

Nixon Albert

From: McAtee Nancy
Sent: Thursday, July 6, 2023 3:06 PM
To: Nixon Albert
Cc: Budinski Michael
Subject: WPR21FA203 Email report (Master Caution Light and other components)

Albert,

The following components from the accident aircraft were submitted to the Materials Laboratory for examination: 1) RPM gauge, 2) Flap selector, 3) Annunciator panel, 4) G-meter logic box, 5) Landing gear box, 6) Angle of attack (AOA) assembly, 7) Master caution light and 8) An unidentified gauge. All of the components were significantly damaged by impact and fire. The only component that could be examined was the Master Caution Light (MCL). The MCL, according to the aircraft operations manual, the MCL consisted two-sided light-one red (on the left) and one amber (on the right). A diagram with accident MCL in the same alignment are shown below.

Master failure warning light

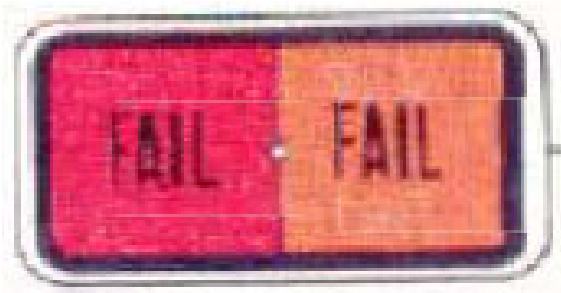


Figure 1. Master caution light layout and accident MCL.

The left side had both bulbs intact. The right side was missing the lower bulb and the upper bulb was intact. The intact bulbs were radiographed to determine the status of the filaments. The two left bulb filaments were broken and unstretched. The remaining right bulb was intact and exhibited hot filament stretch as shown in the radiograph below. Hot filament stretch indicates that the right side of the MCL was illuminated at the time of impact.

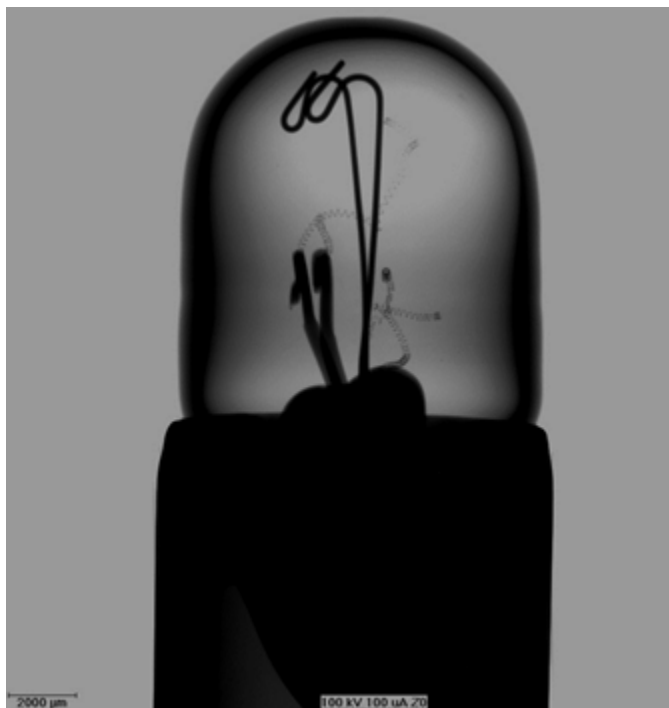


Figure 2. Upper right bulb from master caution light.

If you have any questions, please let me know.

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RE-30