



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW308C
UNIQUE ID NUMBER: 7PW080
ENGINE TYPE: MTF

BYPASS RATIO: 4.1
PRESSURE RATIO (π_{00}): 20.7
RATED OUTPUT (F_{00}) (kN): 31.15

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{00} (g/kN) or SN	15.9	109.8	48.1	8.3
AS % OF ORIGINAL LIMIT	81.1 %	93.1 %	59.1 %	25.5 %
AS % OF CAEP/2 LIMIT (NOx)			73.9 %	
AS % OF CAEP/4 LIMIT (NOx)			74.9 %	
AS % OF CAEP/6 LIMIT (NOx)			75.5 %	
AS % OF CAEP/8 LIMIT (NOx)			80.1 %	

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)
- OUT OF PRODUCTION
- OUT OF SERVICE

MEASURED DATA

MODE	POWER SETTING (% F_{00})	TIME minutes	FUEL FLOW kg/s	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	0.367	0.09	0.81	18.45	4.8
CLIMB OUT	85	2.2	0.305	0.1	0.97	15.99	3.9
APPROACH	30	4.0	0.124	0.14	5.23	7.83	1.4
IDLE	7	26.0	0.045	5.94	42.3	3.63	1.3
LTO TOTAL FUEL (kg) or EMISSIONS (g)			155	425	3163	1414	-
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)				13.63	101.54	45.38	7.6
SIGMA (D_p/F_{00} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{00} in g/kN, or SN)				12.5 - 15.2	99.0 - 105.9	45.0 - 45.92	5.3 - 9.4

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	98.94 - 100.73
TEMPERATURE (K)	296 - 301
ABS HUMIDITY (kg/kg)	0.0088 - 0.0122

FUEL

SPEC	Jet A-1
H/C	1.85 - 1.86
AROM (%)	19.8 - 21.4

MANUFACTURER: Pratt & Whitney Canada Inc.
TEST ORGANIZATION: PW308 Development Engineering
TEST LOCATION: Mississauga, Ontario, Canada
TEST DATES: FROM 07 Aug 01 TO 31 Aug 01

REMARKS

1. P&WC ER 5080
2. Engines E9633/01, E9631/07, CF0001/03
3. Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
4. NOx levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements:

0 ('x' if complies, PR if pre-regulation)