

University of Dubuque
2000 University Ave, Dubuque, IA 52001-5099

Weight and Balance Change

and
Equipment List Revision

A/C Registration Number: N5209Z
A/C Serial Number: 17281119
A/C Make: Cessna
A/C Model: 172R
A/C Year: 2002
WB Date: 17-Apr-07

Previous data taken from document dated: 5-Feb-04

Description of work: W/B updated to utilize max ramp weight in lieu of max take off weight.

		WEIGHT	ARM	MOMENT
Previous data:	5-Feb-04	1691.98	40.42	68389.74
Items removed:				
Items installed:				


1691.98

68389.74

Aircraft gross weight: 2457.0 Maximum Ramp Weight
New A/C empty weight: 1691.98
New A/C empty weight CG: 40.42
New A/C useful load: 765.02

(Max take off weight 2450.0)

AP:


James S. Jenkins AP3015266

University of Dubuque
2000 University Ave, Dubuque, IA 52001-5099

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A/C Registration Number: N5209Z
A/C Serial Number: 17281119
A/C Make: Cessna
A/C Model: 172R
A/C Year: 2002
WB Date: 5-Feb-04

Previous data taken from document dated 1-Nov-02

Description of work

		WEIGHT	ARM	MOMENT
Previous data:	1-Nov-02	1691.10	40.46	68413.72
Items removed:				0
Items installed:				
Tanis heater kit PN: TAS-100-02		1.1	-18.6	-20.46

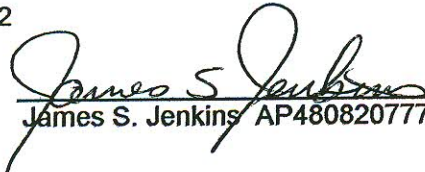
1692.20

68393.26

Aircraft gross weight: 2457.0 Maximum Ramp Weight
New A/C empty weight: 1692.20
New A/C empty weight CG: 40.42
New A/C useful load: 759.2

(Max take off weight 2450.0)

AP:


James S. Jenkins AP480820777

Weight / Balance & Equipment List Revision

Page # : 1

TIM McCANDLESS, INC. - RO2R142L

2720 Betsworth Dr. Waterloo IA 50703

319-232-1234

WB ID # : 134

A/C Tail # : N5209Z

Register Name : UNIVERSITY OF DUBUQUE

Address : 2000 University

City, State, PC : DUBUQUE, IA 52001

A/C Make : CESSNA

A/C Model : 172R

A/C Serial # : 17281119

WO Ref # :

WB Date : Nov-01-2002

Previous data taken from document dated Sep-04-2002 Previous useful load = 766.60

Model / Part #	Description	Weight	CG/Arm	Moment
	Previous data ->	1683.40	40.21	67679.00
* REMOVED				
KI209A	NAV INDICATOR	1.20	13.90	16.68
S3330-1	DIRECTIONAL GYRO	2.30	14.00	32.20
REMOVED	2 Items @	3.50	13.97	48.88
* INSTALLED				
KI 525A	HSI	4.00	13.00	52.00
KG-102A	DIRECTIONAL GYRO	4.30	120.00	516.00
KMT 112	FLUX GATE p/n`	0.30	146.00	43.80
KN 72	VOR/LOC CONVERTER	1.30	120.00	156.00
KA 51B	SLAVING ACCESSORY	0.30	16.00	4.80
RS08	RELAYS	1.00	11.00	11.00
INSTALLED	6 Items @	11.20	69.96	783.60
NEW DATA >>	NEW USEFUL LOAD = 758.90	1691.10	40.46	68413.72

It is the operators responsibility to determine that the aircraft remains within safe Weight and Balance limits. Refer to weight and balance data sheet and loading schedule and center of gravity chart for proper loading.


Authorized Individual :

Revised
09-05-04 G



No Log Entry

FLYING SERVICE INC.

