



G-Force Comparison

Fuel Oil Company 1-18

SURGE BUSTERS are documented, by independent university researchers, to reduce 96% of the kinetic energy generated by the liquid surge in a truck tank. To date, the primary application of SURGE BUSTERS has been to achieve safety objectives, ie: better truck handling, less driver fatigue, and reduced rollovers, etc.

Since the invention of SURGE BUSTERS over 10 years ago, many companies have anecdotally reported a reduction in truck maintenance as well, specifically less tire wear, fewer brake jobs and overall reduction in the service of truck suspension parts.

To move beyond the anecdotal reports, we're working with a fuel oil delivery company to conduct a year-long test to factually document the reduction of maintenance that could be expected due to the use of SURGE BUSTERS, (SB's). While this long-term test is on-going, we're also conducting a short-term test to measure and compare the G-Force 3-axis movements between the (2) trucks. **Here's a summary of the initial G-Force testing.**

Two similar 2800 gallon fuel oil trucks were selected and one was equipped with SURGE BUSTERS.

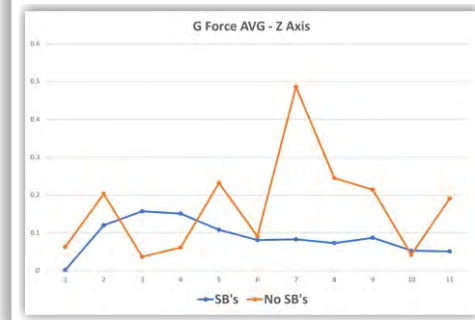
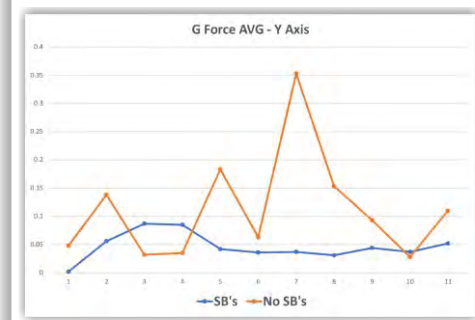
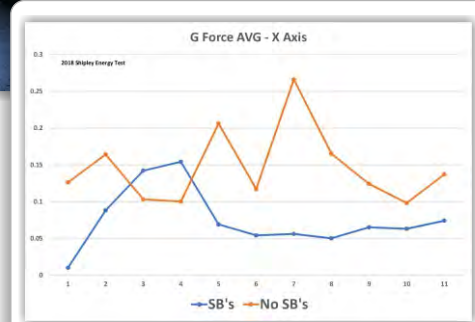


In addition to tracking the maintenance for a year, G-Force sensors were installed on both trucks to measure the surge energy exerted on the chassis.

G-Force sensors measure movement on 3 axis, X, Y, and Z as shown on the graphs at right. Measurements are taken every 10 seconds on each axis. Individual measurements are then averaged and reported to the cloud every 10 minutes.



A recent report (below) showed a **51.9%** decrease in G-Force movement on the truck with SB's. This is favorable, although the final analysis will be the actual reduction of truck maintenance over a year. To track the results of this ongoing test, visit LiquidSurgeControl.com



Data Selected for GRAPH Comparison					
AVG - X, G-Force		AVG - Y, G-Force		AVG - Z, G-Force	
SB's	No SB's	SB's	No SB's	SB's	No SB's
0.01	0.126	0.002	0.048	0.002	0.063
0.088	0.164	0.056	0.138	0.12	0.203
0.142	0.103	0.087	0.032	0.157	0.037
0.154	0.1	0.085	0.035	0.151	0.061
0.069	0.206	0.042	0.183	0.108	0.232
0.054	0.117	0.036	0.063	0.081	0.091
0.056	0.266	0.037	0.353	0.083	0.486
0.05	0.165	0.031	0.153	0.073	0.245
0.065	0.124	0.044	0.093	0.087	0.214
0.063	0.098	0.037	0.028	0.053	0.042
0.074	0.137	0.052	0.11	0.051	0.191

0.825 1.606 **48.6%** 0.509 1.236 **58.8%** 0.966 1.865 **48.2%**



3 Axis AVG of
51.9%

G-Force Decrease on the truck with SB's compared to the truck without SB's.

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