

## Providing Safe, Reliable Lighting for Tugboats

### Enidine Wire Rope Isolator Application

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#### Product Overview

A company that provides barge transport on the Mississippi, Missouri and Ohio Rivers in the United States needed to prevent its nautical lights from failing. These lights are subjected to vibration from the diesel engine of the tugboat and shock from impacting the dock and other vessels – causing the light filament to break prematurely. As a result, the expensive filament had to be replaced frequently.

The company needed a solution that would provide simultaneous shock and vibration isolation. Due to the environment, the solution needed to be resistant to corrosion, since it would continually be exposed to the outdoor elements.

#### Product Solution

ITT Enidine Inc. recommended the use of a Wire Rope Isolator. The tugboats typically had four to six lights that were located in various areas of the deck, depending upon the specific type of boat. WR-2 Wire Rope Isolators were installed at the base of each light. The lights weighed between seven and ten pounds each. One solution uses two wire ropes mounted in compression, the other uses two in shear. These two corrosion-protected configurations provided the best shock and vibration isolation solution available.

ITT Enidine Inc. Wire Ropes have reduced filament replacement costs by seventy percent during the first year of service. The customer is completely satisfied with the results and has elected to retrofit their entire fleet of tugboat nautical lights with ITT Enidine Inc. Wire Rope Isolators.



#### Application Opportunity

The challenging nature of this shock and vibration application makes ITT Enidine Inc. Wire Rope Isolators the perfect solution. With long service life under these conditions, maintenance-free isolators provide simultaneous multi-axis shock and vibration attenuation. The nautical lighting industry (SIC 3647), transportation with tugboats (SIC 4492) and tugboat manufacturers (SIC 3731) are all excellent candidates for wire rope technology in this and other applications.