

**MINISTERO DELLA DIFESA**  
Segretariato Generale della Difesa e Direzione Nazionale Armamenti  
Direzione degli Armamenti Aeronautici

## **CERTIFICATO DI OMOLOGAZIONE MOTORE**

### **N° 12493 Rev. 1**

Si certifica che il Turboalbero **Modello T700/T6A, Assieme P/N 6082T34G01** è stato omologato in accordo alla Norma AER.P-2.

Il presente certificato:

– viene rilasciato alla ditta:

**GE AVIO S.r.l.**  
**Via I MAGGIO, 99**  
**10040 RIVALTA DI TORINO (TO)**

- sancisce la rispondenza alla SPECIFICA TECNICA: “*Engine Model Specification E1292 Rev.A*” del 10/12/1997; sulla base delle evidenze tecniche riportate in Allegato.
- Vincola l’uso a: Elicottero EH101.
- Con le seguenti limitazioni: N/A.
- È basato sulle evidenze prodotte dalla ditta **GE AVIO S.r.l.** e sulle valutazioni tecniche effettuate dalla **Direzione degli Armamenti Aeronautici** in conformità alla Norma **AER.P-2** e riassunte nel **Rapporto Tecnico di Omologazione N°3092/R1** depositato presso la **Direzione degli Armamenti Aeronautici - Vice Direzione Tecnica 1° Ufficio**.

Roma, 02 AGO. 2013



**IL VICE DIRETTORE TECNICO**  
**(Gen. Isp) G.A. LANGELLA (Ing. Francesco)**



MINISTRY OF DEFENCE  
Secretariat General of Defence and National Armaments Directorate  
Air Armaments Directorate

**ENGINE MILITARY TYPE  
QUALIFICATION CERTIFICATE  
N°12493 Rev.1**

It is hereby certified that the **turboshaft T700/T6A, P/N 6082T34G01** has been qualified according to AER.P-2.

This certificate:

- is released to the company:

**GE AVIO S.r.l.  
Via I MAGGIO, 99  
10040 RIVALTA DI TORINO (TO)**

- declares compliance to the Technical Specification: "*Engine Model Specification E1292 Rev.A*" dated 10 December 1997 in the terms of condition reported in the Annex.

- limits system installation on: **Helicopter EH101.**

- with the following limitations: **Not Applicable.**

- is based on the technical evidences given by the company **GE AVIO S.r.l.** and on the technical evaluations performed by **D.A.A.**, according to **AER.P-2** regulation requirements and summarized in the **Qualification Technical Report N°3092/R1** filed in **D.A.A. - 1st Vice Technical Directorate.**

Rome, 02 AGO. 2013



THE TECHNICAL VICE DIRECTOR  
(Maj. Gen LANGELLA Francesco)

OMOLOGAZIONE MOTORE T700/T6A

TABELLA DI CONFORMITA'

Engine Model Qualification - Compliance Table

DOCUMENTAZIONE SUPPLEMENTARE RIFERITA ALLA SPECIFICA TECNICA No. E1292 REV. A

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CROSS CHECK CON LE RELAZIONI GIA' FORNITE NELLA PRECEDENTE OMOLOGAZIONE

Riferimenti:

- "Omologazione 1991" (DGCAAAS - Certificato di Omologazione No. 12169, 5 Aprile 1991) - rif. Engine Model Specification No. E1292 Rev. - , 16 Nov. 1988.
- "Omologazione 1999" - rif. Engine Model Specification No. E1292 Rev. A, 10 Dec. 1997.

Para. No.	SPEC. Requirements Title	Model Qualification Reports	
		Spec. E1292 (Certificate No. 12169) Report No.	Spec. E1292 rev. A Supplemental Report No.
3.1.2.5	Externally Applied Forces	T6A005	=
3.1.2.8.2	Heat Rejection and Cooling Test Report	T6A006	=
3.2.1.3	Performance Verification	T6A042	=
3.2.1.4.5	Engine Temperature Limits	Note 1	Note 1
3.2.1.4.10	Vibration Limits	(Explanatory Docum. may '98) T6A002	Explanatory Docum. may '98
3.2.3	Reliability	Note 2	Note 2
3.2.5.7	Noise Levels	T6A047	=
3.3.1.1	Materials and Processes	Note 3	Note 3
3.3.1.1.1	Adhesives and Sealants	T6A029	=
3.3.1.1.4	Corrosion Protection	T6A028	=
3.3.2	Electromagnetic Interference (EMI)	T6A025	R94AEB072 R96AEB1073 R96AEB1074
3.3.5	Interchangeability	T6A012	=
3.3.8.4	Engine Pressure Balance	T6A043	=
3.3.8.6	Strength and Life Analysis	T6A021	=
3.3.8.8	Creep	T6A021	=
3.3.8.10.2	Vibration and Stress Analysis	T6A009	=
3.3.9.1.1	Design Standards	T6A041	=
3.5.1.1	Modular Concept	Note 4	Note 4
3.5.1.5	Repair Procedures and Wear Limits	Note 5	Note 5
3.7.2	Engine Control System DECU SW Qualification:	—	GEK105157 R98AEB042 R96AEB1077 R96AEB1079 R96AEB1080 R96AEB1083 R96AEB1085 R96AEB1087 R96AEB1089
3.7.4.6	Potting Compounds	T6A023	=
3.7.6.7.1	Relative Damage Chart	T6A021	=
3.7.7.3.1	Oil Flow and Heat Rejection	T6A037	=
3.7.7.4.6	Wear Rate Analysis	T6A001	=
3.7.13	Wash System	T6A008	=

