

PREPARED	PIPER AIRCRAFT CORP. DEVELOPMENT CENTER, VERO BEACH, FLA.	1381
CHECKED		
APPROVED		PAGE Title

AIRPLANE FLIGHT MANUAL

MODEL PA-25-235

THIS DOCUMENT MUST BE KEPT IN AIRPLANE AT ALL TIMES

This is the Flight Manual assigned  
to the aircraft registered G-CTUG  
Serial No. 25-4448



27 October 2004

FAA APPROVED: H. E. Waterman  
H. E. Waterman  
Supervisor, Atlanta Engineering &  
Manufacturing District Office  
Flight Standards Division

DATE: October 12, 1962

Can Supplements - Change sheets

26-10-04 { SUPP 1 ISS & GLIDER TOWER LIMITATIONS  
SUPP 1 ISS & LIMITATIONS } Back  
of  
manual.  
MADRAS AIR SERO FLT MAN SUPPLEMENT No 2-78

24/5/06 { TEST OPERATING MANUAL, FLIGHT & OPERATING  
INSTRUCTIONS FOR THE TOW CABLE RETRACTOR  
WICH WITH GILLOTINE. (CRG) 10 PAGES. }

PREPARED	PIPER AIRCRAFT CORP. DEVELOPMENT CENTER, VERO BEACH, FLA.		Airplane Flight Manual Model PA-25-235
CHECKED			
APPROVED			PAGE <u>    </u> Revision <u>    </u>
Log of Revisions			
REVISION NO.	PAGE	DESCRIPTION	APPROVED DATE
1	3	Add Section 3	<i>H.E. Waterman</i> H.E. Waterman SO-EMDO-42 11/20/62
2	2	Placard No. 1 Revised was: "THIS AIRPLANE MUST BE OPERATED IN THE NORMAL CATEGORY IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND MANUALS. ACROBATIC MANEUVERS INCLUDING SPINS PROHIBITED. FOR RESTRICTED CATEGORY OPERATION REFER TO ADDITIONAL LIMITATIONS".	<i>P.A. Gibson</i> P. A. Gibson Chief, Eng. & Mfg. Br. 7/20/64
3	1	Propeller 1P235/AFA and Limiting Serial Numbers Added	<i>P.A. Gibson</i> P.A. Gibson Chief Eng. & Mfg. Br. 9/1/64
4	1	Eligible Aircraft Serial Numbers removed from Propeller Limitations	<i>H.T. Herold</i> for H. C. Faller Supervisor SO-EMDO-43 12/13/65
5	2	Placard No. 6 revised, was: "Unuseable fuel 3 gallons. When fuel quantity indicator reads zero, fuel remaining in tank cannot be used safely in flight."	<i>H.T. Herold</i> for H.C. Faller Supervisor SO-EMDO-43 4/14/66
6	1	Eligible Aircraft Serial Numbers added to Propeller Limitations (Page 1 retyped)	<i>H.C. Faller</i> H.C. Faller Supervisor SO-EMDO-43 9/19/66
7	1	Engine number -B205 added	<i>H.C. Faller</i> for H.C. Faller Supervisor SO-EMDO-43 1/5/67
8	3	Airspeed range for flaps down was 60 to 109 mph (52 to 100 knots) Corrected (52 to 95 Knots)	<i>H.C. Faller</i> H.C. Faller Supervisor SO-EMDO-43 3/17/67

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PIPER AIRCRAFT CORP.  
DEVELOPMENT CENTER, VERO BEACH, FLA.Airplane Flight Manual  
Model PA-25-235

CHECKED

APPROVED

PAGE          Revision         Log of Revisions

REVISION NO.	PAGE	DESCRIPTION	APPROVED	DATE
9	3	Airspeed range for normal operation was changed from 67 to 124 mph (58 to 108 knots) to 61 to 124 mph (53 to 108 knots)	<i>Robert T. Heisold</i> for H. C. Faller Supervisor SO-EMDO-43	4/12/67
10	1	Oil Pressure: Normal operating range was 60 psi to 85 psi. Oil Pressure: Red line was 85 psi. 85 psi changed to 90 psi.	<i>H. C. Faller</i> H. C. Faller Supervisor SO-EMDO-43	4/18/67
11	2 3	Removed Items 5 and 6. Added Items 5 and 6. Added Serial Number Effectivity to Item 6.	<i>G. C. Stephen</i> G. C. Stephen FAA DOA SO-1	10/1/70

PREPARED	PIPER AIRCRAFT CORP. DEVELOPMENT CENTER, VERO BEACH, FLA.	Airplane Flight Manual Model PA-25-235
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APPROVED		PAGE 1 of 3

Piper Model PA-25-235  
Normal Category Only

FAA Identification No. N4713Y

Serial No. 4448

AIRPLANE FLIGHT MANUAL

1. Limitations Section

The following limitations must be observed in the operation of this airplane:

Engine	Lycoming O-540-B2B5 or -B2C5
Engine Limits	For all operations 2575 rpm, 235 hp.
Fuel	80/87 minimum octane aviation fuel
Propeller	McCauley 1P235/AFA, 52 inch pitch (eligible aircraft serial numbers 25-2000 through 25-4171, inclusive); McCauley 1A200/FA, 52 inch pitch (eligible aircraft serial numbers 25-2000 and up). Maximum diameter 84 inches, minimum diameter 82.3 inches.
Power Instruments	Oil temperature: GREEN arc (normal operating range) 120° F to 245° F; YELLOW arc (caution range) 40° F to 120° F; RED line (maximum) 245° F. Oil pressure: GREEN arc (normal operating range) 60 psi to 90 psi; YELLOW arc (caution range) 25 psi to 60 psi; RED line (minimum) 60 psi; RED line (maximum) 90 psi. Tachometer: GREEN arc (normal operating range) 500 to 2575 rpm; RED line (maximum continuous power) 2575 rpm.
Airspeed Limits (Calibrated Airspeed) (Miles per Hour)	Never exceed ..... 156 Maximum structural cruise ..... 124 Maneuvering ..... 120 Flaps extended ..... 109 Maximum positive load factor ..... 3.8 Maximum negative load factor ..... No inverted maneuvers approved.
Operation	Day VFR Only

FAA APPROVED

DATE October 12, 1962

REVISED April 18, 1967

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CHECKED		
APPROVED		PAGE <u>2 of 3</u>

Maximum Weight 2900 lbs.

C. G. Range The datum used is 78 inches forward of the wing leading edge.

Weight (Pounds)	Forward Limit (In. Aft of Datum)	Rearward Limit (In. Aft of Datum)
2900	88.42	90.30
1793	85.60	90.30

Straight line variation between points given.

NOTE: It is the responsibility of the airplane owner and the pilot to insure that the airplane is properly loaded. See weight and balance section for proper loading instructions.

Maneuvers No acrobatic maneuvers, including spins, approved.

Placards

1. On the instrument panel in full view of the pilot:

"THIS AIRPLANE MUST BE OPERATED IN THE RESTRICTED CATEGORY IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS AND MARKINGS. ACROBATIC MANEUVERS (INCLUDING SPINS) PROHIBITED. FOR NORMAL CATEGORY OPERATION, REFER TO AIRPLANE FLIGHT MANUAL."

2. On hopper: "Maximum CAPACITY 1200 POUNDS."

3. On check list above instrument panel: "WINDOWS CLOSED."

The windows should be kept closed in flight because the climb performance is reduced with windows open.

4. On the instrument panel in full view of the pilot:

"NO SMOKING."

FAA APPROVED October 12, 1962

REVISED October 1, 1970

PREPARED	PIPER AIRCRAFT CORP. DEVELOPMENT CENTER, VERO BEACH, FLA.	Airplane Flight Manual Model PA-25-235
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APPROVED		PAGE 3 of 3

Placards (Cont'd)

5. On the instrument panel in full view of the pilot:  
"ROUGH AIR OR MANEUVERING SPEED 120 MPH."
  
6. (PA-25-235 Serial Numbers 25-02, 25-2000 thru 25-3384)  
On safety panel above instrument panel in full view of pilot:  
"UNUSABLE FUEL 3 GALLONS WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."  
  
(PA-25-235 Serial Number 25-3385 and up, any any PA-25-235 Serial Numbers 25-02, 25-2000 thru 25-3384 with Piper Kit No. 757-020, Replacement Fuel Tank with Bladder, installed)  
On safety panel above instrument panel in full view of pilot:  
"UNUSABLE FUEL 2 GALLONS WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."  
  
(PA-25-250 Serial Number 25-4415 and up)  
On safety panel above instrument panel in full view of pilot:  
"UNUSABLE FUEL 2 GALLONS WHEN FUEL QUANTITY INDICATOR READS ZERO, FUEL REMAINING IN TANK CANNOT BE USED SAFELY IN FLIGHT."

Airspeed Instrument Markings	RED radial line	Never exceed	156 mph (135 knots)
	YELLOW arc	Caution Range (Smooth Air Only)	124 to 156 mph (108 to 135 knots)
	GREEN arc	Normal Operating Range	61 to 124 mph (53 to 108 knots)
	WHITE arc	Flap Down Range	60 to 109 mph (52 to 95 knots)

2. Procedures Section
  1. The stall warning system is inoperative with the master switch off.
  2. Except as noted above, all operating procedures for this airplane are normal.
  
