

SECTION 1 - DESCRIPTION OF THE AIRCRAFT

GENERAL

This section is a description of the items that have been changed by this Supplemental Type Certificate. When operating a Turbine powered Otter modified by this STC and using the Flight Manual Supplement DHC-3-001 with the original de Havilland DHC-3 Flight Manual PSM 1-3-1, all references in the original DHC-3 Flight Manual to the Pratt and Whitney Wasp R1340 (S3H1-G) engine and associated controls and systems must be ignored.

This Supplemental Type Certificate is valid for the Landplane and Floatplane.

The information contained herein supplements or supercedes the basic Flight Manual only in those, which are listed herein. For limitations and procedures information not contained in this Flight Manual Supplement consult the basic de Havilland DHC-3 Otter Flight Manual PSM1-3-1.

DIMENSIONS

The length of the aircraft has changed from 41 feet 10 inches to 45 feet 6 inches. The power loading has changed from 13.3 pounds / HP to 10.67 pounds / HP.

GROSS WEIGHT

The maximum gross weight remains at 8000 pounds for the landplane.

Gross weight limit for the seaplane is appropriate to the installed items as per Canadian Type Certificate A-27 (USA TCDS A-815) for the de Havilland DHC-3 Otter aircraft, 7200 lbs with item 100; 7967 lbs with items 100,101,102 and 103; and 8000 lbs with items 104 and 105. (Compatible with STOL Kit DOT STC SA94-114 and FAA STC SA00287NY); and 8367 lbs with Gross Weight Increase DOT STC SA95-32 and FAA STC SA00438NY.

POWERPLANT

The powerplant is a GE Aviation Czech s.r.o. M601E-11 or H75-200 free turbine turboprop engine.

The engine features two independent parts: The gas generator and the propulsor.

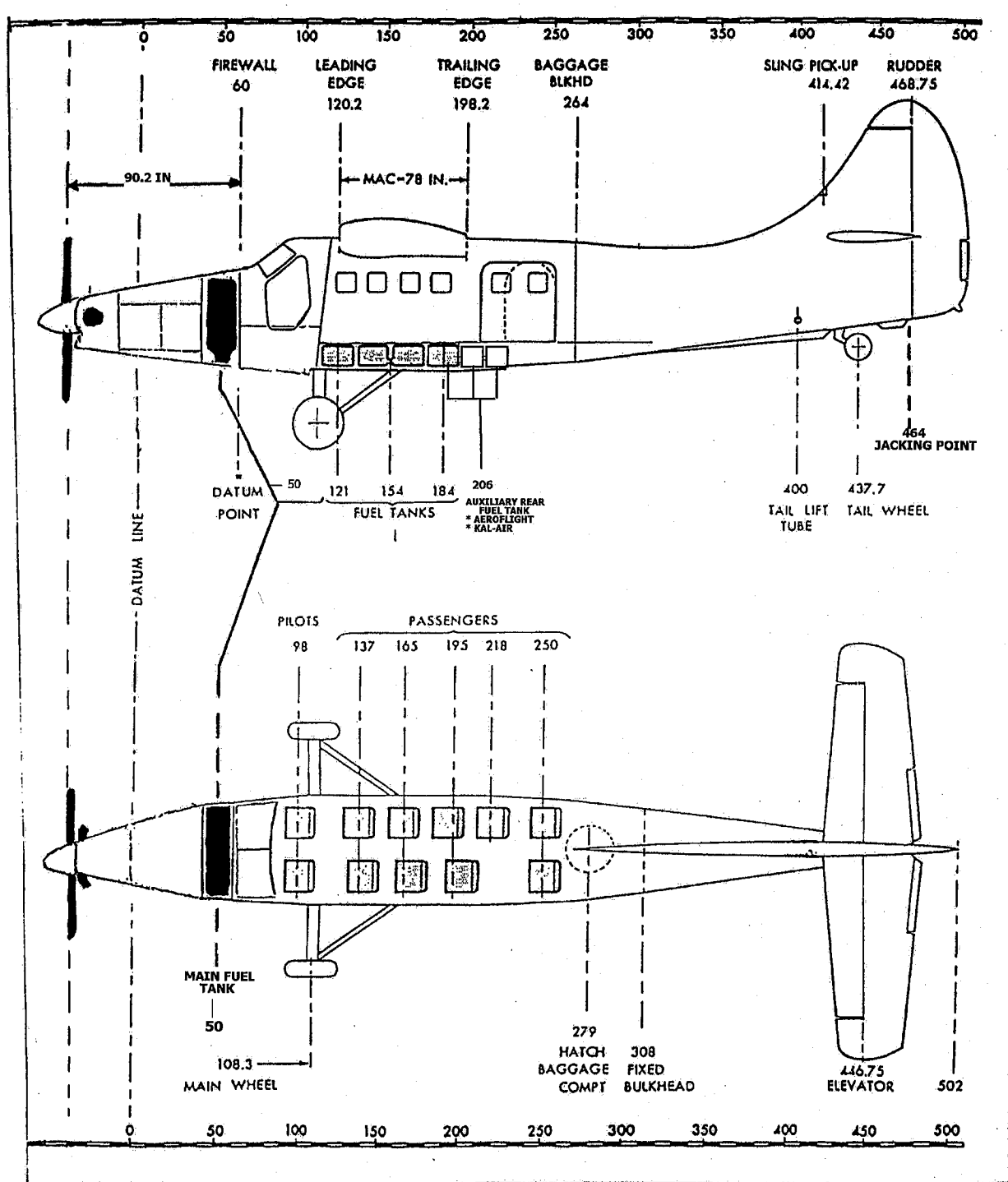
The gas generator and free turbine shafts are arranged in a tandem layout. The air enters the engine in the rear part, flows forward through the compressor, combustion chamber and turbines and exits through exhaust nozzles near the front of the engine.

