEMBLY – Top center baffle plate attachment, "115" and "135"	1	X		X	X			X	X		
-22	<a href="#">-80032-041</a>		CLAMP – Attachment, carburetor air baffle (Used with 1" tube on nose wheel mount)	2							X	X	X	
	80032-14		CLAMP – Attachment, carburetor air baffle (Used with ¾" tube on nose wheel mount)	2							X			
-23	12758-00		SCOOP ASSEMBLY – Air, oil cooler, "125"	1	X	X	X				X	X		
-24	<a href="#">U13137-000</a>		SCOOP ASSEMBLY – Carburetor air box	1							X	X	X	
-25	11400-00		BRACKET – Baffle support, front, "115", LH	1	X									

A – Used on PA-20 airplanes with serial numbers 20-860 and up; and on PA-22 airplanes with serial numbers 22-464 and up.



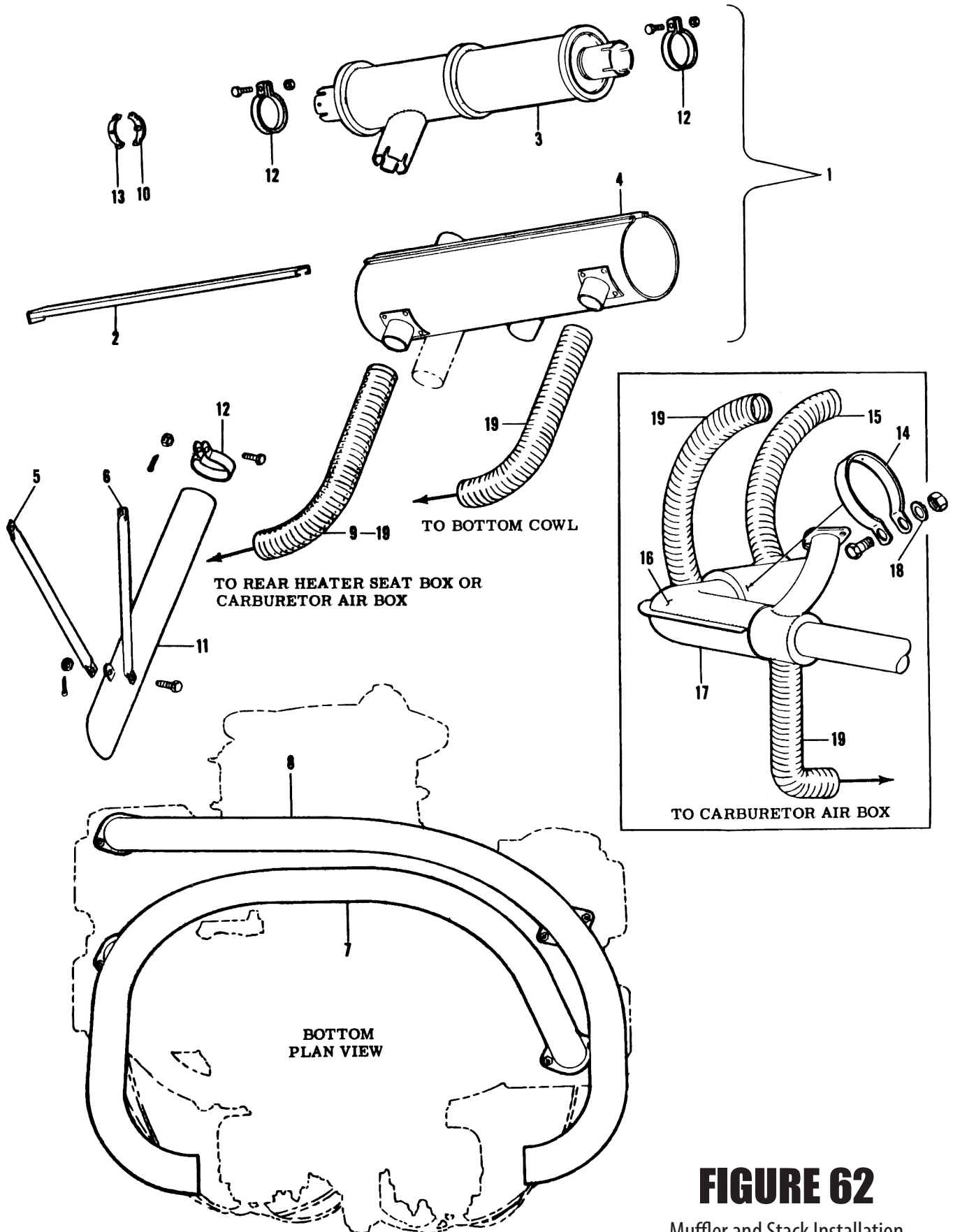
# FIGURE 61

Oil Radiator Installation, "135"