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Para. No.	SPEC. Requirements Title	Model Qualification Reports	
		Spec. E1292 (Certificate No.12169) Report No.	Spec. E1292 rev.A Supplemental Report No.
3.9.1	Engineering Evaluation Tests	see following paragraphs for specific tests	
4.3.5.1	Pretest Data	==	==
4.3.6.1	Test Reports	==	==
4.3.6.2	Summary Reports	T6A048	==
4.4.1	Customer Air Bleed	T6A032	==
4.4.2	Engine Heat Rejection and Oil Cooling	T6A037	==
4.4.3	Oil Flow Interruption Test	T6A020	==
4.4.4	Engine Electrical Power Failure Tests	T6A018	==
4.4.5	Engine Vibration Survey	T6A002	==
4.4.6	Starting Torque	T6A031	==
4.4.7	Engine Pressure Balance Verification	T6A043	==
4.4.8	Maintainability/Maintenance Demonstration	Note:6	Note:6
4.6.1	Endurance Test	T6A011	==
4.6.1.1.1	Engine Dry Weight	T6A011	==
4.6.1.1.2	Electromagnetic Interference and Susceptibility Tests	T6A025 & T6A011	==
4.6.1.1.3	Control Spindle Torque	T6A033 & T6A011	==
4.6.1.2.1	Temperature Sensing System Calibration	T6A011	==
4.6.1.2.2	Engine Control System Calibration	T6A011	==
4.6.1.2.3	Engine Calibration	T6A011	==
4.6.1.2.3.1	Customer Bleed Air Analysis	T6A011	==
4.6.1.3	Endurance Test Procedure	T6A011	==
4.6.1.3.1	Starts	T6A011	==
4.6.1.4.1	Engine Recalibration	T6A011	==
4.6.1.4.1.1	Engine Inspection and Retest	Not Applicable	Not Applicable
4.6.1.4.2	Temperature Sensing System Recalibration	T6A011	==
4.6.1.4.3	Engine Control System Recalibration	T6A011	==
4.6.1.5	Engine Disassembly and Inspection	T6A011	==
4.6.1.6	Engine Disassembly, Inspection, Reassembly, and Retest	Not Applicable	Not Applicable
4.6.1.7	Endurance Test Completion	T6A011	==
4.6.2	Engine Component Tests	T6A022 & T6A034	
	DECU & HMU Qualification:	—	R94AEB055 R94AEB056 R94AEB070 R94AEB072 R94AEB073 R94AEB075 R94AEB078 R94AEB086 R96AEB1070 R96AEB1071

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Engine Model Qualification - Compliance Table

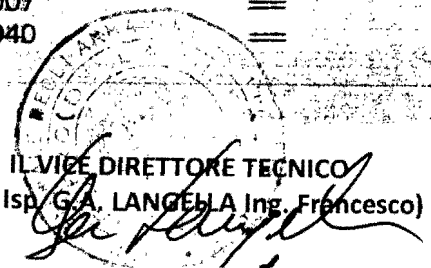
DOCUMENTAZIONE SUPPLEMENTARE RIFERITA ALLA SPECIFICA TECNICA No. E1292 REV.A

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CROSS CHECK CON LE RELAZIONI GIA' FORNITE NELLA PRECEDENTE OMOLOGAZIONE

