QUALIFICATION ENVIRONMENTS

FOR

GOES PROPELLANT TANK ASSEMBLY

ATK P/N 80338-1

80338-1 was subjected to the following qualification tests:

Test Sequence	Test Description
1	Inspection
2	Mass Measurement
3	Ambient Proof Pressure, Internal Volume & Visual Inspection
4	External Leakage
5	Bubble Point
6	Pressure Cycling
7	Vibration Fixture Survey
8	Sine Vibration (Loaded)
9	Random Vibration (Loaded)
10	Bubble Point
11	Sine Vibration (Unloaded)
12	Bubble Point
13	Radiographic Inspection
14	Penetrant Inspection
15	Expulsion Test
16	Bubble Point
17	External Leakage
18	Cleanliness & Visual Inspection
19	Burst Test
20	Data Review

Pressure Cycling

Internal Pressure

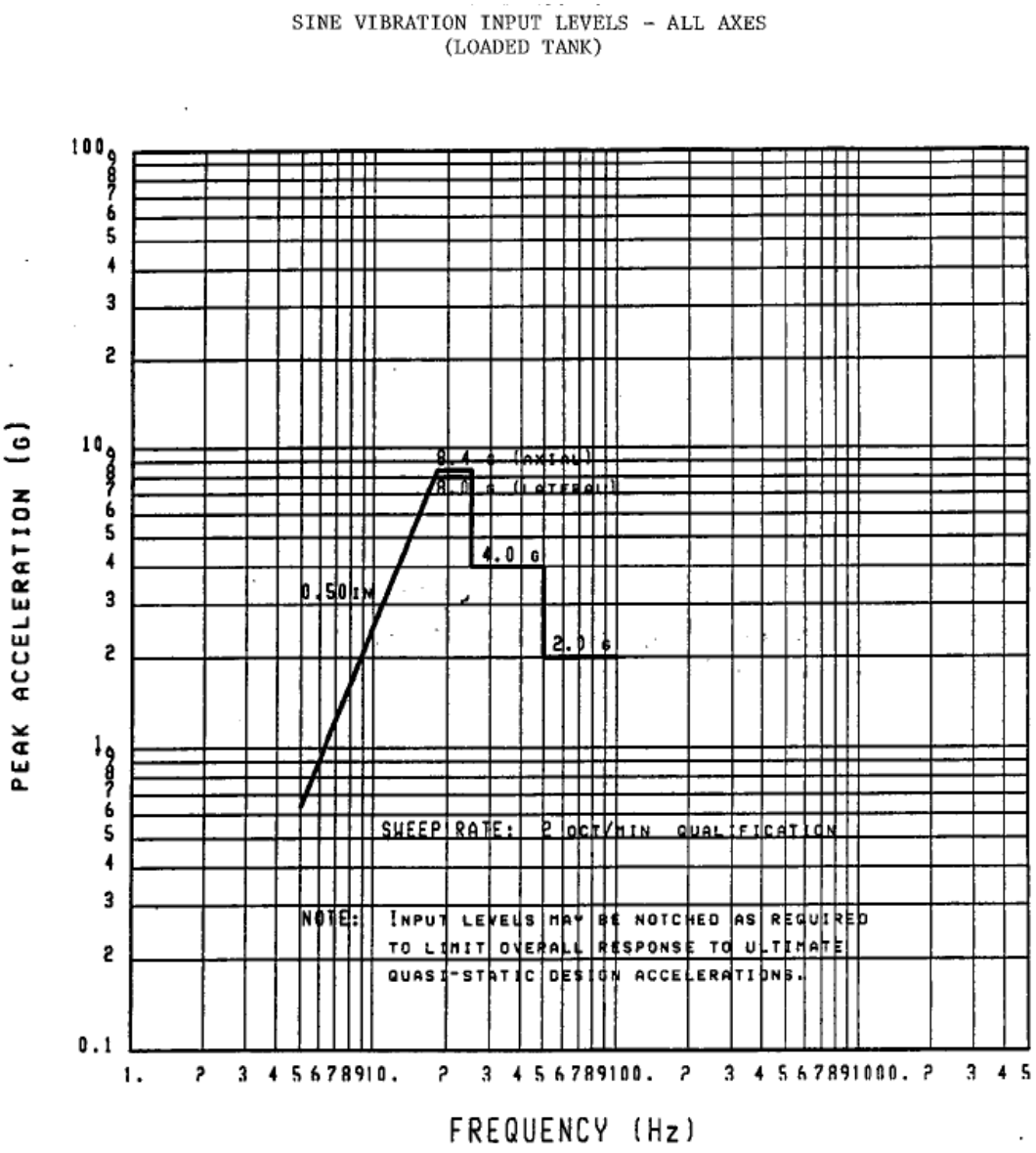
Tank is pressurized to 375, +10/-0 psig and held for 5 seconds maximum. Number of cycles is 5.

