

ERA22LA148 – Textron Aviation Examination Notes

On 09-14-22, the wreckage was examined by the NTSB-IIC, an FAA inspector, the operator's Director of Safety, and this investigator in a hangar at KMTN. The investigation focused on the main landing gear wheels and brake system. The pneumatic storage bottle for the emergency brake system was removed by the operator on an unknown date and was not observed by this investigator. It was reported by the operator to be fully charged prior to removal.

A visual inspection of the main landing gear brakes was conducted with no anomalies noted. No evidence of hydraulic leaks was observed near the brakes or any of the associated lines and fittings located in the wheel well. The brake reservoir and brake accumulator were properly serviced. The Valve and Control Unit BIT indicators were observed tripped. The indicators were reset before any testing was accomplished. The parking brake was set and the wear pins on each wheel were examined. The brakes were in a serviceable condition.

The On-ground Mode Antiskid Functional Test was accomplished with reference to the Model 525B Maintenance Manual. The PWR BRK LOW PRESS annunciator illuminated while the accumulator was charged by the airplane pump from a pre-charge state until it reached the normal operating range (green) when the annunciator extinguished. A single pressure gauge was attached at each brake's highest bleed port. Full pressure was applied to the right brake and held. The gauge reading was greater than the required minimum of 980 psi. Full pressure was applied to the left brake and held. The gauge reading was greater than the required minimum of 980 psi.

The rotary test switch was placed in the ANTISKID position and then quickly placed in the OFF position. The ANTISKID INOP annunciator illuminated for approximately six seconds and then extinguished.

Both pilot's brake pedals were depressed fully and held. With the ANTI-SKID switch in the ON position, the left antiskid speed transducer was turned with a drill. The right brake pressure decreased appropriately. The transducer was suddenly stopped, and the left brake pressure decreased before gradually returning to the initial level. The right antiskid speed transducer was turned with a drill. The left brake pressure decreased appropriately. The transducer was suddenly stopped, and the right brake pressure decreased before gradually returning to the initial level. The ANTI-SKID switch was placed in the OFF position and the left antiskid speed transducer was turned with a drill. No change was observed in the left or right brake pressure. The transducer was suddenly stopped, and no change was observed in the left or right brake pressure. The right antiskid speed transducer was turned with a drill. No change was observed in the left or right brake pressure. The transducer was suddenly stopped, and no change was observed in the left or right brake pressure.