3. Performance

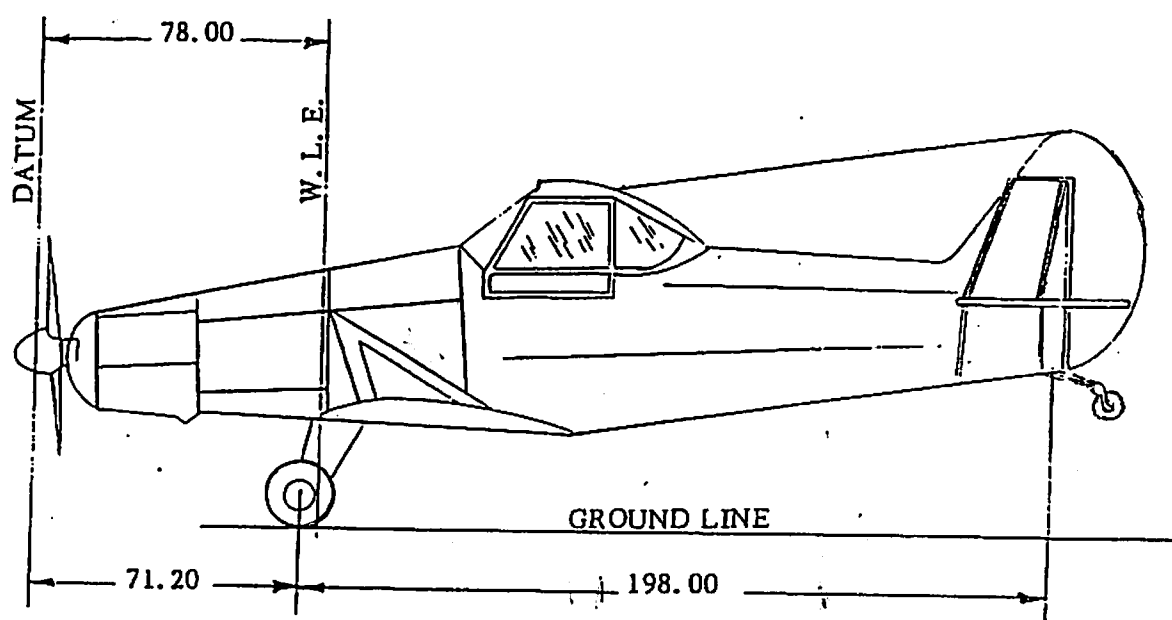
Loss of altitude during stalls varies from 100' to 200' depending on configuration and power.

FAA APPROVED October 12, 1962

REVISED October 1, 1970

PIPER AIRCRAFT CORPORATION  
 ACTUAL WEIGHT AND BALANCE  
 MODEL PA-25-235 (RESTRICTED)

SERIAL NO. 25 - CERTIFICATE NO. N DATE \_\_\_\_\_



AIRPLANE WEIGHING DIAGRAM

EMPTY WEIGHT AS WEIGHED (INCLUDES ITEMS CHECKED ON PAGES 4, 5, 6, 7, 8 AND 9)

	<u>SCALE READING</u>	<u>TARE</u>	<u>NET</u>
LEFT WHEEL	_____	_____	_____
RIGHT WHEEL	_____	_____	_____
TAIL SCALE	_____	_____	_____ (N)
TOTAL			_____ (T)

EMPTY WEIGHT C. G. AS WEIGHED

198 X (N) = \_\_\_\_\_ (R) Inches  
(T)

Empty Weight C. G. Aft of Datum is:

71.20 + (R) = \_\_\_\_\_ (P) Inches

EMPTY WEIGHT AND C. G. WITH UNUSABLE FUEL

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight as Weighed	(T)	(P)	
Unusable Fuel ( 2 gallons )	12	55.0	660
Total	(V)	(W)	(X)

MOST FORWARD C. G. LOADING CONDITION

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	(V)	(W)	(X)
Oil ( 12 quarts )	23	30	690
Fuel ( 36 gallons )	216	63	13608
Pilot	170	135	22950
Hopper Load	0	93	0
Total	(Y)		(Z)

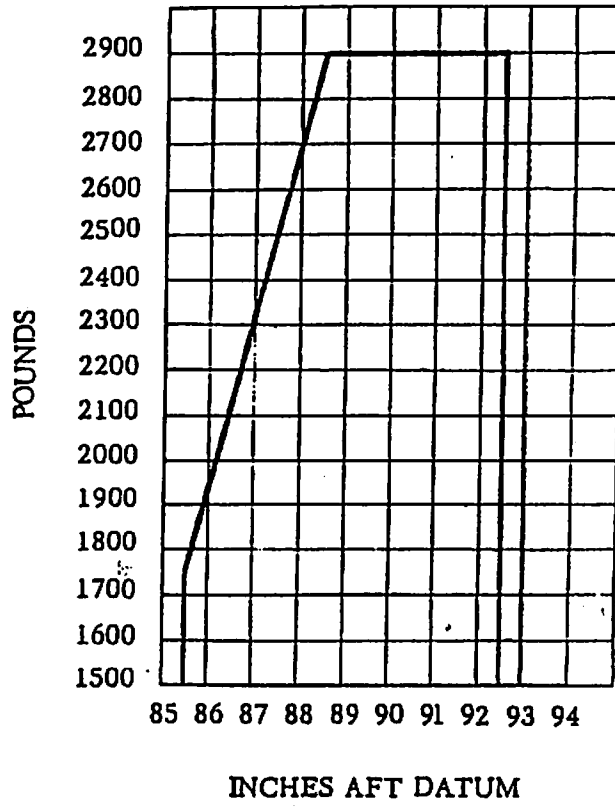
Most Forward C. G. is: \_\_\_\_\_ (Z) = \_\_\_\_\_ Inches Aft of Datum  
\_\_\_\_\_ (Y)

MOST REARWARD C. G. LOADING CONDITION

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	(V)	(W)	(X)
Oil ( 12 quarts )	23	30	690
Fuel ( 12.5 gallons)	75	57	4275
Pilot	170	135	22950
Hopper Load		93	
Total	2900		(M)

