



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW306A
UNIQUE ID NUMBER: 7PW077
COMBUSTOR: Annular
ENGINE TYPE: MTF

BYPASS RATIO: 4.5
PRESSURE RATIO (π_{00}): 20.0
RATED THRUST (F_{00}) (kN): 26.9

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	12.4	107.5	58.9	4.3
AS % OF ORIGINAL LIMIT	63.3	91.1	73.6	12.7
AS % OF CAEP/2 LIMIT (NO _x)			92.0	
AS % OF CAEP/4 LIMIT (NO _x)			92.1	
AS % OF CAEP/6 LIMIT (NO _x)			92.1	
AS % OF CAEP/8 LIMIT (NO _x)			97.0	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
x DEDICATED ENGINES TO PRODUCTION STANDARD
- OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
(ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

x OUT OF PRODUCTION (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	HC	CO	NO _x	SMOKE NUMBER
TAKE-OFF	100	0.7	0.317	0.00	2.27	20.08	2.6
CLIMB OUT	85	2.2	0.264	0.00	2.51	19.26	0.8
APPROACH	30	4.0	0.097	0.00	7.11	11.87	0.0
IDLE	7	26.0	0.042	4.36	36.35	4.26	0.2
LTO TOTAL FUEL (kg) or EMISSIONS (g)			137	287	2677	1497	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				10.6	99.4	55.6	3.9
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)				6.3-13.7	87-120.3	52.7-58	3-5.1

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.4-99.5
TEMPERATURE (K)	284-300
ABS HUMIDITY (kg/kg)	0.0054-0.0144

FUEL

SPEC	Jet A-1
H/C	1.85-1.87
AROM (%)	20-22.5

MANUFACTURER: Pratt & Whitney Canada
TEST ORGANIZATION: PW306 Development Engineering
TEST LOCATION: Mississauga, Ontario, Canada
TEST DATES: 08/05/2000-20/07/2000

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

1. P&WC EC C2264A
2. Engines E9541/02, E9402/37, E9403/74
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)