

	BRAZILIAN AIR FORCE AERONAUTICAL AND WARFARE MATERIEL DIRECTORATE SÃO PAULO MAINTENANCE DEPOT
	TECHNICAL SPECIFICATIONS n° 003/TMOT/2024
DATE: May 13 th , 2024	

I. PURPOSE

This Technical Specification (TS) has the purpose to present the collection of necessary and sufficient elements, with an adequate level of accuracy, to define the exchange by Fleet Enhancement Program – FEP of 01 (one) PRATT & WHITNEY PT6A-25C engine. This engine is applied in T-27 TUCANO aircraft, belonging to the fleet of Brazilian Air Force.

II. OBJECT

The exchange by Fleet Enhancement Program – FEP of 01 (one) PRATT & WHITNEY PT6A-25C engine, Serial Number PC-E26324, by a NEW PT6A-25C engine respecting the requirements described on this document.

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-25C	3101200-01	PC-E26324	7148:50	3484:15	7420 CY

III. REASONS FOR REMOVAL

The engine PT6A-25C SN PC-E26324 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 rotary components of the engine have completed.

COMPONENT	PN	SN	LFC LIMIT	AC CYCLES
Disk	3011713	3Y672	25000	8591
Hub, Compressor, AIRC	3013111	4Y082	19000	8591
Disk and Hub, Compressor, Aircraft gas Turbine Engine	3013411	YUAA006A655	16000	10808
Disk, Axial Compress	3013712	6L834	24000	7852
Disk, Turbine, Aircraft gas Turbine Engine	3026812	5Y641	20000	9755

Impeller	3027798	4D858	19000	8591
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2. Soft Time Accessories Data and Disposition

ACCESSORY	PN	SN	TSN	TSO
Pump, Rotary	025323-101-03	14006	3500:00	2302:25
Bleed-Air	3075033-02	AHX018189	3500:00	357:20
Control, Torque	3244790-2	C23221	4000:00	607:10
Fuel Control, Main, Turbine Engine	3244789-1A	A87385	4000:00	193:45
Governor, Constant Speed Drive	8210-002	1716050 AC	4000:00	3444:00

V. ESTIMATED COST

According to market estimates, the maximum purchase price for the exchange by Fleet Enhancement Program – FEP is US\$777,000.00 (seven hundred and seventy-seven thousand dollars).

VI. TECHINICAL REQUIREMENTS

The engine and all its accessories must be at NEW. It Means that they must have accumulated no more operating hours than those necessary to accomplish their manufacture testing process. The engine and accessories shall not have been used by any previous operator.

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 with all the applicable Service Bulletins issued so far.

VII. DELIVERY

The engine shall be delivered at the Brazilian Aeronautical Commission in Washington (CABW) warehouse, which address will later be informed, with all caps and covers as per the engine Maintenance Manual, and mounted in the approved P&WC shipping container. The engine must be at a preserved condition considering that it might be stored for over 91 days, in accordance with the requirements of the Maintenance Manual.

VIII. TECHNICAL WARRANTY

The engine shall be subjected to the technical warranty which is either 12 (twelve) months of operation or 1000 (one thousand) operation hours, whichever occurs first.

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