

FAA AIRCRAFT REGISTRY
 CAMERA NO. 3N DATE: 9-7-84

Form ACA-305 (12-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FOBS APPROVED BUREAU No. 41-R0413	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Field Representative	
APPLICATION (Check whether)		AIRWORTHINESS CLASSIFICATION			
<input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIFICATE <input checked="" type="checkbox"/> ANNUAL INSPECTION		<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> RESTRICTED <input type="checkbox"/> EXPERIMENTAL <input type="checkbox"/> LIMITED <input type="checkbox"/> OTHER			
N-41DP 18 APR 20 1980					
AIRCRAFT					
MAKE GRUMMAN		MODEL G-73		TYPE CERTIFICATE NO. 783	
REGISTRATION NO. 2941		MANUFACTURER'S SERIAL NO. J-3			
ENGINE					
MAKE 2 - P & W		MODEL S 3HL			
OWNER'S NAME DEARBORN MOTORS CORP.			PERMANENT ADDRESS (Street and number, city, zone, and State) DEARBORN, MICHIGAN		
ATTACHMENTS (Check which)			I CERTIFY that the above statements are true.		
<input checked="" type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT <input checked="" type="checkbox"/> ACA-337 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA			9-8-49 (DATE) <i>George M. ...</i> (Signature) ... (TITLE)		
Form ACA-305a AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
It has been determined that the aircraft described in 305 above is in conformity with the following:					
ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
AIRCRAFT SPECIFICATION—AIRWORTHINESS DIRECTIVE NO(S). A- 783 ADSTHRU 49-35 (Specify)					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION					
(Check whether)					
<input type="checkbox"/> OPERATION LIMITATIONS FORM ACA-303 WAS ISSUED. OR <input checked="" type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY <input type="checkbox"/> UNAIRWORTHY		DESIGNEE'S SIGNATURE AND NO. <i>E. ...</i>		DATE 9-8-49	
		CAA INSPECTOR'S SIGNATURE		<input type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
ann 10-18-49 wing					

FAA AIRCRAFT REGISTRY
CAMERA NO. 3N DATE: 9-7-84

WASHINGTON
MAIL ROOM 3
OCT 7 7 49 AM '93
DEPT OF COMMERCE
ADM AERONAUTICS

FAA AIRCRAFT REGISTRY
 CAMERA NO. 3N DATE: 9-7-84

Form ACA-837 (11-48)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		Form Approved. Budget Bureau No. 41-R052.2		
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)						
(SEE REVERSE SIDE OF THIS FORM FOR INSTRUCTIONS)						
1. AIRCRAFT	MAKE Grumman ✓	MODEL G-73	SERIAL NO. J 3	NATIONALITY AND REGISTRATION MARK N-2941 (STANDARD)		
2. OWNER	NAME (First, middle, last) ADDRESS (Street and number, city, zone, and State) Dearborn Motors Corp. 15050 Woodward Ave Detroit 3, Mich.					
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED						
	UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
					MAJOR REPAIR	MAJOR ALTERATION
a. AIRCRAFT	***** (As described in item 1 above) *****					X
b. PROPELLER BLADE OR HUB						
c. ENGINE						
INSTRUMENT	TYPE AND MANUFACTURER					
4. AIRCRAFT						This item must be completed by repair or alteration agency. However, in the case of a spare component, it will not be completed until such component is installed in an aircraft. At this time, it will be completed by the installing agency, if applicable.
WEIGHT AND BALANCE DATA						
AFTER the repairs and/or alterations described below were made.		EMPTY WEIGHT (Pounds) 9348.1	EMPTY CENTER OF GRAVITY (Inches from datum)* 218.05	USEFUL LOAD (Pounds)* 3401.9		
5. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)						
<input type="checkbox"/> MANUFACTURER <input type="checkbox"/> APPROVED REPAIR STATION NO. _____ (Specify) <input checked="" type="checkbox"/> CERTIFIED MECHANIC						
6. AGENCY	NAME George W. Findley ✓	ADDRESS (Street and number, city, zone, and State) 22157 Garrison Dearborn, Mich.		DATE WORK ACCOMPLISHED Sept. 7, 1949		
7. DESCRIPTION OF WORK (ALL WORK MUST BE ACCOMPLISHED IN ACCORDANCE WITH PART 18 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18.)						
Removed:		Installed:				
Flares		VH F Trans. (Collins 17 K) V H F Receiver (Arc R-13) V H F Mast (A N 104-B) V H F Cables & Control (Arc C-22) ✓				
If more space is needed, continue on reverse, or attach separate sheets bearing aircraft registration mark.						
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL						
I CERTIFY that the above statements are true and correct to the best of my knowledge.						
George W. Findley (Signature of supervising mechanic)		A&E 300454 (Certificate number and rating)		9/7/49 (Date)		
TO BE COMPLETED BY CAA REPRESENTATIVES						
<input checked="" type="checkbox"/> APPROVED	DESIGNEE'S SIGNATURE <i>Jeff</i>		NO.	DATE		
<input type="checkbox"/> REJECTED	CAA AGENT SIGNATURE <i>Ed Hammond</i>		<input type="checkbox"/> ACCEPTED <input checked="" type="checkbox"/> REINSPECTED	DATE 9/8/49		

Aircraft as weighed & computed May 6, 1948.

	<u>-Weight</u>	<u>Arm</u>	<u>Index unit</u>
Removed	9358.3	219.77	205.67
Flares	46.0	455	2.09
	<u>9312.3</u>		<u>203.58</u>
Added:			
VHF Trans.	17.0	60	.072
Rec.	12.0	60	.102
" Mast	2.8	233	.06
" Cables	4.0	90	.03
	<u>34.8</u>		
Revised:	<u>9348.1</u>	<u>218.05</u>	<u>203.844</u>
Weight & Index unit.			

- 10-64010-2 U. S. GOVERNMENT PRINTING OFFICE
1. This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument.
 2. When repairs and/or alterations are made which affect the operation limitations set forth in the Airplane Flight Manual or Form ACA-309, the aircraft shall not be returned to service until the operation limitations have been corrected by an authorized representative of the CAA.
 3. Certificated mechanics must, in all cases, obtain approval of the repair and/or alteration from the CAA representative prior to returning the article to service.
 4. The manufacturer of an aircraft, engine, propeller, or instrument, and a certificated repair station holding the appropriate rating may return the article to service without prior approval of an authorized CAA representative, provided the alteration and/or repair does not change any of the operation limitations.
 5. Repair agencies will be guided as follows when completing this form.
 - a. For an Aircraft Repair and/or Alteration—Complete Items 1, 2, 3a, 4, 5, 6, and 7.
 - Mechanic—Submit to CAA representative for inspection and approval prior to returning the article to service. Upon approval, the CAA representative will return the original copy to the mechanic who should submit it to the aircraft owner.
 - Manufacturer or Approved Repair Station—Submit original to aircraft owner, forward copy to CAA district office or CAA agent prior to returning article to service.
 - b. For a Component Installed in an Aircraft—Complete Items 1, 2, 3 (b, c, or d, whichever is applicable), 4, 5, 6, and 7. Distribute copies as in a above.
 - c. For a Spare Component—Complete Items 3 (b, c, or d, whichever is applicable), 5, 6, and 7.
 6. Mechanic—Submit to CAA representative for inspection and approval. When approved, retain both copies of the form with the component until installation on an aircraft. At this time Items 1, 2, and 4 must be completed by the installing agency who will distribute the forms as follows: (No further approval of CAA is required, only a log-book entry by the installing agency is necessary.) After installation, original form should be submitted to aircraft owner, and copy forwarded to the nearest CAA district office or CAA agent.
 - Manufacturer or Approved Repair Station—Handle name as for mechanics except that it is not necessary to submit to CAA representative for inspection or approval.

INSTRUCTIONS

FAA AIRCRAFT REGISTRY
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Form ACA-809a-Page 1 (2-46)

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		OPERATION LIMITATIONS			CAA I. MARK 2841
ENGINE MAKE P & W	ENGINE MODEL 535H1	AIRCRAFT MAKE Grumman	AIRCRAFT MODEL 078	DATE MFRD. 10/7/46	SERIAL NO. J3
				DESIGNATION 12PCAMH	TYPE CERT. 783

ENGINE AND AIR SPEED LIMITS NOT TO BE EXCEEDED
 (All Values Are Maximums and Are NOT RECOMMENDED OPERATING LIMITS)

ENGINE LIMITS							TRUE INDICATED AIR SPEED			
	MINUTES	ALTITUDE	IN. HG.	R. P. M.	H. P.	FUEL OCT.		WEIGHT	M. P. H.	KNOTS
TAKE-OFF MIN.	020	SL	36	2260	600	91	CLIMB OR LEVEL FLIGHT	12500	220	
TAKE-OFF							GLIDE OR DIVE (Smooth Air Only)	12500	270	
SEA LEVEL		TO	34	2200	550	91	FLAPS EXTENDED	12500	125	
SEA LEVEL							CLIMB OR LEVEL FLIGHT			
ALTIMETER TAKE-OFF	FROM	5000	32.5	2200	550	91	GLIDE OR DIVE (Smooth Air Only)			
ALTIMETER							FLAPS EXTENDED			
LOW IMP.							DATUM: Rear face of main wing beam at hull sta. 233.65			
LOW IMP.										
HIGH IMP.										
HIGH IMP.										

USEABLE CEILINGS AND ADDITIONAL CONDITIONS*

CROSS (FT.)	WEIGHT	R. P. M.	FOLD PRESS.	FUEL OCT.	T. L. A. S.	PROP. DEICER	WING DEICER
200	CAA Approved	Operating Manual					

*Standard air, any engine inoperative, inoperative propeller fully feathered, carburetor air intake on "cold air."

MAXIMUM TAKE-OFF WEIGHT		MAXIMUM LANDING WEIGHT	
LAND	12,500	SEA	12,500
LAND	12,500	SEA	12,500

OPERATIONS AUTHORIZED

Instrument flight rules, night.
 This aircraft to be operated in accordance with the CAA Approved Operating Manual for G-73 aircraft which is to be carried in the pilots compartment at all times.

INSPECTOR'S SIGNATURE
Henry G. Smith
 DATE
 October 11, 1946.

ADDITIONAL OPERATIONS AUTHORIZED YES NO (IF YES—SEE OVER) *aw*
THIS PLACARD MUST BE DISPLAYED IN VIEW OF THE PILOT

FOLD HERE

STAF.

FAA AIRCRAFT REGISTRY
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EXPERIMENTAL OPERATIONS AUTHORIZED (SEE FAR 91.319)

ADDITIONAL OPERATIONS AUTHORIZED

DATE: 9-7-84
 BY: [Signature]

TO: [Faded text]

FROM: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

OPERATIONS AUTHORIZED: [Faded text]

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OPERATIONS AUTHORIZED: [Faded text]

CAMERA NO. 5 DATE: 9-7-84

Form ACA 809a PAGE 2

UNITED STATES OF AMERICA DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		SPECIFICATION NO. Feeding	CAN. 2991
EQUIPMENT No.			SPECIAL EQUIPMENT
NUMBER	NUMBER	NUMBER	ITEM (Description) WGT. ARM
SEE APPROVED OPERATING MANUAL DATED 10/9/46 FOR CURRENT LIST OF STANDARD AND SPECIAL EQUIPMENT, EMPTY WEIGHT, EMPTY C.G., AND USEFUL LOAD.			
E.W.	9125		
Useful load	3375		
E.C.G.	12.11"	FWD OF DATUM	
DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMIN FEB 12 11 20 AM '47 MAIL ROOM - 2 WASHINGTON			
(LAND)		C. G. LIMITS	
NORMAL	-17.25 to -7.37 inches	NORMAL	-17.25 to -7.37 inches
IN FLIGHT		IN FLIGHT	
DATE	October 11, 1946	INSPECTOR'S SIGNATURE	Henry G. Smith

FORM ACA-308 (3-5-47)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		FORM APPROVED BUDGET BUREAU NO. 41-R041.3	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Field Representative.	
APPLICATION (Check whether) <input type="checkbox"/> ORIGINAL AIRWORTHINESS CERTIF. <input checked="" type="checkbox"/> ANNUAL INSPECTION		CAA IDENTIFICATION <input checked="" type="checkbox"/> MC <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify) _____ <input type="checkbox"/> NX <input type="checkbox"/> NL			
AIRCRAFT					
MAKE <u>Grumman</u>			MODEL <u>G-73</u>		
REGISTRATION NO. <u>2941</u>	MANUFACTURER'S SERIAL NO. <u>J-3</u>	DATE MANUFACTURED <u>10-7-46</u>	TYPE CERTIFICATE NO. <u>783</u>		
ENGINE					
MAKE <u>Pratt & Whitney</u>			MODEL <u>R-1340-51</u>		
OWNER'S NAME <u>Forstmann Woolen Co.</u>			PERMANENT ADDRESS (Street and number, City, Zone and State) <u>2 Barbour Avenue Passaic, New Jersey</u>		
ATTACHMENTS (Check which) <input type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT <input type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS <input type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE. <u>9-3-48</u> <u>Norman M. Grady</u> DATE OWNER OR AUTHORIZED AGENT <u>Copilot-mechanic</u> TITLE			
FORM ACA-305a (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT (To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING ALL APPLICABLE MANDATORY NOTES, INSTRUMENT MARKINGS AND PLACARDING REQUIREMENTS HAVE BEEN COMPLIED WITH <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
(AIRCRAFT SPECIFICATION - AIRWORTHINESS DIRECTIVE, NO(S). A- <u>783-2, 1,2,3,4,5,6,7 ADS 48-3-4</u> (SPECIFY)					
AUTHORITY FOR EXCEPTIONS (If any)					
FORM ACA-1362, CERTIFICATE OF AIRWORTHINESS, ISSUED <input type="checkbox"/> ORIGINAL <input checked="" type="checkbox"/> ANNUAL INSPECTION					
(Check whether) OPERATION LIMITATIONS FORM ACA-309 WAS ISSUED, OR <input checked="" type="checkbox"/> APPROVED AIRPLANE FLIGHT MANUAL IS IN THE AIRCRAFT					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY <input type="checkbox"/> UNAIRWORTHY	DESIGNEE'S SIGNATURE AND NO. <u>[Signature]</u> <u>412</u>		DATE <u>9-3-48</u>		
	CAA INSPECTOR'S SIGNATURE <u>[Signature]</u>		<input checked="" type="checkbox"/> ACCEPTED <input type="checkbox"/> REINSPECTED	DATE <u>10-26-48</u>	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)					

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11-26-48
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FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84

