



ICAO ENGINE EXHAUST EMISSIONS DATA BANK

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4164
UNIQUE ID NUMBER: 7PW081
ENGINE TYPE: TF

BYPASS RATIO: 5.2
PRESSURE RATIO (π_{oo}): 30.1
RATED OUTPUT (F_{oo}) (kN): 284.68

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
D_p/F_{oo} (g/kN) or SN	0.8	31.2	49.5	16.1
AS % OF ORIGINAL LIMIT	3.8 %	26.5 %	49.4 %	90.6 %
AS % OF CAEP/2 LIMIT (NOx)			61.7 %	
AS % OF CAEP/4 LIMIT (NOx)			73.6 %	
AS % OF CAEP/6 LIMIT (NOx)			83.7 %	
AS % OF CAEP/8 LIMIT (NOx)			98.4 %	

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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.668	0	0.19	23.87	12.5
CLIMB OUT	85	2.2	2.200	0	0.18	18.66	10.5
APPROACH	30	4.0	0.766	0	2.84	11.88	0.6
IDLE	7	26.0	0.240	0.37	17.73	4.99	0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			961	139	7243	12150	-
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)				0.5	25.4	42.7	12.5
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)
STAGE BLEED 0 % CORE FLOW

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.4-102.3
TEMPERATURE (K)	279-282
AHS HUMIDITY (kg/kg)	0.00210-0.00355

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	15.5

MANUFACTURER: Pratt & Whitney
TEST ORGANIZATION: Pratt & Whitney
TEST LOCATION: East Hartford, CT
TEST DATES: FROM 10 Apr 00 TO -

REMARKS

Data from Report PWA-7138

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

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