Tank is pressurized to 250, +5/-0 psig and held for 5 seconds maximum. Number of cycles is 50.

External Pressure

Tank is evacuated to a differential pressure of 5.8, +0.2/-0 psid and held for 15, +1/-0 minutes. Number of cycles is 5.

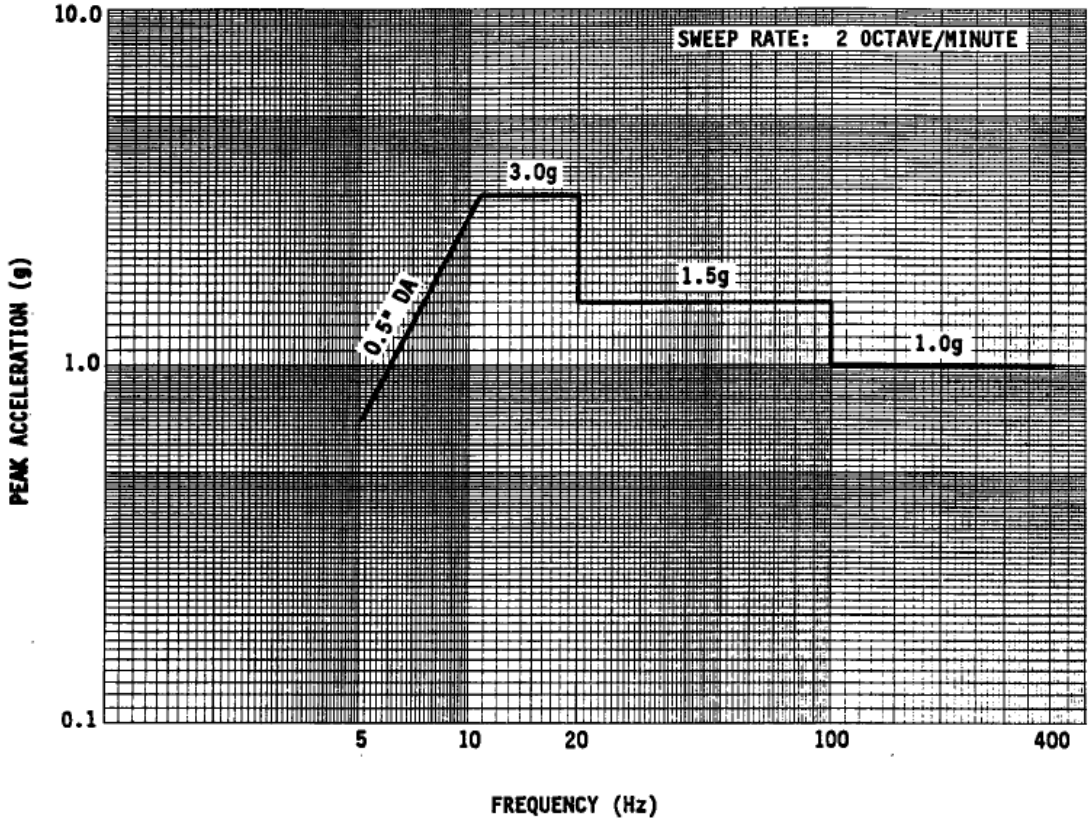
Sine Vibration (Wet)



Tank is loaded with 1719, ± 9 lb of Freon and pressurized to 250, +5/-0 psig.

