

<b>Model Number</b> M20V	<b>Serial Number</b> 33-0006	<b>N-Number</b> N242KT
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**RAW MEASUREMENTS AND SCALE READINGS**

DATUM (Distance from N.G. Trunion to M.G. axle centerline)	<b>78.50</b> inches
LEFT (Distance from N.G. axle to M.G. axle - LH side)	<b>79.19</b> inches
RIGHT (Distance from N.G. axle to M.G. axle - RH side)	<b>79.19</b> inches
NOSE WEIGHT (Nose Gear scale)	<b>608.50</b> inches
LEFT MAIN WEIGHT (Left Main Gear scale)	<b>931.50</b> inches
RIGHT MAIN WEIGHT (Right Main Gear scale)	<b>936.00</b> inches

**CONVERSIONS**

L (m/r)	78.50 inches		
L (m/n)	79.19 inches	Formula:	(L+R)/2
W (n)	608.50 pounds		
W (l)	931.50 pounds		
W ( r )	936.00 pounds		
W (t)	2476.00 pounds	Formula:	N+L+R

**COMPUTATIONS**

**a. CG Forward of Main Wheels**

608.50		x	79.19		2476.00	=	19.46
Weight of Nose	(pounds)		Distance between Main / and Nose Wheel axle centers (inches)		Total Weight of aircraft (pounds)		CG Forward of Main Wheels (inches)
W (n)			L (m/n)		W (t)		L (m)

**b. CG Aft of Datum**

78.50		-	13.00		19.46	=	46.04
Distance from N.G. Trunion to Main Wheel axle centerline (inches)			Distance from N.G. Trunion to Datum (inches)		CG (Result of computation above)		CG Distance aft of Datum (EWCG)
L (m/r)			(CONSTANT)		L (m)		L (c/g)

**RESULTS**

	WEIGHT	x	ARM	=	MOMENT
Aircraft (no fuel)	2476.00		46.04		113.99
Unusable Fuel	34.92		49.23		1.72
Empty Weight w/Unusable Fuel	2510.92		46.08		115.71
Ballast Weight (if used)	0		209.50		0.00
Corrected for ballast	2510.92		46.08		115.71

<b>Useful Load</b>	<b>857</b> pounds	<i>For ballast weight information see Mooney Drawing 350203</i>
<b>Corrected E.W.C.G.</b>	<b>46.08</b> inches	
<b>Corrected Empty Weight</b>	<b>2511</b> pounds	
<b>Corrected Aircraft Moment</b>	<b>115.71</b> (pound-inches)/1000	

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