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«    » \_\_\_\_\_ 2013

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«    » \_\_\_\_\_ 2013

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Head of Quality Control Agency  
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the Russian Federation -  
Head of the independent  
inspection

S. Shipilov

«    » \_\_\_\_\_ 2013

TECHNICAL DECISION No.Ka-32-ДЦЭ-001/13TP  
regarding continued airworthiness of the helicopters Ka-32A/AO, Ka-32A12, Ka-32A11BC

From JSC "Klimov" side

From JSC "Kamov" side

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2013

## A. Clarifications

On August 4, 2013 during the continuance of IAC AR Airworthiness Directive No. 2012-53-05 dated November 23, 2012 there was an accident of the helicopter Ka-32A11BC registration No. C-GKHL, belonging to the company "VIH helicopters Ltd.", Canada, which took place near populated area Bella Coola, British Columbia, Canada, and was attributed to the engine TB3-117BMA failure. According to the preliminary results of investigation, it was determined:

1) operations stated in par.1 of Airworthiness Directive No.2012-53-05 dated November 23, 2012 have been performed on the helicopter Ka-32A11BC. Based on the results of inspection and checkouts, no departure from effective operational documentation has been detected.

2) on April 21, 2013 the following replacements were performed on the failed engine TB3-117BMA No. 7087892900208, with operating time of 923 hours after last repair:

- compressor turbine 0780419000 (removed No. 0418, installed No. 02207 with operating time of: total time since new-956 hours, since last overhaul -0 hours);

- fuel manifold 0780335600 (removed No. 116-94, installed No. 232-80 with operating time of: total time since new -956 hours, since last overhaul -0 hours);

- thermocouples T-102 (7 new thermocouples T-102 has been installed).

3) as of the date of the helicopter accident, engine TB3-117BMA No. 7087892900208 operating time was:

- total time since new – 5124hrs. 14 min,

- since last overhaul – 1110hrs,

- after the replacement of hot section – 187hrs.

Before the end of investigation, with a view to clarify corrective actions, specified in Airworthiness Directive No. 2012-53-05 dated November 23, 2012, this technical decision regarding continued airworthiness of the helicopters Ka-32A/AO, Ka-32A12, Ka-32A11BC has been developed.

## B. Corrective actions

1. When carrying out works using external load sling, the operators of the helicopters Ka-32A/AO, Ka-32A12, Ka-32A11BC should:

a) when calculating engine operating time in cycles, multiply achieved running time value by 1.2 factor; on reaching engine operating time of 1500 cycles, the engine should be sent for repairs.

b) on reaching engine operating time of 750 hrs, replace the following engine hot section components by new ones (total time since new 0 hrs), including:

- fuel manifold injectors and nozzles;

- compressor turbine with nozzle guide vanes CAII.

Note. Replacement of components listed above should be conducted by the engine Developer's (Manufacturer's) specialists involved.

c) analyze the logbooks of the engines TB3-117BMA and TB3-117BMA series 02 to discover whether engine hot section components (fuel manifold injectors and nozzles, compressor turbine with nozzle guide vanes CAII) have been replaced during operation by parts which have some operating time. On discovering that there were cases when hot section parts with some operating time have been installed on the engine, the engine should be temporarily removed from operation, and JSC "Klimov", JSC "Motor Sich" and JSC "Kamov" should be informed about this decision. To resume engine operation, operators should apply to JSC "Klimov" or JSC "Motor Sich" for replacement of hot section parts by new ones (with total time since new 0 hrs.), specified in par. 1(b).

2. When operating the helicopters Ka-32A/AO, Ka-32A12, Ka-32A11BC the operators should take into account Temporary Revisions to Rotorcraft Flight Manual and a Temporary Revision to engine Maintenance Manual (with the exception of the note, included on the page 4 of section 005.20.20).