



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4X58
UNIQUE ID NUMBER: 5PW074
ENGINE TYPE: TF

BYPASS RATIO: 4.8
PRESSURE RATIO (π_{oo}): 28.41
RATED OUTPUT (F_{oo}) (kN): 258

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	3.4	41.6	46.3	14.9
AS % OF ORIGINAL LIMIT	17.3 %	35.3 %	47.8 %	81.6 %
AS % OF CAEP/2 LIMIT (NOx)			59.8 %	
AS % OF CAEP/4 LIMIT (NOx)			71.8 %	
AS % OF CAEP/6 LIMIT (NOx)			81.6 %	
AS % OF CAEP/8 LIMIT (NOx)			96.7 %	

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)
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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.496	0	0.2	22.5	11.6
CLIMB OUT	85	2.2	1.999	0	0.3	18	9
APPROACH	30	4.0	0.663	0	3.8	11.1	0.5
IDLE	7	26.0	0.212	1.7	24.3	4.3	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			859	562	8741	10297	-
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)				2.2	33.9	39.9	11.6
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)	100.0 - 101.3
TEMPERATURE (K)	277 - 281
ABS HUMIDITY (kg/kg)	.00268 - .00342

FUEL

SPEC	Jet A
H/C	1.9
AROM (%)	20.6

MANUFACTURER: Pratt and Whitney
TEST ORGANIZATION: Pratt and Whitney
TEST LOCATION: East Hartford, Conn. USA
TEST DATES: FROM 03 Nov 99 TO 04 Nov 99

REMARKS

1. Data from Report PWA-7312.
2. TALON II Combustor

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

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