

EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2011-0057R1-E</p> <p>Date: 28 March 2011</p> <p>Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>	
<p>Type Approval Holder's Name :</p> <p>Kamov Joint Stock Company</p>	<p>Type/Model designation(s) :</p> <p>Ka-32A11BC helicopters</p>
TCDS Number:	EASA.IM.R.133
Foreign AD:	Interstate Aviation Committee (IAC) AD 2011-67-01 dated 11 March 2011.
Revision:	This AD revises EASA AD 2011-0057-E dated 24 March 2011, which was corrected on 25 March 2011.
ATA 67	Rotors Flight Control – Steering System and Piston Rods – Inspection / Replacement
Manufacturer(s):	Kamov Joint Stock Company
Applicability:	<p>Ka-32A11BC helicopters, all serial numbers.</p> <p>Note: The Ka-32A12 type design addressed in (IAC) AD 2011-67-01 is in the process of validation for operation in Europe. This process is not finalized yet, therefore the AD does not apply to this type.</p>
Reason:	<p>The IAC of the Russian Federation has recently issued an AD, applicable to the Ka-32A11BC type design of Russian origin that has been validated (Restricted Type Certificate) for operation in Europe. This AD is therefore recognised as a State of Design AD and is eligible for adoption in accordance with the provisions of ED Decision 02/2003.</p> <p>However, the 'courtesy translation' text of the AD implies that the IAC only 'proposes' to require certain actions, and the document does not meet all the criteria for an AD as specified in regulation (EC) 1702/2003, Part 21A.3B paragraph (d).</p> <p>For the reasons described above, EASA issued AD 2011-0057-E to require the same actions as those described in IAC AD 2011-67-01, which is attached to (and therefore part of) this AD, but specified the compliance times, to be counted from the effective date of that AD, for each action described in IAC AD 2011-67-01.</p> <p>EASA AD 2011-0057-E was republished on 25 March 2011 (correction) to replace page 4 (which was incorrect) with the second page of IAC AD 2011-</p>

	<p>67-01.</p> <p>Subsequently, it has been identified that paragraph (4) of EASA AD 2011-0057-E was partially out of line with paragraph (4) of IAC AD 2011-67-01 (identification of steering systems to be inspected).</p> <p>For this reason, EASA AD 2011-0057-E is revised to clarify this requirement and confirm that there are no technical differences between the requirements of the EASA AD and the actions required by the IAC AD.</p>
Effective Date:	<p>Revision 1: 29 March 2011</p> <p>Original issue: 25 March 2011</p>
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> (1) Before next flight after 25 March 2011 [the effective date of the original issue of this AD], identify the serial number (s/n) of the PC-60F steering system installed on the helicopter [action 1 of IAC AD 2011-67-01]. (2) If a PC-60F steering system is installed with s/n 0390012, 0490013, 1290014, 0210015, 0410016 or 0810017, from 25 March 2011 [the effective date of the original issue of this AD], do not operate the helicopter until the piston rods have been replaced, as required by paragraph (3) of this AD [action 2 of IAC AD 2011-67-01]. (3) For PC-60F steering system s/n 0390012, 0490013, 1290014, 0210015, 0410016 and 0810017, before operation of the helicopter on which it is installed, or before installation of the system in a helicopter, replace the piston rods and accomplish related actions as described in action 3 of IAC AD 2011-67-01. (4) Within 3 months or 100 flight hours, whichever occurs first after 25 March 2011 [the effective date of the original issued of this AD], accomplish a special purpose inspection and check of all PC-60F steering systems, except those with s/n 0390012, 0490013, 1290014, 0210015, 0410016 and 0810017, and accomplish the related actions as described in action 4 of IAC AD 2011-67-01. (5) From 25 March 2011 [the effective date of the original issue of this AD], do not install a PC-60F steering system on any helicopter, unless it has been inspected and, depending on findings, corrected in accordance with the requirements of this AD. After the effective date of this AD, installation of a steering system on a helicopter must be accomplished as specified in action 5 of IAC AD 2011-67-01.
Ref. Publications:	As specified in IAC AD 2011-67-01 (attached).
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Kamov Joint Stock Company, Russian Federation, Moscow region, Lubertsy 8th of March str., 8a Telephone +7 (495) 994-48-00, 700-31-41, Fax +7 (495) 700-33-04, 700-30-71, E-mail: market@kamov.ru. website: http://www.kamov.ru/en/.

