

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Materials Laboratory Division
Washington, D.C. 20594



January 29, 2003

MATERIALS LABORATORY FACTUAL REPORT

Report No. 03-015

A. ACCIDENT

Place : Everglade City, Florida
Date : December 30, 2002
Vehicle : Tour boat: Panther
NTSB No. : DCA03MM018
Investigator : Robert Ford

B. COMPONENTS EXAMINED

Dual alarm.

C. DETAILS OF THE EXAMINATION

The dual alarm submitted for a function test is illustrated in figure 1. The label on the side of the alarm identified it as a Cole Hersee dual alarm, 4112 series, which buzzes and illuminates the red light when the alarm is activated. Examination of the alarm revealed significant corrosion on the metal case, indicated by the red arrow in figure 1, and on the attaching hardware, indicated by the yellow arrows in figure 1. The white arrow in figure 1 indicates a heavily corroded screw and cable connector on one of the alarm's terminals.

The manufacturer's specification sheet for the 4112 series of dual alarms indicates that it operates on 12 volts DC. A suitable supply was connected to the terminals and the circuit produced was switched on. The light illuminated and the buzzer sounded, indicating that the alarm was functioning.

Derek Nash
Mechanical Engineer

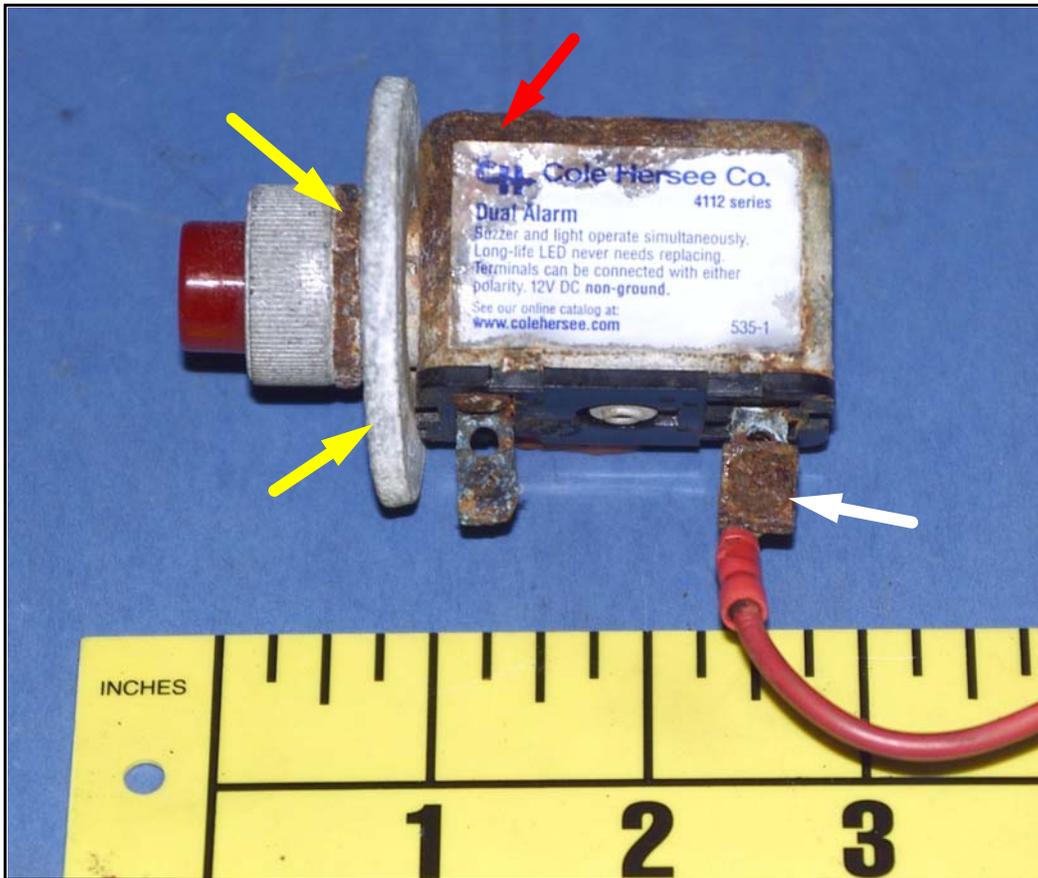


Figure 1. The dual alarm submitted for examination and functional testing with the arrows indicating various degrees of corrosion.