Para. No.	SPEC. Requirements Title	Model Qualification Reports	
		Spec. E1292 (Certificate No. 12169) Report No.	Spec. E1292 rev.A Supplemental Report No.
	<i>cont'd</i>		R96AEB1072 R96AEB1073 R96AEB1074 R96AEB1075 R96AEB1076
4.6.2.2	Simulated Operational Component Tests	T6A034	=
4.6.2.2.1	Component Calibration	T6A034	=
4.6.2.2.2	Component Test Procedures	T6A034	=
4.6.2.2.3	Component Test Cycles	T6A034	=
4.6.2.2.3.1	Fuel Pump Test Cycle	T6A034	=
4.6.2.2.3.2	Engine Control System Test Cycle	T6A034	R96AEB1075
4.6.2.2.3.3	Ignition System Test Cycle	T6A034	=
4.6.2.2.4	Accelerated Aging	T6A034	=
4.6.2.2.5	High Temperature	T6A034	R96AEB1071 & R96AEB1072
4.6.2.2.6	Room Temperature	T6A034	R96AEB1071 & R96AEB1072
4.6.2.2.7	Low Temperature	T6A034	R96AEB1071 & R96AEB1072
4.6.2.2.8	Fuel Pump Cavitation	T6A034	=
4.6.2.2.8.1	Fuel System Performance With No External Assistance	T6A034	=
4.6.2.2.9	Recalibration	T6A034	=
4.6.2.2.10	Component Test Completion	T6A034	=
4.6.2.3	Environmental Component Tests	T6A034	R96AEB1076
4.6.2.3.1	Component Calibrations	T6A034	=
4.6.2.3.2	Component Test Procedure	T6A034	=
4.6.2.3.3	Humidity	T6A034	=
4.6.2.3.4	Fungus	T6A034	=
4.6.2.3.5	Explosion Proof	T6A034	=
4.6.2.3.6	Sand and Dust	T6A034	=
4.6.2.3.7	Sustained Acceleration	T6A034	=
4.6.2.3.8	Impact	T6A034	=
4.6.2.3.9	Vibration	T6A034	=
4.6.2.3.10	Ignition System Fouling	T6A034	=
4.6.2.3.10.1	Carbon Fouling	T6A034	=
4.6.2.3.10.2	Water Fouling	T6A034	=
4.6.2.4	Individual Component Tests		
4.6.2.4.1	Oil Reservoir	T6A024	=
4.6.2.4.2	Accessory Drive/Power Takeoff	T6A035	=
4.6.2.4.3	Generator/Alternator Test	T6A034	=
4.6.2.4.4	Heat Exchangers	T6A036	=
4.6.2.4.5	Fire Test	T6A007	=
4.6.3	Altitude Tests (Engine)	T6A040	=

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Engine Model Qualification - Compliance Table

DOCUMENTAZIONE SUPPLEMENTARE RIFERITA ALLA SPECIFICA TECNICA No. E1292 REV. A

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Para. No.	SPEC. Requirements Title	Model Qualification Reports	
		Spec. E1292 (Certificate No. 12169) Report No.	Spec. E1292 rev. A Supplemental Report No.
4.6.3.1	Altitude Engine Calibration	T6A040	==
4.6.3.2	Altitude Test Procedure	T6A040	==
4.6.3.3	Altitude Test Completion	T6A040	==
4.6.4	Engine Environmental and Ingestion Tests	see below	==
4.6.4.1	Low and High Temperature Starting and Acceleration Tests	T6A031 & T6A038	==
4.6.4.2	Environmental Icing Test	T6A014	==
4.6.4.3	Corrosion Susceptibility Test	T6A039	==
4.6.4.4	Bird Ingestion Test	T6A044	==
4.6.4.6	Ice Ingestion Test	T6A045	==
4.6.4.7	Sand Ingestion Test	T6A046	==
4.6.4.8	Atmospheric Water Ingestion Test	T6A047	==
4.6.4.9	Armament Gas Ingestion Test	Not Applicable	Not Applicable
4.6.4.10	Noise Survey	T6A047	==
4.6.4.11.1	Exhaust Smoke Emission	T6A016	==
4.6.5	Engine Characteristics and Fuel Tests	T6A031	==
4.6.5.1	Starting Torque	T6A031	==
4.6.6	Structural Tests		
4.6.6.2.2	Low Cycle Fatigue Engine Test	T6A017	==
4.6.6.3	Containment	T6A003 Rev.1	==
4.6.6.4.1	Overspeed	T6A010	==
4.6.6.4.2	Overtemperature	T6A013	==
4.6.6.4.3	Disc Burst Test	T6A015	==
4.6.6.5	Engine Static Load Test	T6A005	==
4.6.6.6	Vibration and Stress Tests	T6A009	TM94AEB1029
4.6.6.8	Engine Overtemperature Control System Test	T6A030	R96AEB1075
4.6.6.9	Engine Overspeed Control System Test	T6A019	R94AEB1004 & R96AEB1075
4.6.6.10	Attitude Test	T6A004	==

NOTES:

1. Engine Temperature limits are specified in paragraph 3.2.1.4.5 of Engine Model Specification E1292 Rev. A. - see Explanatory Document dtd May 1998 as addendum.
2. Reliability values and demonstrations will be provided as specified in the applicable contract.

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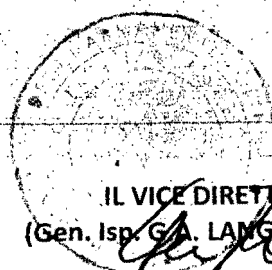
Engine/Model Qualification - Compliance Table

DOCUMENTAZIONE SUPPLEMENTARE RIFERITA ALLA SPECIFICA TECNICA No. E1292 REV. A

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CROSS CHECK CON LE RELAZIONI GIA' FORNITE NELLA PRECEDENTE OMOLOGAZIONE

3. Engine Manufacturer's Documents used for materials and processes are available for review by the Using Service upon request.
4. The Modular Concept Information required for this paragraph is presented in paragraph 3.5.1.1 of Engine Model Specification E1292 Rev. A.
5. Repair procedures and wear limits are provided in the applicable Engine Maintenance Manuals - (T700/T6A Engine Maintenance Manual No. GEK105167 Vol. 1 - 2)
6. Maintainability/Maintenance Demonstrations will be performed as specified in the applicable contract.



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