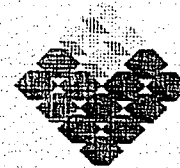




REPÚBLICA DE CHILE
DIRECCIÓN GENERAL DE AERONÁUTICA CIVIL



REPUBLIC OF CHILE
DIRECTORATE GENERAL OF CIVIL AERONAUTICS

GOBIERNO DE CHILE

TYPE CERTIFICATE VALIDATION ACT

N° : H - A49 - 06 / 07
28 June 2007

- 1.- In accordance with the records and documents submitted by Kamov Company, domiciled in: 8a, The 8th March Str., Liubertsy, 140007 Moscow Region, Russian Federation, it has been established that the aeronautical product identified below is of a design, materials, specifications, construction and appropriate performance for a safe operation and it satisfies current requirements stated in the Standards and Regulations as effective in the Republic of Chile,

PRODUCT : HELICOPTER
MAKE : KAMOV COMPANY
MODEL : Ka-32A11BC

- 2.- Type Certificate N° 36-32A issued by the Interstate Aviation Committee - Aviation Register (IAC-AR), along with the Type Acceptance Data Sheet (TADS) N° H-A49-06/07 issued by this DGAC, provides the definition of the acceptable configuration for the helicopter model above identified, for the issuance of a Restricted Airworthiness Certificate in Chile.
- 3.- The content of the TADS N° H-A49-06/07 prevails over any other document, and establishes the conditions and limitations applicable to the operation of helicopters of the model above identified.



[Signature]
LORENZO SEPÚLVEDA B.

DIRECTOR
SEGURIDAD OPERACIONAL

[Signature]
JOSÉ HUEPE PÉREZ

GENERAL DE BRIGADA AERÉA (A)
DIRECTOR GENERAL
AERONÁUTICA CIVIL

REPUBLIC OF CHILE
DIRECCION GENERAL DE AERONAUTICA CIVIL

No. H-A49-06/07
KAMOV

Ka-32A11BC

28 June 2007

TYPE ACCEPTANCE DATA SHEET No. H-A49-06/07

This Data Sheet, which is a part of Type Certificate Validation Act No. H-A49-06/07, prescribes the conditions and limitations under which the product for which the Type Certificate N° 36-32A was issued by IAC AR, meets the airworthiness requirements of the Chilean Aeronautical Regulations.

Type Certificate Holder: Kamov Company
 8a, The 8th March Str., Liubertzy,
 140007 Moscow Region
 Russian Federation

I. MODEL Ka-32A11BC (RESTRICTED CATEGORY), APPROVED JUNE 14, 2007

Engines: Two TB3-117BMA or TB3-117BMA series 02 engines, Klimov Scientific and Industrial Enterprise.

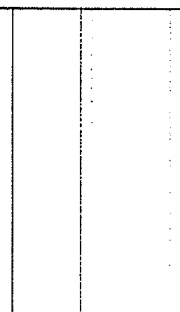
Fuel:

Type of Fuel	Specification		
	Russia	Canada	USA
PT, TC-1	GOST 10227-86		
Anti-icing additive "I" fluid	GOST 8313-88		
Kerosene Jet A, A-1		CGSB 3.23	ASTM D1655
High Flash JP4, JP5		3-GP-24	MIL-F-5616

Refer to engine Type Certificate IE-35 for alternate fuels and anti-icing additives.

Oil: Use oil in accordance with Rotorcraft Flight Manual as listed in Approved Publications.

Page No.	1	2	3	4	5	6	7
Rev. No.	0	0	0	0	0	0	0



Engine Operating: (Normal Operations)	Gas Gen (% rpm)	Output Shaft (h.p.)	ITT	
			(°C)	(°F)
Max. Take-off	101.15	2200	990	1814
Max. Continuous (Start/Transient)	99.0	1700	955	1751
OEI 2.5 min.	101.15	2400	990	1814
OEI 30 min	101.15	2200	990	1814

Rotor Limits	<u>Power Off</u>	<u>Power On AEO</u>	<u>Power On, OEI</u>
Maximum (Tach reading 98%)	Maximum (Tach reading 98%)	Maximum (Tach reading 98%)	Maximum (Tach reading 98%)
Minimum (Tach reading 68%)	Minimum (Tach reading 83%)	Minimum (Tach reading 73%)	Minimum (Tach reading 73%)

Note: Refer to Rotorcraft Flight Manual as listed in Approved Publications for rotor RPM limits under various flight operating conditions.

Airspeed Limits (IAS)		<u>km/h</u>	<u>knots</u>
Vne (Never Exceed)		260	140
Never exceed during autorotation		180	95
Minimum Continuous during autorotation		100	54

C.G. Range Refer to Rotorcraft Flight Manual as listed in Approved Publications.

Maximum Weight T-O & L (with internal load) 11,000 Kg. 24,250 lb.

Maximum Gross Weight (with external load) 12,700 Kg. 28,000 lb

Datum Reference datum line (Station 0) is located on the rotor axis. The positive longitudinal co-ordinate axis directs to forward. For the Rotorcraft Flight Manual another datum may be used in which the station 0 is located 528 cm (208 inches) forward of rotor axis and the positive longitudinal co-ordinate axis directs to aft.

Leveling Means Rotor Axis to be vertical. See Maintenance Manual for details.

Minimum Crew 1 (Pilot)

Operational Limitations Restricted to aerial work: water dropping operations in forest fire fighting, and general external cargo operations.

Maximum Occupants 2 Crew plus 9 persons essential to the aerial work. No passengers. For external cargo operations, personnel required to monitor the hook and the cargo and to operate the hook can be on board.

Fuel Capacity (See NOTES 1 & 2)		<u>Liters</u>	<u>U.S. Gals</u>
	Usable	2424	640
	Unusable	26	6.9
	Total	2450	646.9

Oil Capacity (See NOTES 1)		<u>Liters</u>	<u>U.S. Gals</u>
	Total	90	23.8

Maximum Operating Altitude	Take-off & Landing	9842 ft. pressure altitude
	Enroute	16,400 ft. pressure altitude

Outside Air Temperature Limits See Rotorcraft Flight Manual as listed in Approved Publications for limitations.

- Basis of Certification**
1. FAR 29 including amendments 29-1 to 29-24 dated September 16, 1991
 2. FAR 29.1459 at amendment 29-25
 3. FAR 29.954, 29.963, 29.991, 29.1011, 29.1027 at amendment 29-26
 4. Following IAC AR Findings of Equivalent Safety:
 - a. NLG 32.29.173 (b)
 - b. NLG 32.29.177
 - c. NLG 32.29.923 (c) and (i)
 - d. NLG 32.29.1027 (b)(1)
 - e. NLG 32.29.1351 (d)(3)
 - f. NLG 32.29.1459 (a)(5)
 5. Compliance was not demonstrated with the following paragraph and considered not necessary for issue of a Type Certificate - Restricted:
FAR Part 29.1305(a)(15)

Required Equipment The basic required equipment as prescribed in the applicable airworthiness requirements (See basis of Certification) must be installed in the aircraft. In addition the following equipment is required:
a. Rotorcraft Flight Manual as listed in Approved Publications.

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Import Requirements

The import documentation must include:

For new aircraft

- a) A Russian Federation Export Certificate of Airworthiness to Chile signed by Interstate Aviation Committee Aviation register (IAC AR) or a designated representative;

or

- b) A Certificate of Airworthiness for Export signed by the Airworthiness Authority of a country with whom Chile has a Bilateral Airworthiness agreement;

For used aircraft

- c) DGAC requirements for used aircrafts must be asked before the issue of an Export C. of A. as they will be determined on a case by case basis.

In case a) or b) or c), the C of A must contain the following statement:

"The aircraft identified by this Certificate has been examined and found to conform to the DGAC of Chile Type Acceptance Data Sheet H-A49-06/07",

Serial Numbers Eligible

None. Before original airworthiness certification of each rotorcraft to be exported to Chile, a Chilean DGAC representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics.

Placards

Placards in English or Spanish language as listed in the applicable approved Rotorcraft Flight Manual must be installed in their specific locations.

Approved Publications

1. Aviation Register Interstate Aviation Committee (IAC AR) approved Kamov Ka-32A11BC Rotorcraft Flight Manual, Issue 1 dated August 14, 1998 (approved September 2, 1998) or later approved revisions.
2. Aviation Register Interstate Aviation Committee (IAC AR) approved Kamov Ka-32A11BC-FMS-1.1 Rotorcraft Flight Manual Supplement, Issue 1 for External Cargo Operation dated August 14, 1998 (approved September 2, 1998) or later approved revisions.
3. Chapter 4 Airworthiness Limitations of the Ka-32A11BC Maintenance Manual, book 0, dated December 9, 1998 or later approved revisions.

Life Limited Parts Components which are life limited are listed in the IAC AR approved Chapter 4 Airworthiness Limitations of the Ka-32A11BC Maintenance Manual book 0, dated December 9, 1998 or later approved revisions.

NOTE 1 Current weight and balance report including list of equipment and undrainable oil and unusable fuel included in the certificated empty weight, and loading instructions, when necessary, must be provided for each helicopter at the time of original certification. The certificated empty weight must include the total unusable fuel of 26 liters (6.9 U.S. Gals.)/20 Kg. Weight of de-icing fluid is not included in empty weight.

NOTE 2 Fuel Capacity:

	Left		Right	
	Liters	U.S. Gals.	Liters	U.S. Gals.
Tank No. 1	285	75	285	75
Tank No. 2	280	74	280	74
Tanks No. 3 & 4	410	108	410	108
Tank No. 5	250	66	250	66
Total Usable	1212	320	1212	320
Unusable	13	3	13	3
Auxiliary Tank (Front)	500	132	(Aft) 500	132

With both Front and Aft Auxiliary Tanks installed:

when filler refueling, total fuel quantity is 3450 liters (911 U.S. Gals), unusable fuel is 26 liters (6.9 U.S. Gals);

when pressure refueling (one point refueling), total fuel quantity is 3080 liters (814 U.S. Gals), unusable fuel is 26 liters (6.9 U.S. Gals).

NOTE 3 Incorporating Kamov Service Bulletins 324.018 dated January 30, 2006 or later revision and 324.025 dated June 27, 2006 or later revision will allow for carriage of persons limited to those directly involved with aerial work.

NOTE 4 The Ka-32A11BC is certified in Category B, restricted category. It has demonstrated compliance with Category A/B performance requirements and therefore the use of Category A/B performance data and limitations is authorized.

NOTE 5 This rotorcraft is prohibited from carrying cargo or passenger for compensation or hire. Carriage of cargo and passengers are limited to such, that is incidental to the aircraft owner/operator's business which is other than air transportation.

NOTE 6 Restricted category aircraft may not be operated in a foreign country without the express written approval of that country.

NOTE 7

This helicopter has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation.

- END -

CARLOS ROJAS O.

JEFE SUBDEPARTAMENTO
AERONAVEGABILIDAD

LORENZO SEPÚLVEDA B.

DIRECTOR
SEGURIDAD OPERACIONAL

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