DEPT OF COMMERCE
CIVIL AERONAUTICS ADM.
Nov 4 1 27 PM '48
MAIL ROOM - 2
WASHINGTON

H70 ✓

FORM ACA-387 (11-7-46)	DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION	BUDGET BUREAU NO. 41-F032.1 APPROVAL EXPIRES DECEMBER 31, 1948				
REPAIR AND ALTERATION FORM (AIRCRAFT, PROPELLERS, ENGINES, INSTRUMENTS)						
<p>INSTRUCTIONS - This form must be filled out in duplicate each time a major repair and/or alteration is made of an aircraft, propeller, engine, or instrument, as follows:</p> <p>(A) For an Aircraft - Complete items 1, 2, 3a, 4, 5, 6, and 7 and submit to CAA representative for approval.</p> <p>(B) For a Component Installed in an Aircraft - Complete items 1, 2, 3(b, c, or d, whichever is applicable), 4, 5, and 6, and submit as described in (A) above.</p> <p>(C) For a Spare Component - Complete items 3(b, c, or d), 5, and 6, and submit to CAA representative for approval. When approved, retain both copies of this form with the component until installation on an aircraft. At that time, items 1, 2, and 4 must be completed by the installing agency, which will then forward forms as described in (A) above.</p>						
1. AIRCRAFT	MAKE Crumman	MODEL G-73	SERIAL NO. J-3	CAA IDENTIFICATION MARK NC-2941		
2. OWNER	NAME (First, middle, last) Julius Forstmann & Co., Inc.					
	ADDRESS (Street and number, city, zone, and state) Passiac, New Jersey					
3. FILL IN INFORMATION IN THIS ITEM ONLY FOR THE UNIT REPAIRED AND/OR ALTERED						
	UNIT	MAKE	MODEL	SERIAL NO.	NATURE OF WORK (Check)	
					MAJOR REPAIR	MAJOR ALTERATION
4. AIRCRAFT	(As described in item 1 above)					
PROPELLER BLADE OR HUB						
5. ENGINE	Pratt & Whitney	R-1340-51-AN1	9114	X		
6. INSTRUMENT	TYPE AND MANUFACTURER					
The following items are to be completed by repair or alteration agency. However, in the case of a spare component, item 4 will not be completed until such component is installed in an aircraft. At this time, item 4 will be completed by the installing agency, if applicable.						
7. AIRCRAFT	EMPTY WEIGHT (Pounds)* 9188.3	EMPTY CENTER OF GRAVITY (Inches from datum)* 226.12 aft of datum	USEFUL LOAD (Pounds)* 3561.7			
* AFTER the repairs and/or alterations described below were made.						
8. KIND OF AGENCY WHICH MADE REPAIRS AND/OR ALTERATIONS (Check)						
<input type="checkbox"/> MANUFACTURER		<input checked="" type="checkbox"/> APPROVED REPAIR STATION NO. 195			<input type="checkbox"/> CERTIFIED MECHANIC	
(SPECIFY)						
9. AGENCY	NAME Southwest Airmotive Co.	ADDRESS (Street and number, city, zone, and state) 5416 Love Field Drive, Dallas 9, Texas			DATE WORK ACCOMPLISHED 8-18-48	
7. DESCRIPTION OF WORK ACCOMPLISHED IN ACCORDANCE WITH PART 19 OF THE CIVIL AIR REGULATIONS AND ITS ASSOCIATED CIVIL AERONAUTICS MANUAL 18. (If more space is needed, continue on reverse, or attach separate sheets bearing aircraft identification mark)						
<p>Engine majored. All steel parts magnafluxed. For parts replaced see attached inspection forms. Engine converted from R-1340-51 to R1340-51-AN1. Accessories overhauled per factory specifications. Engine test run 4.5 hours.</p> <p style="text-align: right;"><i>am</i></p>						
I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.						
SIGNATURE OF SUPERVISING MECHANIC <i>Louis J. Beimer</i>			E 6293		8-24-48	
TO BE COMPLETED BY CAA REPRESENTATIVES						
<input checked="" type="checkbox"/> APPROVED	SIGNATURE OF DESIGNEE <i>George B. [Signature]</i>		NUMBER 412	DATE 9-3-48		
<input type="checkbox"/> REJECTED	SIGNATURE OF INSPECTOR <i>[Signature]</i>		<input checked="" type="checkbox"/> ACCEPTED	DATE 10-26-48		
<input type="checkbox"/> FORWARDED FOR ENGINEERING APPROVAL			<input type="checkbox"/> REINSPECTED			

FAA AIRCRAFT REGISTRY
 CAMERA NO. 5 DATE: 9-7-84

REGISTRATION NO. N12345
 MAKE AND MODEL C-172
 SERIAL NO. 12345
 REGISTERED TO JOHN D. SMITH
 ADDRESS 123 MAIN ST, WASHINGTON, DC 20543

REGISTRATION NO.	MAKE AND MODEL	SERIAL NO.	REGISTERED TO	ADDRESS
N12345	C-172	12345	JOHN D. SMITH	123 MAIN ST, WASHINGTON, DC 20543
N67890	C-172	67890	JANE E. SMITH	456 MAIN ST, WASHINGTON, DC 20543
N11111	C-172	11111	JOHN D. SMITH	123 MAIN ST, WASHINGTON, DC 20543

FAA AIRCRAFT REGISTRY
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REGISTRATION NO. N12345
 MAKE AND MODEL C-172
 SERIAL NO. 12345
 REGISTERED TO JOHN D. SMITH
 ADDRESS 123 MAIN ST, WASHINGTON, DC 20543

REGISTRATION NO. N67890
 MAKE AND MODEL C-172
 SERIAL NO. 67890
 REGISTERED TO JANE E. SMITH
 ADDRESS 456 MAIN ST, WASHINGTON, DC 20543

REGISTRATION NO. N11111
 MAKE AND MODEL C-172
 SERIAL NO. 11111
 REGISTERED TO JOHN D. SMITH
 ADDRESS 123 MAIN ST, WASHINGTON, DC 20543

DEPT OF COMMERCE
 CIVIL AERONAUTICS ADM.
 Nov 4 1 28 PM '84
 MAIL ROOM-2
 WASHINGTON



Sheet No. 1

OWNER Julius Forstmann & Co., Inc. ENGINE INSPECTION RECORD Job. No. 51164
 REASON FOR OVERHAUL _____ Date 6-15-48
 ENGINE NO. 9114 TYPE R-1340-51-1 TOTAL TIME _____ TIME SOH _____

CRANKSHAFT	ok	Number	{ Front <u>H1D1 1951</u>
Run Out, at thrust	at end		{ Rear <u>H1D1 1951</u>
Clutch Tension hub	-ok	Splines	{ Crankpin <u>ok</u>
Clutch Plates	ok		{ Prop. Hub <u>ok</u>
Clutch Spring	ok	Roller Brg.	{ Front <u>ok</u>
Rear Gear	ok		{ Rear <u>ok</u>
C. S. Bolt	ok	Diam. Front	{ Horiz. <u>2.685</u> Rear { Horiz. <u>2.684</u>
Crankpin	ok		{ Vert. <u>2.685</u> { Vert. <u>2.684</u>
MASTER ROD	ok	Oil Passages	ok
Bushing { Main	ok - 2.690	Knuckle Pin Locks	ok
{ Piston Pin	ok - 1.375	Knuckle Pin Holes All A's	.997 & 1.002
LINK RODS	2 3 4 5 6 7 8 9		
Piston Pin Bush	#2-1.377; rest 1.3765 - replace #2 - new 1.375		
Knuckle Pin Bush	All 1" .0000		
Knuckle Pin	all A-.997 - Plate ends .0005" thick		
Knuckle Pin Time Fit in R.R.	-.001T		
MAIN CRANKCASE	ok	Cam Red. Gear	ok
Cam Red. Gear Bush - Size	ok	Alignment	ok
BLOWER SECTION	ok	Intermed. Gear	ok
Impeller	ok	Intermed. Shaft	ok
Imp. End. Cl. - Max	Min	Inter. Brg. Front	ok
Imp. Roller Brg.	ok	Inter. Brg. Rear	ok
Imp. Ball Brg.	ok	Inter. Brg. Cage	ok
Imp. Brg. Cage	ok	Floating Gear	ok
Imp. Rear Spacer	ok	Floating Gear Brg.	ok
Bearing Cover	ok	Floating Gear Cage	ok
Oil Pres. Pipe	ok	Breathers	ok
Short Mag. Shaft Bush - Left	ok	Right	ok
REAR SECTION	ok	Starter Shaft Bush	ok
Long Mag. Shaft Bush - Left	ok	Right	ok
Mag. Shaft - Left	ok	Right	ok
Mag. Drive Cover - Left	ok	Right	ok
Mag. Drive Coup. - Left	ok	Right	ok
Bevel Gear - Left	ok	Right	ok
Tach. Drive Gear - Left	ok	Right	ok
Tach. Driven Gear - Left	ok	Right	ok
Tach. Coupling - Left	ok	Right	ok
Starter Shaft	ok	Starter Shaft Brg.	ok
Fuel Pump Dr. Gear	ok	Oil Pump Dr. Gear	ok
Oil Pres. Rel. Valve	ok	Oil Strainer	ok Cover ok
Oil Passages	ok	Generator Drive	ok
FRONT SECTION	ok	Breather	ok
Tappets	ok	Rollers	ok
Guides	ok	Pins	ok
Thrust Bearing	ok	Thrust Slinger	ok
Thrust Cover	ok	Thrust Nut	ok
SUMP	ok	Pres. Pipes	ok
CAM	ok	Internal Gear	ok
Bearing	ok	Cam Oiler	ok
Bearing Sleeve	ok	Cam Oiler and Cam Cl.	ok
Brg. and Sleeve Cl.	ok	Cam Drive Gear and Ring	ok 23

FAA AIRCRAFT REGISTRY

CAMERA NO.

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DATE:

9-7-84

DEPT OF COMMERCE
CIVIL AERONAUTICS ADM.
NOV 4 1 28 PM '88
MAIL ROOM - 2
WASHINGTON



Sheet No. 2

ENGINE INSPECTION RECORD

Job No. 31164 Engine No. 9114 Date 6-14-48

Pistons — ok
 Check Ring Lands for Cracks ok Re-operation

	Factory Limits	Cylinders								
		1	2	3	4	5	6	7	8	9
Condition	ok all									
Oversize std.	ok all									
pin holes	1.375 to 1.3735									
Pin Clear	replace std.									
Rings	none									
Stuck Rings										
Remarks	all ok - 1.372									
Piston Pins	all ok									
Piston Pin Plugs										
Remarks										

Cylinders — Condition ok Studs ok

	Factory Limits	Cylinders								
		1	2	3	4	5	6	7	8	9
Condition Barrel	ok all									
Remarks										
Taper choke	.007 .010	.007	.010	.009	.008	.010	.011	.010	.011	.008
Out of Round	.003 .005	.003	.004	.005	.003	.002	.002	.003	.003	.005
Max. Dia. wear	.003 .0055	.003	.0055	.005	.005	.006	.003	.003	.003	.003
Exh. Valve Guide	ok all									
Condition	use all									
Inl. Valve Guide	ok all									
Condition	use all									
Spark Plug Bushing	ok all									
Exh. Valve Dia.	ok all									
Exh. Valve Stretch	ok all									
Condition	ok all									
Inlet Valves	ok all									
Condition	ok all									
Push Rods	Exh. ok all									
	Inl. ok all									
Valve Seats	Exh. ok all									
	Inl. ok all									

	Safety Rings	Locks	Upper Washers	Outer Springs	Inner Springs	Lower Washers
Exh.	ok	ok	ok	ok	ok	ok
Inl.	ok	ok	ok	ok	ok	ok
Rocker Arms	ok	Primer Elbows	ok	Base Thermocouples		ok
Rocker Shafts	ok			Nuts & Washers		ok
Rocker Brgs.	ok			Adj. Screws & Nuts		ok
Intake Pipes	ok	Intake Pipe Flange	ok	Clamps		ok
Rocker Box Covers	ok			Rocker Cover Studs		ok
Push Rod Covers	ok	Nuts	ok	Glands		ok

Remarks Deflectors ok
 Inspector Proffitt & Tucker Approved Spot magnified by Lynn 23

FAA AIRCRAFT REGISTRY

CAMERA NO. 5

DATE:

9-7-84

DEPT OF COMMERCE
CIVIL AERONAUTICS ADM.
NOV 9 1 28 PM '84
MAIL ROOM - 2
WASHINGTON

SOUTHWEST AIRMOTIVE COMPANY

Love Field • Dallas, Texas

Sheet No. 4

ACCESSORY INSPECTION RECORD

Owner Julius Forstmann & Co., Inc.

JOB NO. 31164 Engine No. 9114 Date 8-17-48

Magnetoes	<u>Scintilla</u>	No. Right Mag.	<u>059668</u>	No. Left Mag.	<u>059663</u>
Type	<u>SBW</u> ok	Dist. Barrel	<u>ok</u>	Breaker Lever	<u>---</u>
Condition	<u>ok</u>	Coil	<u>ok</u>	Breaker Lever Axle	<u>---</u>
Rotating Mag.	<u>ok</u>	Condenser	<u>ok</u>	Breaker Stop	<u>---</u>
Dist. Gear	<u>ok</u>	Pri. Bridge	<u>ok</u>	Breaker Points	<u>ok</u>
Rota. Mag. Brgs.	<u>ok</u>	Test		Breaker Springs	<u>ok</u>
Dist. Bearings	<u>ok</u>	Remarks	<u>Army overhauled; brgs. repacked and tested</u>		

Distribution	<u>18 Spark Plugs</u>	No.	
Type		Condenser	
Condition		Breaker Points	
Bearings		Dist. Finger	

Carburetor	<u>Stromberg</u>	Type	<u>WAYSEL</u>	No.	<u>5573547</u>
Main Jet	<u>25</u>	Needle and Seat	<u>ok</u>	Fuel Pressure	<u>3 1/2</u>
Main Air Bleed	<u>55</u>	Mix. Cont. Needle	<u>ok</u>	Float Level	<u>2.11</u>
Economizer Jet	<u>28</u>	Mix. Cont. Seat	<u>ok</u>	Econ. Needle	<u>ok</u>
Idle Restriction	<u>53</u>	Accel. Pump	<u>ok</u>	Econ. Setting	<u>ok</u>
Idle Air Bleed	<u>65</u>	Floats	<u>ok</u>	Strainer	<u>ok</u>
Idle Discharge	<u>70-61-54-55</u>	Throttle Valves	<u>ok</u>	Condition	<u>ok</u>
Venturi	<u>2-3/4"</u>	Remarks	<u>overhauled</u>		

Starter		Series No.		Number	
Type		Planetary Gears		Clutch Plates	
Armature		Sun Gear		Clutch Springs	
Field Coils		Annulus Gear		Clutch Test	
Brushes		Plan. Gear Brngs.		Baffle Plates	
Brush Springs		Sun Gear Bearings		Starter Jaw Seal	
Term. Insulators		Arm. Bearings		Starter Jaw	
Housings		Clutch Bearings		Starter Jaw Spring	
Window Strap		Remarks			

Fuel Pump		Type		Model	
Relief Body		Ball Cages		Serial No.	
Relief Valve		Drive Coupling		Seals	
Valve Springs		Remarks			

Fuel Pump		Type		Model	
Relief Body		Ball Cages		Serial No.	
Relief Valve		Drive Coupling		Seals	
Valve Springs		Remarks			

Generator		Number		Type	
C. B. No.		Field Coils		Splined Shaft	
Volt		Brushes		Flexible Coupling	
Amp.		Brush Springs		Bearings	
Armature		Terminals		Oil Seals	
Commutator		Term. Insulators		Remarks	

Governor		Type		Number	
Head		Speeder Spring		Pilot Bearing	
Rack		Pilot Valve		Relief Valve	
Gears		Drive		Relief Spring	
Condition		Remarks			

Vacuum Pump		Type		Number	
Drive		Vanes		Lubrication	
Flexible Coupling		Bearings		Remarks	

Ignition Wiring Replaced with 73 Sterling

FAA AIRCRAFT REGISTRY

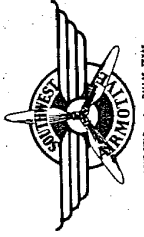
CAMERA NO.

5

DATE:

9-7-84

DEPT OF COMMERCE
CIVIL AERONAUTICS ADM.
NOV 4 1 29 PM '48
MAIL ROOM - 2
WASHINGTON



Sheet No. 6

LOG OF ENGINE TEST

Pratt & Whitney

OWNER Julius Forstmann & Co., Inc. ENGINE MAKE

DATE 8-18-48 SERIES R-1340-M11

REPAIR ORDER NO. 31164 MFG. eng. s/n 8114

SHEET NO. 09:20 A.M.