OIL RADIATOR INSTALLATION, "135"

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
61-	<a href="#">-13724DWG</a>		DRAWING – Oil radiator installation, "135"				X	X			X	X
-1	458-931		ELBOW – Oil radiator line attachment (at left side radiator and at engine when vacuum pump not installed) (No. 900-8B) "135"	3			X	X			X	X
-2	<a href="#">-13726-000</a>		PLATE – Lock, oil radiator installation, "135"	2			X	X			X	X
-3	<a href="#">U13725-000</a>		BRACKET ASSEMBLY – Oil radiator mounting, left side, "135"	1			X	X			X	X
-4	<a href="#">U13720-000</a>		BRACKET ASSEMBLY – Oil radiator mounting, right side, "135"	1			X	X			X	X
-6	<a href="#">-14549-000</a>		STRAP – Bracket support	1			X	X			X	X
-7	13723-00		LINE ASSEMBLY – Oil radiator, left side, "135" (When vacuum pump is not installed)	1			X	X			X	X
-8	13722-00		LINE ASSEMBLY – Oil radiator (When vacuum pump not installed) "135" RH	1			X	X			X	X
-9	14025-00		LINE ASSEMBLY – "135", oil radiator (Used when vacuum pump installed) RH	1			X	X			X	X
-10	14026-00		LINE ASSEMBLY – "135", oil radiator (Used when vacuum pump installed) LH	1			X	X			X	X
-11	484-646		RING – Seal, "135"	2			X	X			X	X
-12	<a href="#">-458-932</a>		ELBOW – Oil radiator line attachment (At right side radiator) (No. 1100-8) "135"	1			X	X			X	X
-13	<a href="#">8000328</a>		RADIATOR – Oil cooler, 12 plate (14206-00) "135"	1			X	X			X	X
-14	<a href="#">3200X6</a>		ADAPTER – Oil radiator line attachment (At engine) (No. 3200 x 6) "135"	1			X	X			X	X
-15	<a href="#">500X8</a>		CONNECTOR – Oil radiator attachment at engine (500 x 8) Used when vacuum pump installed, "135"	2			X	X			X	X
-16	<a href="#">U14793-000</a>		COVER – Oil radiator, "135"	1			X	X			X	X



**FIGURE 62**

Muffler and Stack Installation



MUFFLER AND STACK INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
62-1	12742-00		MUFFLER ASSEMBLY – Complete	1	X	X	X	X						
	12742-03		MUFFLER ASSEMBLY – Complete	1						X	X	X		
-2	<a href="#">U10430-000</a>		CLIP ASSEMBLY – Muffler shroud	1	X	X	X	X		X	X	X		
-3	<a href="#">U10308-003</a>		MUFFLER ASSEMBLY – Less shroud	1	X	X	X	X		X	X	X		
-4	12742-02		SHROUD ASSEMBLY – Muffler	1	X	X	X	X						
	<a href="#">U12742-004</a>		SHROUD ASSEMBLY – Muffler	1						X	X	X		
-5	11962-00		TUBE – Tail pipe support (Tail pipe to stack) (Used on all 1950 – 51 models and on 1952 models when rear seat heater not installed)	1	X	X	X			X	X			
	<a href="#">U11392-003</a>		TUBE – Tail pipe support (Tail pipe to stack) (When rear seat heater is installed)	1			X	X			X	X		
-6	11963-00		TUBE – Tail pipe support (Tail pipe to muffler attachment clamp) (Used on all 1950-51 models and on 1952 models when rear seat heater not installed)	1	X	X	X			X	X			
	<a href="#">U11963-002</a>		TUBE – Tail pipe support (Tail pipe to muffler) (When rear seat heater is installed)	1			X	X			X	X		
-7	12043-11		STACK ASSEMBLY – Exhaust, rear cylinders, “125” and “135”	1	X	X	X			X	X			
	13238-00		STACK ASSEMBLY – Exhaust, rear cylinders (Used when rear seat heater is installed)	1			X	X			X	X		
	<a href="#">-12043-003</a>		STACK ASSEMBLY – Exhaust, rear cylinders, “115”	1	X									
-8	<a href="#">U12043-023</a>		STACK ASSEMBLY – Exhaust, front cylinders, “125” and “135”	1	X	X	X	X		X	X	X		
	12043-02		STACK ASSEMBLY – Exhaust, front cylinders, “115”	1	X									
-9	10525-13		HOSE – Muffler shroud to rear seat heater box (When rear seat heater is installed)	1			X	X			X	X		
-10	<a href="#">-11394-000</a>		CLAMP ASSEMBLY – Exhaust stack to muffler attachment, with stud, RH	1	X	X				X				
-11	<a href="#">U11417-000</a>		TAILPIPE ASSEMBLY – Exhaust	1	X	X	X	X						
	<a href="#">U11417-004</a>		TAILPIPE ASSEMBLY – Exhaust	1						X	X	X		
-12	<a href="#">U70591-002</a>		CLAMP ASSEMBLY – Exhaust stack to muffler attachment, “125” and “135”, RH	1			X	X			X	X		
	<a href="#">U70591-002</a>		CLAMP ASSEMBLY – Exhaust stack to muffler, left side and tail pipe attachment	2	X	X	X	X		X	X	X		
-13	11394-03		CLAMP ASSEMBLY – Exhaust stack to muffler attachment, less stud, RH	1	X	X				X				



