ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW2040
UNIQUE ID NUMBER: 4PW073
ENGINE TYPE: TF

BYPASS RATIO: 5.54
PRESSURE RATIO (π_{oo}): 29.4
RATED OUTPUT (F_{oo}) (kN): 182.02

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	3.0	32.6	60.4	12.5
AS % OF ORIGINAL LIMIT	15.3 %	27.6 %	61.1 %	62.2 %
AS % OF CAEP/2 LIMIT (NOx)			76.4 %	
AS % OF CAEP/4 LIMIT (NOx)			91.5 %	
AS % OF CAEP/6 LIMIT (NOx)			103.9 %	
AS % OF CAEP/8 LIMIT (NOx)			122.6 %	

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	1.752	0.01	0.32	35.04	4.5
CLIMB OUT	85	2.2	1.445	0.02	0.41	26.62	9.5
APPROACH	30	4.0	0.496	0.1	1.42	10.49	3.6
IDLE	7	26.0	0.159	1.65	19.95	4.37	1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			631	426	5219	9989	-
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)				2.3	28.6	54.9	10.7
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)