NATURE OF TEST Overhaul & Convert TIME

TEMP. F. 90°

TIME	RPM	MANIF. PRESS.	CARB. TEMP.	TEMP. OIL IN	TEMP. OIL OUT	1/2" FL HEAD TEMP #5	OIL PRESS	FUEL PRESS	OIL LBS. ON SCALE	OIL CONS. OZ. PER HOUR	FUEL CONS. MIN. PER GALLON	FUEL GAL. PER HOUR	REMARKS
09:20	Start		Test Cell Temp.	140	154	300	72	4.0				7.0	
09:50	1000	14.1	90	168	167	320	74	4.0				9.2	
10:30	1200	16.0	92			305							
10:40	Start	After Cleaning Oil	Screen	ok									
11:00	1500	20.5	97	160	186	340	80	3.8				18.9	
11:20	1700	23.1	99	160	193	350	84	3.5				23.5	
11:50	1900	27.0	104	160	200	380	86	3.5				35.0	
12:50	2000	28.5	106	160	204	375	90	3.0		14		43.0	
13:20	2100	31.4	108	160	210	400	90	3.0		18		52.0	
13:25	2200	34.5	108	160	211	405	90	3.0				60.0	
13:26	2250	36.5										62.0	
13:56	1200	Switch to Clear Gas and Rust Kan #404											

Carb. S/N 5586664

TOTAL RUNNING TIME 4.5 hrs.
TEST RUN BY Hatched Boyd

SPARK PLUGS FRONT REAR
ECONOMIZER JET OK BY

MAIN JET

RPM FULL THROTTLE
RPM RIGHT MAGNETO
RPM LEFT MAGNETO

Mag Drop @ 2000 R.P.M. = 50 Left, 50 Right
Oil Flow @ 2000 R.P.M., 90 lbs. Press., 160 Temp. F. = 44 lbs. per min.

FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84

DEPT OF COMMERCE
CIVIL AERONAUTICS ADM.
Nov 4 1 28 PM '48
MAIL ROOM-2
WASHINGTON

FAA AIRCRAFT REGISTRY

CAMERA NO. 5

DATE: 9-7-84

Form ACA 303-A
Rev. 6-1-41)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

THIS CERTIFICATE MUST BE CARRIED IN
THE AIRCRAFT AT ALL TIMES

AIRCRAFT AIRWORTHINESS CERTIFICATE NO. 2941

I hereby Certifies that **GRUMMAN G-73**

manufacturer's serial No. **8-3**, has been inspected and this day found to be in condition for safe operation when operated and maintained in accordance with the regulations prescribed by the Civil Aeronautics Board.

The aircraft for which this certificate is issued (a) shall not be operated unless there is attached hereto the currently effective Aircraft Operation Record issued by the Administrator of Civil Aeronautics for the aircraft, and (b) shall not be operated in flight unless a pilot possessed of a currently effective and appropriate pilot certificate issued by the Administrator is in command.

This certificate is of 60 days' duration and, unless the holder hereof is otherwise notified within such period, shall continue in effect indefinitely thereafter, unless suspended, revoked, or cancelled, except that it shall immediately expire (1) at the end of

after the date of issuance of this certificate or after the date of last endorsement hereof, whichever is later, if within such period this aircraft is not examined or inspected by an authorized Civil Aeronautics inspector, or (2) at any time an authorized Civil Aeronautics inspector shall refuse to endorse this certificate after examination or inspection.

By direction of the Administrator:

Refusal to endorse:

Civil Aeronautics Inspector

Henry G. Smith
HENRY G. SMITH
Civil Aeronautics Inspector

OCTOBER 11, 1984

Date of Issuance

Violation of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding three years, or both. (over)

SEP 19 RECD 1183

7-19-47 306

FORM ACA-305 (3-7-46)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		BUDGET BUREAU NO. 41-2041.2 APPROVAL EXPIRES FEBRUARY 15, 1947	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aero- nautics Administration Field Representative.	
APPLICATION (Check)		CAA IDENTIFICATION			
<input type="checkbox"/> AIRWORTHINESS CERTIFICATE <input checked="" type="checkbox"/> ANNUAL INSPECTION		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NX <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify)			
AIRCRAFT					
MAKE Grumman			MODEL G-73		
REGISTRATION NO. NC 2941		MANUFACTURER'S SERIAL NO. J-3		DATE MANUFACTURED October, 1946	
ENGINE					
MAKE Pratt & Whitney			MODEL R1340-S3H1		RATED H.P. 600
(Check whether) <input type="checkbox"/> NEW <input checked="" type="checkbox"/> USED <input type="checkbox"/> OVERHAUL		IF OVERHAUL, STATE BY WHOM		DATE OF OVERHAUL	
(Check which) <input checked="" type="checkbox"/> AIRCRAFT NOW REGISTERED WITH THE ADMINISTRATION <input type="checkbox"/> APPLICATION FOR REGISTRATION AND BILL OF SALE (FORMS ACA-501 AND 502) ATTACHED					
OWNER'S NAME Forstmann Woolen Company			PERMANENT ADDRESS (Street and No., City, Zone, State) Passaic, New Jersey		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE			
<input checked="" type="checkbox"/> ACA-319 <input type="checkbox"/> WEIGHT AND BALANCE REPORT <input type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS <input type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA		E. J. Lewis DATE 9-15-47 TITLE AGENT			
FORM ACA-305b (FORMERLY ACA-307) AIRCRAFT INSPECTION REPORT					
(To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
LISTING IN INSPECTOR'S HANDBOOK, CHAP. XVIII		AIRCRAFT SPECIFICATION		AIRWORTHINESS DIRECTIVE	
PAGE NO.	T.C. NO.	SERIAL NO.	EFFECTIVE NOTES	NO.	EFFECTIVE NOTES
	783	A783-1	1-2-3-4-5-6.	-	None
OTHER (Describe)		EXCEPTIONS, IF ANY (if additional space is required, use reverse)			
(Tentative)					
<input checked="" type="checkbox"/> FORM ACA-319 (Return to owner)	APPROVED BY C. J. Lewis	MECH. CERTIF. AND RATING NO. A&E 1706	DATED 9-18-47		
<input checked="" type="checkbox"/> FORM ACA-1362 ISSUED	CERTIFICATE VALID TO (Specify date)				
<input type="checkbox"/> AIRCRAFT AIRWORTHINESS CERTIFICATE WITH OPERATION LIMITATIONS FORM (ATTACHED) WAS ISSUED					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY	DESIGNED BY Edw. R. Armstrong	DMIR NO. 1008	DATE 9-18-47		
<input type="checkbox"/> UNAIRWORTHY	INSPECTOR'S SIGNATURE Harry N. Jones	<input type="checkbox"/> ACCEPTED	DATE 9-18-47		
REASON FOR DISAPPROVAL, OR REMARKS. Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Picked up old ACA 308-A, upon issuance of new ACA 1362, also picked up old ACA309-A, which is no longer required, since CAA approved "airplane flight manual" is in the airplane. Wing tip float fuel installation was made and checked in accordance with Grumman Dwg. #109098, 109001. This includes nameplates, placards, and operating instructions for same. Temporary approval was granted by 1-295 date 5-9-47. Weight and balance report was modified to take care of the above change.					

FAA AIRCRAFT REGISTRY

CAMERA NO. 5

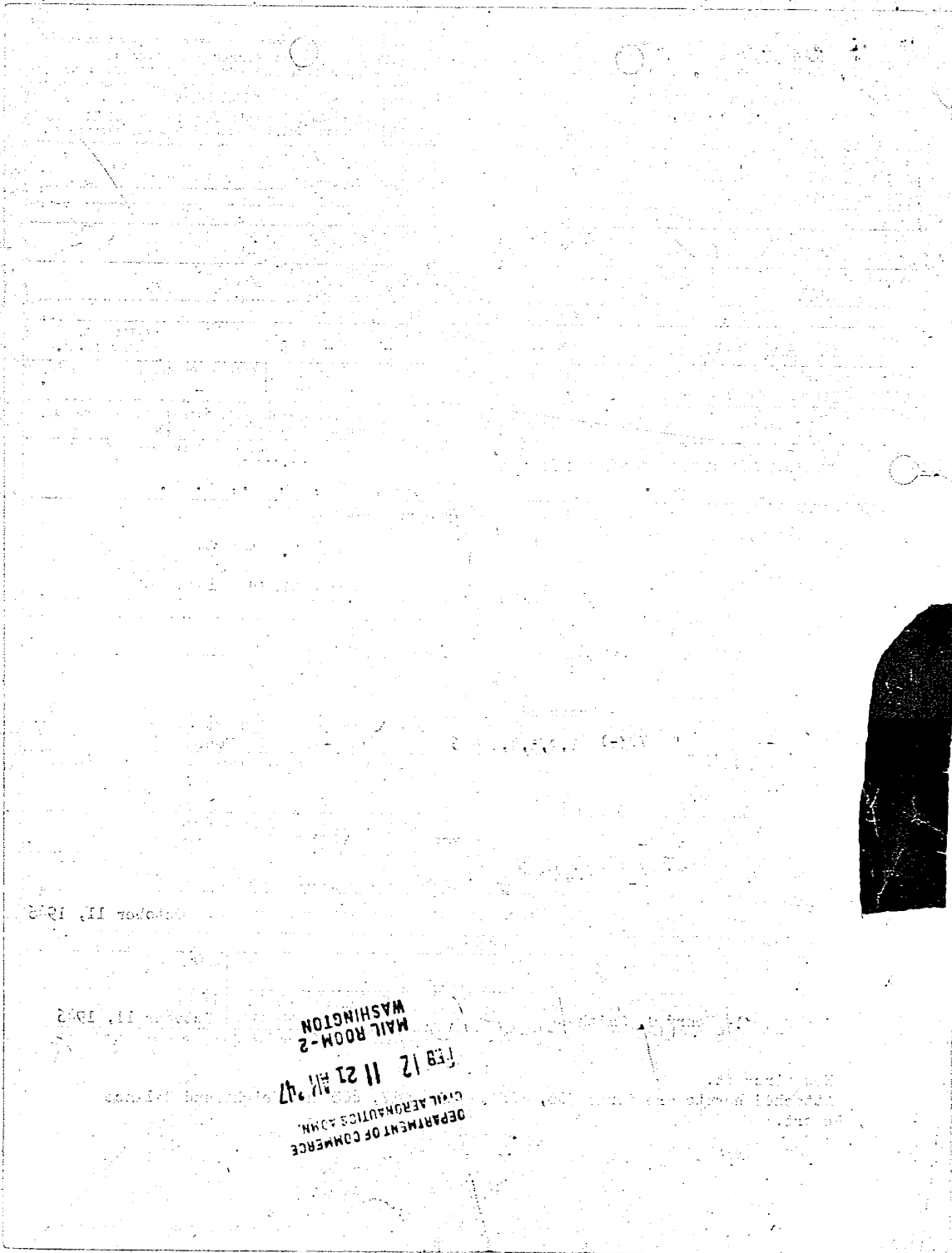
DATE:

9-7-84

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
MAIL ROOM -
WASHINGTON
SEP 25 10 33 AM '84

FORM ACA-305 (3-7-46)		DEPARTMENT OF COMMERCE CIVIL AERONAUTICS ADMINISTRATION		JOB BUREAU NO. 41-2041.2 APPROVAL EXPIRES FEBRUARY 15, 1947	
APPLICATION FOR AIRWORTHINESS CERTIFICATE AND/OR ANNUAL INSPECTION OF AN AIRCRAFT				INSTRUCTIONS Please submit this form to the Civil Aeronautics Administration Field Representative.	
APPLICATION (Check)		CAA IDENTIFICATION			
<input checked="" type="checkbox"/> AIRWORTHINESS CERTIFICATE <input type="checkbox"/> ANNUAL INSPECTION		<input checked="" type="checkbox"/> NC <input type="checkbox"/> NX <input type="checkbox"/> NR <input type="checkbox"/> OTHER (Specify) _____			
AIRCRAFT					
MAKE Grumman			MODEL G73		
REGISTRATION NO. NC2941	MANUFACTURER'S SERIAL NO. J3	DATE MANUFACTURED 10/7/46			
ENGINE					
MAKE Pratt and Whitney			MODEL R-1340-S3H1	RATED H.P. 550 H.P.	
(Check whether)		IF OVERHAULED, STATE BY WHOM		DATE OF OVERHAUL	
<input checked="" type="checkbox"/> NEW <input type="checkbox"/> USED <input type="checkbox"/> OVERHAULED		-		-	
(Check which)		APPLICATION FOR REGISTRATION AND BILL OF SALE (FORMS ACA-501 AND 502) ATTACHED			
<input type="checkbox"/> AIRCRAFT NOW REGISTERED WITH THE ADMINISTRATION		<input checked="" type="checkbox"/>			
OWNER'S NAME Grumman Aircraft Engineering Corp.			PERMANENT ADDRESS (Street and No., City, Zone, State) Bethpage, L. I., N. Y.		
ATTACHMENTS (Check which)		I CERTIFY THAT THE ABOVE STATEMENTS ARE TRUE			
<input type="checkbox"/> ACA-319 <input checked="" type="checkbox"/> WEIGHT AND BALANCE REPORT <input type="checkbox"/> ACA-337 <input type="checkbox"/> SPECIAL APPROVALS <input checked="" type="checkbox"/> ACA-805 <input type="checkbox"/> DATA, DRAWINGS, ETC. <input checked="" type="checkbox"/> ACA-317 <input type="checkbox"/> UNAPPROVED DEVIATION DATA		Fred R. Arms OWNER OF AUTHORIZED AGENT Manager of Plant #4			
		10/7/46		DATE	
		TITLE			
AIRCRAFT INSPECTION REPORT					
(To be completed by a CAA inspector or a designated inspector or representative)					
IT HAS BEEN DETERMINED THAT THE AIRCRAFT DESCRIBED IN 305 ABOVE IS IN CONFORMITY WITH THE FOLLOWING					
REQUIREMENTS IN INSPECTOR'S HANDBOOK, CHAP. XVIII		AIRCRAFT SPECIFICATION		AIRWORTHINESS DIRECTIVE	
-		Proposed		-	
NO.	T.C. NO.	SERIAL NO.	EFFECTIVE NOTES	NO.	EFFECTIVE NOTES
-	-	A-783-1	1,2,3,4,5 & 6	-	None
Describe)			EXCEPTIONS, IF ANY (If additional space is required, use reverse)		
FORM ACA-319 (Return to Owner)	APPROVED BY	MECH. CERTIF. AND RATING NO.		DATED	
FORM ACA-1362 ISSUED	CERTIFICATE VALID TO (Specify date)				
<input checked="" type="checkbox"/> AIRCRAFT AIRWORTHINESS CERTIFICATE WITH OPERATION LIMITATIONS FORM (ATTACHED) WAS ISSUED October 11, 1946					
FINDINGS					
<input checked="" type="checkbox"/> AIRWORTHY <input type="checkbox"/> UNAIRWORTHY		DESIGNEE'S SIGNATURE AND NO.		DATE	
		Henry G. Smith		October 11, 1946	
		CAA INSPECTOR'S SIGNATURE		<input type="checkbox"/> ACCEPTED <input checked="" type="checkbox"/> REINSPECTED	
REASON FOR DISAPPROVAL, OR REMARKS (Indicate if you have used the reverse to continue this or other item <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No)					
New Aircraft. Attached hereto are forms 305, 308A, 309a, 317, 805 and Weight and Balance Report.					

FAA AIRCRAFT REGISTRY
CAMERA NO. 5 DATE: 9-7-84



RECEIVED

RECEIVED

WASHINGTON
MAIL ROOM-2
FEB 12 11 21 AM '47
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMIN.

Form ACA 805
4-1-41

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

CERTIFICATION NOTICE

This is to confirm my understanding that

<u>Aircraft</u>	<u>Model</u>	<u>Serial Number</u>	<u>Identification Mark</u>
<u>Grumman</u>	<u>G73</u>	<u>J3</u>	<u>NC2941</u>

has been manufactured in accordance with the data submitted in support of an application for type certification; that as a result of the examination of such data, and the tests and inspections conducted, recommendations for final approval accompanied by supporting data are being transmitted to the Washington office for analysis and final action; and that prior to issuance of the aircraft specification, it may become necessary to make certain minor modifications or adjustments to the subject aircraft in order to continue the effectiveness of the airworthiness certificate.

