

AIRCRAFT WEIGHT AND C.G DETERMINATION

REPORT NO : 004/WB/I/2020
 DATE : 9th January 2020

AIRCRAFT REGISTRATION : PK-SNV
 AIRCRAFT TYPE : CESSNA C208B CARAVAN EX
 AIRCRAFT SERIAL NUMBER : 208B5551
 PROPERTY OF : PT. SMART CAKRAWALA AVIATION
 PLACE OF WEIGHING : WICHITA
 REASON OF WEIGHING : APE STOL MOD AND ADDITIONAL EQUIPMENT
 CONFIGURATION : CARGO
 PERFORMED BY : YINGLING AIRCRAFT, INC.
 SIGNED: DATE: 19/12/2019
 CHECKED BY : YINGLING AIRCRAFT, INC
 SIGNED: DATE: 19/12/2019

RESULTS

EMPTY WEIGHT	: 4902.56 LBS
C.G ARM OF AIRPLANE	: 188.77 IN
CG PERCENT MAC %	: 18.27 (PERCENT MAC)
VALID UNTIL	: 18 DECEMBER 2024

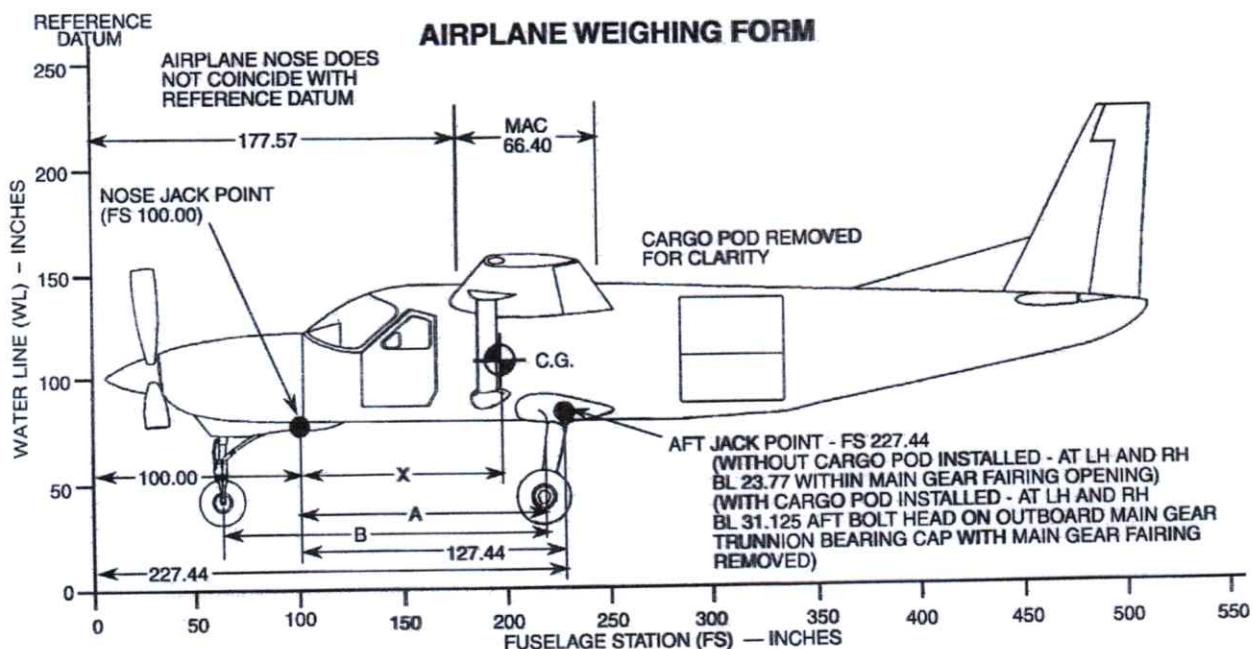
WEIGHING EQUIPMENT

PART NUMBER	: UNK
SERIAL NUMBER	: UNK
VALIDATION	: UNK

APPROVED BY:



 Ilham Chairi
 Chief Inspector



LOCATING CG WITH AIRPLANE ON JACK PADS

FORMULA for longitudinal CG

$$\text{CG Arm of Airplane} = 227.44 - \frac{127.44 \times (\text{Nose Jack Point Net Weight}) (1505)}{\text{Nose and Aft Jack Point Weight Totaled} (5354)} = (191.62) \text{ Inches}$$

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 PERCENT MAC

FORMULA for Percent MAC

$$\text{CG Percent MAC} = \frac{\text{CG Arm of Airplane (188.68)} - 177.57}{0.6640} = 18.27\%$$

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

AIRPLANE AS WEIGHED WELL				
POSITION	SCALE READING	SCALE DRIFT	TARE	NET WEIGHT
LEFT SIDE	1865	-	-	1865
RIGHT SIDE	1984	-	-	1984
NOSE	1505	-	-	1505
AIRPLANE TOTAL AS WEIGHT				5354



AIRCRAFT WEIGHT & BALANCE

TABLE 1

BASIC ITEMS NOT INCLUDED WHEN WEIGHING	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
TOTAL			

TABEL 2

DESCRIPTION OF ACTION PERFORMED	WEIGHT (POUNDS)	CG ARM (INCHES)	MOMENT/1000 (INCH-POUNDS)
Removed seat #3 Single	26.00	155.50	4.04
Removed seat #4, 5 Double	47.70	173.50	8.28
Removed seat #6 Single	26.00	191.50	4.98
Removed seat #7, 8 Double	47.70	209.50	9.99
Removed seat #9 Single	26.00	227.50	5.92
Removed seat #10, 11 Double	47.70	245.50	11.71
Removed seat #12 Single	26.00	263.50	6.85
Removed seat #13, 14 Couch	34.89	344.00	12.00
Removed Cargo Pod	192.55	216.53	41.69
TOTAL	474.54	222.24	105.46

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)	5354	191.62	1025.93
WEIGHT FROM TABLE 1 (+)			
SUB TOTAL	5354	191.62	1025.93
WEIGHT FROM TABLE 2 (-)	474.54	222.24	105.46
TOTAL	4878.46	188.68	920.47

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)	4878.46	188.68	920.47
DRAINABLE UNUSABLE FUEL AT 6.75 POUNDS PER GALLON S/N 208B0090 And On	24.1	206.4	4.97
BASIC EMPTY WEIGHT	4902.56	188.77	925.44

PRIOR TO WEIGHT AND BALANCE CHECK				
AIRCRAFT TYPE		CESSNA C208B EX CARAVAN		
AIRCRAFT REGISTRATION		PK-SNV		
DATE OF WEIGHING		19th DECEMBER 2019		
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	-