

## Test #1: Vibrations and Fuel Economy

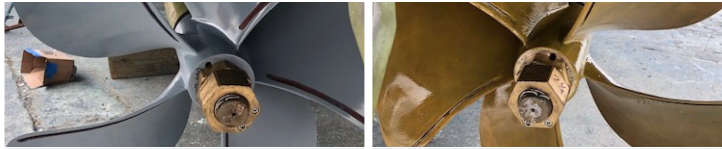
Testing performed by IMANNA Laboratory Inc., an ISO/IEC 17025:2017 Accredited Lab:

- Test propellers were installed on an Evinrude 90 hp outboard marine engine and run in the water while recording RPM, vibration, and fuel economy.
- Vibrations were measured at varying RPM levels at two locations on the engine: The steering arm and the shaft near the waterline.
- Fuel economy was measured by running the engine at 3,000 RPM for a set period of time and measuring fuel consumption.

### Results

The results indicate that the Mussel Buster coating provides the lowest vibration up to 3,000 RPM and provides the best fuel economy when measured at 3,000 RPM.

G = gravitational acceleration constant  
g.p.h. = gallons per hour



@3,000 RPM	MUSSEL BUSTER	LEADING COMPETITOR
SHAFT VIBRATION	2.0 G	2.5 G
STEERING ARM VIBRATION	0.8 G	0.9 G
FUEL ECONOMY	4.38 g.p.h.	6.67 g.p.h.

## Test #2 – Surface Roughness Variation


Testing performed by the University of Delaware Center for Composite Materials (CCM):

- Testers coated No. 3 finish stainless steel sheet according to coating manufacturers' specifications.
- Measurements obtained using Keyence VK-X200 laser microscope.
- For all measurements, the lowest numbers are the most desirable, indicating a smoother surface.

### Results

The lower surface roughness of Mussel Buster in all categories can relate directly to better fuel economy and less biofouling on coated propellers.

µm = micrometer or micron



SURFACE	MUSSEL BUSTER	LEADING COMPETITOR
PEAKS	21 µm	40 µm
VALLEYS	20 µm	64 µm
HEIGHT PROFILE	40 µm	103 µm
ROUGHNESS VARIATION	2.52	17.00

**For More Information**

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