Grumman Aircraft Engineering Corporation
(Manufacturer)

By George J. Titterton
George Titterton

Assistant Chief Engineer
(Title)

Signature Edward J. Brown, Jr.
(Purchaser or Agent)

10/11/46
(Date)

(NOTE TO INSPECTOR: Execute in triplicate. Submit one copy with certificate file, attach one copy to Form 309, and present one copy to manufacturer.)

FAA AIRCRAFT REGISTRY

CAMERA NO. 5

DATE:

9-7-84

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
SEP 12 11 23 AM '84
MAIL ROOM - 2
WASHINGTON

Form ACA 217
(Rev. 8-1-41)

UNITED STATES OF AMERICA
DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
WASHINGTON

STATEMENT OF CONFORMITY

To the CIVIL AERONAUTICS ADMINISTRATION:

I, having been authorized for this purpose by Grumman Aircraft Engineering Corporation
(Manufacturer)
certify that the aircraft Grumman (Make) G-73 (Model)
J-3 (Serial number), has been manufactured, under Production Certificate No. _____,*
in conformity with the data forming the basis for Type Certificate No. 783 and any
revision or modification thereof approved by the Administration as of October 3, 1946
(Date)
with the exception of the following deviations:

DATE October 3, 1946

Wm. T. Schwendler

Wm. T. Schwendler (Signature)

Executive Vice President and Chief Engineer (Title)

* Delete this phrase if not applicable.

FAA AIRCRAFT REGISTRY

CAMERA NO. 5

DATE:

9-7-84

DEPARTMENT OF COMMERCE
CIVIL AERONAUTICS ADMINISTRATION
FEB 12 11 21 AM '47
MAIL ROOM - 2
WASHINGTON

AA

"MALLARD"
12 PLACE AMPHIBIAN

WEIGHT AND BALANCE REPORT
AND
LOADING CHART

MODEL G-73
SERIAL NO. J3
CERTIFICATE NO. NC 2941

Date: October 3, 1946

Prepared by: William Flato
William Flato

Checked by: John Michel
John Michel

Approved by: Robert J. Trimborn
ROBERT J. TRIMBORN

10/9/46

REPORT NO. G73-3

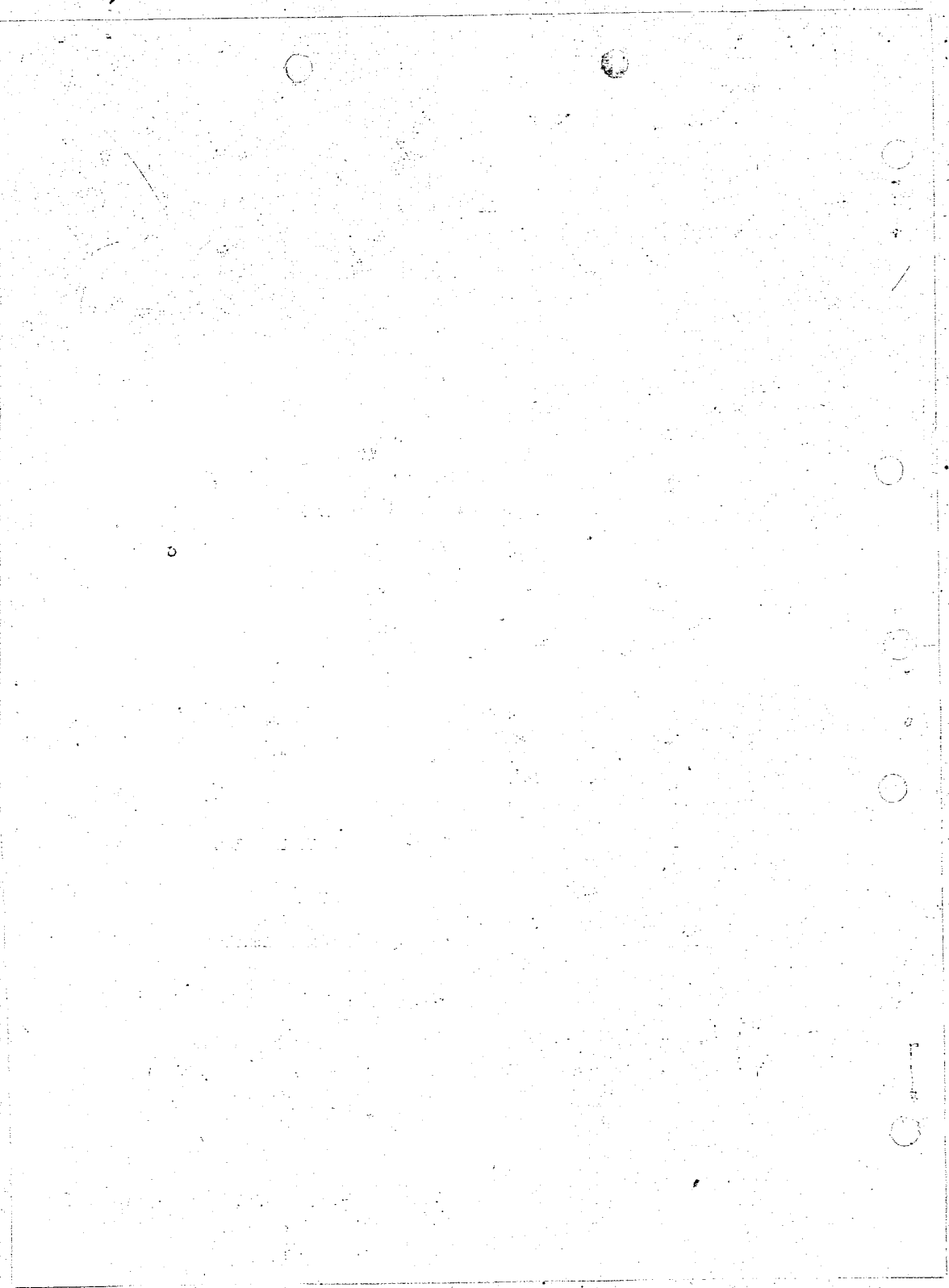
FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84



MALLARD

LOADING CHART

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REPORT NO. G73-3

9-3-46

G103-5000-12-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

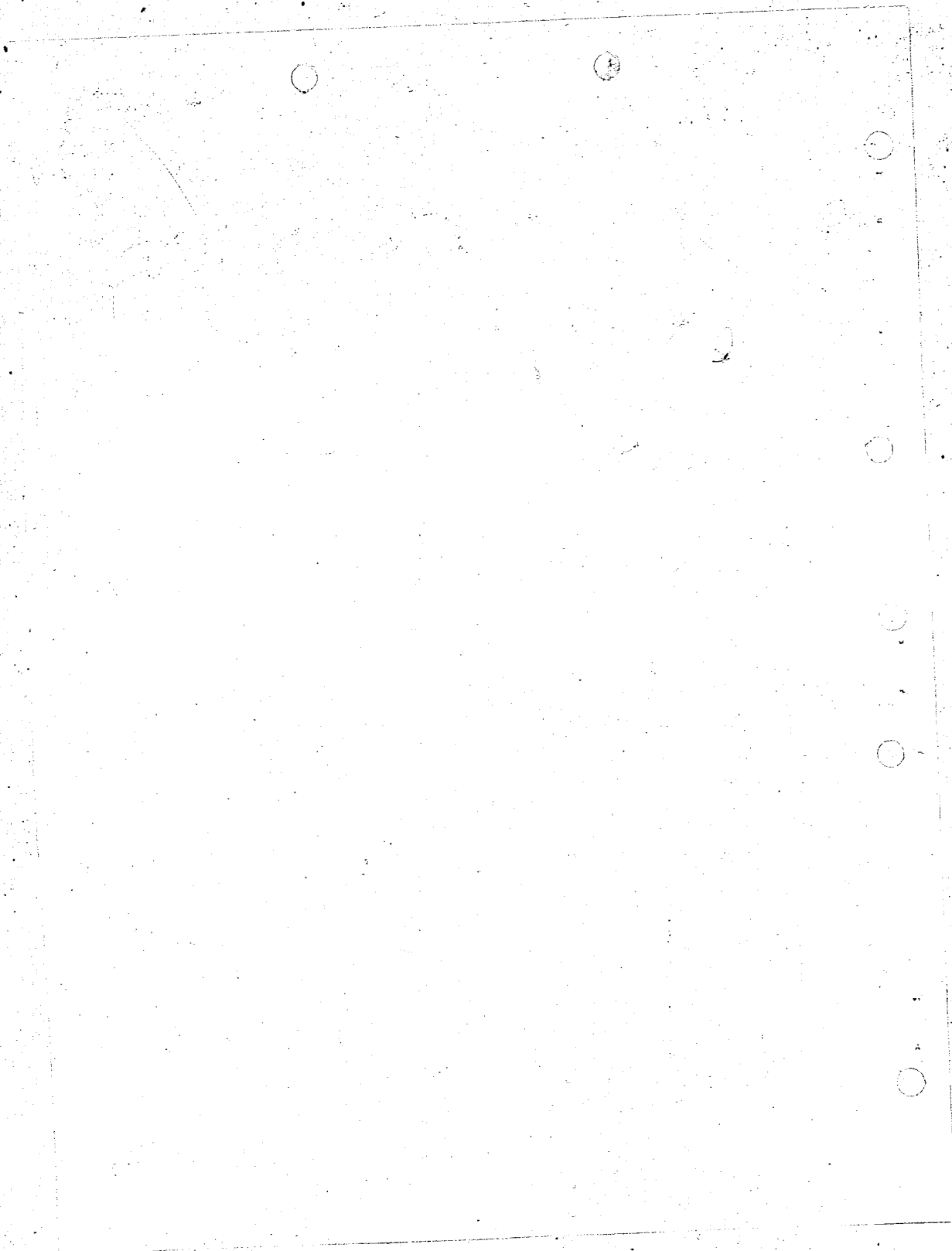
FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84



MALLARD

LOADING CHART

INTRODUCTION

The Civil Aeronautics Administration requires that a loading chart or device be prepared and made a part of the Weight and Balance Report for each individual airplane. This is done by Grumman for every new airplane and also for any airplanes altered at the factory. When the airplane is altered in the field the Loading Chart must be altered accordingly. A method for keeping a running log of the airplane "Basic Weight and Index" is provided on page 9 where all changes may be entered.

In an attempt to provide a more usable Loading Chart, a tabular type chart has been prepared rather than a graph type. Although this method is not quite as accurate as the coordinate graph, it is satisfactory. With this type chart the operator is able to determine take-off and landing weight, center of gravity location to the nearest percent of the M.A.C., and ascertain if these C.G. locations fall within the airplane operational limits. These limits are more conservative than the absolute C.G. limits (15% to 26 $\frac{1}{2}$ %) in that they have been brought in to take into account C.G. travel during flight due to fuel and oil consumption and landing gear retraction.

For simplicity, and in order to agree with all the drawings on the airplane, Hull Station "0", which is 250 inches forward of the Main Step and 10 inches forward of the nose of the airplane, has been selected as the zero datum point for preparing the loading chart.

To simplify the method of depicting moments of the airplane, the term "Index Unit" is used. The "Index Unit" for an item is computed by substituting in the following expression:

$$\text{Index Unit} = \frac{A \times W}{10000}$$

where: A = arm to C.G. of item in inches aft of datum (Hull Sta. 0)
W = weight of item in pounds.

REPORT NO. G73-3

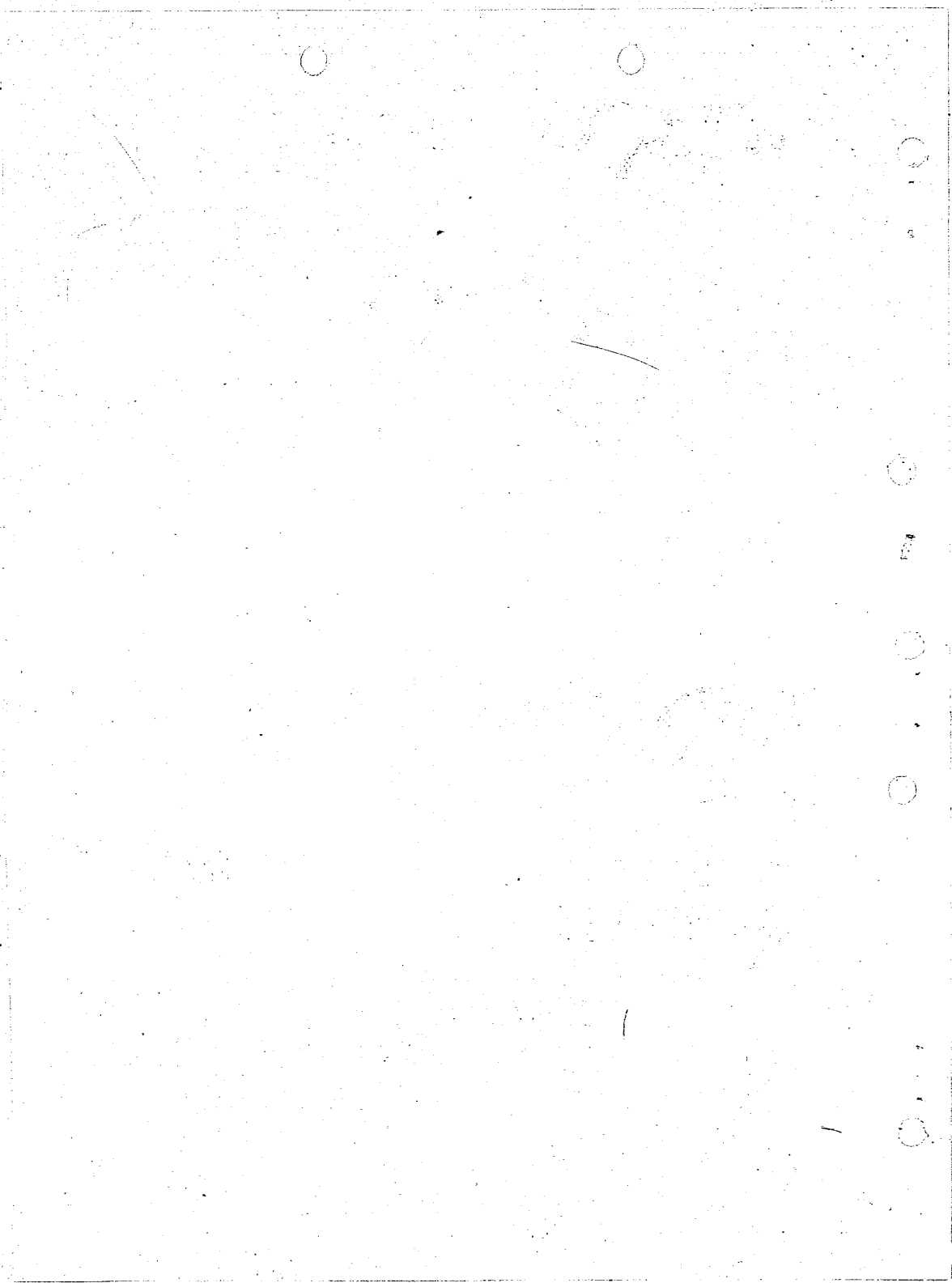
FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84



MALLARD
LOADING CHART

If the engine, oil coolers, oil tank are changed, and the airplane is reweighed before the engine is run, the following weights of residual fuel and oil must be added to obtain the weight empty on page 7. (Add only the ones which apply).

