

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN23LA334

N8503W - BRAKE SYSTEM EXAMINATION REPORT

November 21, 2023

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A. ACCIDENT

Location: Aberdeen, South Dakota
Date: July 27, 2023
Time: 1430 Local Time
Airplane: N8503W, Air Tractor AT-802A

B. N8503W - BRAKE SYSTEM EXAMINATION REPORT

Investigator Michael Hodges, Aviation Accident Investigator
National Transportation Safety Board
Aurora, Colorado

Party Coordinator Dakota Lowe, Air Safety Investigator
Air Tractor
Olney, Texas

C. DETAILS OF THE EXAMINATION

1.0 Follow-up Examination

The wreckage of the aerial application airplane (serial number 802A-0134) was recovered to the facilities of George's Aircraft Repair in Vernon, Texas. The airplane was transported to George's Aircraft Repair for repair work due to the accident. Present during the follow-up examination work were members from the NTSB, Air Tractor, and staff members from George's Aircraft Repair. The examination work was performed on November 21, 2023.

2.0 Brake System Examination

The airplane examined is a single seat configuration.

The cockpit-based Hobbs meter showed 8,145.4 hours.

Both wings, ailerons, flaps, and the two horizontal stabilizers were found removed during the examination.

The brake system was examined. The brake system was found to be partially disassembled due to the recovery of the wreckage from the accident site. The brake system was not pressurized and there was no fluid present, as the brake system was disassembled due to recovery from the accident site. The main landing gear legs and both wheels were found removed from the airframe. The main landing gear legs were not available for examination.

This was the original factory-installed brake system.

Control continuity for the brake system was established. The hardware for the brake system was observed to be installed and intact. Both brakes were actuated inside of the cockpit with no issues noted. During the actuation of the brakes, there was no interference noted.

There were no observed fluid leaks with the brake system. A small amount of brake fluid was extracted from the brake system (right side), and it was retained in a new, clean, glass canning jar. The brake fluid had a red appearance with several small pieces of dark colored unknown foreign object debris in the sample. The sample was about a teaspoon amount.

The brake cylinder in the cockpit was found connected and showed no fluid leaks. Both brake calipers were found removed and appeared to be in normal condition, with no damage observed and no fluid leaks observed.

Both brake discs appeared to show normal wear with no damage and no obvious warping. Both tires appeared to show normal wear with no major damage present.

The examination revealed no preimpact mechanical malfunctions or failures with the brake system, that would have precluded normal operation.

Nothing from the airplane was retained by the NTSB after the examination, except for the brake fluid sample. The glass canning jar with the brake fluid sample was secured shipped to the NTSB investigator-in-charge.

The airplane maintenance records were not reviewed during the examination. The historical Federal Aviation Administration airworthiness and registration records were obtained and reviewed.

Submitted by:

Michael J. Hodges
Investigator