## DUPLICATE

# PILOT'S **OPERATING HANDBOOK**

## PIPER CHEROKEE WARRIOR II



PA-28-161

REPORT: VB-880

FAA APPROVED IN NORMAL AND UTILITY CATEGORIES BASED ON CAR 3 AND FAR PART 21. SUBPART J. THIS HANDBOOK INCLUDES THE MATERIAL REQUIRED TO BE FURNISHED TO THE PILOT BY CAR 3 AND FAR PART 21, SUBPART J AND CONSTITUTES THE APPROVED AIRPLANE FLIGHT MANUAL AND MUST BE CARRIED IN THE AIRPLANE AT ALL TIMES.

28-8116220

AIRPLANE SERIAL NO.

AIRPLANE REGISTRATION NO. SE

FAA APPROVED BY: Ward Evans

WARD EVANS D.O.A. NO. SO-1

PIPER AIRCRAFT CORPORATION

VERO BEACH, FLORIDA

DATE OF APPROVAL: DECEMBER 16, 1976



### WARNING

EXTREME CARE MUST BE EXERCISED TO LIMIT THE USE OF THIS HANDBOOK TO APPLICABLE AIRCRAFT. THIS HANDBOOK IS VALID FOR USE WITH THE AIRPLANE IDENTIFIED ON THE FACE OF THE TITLE PAGE. SUBSEQUENT REVISIONS SUPPLIED BY PIPER AIRCRAFT CORPORATION MUST BE PROPERLY INSERTED.

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#### **APPLICABILITY**

Application of this handbook is limited to the specific Piper PA-28-161 model airplane designated by serial number and registration number on the face of the title page of this handbook.

This handbook cannot be used for operational purposes unless kept in a current status.

#### WARNING

INSPECTION, MAINTENANCE AND PARTS REQUIREMENTS FOR ALL NON-PIPER APPROVED STC INSTALLATIONS ARE NOT INCLUDED IN THIS HANDBOOK. WHEN A NON-PIPER APPROVED STC INSTALLATION IS INCORPORATED ON THE AIRPLANE, THOSE PORTIONS OF THE AIRPLANE AFFECTED BY THE INSTALLATION MUST BE INSPECTED IN ACCORDANCE WITH THE INSPECTION PROGRAM PUBLISHED BY THE OWNER OF THE STC. SINCE NON-PIPER APPROVED STC INSTALLATIONS MAY CHANGE SYSTEMS INTERFACE, OPERATING CHARACTERISTICS AND COMPONENT LOADS OR STRESSES ON ADJACENT STRUCTURES, PIPER PROVIDED INSPECTION CRITERIA MAY NOT BE VALID FOR AIRPLANES WITH NON-PIPER APPROVED STC INSTALLATIONS.

### **REVISIONS**

The information compiled in the Pilot's Operating Handbook will be kept current by revisions distributed to the airplane owners.

Revision material will consist of information necessary to update the text of the present handbook and/or to add information to cover added airplane equipment.

#### I. Revisions

Revisions will be distributed whenever necessary as complete page replacements or additions and shall be inserted into the handbook in accordance with the instructions given below:

- 1. Revision pages will replace only pages with the same page number.
- 2. Insert all additional pages in proper numerical order within each section.
- 3. Page numbers followed by a small letter shall be inserted in direct sequence with the same common numbered page.

#### II. Identification of Revised Material

Revised text and illustrations shall be indicated by a black vertical line along the outside margin of the page, opposite revised, added or deleted material. A line along the outside margin of the page opposite the page number will indicate that an entire page was added.

Black lines will indicate only current revisions with changes and additions to or deletions of existing text and illustrations. Changes in capitalization, spelling, punctuation or the physical location of material on a page will not be identified by symbols.

#### **ORIGINAL PAGES ISSUED**

The original pages issued for this handbook prior to revision are given below:

Title, ii through v, 1-1 through 1-14, 2-1 through 2-8, 3-1 through 3-12, 4-1 through 4-16, 5-1 through 5-26, 6-1 through 6-56, 7-1 through 7-24, 8-1 through 8-16, 9-1 through 9-10, 10-1 through 10-2.

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Current Revisions to the PA-28-161 Cherokee Warrior II Pilot's Operating Handbook, REPORT:-VB-880 issued December 16, 1976.

Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 1 - 761 649 (PR770224)	1-6 2-5 3-11 4-4 4-9 6-4 6-53 7-24	Corrected to "Meteorological." Revised 2.23. Revised NOTE. Revised Starting Engine When Hot procedure. Revised 4.13 (b). Revised Leveling Diagram illustration. Revised Dwg. Nos. of items 277 and 279. Added ELT test info.	Ward Evans Feb. 24, 1977
Rev. 2 - 761 649 (PR770711)	1-11, 1-12, 1-13, 1-14 2-7	Revised para. 1.21, Conversion Factors.  In 2.25, revised Takeoff and Landing Checklists to include air cond. info.; added air conditioning warning placard:	rein annaithe 2.88 Tha mha na taotarin anni 121 an an an an an T
	4-4 4-5 4-6 4-11 4-12	Added air cond. check to Ground Check. Added air cond. directions to Before Takeoff and to Approach and Landing. Added air cond. directions to Stopping Engine. Added air cond. check to 4.19, Ground Check. Added air cond. directions to 4.21, Before Takeoff.	
	5-3 5-4 5-5 5-9	Added air cond. directions to 4.29, Approach and Landing, and 4.31, Stopping Engine. Revised Fig. nos. in item (b). Revised Fig. nos. in footnote Revised Fig. nos. in item (e). Revised Fig. Nos.; revised Page Nos.; revised	
	5-13 5-14	titles; added pages; added figures. Relocated Normal Short Field Takeoff Dist. to 5-14; added new chart. Relocated Obs. Clearance Short Field Takeoff Dist. to 5-16; added revised chart relocated	
	5-15 5-16 5-17	from 5-13. Relocated Eng. Perf. to 5-17; added new chart. Relocated Climb Perf. to 5-19; added revised chart relocated from 5-14. Relocated Fuel, Time and Dist. to Climb to 5-20; added chart relocated from 5-15; added	
	5-18	ser. nos. Relocated Best Power Cruise Perf. to 5-21; added new chart.	da wole is ostal too liguendi i o ossoo

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Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 2 - 761 649	5-19	Relocated Best Econ. Cruise Perf. to 5-23;	
(PR770711)		added chart relocated from 5-16.	ar II ota pita pala
(cont)	5-20	Relocated Best Power Mix. Range to 5-25;	
(00115)		added chart relocated from 5-17.	
	5-21	Relocated Best Econ. Mix. Range to 5-27;	
		added chart relocated from 5-18; added	
		ser. nos.	
	5-22	Relocated Endurance to 5-29; added new	
		chart.	
	5-23	Relocated Fuel, Time and Dist. to Descend	
	0 20	to 5-30; added chart relocated from 5-19;	
		added ser. nos.	
	5-24	Relocated Glide Perf. to 5-31; added new	
	32.	chart.	
	5-25	Relocated Landing Perf. to 5-32; added	
	3 20	chart relocated from 5-20; added ser. nos.	
	5-26	Added new chart.	
	5-27	Added page; added chart relocated from	
	321	5-21; added ser. nos.	
	5-28	Added page (new chart).	
	5-29	Added page (chart relocated from 5-22).	
	5-30	Added page (chart relocated from 5-23).	
	5-31	Added page (chart relocated from 5-24).	
	5-32	Added page (chart relocated from 5-25).	
	6-33	Added items 67 and 69.	
	6-45	Revised item nos.; added item 213.	
	6-46	Revised item nos.; added items 229 through	
		235; relocated items to following page;	
		added footnote.	
	6-47	Revised item nos.; added items 237 and 253;	
		added relocated items; relocated items to	
		following page; removed footnote.	
	6-48	Added items 259 and 263; added relocated	
		items; added footnote.	
	6-49	Revised item nos.; revised items 273 and	
		275; added item 281; deleted footnote.	
	6-53	Revised item nos.; added item 325; revised	
		item 329.	
	6-54	Revised item nos.	
	7-i	Added 7.37 to contents.	
	7-17	Added climate control panel to Fig. 7-15.	
	7-21	Revised air blower info. in 7.23.	
	7-24	Added 7.37, Air Conditioning; added	
		footnote.	
	7-25, 7-26	Added pages.	
	9-i	Added Supplement 4 to contents.	
		. 1. data supplement i to contents.	

Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 2 - 761 649 (PR770711) (cont)	9-3	Added STC No. to Section 1 - General; in Section 2 revised (a); in Section 3 revised (a), deleted (c) and renumbered accordingly, revised (c) and (d); added Preflight to Section 4 and relocated material.	
	9-4	Added relocated material; added Inflight heading; revised (a) through (d) and added (e).	
	9-5	Added STC No. to Section 1 - General; in Section 2 revised (a); in Section 3 revised (c) and (d); added (e) and NSD 360	
	9-6	procedures; relocated Section 4. Added NSD 360 and NSD 360 A procedures; added relocated material; in Section 4 revised (a) (1), added (b) Radio Coupling heading and renumbered (3) and (4) to (b) (1) and (2); relocated material.	
	9-7	Added relocated material; completely revised sections (d) and (e).	Word Evans
	9-8 9-11, 9-12, 9 13, 9-14	Removed item (g). Added pages (Supplement 4 - Air Conditioning Installation).	Ward Evans July 11, 1977
Rev. 3 - 761 649 (PR780630)	1-4 2-7	Revised items 1.13 and 1.17. Added new takeoff checklist; revised lead	
	3-3, 3-7	sentence. Added info. to Engine Power Loss During Takeoff.	
	4-5	Added info. to Before Takeoff	
	4-9	Revised items 4.13 (a), (b) and (c).	
	4-12	Added info. to Before Takeoff.	
	4-13. 5-5	Corrected info. under 4.23, Takeoff. Revised item 5.5 (e).	
	5-19	Added Note to Figure 5-11.	
	5-25	Added Note to Figure 5-19.	
	5-26	Added Note to Figure 5-20.	
	5-27	Added Note to Figure 5-21.	
	5-28	Added Note to Figure 5-22.	
	6-1	Revised info. under item 6.1.	
	6-9, 6-10 6-35	Revised Figure No. Revised item 93; added item 94.	
	6-41	Revised items 161 and 163.	
	6-43	Revised and added info. to items 179 and 181;	
	6-44	relocated info. to pg. 6-44. Added info. from pg. 6-43; added new items 184	r
		and 185; existing item 185 changed to 186; relocated info. to pg. 6-45.	

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Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 3-761649	6-45	Added info. from pg. 6-44; revised item 201; re-	
(PR780630)	6-46	located info. to pg. 6-46.	
(cont.)	0-40	Added info. from pg. 6-45; relocated info. to pg. 6-47.	(3000)
	6-47	Added info. from pg. 6-46; revised item 235; re-	
		located info. to pg. 6-48.	
	6-48	Added info. from pg. 6-47; revised footnotes.	
	6-49	Revised items 273 and 275.	
	6-54	Revised item 351.	
	7-13	Revised Para. 7.15 info.	
	7-18	Revised Para. 7.21 info.	
	7-21	Added Caution to para. 7.23.	11.2
	7-23	Revised para. 7.35.	Ill. Donk
	8-12 8-13	Changed 8.21 (d) to (c).	J.W. J. J.
	8-13 8-i	Changed 8.21 (e) to (d). Revised 8.29.	Ward Evans
	8-16	Revised 8.29. Revised para. 8.29.	June 30, 1978
	0-10	Revised para. 6.29.	Julie 30, 1976
Rev. 4 - 761 649	1-6	Revised para. 1.19.	
(PR790226)	1-12	Revised para. 1.21.	
(111,70220)	1-13	Revised para. 1.21.	
	6-1	Revised para. 6.1.	
	6-19	Revised item 9.	
	6-33	Added items 71 and 73.	
	6-37	Revised item 113.	120-
	6-41	Added item 170.	Ward Evene
	7-12	Added Warning to para. 7.15.	
	7-13	Revised para. 7. 15.	Ward Evans
	7-23	Revised para. 7.35.	Feb. 26, 1979
Rev. 5 - 761 649	6-49	Revised item 277; added item 278.	WardEvans
(PR790413)	7-23	Revised para. 7.35.	wardarana
	7-24	Revised para. 7.35; relocated para. 7.37 to	
	7.05	pg. 7-25.	Ward Evans
	7-25	Added info. from pg. 7-24.	April 13, 1979
Rev. 6 - 761 649	1-3	Added new engine designation.	
(PR790703)	1-7	Revised item 1.19 (e).	
	2-2	Added new engine designation.	
	2-3	Revised para. 2.11.	
	2-4	Revised para. 2.13.	
	2-7, 2-8	Revised para. 2.25 (revised existing placards, added new placards).	
	3-i	Added para 3.28, Carb. Icing.	
	3-4	Added Carb. Icing.	
	3-11	Added para. 3.28, Carb. Icing.	
	4-i	Added-para. 4.28, Descent; revised pg. no.	
	4-3	Revised para. 4.5, Preflight Check.	

Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 6 - 761 649	4-4	Revised Before Starting Engine.	
(PR790703)	4-5	Added Descent; relocated Approach and	
(cont.)	1.6	Landing to pg. 4-6. Added Approach and Landing from pg. 4-5.	
	4-6 4-7	Revised para. 4.9.	
	4-7	Revised para. 4.9. Revised para. 4.11.	
	4-14	Added para. 4.28, Descent; relocated para.	
	4-14	4.31 to pg. 4-15.	
	4-15	Added para. 4.31 from pg. 4-14.	
	5-3	Revised item 5.5 (a).	
	5-4	Revised item 5.5 (b) and (c).	
	5-5	Revised items 5.5 (d) and (e).	
	5-6	Revised items 5.5 (f) and (g).	
	5-20	Revised Figure 5-13.	
	5-25	Revised Figure 5-19.	
	5-26	Revised Figure 5-20.	
	5-27	Revised Figure 5-21.	
	5-28	Revised Figure 5-22.	
	5-29	Revised Figure 5-23.	
	5-30	Revised Figure 5-25.	
	5-31	Revised Figure 5-27.	
	6-1	Revised para. 6.1.	
	6-3	Added Caution to item 6.3 (a)(3).	
	6-11	Revised Figure 6-9.	
	6-12	Revised Figure 6-11.	
	6-14	Revised Figure 6-15.	
	6-17	Revised para. 6.9; added item 3; revised item 1.	
	6-19	Revised items 5, 7 and 9; added new items.	
	6-21	Revised item nos.; added new items.	
	6-23	Added new items.	
	6-25	Revised item nos.; added new items.	
	6-27	Revised items; added new items.	
	6-29, 6-33,	Revised items.	
	6-35, 6-36		
	6-37	Revised items; added new items.	
	6-38, 6-39	Revised items.	
	6-41, 6-42	Revised items; added item.	
	6-43, 6-44,	Revised items; added items.	
	6-45, 6-46,	Color of the Color	
	6-47, 6-48,		
	6-49, 6-53,		
	6-54	Davised pero 75	
	7-3	Revised para. 7.5.	
	7-12	Revised para. 7.15 (added Warning).	
	7-16	Revised para. 7.19.	
	7-17	Revised Figure 7-15.	Ward Evens
	7-20	Revised Figure 7-19.	Ward Evans
	8-11	Revised para. 8.19.	July 3, 1979
	10-1	Revised para. 10.3.	July 3, 1979