10800 Airport Road • Dubuque, IA 52003 • Phone: 1563-582-1293

Weight And Balance Change

DATE: 9 / 4 / 2002

A/C Make: Cessna

Year: 2002

Model: 172R

OWNER: University of Dubuque

Serial No.: 17281119

Registration: N5209Z

Revises W & B Dated: 6/28/2002

DESCRIPTION OF WORK Removed Wheel Fairing

	WEIGHT	ARM	MOMENT
Previous A/C Empty Weight	1697	40.238	68,284

ITEMS REMOVED

<u>Nose Wheel Fairing</u>	<u>- 3.5</u>	<u>-3.5</u>	<u>12.25</u>
<u>2 each Main Wheel Fairings</u>	<u>-10.1</u>		<u>- 617.11</u>

SUPERSEDED

ITEMS INSTALLED

DATE Nov 1, 2002

	<u>1683.4</u>		<u>67,679</u>
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AIRCRAFT GROSS WGT.: 2450 (Take-off Weight)

NEW A/C EMPTY WGT.: 1683.4

NEW A/C E.W.C.G.: 40.21

NEW A/C USEFUL LOAD.: 766.6

FAA REPAIR STATION #D2FR184J
INSPECTOR [Signature]
W/O NUMBER 68410

WEIGHT & BALANCE AND INSTALLED EQUIPMENT DATA

CESSNA AIRCRAFT COMPANY
SINGLE ENGINE DIVISION



MODEL	SERIAL & REGISTRATION		WEIGHT	ARM	MOMENT
172R	17281119	N5209Z	(lbs)	(in)	(lb-in)
(calculated)	STANDARD EMPTY WEIGHT		1,642.0	39.853	65,439
INSTALLED EQUIPMENT			<i>Net Change from Standard Aircraft</i>		
ALTIMETER WITH 20 FT. MARKINGS, INCHES OF MERCURY			0.0	0.000	0
BASIC AVIONICS ITEMS, USED W/1ST NAV/COM			0.0	0.000	0
C/B PNL EXCHANGE			0.2	16.500	3
DIRECTIONAL GYRO EXCHANGE			0.5	14.000	7
DUAL AXIS AUTOPILOT			19.7	91.200	1,797
DUAL PUMP, ENGINE DRIVEN VACUUM SYSTEM			0.0	0.000	0
EMERGENCY LOCATOR TRANSMITTER INSTL			0.0	0.000	0
ENGINE, LYCOMING IO-360-L2A			0.0	0.000	0
GYRO INSTALLATION			0.0	0.000	0
KLN 94 GPS INSTALLATION			4.8	15.000	72
KMA 28 AUDIO/INTERCOM/MARKER BEACON INSTL			0.0	0.000	0
KT 76C MODE C TRANSPONDER INSTL			0.0	0.000	0
KX 155A NAV/COM #1 INSTALLATION - NO G.S			0.0	0.000	0
KX 155A NAV/COM #2 INSTALLATION W/G.S.			6.8	17.300	118
MD41-231 GPS/NAV SELECTOR			0.2	16.500	3
MULTI-FUNCTION DISPLAY INSTALLATION			6.1	13.100	80
PILOT CONTROL WHEEL EXCHANGE			0.2	26.000	5
PROPELLER ASSY, MCCAULEY, FIXED PITCH, 1C235/LFA7570			0.0	0.000	0
VINYL/FABRIC SEATS			0.0	0.000	0
WHEEL FAIRING INSTALLATION			16.5	46.100	761

The weight and balance data shown in this report are computed on the basis of Federal Aviation Administration approved procedures for establishing fleet weight averages. [Far 21.327(f)(2)]

Weighed: 6/28/02
Printed: 8/28/02

*Superseded
9-4-02*

This list contains all installed optional equipment and avionics. All weights and arms are the installed difference from a standard equipped aircraft. For a detailed list of aircraft equipment weight and balance data, please refer to the comprehensive equipment list in the pilots operating handbook.

BASIC EMPTY WEIGHT	1,697.0	40.238	68,284
USEFUL LOAD	760.0		
MAXIMUM RAMP WEIGHT	2,457.0		
MAXIMUM TAKE-OFF WEIGHT	2,450.0		

Revised 26 Feb. 2001

Numerical values shown may be rounded from actual values. Therefore, the product of weight times arm may not equal the listed moment.