GAS GENERATOR

Air enters the compressor in a radial direction via a protective screen and annular plenum. The air is axially directed in front of the compressor. The compressor consists of two axial stages followed by one centrifugal stage. The combustion chamber is of an annular configuration. Part of the primary air enters the flame tube through the perforations in the walls; the remainder passes through the hollow nozzle guide vanes of the gas generator turbine. A special ring rotating with the gas generator shaft atomizes the fuel. The one stage gas generator turbine drives the compressor via the compressor shaft. The interturbine temperature is measured by nine (9) thermocouples installed in the flow path at the gas generator turbine outlet.

SECTION 6 – WEIGHT AND BALANCE

GE AVIATION CZECH DHC-3 TURBINE OTTER
INSTALLED IAW FAA STC SA09857SC OR TC STC SA01-111



SECTION 6 – SAMPLE WEIGHT AND BALANCE LOADING CHART

GE AVIATION CZECH DHC-3 TURBINE OTTER
INSTALLED IAW FAA STC SA09857SC OR TC STC SA01-111

AIRCRAFT REGISTRATION _____
AIRCRAFT SERIAL NUMBER _____
AIRCRAFT CONFIGURATION WHEELS _____ SKIS _____ FLOATS _____

DATE OF WEIGHT & BALANCE REPORT _____ CONDITION: ZERO FUEL/ FULL OIL 24 Lbs.

		WEIGHT	ARM (STN)	MOMENT
	Left Main Wheel		108.3	
	Right Main Wheel		108.3	
	Tail Wheel		437.7	
AIRCRAFT EMPTY WEIGHT				
A	Main Fuel Tank (50us/ 42 imp/ 189L)	340	50	17.0
B	Belly Front Tank (61us/ 51 imp/ 231L)	415	121	50.2
C	Belly Center Tank (102us/ 85 imp/ 386L)	694	154	106.9
D	Belly Rear Tank (50us/ 42 imp/ 189L)	340	184	62.6
E	* Auxiliary Rear Aero Flite (98 us/ 82 imp/ 371L)	666	206	137.2
F	** Auxiliary Rear Kal-Air (87us / 73 imp/ 329L)	592	206	121.9
	PILOT		98	
	CO-PILOT (1)		98	
	PASSENGERS (2)		137	
	PASSENGERS (2)		165	
	PASSENGERS (2)		195	
	PASSENGERS (1)		218	
	PASSENGERS (2)		250	
	BAGGAGE		230	
	BAGGAGE		279	
	REMOVABLE SURVIVAL/OPERATIONAL EQUIP.			
GROSS RAMP WEIGHT AND MOMENT				

SEAPLANE

+131.9 to +148.3 inches at 6,600 lbs or less
+135.8 to +148.3 inches at 7,600 lbs or less
+138.1 to +148.3 inches at 8,000 lbs or less
+140.3 to +148.3 inches at 8,367 lbs or less

LANDPLANE

+131.9 to +152.2 inches at 6,600 lbs or less
+135.8 to +152.2 inches at 7,600 lbs or less
+135.8 to +152.2 inches at 8,000 lbs or less
+140.3 to +152.2 inches at 8,367 lbs or less

