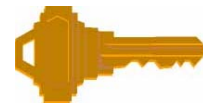


# SIMPLE EDDY



YOUR KEY TO IMPROVED CUSTOMER SAFETY



- **CONSISTENT, RELIABLE RESULTS**
- **AUDIBLE AND VISIBLE DEFECT ALARMS**
- **NO SPECIAL PART PREPARATION**

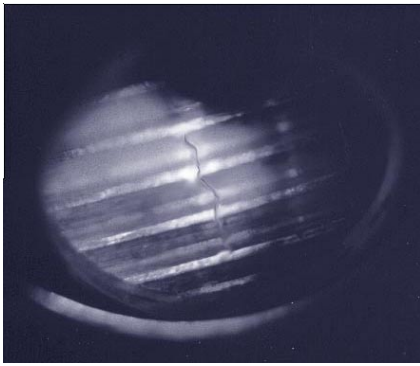


**EASY OPERATION  
USER-FRIENDLY DESIGN  
NO SPECIAL TRAINING  
NEEDED**



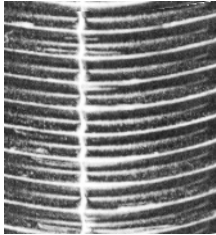
**ENGINEERED  
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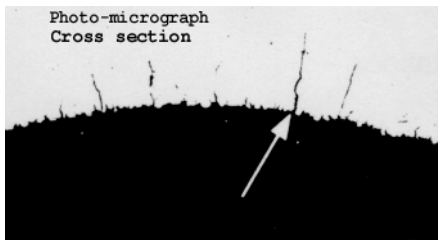


## WHAT ARE SUSTAINED LOAD CRACKS?

Sustained load cracks occur in products in areas which are subjected to long-term stress. In the diving industry these cracks can occur in the aluminum alloys used in the fabrication of air cylinders. Due to the amount of stress present at the neck threads, this is the usual location of this type of defect. The most common symptom of this type of cracking is a slow leak of the air in the cylinder.



However, when sustained load cracks deepen, they can cause a metal cylinder to explode – especially when it is being filled. While this problem is not widespread in the industry, it can cause serious injuries or death. For this reason, the issue has been given much scrutiny over the past few years.



The DOT has issued safety bulletins regarding these defects, and many dive shops in the country have felt it prudent to instigate eddy current inspection of the neck threads of diving cylinders during annual visual inspections. In fact, many stores are requiring that this type of inspection be accomplished before they will fill any aluminum tanks. This lessens the potential hazard to both their clients and their employees.

## WHAT ARE EDDY CURRENTS?

Eddy currents are electromagnetic fields which are induced into the product being tested. They have been in use for years and are a reliable method of testing for anomalies in metal products. They provide a quick, simple, and nondestructive means of evaluating any type of metal for abnormalities. These qualities make eddy currents perfect for inspection of aluminum air cylinders. The test can be accomplished within just a few minutes while the tank is disassembled during its annual visual inspection.

If you would like more information on sustained load cracks, eddy currents, or the DOT regulations, check out the following websites:

[http://hazmat.dot.gov/net94\\_7.htm](http://hazmat.dot.gov/net94_7.htm)

[http://hazmat.dot.gov/rules/not99\\_11.htm](http://hazmat.dot.gov/rules/not99_11.htm)

<http://www.evcom.net/~n4mwd/list.htm>

<http://www.evcom.net/~n4mwd/chris.htm>

or VISIT OUR WEBSITE at <http://www.engineeredinspection.com>

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