

TL 3000 Sirius

VFR Flight

Weight & Balance

Registration: **PH - 4Q2**

Standard tanks

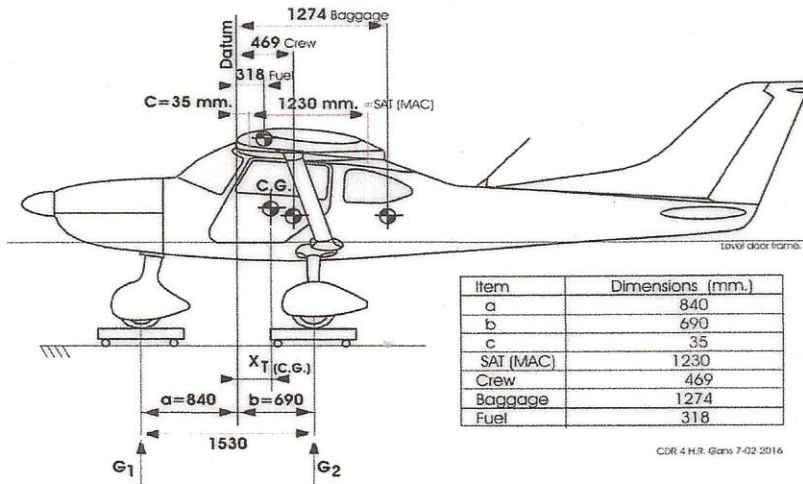
Pilot's Operating Handbook
Section 6 page 6-6

Date:		Fuel flow c.a.: 16,2 ltr/h.	75 % pwr.
Pilot:		L tank fuel: 45 ltr.	Total usable fuel in airplane 75% pwr. Ca.16,2 ltr./h
Co Pilot:		R tank fuel: 45 ltr.	
Passenger:		Total fuel: 90 ltr.	90 ltr. Endurance: 5:33 h:m.max.

Configuration: (Empty weight including the operating fluids of the engine and standard equipment).

Datum point (DP): Wing leading edge.

SAT (MAC)= Length of central aerodynamic chord of wing.



Item	Dimensions (mm.)
a	840
b	690
c	35
SAT (MAC)	1230
Crew	469
Baggage	1274
Fuel	318

CDR 4 H.R. Gans 7-02 2016

Flight and operational manual	
Measured value of aircraft:	
SAT (MAC)=	1230 mm.
G1 = Weight sheet	83 kg.
G2 = Weight sheet	239,2 kg.
Gvzl =Weight sheet	322,2 kg.
La =	840 mm.
Lb =	690 mm.
L a+b =	1530 mm.
C =	35 mm.

Weight and Balance

Weight sheet and determination of centre of gravity

List 1 and 2 Serial no.: 14 SI 97 TL 3000 Sirius PH-4Q2

	Weight (kg):	Distant from DP (mm)	Moment (kg mm.)
Empty aeroplane	PH-4Q2	302,0 kg.	empty Weight.
Nose wheel	G1 (Weight sheet)	83,0 a= -840	-69720,0
Main undercarriage	G2 (Weight sheet)	239,2 b= 690	165048,0
Total empty Weight:	Gvzl (Weight sheet)	302,0 kg.	Moment: 95328,0 kgmm.
<i>(Oil and coolant including)</i>			
Maximum crew weight 180 kg.			
Maximum weight in baggage compartment 25 kg.			
Crew (two persons)	140,0	x 469	= 65660,0
Baggage: (luggage)	1,0	x 1274	= 1274,0
Zero fuel weight:	443,0		
Fuel ltr.:	40	0,72 kg/ltr. G Fuel	28,8
		x 318	= 9158,4
Total weight:	G =	471,8 kg.	Total Moment: 171420,4 kgmm.
	M.T.O.W.	472,5 kg.	

CENTER OF GRAVITY (M of DATUM POINT) is total moment/ total weight of the airplane

$$\text{C.G.} = X_T \frac{\text{Total moment}}{\text{Total weight}} = \frac{171420,4}{471,8} = 363 \text{ mm.}$$

C.G. v % MAC (MAC = 1230 mm.) (MAC = Mean Aerodynamic Chord)

$$X_T - C(35) = 363 - 35 = 328 \text{ mm.}$$

$$X_{CT} \% \text{ MAC} = \frac{X_T - 35}{\text{SAT}} \times 100 \% = \frac{328}{1230} \times 100 \% = 26,7 \% \text{ MAC}$$

(SAT = 1230)

Permitted position of C.G. in flight is 22 up to 32,5 % MAC

CG OK

Hoewel wij de uiterste zorgvuldigheid hebben betracht, blijft de verantwoordelijkheid van het gebruik van dit werkblad bij de gebruiker.