

Robinson R44 Main Transmission  
Mounting

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## 1. Effectivity

Robinson R44 - Main Transmission Mounts.

## 2. Purpose

Advise operators and maintainers of R44 helicopters of the potential of excessive vibration and possible loss of control resulting from “loose” main transmission mounts.

## 3. Background

A pilot reported that when lightly loaded, the rotorcraft flew fine. However, when flying heavily loaded, the pilot noted a pronounced vertical bounce which became noticeably worse in tight turns.

On inspecting the rotorcraft it was found that the main rotor gearbox could be moved independently of the airframe. By pre-loading the main rotor mast, a gap could be introduced between the front transmission top washer P/N A367-1 and the mount.

Such a gap indicates the transmission mounting elastomerics are not pre-loaded as required by the design. This may lead to the transmission and main rotor developing frequency induced motion independent of the airframe, with an associated high likelihood of unacceptable feedback into the flight controls, particularly during turning manoeuvres.

Apparently, Robinson Helicopter Corporation are aware of the problem and have produced a new part numbered main transmission mounting elastomeric.

## 4. Recommendation

CASA recommends that all R44 operators and maintainers check for correct mounting pre-load between the airframe and main transmission mounts on a daily basis and install the improved main transmission mounts as soon as possible.

## 5. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link e-mail address:

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