TRAPPED FUEL & OIL

	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>	<u>Index Unit</u>
Fuel & Oil Trapped in:				
- Oil Cooler (10" Dia.)	20.0	200	4000	.4
- Oil Tanks	4.0	218	872	.1
- Engines	46.3	178	8241	.9
- Propeller Syst. Lines	6.1	190.6	1163	.1
- Oil Lines	7.0	197	1379	.1
- Fuel Tanks-3 Pt. Position	26.0	220	5720	.6
- Fuel Lines	3.0	215	645	.1
- Carburetor	1.0	190	190	.0
Trapped Fuel & Oil - 3 Pt. Pos.	113.4	195.8	22210	2.2
Additional Fuel Trapped in Tanks in Flight. (Glide 125 mph flaps and L.G. Down)	30	220	6600	.7
Total Non-Usable Fuel & Oil	143.4	200.9	28810	2.9

The airplane selected as an example includes two three place divans in the forward cabin and four passenger chairs in the rear cabin arranged as indicated on the plan-view outline of the standard airplane on page 8 of the Loading Chart. The passenger locations are numbered according to type of seat and rows reading from front to rear, e.g. D-1, Divan, forward seat. Page 8 shows standard and alternate arrangements, but the positions not applicable to this airplane have been blocked out. The Index unit noted is for one passenger per location. This Index unit is calculated by substituting in the Index Unit Formula, using 170# for each passenger and the arm for each individual chair or place as in the case of the divan. Since the weight of the pilot and co-pilot are added to the empty weight to obtain a basic weight and index unit (on p.8), the index unit is not shown for their position on the diagram.

The next step is to determine the index unit for the Basic airplane. Referring to the Basic Loading Calculation on p.8, the Basic weight is carried forward to the Basic Weight Log on p.9. The "Moment" is then divided by 10,000 and entered under "Index Unit", because

$$\text{"Index Unit"} = \frac{W \times A}{10000} \quad \text{and } W \times A = \text{Moment}$$

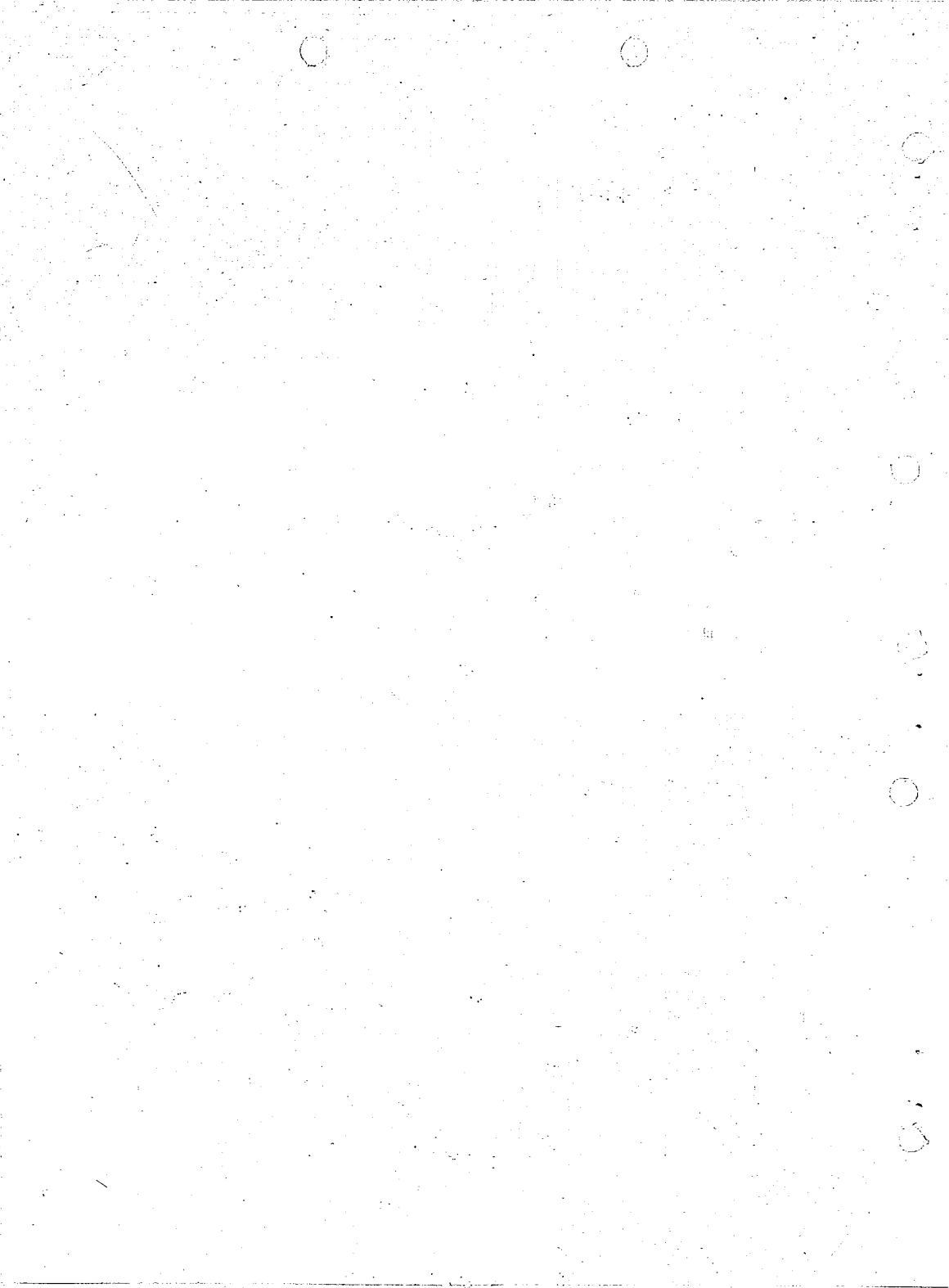
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MALLARD

LOADING CHART

To clarify the use of the loading chart, the following sample loading will be discussed in detail:

SAMPLE LOADING

<u>Item</u>	<u>Weight</u>	<u>Index Unit</u>
Basic Weight (Sample Only)	9000	195.3
Plus items of Useful Load:		
Fuel (180 Gals.)	1080	23.7
Oil (20 Gals.)	150	3.3
Passengers:		
Position D-1 (1)	170	2.8
D-2 (2)	340	6.4
D-3 (1)	170	3.6
RC-1 (2)	340	9.4
RC-2 (2)	340	10.8
Baggage:		
Compt. A	50	.4
Compt. I	20	.7
Compt. J	220	8.8
Take-Off Gross Weight	11880	265.2

The basic weight and index unit is obtained from the Log on p.9. For loading 180 gals. of fuel in the wing tanks, refer to fuel chart on p.10, and follow down the gallon column until 180 is reached, then read across to the right for the weight in the next column and the index unit in the third column. The weight and index unit for the oil and cargo are determined in a similar manner by referring to the appropriate chart on the same page.

The take-off gross weight and index unit is totaled, (the Gross Weight must not exceed the maximum allowable), and by referring to the Center of Gravity Limit Chart (p.11), it is possible to determine the airplane C.G. to the nearest percent of the M.A.C. The index unit will appear on line with the gross weight used only if C.G. is within allowable limits. Since the take-off gross weight for the sample above is 11880 lbs. it is well within the gross weight limitations (p.8). The index unit for

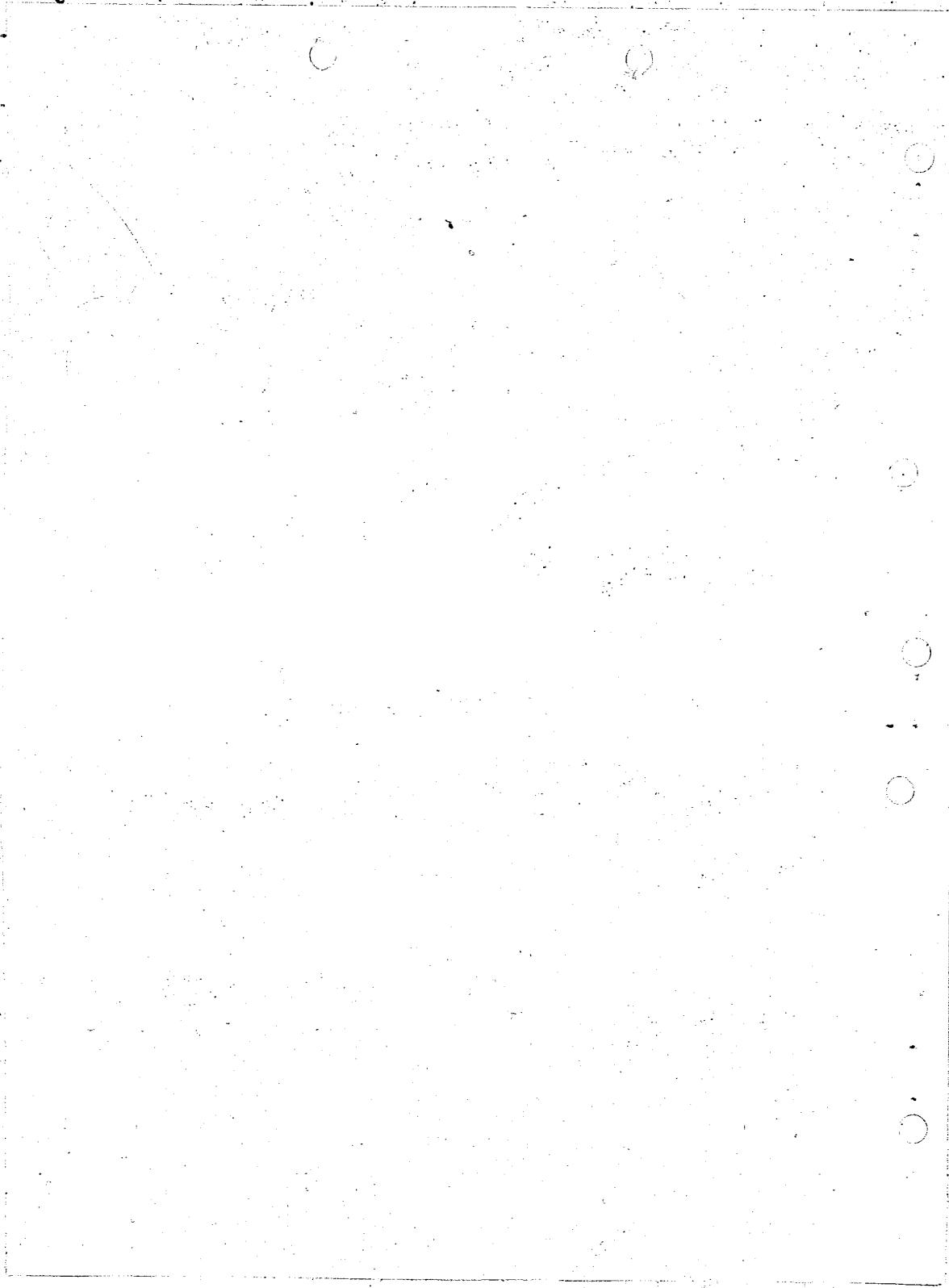
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MALLARDLOADING CHART

this weight is 265.2. Now run your pencil point down the "Gross Weight" side of the chart to 11900# which is closest to 11880#. Then follow across to the right until you reach 265.7 (Reading vertically upward shows a C.G. of 23% M.A.C.). However the index unit representing 11900# at 22% M.A.C. is 264.7, and 265.2 is exactly halfway between. The take-off C.G. then is at approximately 22.5% M.A.C. Since the loading condition falls within the loading limits, the loading is satisfactory. If the C.G. should fall outside the maximum indicated loading limits, the loading must be revised by shifting either passengers or cargo, or both, so that these maximum limits are not exceeded.

It should be noted that cargo or baggage can be substituted for a passenger at the passenger position at any time.

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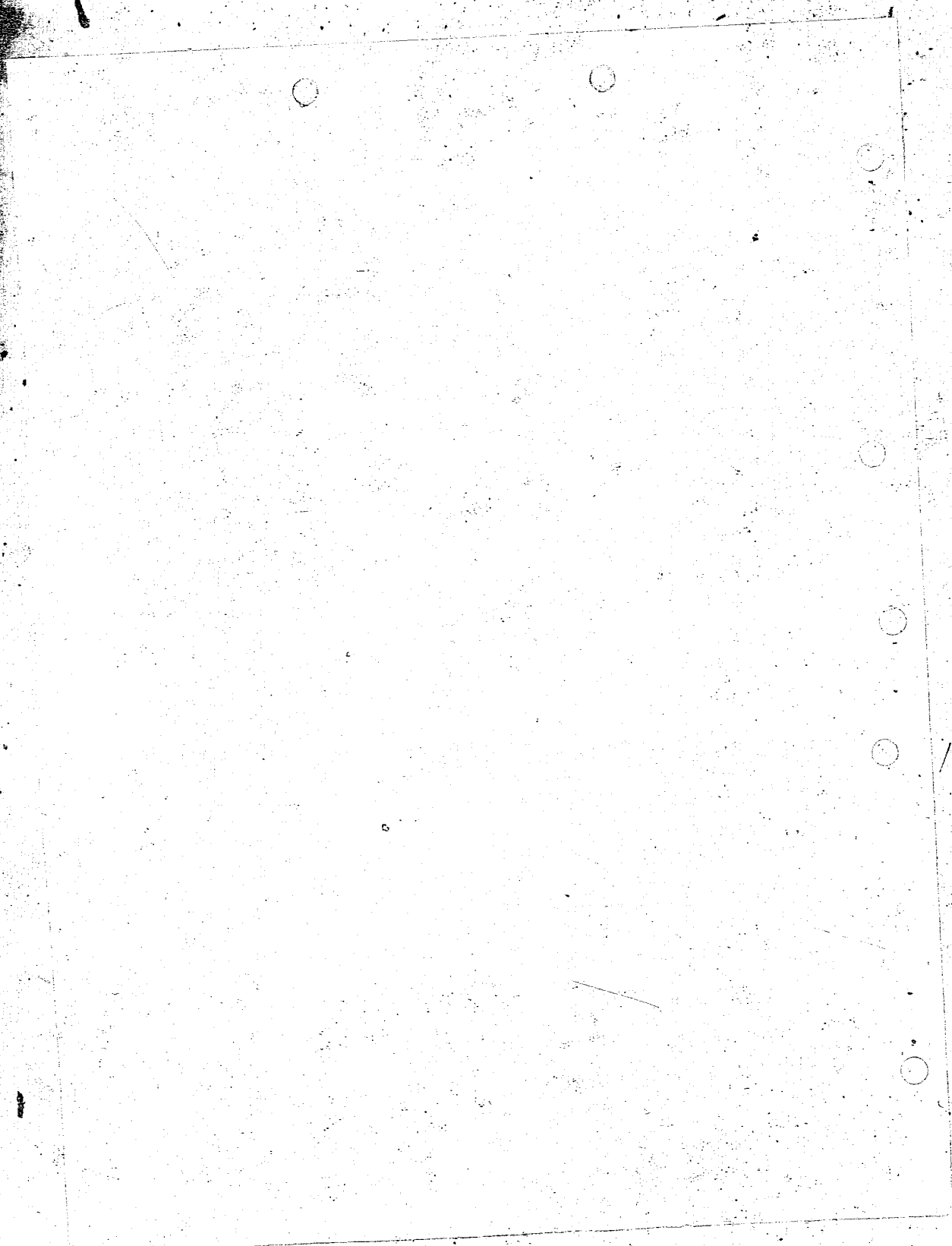
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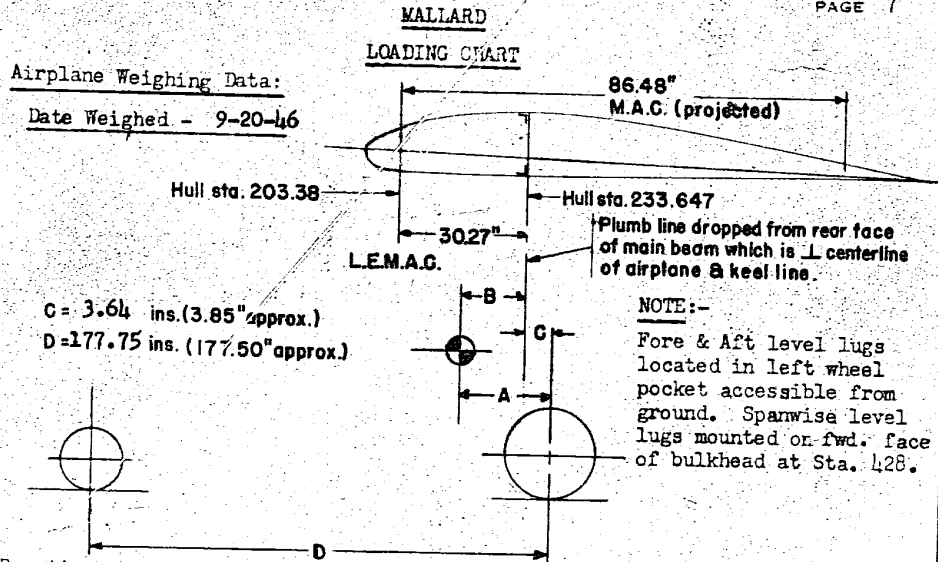
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Airplane Weighing Data:
Date Weighed - 9-20-46

C = 3.64 ins. (3.85" approx.)
D = 177.75 ins. (177.50" approx.)

