



SHIP SAFETY BULLETIN

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Ship Safety Bulletins provide safety-related information to the marine community.
All bulletins are available at: www.tc.gc.ca/marinesafety

Subject: Automotive Parts Dangerous in a Marine Environment

In the summer of 2004, a devastating boat explosion occurred at a Halifax yacht club. On a warm, sunny day, a boat owner turned the key to start up his 15-metre vessel with 200L of gasoline in the fuel tank, and "...Boom, up she went!" Witnesses heard the blast from blocks away. The boat was demolished. The owner suffered multiple fractures and burns to 50 per cent of his body. He lay in a coma for two months. No one expected him to live. Amazingly, he did survive to tell his story.

After an investigation, it was determined that the explosion may have resulted from the use of old automotive ignition parts. Any boat powered by an inboard gasoline engine has an increased potential for an explosion because gasoline fumes may linger and build up in confined spaces, even after ventilation blowers are operated for the recommended four-minute minimum. Marine engine parts are ignition protected and decrease the likelihood of igniting these vapours. Car parts *do not* have this protection feature and any sparks may cause an explosion.

When selling parts or repairing small engines please ensure that, if the engine is used in a marine environment, the parts provided to customers are ignition protected.

Transport Canada's *Construction Standards for Small Vessels (TP1332)* states that all electrical components must be ignition protected. This includes all breakers, distributors, regulators, alternators, blowers, starters, pumps and ignition wires. This is a legal requirement. Compliance labels affixed to vessels indicate that all parts meet construction standards, including ignition protection. A marine technician or an accredited marine surveyor should certify any alterations or work done on a vessel or its engine.

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Keywords:

1. Explosion
2. Ignition-protected
3. TP 1332

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To add or change your address, contact us at: marinesafety@tc.gc.ca
Owners of commercial vessels, registered and licensed, automatically receive Bulletins.

Transport Canada has produced a seven-minute film entitled “Boom! Up She Went” explaining the importance of ignition-protected marine engines. The film was made in cooperation with the owner of the vessel involved in the 2004 incident, his wife, and the appropriate authorities and experts.

Car parts may often be less expensive than marine engine parts, but they are not the same. With your help, we can reach the boating community and spread this message. To view the film “Boom! Up She Went” visit www.tc.gc.ca/BoatingSafety/pubs/menu.htm. Please share this information with colleagues in the industry and the boating public. For more information on this or any other topic covered by the Office of Boating Safety, visit the website or call 1-800-267-6687.