SYMBOLS

Symbol	Description	Units
a	Normal instantaneous acceleration of unit at C.G.	in/sec^2
A	Maximum vertical acceleration at the center of gravity	in/sec^2
b	Longitudinal horizontal distance from C.G. to mount (half mount spread)	inches
B	Maximum vertical acceleration at unit end due to rotation about elastic center (E.C.)	in/sec^2
c	Distance from elastic center to top of equipment	inches
CG	Center of gravity	—
d	Dynamic deflection	inches
dyn	Dynamic	—
d_M	Dynamic deflection at mount	inches
d_R	Rotational deflection	radians
d_{RST}	Static rotational deflection	radians
d_{ST}	Static deflection	inches
d_T	Deflection total at end of unit	inches
D_1	Maximum vertical deflection at C.G.	inches
D_2	Maximum vertical deflection at end of unit due to rotation about elastic center	inches
E	Eccentricity, or distance between E.C. and C.G.	inches
E_C	Elastic center	—
f_n	Natural frequency, translational	H_Z
f_C	Coupled natural frequency	H_Z
G_1	Maximum vertical acceleration at C.G.	multiples of g
G_2	Maximum vertical acceleration due to rotation at end of unit	multiples of g
G_O	Fragility of unit at C.G.	multiples of g
G_T	Total vertical acceleration at end of container	multiples of g
g	Acceleration of gravity	386 in/sec^2
h	Height of drop	inches
h_1	Vertical distance of pivot point above floor	inches
I_{CG}	Moment of inertia about C.G.	lb-in-sec^2
I_P	Moment of inertia about container pivot point	lb-in-sec^2
k	Static spring rate (single mount)	lbs/in
k_C	Dynamic compression spring rate (single mount)	lbs/in
k_S	Dynamic shear spring rate (single mount)	lbs/in
K_H	System dynamic horizontal spring rate	lbs/in

SYMBOLS

Symbol	Description	Units
K_R	System dynamic torsional or rotation spring rate	in-lbs/radian
K_T	System dynamic tension spring rate	lbs/in
K_V	System dynamic vertical spring rate	lbs/in
K_{VS}	System static vertical spring rate	lbs/in
KE	Kinetic energy	in-lbs
ℓ	Length of container, overall	inches
ℓ_1	Distance from C.G. to end of unit	inches
L	Ratio of compression stiffness to shear stiffness	—
M	Mass of equipment	lb-sec^2/in
p	Lateral horizontal distance from C.G. to mount (half mount spread)	inches
PE	Potential energy	in-lbs
r	Radius of gyration	inches
R	Distance from container pivot point to C.G.	inches
S	Square root of ratio of rotational spring rate to lateral translation spring rate	inches
St	Static	—
t	Time	seconds
V	Normal linear velocity of C.G. at impact	in/sec
V_1	Normal linear velocity of unit end due to rotation about elastic center	in/sec
W	Weight of suspended mass	lbs
X	Horizontal distance from container pivot point (p) to unit C.G.	inches
Y	Vertical distance from container pivot point (p) to unit C.G.	inches
Z	Length of suspended unit	inches
α	Angle between the compression axis and horizontal	degrees
β	Angle between the compression axis and vertical	degrees
θ_1	Angle between a line joining C.G. and pivot point (p) and vertical before drop (when $h_1 = 0$)	degrees
θ_2	Angle between a line joining C.G. and pivot point (p) and vertical after drop (when $h_1 = 0$)	degrees
ω_0	Angular velocity of C.G. at impact	rad/sec
ω_1	Vertical translational circular natural frequency	rad/sec
ω_2	Rotational circular natural frequency	rad/sec