

BRAZILIAN AIR FORCE <u>AERONAUTICAL AND WARFARE MATERIEL DIRECTORATE</u> <u>SÃO PAULO AERONAUTICAL MATERIEL DEPOT</u>

TECHNICAL SPECIFICATIONS nº 010/TMOT/2024

DATE: Sep 27th, 2024

I. PURPOSE

This Technical Specification (TS) has the purpose to present the collection of necessary and enough elements, with an adequate level of accuracy, to define the exchange of one PT6A-34 model engine, Serial Number PC-E57101, by another one PT6A-34 engine with TSO 00h:00min and CSO 00 cycles. The PT6A-34 engine must be delivered with all Life Limit Parts (LLP) with CSN (Cycle Since New): 00 cycles as well as with all accessories also with TSN: 00h:00min and CSN: 00 cycles. This engine model is applied in C-95 aircraft (Embraer 110), belonging to the fleet of Brazilian Air Force.

II. OBJECT

Perform an exchange of one PRATT & WHITNEY PT6A-34 engine, Serial Number PC-E57101, by another one PT6A-34 engine with TSO 00h:00min and CSO 00 cycles with the Build Spec n°609. All LLP and accessories must be delivered with TSN 00h:00min and CSN 00 cycles.

Some information about the engine currently in the Brazilian Air Force fleet are listed at the table below:

MODEL	PN	SN	TSN	TSO	CYCLES
PT6A-34	PT6A-34	PC-E57101	14175:40	1360:20	14067 CY

III. REASONS FOR REMOVAL

The engine PT6A-34 SN PC-E57101 was removed from the aircraft because of the following reasons:

TBO

IV. ENGINE DATA

1. Life Limited Parts – Service Life Data

The following table shows the number of accumulated cycles (AC Cycles) since new the rotating components of the engine had completed.

COMPONENT	PN	SN	LFC LIMIT	AC CYCLES
Disk	3011713	4M251	25000	14067

Hub, Compressor, AIRC	3013111	1M115	19000	14067
Disk and Hub, Compressor,	2012411	A0020N4R	16000	5339
Aircraft gas Turbine Engine	3013411	AUUZUN4R	16000	5559
Disk, Axial Compress	3013712	6X071	24000	11774
Disk, Turbine, Aircraft gas	3026812	11/571	20000	14067
Turbine Engine	3020012	INSTI	20000	14007
Impeller	3013176	8B794	19000	14067

2. Soft Time Accessories Data and Disposition

ACCESSORY	PN	SN	TSN	TSO
Pump, Rotary	025323-101-02	4460	17927:55	5952:20
Bleed-Air	3075033-01	AHX018215	936:05	936:05
Fuel Control, Main,		A-25958		
Turbine Engine	2524440-6	A-20900	11349:45	3052:40
Governor, Constant Speed	8210-003	1200836R	12246:40	5373:10
Drive	0210-003	1200030K	12240.40	0373.10
Start Control Unit	3019109	8231	14552:20	3772:35

V. ESTIMATED COST

According to market estimates, the maximum purchase price for the exchange by another one engine is US\$ 673,000.00 (six hundred and seventy three dollars).

VI. TECHNICAL REQUIREMENTS

All LLP and accessories must be delivered with TSN: 00h:00min (Time Since New) and CSN: 00cy (Cycle Since New). It Means that they must have accumulated no more operating hours than those necessary to accomplish their manufacture testing process.

The engine must be in airworthiness condition and up to date with respect to the Service Bulletins issued by the manufacturer. At delivery, it must has already undergone the actions to comply all airworthiness directives mandatory along with all the applicable Service Bulletins up to category 6 (six) issued so far as well as with Build Spec n°609.

VII. <u>DELIVERY</u>

The engine must be delivered at the Brazilian Aeronautical Commission in Washington (CABW) warehouse, which address that will be informed later, with all caps and covers as well as the engine logbook completed and signed. The engine must be mounted in the approved P&WC shipping container as well as must be preserved condition considering that it might be stored for over 90 days, in accordance with the requirements of the Maintenance Manual.

VIII. TECHNICAL WARRANTY

The engine must be subjected to the technical warranty which is either 12 (twelve) months of operation or 500 (five hundred) operation hours, whichever occurs first.

