

	BRAZILIAN AIR FORCE AERONAUTICAL AND WARFARE MATERIEL DIRECTORATE SÃO PAULO MAINTENANCE DEPOT
	TECHNICAL SPECIFICATIONS nº 006/TMOT/2024
DATE: Sep 2 nd , 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-114A model engine, Serial Number PCE-PC1570, by another one overhauled PRATT & WHITNEY PT6A-114A engine with all accessories with TSO: 00h:00min (Time Since Overhaul) and CSO: 00cy (Cycle Since Overhaul) and with all Life Limit Parts (LLP) with CSN (Cycle Since New): 00 cycles. This engine model is applied in C-98 aircraft (Cessna 208A Caravan I), belonging to the fleet of Brazilian Air Force.

II. OBJECT

The exchange of one PRATT & WHITNEY PT6A-114A engine, Serial Number PCE-PC1570, by another one PT6A-114A engine overhauled with all accessories also overhauled or new as well as with all life limit parts 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-114A	3044000	PCE-PC1570	4508:00	4508:00	4189 CY

III. REASONS FOR REMOVAL

The engine PT6A-114A SN PCE-PC1570 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	A002D9P9	25000	4189

Hub, Compressor, AIRC	3013111	RWA44B425	19000	4189
Disk and Hub, Compressor, Aircraft gas Turbine Engine	3013411	A002E0T4	16000	4189
Disk, Axial Compress	3013712	A002D9MW	24000	4189
Disk, Turbine, Aircraft gas Turbine Engine	3026812	7P627	20000	4189
Impeller	3027798	EAAB000M707	19000	4189

2. Soft Time Accessories Data and Disposition

ACCESSORY	PN	SN	TSN	TSO
Pump, Rotary	702801-5	465	6408:20	3174:00
Bleed-Air	540-1407-4	8792	1419:00	1419:00
Fuel Control, Main, Turbine Engine	3244897-4	C66290	1763:30	97:35
Governor, Constant Speed Drive	3074154-01	18758204	2639:00	2639:00

V. ESTIMATED COST

According to market estimates, the maximum purchase price for the exchange by an overhauled engine is US\$ 589,000.00 (five hundred and eighty nine thousand dollars).

VI. TECHINICAL REQUIREMENTS

The engine and all accessories might be delivery with TSO: 00h:00min (Time Since Overhaul) and CSO: 00cy (Cycle Since Overhaul). Also the LLP (Life Limit Parts) must be delivery with CSN (Cycle Since New): 00 cycles. 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 as well as with the applicable Service Bulletins up to category 6 (six) 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 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 shall be subjected to the technical warranty which is either 12 (twelve) months of operation or 500 (five hundred) operation hours, whichever occurs first.

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