Sine Vibration (Dry)

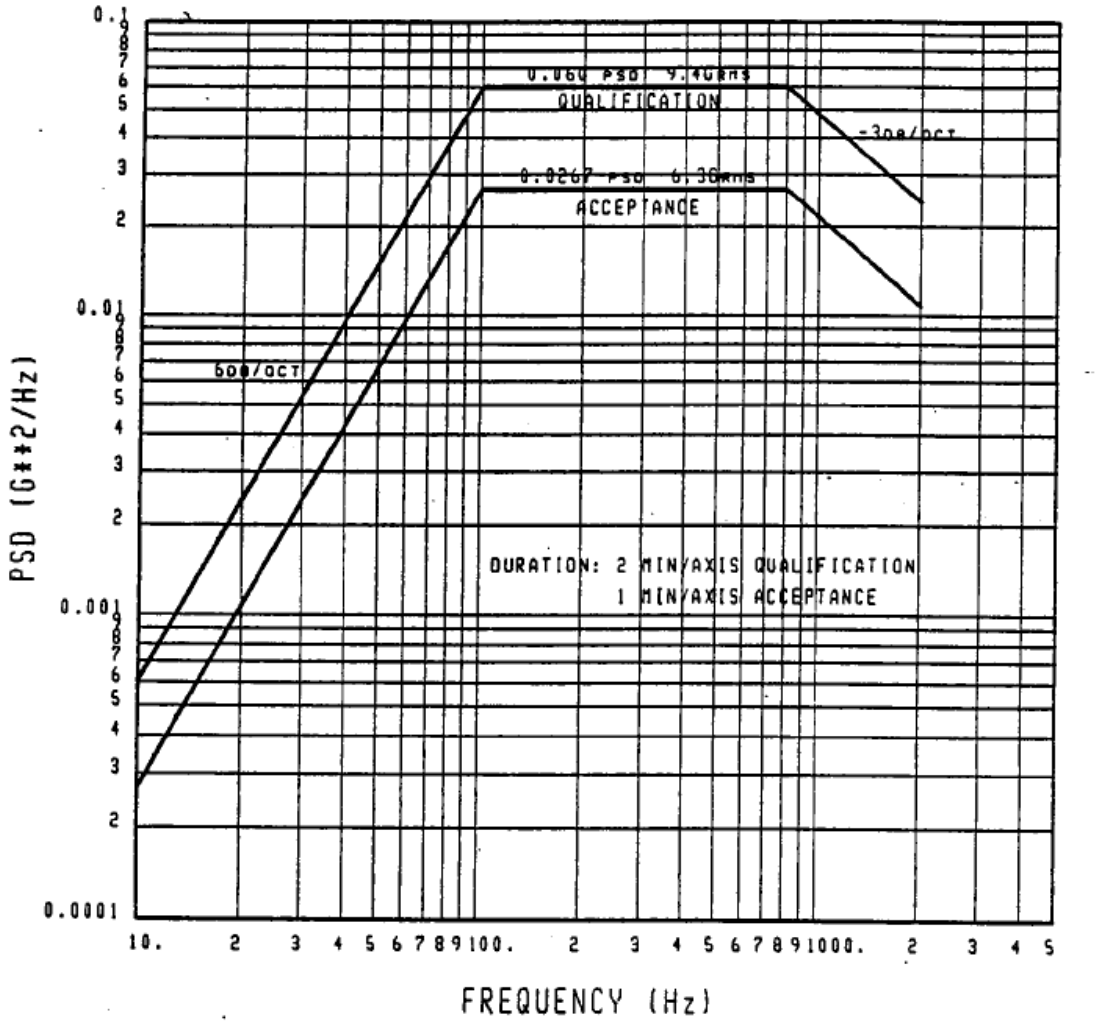
SINE VIBRATION INPUT LEVELS - ALL AXES
(EMPTY TANK)



Tank is unloaded and unpressurized.

Random Vibration (Wet)

RANDOM VIBRATION INPUT LEVELS - ALL AXES
(LOADED TANK)



Ultimate Load Factor, G

Critical Load Cases	X Axis	Y, Z Lateral Axes
Stage I Shutdown	+/- 10.0	-------
Maximum STS Liftoff	------	+/- 8.0

Tank is loaded with 1719, ± 9 lb of Freon and pressurized to 250, +5/-0 psig.

Burst Pressure Test

The tank design burst pressure is 500 psig.

The actual burst pressure is N/A.