ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4168-1D
UNIQUE ID NUMBER: 9PW093
ENGINE TYPE: TF

BYPASS RATIO: 4.92
PRESSURE RATIO (π_{oo}): 33.1
RATED OUTPUT (F_{oo}) (kN): 305.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	1.9	24.7	56.3	7.5
AS % OF ORIGINAL LIMIT	9.9 %	20.9 %	53.0 %	42.8 %
AS % OF CAEP/2 LIMIT (NOx)			66.2 %	
AS % OF CAEP/4 LIMIT (NOx)			76.8 %	
AS % OF CAEP/6 LIMIT (NOx)			86.3 %	
AS % OF CAEP/8 LIMIT (NOx)			100.0 %	

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)

- \- 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	2.937	0	0.17	30.15	5.7
CLIMB OUT	85	2.2	2.398	0	0.18	22.31	5.5
APPROACH	30	4.0	0.818	0.05	1.26	12.39	0.2
IDLE	7	26.0	0.252	0.95	14.78	4.08	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1029	385	6131	14812	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				1.3	20.1	48.5	5.8
SIGMA (D_p/F_{oo} in g/kN, or SN)				-	-	-	-
RANGE (D_p/F_{oo} in g/kN, or SN)				-	-	-	-

ACCESSORY LOADS

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

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.80-101.42
TEMPERATURE (K)	281.99-285.65
ABS HUMIDITY (kg/kg)	0.00362-0.00455

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	17

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: East Hartford, CT
TEST DATES: FROM 12 May 08 TO 13 May 08

REMARKS

Talon IIB combustor with improved exit temperature profile.

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