

AIRCRAFT WEIGHT AND C.G DETERMINATION

REPORT NO : 02/WB/SNA/VII/2021

DATE : 08 JULY 2021

AIRCRAFT REGISTRATION : PK-SNA
AIRCRAFT TYPE : C208B EX
AIRCRAFT SERIAL NUMBER : 208B-5634
PROPERTY OF : PT. SMART CAKRWALA AVIATION
PLACE OF WEIGHING : WICHITA
REASON OF WEIGHING : APE STOL MODIFICATION
CONFIGURATION : **CARGO**
PERFORMED BY : YINLING AIRCRAFT, INC.
SIGNED: DATE: 05/20/2021
CHECKED BY : YINLING AIRCRAFT, INC.
SIGNED: DATE: 05/20/2021

RESULTS

EMPTY WEIGHT	: 5113.11
EMPTY C.G FROM DATTUM LINE	: 189.05
INDEX MAC %	: 17.28 %
VALID UNTIL	: MAY 2026

WEIGHING EQUIPMENT

PART NUMBER	: UNK
SERIAL NUMBER	: UNK
VALIDATION	: UNK

APPROVED BY:

**YANUAR ABDUL FATAH
CHIEF INSPECTOR**

AIRCRAFT WEIGHT & BALANCE

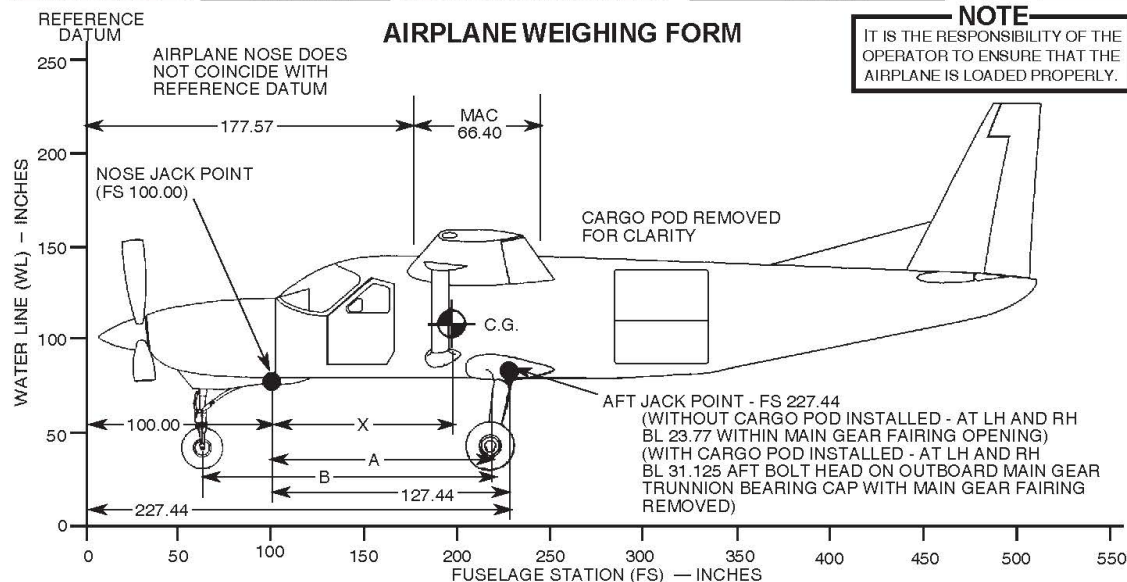
**MODEL 208B
CARAVAN I**

**WEIGHT AND
BALANCE DATA**



A Textron Company

SERIAL NUMBER 208B5634 **REGISTRATION NUMBER** PK-SNA **DATE** 05/10/2021



NOTE
IT IS THE RESPONSIBILITY OF THE OPERATOR TO ENSURE THAT THE AIRPLANE IS LOADED PROPERLY.

LOCATING CG WITH AIRPLANE ON LANDING GEAR

FORMULA for Longitudinal CG

$$(X) = (A) - \frac{(\text{Nose Gear Net Weight})(870)}{(\text{Nose and Main Landing Gear Weight Totalled})(5286)} = (90.79) \text{ Inches}$$

CG Arm of Airplane = 100 + (X) = (190.79) Inches Aft of Datum

MEASURING A AND B

MEASURE A AND B PER PILOT'S OPERATING HANDBOOK INSTRUCTIONS TO ASSIST IN LOCATING CG WITH AIRPLANE WEIGHED ON LANDING GEAR

LOCATING CG WITH AIRPLANE ON JACK PADS

FORMULA for Longitudinal CG

$$\text{CG Arm of Airplane} = 227.44 - \frac{127.44 \times (\text{Nose Jack Point Net Weight})}{(\text{Nose and Aft Jack Point Weight Totalled})} = (\text{Inches Aft of Datum})$$