Plumb line dropped from rear face of main beam which is \perp centerline of airplane & keel line.

NOTE:-
Fore & Aft level lugs located in left wheel pocket accessible from ground. Spanwise level lugs mounted on fwd. face of bulkhead at Sta. 428.

Reactions	Scale Reading	Tare	Corrected Reading
Right Wheel - W_R	4138		4138
Left Wheel - W_L	4149		4149
Nose Wheel - W_N	804		804
	9091		9091

A = C.G. (ins.) forward of centerline Main Wheels = $W_N \times D$

$$\frac{W_R + W_L + W_N (\text{Corrected})}{9091} = \frac{804 \times 177.75}{9091} = 15.72$$

B = C.G. (ins.) fwd. of Rear Face Main Beam = A - C = 15.72 - 3.64 = 12.08
 C.G. inches aft of Reference Datum = 233.65 - B = 233.65 - 12.08 = 221.57

CORRECTION FOR MISSING ITEMS

	Weight	Arm	Moment
Airplane as Weighed	9091	221.57	2014293
Add'l. Trapped Fuel in Flight	+30	220	6600
Drinking Glasses	2	242	484
Engine (2) & Airplane (1) Log Books	2	100	200

Empty Weight 9125 221.54 2021577
 Empty Wt. C.G. = $\frac{221.54 - 203.38}{86.48} \times 100 = 21.00$ M.A.C.

Witnessed
Henry Smith
 C.A.A. Inspector

9-3-46

100-5000-12-45

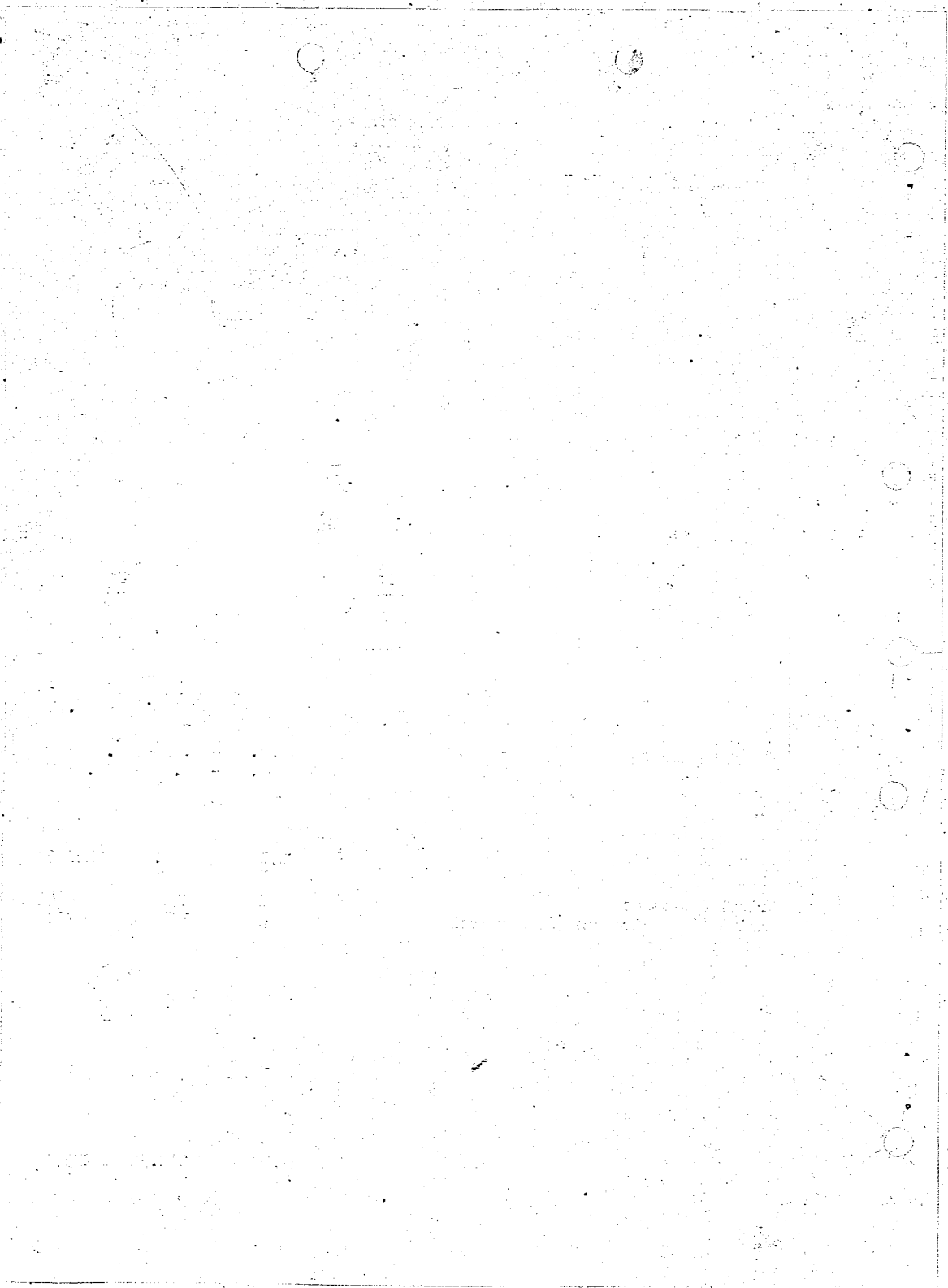
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WALLARD

LOADING CHART

PASSENGER AND CARGO LOADING DIAGRAM

Maximum Allowable Take-Off Gross Weight 12500
Maximum Allowable Landing Gross Weight 12500

STANDARD

ALTERNATE

LOADING CHART DATUM - HULL STATION "0"

Passenger at 170# Each

INDEX UNITS		ROW	COMPT.	ARM	ROW	INDEX UNITS	
1 PASS.	2 PASS.					1 PASS.	2 PASS.
2.8	5.6	D-1	A	70			
3.2	6.4	D-2	B	125			
3.6	7.2	D-3	C	166	FC-1	2.9	5.7
			D	188			
			E	211	FC-2	3.5	7.0
			F	250			
4.7		RC-1	G	278	RC-1	4.7	
5.4		RC-2	H	317	RC-2	5.4	
			I	360	T-1	6.1	
			J	400			

Basic Loading

The following values apply to this airplane as Licensed:

Item	Weight	Arm	Moment	Index Unit
Empty Weight (p.7)	9125	221.54	2021577	202.16
Pilot & Co-Pilot	340	125	42500	4.25
Basic Weight & Index Unit*	9465	218.07	2064077	206.41

* See p.9 for latest Basic Weight & Index Unit.

- NOTE: 1. The airplane shall be so loaded that the plot of Gross Weight vs. Index Units falls within the limiting lines on the Center of Gravity Limit Chart on page 11. Basic Weight and Index Units for the empty airplane plus Pilot & Co-Pilot are given above or on page 9. Index Units for Fuel, Oil, Cargo or Baggage, and Miscellaneous items (Incl. Wash Water) are obtained from their respective tables, and Index Units for Passengers from diagram above.
2. Before adding, removing, or relocating any items of equipment, contact an Inspector of the Civil Aeronautics Administration. See pages 12 to 15 of this report for items of equipment included in the Weight Empty.

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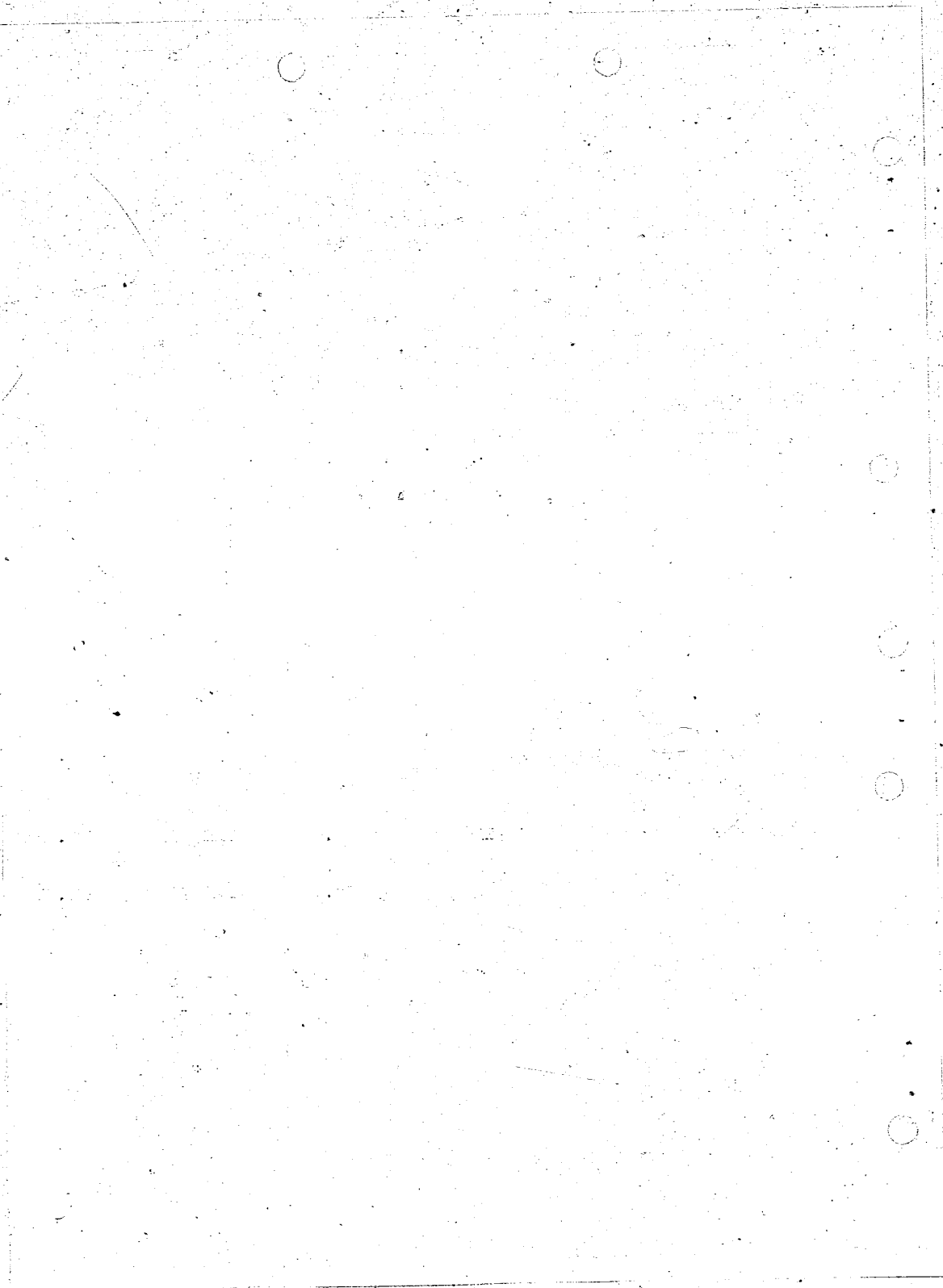
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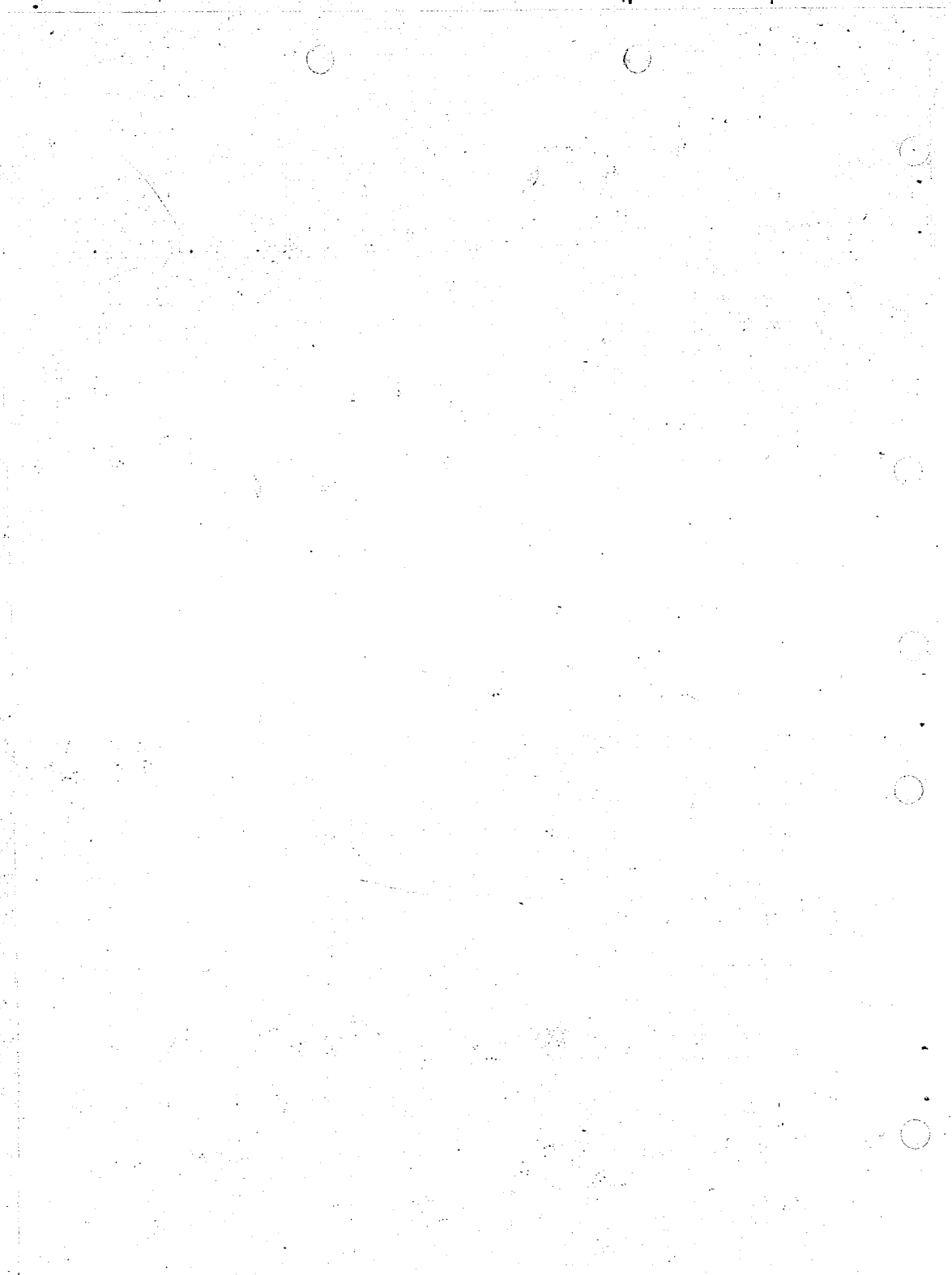
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MALLARD

LOADING CHART

Fuel (6 Lb./Gal.)
(Arm 219.7)

Gal.	Lbs.	Index Units
20	120	2.6
40	240	5.3
60	360	7.9
80	480	10.5
100	600	13.2
120	720	15.8
140	840	18.4
160	960	21.1
180	1080	23.7
200	1200	26.4
220	1320	29.0
240	1440	31.6
260	1560	34.3
280	1680	36.9
300	1800	39.5
320	1920	42.2
330	1980	43.5

Note: Minimum Fuel
for Take-Off
165 Gals.