**Interstate Aviation Committee
Aviation Register**

AIRWORTHINESS DIRECTIVE

March 11, 2011

No. 2011-67-01

Applicability: Kamov Ka-32A11BC and Ka-32A12 helicopters

State of Manufacturer - Russia

The corrective actions prescribed by this Airworthiness Directive, are mandatory. No persons may operate an aircraft to which this Airworthiness Directive applies, except in accordance with the requirements of this Airworthiness Directive,

According to the information provided by Kamov JSC (letter No. ДСЭ/171-11 dated February 28.2011) an inspection performed after ground running of the engines of the Ka-32A11BC helicopter (registration number C-FIGR) owned by the Canadian company VIH Ltd. revealed a destruction of PC60F-531 plug in PC60F-530CB piston rod of the directional control channel of PC-60F steering system (serial number 0210015). This steering system was manufactured by JSC "PMZ Voskhod" on February 28, 2001, and accumulated 6431 operation hours since new and 1933 hours and 36 minutes since overhaul carried out in 2006.

A preliminary investigation of the break surface and material microstructure showed that a possible cause of PC60F-531 destruction was metal hydrogen embrittlement probably caused by a manufacturing process error. This kind of destruction of the part prototypes of which are used in various aircraft models has never been reported before.

Taking into consideration the effect this failure might have on flight safety, and based on Kamov JSC document "Technical Solution on Ka-32A11BC and KA-32A12 Helicopters Continued Airworthiness. Urgent Notice No. 2011-01", the IAC Aviation Register

PROPOSES :

1. For operators of Ka-32A11BC and Ka-32A12 helicopters to inspect PC-60F steering systems to identify their serial numbers.

2. To suspend temporarily operation of Ka-32A11BC and Ka-32A12 helicopters with PC-60F steering systems Nos. 0390012, 0490013, 1290014, 0210015, 0410016 and 0810017 pending implementation of corrective actions prescribed by item 3 of this Airworthiness Directive.

3. To replace PC60F-530CB piston rods with PC60F-531 plugs in longitudinal, lateral and directional control channels, and to replace PC60F-530-01CB piston rod with PC60F-531-01 plug in the collective pitch control channel in PC-60F steering systems, serial numbers Nos. 0390012, 0490013, 1290014, 0210015, 0410016 and 0810017 with new ones. Removed steering system piston rods are to be sent to "PMZ Voskhod" for inspection. Work is to be carried out per the technique of JSC "PMZ Voskhod" TP-421.

4. Special purpose inspection and check for cracks in screw thread of PC60F-530CB and PC60F-530-01CB piston rods using capillary non-destructive testing in accordance with the technique of JSC "PMZ Voskhod" is to be carried out on all Ka-32A11BC and Ka-32A12 helicopters PC-60F steering systems not mentioned in item 2 of this Airworthiness Directive and manufactured or overhauled prior to March 10, 2011. Work is to be carried out per the technique of JSC "PMZ Voskhod" TP-420.

Special purpose inspection and check is to be carried out within three months or 100 operating hours as well as before installation of the steering system on the helicopter after receipt of this AD. Documented results of the special purpose inspection are to be sent to JSC Kamov and JSC "PMZ Voskhod".

5. PC-60F steering system removal from the helicopter and re-installation after completing the work prescribed by items 3 and 4 of this Airworthiness Directive is to be carried out in accordance with the helicopter Maintenance Manual. After the inspected PC-60F steering systems are re-installed on the helicopter all actions required by the Maintenance Manual for PC-60F replacement should be performed.

Attachment: 1. Technical Solution on Ka-32 A11BC and KA-32A1 2
Helicopters

Continued Airworthiness. Urgent Notice No. 2011-01.

2. TP-421 technique for replacement of PC60F-530, PC60F-530-01 piston rods on PC-60F steering system.

3. TP-420 technique for inspection of PC60F-530, PC60F-530-01 piston rods on PC-60F steering system for cracks.

**IAC Aviation Register
General Director**

A.V. Donchenko