Most Rearward C. G. is \_\_\_\_\_ (M) = \_\_\_\_\_ Inches Aft of Datum  
2900

APPROVED C. G. RANGE VS. WEIGHT



DATUM LINE IS 78 INCHES FORWARD OF WING LEADING EDGE

<u>Engine and Engine Accessories</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
<u>X</u> Engine-Lycoming Model 0-540-B2B5 (Carburetor Setting #10-4404-1)	365.8	( 25.1)	TC 295-5
Engine-Lycoming Model 0-540-B2C5 (Carburetor Setting #10-4404-1)	367.8	( 25.1)	TC 295-5
<u>X</u> Oil Cooler, Piper Drawing 16943, Installed in accordance with Piper Drawing 64169	2.9	( 25.9)	TC 2A10
Oil Cooler, Piper Drawing 24577 Installed in accordance with Piper Drawing 64905	4.0	( 25.9)	TC 2A10
* <u>X</u> Oil Filter - Fram Full Flow Model No. 3126 - Cartridge No. CH8 PL	4.8	( 44.2)	TC 2A10
Oil Filter - AC5578941, Lycoming #75528, Replacement Element AC6435683	2.0	( 48.0)	TC 2A10
<u>X</u> Starter - Delco-Remy Model 1109504	18.0	( 14.9)	TC 295-5
Starter - Prestolite MZ-4206	17.0	( 14.9)	TC 295-5
Oil Cooler, PAC 24577, Installed in accordance with Piper Dwg. 66064	4.0	( 25.9)	TC 2A10
<u>Propeller &amp; Propeller Accessories</u>			
<u>X</u> Propeller-McCauley #1A200/FA8452	42.5	( 5.4)	TC 874
Propeller-McCauley #1P235/AFA-8452	35.0	( 5.4)	TC P12 EA
<u>X</u> Spinner and Attachment Plate	2.0	( 4.4)	TC 2A10

\* Denotes Optional Equipment

<u>Landing Gear</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
Two Main Wheel Assemblies (With #3000-250 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 40-61	8.0 ea.	(71.6)	FAA TSO-C26
X Two Main 4-ply Rating Tires 8.00-6 Type III Rib Tread with regular tubes	12.0 ea.	(71.6)	TC 2A10
X Tail Wheel Assembly-Scott Model 3200	7.5	(280.0)	TC 2A10
Two Main Wheel Assemblies (With #30-41 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 20-53	8.0 ea.	(71.6)	FAA TSO-C26
X Two Main Wheel Assemblies (With #30-41 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 40-84A	8.0 ea.	(71.6)	FAA TSO-C26
Landing Gear Bungee Shock Strut Assembly, Piper Part No. 64052-03	12.0	(78.0)	TC 2A10
Landing Gear Oleo Shock Strut Assy. Syncro Devices Nos. SKA 300-10-1 L. H. , SKA 300-10-2 R. H.	19.0	(78.0)	TC 2A10
Tail Wheel Assembly - Scott Model 3200-3	7.5	(280.0)	TC 2A10

<u>Electrical</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
_____ Battery Exide Cat. #62437 Type AC-78	27.0	(244.0)	TC 2A10
_____ Battery Rebat #S-25	21.5	(231.0)	TC 2A10
<u>X</u> _____ Battery Rebat #R-35	25.5	(231.0)	TC 2A10
_____ Generator - Delco-Remy Model 1101899 (12 V, 20 Amp)	11.2	( 13.7)	TC 295-5
_____ Alternator - Chrysler #2642996 (12 V, 37 Amp)	12.5	( 13.7)	TC 2A10
<u>X</u> _____ Alternator - Prestolite #LW10009 (12 V, 60 Amp)	10.7	( 13.7)	TC 2A10
* _____ Two Landing Lights, G. E. or Westinghouse Model 4509-WLE PAC Drawing 64396	4.0	( 83.0)	TC 2A10
* _____ Nose Cowl Landing Light, G. E. or Westinghouse Model 4509, PAC Drawing 64709	1.0	( 17.0)	TC 2A10
* _____ Night Flying Light Installation per PAC Drawing 64405	3.0	(153.0)	TC 2A10
* _____ Night Flying Light Installation per PAC Drawing 64934	3.0	(153.0)	TC 2A10
* <u>X</u> _____ Rotating Beacon Whelen Model #WRM-12 or Grimes Model #D-7080A-1-12 Installation per PAC Drawing 60041	2.0	(140.0)	TC 2A10
* _____ Rotating Beacon Installation, Grimes #D-7080A-3-12 per PAC Dwg. 64890	2.0	(162.0)	TC 2A10

\* Denotes Optional Equipment

580 832

-6-

Rev. 12/22/66, 10/4/68, 3/5/69

		<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
<u>Electrical</u> - Continued				
* _____	Piper PTR-1 Installation per PAC Drawing 60146	7.2	(132.8)	TC 2A10
* _____	Piper PTR-1 with 0-1 OMNI Installation per PAC Dwg. 60146	10.14	(135.3)	TC 2A10
* _____	Narco Mark III Installation per PAC Drawing 60200	7.5	(133.0)	TC 2A10
* _____	Narco Mark III & Mark VIII Inst'l. per PAC Drawing 64933	7.5	(133.0)	TC 2A10
* _____	Turn & Bank Indicator, R. C. Allen #A2475-102 per PAC Drawing 64682	2.0	(115.0)	TC 2A10

Miscellaneous

<u>X</u> _____	Stall Warning Device Installation per PAC Drawing 64031	Neglect Weight Change		TC 2A10
_____	Cockpit Fan Installation per PAC Drawing 64732	8.0	(105.0)	TC 2A10
* _____	Fire Extinguisher (With Bracket) Type A20	8.0	(140.0)	TC 2A10
* _____	Fire Extinguisher (With Bracket) #2-1/2 DCK	5.0	(140.0)	TC 2A10
* _____	Fire Extinguisher Installation per PAC Drawing 64974	8.0	( 52.0)	TC 2A10

\* Denotes Optional Equipment

<u>Agricultural Equipment</u>		<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
* _____	Sprayer Equipment Installation per PAC Drawing 64586	Use individual item weights below		TC 2A10
* _____	Hopper Quick Fill Installation	9.0	(178.0)	TC 2A10
* _____	Spray Boom Installation with 22 Brass Nozzles	22.5	(144.0)	TC 2A10
* _____	Strainer Assembly with 2 Brass Nozzles	3.5	(144.0)	TC 2A10
* _____	Spray Boom Installation with 41 Brass Nozzles	28.5	(144.4)	TC 2A10
* _____	Strainer Assembly with 3 Brass Nozzles	4.0	(144.4)	TC 2A10
	Spray Valve, Controls and Return Tube with:			
* _____	Agavenco Valve	5.3	(113.0)	TC 2A10
* _____	Transland Valve	6.5	(113.0)	TC 2A10
_____	Spray Pump, Bracket Windmill and Tubes	20.8	( 74.0)	TC 2A10
* _____	Duster Equipment Installation per PAC Drawing 64599	Use individual item weights below		TC 2A10
_____	Distributor Assembly	35.5	(112.0)	TC 2A10
_____	Agitator and Drive Assy.	11.0	( 97.0)	TC 2A10

\* Denotes Optional Equipment

Agricultural Equipment - Continued

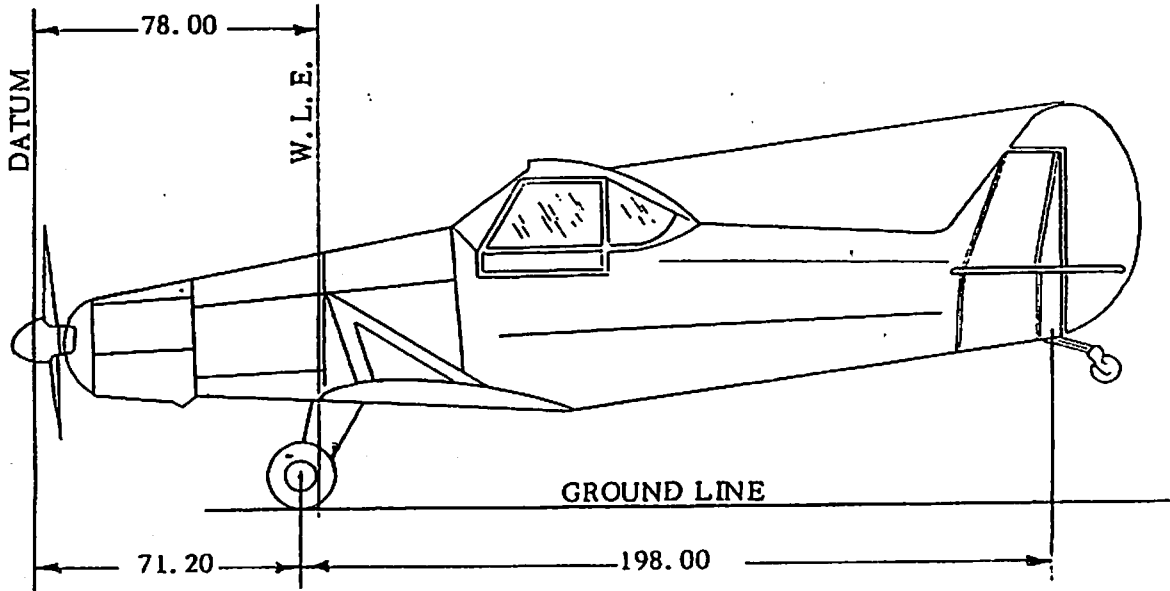
	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
* _____ Spray Boom and Strainer with 24 Nylon Nozzles	22.0	(144.4)	TC 2A10
* _____ Spray Boom and Strainer with 44 Nylon Nozzles	26.0	(144.4)	TC 2A10

NOTE: Agricultural Equipment checked is included in scale weights on Page 1. Compute empty weight and C.G. for any desired configuration by subtracting items removed and adding items installed.

\* Denotes Optional Equipment

PIPER AIRCRAFT CORPORATION  
 ACTUAL WEIGHT AND BALANCE  
 MODEL PA-25-235 (NORMAL)

SERIAL NO. 25 - CERTIFICATE NO. N DATE \_\_\_\_\_



AIRPLANE WEIGHING DIAGRAM

EMPTY WEIGHT AS WEIGHED (INCLUDES ITEMS CHECKED ON PAGES 4, 5, 6 AND 7)

	<u>SCALE READING</u>	<u>TARE</u>	<u>NET</u>
LEFT WHEEL	_____	_____	_____
RIGHT WHEEL	_____	_____	_____
TAIL SCALE	_____	_____	_____ (N)
TOTAL			_____ (T)

TO BE USED FOR PA-25-235 SERIES AIRCRAFT, SERIAL NOS. 25-3385 AND ANY PA-25-235 SERIAL NOS. 25-02, 25-2000 THRU 25-3384 WITH PIPER KIT NO. 757-020 (REPLACEMENT FUEL TANK WITH BLADDER) INSTALLED.

EMPTY WEIGHT C. G. AS WEIGHED

$\frac{198 X}{(T)} (N) = \text{_____} (R) \text{ Inches}$

Empty Weight C.G. Aft of Datum is:

$71.20 + \text{_____} (\bar{R}) = \text{_____} (P) \text{ Inches}$

EMPTY WEIGHT AND C. G. WITH UNUSABLE FUEL

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight as Weighed	(T)	(P)	
Unusable Fuel (2 gallons)	12	55.0	660
Total	(V)	(W)	(X)

MOST FORWARD C. G. LOADING CONDITION

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	(V)	(W)	(X)
Oil (12 quarts)	23	30	690
Fuel (36 gallons)	216	63	13608
Pilot	170	135	22950
Hopper Load	0	93	0
Total	(Y)		(Z)

Most Forward C. G. is: \_\_\_\_\_ (Z) = \_\_\_\_\_ Inches Aft of Datum  
 \_\_\_\_\_ (Y)

MOST REARWARD C. G. LOADING CONDITION

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	(V)	(W)	(X)
Oil (12 quarts)	23	30	690
Fuel (12.5 gallons)	75	57	4275
Pilot	170	135	22950
Hopper Load		93	
Total	2900		(M)

Most Rearward C. G. is \_\_\_\_\_ (M) = \_\_\_\_\_ Inches Aft of Datum

EMPTY WEIGHT C. G. AS WEIGHED

198 X \_\_\_\_\_ (N) = \_\_\_\_\_ (R) Inches  
 \_\_\_\_\_ (T)

Empty Weight C. G. Aft of Datum is:

71.20 + \_\_\_\_\_ (R) = \_\_\_\_\_ (P) Inches

EMPTY WEIGHT AND C. G. WITH UNUSABLE FUEL

Item	Weight	Arm	Moment
Empty Weight as Weighed	(T)	(P)	
Unusable Fuel (3 gallons)	18	55.0	990
Total	(V)	(W)	(X)

MOST FORWARD C. G. LOADING CONDITION

Item	Weight	Arm	Moment
Empty Weight	(V)	(W)	(X)
Oil (12 quarts)	23	30	690
Fuel (39 gallons)	234	63	14742
Pilot	170	135	22950
Hopper Load	0	93	0
Total	(Y)		(Z)

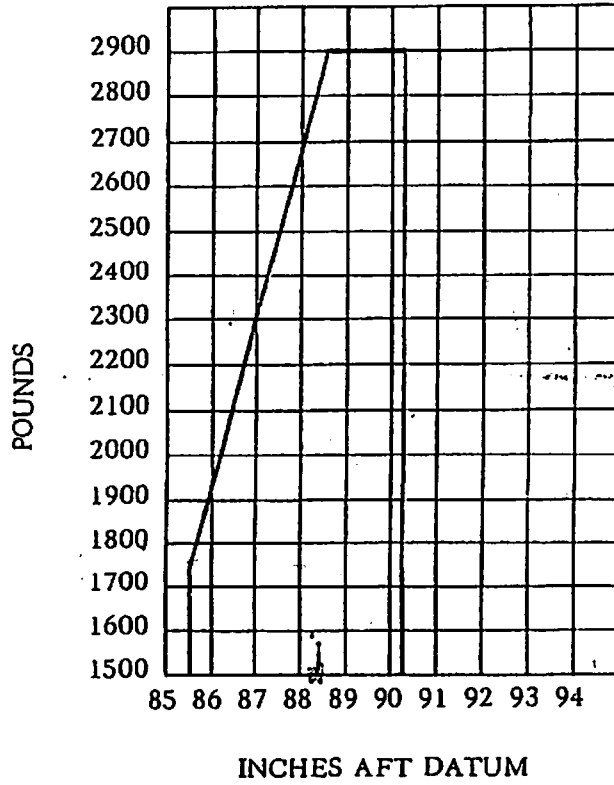
Most Forward C. G. is: \_\_\_\_\_ (Z) = \_\_\_\_\_ Inches Aft of Datum  
 \_\_\_\_\_ (Y)

MOST REARWARD C. G. LOADING CONDITION

Item	Weight	Arm	Moment
Empty Weight	(V)	(W)	(X)
Oil (12 quarts)	23	30	690
Fuel (12.5 gallons)	75	57	4275
Pilot	170	135	22950
Hopper Load		93	
Total			(M)