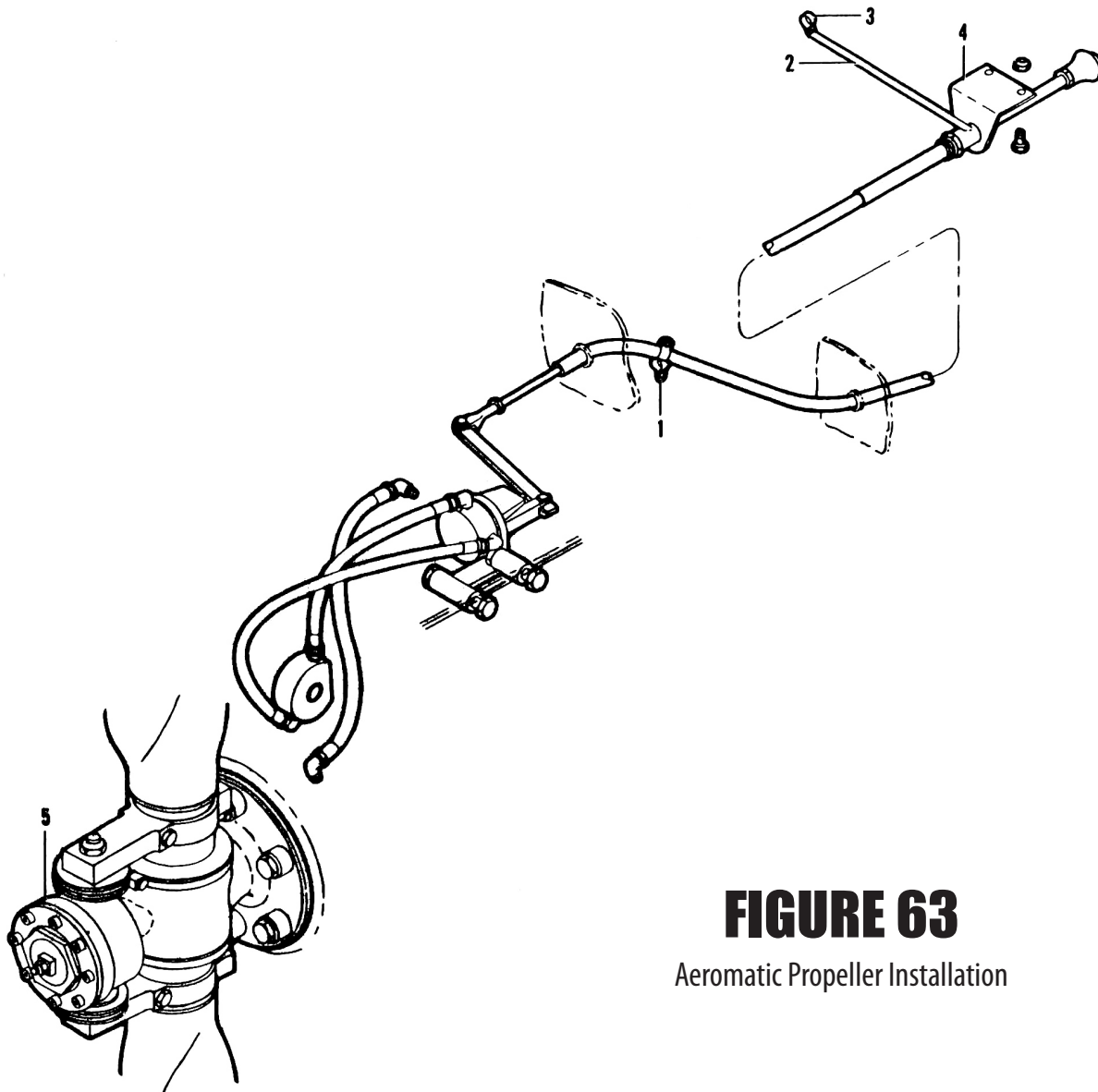
MUFFLER AND STACK INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20				PA-22			
					'50	'51	'52	'53	'54	'51	'52	'53
62-14	<a href="#">U18116-005</a>		CLAMP – Tail pipe support attachment (On muffler shroud) (Used when rear seat heater is installed)	1			X	X			X	X
-15	13290-00		TUBE – Flexible, aluminum, baffle to muffler shroud, "125" and "135"	1	X	X	X	X		X	X	X
-16	<a href="#">U10843-003</a>		SHROUD – Exhaust stack, upper half (Used when rear seat heater is installed)	1			X	X		X	X	
-17	<a href="#">U10764-003</a>		SHROUD – Exhaust stack, lower half (Used when rear seat heater is installed)	1			X	X		X	X	
-18	<a href="#">U40131-000</a>		WASHER – Tail pipe support clamp attachment (Used when rear seat is installed) "125" and "135"	1			X	X		X	X	
-19	<a href="#">AD2</a>		TUBE – Flexible, aluminum, 2½ in. O.D. (75½" per ship for "115") (43" per ship for "125") (22" per ship for "125") (51" per ship for "125" and "135" when rear seat heater is installed) (22" per ship for "125" and "135" when rear seat heater is not installed) (63½" per ship for PA-22) (56" per ship for "125" and "135" when rear seat heater is installed) (28½" per ship for "125" and "135" when rear seat heater is not installed)		X X  X  X  X  X		X  X	X  X		X  X  X	X  X	X  X