Oil (7.5 Lb./Gal.)
(Arm 218.0)

Gal.	Lbs.	Index Units
5	37.5	.8
10	75	1.6
15	112.5	2.4
20	150	3.3

Note: 1. Maximum Fuel -
Oil Ratio 25 to 1

Baggage or Cargo ***

Lbs.	Section Letter * & Index Units									
	A	B	C	D	E	F	G	H	** I	J
30	.2	.4	.5	.6	.6	.8	.8	1.0	1.1	1.2
60	.4	.8	1.0	1.1	1.3	1.5	1.7	1.9	2.2	2.4
90	.6	1.1	1.5	1.7	1.9	2.2	2.5	2.9	3.2	3.6
120	.8	1.5	2.0	2.3	2.5	3.0	3.3	3.8	4.3	4.8
150	1.0	1.9	2.5	2.8	3.2	3.8	4.2	4.8	5.4	6.0
180	1.3	2.2	3.0	3.4	3.8	4.5	5.0	5.7	6.5	7.2
210	1.5	2.6	3.5	4.0	4.4	5.2	5.8	6.7	7.6	8.4
240	1.7	3.0	4.0	4.5	5.1	6.0	6.7	7.6	8.6	9.6
270	1.9	3.4	4.5	5.1	5.7	6.8	7.5	8.6	9.7	10.8
300	2.1	3.8	5.0	5.6	6.3	7.5	8.3	9.5	10.8	12.0
330	2.3	4.1	5.5	6.2	7.0	8.2	9.2	10.5	11.9	13.2
360	2.5	4.5	6.0	6.8	7.6	9.0	10.0	11.4	13.0	14.4
390	2.7	4.9	6.5	7.3	8.2	9.8	10.8	12.4	14.0	
420	2.9	5.2	7.0	7.9	8.9	10.5	11.7	13.3	15.1	
450	3.2	5.6	7.5	8.5	9.5	11.2	12.5	14.3	16.2	
480		6.0	8.0	9.0	10.1	12.0		15.2	17.3	
510		6.4	8.5	9.6	10.8	12.8		16.2	18.4	
540		6.8	9.0			13.5		17.1	19.4	
570		7.1	9.5			14.2		18.1	20.5	
600		7.5	10.0			15.0		19.0	21.6	
630			10.5			15.7		20.0	22.7	
660			11.0			16.5		20.9	23.8	
690			11.5			17.2		21.9	24.8	
720			12.0					22.8	25.9	
750								23.8		
780								24.7		
810								25.7		
840								26.6		
870								27.6		
900								28.5		
930								29.5		
960								30.4		
990								31.4		
1020								32.3		
1050								33.3		
1080								34.2		
1110								35.2		

*** Floor Loading must not exceed
50 lbs. per sq. foot.

* See diagram on page 8.
** Includes Wash Water.

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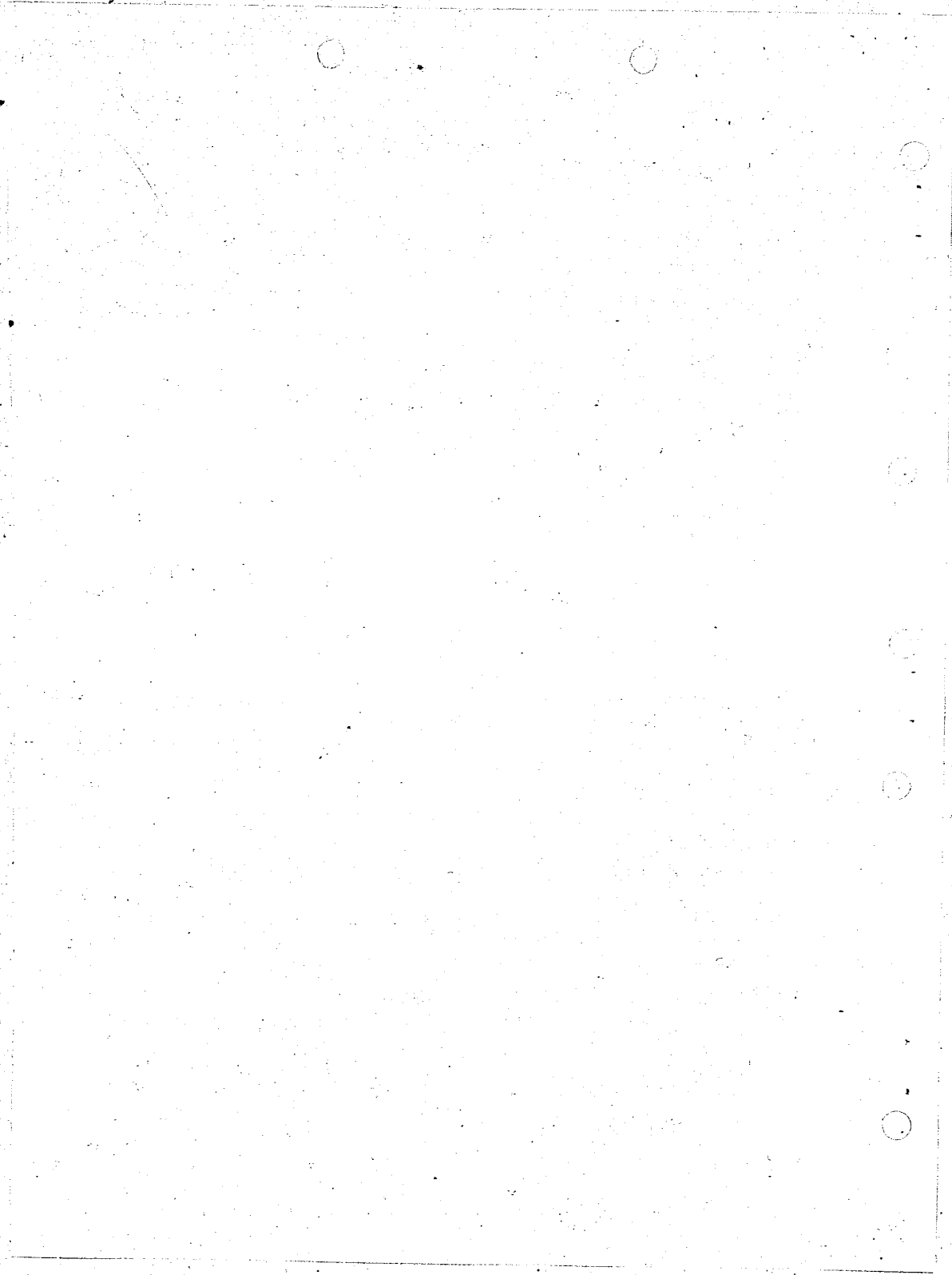
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MALLARD
LOADING CHART

CENTER OF GRAVITY LIMIT CHART

Gross Weight	Center of Gravity in Percent of M.A.C.													
	15%	16%	17%	18%	19%	20%	21%	22%	23%	24%	25%	26%	26.5%	
10000	216.4	217.2	218.1	219.0	219.8	220.7	221.5	222.4	223.3	224.1	225.0	225.9	226.4	
10050	217.4	218.3	219.2	220.0	220.9	221.8	222.6	223.5	224.4	225.3	226.1	227.0	227.5	
10100	218.5	219.4	220.3	221.1	222.0	222.9	223.8	224.6	225.5	226.4	227.3	228.1	228.6	
10150	219.6	220.5	221.4	222.2	223.1	224.0	224.9	225.7	226.6	227.5	228.4	229.2	229.7	
10200	220.7	221.6	222.4	223.3	224.2	225.1	226.0	226.9	227.7	228.6	229.5	230.4	230.9	
10250	221.8	222.7	223.5	224.4	225.3	226.2	227.1	228.0	228.9	229.7	230.6	231.5	232.0	
10300	222.8	223.7	224.6	225.5	226.4	227.3	228.2	229.1	230.0	230.9	231.8	232.6	233.1	
10350	223.9	224.8	225.7	226.6	227.5	228.4	229.3	230.2	231.1	232.0	232.9	233.8	234.3	
10400	225.0	225.9	226.8	227.7	228.6	229.5	230.4	231.3	232.2	233.1	234.0	234.9	235.4	
10450	226.1	227.0	227.9	228.8	229.7	230.6	231.5	232.4	233.3	234.2	235.1	236.0	236.5	
10500	227.2	228.1	229.0	229.9	230.8	231.7	232.6	233.5	234.4	235.3	236.3	237.2	237.7	
10550	228.2	229.2	230.1	231.0	231.9	232.8	233.7	234.6	235.5	236.5	237.4	238.3	238.8	
10600	229.3	230.3	231.2	232.1	233.0	233.9	234.8	235.8	236.7	237.6	238.5	239.4	239.9	
10650	230.4	231.3	232.3	233.2	234.1	235.0	235.9	236.9	237.8	238.7	239.6	240.5	241.0	
10700	231.5	232.4	233.3	234.3	235.2	236.1	237.0	238.0	238.9	239.8	240.8	241.7	242.2	
10750	232.6	233.5	234.4	235.4	236.3	237.2	238.2	239.1	240.0	241.0	241.9	242.8		
10800	233.6	234.6	235.5	236.5	237.4	238.3	239.3	240.2	241.1	242.1	243.0	243.9		
10850	234.7	235.7	236.6	237.6	238.5	239.4	240.4	241.3	242.2	243.2	244.1	245.1		
10900	235.8	236.8	237.7	238.7	239.6	240.5	241.5	242.4	243.4	244.3	245.3	246.2		
10950	236.9	237.9	238.8	239.8	240.7	241.6	242.6	243.5	244.5	245.4	246.4	247.3		
11000	238.0	238.9	239.9	240.8	241.8	242.7	243.7	244.7	245.6	246.6	247.5	248.4		
11050	239.1	240.0	241.0	241.9	242.9	243.9	244.8	245.8	246.7	247.7	248.6	249.6		
11100	240.1	241.1	242.1	243.0	244.0	245.0	245.9	246.9	247.8	248.8	249.8	250.7		
11150	241.2	242.2	243.2	244.1	245.1	246.1	247.0	248.0	248.9	249.9	250.9	251.8		
11200	242.3	243.3	244.2	245.2	246.2	247.2	248.1	249.1	250.1	251.0	252.0	253.0		
11250	243.4	244.4	245.3	246.3	247.3	248.3	249.2	250.2	251.2	252.2	253.1	254.1		
11300	244.5	245.5	246.4	247.4	248.4	249.4	250.3	251.3	252.3	253.3	254.3	255.2		
11350	245.6	246.5	247.5	248.5	249.5	250.5	251.4	252.4	253.4	254.4	255.4	256.4		
11400	246.6	247.6	248.6	249.6	250.6	251.6	252.6	253.5	254.5	255.5	256.5	257.5		
11450	247.7	248.7	249.7	250.7	251.7	252.7	253.7	254.7	255.6	256.6	257.6	258.6		
11500	248.8	249.8	250.8	251.8	252.8	253.8	254.8	255.8	256.8	257.8	258.8	259.7		
11550	249.9	250.9	251.9	252.9	253.9	254.9	255.9	256.9	257.9	258.9	259.9	260.9		
11600	251.0	252.0	253.0	254.0	255.0	256.0	257.0	258.0	259.0	260.0	261.0	262.0		
11650	252.0	253.1	254.1	255.1	256.1	257.1	258.1	259.1	260.1	261.1	262.1	263.1		
11700	253.1	254.1	255.2	256.2	257.2	258.2	259.2	260.2	261.2	262.2	263.3	264.3		
11750	254.2	255.2	256.2	257.3	258.3	259.3	260.3	261.3	262.3	263.4	264.4	265.4		
11800	255.3	256.3	257.3	258.4	259.4	260.4	261.4	262.4	263.5	264.5	265.5	266.5		
11850	256.4	257.4	258.4	259.5	260.5	261.5	262.5	263.6	264.6	265.6	266.6	267.6		
11900	257.5	258.5	259.5	260.6	261.6	262.6	263.6	264.7	265.7	266.7	267.8	268.8		
11950	258.5	259.6	260.6	261.6	262.7	263.7	264.7	265.8	266.8	267.8	268.9	269.9		
12000	259.6	260.7	261.7	262.7	263.8	264.8	265.8	266.9	267.9	269.0	270.0	271.0		
12050	260.7	261.8	262.8	263.8	264.9	265.9	267.0	268.0	269.0	270.1	271.1	272.2		
12100	261.8	262.8	263.9	264.9	266.0	267.0	268.1	269.1	270.2	271.2	272.3	273.3		
12150	262.9	263.9	265.0	266.0	267.1	268.1	269.2	270.2	271.3	272.3	273.4	274.4		
12200	263.9	265.0	266.1	267.1	268.2	269.2	270.3	271.3	272.4	273.5	274.5	275.5		
12250	265.0	266.1	267.1	268.2	269.3	270.3	271.4	272.5	273.5	274.6	275.6	276.7		
12300	266.1	267.2	268.2	269.3	270.4	271.4	272.5	273.6	274.6	275.7	276.8	277.8		
12350	267.2	268.3	269.3	270.4	271.5	272.5	273.6	274.7	275.7	276.8	277.9	278.9		
12400	268.3	269.4	270.4	271.5	272.6	273.6	274.7	275.8	276.9	277.9	279.0	280.1		
12450	269.4	270.4	271.5	272.6	273.7	274.7	275.8	276.9	278.0	279.1	280.1	281.2		
12500	270.4	271.5	272.6	273.7	274.8	275.9	276.9	278.0	279.1	280.2	281.3	282.3		

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MALLARD
LOADING CHART

STANDARD EQUIPMENT

(Installed items are checked "x")

Installed	Item No.	Item	Weight		Index Unit Each
			Each	Arm	
		<u>Propellers & Propeller Accessories (Except De-icing Equipment)</u>			
x		Two Hamilton Std. Propellers - 8'7" Dia. 3 Blade #6533A-13, Hub 23D40-51	252	155	3.91
x		Two Ham. Std. Propeller Governors #4K11-T4T	5.8	163	.09
x		Two Ham. Std. Prop. Feathering Motor Relays #62730-1	1.9	197	.04
x		Two Ham. Std. Prop. Feathering Motors #59664-11	11.9	197	.23
x		Two Ham. Std. Prop. Feathering Switches #54267	.3	120	-
		<u>Engines & Engine Accessories - Fuel & Oil Systems</u>			
x		✓ Two Pratt & Whitney #R-1340-53H1 Engines	858	172.1	14.77
x		Two Sets Stainless Steel Exhaust Collectors (GARC 109025 Manifold assembly 109004 Exhaust System Instal.)	41.2	190	.78
x		Two Ten Gal. Oil Tanks (GARC 109126, 109002 Oil System Instal.)	9.9	218	.22
x		Two Aluminum Oil Coolers (Clifford 10" Dia. x 9" Long #B-36698 with WAP 4 Port Valve #UD4785)	18.0	185	.33
x		Two Eclipse Starters #1416-15	26.7	192	.51
x		One Engine Compt. Fire Control System Using Walter Kilde Cylinders #80939 & #82429 Valves	66	225	1.48
x		Residual Fuel & Oil in Drained System			
		Fuel -	30.0	218.5	.66
		Oil -	83.4	187.7	1.56
		<u>Landing Gear</u>			
x		Two Main Landing Shock Struts Bendix #69629 LH - 69630 RH	88	237.5	2.09
x		One Nose Wheel Shock Strut Bendix #69631	50	57	.28
x		Two Alum. Wheel Assemblies - Goodyear 9.50x16 (Incl. Brakes, 6-Ply Nylon Tires and Tubes)	120	237.5	2.85
x		One Nose Wheel-Bendix #145308 19x6.80-10 (Incl. Fairing 6-Ply Goodrich Rayon Tire and Tube)	37	60	.22
x		Two Auxiliary Wing Floats GARC #108201	35	225	.79

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MALLARD
LOADING CHART

STANDARD EQUIPMENT (Cont.)