LEVELING PROVISIONS

LONGITUDINAL - LEFT SIDE OF FUSELAGE AT FS 239.00 & 272.00
LATERAL - SEAT RAILS AFT OF PILOT AND FRONT PASSENGER SEATS

AIRCRAFT AS WEIGHED TABLE

POSITION	SCALE READING	SCALE DRIFT	TARE	NET WEIGHT
LEFT SIDE	2176.00	0	0	2176.00
RIGHT SIDE	2240.00	0	0	2240.00
NOSE	870.00	0	0	870.00
AIRPLANE TOTAL AS WEIGHED				5286.00

LOCATING PERCENT MAC

FORMULA for Percent MAC

$$\text{CG Percent MAC} = \frac{(\text{CG Arm of Airplane}) - 177.57}{0.6640}$$

BASIC EMPTY WEIGHT AND CENTER-OF-GRAVITY TABLE

ITEM	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
AIRPLANE (CALCULATED OR AS WEIGHED) (INCLUDES ALL UNDRAINABLE FLUIDS AND FULL OIL)	5286.00	190.79	1008.52
DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALLON S/N 208B0001 Thru 208B0089 Not Modified With SK208-52	20.4	205.7	4.97
S/N 208B0001 Thru 208B0089 Modified With SK208-52 And S/N 208B0090 And On	24.1	206.4	
BASIC EMPTY WEIGHT	5310.10	190.86	1013.49

CESSNA AIRCRAFT COMPANY, AIRCRAFT DIVISION, P.O. BOX 7704, WICHITA, KANSAS 67277

FORM NUMBER 1692-2, 15 July 1986
REVISED 22 January 2002



AIRCRAFT WEIGHT & BALANCE

TABEL1

BASIC ITEM NOT INCLUDED WHEN WEIGHING	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 INCH POUNDS
APE STOL KIT STC #: SAO1805SE	5.80	203.00	1.17
BENCH ASSY 4 ND ROW-RH	46.30	267.69	12.39
SINGLE SEAT ASSY 5 ND ROW-LH	25.10	285.55	7.16
TOTAL	77.2	268.63	20.73

TABEL 2

DESCRIPTION OF ACTION PERFORMED	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 INCH POUNDS
SINGLE SEAT ASSY 2 ND ROW-LH REMOVED	25.10	177.55	4.45
SINGLE SEAT ASSY 3 ND ROW-LH REMOVED	25.10	213.55	5.36
SINGLE SEAT ASSY 4 ND ROW-LH REMOVED	25.10	249.55	6.26
SINGLE SEAT ASSY 5 ND ROW-LH REMOVED	25.10	285.55	7.16
BENCH ASSY 2 ND ROW-RH REMOVED	46.30	195.69	9.06
BENCH ASSY 3 ND ROW-RH REMOVED	46.30	231.69	10.72
BENCH ASSY 4 ND ROW-RH REMOVED	46.30	267.69	12.39
AFT COUCH, 2 PL REMOVED	34.89	347.14	12.11
TOTAL	274.19	246.32	67.54

TABEL 3

AIRCRAFT WEIGHING REPORT	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 INCH POUNDS
AIRPLANE (CALCULATED OR AS WEIGHED) (INCLUDES ALL UNDRAINABLE FLUIDS AND FULL OIL) INCLUDED DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALON	5310.10	190.86	1013.49
WEIGHT FROM TABLE 1 (+)	77.20	268.63	20.73
SUB TOTAL	5387.30	191.97	1034.22
WEIGHT FROM TABLE 2 (-)	274.19	246.32	67.54
TOTAL	5113.11	189.05	966.68



AIRCRAFT WEIGHT & BALANCE

BASIC EMPTY WEIGHT AND CENTER OF GRAVITY TABLE

LOCATING PERCENT MAC

$$\begin{aligned}\text{CG Percent MAC} &= \frac{(\text{CG Arm of Airplane}) - 177.57}{0.6640} \\ &= \frac{189.05 - 177.57}{0.6640} \\ &= 17.28 \%\end{aligned}$$

AIRCRAFT WEIGHT & BALANCE

PRIOR TO WEIGHT AND BALANCE CHECK				
AIRCRAFT TYPE : CESSNA C208B EX CARAVAN AIRCRAFT REGISTRATION : PK-SNA AIRCRAFT SERIAL NUMBER : 208B-5634 DATE OF WEIGHING : MAY 2021				
NO.	DESCRIPTION	APPL	CHECK	REMARKS
A	STANDARD ITEMS			
1	All fuel tank EMPTY or recorded / FULL	√	Empty	-
2	All engine oil tanks EMPTY or recorded / FULL	√	Full	-
3	All others oil tanks FULL (included Propeller, Starters, Gearbox and Air Cycle)	√	Full	-
4	Hydraulic tanks FULL	√	Full	-
B	STANDARD EQUIPMENTS			
1	Technical supply or Flight Kits	x	N/A	-
2	Aircraft Books, Manuals and Papers	x	1 Bag	-
3	AXE	x	1 EA	-
4	Fire Extinguisher	√	1 EA	-
5	First Aid Kit	x	1 Box	-
6	Life Vests	x	11 EA	-
7	Life Raft	x	N/A	-
8	Survival Kit	x	N/A	-