

Constants	Units	Description
E	[GPa]	Modulus of elasticity, 4340 steel
K	[-]	Column effective length factor
N_s	[-]	Factor of safety
η_s	[-]	Shock absorber efficiency
λ_{LG}	[-]	Ratio of max to static load
ρ_{st}	$[\frac{\text{kg}}{\text{m}^3}]$	Density of 4340 Steel
σ_{yc}	[Pa]	Compressive yield strength 4340 steel
$\tan(\gamma)$	[-]	Dihedral angle
$\tan(\phi_{min})$	[-]	Lower bound on phi
$\tan(\psi_{max})$	[-]	Upper bound on psi
$\tan(\theta_{max})$	[-]	Max rotation angle
d_{fan}	[m]	Fan diameter
$f_{add,m}$	[-]	Proportional added weight, main
$f_{add,n}$	[-]	Proportional added weight, nose
g	$[\frac{\text{m}}{\text{s}^2}]$	Gravitational acceleration
h_{hold}	[m]	Hold height
$h_{nacelle}$	[m]	Min. nacelle clearance
n_{mg}	[-]	Number of main gear struts
n_{wps}	[-]	Number of wheels per strut
p_{oleo}	$[\frac{\text{lb}}{\text{in}^2}]$	Oleo pressure
$t_{nacelle}$	[m]	Nacelle thickness
w_{ult}	$[\frac{\text{ft}}{\text{s}}]$	Ultimate velocity of descent
y_{eng}	[m]	Spanwise loc. of engines
z_{CG}	[m]	CG height relative to bottom of fuselage
z_{wing}	[m]	Height of wing relative to base of fuselage