(Installed items are checked "x")

Installed	Item No.	Item	Weight		Index Unit Each
			Each	Avn	
		<u>Electrical & Radio Equipment</u>			
x		Two Generators Type 1273-3 Eclipse (J-1, J-2, J-3, only)	31.9	175.5	.56
x		One Battery AN3150 34 AH (12-Ts-9L)	72.6	230	1.67
x		Two Landing Lights #G-3801-1 Grines	6.5	220	.14
x		Misc. Radio Instal. Bow Compt.	93.3	60	.56
		Rear Compt.	94.5	414	3.91
		Misc.	69.3	140	.97
		<u>Interior Equipment</u>			
		<u>Miscellaneous Cabin Furnishings</u>			
x		(a) Four Passenger Chairs(Rear Cabin)	35	297	1.04
x		(b) Passenger Chair Leather Upholstery(each)	35	188	
x		(c) 0, 2, 2, 2, 2, 2 Passenger Chairs (Forward Cabin)	92	188	
x		(d) 2 Divans (Forward Cabin)		188	
x		(e) Divan Leather Upholstery (Each)	2.4	240	.06
x		(f) Two End Tables GAC #111350	5.8	425	.25
x		(g) One Revolving Table GAC #111046(Stowed)			
x		(h) Four Storage Cabinets			
x		(i) One Toilet Compt. (Incl. Wash Basin & Tank)	6.0	244	.15
x		(j) Thermos Jug Instal.(Incl. 9 Glasses) (2 Qt.)	17.0	238	.40
x		(k) Carpet Floor Covering			
x		(l) One Cabin Heating & Ventilating System Using Surface Combustion Heater #ADS-100N-PhC	7	225	.16
x		(m) Two Hand Operated Fire Extinguishers 1 Qt. Pyrene	15.9	110	.17
x		Control Column with Throw-Over Wheel & Auxiliary Arm	70.5	100	.70
x		Instruments - As listed in Mallard Engineering Spec. #3.1			
		Heavier Exterior Finish (White Maximum)			
		<u>Miscellaneous (Not Listed Above)</u>			
x		One Windshield Wiper Instal.(Kearfott)	19	60	.11
x		One MK IV Danforth Anchor with 100 Ft. 1/2" Nylon Rope	3	345	.10
x		One First Aid Kit			
x		Literature (2 Engine Log Books, 1 Airplane Log Book and 1 Loading Schedule)	2.6	93	.02
x		One Map Case	23.2	455	1.06
x		Two Parachute Flares - 3 Min.	8.6	41	.04
x		One Bilge Pump - Perko			

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G103-10M-8-46

GRUMMAN AIRCRAFT ENGINEERING CORPORATION

Report No. 673-3

FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84

[Redacted area]

MALLARD
LOADING CHART

STANDARD EQUIPMENT (Cont.)

(Installed items are checked "x")

Installed	Item No.	Item	Weight Each	Arm	Index Unit Each
x		<p><u>Miscellaneous (Cont.)</u></p> <p>One Boarding Ladder</p> <p>The following items are Not included in Weight Empty:-</p> <p>One Erection & Maintenance Manual</p> <p>One Engine Manual</p> <p>One Propeller Manual</p> <p>One Set of Engine & Propeller Tools</p>	4.7	390	.18

9-3-46

G103-10M-6-46

FAA AIRCRAFT REGISTRY

CAMERA NO.

5

DATE:

9-7-84

[Redacted area]

MALLARD
LOADING CHART

SPECIAL EQUIPMENT

(Installed items are marked "X")

Installed	Item No.	Item	Weight Arm		Index Unit
			Each	Each	Each
	1 Ea.	Automatic Pilot - Sperry Type A-12	150		
	1 Ea.	Wing & Tail Deicer Installation - Goodrich	125		
	1 Ea.	Propeller Anti-icer Installation	60		
	1 Ea.	"Ship to Shore" Radio Telephone - Avidometer Corp.			
	1 Ea.	Very's Pistol			
	1 Ea.	Hoisting Sling GAEC #106224			
		Jacking Points #GT-109, 112342 & 112343			
	1 Ea.	Fuel Gas Analyzer - Dual Type			
	1 Ea.	Towing Bar GAEC #SP2052			
	1 Ea.	Engine Work Platform			
		Life Preservers			
		Collapsible 4 Man Life Raft-MK IV			
		Chest Type Parachutes-SWITLIK Q.B.			
	1 Ea.	Add'l Sensitive Altimeter - Instrument Operation Only			
	1 Ea.	Set of Wheel Brakes for Co-Pilot			
	1 Ea.	Bird Proof Windshield GAEC #107469 (In Lieu of Std.)			
	1 Ea.	Position Light Flasher	2.1		
	2 Ea.	Tail Light-Model C-Grimes - 1 Red - 1 White 32CP			
	20 Ea.	Fire Detectors - Engine Comp. - Al981 Wilcolator	.15		
	4 Ea.	Solenoid Shut-Off Valves for Fuel & Oil Gages General Controls #4OR342			
	1 Ea.	Vacuum Syst. Instal. GAEC #109009 in Lieu of #109006			
	1 Ea.	Altitude Recording Device - For Recording of Altitude & Use of Radio Transmitter			
	1 Ea.	Add'l. Airspeed Indicator-Instrument Operation Only			
	1 Ea.	Electrically Heated Pitot for Add'l Airspeed Indicator Oxygen Provision for Crew. Operation above 10000 Ft. for more than 30 min. or above 12000 ft. for any time.			
		Oxygen provision for passengers separate from crew. Operation above 12000 ft.			
	2 Ea.	Flashlights Accessible to both Pilots			
	1 Ea.	Signs "Fasten Seat Belt", "No Smoking" "Use Oxygen Equipment", operable by either pilot or copilot			
	1 Ea.	Fuel Pressure Warning Indicator			
	1 Ea.	Oil Pressure Warning Indicator			

9-3-46

G103-104-5-45

GRUMMAN AIRCRAFT ENGINEERING CORPORATION Report No. G73-3

FAA AIRCRAFT REGISTRY

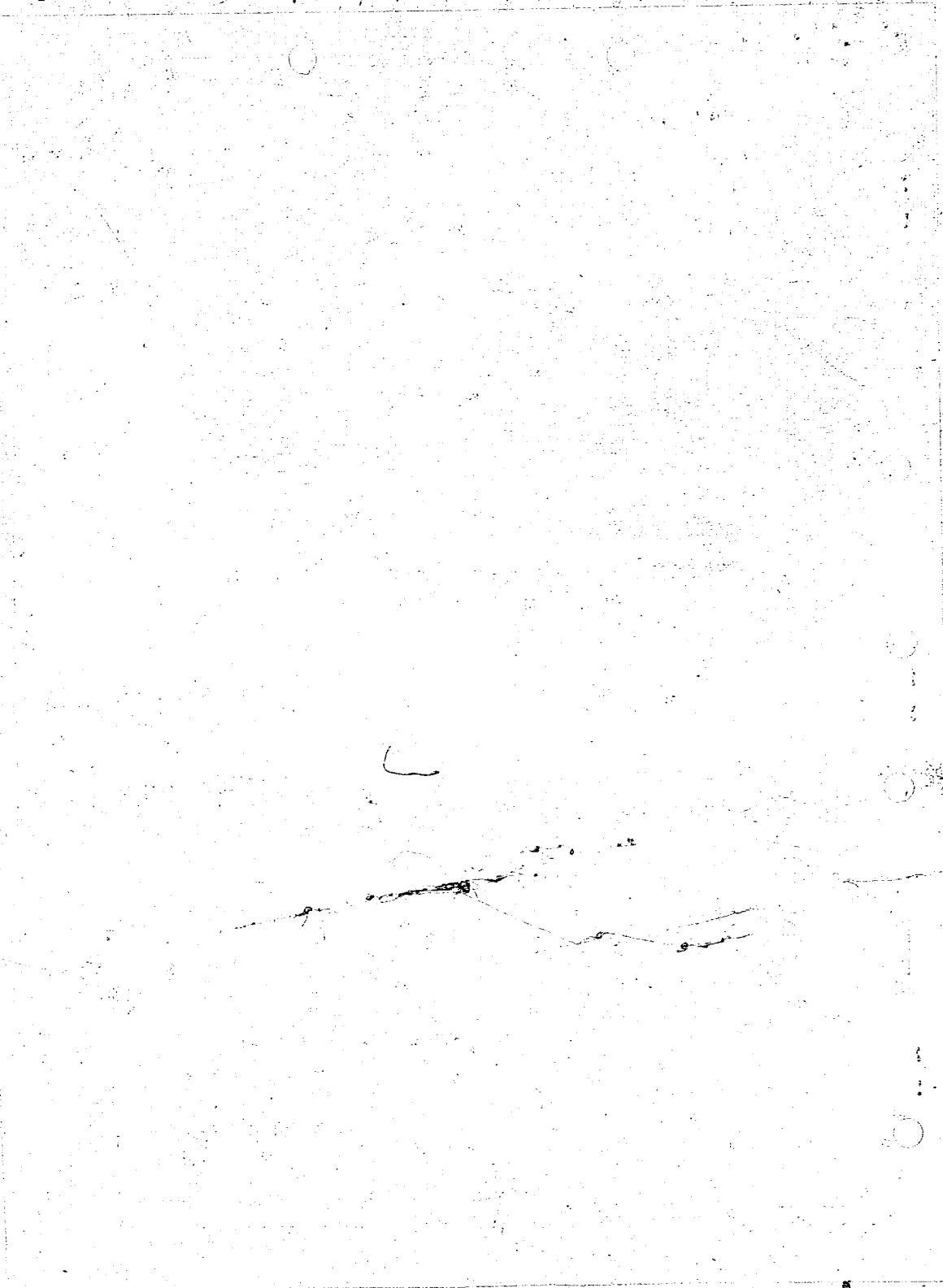
CAMERA NO.

5

DATE:

9-7-84

[Redacted area]



Form No. R-89

DEPARTMENT OF COMMERCE
AERONAUTICS BRANCH

OPERATION INSPECTION REPORT

OWNER Chas E. Churchville
ADDRESS Trattle Creek Iowa
HOME AIRPORT _____

POWER PLANT

ENGINE NO 83139 TYPE A RATED H. P. 50 BORE 4.72 STROKE 5.12
MANUFACTURER Simplex Wright
Cylinder water jackets
Exhaust pipes Broken - need welding
Water pump packing _____
Engine bed bolts
Cylinder base nuts

Distributor heads and ignition
Magnetos and wiring
Carburetors 2000 intakes out of cowling
Spark plugs and make Champion
Gas lines and hose connections fair
Oil lines and hose connections fair
Gas valves

Gas tank Has pressure system Main _____ Gravity _____
Gas strainer _____
Hand air pump
Air pressure yes
Sylphon pump none
Radiator
Water lines and Hose Clamps
Oil tanks
Is altitude control safetied at carburetor? yes
Propeller wood Make Hamilton No. 763
REMARKS: _____

ENGINE CONTROLS

Shutters none
Shutter controls _____
Throttle controls
Spark controls none
Altitude controls none
REMARKS: _____

AIRPLANE

MANUFACTURER Standard (Robinson) MFG. NO. none
TYPE J-1

ENGINE SECTION—CONDITION OF THE FOLLOWING

Bearers
Brace wires or tubes
Radiator mount
Cowling
Support to Fuselage
REMARKS: _____

LANDING GEAR—CONDITION OF THE FOLLOWING

Wheels *center wheel is on*
 Shock absorbers
 Axle
 Streamline
 Landing gear struts
 Fittings
 Cross brace Wires
 REMARKS:

CENTER SECTION—CONDITION OF THE FOLLOWING

Gas tank in center section? *no*
 Ribs
 Cross brace wires
 Cross brace wire fittings
 Struts
 Strut fitting
 Strut fitting on longerons
 REMARKS:

PILOT'S COCKPIT—CONDITION OF THE FOLLOWING

Seat
 Life belts and life preservers?
 Seat supports
 Fire extinguisher
 First aid kit
 Cowling
 Control stick or wheel
 Control stick supports
 Control stick fittings
 Is there any interference to prevent movement of stick?
 Rudder bar
 Rudder bar supports
 Rudder bar fittings
 Will rudder bar jam in extreme position?
 Is there any lost motion in aileron, rudder, or elevator controls?
 Location of instruments
 REMARKS:

PASSENGERS' COCKPIT OR COMPARTMENT—CONDITION OF THE FOLLOWING

Life belts and life preservers? *yes*
 Seat
 Seat support
 Cowling
 If dual control, can dual control be removed? *yes*
 Can passengers or baggage interfere with rudder controls? *no*
 REMARKS:

REAR FUSELAGE CONSTRUCTION—CONDITION OF THE FOLLOWING

Longerons
 Longeron fittings
 Compression members
 Cross brace wires
 Are any splices noted? *no*
 Tail skid
 Tail skid shoe
 Tail skid fittings
 Tail skid shock absorber
 Fabric *no*
 REMARKS:

FAA AIRCRAFT REGISTRY
 STAMPEL
 24-1927
 (2)

LEFT WINGS AND ALERONS—CONDITION OF THE FOLLOWING

Lower wing	Upper wing
Spars ✓	✓
Are any splices noted? <i>no</i>	✓
Ribs <i>3 fabric ribs broken</i>	✓
Are nails and glue in good condition? <i>yes</i>	✓
Drag bracing ✓	✓
Drag bracing spar fittings ✓	✓
Wing butt fittings ✓	✓
Aileron hinges ✓	✓
Aileron horn <i>none</i>	✓
Aileron fittings ✓	✓
Struts ✓	✓
Strut fittings ✓	✓
Fabric <i>seam underneath near fuselage</i>	✓

REMARKS:

RIGHT WINGS AND ALERONS—CONDITION OF THE FOLLOWING

Lower wing	Upper wing
Spars ✓	✓
Are any splices noted? <i>no</i>	✓
Ribs <i>3 fabric ribs broken</i>	✓
Are nails and glue in good condition? <i>yes</i>	✓
Drag bracing ✓	✓
Drag bracing spar fittings ✓	✓
Wing butt fittings ✓	✓
Aileron hinges ✓	✓
Aileron horn <i>none</i>	✓
Aileron fittings ✓	✓
Struts ✓	✓
Strut fittings ✓	✓
Fabric ✓	✓

REMARKS:

STABILIZER, ELEVATORS, AND RUDDER SURFACE—CONDITION OF THE FOLLOWING

Fittings ✓
Spars ✓
Ribs ✓
Drag bracing ✓
Struts ✓ <i>no cotter pins</i>
Strut fittings ✓
Elevator horns ✓
Elevator hinges ✓ <i>wires not cottered</i>
Elevator fittings ✓
Rudder horns ✓
Rudder hinges ✓
Rudder fittings ✓
Fabric <i>rotten - Paint in cotter pins</i>

REMARKS:

