ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW2037
UNIQUE ID NUMBER: 4PW072
ENGINE TYPE: TF

BYPASS RATIO: 5.71
PRESSURE RATIO (π_{oo}): 26.7
RATED OUTPUT (F_{oo}) (kN): 166.35

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	3.6	38.3	53.7	12.3
AS % OF ORIGINAL LIMIT	18.4 %	32.5 %	57.5 %	59.7 %
AS % OF CAEP/2 LIMIT (NOx)			71.9 %	
AS % OF CAEP/4 LIMIT (NOx)			87.0 %	
AS % OF CAEP/6 LIMIT (NOx)			98.9 %	
AS % OF CAEP/8 LIMIT (NOx)			118.1 %	

DATA STATUS

- \- PRE-REGULATION
- \- 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)

- 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	1.571	0.02	0.33	29.41	6
CLIMB OUT	85	2.2	1.307	0.02	0.34	23.96	10.5
APPROACH	30	4.0	0.458	0.11	1.95	9.77	3
IDLE	7	26.0	0.152	1.92	22.36	4.1	1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			586	472	5597	8120	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D_p/F_{oo} (g/kN) or AVERAGE SN (MAX)				2.8	33.6	48.8	10.5
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)	100.61 - 100.94
TEMPERATURE (K)	283.4 - 298.2
ABS HUMIDITY (kg/kg)	.007 - .008

FUEL

SPEC	Jet A
H/C	-
AROM (%)	-

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: P&WA
TEST LOCATION: East Hartford, CT
TEST DATES: FROM 08 Aug 83 TO 20 Nov 98

REMARKS

1. Revision to add second engine test.

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