ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4056
UNIQUE ID NUMBER: 1PW041
ENGINE TYPE: TF

BYPASS RATIO: 4.7
PRESSURE RATIO (π_{oo}): 29.3
RATED OUTPUT (F_{oo}) (kN): 252.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	1.8	17.4	59.9	18.4
AS % OF ORIGINAL LIMIT	9.4 %	14.8 %	60.8 %	100.2 %
AS % OF CAEP/2 LIMIT (NOx)			76.0 %	
AS % OF CAEP/4 LIMIT (NOx)			91.0 %	
AS % OF CAEP/6 LIMIT (NOx)			103.4 %	
AS % OF CAEP/8 LIMIT (NOx)			121.9 %	

DATA STATUS

- \- PRE-REGULATION
- x CERTIFICATION
- \- 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)

- x OUT OF PRODUCTION (DATE: -)
- \- 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	2.449	0.11	0.08	32.5	14.3
CLIMB OUT	85	2.2	1.981	0.17	0.14	24.6	-
APPROACH	30	4.0	0.647	0.25	0.9	11.6	-
IDLE	7	26.0	0.188	0.66	11.6	5	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			813	288	3587	13043	-
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)				1.2	14.2	51.7	14.3
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)	101.63
TEMPERATURE (K)	290
ABS HUMIDITY (kg/kg)	0.00053

FUEL

SPEC	Jet A
H/C	1.87
AROM (%)	19.7

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: P7 Stand, P&W, Middletown, CT
TEST DATES: FROM 14 May 86 TO 14 May 86

REMARKS

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If REVISED, this data supersedes databank UID
Compliance with fuel venting requirements: 0 ('x' if complies, PR if pre-regulation)