

NATIONAL TRANSPORTATION SAFETY BOARD

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



June 30, 2011

MATERIALS LABORATORY FACTUAL REPORT

Report No. 11-067

A. ACCIDENT

Place : Saltsburg, PA
Date : August 7, 2010
Vehicle : Beech 58
NTSB No. : ERA10FA404
Investigator : Timothy Monville

B. COMPONENTS EXAMINED

Right engine-driven fuel pump with fractured drive coupling.

C. DETAILS OF THE EXAMINATION

A photograph of the as-received pieces from the right engine-driven fuel pump is shown in figure 1. Detailed examination of the disassembled pump revealed the drive coupling fractured at the reduced diameter portion. Bench binocular microscope examination of the coupling revealed the fracture was flat and perpendicular relative to the length of the axis and the fracture faces exhibited a circular texture consistent with ductile overstress separation in torsion mode. No evidence of pre-existing fracture was found on the fracture faces or other areas of the pump.

Frank Zakar
Senior Metallurgist

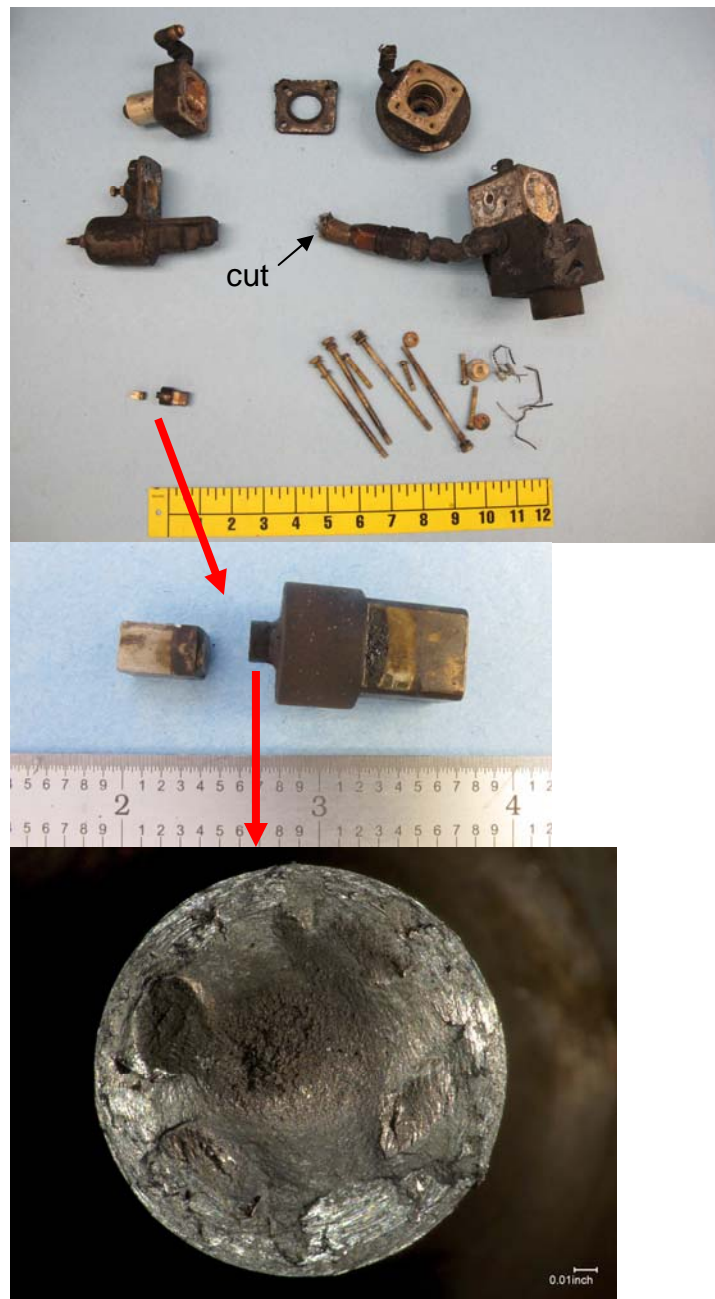


Figure 1. Overall view of the as-received pieces of the right engine-driven pump pieces and fractured drive coupling (above); close-up photograph of the fracture coupling (center); and fracture face of the drive coupling (bottom).