

CAMPBELL HELICOPTERS LTD  
MAINTENANCE DIRECTIVE 2009-03  
Subject: 212 Collective Minimum Friction

**Date:** 14 Aug 2009

**To:** AMEs and Pilots

**CC:** OPS Manager, Chief Pilot

*Reference: BHT 212 Maintenance Manual 67-22*

*Instructions:*

It has been reported that two of our 212's have been found to have no or little collective minimum collective control friction.

Failure to have collective friction set as required by the 212 Maintenance Manual can lead to a situation known as collective bounce, that most likely can not be recovered from, and could cause the loss of the Aircraft.

With the Hydraulics off, pilot collective friction off, and the collective control disconnected the friction clamp on the collective jackshaft is adjusted. The force applied to the middle of the upper throttle grip is 13 to 14 lbs.

With the Hydraulics on, pilot collective friction off, in flight, the force applied to the collective in the middle of the upper collective throttle must be 8 to 10 lbs.

Any one setting the friction less than require by the Maintenance Manual will be subject to disciplinary action.

Any AC found to have collective friction less than required by the Maintenance Manual will be corrected before the next flight. And a Journey log entry will be made for any adjustments made.

Al Singh

Director of Maintenance

---

---

MAINTENANCE DIRECTIVE 2009-03

Subject: 212 Collective Friction

*Please sign and return this portion to signify that you have read and understand this directive. If you have any questions contact AL Singh.*

---

**NAME**

---

**LICENSE #**

---

**DATE**