Navion Service Bulletin No. 102
July 13, 2004

Subject	Airframe – Engine Mount
Effectivity	Serial Numbers NAV-4-002 thru NAV-4-2561 Engine Models all Continental IO-470, IO-520 & IO-550
Purpose	Suspect unapproved engine mount components have been discovered that failed to conform to FAA approved design data. These components are prone to fatigue failure.
Compliance	Mandatory
Description	The Navion Part Numbers for the suspect unapproved parts are 147-30007-3, 147-30007-4, 147-30007-5, 147-30007-6, 147-30010-1, 147-30010-2, 147-30006-3, and several doublers on the 147-30001-SA1 assembly. Suspect parts can be identified by one of the following methods:

1. 147-30007-5 & 147-30007-6 supports have insufficient edge distance on the five bolt holes in their lower portions. Any support with edge distance less than 0.240" is considered suspect. Thickness less than 0.650" is also considered suspect. Hole diameter other than 0.125" is considered suspect.

2. 147-30010-1 & 147-30010-2 castings have incorrect material composition, and do not conform to approved drawings. Any casting with a chamfer instead of a rounded corner at the single hole on the narrow end is considered suspect. Any casting with abrupt changes in the tapered surface caused by improper machining is considered suspect. Any casting with inconsistent wall thickness near the inboard side (true thickness should be 0.25") is considered suspect. Any casting which does not appear to be made of 356-T6 aluminum is considered suspect.

3. Any engine mount installation of this type installed after 1977 is considered suspect since the last factory installation occurred in 1975. No approved mount components of this type have been manufactured since.

NOTE: If any part is considered suspect, all parts of the engine mount are considered suspect and should be inspected for conformity. Engine mounts which fail to conform must be replaced.

Figure 1: Sample Support with Insufficient Edge Distance

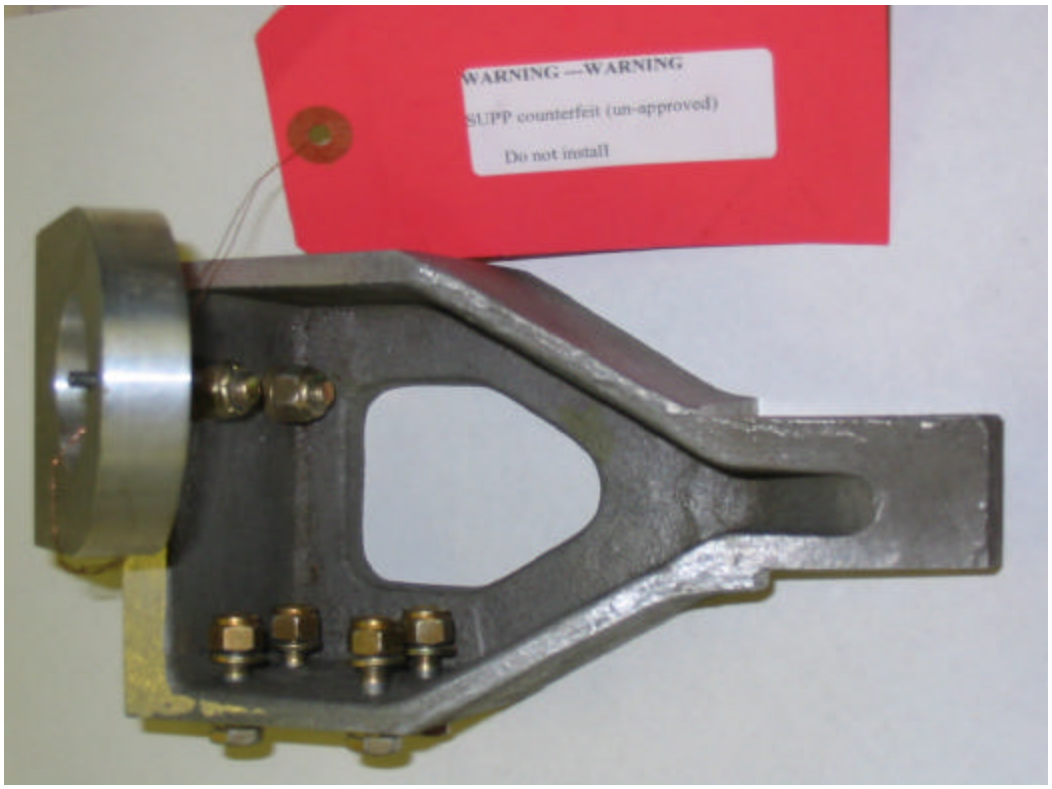

Figure 2: Casting Showing Improper Machining & Inconsistent Wall Thickness

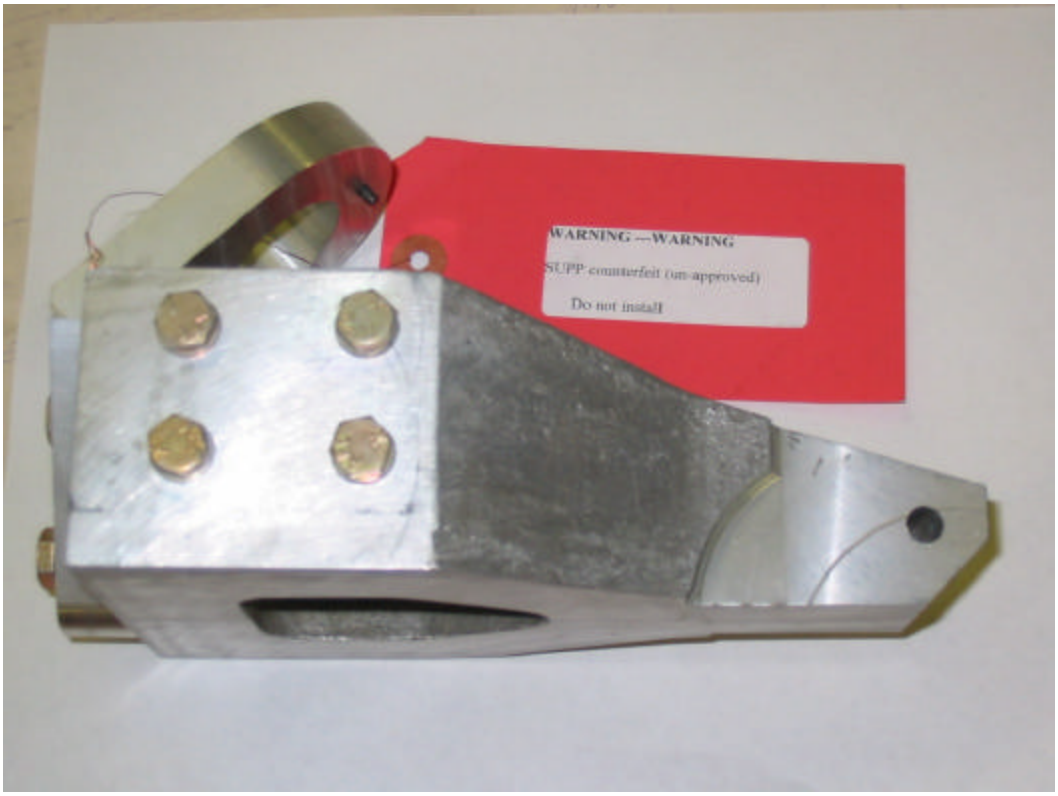

Figure 3: Casting Showing Improper Machining & Chamfer Instead of Radius