ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW308C Build Spec 1289
UNIQUE ID NUMBER: 14PW103
ENGINE TYPE: MTF
BYPASS RATIO: 4.1
PRESSURE RATIO (π_{oo}): 21.1
RATED OUTPUT (F_{oo}) (kN): 31.2

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	1.1	102.8	46.3	9.1
AS % OF ORIGINAL LIMIT	5.6 %	87.1 %	56.4 %	27.9 %
AS % OF CAEP/2 LIMIT (NOx)			70.5 %	
AS % OF CAEP/4 LIMIT (NOx)			71.5 %	
AS % OF CAEP/6 LIMIT (NOx)			72.0 %	
AS % OF CAEP/8 LIMIT (NOx)			76.3 %	

DATA STATUS

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

TEST ENGINE STATUS

- x NEWLY MANUFACTURED ENGINES
- \- 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)

- \- OUT OF PRODUCTION
- \- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING ($\%F_{oo}$)	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg) HC	CO	NOx	SMOKE NUMBER
TAKE-OFF	100	0.7	0.370	0	0.5	19.1	6.6
CLIMB OUT	85	2.2	0.307	0	0.57	14.96	6.8
APPROACH	30	4.0	0.116	0	4.18	6.8	2.2
IDLE	7	26.0	0.049	0.39	37.05	3.53	5.7
LTO TOTAL FUEL (kg) or EMISSIONS (g)			160	30	2961	1359	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				1	95.1	43.7	8.2
SIGMA (D_p/F_{oo} in g/kN, or SN)				0.7	5.9	1.1	0.7
RANGE (D_p/F_{oo} in g/kN, or SN)				0.2 - 1.5	88.4 - 99.8	42.4 - 44.3	7.5 - 8.9

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
STAGE BLEED 0 % CORE FLOW AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.32 - 100.73
TEMPERATURE (K)	275 - 278
ABS HUMIDITY (kg/kg)	0.0024 - 0.0047

FUEL

SPEC	Jet A-1
H/C	1.85 - 1.89
AROM (%)	17.6 - 21.7

MANUFACTURER: Pratt & Whitney Canada Inc.
TEST ORGANIZATION: PW308 Development Engineering
TEST LOCATION: Mississauga, Ontario, Canada
TEST DATES: FROM 31 Mar 12 TO 31 May 12

REMARKS

1. P&WC ER 7939
2. Engines tested: CF0550/01, CF0551/01, CH0568/01
3. TALON II combustion system
4. PW308C Build Spec 1289
5. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
6. NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)□

If REVISED, this data supersedes databank UID 7PW080
Compliance with fuel venting requirements: x ('x' if complies, PR if pre-regulation)