STEEL BEAM AND COLUMN ANALYSIS / CODE CHECK

Stress Code Check Per AISC 9th Edition Manual (ASD)

For W, S, M, and HP Shapes

Job Name:		Subject:			
Job Number:		Originator:		Checker:	

Sin
Rev
Bra

Input Data:

Member Size:

Select: W14x34

Member Loadings:

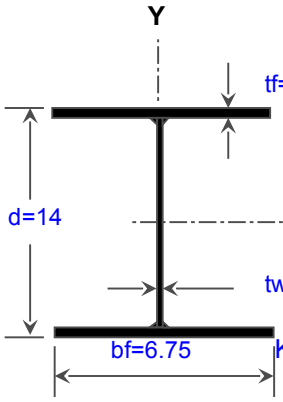
P =	0.00	kips
Mx =	87.12	ft-kips
My =	0.00	ft-kips

Design Parameters:

Fy =	36.00	ksi
Kx =	1.00	
Ky =	1.00	
Lx =	1.000	ft.
Ly =	1.000	ft.
Lb =	1.000	ft.
Cb =	1.00	
Cmx =	0.85	
Cmy =	0.85	
ASIF =	1.000	

Member Properties:

A =	10.00	in.^2
d =	14.000	in.
tw =	0.285	in.
bf =	6.750	in.
tf =	0.455	in.
rt =	1.760	in.
d/Af =	4.56	
Ix =	340.00	in.^4
Sx =	48.60	in.^3
rx =	5.830	in.
Iy =	23.30	in.^4
Sy =	6.91	in.^3
ry =	1.530	in.
J =	0.57	in.^4
Cw =	1070.0	in.^6



W14x34 Section

Qs =	1.000
Qa =	1.000

P(be) =
Qa =
Sx(eff) =
Sy(eff) =
Ky*Ly/ry =
K*L/r (max) =
Cc =
fa = P/A =
Fa =
Fa =
Pa =

Results:

Lc =
Lu =
Lb/rt =

For Axial Compression:

Kx*Lx/rx =	2.06	
Ky*Ly/ry =	7.84	
Cc =	126.10	
fa =	0.00	ksi
Fa =	21.26	ksi
Pa =	212.61	kips

For X-axis Bending:

Lc =	7.13	ft.
Lu =	10.15	ft.
Lb/rt =	6.82	
fbx =	21.51	ksi
Fbx =	23.76	ksi
Mrx =	96.23	ft-kips

For Y-axis Bending:

fby =	0.00	ksi
Fby =	27.00	ksi
Mry =	15.55	ft-kips

Is d/tw<=allow?
Is b/t<=65/SQRT(Fy)?
Is b/t>95/SQRT(Fy)?
Fbx =
Fbx =
Fbx =

X-axis Euler Stress:

F'ex = N.A. ksi

Y-axis Euler Stress:

F'ey = N.A. ksi

Fbx =
Fbx =
Fbx =
Use: Fbx =
Mrx =

Stress Ratio:

S.R. = **0.905**

Comments:

fby = My/Sy =
Fby =
Mry =

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