



have pushed the leg forward again following nosewheel spin-up, and followed through into an "under centre" position, with consequent leg retraction. It is probable that the free play between the two drag brace arms resulted in a less positive over centring action and this may have been a contributory factor. Disassembly of the drag linkage revealed that the bolt that joins the upper and lower links together had failed at its mid point. Furthermore, considerable wear and elongation of the bushed holes in the two links had occurred, although sufficient friction had evidently existed to prevent the two bolt halves from falling out. Examination of the fracture faces revealed that failure had occurred as a result of fatigue in bending, and the degree of corrosion indicated that this condition had existed for some time.

The broken bolt was identified as a standard AN4-20 aircraft bolt. Similar bolts have featured in a number of reports relating to the collapse of landing gear after touchdown. (In these cases, the bolt fragments fell away, allowing separation of the drag links and consequent leg collapse.) This type of bolt was most recently specified in the 1979 revision of the Piper Illustrated Parts Catalogue (Piper P/N 402 940). A production change has since revised the bolt to a close tolerance NAS464P4-27.