Airplane Order

OPERATIONS

CHANGE 1



INVOICE TO Single Engine Mkt.	SHIP TO Domestic	CONTROL NO. 17281119 361119
CUSTOMER ORDER NO.	MODEL Skyhawk	DATE 04-04-02 LOCK NO. ENGINE NUMBER FORE/L.H.
SERIAL NO. 17281119	REGISTRATION W/A - TEMP 01 06-27-02 N5209Z 01	AFT/R.H. PROPELLER NUMBER FORE/L.H. AFT/R.H.

INSTALL EQUIPMENT AS FOLLOWS

ITEM	F.K. NUMBER	DESCRIPTION	NO.	TYPE	CHANGE DATE
EXTERIOR					
1	514	Exterior -Red/Blue/Green	1	A	06-27-02
OPTIONAL EQUIPMENT					
2	601G	Nav II avionics w/MFD			
3	015C	Wheel Fairings			
4	132C	Tow Bar			

PAINT	UPHOLSTERY AND TRIM	CLEAN UP
PRODUCTION DATE	DELIVERY DATE Per Prod Schedule	

UNITED STATES OF AMERICA
 DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION
 CERTIFICATE OF AIRCRAFT REGISTRATION

REGISTRATION MARKS **N** 5209Z
 AIRCRAFT SERIAL NO. 17281119

MANUFACTURER AND MANUFACTURER'S DESIGNATION OF AIRCRAFT
 172R
 ICAO Aircraft Address Code: 51506231

UNIVERSITY OF DUBUQUE
 2000 UNIVERSITY AVE
 DUBUQUE IA 52001-5050

DATE OF ISSUE
 September 25, 2002

C Form 8050-3/8/97 Supersedes previous editions

CORPORATION

This certificate is issued for registration purposes only and is not a certificate of title. The Federal Aviation Administration does not determine rights of ownership as between private persons.



U.S. Department of Transportation
 Federal Aviation Administration

U.S. OFFICIAL MAIL
 PENALTY FOR PRIVATE USE \$300

U.S. Department of Transportation
 Federal Aviation Administration
 Civil Aviation Registry
 P.O. Box 2550
 Oklahoma City, OK 73150-0504

Official Business
 Penalty for Private Use \$300
 AC Form 8050-3/8/97 Supersedes previous editions 5209Z
 TO: UNIVERSITY OF DUBUQUE
 2000 UNIVERSITY AVE
 DUBUQUE IA 52001-5050

U.S. POSTAGE
 7250831
 057



Carolina

STANDARD AIRWORTHINESS CERTIFICATE

1. NATIONALITY AND REGISTRATION MARKS	2. MANUFACTURER AND MODEL	3. AIRCRAFT SERIAL NUMBER	4. CATEGORY
N5209Z	Cessna 172R	17281119	Normal/ Utility

5. AUTHORITY AND BASIS FOR ISSUANCE
 This airworthiness certificate is issued pursuant to the Federal Aviation Act of 1958 and identifies that, as of the date of issuance, the aircraft to which issued has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein.
 Exceptions:

None

6. TERMS AND CONDITIONS

Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator, this airworthiness certificate is effective as long as the maintenance, preventive maintenance, and alterations are performed in accordance with Parts 21, 43, and 91 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.

DATE OF ISSUANCE	FAA REPRESENTATIVE	DESIGNATION NUMBER
08/29/02	172R Mike Sharp	DOA-100129-CF

Any alteration, reproduction or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 3 years, or both. THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.

FAA Form 8100-2 (8-82)

U.S. GPO-2001-688-455



US Department of Transportation
Federal Aviation Administration

**MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)**

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Cessna	Model 172R
	Serial No. 17281119	Nationality and Registration Mark N5209Z
2. Owner	Name (As shown on registration certificate) University of Dubuque	Address (As shown on registration certificate) 2000 University Avenue Dubuque, Iowa 52001

3. For FAA Use Only

4. Unit Identification

5. Type

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	_____ (As described in Item 1 above) _____			X	
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Raymond Felber Wisconsin Aviation-Four Lakes 3606 Corben Court Madison, WI 53704	<input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	AP 56386313 IA

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date August 4, 2006	Signature of Authorized Individual <i>Raymond Felber</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	FAA Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	

Date of Approval or Rejection August 4, 2006	Certificate or Designation No. AP 56386313 IA	Signature of Authorized Individual <i>Raymond J. Felber</i>
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