Prepared by:

Eder Luiz Da Silva – 1st Lt. QOCon MEC Engine Engineer

Reviewed by:

Claudio Ubirajara **Salicio** – Maj. Esp. Head of Engines Subdivision

Approved by:

Claudomiro **Feltran** Junior — Col. Av. Head of Technical Division



CONTROLE DE ASSINATURAS ELETRÔNICAS DO DOCUMENTO

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BRAZILIAN AIR FORCE <u>AERONAUTICAL AND WARFARE MATERIEL DIRECTORATE</u> <u>SÃO PAULO AERONAUTICAL MATERIEL DEPOT</u>

TECHNICAL SPECIFICATIONS nº 011/TMOT/2024

DATE: Sep 27th, 2024

I. PURPOSE

This Technical Specification (TS) has the purpose to present the collection of necessary and enough elements, with an adequate level of accuracy, to define the exchange of one PT6A-34 model engine, Serial Number PC-E56261, by another one PT6A-34 engine with TSO 00h:00min and CSO 00 cycles. The PT6A-34 engine must be delivered with all Life Limit Parts (LLP) with CSN (Cycle Since New): 00 cycles as well as with all accessories also with TSN: 00h:00min and CSN: 00 cycles. This engine model is applied in C-95 aircraft (Embraer 110), belonging to the fleet of Brazilian Air Force.

II. OBJECT

Perform an exchange of one PRATT & WHITNEY PT6A-34 engine, Serial Number PC-E56261, by another one PT6A-34 engine with TSO 00h:00min and CSO 00 cycles with the Build Spec n°609. All LLP and accessories must be delivered with TSN 00h:00min and CSN 00 cycles.

Some information about the engine currently in the Brazilian Air Force fleet are listed at the table below:

MODEL	PN	SN	TSN	TSO	CYCLES
PT6A-34	PT6A-34	PC-E56261	17018:40	5571:00	15161 CY

III. REASONS FOR REMOVAL

The engine PT6A-34 SN PC-E56261 was removed from the aircraft because of the following reasons:

TBO

IV. ENGINE DATA

1. Life Limited Parts – Service Life Data

The following table shows the number of accumulated cycles (AC Cycles) since new the rotating components of the engine had completed.

COMPONENT	PN	SN	LFC LIMIT	AC CYCLES
Disk	3011713	B3323	25000	14250

Hub, Compressor, AIRC	3013111	853336	19000	5485
Disk and Hub, Compressor,	3013411	40000	16000	12949
Aircraft gas Turbine Engine	3013411	A0029	16000	12949
Disk, Axial Compress	3013712	A000D9KT	24000	5485
Disk, Turbine, Aircraft gas	2026012	A001L31A	20000	5485
Turbine Engine	3020012	AUUTLSTA	20000	5465
Impeller	3013176	A7764	19000	15161

2. Soft Time Accessories Data and Disposition

ACCESSORY	PN	SN	TSN	TSO
Pump, Rotary	025323-101-03	11409	7047:25	139:10
Bleed-Air	3100829-03	3H524	3134:20	1545:20
Fuel Control, Main,		B26048		
Turbine Engine	3244834-2	D20040	5651:10	790:25
Governor, Constant Speed	8210-002	1990796-AB	6596:05	6596:05
Drive	0210-002	1990190-AD	0590.05	0590.05
Start Control Unit	3019109	9959538071	6528:25	6528:25

V. <u>ESTIMATED COST</u>

According to market estimates, the maximum purchase price for the exchange by another one engine is US\$ 673,000.00 (six hundred and seventy three dollars).

VI. TECHNICAL REQUIREMENTS

All LLP and accessories must be delivered with TSN: 00h:00min (Time Since New) and CSN: 00cy (Cycle Since New). It Means that they must have accumulated no more operating hours than those necessary to accomplish their manufacture testing process.

The engine must be in airworthiness condition and up to date with respect to the Service Bulletins issued by the manufacturer. At delivery, it must has already undergone the actions to comply all airworthiness directives mandatory along with all the applicable Service Bulletins up to category 6 (six) issued so far as well as with Build Spec n°609.

VII. <u>DELIVERY</u>

The engine must be delivered at the Brazilian Aeronautical Commission in Washington (CABW) warehouse, which address that will be informed later, with all caps and covers as well as the engine logbook completed and signed. The engine must be mounted in the approved P&WC shipping container as well as must be preserved

condition considering that it might be stored for over 90 days, in accordance with the requirements of the Maintenance Manual.

VIII. <u>TECHNICAL WARRANTY</u>

The engine must be subjected to the technical warranty which is either 12 (twelve) months of operation or 500 (five hundred) operation hours, whichever occurs first.

Prepared by:

Eder Luiz Da Silva – 1st Lt. QOCon MEC Engine Engineer

Reviewed by:

Claudio Ubirajara **Salicio** – Maj. Esp. Head of Engines Subdivision

Approved by:

Claudomiro **Feltran** Junior — Col. Av. Head of Technical Division



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Assinado via ASSINATURA CADASTRAL por Ten Cel Int MICHELE DE SOUZA SIQUEIRA no dia 09/01/2025 às 18:03:22 no horário oficial de Brasília.

Assinado via ASSINATURA CADASTRAL por Cel JANO FERREIRA DOS SANTOS no dia 09/01/2025 às 19: 04:18 no horário oficial de Brasília.