Most Rearward C. G. is \_\_\_\_\_ (M) = \_\_\_\_\_ Inches Aft of Datum  
 2900 -

APPROVED C. G. RANGE VS. WEIGHT



Revised: 9/13/62, 7/12/63, 10/4/68

DATUM LINE IS 78 INCHES FORWARD OF WING LEADING EDGE

<u>Engine and Engine Accessories</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
Engine-Lycoming Model O-540-B2B5 (Carburetor Setting #10-4404-1)	365.8	(25.1)	TC 295-5
Engine-Lycoming Model O-540-B2C5 (Carburetor Setting #10-4404-1)	367.8	(25.1)	TC 295-5
Oil Cooler, Piper Drawing 16943 Installed in accordance with Piper Drawing 64169	2.9	(25.9)	TC 2A8
Oil Cooler, Piper Drawing 24577 Installed in accordance with Piper Drawing 64905	4.0	(25.9)	TC 2A8
* Oil Filter - Fram Full Flow Model No. 3126, Cartridge No. CH 8 PL	4.8	(44.2)	TC 2A8
Oil Filter - AC5578941, Lycoming #75528 - Replacement Element #AC 6435683	2.0	(48.0)	TC 2A8
Starter - Delco-Remy Model 1109504	18.0	(14.9)	TC 295-5
Starter - Prestolite MZ-4206	17.0	(14.9)	TC 295-5
Oil Cooler, Piper Drawing 24577 Installed in accordance with Piper Drawing 66064	4.0	(25.9)	TC 2A8

Propeller & Propeller Accessories

Propeller-McCauley #1A200/FA8452	42.5	(5.4)	TC 874
Propeller-McCauley #1P235/AFA8452	35.0	(5.4)	TC P12EA

\* Denotes Optional Equipment

REV. 12/22/66 - 4/13/67.

<u>Propeller &amp; Propeller Accessories - Continued</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
Spinner and Attachment Plate	2.0	(4.4)	TC 2A8
<u>Landing Gear</u>			
Two Main Wheel Assemblies (with #3000-250 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 40-61	8.0 ea.	(71.6)	FAA TSO-C26
Two Main 4-ply Rating Tires 8.00-6 Type III - Rib Tread with regular tubes	12.0 ea.	(71.6)	TC 2A8
Tail Wheel Assembly - Scott Model 3200	7.5	(280.0)	TC 2A8
Two Main Wheel Assemblies (with #30-41 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 20-53	8.0 ea.	(71.6)	FAA TSO C26
Two Main Wheel Assemblies (with #30-41 Brake Assemblies) 6.00-6 Type III Cleveland Aircraft Products No. 40-84A	8.0 ea.	(71.6)	FAA TSO-C26
Landing Gear Bungee Shock Strut Assembly Piper Part No. 64052-03	12.0	(78.0)	TC 2A8
Landing Gear Oleo Shock Strut Assembly Syncro Devices Nos. SKA 300-10-1 L. H. SKA 300-10-2 R. H.	19.0	(78.0)	TC 2A8
Tail Wheel Assembly - Scott Model 3200-3	7.5	(280.0)	TC 2A8

<u>Electrical</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
_____ Battery Exide Cat. #62437 Type AC-78	27.0	(244.0)	TC 2A8
_____ Battery Rebat #S-25	21.5	(231.0)	TC 2A8
_____ Battery Rebat #R-35	26.5	(231.0)	TC 2A8
_____ Generator - Delco-Remy Model 1101899 (12V, 20 Amp)	11.2	( 13.7)	TC 295-5
_____ Alternator - Chrysler #2642996 (12 V, 37 Amp)	12.5	( 13.7)	TC 2A8
_____ Alternator - Prestolite #LW 10009 (12 V, 60 Amp)	10.7	( 13.7)	TC 2A8
* _____ Two Landing Lights, G. E. or Westinghouse Model 4509-WLE PAC Drawing 64396	4.0	( 83.0)	TC 2A8
* _____ Nose Cowl Landing Light, G. E. or Westinghouse Model 4509 PAC Drawing 64709	1.0	( 17.0)	TC 2A8
* _____ Piper PTR-1 Installation per PAC Drawing 60146	7.2	(132.8)	TC 2A8
* _____ Piper PTR-1 with 0-1 Omni Inst'l. per PAC Drawing 60146	10.14	(135.3)	TC 2A8
* _____ Narco Mark III Installation per PAC Drawing 60200	7.5	(133.0)	TC 2A8
* _____ Narco Mark III & Narco Mark VIII Installation per PAC Drawing 64933	7.5	(133.0)	TC 2A8
* _____ Turn & Bank Indicator, R. C. Allen #A2475 - 102 per PAC Dwg. 64682	2.0	(115.0)	TC 2A8

\*. Denotes Optional Equipment

<u>Miscellaneous</u>	<u>Weight (lbs)</u>	<u>Arm Aft Datum</u>	<u>Cert. Basis</u>
_____ Stall Warning Device Installation per PAC Drawing 64031	Neglect	Weight Change	TC 2A8
* _____ Fire Extinguisher (With Bracket) Type A20	8.0	(140.0)	TC 2A8
* _____ Fire Extinguisher (With Bracket) #2-1/2 DCK	5.0	(140.0)	TC 2A8
_____ Cockpit Fan Installation per PAC Drawing 64732	8.0	(105.0)	TC 2A8
* _____ Fire Extinguisher Installation per PAC Drawing 64974	8.0	( 52.0)	TC 2A8
* _____ Genave NAV/COM Installation per PAC Drawing 60244	8.8	(135.0)	TC 2A8
_____ Emergency Locator Transmitter Inst. (PAL) per PAC Drawing 60265	2.0	(172.0)	TC 2A8

\* Denotes Optional Equipment

CIVIL AVIATION AUTHORITY  
ADDITIONAL LIMITATIONS AND INFORMATION  
FOR UNITED KINGDOM CERTIFICATION

CAA Supplement 4 Issue 5 to the Piper PA25-235 FAA approved Airplane Flight Manual.

Piper  
PA25-235

Constructor's  
Serial No 25-4448

Registration  
Mark G-CTUG

GLIDER TOWING LIMITATIONS

When a Schweizer glider model 3415D towing hook, a glider towing hook to modification No. FAS/AHL/M6-82, or other approved towing hook, is fitted, the aeroplane may be used for glider towing subject to compliance with the following limitations.

1. The weight towed, be it one or two gliders, shall not exceed the following:

Glider Classification Group *	Maximum Weight of Gliders	
	lb	kg
A	2500	1134
B	2250	1021
C	2000	907

\* As defined in British Gliding Association document entitled "Classification of Gliders for Purposes of Aerotowing".

2. The number of gliders on tow shall not exceed two.
3. The breaking load of the towing cable, or weak link, if fitted, shall not exceed 1000 lb (454 kg) when towing one glider. A weak link, the breaking load of which shall not exceed 1300 lb (590 kg), shall be installed between the towing bridle and the tug aircraft when towing two gliders. When a hook to modification FAS/AHL/M6-82 or Sigma Services Modification No. J/N811/MAJ is fitted, the breaking load of the towing cable or weak link must not exceed 1000 lb (454 kg) when either one or two gliders are towed.
4. Air speed shall not exceed the lesser of the maximum permitted speeds for the gliders under tow.
5. A serviceable cylinder head temperature indicating system shall be installed. The cylinder head temperature shall not exceed 500°F (260°C) and this limitation shall be marked with a red radial line on the cylinder head temperature indicator.
6. Towing must not be carried out when outside ambient air temperature exceeds ISA + 20°C.

Towing procedures should be in accordance with those recommended in the British Gliding Association document entitled "Notes for Tug Pilots".

To be attached to the FAA approved PA25-235 Airplane Flight Manual



MADRAS AIR SERVICE  
FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT

TO

Piper Aircraft Models Shown on  
Madras Air Service Master Eligibility List (MEL-104)  
Airplane Flight Manuals

The information in this document is FAA approved material which, together with the appropriate basic CAA/FAA Approved Airplane Flight Manuals, is applicable and must be carried in the basic manuals when the airplane is modified by the installation of Madras Air Service Model 104 wing tips in accordance with Supplemental Type Certificate Number SA2127WE.

The information in this document supersedes the basic manuals only where covered in the items contained in this supplement. For Limitations and Procedures not contained in this supplement, consult the basic manuals.

I. LIMITATIONS

Maneuvers:

- a. No acrobatic maneuvers approved for Normal Category operation.
- b. The maneuvers specified in the basic flight manual, for Utility Category operation, are authorized with exception of spins. Intentional spins are prohibited in both the Normal and Utility Category operation.

II. PROCEDURES

No change.

III. PERFORMANCE

The performance with the fiberglass wing tips installed has been demonstrated to equal or exceed that for the unmodified aircraft.

FAA APPROVED: Rocco Lippis /S/  
Acting Chief, Aircraft Engineering Division  
Western Region,  
Federal Aviation Administration

DATE: 28 May 1970

REVISED: 2 July 1973, 22 March 1974, 31 March 1978  
May 16, 1978

REISSUED November 2, 1978

FAA APPROVED: Charles P. Linder  
Chief, Engineering and Manufacturing  
Branch, Flight Standards Division  
Northwest Region

**CIVIL AVIATION AUTHORITY**  
**ADDITIONAL LIMITATIONS AND INFORMATION FOR**  
**UNITED KINGDOM CERTIFICATION**

CAA Supplement 1 Issue 8 to the FAA Flight Manual dated October 12, 1962

Piper  
PA-25-235

Constructor's  
Serial No 25-4448

Registration  
Mark G-CT49

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The limitations and information contained herein either supplement or, in the case of conflict, override those in the Flight Manual

**LIMITATIONS**

1. This type of aeroplane is eligible for certification in the United Kingdom in the Aerial Work Category or Private Category. However this particular aeroplane may be restricted to another Category and to some particular use. This will be stated in the Certificate of Airworthiness.
2. The minimum crew is one pilot.
3. The maximum number of persons to be carried is one, for whom seating accommodation approved for use during take-off and landing must be provided.
4. Smoking is prohibited.
5. Hoffmann Propeller HO4/27 BHM 185.115 and 110 installations to BGA Modification No BGA/T/1/87 are approved for fitment on this type of aeroplane. Static rpm with the '115' propeller will be reduced by 100 rpm and performance will be significantly reduced.
6. Fitment of the Gomolzig silencer is approved.

To be inserted at the rear of the Flight Manual dated October 12, 1962 and the CAA revisions record sheet amended accordingly.