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Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 7 - 761 649	1-3	Revised para 1.7.	
(PR800530)	1-4	Revised para. 1.11.	
,	2-2	Revised para. 2.7	
	2-4	Revised para. 2.13.	
	2-9	Added page; added to para. 2.25.	
	4-3	Revised para. 4.5.	
	5-5	Revised para. 5.5(d).	
	5-26	Revised fig. 5.20.	
	6-7	Revised fig. 6-5.	
	6-14	Revised fig. 6- 15.	
	6-15	Added para. 6.8.	
	6-16	Added sample problem.	
	6-16a	Added page; cont. sample problem.	
	6-16b	Added page.	
	6-17	Corrected title.	
	6-27	Added to item 39.	
	6-29	Added item 47.	
	6-33	Revised item 67.	
	6-35	Added items 89 thru 91; renumbered items;	
		moved items 94 thru 99 to pg. 6-36.	
	6-36	Relocated items 94 thru 99 from pg. 6-35.	
	6-39	Added item 145, renumbered items.	
	6-40	Added items 151 thru 159.	
	6-42	Added item 176; relocated item 177 from	
		pg. 6-43.	
	6-43	Added item 178; moved item 177 to pg. 6-42.	
	6-44	Added items 196 and 198; renumbered items.	
	6-45	Added item 199; new item 201; renumbered items; moved item 213 to pg. 6-46.	
	6-46	Relocated item 213 from pg. 6-45.	
	6-53	Added item 342.	
	6-54	Added new items 344 and 345; renumbered items.	
	7-i	Added para. 7.39.	
	7-21	Revised para. 7.25.	
	7-26	Added para. 7.39.	
	8-i	Changed page no.	
	8-12, 8-13	Revised para. 8.21; moved para. 8.23 to pg. 8-14.	
	8-14	Relocated para. 8.23 from pg. 8-13; relocated info. to pg. 8-15.	1205
	8-15, 8-16	Relocated para. 8.27.	windwans
	10-2	Added para. (j) to para. 10.3.	Ward Evans May 30, 1980

Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 8 - 761 649 (PR800814)	9-i 9-15 thru 9-18	Added Supplement 5 and pages. Added Century 21 Autopilot Supplement	Ward Evans August 14, 1980
Rev. 9 - 761 649 (PR801218)	2-2 2-3 3-i 3-4 3-5 3-10 3-11  3-12 6-17 6-23 6-25 6-35 6-38 6-42 6-43 6-49  6-50 7-10 7-12, 7- 13 7-14 7-21 9-i 9-15 thru 9-18 9-19 thru 9-20	Revised 2.7 (e). Revised 2.9 (c). Added para. 3.24; change para. title and pg. no. Changed para. title, added info; moved info. to pg. 3-5. Relocated info. from pg. 3-4. Changed para. 3.23, title and contents with info. added; moved para. 3.25 to pg. 3-11. Continued para. 3.23 addition; relocated para. 3.25 from pg. 3-10, moved para. 3.27, 3.28 and 3.29 to pg. 3-12. Relocated para. 3.27, 3.28 and 3.29 from pg. 3-11. Added item 4. Added item 25. Renumbered items. Revised items 90, 91 and 93. Added item 132. Relocated revised item 178 from pg. 6-43. Moved item 178 to pg. 6-42; renumbered item; added new item 181; revised item 182. Added item 276; moved items 281, 283 and 285 to pg. 6-50. Relocated items 281, 283 and 285 from pg. 6-49. Revised para. 7.13. Revised para. 7.15. Revised para. 7.25. Added supplement 6 and pages. Retyped supplement 5 Century 21 auto pilot; changed pg. nos. Added supplement 6 Piper Control Wheel Clock Installation.	Ward Evans Dec. 18, 1980