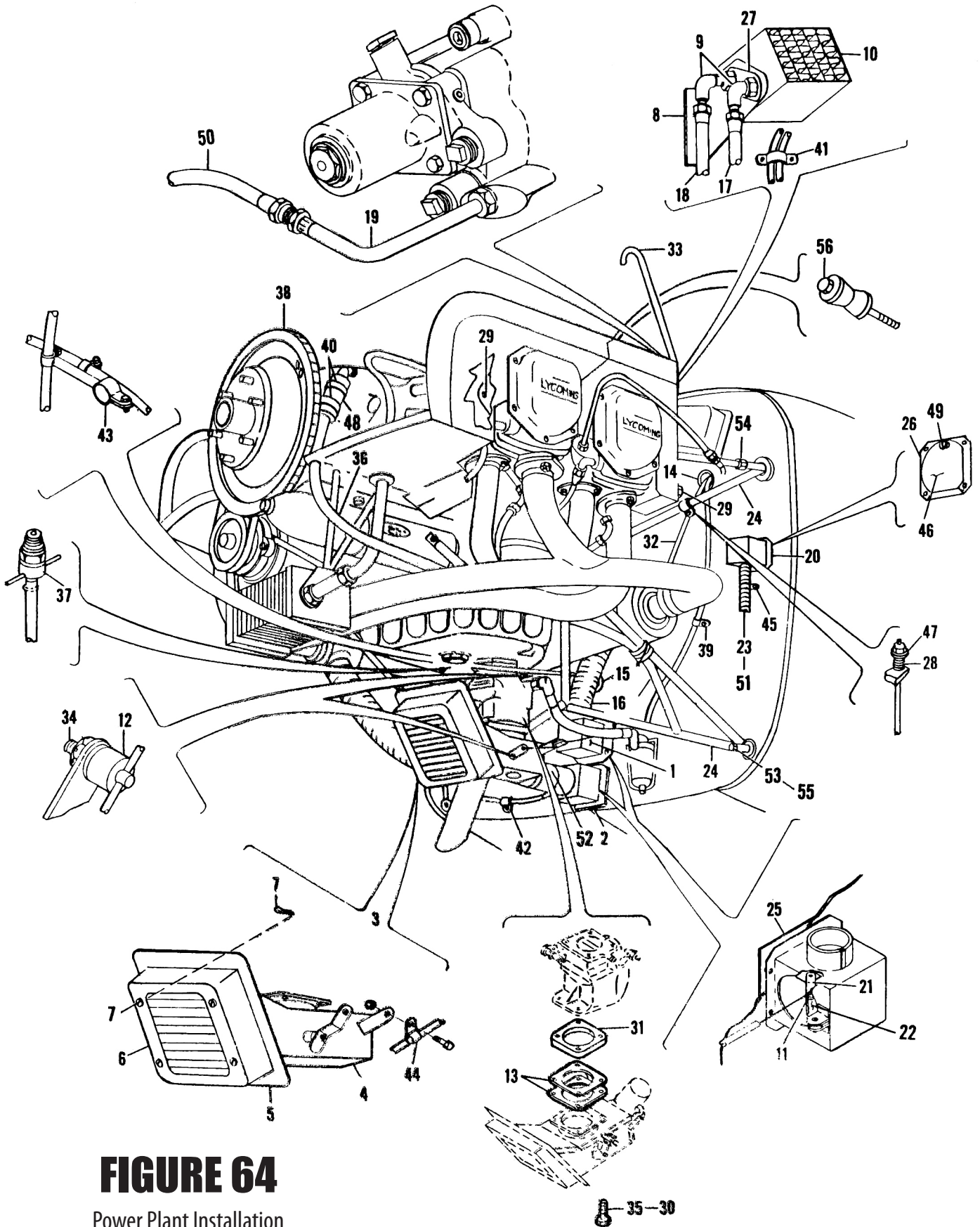
AEROMATIC PROPELLER INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model														
					PA-20				PA-22										
					'50	'51	'52	'53	'54	'51	'52	'53	'54						
63-	12854		DRAWING – Propeller installation																
-1	<a href="#">U12833-000</a>		CLAMP ASSEMBLY – Propeller control support at engine mount	1	x	x	x	x			x	x	x						
-2	12832-04		TUBE ASSEMBLY – Propeller control support	1	x	x	x	x			x	x	x						
-3	80002-09		CLAMP – Propeller control support tube assembly	1	x	x	x	x			x	x	x						
-4	12826-00		BRACKET – Propeller control support at instrument panel	1	x	x	x	x			x	x	x						
-5	450-911		PROPELLER – Aeromatic, F200-H/00-74E (secure from Koppers Co. Inc.)	1	x	x	x	x			x	x	x						



**FIGURE 63**  
Aeromatic Propeller Installation





**FIGURE 64**  
Power Plant Installation





POWER PLANT INSTALLATION

SECTION X  
Power Plant Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
64-	12690		DRAWING – Power plant section, “115” and “125”		x	x	x							
	13780		DRAWING – Power plant section, “135”				x	x						
	13110		DRAWING – Power plant section, “125”							x	x			
	13776		DRAWING – Power plant section, “135”								x	x		
-1	13358-00		BOX ASSEMBLY – Cabin heat, front seat	1			x	x			x	x		
	12718-00		BOX ASSEMBLY – Cabin heat, front seat (Used on 1951 model when rear seat heater is not installed)	1	x	x				x				
	12986-00		BOX ASSEMBLY – Cabin heat, front and rear seat (When rear seat heater is installed)	1		x				x				
-2	13359-00		BOX ASSEMBLY – Cabin heat, rear seat	1			x	x			x	x		
	12717-00		BOX ASSEMBLY – Cabin heat, rear seat, inside firewall	1	x									
-3	12746-00		BOX ASSEMBLY – Carburetor air “115” and “125” (Used on 1952 model when rear seat heater not installed)	1	x	x	x			x	x			
	11950-05		BOX ASSEMBLY – Carburetor air “125” (When rear seat heater is installed)	1			x				x			
	13765-02		BOX ASSEMBLY – Carburetor air “135” (When rear seat heater installed)	1			x	x						
	13765-03		BOX ASSEMBLY – Carburetor air “135” (When rear seat heater is not installed)	1			x							
	13765-04		BOX ASSEMBLY – Carburetor air “135” (When rear seat heater is installed)	1							x	x		
	13765-05		BOX ASSEMBLY – Carburetor air “135” (When rear seat heater is not installed)	1							x			
-4	12746-04		BOX ASSEMBLY – Less filter (Used on 1952 model when rear seat heater not installed)	1	x	x	x			x	x			
	11950-07		BOX ASSEMBLY – Less filter, “125” and “135” (When rear seat heater is installed)	1			x	x			x	x		
-5	<a href="#">-11950-004</a>		BAFFLE – Leather	1	x	x	x	x		x	x	x		
-6	<a href="#">600314</a>		FILTER – “115” and “125”	1	x	x	x			x	x			
	<a href="#">120086</a>		FILTER – “135” (13681)	1			x	x						
	<a href="#">121494</a>		FILTER – “135”	1							x	x		
-7	<a href="#">-480-650</a>		PIN – (No. 99785-2)	4	x	x	x	x		x	x	x		
	487-568		STUD – (No. 99899-10-1.590) “125” (Used only with 1-1/2” filter)	4						x				



POWER PLANT INSTALLATION

SECTION X  
Power Plant Group

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
	<a href="#">-487-571</a>		STUD – (No. 98293-15-2.100) "135"	4			X	X			X	X	
	<a href="#">24306</a>		STUD – (No. 98293-8-1.100) "115" and "125"	4	X	X	X				X	X	
64-8	<a href="#">12755-00</a>		BRACKET ASSEMBLY – Oil cooler mtg, "125"	1	X	X	X				X	X	
-9	<a href="#">458-924</a>		ELBOW – Oil cooler installation, "125" (W/H No. 49 x 6B)	2	X	X	X				X	X	
-10	<a href="#">8000328</a>		RADIATOR – Oil cooler, "125"	1	X	X	X				X	X	
-11	<a href="#">U70371-000</a>		FITTING ASSEMBLY – Swivel, cabin heat control (2 per ship when rear seat heater is installed) "125" and "135"	1			X	X			X	X	
-12	<a href="#">U70371-002</a>		FITTING ASSEMBLY – Swivel, carburetor heat control attachment at carburetor	1	X	X	X	X			X	X	X
	<a href="#">U91193-000</a>		FITTING ASSEMBLY – Swivel, mixture control attachment, at carburetor	1	X	X	X	X			X	X	X
-13	<a href="#">-73451-003</a>		GASKET – Air box to carburetor attachment	2	X	X	X	X			X	X	X
-14	<a href="#">MS35489-22</a>		GROMMET – Rubber, cable control, at firewall (AN931-14-20)	3	X	X	X	X			X	X	X
-15	<a href="#">MS35489-11</a>		GROMMET – Throttle and mixture control at firewall	1	X	X	X	X			X	X	X
-16	<a href="#">-10525-005</a>		HOSE – Air duct, cabin heater to muffler shroud	1	X	X	X	X			X	X	X
-17	465-132		HOSE ASSEMBLY – Oil cooler to engine, 9-1/2 in. long (No. 12762-02) "125"	1	X	X	X				X	X	
-18	465-133		HOSE ASSEMBLY – Oil cooler to engine, 12-1/2 in lg (No. 12762-03) "125"	1	X	X	X				X	X	
-19	72791-02		HOSE ASSEMBLY – Oil pressure gauge, at engine, 6" flexible (Alternate line No. 71061-00 may be used)	1	X	X	X	X			X	X	X
-20	12718-08		INTAKE ASSEMBLY – Cold air, at firewall	1							X		
	12848-00		INTAKE ASSEMBLY – Cold air, at firewall	1	X								
	<a href="#">-12315-000</a>		INTAKE ASSEMBLY – Cold air, at firewall	1		X							
-21	<a href="#">-81262-051</a>		LINK – Attachment, cabin heater box control, flat (2 per ship when rear seat heater is installed)	1			X	X			X	X	
-22	<a href="#">-13356-000</a>		LINK – Attachment, cabin heat control, angle (2 per ship when rear seat heater is installed)	1			X	X			X	X	
-23	10525-12		HOSE – Air duct, cold air inlet	1		X							
-24	<a href="#">U11786-000</a>		MOUNT – Engine, "115" and "125"	1	X	X							
	<a href="#">U11786-013</a>		MOUNT – Engine, "125" and "135"	1			X	X					



POWER PLANT INSTALLATION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model										
					PA-20					PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54		
	<a href="#">U11786-012</a>		MOUNT – Engine, "125"	1							X				
	<a href="#">U11786-014</a>		MOUNT – Engine, "125" and "135"	1								X	X		
64-25	<a href="#">12765-02</a>		PLATE – Trim, cabin heat intake, front seat, inside firewall	1	X	X	X	X			X	X	X		
-26	<a href="#">-12320-000</a>		PLATE – Trim, cold air intake, inside firewall	1		X									
	12765-02		PLATE – Trim, cold air intake, inside firewall	1							X				
	11442-00		PLATE – Cold air inlet, cabin, inside firewall	1	X										
-27	12797-00		PLATE – Lock, oil cooler bracket, "125"	1	X	X	X				X	X			
-28	10493-00		SPRING – Muffler support rod	2	X	X					X				
-29	<a href="#">-480-932</a>		PLUG – At engine baffle (No. 65614) "125" and "135" (2 per ship Model "125" PA-20 airplanes with serial numbers 20-860 and up on PA-22 airplanes with serial numbers 22-464 and up)	1	X	X	X	X			X	X	X		
-30	<a href="#">-10836-002</a>		SCREW – Cap, air box to carburetor attachment	4	X	X	X	X							
-31	91499-00		SPACER – Air box to carburetor, "135"	2							X	X	X		
-32	10490-00		ROD – Muffler support, 10-1/4 in	2	X	X					X				
-33	<a href="#">-12809-000</a>		ROD – Cowl support	2	X	X	X	X			X	X	X		
-34	<a href="#">U70371-003</a>		STUD – Mixture and carburetor heat control attachment	2	X	X	X	X			X	X	X		
-35	487-567		STUD – Air box to carburetor attachment (No. 62840), "135"	4							X	X	X		
-36	<a href="#">-11957-000</a>		TUBE – Breather, engine, "135"	1	X	X	X	X			X	X	X		
-37	<a href="#">U12956-004</a>		VALVE ASSEMBLY – Quick oil drain	1	X	X	X	X			X	X	X		
-38			ENGINE – Lycoming, O-235-C1, "115"	1	X										
			ENGINE – Lycoming, O-290-D, "125"	1	X	X	X				X	X			
			ENGINE – Lycoming, O-290-D2, "135"	1			X	X				X	X		
-39	<a href="#">AN742-3</a>		CLAMP – Cabin and carburetor heat control and primer line, at firewall (Tinnerman A2980A-3-199A)	AR	X	X	X	X			X	X	X		
-40	QS100-M10W		CLAMP – Hose, oil breather line, 1 inch	2	X	X	X	X			X	X	X		
-41	80222-26		CLAMP – Throttle and mixture control at firewall	1	X	X	X	X			X	X	X		
-42	<a href="#">-13357-000</a>		CLAMP – Cabin heat control attachment (2 per ship when rear seat heater is installed)	1			X	X				X	X		
-43	<a href="#">-12316-000</a>		CLAMP ASSEMBLY – Throttle and mixture control attachment, on engine mount	1	X	X	X	X			X	X	X		



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model								
					PA-20				PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54
64-44	<a href="#">U80032-034</a>		CLAMP – Offset, carburetor heat control attachment, on air box	1	x	x	x	x		x	x	x	
-45	<a href="#">U80222-027</a>		CLAMP – Attachment, cold air inlet tube	1						x			
-46	10495-00		VALVE – Cold air inlet, cabin	1	x								
-47	<a href="#">U80122-020</a>		WASHER – Muffler support spring installation	2	x	x				x			
-48	74311-00		HOSE – Connector, breather line	1	x	x	x	x		x	x	x	
-49	83302-04		SPRING – Valve attachment, cold air inlet	1	x								
-50	82332-24		TUBE ASSEMBLY – Oil pressure gauge line to instrument	1	x	x	x	x		x	x	x	
-51	<a href="#">AD2</a>	A	TUBE – Flexible, aluminum, 2-1/8 O.D.	34"						x			
	<a href="#">AD2</a>	A	TUBE – Flexible, aluminum, 2-1/8 O.D.	19"	x								
-52	10525-13		HOSE – Muffler shroud to rear seat heater box (When rear seat heater installed)	1			x	x			x	x	
-53	<a href="#">AN6-36</a>		BOLT – (AN6-36)	2						x	x	x	
	<a href="#">MS21044N6</a>		NUT – Elastic stop (No. 42E064)	2						x	x	x	
	<a href="#">NAS1149F0663P</a>		WASHER – (AN960-616)	2						x	x	x	
-54	<a href="#">AN6-24</a>		BOLT – (AN6-24)	2	x	x	x	x		x	x	x	
	<a href="#">MS21044N6</a>		NUT – Elastic stop (No. 42E064)	2	x	x	x	x		x	x	x	
-55	<a href="#">AN6-24</a>		BOLT – (AN6-24)	2	x	x	x	x					
	<a href="#">MS21044N6</a>		NUT – Elastic stop (No. 42E064)	2	x	x	x	x					
-56	<a href="#">AN8-44</a>		BOLT – (AN8-44)	4	x	x	x	x		x	x	x	
	<a href="#">AN310-8</a>		NUT – (AN310-8)	4	x	x	x	x		x	x	x	
	<a href="#">MS24665-283</a>		PIN – Cotter (AN380-3-3)	4	x	x	x	x		x	x	x	

A – See Figure 62, item 21 for total quantity required per airplane



## MISCELLANEOUS SECTION

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20				PA-22					
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
	754-025		ANTENNA – Fixed loop (Used with Narco Radio)						X					X
	751-204		ANTENNA – Fixed loop (Used on all radio installations except the Lear Radio)		X	X	X				X	X		
	751-205		ANTENNA INSTALLATION – Single wire (Used with General Electric Radio)											
	7-52-210		ANTENNA INSTALLATION – Single wire (Used with Bendix Radio)											
	752-256		ANTENNA INSTALLATION – Single wire (Used with Lear Radio)											
	752-257		ANTENNA INSTALLATION – Single wire (Used with Narco Radios)											
	752-211		ANTENNA INSTALLATION – Vee assembly (Used with Bendix Radio)											
	751-206		ANTENNA INSTALLATION – Vee assembly (Used with General Electric Radio)											
	752-255		ANTENNA INSTALLATION – Vee assembly (Used with Lear Radio)											
	752-254		ANTENNA INSTALLATION – Vee assembly (Used with Narco Radios)											
	752-297		BATTERY BOX INSTALLATION – Sealed				X	X			X	X		
	752-300		DEFROSTER INSTALLATION		X	X	X	X		X	X	X		
	751-140		DUAL BRAKES INSTALLATION		X	X	X	X						
	752-194		FLOAT INSTALLATION – “115”		X									
	752-195		FLOAT INSTALLATION – “125”		X	X								
	752-240		FLOAT INSTALLATION – “125”				X							
	752-245		FLOAT INSTALLATION – “135” (Model 88-1650 Floats)					X						
	752-292		FLOAT INSTALLATION – “135” (Model 88-1650 Floats)						X					
	754-026		FLOAT INSTALLATION – “135” (Model 89-2000 Floats)					X						
	754-027		FLOAT INSTALLATION – “135” (Model 89-2000 Floats)						X					
	752-204		FOUR CYLINDER PRIMING		X									
	752-243		FRESH AIR VENT INSTALLATION (For use when installing the 1952 Model Fresh Air Vent on 1950 and 1951 Model PA-20's and PA-22's)		X	X					X			



SECTION XI  
Miscellaneous Section

Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model									
					PA-20					PA-22				
					'50	'51	'52	'53	'54	'51	'52	'53	'54	
	752-177		LANDING GEAR – Nuts and bolts		X	X	X	X						
	<a href="#">-752-214</a>		LANDING GEAR – Nuts and bolts								X	X	X	
	<a href="#">-751-200</a>		LANDING LIGHT INSTALLATION		X	X	X	X			X	X	X	
	752-271		MANIFOLD PRESSURE GAUGE		X	X	X	X			X	X	X	
	752-182		NAVIGATION LIGHT AND COCKPIT SPOTLIGHT INSTALLATION		X	X	X	X			X	X	X	
	752-241		OIL RADIATOR INSTALLATION – “135” (For use when installing large 12 plate oil radiator in PA-20 and PA-22 Model “125” Airplanes, this kit is less the nose cowl)											
	751-192		REAR SEAT HEATER INSTALLATION		X									
	752-211		REAR SEAT HEATER INSTALLATION			X					X			
	750-454		RIB REPAIR KIT		X	X	X	X			X	X	X	
	<a href="#">-750-736</a>		SPAR SPLICE – Front (Wing)		X	X	X	X			X	X	X	
	<a href="#">-750-737</a>		SPAR SPLICE – Rear (Wing)		X	X	X	X			X	X	X	
	752-273		SAFE FLIGHT INDICATOR		X	X	X	X			X	X	X	
	752-258		SHIELDED IGNITION – Radio		X	X	X	X			X	X	X	
	752-209		SPEAKER AND DOME LIGHT INSTALLATION (Used with Bendix Radio)											
	751-191		SPEAKER AND DOME LIGHT INSTALLATION (Used with General Electric Radio)											
	752-253		SPEAKER AND DOME LIGHT INSTALLATION (Used with Bendix PAR-70A and PAT-50A Radio)											
	752-221		SPEAKER AND DOME LIGHT INSTALLATION (Used with Lear Radio)											
	752-252		SPEAKER AND DOME LIGHT INSTALLATION (Used with Narco Radio)											
	751-160		STORM LAKE LITTER		X	X	X				X	X		
	754-007		STORM LAKE LITTER					X					X	
	752-180		STRUT FAIRINGS INSTALLATION		X									
	752-207		STRUT FAIRINGS INSTALLATION (Used tie down rings are installed on wing spar and also when no tie down rings are installed)			X	X	X			X	X	X	
	752-248		STRUT FAIRINGS INSTALLATION (Used when tie down rings are installed at upper end of lift strut)				X	X			X	X		
	752-231		SUPER HEATER INSTALLATION (For use on 1950 and 1951 Model PA-20 and PA-22 airplanes when airplanes are equipped with rear seat heater)		X	X					X			



Figure & Index Number	Part Number	Code	Nomenclature	# Req.	Model							
					PA-20					PA-22		
					'50	'51	'52	'53	'54	'51	'52	'53
	752-267		VACUUM PUMP INSTALLATION (Used only when engine equipped for installation) "135"				X	X			X	X
	752-187		WINDOW AND DOOR LOCK INSTALLATION		X							
	752-208		WINDOW AND DOOR LOCK INSTALLATION			X	X			X	X	
	752-261	A	DIRECTIONAL GYRO INSTALLATION (Venturi installation)				X	X		X	X	
	752-260	A	INSTRUMENT INSTALLATION – Advanced (Venturi installation)				X	X		X	X	
	752-259	A	INSTRUMENT INSTALLATION – Primary (Venturi Installation)				X	X		X	X	
	752-272		AEROMATIC PROPELLER INSTALLATION (Less propeller)		X	X	X	X		X	X	X
	<a href="#">U752-287</a>		WINDOW VENTILATOR		X	X	X	X		X	X	X

A – Used on PA-20 airplanes with serial numbers 20-903,20-906,20-909 and up; and on PA-22 airplanes with serial numbers 22-635,22-637,22-640,22-642,22-644,22-647, 22-648,22-654,22-657,22-659 and up

## NUMERICAL INDEX PA-20 AND PA-22 MODELS

PART NUMBER	FIG. & INDEX
<b>ADAPTER</b>	
AN840-4D	22-1
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