SUMMARY OF RESULTS FOR INLET DOOR STRUCTURAL ANALYSIS – LOCA

ITEM	AREA	STRESS RATIO[1]	BASIS[2]
1	Bending of FRP Plate	≤ 1.0	D
2	Tension + Bending of Reinforcing Ribs	≤ 1.0	A
3	Slip of Plate/Rib Bolts	≤ 1.0	C
4	Compression + Bending of Compr. Sleeves	≤ 1.0	A
5	Bearing in Fiber Reinforced Plastic (FRP) Plate at Bolts	≤ 1.0	D
6	Pullout of Bolts from FRP Plate	≤ 1.0	D
7	Crushing of Foam Insulation	≤ 1.0	E
8	Shear of Foam Insulation	≤ 1.0	E
9	Tension in Hinge Adapter	≤ 1.0	A
10	Shear in Adapter/Rib Weld	≤ 1.0	A
11	Bending + Shear of Hinge Bar	≤ 1.0	A
12	Bearing Loads in Hinge Bearing	≤ 1.0	B
13	Bending + Shear + Torsion of Hinge Bracket	≤ 1.0	A
14	Tension in Bearing Housing	≤ 1.0	A
15	Unloading of Bracket/Frame Bolts	≤ 1.0	C
16	Bending of Door Frame	≤ 1.0	A
17	Pullout of 1” Anchor Bolts	≤ 1.0	E
18	Bending of Tie Bars	≤ 1.0	G
19	Extension of Proportioning Springs	≤ 1.0	F
20	Bending of Spring Housing Supports	≤ 1.0	A
21	Tension of Tie Bar Bolts	≤ 1.0	G
22	Bending of Frame Center Beam	≤ 1.0	A
23	Shear of Center Beam Connecting Bolts	≤ 1.0	A
24	Shear of Center Beam ½” Anchor Bolts	≤ 1.0	E

[1] $\frac{\text{Max. Calculated Stress}}{\text{Code Allowable Stress}}$

[2] Bases

a). Allowable value per AISC-69 limits.
b). Anti-Friction Bearing Manufacturers Association (AFBMA) Basic Dynamic Capacity.
c). Side load to overcome pre-tensioning.
d). Design load per manufacturer’s recommendations.
e). Strength values per manufacturer’s literature.
f). Stress to permanent set.
g). Allowable stress from Section 5.3.4.3.