

AIRCRAFT WEIGHT AND C.G DETERMINATION

REPORT NO : 02/WB/VI/2020

DATE : 19 JUNE 2020

AIRCRAFT REGISTRATION : PK-SNH
AIRCRAFT TYPE : C208B EX
AIRCRAFT SERIAL NUMBER : 208B-5587
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: 3/16/2020
CHECKED BY : YINLING AIRCRAFT, INC.
SIGNED: DATE: 3/16/2020



RESULTS

EMPTY WEIGHT	: 5085.11
EMPTY C.G FROM DATTUM LINE	: 188.80
INDEX MAC %	: 16.91 %
VALID UNTIL	: 16 MARCH 2025

WEIGHING EQUIPMENT

PART NUMBER	: UNK
SERIAL NUMBER	: UNK
VALIDATION	: UNK

APPROVED BY:

**YANUAR ABDUL FATAH
CHIEF INSPECTOR**

AIRCRAFT WEIGHT & BALANCE

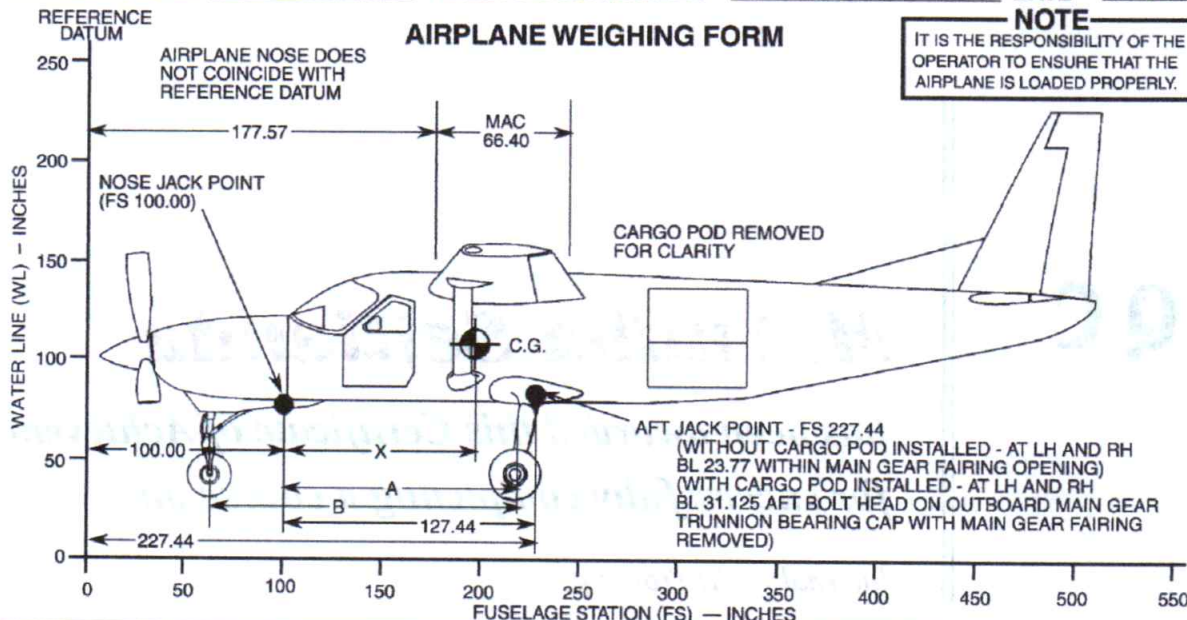
**MODEL 208B
CARAVAN I**

WEIGHT AND BALANCE DATA



A Textron Company

SERIAL NUMBER 208B5587 **REGISTRATION NUMBER** PK-SNH **DATE** 2/20/2020



LOCATING CG WITH AIRPLANE ON LANDING GEAR

FORMULA for Longitudinal CG

$$(X) = (A) \frac{(\text{Nose Gear Net Weight})(873) X (B) 157.75}{116.75 \text{ Nose and Main Landing Gear Weight Total}(5258)} = (90.56) \text{ Inches}$$

$$\text{CG Arm of Airplane} = 100 + (X) = (190.56) \text{ Inches Aft of Datum}$$

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

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

LEVELING PROVISIONS

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

AIRPLANE AS WEIGHED TABLE

POSITION	SCALE READING	SCALE DRIFT	TARE	NET WEIGHT
LEFT SIDE	2152			2152
RIGHT SIDE	2233			2233
NOSE	873			873
AIRPLANE TOTAL AS WEIGHED				5258

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)	5258	190.56	1001.96
DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALLON S/N 208B0001 Thru 208B0089 Not Modified With SK208-52 S/N 208B0001 Thru 208B0089 Modified With SK208-52 And S/N 208B0090 And On	20.1 24.1	205.7 206.4	4.97
BASIC EMPTY WEIGHT	5282.1	190.63	1006.93

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

TABEL 1

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)	5258	190.56	1001.96
WEIGHT FROM TABLE 1 (+)	77.2	268.63	20.73
SUB TOTAL	5335.2	191.68	1022.70
WEIGHT FROM TABLE 2 (-)	274.19	246.32	67.54
TOTAL	5061.01	188.71	955.11

AIRCRAFT WEIGHT & BALANCE

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)	5061.01	188.71	955.11
DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALON S/N 208B0090 And On	24.1	206.4	4.97
BASIC EMPTY WEIGHT	5085.11	188.80	960.08

LOCATING PERCENT MAC

$$\begin{aligned}
 \text{CG Percent MAC} &= \frac{(\text{CG Arm of Airplane}) - 177.57}{0.6640} \\
 &= \frac{188.80 - 177.57}{0.6640} \\
 &= 16.91 \%
 \end{aligned}$$

AIRCRAFT WEIGHT & BALANCE

PRIOR TO WEIGHT AND BALANCE CHECK				
AIRCRAFT TYPE : CESSNA C208B EX CARAVAN AIRCRAFT REGISTRATION : PK-SNH AIRCRAFT SERIAL NUMBER : 208B-5587 DATE OF WEIGHING : 16 MARCH 2020				
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	-