



# ICAO ENGINE EXHAUST EMISSIONS DATA BANK

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4074D  
UNIQUE ID NUMBER: 3PW063  
ENGINE TYPE: TF

BYPASS RATIO: 6.7  
PRESSURE RATIO ( $\pi_{oo}$ ): 31.76  
RATED OUTPUT ( $F_{oo}$ ) (kN): 333.2

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NOx	SMOKE NUMBER
$D_p/F_{oo}$ (g/kN) or SN	8.9	47.9	69.5	4.4
AS % OF ORIGINAL LIMIT	45.4 %	40.6 %	67.1 %	25.9 %
AS % OF CAEP/2 LIMIT (NOx)			83.9 %	
AS % OF CAEP/4 LIMIT (NOx)			98.6 %	
AS % OF CAEP/6 LIMIT (NOx)			111.2 %	
AS % OF CAEP/8 LIMIT (NOx)			129.6 %	

### 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)			SMOKE NUMBER
				HC	CO	NOx	
TAKE-OFF	100	0.7	2.949	0.03	0.23	42.35	-
CLIMB OUT	85	2.2	2.416	0.05	0.25	34.48	-
APPROACH	30	4.0	0.810	0.08	0.64	11.88	-
IDLE	7	26.0	0.239	5.07	34.34	3.81	-
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1010	1926	13036	19971	-
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)				5.76	39.05	59.93	3.38
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)	101.06-101.56
TEMPERATURE (K)	292.8-302.6
ABS HUMIDITY (kg/kg)	.0097-.0112

### FUEL

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

MANUFACTURER: Pratt & Whitney  
TEST ORGANIZATION: Pratt & Whitney  
TEST LOCATION: East Hartford, Conn, USA  
TEST DATES: FROM 15 Jun 96 TO 16 Jun 96

### REMARKS

Data from Report PWA-6678

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

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