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Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 10 - 761 649	lii	Revised Warning.	
(PR810629)	1-4	Revised para. 1.13.	
	5-1	Added warning.	
	6-7	Revised Figure 6-5.	
	6-19	Revised item 11.	
	6-27	Revised items 33, 35 and 39.	
	6-35	Revised item 81.	
	6-38	Revised item 132.	
	6-41	Renumbered items.	
	6-42	Renumbered items; added new items 175 and	I boxa tare con acc
		176.	72713,000,000
	6-43	Renumbered items; added new item 183.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	6-45	Revised item 199.	
	6-53	Revised item 342.	
	6-54	Revised items 343, 344 and 345.	Word Errors
	6-55	Added item 361; removed info.	Ward arang
	7-8	Revised para 7.11	Ward Evans
	7-12	Revised para. 7.15	June 29, 1981
Rev. 11 - 761 649	2-1	Revised para. 2.1.	
(PR8 11120)	3-1	Revised para. 3.1.	
	4-i	Amended pg. number.	
p=120 CJ	4-1	Revised para 4.1 and 4.3.	
	4-3, 4-5,	Revised para. 4.5.	
	4-6		F 73 10000 000
	4-8	Added Note to para. 4.9.	
	4-12	Added Note to para. 4.21; moved info. to pg. 413.	
	4-13	Relocated info. from pg. 4-12; moved	No.
	4-15		
	4-14	info. to pg. 4-14. Relocated info. from pg. 4-13; added	3   Pho-Inv-51, west
	7 17	Note to para. 4.29; moved info. to pg. 4-15.	0 (0324020749)
	4-15	Relocated info. from pg. 4-14; moved	
	. 15	para. 4.35 to pg. 4-16.	
	4-16	Relocated para. 4.35 from pg. 4-15.	
	6-17	Revised para. 6.9.	
	6-19	Revised item 7.	
	6-40	Revised item 151.	
	6-44	Added new item 184; renumbered existing	
		items 185 thru 1882 moved item 198 to pg.	
		6-45.	
	6-45	Relocated item 198 from pg. 6-44; moved	
		items 209 and 211 to pg. 6-46.	
	6-46	Relocated items 209 and 211 from pg. 6-45;	
		moved items 229 and 231 to pg. 6-47.	

Revision Number and Code	Revised Pages	Description of Revision	FAA Approval Signature and Date
Rev. 11 - 761 649 (PR811120) (cont)	6-47 6-48 6-48 6-55 7-10 7-21 9-20	Relocated items 229 and 231 from pg. 6-46; moved item 247 to pg. 6-48. Relocated item 247 from pg. 6-47. Added new item 277; renumbered items 278 thru 280. Added item 361. Revised para. 7.13. Revised para. 7.25. Corrected spelling errors.	Ward Evans Ward Evans Nov. 20, 1981
Rev. 12 - 761 649 (PR890417)	3-i 3-1 4-i thru 4-ii 6-7	Revised Table of Contents Revised para. 3.1 Revised Table of Contents	
and ball	6-7 6-15 7-22 8-1 8-3 8-4 8-11 9-5 9-9	Revised Figure 6-5. Revised para. 6.8. Revised para. 7.31 Revised para. 8.1 Revised para 8.3 Revised para. 8.5 Revised para. 8.19 and 8.21(b). Revised Section 3 (a) Revised Section 3 (a)	D.H. Trompler  Aug. 23, 1989  Date
Rev. 13 - 761 649 (PR900913)	1-3 2-2 7-3 8-4	Revised para. 1.5 (c). Revised para's. 2.7 (j) and (l). Added para. 2.7 (m) and Notes. Revised para. 7.5. Revised para. 8.5.	D.H. Trompler October 9, 1990
Rev. 14 - 761-649 (PR050425)	iii 4-13 4-15 8-1 8-2 8-3	Added Warning. Revised para. 4.27. Revised para. 4.31. Revised para. 8.1. Moved info. from page 8-1. Revised para. 8.3.	Linda J. Dicken April 25, 2005
		Signature at the second	

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**REVISED: APRIL 25, 2005**